Test report Ref: 5-23311-2016-1070942-0 1/3



CUSTOMER

W.F. VOSKERO Aggeliki Kritikou

SAMPLE DATA

Ref: VEST00649-0001-S50.1 Descrip.: Gearbox - GBX

Tmk: Model: V-52 Serial N.: 18507

Oil label: Sample Ref.: 17/06/2016-1070942

Date sampled: 24/02/2016 Oil type: CASTROL OPTIGEAR SYNTHETIC X 320 S/Ref.: Lab. date: 10/06/2016

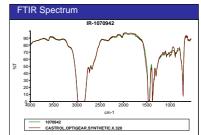
Machine serv.: Capac.(I): Oil serv .: Adds (I):

LAST SAMPLE CONCLUSIONS

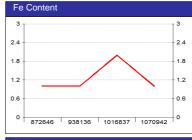
The oil is fit for further use. There are no symptoms of contamination or abnormal wear.



		RESULTS					
Date sampled:	24/02/2016	22/07/2015	01/12/2014	04/04/2014			
Sample Ref.:	1070942	1016837	938136	872646			
Machine serv.:							
Oil serv.:							
Report date:	20/06/2016	23/11/2015	29/01/2015	09/05/2014			
Status							
Oxidation (A/cm)	<1	<1	<1	< '			
Appearance (Adim)	Dark transp.	Dark transp.	Bright Transp.	Bright Transp			
Water content (mg/kg)	755	442	240	258			
TAN (mgr KOH/gr)	1.09	1.09	1.22	1.25			
Visc. Index (Adim)	149	151	151	150			
Viscosity 100°C (cst)	140	34.6	34.72	34.33			
Viscosity 100°C (cst)	33.73	04.0	34.12	04.0			
Viscosity 40°C (cst)	33.73	324.9	324.8	323.9			
Viscosity 40°C (cst)	317.4	324.9	324.0	323.3			
Particles count	317.4						
ISO 4406/99 (Adim)	21/19/13	17/15/10	17/15/11	17/16/1:			
Part > 4 microns (100ml)	1552300	66483	103808	11310			
Part > 6 microns (100ml)	374158	18516	17101	3286			
Part > 14 microns (100ml)	4911	630	1189	264			
Additives	4911	030	1109	204.			
B Content (ppm)	<30		0				
Ba Content (ppm)	0	0	0				
Ca Content (ppm)	1552	1567	1430	143			
Mg Content (ppm)	6	6	3	143			
P Content (ppm)	287	304	278	29			
Zn Content (ppm)	201	1	1	23			
Contamination and wear metals	2	ı	ı				
Al Content (ppm)	0	3	0	(
Cr Content (ppm)	0	0	0				
Cu Content (ppm)	0	0	1				
Fe Content (ppm)	1	2	1				
K Content (ppm)	1	0	1				
Mo Content (ppm)	820	831	728	860			
Na Content (ppm)	1	2	1	30			
Ni Content (ppm)	0	0	0				
Pb Content (ppm)	0	0	0				
Si Content (ppm)	6	7	7				
41 /							
Status: Normal Caution Alarm	/	/	A	A			









Performed by: Manuel Bilbao



Caution Alarm Status: Normal Tests done from 09/06/2016 to 20/06/2016









lests done from 09/06/2016 to 20/06/2016

NOTE: The obtained results only correspond to the tested samples. This report can not be reproduced neither partially not totally without the express writen permission of the laboratory that emits it. Sample will be destroyed 15 DAYS after the emission of this report. The uncertainties of the tests are calculated and available to customers

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Ref: 5-23311-2016-1070942-0 **Test report**



CUSTOMER

W.F. VOSKERO Aggeliki Kritikou

SAMPLE DATA

Ref: VEST00649-0001-S50.1 **Descrip.:** Gearbox - GBX

Tmk: Model: V-52 Serial N.: 18507

 Sample Ref.:
 17/06/2016-1070942
 Oil label:
 Date sampled:
 24/02/2016

 Oil type:
 CASTROL OPTIGEAR SYNTHETIC X 320
 S/Ref.:
 Lab. date:
 10/06/2016

Machine serv.: Oil serv.: Adds (I): Capac.(I):

LAST SAMPLE CONCLUSIONS

The oil is fit for further use. There are no symptoms of contamination or abnormal wear.



		RES	ULTS		
Date sampled:	24/02/2016	22/07/2015	01/12/2014	04/04/2014	
Sample Ref.: Machine serv.:	1070942	1016837	938136	872646	
Oil serv.:					
Report date:	20/06/2016	23/11/2015	29/01/2015	09/05/2014	
Contamination and wear metals					
Sn Content (ppm)	2	2	2	1	
Particles	2	0	-	0	
PQ Index (Adim)	2	3	5	3	
Status: Normal <u>Caution</u> <u>Alarm</u>	\	/	Δ	Δ	
Tests done from 09/06/2016 to 20/06/2016 OTE: The obtained results only correspond to the tested samples thout the express writen permission of the laboratory that emits if	. This report can not be	e reproduced neither p	partially not totally	-	

NOTE: The obtained results only correspond to the tested samples. This report can not be reproduced neither partially not totally without the express writen permission of the laboratory that emits it. Sample will be destroyed 15 DAYS after the emission of this report. The uncertainties of the tests are calculated and available to customers Ik4 - TEKNIKER does not provide any warranty expressed or implied is made against failure of this equipment. The reported recommendations are based on interpretations of the generated test results, equipment historical data and the information supplied by the customer. This service is to aid preventive/predictive maintenance actions only. FUNDACION TEKNIKER-ci/laki Genegag, 5-20600-EIBAR-Gipúzcoa-(SPAIN)-Tel.: +34943206744-CIF:ESG20545729 www.tekniker.es www.lubrication-management.com

Ref: 5-23311-2016-1070942-0 **Test report** 3/3



CUSTOMER

W.F. VOSKERO Aggeliki Kritikou

	Test methods				
Status					
Oxidation (A/cm)	(ASTM D7414-09) Differential Trending				
Appearance (Adim)	(PE-TA.096)				
Water content (mg/kg)	(PE-TA.084)				
TAN (mgr KOH/gr)	(PE-TA.043_5.3 termométrico)				
Visc. Index (Adim)	(ASTM D2270-10)				
Viscosity 100°C (cst)	(PE-TA.054)				
Viscosity 100°C (cst)	(ASTM D7279-14a)				
Viscosity 40°C (cst)	(PE-TA.054)				
Viscosity 40°C (cst)	(ASTM D7279-14a)				
Particles count					
ISO 4406/99 (Adim)	(ASTM D7647-10)				
Additives					
B Content (ppm)	(PE-TA.007)				
Ba Content (ppm)	(PE-TA.007)				
Ca Content (ppm)	(PE-TA.007)				
Mg Content (ppm)	(PE-TA.007)				
P Content (ppm)	(PE-TA.007)				
Zn Content (ppm)	(PE-TA.007)				
Contamination and wear metals					
Al Content (ppm)	(PE-TA.007)				
Cr Content (ppm)	(PE-TA.007)				
Cu Content (ppm)	(PE-TA.007)				
Fe Content (ppm)	(PE-TA.007)				
K Content (ppm)	(PE-TA.007)				
Mo Content (ppm)	(PE-TA.007)				
Na Content (ppm)	(PE-TA.007)				
Ni Content (ppm)	(PE-TA.007)				
Pb Content (ppm)	(PE-TA.007)				
Si Content (ppm)	(PE-TA.007)				
Sn Content (ppm) Particles	(PE-TA.007)				
PQ Index (Adim)	(PE-TA.024)				