

**SAFRAN LANDING SYSTEMS UK Ltd**

CAGE: K0654

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**MAIN LANDING GEAR LEG**

PART NUMBER

**201587001, 201587002**

**201587003, 201587004**

**201587005, 201587006**

**201587007, 201587008**

**COMPONENT MAINTENANCE MANUAL WITH**

**ILLUSTRATED PARTS LIST**

STATEMENT OF INITIAL CERTIFICATION

This manual complies with British Civil Airworthiness Requirements, Section A, Chapter A5-3.

NOTE: The above certification does not apply to revisions or amendments made after the date of initial certification by other Approved Organisations. Revisions or Amendments made by other Approved Organisations must each be separately certified and recorded on separate record sheets.

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32-12-22

TITLE PAGE Sep 16/2016

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**SAFRAN LANDING SYSTEMS UK Ltd**

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PART No. 201587001 AND 201587002 COMPONENT MAINTENANCE MANUAL MAIN LANDING GEAR LEG

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32-12-22



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РУКОВОДСТВО ПО ТЕХНИЧЕСКОМУ ОБСЛУЖИВАНИЮ КОМПОНЕНТА 32-12-22 ОСНОВНАЯ СТОЙКА ШАССИ

СОПРОВОДИТЕЛЬНОЕ ПИСЬМО К РЕВИЗИИ № 69 ПОСТОЯННЫЕ РЕВИЗИИ

A. Убедиться, что ревизия № 68 внесена в руководство и зарегистрирована как вставленная..

NEW/REVISED PAGES

1.

2.

Mar 18/2025

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Mar 18/2025

Updated revision status

Unit Identification Chart

1 to 4

1 to 8

Mar 18/2025

Added Ref. Codes 2253 and 2255 details

List of Effective Pages

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1 to 16

Mar 18/2025

Updated pages

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Mar 18/2025

Added content. Updated page numbers. Updated figure numbers

Disassembly

314 to 316

314 to 316

Mar 18/2025

Added para 2.P.(31)

Check

504, 507 to 512

504, 507 to 514

Mar 18/2025

Updated tables 501 and 502

Repair

606 to 684

606 to 698.2

Mar 18/2025

Updated table 601. Updated caution at para

3.C. Updated figure titles. Deleted figures 626, 627, 649, 650, 653

and 654. Updated figure 626. Added figures 642

648. Updated table 602. Updated figure numbers

Repair No. 9-1

601 and 602

601 and 602

Mar 18/2025

Added fig-item (18-80A) in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

Repair No. 9-2

601 to 603

601 to 603

Mar 18/2025

Added fig-item (18-80A) in para 1. Updated Messier-Dowty Limited to Safran Landing Systems



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Added fig-item (18-80A) in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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601

601

Mar 18/2025

Added fig-item (18-80A) in paras 1. Updated Messier-Dowty Limited to Safran Landing Systems

Repair No. 9-6

601 and 602

601 and 602

Mar 18/2025

Added fig-item (18-80A) in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

Repair No. 9-7

601 and 602

601 and 602

Mar 18/2025

Added fig-item (18-80A) in paras 1. and 1.A.(2)

Repair No. 9-8

601 to 603 and

605

601 to 603 and

605

Mar 18/2025

Added fig-item (18-80A) in para 1. Updated Messier-Dowty Limited to Safran Landing Systems. Updated conversion value in figure 602

Repair No. 9-9

601 and 602

601 and 602

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Added fig-item (18-80A) in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

Repair No. 9-10

601 to 606

601 to 608

Mar 18/2025

Added fig-item (18-80A) in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

Repair No. 9-11

601, 602 and 605

601, 602 and 605

Mar 18/2025

Added fig-item (18-80A) in para 1. Updated material specification in para 1.D.(1). Updated Messier-Dowty Limited to Safran Landing System. Updated

figure 603



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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Mar 18/2025

Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems



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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1

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Updated fig-items in para 1

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Mar 18/2025

Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1



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Mar 18/2025

Updated fig-items in para 1. Added caution at para 1.E. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated fig-items in para 1. Updated Messier-Dowty Limited to Safran Landing Systems

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Updated Messier-Dowty Limited to Safran Landing Systems.

Updated table 601

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-

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Added repair no. 18-8

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Mar 18/2025

Updated fig-item (2-340) only in para 1

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Updated fig-item (2-340) only in para 1

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Updated fig-item (2-340) only in para 1

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Updated fig-item (2-350) only in para 1

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Mar 18/2025

Updated fig-item (2-350) only in para 1

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Updated fig-item (2-350) only in para 1

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709 and 729 to

798.12

Mar 18/2025

Updated paras 1.H.(1),

1.I.(1), 2.E, 2.F, 2.G,

2.H, 2.J, 2.K, 2.M, 2.N

and 2.O. Added paras

2.I and 2.L. Added figure 713. Updated

figures 705, 706, 707,

708 and 710. Updated figure numbers

Fits and Clearances

836 to 868

836 to 872

Mar 18/2025

Updated figure 815.

Updated tables 813,

814, 818 and 823

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901 to 906

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Mar 18/2025

Updated para 1.A

Illustrated Parts List

1020 to 1098.36

1020 to 1098.48

Mar 18/2025

Updated IPL figs 13 to 18 to include Ref.

Codes: 2253 and 2255. Updated IPL fig 15.



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3.

REVISION RECORD

A.

Record the issue date and insertion date of this revision in the Record of Revisions and retain this Letter of Transmittal.

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SB NUMBER

SB TITLE

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DATE INCORPORATED INTO MANUAL

COVER SB NO.

201-32-22

MLG - Installation of stub bolt subassembly for the forward pintle pin in place of the cross bolt.

Initial Issue

Aug 1/2000

A320-32-1213

1

No effect

201-32-24

MLG - To allow an increase in aircraft maximum take-off weight to 93 tonne.

Initial Issue

Aug 1/2000

-

201-32-29

MLG -To add tracking numbers to parts listed in Airbus Airworthiness Limitations Section (ALS).

Initial Issue

Apr 2/2007

-

1

No effect

201-32-31

MLG - Installation of a 201585 series MLG Leg and Dressings where a 201387 MLG Leg and Dressings has been installed.

Initial Issue

Apr 2/2007

-

201-32-39

MLG -To add tracking numbers to parts listed in Airbus Maintenance Planning Document, Section 9-1. (Torque link apex pin nut)

Initial Issue

Nov 1/2004

A320-32-1265

1

No effect

201-32-49

MLG - Introduction of a new lower bearing subassembly.

Initial Issue

Jan 1/2009

A320-32-1340

1

No effect

201-32-53

MLG - Introduction of new charging labels

Initial Issue

Apr 2/2012

-

201-32-54

MLG - Introduction of new 1M and 2M Axle harnesses

Initial Issue

Mar 28/2014

A320-32-1395

1

No effect

2

No effect

201-32-55

MLG - Introduction of new 1M and 2M Leg Harness and of new 1M and 2M Axle Harnesses

Initial Issue

Jan 1/2011

-



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[Testing and Fault Isolation](#_bookmark9) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

[Equipment and Materials](#_bookmark10) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

[Test Conditions](#_bookmark11) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

[Procedure](#_bookmark12) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

[Fault Isolation](#_bookmark17). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

[Disassembly](#_bookmark18) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

[General](#_bookmark19) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

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[Cleaning](#_bookmark21) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

[General](#_bookmark22) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

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IPL 18

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INTRODUCTION

General

1.

A.

B.

AECMA Simplified English to PSC-85-16598 is used in this manual.

This manual contains Description, Operation, Maintenance procedures and an Illustrated Parts List (IPL). IPL Figure and Item numbers in parentheses follow the part name to identify them.

A Unit Identification Chart is included to show the modification status of the unit. The modification status is related to the unit part number by the dash number: the dash number is marked on the unit name plate adjacent to the part number.

All references in this manual are to the left configuration of the unit unless the instructions tell you differently.

All dimensions and quantities in this manual are in SI units with Imperial units in parentheses. A comma shows a decimal part of an SI unit. A full point shows a decimal part of an Imperial unit.

This manual refers to Process Specifications (M-DLPS and PCS) and Non-destructive Tests (M-DLNDT). These are available within the Safran Landing Systems Technical Publications on-line service.

All the materials in this manual have a Ref. Item identification. This is the reference item number of the material in the Aircraft Manufacturer’s Consumable Materials List.

Use approved persons and good aircraft engineering practice for all procedures in this manual.

The repairs in this CMM have been approved under Airbus’ EASA Design Organisation Approval No. EASA.21J.031.

On occasion a REF. CODE can be identified in the NOMENCLATURE column in the DETAILED PARTS LIST. This is a Safran Landing Systems reference code and is used for cross-reference purposes only.

The accuracy and the adequacy of the instructions in this CMM have been technically verified by shop verification (performed or simulated) or by similarity with manufacturing instructions or with component maintenance manuals instructions from other programs that have been verified in shop.

C.

D.

E.

F.

G.

H.

I.

J.

K.

2.

Reference Publications

A.

Safran Landing Systems UK Ltd Component Maintenance Manual, Main Landing Gear Leg and Dressings, 32-12-21.

Safran Landing Systems UK Ltd Component Maintenance Manual, Axle Harness 1M and 2M, 32-12-29.

Safran Landing Systems UK Ltd Component Maintenance Manual, Damper, 32-11-93. Safran Landing Systems UK Ltd Component Maintenance Manual, Damper, 32-12-85.

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C.

D.

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DESCRIPTION AND OPERATION

General

1.

A.

The main landing gear leg is a two stage, telescopic shock absorber.

2.

Description (Refer to [Figures 1](#_bookmark6) and [2](#_bookmark8))

A.

The main landing gear leg has a sliding tube subassembly that operates in a main fitting subassembly. The sliding tube subassembly operates through a lower bearing subassembly. The lower bearing subassembly also seals the sliding tube subassembly in the main fitting subassembly.

An upper torque link subassembly attaches to the main fitting subassembly. A lower torque link subassembly attaches to the sliding tube subassembly. A damper attaches to the upper torque link subassembly. A pin installs through the damper and connects the upper and lower torque link subassemblies.

A slave link subassembly and a lower slave link subassembly attach opposite the upper and lower torque link subassemblies.

A rod and a cylinder install in the sliding tube subassembly. A piston installs in the cylinder. An upper diaphragm tube subassembly installs in the main fitting subassembly. A baffle, a compression orifice plate and a diaphragm subassembly install in the upper diaphragm tube subassembly. The rod goes through the baffle.

An upper bearing housing installs between the top of the sliding tube subassembly and the main fitting subassembly. A recoil orifice plate operates in the upper bearing housing.

B.

C.

D.

E.

3.

Operation ([Refer to Figure 2](#_bookmark8))

A.

Compression

(1)

The sliding tube subassembly moves into the main fitting subassembly. The subsequent decrease in volume causes hydraulic fluid to flow through the upper bearing housing: the recoil orifice plate moves and slows the flow of hydraulic fluid. The decrease in volume also causes hydraulic fluid to move through the diaphragm and lift the compression orifice plate: the hydraulic fluid flows through the baffle and into the upper diaphragm tube subassembly. This slows the speed of the compression.

Hydraulic fluid that moves into the upper diaphragm tube compresses the nitrogen in the main fitting subassembly and the upper diaphragm tube subassembly. As the pressure of the nitrogen increases, the hydraulic fluid in the rod moves against the piston. The piston is pushed into the cylinder and compresses the nitrogen in it. This slows the speed of the compression more.

(2)

B.

Recoil

(1)

After compression, the nitrogen pressure in the cylinder pushes the piston to the end of the cylinder: hydraulic fluid moves out of the cylinder and into the rod. The nitrogen pressure in the main fitting subassembly and the upper diaphragm subassembly pushes the hydraulic fluid through the baffle: the compression orifice plate is pushed against the diaphragm subassembly and limits the flow of hydraulic fluid through it. This slows the

speed of the recoil. The sliding tube subassembly moves out of the subassembly.

main fitting

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The Upper and Lower Torque Link Subassemblies

C.

(1)

The upper and lower torque link subassemblies prevent the sliding tube subassembly from turning in the main fitting subassembly.

The damper controls the movement of the upper and lower torque link subassemblies.

(2)

4.

Data

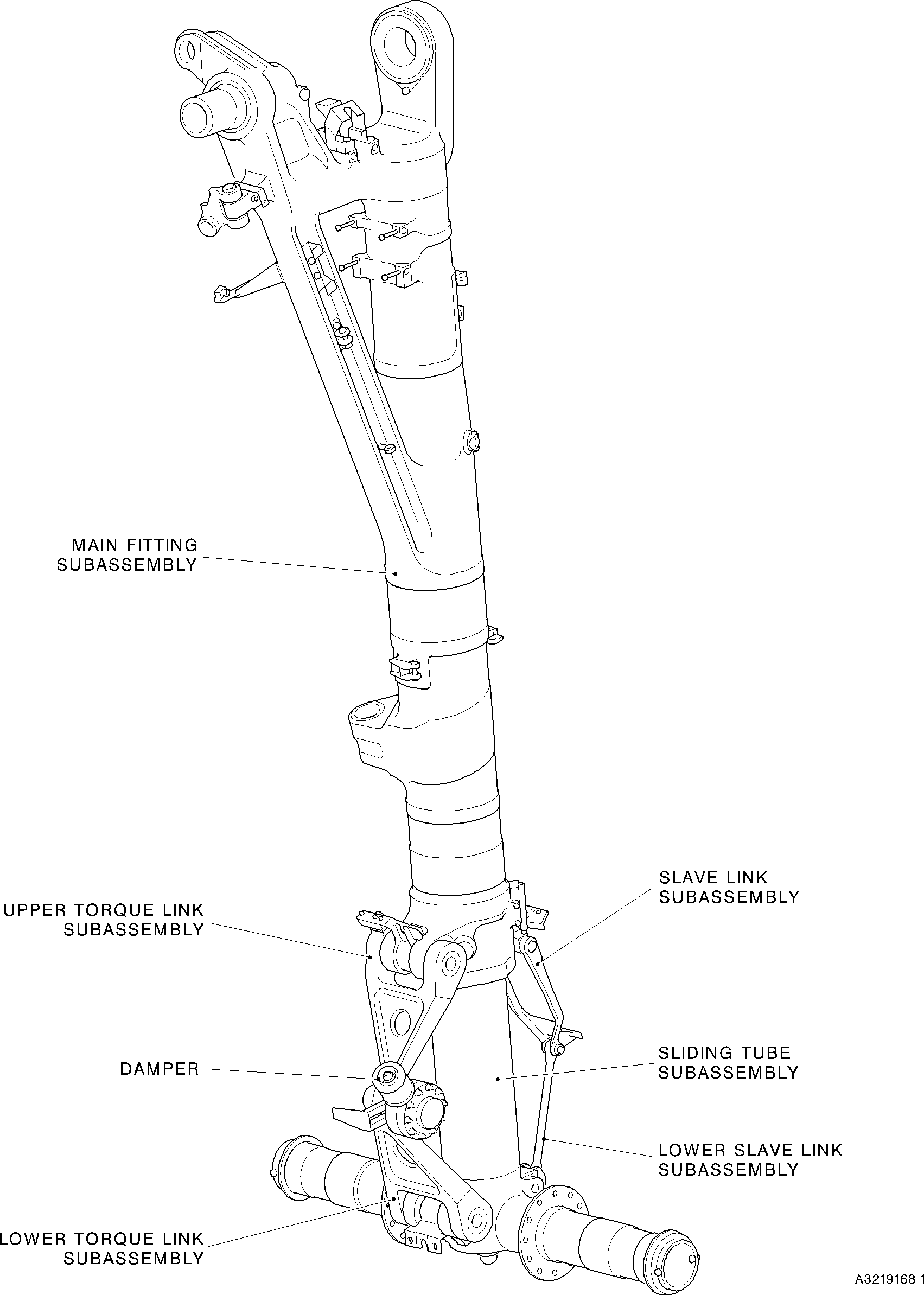
Weight with hydraulic fluid 522 kg (1151 lb) approximately

Weight without hydraulic fluid 505 kg (1113 lb) approximately

Hydraulic fluid . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Material Ref. Item 02-501

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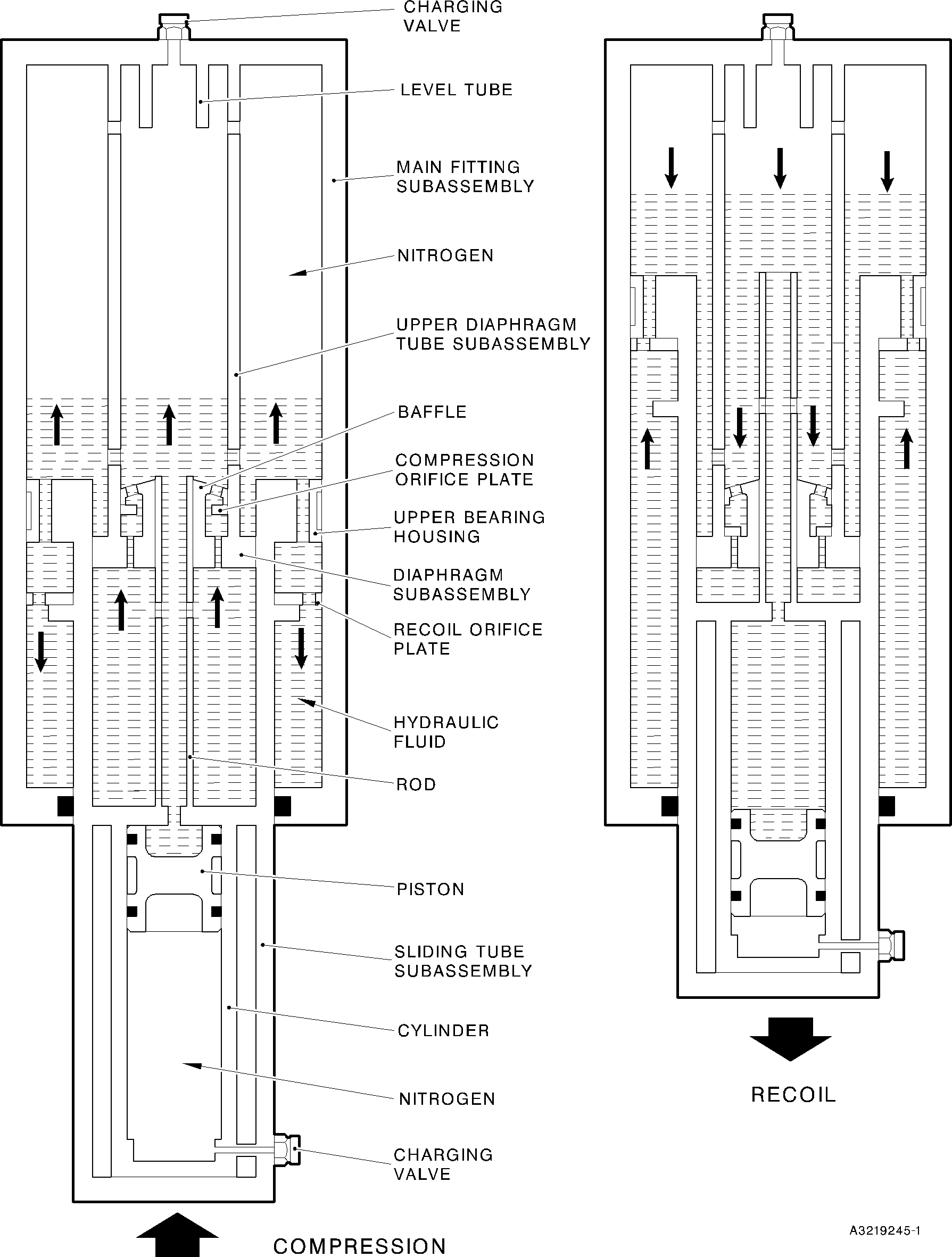
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Main Landing Gear Leg Figure 1

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Diagram of Operation Figure 2

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TESTING AND FAULT ISOLATION

Equipment and Materials

1.

A.

Equipment

(1)

This equipment is necessary:

**NOTE:**

**Alternative equivalents are permitted.**

B.

Materials

(1)

These materials are necessary:

**NOTE: Alternative equivalents are permitted.**

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Ref. Item

Material

TBA

Nitrogen

02-501

Hydraulic fluid

Part No.

Equipment

Function

-

-

-

Hydraulic Test Rig Nitrogen Supply

Loading Press

Main landing gear leg (1-1) tests

-

Milliohmmeter Megger, Type BT51

Electrical bonding resistance tests

-

28 VDC Power Supply

Proximity switch and target tests

T14218

Turner Inflation Equipment

Main landing gear leg (1-1) tests

T14500

Crowfoot Wrench

Close the charging valves (13-60 and 17-20)

460002502

Charging Adapter

Main landing gear leg (1-1) tests

460005842

Lampbox

Proximity switch and target tests

460006231

460006232

460006233

460006234

460007260

Holding Fixture

Load Cell and Adapter Press Adapter

Offset Adapter

Bottom Press Adapter

Main landing gear leg (1-1) tests



**SAFRAN LANDING SYSTEMS UK Ltd**

CAGE: K0654

PART No. 201587001 AND 201587002 COMPONENT MAINTENANCE MANUAL MAIN LANDING GEAR LEG

Test Conditions

**WARNING: DO NOT GET HYDRAULIC FLUID ON YOUR SKIN OR IN YOUR EYES. DO NOT BREATHE THE FUMES. ONLY USE IN A LOCATION THAT HAS A CONTINUOUS FLOW OF CLEAN AIR. HYDRAULIC FLUID IS POISONOUS AND DANGEROUS.**

2.

A.

General

(1)

The hydraulic test rig must have a hand pump and a power pump. The power pump must have a controlled flow of not less than 4,5 l/min (4.62 in3/sec).

The inflation equipment must be to MIL-G-8348.

The temperature of the test fluid must be between 20 and 40 C (68 and 104 F). The test fluid must be clean: refer to M-DLPS910-1.

During all hydraulic tests, the unit and the test circuit must be hydraulically full. Examine the unit for damage before you start the tests.

During the proximity switch tests the ambient temperature must be between 15 and 25 C (59 and 77 F).

(2)

(3)

(4)

(5)

(6)

(7)

3.

Procedure

A.

Piston (17-200) Leakage Tests

(1)

Use the Charging Adapter 460002502 and the Turner Inflation Equipment T14218: connect the charging valve (17-20) to the nitrogen supply. Open the charging valve (17-20).

Slowly increase the nitrogen pressure to between 9,32 and 10,68 bar (135 and

155 lbf/in2). Make a record of the pressure. Close the charging valve (17-20) and hold the nitrogen pressure for 15 minutes.

Open the charging valve (17-20) and measure the nitrogen pressure: it must be the same as the record in para (2). Leakage must not occur.

Release the nitrogen pressure.

Disconnect the nitrogen supply and remove the Turner Inflation Equipment T14218 and the Charging Adapter 460002502.

Make sure that all of the nitrogen pressure has been released: remove the charging valve (17-20).

Refer to ASSEMBLY: install the charging valve (17-20) and complete the assembly procedure.

(2)

(3)

(4)

(5)

(6)

(7)

B.

Main Landing Gear Leg (1-1) Tests

(1)

Initial Operations

(a)

Use these special tools to install the main landing gear leg (1-1) vertically in the loading press:

1

2

The Holding Fixture 460006231.

The Press Adapter 460006233.

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3

The Bottom Press Adapter 460007260.

(b)

Assemble the Load Cell and Adapter 460006232 and the Offset Adapter 460006234 to the main landing gear leg (1-1).

(2)

Procedure to Fill and Pressurize the Main Landing Gear Leg (1-1)

**CAUTION: DO NOT PUT AN END LOAD OF MORE THAN 5,08 TONNES (5 TONS) ON THE MAIN LANDING GEAR LEG (1-1).**

(a)

Make sure that there is no pressure in the main landing gear leg (1-1): open the charging valves (13-60 and 17-20).

Use the Charging Adapter 460002502 to connect the hydraulic test rig to the charging valve (13-60).

Slowly increase the hydraulic pressure to between 13,11 and 14,48 bar (190 and 210 lbf/in2) and let the unit extend fully.

Release the hydraulic pressure and fully close the unit.

Do para (c) and (d) until the hydraulic fluid that comes out of the unit does not have air in it.

Fully close the unit and disconnect the hydraulic test rig.

Use the Charging Adapter 460002502 and the Turner Inflation Equipment T14218 to connect the nitrogen supply to the charging valve (13-60).

(b)

(c)

(d)

(e)

(f)

(g)

**CAUTION: DO NOT USE A PRESSURE OF MORE THAN 7,58 BAR (110 LBF/IN2).**

(h)

Slowly increase the nitrogen pressure until the unit starts to extend. Hold the pressure and fully extend the unit. The pressure must not be more than 7,58 bar

(110 lbf/in2).

**NOTE: The charging valve (17-20) must be open to let the unit extend fully.**

[Refer to Figure 101](#_bookmark14) and measure the dimension X: it must be between 483,05 and 487,85 mm (19.017 and 19.207 in).

Disconnect the nitrogen supply and remove the Turner Inflation Equipment T14218 and the Charging Adapter 460002502.

Open the charging valve (13-60) and release the nitrogen pressure. Do not close the charging valve (13-60).

Use the Charging Adapter 460002502 and the Turner Inflation Equipment T14218 to connect the charging valve (17-20) to the nitrogen supply.

Slowly increase the nitrogen pressure to between 13,11 and 14,48 bar (190 and 210 lbf/in2).

**NOTE: Nitrogen will be released through the charging valve (13-60) as the piston (17-200) moves.**

(i)

(j)

(k)

(l)

(m)

(n)

Slowly increase the nitrogen pressure to between 67,59 and

and1020 lbf/in2).

70,34 bar (980

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(o)

Close the charging valve (17-20); use the Crowfoot Wrench T14500 to torque it to

between 5,7 and 7,9 N m (50 and 70 lbf in).

Disconnect the nitrogen supply and remove the Turner Inflation Equipment T14218 and the Charging Adapter 460002502.

Use the Turner Inflation Equipment T14218 and the Charging Adapter 460002502 to connect the nitrogen supply to the charging valve (13-60).

Slowly increase the nitrogen pressure to between 6,90 and 8,27 bar (100 and 120 lbf/in2).

Close the charging valve (13-60); use the Crowfoot Wrench T14500 to torque it to between 5,7 and 7,9 N m (50 and 70 lbf in).

Disconnect the nitrogen supply and remove the Turner Inflation Equipment T14218 and the Charging Adapter 460002502.

(p)

(q)

(r)

(s)

(t)

(3)

Leakage Tests

(a)

Make a record of the nitrogen pressure at the charging valve (13-60), (P1A) and the charging valve (17-20), (P1B).

Make a record of the ambient temperature, (T1).

Keep the unit in this condition for a minimum of six hours.

Measure the nitrogen pressure at the charging valve (13-60), (P2A) and the charging valve (17-20), (P2B).

Measure the ambient temperature, (T2).

Compare the pressures P1A and P2A and compare the pressures P1B and P2B. The pressures P1A and P2A must be the same and the pressures P1B and P2B must be the same, unless:

(b)

(c)

(d)

(e)

(f)

1

2

There is a difference between the temperatures T1 and T2

There is an error because of the pressure gauge capacity.

(g)

If there is a difference between the temperatures T1 and T2, calculate the correct

value for the nitrogen pressures (these will be P3A and P3B) pressures to the corrected values. Use the formula:

and adjust the

(P2A + Z) x (T1 + K)

P3A =

- Z

(T2 + K) OR

(P2B + Z) x (T1 + K)

P3B =

- Z

(T2 + K)

Where K = 273 for temperatures in C

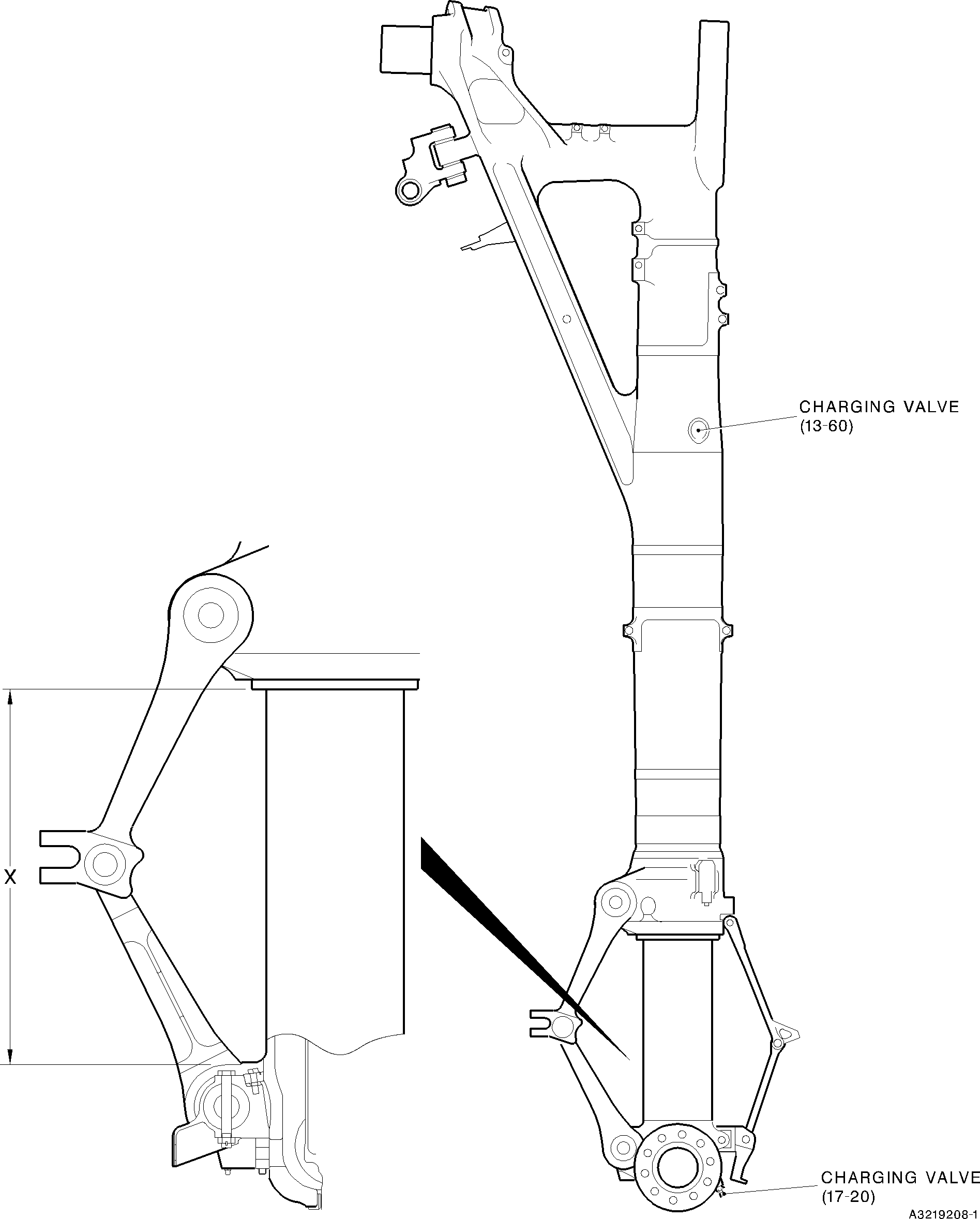
(459 for temperatures in F)

Z = 1 for pressures in bar

(15 for pressures in lbf/in2)

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Main Landing Gear Leg (1-1) Figure 101

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(h)

If there is an error because of the gauge capacity:

1

2

3

4

5

6

7

8

Close the charging valve (13-60). Release the pressure in the gauge.

Open the charging valve (13-60) and measure the nitrogen pressure, (P4A). Close the charging valve (13-60).

Close the charging valve (17-20). Release the pressure in the gauge.

Open the charging valve (17-20) and measure the nitrogen pressure, (P4B).

Calculate the correct values for the nitrogen pressures (these will be P5A and P5B) and adjust the pressures to the corrected values. Use the formula:

P5A = P1A + (P2A - P4A) OR

P5B = P1B + (P2B - P4B)

(4)

Prepare for Transport and Storage

(a)

Open the charging valve (13-60) and reduce the nitrogen pressure to between 3,45 and 4,82 bar (50 and 70 lbf/in2).

Close the charging valve (13-60); use the Crowfoot Wrench T14500 to torque it to between 5,7 and 7,9 N m (50 and 70 lbf in).

Open the charging valve (17-20) and reduce the nitrogen pressure to between 3,45 and 4,82 bar (50 and 70 lbf/in2).

Close the charging valve (17-20); use the Crowfoot Wrench T14500 to torque it to between 5,7 and 7,9 N m (50 and 70 lbf in).

Write this data on a label and attach it to the unit: THE GEAR MUST BE INFLATED TO THE APPROPRIATE PRESSURES BEFORE BEING PLACED IN SERVICE.

(b)

(c)

(d)

(e)

(5)

Complete the torque procedure for the retaining pins (13-10): refer to ASSEMBLY.

C.

Proximity Switches (7-40 and 7-230) Adjustments and Tests

(1)

Use the loading press: set the dimension between the pins (10-80 and 11-130) to between 632,80 and 636,95 mm (24.9134 and 25.0767 in).

Adjust the spacers (6-140, 7-50, 7-190 and 7-240) or laminated shims (6-140A, 7-50A, 7-90A and 7-240A): refer to ASSEMBLY.

**NOTE: If the calculated gap is in the tolerance, the spacers (6-140, 7-50, 7-190 and 7-240) or laminated shims (6-140A, 7-50A, 7-90A and 7-240A) are not necessary.**

Connect the 28 VDC power supply, the Lampbox 460005842 and the main landing gear leg (1-1).

(2)

(3)

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(4)

(5)

Use the loading press to fully extend the main landing gear leg (1-1).

Use the loading press to slowly close the main landing gear leg (1-1):

(a)

The proximity switch (7-230) must operate before the main landing gear leg (1-1) has closed by 26,00 mm (1.0236 in).

The proximity switch (7-40) must operate before the main landing gear leg (1-1) has closed by 29,30 mm (1.1535 in).

(b)

(6)

(7)

(8)

Do para (4) and (5) again.

Disconnect the 28 VDC supply and the Lampbox 460005842. Remove the main landing gear leg (1-1) from the loading press.

D.

Electrical Bonding Resistance Tests ([Refer to Figure 102](#_bookmark16))

**CAUTION: DO NOT CAUSE DAMAGE TO THE PAINT FINISH.**

**NOTE: Make sure that the main landing gear leg (1-1) is electrically isolated from the equipment that is used to hold it.**

(1)

Use the Milliohmmeter Megger, Type BT51, to measure the electrical bonding resistance.

(a)

Measure between the bearing (20-250) and the test points given in Table 101. The electrical bonding resistance must not be more than the limit given in Table 101.

Measure between the axle of the sliding tube subassembly (17-240) and the test points given in Table 102. The electrical bonding resistance must not be more than the limit given in Table 102.

(b)

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1

2

BEARING (20-250)

3

8

5

4

7

6

10

AXLE OF SLIDING TUBE SUBASSEMBLY (17-240)

9

A3219209-2

Electrical Bonding Resistance Test Points (Tables 101 and 102) Figure 102

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Electrical Bonding Resistance Tests Table 101 ([Refer to Figure 102](#_bookmark16))

Electrical Bonding Resistance Tests Table 102 ([Refer to Figure 102](#_bookmark16))

4.

Fault Isolation

A.

To be given subsequently.

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TEST POINT

IPL FIGURE AND ITEM No.

NAME

LIMIT VALUE MILLIOHMS

9

10

11-140

8-170

Harness support bracket

Bracket

20

20

TEST POINT

IPL FIGURE AND ITEM No.

NAME

LIMIT VALUE MILLIOHMS

1

2

3

4

5

6

7

8

2-80

2-120

4-100

7-230

7-100

10-160

7-40

5-390

Bracket Bracket

Proximity switch connector shell Proximity switch connector shell Harness support bracket

Upper pivot bracket

Proximity switch connector shell Static discharge connector

10

10

20

20

20

20

20

10



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DISASSEMBLY

General

**WARNING: DO NOT GET HYDRAULIC FLUID ON YOUR SKIN OR IN YOUR EYES. DO NOT BREATHE THE FUMES. ONLY USE IN A LOCATION THAT HAS A CONTINUOUS FLOW OF CLEAN AIR. HYDRAULIC FLUID IS POISONOUS AND DANGEROUS.**

**NOTE:** [**Refer to TESTING AND FAULT ISOLATION**](#_bookmark9) **to find the necessary level of disassembly. This will give the condition of the component or the possible cause of its malfunction.**

1.

A.

B.

Make sure that the work area, the tools and the equipment are clean.

Discard parts that you must not use again. These include:

32-12-22

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IPL Fig/Item No.

Part Name

1-10

Split pin

1-41

Heat shrink sleeve

1-43

Ferrule

1-45

Bowden cable

1-80

Tab washers

2-70

Tab washers

2-150

Tab washer

2-180

Tab washers

2-200

Tab washer

2-230

Split pins

3-20

Split pin

3-180

Split pin

4-20

Split pin

4-110

Split pins

4-170

Tab washers

4-200

Tab washers

4-220

Split pin

4-270

Split pins

5-170

Split pin

5-320

Split pins

5-360

Split pin

6-60

Split pin

6-240

Split pin

7-60

Split pins

8-40

Split pins



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IPL Fig/Item No.

Part Name

8-100

Split pins

9-10

Split pin

10-20

Tab washers

10-40

Split pin

10-100

Tab washers

10-150

O-ring seals

11-70

Tab washers

11-90

Split pin

12-10

Split pins

12-50

Split pins

12-100

O-ring seal

12-110

Backing ring

12-130

O-ring seals

12-140

Backing rings

12-150

O-ring seals

12-160

Backing rings

13-67

O-ring seal

13-120

O-ring seal

13-140

Split pin

14-20

Split pins

15-80

Locking plate

15-90

Screws

15-100

Tab washers

15-120

Pin

15-170

Tab washers

15-250

O-ring seal

15-260

Backing rings

15-280

Seal

15-290

Seal

15-310

O-ring seal

15-320

Split pin

16-20

O-ring seal

16-30

Backing rings

16-40

O-ring seal

16-50

Backing rings

16-60

Seal



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C.

Wire Thread Inserts

(1)

If necessary, remove the wire thread inserts:

(a)

(b)

Bend the outer coil of the wire thread insert to the centre of the hole.

Remove the wire thread insert. Make sure that broken pieces do not stay in the hole.

D.

Special Tools

(1)

These special tools are necessary:

**NOTE:**

**Alternative equivalents are permitted.**

32-12-22

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Part No.

Special Tool

Function

MT1025

Bench Clamp

Use with MT1026/63 and 460006406

MT1026/63

Holding Blocks

Hold the cylinder (17-230)

T14500

Crowfoot Wrench

Remove the charging valves (13-60 and 17-20)

T14544

Torque Adapter

Remove the nut (9-50)

460001355

Extractor

Remove the lubrication adapters

(18-60), (20-130), (20-160), (20-190)

and (20-220)

460004331/1

Drift

Use with 460006151/47

460004331/7

Drift

Use with 460006151/24, 460006151/25, 460006151/26 and

460006151/51

IPL Fig/Item No.

Part Name

16-70

Seal

16-80

Joint seal

16-90

Sealing ring

16-100

Wiper ring

16A-117

Inner liner

17-27

O-ring seal

17-60

O-ring seal

17-70

Backing ring

17-90

Lock washer

17-110

Tab washers

17-190

Seal

17-210

O-ring seal

17-220

Backing ring

19-10

Split pin



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Part No.

Special Tool

Function

460004331/8

Drift

Use with 460006151/7, 460006151/20, 460006151/30 and

460006151/31

460004331/9

Drift

Use with 460006151/47, 460006151/87 and 460006151/88

460004331/20

Drift

Use with 460006151/21 and 460006151/22

460004331/21

Drift

Use with 460006151/9, 460006151/10 and 460007259

460004680

Extraction Tube

Remove the forward pintle bush (20-250A)

460006151/7

Extractor

Remove the bushes (18-30)

460006151/9

Extractor

Remove the bushes (20-340) and (20-350)

460006151/10

Extractor

Remove the bushes (10-250, 11-230, 18-40 and 20-330)

460006151/20

Extractor

Remove the bushes (18-20)

460006151/21

Extractor

Remove the bush (15-370)

460006151/22

Extractor

Remove the bush (15-380)

460006151/24

Extractor

Remove the bearings (5-280 and 5-290) and the bushes (20-380)

460006151/25

Extractor

Remove the bearing (4-340) and the bush (20-360)

460006151/26

Extractor

Remove the bearing (4-350)

460006151/30

Extractor

Remove the bush (6-210 and 8-160)

460006151/31

Extractor

Remove the bush (6-220 and 8-150)

460006151/47

Extractor

Remove the bearings (20-230, 20-240 and 20-290)

460006151/48

Extractor

Remove the bearing (20-290)

460006151/51

Extractor

Remove the bushes (20-390)

460006151/86

Extractor

Remove the bushes (20-320)

460006151/87

Extractor

Remove the bearing (20-270)

460006151/88

Extractor

Remove the bearing (20-260)

460006208

Lifting Bar Assembly

Hold the main landing gear leg (1-1), use with 460007281 and 460007282

460006211

Lifting Tackle

Lift the sliding tube subassembly (17-240) and related parts



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Part No.

Special Tool

Function

460006213

460006215

460006216

460006223

460006237

Transport and Build Trolley

Support Arms Towing Frame

Jacking Dome Adapter

Adapter

Hold the main landing gear leg (1-1)

460006232

Extraction Pad

Remove the bearing (20-300)

460006253

Extractor

Remove the bearing (20-280)

460006261

Extraction Pad

Remove the bearing (20-310)

460006262

Extraction Bar

Use with 460006232, 460006263

and 460006261

460006263

Extraction Pad

Remove the bearing (20-300)

460006267

Press Pad Assembly

Remove drag arm sleeve (20-370A)

460006404

Torque Adapter

Remove the jacking dome (17-80)

460006406

Holding Blocks

Hold the upper diaphragm tube (15-390)

460006410

Assembly/Extraction Tool

Remove the level tube (15-300)

460006413

Extractor

Remove the bushes (7-130)

460006415

Extractor Pad and Drawbolt

Remove the bush (2-310)

460006416

Extractor

Remove the bush (2-320)

460006497

Hydraulic-Pneumatic Pump Set

To remove the forward pintle bush (2-250A)

460006498/7

Bolt

460006499/25

Press Pad

460007230

Torque Adapter

Remove the nuts (14-60)

460007231

Spacer

Use with 460007282

460007232

Torque Adapter

Remove the locking nut (19-52)

460007234

OR 460007235

Location Frame

Location Frame

Hold the main landing gear leg (1-1) (left configuration)

Hold the main landing gear leg (1-2) (right configuration)

460007240

Build Trolley

Hold the sliding tube subassembly (17-240) and related parts



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Part No.

Special Tool

Function

460007242

Torque Reaction Adapter

Hold the pin (9-70)

460007254

Extractor

Remove the bush (18-50)

460007259

Extractor Plate

Remove the bushes (20-340 and 20-350)

460007278

Torque Reactor

Use with 460006406

460007279

Pin Spanner

Remove the upper bearing housing (15-40)

460007281

460007282

Pintle Location Assembly

Spherical Bearing Locator

Hold the main landing gear leg (1-1), use with 460006208

460007283

Torque Adapter

Remove the diaphragm subassembly (15-190)

460007284

Pin Spanner

Remove the nut subassembly (17-130)



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Procedure (Refer to IPL Figures 1 to 20)

2.

A.

Initial Operations

(1)

Use these special tools as necessary during the procedure to lift and to hold the unit:

(a)

(b)

(c)

(d)

(e)

(f)

(g)

(h)

(i)

(j)

(k)

The Lifting Bar Assembly 460006208

The Spherical Bearing Locator 460007282 The Pintle Location Assembly 460007281 The Transport and Build Trolley 460006213 The Support Arms 460006215

The Towing Frame 460006216

The Jacking Dome Adapter 460006223 The Adapter 460006237

The Spacer 460007231

The Location Frame 460007234 (for left configuration units) The Location Frame 460007235 (for right configuration units).

B.

Pintle Pin (1-60)

(1)

Pre SB 201-32-22: remove the split pin (1-10), the nut (1-20), the washer (1-30), the bolt (1-40) and the washer (1-50).

Post SB 201-32-22: remove the split pins (1-10A), the nuts (1-20A), the spacers (1-25), the washers (1-30A), the shims (1-35), the bolt subassembly (1-40A) and the washers (1-50A).

Post SB 201-32-22: cut the Bowden cable (1-45) and remove the cross bolts (1-47 and 1-49).

Remove the pintle pin (1-60).

Remove the bolts (1-70), tab washers (1-80), nuts (1-90) and retainers (1-100). Remove the wiring diagram plate (1-110).

(2)

(3)

(4)

(5)

(6)

C.

PRE SB 201-32-81: Transfer Block Subassembly (2-290 and 2-290A)

(1)

Remove the bolt (2-10), the washer (2-20), the pin (2-30), the spacer (2-40) and the threaded insert (2-50).

Release the tab washers (2-70). Remove the bolts (2-60), the tab washers (2-70) and the bracket (2-80).

Remove the bolts (2-100), the washers (2-110) and the bracket (2-120).

Release the tab washer (2-150). Remove the bolt (2-140), the tab washer (2-150) and the bonding cable (2-160).

Release the tab washers (2-180 and 2-200). Remove the bolts (2-170 and 2-190) and the tab washers (2-180 and 2-200).

(2)

(3)

(4)

(5)

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(6)

(7)

Remove the nuts (2-210) and retainers (2-220).

Remove the split pins (2-230), the nuts (2-240), the washers (2-250), the bolts (2-260) and the bracket (2-270).

Remove the transfer block subassembly (2-290 and 2-290A).

Use the Extractor Pad and Drawbolt 460006415 to remove the bush (2-310) and the Extractor 460006416 to remove the bush (2-320) from the transfer block (2-340 and 2-340A).

(8)

(9)

D.

POST SB 201-32-81: Transfer Block Subassembly (2-290B)

(1)

Remove the bolt (2-10), the washer (2-20), the pin (2-30), the spacer (2-40) and the threaded insert (2-50).

Release the tab washer (2-150). Remove the bolt (2-140), the tab washer (2-150) and the bonding cable (2-160).

Release the tab washers (2-180 and 2-200). Remove the bolts (2-170 and 2-190A) and the tab washers (2-180 and 2-200).

Remove the nuts (2-210) and retainers (2-220). Remove the transfer block subassembly (2-290B).

Use the Extractor Pad and Drawbolt 460006415 to remove the bush (2-310) and the Extractor 460006416 to remove the bush (2-320) from the transfer block (2-340B).

(2)

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E.

Cardan Assembly (3-10)

(1)

Remove the split pin (3-20), the nut (3-30), the washer (3-40), the pin (3-50), the spacers (3-60 and 3-70) and the cardan assembly (3-10).

Remove the lubrication fittings (3-80, 3-100 and 3-120) and the identification washers (3-90, 3-110 and 3-130) from the lock stay cardan subassembly (3-140).

Remove the bushes (3-150 and 3-160) from the lock stay cardan (3-170).

Remove the split pin (3-180), the nut (3-190), the washer (3-200), the bolt (3-210) and the bracket (3-220).

(2)

(3)

(4)

F.

Rod End Assembly (4-10), Proximity Switch (4-100) and Bracket Subassembly (4-330)

(1)

Remove the split pin (4-20), the nut (4-30), the washer (4-40) and the rod end assembly (4-10).

Remove the spherical bearing (4-50) from the rod end (4-60).

Remove the nuts (4-70), the washers (4-80), the cap screws (4-90) and the proximity switch (4-100).

Remove the split pins (4-110), the nuts (4-120), the washers (4-130) and the bracket (4-140).

Release the tab washers (4-170 and 4-200). Remove the nuts (4-160), the tab washers (4-170), the spacer (4-180), the bolts (4-190), the tab washers (4-200) and the bracket (4-210).

Remove the split pin (4-220), the nut (4-230), the washer (4-240), the bolt (4-250) and the sleeve (4-260).

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(7)

Remove the split pins (4-270), the nuts (4-280), the washers (4-290) and the bolts

(4-300).

Remove the bonding cable (4-310) and the washer (4-320). Remove the bracket subassembly (4-330).

Use the Drift 460004331/7 and the Extractor 460006151/25 to remove the bearing (4-340) from the bracket (4-360).

Use the Drift 460004331/7 and the Extractor 460006151/26 to remove the bearing (4-350) from the bracket (4-360).

(8)

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G.

Bracket Assembly (5-10), Bracket Subassemblies (5-90 and 5-270) and Uplock Pin (5-400)

(1)

Remove the bolts (5-20 and 5-40), the washers (5-30 and 5-50), the nut (5-60) and the

bracket assembly (5-10).

Remove the spherical bearing (5-70) from the bracket (5-80): refer to M-DLPS1014-2.

Remove the bolts (5-100 and 5-120), the washers (5-110 and 5-130), the nut (5-140) and the bracket subassembly (5-90).

Remove the spherical bearing (5-150) from the bracket (5-160): refer to M-DLPS1014-2.

Remove the split pin (5-170), the nut (5-180), the washer (5-190), the bolt (5-200) and the sleeve (5-210).

Remove the bolt (5-220), the washer (5-230) and the bonding cable (5-240).

Remove the bolt (5-250), the washer (5-260), the bracket subassembly (5-270) and the nut (5-310).

Use the Drift 460004331/7 and the Extractor 460006151/24 to remove the bearings (5-280 and 5-290) from the bracket (5-300).

PRE SB 201-32-72:

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(a)

Remove the split pins (5-320), the nuts (5-330), the washers (5-340) and the bolts (5-350).

Remove the split pin (5-360), the nut (5-370), the washer (5-380), the static discharge connector (5-390) and the uplock pin (5-400).

(b)

(10)

POST SB 201-32-72:

(a)

Remove the split pins (5-320A), the nuts (5-330A), the washers (5-340B) and the bolts (5-350A).

Remove the ground stud subassembly (5-390A), the washer (5-380B), the bolt (5-395) and the uplock pin (5-400A).

(b)

H.

Slave Link Subassembly (6-190) and Lower Slave Link Subassembly (6-290)

(1)

Remove the split pin (6-10), the nut (6-20), the washer (6-30), the bolt (6-40) and the spacer (6-50).

Remove the split pin (6-60), the slotted nut (6-70), the washer (6-80) and the pivot pin (6-90).

Remove the slave link subassembly (6-190) and its attached parts.

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(4)

Remove the nuts (6-100), the washers (6-110), the cap screws (6-120), the

target (6-130) and the spacers (6-140) or the laminated shim (6-140A).

**NOTE: If the calculated gap is in the tolerance, the spacers (6-140) or the laminated shim (6-140A) is not installed.**

Remove the bolts (6-150), the washers (6-160) and the bracket (6-170). Remove the bushes (6-200) from the slave link (6-230).

Use the Drift 460004331/8 and the Extractor 460006151/30 to remove the bush (6-210) from the slave link (6-230).

Use the Drift 460004331/8 and the Extractor 460006151/31 to remove the bush (6-220) from the slave link (6-230).

Remove the split pin (6-240), the nut (6-250), the washer (6-260), the bolt (6-270) and the spacer (6-280): remove the lower slave link subassembly (6-290).

Remove the grooved spherical bearing (6-300) or the self lubricating bearing (6-300A) from the lower slave link (6-310).

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I.

Proximity Switches (7-40 and 7-230) and Harness Support Bracket (7-100)

(1)

Remove the nuts (7-10), the washers (7-20), the cap screws (7-30), the proximity switch (7-40) and the spacer (7-50) or the laminated shim (7-50A).

**NOTE: If the calculated gap is in the tolerance, the spacer (7-50) or the laminated shim (7-50A) is not installed.**

Remove the split pins (7-60), the nuts (7-70), the washers (7-80), the bolts (7-90) and the harness support bracket (7-100).

Remove the pivot bracket subassembly (7-120).

Use the Extractor 460006413 to remove the bushes (7-130) from the pivot bracket (7-140).

Remove the nuts (7-150), the washers (7-160), the cap screws (7-170), the target (7-180) and the spacer (7-190) or the laminated shim (7-190A).

**NOTE: If the calculated gap is in the tolerance, the spacer (7-190) or the laminated shim (7-190A) is not installed.**

Remove the nuts (7-200), the washers (7-210), the cap screws (7-220), the proximity switch (7-230) and the spacer (7-240) or the laminated shim (7-240A).

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J.

Bracket Subassembly (8-90)

(1)

(2)

Remove the nuts (8-10), the washers (8-20) and the bolts (8-30).

Remove the split pins (8-40), the nuts (8-50), the washers (8-60), the bolts (8-70) and the bracket (8-80).

Remove the split pin (8-100), the nut (8-110), the washer (8-120), the sleeves (8-130) and the bolt (8-140). Remove the bracket subassembly (8-90).

Use the Extractor 460006151/31 and the Drift 460004331/8 to remove the bush (8-150). Use the Extractor 460006151/30 and the Drift 460004331/8 to remove the bush (8-160).

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Damper (9-160)

K.

(1)

(2)

(3)

Remove the split pin (9-10), the nut (9-20), the washer(s) (9-30) and the bolt (9-40). Remove the clamp (9-165) and the dust cap (9-170).

Use the Torque Reaction Adapter 460007242 to hold the pin (9-70) and use the Torque Adapter T14544 to remove the nut (9-50). Remove the spacer (9-60), the pin (9-70), the spacer (9-80) and the sleeve (9-90).

Remove the bolts (9-100), the washers (9-110), the bolts (9-120), the washers (9-130), the bolts (9-140), the washers (9-145) and the bracket (9-150).

Remove the damper (9-160), the spacers (9-180 and 9-190) and the sleeve (9-200).

(4)

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L.

Upper Torque Link Subassembly (10-170)

(1)

Release the tab washers (10-20). Remove the bolts (10-10), the tab washers (10-20) and the wedge (10-30).

Remove the split pin (10-40), the nut (10-50), the washers (10-60), the bolt (10-70) and the pin (10-80).

Remove the upper torque link subassembly (10-170), the upper pivot bracket (10-160) and the spacers (10-270).

Remove the lubrication shaft subassembly (10-90) from the pin (10-80).

Remove the O-ring seals (10-150) from the lubrication shaft subassembly (10-90). Remove the lubrication fittings (10-120) and the identification washers (10-130).

Release the tab washers (10-100). Remove the lubrication adapters (10-110) and the tab washers (10-100).

Remove the lubrication fittings (10-180 and 10-210) and the identification washers (10-190 and 10-220). Remove the lubrication adapters (10-200 and 10-230).

Remove the bushes (10-240).

Use the Extractor 460006151/10 to remove the bushes (10-250) from the upper torque link (10-260).

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M.

1M Electrical Axle Harness (11-40) and 2M Electrical Axle Harness (11-50)

(1)

(2)

(3)

Remove the cap screws (11-10), the washers (11-20) and the harness support (11-30). Remove the 2M electrical axle harness (11-50).

Remove the 1M electrical axle harness (11-40).

N.

Lower Torque Link Subassembly (11-150)

(1)

(2)

(3)

(4)

Release the tab washers (11-70).

Remove the bolts (11-60), the tab washers (11-70) and the wedge (11-80).

Remove the split pin (11-90), the nut (11-100), the washer (11-110) and the bolt (11-120).

Remove the pin (11-130), the harness support bracket (11-140), the lower torque link subassembly (11-150) and the spacers (11-250).

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(5)

Remove the lubrication fittings (11-160 and 11-190) and the identification washers

(11-170 and 11-200). Remove the lubrication adapters (11-180 and 11-210). Remove the bushes (11-220).

Use the Extractor 460006151/10 to remove the bushes (11-230) from the lower torque link (11-240).

(6)

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O.

Housing (12-170)

(1)

Remove the split pins (12-10), the nuts (12-20), the washers (12-30) and the bolts (12-40).

Remove the housing (12-170) and its related parts.

Remove the split pins (12-50), the washers (12-60), the pin (12-70) and the cap screw (1).

Remove the valve stem (12-90).

Remove the O-ring seal (12-100) and the backing ring (12-110). Remove the transfer dowels (12-120).

Remove the O-ring seals (12-130 and 12-150) and the backing rings (12-140 and 12-160).

(2)

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P.

Shock Absorber Subassembly (13-50) and Related Parts

(1)

Remove the split pins (14-20), the nuts (14-30), the washers (14-40) and the bolts (14-50).

Use the Torque Adapter 460007230 to remove the nuts (14-60). Remove the stop rings (14-70).

(2)

(3)

**WARNING: RELEASE ALL NITROGEN PRESSURE BEFORE YOU REMOVE THE CHARGING VALVES (13-60 AND 17-20).**

(4)

Slowly open the charging valve (17-20) and release all of the second stage nitrogen pressure.

Slowly open the charging valve (13-60) and release all of the first stage nitrogen pressure.

Release the cup washers (13-20).

Remove the retaining pins (13-10) and the cup washers (13-20).

Remove the lubrication fittings (13-30) and the identification washers (13-40).

Use the Crowfoot Wrench T14500 to remove the charging valve (13-60). Remove the O-ring seal (13-67) from the charging valve (13-60).

Remove the bolts (13-70), the spacers (13-80) and the inflation valve subassembly (13-90).

Remove the plate (13-100) from the inflation valve (13-110). Remove the O-ring seal (13-120) and the backing rings (13-130).

Remove the split pin (13-140), the nut (13-150), the washers (13-160), the bolt (13-170) and the stop ring (13-180).

Remove the pin (13-190), the washer subassembly (13-200) and the bush (13-230).

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(15)

Remove the shock absorber subassembly (13-50) and its related parts from the main fitting subassembly (20-90).

(16)

Use the Lifting Tackle 460006211 and install the sliding tube subassembly (17-240) in the Build Trolley 460007240.

Remove the bearings (15-20 and 15-30).

Remove the upper bearing housing (15-40) and related parts as follows:

(17)

(18)

(a)

Release the tab washers (15-100).

**CAUTION: DISCARD THE SCREWS (15-90) AND THE LOCKING PLATES (15-80) WHEN REMOVED.**

(b)

(c)

(d)

(e)

(f)

Remove the screws (15-90) and the tab washers (15-100). Remove the locking plate (15-80).

Use Pin Spanner 460007279 to remove the upper bearing housing (15-40). Remove and discard the pins (15-120).

Remove the two piece stop with inserts (15-130).

(19)

Remove the locking pins (15-50), the retaining ring (15-60) and the recoil orifice plate (15-70).

Remove the upper diaphragm tube subassembly (15-360) and its related parts.

Release the tab washers (15-170). Remove the bolts (15-160), the tab washers (15-170) and the lock plate (15-180).

Use the Torque Adapter 460007283, the Torque Reactor 460007278, the Holding Blocks 460006406 and the Bench Clamp MT1025 to remove the diaphragm subassembly (15-190), the compression orifice plate (15-220), the clapper seat (15-230) and the baffle (15-240).

Remove the O-ring seal (15-250) and the backing rings (15-260). Remove the bearing (15-270) and the seals (15-280 and 15-290).

Use the Assembly/Extraction Tool 460006410 to remove the level tube (15-300) and remove the O-ring seal (15-310).

Remove the split pin (15-320), the nut (15-330), the washer (15-340) and the bolt (15-350).

Use the Extractor 460006151/21 and the Drift 460004331/20 to remove the bush (15-370).

Use the Extractor 460006151/22 and the Drift 460004331/20 to remove the bush (15-380) from the upper diaphragm tube (15-390).

Lower Bearing Subassembly (16-110) Pre SB 201-32-58

(20)

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(25)

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(28)

(29)

(a)

Remove the lower bearing subassembly (16-110) and its related parts from the sliding tube subassembly (17-240).

Remove the O-ring seal (16-20), the backing rings (16-30), the O-ring seal (16-40) and the backing rings (16-50).

Remove the seals (16-60 and 16-70).

(b)

(c)

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(d)

(e)

Remove the joint seal (16-80), the sealing ring (16-90) and the wiper ring (16-100).

Remove the lower bearing (16-150) from the lower bearing housing subassembly (16-120).

Remove the bushes (16-130) from the gland housing (16-140).

(f)

(30)

Lower Bearing Subassembly (16A-110D) Post SB 201-32-58

(a)

Remove the lower bearing subassembly (16A-110D) and its related parts from the sliding tube subassembly (17-240).

Remove the O-ring seal (16A-20), the backing rings (16A-30), the O-ring seal (16A-40) and the backing rings (16A-50).

Remove the seals (16A-60 and 16A-70).

Remove the joint seal (16A-80), the sealing ring (16A-90) and the wiper ring (16A-100).

Remove the inner liner (16A-117) from the lower bearing subassembly (16A-110D) and discard it.

Remove the lower bearing (16A-150A) from the lower bearing housing subassembly (16A-120B). Discard the machined lower bearing (16A-150A).

Remove the bushes (16A-130A) from the gland housing (16A-140B).

(b)

(c)

(d)

(e)

(f)

(g)

(31)

Lower Bearing Subassembly (16-110D or 16A-110E) Post Ref. Code: 2253

(a)

Remove the lower bearing subassembly (16-110D or 16A-110E) and its related parts from the sliding tube subassembly (17-240).

Remove the O-ring seal (16-20A or 16A-20A), the backing rings (16-30 or 16A-30), the O-ring seal (16-40A or 16A-40A) and the backing

rings (16-50 or 16A-50).

Remove the seals (16-60 or 16A-60) and (16-70 or 16A-70).

Remove the joint seal (16-80 or 16A-80), the sealing ring (16-90 or 16A-90) and the wiper ring (16-100 or 16A-100).

Remove the common lower bearing bushes (16-130A or 16A-130B) from the lower bearing housing (16-140B or 16A-140C).

(b)

(c)

(d)

(e)

(32)

Use the Crowfoot Wrench T14500 to remove the charging valve (17-20). Remove the O-ring seal (17-27) from the charging valve (17-20).

Remove the cap screws (17-30), the washers (17-40) and the valve support (17-50). Remove the O-ring seal (17-60) and the backing ring (17-70).

Release the lock washer (17-90) and use the Torque Adapter 460006404 to remove the jacking dome (17-80). Remove the lock washer (17-90).

Remove the cylinder (17-230) and its related parts from the sliding tube subassembly (17-240).

Hold the cylinder (17-230) in the Bench Clamp MT1025 and Holding Blocks MT1026/63.

(33)

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(38)

Release the tab washer (17-110) and remove the bolts (17-100). washers (17-110).

Remove the tab

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(39)

Remove the lock plate (17-120) and use the Pin Spanner 460007284 to remove the nut subassembly (17-130). Remove the rod (17-160) and the washer (17-170).

Remove the piston (17-200) and remove the bearing (17-180) and the seal (17-190).

Remove the O-ring seal (17-210) and the backing ring (17-220) from the cylinder (17-230).

Remove the cylinder (17-230) from the Bench Clamp MT1025 and Holding Blocks MT1026/63.

Remove the labels (17-250 and 17-290).

Remove the lubrication fittings (17-270) and the identification washers (17-280) from the sliding tube subassembly (17-240).

Remove the sliding tube subassembly (17-240) from the Build Trolley 460007240.

Sliding Tube Subassembly (17-240)

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(46)

(a)

(b)

Remove the bushes (18-10).

Use the Extractor 460006151/20 and the Drift 460004331/8 to remove the bushes (18-20).

Use the Extractor 460006151/7 and the Drift 460004331/8 to remove the bushes (18-30).

Use the Extractor 460006151/10 and the Drift 460004331/21 to remove the bushes (18-40).

Use the Extractor 460007254 to remove the bush (18-50).

Remove the lubrication fittings (18-52) and identification washers (18-54). Remove the label (18-70) from the sliding tube (18-80).

(c)

(d)

(e)

(f)

(g)

Q.

Spherical Bearing (19-50) and Bung (19-60)

(1)

(2)

(3)

Remove the split pin (19-10), the nut (19-20), the washers (19-30) and the bolt (19-40). Release the lock indentations of the locking washer (19-54).

Use the Torque Adapter 460007232 to remove the locking nut (19-52). Remove the locking washer (19-54) and the outer race and the ball of the spherical bearing (19-50).

**NOTE: The outer race and the ball are parts of the spherical bearing (19-550).**

**They are a set: keep them together.**

Remove the bung (19-60).

(4)

R.

Main Fitting Subassembly (20-90)

(1)

(2)

Remove the labels (20-10, 20-30, 20-40, 20-60 and 20-80).

Remove the lubrication fitting (20-110) and the identification washer (20-120). Remove the lubrication adapter (20-130).

Remove the lubrication fitting (20-140) and the identification washer (20-150). Remove the lubrication adapter (20-160).

Remove the lubrication fitting (20-170) and the identification washer (20-180). Remove the lubrication adapter (20-190).

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(4)

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(5)

Remove the lubrication fittings (20-200) and identification washers (20-210). Remove

the lubrication adapters (20-220).

Use the Extractor 460001355 and remove the lubrication adapters (20-130), (20-160) (20-190) and (20-220).

Use the Extractor 460006151/47 and the Drift 460004331/1 to remove the bearings (20-230 and 20-240).

Remove the bearing (20-250 only).

Use the Hydraulic-Pneumatic Pump Set 460006497, the Bolt 460006498/7, the Press Pad 460006499/25 and the Extraction Tube 460004680 and remove the forward pintle bush (20-250A).

Use the Extractor 460006151/88 and the Drift 460004331/9 to remove the bearing (20-260).

Use the Extractor 460006151/87 and the Drift 460004331/9 to remove the bearing (20-260 and 20-270).

Use the Extractor 460006253 to remove the bearing (20-280).

Use the Extractor 460006151/47/48 and the Drift 460004331/9 to remove the bearing (20-290).

Use the Extraction Pad 460006263/460006232 and the Extraction Bar 460006262 to remove the bearing (20-300).

Use the Extraction Pad 460006261 and the Extraction Bar 460006262 to remove the bearing (20-310).

Use the Extractor 460006151/86 to remove the bushes (20-320).

Use the Extractor 460006151/10 and the Drift 460004331/21 to remove the bushes (20-330).

Use the Extractor Plate 460007259/460006151/9 and the Drift 460004331/21 to remove the bushes (20-340 and 20-350).

Use the Extractor 460006151/25 and the Drift 460004331/7 to remove the bush (20-360).

Remove the bearing (20-370 only).

Use the Press Pad Assembly 460006267 and remove the drag arm sleeve (20-370A only).

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Use the Extractor 460006151/24 and the Drift 460004331/7 to remove (20-380).

Use the Extractor 460006151/51 and the Drift 460004331/7 to remove (20-390).

Remove the bearings (20-400).

the bushes

(23)

the bushes

(24)

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PART No. 201587001 AND 201587002 COMPONENT MAINTENANCE MANUAL MAIN LANDING GEAR LEG

CLEANING

General

1.

A.

Materials

(1)

These materials are necessary:

**NOTE: Alternative equivalents are permitted.**

2.

Procedure

A.

Cleaning

**WARNING: DO NOT GET CLEANING AGENTS ON YOUR SKIN, IN YOUR EYES OR**

**NEAR A FLAME. DO NOT BREATHE THE FUMES.**

**ONLY USE IN A**

**LOCATION THAT HAS A CONTINUOUS FLOW OF CLEAN AIR. CLEANING AGENTS ARE POISONOUS AND FLAMMABLE.**

**CAUTION: DO NOT USE CHLORINATED SOLVENTS. CHLORINATED SOLVENTS CAN MIX WITH VERY SMALL QUANTITIES OF WATER IN HYDRAULIC SYSTEMS TO MAKE HYDROCHLORIC ACID. HYDROCHLORIC ACID WILL CAUSE CORROSION ON METAL SURFACES.**

(1)

Clean all the metal parts with white spirit, Material Ref. Item 11-524. Make sure that you fully remove all sealants, adhesives and jointing compounds.

Dry all the metal parts.

Use clean PVC or polythene gloves to prevent corrosion of metal parts.

Prevent corrosion of the metal parts that you do not immediately use for assembly procedures: refer to PCS-2800.

(2)

(3)

(4)

B.

Paint Removal

**WARNING: DO NOT GET PAINT STRIPPER ON YOUR SKIN, IN YOUR EYES OR NEAR A FLAME. DO NOT BREATHE THE FUMES. ONLY USE IN A LOCATION THAT HAS A CONTINUOUS FLOW OF CLEAN AIR. PAINT STRIPPER IS POISONOUS AND FLAMMABLE.**

(1)

(2)

(3)

Remove the damaged paint: refer to PCS-2700. Clean the part: refer to para 2.A.

Paint the part: [refer to REPAIR](#_bookmark30).

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Ref. Item

Material

11-524

White spirit



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CHECK

1. General

A.

The procedure to examine the parts is in two levels:

(1)

(2)

Detailed Inspection.

Special Detailed Inspection.

2. Detailed Inspection

A.

Examine Parts Visually

(1)

Visually examine each part. Carefully examine contact sealing rings.

Examine each part for these types of damage:

changes

of section and areas

which

(2)

(a)

(b)

(c)

(d)

(e)

(f)

(g)

Corrosion.

Deterioration of protective treatment. Distortion and/or cracks.

Wear or fretting. Scores, dents or burrs.

Unserviceable screw threads.

Parts of permanent assemblies that are not correctly attached.

B.

Examine Dimensions

(1)

Measure all the parts that are in FITS AND CLEARANCES and dimensions in the table.

Spring Data

compare with the

(2)

(a)

Not applicable.

3. Special Detailed Inspection

A.

Special Dimension Check:

(1)

Examine the rod (17-160) for the diameter of radial damping holes. The diameter of each hole must be between 5,40 and 5,60 mm (0.213 and 0.220 in).

Examine the thread form of the diaphragm subassembly (15-190) and diaphragm (15-210A) with shadow graph projection.

**NOTE: The thread size is M142 x 1.5 pitch - 5h6h to BS3643.**

Examine the 4 holes in the sliding tube (18-80) where the bracket (8-170) installs, for burrs. If you find burrs contact Safran Landing Systems who will supply an applicable repair.

**NOTE: Use a good light source and 10x magnification to view the area, to look for burrs.**

(2)

(3)

B.

Unless instructions are different:

(1)

Examine all parts shown in Tables [501](#_bookmark28) and [502](#_bookmark29) to the applicable NDT and information given.

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**CAUTION: YOU MUST DISASSEMBLE ALL PARTS, THIS WILL INCLUDE THE BUSHES, THEY MUST BE REMOVED AND DISCARDED. YOU MUST APPLY THE NDT INSPECTION TO THE DETAIL LEVEL PART ONLY AS IDENTIFIED IN TABLES** [**501**](#_bookmark28) **AND** [**502**](#_bookmark29)**. IF THE BUSHES ARE NOT REMOVED THE INSPECTION IS NOT COMPLETE FOR THE DETAIL PART AND DAMAGE CAN OCCUR.**

(2)

Parts that are included in Tables [501](#_bookmark28) and [502](#_bookmark29) must be fully disassembled to the lowest detail level for NDT inspection. This includes the removal of all of the bushes.

Examination of Magnetic Steel Parts by Non-destructive Testing Table 501

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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

1-40

Bolt

Steel, S99

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

1-47, 1-47A,

1-49, and 1-49A,

Cross Bolt

Steel, S99

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

1-60

Pintle pin

Steel, S155 or 300M to MTL1201

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

1-60A

Pintle pin

Steel, 300M to MTL1201

PCS-3100

and PCS-3002

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

2-30

Pin

Stainless Steel, 17-4PH to AMS5643

PCS-3100

Inclusion class 4

2-40

Spacer

Stainless Steel, S80

PCS-3100

Inclusion class 3

2-50

Threaded insert

Steel, S154

PCS-3100

Inclusion class 3



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

3-50

Pin

Steel, S99

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 3 on areas without chromium plate
* Chromium plated areas

3-60

Spacer

Stainless Steel, S80

PCS-3100

Inclusion class 3

3-70

Spacer

Stainless Steel, S80

PCS-3100

Inclusion class 3

4-60

Rod end

Steel, S154

PCS-3100

Inclusion class 3

4-190

Bolt

Steel, S154

PCS-3100

Inclusion class 3

4-190A

Special Bolt

Steel 4340 to MTL-1101

PCS-3100

Inclusion class 3

5-160

Bracket

Steel, S99

PCS-3100

Inclusion class 4

5-200

Bolt

Steel, S154

PCS-3100

Inclusion class 3

5-390

Static dis- charge con- nector

Stainless Steel, MAT130 or AMS5659

Cond H1025

PCS-3100

Inclusion class 4

5-400

Uplock pin

Steel, S99

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

5-400A

Uplock pin

Steel, 4340 to MTL-1101

PCS-3100

and PCS-3002

* Inclusion class 3
* Chromium plated areas

6-90

Pin

Steel, S99

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

9-50

Nut

Steel, S99 to MAT123

PCS-3100

Inclusion class 3



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

9-70

Pin

Steel, S155 or MTL1201

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

9-90

Spacer

Steel, S99

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

9-180

Spacer

Stainless Steel, S145

PCS-3100

Inclusion class 3

9-200

Sleeve

Stainless Steel, S145

PCS-3100

Inclusion class 3

10-80

Pin

Steel, S155 or MTL1201

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

10-260 and 10-260A

Upper torque link

Steel, MAT125

PCS-3100

Inclusion class 3

10-270

Spacer

Stainless Steel, S80

PCS-3100

Inclusion class 2

11-130

Pin

Steel, S155 or MTL1201

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

11-240 and 11-240A

Lower torque link

Steel, MAT125

PCS-3100

Inclusion class 3

12-70

Pin

Steel, S154

PCS-3100

Inclusion class 3

12-90

Valve stem

Steel, S99

PCS-3100

Inclusion class 3

12-90A

Valve stem

Steel, S99 or 4340 to AMS

6414

PCS-3100

Inclusion class 3



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

13-10

13-10A

Retaining pin

Steel S99

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 2 on areas without chromium plate
* Chromium plated areas

13-10B

Retaining pin

Steel, 4340 to MTL-1101

PCS-3100

and PCS-3002

* Inclusion class 3 on areas without chromium plate
* Chromium plated areas

13-70

Bolt

Steel

PCS-3100

Inclusion class 2

13-110

Inflation valve

Stainless Steel, Z8CND17-04

PCS-3100

Inclusion class 3

13-110A

Inflation valve

Stainless Steel, Z8CND17-04T1

PCS-3100

Inclusion class 3

13-190

13-190A

Pin

Steel, 35NCD16

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

14-60

Nut

Steel, 35CD4

PCS-3100

Inclusion class 4

15-50

Locking pin

Steel, 35CD4 or 4340 to AMS6414 or 35NCD16 to NCT 10-123-11 MD

PCS-3100

Inclusion class 3

15-60

Retaining ring

Steel, 35CD4 or 4340 to AMS6414 or 35NCD16 to NCT 10-123-11 MD

PCS-3100

Inclusion class 3

15-70

Recoil orifice plate

Steel, 35CD4 or 4340 to AMS6414 or 35NCD16 to NCT 10-123-11 MD

PCS-3100

Inclusion class 2

15-180

Lock plate

Steel, 25CD4S

PCS-3100

Inclusion class 2



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

15-220

Compression orifice plate

Steel, 35CD4 or 4340 to AMS6414 or 35NCD16 to NCT 10-123-11 MD

PCS-3100

Inclusion class 2

15-230

Clapper seat

Steel, 35CD4 or 4340 to AMS6414 or 35NCD16 to NCT 10-123-11 MD

PCS-3100

Inclusion class 2

15-300

Level tube

Stainless Steel, Z15CN17-03

Type 1 or 17-4PH to

AMS 5604/5643

PCS-3100

Inclusion class 2

15-350

Bolt

Stainless Steel, Z6CNU17-04

PCS-3100

Inclusion class 3

15-390

Upper dia- phragm tube

Steel, 4340

PCS-3100

Inclusion class 4

15-390A

Upper dia- phragm tube

Steel, 4340 to MTL-1101

PCS-3100

Inclusion class 3

17-80

Jacking dome

Steel, 35NCD16

PCS-3100

Inclusion class 4

17-120

Lock plate

Steel, 25CD4S or MTL1101

PCS-3100

Inclusion class 2

17-170

Washer

Steel, 35NCD16

PCS-3100

Inclusion class 3

17-230

Cylinder

Steel, 35NCD16

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

17-230A

Cylinder

Steel, 35NCD16 to NCT

10-123-11MD or

Steel, 4340 to AMS6414

PCS-3100

- Inclusion class 3



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Examination of Non-Magnetic Parts by Non-destructive Testing Table 502

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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

2-80

Bracket

Aluminium Alloy, L113 or

L168-T6511

PCS-3200

-

2-90

Bracket

Aluminium Alloy, L113 or

L168-T6511

PCS-3200

-

2-120

Bracket

Aluminium Alloy, L113

PCS-3200

-

2-130

Bracket

Aluminium Alloy, L113

PCS-3200

-

Fig Item No.

Name

Material Type

M-D

Spec

Remarks

18-80

and

18-80A

Sliding tube

Steel, 300M

PCS-3100

and

M-DLNDT3

Parts 1

and 2

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

18-80B

Sliding tube

Steel, 300M to MTL1201

PCS-3100

and PCS-3002

* Inclusion class 4 on areas without chromium plate
* Chromium plated areas

18-80D,

18-80E,

18-80F and 18-80G

Sliding tube

Steel, 300M to MTL-1201

PCS-3100

- Inclusion class 4

19-40

Bolt

Steel, S154

PCS-3100

- Inclusion class 3

20-410

20-410A

Main fitting

Steel, MAT135 (35NCD16THQ)

PCS-3100

- Inclusion class 4

20-420

20-420A

Main fitting

Steel, MAT135 (35NCD16THQ)

PCS-3100

- Inclusion class 4

20-410B

20-420B

Main fitting

Steel, 35NCD16THQ to MTL1203

PCS-3100

- Inclusion class 4

20-410C,

20-410D,

20-420C and 20-420D

Main fitting

Steel, 300M to MTL1201

PCS-3100

- Inclusion class 4



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

2-270

Bracket

Aluminium Alloy, L113

PCS-3200

-

2-280

Bracket

Aluminium Alloy, L113

PCS-3200

-

2-340

Only,

2-340A

Transfer block

Aluminium Alloy, L168T6511

PCS-3200

-

2-340B

Transfer block

Aluminium Alloy, BS L168-T6511

or BS 2L93 or 7075-T73 T7351, T7310 or T73511 to

MTL-2701 or 7050 T7451 to MTL-2712

PCS-3200

-

2-350

Only,

2-350A

Transfer block

Aluminium Alloy, L168T6511

PCS-3200

-

2-350B

Transfer block

Aluminium Alloy, BS L168-T6511

or BS 2L93 or 7075-T73 T7351, T7310 or T73511 to

MTL-2701 or 7050 T7451 to MTL-2712

PCS-3200

-

3-170

Lock stay cardan

Aluminium Alloy, 7010T736

PCS-3200

-

4-140

Bracket

Aluminium Alloy, BS L168-T6511

or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

4-150

Bracket

Aluminium Alloy, BS L168-T6511 or BS 2L93

or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

4-180A

Drag-arm Spacer

Aluminium Alloy, 7075-T73 to AMS

QQ-A-250/12 or to MTL-2701

PCS-3200

-

4-210

Bracket

Aluminium Alloy, 6082 to

BS EN 4007 (MAT206)

or

Aluminium Alloy, 2014A to BS

L168 or 6082 to BS EN 2326 or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

4-360

Bracket

Aluminium Alloy, L168T6511

PCS-3200

-

5-80

Bracket

Aluminium Alloy, L168T6511

PCS-3200

-

5-300

Bracket

Aluminium Alloy, L168T6511 or L93T651

PCS-3200

-

6-50

Spacer

Stainless Steel, S130

PCS-3200

-

6-170

Bracket

Aluminium Alloy, BS L168-T6511

or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

6-180

Bracket

Aluminium Alloy, BS L168-T6511

or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

6-230

Only

Slave link

Aluminium Alloy, L99

PCS-3200

-

6-280

Spacer

Stainless Steel, S130

PCS-3200

-

6-310

Lower slave link

Aluminium Alloy, BS L168 or

BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

7-50

Spacer

Aluminium Alloy, L70

PCS-3200

-

7-100

Harness support bracket

Aluminium Alloy, L99

PCS-3200

-

7-100A

Harness support bracket

Aluminium Alloy, L168 or L93

PCS-3200

-

7-110

Harness support bracket

Aluminium Alloy, L99

PCS-3200

-

7-110A

Harness support bracket

Aluminium Alloy, L168 or L93

PCS-3200

-

7-140

Pivot bracket

Aluminium Alloy, BS L168-T6511

or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

8-170

Bracket

Aluminium Alloy, L168 or L93

PCS-3200

-



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

9-150

Only

Bracket

Aluminium Alloy,

L113

or

Aluminium Alloy, BS L168-T6511

or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

9-150A

Bracket

Aluminium Alloy, L168-T6511 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

9-190

Only

Spacer

Aluminium Alloy, BS L168-T6511

or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

9-190A

Spacer

Aluminium Alloy, L168-T6511 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

10-30

Wedge

Aluminium Alloy, BS L168-T6 or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

11-30

Harness support

Aluminium Alloy, BS L168-T6 or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

11-80

Wedge

Aluminium Alloy, BS L168-T6 or BS 2L93 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

11-140

Harness support bracket

Aluminium Alloy, L168 or L93

PCS-3200

-

12-120

Transfer dowel

Aluminium Alloy, L168-T6511

M-DLNDT8

-

12-170

Only

Housing

Aluminium Alloy, L168T6511

PCS-3200

-

12-170A

Housing

Aluminium Alloy, L168-T6511 or 7075-T73, T7351, T73510

or T73511 to MTL-2701

PCS-3200

-

13-220

Washer

Aluminium Alloy, 2024T4 or T351

PCS-3200

-

14-70

Stop ring

Stainless Steel, Z12CN18-10

PCS-3200

-

15-40

Upper bearing housing

Aluminium Alloy, 2024T3511

PCS-3200

-

15-140

Two piece stop

Aluminium Alloy, 2024T4 or T351

PCS-3200

-

15-210

Diaphragm

Aluminium Alloy, 2024T3511

PCS-3200

-

15-210A

Diaphragm

Aluminium Alloy, 7050-T7451 to AMS 4050

PCS-3200

-

15-240

Baffle

Aluminium Alloy, 2024T4 or T351

PCS-3200

-

16-140

Gland housing

Aluminium Alloy, 2024T3

PCS-3200

-

17-50

Valve support

Aluminium Alloy, 2024T4 or T452

PCS-3200

-

17-50A

Valve support

Aluminium Alloy, 2024T351 or T3

PCS-3200

-



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Fig Item No.

Name

Material Type

M-D

Spec

Remarks

17-150

Nut

Aluminium Alloy, 2024T3511

PCS-3200

-

17-160

Rod

Aluminium Alloy, 2024T3 or T351

PCS-3200

-

17-200

Piston

Aluminium Alloy, 7175T7351

PCS-3200

-



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REPAIR

General

1.

A.

Repair Levels

(1)

There are two levels of repair procedure for parts that are found to be unserviceable after inspection: [refer to CHECK](#_bookmark24).

1. Repair of surface damage.
2. Repair of wear or damage with an approved Messier-Dowty Limited or Safran Landing Systems repair.

B.

Surface Damage

(1)

Repair isolated external scores, smooth dents and abrasions, that have no cracks and no effect on internal dimensions: refer to para (2). Such damage must not be:

(a)

(b)

(c)

More than 19,00 mm (0.750 in) in length More than 0,76 mm (0.030 in) in depth

Less than one diameter from a hole and less than 6,35 mm (0.250 in) from a bearing surface

On a radius.

(d)

(2)

Remove burrs, corrosion and sharp edges: the area of damage must not be more than 645 mm2 (1.0 in2) for each 6450 mm2 (10.0 in2). Subsequently, remove 0,127 mm (0.0050 in) more of the material and repair the protective treatment.

In a bore that will not seal, ignore abrasions and small scores that have no burrs. If there are burrs, remove them plus 0,127 mm (0.0050 in) of material from the area. Repair the protective treatment.

In a bore that will seal, polish scores to remove them. Make sure that the surface finish, concentricity and fits and clearances do not change.

Remove burrs from external screw threads.

(3)

(4)

(5)

C.

Approved Repairs

**CAUTION: DO NOT REPAIR A PART WITH A PROCEDURE THAT IS NOT APPROVED.**

(1)

Approved repairs are in para 4. The repairs in this CMM have been approved under Airbus’ EASA Design Organisation Approval No. EASA.21J.031.

Unless instructions are different in the approved repair, the applicable tolerances are:

(2)

(a)

(b)

(c)

General tolerance: + or - 0,25 mm (0.010 in)

Holes that are drilled or machined: + 0,25 to - 0,05 mm (+ 0.010 to - 0.002 in) Angular tolerance: + or - 0,5 degree.

(3)

Before you repair a part that is identified with a concession, salvage or repair number, write to Safran Landing Systems for approval. Such numbers are adjacent to the part number, for example:

(a)

(b)

(c)

Concession Salvage

Repair

- CON 14235

- 440015644

- 450213024.

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(4)

If the repairs in this manual cannot correct the wear or damage to the part, write to

Safran Landing Systems: refer to M-DLPS3002.

Repair Procedure Conditions

2.

A.

Cleaning

(1)

Clean the parts after repair: [refer to CLEANING](#_bookmark21).

B.

Identification

(1)

Identify the parts after repair with the Messier-Dowty Limited or Safran Landing Systems Repair Number: refer to the applicable repair for instructions.

3.

Protective Treatment

A.

Protective Treatment Repair

(1)

Cadmium Plated Surfaces

(a) Repair damage to small areas of cadmium plated surfaces: refer to PCS-2141.

Anodized Surfaces

(a) Repair damage to small areas of anodized surfaces: refer to PCS-2220.

Paint Finish

(a) Repair damage to small areas of paint finish: refer to M-DLPS1003-1, use paint to PCS-2500.

Sermetel W

(a) Chip damage of less than 10,0 mm2 (0.015 in2) can be restored with Sermetel 249 with Sermetel 273 catalyst: refer to M-DLPS637 (cold rework only).

(2)

(3)

(4)

B.

Protective Treatment Replacement

(1)

Protective treatment [Table 601](#_bookmark34).

replacement procedures

and

the

applicable

parts

are

given

in

Protective Treatment Table 601

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IPL Figure and Item No.

Name

Material Specification

Protective Treatment

1-40

Bolt

Steel, S99

Apply cadmium plate: refer to

M-DLPS100-2. Do not include areas that have chromium plate. Paint: refer to M-DLPS1003-1 and

PCS-2500. Do not paint:

* areas that have chromium plate
* the thread and undercut
* the split pin hole.



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IPL Figure and Item No.

Name

Material Specification

Protective Treatment

1-47, 1-47A, 1-49

and 1-49A

Cross bolt

Steel, S99

Apply cadmium plate, but not to the chromium plated areas: refer to

M-DLPS100-2.

Apply paint: refer to M-DLPS1003-1 and PCS-2500. Do not paint:

* the thread
* chromium plated areas
* the 1,5 mm (0.060 in) hole for the Bowden cable(1-45).

1-60

Pintle pin

Steel, S155 or 300M to MTL1201

Apply cadmium plate: refer to

PCS-2100. Do not include areas that have chromium plate. Paint: refer to M-DLPS1003-1 and

PCS-2500. Do not paint:

* areas that have chromium plate
* the two holes through the end. Apply a thin coat of primer paint to the holes through the end: refer to PCS-2500.

1-60A

Pintle pin

Steel, 300M or MTL1201

Refer to [Figure 639](#_bookmark121). Apply cadmium plate: refer to PCS-2100. Do not include areas that have chromium plate. Make the cadmium plate thickness between 0,010 and 0,020

mm (0.0004 and 0.00078 in). The cadmium plate must overlap the chromium plate run out. Bare metal not permitted.

Apply primer paint to the areas A: refer to PCS-2500. Apply paint all over: refer to PCS-2500. Do not apply paint to:

* areas that have chromium plate
* the areas A.

2-30

Pin

Stainless steel, 17- 4PH to AMS5643

Passivate: refer to AMS2700

2-40

Spacer

Stainless steel, S80

Passivate: refer to AMS2700

2-50

Threaded insert

Steel, S154

Apply cadmium plate all over: refer to M-DLPS100-1. The cadmium plate must be 0,010 to 0,015 mm (0.0004 to 0.0006 in) thick. Apply paint all over: refer to PCS-2500. Do not apply paint to the thread or to the surfaces that enter the transfer block (2-340 and 2-350)