

A319/A320/A321

TROUBLE SHOOTING MANUAL

HIGHLIGHTS

REVISION NO. 54 May 01/08

Pages which have been revised are outlined below, together with the Highlights of the Revision

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29-CFDS FAULT LIST UPDATED
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211- 213, PROCEDURE IMPROVED.
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				29-11-00		206	Nov01/05	29-11-00		248	Feb01/08
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29-LOCAL		101	Feb01/08	29-11-00	R	213	May01/08	29-11-00		302	Aug01/01
29-LOCAL		102	Feb01/08	29-11-00		214	Feb01/08	29-11-00		303	Aug01/01
				29-11-00		215	Feb01/08				
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				29-11-00		220	Feb01/08	29-12-00		205	Feb01/08
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29-12-00		229	Feb01/08	29-13-00		202	Feb01/07	29-13-00		253	Nov01/07
29-12-00		230	Feb01/08	29-13-00		203	Feb01/07	29-13-00		254	Nov01/07
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29-12-00		238	Feb01/08	29-13-00		211	Feb01/08				
29-12-00		239	Feb01/08	29-13-00		212	Feb01/08	29-14-00		201	Nov01/00
29-12-00		240	Feb01/08	29-13-00		213	Feb01/08	29-14-00		202	Nov01/00
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29-12-00		245	Feb01/08	29-13-00		218	Nov01/05				
29-12-00		246	Feb01/08	29-13-00		219	Nov01/05	29-22-00		201	Nov01/02
29-12-00		247	Feb01/08	29-13-00		220	Nov01/05	29-22-00	R	202	May01/08
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29-12-00		249	Feb01/08	29-13-00		222	Nov01/05	29-22-00		204	Feb01/08
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29-12-00	R	251	May01/08	29-13-00		224	May01/06	29-22-00	R	206	May01/08
29-12-00		252	Feb01/08	29-13-00	R	225	May01/08	29-22-00	R	207	May01/08
29-12-00		253	Feb01/08	29-13-00	R	226	May01/08	29-22-00		208	Nov01/02
29-12-00		254	Feb01/08	29-13-00	R	227	May01/08	29-22-00		209	Feb01/08
29-12-00		255	Feb01/08	29-13-00		228	Feb01/07	29-22-00		210	Feb01/08
29-12-00		256	Feb01/08	29-13-00		229	Aug01/06	29-22-00	R	211	May01/08
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29-12-00		258	Feb01/08	29-13-00		231	Aug01/06	29-23-00		201	Nov01/06
29-12-00		259	Feb01/08	29-13-00		232	Aug01/06	29-23-00		202	Nov01/06
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29-12-00		262	Feb01/08	29-13-00		235	Aug01/06	29-23-00		205	Feb01/02
29-12-00		263	Feb01/08	29-13-00		236	Aug01/06	29-23-00		206	Nov01/04
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29-12-00		267	Feb01/08	29-13-00		240	Aug01/06	29-23-00		210	Feb01/08
29-12-00		268	Feb01/08	29-13-00		241	Aug01/07	29-23-00	R	211	May01/08
29-12-00		269	Feb01/08	29-13-00		242	Aug01/06	29-23-00	R	212	May01/08
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29-23-00	R	219	May01/08								
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Loss of the Correct Quantity in the Green Hydraulic Reservoir			214	ALL
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A restrictor is installed in the HP bleed air line from the left engine. The restrictor limits the airflow to make sure that the temperature of			301	ALL
The system has a reservoir pressurization unit which controls the pressure of the air supplied to the reservoirs. This is necessary because			301	ALL
A water separator is installed on the reservoir pressurization unit. The water separator is located upstream of the pressure reducing valve . The			301	ALL
An air pressure gage is installed in each system, adjacent to the related			301	ALL

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Fault of the Power Transfer Unit (PTU)			201	ALL
Continuous Running of the Power Transfer Unit (PTU)			206	ALL
Low Pressure of the Power Transfer Unit (PTU) (Green to Yellow)			210	ALL
Low Pressure of the Power Transfer Unit (PTU) (Yellow to Green)			213	ALL
Continuous Running of the Power Transfer Unit (PTU) After Start in Sequence of Engine 1 and Engine 2			216	ALL
Continuous Running of the Power Transfer Unit (PTU) After Start in Sequence of Engine 2 and Engine 1			218	ALL
Continuous Running of the PTU during Operation of the Cargo-Compartment Doors			220	ALL
FAULT Light of the PTU P/BSW is ON			223	ALL
Unwanted Operation of the Power Transfer Unit (PTU) during the Start of the Engines			225	ALL
Missing PTU-arrow on the ECAM			229	ALL
Low Pressure of the Power Transfer Unit (PTU) (Green to Yellow)			231	209-225, 247-275 286-299, 429-475 481-499, 503-549 551-599, 703-749

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<u>SUBJECT</u>	<u>CH/SE/SU</u>	<u>C</u>	<u>PAGE</u>	<u>EFFECTIVITY</u>
Low Pressure of the Power Transfer Unit (PTU) (Yellow to Green)			233	209-225, 247-275 286-299, 429-475 481-499, 503-549 551-599, 703-749
YELLOW AUXILIARY HYDRAULIC POWER (ELECTRIC/HAND PUMPS)	29-24-00			
FAULT ISOLATION PROCEDURES			201	ALL
Loss or Fluctuation of the Pressure of the Yellow Electric Pump			201	ALL
Overheat Indication of the Yellow Electric Pump			205	ALL
Continuous Operation of the Yellow Electric Pump			206	ALL
Yellow Electric Pump Motor Running with no Hydraulic Pressure			207	ALL
Intermittent Operation of the Yellow Electric Pump			209	ALL

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	

Upper ECAM DU Warnings

R	<u>HYD B ELEC PUMP LO PR</u>				291200 P 226 T 810 804
R	<u>HYD B ELEC PUMP OVHT</u>				291200 P 236 T 810 806
	<u>HYD B RSVR LO AIR PR</u>				291200 P 201 T 810 801
R	<u>HYD B RSVR LO LVL</u>				291200 P 219 T 810 803
R	<u>HYD B RSVR LO LVL</u> associated with <u>HYD B RSVR OVHT</u>				291200 P 250 T 810 814
	<u>HYD B RSVR OVHT</u> associated with <u>HYD G RSVR OVHT</u> and <u>HYD Y RSVR OVHT</u>				291000 P 211 T 810 807
	<u>HYD B RSVR OVHT</u>				291200 P 212 T 810 802
R	<u>HYD B RSVR OVHT</u> associated with <u>HYD B RSVR LO LVL</u>				291200 P 250 T 810 814
R	<u>HYD B SYS LO PR</u>				291200 P 231 T 810 805
	<u>HYD B+Y SYS LO PR</u>				291000 P 203 T 810 803
R	<u>HYD G ENG 1 PUMP LO PR</u>				291100 P 221 T 810 804
	<u>HYD G RSVR LO AIR PR</u>				291100 P 201 T 810 801

EFF : ALL

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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R	<u>HYD</u> G RSVR LO LVL					291100 P 214 T 810 803
	<u>HYD</u> G RSVR OVHT associated with <u>HYD</u> Y RSVR OVHT and <u>HYD</u> B RSVR OVHT					291000 P 211 T 810 807
	<u>HYD</u> G RSVR OVHT					291100 P 207 T 810 802
R	<u>HYD</u> G SYS LO PR					291100 P 224 T 810 805
	<u>HYD</u> G+B SYS LO PR					291000 P 202 T 810 802
	<u>HYD</u> G+Y SYS LO PR					291000 P 201 T 810 801
	<u>HYD</u> PTU FAULT					292300 P 201 T 810 801
	<u>HYD</u> RAT FAULT					292200 P 201 T 810 801
	<u>HYD</u> Y ELEC PUMP LO PR					292400 P 201 T 810 801
	<u>HYD</u> Y ELEC PUMP OVHT					292400 P 205 T 810 802
	<u>HYD</u> Y ENG 2 PUMP LO PR					291300 P 221 T 810 804
	<u>HYD</u> Y RSVR LO AIR PR					291300 P 215 T 810 803
	<u>HYD</u> Y RSVR LO LVL					291300 P 201 T 810 801
R	<u>HYD</u> Y RSVR LO LVL associated with <u>HYD</u> Y SYS LO PR					523600 P 289 T 810 805

EFF : ALL

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	
HYD Y RSVR OVHT associated with HYD G RSVR OVHT and HYD B RSVR OVHT					291000 P 211 T 810 807
HYD Y RSVR OVHT					291300 P 207 T 810 802
HYD Y SYS LO PR					291300 P 224 T 810 805
HYD Y SYS LO PR associated with HYD - Yellow E-Pump continuous operation of the electric pump					292400 P 206 T 810 803
R HYD Y SYS LO PR associated with HYD Y RSVR LO LVL					523600 P 289 T 810 805
HYD Y SYS LO PR	AFS	AFS: HYD Y 3151GN	293212	1	291300 P 250 T 810 816
HYD Y SYS LO PR associated with HYD - Yellow E-Pump continuous operation of the electric pump	AFS	AFS: HYD Y 3151GN	293212	1	292400 P 206 T 810 803
HYD Y SYS LO PR	SFCC 2	WRONG INHIBIT SIGN FROM CARGO DOOR YELLOW SYSTEM	292400	3	291300 P 250 T 810 816

Upper ECAM DU Flags

HYD - RAT OUT message shown on EWD (Memo)					292200 P 201 T 810 801
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EFF : ALL

SR0S

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	

Lower ECAM DU Flags-HYD

R	HYD - GREEN HYD POWER GREEN fluid level index replaced by amber XX				291100 P 251 T 810 815
	HYD - MAIN HYD POWER G/B/Y fluid level index replaced by amber XX.				291000 P 205 T 810 805
	HYD - MAIN HYD POWER G/B/Y system pressure replaced by amber XX.				291000 P 208 T 810 806
	HYD - POWER TRANSFER PTU arrow missing on ECAM				292300 P 229 T 810 810
	HYD - YELLOW HYD POWER YELLOW fluid level index replaced by amber XX				291300 P 256 T 810 818
R	LO AIR PRESS message for blue system in amber				291200 P 265 T 810 819

Lower ECAM DU Advisories
HYD

R	BLUE SYSTEM Fluctuation of Hyd-Fluid Quantity Indication				291200 P 262 T 810 818
R	BLUE SYSTEM Pressure Indication out of tolerance				291200 P 243 T 810 811
R	BLUE SYSTEM Quantity Indication shows High Level				291200 P 258 T 810 817
R	GREEN SYSTEM Fluctuation of Hyd-Fluid Quantity Indication				291100 P 244 T 810 813

EFF : ALL

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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R	GREEN SYSTEM Pressure Indication out of tolerance					291100 P 232 T 810 809
R	GREEN SYSTEM Quantity Indication shows High Level					291100 P 240 T 810 812
	YELLOW SYSTEM Fluctuation of Hyd-Fluid Quantity Indication					291300 P 247 T 810 815
	YELLOW SYSTEM Pressure Indication out of tolerance					291300 P 233 T 810 810
	YELLOW SYSTEM Quantity Indication shows High Level					291300 P 243 T 810 814

EFF : ALL

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	

HYD PnL (40VU)

R	HYD/BLUE/ELEC PUMP P/BSW (2704GJ), FAULT legend is on				291200 P 248 T 810 813
R	HYD/BLUE/ELEC PUMP P/BSW (2704GJ), FAULT legend is on associated with HYD/GREEN/ENG1 PUMP P/BSW (1705GK) FAULT legend is on				291200 P 252 T 810 815
R	HYD/BLUE/ELEC PUMP P/BSW (2704GJ), FAULT legend is on associated with HYD/YELLOW/ENG2 PUMP P/BSW (3703GD), FAULT legend is on				291200 P 255 T 810 816
R	HYD/GREEN/ENG1 PUMP P/BSW (1705GK) FAULT legend is on				291100 P 238 T 810 811
R	HYD/GREEN/ENG1 PUMP P/BSW (1705GK) FAULT legend is on associated with HYD/BLUE/ELEC PUMP P/BSW (2704GJ), FAULT legend is on				291200 P 252 T 810 815
	HYD/PTU P/BSW (1802GL) FAULT legend is on				292300 P 223 T 810 808
	HYD/YELLOW/ELEC PUMP P/BSW (3804GX), FAULT legend is on				291300 P 241 T 810 813

EFF : ALL

SR0S

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R	HYD/YELLOW/ENG2 PUMP P/BSW (3703GD), FAULT legend is on associated with HYD/BLUE/ELEC PUMP P/BSW (2704GJ), FAULT legend is on					291200 P 255 T 810 816
	HYD/YELLOW/ENG2 PUMP P/BSW (3703GD), FAULT legend is on					291300 P 239 T 810 812

EFF : ALL

SR0S

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R	HYD – Blue E-Pump continues running					291200 P 241 T 810 810
R	HYD – Blue E-Pump in OFF position, E-Pump Symbol IN-Line associated with HYD – Blue Sys shows correct Pressure, E-Pump Symbol shows LO					291200 P 238 T 810 807
R	HYD – Blue Sys Press in Amber, Sys Flag in White and Sys Arrow in Green					291200 P 240 T 810 809
R R R	HYD – Blue Sys shows correct Pressure, E-Pump Symbol shows crossline					291200 P 268 T 810 820
R	HYD – Blue Sys shows correct Pressure, E-Pump Symbol shows LO associated with HYD – Blue E-Pump in OFF position, E-Pump Symbol IN-Line					291200 P 238 T 810 807
R	HYD – BLUE SYS-Reservoir Pressure out of Tolerance					291200 P 246 T 810 812
	HYD – External hydraulic leaks					291000 P 204 T 810 804
R	HYD – Green EDP-Pump in OFF position, EDP Symbol shows IN-Line associated with HYD – Green Sys shows correct Pressure, EDP Symbol shows LO					291100 P 229 T 810 806

EFF : ALL

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	
HYD - Green Sys Press in Amber, Sys Flag in White and Sys Arrow in Green					291100 P 230 T 810 808
HYD - Green Sys shows correct Pressure, EDP Symbol shows LO associated with HYD - Green EDP-Pump in OFF position, EDP Symbol shows IN-Line					291100 P 229 T 810 806
HYD - GREEN SYS-Reservoir Pressure out of Tolerance					291100 P 236 T 810 810
HYD - POWER TRANSFER Continuous Running of PTU after ENG 1+2 Start					292300 P 216 T 810 805
HYD - POWER TRANSFER Continuous Running of PTU after ENG 2+1 Start					292300 P 218 T 810 806
HYD - POWER TRANSFER Continuous running of the PTU					292300 P 206 T 810 802
HYD - POWER TRANSFER Unwanted operation of PTU during engine start					292300 P 225 T 810 809
HYD - POWER TRANSFER Low pressure of the PTU (Green to Yellow)					292300 P 210 T 810 803
R HYD - POWER TRANSFER Low Pressure of the PTU (Green to Yellow)					292300 P 231 T 810 811
HYD - POWER TRANSFER Low pressure of the PTU (Yellow to Green)					292300 P 213 T 810 804

EFF : ALL

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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R	HYD - POWER TRANSFER Low Pressure of the PTU (Yellow to Green)					292300 P 233 T 810 812
	HYD - POWER TRANSFER PTU Running with Cargo Doors in Operation					292300 P 220 T 810 807
	HYD - RAT unwanted deployment of the RAT in flight					292200 P 211 T 810 804
	HYD - RESERVOIR No pressurization of the reservoirs possible					291400 P 201 T 810 801
	HYD - Yellow E-Pump continuous operation of the electric pump associated with <u>Upper ECAM DU Warnings</u> <u>HYD Y SYS LO PR</u>					292400 P 206 T 810 803
	HYD - Yellow E-Pump continuous operation of the electric pump associated with <u>Upper ECAM DU Warnings</u> <u>HYD Y SYS LO PR</u>	AFS	AFS: HYD Y 3151GN	293212	1	292400 P 206 T 810 803
	HYD - Yellow E-Pump intermittent operation of the electric pump					292400 P 209 T 810 805
	HYD - Yellow E-Pump no hydraulic pressure with E-pump in operation					292400 P 207 T 810 804
	HYD - Yellow EDP-Pump in OFF position, EDP Symbol shows IN-Line associated with HYD - Yellow Sys shows correct Pressure, EDP Symbol shows LO					291300 P 230 T 810 807

EFF : ALL

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May 01/08

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	
HYD - Yellow Sys Press in Amb,Sys Flag in White and Sys Arrow in Green					291300 P 231 T 810 809
HYD - Yellow Sys shows correct Pressure, EDP Symbol shows LO associated with HYD - Yellow EDP-Pump in OFF position, EDP Symbol shows IN-Line					291300 P 230 T 810 807
HYD - YELLOW SYS-Reservoir Pressure out of Tolerance					291300 P 237 T 810 811
R HYD-GREEN-Engine Pump hydraulic pressure higher than normal					291100 P 247 T 810 814
HYD-YELLOW-ENGINE PUMP hydraulic pressure higher than normal					291300 P 252 T 810 817

EFF : ALL

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TROUBLE SHOOTING MANUAL

HYDRAULIC POWER – FAULT SYMPTOMS

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R		BSCU 1	GREEN SYSTEM PRESS SWITCH(1151GN)	293212	3	324200 P 242 T 810 823
R		BSCU 2	GREEN SYSTEM PRESS SWITCH(1151GN)	293212	3	324200 P 242 T 810 823
		ECAM 1	SDAC1 : B HYD PRESS XMTR 2065GN	293211	1	315400 P 243 T 810 841
		IDENT: ECAM 2				
		ECAM 1	SDAC1 : B HYD QTY IND 2000GQ associated with	291241	1	315400 PA276 T 810 958
		ECAM 1	SDAC2 : B HYD QTY IND 2000GQ	291241	1	
		ECAM 1	SDAC1 : B HYD QTY IND 2000GQ	291241	1	315400 P 227 T 810 831
		IDENT: ECAM 2				
		ECAM 1	SDAC1 : B HYD TEMP XMTR 2381GR associated with	293311	1	315400 PA279 T 810 961
		ECAM 1	SDAC2 : B HYD TEMP XMTR 2381GR	293311	1	
		ECAM 1	SDAC1 : B HYD TEMP XMTR 2381GR	293311	1	315400 P 265 T 810 859
		IDENT: ECAM 2				
		ECAM 1	SDAC1 : G HYD PRESS XMTR 1065GN	293211	1	315400 P 239 T 810 837
		IDENT: ECAM 2				
		ECAM 1	SDAC1 : G HYD QTY IND 1000GQ associated with	291141	1	315400 PA277 T 810 959
		ECAM 1	SDAC2 : G HYD QTY IND 1000GQ	291141	1	

EFF : ALL

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	
	ECAM 1	SDAC1 : G HYD QTY IND 1000GQ	291141	1	315400 P 231 T 810 833
	IDENT: ECAM 2				
R	ECAM 1	SDAC1 : G HYD TEMP XMTR 1381GR associated with	293311	1	315400 PA280 T 810 962
	ECAM 1	SDAC2 : G HYD TEMP XMTR 1381GR	293311	1	
	ECAM 1	SDAC1 : G HYD TEMP XMTR 1381GR	293311	1	315400 P 267 T 810 861
	IDENT: ECAM 2				
	ECAM 1	SDAC1 : Y HYD PRESS XMTR 3065GN	293211	1	315400 P 245 T 810 843
	IDENT: ECAM 2				
R	ECAM 1	SDAC1 : Y HYD QTY IND 3000GQ associated with	291341	1	315400 PA275 T 810 957
	ECAM 1	SDAC2 : Y HYD QTY IND 3000GQ	291341	1	
	ECAM 1	SDAC1 : Y HYD QTY IND 3000GQ	291341	1	315400 P 235 T 810 835
	IDENT: ECAM 2				
R	ECAM 1	SDAC1 : Y HYD TEMP XMTR 3381GR associated with	293311	1	315400 PA278 T 810 960
	ECAM 1	SDAC2 : Y HYD TEMP XMTR 3381GR	293311	1	
	ECAM 1	SDAC1 : Y HYD TEMP XMTR 3381GR	293311	1	315400 P 241 T 810 839
	IDENT: ECAM 2				

EFF : ALL

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	
	ECAM 1	SDAC2 : B HYD PRESS XMTR 2065GN	293211	1	315400 P 244 T 810 842
	IDENT: ECAM 2				
R	ECAM 1	SDAC2 : B HYD QTY IND 2000GQ associated with	291241	1	315400 PA276 T 810 958
	ECAM 1	SDAC1 : B HYD QTY IND 2000GQ	291241	1	
	ECAM 1	SDAC2 : B HYD QTY IND 2000GQ	291241	1	315400 P 229 T 810 832
	IDENT: ECAM 2				
R	ECAM 1	SDAC2 : B HYD TEMP XMTR 2381GR associated with	293311	1	315400 PA279 T 810 961
	ECAM 1	SDAC1 : B HYD TEMP XMTR 2381GR	293311	1	
	ECAM 1	SDAC2 : B HYD TEMP XMTR 2381GR	293311	1	315400 P 266 T 810 860
	IDENT: ECAM 2				
	ECAM 1	SDAC2 : G HYD PRESS XMTR 1065GN	293211	1	315400 P 240 T 810 838
	IDENT: ECAM 2				
R	ECAM 1	SDAC2 : G HYD QTY IND 1000GQ associated with	291141	1	315400 PA277 T 810 959
	ECAM 1	SDAC1 : G HYD QTY IND 1000GQ	291141	1	
	ECAM 1	SDAC2 : G HYD QTY IND 1000GQ	291141	1	315400 P 233 T 810 834
	IDENT: ECAM 2				

EFF : ALL

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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R		ECAM 1	SDAC2 : G HYD TEMP XMTR 1381GR associated with	293311	1	315400 PA280 T 810 962
	ECAM 1	SDAC1 : G HYD TEMP XMTR 1381GR	293311	1		
		ECAM 1	SDAC2 : G HYD TEMP XMTR 1381GR	293311	1	315400 P 268 T 810 862
	IDENT: ECAM 2					
		ECAM 1	SDAC2 : Y HYD PRESS XMTR 3065GN	293211	1	315400 P 246 T 810 844
	IDENT: ECAM 2					
R		ECAM 1	SDAC2 : Y HYD QTY IND 3000GQ associated with	291341	1	315400 PA275 T 810 957
	ECAM 1	SDAC1 : Y HYD QTY IND 3000GQ	291341	1		
		ECAM 1	SDAC2 : Y HYD QTY IND 3000GQ	291341	1	315400 P 237 T 810 836
	IDENT: ECAM 2					
R		ECAM 1	SDAC2 : Y HYD TEMP XMTR 3381GR associated with	293311	1	315400 PA278 T 810 960
	ECAM 1	SDAC1 : Y HYD TEMP XMTR 3381GR	293311	1		
		ECAM 1	SDAC2 : Y HYD TEMP XMTR 3381GR	293311	1	315400 P 242 T 810 840
	IDENT: ECAM 2					
		ECAM 2	SDAC1 : B HYD PRESS XMTR 2065GN	293211	1	315400 P 243 T 810 841
		ECAM 2	SDAC1 : B HYD QTY IND 2000GQ	291241	1	315400 P 227 T 810 831

EFF : ALL

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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R		ECAM 2	SDAC1 : B HYD QTY IND 2000GQ associated with	291241	1	315400 PA276 T 810 958
		ECAM 2	SDAC2 : B HYD QTY IND 2000GQ	291241	1	
R		ECAM 2	SDAC1 : B HYD TEMP XMTR 2381GR associated with	293311	1	315400 PA279 T 810 961
		ECAM 2	SDAC2 : B HYD TEMP XMTR 2381GR	293311	1	
		ECAM 2	SDAC1 : B HYD TEMP XMTR 2381GR	293311	1	315400 P 265 T 810 859
		IDENT: ECAM 1				
		ECAM 2	SDAC1 : G HYD PRESS XMTR 1065GN	293211	1	315400 P 239 T 810 837
		ECAM 2	SDAC1 : G HYD QTY IND 1000GQ	291141	1	315400 P 231 T 810 833
R		ECAM 2	SDAC1 : G HYD QTY IND 1000GQ associated with	291141	1	315400 PA277 T 810 959
		ECAM 2	SDAC2 : G HYD QTY IND 1000GQ	291141	1	
R		ECAM 2	SDAC1 : G HYD TEMP XMTR 1381GR associated with	293311	1	315400 PA280 T 810 962
		ECAM 2	SDAC2 : G HYD TEMP XMTR 1381GR	293311	1	
		ECAM 2	SDAC1 : G HYD TEMP XMTR 1381GR	293311	1	315400 P 267 T 810 861
		IDENT: ECAM 1				
		ECAM 2	SDAC1 : Y HYD PRESS XMTR 3065GN	293211	1	315400 P 245 T 810 843
		ECAM 2	SDAC1 : Y HYD QTY IND 3000GQ	291341	1	315400 P 235 T 810 835

EFF : ALL

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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
		SOURCE	MESSAGE	ATA	C	
R		ECAM 2	SDAC1 : Y HYD QTY IND 3000GQ associated with	291341	1	315400 PA275 T 810 957
		ECAM 2	SDAC2 : Y HYD QTY IND 3000GQ	291341	1	
R		ECAM 2	SDAC1 : Y HYD TEMP XMTR 3381GR associated with	293311	1	315400 PA278 T 810 960
		ECAM 2	SDAC2 : Y HYD TEMP XMTR 3381GR	293311	1	
		ECAM 2	SDAC1 : Y HYD TEMP XMTR 3381GR	293311	1	315400 P 241 T 810 839
		IDENT: ECAM 1				
		ECAM 2	SDAC2 : B HYD PRESS XMTR 2065GN	293211	1	315400 P 244 T 810 842
		ECAM 2	SDAC2 : B HYD QTY IND 2000GQ	291241	1	315400 P 229 T 810 832
R		ECAM 2	SDAC2 : B HYD QTY IND 2000GQ associated with	291241	1	315400 PA276 T 810 958
		ECAM 2	SDAC1 : B HYD QTY IND 2000GQ	291241	1	
R		ECAM 2	SDAC2 : B HYD TEMP XMTR 2381GR associated with	293311	1	315400 PA279 T 810 961
		ECAM 2	SDAC1 : B HYD TEMP XMTR 2381GR	293311	1	
		ECAM 2	SDAC2 : B HYD TEMP XMTR 2381GR	293311	1	315400 P 266 T 810 860
		IDENT: ECAM 1				
		ECAM 2	SDAC2 : G HYD PRESS XMTR 1065GN	293211	1	315400 P 240 T 810 838
		ECAM 2	SDAC2 : G HYD QTY IND 1000GQ	291141	1	315400 P 233 T 810 834

EFF : ALL

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION PROCEDURE
	SOURCE	MESSAGE	ATA	C	
	ECAM 2	SDAC2 : G HYD QTY IND 1000GQ associated with	291141	1	315400 PA277 T 810 959
	ECAM 2	SDAC1 : G HYD QTY IND 1000GQ	291141	1	
	ECAM 2	SDAC2 : G HYD TEMP XMTR 1381GR associated with	293311	1	315400 PA280 T 810 962
	ECAM 2	SDAC1 : G HYD TEMP XMTR 1381GR	293311	1	
	ECAM 2	SDAC2 : G HYD TEMP XMTR 1381GR	293311	1	315400 P 268 T 810 862
	IDENT: ECAM 1				
	ECAM 2	SDAC2 : Y HYD PRESS XMTR 3065GN	293211	1	315400 P 246 T 810 844
	ECAM 2	SDAC2 : Y HYD QTY IND 3000GQ	291341	1	315400 P 237 T 810 836
	ECAM 2	SDAC2 : Y HYD QTY IND 3000GQ associated with	291341	1	315400 PA275 T 810 957
	ECAM 2	SDAC1 : Y HYD QTY IND 3000GQ	291341	1	
	ECAM 2	SDAC2 : Y HYD TEMP XMTR 3381GR	293311	1	315400 P 242 T 810 840
	ECAM 2	SDAC2 : Y HYD TEMP XMTR 3381GR associated with	293311	1	315400 PA278 T 810 960
	ECAM 2	SDAC1 : Y HYD TEMP XMTR 3381GR	293311	1	
	SFCC 2	WRONG INHIBIT SIGN FROM CARGO DOOR YELLOW SYSTEM	292400	3	275100 P 294 T 810 841

EFF : ALL

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TASK 29-10-00-810-801

Loss of the System Pressure of the Green and Yellow Hydraulic Systems

1. Possible Causes

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
29-11-00-810-805	Loss of the System Pressure of the Green Hydraulic System
29-13-00-810-805	Loss of the System Pressure of the Yellow Hydraulic System
AMM 71-00-00-710-003	Engine Automatic Start
R AMM 71-00-00-710-028	Engine Shutdown

3. Fault Confirmation

A. Start the LH and RH engine (Ref. AMM TASK 71-00-00-710-003).

(1) Look for fault indications on the upper ECAM DU and the lower ECAM DU.

R (2) Shut down the engines (Ref. AMM TASK 71-00-00-710-028).

4. Fault Isolation

A. If the fault confirmation gives:

- the message HYD G+Y SYS LO PR on the upper ECAM DU.
do the fault isolation procedure (Ref. TASK 29-11-00-810-805) and (Ref. TASK 29-13-00-810-805).

EFF : ALL

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TASK 29-10-00-810-802

Loss of the System Pressure of the Green and Blue Hydraulic Systems

1. Possible Causes**2. Job Set-up Information****A. Referenced Information**

REFERENCE	DESIGNATION
29-11-00-810-805	Loss of the System Pressure of the Green Hydraulic System
29-12-00-810-805	Loss of the System Pressure of the Blue Hydraulic System
AMM 71-00-00-710-003	Engine Automatic Start
R AMM 71-00-00-710-028	Engine Shutdown

3. Fault Confirmation**A. Start the LH engine (Ref. AMM TASK 71-00-00-710-003).**

(1) Look for fault indications on the upper ECAM DU and the lower ECAM DU.

R (2) Shut down the LH engine (Ref. AMM TASK 71-00-00-710-028).

4. Fault Isolation**A. If the fault confirmation gives:**

- the message HYD G+B SYS LO PR on the upper ECAM DU.
do the fault isolation procedure (Ref. TASK 29-11-00-810-805) and (Ref. TASK 29-12-00-810-805).

EFF : ALL

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TASK 29-10-00-810-803

Loss of the System Pressure of the Blue and Yellow Hydraulic Systems

1. Possible Causes**2. Job Set-up Information****A. Referenced Information**

REFERENCE	DESIGNATION
29-12-00-810-805	Loss of the System Pressure of the Blue Hydraulic System
29-13-00-810-805	Loss of the System Pressure of the Yellow Hydraulic System
AMM 71-00-00-710-003	Engine Automatic Start
R AMM 71-00-00-710-028	Engine Shutdown

3. Fault Confirmation**A. Start the RH engine (Ref. AMM TASK 71-00-00-710-003).**

(1) Look for fault indications on the upper ECAM DU and the lower ECAM DU.

R (2) Shut down the RH engine (Ref. AMM TASK 71-00-00-710-028).

4. Fault Isolation**A. If the fault confirmation gives:**

- the message HYD B+Y SYS LO PR on the upper ECAM DU.
do the fault isolation procedure (Ref. TASK 29-12-00-810-805) and (Ref. TASK 29-13-00-810-805).

EFF : ALL

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TASK 29-10-00-810-804

External Leakage found on Components of the Hydraulic System

1. Possible Causes**2. Job Set-up Information****A. Referenced Information****REFERENCE****DESIGNATION**

R	AMM	29-00-00-280-006	Check of the Green or Yellow Hydraulic System after
R			Operation in a Possible Cavitation Condition of the
R			Engine Pump
R	AMM	29-00-00-790-001	Check of the External Leaks of the Hydraulic
R			Components

3. Fault Confirmation**A. Do a check of external leakage of the related component (Ref. AMM TASK 29-00-00-790-001).**

R **NOTE** : Do the check of the Green or Yellow hydraulic system after
R operation in a possible cavitation condition of the engine pump if
R the hydraulic engine pump of the related hydraulic system has
R operated for more than 5 minutes:
R - with closed engine pump fire valves and/or
R - with the RSVR LO LVL warning on the upper ECAM DU
R (Ref. AMM TASK 29-00-00-280-006).

4. Fault Isolation**A. If the fault confirmation gives that the leakage is out of tolerance:
- repair or replace the component as necessary.****B. Do the check as given in Para. 3. A. to make sure that no leakage occurs.**

EFF : ALL

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TASK 29-10-00-810-805

Reservoir Fluid Level Indication replaced by amber XX for all Hydraulic Systems

1. Possible Causes

- R - quantity indicator of the Green hydraulic reservoir
- R - quantity indicator of the Blue hydraulic reservoir
- R - quantity indicator of the Yellow hydraulic reservoir
- wiring
- C/B-HYDRAULIC/HYD/PTY/IND (1831GQ)
- terminal block (7502VT)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
R AMM 29-11-41-000-002	Removal of the Quantity Indicator of the Green Hydraulic Reservoir
R AMM 29-11-41-400-002	Installation of the Quantity Indicator of the Green Hydraulic Reservoir
R AMM 29-12-41-000-002	Removal of the Quantity Indicator of the Blue Hydraulic Reservoir
R AMM 29-12-41-400-002	Installation of the Quantity Indicator of the Blue Hydraulic System
R AMM 29-13-41-000-003	Removal of the Quantity Indicator of the Yellow Hydraulic Reservoir
R AMM 29-13-41-400-003	Installation of the Quantity Indicator of the Yellow Hydraulic Reservoir
R AMM 29-31-00-710-001	Functional Check of Reservoir Low Level Warning
AMM 31-60-00-860-001	EIS Start Procedure
AWM 29-31-02	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
	121VU HYDRAULIC/HYD/PTY/IND	1831GQ	P35

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD
pushbutton switch. Make sure that the HYD page is shown on the system
display of the ECAM.
- (4) Look for fault indications on the lower ECAM DU.

R (5) Monitor the condition of the circuit breaker 1831GQ.

4. Fault Isolation

A. If the Fault Confirmation gives:

- R - The reservoir fluid level indication of the Green, Blue and Yellow
R hydraulic system is replaced by amber XX on the lower ECAM DU.
R - The circuit breaker 1831GQ is open:

R (1) Do a check for a defective hydraulic quantity transmitter as follows:

R (a) Remove the electrical connector from the quantity indicator of
R the Green hydraulic reservoir.

R (b) Close the circuit breaker 1831GQ:

R 1 If the circuit breaker 1831GQ stays closed:
R - Replace the quantity indicator of the Green hydraulic
R reservoir (Ref. AMM TASK 29-11-41-000-002) and (Ref. AMM
R TASK 29-11-41-400-002).

R 2 If the circuit breaker 1831GQ opens:

R a Connect the the electrical connector at the quantity
R indicator of the Green hydraulic reservoir.

R (c) Do the worksteps (a) thru (b) again at the:
R - quantity indicator of the Blue hydraulic reservoir
R - quantity indicator of the Yellow hydraulic reservoir.

R (d) Replace the applicable quantity indicator which causes the
R circuit breaker 1831GQ to open:
R - for the quantity indicator of the Blue hydraulic reservoir
R (Ref. AMM TASK 29-12-41-000-002) and (Ref. AMM TASK 29-12-41-
R 400-002)
R - for the quantity indicator of the Yellow hydraulic reservoir
R (Ref. AMM TASK 29-13-41-000-003) and (Ref. AMM TASK 29-13-41-
R 400-003).

EFF : ALL

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(2) If the fault continues:

(a) Do a check for continuity between:

- the CB (1831GQ) and the pin C of the terminal block (7502VT) (Ref. AWM 29-31-02).

1 If there is no continuity:

a Repair the wiring between the CB (1831GQ) and the pin C of the terminal block (7502VT) (Ref. AWM 29-31-02).

b If the fault continues:

- Replace the C/B-HYDRAULIC/HYD/QTY/IND (1831GQ).

2 If there is continuity:

- Do a check for continuity between the pin C of the terminal block (7502VT) and the pins E, J, K of the terminal block (7502VT) (Ref. AWM 29-31-02).

a If there is no continuity:

- Replace the terminal block (7502VT).

B. Do the operational test of the fluid low level warning (Ref. AMM TASK 29-31-00-710-001) to make sure that the operation is correct (no fault indications shown).

EFF : ALL

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R TASK 29-10-00-810-806

R System Pressure Indication replaced by amber XX for all Hydraulic Systems

R 1. Possible Causes

- R - HYDR. PRESSURE TRANSMITTER (1065GN)
- R - HYDR. PRESSURE TRANSMITTER (2065GN)
- R - HYDR. PRESSURE TRANSMITTER (3065GN)
- R - wiring
- R - C/B-HYDRAULIC/HYD/PTY/IND (1841GN)
- R - terminal block (7502VT)

R 2. Job Set-up Information

R A. Referenced Information

R	-----	
R	REFERENCE	DESIGNATION
R	-----	
R	AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
R	AMM 29-32-00-710-001	Operational Test of the System Pressure Switch (1151GN), Pressure Transducer (1065GN) and the associated Indicating System of the Green Hydraulic System
R	AMM 29-32-00-710-002	Operational Test of the System Pressure Switch (2151GN), Pressure Transducer (2065GN) and the associated Indicating System of the Blue Hydraulic System
R	AMM 29-32-00-710-003	Operational Test of the System Pressure Switch (3151GN), Pressure Transducer (3065GN) and the associated Indicating System of the Yellow Hydraulic System
R	AMM 29-32-11-000-001	Removal of the Hydraulic Pressure Transducer (1065GN)
R	AMM 29-32-11-000-002	Removal of the Hydraulic Pressure Transducer (2065GN)
R	AMM 29-32-11-000-003	Removal of the Hydraulic Pressure Transducer (3065GN)
R	AMM 29-32-11-400-001	Installation of the Hydraulic Pressure Transducer (1065GN)
R	AMM 29-32-11-400-002	Installation of the Hydraulic Pressure Transducer (2065GN)
R	AMM 29-32-11-400-003	Installation of the Hydraulic Pressure Transducer (3065GN)
R	AMM 31-60-00-860-001	EIS Start Procedure
R	AWM 29-32-02	

EFF : ALL

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R **3. Fault Confirmation**

R **A. Make sure that this(these) circuit breaker(s) is(are) closed:**

R	-----			
R	PANEL	DESIGNATION	IDENT. LOCATION	
R	-----			
R	49VU	HYD/HYD/PRESS/XMTR	1841GN	C11

R **B. Aircraft Maintenance Configuration**

R (1) Energize the aircraft electrical circuits
R (Ref. AMM TASK 24-41-00-861-002).

R (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
R (Ref. AMM TASK 31-60-00-860-001).

R (3) On the ECAM control panel on the center pedestal, push the HYD
R pushbutton switch. Make sure that the HYD page is shown on the system
R display of the ECAM.

R (4) Look for fault indications on the lower ECAM DU.

R (5) Monitor the condition of the circuit breaker 1841GN.

R **4. Fault Isolation**

R **A. If the Fault Confirmation gives:**

- R - The hydraulic system pressure indication of the Green, Blue and Yellow
R hydraulic system is replaced by amber XX on the lower ECAM DU.
R - The circuit breaker 1841GN is open:

R (1) Do a check for a defective hydraulic pressure transmitter as follows:

R (a) Remove the electrical connector from the HYDR. PRESSURE
R TRANSMITTER (1065GN).

R (b) Close the circuit breaker 1841GN:

R 1 If the circuit breaker 1841GN stays closed:
R - Replace the HYDR. PRESSURE TRANSMITTER (1065GN) (Ref. AMM
R TASK 29-32-11-000-001) and (Ref. AMM TASK 29-32-11-400-001).

R 2 If the circuit breaker 1841GN opens:

R a Connect the the electrical connector of the HYDR. PRESSURE
R TRANSMITTER (1065GN).

R (c) Do the worksteps (a) thru (b) again at the:
R - HYDR. PRESSURE TRANSMITTER (2065GN)
R - HYDR. PRESSURE TRANSMITTER (3065GN)

EFF : ALL

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- R (d) Replace the applicable hydraulic pressure transmitter which
R causes the circuit breaker 1841GN to open:
R - for the HYDR. PRESSURE TRANSMITTER (2065GN) (Ref. AMM TASK 29-
R 32-11-000-002) and (Ref. AMM TASK 29-32-11-400-002)
R - for the HYDR. PRESSURE TRANSMITTER (3065GN)> (Ref. AMM TASK 29-
R 32-11-000-003) and (Ref. AMM TASK 29-32-11-400-003)
- R (2) If the fault continues:
- R (a) Do a check for continuity between:
R - the CB (1841GN) and the pin C of the terminal block (7502VT)
R (Ref. AWM 29-32-02).
- R 1 If there is no continuity:
- R a Repair the wiring between the CB (1841GN) and the pin C of
R the terminal block (7502VT) (Ref. AWM 29-32-02).
- R b If the fault continues:
R - Replace the C/B-HYDRAULIC/HYD/QTY/IND (1841GN).
- R 2 If there is continuity:
R - Do a check for continuity between the pin C of the terminal
R block (7502VT) and the pins D, E, H of the terminal block
R (7502VT) (Ref. AWM 29-32-02).
- R a If there is no continuity:
R - Replace the terminal block (7502VT).
- R B. Do the applicable operational test of the hydraulic pressure transmitter,
R to make sure that the operation is correct (no fault indications shown):
R - For the HYDR. PRESSURE TRANSMITTER (1065GN) (Ref. AMM TASK 29-32-00-
R 710-001)
R - For the HYDR. PRESSURE TRANSMITTER (2065GN) (Ref. AMM TASK 29-32-00-
R 710-002)
R - For the HYDR. PRESSURE TRANSMITTER (3065GN) (Ref. AMM TASK 29-32-00-
R 710-003).

EFF : ALL

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R TASK 29-10-00-810-807

R Overheat of the Reservoir for all the Hydraulic Systems

R 1. Possible Causes

R - SDAC-1 (1WV1)

R - SDAC-2 (1WV2)

R 2. Job Set-up Information

R A. Referenced Information

REFERENCE	DESIGNATION

AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-10-00-863-003	Pressurize the Blue Hydraulic System with a Ground Power Supply
AMM 29-10-00-864-003	Depressurize the Blue Hydraulic System
AMM 29-24-00-863-001	Pressurize the Yellow Hydraulic System with the Electric Pump
AMM 29-24-00-864-001	Depressurize the Yellow Hydraulic System
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 31-60-00-860-001	EIS Start Procedure
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	Engine Shutdown
TSM 29-11-00-810-802	Overheat Indication of the Green Hydraulic System
TSM 29-12-00-810-802	Overheat Indication of the Blue Hydraulic System
TSM 29-13-00-810-802	Overheat Indication of the Yellow Hydraulic System

R 3. Fault Confirmation

R A. Make sure that this(these) circuit breaker(s) is(are) closed:

R	PANEL	DESIGNATION	IDENT. LOCATION	
R	-----			
R	49VU	HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
R	121VU	HYDRAULIC/Y HYD/PUMP ENG2/MONG	3700GD	Q37
R	121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

EFF : ALL

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R **B. Test**

R **WARNING** : PUT THE SAFETY DEVICES AND THE WARNING NOTICES IN POSITION
R BEFORE YOU START A TASK ON OR NEAR:

- R - THE FLIGHT CONTROLS
- R - THE FLIGHT CONTROL SURFACES
- R - THE LANDING GEAR AND THE RELATED DOORS
- R - COMPONENTS THAT MOVE.

R **WARNING** : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE
R CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS
R AND/OR DAMAGE.

R (1) Energize the aircraft electrical circuits
R (Ref. AMM TASK 24-41-00-861-002).

R (2) Do an engine automatic start to pressurize the green hydraulic system
R (Ref. AMM TASK 71-00-00-710-003).

R (3) Pressurize the blue and yellow hydraulic systems with the electric
R pump (Ref. AMM TASK 29-10-00-863-003) and (Ref. AMM TASK 29-24-00-
R 863-001).

R (4) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
R (Ref. AMM TASK 31-60-00-860-001).

R (5) Operate the sidestick for ailerons, spoilers and elevators at full
R travel for 5 min.

R (6) Operate the rudder pedals at full travel for 5 min.

R (7) Operate the flap and slat control lever at full travel for 5 min.

R **4. Fault Isolation**

R **A. If the test gives:**

- R - The message HYD G RSVR OVHT on the upper ECAM DU
- R - The message HYD B RSVR OVHT on the upper ECAM DU
- R - The message HYD Y RSVR OVHT on the upper ECAM DU
- R - The OVHT flag on the HYD page of the lower ECAM DU.

R (1) Remove the SDAC-1 (1WV1) and the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-
R 34-000-001).

R (2) Do an inspection of the SDAC-1 (1WV1) and SDAC-2 (1WV2) for corrosion
R and other damage.

R (a) If you find corrosion and/or other damage, send the applicable
R SDAC to the address that follows:
R - AIRBUS FRANCE SAS, Avionics and Simulation Products.

EFF : ALL

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- R (b) If no corrosion or damage is found:
- R 1 Install the SDAC-1 (1WV1) and the SDAC-2 (1WV2) (Ref. AMM TASK
- R 31-55-34-400-001).
- R 2 Do the overheat of the hydraulic reservoir trouble shooting
- R procedure for each of the hydraulic systems:
- R - For the green hydraulic system (Ref. TSM TASK 29-11-00-810-
- R 802)
- R - For the blue hydraulic system (Ref. TSM TASK 29-12-00-810-
- R 802)
- R - For the yellow hydraulic system (Ref. TSM TASK 29-13-00-810-
- R 802).
- R **5. Close-up**
- R **A. Aircraft Maintenance Configuration**
- R (1) Stop the Engine (Ref. AMM TASK 71-00-00-710-028).
- R (2) Make sure that the blue and yellow hydraulic systems are
- R de-pressurized (Ref. AMM TASK 29-24-00-864-001) and (Ref. AMM TASK
- R 29-10-00-864-003).
- R (3) De-energize the aircraft electrical circuits
- R (Ref. AMM TASK 24-41-00-862-002).

EFF : ALL

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TASK 29-11-00-810-801

Loss of the Green Reservoir Pressurization

1. Possible Causes

- PRESS SW-G RSVR AIR (1384GH)
- VALVE-MAN DEPRESS, G RSVR (1087GM)
- VALVE-AIR RELIEF, G RSVR (1005GM)
- PRESS GAGE-G RSVR (1383GM)
- CHECK VALVE-RSVR PRESS, G (1388GM)
- R - RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM)
 - wiring
 - filter element
 - bleed air lines

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
R	AMM 29-14-00-614-001	Depressurization of the Hydraulic Reservoirs
	AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
	AMM 29-14-00-720-002	Functional Test of the Hydraulic Reservoir Pressurization System with the Left Engine
R	AMM 29-14-13-000-001	Removal of the Bleed-Air Line Restrictor (1392GM)
R	AMM 29-14-13-400-001	Installation of the Bleed-Air Line Restrictor (1392GM)
R	AMM 29-14-15-000-001	Removal of the Air Pressure Gage of the Green Hydraulic System
	AMM 29-14-15-400-001	Installation of the Air Pressure Gage of the Green Hydraulic System
	AMM 29-14-16-000-001	Removal of the Reservoir Depressurization Valve of the Green Hydraulic System
	AMM 29-14-16-400-001	Installation of the Reservoir Depressurization Valve of the Green Hydraulic System
	AMM 29-14-17-000-001	Removal of the Air Relief Valve of the Green Hydraulic System (1005GM)
	AMM 29-14-17-400-001	Installation of the Air Relief Valve of the Green Hydraulic System (1005GM)
	AMM 29-14-41-610-002	Servicing of the Reservoir Pressurization Filter
R	AMM 29-14-49-000-001	Removal of the Reservoir Pressurization Hose (1674GM)
R	AMM 29-14-49-400-001	Installation of the Reservoir Pressurization Hose (1674GM)
R		

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REFERENCE	DESIGNATION
AMM 29-34-00-710-001	Operational Test of Reservoir Low Air Pressure Warning
AMM 29-34-11-000-001	Removal of the Reservoir Pressure Switch of the Green Hydraulic System
AMM 29-34-11-400-001	Installation of the Reservoir Pressure Switch of the Green Hydraulic System
AMM 31-60-00-860-001	EIS Start Procedure
ASM 29-11/01	
R 29-11-00-991-001	Fig. 201

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the upper ECAM DU, the lower ECAM DU and the panel 40VU.

4. Fault Isolation

A. If the fault confirmation gives:

- the message HYD G RSVR LO AIR PRESS on the upper ECAM DU
- the message LO AIR PRESS on the lower ECAM DU
- R - the PTU P/BSW FAULT light on panel 40VU
- R - the GREEN ENG 1 PUMP P/BSW FAULT light on panel 40VU.

R

- R (1) Do a visual check of the pressure shown on the gage of the Green
- R reservoir.

EFF : ALL

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- R (2) If the pressure is more than 25 psi (1.7236 bar):
R - do a check for continuity between:
R the PRESS SW-G RSVR AIR (1384GH) connector A/A and the PRESS SW-G
RSVR AIR (1384GH) connector A/C (Ref. ASM 29-11/01).
- (a) If there is continuity:
R - replace the PRESS SW-G RSVR AIR (1384GH) (Ref. AMM TASK 29-34-
R 11-000-001) and (Ref. AMM TASK 29-34-11-400-001).
- (b) If there is no continuity:
R - make sure that the wiring is not connected to GND between:
R the PRESS SW-G RSVR AIR (1384GH) connector A/C and the DIODE
(1158VD) connector 15 (Ref. ASM 29-11/01).
- 1 If the wiring is connected to GND:
- repair the wiring (Ref. ASM 29-11/01).
- R (3) If the pressure shown on the gage of the Green reservoir is less than
R 25 psi (1.7236 bar):
R - do a check of the clogging indicator on the reservoir
pressurization unit (1360GM).
- (a) If the clogging indicator is out:
- replace the filter element (Ref. AMM TASK 29-14-41-610-002).
- (b) If the clogging indicator is not out, or the fault continues
after the replacement of the filter element:
R - pressurize the hydraulic reservoirs with a ground cart (Ref.
R AMM TASK 29-14-00-614-002)
R - do a check of the pressure drop on the gage of the hydraulic
reservoir.
- R **NOTE** : No pressure drop is permitted in 15 minutes at a gage
R pressure of 50 psi (3.4473 bar).
- R 1 If the air pressure drop is not in the limits:
- do a leak check of the VALVE-MAN DEPRESS, G RSVR (1087GM).
- a If the VALVE-MAN DEPRESS, G RSVR (1087GM) leaks:
- replace the VALVE-MAN DEPRESS, G RSVR (1087GM) (Ref. AMM
TASK 29-14-16-000-001) and (Ref. AMM TASK 29-14-16-400-
001).
- b If the VALVE-MAN DEPRESS, G RSVR (1087GM) does not leak:
- do a check of the VALVE-AIR RELIEF, G RSVR (1005GM) for
leaks.
- If the VALVE-AIR RELIEF, G RSVR (1005GM) has a leak:
- replace the VALVE-AIR RELIEF, G RSVR (1005GM) (Ref. AMM
TASK 29-14-17-000-001) and (Ref. AMM TASK 29-14-17-400-
001).
- If the VALVE-AIR RELIEF, G RSVR (1005GM) has no leak:
- do a check of the PRESS GAGE-G RSVR (1383GM) for leaks:

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- If the PRESS GAGE-G RSVR (1383GM) has a leak:
 - replace the PRESS GAGE-G RSVR (1383GM) (Ref. AMM TASK 29-14-15-000-001) and (Ref. AMM TASK 29-14-15-400-001).
- If the PRESS GAGE-G RSVR (1383GM) has no leak:
 - do a check of all the connections and components on the reservoir for leaks.
- If you find a leak:
 - tighten the related nut or replace the defective component.

- c If the fault continues:
 - replace the CHECK VALVE-RSVR PRESS, G (1388GM).

2 If the air pressure drop is in the limits:

- a Depressurize the hydraulic reservoirs (Ref. AMM TASK 29-14-00-614-001).

- b Pressurize the reservoir pressurization system with the left engine (Ref. AMM TASK 29-14-00-720-002), or

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- c Connect an external pressure source:
(Ref. Fig. 201/TASK 29-11-00-991-001)
 - disconnect the reservoir pressurization hose (1) (1674GM) from the HP bleed-air port (3) of the left engine (Ref. AMM TASK 29-14-49-000-001)
 - put a blanking plug on the HP bleed-air port (3)
 - install the union (6) at the line end fitting (5) of an approved air or nitrogen source
 - make sure that the open end of the union (6) has a thread of 7/16_20UNJF 3A
 - connect the line end fitting (2) of the reservoir pressurization hose (1) (1674GM) to the thread 7/16_20UNJF 3A of the union (6)

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- pressurize the reservoir pressurization system to approximately 15.2 bar (220 psi).

- d If the pressure in the reservoir does not increase to the necessary value:
 - remove the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) (Ref. AMM TASK 29-14-13-000-001).
 - make sure that the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) and the filter are not clogged or damaged.
 - if necessary, replace the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) (Ref. AMM TASK 29-14-13-400-001).

- e If the fault continues:
 - do a check and, if necessary, repair the bleed air line in the left pylon to the reservoir pressurization unit (1360GM).

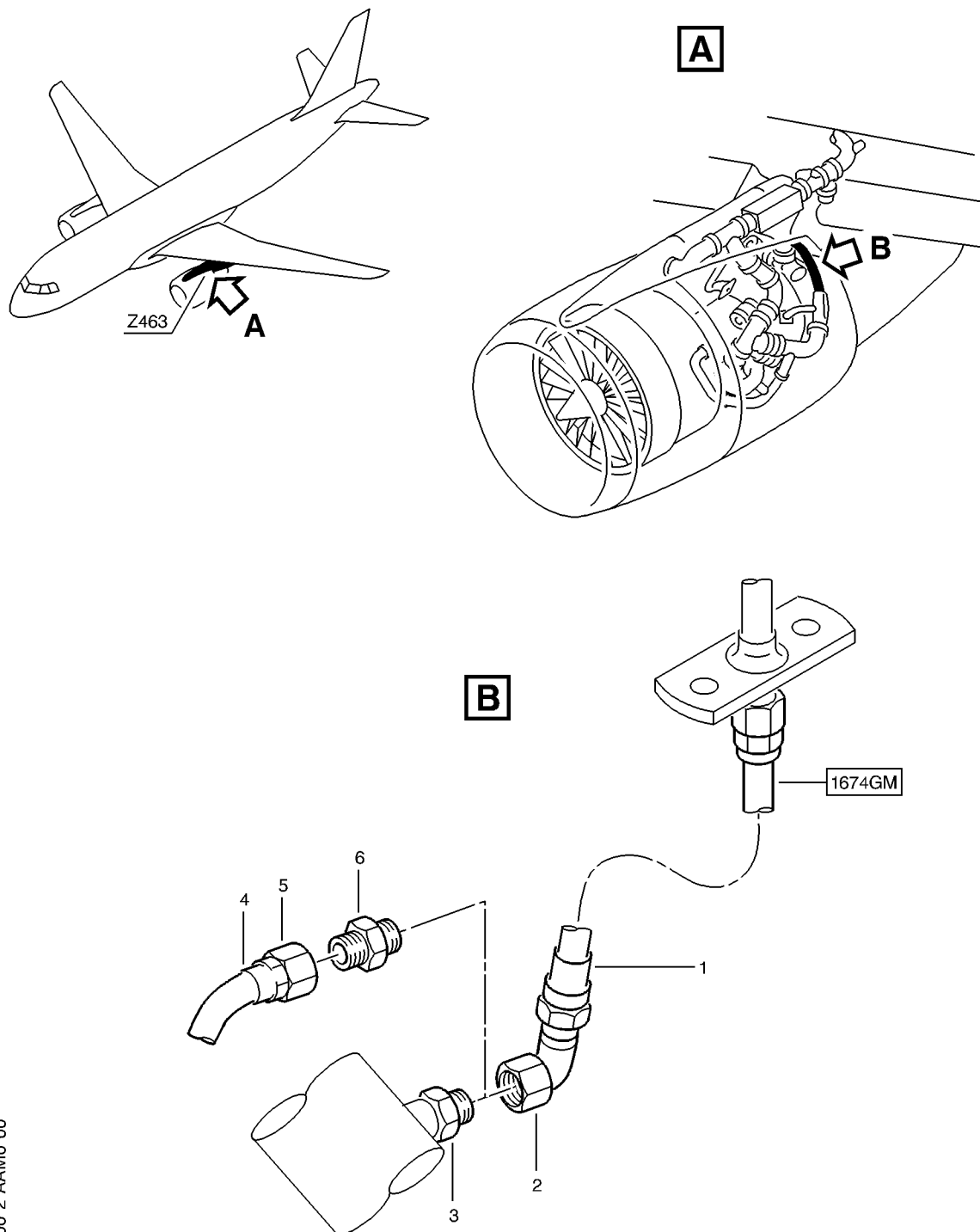
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Reservoir Pressurization Connection
Figure 201/TASK 29-11-00-991-001

NL6 29 11 00 2 AAM0 00

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- f If the fault continues:
- do a check and, if necessary, repair the remaining bleed air lines and components.
- g Stop the pressurization of the reservoir pressurization system from the left engine (Ref. AMM TASK 29-14-00-720-002), or
- h Disconnect the external pressure source:
- disconnect the line end fitting (2) of the reservoir pressurization hose (1) (1674GM) from the union (6)
 - remove the union (6) from the line end fitting (5) of the pressure source hose (4)
 - remove the blanking plug from the HP bleed-air port (3)
 - connect the reservoir pressurization hose (1) (1674GM) to the HP bleed-air port (3) of the left engine (Ref. AMM TASK 29-14-49-400-001).
- i If the air pressure in the reservoir increases to the necessary value and the air pressure drop is in the limits:
- no further actions are necessary.
- B.** Do the operational test of the low air pressure warning (Ref. AMM TASK 29-34-00-710-001) to make sure that operation is correct (no maintenance message shown).

EFF : ALL

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TASK 29-11-00-810-802

Overheat Indication of the Green Hydraulic System

1. Possible Causes

- RELIEF VALVE G SYS (1063GM)
- LP FILTER (1002GM)
- HP FILTER G (1048GM)
- CHECK VALVE G (1059GM)
- CHECK VALVE G (1022GM)
- FILTER-ENG PUMP CASE DRAIN (1084GM)
- TEMP TRANSM SWITCH (1381GR)
- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- R - SAFETY VALVE-L/G SYS ISOLATION (49GA)
- R - SEL VALVE-L/G (40GA)
- R - SEL VALVE-L/G DOORS (41GA)
- R - PTU (1088GM)
- FIRE-S.-O.V. (1046GK)
- VALVE-G PUMP FIRE, ENG 1 (1046GK)
- internal leakage
- TEMP TRANSM SWITCH-connector plug (1381GR-A)
- RELAY-G RSVR OVHT FAULT (1708GK)

2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE	QTY	DESIGNATION
No specific	1	OHMMETER MODEL 260

B. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-280-001	Check of the Internal Leakage of the Green Hydraulic System
AMM 29-00-00-280-004	Check of the Internal Leakage of the Power Transfer Unit (PTU)
AMM 29-00-00-280-006	Check of the Green or Yellow Hydraulic System after Operation in a Possible Cavitation Condition of the Engine Pump

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REFERENCE	DESIGNATION
AMM 29-00-00-910-003	General Removal and Installation Procedure of the Check Valves in the Hydraulic Systems
AMM 29-10-00-710-001	Operational Check of Hydraulic Fire Shut Off Valves and Associated Indicating System
AMM 29-11-32-000-001	Removal of the Pressure Relief Valve of the Green Hydraulic System (1063GM)
AMM 29-11-32-400-001	Installation of the Pressure Relief Valve of the Green Hydraulic System (1063GM)
AMM 29-11-43-610-040	Servicing of the Engine-Pump Case-Drain Filter (1084GM)
AMM 29-11-44-610-001	Servicing of the LP-Filter (1002GM)
AMM 29-11-45-610-001	Servicing of the HP-Filter 1048GM
AMM 29-33-11-000-001	Removal of the Temperature Transmitter (1381GR)
AMM 29-33-11-400-001	Installation of the Temperature Transmitter (1381GR)
AMM 31-50-00-710-001	Ground Scanning of the Central Warning System
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 31-60-00-860-001	EIS Start Procedure
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	Engine Shutdown
ASM 29-11/01	
ASM 29-33/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

B. Test

WARNING : PUT THE SAFETY DEVICES AND THE WARNING NOTICES IN POSITION BEFORE YOU START A TASK ON OR NEAR:

- THE FLIGHT CONTROLS
- THE FLIGHT CONTROL SURFACES
- THE LANDING GEAR AND THE RELATED DOORS
- COMPONENTS THAT MOVE.

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

(1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).

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- R (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
R (Ref. AMM TASK 31-60-00-860-001).
- (3) Do an Engine Automatic Start to pressurize the Green hydraulic system
(Ref. AMM TASK 71-00-00-710-003).
- (4) Operate the sidestick for ailerons, spoilers and elevators at full
travel for 5 min.
- (5) Operate the rudder pedals at full travel for 5 min.
- (6) Operate the flap and slat control lever at full travel for 5 min.

4. Fault Isolation

A. If the test gives:

- R - The message HYD G RSVR OVHT on the upper ECAM DU
R - The PTU P/BSW FAULT light on panel 40VU
R - The GREEN ENG 1 PUMP P/BSW FAULT light on panel 40VU
R - The OVHT flag on the HYD page of the lower ECAM DU.

R **NOTE** : The fault warning system shows, that the temperature is more than
R 95 +2.2 -2.2 deg.C (203.00 +3.96 -3.96 deg.F). This
R
R was detected by the temperature (TEMP) transducers (XDCRs) and the
R thermal switch of the reservoir (RSVR) TEMP sensor FIN 1381GR.

R

- R (1) Do a check of the internal leakage of the Green hydraulic system
R (Ref. AMM TASK 29-00-00-280-001) and the PTU (Ref. AMM TASK 29-00-00-
280-004).

- R (a) If the internal leakage is more than permitted:
R - Examine the system to find the defective component
R - Replace or repair the defective component.

- R 1 Do a check for local increase of the temperature and unusual
R noise at the components that follow. Replace the components as
R necessary:

- R - RELIEF VALVE G SYS (1063GM) (Ref. AMM TASK 29-11-32-000-001)
R (Ref. AMM TASK 29-11-32-400-001)
R - LP FILTER (1002GM) (Ref. AMM TASK 29-11-44-610-001)
R - HP FILTER G (1048GM) (Ref. AMM TASK 29-11-45-610-001)
R - CHECK VALVE G (1059GM) (Ref. AMM TASK 29-00-00-910-003)
R - CHECK VALVE G (1022GM) (Ref. AMM TASK 29-00-00-910-003).
R

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R (b) If the internal leakage is in the given limits:

R 1 Do a check of the filter elements of the FILTER-ENG PUMP CASE
R DRAIN (1084GM), HP FILTER G (1048GM) and LP FILTER (1002GM).
R

R 2 Replace the filter element as necessary (Ref. AMM TASK 29-11-
R 43-610-040) or (Ref. AMM TASK 29-11-45-610-001) or (Ref. AMM
TASK 29-11-44-610-001).
R

R **B. If the test gives:**

- R - The message HYD G RSVR OVHT on the upper ECAM DU
R - The OVHT flag on the HYD page of the lower ECAM DU.

R **NOTE :** If the P/BSW FAULT lights are not on, the OVHT warning condition
R is only detected by the TEMP XDCRs of the RSVR TEMP sensor FIN
R 1381GR. It is referred to as a spurious warning from the TEMP
R XDCRs or wiring or System Data Acquisition Concentrators (SDACs).

R (1) Do a wiring check:

R (a) Disconnect the TEMP TRANSM SWITCH-connector plug (1381GR-A) from
R the TEMP TRANSM SWITCH (1381GR) and do a visual check of the
R connector's integrity.

R 1 If the connector is not in the correct condition:
R - Replace the TEMP TRANSM SWITCH (1381GR), (Ref. AMM TASK 29-
R 33-11-000-001) (Ref. AMM TASK 29-33-11-400-001) and replace
R the TEMP TRANSM SWITCH-connector plug (1381GR-A).

R (b) Do a check of the continuity between pin A/G and pin A/K of the
R TEMP TRANSM SWITCH (1381GR) (Ref. ASM 29-33/01).

R 1 If there is no continuity, replace the TEMP TRANSM SWITCH
R (1381GR) (Ref. AMM TASK 29-33-11-000-001) (Ref. AMM TASK 29-
R 33-11-400-001).

R (c) Do a check of the continuity between pin A/F and pin A/E of the
R TEMP TRANSM SWITCH (1381GR) (Ref. ASM 29-33/01).

R 1 If there is no continuity, replace the TEMP TRANSM SWITCH
R (1381GR) (Ref. AMM TASK 29-33-11-000-001) (Ref. AMM TASK 29-
R 33-11-400-001).

R (d) Measure the DC resistance between the pins A/G and A/K and
R between the pins A/E and A/F of the TEMP TRANSM SWITCH (1381GR)
R with an OHMMETER MODEL 260.

R 1 If the difference is more than 1.5 Ohm between the two
R measurements, replace the TEMP TRANSM SWITCH (1381GR) (Ref.
R AMM TASK 29-33-11-000-001) (Ref. AMM TASK 29-33-11-400-001).

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- (e) If the fault continues, make sure that the wiring is not connected to GND between the TEMP TRANSM SWITCH-connector plug (1381GR-A), pin E and the SDAC-1 (1WV1) connector AB, pin 12A (Ref. ASM 29-33/01).

1 If the wiring is connected to GND, repair the wiring as necessary.

- (f) If the fault continues, make sure that the wiring is not connected to GND between the TEMP TRANSM SWITCH-connector plug (1381GR-A), pin K and the SDAC-2 (1WV2) connector AB, pin 12A (Ref. ASM 29-33/01).

1 If the wiring is connected to GND, repair the wiring as necessary.

- (g) If the fault continues, do the operational test of the central warning system (Ref. AMM TASK 31-50-00-710-001).

1 If the test gives the maintenance message SDAC1 : G HYD TEMP XMTR 1381GR:

- Replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).

2 If the test gives the maintenance message SDAC2 : G HYD TEMP XMTR 1381GR:

- Replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).

C. If the test gives:

- The message HYD G RSVR OVHT on the upper ECAM DU
- The PTU P/BSW FAULT light on panel 40VU
- The GREEN ENG 1 PUMP P/BSW FAULT light on panel 40VU.

NOTE : If the OVHT flag is not shown on the HYD page of the lower ECAM DU, the OVHT warning condition is only detected by the thermal switch of the RSVR TEMP sensor FIN 1381GR. It is referred to as a spurious warning from the thermal switch or wiring or SDACs.

(1) Do a wiring check:

- (a) Do a check of the continuity between pin A/A and pin A/B of the TEMP TRANSM SWITCH (1381GR) (Ref. ASM 29-33/01).

1 If there is continuity, replace the TEMP TRANSM SWITCH (1381GR) (Ref. AMM TASK 29-33-11-000-001) (Ref. AMM TASK 29-33-11-400-001).

2 If there is no continuity, make sure that the wiring is not connected to GND between the TEMP TRANSM SWITCH-connector plug (1381GR-A), pin B and the RELAY-G RSVR OVHT FAULT (1708GK), pin Z (Ref. ASM 29-33/01) (Ref. ASM 29-11/01).

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- a If the wiring is connected to GND, repair the wiring as necessary.
- (b) If the fault continues, make sure that the wiring is not connected to GND between the TEMP TRANSM SWITCH-connector plug (1381GR-A), pin B and the SDAC-1 (1WV1) connector AA, pin 4A (Ref. ASM 29-33/01).
- 1 If the wiring is connected to GND, repair the wiring as necessary.
- (c) If the fault continues, make sure that the wiring is not connected to GND between the TEMP TRANSM SWITCH-connector plug (1381GR-A), pin B and the SDAC-2 (1WV2) connector AA, pin 4A (Ref. ASM 29-33/01).
- 1 If the wiring is connected to GND, repair the wiring as necessary.
- (d) If the fault continues, do the operational test of the central warning system (Ref. AMM TASK 31-50-00-710-001).
- 1 If the test gives the maintenance message SDAC1 : G HYD TEMP XMTR 1381GR:
- Replace the SDAC-1 (1WV1), (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).
- 2 If the test gives the maintenance message SDAC2 : G HYD TEMP XMTR 1381GR:
- Replace the SDAC-2 (1WV2), (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).
- D. If the test gives:
- No messages on the upper and lower ECAM DU
 - No FAULT lights on the panel 40VU.

R (1) Do a check of the internal leakage of the Green hydraulic system
R (Ref. AMM TASK 29-00-00-280-001).

R (a) If the internal leakage is more than permitted:
R - Examine the system to find the defective component
R - Replace or repair the defective component.
R - Do a check for local increase of the temperature and unusual
R noise of SAFETY VALVE-L/G SYS ISOLATION (49GA), SEL VALVE-L/G
R (40GA) and SEL VALVE-L/G DOORS (41GA).
R - Do a test for internal leakage of the PTU (1088GM) (Ref. AMM
R TASK 29-00-00-280-004).

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- R (2) Do the operational test of the VALVE-G PUMP FIRE, ENG 1 FIRE-S.-O.V. (1046GK) (Ref. AMM TASK 29-10-00-710-001).

NOTE : If the VALVE-G PUMP FIRE, ENG 1 FIRE-S.-O.V. (1046GK) is not in the fully open position, this can be the cause of an overheat of the hydraulic system.

- R (3) If the operational test gives an unsatisfactory operation of the VALVE-G PUMP FIRE, ENG 1 FIRE-S.-O.V. (1046GK), replace the VALVE-G PUMP FIRE, ENG 1 FIRE-S.-O.V. (1046GK):

- R (4) Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

E. When the VALVE-G PUMP FIRE, ENG 1 (1046GK) was not the cause of the malfunction:

- Do the test as given in Para. 3. B. to make sure that operation is correct (no message shown).

5. Close-up

A. Aircraft Maintenance Configuration

- (1) Stop the Engine (Ref. AMM TASK 71-00-00-710-028).
- (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 29-11-00-810-803

Loss of the Correct Quantity in the Green Hydraulic Reservoir

1. Possible Causes

- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- LOW LEVEL SWITCH
- wiring
- QUANTITY INDICATOR - TRANSMITTER
- hydraulic lines

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
31-54-00-810-833	Loss of the GREEN RSVR QTY Input of the SDAC 1
31-54-00-810-834	Loss of the GREEN RSVR QTY Input of the SDAC 2
AMM 12-32-28-281-001	Drain Water Content
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 29-00-00-280-001	Check of the Internal Leakage of the Green Hydraulic System
AMM 29-00-00-280-006	Check of the Green or Yellow Hydraulic System after Operation in a Possible Cavitation Condition of the Engine Pump
AMM 29-00-00-790-001	Check of the External Leaks of the Hydraulic Components
AMM 29-11-41-000-002	Removal of the Quantity Indicator of the Green Hydraulic Reservoir
AMM 29-11-41-000-003	Removal of the Low Level Switch of the Green Hydraulic Reservoir
AMM 29-11-41-400-002	Installation of the Quantity Indicator of the Green Hydraulic Reservoir
AMM 29-11-41-400-003	Installation of the Low Level Switch of the Green Hydraulic Reservoir
AMM 29-31-00-710-001	Functional Check of Reservoir Low Level Warning
AMM 31-60-00-860-001	EIS Start Procedure
ASM 29-11/01	
ASM 29-31/01	
ASM 29-31/02	

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
121VU	HYDRAULIC/LOW/LVL/IND	1832GQ	N32
121VU	HYDRAULIC/HYD/QTY/IND	1831GQ	P35
121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the upper ECAM DU, the lower ECAM DU and panel 40VU.

4. Fault Isolation

A. If the Fault Confirmation gives:

- the message HYD G RSVR LO LVL on the upper ECAM DU,
 - the contents indication (shows low-fluid level) on the lower ECAM DU in amber,
 - the PTU P/BSW FAULT on panel 40VU,
 - the GREEN ENG 1 PUMP P/BSW FAULT on panel 40VU:
- do a visual check of the quantity shown on the mechanical indicator of the Green reservoir.
- (1) If the quantity shown is more than or equal to 3.5 l (0.9245 USgal):
 - do a check for 28 VDC between:
LOW LEVEL SWITCH connector B/A and connector B/C (Ref. ASM 29-31/02).
 - (a) If there is no 28 VDC:
 - do a check of the wiring between:
LOW LEVEL SWITCH connector B/C and CB (1832GQ) and repair the wiring as necessary (Ref. ASM 29-31/02).
 - (b) If there is 28VDC:
 - replace the LOW LEVEL SWITCH (Ref. AMM TASK 29-11-41-000-003) and (Ref. AMM TASK 29-11-41-400-003).

EFF : ALL

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- (c) If the fault continues:
- make sure that the wiring is not connected to GND between:
LOW LEVEL SWITCH connector B/B and DIODE (1158VD) connector 11
(Ref. ASM 29-11/01) and (Ref. ASM 29-31/02).
- 1 If the wiring is connected to GND:
- repair the wiring as necessary.
- (d) If the fault continues:
- replace the QUANTITY INDICATOR - TRANSMITTER (Ref. AMM TASK 29-11-41-000-002) and (Ref. AMM TASK 29-11-41-400-002).

(2) If the quantity shown is less than 3.5 l (0.9245 USgal):

- (a) Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- (b) Make sure that the drain valve of the hydraulic reservoir has no leaks.

- 1 If the drain valve has a leak:
- replace the drain valve.
- 2 If the drain valve has no leaks:
- do a check of the hydraulic lines and the components for leaks (Ref. AMM TASK 29-00-00-790-001) and repair them.
- 3 If the fault continues:
- do a check of the internal leakage of the Green hydraulic system (Ref. AMM TASK 29-00-00-280-001).
- a If the internal leakage rate is too high:
- repair the defective component.
- b If the fault continues, or you can not find a defective component:
- remove a fuel sample from each water drain-valve (Ref. AMM TASK 12-32-28-281-001),
 - do a check for contamination of the fuel with hydraulic fluid after each removal of a fuel sample.
- c If you find hydraulic fluid contamination in one or more fuel samples:
- do a check of the hydraulic lines and components in the applicable tank area for leaks and repair them.

EFF : ALL

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B. If the Fault Confirmation gives:

- the message HYD G RSVR LO LVL on the upper ECAM DU,
- the contents indication (shows low fluid level) on the lower ECAM DU in amber:
- Do a visual check of the quantity shown on the mechanical indicator of the Green reservoir.

(1) If the quantity shown is more than or equal to 2.6 l (0.6868 USgal):

- (a) Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).**

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- (b) Do a check for 26 VAC between:**
QUANTITY INDICATOR - TRANSMITTER connector A/D and connector A/E (Ref. ASM 29-31/01).

1 If there is no 26 VAC:

- do a check of the wiring between:
QUANTITY INDICATOR - TRANSMITTER connector A/D and CB (1831GQ) and repair the wiring as necessary (Ref. ASM 29-31/01).

2 If the fault continues:

- do a check for a ground signal between:
QUANTITY INDICATOR - TRANSMITTER connector A/E and ground (Ref. ASM 29-31/01).

a If there is no ground signal:

- repair the wiring between **QUANTITY INDICATOR - TRANSMITTER connector A/E and ground (Ref. ASM 29-31/01).**

(c) If the fault continues:

- replace the **QUANTITY INDICATOR - TRANSMITTER (Ref. AMM TASK 29-11-41-000-002) and (Ref. AMM TASK 29-11-41-400-002).**

(d) If the fault continues:

- do the troubleshooting procedure for the loss of the **GREEN RSVR QTY input of the SDAC-1 (1WV1) (Ref. TASK 31-54-00-810-833).**

1 If the fault continues:

- do the troubleshooting procedure for the loss of the **GREEN RSVR QTY input of the SDAC-2 (1WV2) (Ref. TASK 31-54-00-810-834).**

EFF : ALL

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(2) If the quantity shown is less than 2.6 l (0.6868 USgal):

- (a) Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- (b) Do a check for 28 VDC between:
LOW LEVEL SWITCH connector B/A and connector B/C (Ref. ASM 29-31/02).

1 If there is no 28 VDC:

- do a check of the wiring between:
LOW LEVEL SWITCH connector B/C and CB (1832GQ) and repair the wiring as necessary (Ref. ASM 29-31/02).

2 If there is 28VDC:

- replace the LOW LEVEL SWITCH (Ref. AMM TASK 29-11-41-000-003) and (Ref. AMM TASK 29-11-41-400-003).

3 If the fault continues:

- make sure that the wiring is not connected to GND between:
LOW LEVEL SWITCH connector B/B and DIODE (1158VD) connector 11 (Ref. ASM 29-11/01) and (Ref. ASM 29-31/02).

a If the wiring is connected to GND:

- repair the wiring as necessary.

(3) Make sure that the drain valve of the hydraulic reservoir has no leaks.

(a) If the drain valve has a leak:

- replace the drain valve.

(b) If the drain valve has no leaks:

- do a check of the hydraulic lines and components for leaks (Ref. AMM TASK 29-00-00-790-001) and repair them.

(c) If the fault continues:

- do a check of the internal leakage of the Green hydraulic system (Ref. AMM TASK 29-00-00-280-001).

1 If the internal leakage rate is too high:

- repair the defective component.

2 If the fault continues, or you can not find a defective component:

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- remove a fuel sample from each water drain-valve (Ref. AMM TASK 12-32-28-281-001),
- do a check for contamination of the fuel with hydraulic fluid after each removal of a fuel sample.

- a If you find hydraulic fluid contamination in one or more fuel samples:
 - do a check of the hydraulic lines and components in the applicable tank area for leaks and repair them.

C. If the Fault Confirmation gives:

- the message HYD G RSVR LO LVL on the upper ECAM DU,
- the PTU P/BSW FAULT on panel 40VU,
- the GREEN ENG 1 PUMP P/BSW FAULT on panel 40VU,
- do a visual check of the quantity shown on the mechanical indicator of the Green reservoir.

(1) If the quantity shown is less than 2.6 l (0.6868 USgal):

- (a) Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- (b) Replace the QUANTITY INDICATOR - TRANSMITTER (Ref. AMM TASK 29-11-41-000-002) and (Ref. AMM TASK 29-11-41-400-002).

(2) Make sure that the drain valve of the hydraulic reservoir has no leaks.

- (a) If the drain valve has a leak:
 - replace the drain valve.
 - (b) If the drain valve has no leaks:
 - do a check of the hydraulic lines and the components for leaks (Ref. AMM TASK 29-00-00-790-001) and repair them.
 - (c) If the fault continues:
 - do a check of the internal leakage of the Green hydraulic system (Ref. AMM TASK 29-00-00-280-001).
- 1 If the internal leakage rate is too high:
 - repair the defective component.
 - 2 If the fault continues, or you can not find a defective component:

EFF : ALL

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- remove a fuel sample from each water drain-valve (Ref. AMM TASK 12-32-28-281-001),
 - do a check for contamination of the fuel with hydraulic fluid after each removal of a fuel sample.
- a If you find hydraulic fluid contamination in one or more fuel samples:
- do a check of the hydraulic lines and components in the applicable tank area for leaks and repair them.
- D.** Do the operational test of the fluid low level warning (Ref. AMM TASK 29-31-00-710-001) to make sure that the operation is correct (no message shown).

EFF : ALL

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TASK 29-11-00-810-804

Loss of the Pressure of the ENG 1 Pump

1. Possible Causes

- PUMP-G, ENG 1 (1030GK)
- PRESS SW-G PUMP, ENG 1 (1074GK)
- ENG 1 PUMP P/BSW (1705GK)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 29-00-00-280-006	Check of the Green or Yellow Hydraulic System after Operation in a Possible Cavitation Condition of the Engine Pump
AMM 29-11-00-710-001	Operational Test of the Green Hydraulic System
R AMM 29-11-17-000-041	Removal of the Engine-Pump Pressure Switch (1074GK)
R AMM 29-11-17-400-041	Installation of the Engine-Pump Pressure Switch (1074GK)
R AMM 29-11-51-000-041	Removal of the Green Engine Pump (1030GK)
R AMM 29-11-51-400-041	Installation of the Green Engine Pump (1030GK)
ASM 29-11/01	

3. Fault Confirmation

- A. Do the operational test of the Green hydraulic system (Ref. AMM TASK 29-11-00-710-001).

4. Fault Isolation

- R A. If the test gives:
- R - the message HYD G ENG 1 PUMP LO PR on the upper ECAM DU,
- R - the LO flag of the Green hydraulic system on the HYD page of the lower
- R ECAM DU,
- R - the PTU running indication on the HYD page of the lower ECAM DU,
- R **NOTE** : The PRESS SW-G PUMP, ENG 1 (1074GK) sends a low pressure signal to
- R the ECAM system. This causes the PTU running indication on the
- R lower ECAM DU, although the PTU does not operate (non system
- R failure).
- R - the Green ENG 1 PUMP P/BSW FAULT light on panel 40VU,
- R - look on the HYD page of the lower ECAM DU and do a check of the
- R pressure of the Green system.

EFF : ALL

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- R (1) If the pressure is less than 1667 psi (114.9355 bar):
R - do a check on the lower ECAM DU to make sure that the engine pump
R fire valve 1046GK is not closed.
- R (a) If the engine pump fire valve is closed:
R - Do a check of the engine pump for a possible cavitation
R condition (Ref. AMM TASK 29-00-00-280-006).
- R **NOTE** : A cavitation condition of the engine pump is possible when
R the engine pump operates with the engine pump fire valve
R closed (if you set the ENG 1 (2) FIRE pushbutton on the
R Eng/APU fire panel), or with the reservoir below the low
R level (ECAM indication).
- R - Push the ENG 1 FIRE P/BSW on panel 1WD (ENG/APU FIRE section on
R the overhead panel 20VU) to open the engine pump fire valve
R 1046GK.
- R (b) If the engine pump fire valve is not closed:
R - do a check for 28 VDC between:
R PUMP-G, ENG 1 (1030GK) connector A/1 and PUMP-G, ENG 1 (1030GK)
R connector A/3 (Ref. ASM 29-11/01).
- R 1 If there is no 28 VDC:
- R a Replace the PUMP-G, ENG 1 (1030GK) (Ref. AMM TASK 29-11-51-
R 000-041) and (Ref. AMM TASK 29-11-51-400-041).
- R b Do a check of the engine pump for a possible cavitation
R condition (Ref. AMM TASK 29-00-00-280-006).
- R **NOTE** : A cavitation condition of the engine pump is
R possible when the engine pump operates with the
R engine pump fire valve closed (if you set the ENG 1
R (2) FIRE pushbutton on the Eng/APU fire panel), or
R with the reservoir below the low level (ECAM
R indication).
- R 2 If there is 28 VDC:
R - replace the ENG 1 PUMP P/BSW (1705GK).
- R 3 If the fault continues:
R - do a check of the wiring between:
R the PUMP-G, ENG 1 (1030GK) connector A/3 and the CB (1701GK)
R and repair the wiring as necessary (Ref. ASM 29-11/01).
- R (2) If the pressure is more than 1812 psi (124.9329 bar):
R - do a check for continuity between:
R PRESS SW-G PUMP, ENG 1 (1074GK) connector A/1 and A/2 (Ref. ASM 29-
R 11/01).

EFF : ALL

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- R (a) If there is continuity:
R - replace the PRESS SW-G PUMP, ENG 1 (1074GK). (Ref. AMM TASK 29-
R 11-17-000-041) and (Ref. AMM TASK 29-11-17-400-041).
- R (b) If there is no continuity:
R - make sure that the wiring is not connected to GND between:
R PRESS SW-G PUMP, ENG 1 (1074GK) connector A/1 and the DIODE
R (1158VD) connector 14 (Ref. ASM 29-11/01).
- R 1 If the wiring is connected to GND:
R - repair the wiring as necessary.

B. Do the test as given in Para. 3. A. to make sure that operation is correct.

EFF : ALL

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TASK 29-11-00-810-805

Loss of the System Pressure of the Green Hydraulic System

1. Possible Causes

- PRESS SW-FLT CTL, G (1151GN)
- SOL VALVE-LEAKAGE MEAS, G (1150GP)
- MANIFOLD,HP (1111GM)
- P/BSW (1882GP)
- wiring
- accumulator

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 28-11-42-400-001	Installation of the Clack Valve (RIB 2)
AMM 29-10-00-863-001	Pressurize the Green Hydraulic System
AMM 29-10-00-864-001	Depressurize the Green Hydraulic System
AMM 29-11-14-000-001	Removal of the HP Manifold of the Green Hydraulic System
AMM 29-11-14-400-001	Installation of the HP Manifold of the Green Hydraulic System
AMM 29-11-42-000-001	Removal of the Green Power Accumulator
AMM 29-11-42-400-001	Installation of the Green Power Accumulator
AMM 29-19-51-000-001	Removal of the Leakage-Measurement Solenoid Valve (1150GP)
AMM 29-19-51-400-001	Installation of the Leakage-Measurement Solenoid Valve (1150GP)
AMM 29-23-00-860-001	Disconnection of the Isolation Coupling of the Power Transfer Unit (PTU)
AMM 29-23-00-860-002	Connection of the Isolation Coupling of the Power Transfer Unit (PTU)
AMM 29-23-00-863-001	Pressurize the Green Hydraulic System from the Yellow Hydraulic System through the PTU with the Electric Pump
AMM 29-23-00-864-001	Depressurize the Green and Yellow Hydraulic Systems after Operation of the PTU
AMM 29-32-12-000-001	Removal of the System Pressure Switch (1151GN)
AMM 29-32-12-400-001	Installation of the System Pressure Switch (1151GN)
ASM 29-19/01	
ASM 29-32/01	
ASM 31-52/02	

R EFF : ALL

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
121VU	HYDRAULIC/SOL VALVES/G/Y/B/LEAK/TST	1881GP	N35
121VU	HYDRAULIC/G HYD/PUMP ENG1/CTL	1701GK	R35
121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

B. Aircraft Maintenance Configuration

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.

- (1) Disconnect the isolation coupling of the PTU (Ref. AMM TASK 29-23-00-860-001).
- (2) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (3) On panel 50VU, make sure that the HYD/LEAK MEASUREMENT VALVES/G pushbutton switch is set to on (OFF light not on).
- (4) Pressurize the Green hydraulic system from a ground supply or through the PTU (Ref. AMM TASK 29-10-00-863-001) or (Ref. AMM TASK 29-23-00-863-001).
- (5) Look for fault indications on the lower ECAM DU.

4. Fault Isolation

R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

A. Fault Confirmation

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) If the fault confirmation gives the system name and the flow arrow of the Green hydraulic system in amber (on the lower ECAM DU):
 - do a check of the system pressure on the lower ECAM DU and on the system accumulator gage (1072GM).

EFF : ALL

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- (2) If the system pressure is more than 1450 psi:
- use the rudder pedals to operate the rudder.
- (a) If the rudder operates:
- do a check for continuity between:
the PRESS SW-FLT CTL, G (1151GN) connector A/A and the
connector A/C (with the hydraulic system pressurized) (Ref. ASM
29-32/01).
- 1 If there is continuity:
- replace the PRESS SW-FLT CTL, G (1151GN) (Ref. AMM TASK 29-
32-12-000-001) and (Ref. AMM TASK 29-32-12-400-001).
- 2 If there is no continuity:
- do a check and repair the wiring between the:
PRESS SW-FLT CTL, G (1151GN) connector A/C and FWC-1/ FWC-2
connector AA/06C (Ref. ASM 29-32/01) and (Ref. ASM 31-
52/02).
- (b) If the rudder does not operate:
- do a check for 28 VDC at the:
SOL VALVE-LEAKAGE MEAS, G (1150GP) connector A/A and the
connector A/B (Ref. ASM 29-19/01).
- NOTE** : There is usually 0 VDC.
- 1 If there is 28 VDC:
- do a check of the wiring between:
the P/BSW (1882GP) connector C2 and the connector C3 (Ref.
ASM 29-19/01).
- a If there is continuity:
- replace the P/BSW (1882GP).
- b If there is no continuity:
- do a check and repair the wiring between the:
P/BSW (1882GP) connector C3 and the CB (1881GP) (Ref. ASM
29-19/01).
- (c) If the fault continues:
- replace the SOL VALVE-LEAKAGE MEAS, G (1150GP) (Ref. AMM TASK
29-19-51-000-001) and (Ref. AMM TASK 29-19-51-400-001).
- (3) If the pressure is less than 1450 psi:
- replace the accumulator (Ref. AMM TASK 29-11-42-000-001) and (Ref.
AMM TASK 29-11-42-400-001)
 - do a check for external leakage and repair the components as
necessary.

R ****ON A/C 209-225, 247-275, 286-299, 429-475, 481-499, 503-549, 551-599,**
R **703-749,**

A. Fault Confirmation

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

(1) If the fault confirmation gives the system name and the flow arrow of the Green hydraulic system in amber (on the lower ECAM DU):
- do a check of the system pressure on the lower ECAM DU and on the system accumulator gage (1072GM).

(2) If the system pressure is more than 1450 psi:
- use the rudder pedals to operate the rudder.

(a) If the rudder operates:

- do a check for continuity between the:
PRESS SW-FLT CTL, G (1151GN) connector A/A and the connector A/C (with the hydraulic system pressurized) (Ref. ASM 29-32/01).

1 If there is continuity:

- replace the PRESS SW-FLT CTL, G (1151GN) (Ref. AMM TASK 29-32-12-000-001) and (Ref. AMM TASK 29-32-12-400-001).

2 If there is no continuity:

- do a check and repair the wiring between the:
PRESS SW-FLT CTL, G (1151GN) connector A/C and FWC-1/ FWC-2 connector AA/06C (Ref. ASM 29-32/01) and (Ref. ASM 31-52/02).

(b) If the rudder does not operate:

- do a check for 28 VDC at the:
SOL VALVE-LEAKAGE MEAS, G (1160GP) connector A/A and the connector A/B (Ref. ASM 29-19/01).

NOTE : There is usually 0 VDC.

1 If there is 28 VDC:

- do a check of the wiring between:
the P/BSW (1882GP) connector C2 and the connector C3 (Ref. ASM 29-19/01).

a If there is continuity:

- replace the P/BSW (1882GP).

b If there is no continuity:

- do a check and repair the wiring between the:
P/BSW (1882GP) connector C3 and the CB (1881GP) (Ref. ASM 29-19/01).

R **EFF : 209-225, 247-275, 286-299, 429-475,**
481-499, 503-549, 551-599, 703-749,

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(c) If the fault continues:

- replace the MANIFOLD,HP (1111GM) (Ref. AMM TASK 29-11-14-000-001) and (Ref. AMM TASK 29-11-14-400-001).

(3) If the pressure is less than 1450 psi:

- replace the accumulator (Ref. AMM TASK 29-11-42-000-001) and (Ref. AMM TASK 28-11-42-400-001)
- do a check for external leakage and repair the components as necessary.

****ON A/C ALL**

B. Do the fault confirmation procedure as given in Para. 3. to make sure that the operation is correct.

5. Close-up

A. Aircraft Maintenance Configuration

- (1) De-pressurize the Green hydraulic system (Ref. AMM TASK 29-10-00-864-001) or (Ref. AMM TASK 29-23-00-864-001).
- (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).
- (3) Connect the isolation coupling of the PTU (Ref. AMM TASK 29-23-00-860-002).

EFF : ALL

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TASK 29-11-00-810-806

Symbol of the ENG 1 Pump on the ECAM Lower DU shows the incorrect Position

1. Possible Causes

- PRESSURE SWITCH-ENGINE PUMP 1074GK

2. Job Set-up Information

- A. Referenced Information

REFERENCE**DESIGNATION**

AMM 29-11-00-710-001	Operational Test of the Green Hydraulic System
AMM 29-11-17-000-041	Removal of the Engine-Pump Pressure Switch (1074GK)
AMM 29-11-17-400-041	Installation of the Engine-Pump Pressure Switch (1074GK)

3. Fault Confirmation

- A. Do the operational test of the Green hydraulic system (Ref. AMM TASK 29-11-00-710-001).

4. Fault Isolation

- A. If during the test the Eng 1 pump symbol on the HYD page of the lower ECAM DU shows LO in amber color and the system pressure is correct:
 - replace the PRESSURE SWITCH-ENGINE PUMP 1074GK (Ref. AMM TASK 29-11-17-000-041) and (Ref. AMM TASK 29-11-17-400-041).
- B. If after the test the Eng 1 pump symbol on the HYD page of the lower ECAM DU shows IN-Line in green color:
 - replace the PRESSURE SWITCH-ENGINE PUMP 1074GK (Ref. AMM TASK 29-11-17-000-041) and (Ref. AMM TASK 29-11-17-400-041).
- C. Do the test given in Para. 3

EFF : ALL

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TASK 29-11-00-810-808

Fault of the System Pressure Indication of the Green Hydraulic System on the ECAM Lower DU

1. Possible Causes

- **PRESSURE TRANSDUCER-HYDRAULIC (1065GN)**

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 29-23-00-863-001	Pressurize the Green Hydraulic System from the Yellow Hydraulic System through the PTU with the Electric Pump
AMM 29-23-00-864-001	Depressurize the Green and Yellow Hydraulic Systems after Operation of the PTU
AMM 29-32-11-000-001	Removal of the Hydraulic Pressure Transducer (1065GN)
AMM 29-32-11-400-001	Installation of the Hydraulic Pressure Transducer (1065GN)

3. Fault Confirmation

A. Test

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) Pressurize the Green hydraulic system with the PTU (Ref. AMM TASK 29-23-00-863-001).
- (2) Operate the rudder pedals.
- (3) Make sure that the rudder operates.
- (4) De-pressurize the Green hydraulic System (Ref. AMM TASK 29-23-00-864-001).

4. Fault Isolation

- A. If, during the test, the operation of the rudder is correct, but the HYD page on the ECAM lower DU shows for the Green hydraulic system the subsequent condition:**
- the system pressure indication in amber (less than 1450 PSI),
 - the system pressure identification (GREEN) in white,
 - the system arrow in green.

EFF : ALL

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- replace the PRESSURE TRANSDUCER-HYDRAULIC (1065GN) (Ref. AMM TASK 29-32-11-000-001) and (Ref. AMM TASK 29-32-11-400-001).

B. Do the test given in Para. 3

R

EFF : ALL

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TASK 29-11-00-810-809

Green System Pressure Indication on ECAM DU is out of Tolerance

1. Possible Causes

- PUMP-G, ENG 1 (1030GK)
- internal leakage

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 12-12-29-611-001	Fill the Hydraulic Fluid Reservoir with a Hand Pump
AMM 12-12-29-611-002	Fill the Hydraulic Fluid Reservoir with a Hydraulic Service Cart
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-280-001	Check of the Internal Leakage of the Green Hydraulic System
AMM 29-00-00-280-006	Check of the Green or Yellow Hydraulic System after Operation in a Possible Cavitation Condition of the Engine Pump
AMM 29-11-51-000-040	Removal of the Green Engine Pump (1030GK)
AMM 29-11-51-400-040	Installation of the Green Engine Pump (1030GK)
AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM 29-23-00-863-001	Pressurize the Green Hydraulic System from the Yellow Hydraulic System through the PTU with the Electric Pump
AMM 29-23-00-864-001	Depressurize the Green and Yellow Hydraulic Systems after Operation of the PTU
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure
AMM 71-00-00-710-001	Dry Motoring Check

3. Fault Confirmation**A. Make sure that this(these) circuit breaker(s) is(are) closed:**

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/SOL VALVES/G/Y/B/LEAK/TST	1881GP	N35
121VU	HYDRAULIC/G HYD/PUMP ENG1/CTL	1701GK	R35
121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, press the HYD pushbutton. Make sure that the HYD page is shown on the ECAM lower Display Unit (DU).
- (4) Make sure that the ECAM does not show any of these conditions:
 - low air pressure in the Green reservoir,
 - low fluid level in the Green reservoir.
- (5) If necessary, pressurize the reservoir (Ref. AMM TASK 29-14-00-614-002).
- (6) If necessary, add fluid to the reservoir (Ref. AMM TASK 12-12-29-611-001) or (Ref. AMM TASK 12-12-29-611-002).
- (7) On the overhead panel 40VU, press the PTU/AUTO P/BSW (the OFF light comes on).
- (8) On the overhead panel 40VU, make sure that the GREEN/ENG 1 PUMP P/BSW is set to on (FAULT and OFF lights are off).

C. Test

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) Dry-motor the left (No. 1) engine (Ref. AMM TASK 71-00-00-710-001).
- (2) Look for the Green hydraulic system pressure indication on the lower ECAM DU.

4. Fault Isolation**A. If the fault confirmation gives:**

- a system pressure indication of 2750 psi on the lower ECAM DU:

(1) On panel 50VU, set the HYD/LEAK MEASUREMENT VALVES/G pushbutton switch to on (OFF light not on).

(a) If the system pressure increases:

- 1 Stop the dry-motoring of the left (No. 1) engine.
- 2 Do a check of the internal leakage of the Green hydraulic system (Ref. AMM TASK 29-00-00-280-001) and do the necessary actions.

(b) If the system pressure does not increase:

- 1 Pressurize the Green hydraulic system from the Yellow hydraulic system through the PTU with the electric pump (Ref. AMM TASK 29-23-00-863-001).
- 2 Look for the system pressure indication on the lower ECAM DU.

(c) If the system pressure increases to more than 2750 psi:

- 1 Depressurize the Green hydraulic system (Ref. AMM TASK 29-23-00-864-001).
- 2 Replace the PUMP-G, ENG 1 (1030GK) (Ref. AMM TASK 29-11-51-000-040) and (Ref. AMM TASK 29-11-51-400-040).
- 3 Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

(d) If the fault continues, obey the subsequent causes:

- The internal leakage in the Green hydraulic system is a bit higher than usual (special for older A/C).
- There is an additional ECAM tolerance of +/- 50psi, the system pressure indication on the ECAM is in 50 psi steps.

B. Do the fault confirmation procedure as given in Para. 3. to make sure that operation is correct.

EFF : ALL

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5. Close-up

A. Put the aircraft back to the serviceable condition.

(1) Do the EIS stop procedure

(Ref. AMM TASK 31-60-00-860-002).

(2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TASK 29-11-00-810-810

Green Reservoir Pressure is out of Tolerance

1. Possible Causes

- PRESSURE REDUCING VALVE

2. Job Set-up Information

- A. Fixtures, Tools, Test and Support Equipment

REFERENCE	QTY	DESIGNATION
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No specific		circuit breaker(s) safety clip(s)
No specific		warning notices

- B. Referenced Information

REFERENCE	DESIGNATION
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AMM 12-32-29-281-001	Hydraulic Fluid Sample of Green, Blue and Yellow Systems for Analysis
AMM 29-00-00-864-001	Put the Related Hydraulic System in the Depressurized Configuration before Maintenance Action
AMM 29-14-00-720-001	Functional Test of the Pressurizing System of the Hydraulic Reservoirs
AMM 29-14-43-000-001	Removal of the Pressure Reducing Valve
AMM 29-14-43-400-001	Installation of the Pressure Reducing Valve
AMM 32-12-00-010-001	Open the Main Gear Doors for Access

3. Fault Confirmation

- A. Open, safety and tag this(these) circuit breaker(s):

PANEL	DESIGNATION	IDENT.	LOCATION
	49VU HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
	121VU HYDRAULIC/HYD POWER/Y	3803GX	N30
	123VU B HYD/ELEC PUMP	2701GJ	AB09
	123VU Y HYD/ELEC/PUMP	3802GX	AB06
	123VU Y HYD/ELEC/ELEC PUMP/NORM	3801GX	AB03

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Depressurize the Green, Yellow and Blue hydraulic systems, but not the reservoirs (Ref. AMM TASK 29-00-00-864-001).
- (2) Put the warning notices in position to tell persons not to pressurize the hydraulic systems:
 - in the flight compartment on the hydraulic section 40VU of the overhead panel,
 - on the ground service panels of the Green, Yellow and Blue hydraulic systems.
- (3) Open the access doors 196BB and 197FB.
- (4) Open the right main door of the main landing gear (Ref. AMM TASK 32-12-00-010-001).
- (5) Read the pressure gages (1383GM, 2383GM, 3383GM) on each hydraulic reservoir.
- (6) If the reservoir pressure indication is more than 52 +2 -2 psi (3.5852 +0.1378 -0.1378 bar):
 - (a) Do the functional test of the pressurizing system of the hydraulic reservoirs (Ref. AMM TASK 29-14-00-720-001).

4. Fault Isolation

- A. If the reservoir pressure increases during the test to more than 50 +2 -2 psi (3.4473 +0.1378 -0.1378 bar):
 - (1) Replace the PRESSURE REDUCING VALVE (Ref. AMM TASK 29-14-43-000-001) and (Ref. AMM TASK 29-14-43-400-001).
 - (2) Take a fluid sample from each hydraulic system to make sure that the contamination of the hydraulic fluid is in the approved values (Ref. AMM TASK 12-32-29-281-001).
- B. Do the functional test of the pressurizing system of the hydraulic reservoirs again to make sure that the function is correct (Ref. AMM TASK 29-14-00-720-001).

5. Close-up

- A. Remove the safety clip(s) and the tag(s) and close this(these) circuit breaker(s):
2701GJ, 2702GJ, 3801GX, 3802GX, 3803GX

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TASK 29-11-00-810-811

FAULT Light of the **GREEN ENG 1 PUMP P/BSW** is **ON**

1. Possible Causes

- **BOARD-ANN LT TEST & INTFC (2LP)**
- **wiring**

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 33-14-00-710-001	Operational Test of the Lights
AMM 33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
AMM 33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
ASM 33-14/05	

3. Fault Confirmation

A. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

- (2) On the overhead panel 40VU, look for the **FAULT** light of the **GREEN/ENG 1 PUMP P/BSW**.

4. Fault Isolation

A. If the Fault Confirmation gives:

- the **GREEN ENG 1 PUMP P/BSW FAULT** on panel 40VU:
- replace the **BOARD-ANN LT TEST & INTFC (2LP)** (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).

EFF : ALL

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(1) If the fault continues:

- do a check and repair the wiring between the:
BOARD-ANN LT TEST & INTFC (2LP) pin A/44 and the
P/BSW-HYD/GREEN/ENG 1 PUMP (1705GK) pin A/7 (Ref. ASM 33-14/05).

B. Do the operational test of the annunciator light test system (Ref. AMM TASK 33-14-00-710-001) to make sure that the operation is correct.

5. Close-up

A. De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

EFF : ALL

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TASK 29-11-00-810-812

Indication of the Hydraulic Fluid Quantity of the Green Reservoir shows High Level

1. Possible Causes

- gas leaks

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
29-11-00-810-801	Loss of the Green Reservoir Pressurization
29-11-00-810-803	Loss of the Correct Quantity in the Green Hydraulic Reservoir
29-11-00-810-813	Indication of the Hydraulic Fluid Quantity of the Green Reservoir shows High or Low Level or fluctuates
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-870-001	Bleeding Procedure of the Green Hydraulic System Upstream of the Engine Pump
AMM 29-00-00-870-002	Bleeding Procedure of the Green Hydraulic System Upstream of the PTU
AMM 29-00-00-870-003	Bleeding Procedure of the Green Hydraulic System Downstream of the Engine Pump
AMM 29-10-00-200-002	Check Reservoir Air Pressure on Reservoir Gauge
AMM 29-10-00-200-003	Check Nitrogen Charge Pressure on the Yellow and Green Main Hydraulic System Accumulators by Reading Gauges
AMM 29-10-00-680-001	Drainage of the Reservoir of the Green Hydraulic System
AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure

EFF : ALL

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
121VU	HYDRAULIC/LOW/LVL/IND	1832GQ	N32
121VU	HYDRAULIC/HYD/QTY/IND	1831GQ	P35
121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the upper ECAM DU, the lower ECAM DU and panel 40VU.

4. Fault Isolation

A. If the Fault Confirmation gives:

- The content indication shows high fluid level on the lower ECAM DU:
 - Do a visual check of the fluid quantity shown on the mechanical indicator (1834GQ) on the ground service panel of the Green hydraulic system.
 - Do a visual check of the fluid quantity shown on the fluid content indicator of the Green reservoir.
 - Do a check of the pressure of the Green system accumulator (Ref. AMM TASK 29-10-00-200-003).
 - Do a check of the pressure of the Green hydraulic reservoir (Ref. AMM TASK 29-10-00-200-002).
- (1) If the three hydraulic fluid quantity indicators show different quantities and the pressures of the accumulator and the reservoir are correct:
 - (a) Do the troubleshooting of the quantity indication system
(Ref. TASK 29-11-00-810-803).

EFF : ALL

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- (2) If the three hydraulic fluid quantity indicators show high level and the pressures of the accumulator and the reservoir are correct:
- (a) Drain the hydraulic fluid until you have the correct fluid quantity in the reservoir (Ref. AMM TASK 29-10-00-680-001).
 - (b) Pressurize the reservoir of the Green hydraulic system (Ref. AMM TASK 29-14-00-614-002).
- (3) If the three hydraulic fluid quantity indicators show high level, the pressure of the accumulator is correct, but the reservoir pressure is less than the permitted tolerance:
- (a) Do a check for external gas leaks on the reservoir and repair the defective components as necessary (Ref. AMM TASK 29-10-00-200-002).
 - (b) If you find no external gas leaks, or the fault continues:
 - 1 Do the troubleshooting for the loss of the reservoir pressurization (Ref. TASK 29-11-00-810-801).
 - 2 Drain the hydraulic fluid until you have the correct fluid quantity in the reservoir (Ref. AMM TASK 29-10-00-680-001).
 - 3 Pressurize the reservoir of the Green hydraulic system (Ref. AMM TASK 29-14-00-614-002).
 - 4 After 5 minutes, read the gage of the fluid quantity indicator of the Green reservoir.
 - a If the difference of the fluid quantity is not more than 2 liter:
 - No further actions are necessary.
 - b If the difference of the fluid quantity is more than 2 liter:
 - Do the bleeding procedures of the Green hydraulic system (Ref. AMM TASK 29-00-00-870-001), (Ref. AMM TASK 29-00-00-870-002) and (Ref. AMM TASK 29-00-00-870-003).
 - (c) If the fault continues:
 - 1 Do the troubleshooting procedure (Ref. TASK 29-11-00-810-813).
- (4) If the three hydraulic fluid quantity indicators show high level, the pressure of the reservoir is correct, but the accumulator pressure is less than the permitted tolerance:
- (a) Do the troubleshooting procedure (Ref. TASK 29-11-00-810-813).

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- B. Do the procedure as given in Para. 3. B. to make sure that the operation of the hydraulic quantity indication is correct.

5. Close-up

- A. Put the aircraft back to the serviceable condition.

- (1) Do the EIS stop procedure
(Ref. AMM TASK 31-60-00-860-002).
- (2) De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

TASK 29-11-00-810-813

Indication of the Hydraulic Fluid Quantity of the Green Reservoir shows High or Low Level or fluctuates

1. Possible Causes

- ACCU-G PWR (1070GM)
- gas leaks

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-870-001	Bleeding Procedure of the Green Hydraulic System Upstream of the Engine Pump
AMM 29-00-00-870-002	Bleeding Procedure of the Green Hydraulic System Upstream of the PTU
AMM 29-00-00-870-003	Bleeding Procedure of the Green Hydraulic System Downstream of the Engine Pump
AMM 29-10-00-200-002	Check Reservoir Air Pressure on Reservoir Gauge
AMM 29-10-00-200-003	Check Nitrogen Charge Pressure on the Yellow and Green Main Hydraulic System Accumulators by Reading Gauges
AMM 29-11-00-710-001	Operational Test of the Green Hydraulic System
AMM 29-11-42-000-001	Removal of the Green Power Accumulator
AMM 29-11-42-400-001	Installation of the Green Power Accumulator
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/LOW/LVL/IND	1832GQ	N32
121VU	HYDRAULIC/HYD/QTY/IND	1831GQ	P35
121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Do the operational test of the Green hydraulic system (Ref. AMM TASK 29-11-00-710-001).
- (5) Look for fault indications on the upper ECAM DU, the lower ECAM DU and panel 40VU.

4. Fault Isolation

A. If the Fault Confirmation gives:

- The content indication shows high fluid level on the lower ECAM DU,
or
 - The content indication shows low fluid level on the lower ECAM DU,
or
 - The content indication fluctuates between high and low fluid level on the lower ECAM DU after pressurization of the hydraulic system during the operational test,
or the subsequent warnings come into view:
 - The HYD G ENG 1 PUMP LO PR on the upper ECAM DU,
 - The LO flag of the Green hydraulic system on the HYD page of the lower ECAM DU,
 - The Green ENG 1 PUMP P/BSW FAULT on panel 40VU,
 - Do a visual check of the fluid quantity shown on the mechanical indicator (1834GQ) on the ground service panel of the Green hydraulic system.
 - Do a visual check of the fluid quantity shown on the fluid content indicator of the Green reservoir.
 - Do a check of the pressure of the Green system accumulator (1070GM)
(Ref. AMM TASK 29-10-00-200-003).
 - Do a check of the pressure of the Green hydraulic reservoir (Ref. AMM TASK 29-10-00-200-002).
- (1) If the three hydraulic fluid quantity indicators show the same quantity, the pressure of the reservoir is correct, but the accumulator pressure is less than the permitted tolerance:
- (a) Do a check for external gas leaks on the power accumulator and repair the defective components as necessary (Ref. AMM TASK 29-10-00-200-003).

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(b) If you find no external gas leaks, or the fault continues:

- 1 Replace the ACCU-G PWR (1070GM) (Ref. AMM TASK 29-11-42-000-001) and (Ref. AMM TASK 29-11-42-400-001).
- 2 Do the bleeding procedures of the Green hydraulic system (Ref. AMM TASK 29-00-00-870-001), (Ref. AMM TASK 29-00-00-870-002) and (Ref. AMM TASK 29-00-00-870-003).

B. Do the procedure as given in Para. 3. B. to make sure that the operation of the hydraulic quantity indication is correct.

5. Close-up

A. Put the aircraft back to the serviceable condition.

- (1) Do the EIS stop procedure
(Ref. AMM TASK 31-60-00-860-002).
- (2) De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

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TASK 29-11-00-810-814

Hydraulic System Pressure higher than normal

1. Possible Causes

- FILTER-ENG PUMP CASE DRAIN (1084GM)
- PUMP-G, ENG 1 (1030GK)
- PRESS XDCR-G (1065GN)
- FILTER-HP, G (1048GM)
- SDAC-1 (1WV1)
- SDAC-2 (1WV2)

2. Job Set-up Information**A. Fixtures, Tools, Test and Support Equipment**

REFERENCE

QTY DESIGNATION

No specific

1 GROUND POWER CART-HYDRAULIC

B. Referenced Information

REFERENCE

DESIGNATION

AMM	12-12-29-611-001	Fill the Hydraulic Fluid Reservoir with a Hand Pump
AMM	12-12-29-611-002	Fill the Hydraulic Fluid Reservoir with a Hydraulic Service Cart
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	29-10-00-863-001	Pressurize the Green Hydraulic System
AMM	29-10-00-864-001	Depressurize the Green Hydraulic System
AMM	29-11-43-610-041	Servicing the Engine-Pump Case-Drain Filter (1084GM)
AMM	29-11-45-610-001	Servicing of the HP-Filter 1048GM
AMM	29-11-51-000-041	Removal of the Green Engine Pump (1030GK)
AMM	29-11-51-400-041	Installation of the Green Engine Pump (1030GK)
AMM	29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM	29-32-11-000-001	Removal of the Hydraulic Pressure Transducer (1065GN)
AMM	29-32-11-400-001	Installation of the Hydraulic Pressure Transducer (1065GN)
AMM	31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM	31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-001	Dry Motoring Check

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
121VU	HYDRAULIC/SOL VALVES/G/Y/B/LEAK/TST	1881GP	N35
121VU	HYDRAULIC/G HYD/PUMP ENG1/CTL	1701GK	R35
121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, press the HYD pushbutton. Make sure that the HYD page is shown on the ECAM lower Display Unit (DU).
- (4) Make sure that the ECAM does not show any of these conditions:
 - low air pressure in the Green reservoir,
 - low fluid level in the Green reservoir.
- (5) If necessary, pressurize the reservoir (Ref. AMM TASK 29-14-00-614-002).
- (6) If necessary, add fluid to the reservoir (Ref. AMM TASK 12-12-29-611-001) or (Ref. AMM TASK 12-12-29-611-002).
- (7) On the overhead panel 40VU, press the PTU/AUTO P/BSW (the OFF light comes on).
- (8) Make sure that the PTU does not operate.
- (9) On the overhead panel 40VU, make sure that the GREEN/ENG 1 PUMP P/BSW is set to on (FAULT and OFF lights are off).

C. Test

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) Dry-motor the left (No. 1) engine (Ref. AMM TASK 71-00-00-710-001).

EFF : ALL

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- (2) Look for the Green hydraulic system pressure indication on the lower ECAM DU.

4. Fault Isolation

A. If the fault confirmation gives:

- the hydraulic system pressure indication on the lower ECAM DU shows a higher value than normal:

- (1) Stop the dry motoring of the left (No.1) engine (Ref. AMM TASK 71-00-00-710-001).

- (2) Pressurize the Green hydraulic system with a GROUND POWER CART-HYDRAULIC (Ref. AMM TASK 29-10-00-863-001).

- (3) Look for the hydraulic system pressure indication on the lower ECAM DU.

- (4) Depressurize the Green hydraulic system (Ref. AMM TASK 29-10-00-864-001).

(a) If the system pressure is in the normal range:

- Replace the FILTER-ENG PUMP CASE DRAIN (1084GM) (Ref. AMM TASK 29-11-43-610-041).

1 If the fault continues:

- a Replace the PUMP-G, ENG 1 (1030GK) (Ref. AMM TASK 29-11-51-000-041) and (Ref. AMM TASK 29-11-51-400-041).

(b) If the hydraulic system pressure is too high:

- Replace the PRESS XDCR-G (1065GN) (Ref. AMM TASK 29-32-11-000-001) and (Ref. AMM TASK 29-32-11-400-001).

1 If the fault continues:

- a Replace the FILTER-HP, G (1048GM) (Ref. AMM TASK 29-11-45-610-001).

2 If the fault continues:

- a Replace the SDAC-1 (1WV1) or SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).

- B. Do the fault confirmation procedure as given in Para. 3. to make sure that the operation is correct.**

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5. Close-up

A. Put the aircraft back to the serviceable condition.

(1) Do the EIS stop procedure

(Ref. AMM TASK 31-60-00-860-002).

(2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TASK 29-11-00-810-815

Reservoir Fluid-Level Indication replaced by amber XX for the Green Hydraulic System

1. Possible Causes

- quantity indicator of the Green hydraulic reservoir
- quantity indicator of the Blue hydraulic reservoir
- quantity indicator of the Yellow hydraulic reservoir
- wiring
- C/B-HYDRAULIC/HYD/QTY/IND (1831GQ)
- terminal block (7502VT)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 29-11-41-000-002	Removal of the Quantity Indicator of the Green Hydraulic Reservoir
AMM 29-11-41-400-002	Installation of the Quantity Indicator of the Green Hydraulic Reservoir
AMM 29-12-41-000-002	Removal of the Quantity Indicator of the Blue Hydraulic Reservoir
AMM 29-12-41-400-002	Installation of the Quantity Indicator of the Blue Hydraulic System
AMM 29-13-41-000-003	Removal of the Quantity Indicator of the Yellow Hydraulic Reservoir
AMM 29-13-41-400-003	Installation of the Quantity Indicator of the Yellow Hydraulic Reservoir
AMM 29-31-00-710-001	Functional Check of Reservoir Low Level Warning
AMM 31-60-00-860-001	EIS Start Procedure
TSM 29-12-00-810-819	Reservoir Fluid-Level Indication replaced by amber XX for the Blue Hydraulic System
TSM 29-13-00-810-818	Reservoir Fluid-Level Indication replaced by amber XX for the Yellow Hydraulic System
AWM 29-31-02	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/HYD/QTY/IND	1831GQ	P35

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD
pushbutton switch. Make sure that the HYD page is shown on the system
display of the ECAM.
- (4) Look for fault indications on the lower ECAM DU.
- (5) Monitor the condition of the circuit breaker 1831GQ.

4. Fault Isolation

A. If the Fault Confirmation gives:

- The reservoir fluid level indication of the Green, Blue and Yellow
hydraulic system is replaced by amber XX on the lower ECAM DU.
- The circuit breaker 1831GQ is open:

(1) Do a check for a defective hydraulic quantity transmitter as follows:

- (a) Remove the electrical connector from the quantity indicator of
the Green hydraulic reservoir.

(b) Close the circuit breaker 1831GQ:

1 If the circuit breaker 1831GQ stays closed:

- Replace the quantity indicator of the Green hydraulic
reservoir (Ref. AMM TASK 29-11-41-000-002) and (Ref. AMM
TASK 29-11-41-400-002).

2 If the circuit breaker 1831GQ opens:

- a** Connect the electrical connector to the quantity indicator
of the Green hydraulic reservoir.

(c) Do a check of the

- quantity indicator of the Blue hydraulic reservoir (Ref. TSM
TASK 29-12-00-810-819)
and
- quantity indicator of the Yellow hydraulic reservoir (Ref. TSM
TASK 29-13-00-810-818).

(d) Replace the applicable quantity indicator which causes the circuit breaker 1831GQ to open:

- for the quantity indicator of the Blue hydraulic reservoir
(Ref. AMM TASK 29-12-41-000-002) and (Ref. AMM TASK 29-12-41-
400-002)

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- for the quantity indicator of the Yellow hydraulic reservoir (Ref. AMM TASK 29-13-41-000-003) and (Ref. AMM TASK 29-13-41-400-003).

(2) If the fault continues:

(a) Do a check for continuity between:

- the CB (1831GQ) and the pin C of the terminal block (7502VT) (Ref. AWM 29-31-02).

1 If there is no continuity:

a Repair the wiring between the CB (1831GQ) and the pin C of the terminal block (7502VT) (Ref. AWM 29-31-02).

b If the fault continues:

- Replace the C/B-HYDRAULIC/HYD/QTY/IND (1831GQ).

2 If there is continuity:

- Do a check for continuity between the pin C of the terminal block (7502VT) and the pins E, J, K of the terminal block (7502VT) (Ref. AWM 29-31-02).

a If there is no continuity:

- Replace the terminal block (7502VT).

B. Do the operational test of the fluid low level warning (Ref. AMM TASK 29-31-00-710-001) to make sure that the operation is correct (no fault indications shown).

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R

1. System Description

R

(Ref. Fig. 301)

R

The Green main hydraulic system has the subsequent sub-systems:

- a HP system which supplies the consumers,
- a LP or return system through which the fluid returns to the reservoir,
- a suction system.

A. HP System

The HP system is usually pressurized by an engine-driven pump (EDP) 1030GK connected to the left (No 1) engine. The EDP is connected directly to the engine and operates together with it. A solenoid valve makes it possible to stop the supply of fluid from the EDP. The solenoid valve is operated from the flight compartment with the P/B switch 1705GK.

The power transfer unit (PTU) 1088GM can also pressurize the Green HP circuit. The PTU gets its power from the Yellow main system. It supplies power to the Green system automatically if the system pressure falls to 500 psi (34.5 bar) below the pressure in the Yellow system. There is no hydraulic connection between the two systems so fluid can not get from one system to the other.

On the ground, it is possible to pressurize the system from a ground supply through the self-sealing connectors on the ground service panel.

The supply to all consumers (except the thrust reverser) goes through the HP manifold 1011GM. The HP manifold has pressure switches, a filter, a check valve, a transmitter, a solenoid valve and other components which control the system. The supply to all consumers other than the flap and slat motors, nose wheel steering, nose and main landing gears and doors also goes through the leakage-measurement system manifold 1146GM. Thus it is possible to isolate some consumers to measure the internal leakage of parts of the system.

B. LP System

The LP system returns the fluid from the consumers to the reservoir. The case drains of the EDP and PTU, and the returns from the HP manifold, are also connected to the LP system. The system has check valves where applicable to control the flow of fluid. The check valves also protect the main system if there is a leak in a subsystem. Some of the return lines are connected together at the LP manifold 1003GM. Part of the LP system is also used in the reservoir filling system.

The LP fluid goes through the LP filter 1002GM before it gets to the system reservoir 1000GQ.

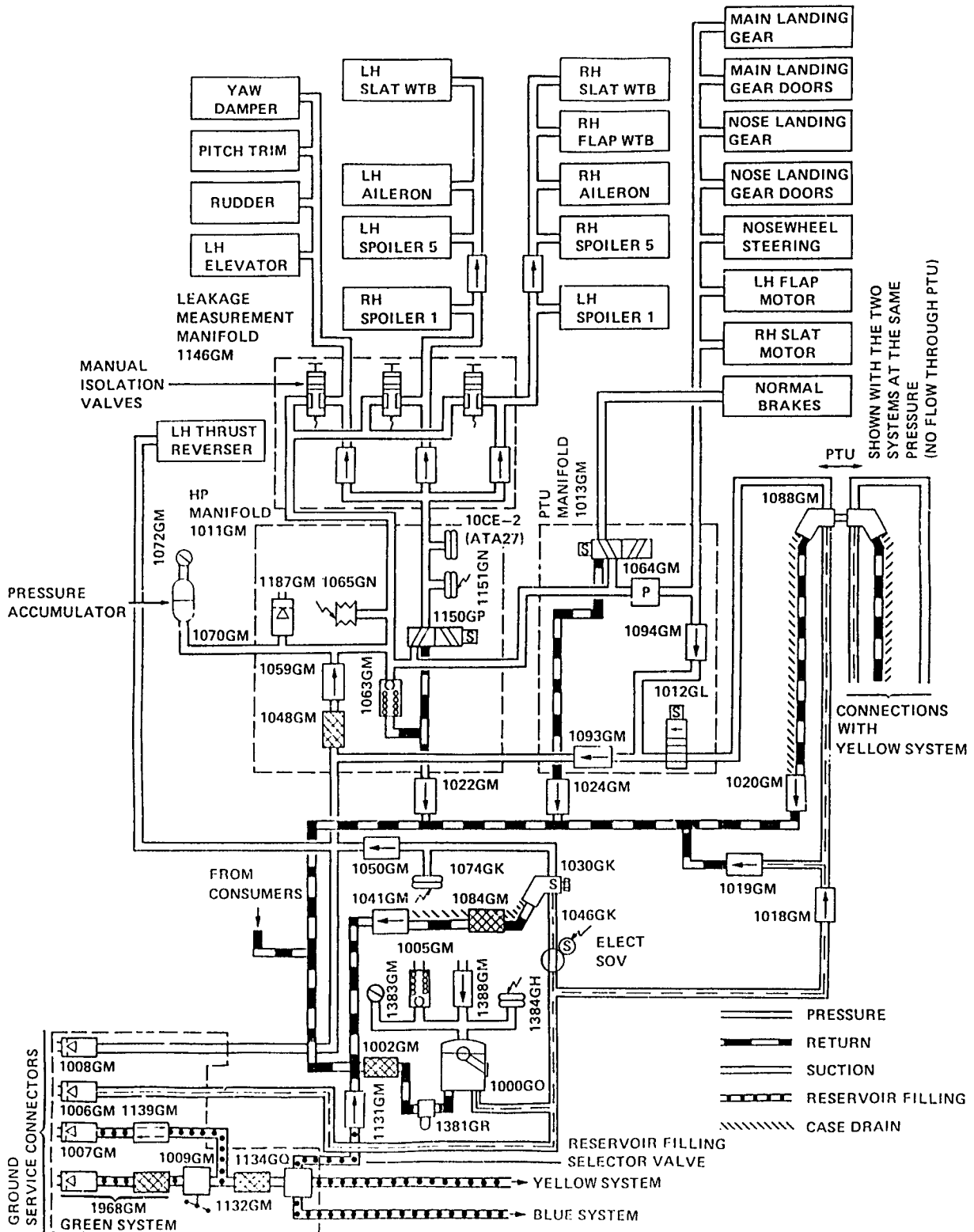
A filter 1084GM is also installed in the EDP case drain line to the LP system.

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Hydraulic Schematic
Figure 301

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The system reservoir 1000GQ is installed in the main landing gear compartment.

The reservoir is filled through the reservoir filling system which is operated from the ground service panel of the Green system. A reservoir drain valve is installed on the reservoir.

The reservoir is pressurized with air to 3.5 bar (50 psi). The supply of air comes from the aircraft pneumatic system. It is also possible to pressurize the reservoir from a ground supply. A depressurization valve 1187GM is installed on the ground service panel of the Green system.

C. Suction System

The engine pump 1030GK gets its supply of fluid directly from the Green reservoir 1000GQ. The fire shut-off valve 1046GK permits to isolate the supply of the engine pump.

TASK 29-12-00-810-801

Loss of the Blue Reservoir Pressurization

1. Possible Causes

- PRESS SW-B RSVR AIR (2384GH)
- VALVE-MAN DEPRESS, B RSVR (2087GM)
- VALVE-AIR RELIEF, B RSVR (2005GM)
- PRESS GAGE-B RSVR (2383GM)
- CHECK VALVE-RSVR PRESS, B (2388GM)
- RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM)
- R - RSVR PRESS UNIT (1360GM)
- PRESS SW - AIR, B RSVR (2387GH)
- wiring
- filter element
- bleed air lines
- RELAY (2388GH)
- RELAY (2389GH)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 29-14-00-614-001	Depressurization of the Hydraulic Reservoirs
AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM 29-14-00-720-002	Functional Test of the Hydraulic Reservoir Pressurization System with the Left Engine
AMM 29-14-13-000-001	Removal of the Bleed-Air Line Restrictor (1392GM)
AMM 29-14-13-400-001	Installation of the Bleed-Air Line Restrictor (1392GM)
AMM 29-14-15-000-002	Removal of the Air Pressure Gage of the Blue Hydraulic System
AMM 29-14-15-400-002	Installation of the Air Pressure Gage of the Blue Hydraulic System
AMM 29-14-16-000-002	Removal of the Reservoir Depressurization Valve of the Blue Hydraulic System
AMM 29-14-16-400-002	Installation of the Reservoir Depressurization Valve of the Blue Hydraulic System
AMM 29-14-17-000-001	Removal of the Air Relief Valve of the Green Hydraulic System (1005GM)
AMM 29-14-17-400-001	Installation of the Air Relief Valve of the Green Hydraulic System (1005GM)

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REFERENCE	DESIGNATION
AMM 29-14-18-000-001	Removal of the Reservoir Pressure Check Valves (1388GM,2388GM,3388GM)
AMM 29-14-18-400-001	Installation of the Reservoir Pressure Check Valves (1388GM,2388GM,3388GM)
AMM 29-14-41-000-002	Removal of the Reservoir Pressurization Unit (1360GM)
AMM 29-14-41-400-002	Installation of the Reservoir Pressurization Unit (1360GM)
AMM 29-14-41-610-002	Servicing of the Reservoir Pressurization Filter
AMM 29-14-49-000-001	Removal of the Reservoir Pressurization Hose (1674GM)
AMM 29-14-49-400-001	Installation of the Reservoir Pressurization Hose (1674GM)
AMM 29-34-00-710-001	Operational Test of Reservoir Low Air Pressure Warning
AMM 29-34-00-710-002	Operational Check of Reservoir Low Air Pressure Warning
AMM 29-34-11-000-002	Removal of the Reservoir Pressure Switch of the Blue Hydraulic System
AMM 29-34-11-400-002	Installation of the Reservoir Pressure Switch of the Blue Hydraulic System
AMM 29-34-13-000-001	Removal of the Air Pressure Switch (2387GH)
AMM 29-34-13-400-001	Installation of the Air Pressure Switch (2387GH)
AMM 31-60-00-860-001	EIS Start Procedure
AMM 32-00-00-860-002	Ground Configuration after Flight Configuration with Electrical Power
ASM 29-12/01	
ASM 29-12/01	
ASM 29-34/01	
ASM 31-54/02	

R **ON A/C 201-225, 227-227, 229-245, 247-299, 426-499, 503-549, 551-599,
R 701-749,

29-12-00-991-001 Fig. 201

**ON A/C ALL

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
	49VU HYD/HYD PWR/B WARN/& CTL	2702GJ	C12

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R **ON A/C 227-227, 229-245, 426-428, 701-749,

B. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/B RSVR/AIR/PRESS/XMTR	2386GH	P34

**ON A/C 201-225, 247-299, 429-499, 503-549, 551-599,

C. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the upper ECAM DU, the lower ECAM DU and the panel 40VU.

R **ON A/C 227-227, 229-245, 426-428, 701-749,

C. Aircraft Maintenance Configuration

- (1) Make sure that the A/C is in the ground configuration (Ref. AMM TASK 32-00-00-860-002).
- (2) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (3) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (4) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (5) Look for fault indications on the upper ECAM DU, the lower ECAM DU and the panel 40VU.

R EFF : 201-225, 227-227, 229-245, 247-299,
426-499, 503-549, 551-599, 701-749,

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****ON A/C ALL****4. Fault Isolation****R **ON A/C 201-225, 247-299, 429-499, 503-549, 551-599,****A. If the fault confirmation gives:**

- the message **HYD B RSVR LO AIR PRESS** on the upper ECAM DU
- the message **LO AIR PRESS** on the lower ECAM DU
- the **BLUE ELEC PUMP P/BSW FAULT** light on panel 40VU.

(1) Do a visual check of the pressure shown on the gage of the Blue reservoir.

(2) If the pressure is more than 25 psi (1.7236 bar):

- do a check for continuity of the wiring between:
the **PRESS SW-B RSVR AIR (2384GH)** connector A/A and the **PRESS SW-B RSVR AIR (2384GH)** connector A/C (Ref. ASM 29-12/01).

(a) If there is continuity:

- replace the **PRESS SW-B RSVR AIR (2384GH)** (Ref. AMM TASK 29-34-11-000-002) and (Ref. AMM TASK 29-34-11-400-002).

(b) If there is no continuity:

- make sure that the wiring is not connected to GND between:
the **PRESS SW-B RSVR AIR (2384GH)** connector A/C and the **DIODE (1156VD)** connector 5. (Ref. ASM 29-12/01).

1 If the wiring is connected to the GND:

- repair the wiring.

(3) If the pressure shown on the gage of the Blue reservoir is less than 25 psi (1.7236 bar):

- do a check of the clogging indicator on the reservoir pressurization unit (**1360GM**).

(a) If the clogging indicator is out:

- replace the filter element (Ref. AMM TASK 29-14-41-610-002).

(b) If the clogging indicator is not out, or the fault continues after the replacement of the filter element:

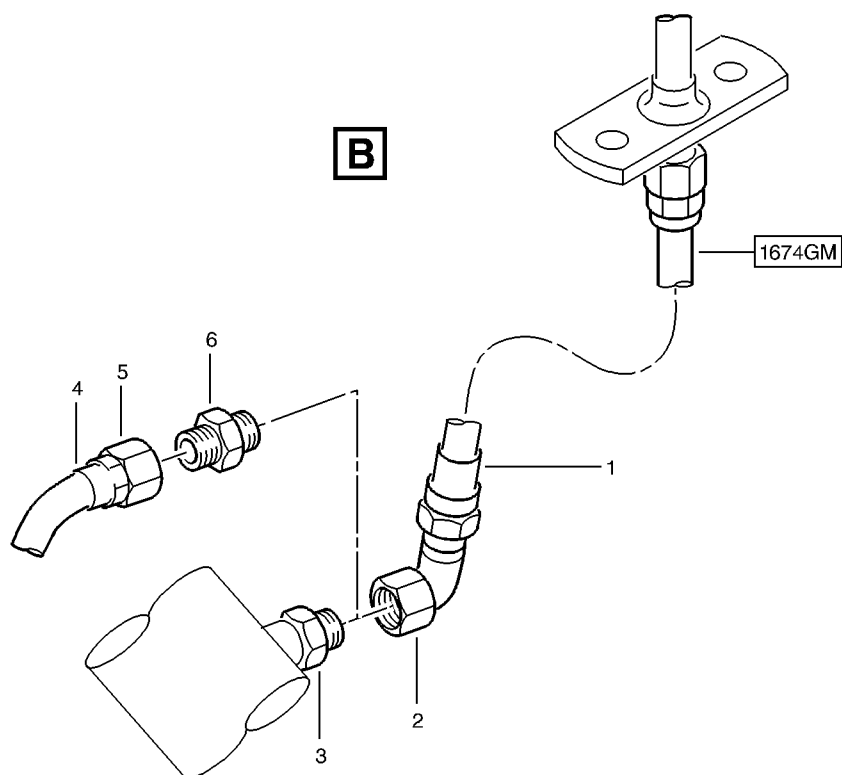
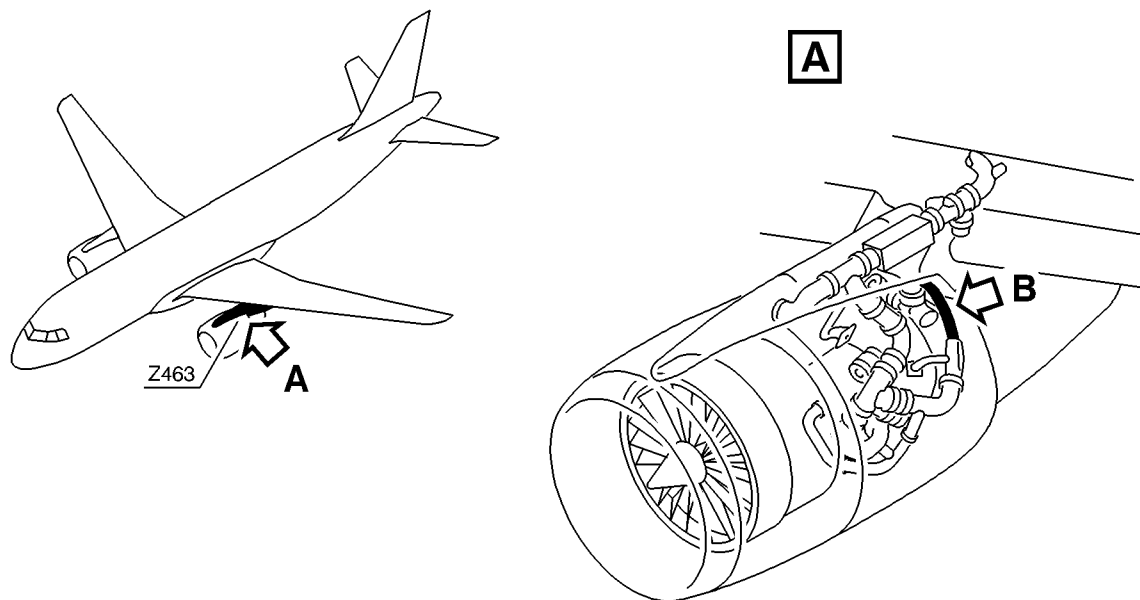
- pressurize the hydraulic reservoirs with a ground cart (Ref. AMM TASK 29-14-00-614-002),
- do a check of the pressure drop on the gage of the hydraulic reservoir.

NOTE : No pressure drop is permitted in 15 minutes at a gage pressure of 50 psi (3.4473 bar).

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- 1 If the air pressure drop is not in the limits:
 - do a check of the VALVE-MAN DEPRESS, B RSVR (2087GM) for leaks.
 - a If the VALVE-MAN DEPRESS, B RSVR (2087GM) has a leak:
 - replace the VALVE-MAN DEPRESS, B RSVR (2087GM) (Ref. AMM TASK 29-14-16-000-002) and (Ref. AMM TASK 29-14-16-400-002).
 - b If the VALVE-MAN DEPRESS, B RSVR (2087GM) has no leak:
 - do a check of the VALVE-AIR RELIEF, B RSVR (2005GM) for leaks.
 - If the VALVE-AIR RELIEF, B RSVR (2005GM) has a leak:
 - replace the VALVE-AIR RELIEF, B RSVR (2005GM) (Ref. AMM TASK 29-14-17-000-001) and (Ref. AMM TASK 29-14-17-400-001).
 - If the VALVE-AIR RELIEF, B RSVR (2005GM) has no leak:
 - do a check of the PRESS GAGE-B RSVR (2383GM) for leaks.
 - If the PRESS GAGE-B RSVR (2383GM) has a leak:
 - replace the PRESS GAGE-B RSVR (2383GM) (Ref. AMM TASK 29-14-15-000-002) and (Ref. AMM TASK 29-14-15-400-002).
 - If the PRESS GAGE-B RSVR (2383GM) has no leak:
 - do a check of all the connections and components on the reservoir for leaks.
 - If you find a leak:
 - tighten the related nut or replace the defective component.
 - c If the fault continues:
 - replace the CHECK VALVE-RSVR PRESS, B (2388GM).
- 2 If the air pressure drop is in the limits:
 - a Depressurize the hydraulic reservoirs (Ref. AMM TASK 29-14-00-614-001).
 - b Pressurize the reservoir pressurization system with the left engine (Ref. AMM TASK 29-14-00-720-002), or
 - c Connect an external pressure source:
(Ref. Fig. 201/TASK 29-12-00-991-001)
 - disconnect the reservoir pressurization hose (1) (1674GM) from the HP bleed-air port (3) of the left engine (Ref. AMM TASK 29-14-49-000-001)
 - put a blanking plug on the HP bleed-air port (3)
 - install the union (6) at the line end fitting (5) of an approved air or nitrogen source
 - make sure that the open end of the union (6) has a thread of 7/16_20UNJF 3A
 - connect the line end fitting (2) of the reservoir pressurization hose (1) (1674GM) to the thread 7/16_20UNJF 3A of the union (6)



Reservoir Pressurization Connection
Figure 201/TASK 29-12-00-991-001

NL6 29 12 00 2 AAM0 00

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R

R

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- pressurize the reservoir pressurization system to approximately 15.2 bar (220 psi).

- d If the pressure in the reservoir does not increase to the necessary value:
 - remove the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) (Ref. AMM TASK 29-14-13-000-001).
 - make sure that the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) and the filter are not clogged or damaged.
 - if necessary, replace the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) (Ref. AMM TASK 29-14-13-400-001).
- e If the fault continues:
 - do a check and, if necessary, repair the bleed air line in the left pylon to the reservoir pressurization unit (1360GM).
- f If the fault continues:
 - do a check and, if necessary, repair the remaining bleed air lines and components.
- g Stop the pressurization of the reservoir pressurization system from the left engine (Ref. AMM TASK 29-14-00-720-002), or
- h Disconnect the external pressure source:
 - disconnect the line end fitting (2) of the reservoir pressurization hose (1) (1674GM) from the union (6)
 - remove the union (6) from the line end fitting (5) of the pressure source hose (4)
 - remove the blanking plug from the HP bleed-air port (3)
 - connect the reservoir pressurization hose (1) (1674GM) to the HP bleed-air port (3) of the left engine (Ref. AMM TASK 29-14-49-400-001).
- i If the air pressure in the reservoir increases to the necessary value and the air pressure drop is in the limits:
 - no further actions are necessary.

B. Do the operational test of the low air pressure warning (Ref. AMM TASK 29-34-00-710-001) to make sure that operation is correct (no maintenance message shown).

R **ON A/C 227-227, 229-245, 426-428, 701-749,

A. If the fault confirmation gives:

- the message HYD B RSVR LO AIR PRESS on the upper ECAM DU
- the message LO AIR PRESS on the lower ECAM DU
- the BLUE ELEC PUMP P/BSW FAULT light on panel 40VU.

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- (1) Do a visual check of the pressure shown on the gage of the Blue reservoir.
 - (2) If the pressure shown on the gage of the Blue reservoir is more than 45 psi (3.1026 bar):
 - open and close the CB 2386GH on the panel 121VU
 - do the operational test of the reservoir low-air pressure-warning of the Blue hydraulic system (Ref. AMM TASK 29-34-00-710-002).
 - (a) If the operational test gives the correct results:
 - no further actions are necessary.
 - (b) If the operational test does not give the correct results:
 - continue with the procedure given in step (3), (b), 3_, b_ and subsequent.
 - (3) If the pressure shown on the gage of the Blue reservoir is less than 45 psi (3.1026 bar):
 - do a check of the clogging indicator on the reservoir pressurization unit (1360GM).
 - (a) If the clogging indicator is out:
 - replace the filter element (Ref. AMM TASK 29-14-41-610-002).
 - (b) If the clogging indicator is not out, or the fault continues after you replace the filter element:
 - pressurize the hydraulic reservoir with a ground cart (Ref. AMM TASK 29-14-00-614-002)
 - do a check of the air pressure drop on the gage of the hydraulic reservoir.
- NOTE** : No air pressure drop is permitted in 15 minutes at a gage pressure of 50 psi (3.4473 bar).
- 1 If the air pressure drop is not in the limits:
 - do a check of the VALVE-MAN DEPRESS, B RSVR (2087GM) for leaks.
 - a If the VALVE-MAN DEPRESS, B RSVR (2087GM) has a leak:
 - replace the VALVE-MAN DEPRESS, B RSVR (2087GM) (Ref. AMM TASK 29-14-16-000-002) and (Ref. AMM TASK 29-14-16-400-002).
 - b If the VALVE-MAN DEPRESS, B RSVR (2087GM) has no leak:
 - do a check of the VALVE-AIR RELIEF, B RSVR (2005GM) for leaks.
 - If the VALVE-AIR RELIEF, B RSVR (2005GM) has a leak:
 - replace the VALVE-AIR RELIEF, B RSVR (2005GM) (Ref. AMM TASK 29-14-17-000-001) and (Ref. AMM TASK 29-14-17-400-001).
 - If the VALVE-AIR RELIEF, B RSVR (2005GM) has no leak:
 - do a check of the PRESS GAGE-B RSVR (2383GM) for leaks.

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- If the PRESS GAGE-B RSVR (2383GM) has a leak:
 - replace the PRESS GAGE-B RSVR (2383GM) (Ref. AMM TASK 29-14-15-000-002) and (Ref. AMM TASK 29-14-15-400-002).
 - If the PRESS GAGE-B RSVR (2383GM) has no leak:
 - do a check of all the connections and components on the reservoir for leaks.
 - If you find a leak:
 - tighten the related nut or replace the defective component.
 - c If the fault continues:
 - replace the CHECK VALVE-RSVR PRESS, B (2388GM) (Ref. AMM TASK 29-14-18-000-001) and (Ref. AMM TASK 29-14-18-400-001).
 - d If the fault continues:
 - replace the RSVR PRESS UNIT (1360GM) (Ref. AMM TASK 29-14-41-000-002) and (Ref. AMM TASK 29-14-41-400-002).
- 2 If the air pressure drop is in the limits:
- a Depressurize the hydraulic reservoirs (Ref. AMM TASK 29-14-00-614-001).
 - b Pressurize the reservoir pressurization system with the left engine (Ref. AMM TASK 29-14-00-720-002), or
 - c Connect an external pressure source:
(Ref. Fig. 201/TASK 29-12-00-991-001)
 - disconnect the reservoir pressurization hose (1) (1674GM) from the HP bleed-air port (3) of the left engine (Ref. AMM TASK 29-14-49-000-001)
 - put a blanking plug on the HP bleed-air port (3)
 - install the union (6) at the line end fitting (5) of an approved air or nitrogen source
 - make sure that the open end of the union (6) has a thread of 7/16_20UNJF 3A
 - connect the line end fitting (2) of the reservoir pressurization hose (1) (1674GM) to the thread 7/16_20UNJF 3A of the union (6)
 - pressurize the reservoir pressurization system to approximately 15.2 bar (220 psi).
 - d If the pressure in the reservoir does not increase to the necessary value:
 - remove the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) (Ref. AMM TASK 29-14-13-000-001).
 - make sure that the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) and the filter are not clogged or damaged.
 - if necessary, replace the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) (Ref. AMM TASK 29-14-13-400-001).

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- e If the fault continues:
 - do a check and, if necessary, repair the bleed air line in the left pylon to the reservoir pressurization unit (1360GM).
- f If the fault continues:
 - do a check and, if necessary, repair the remaining bleed air lines and components.
- g Stop the pressurization of the reservoir pressurization system from the left engine (Ref. AMM TASK 29-14-00-720-002), or
- h Disconnect the external pressure source:
 - disconnect the line end fitting (2) of the reservoir pressurization hose (1) (1674GM) from the union (6)
 - remove the union (6) from the line end fitting (5) of the pressure source hose (4)
 - remove the blanking plug from the HP bleed-air port (3)
 - connect the reservoir pressurization hose (1) (1674GM) to the HP bleed-air port (3) of the left engine (Ref. AMM TASK 29-14-49-400-001).
- 3 If the pressure in the reservoir increases to the necessary value and the air pressure drop is in the limits:
 - open and close the CB 2386GH on the panel 121VU
 - do the operational test of the reservoir low air-pressure warning of the Blue hydraulic system (Ref. AMM TASK 29-34-00-710-002).
- a If the operational test gives the correct results:
 - no further actions are necessary.
- b If the operational test of the reservoir low air-pressure warning does not give the correct results:
 - do a check for continuity between:
 - the PRESS SW-B RSVR AIR (2384GH) connector A/A and the PRESS SW-B RSVR AIR (2384GH) connector A/C (Ref. ASM 29-34/01).
 - If there is continuity:
 - replace the PRESS SW-B RSVR AIR (2384GH) (Ref. AMM TASK 29-34-11-000-002) and (Ref. AMM TASK 29-34-11-400-002).
- c If the fault continues:
 - do a check for continuity between:
 - the PRESS SW - AIR, B RSVR (2387GH) connector A/A and the PRESS SW - AIR, B RSVR (2387GH) connector A/C (Ref. ASM 29-34/01).
 - If there is continuity:
 - replace the PRESS SW - AIR, B RSVR (2387GH) (Ref. AMM TASK 29-34-13-000-001) and (Ref. AMM TASK 29-34-13-400-001).

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- d If the fault continues:
 - do a check for a ground signal at the RELAY (2388GH) connector 2.
 - If there is a ground signal:
 - replace the RELAY (2388GH).
 - e If the fault continues:
 - repair the wiring between the RELAY (2389GH) connector A and the DIODE (1164VD) connector A4 (Ref. ASM 29-34/01).
 - f If the fault continues:
 - repair the wiring between the RELAY (2389GH) connectors 1 and 4 and the RELAY (2388GH) connectors 2 and Z (Ref. ASM 29-34/01).
 - g If the fault continues:
 - do a check for a ground signal at the RELAY (2389GH) connector B (Ref. ASM 29-34/01).
 - If there is a ground signal:
 - repair the wiring between the RELAY (2389GH) connector B and the PRESS SW - AIR, B RSVR (2387GH) connector A/C (Ref. ASM 29-34/01).
 - h If the fault continues:
 - do a check for a ground signal at the PRESS SW-B RSVR AIR (2384GH) connector A/C (Ref. ASM 29-34/01).
 - If there is a ground signal:
 - repair the wiring as necessary between the PRESS SW-B RSVR AIR (2384GH) connector A/C and the DIODE (1164VD) connector 16 and/or:
 - the PRESS SW-B RSVR AIR (2384GH) connector A/C and the RELAY 11LP connector A/45 (Ref. ASM 29-12/01)
 - the PRESS SW-B RSVR AIR (2384GH) connector A/C and the SDAC1 and the SDAC2 connectors AA3F (Ref. ASM 31-54/02).
- B.** Do the operational test of the reservoir low air pressure warning of the Blue hydraulic system (Ref. AMM TASK 29-34-00-710-002) to make sure that the operation is correct (no maintenance message shown).

****ON A/C ALL**

TASK 29-12-00-810-802

Overheat Indication of the Blue Hydraulic System

1. Possible Causes

- RELIEF VALVE B SYS (2063GM)
- LP FILTER B (2002GM)
- HP-FILTER B (2048GM)
- CHECK VALVE Y (2059GM)
- CHECK VALVE G (2022GM)
- CHECK VALVE B (2050GM)
- CASE DRAIN FILT.ELEC.PUMP B (2084GM)
- MANIFOLD SWITCH PRESSURE (2380GM)
- TEMP TRANSM SWITCH (2381GR)
- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- internal leakage
- TEMP TRANSM SWITCH-connector plug (2381GR-A)

2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE	QTY DESIGNATION
No specific	1 OHMMETER MODEL 260

B. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-280-002	Check of the Internal Leakage of the Blue Hydraulic System
AMM 29-00-00-910-003	General Removal and Installation Procedure of the Check Valves in the Hydraulic Systems
AMM 29-10-00-863-003	Pressurize the Blue Hydraulic System with a Ground Power Supply

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REFERENCE	DESIGNATION
AMM 29-10-00-864-003	Depressurize the Blue Hydraulic System
R AMM 29-12-32-000-001	Removal of the Pressure Relief Valve of the Blue Hydraulic System (2063GM)
R AMM 29-12-32-400-001	Installation of the Pressure Relief Valve of the Blue Hydraulic System (2063GM)
R AMM 29-12-43-610-001	Servicing of the Electric-Pump Case-Drain Filter (2084GM)
AMM 29-12-44-610-001	Servicing of the LP-Filter (2002GM)
AMM 29-12-45-610-001	Servicing of the HP-Filter 2048GM
AMM 29-33-11-000-002	Removal of the Temperature Transmitter (2381GR)
AMM 29-33-11-400-002	Installation of the Temperature Transmitter (2381GR)
AMM 31-50-00-710-001	Ground Scanning of the Central Warning System
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 31-60-00-860-001	EIS Start Procedure
ASM 29-12/01	
ASM 29-33/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
49VU	HYD/HYD PWR/B WARN/& CTL	2702GJ	C12

B. Test

WARNING : PUT THE SAFETY DEVICES AND THE WARNING NOTICES IN POSITION BEFORE YOU START A TASK ON OR NEAR:

- THE FLIGHT CONTROLS
- THE FLIGHT CONTROL SURFACES
- THE LANDING GEAR AND THE RELATED DOORS
- COMPONENTS THAT MOVE.

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

(1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).

(2) Pressurize the Blue hydraulic system with the electric pump (Ref. AMM TASK 29-10-00-863-003).

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- (3) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (4) Operate the sidestick for ailerons, spoilers and elevators at full travel for 5 min.
- (5) Operate the rudder pedals at full travel for 5 min.
- (6) Operate the flap and slat control lever at full travel for 5 min.

4. Fault Isolation

R A. If the test gives:

- R - The message HYD B RSVR OVHT on the upper ECAM DU
R - The BLUE ELEC PUMP P/BSW FAULT light on panel 40VU
R - The OVHT flag on the HYD page of the lower ECAM DU.

R **NOTE** : The fault warning system shows, that the temperature is more than
R 95 +2.2 -2.2 deg.C (203.00 +3.96 -3.96 deg.F). This was detected
R by the temperature (TEMP) transducers (XDCRs) and the thermal
R switch of the reservoir (RSVR) TEMP sensor FIN 2381GR.

R (1) Do a check of the internal leakage of the Blue hydraulic system (Ref.
R AMM TASK 29-00-00-280-002).

- R (a) If the internal leakage is more than permitted:
R - Examine the system to find the defective component
R - Replace or repair the defective component.

R 1 Do a check for local increase of the temperature and unusual
R noise at the components that follow. Replace the components as
R necessary:

- R - RELIEF VALVE B SYS (2063GM) (Ref. AMM TASK 29-12-32-000-001)
R (Ref. AMM TASK 29-12-32-400-001)
R - LP FILTER B (2002GM) (Ref. AMM TASK 29-12-44-610-001)
R - HP-FILTER B (2048GM) (Ref. AMM TASK 29-12-45-610-001)
R - CHECK VALVE Y (2059GM) (Ref. AMM TASK 29-00-00-910-003)
R - CHECK VALVE G (2022GM) (Ref. AMM TASK 29-00-00-910-003).

R **NOTE** : If for fault duplication the system is pressurized by a
R ground power cart, it is necessary to examine also the
R CHECK VALVE B (2050GM).

R (b) If the internal leakage is in the given limits:

R 1 Do a check of the filter elements of the CASE DRAIN
R FILT.ELEC.PUMP B (2084GM), HP-FILTER B (2048GM) and LP FILTERB
R (2002GM).

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- 2 Replace the filter element as necessary (Ref. AMM TASK 29-12-43-610-001) or (Ref. AMM TASK 29-12-45-610-001) or (Ref. AMM TASK 29-12-44-610-001).

R ****ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275,**
R **278-279, 281-281, 283-283, 286-299, 701-749,**
R **Post SB 29-1132 For A/C 201-201,203-204,206-225,227-227,229-231,233-244,**
R **254-275,278-279,281-281,283-283,286-299,701-749,**

A. If the test gives:

- The message **HYD B RSVR OVHT** on the upper ECAM DU
- The **BLUE ELEC PUMP P/BSW FAULT** light on panel 40VU
- The **OVHT** flag on the **HYD** page of the lower ECAM DU.

NOTE : The fault warning system shows, that the temperature is more than $95 \pm 2.2 - 2.2 \text{ deg.C}$ ($203.00 \pm 3.96 - 3.96 \text{ deg.F}$). This was detected by the temperature (TEMP) transducers (XDCRs) and the thermal switch of the reservoir (RSVR) TEMP sensor FIN 2381GR.

- (1) Do a check of the internal leakage of the Blue hydraulic system (Ref. AMM TASK 29-00-00-280-002).

(a) If the internal leakage is more than permitted:

- Examine the system to find the defective component
- Replace or repair the defective component.

- 1 Do a check for local increase of the temperature and unusual noise at the components that follow. Replace the components as necessary:

- **RELIEF VALVE B SYS (2063GM)** (Ref. AMM TASK 29-12-32-000-001) (Ref. AMM TASK 29-12-32-400-001)
- **LP FILTER B (2002GM)** (Ref. AMM TASK 29-12-44-610-001)
- **HP-FILTER B (2048GM)** (Ref. AMM TASK 29-12-45-610-001)
- **CHECK VALVE Y (2059GM)** (Ref. AMM TASK 29-00-00-910-003)
- **CHECK VALVE G (2022GM)** (Ref. AMM TASK 29-00-00-910-003).

NOTE : If for fault duplication, the system is pressurized by a ground power cart, it is necessary to examine also the **MANIFOLD SWITCH PRESSURE (2380GM)**.

(b) If the internal leakage is in the given limits:

- 1 Do a check of the filter elements of the **CASE DRAIN FILT.ELEC.PUMP B (2084GM)**, **HP-FILTER B (2048GM)** and **LP FILTERB (2002GM)**.
- 2 Replace the filter element as necessary (Ref. AMM TASK 29-12-43-610-001) or (Ref. AMM TASK 29-12-45-610-001) or (Ref. AMM TASK 29-12-44-610-001).

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****ON A/C ALL**

B. If the test gives:

- The message **HYD B RSVR OVHT** on the upper ECAM DU
- The **OVHT** flag on the **HYD** page of the lower ECAM DU.

NOTE : If the **P/BSW FAULT** light is not on the **OVHT** warning condition is only detected by the **TEMP XDCRs** of the **RSVR TEMP** sensor **FIN 2381GR**. It is referred to as a spurious warning from the **TEMP XDCRs** or wiring or **System Data Acquisition Concentrators (SDACs)**.

(1) Do a wiring check:

- (a) Disconnect the TEMP TRANSM SWITCH-connector plug (2381GR-A) from the TEMP TRANSM SWITCH (2381GR) and do a visual check of the connector's integrity.**

- 1 If the connector is not in the correct condition:**
- Replace the **TEMP TRANSM SWITCH (2381GR)**, (Ref. **AMM TASK 29-33-11-000-002**) (Ref. **AMM TASK 29-33-11-400-002**) and replace the **TEMP TRANSM SWITCH-connector plug (2381GR-A)**.

- (b) Do a check of the continuity between pin A/G and pin A/K of the TEMP TRANSM SWITCH (2381GR) (Ref. ASM 29-33/01).**

- 1 If there is no continuity, replace the TEMP TRANSM SWITCH (2381GR) (Ref. AMM TASK 29-33-11-000-002) (Ref. AMM TASK 29-33-11-400-002).**

- (c) Do a check of the continuity between pin A/F and pin A/E of the TEMP TRANSM SWITCH (2381GR) (Ref. ASM 29-33/01).**

- 1 If there is no continuity, replace the TEMP TRANSM SWITCH (2381GR) (Ref. AMM TASK 29-33-11-000-002) (Ref. AMM TASK 29-33-11-400-002).**

- (d) Measure the DC resistance between the pins A/G and A/K and between the pins A/E and A/F of the TEMP TRANSM SWITCH (2381GR) with an OHMMETER MODEL 260.**

- 1 If the difference is more than 1.5 Ohm between the two measurements, replace the TEMP TRANSM SWITCH (2381GR) (Ref. AMM TASK 29-33-11-000-002) (Ref. AMM TASK 29-33-11-000-002).**

- (e) If the fault continues, make sure that the wiring is not connected to GND between the TEMP TRANSM SWITCH-connector plug (2381GR-A), pin E and the SDAC-1 (1WV1) connector AB, pin 11A (Ref. ASM 29-33/01).**

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R 1 If the wiring is connected to GND, repair the wiring as
R necessary.

R (f) If the fault continues, make sure that the wiring is not
R connected to GND between the TEMP TRANSM SWITCH-connector plug
R (2381GR-A), pin K and the SDAC-2 (1WV2) connector AB, pin 11A
R (Ref. ASM 29-33/01).

R 1 If the wiring is connected to GND, repair the wiring as
R necessary.

R (g) If the fault continues, do the operational test of the central
R warning system (Ref. AMM TASK 31-50-00-710-001).

R 1 If the test gives the maintenance message SDAC-1 : B HYD TEMP
R XMTR 2381GR:
R - Rreplace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001)
R (Ref. AMM TASK 31-55-34-400-001).

R 2 If the test gives the maintenance message SDAC-2 : B HYD TEMP
R XMTR 2381GR:
R - Replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001)
R (Ref. AMM TASK 31-55-34-000-001).

R C. If the test gives:
R - The message HYD B RSVR OVHT on the upper ECAM DU
R - The BLUE ELEC PUMP P/BSW FAULT light on panel 40VU.

R NOTE : If the OVHT flag is not shown on the HYD page of the lower ECAM
R DU, this confirms that the OVHT warning condition is only detected
R by the thermal switch of the RSVR TEMP sensor FIN 2381GR. It is
R referred to as a spurious warning from the thermal switch or
R wiring or SDACs.

R (1) Do a wiring check:

R (a) Do a check of the continuity between pin A/A and pin A/B of the
R TEMP TRANSM SWITCH (2381GR) (Ref. ASM 29-33/01).

R 1 If there is continuity, replace the TEMP TRANSM SWITCH
R (2381GR) (Ref. AMM TASK 29-33-11-000-002) (Ref. AMM TASK 29-
R 33-11-400-002)

R 2 If there is no continuity, make sure that the wiring is not
R connected to GND between TEMP TRANSM SWITCH-connector plug
R (2381GR-A), pin B and the diode block 1156VD, pin 32 (Ref. ASM
R 29-33/01) (Ref. ASM 29-12/01) .

R a If the wiring is connected to GND, repair the wiring as
R necessary.

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- R (b) If the fault continues, make sure that the wiring is not
R connected to GND between TEMP TRANSM SWITCH-connector plug
R (2381GR-A), pin B and the SDAC-1 (1WV1) connector AA, pin 4E
R (Ref. ASM 29-33/01).
- R 1 If the wiring is connected to GND, repair the wiring as
R necessary.
- R (c) If the fault continues, make sure that the wiring is not
R connected to GND between TEMP TRANSM SWITCH-connector plug
R (2381GR-A), pin B and the SDAC-2 (1WV2) connector AA, pin 4E
R (Ref. ASM 29-33/01).
- R 1 If the wiring is connected to GND, repair the wiring as
R necessary.
- R (d) If the fault continues, do the operational test of the central
R warning system (Ref. AMM TASK 31-50-00-710-001).
- R 1 If the test gives the maintenance message SDAC-1 : B HYD TEMP
R XMTR 2381GR:
R - Replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001)
R (Ref. AMM TASK 31-55-34-400-001).
- R 2 If the test gives the maintenance message SDAC-2 : B HYD TEMP
R XMTR 2381GR:
R - Replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001)
R (Ref. AMM TASK 31-55-34-400-001).
- R D. Do the test as given in Para. 3. B. to make sure that operation is
correct (no maintenance message shown).

5. Close-up

A. Aircraft Maintenance Configuration

- (1) Make sure the Blue hydraulic system is depressurized (Ref. AMM TASK 29-10-00-864-003).
- (2) Make sure that the aircraft electrical circuits are de-energized (Ref. AMM TASK 24-41-00-862-002).

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TASK 29-12-00-810-803

Loss of the Correct Quantity in the Blue Hydraulic Reservoir

1. Possible Causes

- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- LOW LEVEL SWITCH
- wiring
- QUANTITY INDICATOR - TRANSMITTER
- hydraulic lines

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
31-54-00-810-831	Loss of the BLUE RSVR QTY Input of the SDAC 1
31-54-00-810-832	Loss of the BLUE RSVR QTY Input of the SDAC 2
AMM 12-32-28-281-001	Drain Water Content
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 29-00-00-280-002	Check of the Internal Leakage of the Blue Hydraulic System
AMM 29-00-00-790-001	Check of the External Leaks of the Hydraulic Components
AMM 29-12-41-000-002	Removal of the Quantity Indicator of the Blue Hydraulic Reservoir
AMM 29-12-41-000-003	Removal of the Low Level Switch of the Blue Hydraulic Reservoir
AMM 29-12-41-400-002	Installation of the Quantity Indicator of the Blue Hydraulic System
AMM 29-12-41-400-003	Installation of the Low Level Switch of the Blue Hydraulic System
AMM 29-31-00-710-001	Functional Check of Reservoir Low Level Warning
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 31-60-00-860-001	EIS Start Procedure
ASM 29-12/01	
ASM 29-31/01	
ASM 29-31/01	
ASM 29-31/02	
ASM 31-54/01	

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
49VU	HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
121VU	HYDRAULIC/LOW/LVL/IND	1832GQ	N32
121VU	HYDRAULIC/HYD/QTY/IND	1831GQ	P35

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the upper ECAM DU, the lower ECAM DU and panel 40VU.

4. Fault Isolation

A. If the Fault Confirmation gives:

- the message HYD B RSVR LO LVL on the upper ECAM DU
 - the contents indication (shows low-fluid level) on the lower ECAM DU in amber,
 - the BLUE ELEC PUMP P/BSW FAULT on panel 40VU,
 - the single chime and the MASTER CAUT lights come on:
- do a visual check of the quantity shown on the mechanical indicator of the Blue reservoir.
- (1) If the quantity shown is more than or equal to 2.4 l (0.6340 USgal):
 - do a check for 28 VDC between:
LOW LEVEL SWITCH connector B/A and connector B/C (Ref. ASM 29-31/02).
 - (a) If there is no 28 VDC:
 - do a check of the wiring between:
LOW LEVEL SWITCH connector B/C and CB (1832GQ) and repair the wiring as necessary (Ref. ASM 29-31/02).
 - (b) If there is 28VDC:
 - replace the LOW LEVEL SWITCH (Ref. AMM TASK 29-12-41-000-003) and (Ref. AMM TASK 29-12-41-400-003).

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- (c) If the fault continues:
 - make sure that the wiring is not connected to GND between:
LOW LEVEL SWITCH connector B/B and DIODE (1156VD) connector 15
(Ref. ASM 29-12/01) and (Ref. ASM 29-31/01).
- 1 If the wiring is connected to GND:
 - repair the wiring as necessary.
- (d) If the fault continues:
 - replace the the QUANTITY INDICATOR - TRANSMITTER (Ref. AMM TASK 29-12-41-000-002) and (Ref. AMM TASK 29-12-41-400-002).
- (2) If the quantity shown is less than 2.4 l (0.6340 USgal):
 - make sure that the drain valve of the hydraulic reservoir has no leaks.
- (a) If the drain valve has a leak:
 - replace the drain valve.
- (b) If the drain valve has no leaks:
 - do a check of the hydraulic lines and the components for leaks
(Ref. AMM TASK 29-00-00-790-001) and repair them.
- (c) If the fault continues:
 - do a check of the internal leakage of the Blue hydraulic system
(Ref. AMM TASK 29-00-00-280-002).
- 1 If the internal leakage rate is too high:
 - repair the defective component.
- 2 If the fault continues, or you can not find a defective component:
 - take a fuel sample from each water drain-valve (Ref. AMM TASK 12-32-28-281-001),
 - do a check for contamination of the fuel with hydraulic fluid after each removal of a fuel sample.
- a If you find hydraulic fluid contamination in one or more fuel samples:
 - do a check of the hydraulic lines and components in the applicable tank area for leaks and repair them.

B. If the Fault Confirmation gives:

- the message HYD B RSVR LO LVL on the upper ECAM DU,
- the contents indication (shows low fluid level) on the lower ECAM DU in amber:
- do a visual check of the quantity shown on the mechanical indicator of the Blue reservoir.

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- (1) If the quantity shown is more than or equal to 1.8 l (0.4755 USgal):
- (a) Do a check for 26 VAC between:
QUANTITY INDICATOR - TRANSMITTER connector A/D and connector A/E
(Ref. ASM 29-31/01).
- 1 If there is no 26 VAC:
- do a check of the wiring between:
QUANTITY INDICATOR - TRANSMITTER connector A/D and CB
(1831GQ) and repair the wiring as necessary (Ref. ASM 29-31/01).
- 2 If the fault continues:
- do a check for a ground signal between:
QUANTITY INDICATOR - TRANSMITTER connector A/E and ground
(Ref. ASM 29-31/01).
- a If there is no ground signal:
- repair the wiring between QUANTITY INDICATOR -
TRANSMITTER connector A/E and ground (Ref. ASM 29-31/01).
- (b) If the fault continues:
- replace the QUANTITY INDICATOR - TRANSMITTER (Ref. AMM TASK 29-12-41-000-002) and (Ref. AMM TASK 29-12-41-400-002).
- (c) If the fault continues:
- do the troubleshooting procedure for the loss of the BLUE RSVR QTY input of the SDAC-1 (1WV1) (Ref. TASK 31-54-00-810-831).
- 1 If the fault continues:
- do the troubleshooting procedure for the loss of the BLUE RSVR QTY input of the SDAC-2 (1WV2) (Ref. TASK 31-54-00-810-832).
- (2) If the quantity shown is less than or equal to 2.0 l (0.5283 USgal):
- do a check for 28 VDC at:
LOW LEVEL SWITCH connector B/C (Ref. ASM 29-31/02).
- (a) If there is no 28 VDC:
- do a check of the wiring between:
LOW LEVEL SWITCH connector B/C and CB (1832GQ) and repair the wiring as necessary (Ref. ASM 29-31/02).
- (b) If there is 28VDC:
- replace the LOW LEVEL SWITCH (Ref. AMM TASK 29-12-41-000-003) and (Ref. AMM TASK 29-12-41-400-003).
- (c) If the fault continues:
- make sure that the wiring is not connected to GND between:
LOW LEVEL SWITCH connector B/B and DIODE (1156VD) connector 15
(Ref. ASM 29-12/01) and (Ref. ASM 29-31/01).

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- 1 If the wiring is connected to GND:
 - repair the wiring as necessary.
- (3) Make sure that the drain valve of the hydraulic reservoir has no leaks.
 - (a) If the drain valve has a leak:
 - replace the drain valve.
 - (b) If the drain valve has no leaks:
 - do a check of the hydraulic lines and components for leaks (Ref. AMM TASK 29-00-00-790-001) and repair them.
 - (c) If the fault continues:
 - do a check of the internal leakage of the Blue hydraulic system (Ref. AMM TASK 29-00-00-280-002).
 - 1 If the internal leakage rate is too high:
 - repair the defective component.
 - 2 If the fault continues, or you can not find a defective component:
 - take a fuel sample from each water drain-valve (Ref. AMM TASK 12-32-28-281-001),
 - do a check for contamination of the fuel with hydraulic fluid after each removal of a fuel sample.
 - a If you find hydraulic fluid contamination in one or more fuel samples:
 - do a check of the hydraulic lines and components in the applicable tank area for leaks and repair them.

C. If the Fault Confirmation gives:

- the message **HYD B RSVR LO LVL** on the upper ECAM DU,
 - the **BLUE ELEC PUMP P/BSW FAULT** on panel 40VU:
 - the single chime and the **MASTER CAUT** lights come on,
- do a visual check of the quantity shown on the mechanical indicator of the Blue reservoir.
- (1) If the quantity shown is less than 1.8 l (0.4755 USgal):
 - replace the **QUANTITY INDICATOR - TRANSMITTER** (Ref. AMM TASK 29-12-41-000-002) and (Ref. AMM TASK 29-12-41-400-002).
 - (2) Make sure that the drain valve of the hydraulic reservoir has no leaks.
 - (a) If the drain valve has a leak:
 - replace the drain valve.

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- (b) If the drain valve has no leaks:
 - do a check of the hydraulic lines and components for leaks (Ref. AMM TASK 29-00-00-790-001) and repair them.
- (c) If the fault continues:
 - do a check of the internal leakage of the Blue hydraulic system (Ref. AMM TASK 29-00-00-280-002).
- 1 If the internal leakage rate is too high:
 - repair the defective component.
- 2 If the fault continues, or you can not find a defective component:
 - take a fuel sample from each water drain-valve (Ref. AMM TASK 12-32-28-281-001),
 - do a check for contamination of the fuel with hydraulic fluid after each removal of a fuel sample.
- a If you find hydraulic fluid contamination in one or more fuel samples:
 - do a check of the hydraulic lines and components in the applicable tank area for leaks and repair them.

D. If the Fault Confirmation gives:

- the message **HYD B RSVR LO LVL** on the upper ECAM DU
- the contents indication (shows normal fluid level) on the lower ECAM DU in green,
- the **BLUE ELEC PUMP P/BSW FAULT** on panel 40VU,
- the single chime and the **MASTER CAUT** lights come on,
- do a visual check of the quantity shown on the mechanical indicator of the Blue reservoir.

(1) If the quantity shown on the indicator is normal:

- (a) Remove the SDAC1 and the SDAC2 (Ref. AMM TASK 31-55-34-000-001).
- (b) Remove the connector from the **LOW LEVEL SWITCH**.
- (c) Do a check of the wiring for a ground signal between:
the **LOW LEVEL SWITCH** connector B/B and the SDAC1 connector AB/6E (Ref. ASM 29-31/01) and (Ref. ASM 31-54/01).
- 1 If there is a ground signal:
 - repair the wiring.
- (d) Install the SDAC1 and SDAC2 (Ref. AMM TASK 31-55-34-400-001).
- (e) Install the connector of the **LOW LEVEL SWITCH**.

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(2) If there is no ground signal or the fault continues:

- Replace the LOW LEVEL SWITCH (Ref. AMM TASK 29-12-41-000-003) and (Ref. AMM TASK 29-12-41-400-003).

E. Do the operational test of the fluid low level warning (Ref. AMM TASK 29-31-00-710-001) to make sure that the operation is correct (no message shown).

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TASK 29-12-00-810-804

Loss of the Pressure of the Blue Electric Pump

1. Possible Causes

- ELEC PUMP-B (2075GJ)
- ACCU-B PWR (2070GM)
- PRESS SW-ELEC PUMP, B (2074GJ)
- DET-PHASE UNBALANCE, B ELEC PUMP (2707GJ)
- CT-B ELEC PUMP (2706GJ)
- CONTACTOR (2705GJ)
- RELAY-N2 SPEED CONDTN (2709GJ)
- wiring

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 29-10-00-200-008	Check Nitrogen Charge Pressure on Hydraulic Power Accumulators
AMM 29-12-00-710-001	Functional Check of Blue Electrical Pump Pressure by Reading ECAM Indication
AMM 29-12-15-000-001	Removal of the Blue Electric-Pump Current Transformer (2706GJ)
AMM 29-12-15-400-001	Installation of the Blue Electric-Pump Current Transformer (2706GJ)
AMM 29-12-17-000-001	Removal of the Electric Pump Pressure-Switch (2074GJ)
AMM 29-12-17-400-001	Installation of the Electric Pump Pressure-Switch (2074GJ)
AMM 29-12-18-000-001	Removal of the Blue Electric Pump Phase-Unbalance Detector (2707GJ)
AMM 29-12-18-400-001	Installation of the Blue Electric Pump Phase-Unbalance Detector (2707GJ)
AMM 29-12-42-000-001	Removal of the Blue Power Accumulator
AMM 29-12-42-400-001	Installation of the Blue Power Accumulator
AMM 29-12-51-000-001	Removal of the Electric Pump (2075GJ)
AMM 29-12-51-400-001	Installation of the Electric Pump (2075GJ)
AMM 29-12-55-000-001	Removal of the Blue Electric-Pump Supply Contactor (2705GJ)
AMM 29-12-55-400-001	Installation of the Blue Electric-Pump Supply Contactor (2705GJ)
AMM 29-24-51-000-001	Removal of the Electric Pump (3075GX)
AMM 29-24-51-400-001	Installation of the Electric Pump (3075GX)
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	Engine Shutdown
ASM 29-12/01	

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3. Fault Confirmation

NOTE : Continue with the step B. when the crew reported that the HYD B ELEC PUMP LO PRESS warning was shown for a short time during the start of the engines.

A. Do the operational test of the Blue hydraulic system (Ref. AMM TASK 29-12-00-710-001).

B. Do the subsequent test when the HYD B ELEC PUMP LO PRESS warning was shown for a short time during the start of the engines.

(1) Start the engine No. 2 (Ref. AMM TASK 71-00-00-710-003).

(2) Start the engine No. 1 (Ref. AMM TASK 71-00-00-710-003).

(3) Look at the upper ECAM DU for the warning HYD B ELEC PUMP LO PRESS.

(4) Shutdown the engines (Ref. AMM TASK 71-00-00-710-028).

4. Fault Isolation

A. If the test gives:

- HYD B ELEC PUMP LO PR on the upper ECAM DU,
- LO flag of the BLUE hydraulic system on the HYD page of the lower ECAM DU,
- BLUE ELEC PUMP P/BSW FAULT on panel 40VU,
do the steps that follows:
- examine if the Blue electric pump operates.

(1) If the ELEC PUMP-B (2075GJ) operates:

- look on the ECAM SD - DU and do a check of the pressure indication.

(a) If the pressure is less than 1450 psi (99.9739 bar):

1 Do a check of the nitrogen charge pressure of the Blue hydraulic power accumulator (Ref. AMM TASK 29-10-00-200-008).

a If necessary, replace the ACCU-B PWR (2070GM) (Ref. AMM TASK 29-12-42-000-001) and (Ref. AMM TASK 29-12-42-400-001).

2 If the fault continues:

a Replace the ELEC PUMP-B (2075GJ) (Ref. AMM TASK 29-12-51-000-001) and (Ref. AMM TASK 29-12-51-400-001).

NOTE : You can replace the ELEC PUMP-B (2075GJ) with the ELEC PUMP-Y (3075GX) which is interchangeable, if a new pump is not available (Ref. AMM TASK 29-24-51-000-001) and (Ref. AMM TASK 29-24-51-400-001).

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- (b) If the pressure is more than 1450 psi (99.9739 bar):
- do a check for continuity between:
PRESS SW-ELEC PUMP, B (2074GJ) connector A/A and connector A/C
 - repair the wiring as necessary (Ref. ASM 29-12/01).
- 1 If there is continuity:
- replace the PRESS SW-ELEC PUMP, B (2074GJ) (Ref. AMM TASK 29-12-17-000-001) and (Ref. AMM TASK 29-12-17-400-001).
- 2 If there is no continuity:
- do a check of the wiring for a GND connection between:
PRESS SW-ELEC PUMP, B (2074GJ) connector A/C and the SDAC connector AA/04F (Ref. ASM 29-12/01).
- a If there is a GND connection:
- repair the wiring as necessary.
- (2) If the ELEC PUMP-B (2075GJ) does not operate:
- do a check of the red indicator light on the DET-PHASE UNBALANCE, B ELEC PUMP (2707GJ).

(a) If the red indicator light is on:

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.

- put the BLUE ELEC PUMP P/BSW (2704GJ) on panel 40VU in the OFF position (OFF light is on and the red indicator light on the DET-PHASE UNBALANCE, B ELEC PUMP (2707GJ) goes off),
- put the BLUE ELEC PUMP P/BSW (2704GJ) in the AUTO position (OFF light goes off),
- put the BLUE PUMP OVRD P/BSW (2703GJ) on panel 50VU in the ON position
- look on the SD - DU and examine if the ELEC PUMP-B (2075GJ) operates.

- 1 If the ELEC PUMP-B (2075GJ) does not operate and the red indicator light DET-PHASE UNBALANCE, B ELEC PUMP (2707GJ) comes on again:
- replace the ELEC PUMP-B (2075GJ) (Ref. AMM TASK 29-12-51-000-001) and (Ref. AMM TASK 29-12-51-400-001).

NOTE : You can replace the ELEC PUMP-B (2075GJ) with the ELEC PUMP-Y (3075GX) which is interchangeable, if a new pump is not available (Ref. AMM TASK 29-24-51-000-001) and (Ref. AMM TASK 29-24-51-400-001).

- 2 If the ELEC PUMP-B (2075GJ) operates at normal pressure and the red indicator light on the DET-PHASE UNBALANCE, B ELEC PUMP (2707GJ) does not come on:
- no more actions are necessary.

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(b) If the red indicator light is not on:

- do a check for 115VAC between:
the ELEC PUMP-B (2075GJ) connectors A/G and A/A, A/B, A/C.

1 If there are 115VAC:

- replace the ELEC PUMP-B (2075GJ) (Ref. AMM TASK 29-12-51-000-001) and (Ref. AMM TASK 29-12-51-400-001).

NOTE : You can replace the ELEC PUMP-B (2075GJ) with the ELEC PUMP-Y (3075GX) which is interchangeable, if a new pump is not available (Ref. AMM TASK 29-24-51-000-001) and (Ref. AMM TASK 29-24-51-400-001).

2 If there are no 115VAC:

- do a check for 28VDC between the DET-PHASE UNBALANCE, B ELEC PUMP (2707GJ) connectors A/G and A/F.

a If there are 28VDC:

- replace the CT-B ELEC PUMP (2706GJ) (Ref. AMM TASK 29-12-15-000-001) and (Ref. AMM TASK 29-12-15-400-001).

b If the fault continues:

- replace the DET-PHASE UNBALANCE, B ELEC PUMP (2707GJ) (Ref. AMM TASK 29-12-18-000-001) and (Ref. AMM TASK 29-12-18-400-001).

c If the fault continues:

- replace the CONTACTOR (2705GJ) (Ref. AMM TASK 29-12-55-000-001) and (Ref. AMM TASK 29-12-55-400-001).

d If the fault continues:

- do a check of the wiring between: DET-PHASE UNBALANCE, B ELEC PUMP (2707GJ) connector A/D and CONTACTOR (2705GJ) B/3
- repair as necessary.

e If the fault continues:

- do a check of the wiring between:
ELEC PUMP-B (2075GJ) connectors A/A, A/B and A/C and CB (2701GJ)
- repair as necessary.

f If there are no 28VDC:

- do a check of the wiring between: DET-PHASE UNBALANCE, B ELEC PUMP (2707GJ) connector A/F and CB (2702GJ)
- repair as necessary.

B. If the HYD B ELEC PUMP LO PRESS warning was shown for a short time during the fault confirmation with engines running:

- Replace the RELAY-N2 SPEED CONDTN (2709GJ).

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C. Do the test as given in Para. 3. A. or 3. B. to make sure that operation is correct.

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TASK 29-12-00-810-805

Loss of the System Pressure of the Blue Hydraulic System

1. Possible Causes

- PRESS SW-FLT CTL, B (2151GN)
- SOL VALVE-LEAKAGE MEAS, B (2150GP)
- P/BSW (1884GP)
- wiring
- accumulator
- MANIFOLD,HP (2111GM)

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 12-12-29-611-001	Fill the Hydraulic Fluid Reservoir with a Hand Pump
AMM 12-12-29-611-002	Fill the Hydraulic Fluid Reservoir with a Hydraulic Service Cart
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-12-14-000-001	Removal of the HP Manifold of the Blue Hydraulic System
AMM 29-12-14-400-001	Installation of the HP Manifold of the Blue Hydraulic System
AMM 29-12-42-000-001	Removal of the Blue Power Accumulator
AMM 29-12-42-400-001	Installation of the Blue Power Accumulator
AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM 29-19-51-000-002	Removal of the Leakage-Measurement Solenoid Valve (2150GP)
AMM 29-19-51-400-002	Installation of the Leakage-Measurement Solenoid Valve (2150GP)
AMM 29-32-12-000-002	Removal of the System Pressure Switch (2151GN)
AMM 29-32-12-400-002	Installation of the System Pressure Switch (2151GN)
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	Engine Shutdown
ASM 29-19/01	
ASM 29-32/01	
ASM 31-52/02	

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
49VU	HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
121VU	HYDRAULIC/SOL VALVES/G/Y/B/LEAK/TST	1881GP	N35
123VU	B HYD/ELEC PUMP	2701GJ	AB09

B. Aircraft Maintenance Configuration

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, press the HYD pushbutton. Make sure that the HYD page is shown on the ECAM lower Display Unit (DU).
- (4) Make sure that the ECAM does not show these conditions:
 - low air pressure in the Blue reservoir
 - low fluid level in the Blue reservoir.
- (5) If necessary, pressurize the reservoir (Ref. AMM TASK 29-14-00-614-002).
- (6) If necessary, add fluid to the reservoir (Ref. AMM TASK 12-12-29-611-001) or (Ref. AMM TASK 12-12-29-611-002).
- (7) On panel 50VU, make sure that the HYD/LEAK MEASUREMENT VALVES/B pushbutton switch is set to OFF (ON light not on).
- (8) Start one engine (Ref. AMM TASK 71-00-00-710-003).
- (9) Look for fault indications on the upper and lower ECAM DU.

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4. Fault Isolation

R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

A. Fault Confirmation

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) If the fault confirmation gives:
 - the message **HYD B SYS LO PR** on the upper ECAM DU
 - the system name and the flow arrow of the Blue hydraulic system in amber on the lower ECAM DU:do a check of the system pressure on the lower ECAM DU and on the system accumulator gage (2072GM).
 - (2) If the system pressure is more than 1450 psi:
 - use the rudder pedals to operate the rudder.
 - (a) If the rudder operates:
 - do a check for continuity between:
the **PRESS SW-FLT CTL, B (2151GN)** connector A/A and the connector A/C (with the hydraulic system pressurized) (Ref. ASM 29-32/01).
 - 1 If there is continuity:
 - replace the **PRESS SW-FLT CTL, B (2151GN)** (Ref. AMM TASK 29-32-12-000-002) and (Ref. AMM TASK 29-32-12-400-002).
 - 2 If there is no continuity:
 - do a check and repair the wiring between:
the **PRESS SW-FLT CTL, B (2151GN)** connector A/C and the **FWC-1/ FWC-2** connector AA/06G (Ref. ASM 29-32/01) and (Ref. ASM 31-52/02).
 - (b) If the rudder does not operate:
 - do a check for 28 VDC at the:
SOL VALVE-LEAKAGE MEAS, B (2150GP) connector A/A and the connector A/B (Ref. ASM 29-19/01).
- NOTE : There is usually 0 VDC.**
- 1 If there is 28 VDC:
 - do a check of the wiring between:
the **P/BSW (1884GP)** connector C2 and the connector C3 (Ref. ASM 29-19/01).
 - a If there is continuity:
 - replace the **P/BSW (1884GP)**.

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- b If there is no continuity:
 - do a check and repair the wiring between the:
P/BSW (1884GP) connector C3 and the CB (1881GP) (Ref. ASM 29-19/01).

- (c) If the fault continues:
 - replace the SOL VALVE-LEAKAGE MEAS, B (2150GP) (Ref. AMM TASK 29-19-51-000-002) and (Ref. AMM TASK 29-19-51-400-002).

- (3) If the pressure is less than 1450 psi:
 - replace the accumulator (Ref. AMM TASK 29-12-42-000-001) and (Ref. AMM TASK 29-12-42-400-001)
 - do a check for external leakage and repair the components as necessary.

****ON A/C 209-225, 247-275, 286-299, 429-475, 481-499, 503-549, 551-599, 703-749,**

A. Fault Confirmation

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) If the fault confirmation gives:
 - the message HYD B SYS LO PR on the upper ECAM DU
 - the system name and the flow arrow of the Blue hydraulic system in amber on the lower ECAM DU:
do a check of the system pressure on the lower ECAM DU and on the system accumulator gage (2072GM).
- (2) If the system pressure is more than 1450 psi:
 - use the rudder pedals to operate the rudder.
- (a) If the rudder operates:
 - do a check for continuity between:
the PRESS SW-FLT CTL, B (2151GN) connector A/A and the connector A/C (with the hydraulic system pressurized) (Ref. ASM 29-32/01).
- 1 If there is continuity:
 - replace the PRESS SW-FLT CTL, B (2151GN) (Ref. AMM TASK 29-32-12-000-002) and (Ref. AMM TASK 29-32-12-400-002).
- 2 If there is no continuity:
 - do a check and repair the wiring between the:
PRESS SW-FLT CTL, B (2151GN) connector A/C and the FWC-1/
FWC-2 connector AA/06G (Ref. ASM 29-32/01) and (Ref. ASM 31-52/02).

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- (b) If the rudder does not operate:
- do a check for 28VDC at the:
SOL VALVE-LEAKAGE MEAS, B (2150GP) connector A/A and the
connector A/B (Ref. ASM 29-19/01). The correct value is 0 VDC.
- 1 If there is 28VDC:
- do a check of the wiring between:
the P/BSW (1884GP) connector C2 and the connector C3 (Ref.
ASM 29-19/01).
- a If there is continuity:
- replace the P/BSW (1884GP).
- b If there is no continuity:
- do a check and repair the wiring between the:
P/BSW (1884GP) connector C3 and the CB (1881GP) (Ref. ASM
29-19/01).
- (c) If the fault continues:
- replace the MANIFOLD,HP (2111GM) (Ref. AMM TASK 29-12-14-000-
001) and (Ref. AMM TASK 29-12-14-400-001).
- (3) If the pressure is less than 1450 psi:
- replace the accumulator (Ref. AMM TASK 29-12-42-000-001) and (Ref.
AMM TASK 29-12-42-400-001)
 - do a check for external leakage and repair the components as
necessary.

****ON A/C ALL**

**B. Do the fault confirmation procedure as given in Para. 3. to make sure
that operation is correct.**

5. Close-up

A. Aircraft Maintenance Configuration

- (1) Stop the engine (Ref. AMM TASK 71-00-00-710-028).
- (2) Do the EIS stop procedure
(Ref. AMM TASK 31-60-00-860-002).
- (3) De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

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TASK 29-12-00-810-806

Overheat Indication of the Blue Electric Pump

1. Possible Causes

- ELEC PUMP-B (2075GJ)
- CASE DRAIN FILT.ELEC.PUMP B (2084GM)
- wiring

2. Job Set-up Information**A. Referenced Information****REFERENCE****DESIGNATION**

AMM 29-12-00-710-001	Functional Check of Blue Electrical Pump Pressure by Reading ECAM Indication
AMM 29-12-43-610-001	Servicing of the Electric-Pump Case-Drain Filter (2084GM)
AMM 29-12-51-000-001	Removal of the Electric Pump (2075GJ)
AMM 29-12-51-400-001	Installation of the Electric Pump (2075GJ)
AMM 29-24-51-000-001	Removal of the Electric Pump (3075GX)
AMM 29-24-51-400-001	Installation of the Electric Pump (3075GX)

3. Fault Confirmation

- A. Do the operational test of the electric pump of the Blue hydraulic system (Ref. AMM TASK 29-12-00-710-001).

4. Fault Isolation

- A. If the test gives the message HYD B ELEC PUMP OVHT on the upper ECAM DU:
- Disconnect the electrical connector (2075GJ-A) and look at the upper ECAM DU.
- (1) If the fault continues:
- Do a check of the wiring between the ELEC PUMP-B (2075GJ) connector A/F and the SDAC.
- (2) If the fault continues:
- Do a check of the CASE DRAIN FILT.ELEC.PUMP B (2084GM) (Ref. AMM TASK 29-12-43-610-001).

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(3) If the fault continues:

- Replace the ELEC PUMP-B (2075GJ) (Ref. AMM TASK 29-12-51-000-001) and (Ref. AMM TASK 29-12-51-400-001).

NOTE : Replace the ELEC PUMP-B (2075GJ) with the ELEC PUMP-Y (3075GX) which is interchangeable, if a new pump is not available (Ref. AMM TASK 29-24-51-000-001) and (Ref. AMM TASK 29-24-51-400-001).

B. Do the test as given in Para. 3. A. to make sure that the operation is correct.

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TASK 29-12-00-810-807

Symbol of the Electric Pump on the ECAM Lower DU shows incorrect Position

1. Possible Causes

- wiring
- PRESSURE SWITCH-ELECTRIC PUMP 2074GJ

2. Job Set-up Information**A. Referenced Information**

REFERENCE**DESIGNATION**

AMM	29-12-00-710-001	Functional Check of Blue Electrical Pump Pressure by Reading ECAM Indication
AMM	29-12-17-000-001	Removal of the Electric Pump Pressure-Switch (2074GJ)
AMM	29-12-17-400-001	Installation of the Electric Pump Pressure-Switch (2074GJ)
ASM	29-12/01	

3. Fault Confirmation

- A. Do the operational test of the electric pump of the Blue hydraulic system (Ref. AMM TASK 29-12-00-710-001).

4. Fault Isolation

- A. If during the test, the E-pump symbol on the HYD page of the lower ECAM DU shows LO in amber color and the system pressure is correct (more than 1450 psi (99.9739 bar)):
- (1) Do a check of the wiring and/or the electrical connector (2074GJ-A) of the PRESSURE SWITCH-ELECTRIC PUMP 2074GJ for the correct condition (Ref. ASM 29-12/01).
 - (2) If necessary, repair the wiring and /or the electrical connector (2074GJ-A) of the PRESSURE SWITCH-ELECTRIC PUMP 2074GJ (Ref. ASM 29-12/01).
 - (3) If the fault continues, replace the PRESSURE SWITCH-ELECTRIC PUMP 2074GJ (Ref. AMM TASK 29-12-17-000-001) and (Ref. AMM TASK 29-12-17-400-001).

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- B.** If, after the test, the link from the E-pump to the RAT on the HYD page of the lower ECAM DU is displayed in green color with the Blue E-pump in off position:
- (1) Do a check of the wiring and/or the electrical connector (2074GJ-A) of the PRESSURE SWITCH-ELECTRIC PUMP 2074GJ for the correct condition (Ref. ASM 29-12/01).
 - (2) If necessary, repair the wiring and /or the electrical connector (2074GJ-A) of the PRESSURE SWITCH-ELECTRIC PUMP 2074GJ (Ref. ASM 29-12/01).
 - (3) If the fault continues, replace the PRESSURE SWITCH-ELECTRIC PUMP 2074GJ (Ref. AMM TASK 29-12-17-000-001) and (Ref. AMM TASK 29-12-17-400-001).
- C.** Do the test given in Para. 3

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TASK 29-12-00-810-809

Fault of the System Pressure Indication of the Blue Hydraulic System on the ECAM Lower DU

1. Possible Causes

- **PRESSURE TRANSDUCER-HYDRAULIC (2065GN)**

2. Job Set-up Information

A. Referenced Information

REFERENCE

DESIGNATION

AMM 29-12-00-710-001	Functional Check of Blue Electrical Pump Pressure by Reading ECAM Indication
AMM 29-32-11-000-002	Removal of the Hydraulic Pressure Transducer (2065GN)
AMM 29-32-11-400-002	Installation of the Hydraulic Pressure Transducer (2065GN)

3. Fault Confirmation

- #### **A. Do the operational test of the electric pump of the Blue hydraulic system (Ref. AMM TASK 29-12-00-710-001).**

4. Fault Isolation

- #### **A. If, during the test, the operation of the flight controls is correct, but the HYD page on the ECAM lower DU shows for the Blue hydraulic system the subsequent condition:**
- the system pressure indication in amber (less than 1450 PSI),**
 - the system pressure identification (BLUE) in white,**
 - the system arrow in green.**
- **replace the PRESSURE TRANSDUCER-HYDRAULIC (2065GN) (Ref. AMM TASK 29-32-11-000-002) and (Ref. AMM TASK 29-32-11-400-002).**

- #### **B. Do the test given in Para. 3**

EFF : ALL

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TASK 29-12-00-810-810

Continues Running of the Blue Electric Pump

1. Possible Causes

- LGCIU-1 (5GA1)
- RELAY (2708GJ)
- RELAY (2709GJ)
- RELAY (2713GJ)
- RELAY (2710GJ)
- RELAY (2705GJ)

2. Job Set-up Information**A. Referenced Information**

REFERENCE**DESIGNATION**

AMM 29-12-00-710-001	Functional Check of Blue Electrical Pump Pressure by Reading ECAM Indication
AMM 32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)
AMM 32-31-71-400-001	Installation of the LGCIU (5GA1, 5GA2)

3. Fault Confirmation

- A. Do the operational test of the electric pump of the Blue hydraulic system (Ref. AMM TASK 29-12-00-710-001).

4. Fault Isolation

- A. If there is a continuous operation of the Blue electric pump after the operational test is completed:
- replace the RELAY (2708GJ).
- (1) If the fault continues:
- replace the RELAY (2709GJ).
- (2) If the fault continues:
- replace the RELAY (2713GJ).
- (3) If the fault continues:
- replace the RELAY (2710GJ).
- (4) If the fault continues:
- replace the LGCIU-1 (5GA1). (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
- (5) If the fault continues:
- replace the RELAY (2705GJ).

EFF : ALL

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- B. Do the test as given in Para. 3. A. to make sure that operation is correct.

TASK 29-12-00-810-811

Blue System Pressure Indication on ECAM DU is out of Tolerance

1. Possible Causes

- ELEC PUMP-B (2075GJ)
- internal leakage

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 12-12-29-611-001	Fill the Hydraulic Fluid Reservoir with a Hand Pump
AMM 12-12-29-611-002	Fill the Hydraulic Fluid Reservoir with a Hydraulic Service Cart
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-280-002	Check of the Internal Leakage of the Blue Hydraulic System
AMM 29-10-00-863-003	Pressurize the Blue Hydraulic System with a Ground Power Supply
AMM 29-10-00-864-003	Depressurize the Blue Hydraulic System
AMM 29-12-51-000-001	Removal of the Electric Pump (2075GJ)
AMM 29-12-51-400-001	Installation of the Electric Pump (2075GJ)
AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM 29-24-51-000-001	Removal of the Electric Pump (3075GX)
AMM 29-24-51-400-001	Installation of the Electric Pump (3075GX)
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure

3. Fault Confirmation**A. Make sure that this(these) circuit breaker(s) is(are) closed:**

PANEL	DESIGNATION	IDENT.	LOCATION
	49VU HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
	121VU HYDRAULIC/SOL VALVES/G/Y/B/LEAK/TST	1881GP	N35
	123VU B HYD/ELEC PUMP	2701GJ	AB09

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, press the HYD pushbutton. Make sure that the HYD page shows on the ECAM lower Display Unit (DU).
- (4) Make sure that the ECAM does not show one or more of these conditions:
 - Low air pressure in the Blue reservoir
 - Low fluid level in the Blue reservoir.
- (5) If necessary, pressurize the Blue reservoir (Ref. AMM TASK 29-14-00-614-002).
- (6) If necessary, add fluid to the Blue reservoir (Ref. AMM TASK 12-12-29-611-001) or (Ref. AMM TASK 12-12-29-611-002).
- (7) On panel 50VU, make sure that the HYD/LEAK MEASUREMENT VALVES/B pushbutton switch is set to OFF (the OFF light is on).

C. Test

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) Pressurize the Blue hydraulic system with the electric pump (Ref. AMM TASK 29-10-00-863-003).
- (2) Look for the Bluehydraulic system pressure indication on the lower ECAM DU.

4. Fault Isolation**A. If the fault confirmation gives:**

- a system pressure indication of 2750 psi on the lower ECAM DU:

(1) On the panel 50VU, set the HYD/LEAK MEASUREMENT VALVES/B pushbutton switch to on (the OFF light is not on).

(a) If the system pressure increases:

- 1 On the panel 50VU, set the HYD/LEAK MEASUREMENT VALVES/B pushbutton switch to off (the OFF light is on).
- 2 De-pressurize the Blue hydraulic system (Ref. AMM TASK 29-10-00-864-003).
- 3 Do a check of the internal leakage of the Blue hydraulic system (Ref. AMM TASK 29-00-00-280-002) and do the necessary repair procedures.

(b) If the system pressure does not increase:

- 1 Replace the ELEC PUMP-B (2075GJ) (Ref. AMM TASK 29-12-51-000-001) and (Ref. AMM TASK 29-12-51-400-001).
- 2 Replace the ELEC PUMP-B (2075GJ) with the ELEC PUMP-Y (3075GX) which is interchangeable, if a new pump is not available (Ref. AMM TASK 29-24-51-000-001) and (Ref. AMM TASK 29-24-51-400-001).

(c) If the fault continues, obey the subsequent causes:

- The internal leakage in the Blue hydraulic system is a bit higher than usual (special for older A/C).
- There is an additional ECAM tolerance of +/- 50 psi, the system pressure indication on the ECAM is in 50 psi steps.

B. Do the fault confirmation procedure as given in Para. 3. to make sure that operation is correct.

5. Close-up

A. Put the aircraft back to the serviceable condition.

- (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
- (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF : ALL

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TASK 29-12-00-810-812

Blue Reservoir Pressure is out of Tolerance

1. Possible Causes

- PRESSURE REDUCING VALVE

2. Job Set-up Information**A. Fixtures, Tools, Test and Support Equipment****REFERENCE****QTY DESIGNATION**

No specific

circuit breaker(s) safety clip(s)

No specific

warning notices

B. Referenced Information**REFERENCE****DESIGNATION**

AMM 12-32-29-281-001

Hydraulic Fluid Sample of Green, Blue and Yellow Systems for Analysis

AMM 29-00-00-864-001

Put the Related Hydraulic System in the Depressurized Configuration before Maintenance Action

AMM 29-14-00-720-001

Functional Test of the Pressurizing System of the Hydraulic Reservoirs

AMM 29-14-43-000-001

Removal of the Pressure Reducing Valve

AMM 29-14-43-400-001

Installation of the Pressure Reducing Valve

AMM 32-12-00-010-001

Open the Main Gear Doors for Access

3. Fault Confirmation**A. Open, safety and tag this(these) circuit breaker(s):****PANEL DESIGNATION****IDENT. LOCATION**

49VU HYD/HYD PWR/B WARN/& CTL

2702GJ

C12

121VU HYDRAULIC/HYD POWER/Y

3803GX

N30

123VU B HYD/ELEC PUMP

2701GJ

AB09

123VU Y HYD/ELEC/PUMP

3802GX

AB06

123VU Y HYD/ELEC/ELEC PUMP/NORM

3801GX

AB03

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Depressurize the Green, Yellow and Blue hydraulic systems, but not the reservoirs (Ref. AMM TASK 29-00-00-864-001).
- (2) Put the warning notices in position to tell persons not to pressurize the hydraulic systems:
 - in the flight compartment on the hydraulic section 40VU of the overhead panel,
 - on the ground service panels of the Green, Yellow and Blue hydraulic systems.
- (3) Open the access doors 196BB and 197FB.
- (4) Open the right main door of the main landing gear (Ref. AMM TASK 32-12-00-010-001).
- (5) Read the pressure gages (1383GM, 2383GM, 3383GM) on each hydraulic reservoir.
- (6) If the reservoir pressure indication is more than 52 +2 -2 psi (3.5852 +0.1378 -0.1378 bar):
 - (a) Do the functional test of the pressurizing system of the hydraulic reservoirs (Ref. AMM TASK 29-14-00-720-001).

4. Fault Isolation

- A. If the reservoir pressure increases during the test to more than 50 +2 -2 psi (3.4473 +0.1378 -0.1378 bar):
 - (1) Replace the PRESSURE REDUCING VALVE (Ref. AMM TASK 29-14-43-000-001) and (Ref. AMM TASK 29-14-43-400-001).
 - (2) Take a fluid sample from each hydraulic system to make sure that the contamination of the hydraulic fluid is in the approved values (Ref. AMM TASK 12-32-29-281-001).
- B. Do the functional test of the pressurizing system of the hydraulic reservoirs again to make sure that the function is correct (Ref. AMM TASK 29-14-00-720-001).

5. Close-up

- A. Remove the safety clip(s) and the tag(s) and close this(these) circuit breaker(s):
2701GJ, 2702GJ, 3801GX, 3802GX, 3803GX

EFF : ALL

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TASK 29-12-00-810-813

FAULT Light of the **BLUE ELEC PUMP P/BSW** is **ON**

1. Possible Causes

- **BOARD-ANN LT TEST & INTFC (11LP)**
- **wiring**

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 33-14-00-710-001	Operational Test of the Lights
AMM 33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
AMM 33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
ASM 33-14/18	

3. Fault Confirmation

A. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) On the overhead panel 40VU, look for the **FAULT** light of the **BLUE ELEC PUMP P/BSW**.

4. Fault Isolation

A. If the Fault Confirmation gives:

- the **BLUE ELEC PUMP P/BSW FAULT** on panel 40VU:
- replace the **BOARD-ANN LT TEST & INTFC (11LP)** (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).

EFF : ALL

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(1) If the fault continues:

- do a check and repair the wiring between the:
BOARD-ANN LT TEST & INTFC (11LP) pin A/10 and the
P/BSW-HYD/BLUE/ELEC PUMP (2704GJ) pin A/7 (Ref. ASM 33-14/18).

B. Do the operational test of the annunciator light test system (Ref. AMM TASK 33-14-00-710-001) to make sure that the operation is correct.

5. Close-up

A. De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

EFF : ALL

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TASK 29-12-00-810-814

Intermittent Indication of HYD B RSVR LO LVL and HYD B RSVR OVHT on ECAM DU

1. Possible Causes

- SDAC-1 (1WV1)
- SDAC-2 (1WV2)

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
29-12-00-810-802	Overheat Indication of the Blue Hydraulic System
29-12-00-810-803	Loss of the Correct Quantity in the Blue Hydraulic Reservoir
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 31-60-00-860-001	EIS Start Procedure

3. Fault Confirmation**A. Make sure that this(these) circuit breaker(s) is(are) closed:**

PANEL	DESIGNATION	IDENT. LOCATION	
49VU	HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
49VU	SDAC/1 AND 2/28VDC/ESS BUS	12WV	F05
49VU	SDAC/1/SPLY	3WV	F04
49VU	SDAC/2/26VAC SYNC/AC ESS BUS	6WV	F03
49VU	SDAC/1/26VAC SYNC/AC ESS BUS	5WV	F02
121VU	HYDRAULIC/LOW/LVL/IND	1832GQ	N32
121VU	HYDRAULIC/HYD/QTY/IND	1831GQ	P35
121VU	EIS/SDAC/2/SPLY	2WV	Q06
121VU	EIS/SDAC/2/BUS1/26VAC SYNC AC	10WV	Q05
121VU	EIS/SDAC/1/BUS1/26VAC SYNC AC	9WV	Q04
121VU	EIS/SDAC/1/BUS2/26VAC SYNC AC	7WV	Q03
121VU	EIS/SDAC/2/BUS2/26VAC SYNC AC	8WV	Q02

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) Look for fault indications on the upper ECAM DU.

4. Fault Isolation

A. If the Fault Confirmation gives:

-the messages HYD B RSVR LO LVL and HYD B RSVR on the upper ECAM DU:

- Open these circuit breakers:

- R - 3WV,
- R - 5WV,
- R - 7WV and
- R - 9WV.

(1) If the fault messages go off:

- replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) and
(Ref. AMM TASK 31-55-34-400-001).

(2) If the fault continues:

(a) Close these circuit breakers:

- R - 3WV,
- R - 5WV,
- R - 7WV and
- R - 9WV.

(b) Open these circuit breakers:

- R - 2WV,
- R - 6WV,
- R - 8WV and
- R - 10WV.

(3) If the fault messages go off:

- replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and
(Ref. AMM TASK 31-55-34-400-001).

(4) If the fault continues:

- Do the troubleshooting as given in the subsequent references:
 - (Ref. TASK 29-12-00-810-803) and
 - (Ref. TASK 29-12-00-810-802).

B. Do the fault confirmation procedure as given in Para. 3. to make sure that the operation is correct.

EFF : ALL

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TASK 29-12-00-810-815

FAULT Light of the BLUE ELEC PUMP P/BSW is ON at the same Time as the FAULT Light of the ENG1 PUMP P/BSW

1. Possible Causes

- EIU-1 (1KS1)
- RELAY-OIL LOW PRESS AND GROUND, ENG 1 (10KS1)
- RELAY-OIL LOW PRESS AND GROUND, ENG 1 (11KS1)
- SW-LOW OIL PRESS (4000EN)
- wiring

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 73-25-34-710-043	Operational Test of the Engine Interface Unit
AMM 79-34-15-000-041	Removal of the Low Oil Pressure Switch (4000EN)
AMM 79-34-15-400-041	Installation of the Low Oil Pressure Switch (4000EN)
ASM 73-25/08	
ASM 73-25/09	

3. Fault Confirmation**A. Make sure that this(these) circuit breaker(s) is(are) closed:**

PANEL	DESIGNATION	IDENT.	LOCATION
	49VU HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
	121VU HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) On the overhead panel 40VU, look for the FAULT lights of the BLUE ELEC PUMP P/BSW (2704GJ) and the GREEN/ENG 1 PUMP P/BSW (1705GK).

EFF : ALL

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4. Fault Isolation**A. If the Fault Confirmation gives:**

- the **FAULT** light of the **BLUE ELEC PUMP P/BSW** (Panel 40VU) is **ON** at the same time with the **FAULT** light of the **GREEN ENG 1 PUMP P/BSW** (Panel 40VU):
 - (1) Do a check for continuity between the:
EIU-1 (1KS1) connector AB/90 and the **RELAY-OIL LOW PRESS AND GROUND**,
ENG 1 (10KS1) connector A/X (Ref. ASM 73-25/09).
 - (a) If there is no continuity:
 - do a check and repair the wiring between the:
EIU-1 (1KS1) connector AB/90 and the **RELAY-OIL LOW PRESS AND GROUND**, ENG 1 (10KS1) connector A/X (Ref. ASM 73-25/09).
 - (2) If the fault continues:
 - (a) Do a check for continuity between the:
EIU-1 (1KS1) connector AB/90 and the **RELAY-OIL LOW PRESS AND GROUND**, ENG 1 (11KS1) connector A/X (Ref. ASM 73-25/09).
 - (b) If there is no continuity:
 - do a check and repair the wiring between the:
EIU-1 (1KS1) connector AB/90 and the **RELAY-OIL LOW PRESS AND GROUND**, ENG 1 (11KS1) connector A/X (Ref. ASM 73-25/09).
 - (3) If the fault continues:
 - (a) Do the operational test of the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-710-043).
 - (b) If necessary, replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).
 - (4) If the fault continues:
 - (a) Do a check for continuity between the:
SW-LOW OIL PRESS (4000EN) connector A/3 and the EIU-1 (1KS1) connector AA/7A (Ref. ASM 73-25/08).
 - (b) If there is no continuity:
 - do a check and repair the wiring between the:
SW-LOW OIL PRESS (4000EN) connector A/3 and the EIU-1 (1KS1) connector AA/7A (Ref. ASM 73-25/08).
 - (5) If the fault continues:
 - (a) Do a check for continuity between the:
SW-LOW OIL PRESS (4000EN) connector A/2 and the connector A/3 (Ref. ASM 73-25/08).

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(b) If there is no continuity:

- Replace the SW-LOW OIL PRESS (4000EN) (Ref. AMM TASK 79-34-15-000-041) and (Ref. AMM TASK 79-34-15-400-041).

B. Do the procedure as given in Para. 3. B. to make sure that the operation of the system is correct (No FAULT lights ON).

5. Close-up

A. De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF : ALL

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TASK 29-12-00-810-816

FAULT Light of the BLUE ELEC PUMP P/BSW is ON at the same Time as the FAULT Light of the ENG2 PUMP P/BSW

1. Possible Causes

- EIU-2 (1KS2)
- RELAY-OIL LOW PRESS AND GROUND, ENG 2 (10KS2)
- SW-LOW OIL PRESS (4000EN)
- wiring

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU)
AMM 73-25-34-400-040	Installation of the Engine Interface Unit (EIU)
AMM 73-25-34-710-043	Operational Test of the Engine Interface Unit
AMM 79-34-15-000-041	Removal of the Low Oil Pressure Switch (4000EN)
AMM 79-34-15-400-041	Installation of the Low Oil Pressure Switch (4000EN)
ASM 73-25/08	
ASM 73-25/09	

3. Fault Confirmation**A. Make sure that this(these) circuit breaker(s) is(are) closed:**

PANEL	DESIGNATION	IDENT.	LOCATION
	49VU HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
	121VU HYDRAULIC/Y HYD/PUMP ENG2/MONG	3700GD	Q37

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) On the overhead panel 40VU, look for the FAULT lights of the BLUE ELEC PUMP P/BSW (2704GJ) and the YELLOW/ENG 2 PUMP P/BSW (3703GD).

EFF : ALL

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4. Fault Isolation

A. If the Fault Confirmation gives:

- the **FAULT** light of **BLUE ELEC PUMP P/BSW** (Panel 40VU) is **ON** at the same time as the **FAULT** light of the **YELLOW ENG 2 PUMP P/BSW** (Panel 40VU):

- (1) Do a check for continuity between the:
EIU-2 (1KS2) connector AB/90 and the **RELAY-OIL LOW PRESS AND GROUND, ENG 2 (10KS2)** connector A/X (Ref. ASM 73-25/09).
 - (a) If there is no continuity:
 - do a check and repair the wiring between the:
EIU-2 (1KS2) connector AB/90 and the **RELAY-OIL LOW PRESS AND GROUND, ENG 2 (10KS2)** connector A/X (Ref. ASM 73-25/09).
- (2) If the fault continues:
 - replace the **RELAY-OIL LOW PRESS AND GROUND, ENG 2 (10KS2)**.
- (3) If the fault continues:
 - (a) Do the operational test of the **EIU-2 (1KS2)** (Ref. AMM TASK 73-25-34-710-043).
 - (b) If necessary, replace the **EIU-2 (1KS2)** (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).
- (4) If the fault continues:
 - (a) Do a check for continuity between the:
SW-LOW OIL PRESS (4000EN) connector A/3 and the **EIU-2 (1KS2)** connector AA/7A (Ref. ASM 73-25/08).
 - (b) If there is no continuity:
 - do a check and repair the wiring between the:
SW-LOW OIL PRESS (4000EN) connector A/3 and the **EIU-2 (1KS2)** connector AA/7A (Ref. ASM 73-25/08).
- (5) If the fault continues:
 - (a) Do a check for continuity between the:
SW-LOW OIL PRESS (4000EN) connector A/2 and the connector A/3 (Ref. ASM 73-25/08).
 - (b) If there is no continuity:
 - Replace the **SW-LOW OIL PRESS (4000EN)** (Ref. AMM TASK 79-34-15-000-041) and (Ref. AMM TASK 79-34-15-400-041).

- B. Do the procedure as given in Para. 3. B. to make sure that the operation of the system is correct (No FAULT lights ON).**

EFF : ALL

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5. Close-up

- A. De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).**

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TASK 29-12-00-810-817

Indication of the Hydraulic Fluid Quantity of the Blue Reservoir shows High Level

1. Possible Causes

- gas leaks

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
29-12-00-810-801	Loss of the Blue Reservoir Pressurization
29-12-00-810-803	Loss of the Correct Quantity in the Blue Hydraulic Reservoir
29-12-00-810-818	Indication of the Hydraulic Fluid Quantity of the Blue Reservoir shows High or Low Level or fluctuates
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-870-008	Bleeding Procedure of the Blue Hydraulic System Upstream of the Blue E-Pump
AMM 29-00-00-870-009	Bleeding Procedure of the Blue Hydraulic System Downstream of the Blue E-Pump
AMM 29-10-00-200-002	Check Reservoir Air Pressure on Reservoir Gauge
AMM 29-10-00-200-005	Check Nitrogen Charge Pressure on the Blue Main System Accumulator by Reading Gauge
AMM 29-10-00-680-003	Drainage of the Reservoir of the Blue Hydraulic System
AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure

3. Fault Confirmation

- A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
	49VU HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
	121VU HYDRAULIC/HYD/QTY/IND	1831GQ	P35

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the upper ECAM DU, the lower ECAM DU and panel 40VU.

4. Fault Isolation

A. If the Fault Confirmation gives:

- The content indication shows high fluid level on the lower ECAM DU:
 - Do a visual check of the fluid quantity shown on the mechanical indicator (1834GQ) on the ground service panel of the Green hydraulic system.
 - Do a visual check of the fluid quantity shown on the fluid content indicator of the Blue reservoir.
 - Do a check of the pressure of the Blue system accumulator (Ref. AMM TASK 29-10-00-200-005).
 - Do a check of the pressure of the Blue hydraulic reservoir (Ref. AMM TASK 29-10-00-200-002).
- (1) If the three hydraulic fluid quantity indicators show different quantities and the pressures of the accumulator and the reservoir are correct:
 - (a) Do the troubleshooting of the quantity indication system
(Ref. TASK 29-12-00-810-803).
- (2) If the three hydraulic fluid quantity indicators show high level and the pressures of the accumulator and the reservoir are correct:
 - (a) Drain the hydraulic fluid until you have the correct fluid quantity in the reservoir (Ref. AMM TASK 29-10-00-680-003).
 - (b) Pressurize the reservoir of the Blue hydraulic system (Ref. AMM TASK 29-14-00-614-002).

EFF : ALL

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(3) If the three hydraulic fluid quantity indicators show high level, the pressure of the accumulator is correct, but the reservoir pressure is less than the permitted tolerance:

(a) Do a check for external gas leaks on the reservoir and repair the defective components as necessary (Ref. AMM TASK 29-10-00-200-002).

(b) If you find no external gas leaks, or the fault continues:

1 Do the troubleshooting for the loss of the reservoir pressurization (Ref. TASK 29-12-00-810-801).

2 Drain the hydraulic fluid until you have the correct fluid quantity in the reservoir (Ref. AMM TASK 29-10-00-680-003).

3 Pressurize the reservoir of the Blue hydraulic system (Ref. AMM TASK 29-14-00-614-002).

4 After 5 minutes, read the gage of the fluid quantity indicator of the Blue reservoir.

a If the difference of the fluid quantity is not more than 1 liter:

- No further actions are necessary.

b If the difference of the fluid quantity is more than 1 liter:

- Do the bleeding procedures of the Blue hydraulic system (Ref. AMM TASK 29-00-00-870-008) and (Ref. AMM TASK 29-00-00-870-009).

(c) If the fault continues:

1 Do the troubleshooting procedure (Ref. TASK 29-12-00-810-818).

(4) If the three hydraulic fluid quantity indicators show high level, the pressure of the reservoir is correct, but the accumulator pressure is less than the permitted tolerance:

(a) Do the troubleshooting procedure (Ref. TASK 29-12-00-810-818).

B. Do the procedure as given in Para. 3. B. to make sure that the operation of the hydraulic quantity indication is correct.

EFF : ALL

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5. Close-up

A. Put the aircraft back to the serviceable condition.

- (1) Do the EIS stop procedure
(Ref. AMM TASK 31-60-00-860-002).**
- (2) De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).**

TASK 29-12-00-810-818

Indication of the Hydraulic Fluid Quantity of the Blue Reservoir shows High or Low Level or fluctuates

1. Possible Causes

- ACCU-B PWR (2070GM)
- gas leaks

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-870-008	Bleeding Procedure of the Blue Hydraulic System Upstream of the Blue E-Pump
AMM 29-00-00-870-009	Bleeding Procedure of the Blue Hydraulic System Downstream of the Blue E-Pump
AMM 29-10-00-200-002	Check Reservoir Air Pressure on Reservoir Gauge
AMM 29-10-00-200-005	Check Nitrogen Charge Pressure on the Blue Main System Accumulator by Reading Gauge
AMM 29-10-00-863-003	Pressurize the Blue Hydraulic System with a Ground Power Supply
AMM 29-10-00-864-003	Depressurize the Blue Hydraulic System
AMM 29-12-42-000-001	Removal of the Blue Power Accumulator
AMM 29-12-42-400-001	Installation of the Blue Power Accumulator
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
	49VU HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
	121VU HYDRAULIC/HYD/QTY/IND	1831GQ	P35

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD
pushbutton switch. Make sure that the HYD page is shown on the system
display of the ECAM.
- (4) Pressurize the Blue hydraulic system with the electric pump (Ref. AMM
TASK 29-10-00-863-003).
- (5) Look for fault indications on the upper ECAM DU, the lower ECAM DU
and panel 40VU.
- (6) Depressurize the Blue hydraulic system (Ref. AMM TASK 29-10-00-864-
003).

4. Fault Isolation

A. If the Fault Confirmation gives:

- The content indication shows high fluid level on the lower ECAM DU,
or
 - The content indication shows low fluid level on the lower ECAM DU,
or
 - The content indication fluctuates between high and low fluid level on
the lower ECAM DU after pressurization of the Blue hydraulic system
with the electric pump,
or the subsequent warnings come into view:
 - The HYD B ELEC PUMP LO PR on the upper ECAM DU,
 - The LO flag of the BLUE hydraulic system on the HYD page of the lower
ECAM DU,
 - The BLUE ELEC PUMP P/BSW FAULT on panel 40VU,
-
- Do a visual check of the fluid quantity shown on the mechanical
indicator (1834GQ) on the ground service panel of the Green hydraulic
system.
 - Do a visual check of the fluid quantity shown on the fluid content
indicator of the Blue reservoir.
 - Do a check of the pressure of the Blue system accumulator (2070GM)
(Ref. AMM TASK 29-10-00-200-005).
 - Do a check of the pressure of the Blue hydraulic reservoir (Ref. AMM
TASK 29-10-00-200-002).

EFF : ALL

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(1) If the three hydraulic fluid quantity indicators show the same quantity, the pressure of the reservoir is correct, but the accumulator pressure is less than the permitted tolerance:

(a) Do a check for external gas leaks on the power accumulator and repair the defective components as necessary (Ref. AMM TASK 29-10-00-200-005).

(b) If you find no external gas leaks, or the fault continues:

1 Replace the ACCU-B PWR (2070GM) (Ref. AMM TASK 29-12-42-000-001) and (Ref. AMM TASK 29-12-42-400-001).

2 Do the bleeding procedures of the Blue hydraulic system (Ref. AMM TASK 29-00-00-870-008) and (Ref. AMM TASK 29-00-00-870-009).

B. Do the procedure as given in Para. 3. B. to make sure that the operation of the hydraulic quantity indication is correct.

5. Close-up

A. Put the aircraft back to the serviceable condition.

(1) Do the EIS stop procedure
(Ref. AMM TASK 31-60-00-860-002).

(2) De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

TASK 29-12-00-810-819

Reservoir Fluid-Level Indication replaced by amber XX for the Blue Hydraulic System

1. Possible Causes

- quantity indicator of the Blue hydraulic reservoir
- quantity indicator of the Green hydraulic reservoir
- quantity indicator of the Yellow hydraulic reservoir
- wiring
- C/B-HYDRAULIC/HYD/QTY/IND (1831GQ)
- terminal block (7502VT)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 29-11-41-000-002	Removal of the Quantity Indicator of the Green Hydraulic Reservoir
AMM 29-11-41-400-002	Installation of the Quantity Indicator of the Green Hydraulic Reservoir
AMM 29-12-41-000-002	Removal of the Quantity Indicator of the Blue Hydraulic Reservoir
AMM 29-12-41-400-002	Installation of the Quantity Indicator of the Blue Hydraulic System
AMM 29-13-41-000-003	Removal of the Quantity Indicator of the Yellow Hydraulic Reservoir
AMM 29-13-41-400-003	Installation of the Quantity Indicator of the Yellow Hydraulic Reservoir
AMM 29-31-00-710-001	Functional Check of Reservoir Low Level Warning
AMM 31-60-00-860-001	EIS Start Procedure
TSM 29-11-00-810-815	Reservoir Fluid-Level Indication replaced by amber XX for the Green Hydraulic System
TSM 29-13-00-810-818	Reservoir Fluid-Level Indication replaced by amber XX for the Yellow Hydraulic System
AWM 29-31-02	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
	121VU HYDRAULIC/HYD/QTY/IND	1831GQ	P35

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the lower ECAM DU.
- (5) Monitor the condition of the circuit breaker 1831GQ.

4. Fault Isolation

A. If the Fault Confirmation gives:

- The reservoir fluid level indication of the Green, Blue and Yellow hydraulic system is replaced by amber XX on the lower ECAM DU.
- The circuit breaker 1831GQ is open:

(1) Do a check for a defective hydraulic quantity transmitter as follows:

- (a) Remove the electrical connector from the quantity indicator of the Blue hydraulic reservoir.

(b) Close the circuit breaker 1831GQ:

1 If the circuit breaker 1831GQ stays closed:

- Replace the quantity indicator of the Blue hydraulic reservoir (Ref. AMM TASK 29-12-41-000-002) and (Ref. AMM TASK 29-12-41-400-002).

2 If the circuit breaker 1831GQ opens:

- a** Connect the electrical connector to the quantity indicator of the Blue hydraulic reservoir.

(c) Do a check of the

- quantity indicator of the Green hydraulic reservoir (Ref. TSM TASK 29-11-00-810-815)
and
- quantity indicator of the Yellow hydraulic reservoir (Ref. TSM TASK 29-13-00-810-818).

(d) Replace the applicable quantity indicator which causes the circuit breaker 1831GQ to open:

- for the quantity indicator of the Green hydraulic reservoir (Ref. AMM TASK 29-11-41-000-002) and (Ref. AMM TASK 29-11-41-400-002)

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- for the quantity indicator of the Yellow hydraulic reservoir (Ref. AMM TASK 29-13-41-000-003) and (Ref. AMM TASK 29-13-41-400-003).

(2) If the fault continues:

(a) Do a check for continuity between:

- the CB (1831GQ) and the pin C of the terminal block (7502VT) (Ref. AWM 29-31-02).

1 If there is no continuity:

a Repair the wiring between the CB (1831GQ) and the pin C of the terminal block (7502VT) (Ref. AWM 29-31-02).

b If the fault continues:

- Replace the C/B-HYDRAULIC/HYD/QTY/IND (1831GQ).

2 If there is continuity:

- Do a check for continuity between the pin C of the terminal block (7502VT) and the pins E, J, K of the terminal block (7502VT) (Ref. AWM 29-31-02).

a If there is no continuity:

- Replace the terminal block (7502VT).

B. Do the operational test of the fluid low level warning (Ref. AMM TASK 29-31-00-710-001) to make sure that the operation is correct (no fault indications shown).

EFF : ALL

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R TASK 29-12-00-810-820

R Symbol of the Electric Pump on the ECAM Lower DU shows crossline amber with a
R correct System Pressure Indication

R 1. Possible Causes

- R - CONTACTOR (2705GJ)
- R - SDAC-1 (1WV1)
- R - SDAC-2 (1WV2)
- R - wiring

R 2. Job Set-up Information

R A. Referenced Information

R	-----	
R	REFERENCE	DESIGNATION
R	-----	-----

R	AMM	29-12-00-710-001	Functional Check of Blue Electrical Pump Pressure by
R			Reading ECAM Indication
R	AMM	29-12-55-000-001	Removal of the Blue Electric-Pump Supply Contactor
R			(2705GJ)
R	AMM	29-12-55-400-001	Installation of the Blue Electric-Pump Supply
R			Contactor (2705GJ)
R	ASM	29-12/01	

R 3. Fault Confirmation

R A. Do the operational test of the electric pump of the Blue hydraulic system
R (Ref. AMM TASK 29-12-00-710-001).

R 4. Fault Isolation

R A. If during the test, the E-pump symbol on the HYD page of the lower ECAM
R DU shows:
R - An amber crossline color and the system pressure is correct (more than
R 1450 psi (99.9739 bar)):

R (1) Replace the CONTACTOR (2705GJ) (Ref. AMM TASK 29-12-55-000-001) and
R (Ref. AMM TASK 29-12-55-400-001).

R (2) If the fault continues:

R (a) Make sure that the electrical connector is clean and in the
R correct condition.

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R (b) Do a check of the wiring for a ground signal at the contactor
R (2705GJ-A/B7).

R 1 If there is no ground signal do a check and repair the wiring
R between:
R - The electrical connector 2705GJ-A/B9 and the SDAC-1 (1WV1)
R and the SDAC-2 (1WV2) (Ref. ASM 29-12/01)

R B. Do the test given in Para. 3.

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****ON A/C 201-225, 451-475, 551-599,**

1. System Description
(Ref. Fig. 301)

R **ON A/C 227-227, 229-245, 426-428, 701-749,

1. System Description

R **ON A/C 227-227, 229-229,

(Ref. Fig. 301A)

R **ON A/C 230-245, 426-428, 701-749,

(Ref. Fig. 301B)

****ON A/C 247-299, 429-450, 476-499, 503-549,**

1. System Description

****ON A/C 247-275, 429-450,**

(Ref. Fig. 301B)

****ON A/C 276-299, 476-499, 503-549,**

(Ref. Fig. 301C)

R **ON A/C 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

The Blue main hydraulic system has the subsequent sub-systems:

- a HP system which supplies the consumers,
- a LP or return system through which fluid returns to the reservoir,
- a suction system.

A. HP System

The electric pump 2075GJ usually pressurizes the HP system.

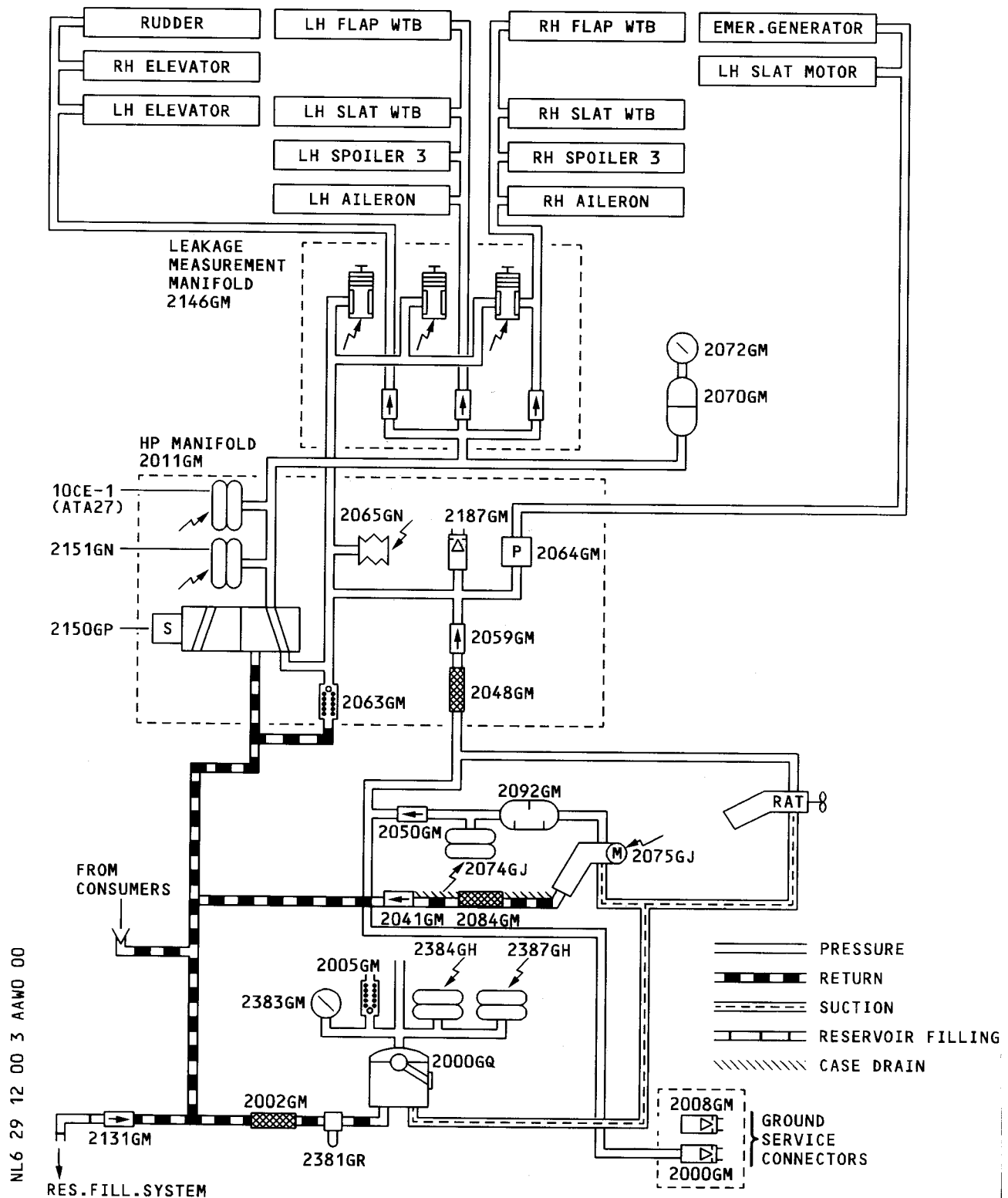
The electric pump starts automatically when any one of the engines starts. It then operates continuously until the two engines are stopped. The pushbutton P/B switch 2704GJ in the flight compartment makes it possible for the crew to stop the electric pump.

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Hydraulic Schematic
Figure 301

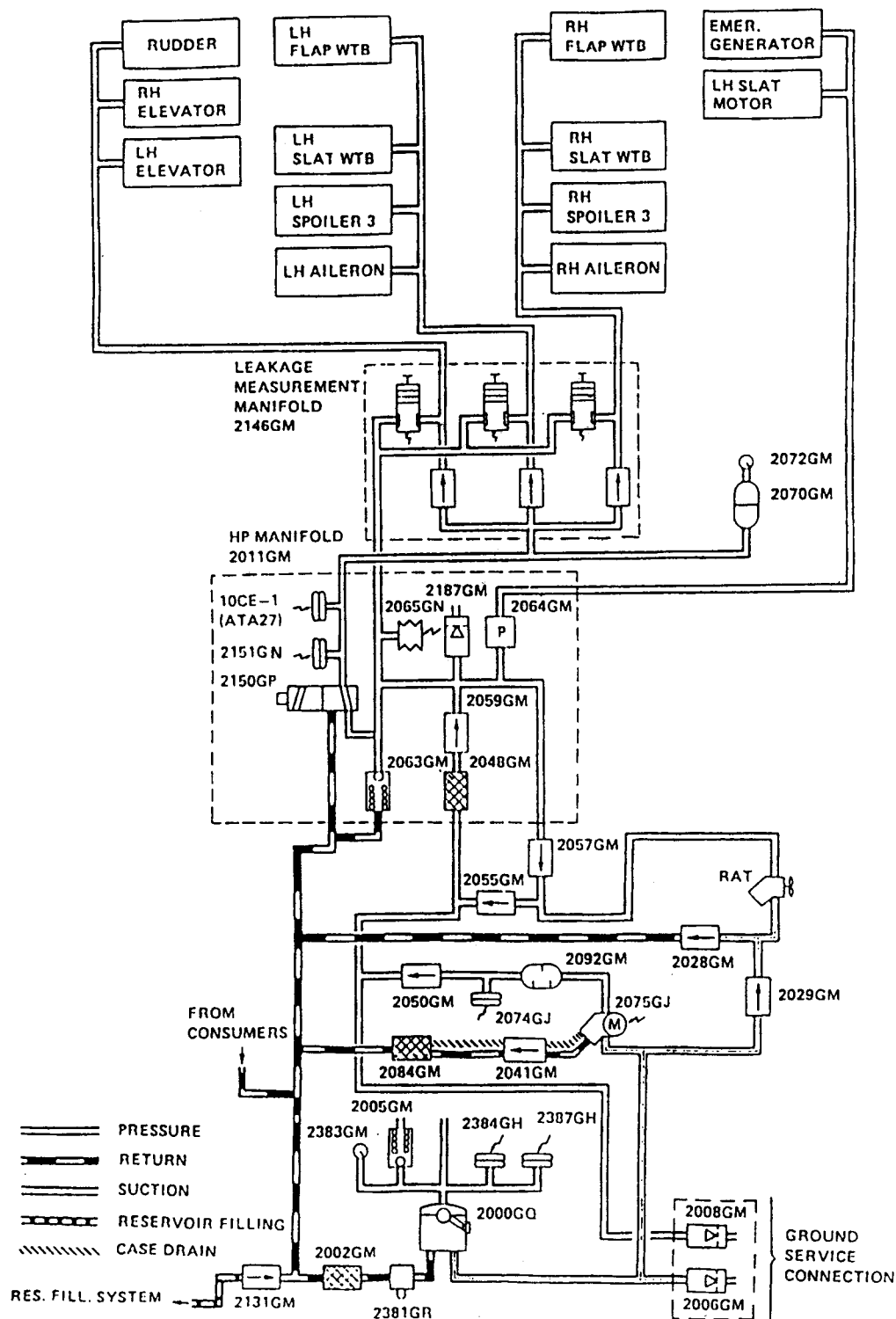
R EFF : 201-225, 451-475, 551-599,

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Hydraulic Schematic
Figure 301A

NL6 29 12 00 3 AAV0 00

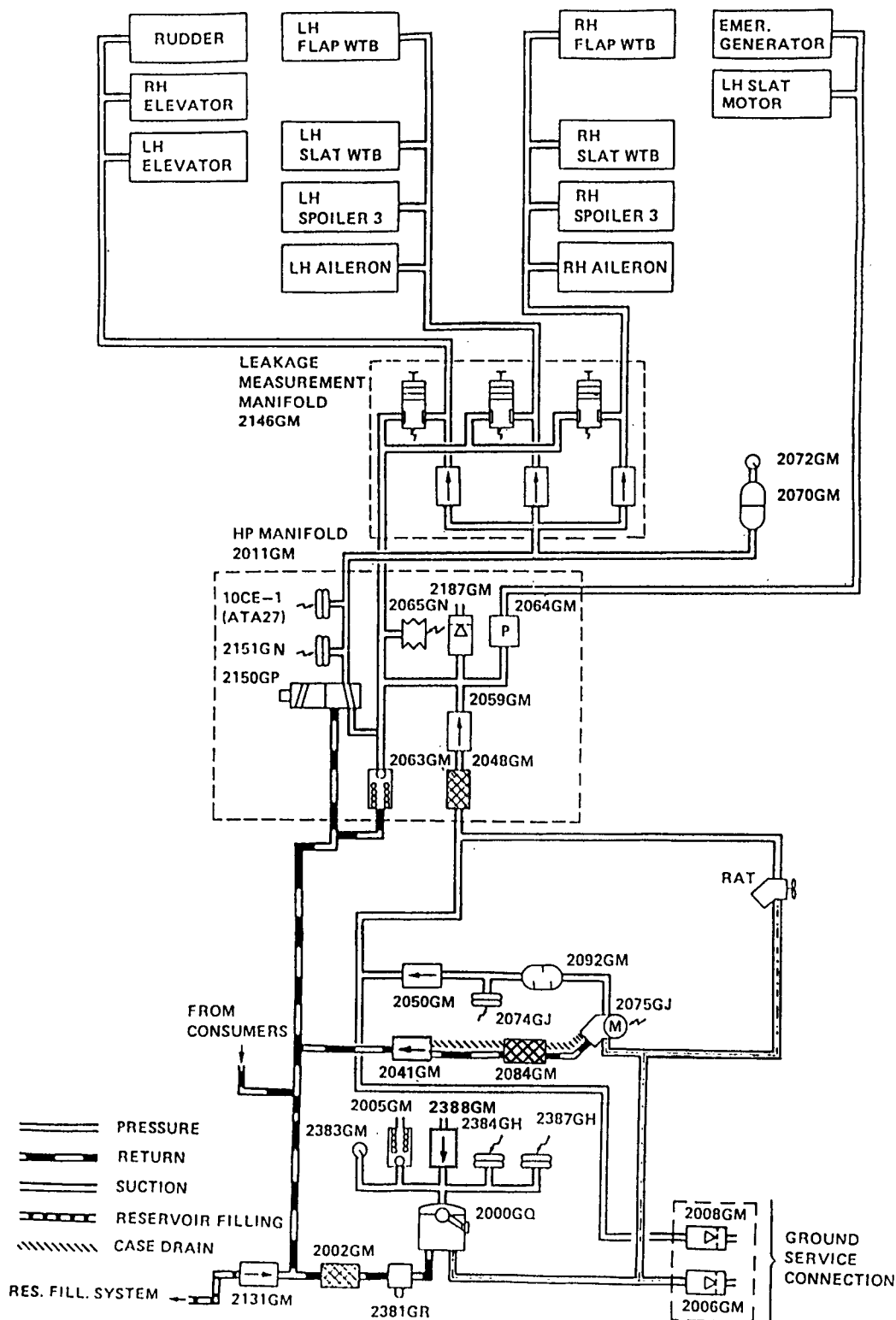
R	EFF :	227-227, 229-229,
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Hydraulic Schematic
Figure 301B

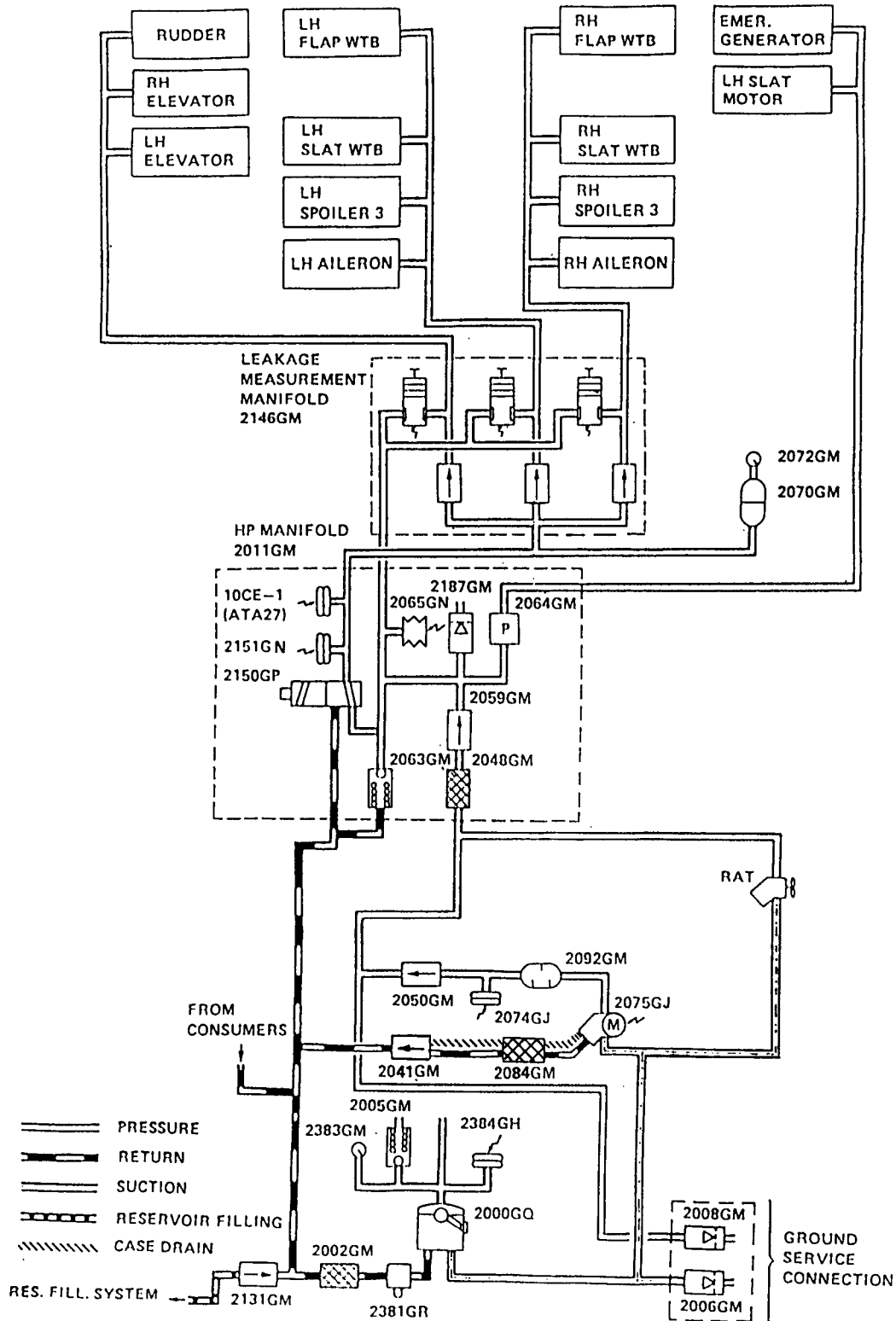
NL6 29 12 00 3 AAUO 00

R EFF : 230-275, 426-450, 701-749,

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Hydraulic Schematic
Figure 301C

NL6 29 12 00 3 AATO 00

R

R EFF : 276-299, 476-499, 503-549,

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It is also possible to pressurize the system with the electric pump when the engines are stopped. The P/B switch 2703GJ on the maintenance panel 50VU in the flight compartment stops the automatic function and starts the electric pump.

The Ram Air Turbine (RAT) can also supply the Blue hydraulic system with HP fluid. The RAT extends automatically in flight when there is a total AC failure. It is also possible to extend the RAT from the flight compartment with the P/B switches 2805GE or 24XE.

On the ground, it is possible to pressurize the system from a ground supply. through the self sealing connectors on the ground service panel.

The supply to all of the consumers goes through the HP manifold 2011GM. The HP manifold has pressure switches, a filter, check valves, a transmitter, a solenoid valve and other components which control the system. The supply to all of the consumers other than the slat motor and CSM/G also goes through the leakage-measurement system manifold 2146GM.

B. LP System

The LP System returns the fluid from the consumers to the system reservoir 2000GQ. The case drain of the electric pump and the return from the HP manifold are also connected to the LP system. Part of the LP system is also used in the reservoir filling system.

The LP fluid goes through the LP filter 2002GM immediately before it gets to the system reservoir 2000GQ.

A filter 2084GM is also installed in the case drain line of the electric pump which goes to the LP system.

The system reservoir 2000GQ is installed in the left-hand belly fairing aft of the main landing-gear compartment together with the LP filter 2002GM.

The reservoir is filled through the reservoir filling system which is operated from the ground service panel of the Green hydraulic system. A reservoir drain valve is installed on the ground service panel of the Blue hydraulic system.

The reservoir is pressurized with air to 3.5 bar (50 psi). A depressurization valve 2087GM is installed on the ground service panel of the Blue hydraulic system.

A pressure switch (2384GH) sends a discrete signal if the pressure in the reservoir is too low. The signal goes to the two system data acquisition concentrators (SDAC) for electronic centralized aircraft monitor (ECAM) warnings. The signal also goes to the overhead panel for FAULT light operation.

The pressure switch (2387GH) sends a discrete signal through some relays to the SDAC. If the air pressure in the reservoir decreases to less than 3.1 bar absolute (45 psia) (2.1 bar relative (30 psig)), the pressure switch gives a signal in flight (flight phases 5, 6 and 7) which is then memorized only and displayed after landing (flight phases 8, 9, and 10).

C. Suction System

The E-pump gets its supply of fluid directly from the system reservoir 2000GQ.

****ON A/C 276-299, 476-499, 503-549,**

The Blue main hydraulic system has the subsequent sub-systems:

- a HP system which supplies the consumers,
- a LP or return system through which fluid returns to the reservoir,
- a suction system.

A. HP System

The electric pump 2075GJ usually pressurizes the HP system.

The electric pump starts automatically when any one of the engines starts. It then operates continuously until the two engines are stopped. The pushbutton P/B switch 2704GJ in the flight compartment makes it possible for the crew to stop the electric pump.

It is also possible to pressurize the system with the electric pump when the engines are stopped. The P/B switch 2703GJ on the maintenance panel 50VU in the flight compartment stops the automatic function and starts the electric pump.

The Ram Air Turbine (RAT) can also supply the Blue hydraulic system with HP fluid. The RAT extends automatically in flight when there is a total AC failure. It is also possible to extend the RAT from the flight compartment with the P/B switches 2805GE or 24XE.

On the ground, it is possible to pressurize the system from a ground supply. through the self sealing connectors on the ground service panel.

The supply to all of the consumers goes through the HP manifold 2011GM. The HP manifold has pressure switches, a filter, check valves, a transmitter, a solenoid valve and other components which control the system. The supply to all of the consumers other than the slat motor and CSM/G also goes through the leakage-measurement system manifold 2146GM.

B. LP System

The LP System returns the fluid from the consumers to the system reservoir 2000GQ. The case drain of the electric pump and the return from the HP manifold are also connected to the LP system. Part of the LP system is also used in the reservoir filling system.

The LP fluid goes through the LP filter 2002GM immediately before it gets to the system reservoir 2000GQ.

A filter 2084GM is also installed in the case drain line of the electric pump which goes to the LP system.

The system reservoir 2000GQ is installed in the left-hand belly fairing aft of the main landing-gear compartment together with the LP filter 2002GM.

R EFF : ALL

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The reservoir is filled through the reservoir filling system which is operated from the ground service panel of the Green hydraulic system. A reservoir drain valve is installed on the ground service panel of the Blue hydraulic system.

The reservoir is pressurized with air to 3.5 bar (50 psi). A depressurization valve 2087GM is installed on the ground service panel of the Blue hydraulic system.

C. Suction System

The E-pump gets its supply of fluid directly from the system reservoir 2000GQ.

TASK 29-13-00-810-801

Loss of the Correct Quantity in the Yellow Hydraulic Reservoir

1. Possible Causes

- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- LOW LEVEL SWITCH
- wiring
- QUANTITY INDICATOR - TRANSMITTER
- hydraulic lines

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION

31-54-00-810-835	Loss of the YELLOW RSVR QTY Input of the SDAC 1
31-54-00-810-836	Loss of the YELLOW RSVR QTY Input of the SDAC 2
R	
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 29-00-00-280-003	Check of the Internal Leakage of the Yellow Hydraulic System
AMM 29-00-00-280-006	Check of the Green or Yellow Hydraulic System after Operation in a Possible Cavitation Condition of the Engine Pump
AMM 29-00-00-790-001	Check of the External Leaks of the Hydraulic Components
AMM 29-13-41-000-003	Removal of the Quantity Indicator of the Yellow Hydraulic Reservoir
AMM 29-13-41-000-004	Removal of the Low Level Switch of the Yellow Hydraulic Reservoir
AMM 29-13-41-400-003	Installation of the Quantity Indicator of the Yellow Hydraulic Reservoir
AMM 29-13-41-400-004	Installation of the Low Level Switch of the Yellow Hydraulic Reservoir
AMM 29-31-00-710-001	Functional Check of Reservoir Low Level Warning
AMM 31-60-00-860-001	EIS Start Procedure
ASM 29-13/01	
ASM 29-31/01	
ASM 29-31/02	

EFF : ALL

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
121VU	HYDRAULIC/LOW/LVL/IND	1832GQ	N32
121VU	HYDRAULIC/HYD/QTY/IND	1831GQ	P35
121VU	HYDRAULIC/G HYD/PUMP ENG1/MONG	1702GK	R34

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the upper ECAM DU, the lower ECAM DU and panel 40VU.

4. Fault Isolation

A. If the Fault Confirmation gives:

- the message HYD Y RSVR LO LVL on the upper ECAM DU
 - the contents indication (shows low-fluid level) on the lower ECAM DU in amber
 - the PTU P/BSW FAULT light on panel 40VU
 - R -the YELLOW ENG 2 PUMP P/BSW FAULT light on panel 40VU
- R do a visual check of the quantity shown on the mechanical indicator of
- R the Yellow reservoir.
- (1) If the quantity shown is more than or equal to 3.5 l (0.9245 USgal):
 - do a check for 28VDC between:
 - R the LOW LEVEL SWITCH connector B/A and the connector B/C (Ref. ASM
 - 29-31/02).
 - (a) If there is no 28VDC:
 - do a check of the wiring between:
 - R the LOW LEVEL SWITCH connector B/C and CB (1832GQ) and repair
 - R the wiring as necessary (Ref. ASM 29-31/02).
 - (b) If there is 28VDC:
 - replace the LOW LEVEL SWITCH (Ref. AMM TASK 29-13-41-000-004) and (Ref. AMM TASK 29-13-41-400-004).

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R
R

- (c) If the fault continues:
- make sure that the wiring is not connected to GND between: the LOW LEVEL SWITCH connector B/B and the DIODE (1156VD) connector 37 (Ref. ASM 29-13/01) and (Ref. ASM 29-31/02).

- 1 If the wiring is connected to GND:
- repair the wiring as necessary.

- (d) If the fault continues:
- replace the QUANTITY INDICATOR - TRANSMITTER (Ref. AMM TASK 29-13-41-000-003) and (Ref. AMM TASK 29-13-41-400-003).

(2) If the quantity shown is less than 3.5 l (0.9245 USgal):

- (a) Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire-valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- (b) Make sure that the drain valve of the hydraulic reservoir has no leaks.

- 1 If the drain valve has a leak:
- replace the drain valve.
- 2 If the drain valve has no leaks;
- do a check of the hydraulic lines and the components for leaks (Ref. AMM TASK 29-00-00-790-001) and repair them.
- 3 If the fault continues:
- do a check of the internal leakage of the Yellow hydraulic system (Ref. AMM TASK 29-00-00-280-003).
- a If the internal leakage rate is too high:
- repair the defective component.

R

B. If the Fault Confirmation gives:

- R -the message HYD Y RSVR LO LVL on the upper ECAM DU
R -the contents indication (shows low fluid level) on the lower ECAM DU in
R amber

- R do a visual check of the quantity shown on the mechanical indicator of
R the Yellow reservoir.

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(1) If the quantity shown is more than or equal to 2.6 l (0.6868 USgal):

- (a) Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- R (b) Do a check for 26VAC between:
QUANTITY INDICATOR - TRANSMITTER connector A/D and connector A/E (Ref. ASM 29-31/01).

- R 1 If there is no 26VAC:
- do a check of the wiring between:
QUANTITY INDICATOR - TRANSMITTER connector A/D and CB (1831GQ) and repair the wiring as necessary (Ref. ASM 29-31/01).
- 2 If the fault continues:
- do a check for a ground signal between:
QUANTITY INDICATOR - TRANSMITTER connector A/E and ground (Ref. ASM 29-31/01).
- a If there is no ground signal:
- repair the wiring between QUANTITY INDICATOR - TRANSMITTER connector A/E and ground (Ref. ASM 29-31/01).

- (c) If the fault continues:
- replace the QUANTITY INDICATOR - TRANSMITTER (Ref. AMM TASK 29-13-41-000-003) and (Ref. AMM TASK 29-13-41-400-003).

- (d) If the fault continues:
- do the troubleshooting procedure for the loss of the YELLOW RSVR QTY input of the SDAC-1 (1WV1) (Ref. TASK 31-54-00-810-835).

- 1 If the fault continues:
- do the troubleshooting procedure for the loss of the YELLOW RSVR QTY input of the SDAC-2 (1WV2) (Ref. TASK 31-54-00-810-836).

(2) If the quantity shown is less than 2.6 l (0.6868 USgal):

- (a) Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the

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Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- R (b) Do a check for 28VDC between:
LOW LEVEL SWITCH connector B/A and connector B/C (Ref. ASM 29-31/02).
- R 1 If there is no 28VDC:
- do a check of the wiring between:
LOW LEVEL SWITCH connector B/C and CB (1832GQ) and repair the wiring as necessary (Ref. ASM 29-31/02).
- 2 If there is 28VDC:
- replace the LOW LEVEL SWITCH (Ref. AMM TASK 29-13-41-000-003) and (Ref. AMM TASK 29-13-41-400-003).
- 3 If the fault continues:
- make sure that the wiring is not connected to GND between:
LOW LEVEL SWITCH connector B/B and DIODE (1156VD) connector 37 (Ref. ASM 29-13/01) and (Ref. ASM 29-31/02).
- a If the wiring is connected to GND:
- repair the wiring as necessary.
- (3) Make sure that the drain valve of the hydraulic reservoir has no leaks.
- (a) If the drain valve has a leak:
- replace the drain valve.
- (b) If the drain valve has no leaks:
- do a check of the hydraulic lines and components for leaks (Ref. AMM TASK 29-00-00-790-001) and repair them.
- (c) If the fault continues:
- do a check of the internal leakage of the Yellow hydraulic system (Ref. AMM TASK 29-00-00-280-003).
- 1 If the internal leakage rate is too high:
- repair the defective component.

R

C. If the Fault Confirmation gives:

- R -the message HYD Y RSVR LO LVL on the upper ECAM DU
R -the PTU P/BSW FAULT on panel 40VU
R -the YELLOW ENG 2 PUMP P/BSW FAULT on panel 40VU
R
R do a visual check of the quantity shown on the mechanical indicator of
R the Yellow reservoir.

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(1) If the quantity shown is less than 2.6 l (0.6868 USgal):

- (a) Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- (b) Replace the QUANTITY INDICATOR - TRANSMITTER (Ref. AMM TASK 29-13-41-000-003) and (Ref. AMM TASK 29-13-41-400-003).

(2) Make sure that the drain valve of the hydraulic reservoir has no leaks.

- (a) If the drain valve has a leak:
 - replace the drain valve.

- (b) If the drain valve has no leaks:
 - do a check of the hydraulic lines and the components for leaks (Ref. AMM TASK 29-00-00-790-001) and repair them.

- (c) If the fault continues:
 - do a check of the internal leakage of the Yellow hydraulic system (Ref. AMM TASK 29-00-00-280-003).

- 1 If the internal leakage rate is too high:
 - repair the defective component.

R

- D. Do the operational test of the fluid low level warning (Ref. AMM TASK 29-31-00-710-001) to make sure that the operation is correct (no message shown).

EFF : ALL

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TASK 29-13-00-810-802

Overheat Indication of the Yellow Hydraulic System

1. Possible Causes

- R - RELIEF VALVE Y SYS (3063GM)
- R - LP FILTER (3002GM)
- R - HP FILTER Y (3048GM)
- R - CHECK VALVE Y (3059GM)
- R - CHECK VALVE G (3022GM)
- R - BRAKE RELIEF VALVE (3067GM)
- R - SEL VALVE-CARGO DOORS ELEC/MAN CTL (2500MJ)
- R - CHECK VALVE Y (3083GM)
- R - FILTER-ENG PUMP CASE DRAIN (3084GM)
- R - TEMP TRANSM SWITCH (3381GR)
- R
- SDAC-1 (1WV1)
- SDAC-2 (1WV2)
- VALVE-Y PUMP FIRE, ENG 2 (3046GD)
- internal leakage
- R - TEMP TRANSM SWITCH-connector plug (3381GR-A)
- R - 3705GD

2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE	QTY	DESIGNATION
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R	No specific	1 OHMMETER MODEL 260
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B. Referenced Information

REFERENCE	DESIGNATION
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AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	29-00-00-280-003	Check of the Internal Leakage of the Yellow Hydraulic System
R		
AMM	29-00-00-910-003	General Removal and Installation Procedure of the Check Valves in the Hydraulic Systems
R	AMM	29-10-00-220-001
R		Functional Check to Monitor Internal Leak Rate of Yellow and Green Hydraulic Systems

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REFERENCE	DESIGNATION
AMM 29-13-14-000-001	Removal of the HP Manifold of the Yellow Hydraulic System
AMM 29-13-14-400-001	Installation of the HP Manifold of the Yellow Hydraulic System
AMM 29-13-32-000-001	Removal of the Pressure Relief Valve of the Yellow Hydraulic System (3063GM)
AMM 29-13-32-400-001	Installation of the Pressure Relief Valve of the Yellow Hydraulic System (3063GM)
AMM 29-13-43-610-040	Servicing of the Engine Pump Case-Drain Filter (3084GM)
AMM 29-13-44-610-001	Servicing of the LP-Filter (3002GM)
AMM 29-13-45-610-001	Servicing of the HP-Filter (3048GM)
R AMM 29-24-00-863-001	Pressurize the Yellow Hydraulic System with the Electric Pump
AMM 29-24-00-864-001	Depressurize the Yellow Hydraulic System
AMM 29-24-21-000-001	Removal of the Yellow E-Pump Check Valve (3083GM)
AMM 29-24-21-400-001	Installation of the Yellow E-Pump Check Valve (3083GM)
AMM 29-33-11-000-003	Removal of the Temperature Transmitter (3381GR)
AMM 29-33-11-400-003	Installation of the Temperature Transmitter (3381GR)
AMM 31-50-00-710-001	Ground Scanning of the Central Warning System
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 31-60-00-860-001	EIS Start Procedure
AMM 32-44-15-000-001	Removal of the Pressure Relief Valve 3067GM
AMM 32-44-15-400-001	Installation of the Pressure Relief Valve 3067GM
R AMM 52-36-12-000-001	Removal of the Electro-Manual Selector Valve 2500MJ
R AMM 52-36-12-400-001	Installation of the Electro-Manual Selector Valve 2500MJ
ASM 29-13/01	
ASM 29-33/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/Y HYD/PUMP ENG2/MONG	3700GD	Q37

R EFF : ALL

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B. Test

WARNING : PUT THE SAFETY DEVICES AND THE WARNING NOTICES IN POSITION BEFORE YOU START A TASK ON OR NEAR:

- THE FLIGHT CONTROLS
- THE FLIGHT CONTROL SURFACES
- THE LANDING GEAR AND THE RELATED DOORS
- COMPONENTS THAT MOVE.

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Pressurize the Yellow hydraulic system with the electric pump (Ref. AMM TASK 29-24-00-863-001).
- (3) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (4) Operate the sidestick for ailerons, spoilers and elevators at full travel for 5 min.
- (5) Operate the rudder pedals at full travel for 5 min.
- (6) Operate the flap and slat control lever at full travel for 5 min.

4. Fault Isolation

R **A. If the test gives:**

- R - The message HYD Y RSVR OVHT on the upper ECAM DU
- R - The PTU P/BSW FAULT light on panel 40VU
- R - The YELLOW ENG 2 PUMP P/BSW FAULT light on panel 40VU
- R - The OVHT flag on the HYD page of the lower ECAM DU.

R **NOTE** : The fault warning system shows, that the temperature is more than

R 95 +2.2 -2.2 deg.C (203.00 +3.96 -3.96 deg.F). This was detected

R by the temperature (TEMP) transducers (XDCRs) and the thermal

R switch of the reservoir (RSVR) TEMP sensor FIN 3381GR.

R

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R (1) Do a check of the internal leakage of the Yellow hydraulic system
R (Ref. AMM TASK 29-00-00-280-003) and the PTU (Ref. AMM TASK 29-10-00-
R 220-001).

R (a) If the internal leakage is more than permitted:
R - Examine the system to find the defective component
R - Replace or repair the defective component.
R

R 1 Make sure that the manual selector valve of the forward and
R aft cargo door is not jammed in the OPEN or CLOSE position.
R

R 2 Do a check for local increase of the temperature and unusual
R noise at the components that follow. Replace the components as
R necessary:
R - RELIEF VALVE Y SYS (3063GM) (Ref. AMM TASK 29-13-32-000-001)
R (Ref. AMM TASK 29-13-32-400-001)
R - LP FILTER (3002GM) (Ref. AMM TASK 29-13-44-610-001)
R - HP FILTER Y (3048GM) (Ref. AMM TASK 29-13-45-610-001)
R - CHECK VALVE Y (3059GM) (Ref. AMM TASK 29-00-00-910-003)
R - CHECK VALVE G (3022GM) (Ref. AMM TASK 29-00-00-910-003)
R - BRAKE RELIEF VALVE (3067GM) (Ref. AMM TASK 32-44-15-000-001)
R (Ref. AMM TASK 32-44-15-400-001)
R - SEL VALVE-CARGO DOORS ELEC/MAN CTL (2500MJ) (Ref. AMM TASK
R 52-36-12-000-001) (Ref. AMM TASK 52-36-12-400-001).
R

R NOTE : If for fault duplication, the system is pressurized by
R a ground power cart or by the Engine Driven Pump (EDP),
R it is necessary to examine also the CHECK VALVE Y
R (3083GM) as per para D (1).

R (b) If the internal leakage is in the given limits:

R 1 Do a check of the filter elements of the FILTER-ENG PUMP CASE
R DRAIN (3084GM) HP FILTER Y (3048GM) and LP FILTER (3002GM).

R 2 Replace the filter element as necessary (Ref. AMM TASK 29-13-
R 43-610-040) or (Ref. AMM TASK 29-13-45-610-001) or (Ref. AMM
TASK 29-13-44-610-001).

R B. If the test gives:
R - The message HYD Y RSVR OVHT on the upper ECAM DU
R - The OVHT flag on the HYD page of the lower ECAM DU.

R NOTE : If the P/BSW FAULT lights are not on, this confirms that the OVHT
R warning condition is only detected by the TEMP XDCRs of the RSVR
R TEMP sensor FIN 3381GR. It is referred to as a spurious warning
R from the TEMP XDCRs or wiring or System Data Acquisition
R Concentrators (SDACs).

R EFF : ALL

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R (1) Do a wiring check:

R (a) Disconnect the TEMP TRANSM SWITCH-connector plug (3381GR-A) from
R the TEMP TRANSM SWITCH (3381GR) and do a visual check of the
R connector's integrity.

R 1 If the connector is not in the correct condition:
R - Replace the TEMP TRANSM SWITCH (3381GR) (Ref. AMM TASK 29-
R 33-11-000-003) (Ref. AMM TASK 29-33-11-400-003) and replace
R the TEMP TRANSM SWITCH-connector plug (3381GR-A).

R (b) Do a check of the continuity between pin A/G and pin A/K of the
R TEMP TRANSM SWITCH (3381GR) (Ref. ASM 29-33/01).

R 1 If there is no continuity, replace the TEMP TRANSM SWITCH
R (3381GR) (Ref. AMM TASK 29-33-11-000-003) (Ref. AMM TASK 29-
R 33-11-400-003).

R (c) Do a check of the continuity between pin A/F and pin A/E of the
R TEMP TRANSM SWITCH (3381GR) (Ref. ASM 29-33/01).

R 1 If there is no continuity, replace the TEMP TRANSM SWITCH
R (3381GR) (Ref. AMM TASK 29-33-11-000-003) (Ref. AMM TASK 29-
R 33-11-400-003).

R (d) Measure the DC resistance between the pins A/G and A/K and
R between the pins A/E and A/F of the TEMP TRANSM SWITCH (3381GR)
R with an OHMMETER MODEL 260.

R 1 If the difference is more than 1.5 Ohm between the two
R measurements, replace the TEMP TRANSM SWITCH (3381GR) (Ref.
R AMM TASK 29-33-11-000-003) (Ref. AMM TASK 29-33-11-400-003).

R (e) If the fault continues, make sure that the wiring is not
R connected to GND between the TEMP TRANSM SWITCH-connector plug
R (3381GR-A), pin E and the SDAC-1 (1WV1) connector AE, pin 12J
R (Ref. ASM 29-33/01).

R 1 If the wiring is connected to GND, repair the wiring as
R necessary.

R (f) If the fault continues, make sure that the wiring is not
R connected to GND between the TEMP TRANSM SWITCH-connector plug
R (3381GR-A), pin K and the SDAC-2 (1WV2) connector AE, pin 12J
R (Ref. ASM 29-33/01).

R 1 If the wiring is connected to GND, repair the wiring as
R necessary.

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R (g) If the fault continues, do the operational test of the central
R warning system (Ref. AMM TASK 31-50-00-710-001).

R 1 If the test gives the maintenance message SDAC1 : Y HYD TEMP
R XMTR 3381GR:
R - Replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001)
R (Ref. AMM TASK 31-55-34-400-001).

R 2 If the test gives the maintenance message SDAC2 : Y HYD TEMP
R XMTR 3381GR:
R - Replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001)
R (Ref. AMM TASK 31-55-34-400-001).

R C. If the test gives:
R - The message HYD Y RSVR OVHT on the upper ECAM DU
R - The PTU P/BSW FAULT light on panel 40VU
R - The YELLOW ENG 2 PUMP P/BSW FAULT light on panel 40VU.

R NOTE : If the OVHT flag is not shown on the HYD page of the lower ECAM
R DU, this confirms that the OVHT warning condition is only detected
R by the thermal switch of the RSVR TEMP sensor FIN 3381GR. It is
R referred to as a spurious warning from the thermal switch or
R wiring or SDACs.

R (1) Do a wiring check:

R (a) Do a check of the continuity between pin A/A and pin A/B of the
R TEMP TRANSM SWITCH (3381GR) (Ref. ASM 29-33/01).

R 1 If there is continuity, replace the TEMP TRANSM SWITCH
R (3381GR) (Ref. AMM TASK 29-33-11-000-003) (Ref. AMM TASK 29-
R 33-11-400-003).

R 2 If there is no continuity, make sure that the wiring is not
R connected to GND between the TEMP TRANSM SWITCH-connector plug
R (3381GR-A), pin B and the 3705GD pin Z (Ref. ASM 29-33/01) and
R (Ref. ASM 29-13/01).

R a If the wiring is connected to GND, repair the wiring as
R necessary.

R (b) If the fault continues, make sure that the wiring is not
R connected to GND between the TEMP TRANSM SWITCH-connector plug
R (3381GR-A), pin B and the SDAC-1 (1WV1) connector AD, pin 4G
R (Ref. ASM 29-33/01).

R 1 If the wiring is connected to GND, repair the wiring as
R necessary.

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R (c) If the fault continues, make sure that the wiring is not
R connected to GND between the TEMP TRANSM SWITCH-connector plug
R (3381GR-A), pin B and the SDAC-2 (1WV2) connector AD, pin 4G
R (Ref. ASM 29-33/01).

R 1 If the wiring is connected to GND, repair the wiring as
R necessary.

R (d) If the fault continues, do the operational test of the central
R warning system (Ref. AMM TASK 31-50-00-710-001).

R 1 If the test gives the maintenance message SDAC1 : Y HYD TEMP
R XMTR 3381GR:
R - Replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001)
R and (Ref. AMM TASK 31-55-34-400-001).

R 2 If the test gives the maintenance message SDAC2 : Y HYD TEMP
R XMTR 3381GR:
R - Replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001)
R and (Ref. AMM TASK 31-55-34-400-001).

R D. If the test gives:
R - No message on the upper and lower ECAM DUs
R - No FAULT lights illumination.

R NOTE : No OVHT warning is found, when the Yellow hydraulic system is
R pressurized with the Yellow Electric Motor Pump (Y EMP).

R (1) Remove the CHECK VALVE Y (3083GM) (Ref. AMM TASK 29-24-21-000-001).
R See also Airbus SIL 29-073.

R (a) Do a visual inspection of the CHECK VALVE Y (3083GM) for damage
R and missing parts.

R 1 If parts are missing, do the steps that follow before you
R install the new CHECK VALVE Y:
R - Examine the HP FILTER Y (3048GM) (Ref. AMM TASK 29-13-45-
R 610-001)
R - Remove and install the Yellow HP manifold (Ref. AMM TASK 29-
R 13-14-000-001) and (Ref. AMM TASK 29-13-14-400-001).

R (2) Install the CHECK VALVE Y (3083GM) (Ref. AMM TASK 29-24-21-400-001).
R

R E. When the VALVE-Y PUMP FIRE, ENG 2 (3046GD) was not the cause of the
malfunction:
R - Do the test as given in Para. 3. B. to make sure that operation is
correct (no message shown).

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5. Close-up**A. Aircraft Maintenance Configuration**

- (1) Make sure that the Yellow hydraulic system is de-pressurized (Ref. AMM TASK 29-24-00-864-001).
- (2) Make sure that the aircraft electrical circuits are de-energized (Ref. AMM TASK 24-41-00-862-002).

R

EFF : ALL

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TASK 29-13-00-810-803

Loss of the Yellow Reservoir Pressurization

1. Possible Causes

- PRESS SW-Y RSVR AIR (3384GH)
- VALVE-MAN DEPRESS, Y RSVR (3087GM)
- VALVE-AIR RELIEF, Y RSVR (3005GM)
- PRESS GAGE-Y RSVR (3383GM)
- CHECK VALVE-RSVR PRESS, Y (3388GM)
- R - RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM)
- wiring
- filter element
- bleed air lines

2. Job Set-up Information**A. Referenced Information**

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
R	AMM 29-14-00-614-001	Depressurization of the Hydraulic Reservoirs
	AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
	AMM 29-14-00-720-002	Functional Test of the Hydraulic Reservoir Pressurization System with the Left Engine
R	AMM 29-14-13-000-001	Removal of the Bleed-Air Line Restrictor (1392GM)
R	AMM 29-14-13-400-001	Installation of the Bleed-Air Line Restrictor (1392GM)
R	AMM 29-14-15-000-003	Removal of the Air Pressure Gage of the Yellow Hydraulic System
	AMM 29-14-15-400-003	Installation of the Air Pressure Gage of the Yellow Hydraulic System
	AMM 29-14-16-000-003	Removal of the Reservoir Depressurization Valve of the Yellow Hydraulic System
	AMM 29-14-16-400-003	Installation of the Reservoir Depressurization Valve of the Yellow Hydraulic System
	AMM 29-14-17-000-003	Removal of the Air Relief Valve of the Yellow Hydraulic System (3005GM)
	AMM 29-14-17-400-003	Installation of the Air Relief Valve of the Yellow Hydraulic System (3005GM)
	AMM 29-14-41-610-002	Servicing of the Reservoir Pressurization Filter
R	AMM 29-14-49-000-001	Removal of the Reservoir Pressurization Hose (1674GM)
R	AMM 29-14-49-400-001	Installation of the Reservoir Pressurization Hose (1674GM)
R	AMM 29-34-00-710-001	Operational Test of Reservoir Low Air Pressure Warning

EFF : ALL

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REFERENCE	DESIGNATION
AMM 29-34-11-000-003	Removal of the Reservoir Pressure Switch of the Yellow Hydraulic System
AMM 29-34-11-400-003	Installation of the Reservoir Pressure Switch of the Yellow Hydraulic System
AMM 31-60-00-860-001	EIS Start Procedure
ASM 29-13/01	
R 29-13-00-991-001	Fig. 201

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/Y HYD/PUMP ENG2/MONG	3700GD	Q37

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the upper ECAM DU, the lower ECAM DU and the panel 40VU.

4. Fault Isolation

A. If the fault confirmation gives:

- | | |
|---|--|
| R | - the message HYD Y RSVR LO AIR PRESS on the upper ECAM DU |
| R | - the message LO AIR PRESS on the lower ECAM DU |
| R | - the PTU P/BSW FAULT on panel 40VU |
| R | - the YELLOW ENG 1 PUMP P/BSW FAULT on panel 40VU. |
| R | |

- | | |
|---|---|
| R | (1) Do a visual check of the pressure shown on the gage of the Yellow |
| R | reservoir. |

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- R (2) If the pressure is more than 25 psi (1.7236 bar):
R - do a check for continuity of the wiring between:
R the PRESS SW-Y RSVR AIR (3384GH) connector A/A and the PRESS SW-Y
R RSVR AIR (3384GH) connector A/C (Ref. ASM 29-13/01).
- (a) If there is continuity:
R - replace the PRESS SW-Y RSVR AIR (3384GH) (Ref. AMM TASK 29-34-
R 11-000-003) and (Ref. AMM TASK 29-34-11-400-003).
- (b) If there is no continuity:
R - make sure that the wiring is not connected to GND between:
R the PRESS SW-Y RSVR AIR (3384GH) connector A/C and the DIODE
R (1156VD) connector 39 (Ref. ASM 29-13/01).
- 1 If the wiring is connected to GND:
- repair the wiring.
- R (3) If the pressure shown on the gage of the Yellow reservoir is less
R than 25 psi (1.7236 bar):
R - do a check of the clogging indicator on the reservoir
R pressurization unit (1360GM).
- (a) If the clogging indicator is out:
R - replace the filter element (Ref. AMM TASK 29-14-41-610-002).
- (b) If the clogging indicator is not out, or the fault continues
R after the replacement of the filter element:
R - pressurize the hydraulic reservoirs with a ground cart (Ref.
R AMM TASK 29-14-00-614-002)
- do a check of the pressure drop on the gage of the hydraulic
reservoir.
- R **NOTE** : No pressure drop is permitted in 15 minutes at a gage
R pressure of 50 psi (3.4473 bar)
- R 1 If the air pressure drop is not in the limits:
- do a check of the VALVE-MAN DEPRESS, Y RSVR (3087GM) for
leaks.
- a If the VALVE-MAN DEPRESS, Y RSVR (3087GM) has a leak:
- replace the VALVE-MAN DEPRESS, Y RSVR (3087GM) (Ref. AMM
TASK 29-14-16-000-003) and (Ref. AMM TASK 29-14-16-400-
003).
- b If the VALVE-MAN DEPRESS, Y RSVR (3087GM) has no leak:
- do a check of the VALVE-AIR RELIEF, Y RSVR (3005GM) for
leaks.
- If the VALVE-AIR RELIEF, Y RSVR (3005GM) has a leak:
- replace the VALVE-AIR RELIEF, Y RSVR (3005GM) (Ref. AMM
TASK 29-14-17-000-003) and (Ref. AMM TASK 29-14-17-400-
003).
- If the VALVE-AIR RELIEF, Y RSVR (3005GM) has no leak:

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- do a check of the PRESS GAGE-Y RSVR (3383GM) for leaks.
- If the PRESS GAGE-Y RSVR (3383GM) has a leak:
 - replace the PRESS GAGE-Y RSVR (3383GM) (Ref. AMM TASK 29-14-15-000-003) and (Ref. AMM TASK 29-14-15-400-003).
- If the PRESS GAGE-Y RSVR (3383GM) has no leak:
 - do a check of all the connections and components on the reservoir for leaks.
- If you find a leak:
 - tighten the related nut or replace the defective component.

- c If the fault continues:
 - replace the CHECK VALVE-RSVR PRESS, Y (3388GM).

2 If the air pressure drop is in the limits:

- a Depressurize the hydraulic reservoirs (Ref. AMM TASK 29-14-00-614-001).

- b Pressurize the reservoir pressurization system with the left engine (Ref. AMM TASK 29-14-00-720-002), or

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- c Connect an external pressure source:
(Ref. Fig. 201/TASK 29-13-00-991-001)
 - disconnect the reservoir pressurization hose (1674GM) (1) from the HP bleed-air port (3) of the left engine (Ref. AMM TASK 29-14-49-000-001)

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- put a blanking plug on the HP bleed-air port (3)
- install the union (6) at the line end fitting (5) of an approved air or nitrogen source
- make sure that the open end of the union (6) has a thread of 7/16_20UNJF 3A
- connect the line end fitting (2) of the reservoir pressurization hose (1) (1674GM) to the thread 7/16_20UNJF 3A of the union (6)
- pressurize the reservoir pressurization system to approximately 15.2 bar (220 psi).

- d If the pressure in the reservoir does not increase to the necessary value:
 - remove the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) (Ref. AMM TASK 29-14-13-000-001).
 - make sure that the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) and the filter are not clogged or damaged.
 - if necessary, replace the RESTRICTOR- RSVR PRESS, ENG 1 BLEED (1392GM) (Ref. AMM TASK 29-14-13-400-001).

- e If the fault continues:
 - do a check and, if necessary, repair the bleed air line in the left pylon to the reservoir pressurization unit (1360GM).

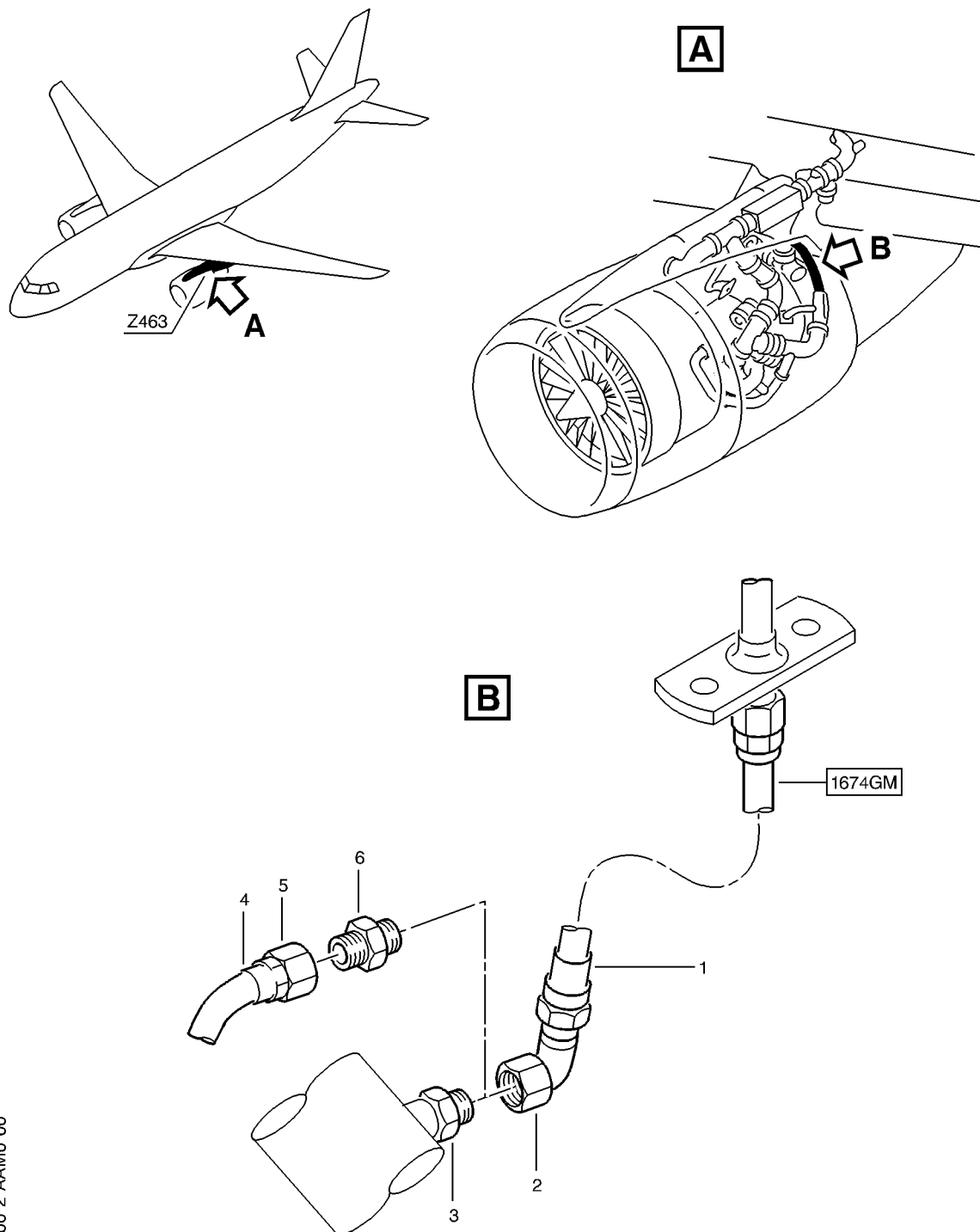
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NL6 29 13 00 2 AAM0 00

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Reservoir Pressurization Connection
Figure 201/TASK 29-13-00-991-001

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- f If the fault continues:
- do a check and, if necessary, repair the remaining bleed air lines and components.
- g Stop the pressurization of the reservoir pressurization system from the left engine (Ref. AMM TASK 29-14-00-720-002), or
- h Disconnect the external pressure source:
- disconnect the line end fitting (2) of the reservoir pressurization hose (1) (1674GM) from the union (6)
 - remove the union (6) from the line end fitting (5) of the pressure source hose (4)
 - remove the blanking plug from the HP bleed-air port (3)
 - connect the reservoir pressurization hose (1) (1674GM) to the HP bleed-air port (3) of the left engine (Ref. AMM TASK 29-14-49-400-001).
- i If the air pressure in the reservoir increases to the necessary value and the air pressure drop is in the limits:
- no further actions are necessary.
- B.** Do the operational test of the low air pressure warning (Ref. AMM TASK 29-34-00-710-001) to make sure that operation is correct (no maintenance message shown).

EFF : ALL

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TASK 29-13-00-810-804

Loss of the Pressure of the Eng 2 Pump

1. Possible Causes

- PUMP-Y, ENG 2 (3030GD)
- PRESS SW-Y PUMP, ENG 2 (3074GD)
- ENG 2 PUMP P/BSW (3703GD)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 29-00-00-280-006	Check of the Green or Yellow Hydraulic System after Operation in a Possible Cavitation Condition of the Engine Pump
AMM 29-13-00-710-002	Operational Test of the Yellow Hydraulic System
AMM 29-13-17-000-040	Removal of the Engine-Pump Pressure Switch (3074GD)
AMM 29-13-17-400-040	Installation of the Engine-Pump Pressure Switch (3074GD)
AMM 29-13-51-000-004	Removal of the Yellow Engine Pump (3030GD)
AMM 29-13-51-400-004	Installation of the Yellow Engine Pump (3030GD)
ASM 29-13/01	

3. Fault Confirmation

- #### **A. Do the operational test of the Yellow hydraulic system (Ref. AMM TASK 29-13-00-710-002).**

4. Fault Isolation

A. If the test gives:

- the message HYD Y ENG 2 PUMP LO PR on the upper ECAM DU,
- the LO flag of the Yellow hydraulic system on the HYD page of the lower ECAM DU,
- the PTU running indication on the HYD page of the lower ECAM DU,

NOTE : The PRESS SW-Y PUMP, ENG 2 (3074GD) sends a low pressure signal to the ECAM system. This causes the PTU running indication on the lower ECAM DU, although the PTU does not operate (non system failure).

- the Yellow ENG 2 PUMP P/BSW FAULT light on panel 40VU:

- look on the HYD page of the lower ECAM DU and do a check of the pressure of the Yellow system.

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(1) If the pressure is less than 1667 psi (114.9355 bar):

- do a check on the lower ECAM DU to make sure that the engine pump fire valve 3046GK is not closed.

(a) If the engine pump fire valve is closed:

- 1 Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- 2 Push the ENG 2 FIRE P/BSW on panel 1WD (ENG/APU FIRE section on the overhead panel 20VU) to open the engine pump fire valve 3046GK.

(b) If the engine pump fire valve is not closed:

- do a check for 28 VDC between:
PUMP-Y, ENG 2 (3030GD) connector A/1 and PUMP-Y, ENG 2 (3030GD) connector A/3 (Ref. ASM 29-13/01).

- 1 If there is no 28 VDC:

- a Replace the PUMP-Y, ENG 2 (3030GD) (Ref. AMM TASK 29-13-51-000-004) and (Ref. AMM TASK 29-13-51-400-004).

- b Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

- 2 If there is 28 VDC:
 - replace the ENG 2 PUMP P/BSW (3703GD).

- 3 If the fault continues:
 - do a check of the wiring between:
PUMP-Y, ENG 2 (3030GD) connector A/3 and CB (3701GD) and repair the wiring as necessary (Ref. ASM 29-13/01).

(2) If the pressure is more than 1812 psi (124.9329 bar)

- do a check for continuity between:
the PRESS SW-Y PUMP, ENG 2 (3074GD) connector A/1 and A/3 (Ref. ASM 29-13/01).

EFF : ALL

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- (a) If there is continuity:
 - replace the PRESS SW-Y PUMP, ENG 2 (3074GD) (Ref. AMM TASK 29-13-17-000-040) and (Ref. AMM TASK 29-13-17-400-040).
- (b) If there is no continuity:
 - make sure that the wiring is not connected to GND between:
PRESS SW-Y PUMP, ENG 2 (3074GD) connector A/1 and the DIODE (1156VD) connector 43 (Ref. ASM 29-13/01).
- (c) If the wiring is connected to GND:
 - repair the wiring as necessary.

B. Do the test as given in Para. 3. A. to make sure that operation is correct.

TASK 29-13-00-810-805

Loss of the System Pressure of the Yellow Hydraulic System

1. Possible Causes

- PRESS SW-FLT CTL, Y (3151GN)
- SOL VALVE-LEAKAGE MEAS, Y (3150GP)
- wiring
- CTL RELAY (3811GX)
- TIME DELAY RELAY (3816GX)
- TIME DELAY RELAY (6MJ)
- R - P/BSW (1883GP)
- R - accumulator

2. Job Set-up Information**A. Referenced Information**

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	29-10-00-863-002	Pressurize the Yellow Hydraulic System
AMM	29-10-00-864-002	Depressurize the Yellow Hydraulic System
R	AMM	29-13-42-000-001 Removal of the Yellow Power Accumulator
R	AMM	29-13-42-400-001 Installation of the Yellow Power Accumulator
AMM	29-19-51-000-003	Removal of the Leakage-Measurement Solenoid Valve (3150GP)
AMM	29-19-51-400-003	Installation of the Leakage-Measurement Solenoid Valve (3150GP)
AMM	29-23-00-860-001	Disconnection of the Isolation Coupling of the Power Transfer Unit (PTU)
AMM	29-23-00-860-002	Connection of the Isolation Coupling of the Power Transfer Unit (PTU)
AMM	29-24-00-863-001	Pressurize the Yellow Hydraulic System with the Electric Pump
AMM	29-24-00-864-001	Depressurize the Yellow Hydraulic System
AMM	29-32-12-000-003	Removal of the System Pressure Switch (3151GN)
AMM	29-32-12-400-003	Installation of the System Pressure Switch (3151GN)
ASM	29-19/01	
ASM	29-24/01	
ASM	29-32/01	
ASM	31-52/02	

EFF : ALL

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
121VU	HYDRAULIC/SOL VALVES/G/Y/B/LEAK/TST	1881GP	N35
121VU	HYDRAULIC/Y HYD/PUMP ENG2/MONG	3700GD	Q37
121VU	HYDRAULIC/Y HYD/PUMP ENG2/CTL	3701GD	Q36

B. Aircraft Maintenance Configuration

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.

- (1) Disconnect the isolation coupling of the PTU (Ref. AMM TASK 29-23-00-860-001).
- (2) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (3) On panel 50VU, make sure that the HYD/LEAK MEASUREMENT VALVES/Y pushbutton switch is set to on (OFF light not on).
- (4) Pressurize the Yellow hydraulic system from a ground supply or with the Yellow electric pump (Ref. AMM TASK 29-10-00-863-002) or (Ref. AMM TASK 29-24-00-863-001).
- (5) Look for fault indications on the lower ECAM DU.

4. Fault Isolation

R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

A. Fault Confirmation

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) If the fault confirmation gives the system name and the flow arrow of the Yellow hydraulic system in amber (on the lower ECAM DU):
 - do a check of the system pressure on the lower ECAM DU and on the system accumulator gage (3072GM).

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- (2) If the system pressure is more than 1450 psi:
- use the rudder pedals to operate the rudder.
- (a) If the rudder operates:
- do a check for continuity between:
the PRESS SW-FLT CTL, Y (3151GN) connector A/A and the
connector A/C (with the hydraulic system pressurized) (Ref. ASM
29-32/01).
- 1 If there is continuity:
- replace the PRESS SW-FLT CTL, Y (3151GN) (Ref. AMM TASK 29-
32-12-000-003) and (Ref. AMM TASK 29-32-12-400-003).
- 2 If there is no continuity:
- do a check and repair the wiring between the:
PRESS SW-FLT CTL, Y (3151GN) connector A/C and FWC-1/ FWC-2
connector AD/06E (Ref. ASM 29-32/01) and (Ref. ASM 31-
52/02).
- (b) If the rudder does not operate:
- do a check for 28 VDC at the:
SOL VALVE-LEAKAGE MEAS, Y (3150GP) connector A/A and the
connector A/B (Ref. ASM 29-19/01).
- NOTE** : There is usually 0 VDC.
- 1 If there is 28 VDC:
- do a check for 28 VDC between:
the relay (3811GX) connector X1 and X2.
- a If there is 28 VDC:
- do a check and repair the wiring between the:
relay (3811GX) connector X1 and the HYD YELLOW ELEC PUMP
P/BSW (3804GX) connector A3 (Ref. ASM 29-19/01) and (Ref.
ASM 29-24/01).
- b If there is no 28 VDC:
- replace the CTL RELAY (3811GX).
- (c) If the fault continues:
- replace the TIME DELAY RELAY (3816GX).
- (d) If the fault continues:
- replace the TIME DELAY RELAY (6MJ).
- (e) If the fault continues:
- do a check for 28 VDC between:
the P/BSW (1883GP) connector C2 and the connector C3.
- 1 If there is continuity:
- replace the P/BSW (1883GP).

- 2 If there is no continuity:
- do a check and repair the wiring between the:
P/BSW (1883GP) connector C3 and the CB (1881GP) (Ref. ASM 29-19/01).

- (f) If the fault continues:
- replace the SOL VALVE-LEAKAGE MEAS, Y (3150GP) (Ref. AMM TASK 29-19-51-000-003) and (Ref. AMM TASK 29-19-51-400-003).

- (3) If the pressure is less than 1450 psi:
- replace the accumulator (Ref. AMM TASK 29-13-42-000-001) and (Ref. AMM TASK 29-13-42-400-001)
 - do a check for external leakage and repair the components as necessary.

****ON A/C 209-225, 247-275, 286-299, 429-475, 481-499, 503-549, 551-599, 703-749,**

A. Fault Confirmation

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) If the fault confirmation gives the system name and the flow arrow of the Yellow hydraulic system in amber (on the lower ECAM DU):
- do a check of the system pressure on the lower ECAM DU and on the system accumulator gage (3072GM).

- (2) If the system pressure is more than 1450 psi, use the rudder pedals to operate the rudder.

- (a) If the rudder operates, do a check for continuity between:
- the PRESS SW-FLT CTL, Y (3151GN) connector A/A and the connector A/C (with the hydraulic system pressurized) (Ref. ASM 29-32/01).

- 1 If there is continuity, replace the PRESS SW-FLT CTL, Y (3151GN) (Ref. AMM TASK 29-32-12-000-003) and (Ref. AMM TASK 29-32-12-400-003).

- 2 If there is no continuity, do a check and repair the wiring between the:
- PRESS SW-FLT CTL, Y (3151GN) connector A/C and FWC-1/ FWC-2 connector AD/06E (Ref. ASM 29-32/01) and (Ref. ASM 31-52/02).

- (b) If the rudder does not operate, do a check for 28 VDC at the:
- solenoid valve (3160GP) connector A/A and the connector A/B (Ref. ASM 29-19/01).

NOTE : There is usually 0 VDC.

R EFF : 201-225, 227-227, 229-245, 247-299,
426-499, 503-549, 551-599, 701-749,

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- 1 If there is 28 VDC, do a check for 28 VDC between:
 - the relay (3811GX) connector X1 and X2.
 - a If there is 28 VDC, do a check and repair the wiring between the:
 - relay (3811GX) connector X1 and the HYD YELLOW ELEC PUMP P/BSW (3804GX) connector A3 (Ref. ASM 29-19/01) and (Ref. ASM 29-24/01).
 - b If there is no 28 VDC, replace the CTL RELAY (3811GX).
- (c) If the fault continues:
 - replace the TIME DELAY RELAY (3816GX).
- (d) If the fault continues:
 - replace the TIME DELAY RELAY (6MJ).
- (e) If the fault continues:
 - do a check for 28 VDC between the P/BSW (1883GP) connector C2 and the connector C3.- 1 If there is continuity, replace the P/BSW (1883GP).
- 2 If there is no continuity do a check and repair the wiring between the:
 - P/BSW (1883GP) connector C3 and the CB (1881GP) (Ref. ASM 29-19/01).
- (f) If the fault continues:
 - replace the SOL VALVE-LEAKAGE MEAS, Y (3150GP) (Ref. AMM TASK 29-19-51-000-003) and (Ref. AMM TASK 29-19-51-400-003).

(3) If the pressure is less than 1450 psi:
 - replace the accumulator (Ref. AMM TASK 29-13-42-000-001) and (Ref. AMM TASK 29-13-42-400-001)
 - do a check for external leakage and repair the components as necessary.

****ON A/C ALL**

B. Do the fault confirmation procedure as given in Para. 3. to make sure that operation is correct.

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5. Close-up**A. Aircraft Maintenance Configuration**

- (1) De-pressurize the Yellow hydraulic system (Ref. AMM TASK 29-10-00-864-002) or (Ref. AMM TASK 29-24-00-864-001).
- (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).
- (3) Connect the isolation coupling of the PTU (Ref. AMM TASK 29-23-00-860-002).

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TASK 29-13-00-810-807

Symbol of the Eng 2 Pump on the ECAM Lower DU shows the incorrect Position

1. Possible Causes

- PRESSURE SWITCH-ENGINE PUMP 3074GD

2. Job Set-up Information

- A. Referenced Information

REFERENCE**DESIGNATION**

AMM 29-13-00-710-002	Operational Test of the Yellow Hydraulic System
AMM 29-13-17-000-041	Removal of the Engine-Pump Pressure Switch (3074GD)
AMM 29-13-17-400-041	Installation of the Engine-Pump Pressure Switch (3074GD)

3. Fault Confirmation

- A. Do the operational test of the Yellow hydraulic system (Ref. AMM TASK 29-13-00-710-002).

4. Fault Isolation

- A. If during the test the Eng 2 pump symbol on the HYD page of the lower ECAM DU shows LO in amber color and the system pressure is correct:
 - replace the PRESSURE SWITCH-ENGINE PUMP 3074GD (Ref. AMM TASK 29-13-17-000-041) and (Ref. AMM TASK 29-13-17-400-041).
- B. If after the test the Eng 2 pump symbol on the HYD page of the lower ECAM DU shows IN-Line in green color:
 - replace the PRESSURE SWITCH-ENGINE PUMP 3074GD (Ref. AMM TASK 29-13-17-000-041) and (Ref. AMM TASK 29-13-17-400-041).
- C. Do the test given in Para. 3

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TASK 29-13-00-810-809

Fault of the System Pressure Indication of the Yellow Hydraulic System on the ECAM Lower DU

1. Possible Causes

- PRESSURE TRANSDUCER-HYDRAULIC (3065GN)

2. Job Set-up Information**A. Referenced Information****REFERENCE****DESIGNATION**

AMM 29-24-00-863-001	Pressurize the Yellow Hydraulic System with the Electric Pump
AMM 29-24-00-864-001	Depressurize the Yellow Hydraulic System
AMM 29-32-11-000-003	Removal of the Hydraulic Pressure Transducer (3065GN)
AMM 29-32-11-400-003	Installation of the Hydraulic Pressure Transducer (3065GN)

3. Fault Confirmation**A. Test**

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) Pressurize the Yellow hydraulic system with the E-pump (Ref. AMM TASK 29-24-00-863-001).
- (2) Operate the rudder pedals.
- (3) Make sure that the rudder operates.
- (4) De-pressurize the Yellow hydraulic System (Ref. AMM TASK 29-24-00-864-001).

4. Fault Isolation

- A.** If, during the test, the operation of the rudder is correct, but the HYD page on the ECAM lower DU shows for the Yellow hydraulic system the subsequent condition:
the system pressure indication in amber (less than 1450 PSI),
the system pressure identification (YELLOW) in white,
the system arrow in green.
- replace the PRESSURE TRANSDUCER-HYDRAULIC (3065GN) (Ref. AMM TASK 29-32-11-000-003) and (Ref. AMM TASK 29-32-11-400-003).

EFF : ALL

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B. Do the test given in Para. 3

R

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TASK 29-13-00-810-810

Yellow System Pressure Indication on ECAM DU out of Tolerance

1. Possible Causes

- PUMP-Y, ENG 2 (3030GD)
- internal leakage

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 12-12-29-611-001	Fill the Hydraulic Fluid Reservoir with a Hand Pump
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-280-003	Check of the Internal Leakage of the Yellow Hydraulic System
AMM 29-00-00-280-006	Check of the Green or Yellow Hydraulic System after Operation in a Possible Cavitation Condition of the Engine Pump
AMM 29-13-51-000-004	Removal of the Yellow Engine Pump (3030GD)
AMM 29-13-51-400-004	Installation of the Yellow Engine Pump (3030GD)
AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM 29-24-00-863-001	Pressurize the Yellow Hydraulic System with the Electric Pump
AMM 29-24-00-864-001	Depressurize the Yellow Hydraulic System
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure
AMM 71-00-00-710-001	Dry Motoring Check

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/SOL VALVES/G/Y/B/LEAK/TST	1881GP	N35
121VU	HYDRAULIC/SOL VALVES/G/Y/PTU	1801GL	N34
121VU	HYDRAULIC/Y HYD/PUMP ENG2/MONG	3700GD	Q37
121VU	HYDRAULIC/Y HYD/PUMP ENG2/CTL	3701GD	Q36

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, press the HYD pushbutton switch P/BSW. Make sure that the HYD page is shown on the lower Display Unit (DU) of the ECAM.
- (4) Make sure that the ECAM does not show any of these conditions;
 - low air pressure in the Yellow reservoir,
 - low fluid level in the Yellow reservoir.
- (5) If necessary, pressurize the reservoir (Ref. AMM TASK 29-14-00-614-002).
- (6) If necessary, add fluid to the reservoir (Ref. AMM TASK 12-12-29-611-001).
- (7) On the overhead panel 40VU, press the PTU/AUTO P/BSW (the OFF light comes on).
- (8) On the overhead panel 40VU, make sure that the YELLOW/ENG 2 PUMP P/BSW is set to on. (FAULT and OFF lights are out).

C. Test

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

- (1) Dry-motor the right (No. 2) engine (Ref. AMM TASK 71-00-00-710-001).
- (2) Look for the Yellow hydraulic system pressure indication on the lower ECAM DU.

R

EFF : ALL

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4. Fault Isolation**A. If the fault confirmation gives:**

- a system pressure indication of 2750 psi on the lower ECAM DU:

(1) On panel 50VU, set the HYD/LEAK MEASUREMENT VALVES/Y pushbutton switch to on (OFF light not on).

(a) If the system pressure increases:

- 1 Stop the dry-motoring of the right (No. 2) engine.
- 2 do a check of the internal leakage of the Yellow hydraulic system (Ref. AMM TASK 29-00-00-280-003) and do the necessary actions.

(b) If the system pressure does not increase:

- 1 Pressurize the Yellow hydraulic system with the electric pump (Ref. AMM TASK 29-24-00-863-001).
- 2 Look for the system pressure indication on the lower ECAM DU.

(c) If the system pressure increases to more than 2750 psi:

- 1 Depressurize the Yellow hydraulic system (Ref. AMM TASK 29-24-00-864-001).
- 2 Replace the PUMP-Y, ENG 2 (3030GD) (Ref. AMM TASK 29-13-51-000-004) and (Ref. AMM TASK 29-13-51-400-004).
- 3 Do a check of the engine pump for a possible cavitation condition (Ref. AMM TASK 29-00-00-280-006).

NOTE : A cavitation condition of the engine pump is possible when the engine pump operates with the engine pump fire valve closed (if you set the ENG 1 (2) FIRE pushbutton on the Eng/APU fire panel), or with the reservoir below the low level (ECAM indication).

(d) If the fault continues, obey the subsequent causes:

- The internal leakage in the Yellow hydraulic system is a bit higher than usual (special for older A/C).
- There is an additional ECAM tolerance of +/- 50psi, the system pressure indication on the ECAM is in 50 psi steps.

B. Do the fault confirmation procedure as given in Para. 3. to make sure that operation is correct.

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5. Close-up

A. Put the aircraft back to the serviceable condition.

(1) Do the EIS stop procedure

(Ref. AMM TASK 31-60-00-860-002).

(2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TASK 29-13-00-810-811

Yellow Reservoir Pressure is out of Tolerance

1. Possible Causes

- PRESSURE REDUCING VALVE

2. Job Set-up Information

- A. Fixtures, Tools, Test and Support Equipment

REFERENCE	QTY	DESIGNATION
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No specific		circuit breaker(s) safety clip(s)
No specific		warning notices

- B. Referenced Information

REFERENCE	DESIGNATION
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R	AMM 12-32-29-281-001	Hydraulic Fluid Sample of Green, Blue and Yellow Systems for Analysis
	AMM 29-00-00-864-001	Put the Related Hydraulic System in the Depressurized Configuration before Maintenance Action
	AMM 29-14-00-720-001	Functional Test of the Pressurizing System of the Hydraulic Reservoirs
	AMM 29-14-43-000-001	Removal of the Pressure Reducing Valve
	AMM 29-14-43-400-001	Installation of the Pressure Reducing Valve
	AMM 32-12-00-010-001	Open the Main Gear Doors for Access

3. Fault Confirmation

- A. Open, safety and tag this(these) circuit breaker(s):

PANEL	DESIGNATION	IDENT.	LOCATION
	49VU HYD/HYD PWR/B WARN/& CTL	2702GJ	C12
	121VU HYDRAULIC/HYD POWER/Y	3803GX	N30
	123VU B HYD/ELEC PUMP	2701GJ	AB09
	123VU Y HYD/ELEC/PUMP	3802GX	AB06
	123VU Y HYD/ELEC/ELEC PUMP/NORM	3801GX	AB03

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Depressurize the Green, Yellow and Blue hydraulic systems, but not the reservoirs (Ref. AMM TASK 29-00-00-864-001).
- (2) Put the warning notices in position to tell persons not to pressurize the hydraulic systems:
 - in the flight compartment on the hydraulic section 40VU of the overhead panel,
 - on the ground service panels of the Green, Yellow and Blue hydraulic systems.
- (3) Open the access doors 196BB and 197FB.
- (4) Open the right main door of the main landing gear (Ref. AMM TASK 32-12-00-010-001).
- (5) Read the pressure gages (1383GM, 2383GM, 3383GM) on each hydraulic reservoir.
- (6) If the reservoir pressure indication is more than 52 +2 -2 psi (3.5852 +0.1378 -0.1378 bar):
 - (a) Do the functional test of the pressurizing system of the hydraulic reservoirs (Ref. AMM TASK 29-14-00-720-001).

4. Fault Isolation

- A. If the reservoir pressure increases during the test to more than 50 +2 -2 psi (3.4473 +0.1378 -0.1378 bar):
 - (1) Replace the PRESSURE REDUCING VALVE (Ref. AMM TASK 29-14-43-000-001) and (Ref. AMM TASK 29-14-43-400-001).
 - (2) Take a fluid sample from each hydraulic system to make sure that the contamination of the hydraulic fluid is in the approved values (Ref. AMM TASK 12-32-29-281-001).
- B. Do the functional test of the pressurizing system of the hydraulic reservoirs again to make sure that the function is correct (Ref. AMM TASK 29-14-00-720-001).

5. Close-up

- A. Remove the safety clip(s) and the tag(s) and close this(these) circuit breaker(s):
2701GJ, 2702GJ, 3801GX, 3802GX, 3803GX

EFF : ALL

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TASK 29-13-00-810-812

FAULT Light of the **YELLOW ENG 2 PUMP P/BSW** is **ON**

1. Possible Causes

- **BOARD-ANN LT TEST & INTFC (20LP)**
- **wiring**

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION

AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
R AMM 33-14-00-710-001	Operational Test of the Lights
AMM 33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
AMM 33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
ASM 33-14/22	

3. Fault Confirmation

A. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) On the overhead panel 40VU, look for the **FAULT** light of the **YELLOW/ENG 2 PUMP P/BSW**.

4. Fault Isolation

A. If the Fault Confirmation gives:

- the **YELLOW/ENG 2 PUMP P/BSW FAULT** on panel 40VU:
- replace the **BOARD-ANN LT TEST & INTFC (20LP)** (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).

EFF : ALL

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(1) If the fault continues:

- do a check and repair the wiring between the:
BOARD-ANN LT TEST & INTFC (20LP) pin A/10 and the
P/BSW-HYD/YELLOW/ENG 2 PUMP (3703GD) pin A/7 (Ref. ASM 33-14/22).

B. Do the operational test of the annunciator light test system (Ref. AMM TASK 33-14-00-710-001) to make sure that the operation is correct.

5. Close-up

A. De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

EFF : ALL

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TASK 29-13-00-810-813

FAULT Light of the YELLOW E-PUMP P/BSW is ON

1. Possible Causes

- BOARD-ANN LT TEST & INTFC (20LP)
- wiring

2. Job Set-up Information**A. Referenced Information**

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
R	AMM 33-14-00-710-001	Operational Test of the Lights
AMM	33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
AMM	33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
ASM	33-14/22	

3. Fault Confirmation**A. Aircraft Maintenance Configuration**

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) On the overhead panel 40VU, look for the FAULT light of the YELLOW ELEC PUMP P/BSW.

4. Fault Isolation**A. If the Fault Confirmation gives:**

- the YELLOW ELEC PUMP P/BSW FAULT on panel 40VU:
- replace the BOARD-ANN LT TEST & INTFC (20LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).

EFF : ALL

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(1) If the fault continues:

- do a check and repair the wiring between the:
BOARD-ANN LT TEST & INTFC (20LP) pin A/17 and the
P/BSW-HYD/YELLOW/ELEC PUMP (3804GX) pin A/7 (Ref. ASM 33-14/22).

B. Do the operational test of the annunciator light test system (Ref. AMM TASK 33-14-00-710-001) to make sure that the operation is correct.

5. Close-up

A. De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

EFF : ALL

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TASK 29-13-00-810-814

Indication of the Hydraulic Fluid Quantity of the Yellow Reservoir shows High Level

1. Possible Causes

- gas leaks

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION

29-13-00-810-801	Loss of the Correct Quantity in the Yellow Hydraulic Reservoir
29-13-00-810-803	Loss of the Yellow Reservoir Pressurization
29-13-00-810-815	Indication of the Hydraulic Fluid Quantity of the Yellow Reservoir shows High or Low Level or fluctuates
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-870-004	Bleeding Procedure of the Yellow Hydraulic System Upstream of the Engine Pump
AMM 29-00-00-870-005	Bleeding Procedure of the Yellow Hydraulic System Upstream of the PTU
AMM 29-00-00-870-006	Bleeding Procedure of the Yellow Hydraulic System Upstream of the Yellow E-Pump
AMM 29-00-00-870-007	Bleeding Procedure of the Yellow Hydraulic System Downstream of the Engine Pump
AMM 29-10-00-200-002	Check Reservoir Air Pressure on Reservoir Gauge
R AMM 29-10-00-200-008	Check Nitrogen Charge Pressure on Hydraulic Power Accumulators
R AMM 29-10-00-680-002	Drainage of the Reservoir of the Yellow Hydraulic System
AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure

EFF : ALL

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL DESIGNATION		IDENT. LOCATION	
121VU	HYDRAULIC/LOW/LVL/IND	1832GQ	N32
121VU	HYDRAULIC/HYD/QTY/IND	1831GQ	P35

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the upper ECAM DU, the lower ECAM DU and panel 40VU.

4. Fault Isolation

A. If the Fault Confirmation gives:

- The content indication shows high fluid level on the lower ECAM DU:

- Do a visual check of the fluid quantity shown on the mechanical indicator (1834GQ) on the ground service panel of the Green hydraulic system.
- Do a visual check of the fluid quantity shown on the fluid content indicator of the Yellow reservoir.
- Do a check of the nitrogen pressure of the Yellow power accumulator (Ref. AMM TASK 29-10-00-200-008).
- Do a check of the pressure of the Yellow hydraulic reservoir (Ref. AMM TASK 29-10-00-200-002).

R
R

- (1) If the three hydraulic fluid quantity indicators show different quantities and the pressures of the accumulator and the reservoir are correct:

- (a) Do the troubleshooting of the quantity indication system
(Ref. TASK 29-13-00-810-801).

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- (2) If the three hydraulic fluid quantity indicators show high level and the pressures of the accumulator and the reservoir are correct:
- (a) Drain the hydraulic fluid until you have the correct fluid quantity in the reservoir (Ref. AMM TASK 29-10-00-680-002).
 - (b) Pressurize the reservoir of the Yellow hydraulic system (Ref. AMM TASK 29-14-00-614-002).
- (3) If the three hydraulic fluid quantity indicators show high level, the pressure of the accumulator is correct, but the reservoir pressure is less than the permitted tolerance:
- (a) Do a check for external gas leaks on the reservoir and repair the defective components as necessary (Ref. AMM TASK 29-10-00-200-002).
 - (b) If you find no external gas leaks, or the fault continues:
 - 1 Do the troubleshooting for the loss of the reservoir pressurization (Ref. TASK 29-13-00-810-803).
 - 2 Drain the hydraulic fluid until you have the correct fluid quantity in the reservoir (Ref. AMM TASK 29-10-00-680-002).
 - 3 Pressurize the reservoir of the Yellow hydraulic system (Ref. AMM TASK 29-14-00-614-002).
 - 4 After 5 minutes, read the gage of the fluid quantity indicator of the Yellow reservoir.
 - a If the difference of the fluid quantity is not more than 1 liter:
 - No more actions are necessary.
 - b If the difference of the fluid quantity is more than 1 liter:
 - Do the bleeding procedures of the Yellow hydraulic system (Ref. AMM TASK 29-00-00-870-004), (Ref. AMM TASK 29-00-00-870-005), (Ref. AMM TASK 29-00-00-870-006) and (Ref. AMM TASK 29-00-00-870-007).
 - (c) If the fault continues:
 - 1 Do the troubleshooting procedure (Ref. TASK 29-13-00-810-815).
- (4) If the three hydraulic fluid quantity indicators show high level, the pressure of the reservoir is correct, but the accumulator pressure is less than the permitted tolerance:
- (a) Do the troubleshooting procedure (Ref. TASK 29-13-00-810-815).

R

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- B. Do the procedure as given in Para. 3. B. to make sure that the operation of the hydraulic quantity indication is correct.

5. Close-up

- A. Put the aircraft back to the serviceable condition.

- (1) Do the EIS stop procedure
(Ref. AMM TASK 31-60-00-860-002).
- (2) De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

TASK 29-13-00-810-815

Indication of the Hydraulic Fluid Quantity of the Yellow Reservoir shows High or Low Level or fluctuates

1. Possible Causes

- ACCU-Y PWR (3070GM)
- gas leaks

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-00-00-870-004	Bleeding Procedure of the Yellow Hydraulic System Upstream of the Engine Pump
AMM 29-00-00-870-005	Bleeding Procedure of the Yellow Hydraulic System Upstream of the PTU
AMM 29-00-00-870-006	Bleeding Procedure of the Yellow Hydraulic System Upstream of the Yellow E-Pump
AMM 29-00-00-870-007	Bleeding Procedure of the Yellow Hydraulic System Downstream of the Engine Pump
AMM 29-10-00-200-002	Check Reservoir Air Pressure on Reservoir Gauge
AMM 29-10-00-200-003	Check Nitrogen Charge Pressure on the Yellow and Green Main Hydraulic System Accumulators by Reading Gauges
AMM 29-13-42-000-001	Removal of the Yellow Power Accumulator
AMM 29-13-42-400-001	Installation of the Yellow Power Accumulator
AMM 29-24-00-863-001	Pressurize the Yellow Hydraulic System with the Electric Pump
AMM 29-24-00-864-001	Depressurize the Yellow Hydraulic System
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure

3. Fault Confirmation

- A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/LOW/LVL/IND	1832GQ	N32
121VU	HYDRAULIC/HYD/QTY/IND	1831GQ	P35

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD
pushbutton switch. Make sure that the HYD page is shown on the system
display of the ECAM.
- (4) Pressurize the Yellow hydraulic system with the electric pump (Ref.
AMM TASK 29-24-00-863-001).
- (5) Look for fault indications on the upper ECAM DU, the lower ECAM DU
and panel 40VU.
- (6) Depressurize the Yellow hydraulic system (Ref. AMM TASK 29-24-00-864-
001).

4. Fault Isolation

A. If the Fault Confirmation gives:

- The content indication shows high fluid level on the lower ECAM DU,
or
- The content indication shows low fluid level on the lower ECAM DU,
or
- The content indication fluctuates between high and low fluid level on
the lower ECAM DU after pressurization of the Yellow hydraulic system
with the electric pump,
or the subsequent warnings come into view:
- The HYD Y ELEC PUMP LO PR on the upper ECAM DU,
- The LO flag of the Yellow hydraulic system on the HYD page of the lower
ECAM DU,
- The Yellow ELEC PUMP P/BSW FAULT on panel 40VU,
- Do a visual check of the fluid quantity shown on the mechanical
indicator (1834GQ) on the ground service panel of the Green hydraulic
system.
- Do a visual check of the fluid quantity shown on the fluid content
indicator of the Yellow reservoir.
- Do a check of the pressure of the Yellow system accumulator (3070GM)
(Ref. AMM TASK 29-10-00-200-003).
- Do a check of the pressure of the Yellow hydraulic reservoir (Ref.
AMM TASK 29-10-00-200-002).

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(1) If the three hydraulic fluid quantity indicators show the same quantity, the pressure of the reservoir is correct, but the accumulator pressure is less than the permitted tolerance:

(a) Do a check for external gas leaks on the power accumulator and repair the defective components as necessary (Ref. AMM TASK 29-10-00-200-003).

(b) If you find no external gas leaks, or the fault continues:

1 Replace the ACCU-Y PWR (3070GM) (Ref. AMM TASK 29-13-42-000-001) and (Ref. AMM TASK 29-13-42-400-001).

2 Do the bleeding procedures of the Yellow hydraulic system (Ref. AMM TASK 29-00-00-870-004), (Ref. AMM TASK 29-00-00-870-005), (Ref. AMM TASK 29-00-00-870-006) and (Ref. AMM TASK 29-00-00-870-007).

B. Do the procedure as given in Para. 3. B. to make sure that the operation of the hydraulic quantity indication is correct.

5. Close-up

A. Put the aircraft back to the serviceable condition.

(1) Do the EIS stop procedure
(Ref. AMM TASK 31-60-00-860-002).

(2) De-energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-862-002).

EFF : ALL

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TASK 29-13-00-810-816

Fault of the System Pressure Indication of the Yellow Hydraulic System

1. Possible Causes

- TIME RELAY (3816GX)
- ENG-HYD.-PUMP-SW (3151GN)
- R - CTL RELAY (3811GX)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
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R **ESPM 204610**

AMM 22-91-00-710-001

Ground Scanning of the AFS

AMM 29-13-00-710-002

Operational Test of the Yellow Hydraulic System

AMM 29-32-12-000-003

Removal of the System Pressure Switch (3151GN)

AMM 29-32-12-400-003

Installation of the System Pressure Switch (3151GN)

3. Fault Confirmation

A. Do the operational test of the Yellow hydraulic system (Ref. AMM TASK 29-13-00-710-002).

4. Fault Isolation

A. If the test gives:

- the message HYD Y SYS LO PR on the upper ECAM DU,
- a system pressure indication of 3000 psi on the lower ECAM DU,
- R - an intermittent PTU indication in amber on the lower ECAM DU,
- R
- R do the ground scanning of the AFS (Ref. AMM TASK 22-91-00-710-001).
- R

R **(1) If the ground scanning shows the messages:**

- AFS: HYD 3151GN
- AFS: ELAC
- SFCC 2: WRONG INHIBIT SIGN FROM CARGO DOOR YELLOW SYSTEM

R replace the TIME RELAY (3816GX).

R

R

R **(2) If the fault continues:**

- replace the ENG-HYD.-PUMP-SW (3151GN) (Ref. AMM TASK 29-32-12-000-003) and (Ref. AMM TASK 29-32-12-400-003).

EFF : ALL

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R (3) If the fault continues:
R - replace the CTL RELAY (3811GX) (Ref. ESPM 204610).

B. Do the fault confirmation procedure as given in Para. 3. to make sure that the operation is correct.

EFF : ALL

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TASK 29-13-00-810-817

Hydraulic System Pressure higher than normal

1. Possible Causes

- FILTER-ENG 2 PUMP CASE DRAIN, Y (3084GM)
- PUMP-Y, ENG 2 (3030GD)
- PRESS XDCR-Y (3065GN)
- FILTER-HP, Y (3048GM)
- SDAC-1 (1WV1)
- SDAC-2 (1WV2)

2. Job Set-up Information**A. Fixtures, Tools, Test and Support Equipment**

REFERENCE

QTY DESIGNATION

No specific

1 GROUND POWER CART-HYDRAULIC

B. Referenced Information

REFERENCE

DESIGNATION

AMM 12-12-29-611-001	Fill the Hydraulic Fluid Reservoir with a Hand Pump
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-10-00-863-002	Pressurize the Yellow Hydraulic System
AMM 29-10-00-864-002	Depressurize the Yellow Hydraulic System
AMM 29-13-43-610-041	Servicing of the Engine Pump Case-Drain Filter (3084GM)
AMM 29-13-45-610-001	Servicing of the HP-Filter (3048GM)
AMM 29-13-51-000-004	Removal of the Yellow Engine Pump (3030GD)
AMM 29-13-51-400-004	Installation of the Yellow Engine Pump (3030GD)
AMM 29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM 29-32-11-000-003	Removal of the Hydraulic Pressure Transducer (3065GN)
AMM 29-32-11-400-003	Installation of the Hydraulic Pressure Transducer (3065GN)
AMM 31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM 31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure
AMM 71-00-00-710-001	Dry Motoring Check

EFF : ALL

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3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
121VU	HYDRAULIC/SOL VALVES/G/Y/B/LEAK/TST	1881GP	N35
121VU	HYDRAULIC/SOL VALVES/G/Y/PTU	1801GL	N34
121VU	HYDRAULIC/Y HYD/PUMP ENG2/MONG	3700GD	Q37
121VU	HYDRAULIC/Y HYD/PUMP ENG2/CTL	3701GD	Q36

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, press the HYD pushbutton switch P/BSW. Make sure that the HYD page is shown on the lower Display Unit (DU) of the ECAM.
- (4) Make sure that the ECAM does not show any of these conditions;
 - low air pressure in the Yellow reservoir,
 - low fluid level in the Yellow reservoir.
- (5) If necessary, pressurize the reservoir (Ref. AMM TASK 29-14-00-614-002).
- (6) If necessary, add fluid to the reservoir (Ref. AMM TASK 12-12-29-611-001).
- (7) On the overhead panel 40VU, press the PTU/AUTO P/BSW (the OFF light comes on).
- (8) Make sure that the PTU does not operate.
- (9) On the overhead panel 40VU, make sure that the YELLOW/ENG 2 PUMP P/BSW is set to on. (FAULT and OFF lights are out).

C. Test

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.

WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROLS ARE CLEAR. MOVEMENT OF FLIGHT CONTROLS CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE.

EFF : ALL

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- (1) Dry-motor the right (No. 2) engine (Ref. AMM TASK 71-00-00-710-001).
- (2) Look for the Yellow hydraulic system pressure indication on the lower ECAM DU.

4. Fault Isolation

A. If the fault confirmation gives:

- the hydraulic system pressure indication on the lower ECAM DU shows a higher value than normal:

- (1) Stop the dry motoring of the right (No.2) engine (Ref. AMM TASK 71-00-00-710-001).
- (2) Pressurize the Yellow hydraulic system with a GROUND POWER CART-HYDRAULIC (Ref. AMM TASK 29-10-00-863-002).
- (3) Look for the hydraulic system pressure indication on the lower ECAM DU.
- (4) Depressurize the Yellow hydraulic system (Ref. AMM TASK 29-10-00-864-002).

(a) If the system pressure is in the normal range:

- Replace the FILTER-ENG 2 PUMP CASE DRAIN, Y (3084GM) (Ref. AMM TASK 29-13-43-610-041).

1 If the fault continues:

- a Replace the PUMP-Y, ENG 2 (3030GD) (Ref. AMM TASK 29-13-51-000-004) and (Ref. AMM TASK 29-13-51-400-004).

(b) If the hydraulic system pressure is too high:

- Replace the PRESS XDCR-Y (3065GN) (Ref. AMM TASK 29-32-11-000-003) and (Ref. AMM TASK 29-32-11-400-003).

1 If the fault continues:

- a Replace the FILTER-HP, Y (3048GM) (Ref. AMM TASK 29-13-45-610-001).

2 If the fault continues:

- a Replace the SDAC-1 (1WV1) or SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).

B. Do the fault confirmation procedure as given in Para. 3. to make sure that the operation is correct.

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5. Close-up

A. Put the aircraft back to the serviceable condition.

(1) Do the EIS stop procedure

(Ref. AMM TASK 31-60-00-860-002).

(2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF : ALL

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TASK 29-13-00-810-818

Reservoir Fluid-Level Indication replaced by amber XX for the Yellow Hydraulic System

1. Possible Causes

- quantity indicator of the Yellow hydraulic reservoir
- quantity indicator of the Green hydraulic reservoir
- quantity indicator of the Blue hydraulic reservoir
- wiring
- C/B-HYDRAULIC/HYD/QTY/IND (1831GQ)
- terminal block (7502VT)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 29-11-41-000-002	Removal of the Quantity Indicator of the Green Hydraulic Reservoir
AMM 29-11-41-400-002	Installation of the Quantity Indicator of the Green Hydraulic Reservoir
AMM 29-12-41-000-002	Removal of the Quantity Indicator of the Blue Hydraulic Reservoir
AMM 29-12-41-400-002	Installation of the Quantity Indicator of the Blue Hydraulic System
AMM 29-13-41-000-003	Removal of the Quantity Indicator of the Yellow Hydraulic Reservoir
AMM 29-13-41-400-003	Installation of the Quantity Indicator of the Yellow Hydraulic Reservoir
AMM 29-31-00-710-001	Functional Check of Reservoir Low Level Warning
AMM 31-60-00-860-001	EIS Start Procedure
TSM 29-11-00-810-815	Reservoir Fluid-Level Indication replaced by amber XX for the Green Hydraulic System
TSM 29-12-00-810-819	Reservoir Fluid-Level Indication replaced by amber XX for the Blue Hydraulic System
AWM 29-31-02	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
	121VU HYDRAULIC/HYD/QTY/IND	1831GQ	P35

EFF : ALL

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B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (4) Look for fault indications on the lower ECAM DU.
- (5) Monitor the condition of the circuit breaker 1831GQ.

4. Fault Isolation

A. If the Fault Confirmation gives:

- The reservoir fluid level indication of the Green, Blue and Yellow hydraulic system is replaced by amber XX on the lower ECAM DU.
- The circuit breaker 1831GQ is open:

(1) Do a check for a defective hydraulic quantity transmitter as follows:

- (a) Remove the electrical connector from the quantity indicator of the Yellow hydraulic reservoir.

- (b) Close the circuit breaker 1831GQ:

- 1 If the circuit breaker 1831GQ stays closed:

- Replace the quantity indicator of the Yellow hydraulic reservoir (Ref. AMM TASK 29-13-41-000-003) and (Ref. AMM TASK 29-13-41-400-003).

- 2 If the circuit breaker 1831GQ opens:

- a Connect the electrical connector to the quantity indicator of the Yellow hydraulic reservoir.

- (c) Do a check of the

- quantity indicator of the Green hydraulic reservoir (Ref. TSM TASK 29-11-00-810-815)
and
- quantity indicator of the Blue hydraulic reservoir (Ref. TSM TASK 29-12-00-810-819).

- (d) Replace the applicable quantity indicator which causes the circuit breaker 1831GQ to open:

- for the quantity indicator of the Green hydraulic reservoir (Ref. AMM TASK 29-11-41-000-002) and (Ref. AMM TASK 29-11-41-400-002)

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- for the quantity indicator of the Blue hydraulic reservoir (Ref. AMM TASK 29-12-41-000-002) and (Ref. AMM TASK 29-12-41-400-002).

(2) If the fault continues:

(a) Do a check for continuity between:

- the CB (1831GQ) and the pin C of the terminal block (7502VT) (Ref. AWM 29-31-02).

1 If there is no continuity:

a Repair the wiring between the CB (1831GQ) and the pin C of the terminal block (7502VT) (Ref. AWM 29-31-02).

b If the fault continues:

- Replace the C/B-HYDRAULIC/HYD/QTY/IND (1831GQ).

2 If there is continuity:

- Do a check for continuity between the pin C of the terminal block (7502VT) and the pins E, J, K of the terminal block (7502VT) (Ref. AWM 29-31-02).

a If there is no continuity:

- Replace the terminal block (7502VT).

B. Do the operational test of the fluid low level warning (Ref. AMM TASK 29-31-00-710-001) to make sure that the operation is correct (no fault indications shown).

EFF : ALL

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R

1. System Description

R

(Ref. Fig. 301)

R

The Yellow main hydraulic system has the subsequent sub-systems:

- a HP system which supplies consumers,
- a LP or return system through which the fluid returns to the reservoir,
- a suction system.

A. HP System

The HP system is usually pressurized by an engine-driven pump (EDP) 1030GD connected to the right (No 2) engine. The EDP is connected directly to the engine and operates together with it. A solenoid valve makes it possible to stop the supply of fluid from the EDP. The solenoid valve is operated from the flight compartment with the P/B switch 3703GD.

The power transfer unit (PTU) 1088GM can also pressurize the Yellow HP circuit. The PTU gets its power from the Green main system. It supplies power to the Yellow system automatically if the system pressure falls to 500 psi (34.5 bar) below the pressure in the Green system. There is no hydraulic connection between the two systems so fluid can not get from one system to the other.

If the EDP fails or for maintenance on the ground, it is possible to pressurize the Yellow hydraulic system with the electric pump 3075GX. The output of the electric pump is connected to the HP supply.

On the ground, it is possible to pressurize the system from a ground supply through the self-sealing connectors on the ground service panel.

The supply to all consumers (except cargo doors and thrust reverser) goes through the HP manifold 3011GM. The HP manifold has pressure switches, a filter, a check valve, a transmitter, a solenoid valve and other components which control the system. The supply from the HP manifold to all consumers other than the flap motors also goes through the leakage-measurement system manifold 3146GM. Thus it is possible to isolate some consumers to measure the internal leakage of parts of the system.

The supply to the alternate and parking brake systems goes from the HP manifold through the brake manifold 3016GM.

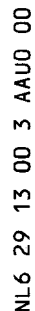
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B. LP System

The LP system returns the fluid from the consumers to the reservoir. The case drains of the EDP and PTU, and the returns from the HP manifold, are also connected to the LP system. The system has check valves where applicable to control the flow of fluid. The check valves also protect the main system if there is a leak in a subsystem. Some of the return lines are connected together at the LP manifold 3003GM. Part of the LP system is also used in the reservoir filling system.

The LP fluid goes through the LP filter 3002GM before it gets to the system reservoir 3000GQ.

A filter 3084GM is also installed in the EDP case drain line to the LP system.

The system reservoir 3000GQ is installed in the Yellow hydraulic compartment.

The reservoir is filled through the reservoir filling system which is operated from the ground service panel of the Green system. A reservoir drain valve is installed on the reservoir.

The reservoir is pressurized with air to 3.5 bar (50 psi). The supply of air comes from the aircraft pneumatic system. It is also possible to pressurize the reservoir from a ground supply. A depressurization valve 3087GM is installed on the ground service panel of the Yellow system.

C. Suction System

The engine pump 3030GD gets its supply of fluid directly from the Yellow reservoir 3000GQ. The fire shut-off valve 3046GD permits to isolate the supply of the engine pump.

R

EFF : ALL

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TASK 29-14-00-810-801

Fault of the Hydraulic Reservoir Pressurizing System

1. Possible Causes

- RSVR PRESS UNIT (1360GM)
- air filter element
- outlet non-return valve

2. Job Set-up Information

A. Referenced Information

REFERENCE

DESIGNATION

AMM	29-00-00-864-001	Put the Related Hydraulic System in the Depressurized Configuration before Maintenance Action
AMM	29-14-00-614-002	Pressurization of the Hydraulic Reservoirs through the Ground Connector
AMM	29-14-00-720-001	Functional Test of the Pressurizing System of the Hydraulic Reservoirs
AMM	29-14-41-000-002	Removal of the Reservoir Pressurization Unit (1360GM)
AMM	29-14-41-000-003	Removal of the Outlet Non-Return Valve of the Reservoir Pressurization Unit
AMM	29-14-41-400-002	Installation of the Reservoir Pressurization Unit (1360GM)
AMM	29-14-41-400-003	Installation of the Outlet Non-Return Valve of the Reservoir Pressurization Unit
AMM	29-14-41-610-002	Servicing of the Reservoir Pressurization Filter

3. Fault Confirmation

R

A. Aircraft Maintenance Configuration

- (1) Make sure that the hydraulic systems are depressurized and put them in the maintenance configuration.
(Ref. AMM TASK 29-00-00-864-001).
- (2) Pressurize the hydraulic reservoirs through the ground connector
(Ref. AMM TASK 29-14-00-614-002).
- (3) Do a visual check of the pressure shown on the gages of the hydraulic reservoirs.

EFF : ALL

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R

4. Fault Isolation

R

A. If the fault confirmation gives:

- No increase of the air pressure in all three reservoirs:

(1) Do a check of the clogging indicator on the reservoir pressurization unit (1360GM):

(a) If the clogging indicator is out:

- Replace the air filter element of the reservoir pressurization unit 1360GM. (Ref. AMM TASK 29-14-41-610-002).

(2) If the clogging indicator is not out, or the fault continues:

- Replace the outlet non-return valve of the reservoir pressurization unit 1360GM. (Ref. AMM TASK 29-14-41-000-003) and (Ref. AMM TASK 29-14-41-400-003).

(3) If the fault continues:

- Replace the RSVR PRESS UNIT (1360GM). (Ref. AMM TASK 29-14-41-000-002) and (Ref. AMM TASK 29-14-41-400-002).

R

5. Close-up

R

A. Do the functional test of the pressurizing system of the hydraulic reservoirs to make sure that the operation is correct (Ref. AMM TASK 29-14-00-720-001).

EFF : ALL

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R **ON A/C 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

1. System Description
(Ref. Fig. 301)

**ON A/C 276-299, 476-499, 503-549,

1. System Description
(Ref. Fig. 301A)

**ON A/C ALL

The reservoir pressurization system gets:

- HP air (usual operation)
- LP air (if failure of left engine occurs)
- ground supply air.

- A. A restrictor is installed in the HP bleed air line from the left engine. The restrictor limits the airflow to make sure that the temperature of the HP air is reduced to a satisfactory level. It also prevents too much bleed air leakage. This is necessary in case of a leak downstream of the restrictor.
- B. The system has a reservoir pressurization unit which controls the pressure of the air supplied to the reservoirs. This is necessary because the pressure of the HP air from the engine can be as much as 26 bar (377 psi) and the system operates at 4.5 bar absolute. The pressure of the LP bleed air is 3.5 bar relative. Thus it is not necessary to decrease the pressure of this air supply.
- C. A water separator is installed on the reservoir pressurization unit. The water separator is located upstream of the pressure reducing valve. The water separator makes sure that the air is clear of water. A reservoir pressurization ground connector is also installed on the unit. It makes it possible to pressurize the system from a ground service cart. A filter assembly is also installed on the unit.
- D. An air pressure gage is installed in each system, adjacent to the related reservoir. Each reservoir has a pressure relief valve to prevent overpressurization of the reservoir.

EFF : ALL

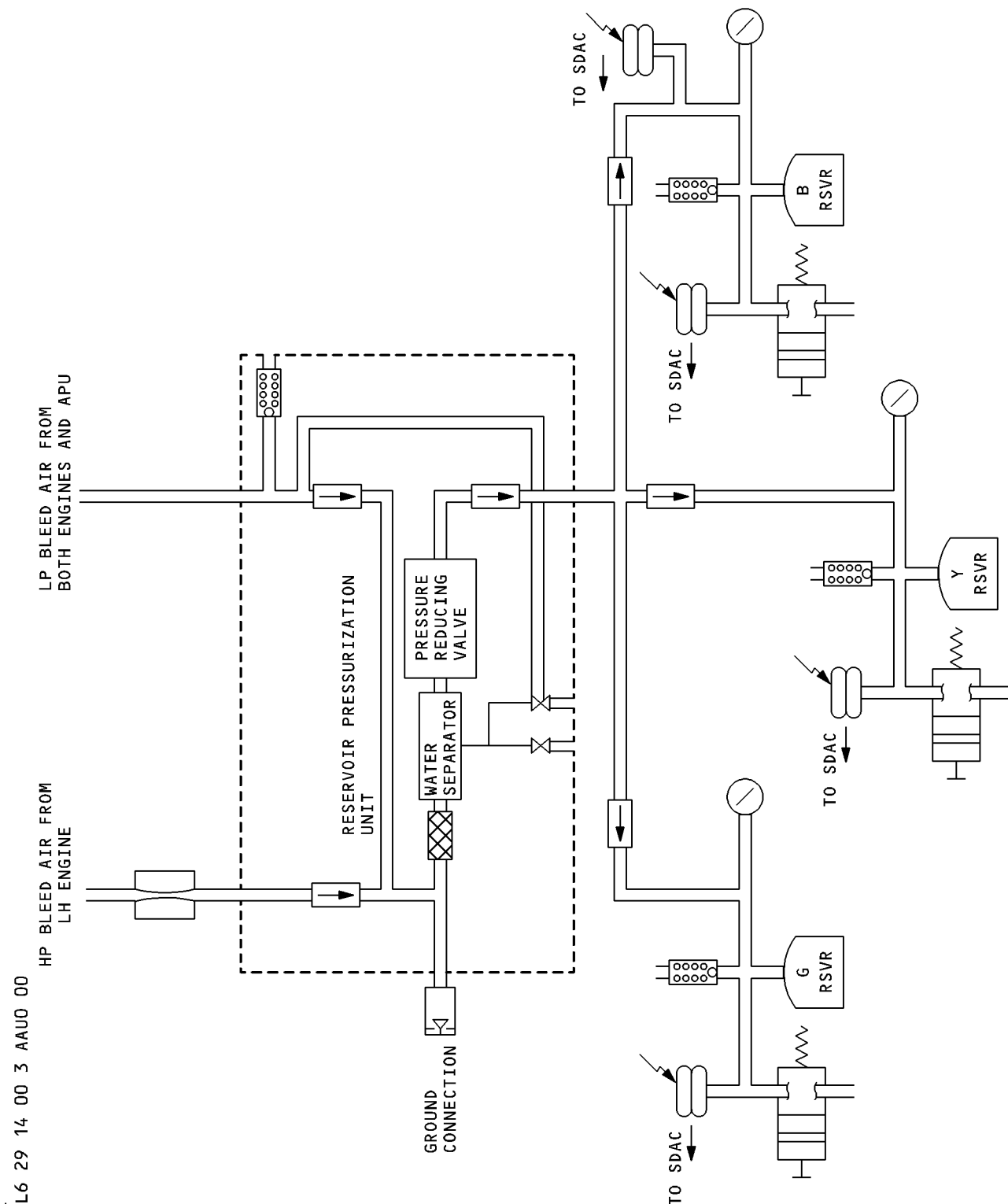
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A319/A320/A321

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Hydraulic Pressurizing System - Schematic
Figure 301

R EFF : 201-225, 227-227, 229-275, 426-475,
551-599, 701-749,

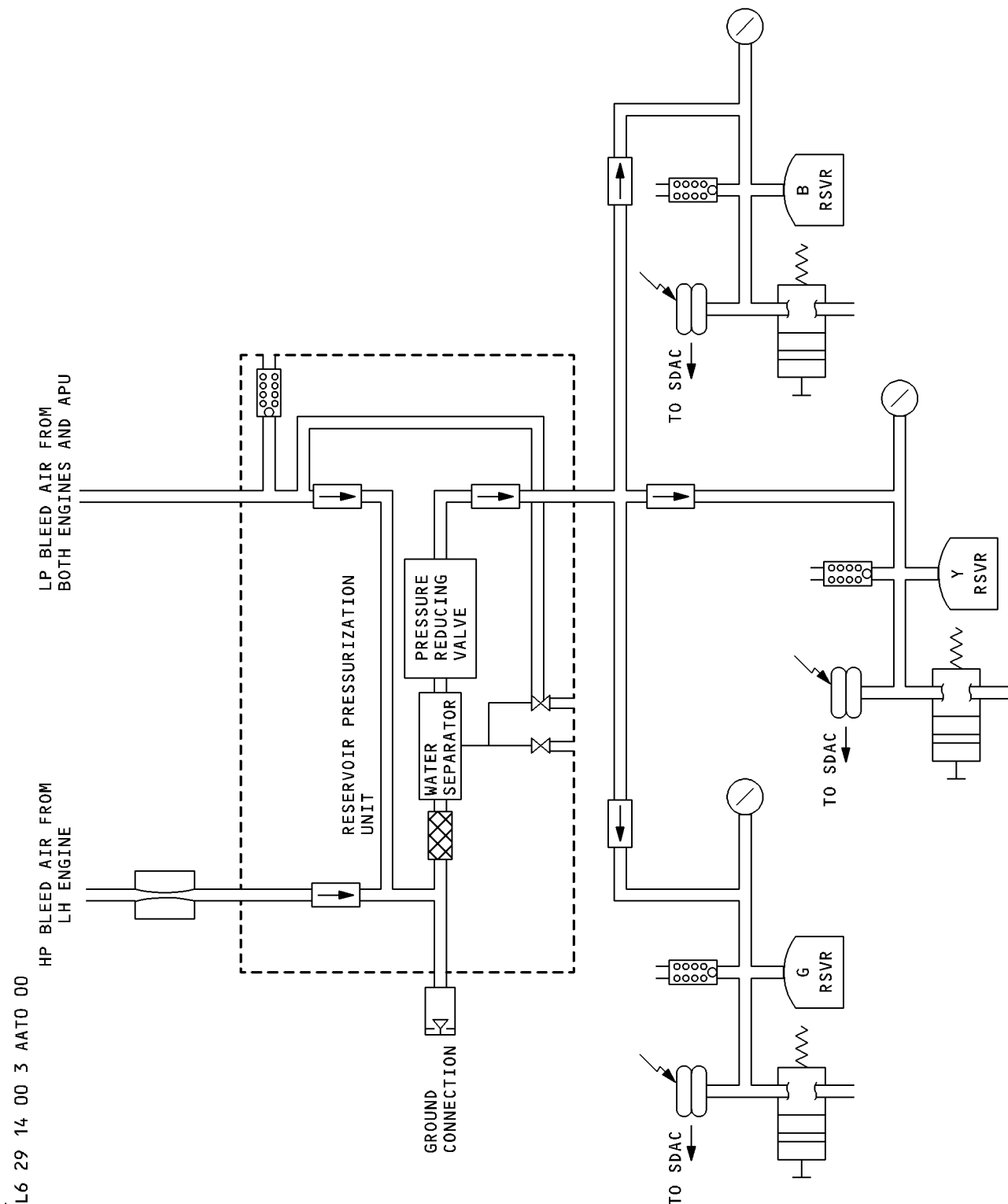
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A319/A320/A321

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Hydraulic Pressurizing System - Schematic
Figure 301A

R EFF : 276-299, 476-499, 503-549,

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- E. Each reservoir has a reservoir depressurization valve to let the pressure out of the reservoir. The valve is installed in the related ground service panel.

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TASK 29-22-00-810-801

Fault of the Ram Air Turbine

1. Possible Causes

- RAT CTL PNL (3GE)
- JACK-EJECTION, RAT (2454GE)
- MODULE-RAT GND CHECK (2027GE)
- CTL UNIT-RAT GND (2815GE)
- MODULE-JACK CONTROL, RAT (2455GE)
- JACK-EJECTION, RAT (1GE)
- P/BSW 2805GE
- P/BSW 24XE
- RAT stowed switch
- wiring
- R - PRESSURE SWITCH

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION

24-24-00-810-806	Result of the EMER GEN Test Incorrect (Failure of the Switching)
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-10-00-863-003	Pressurize the Blue Hydraulic System with a Ground Power Supply
AMM 29-22-00-869-002	Retraction of the Ram Air Turbine (RAT) on the Ground
AMM 29-22-00-869-006	Retraction of the Ram Air Turbine (RAT) on the Ground
AMM 29-22-12-000-001	Removal of the RAT Ground Control Unit (2815GE)
AMM 29-22-12-000-003	Removal of the RAT Ground Control Unit (3GE)
AMM 29-22-12-400-001	Installation of the RAT Ground Control Unit (2815GE)
AMM 29-22-12-400-003	Installation of the RAT Ground Control Unit (3GE)
AMM 29-22-53-000-001	Removal of the RAT Ejection Jack (2454GE)
AMM 29-22-53-000-010	Removal of the RAT Ejection Jack (1GE)
R AMM 29-22-53-000-013	Removal of the Pressure Switch
AMM 29-22-53-000-014	Removal of the RAT Stowed Switch
AMM 29-22-53-400-001	Installation of the RAT Ejection Jack (2454GE)
AMM 29-22-53-400-010	Installation of the Ejection Jack (1GE)
R AMM 29-22-53-400-013	Installation of the Pressure Switch
AMM 29-22-53-400-014	Installation of the RAT Stowed Switch
AMM 29-22-54-000-001	Removal of the RAT Jack Control Module (2455GE)
AMM 29-22-54-400-001	Installation of the RAT Jack Control Module (2455GE)

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REFERENCE**DESIGNATION**

AMM 31-60-00-860-001 EIS Start Procedure
ASM 29-22/01
ASM 31-54/02

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL DESIGNATION**IDENT. LOCATION**

****ON A/C 201-225, 247-299, 429-499, 503-549, 551-599,**

49VU HYD/RAT/CTL

2801GE

D14

****ON A/C ALL**

106VU CSM/G /EV/MAN/SPLY

6XE

B04

121VU HYDRAULIC/RAT/SPLY/EXTN/SOL1

2803GE

P33

R ****ON A/C 227-227, 229-245, 426-428, 701-749,**

121VU HYDRAULIC/RAT/CTL

2801GE

P32

****ON A/C ALL**

B. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
(Ref. AMM TASK 24-41-00-861-002).
- (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
(Ref. AMM TASK 31-60-00-860-001).
- (3) Look for fault indications on the upper ECAM DU and examine the RAT.

NOTE : The message RAT OUT (RAT not extended) comes on the Memo page only in flight, this causes the message HYD RAT FAULT on the upper ECAM DU on ground.

EFF : ALL

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4. Fault Isolation

R **ON A/C 201-225, 247-299, 429-499, 503-549, 551-599,

A. If the upper ECAM DU shows the message HYD RAT FAULT and the RAT is extended:

- do a check for 28 VDC between:
the JACK-EJECTION, RAT (1GE) connectors A/A and A/B, B/A and B/B (Ref. ASM 29-22/01).

NOTE : The solenoid valves are made unserviceable, if 28 VDC is supplied for more than 2 minutes.

(1) If there is no 28 VDC:

WARNING : MAKE SURE THAT THE RAT TRAVEL RANGE IS CLEAR BEFORE YOU EXTEND/RETRACT THE RAT.

- retract the RAT (Ref. AMM TASK 29-22-00-869-006) and extend it again with the EMER ELEC POWER/MAN ON/AUTO P/BSW (24XE) on panel 21VU.
- retract the RAT (Ref. AMM TASK 29-22-00-869-006) and extend it again with the RAT MAN ON P/BSW (2805GE) on panel 40VU.

(a) If the operation of the RAT is satisfactory, no further actions are necessary.

NOTE : The uncommanded extension was due to a mechanical fault of the ejection jack or a spurious supply to one of the two deploy solenoids.

(2) If there is 28 VDC at one or both solenoids:

- do a check for 28 VDC between:
- the P/BSW 2805GE pin 4 and ground
- the P/BSW 24XE pin 7 and ground (Ref. ASM 29-22/01).

(a) If there is 28 VDC:

- replace the related P/BSW.

(b) If there is no 28 VDC:

- do a check and repair the wiring between:
 - the P/BSW 2805GE pin 4 and the JACK-EJECTION, RAT (1GE) connector B/B
 - the P/BSW 24XE pin 7 and the JACK-EJECTION, RAT (1GE) connector A/B (Ref. ASM 29-22/01).

(3) If the fault continues:

- do the trouble shooting procedure of the automatic deployment logic (Ref. TASK 24-24-00-810-806).

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(4) If the fault continues:

- replace the JACK-EJECTION, RAT (1GE) (Ref. AMM TASK 29-22-53-000-010) and (Ref. AMM TASK 29-22-53-400-010).

B. If the upper ECAM DU shows the message HYD RAT FAULT and the RAT is not extended:

- do a check of the RAT triangle indication shown on the lower ECAM DU.

(1) If the RAT triangle is shown in green:

- disconnect the electrical connector (1GE-C) from the JACK-EJECTION, RAT (1GE).
- electrically connect the pins B and C of the connector (1GE-C) (Ref. ASM 29-22/01).

(a) If the fault does not continue:

- replace the RAT stowed switch (Ref. AMM TASK 29-22-53-000-014) and (Ref. AMM TASK 29-22-53-400-014).

(b) If the fault continues:

- replace the RAT CTL PNL (3GE) (Ref. AMM TASK 29-22-12-000-003) and (Ref. AMM TASK 29-22-12-400-003).

(c) If the fault continues:

- do a check of the wiring for a GND connection between:
 - the JACK-EJECTION, RAT (1GE) connector C/B and the SDAC connector AA/03D and repair as necessary (Ref. ASM 29-22/01) and (Ref. ASM 31-54/02).

(2) If the RAT triangle is shown in white:

- pressurize the Blue Hydraulic system with the Blue Electric pump (Ref. AMM TASK 29-10-00-863-003) and look on the lower ECAM DU.

(a) If the RAT triangle is shown in amber:

- disconnect the electrical connector (1GE-D) from the JACK-EJECTION, RAT (1GE),
- do a check for 28 VDC at the electrical connector (1GE-D) between connector D/A and connector D/C (Ref. ASM 29-22/01).

1 If there is no 28 VDC:

- disconnect the electrical connector (1GE-E) from the JACK-EJECTION, RAT (1GE).

a If the fault does not continue:

- replace the PRESSURE SWITCH (Ref. AMM TASK 29-22-53-000-013) and (Ref. AMM TASK 29-22-53-400-013).

b If the fault does continue:

- replace the JACK-EJECTION, RAT (1GE) (Ref. AMM TASK 29-22-53-000-010) and (Ref. AMM TASK 29-22-53-400-010).

c If the fault continues:

- do a check of the wiring for a GND connection between:

TROUBLE SHOOTING MANUAL

- the JACK-EJECTION, RAT (1GE) connector E/C and the SDAC connector AA/04G and repair the wiring as necessary (Ref. ASM 29-22/01) and (Ref. ASM 31-54/02).

- 2 If there is 28 VDC:
- disconnect the electrical connector (3GE-A) from the RAT CTL PNL (3GE),
 - do again a check for 28 VDC at the electrical connector (1GE-D) between connector D/A and connector D/C (Ref. ASM 29-22/01).
- a If there is no 28 VDC:
- replace the RAT CTL PNL (3GE) (Ref. AMM TASK 29-22-12-000-003) and (Ref. AMM TASK 29-22-12-400-003).
- b If there is 28 VDC:
- do a check and repair the wiring between:
 - the JACK-EJECTION, RAT (1GE) connector D/A and the RAT CTL PNL (3GE) connector A/G (Ref. ASM 29-22/01).

R **ON A/C 227-227, 229-245, 426-428, 701-749,

- A. If the upper ECAM DU shows the message HYD RAT FAULT and the RAT is extended:
- do a check for 28 VDC between:
 - the JACK-EJECTION, RAT (2454GE) connectors A/A and A/B, B/A and B/B (Ref. ASM 29-22/01).

NOTE : The solenoid valves are made unserviceable, if 28 VDC is supplied for more than 2 minutes.

(1) If there is no 28 VDC:

WARNING : MAKE SURE THAT THE RAT TRAVEL RANGE IS CLEAR BEFORE YOU EXTEND/RETRACT THE RAT.

- retract the RAT (Ref. AMM TASK 29-22-00-869-002) and extend it again with the EMER ELEC POWER/MAN ON/AUTO P/BSW (24XE) on panel 21VU.
- retract the RAT (Ref. AMM TASK 29-22-00-869-002) and extend it again with the RAT MAN ON P/BSW (2805GE) on panel 40VU.

(a) If the operation of the RAT is satisfactory, no further actions are necessary.

NOTE : The uncommanded extension was due to a mechanical fault of the ejection jack or a spurious supply to one of the two deploy solenoids.

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- (2) If there is 28 VDC at one or both solenoids:
 - do a check for 28 VDC between:
 - the P/BSW 2805GE pin 4 and ground
 - the P/BSW 24XE pin 7 and ground (Ref. ASM 29-22/01).
- (a) If there is 28 VDC:
 - replace the related P/BSW.
- (b) If there is no 28 VDC:
 - do a check and repair the wiring between:
 - the P/BSW 2805GE pin 4 and the JACK-EJECTION, RAT (2454GE) connector B/B
 - the P/BSW 24XE pin 7 and the JACK-EJECTION, RAT (2454GE) connector A/B (Ref. ASM 29-22/01).
- (3) If the fault continues:
 - do the trouble shooting procedure of the automatic deployment logic (Ref. TASK 24-24-00-810-806).
- (4) If the fault continues:
 - replace the JACK-EJECTION, RAT (2454GE) (Ref. AMM TASK 29-22-53-000-001) and (Ref. AMM TASK 29-22-53-400-001).
- B. If the upper ECAM DU shows the message HYD RAT FAULT and the RAT is not extended:
 - do a check of the RAT triangle indication shown on the lower ECAM DU.
- (1) If the RAT triangle is shown in green:
 - disconnect the electrical connector (2454GE-C) from the JACK-EJECTION, RAT (2454GE) and look on the lower ECAM DU.
- (a) If the RAT FAULT message is no longer shown:
 - 1 replace the JACK-EJECTION, RAT (2454GE) (Ref. AMM TASK 29-22-53-000-001) and (Ref. AMM TASK 29-22-53-400-001).
- (b) If the RAT FAULT message is still shown:
 - do a check of the wiring for a GND connection between:
 - the JACK-EJECTION, RAT (2454GE) connector C/C and the SDAC connector AA/03D and repair as necessary (Ref. ASM 29-22/01) and (Ref. ASM 31-54/02) .
- (2) If the RAT triangle is shown in amber:
 - examine the red warning light on the RAT control panel (2815GE).
- NOTE** : Do a test of the red warning light with the TEST switch to make sure that the light is serviceable.
- (a) If the red warning light is not on:
 - do a check for 28 VDC between the MODULE-RAT GND CHECK (2027GE) connector A/A and connector A/B (Ref. ASM 29-22/01) .

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- 1 If there is 28 VDC:
 - do a check and repair the wiring between:
 - the MODULE-RAT GND CHECK (2027GE) connector A/A and the CTL UNIT-RAT GND (2815GE) connector S (Ref. ASM 29-22/01).
 - 2 If there is no 28 VDC:
 - do a check and repair the wiring between:
 - the MODULE-RAT GND CHECK (2027GE) connector A/A and the SDAC connector AE/01H and repair as necessary (Ref. ASM 29-22/01) and (Ref. ASM 31-54/02) .
- (b) If the red warning light is on:
- do a check for a short circuit between the CTL UNIT-RAT GND (2815GE) connector A/A and connector A/B (Ref. ASM 29-22/01).
- 1 If there is a short circuit:
 - replace the CTL UNIT-RAT GND (2815GE) (Ref. AMM TASK 29-22-12-000-001) and (Ref. AMM TASK 29-22-12-400-001).
 - 2 If there is no short circuit:
 - disconnect the electrical connector (2455GE-A) from the MODULE-JACK CONTROL, RAT (2455GE) (Ref. ASM 29-22/01).
- a If the fault continues:
 - do a check of the wiring for a GND connection between:
 - the MODULE-JACK CONTROL, RAT (2455GE)connector A/D and the SDAC connector AA/04G and repair as necessary (Ref. ASM 29-22/01) and (Ref. ASM 31-54/02) .
 - b If the fault does not continue:
 - replace the MODULE-JACK CONTROL, RAT (2455GE) (Ref. AMM TASK 29-22-54-000-001) and (Ref. AMM TASK 29-22-54-400-001).
- (3) If the RAT triangle is shown in white:
- pressurize the Blue hydraulic system with the Blue electric pump (Ref. AMM TASK 29-10-00-863-003) and:
 - operate hydraulic consumers for not more than 2 minutes,
 - look at the RAT triangle on the lower ECAM DU.
- (a) If the RAT triangle is shown in amber:
- do a check for 28 VDC at the:
 - MODULE-JACK CONTROL, RAT (2455GE) connector A/B and ground (Ref. ASM 29-22/01).
- 1 If there is 28 VDC:
 - do a check and repair the wiring between the MODULE-JACK CONTROL, RAT (2455GE) connector A/B and the JACK-EJECTION, RAT (2454GE) connector C/B (Ref. ASM 29-22/01).

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- 2 If there is no 28 VDC:
- do a check for a short circuit between the pins D and E of the connector 2455GE-A (Ref. ASM 29-22/01).
- a If there is a short circuit:
- replace the MODULE-JACK CONTROL, RAT (2455GE) (Ref. AMM TASK 29-22-54-000-001) and (Ref. AMM TASK 29-22-54-400-001).
- b If there is no short circuit:
- do a check for a GND connection between:
 - the MODULE-JACK CONTROL, RAT (2455GE) connector D and the CTL UNIT-RAT GND (2815GE) connector B and repair as necessary (Ref. ASM 29-22/01) .
- c If the fault continues:
- do a check of the wiring for a GND connection between:
 - the MODULE-JACK CONTROL, RAT (2455GE) connector A/D and the SDAC connector AA/04G and repair as necessary (Ref. ASM 29-22/01) and (Ref. ASM 31-54/02) .

****ON A/C ALL**

C. Do the test as given in Para. 3. B. to make sure that operation is correct (no message shown).

5. Close-up

A. De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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R **ON A/C 201-225, 247-299, 429-499, 503-549, 551-599,

TASK 29-22-00-810-803

Ram Air Turbine does not retract

1. Possible Causes

- RAT interlock proximity switch

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-22-00-820-005	Adjustment of the RAT Interlock Proximity Switch
AMM 29-22-00-869-006	Retraction of the Ram Air Turbine (RAT) on the Ground
AMM 29-22-51-000-011	Removal of the RAT Interlock Proximity Switch
AMM 29-22-51-400-011	Installation of the RAT Interlock Proximity Switch

3. Fault Confirmation

- ##### **A. Make sure that this(these) circuit breaker(s) is(are) closed:**

PANEL	DESIGNATION	IDENT.	LOCATION
121VU	HYDRAULIC/RAT/CTL	2801GE	P32
49VU	HYD/RAT/CTL	2801GE	D14
121VU	HYDRAULIC/RAT/EXTN/SOL1	2803GE	P33
106VU	CSM/G /EV/MAN/SPLY	6XE	AS01

B. Aircraft Maintenance Configuration

- (1) Open the access panel 197EB.
- (2) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (3) On the RAT ground control-panel (3GE):
 - Set the 28VDC switch to the ON position.
 - Set the LAMP TEST switch to the test position and make sure that all lights come on.

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(4) Retract the RAT (Ref. AMM TASK 29-22-00-869-006).

(5) During the retraction of the RAT:

- Obey the interlock warning light in the RAT control panel (3GE).
- Obey the operation of the RAT.

4. Fault Isolation

A. If the RAT starts to retract but returns to its fully extended position and the interlock warning light on the RAT control panel (3GE) comes on:

- Do the adjustment of the RAT interlock proximity switch (Ref. AMM TASK 29-22-00-820-005).

(1) If the fault continues:

- Replace the RAT interlock proximity switch (Ref. AMM TASK 29-22-51-000-011) and (Ref. AMM TASK 29-22-51-400-011).

****ON A/C 201-225, 276-299, 451-499, 503-549, 551-599,**

B. Do the fault confirmation procedure as given in Para. 3. to make sure that the operation is correct.

R **ON A/C 201-225, 247-299, 429-499, 503-549, 551-599,

5. Close-up

A. Put the aircraft back to the serviceable condition.

(1) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

(2) Close the access panel 197EB.

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551-599,**

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R **ON A/C 227-227, 229-245, 426-428, 701-749,

TASK 29-22-00-810-804

Unwanted Deployment of the Ram Air Turbine

1. Possible Causes

- RELAY-EMER AUTO LOG CONDITION (17XE)
- RELAY-EMER AUTO LOG CONDITION (18XE)

2. Job Set-up Information

A. Referenced Information

REFERENCE

DESIGNATION

AMM 29-22-00-710-001	Operational Check of Ram Air Turbine (RAT) Automatic Deployment
----------------------	---

3. Fault Confirmation

- A. Do the operational test of the ram air turbine (RAT) automatic deployment (Ref. AMM TASK 29-22-00-710-001).

4. Fault Isolation

- A. If the RAT extends as soon as the circuit breaker 9XE or 11XE is opened during the operational test:
- Replace the RELAY-EMER AUTO LOG CONDITION (17XE) if the RAT extends when you open the circuit breaker 9XE.
 - Replace the RELAY-EMER AUTO LOG CONDITION (18XE) if the RAT extends when you open the circuit breaker 11XE.
- B. Do the test as given in Para. 3. A. to make sure that the operation is correct.

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TASK 29-23-00-810-801

Fault of the Power Transfer Unit (PTU)

1. Possible Causes

- TIME RELAY (3816GX)
- SOL VALVE-PTU, G (1012GL)
- SOL VALVE-PTU, Y (3012GL)
- MANIFOLD,PTU (1113GM)
- P/BSW HYD/PTU/AUTO (1802GL)
- wiring
- MANIFOLD,PTU (3015GM)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 29-11-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
AMM 29-11-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
AMM 29-13-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-13-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-23-00-860-002	Connection of the Isolation Coupling of the Power Transfer Unit (PTU)
AMM 29-23-41-000-001	Removal of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-41-400-001	Installation of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-51-000-001	Removal of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 29-23-51-000-002	Removal of the Solenoid Valve 3012GL of the Power Transfer Unit
AMM 29-23-51-400-001	Installation of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 29-23-51-400-002	Installation of the Solenoid Valve 3012GL of the Power Transfer Unit
AMM 31-60-00-860-001	EIS Start Procedure
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	Engine Shutdown
ASM 29-23/01	

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REFERENCE

DESIGNATION

ASM 29-24/01

3. Fault Confirmation

A. Aircraft Maintenance Configuration

- (1) Energize the aircraft electrical circuits
- (2) Make sure that the PTU P/BSW is in the AUTO position (OFF light not on).
- (3) Make sure that the cargo compartment doors are not in operation with the Yellow electric pump.
- (4) Make sure that the isolation coupling of the PTU is connected (Ref. AMM TASK 29-23-00-860-002).
- R If the isolation coupling is connected, do the subsequent steps:
- (5) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- R (6) Do an automatic start of the two engines (Ref. AMM TASK 71-00-00-710-003).
- R **NOTE** : The HYD PTU FAULT message possibly comes on at the upper ECAM
- R DU if you do the second engine start in 40 sec of an operation
- R of the cargo doors (with the Yellow electric pump).
- (7) On the ECAM control panel on the center pedestal, push the HYD pushbutton switch. Make sure that the HYD page is shown on the system display of the ECAM.
- (8) Look for fault indications on the upper ECAM DU and the lower ECAM DU.
- R (9) Stop the engines (Ref. AMM TASK 71-00-00-710-028).

4. Fault Isolation

- A. If after start of the second engine:
- the HYD PTU FAULT on the upper ECAM DU,
 - the pressure difference in the hydraulic systems is more than 650 psi
 - replace the PTU (Ref. AMM TASK 29-23-41-000-001) and (Ref. AMM TASK 29-23-41-400-001).

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R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

B. If after start of the second engine:

- the HYD PTU FAULT on the upper ECAM DU is shown,
- the hydraulic system of the second engine is not pressurized:
- do a check for 28 VDC between:
 - the SOL VALVE-PWR TRANSFER,Y (3012GL) connector A/A and the connector A/B,
 - the SOL VALVE-PWR TRANSFER,G (1012GL) connector A/A and the connector A/B (Ref. ASM 29-23/01).

(1) If there is 28 VDC:

NOTE : Make sure that:

the SW PARK BRK CTL (73GG) is set to off,
the Nose L/G is compressed,
no towing arm is installed.

- do a check for 28 VDC at the :
 - the P/BSW HYD/PTU/AUTO (1802GL) connector C2 (Ref. ASM 29-23/01).

(a) If there is 28 VDC:

- replace the P/BSW HYD/PTU/AUTO (1802GL).

(b) If the fault continues:

- do a check for 28 VDC at the:
- TIME RELAY (3816GX) connector B1 (Ref. ASM 29-24/01).

1 If there is 28 VDC:

- replace the TIME RELAY (3816GX).

(2) If the fault continues:

- do a check and repair the wiring of the cargo compartment door operation system.

(3) If the fault continues:

- replace the applicable SOL VALVE-PTU, G (1012GL) (Ref. AMM TASK 29-23-51-000-001) and (Ref. AMM TASK 29-23-51-400-001) or the SOL VALVE-PTU, Y (3012GL) (Ref. AMM TASK 29-23-51-000-002) and (Ref. AMM TASK 29-23-51-400-002).

(4) If the fault continues:

- do a check for 28VDC at the RELAY LDG CTL (1805GL) connector A/A1 (Ref. ASM 29-23/01).

(a) If there is 28VDC:

- do a check and repair the wiring between the RELAY LDG CTL (1805GL) connector A/A2 and the CB (1801GL) (Ref. ASM 29-23/01).

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426-428, 476-480, 701-702,

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R **ON A/C 209-225, 247-275, 286-299, 429-475, 481-499, 503-549, 551-599,
R 703-749,

B. If after start of the second engine:

- the HYD PTU FAULT on the upper ECAM DU is shown,
- the hydraulic system of the second engine is not pressurized:
- do a check for 28 VDC between:
 - the VALVEBLOCK, PTU (3112GL) connector A/A and the connector A/B,
 - the VALVEBLOCK, PTU (1112GL) connector A/A and the connector A/B (Ref. ASM 29-23/01).

(1) If there is 28 VDC:

NOTE : Make sure that:

the SW PARK BRK CTL (73GG) is set to off,
the Nose L/G is compressed,
no towing arm is installed.

- do a check for 28 VDC at the :
 - the P/BSW HYD/PTU/AUTO (1802GL) connector C2 (Ref. ASM 29-23/01).

(a) If there is 28 VDC:

- replace the P/BSW HYD/PTU/AUTO (1802GL).

(b) If the fault continues:

- do a check for 28 VDC at the:
- TIME RELAY (3816GX) connector B1 (Ref. ASM 29-24/01).

1 If there is 28 VDC:

- replace the TIME RELAY (3816GX).

(2) If the fault continues:

- do a check and repair the wiring of the cargo compartment door operation system.

(3) If the fault continues:

- replace the applicable MANIFOLD,PTU (1113GM) (Ref. AMM TASK 29-11-15-000-001) and (Ref. AMM TASK 29-11-15-400-001) or the MANIFOLD,PTU (3015GM) (Ref. AMM TASK 29-13-15-000-001) and (Ref. AMM TASK 29-13-15-400-001).

(4) If the fault continues:

- do a check for 28VDC at the RELAY LDG CTL (1805GL) connector A/A1 (Ref. ASM 29-23/01).

(a) If there is 28VDC:

- do a check and repair the wiring between the RELAY LDG CTL (1805GL) connector A/A2 and the CB (1801GL) (Ref. ASM 29-23/01).

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****ON A/C ALL**

C. Do the fault confirmation procedure as given in Para. 3. to make sure that operation is correct.

5. Close-up

A. Aircraft Maintenance Configuration.

(1) Make sure that the aircraft electrical circuits are de-energized (Ref. AMM TASK 24-41-00-862-002).

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TASK 29-23-00-810-802**Continuous Running of the Power Transfer Unit (PTU)****1. Possible Causes**

- PUMP-G, ENG 1 (1030GK)
- PUMP-Y, ENG 2 (3030GD)
- FILTER-HP, G (1048GM)
- FILTER-HP, Y (3048GM)
- SOL VALVE-PTU, G (1012GL)
- SOL VALVE-PTU, Y (3012GL)
- PRIORITY VALVE-G (1064GM)
- PRIORITY VALVE-Y (3064GM)
- PTU-G/Y (1088GM)
- MANIFOLD,PTU (1113GM)
- MANIFOLD,PTU (3015GM)
- external leakage
- internal leakage

2. Job Set-up Information**A. Referenced Information**

REFERENCE		DESIGNATION
R	29-23-00-810-803	Low Pressure of the Power Transfer Unit (PTU) (Green to Yellow)
R	29-23-00-810-804	Low Pressure of the Power Transfer Unit (PTU) (Yellow to Green)
R	AMM 29-00-00-280-001	Check of the Internal Leakage of the Green Hydraulic System
	AMM 29-00-00-280-003	Check of the Internal Leakage of the Yellow Hydraulic System
	AMM 29-11-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
	AMM 29-11-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
	AMM 29-11-33-000-001	Removal of the Priority Valve of the Green Hydraulic System (1064GM)
	AMM 29-11-33-400-001	Installation of the Priority Valve of the Green Hydraulic System (1064GM)
	AMM 29-11-45-610-001	Servicing of the HP-Filter 1048GM
	AMM 29-11-51-000-040	Removal of the Green Engine Pump (1030GK)
	AMM 29-11-51-400-040	Installation of the Green Engine Pump (1030GK)
	AMM 29-13-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
	AMM 29-13-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System

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REFERENCE	DESIGNATION
AMM 29-13-33-000-001	Removal of the Priority Valve of the Yellow Hydraulic System (3064GM)
AMM 29-13-33-400-001	Installation of the Priority Valve of the Yellow Hydraulic System (3064GM)
AMM 29-13-45-610-001	Servicing of the HP-Filter (3048GM)
AMM 29-13-51-000-004	Removal of the Yellow Engine Pump (3030GD)
AMM 29-13-51-400-004	Installation of the Yellow Engine Pump (3030GD)
AMM 29-23-41-000-001	Removal of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-41-400-001	Installation of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-51-000-001	Removal of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 29-23-51-000-002	Removal of the Solenoid Valve 3012GL of the Power Transfer Unit
AMM 29-23-51-400-001	Installation of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 29-23-51-400-002	Installation of the Solenoid Valve 3012GL of the Power Transfer Unit
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	Engine Shutdown

3. Fault Confirmation

A. Do this test.

- (1) Do a run of both engines (Ref. AMM TASK 71-00-00-710-003).
- (2) On panel 40VU, set the HYD PTU P/BSW to the OFF position.
- (3) Look on the HYD page of the SD - DU and check the system pressure of the Green and Yellow hydraulic systems.
- (4) Look for external leakages of the Green or Yellow hydraulic system.
- (5) Shut down the engines (Ref. AMM TASK 71-00-00-710-028).

4. Fault Isolation

- #### A. If there is an external leakage in the Green or Yellow hydraulic system:
- tighten the related nut or replace the defective component(s).

- R (1) If the pressure fluctuates:
- R - refer to (Ref. TASK 29-23-00-810-803) and (Ref. TASK 29-23-00-810-
- R 804)

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- (2) If during the run of both engines, the difference in the system pressure between the Green and the Yellow hydraulic systems was 200 psi or more:
- (a) Do a check of the internal leakage of the Green and Yellow hydraulic system and replace the defective component(s) as necessary (Ref. AMM TASK 29-00-00-280-001) and (Ref. AMM TASK 29-00-00-280-003).
 - (b) If the internal leakage is in the permitted limits, or the fault continues:
 - replace the applicable PUMP-G, ENG 1 (1030GK) (Ref. AMM TASK 29-11-51-000-040) and (Ref. AMM TASK 29-11-51-400-040) or PUMP-Y, ENG 2 (3030GD) (Ref. AMM TASK 29-13-51-000-004) and (Ref. AMM TASK 29-13-51-400-004).

NOTE : You must replace the pump which supplies the lower hydraulic pressure.

R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

B. If the difference of the system pressure between the Green and Yellow hydraulic systems was during run of both engines less than 200 psi:

- (1) Do a check of the clogging indicators of the FILTER-HP, G (1048GM) and FILTER-HP, Y (3048GM).
 - If necessary, replace the filter elements (Ref. AMM TASK 29-11-45-610-001) and (Ref. AMM TASK 29-13-45-610-001).
- (2) If the fault continues, replace the SOL VALVE-PTU, G (1012GL) or SOL VALVE-PTU, Y (3012GL), (Ref. AMM TASK 29-23-51-000-001) (Ref. AMM TASK 29-23-51-400-001) or (Ref. AMM TASK 29-23-51-000-002) (Ref. AMM TASK 29-23-51-400-002).
- (3) If the fault continues, replace the PRIORITY VALVE-G (1064GM) or PRIORITY VALVE-Y (3064GM), (Ref. AMM TASK 29-11-33-000-001) (Ref. AMM TASK 29-11-33-400-001) or (Ref. AMM TASK 29-13-33-000-001) (Ref. AMM TASK 29-13-33-400-001).
- (4) If the fault continues, replace the PTU-G/Y (1088GM) (Ref. AMM TASK 29-23-41-000-001) and (Ref. AMM TASK 29-23-41-400-001).

EFF : ALL

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R ****ON A/C 209-225, 247-275, 286-299, 429-475, 481-499, 503-549, 551-599,**
R **703-749,**

B. If the difference of the system pressure between the Green and Yellow hydraulic systems was during run of both engines less than 200 psi:

- (1) Do a check of the clogging indicators of the FILTER-HP, G (1048GM) and FILTER-HP, Y (3048GM).**
 - If necessary, replace the filter elements (Ref. AMM TASK 29-11-45-610-001) and (Ref. AMM TASK 29-13-45-610-001).**
- (2) If the fault continues, replace the MANIFOLD,PTU (1113GM) or MANIFOLD,PTU (3015GM), (Ref. AMM TASK 29-11-15-000-001) (Ref. AMM TASK 29-11-15-400-001) or (Ref. AMM TASK 29-13-15-000-001) (Ref. AMM TASK 29-13-15-400-001).**
- (3) If the fault continues, replace the PRIORITY VALVE-G (1064GM) or PRIORITY VALVE-Y (3064GM) , (Ref. AMM TASK 29-11-33-000-001) (Ref. AMM TASK 29-11-33-400-001) or (Ref. AMM TASK 29-13-33-000-001) (Ref. AMM TASK 29-13-33-400-001).**
- (4) If the fault continues, replace the PTU-G/Y (1088GM) (Ref. AMM TASK 29-23-41-000-001) and (Ref. AMM TASK 29-23-41-400-001).**

****ON A/C ALL**

C. Do the test as given in para. 3. to make sure that the operation is correct.

EFF : ALL

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TASK 29-23-00-810-803

Low Pressure of the Power Transfer Unit (PTU) (Green to Yellow)

1. Possible Causes

- PTU-G/Y (1088GM)
- SOL VALVE-PTU, Y (3012GL)
- PRIORITY VALVE-Y (3064GM)
- SOL VALVE-PTU, G (1012GL)
- PRIORITY VALVE-G (1064GM)
- CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM)

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 29-00-00-280-004	Check of the Internal Leakage of the Power Transfer Unit (PTU)
AMM 29-10-00-220-001	Functional Check to Monitor Internal Leak Rate of Yellow and Green Hydraulic Systems
AMM 29-11-33-000-001	Removal of the Priority Valve of the Green Hydraulic System (1064GM)
AMM 29-11-33-400-001	Installation of the Priority Valve of the Green Hydraulic System (1064GM)
AMM 29-13-33-000-001	Removal of the Priority Valve of the Yellow Hydraulic System (3064GM)
AMM 29-13-33-400-001	Installation of the Priority Valve of the Yellow Hydraulic System (3064GM)
AMM 29-13-36-000-001	Removal of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).
AMM 29-13-36-400-001	Installation of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).
AMM 29-23-00-710-003	Operational Check of PTU Yellow to Green
AMM 29-23-41-000-001	Removal of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-41-400-001	Installation of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-51-000-001	Removal of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 29-23-51-000-002	Removal of the Solenoid Valve 3012GL of the Power Transfer Unit
AMM 29-23-51-400-001	Installation of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 29-23-51-400-002	Installation of the Solenoid Valve 3012GL of the Power Transfer Unit

EFF : ALL

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3. Fault Confirmation**A. Do these tests:**

- (1) Do a check of the internal leakage of the Power Transfer Unit (PTU) (Ref. AMM TASK 29-00-00-280-004).
- (2) If the internal leakage of the PTU-G/Y (1088GM) is not in the permitted limits:
 - Replace the PTU (Ref. AMM TASK 29-23-41-000-001) and (Ref. AMM TASK 29-23-41-400-001).
- (3) If the internal leakage of the PTU is in the permitted limits:
 - do a functional check to monitor the internal leak rate of the Yellow and Green hydraulic systems (Ref. AMM TASK 29-10-00-220-001).
- (4) If the internal leak rate of the Yellow and Green hydraulic systems is in the permitted limits:
 - do the operational test of the PTU (Ref. AMM TASK 29-23-00-710-003).
 - look for external leakage of the Yellow hydraulic system.

4. Fault Isolation

R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

- A. If there is no external leakage and the pressure in the Yellow hydraulic system was less than 2100 psi during the operational test of the PTU:
- replace the PTU-G/Y (1088GM) (Ref. AMM TASK 29-23-41-000-001) and (Ref. AMM TASK 29-23-41-400-001).

- (1) If the fault continues:
 - replace the SOL VALVE-PTU, Y (3012GL) (Ref. AMM TASK 29-23-51-000-002) and (Ref. AMM TASK 29-23-51-400-002).
- (2) If the fault continues:
 - replace the PRIORITY VALVE-Y (3064GM) (Ref. AMM TASK 29-13-33-000-001) and (Ref. AMM TASK 29-13-33-400-001).
- (3) If the fault continues:
 - replace the SOL VALVE-PTU, G (1012GL) (Ref. AMM TASK 29-23-51-000-001) and (Ref. AMM TASK 29-23-51-400-001).
- (4) If the fault continues:
 - replace the PRIORITY VALVE-G (1064GM) (Ref. AMM TASK 29-11-33-000-001) and (Ref. AMM TASK 29-11-33-400-001).
- (5) If the fault continues:
 - replace the CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM) (Ref. AMM TASK 29-13-36-000-001) and (Ref. AMM TASK 29-13-36-400-001).

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****ON A/C ALL**

- B.** Do the test as given in para. 3. to make sure that the operation is correct.

R

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TASK 29-23-00-810-804

Low Pressure of the Power Transfer Unit (PTU) (Yellow to Green)

1. Possible Causes

- R
- PTU (1088GM)
 - PTU-G/Y (1088GM)
 - SOL VALVE-PTU, G (1012GL)
 - PRIORITY VALVE-G (1064GM)
 - SOL VALVE-PTU, Y (3012GL)
 - PRIORITY VALVE-Y (3064GM)
 - CHECK VALVE-ENG 1 PUMP DELIVERY, G (1050GM)
 - CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 29-00-00-280-004	Check of the Internal Leakage of the Power Transfer Unit (PTU)
AMM 29-10-00-220-001	Functional Check to Monitor Internal Leak Rate of Yellow and Green Hydraulic Systems
AMM 29-11-33-000-001	Removal of the Priority Valve of the Green Hydraulic System (1064GM)
AMM 29-11-33-400-001	Installation of the Priority Valve of the Green Hydraulic System (1064GM)
AMM 29-11-36-000-001	Removal of the Engine 1 Green Hydraulic Pump Delivery Check Valve (1050GM).
AMM 29-11-36-400-001	Installation of the Engine 1 Green Hydraulic Pump Delivery Check Valve (1050GM).
AMM 29-13-33-000-001	Removal of the Priority Valve of the Yellow Hydraulic System (3064GM)
AMM 29-13-33-400-001	Installation of the Priority Valve of the Yellow Hydraulic System (3064GM)
AMM 29-13-36-000-001	Removal of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).
AMM 29-13-36-400-001	Installation of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).
AMM 29-23-00-710-002	Operational Check of PTU Green to Yellow
AMM 29-23-41-000-001	Removal of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-41-400-001	Installation of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-51-000-001	Removal of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 29-23-51-000-002	Removal of the Solenoid Valve 3012GL of the Power Transfer Unit

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REFERENCE**DESIGNATION**

AMM 29-23-51-400-001	Installation of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 29-23-51-400-002	Installation of the Solenoid Valve 3012GL of the Power Transfer Unit

3. Fault Confirmation**A. Do these tests:**

- (1) Do a check of the internal leakage of the Power Transfer Unit (PTU) (Ref. AMM TASK 29-00-00-280-004).
- (2) If the internal leakage of the PTU (1088GM) is not in the permitted limits:
 - replace the PTU (Ref. AMM TASK 29-23-41-000-001) and (Ref. AMM TASK 29-23-41-400-001).
- (3) If the internal leakage of the PTU is in the permitted limits:
 - do a functional check to monitor the internal leak rate of the Yellow and Green hydraulic systems (Ref. AMM TASK 29-10-00-220-001).
- (4) If the internal leak rate of the Yellow and Green hydraulic systems is in the permitted limits:
 - do the operational test of the PTU (Ref. AMM TASK 29-23-00-710-002).
 - look for external leakage of the Green hydraulic system.

4. Fault Isolation

R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

- A. If there is no external leakage and the pressure in the Green hydraulic system was less than 2100 psi during the operational test of the PTU:
- replace the PTU-G/Y(1088GM) (Ref. AMM TASK 29-23-41-000-001) and (Ref. AMM TASK 29-23-41-400-001).

- (1) If the fault continues:
 - replace the SOL VALVE-PTU, G (1012GL) (Ref. AMM TASK 29-23-51-000-001) and (Ref. AMM TASK 29-23-51-400-001).
- (2) If the fault continues:
 - replace the PRIORITY VALVE-G (1064GM) (Ref. AMM TASK 29-11-33-000-001) and (Ref. AMM TASK 29-11-33-400-001).

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- (3) If the fault continues:
 - replace the SOL VALVE-PTU, Y (3012GL) (Ref. AMM TASK 29-23-51-000-002) and (Ref. AMM TASK 29-23-51-400-002).
- (4) If the fault continues:
 - replace the PRIORITY VALVE-Y (3064GM) (Ref. AMM TASK 29-13-33-000-001) and (Ref. AMM TASK 29-13-33-400-001).
- (5) If the fault continues:
 - replace the CHECK VALVE-ENG 1 PUMP DELIVERY, G (1050GM) (Ref. AMM TASK 29-11-36-000-001) and (Ref. AMM TASK 29-11-36-400-001).
- (6) If the fault continues:
 - replace the CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM) (Ref. AMM TASK 29-13-36-000-001) and (Ref. AMM TASK 29-13-36-400-001).

****ON A/C ALL**

B. Do the test as given in para. 3. to make sure that the operation is correct.

R

EFF : ALL

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TASK 29-23-00-810-805

Continuous Running of the Power Transfer Unit (PTU) After Start in Sequence of Engine 1 and Engine 2

1. Possible Causes

- SOL VALVE-PTU, Y (3012GL)
- MANIFOLD,PTU (3015GM)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
29-23-00-810-802	Continuous Running of the Power Transfer Unit (PTU)
AMM 29-13-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-13-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-23-51-000-002	Removal of the Solenoid Valve 3012GL of the Power Transfer Unit
AMM 29-23-51-400-002	Installation of the Solenoid Valve 3012GL of the Power Transfer Unit
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	Engine Shutdown

3. Fault Confirmation

A. Do this test.

- (1) Make sure that the PTU P/BSW is in the AUTO position.
- (2) Start the engine No. 1 (Ref. AMM TASK 71-00-00-710-003).
- (3) Start the engine No. 2 (Ref. AMM TASK 71-00-00-710-003).
- (4) Do a check of the PTU for continuous running.
 - (a) If there is continuous running, do the subsequent steps:
 - 1 On the overhead panel 40VU, set the GREEN/ENG 1 PUMP P/BSW to the OFF position, and after some seconds, back to the ON position.
 - 2 Do again a check for continuous running of the PTU.
- (5) Shut down the engines (Ref. AMM TASK 71-00-00-710-028).

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4. Fault Isolation

R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

A. If after start of the engine No. 2:

- the PTU starts continuous running and stops after you have switched off and on the GREEN/ENG 1 PUMP P/BSW:

- replace the SOL VALVE-PTU, Y (3012GL) (Ref. AMM TASK 29-23-51-000-002) and (Ref. AMM TASK 29-23-51-400-002)

(1) If the fault continues:

- do the troubleshooting of the continuous running of the PTU (Ref. TASK 29-23-00-810-802).

****ON A/C 209-225, 247-275, 286-299, 429-475, 481-499, 503-549, 551-599, 703-749,**

A. If after start of the engine No. 2:

- the PTU starts continuous running and stops after you have switched off and on the GREEN/ENG 1 PUMP P/BSW:

- replace the MANIFOLD,PTU (3015GM) (Ref. AMM TASK 29-13-15-000-001) and (Ref. AMM TASK 29-13-15-400-001).

(1) If the fault continues:

- do the troubleshooting of the continuous running of the PTU (Ref. TASK 29-23-00-810-802).

****ON A/C ALL**

B. Do the fault confirmation procedure as given in Para. 3. to make sure that operation is correct.

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TASK 29-23-00-810-806

Continuous Running of the Power Transfer Unit (PTU) After Start in Sequence of Engine 2 and Engine 1

1. Possible Causes

- MANIFOLD, PTU (1113GM)
- SOL VALVE-PTU, G (1012GL)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
29-23-00-810-802	Continuous Running of the Power Transfer Unit (PTU)
AMM 29-11-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
AMM 29-11-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
AMM 29-23-51-000-001	Removal of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 29-23-51-400-001	Installation of the Solenoid Valve 1012GL of the Power Transfer Unit
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	Engine Shutdown

3. Fault Confirmation

A. Do this test.

- (1) Make sure that the PTU P/BSW is in the AUTO position.
- (2) Start the engine No. 2 (Ref. AMM TASK 71-00-00-710-003).
- (3) Start the engine No. 1 (Ref. AMM TASK 71-00-00-710-003).
- (4) Do a check of the PTU for continuous running.
 - (a) If there is continuous running, do the subsequent steps:
 - 1 On the overhead panel 40VU, set the YELLOW/ENG 2 PUMP P/BSW to the OFF position, and after some seconds, back to the ON position.
 - 2 Do again a check for continuous running of the PTU.
- (5) Shut down the engines (Ref. AMM TASK 71-00-00-710-028).

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4. Fault Isolation

R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

A. If after start of the engine No. 1:

- the PTU starts continuous running and stops after you have switched off and on the YELLOW/ENG 2 PUMP P/BSW:
- replace the SOL VALVE-PTU, G (1012GL) (Ref. AMM TASK 29-23-51-000-001) and (Ref. AMM TASK 29-23-51-400-001).

(1) If the fault continues:

- do the troubleshooting of the continuous running of the PTU (Ref. TASK 29-23-00-810-802).

****ON A/C 209-225, 247-275, 286-299, 429-475, 481-499, 503-549, 551-599, 703-749,**

A. If after start of the engine No. 1:

- the PTU starts continuous running and stops after you have switched off and on the YELLOW/ENG 2 PUMP P/BSW:
- replace the MANIFOLD,PTU (1113GM) (Ref. AMM TASK 29-11-15-000-001) and (Ref. AMM TASK 29-11-15-400-001).

(1) If the fault continues:

- do the troubleshooting of the continuous running of the PTU (Ref. TASK 29-23-00-810-802).

****ON A/C ALL**

B. Do the fault confirmation procedure as given in Para. 3. to make sure that operation is correct.

EFF : ALL

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TASK 29-23-00-810-807

Continuous Running of the PTU during Operation of the Cargo-Compartment Doors

1. Possible Causes

- SOL VALVE-PTU, Y (3012GL)
- wiring
- RELAY CTL (3811GX)
- MANIFOLD, PTU (3015GM)

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 29-13-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-13-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-23-51-000-002	Removal of the Solenoid Valve 3012GL of the Power Transfer Unit
AMM 29-23-51-400-002	Installation of the Solenoid Valve 3012GL of the Power Transfer Unit
AMM 52-30-00-860-001	Open the FWD or AFT Cargo-Compartment Door with the Yellow Electric Pump
AMM 52-30-00-860-002	Close the FWD or AFT Cargo-Compartment Door with the Yellow Electric Pump
ASM 29-23/01	

3. Fault Confirmation**A. Do this test:**

- (1) Make sure that:
 - the SW PARK BRK CTL (73GG) is set to OFF,
 - the Nose L/G is compressed,
 - no towing arm is installed.
- (2) Operate the FWD or AFT cargo-compartment door with the Yellow electric pump (Ref. AMM TASK 52-30-00-860-001) and (Ref. AMM TASK 52-30-00-860-002).
- (3) Do a check of the PTU for continuous running during the operation of the cargo-compartment door.
- (4) Make sure that the the cargo-compartment door is fully opened or closed.

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4. Fault Isolation

R **ON A/C 201-208, 227-227, 229-245, 276-285, 426-428, 476-480, 701-702,

A. If the PTU runs during the operation of the cargo-compartment door:

NOTE : Make sure that a second person operates one cargo-compartment door during all checks for 28 VDC in the subsequent procedure.

- do a check for 28 VDC between:
the SOL VALVE-PTU, Y (3012GL) connector A/A and the connector A/B (Ref. ASM 29-23/01).

(1) If there is 28 VDC:

- replace the SOL VALVE-PTU, Y (3012GL) (Ref. AMM TASK 29-23-51-000-002) and (Ref. AMM TASK 29-23-51-400-002).

(2) If there is no 28 VDC:

- do a check for 28 VDC at the:
- RELAY CTL (3811GX) connector B1 (Ref. ASM 29-23/01).

(a) If there is 28 VDC:

- do a check and repair the wiring between the RELAY CTL (3811GX) connector B1 and the SOL VALVE-PTU, Y (3012GL) connector A/B (Ref. ASM 29-23/01).

(b) If there is no 28 VDC:

- do a check for 28 VDC at the:
- RELAY CTL (3811GX) connector X1 (Ref. ASM 29-23/01).

1 If there is 28 VDC:

- replace the RELAY CTL (3811GX).

a If the fault continues:

- do a check and repair the wiring between the RELAY CTL (3811GX) connector B2 and the C/B (1801GL) (Ref. ASM 29-23/01).

2 If there is no 28 VDC:

- do a check and repair the wiring of the cargo compartment door operation system.

**ON A/C 209-225, 247-275, 286-299, 429-475, 481-499, 503-549, 551-599, 703-749,

A. If the PTU runs during the operation of the cargo-compartment door:

NOTE : Make sure that a second person operates one cargo-compartment door during all checks for 28 VDC in the subsequent procedure.

- do a check for 28 VDC between:

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the VALVEBLOCK, PTU (3112GL) connector A/A and the connector A/B (Ref. ASM 29-23/01).

- (1) If there is 28 VDC:
 - replace the MANIFOLD, PTU (3015GM) (Ref. AMM TASK 29-13-15-000-001) and (Ref. AMM TASK 29-13-15-400-001).
- (2) If there is no 28 VDC:
 - do a check for 28 VDC at the:
 - RELAY CTL (3811GX) connector B1 (Ref. ASM 29-23/01).
- (a) If there is 28 VDC:
 - do a check and repair the wiring between the RELAY CTL (3811GX) connector B1 and the VALVEBLOCK, PTU (3112GL) connector A/B (Ref. ASM 29-23/01).
- (b) If there is no 28 VDC:
 - do a check for 28 VDC at the:
 - RELAY CTL (3811GX) connector X1 (Ref. ASM 29-23/01).
- 1 If there is 28 VDC:
 - replace the RELAY CTL (3811GX).
- a If the fault continues:
 - do a check and repair the wiring between the RELAY CTL (3811GX) connector B2 and the C/B (1801GL) (Ref. ASM 29-23/01).
- 2 If there is no 28 VDC:
 - do a check and repair the wiring of the cargo compartment door operation system.

****ON A/C ALL**

5. Close-up

- A. Do the fault confirmation procedure as given in Para. 3. to make sure that the operation is correct.

R

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TASK 29-23-00-810-808

FAULT Light of the PTU P/BSW is ON

1. Possible Causes

- BOARD-ANN LT TEST & INTFC (20LP)
- wiring

2. Job Set-up Information**A. Referenced Information**

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
R	AMM 33-14-00-710-001	Operational Test of the Lights
AMM	33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
AMM	33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
ASM	33-14/22	

3. Fault Confirmation**A. Aircraft Maintenance Configuration**

- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- (2) On the overhead panel 40VU, look for the FAULT light of the PTU P/BSW.

4. Fault Isolation**A. If the Fault Confirmation gives:**

- the PTU P/BSW FAULT on panel 40VU:
- replace the BOARD-ANN LT TEST & INTFC (20LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).

EFF : ALL

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(1) If the fault continues:

- do a check and repair the wiring between the:
BOARD-ANN LT TEST & INTFC (20LP) pin A/37 and the P/BSW-HYD/PTU (1802GL) pin A/7 (Ref. ASM 33-14/22).

B. Do the operational test of the annunciator light test system (Ref. AMM TASK 33-14-00-710-001) to make sure that the operation is correct.

5. Close-up

A. De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

R EFF : ALL

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R TASK 29-23-00-810-809

R Unwanted Operation of the Power Transfer Unit (PTU) during the Start of the
R Engines

R 1. Possible Causes

- R - RELAY-ENG/MASTER 1 (11QG)
- R - RELAY-ENG/MASTER 2 (12QG)
- R - HYDRAULIC/SOL VALVES/G/Y/PTU (1801GL)
- R - RELAY-LDG CTL (1805GL)
- R - RELAY-N/W STRG DE-ACT (1806GL)
- R - RELAY-PARK BRAKE CTL (1804GL)
- R - wiring

R 2. Job Set-up Information

R A. Referenced Information

R	-----	
R	REFERENCE	DESIGNATION
R	-----	-----
R	29-23-00-810-801	Fault of the Power Transfer Unit (PTU)
R	AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
R		External Power
R	AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied
R		from the External Power
R	AMM 29-23-00-710-002	Operational Check of PTU Green to Yellow
R	AMM 29-23-00-710-003	Operational Check of PTU Yellow to Green
R	AMM 29-23-00-860-002	Connection of the Isolation Coupling of the Power
R		Transfer Unit (PTU)
R	AMM 31-60-00-860-001	EIS Start Procedure
R	AMM 71-00-00-710-004	Engine Manual Start
R	AMM 71-00-00-710-028	Engine Shutdown
R	ASM 29-23/01	

R 3. Fault Confirmation

R A. Aircraft Maintenance Configuration

- R (1) Energize the aircraft electrical circuits
- R (Ref. AMM TASK 24-41-00-861-002).
- R (2) Make sure that the PTU P/BSW is in the AUTO position (OFF light not
- R on).
- R (3) Make sure that the cargo compartment doors are not in operation with
- R the Yellow electric hydraulic pump.
- R (4) Make sure that the isolation coupling of the PTU is connected (Ref.
- R AMM TASK 29-23-00-860-002).

EFF : ALL

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R (5) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only)
R (Ref. AMM TASK 31-60-00-860-001).

R (6) Do the manual start of the engines (Ref. AMM TASK 71-00-00-710-004).

R NOTE : The HYD PTU FAULT message may come on at the upper ECAM DU if
R you do an engine start within 30 sec of an operation of the
R cargo doors (with the Yellow electric pump).

R (7) Do a check for unwanted operation of the PTU during the engine start.

R NOTE : The PTU operation is usually prevented during the engine start
R when:
R - one of the two engine master switches is set to ON
R and
R - the parking brake is set to ON, or the nose wheel steering
R system is deactivated
R and
R - the aircraft is on the ground (the nose landing gear is
R compressed).

R (8) Shutdown the engines (Ref. AMM TASK 71-00-00-710-028).

R (9) De-energize the aircraft electrical circuits
R (Ref. AMM TASK 24-41-00-862-002).

R 4. Fault Isolation

R A. If there is an unwanted operation of the PTU during the engine start, do
R the subsequent troubleshooting procedure:

R (1) Do the operational tests of the PTU (Ref. AMM TASK 29-23-00-710-002)
R and (Ref. AMM TASK 29-23-00-710-003).

R (a) If the operation of the PTU is not correct, do the
R troubleshooting of the PTU (Ref. TASK 29-23-00-810-801).

R (b) If the operation of the PTU is correct, find the applicable
R troubleshooting procedure in the subsequent steps.

R (2) If at the start of the first engine, the PTU starts and stops at the
R start of the second engine, then replace:
R - the RELAY-ENG/MASTER 1 (11QG), if the first engine started was the
R engine 1 (Ref. ASM 29-23/01)
R or
R - the RELAY-ENG/MASTER 2 (12QG), if the first engine started was the
R engine 2 (Ref. ASM 29-23/01).

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- R (3) If at the start of the second engine, the PTU does not start (for the
R auto test of the PTU), then replace:
R - the RELAY-ENG/MASTER 1 (11QG), if the second engine started was the
R engine 1 (Ref. ASM 29-23/01)
R or
R - the RELAY-ENG/MASTER 2 (12QG), if the second engine started was the
R engine 2 (Ref. ASM 29-23/01).
- R (4) If at the start of the first engine, the PTU starts and stays running
R at the start of the second engine:
- R (a) do a check of the circuit breaker HYDRAULIC/SOL VALVES/G/Y/PTU
R (1801GL). Replace the circuit breaker HYDRAULIC/SOL
R VALVES/G/Y/PTU (1801GL) as necessary (Ref. ASM 29-23/01).
- R (b) If the fault continues:
R - do a check of the RELAY-LDG CTL (1805GL). Replace the RELAY-LDG
R CTL (1805GL) as necessary (Ref. ASM 29-23/01).
- R (c) If the fault continues:
R - do a check of the RELAY-N/W STRG DE-ACT (1806GL), if the nose
R wheel steering system was deactivated during the engine start.
R Replace the RELAY-N/W STRG DE-ACT (1806GL) as necessary (Ref.
R ASM 29-23/01).
- R (d) If the fault continues:
R - do a check of the RELAY-PARK BRAKE CTL (1804GL), if the parking
R brake was set to ON during the engine start. Replace the
R RELAY-PARK BRAKE CTL (1804GL) as necessary (Ref. ASM 29-23/01).
- R (e) If the fault continues:
R - do a check of the RELAY-ENG/MASTER 1 (11QG) and
R RELAY-ENG/MASTER 2 (12QG). Replace the RELAY-ENG/MASTER 1
R (11QG) and/or RELAY-ENG/MASTER 2 (12QG) as necessary (Ref. ASM
R 29-23/01).
- R (f) If the fault continues:
- R 1 do a check of the wiring between the circuit breaker
R HYDRAULIC/SOL VALVES/G/Y/PTU (1801GL) and the SOL VALVE-PTU, G
R (1012GL) connector A/B (Ref. ASM 29-23/01). Repair the wiring
R as necessary.
- R 2 do a check of the wiring between the circuit breaker
R HYDRAULIC/SOL VALVES/G/Y/PTU (1801GL) and the SOL VALVE-PTU, Y
R (3012GL) connector A/B (Ref. ASM 29-23/01). Repair the wiring
R as necessary.
- R (g) If the fault continues:
- R 1 do a check of the wiring that energizes these relays (Ref. ASM
R 29-23/01):

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- R - RELAY-ENG/MASTER 1 (11QG)
- R - RELAY-ENG/MASTER 2 (12QG)
- R - RELAY-PARK BRAKE CTL (1804GL)
- R - RELAY-LDG CTL (1805GL)
- R - RELAY-N/W STRG DE-ACT (1806GL).

R 2 Repair the wiring as necessary.

R **B.** Do the fault confirmation procedure as given in Para. 3 to make sure that
R the operation is correct.

EFF : ALL

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TASK 29-23-00-810-810

Missing PTU-arrow on the ECAM

1. Possible Causes

- DU-ECAM, UPPER (4WT1)

2. Job Set-up Information

A. Referenced Information

REFERENCE

DESIGNATION

	AMM	29-23-00-710-002	Operational Check of PTU Green to Yellow
	AMM	29-23-00-710-003	Operational Check of PTU Yellow to Green
	AMM	31-60-00-710-002	Operational Test of EFIS/ECAM Switching Functions
R	AMM	31-60-00-710-005	Operational Test of EFIS/ECAM Automatic and Manual
R			Transfer
	AMM	31-63-22-000-001	Removal of the Display Unit (2WT1,2WT2,3WT1,3WT2,4WT1,4WT2)
	AMM	31-63-22-400-001	Installation of the Display Unit (2WT1,2WT2,3WT1,3WT2,4WT1,4WT2)

3. Fault Confirmation

A. Do these tests:

- (1) Do the operational check of the PTU GREEN to YELLOW (Ref. AMM TASK 29-23-00-710-002).
- (2) Do the operational check of the PTU YELLOW to GREEN (Ref. AMM TASK 29-23-00-710-003).

4. Fault Isolation

R ****ON A/C 201-225, 227-227, 229-299, 426-455, 476-499, 503-549, 551-599,**
R **701-749,**

A. If the Test gives no indication of the PTU arrow on the System Page on the DU-ECAM, UPPER (4WT1):

- (1) Do the operational test of the EFIS/ECAM switching functions (Ref. AMM TASK 31-60-00-710-002).
 - (a) If the PTU arrow comes into view during this test on an different ECAM Display Unit:
 - Replace the defective ECAM Display Unit (Ref. AMM TASK 31-63-22-000-001) and (Ref. AMM TASK 31-63-22-400-001).

EFF : ALL

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R **ON A/C 456-475,

R A. If the test gives no indication of the PTU arrow on the system page on
R the DU-ECAM, UPPER (4WT1):

R (1) Do the operational test of EFIS/ECAM automatic and manual transfer
R (Ref. AMM TASK 31-60-00-710-005).

R (a) If the PTU arrow comes into view during this test on a different
R ECAM Display Unit:

R - Replace the defective ECAM Display Unit (Ref. AMM TASK 31-63-
R 22-000-001) and (Ref. AMM TASK 31-63-22-400-001).

R **ON A/C ALL

B. Do the test as given in para. 3. to make sure that the indication is
correct.

R EFF : ALL

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****ON A/C 209-225, 247-275, 286-299, 429-475, 481-499, 503-549, 551-599, 703-749,**

TASK 29-23-00-810-811

Low Pressure of the Power Transfer Unit (PTU) (Green to Yellow)

1. Possible Causes

- PTU-G/Y (1088GM)
- MANIFOLD,PTU (1113GM)
- CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM)
- MANIFOLD,PTU (3113GM)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 29-00-00-280-004	Check of the Internal Leakage of the Power Transfer Unit (PTU)
AMM 29-10-00-220-001	Functional Check to Monitor Internal Leak Rate of Yellow and Green Hydraulic Systems
AMM 29-11-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
AMM 29-11-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
AMM 29-13-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-13-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-13-36-000-001	Removal of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).
AMM 29-13-36-400-001	Installation of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).
AMM 29-23-00-710-003	Operational Check of PTU Yellow to Green
AMM 29-23-41-000-001	Removal of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-41-400-001	Installation of the Green/Yellow Power Transfer Unit 1088GM

EFF : 209-225, 247-275, 286-299, 429-475,
481-499, 503-549, 551-599, 703-749,

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3. Fault Confirmation**A. Do these tests:**

- (1) Do a check of the internal leakage of the Power Transfer Unit (PTU) (Ref. AMM TASK 29-00-00-280-004).
- (2) If the internal leakage of the PTU is in the permitted limits:
 - do a functional check to monitor the internal leak rate of the Yellow and Green hydraulic systems (Ref. AMM TASK 29-10-00-220-001).
- (3) If the internal leak rate of the Yellow and Green hydraulic systems is in the permitted limits:
 - do the operational test of the PTU (Ref. AMM TASK 29-23-00-710-003).
 - look for external leakage of the Yellow hydraulic system.

4. Fault Isolation

- A. If there is no external leakage and the pressure in the Yellow hydraulic system was less than 2100 psi during the operational test of the PTU:
 - replace the PTU-G/Y (1088GM) (Ref. AMM TASK 29-23-41-000-001) and (Ref. AMM TASK 29-23-41-400-001).
- (1) If the fault continues:
 - replace the MANIFOLD,PTU (3113GM) (Ref. AMM TASK 29-13-15-000-001) and (Ref. AMM TASK 29-13-15-400-001).
- (2) If the fault continues:
 - replace the MANIFOLD,PTU (1113GM) (Ref. AMM TASK 29-11-15-000-001) and (Ref. AMM TASK 29-11-15-400-001).
- (3) If the fault continues:
 - replace the CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM) (Ref. AMM TASK 29-13-36-000-001) and (Ref. AMM TASK 29-13-36-400-001).
- B. Do the test as given in para. 3. to make sure that the operation is correct.

EFF : 209-225, 247-275, 286-299, 429-475,
481-499, 503-549, 551-599, 703-749,

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TASK 29-23-00-810-812

Low Pressure of the Power Transfer Unit (PTU) (Yellow to Green)

1. Possible Causes

- PTU-G/Y (1088GM)
- MANIFOLD,PTU (1113GM)
- CHECK VALVE-ENG 1 PUMP DELIVERY, G (1050GM)
- CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM)
- MANIFOLD,PTU (3015GM)

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION
AMM 29-00-00-280-004	Check of the Internal Leakage of the Power Transfer Unit (PTU)
AMM 29-10-00-220-001	Functional Check to Monitor Internal Leak Rate of Yellow and Green Hydraulic Systems
AMM 29-11-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
AMM 29-11-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Green Hydraulic System
AMM 29-11-36-000-001	Removal of the Engine 1 Green Hydraulic Pump Delivery Check Valve (1050GM).
AMM 29-11-36-400-001	Installation of the Engine 1 Green Hydraulic Pump Delivery Check Valve (1050GM).
AMM 29-13-15-000-001	Removal of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-13-15-400-001	Installation of the Power Transfer Unit (PTU) Manifold of the Yellow Hydraulic System
AMM 29-13-36-000-001	Removal of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).
AMM 29-13-36-400-001	Installation of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).
AMM 29-23-00-710-003	Operational Check of PTU Yellow to Green
AMM 29-23-41-000-001	Removal of the Green/Yellow Power Transfer Unit 1088GM
AMM 29-23-41-400-001	Installation of the Green/Yellow Power Transfer Unit 1088GM

EFF : 209-225, 247-275, 286-299, 429-475,
481-499, 503-549, 551-599, 703-749,

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3. Fault Confirmation**A. Do these tests:**

- (1) Do a check of the internal leakage of the Power Transfer Unit (PTU) (Ref. AMM TASK 29-00-00-280-004).
- (2) If the internal leakage of the PTU is in the permitted limits:
 - do a functional check to monitor the internal leak rate of the Yellow and Green hydraulic systems (Ref. AMM TASK 29-10-00-220-001).
- (3) If the internal leak rate of the Yellow and Green hydraulic systems is in the permitted limits:
 - do the operational test of the PTU (Ref. AMM TASK 29-23-00-710-003).
 - look for external leakage of the Yellow hydraulic system.

4. Fault Isolation

- A. If there is no external leakage and the pressure in the Green hydraulic system was less than 2100 psi during the operational test of the PTU:**
- replace the PTU-G/Y (1088GM) (Ref. AMM TASK 29-23-41-000-001) and (Ref. AMM TASK 29-23-41-400-001).

- (1) If the fault continues:
 - replace the MANIFOLD,PTU (1113GM) (Ref. AMM TASK 29-11-15-000-001) and (Ref. AMM TASK 29-11-15-400-001).
- (2) If the fault continues:
 - replace the MANIFOLD,PTU (3015GM) (Ref. AMM TASK 29-13-15-000-001) and (Ref. AMM TASK 29-13-15-400-001).
- (3) If the fault continues:
 - replace the CHECK VALVE-ENG 1 PUMP DELIVERY, G (1050GM) (Ref. AMM TASK 29-11-36-000-001) and (Ref. AMM TASK 29-11-36-400-001).
- (4) If the fault continues:
 - replace the CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM) (Ref. AMM TASK 29-13-36-000-001) and (Ref. AMM TASK 29-13-36-400-001).

- B. Do the test as given in para. 3. to make sure that the operation is correct.**

A319/A320/A321

TROUBLE SHOOTING MANUAL

YELLOW AUXILIARY HYDRAULIC POWER (ELECTRIC/HAND PUMPS) FAULT ISOLATION PROCEDURES

TASK 29-24-00-810-801

R Loss or Fluctuation of the Pressure of the Yellow Electric Pump

1. Possible Causes

- ELEC PUMP-Y (3075GX)
- ACCU-Y PWR (3070GM)
- R - CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM)
- PRESS SW-FLT CTL, Y (3151GN)
- DET-PHASE UNBALANCE, Y ELEC PUMP (3808GX)
- CT-Y ELEC PUMP (3807GX)
- wiring

2. Job Set-up Information

A. Referenced Information

-----		REFERENCE	DESIGNATION	-----
	AMM	29-10-00-200-008	Check Nitrogen Charge Pressure on Hydraulic Power Accumulators	
R	AMM	29-13-36-000-001	Removal of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).	
R	AMM	29-13-36-400-001	Installation of the Engine 2 Yellow Hydraulic Pump Delivery Check Valve (3050GM).	
R	AMM	29-13-42-000-001	Removal of the Yellow Power Accumulator	
	AMM	29-13-42-400-001	Installation of the Yellow Power Accumulator	
	AMM	29-24-00-710-001	Operational Test of the Yellow Auxiliary Power	
	AMM	29-24-15-000-001	Removal of the Yellow Electric Pump Current Transformer (3807GX)	
	AMM	29-24-15-400-001	Installation of the Yellow Electric Pump Current Transformer (3807GX)	
	AMM	29-24-16-000-001	Removal of the Yellow Electric Pump Phase-Unbalance Detector (3808GX)	
	AMM	29-24-16-400-001	Installation of the Yellow Electric Pump Phase-Unbalance Detector (3808GX)	
	AMM	29-24-51-000-001	Removal of the Electric Pump (3075GX)	
	AMM	29-24-51-400-001	Installation of the Electric Pump (3075GX)	
	AMM	29-32-12-000-003	Removal of the System Pressure Switch (3151GN)	
	AMM	29-32-12-400-003	Installation of the System Pressure Switch (3151GN)	
	ASM	29-24/01		
	ASM	29-32/01		
	ASM	31-52/02		

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3. Fault Confirmation

A. Do the operational test of the Yellow electric pump (Ref. AMM TASK 29-24-00-710-001).

4. Fault Isolation

A. If the test gives:

- R - the HYD Y ELEC PUMP LO PR on the upper ECAM DU,
- R - the triangle symbol of the Yellow E-pump on the HYD page of the lower
- R ECAM DU in amber
- R - the YELLOW ELEC PUMP P/BSW FAULT on panel 40VU:
- examine if the ELEC PUMP-Y (3075GX) operates.

(1) If the ELEC PUMP-Y (3075GX) operates:

- look on the lower ECAM DU and do a check of the pressure indication.

(a) If the pressure is less than 1450 psi (99.9739 bar):

1 Do a check of the nitrogen charge pressure of the Yellow hydraulic power accumulator (Ref. AMM TASK 29-10-00-200-008).

a If necessary, replace the ACCU-Y PWR (3070GM) (Ref. AMM TASK 29-13-42-000-001) and (Ref. AMM TASK 29-13-42-400-001).

R 2 If the fault continues:

R a Replace the CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM) (Ref. AMM TASK 29-13-36-000-001) and (Ref. AMM TASK 29-13-36-400-001).

R 3 If the fault continues:

a Replace the ELEC PUMP-Y (3075GX) (Ref. AMM TASK 29-24-51-000-001) and (Ref. AMM TASK 29-24-51-400-001).

(b) If the pressure is more than 1450 psi (99.9739 bar):

R 1 Replace the CHECK VALVE-ENG 2 PUMP DELIVERY, Y (3050GM) (Ref. AMM TASK 29-13-36-000-001) and (Ref. AMM TASK 29-13-36-400-001).

R 2 Do a check for continuity between:
the PRESS SW-FLT CTL, Y (3151GN) connector A/A and the
connector A/C (Ref. ASM 29-32/01).

R

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- R a If there is continuity:
- replace the PRESS SW-FLT CTL, Y (3151GN) (Ref. AMM TASK 29-32-12-000-003) and (Ref. AMM TASK 29-32-12-400-003).
- R
- R b If there is no continuity:
- do a check of the wiring for a GND connection between: the PRESS SW-FLT CTL, Y (3151GN) connector A/C (Ref. ASM 29-32/01) and the FWC connector AD/06E (Ref. ASM 31-52/02).
- R c If there is a GND connection:
- repair the wiring as necessary.
- (2) If the ELEC PUMP-Y (3075GX) does not operate:
- do a check of the red indicator light on the DET-PHASE UNBALANCE, Y ELEC PUMP (3808GX).
- (a) If the red indicator light is on:
- WARNING : MAKE SURE THAT THE TRAVEL RANGES OF THE FLIGHT CONTROL SURFACES ARE CLEAR BEFORE YOU PRESSURIZE/DEPRESSURIZE A HYDRAULIC SYSTEM.**
- put the YELLOW ELEC PUMP P/BSW (3804GX) on panel 40VU in the OFF position (OFF light is on and the red indicator light on the DET-PHASE UNBALANCE, Y ELEC PUMP (3808GX) goes off),
 - put the YELLOW ELEC PUMP P/BSW (3804GX) in the ON position (ON light comes on),
 - look at the lower ECAM DU and examine if the ELEC PUMP-Y (3075GX) operates:
- 1 If the ELEC PUMP-Y (3075GX) does not operate and the red indicator light on the DET-PHASE UNBALANCE, Y ELEC PUMP (3808GX) comes on again:
- replace the ELEC PUMP-Y (3075GX) (Ref. AMM TASK 29-24-51-000-001) and (Ref. AMM TASK 29-24-51-400-001).
- 2 If the ELEC PUMP-Y (3075GX) operates at normal pressure and the red indicator light on the DET-PHASE UNBALANCE, Y ELEC PUMP (3808GX) does not come on:
- no further actions are necessary
- (b) If the red indicator light is not on:
- do a check for 115 VAC between: the ELEC PUMP-Y (3075GX) connectors A/G and A/A, A/B, A/C (Ref. ASM 29-24/01).
- 1 If there are 115 VAC:
- replace the ELEC PUMP-Y (3075GX) (Ref. AMM TASK 29-24-51-000-001) and (Ref. AMM TASK 29-24-51-400-001).

EFF : ALL

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- 2 If there are no 115 VAC:
- do a check for 28 VDC between the DET-PHASE UNBALANCE, Y ELEC PUMP (3808GX) connectors A/G and A/D (Ref. ASM 29-24/01).
- a If there are 28 VDC:
- replace the CT-Y ELEC PUMP (3807GX) (Ref. AMM TASK 29-24-15-000-001) and (Ref. AMM TASK 29-24-15-400-001).
- b If the fault continues:
- replace the DET-PHASE UNBALANCE, Y ELEC PUMP (3808GX) (Ref. AMM TASK 29-24-16-000-001) and (Ref. AMM TASK 29-24-16-400-001).
- c If the fault continues:
- do a check of the wiring between:
the ELEC PUMP-Y (3075GX) connector A/A, A/B, A/C and the CB (3801GX) (Ref. ASM 29-24/01).
- d If the fault continues:
- do a check of the wiring between:
the ELEC PUMP-Y (3075GX) connector A/A, A/B, A/C and the CB (3802GX) (Ref. ASM 29-24/01).
- e If there are no 28 VDC:
- do a check of the wiring between:
the DET-PHASE UNBALANCE, Y ELEC PUMP (3808GX) connector A/F and the CB (3803GX) and repair as necessary (Ref. ASM 29-24/01).

B. Do the test as given in Para. 3. A. to make sure that the operation is correct.

TASK 29-24-00-810-802

Overheat Indication of the Yellow Electric Pump

1. Possible Causes

- ELEC PUMP-Y (3075GX)
- wiring

2. Job Set-up Information**A. Referenced Information**

REFERENCE**DESIGNATION**

AMM 29-24-00-710-001	Operational Test of the Yellow Auxiliary Power
AMM 29-24-51-000-001	Removal of the Electric Pump (3075GX)
AMM 29-24-51-400-001	Installation of the Electric Pump (3075GX)
ASM 29-24/01	

3. Fault Confirmation

- A.** Do the operational test of the electric pump of the Yellow hydraulic system (Ref. AMM TASK 29-24-00-710-001).

4. Fault Isolation

- A.** If the test gives the message HYD Y ELEC PUMP OVHT:
- disconnect the electrical connector (3075GX-A) and look at the upper ECAM DU.
- (1) If the fault continues:
- do a check of the wiring between:
the ELEC PUMP-Y (3075GX) connector A/F and the SDAC and repair as necessary (Ref. ASM 29-24/01).
- (2) If the fault does not continue:
- replace the ELEC PUMP-Y (3075GX) (Ref. AMM TASK 29-24-51-000-001) and (Ref. AMM TASK 29-24-51-400-001).
- B.** Do the test as given in Para. 3. A. to make sure that the operation is correct.

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TASK 29-24-00-810-803

Continuous Operation of the Yellow Electric Pump

1. Possible Causes

- RELAY-TIME (6MJ)

2. Job Set-up Information**A. Referenced Information**

REFERENCE**DESIGNATION**

AMM 29-24-00-710-001 Operational Test of the Yellow Auxiliary Power**3. Fault Confirmation**

- A. Do the operational test of the Yellow electric pump (Ref. AMM TASK 29-24-00-710-001).**

4. Fault Isolation

- A. If the test gives:**
the HYD Y SYS LO PR on the upper ECAM DU,
normal pressure for the Yellow system (approximately 3000 psi) on the HYD
page of the lower ECAM DU,
and the Yellow electric pump operates continuously:
- replace the RELAY-TIME (6MJ).

NOTE : If the CFDS fault message ATA 29-32-12 AFS: HYD Y 3151GN comes
into view, ignore it, because it has no relation to this failure.

- B. Do the test as given in Para. 3. A. to make sure that the operation is correct.**

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TASK 29-24-00-810-804

Yellow Electric Pump Motor Running with no Hydraulic Pressure

1. Possible Causes

- ELEC PUMP-Y (3075GX)
- CHECK VALVE- ELEC PUMP DELIVERY, Y (3083GM)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION

R 29-24-00-810-801	Loss or Fluctuation of the Pressure of the Yellow
R	Electric Pump
CMM 29-20-28	
CMM 29-21-20	
CMM 29-21-21	
AMM 29-13-14-000-001	Removal of the HP Manifold of the Yellow Hydraulic
	System
AMM 29-13-14-400-001	Installation of the HP Manifold of the Yellow
	Hydraulic System
AMM 29-13-45-610-001	Servicing of the HP-Filter (3048GM)
AMM 29-24-00-710-001	Operational Test of the Yellow Auxiliary Power
AMM 29-24-21-000-001	Removal of the Yellow E-Pump Check Valve (3083GM)
AMM 29-24-21-400-001	Installation of the Yellow E-Pump Check Valve
	(3083GM)
AMM 29-24-51-000-001	Removal of the Electric Pump (3075GX)
AMM 29-24-51-400-001	Installation of the Electric Pump (3075GX)

3. Fault Confirmation

- A. Do the operational test of the Yellow electric pump (Ref. AMM TASK 29-24-00-710-001).

4. Fault Isolation

A. If the test gives:

- R (1) Fluctuation of the hydraulic pressure:
R - Refer to (Ref. TASK 29-24-00-810-801).
R
- R (2) The ELEC PUMP-Y (3075GX) operates but supplies no hydraulic pressure:
R
- R (a) Remove the ELEC PUMP-Y (3075GX) (Ref. AMM TASK 29-24-51-000-001).
R

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R (b) Examine the:
- coupling shaft (Ref. CMM 29-21-21) and
- inner components (Ref. CMM 29-20-28) or (Ref. CMM 29-21-20)
of the ELEC PUMP-Y (3075GX) for damage.

R

R (c) If you find damage:
R

R 1 Remove the CHECK VALVE- ELEC PUMP DELIVERY, Y (3083GM) (Ref.
R AMM TASK 29-24-21-000-001).

R

R 2 Do a visual inspection of the CHECK VALVE- ELEC PUMP DELIVERY,
R Y (3083GM) for damage and missing parts.
R

R 3 If parts are missing, do the subsequent before you install the
R new check valve:
- Examine the Yellow HP filter (3048GM) (Ref. AMM TASK 29-13-
45-610-001) and the Yellow HP manifold (Ref. AMM TASK 29-13-
14-000-001) and (Ref. AMM TASK 29-13-14-400-001) to find
these parts.

R

R 4 Install the CHECK VALVE- ELEC PUMP DELIVERY, Y (3083GM) (Ref.
R AMM TASK 29-24-21-400-001).

R

R 5 Replace the ELEC PUMP-Y (3075GX) (Ref. AMM TASK 29-24-51-400-
001).

5. Close-up

A. Do the test as given in Para. 3. A. to make sure that the operation is
correct.

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TASK 29-24-00-810-805**Intermittent Operation of the Yellow Electric Pump****1. Possible Causes**

- CT-Y ELEC PUMP (3807GX)

2. Job Set-up Information**A. Referenced Information**

REFERENCE	DESIGNATION

R 29-24-00-810-801	Loss or Fluctuation of the Pressure of the Yellow Electric Pump
R AMM 29-24-00-710-001	Operational Test of the Yellow Auxiliary Power
AMM 29-24-15-000-001	Removal of the Yellow Electric Pump Current Transformer (3807GX)
AMM 29-24-15-400-001	Installation of the Yellow Electric Pump Current Transformer (3807GX)

3. Fault Confirmation

- A. Do the operational test of the Yellow electric pump (Ref. AMM TASK 29-24-00-710-001).

4. Fault Isolation

- A. If the Yellow electric pump starts to operate and stops after some seconds during the operational test:
 - Do a check of the red indicator light on the phase unbalance detector (3808GX).
- (1) If the red indicator light on the phase unbalance detector (3808GX) is on:
 - Replace the CT-Y ELEC PUMP (3807GX) (Ref. AMM TASK 29-24-15-000-001) and (Ref. AMM TASK 29-24-15-400-001).
- (2) If the red indicator light on the phase unbalance detector (3808GX) is not on, or the fault continues after replacement of the CT-Y ELEC PUMP (3807GX):
 - Do the troubleshooting procedure (Ref. TASK 29-24-00-810-801).

5. Close-up

- A. Do the test as given in Para. 3. A. to make sure that the operation is correct.

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