Test report Ref: 5-23311-2016-1070946-0 1/3



CUSTOMER

W.F. VOSKERO Aggeliki Kritikou

SAMPLE DATA

Ref: VEST00649-0004-S50.1 Descrip.: Gearbox - Gearbox

Tmk: Model: V-52 Serial N.: 18510

Sample Ref.: 17/06/2016-1070946 Oil label: Oil type: CASTROL OPTIGEAR SYNTHETIC X 320

Date sampled: 03/03/2016 S/Ref.: Lab. date: 10/06/2016

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

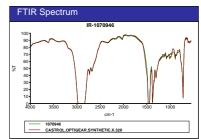
LAST SAMPLE CONCLUSIONS

RESULTS

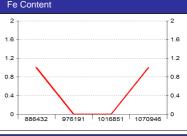
The oil is fit for further use. There are no symptoms of contamination or abnormal wear.

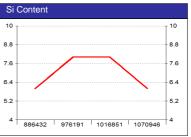


	RESULIS					
Date sampled:	03/03/2016	28/07/2015	01/04/2015	12/05/2014		
Date dampied.	30/30/2010	20/01/2010	01/01/2010	12/00/2011		
Sample Ref.:	1070946	1016851	976191	886432		
Machine serv.:						
Oil serv.:						
Report date:	20/06/2016	23/11/2015	22/06/2015	02/07/2014		
Status						
Oxidation (A/cm)		<1	<1			
Oxidation (A/cm)	<1	~1	~1	<1		
Appearance (Adim)	Dark transp.	Dark transp.	Bright Transp.	Dark transp.		
Water content (mg/kg)	621	313	467	186		
TAN (mgr KOH/gr)	1.09	1.06	1.26	1.47		
Visc. Index (Adim)	153	1.00	1.20	1.47		
, ,	103	34.99	34.17	34.22		
Viscosity 100°C (cst)	34.59	34.99	34.17	34.22		
Viscosity 100°C (cst)	34.59	224.0	202.7	240.67		
Viscosity 40°C (cst)	318.4	321.8	323.7	318.67		
Viscosity 40°C (cst) Particles count	318.4					
	47/45/40	4.440/4	17/15/10	10/15/10		
ISO 4406/99 (Adim)	17/15/10	14/12/1	17/15/12	19/15/10		
Part > 4 microns (100ml)	66698	12452	122884	495552		
Part > 6 microns (100ml)	21060	3216	26631	17573		
Part > 14 microns (100ml)	708	2	2557	833		
Additives			_			
B Content (ppm)	<30		<5	0		
Ba Content (ppm)	0	0	<5	0		
Ca Content (ppm)	1567	1665	1820	1507		
Mg Content (ppm)	6	6	6	6		
P Content (ppm)	290	309	344	280		
Zn Content (ppm)	2	0	<5	1		
Contamination and wear metals						
Al Content (ppm)	0	3	<5	0		
Cr Content (ppm)	0	0	<5	0		
Cu Content (ppm)	0	0	<5	0		
Fe Content (ppm)	1	0	<5	1		
K Content (ppm)	1	0	<5	0		
Mo Content (ppm)	842	905	1011	811		
Na Content (ppm)	1	2	<5	1		
Ni Content (ppm)	0	0	<5	0		
Pb Content (ppm)	0	0	<5	0		
	_					
Status: Normal <u>Caution</u> Alarm	V	V	V	V		









Performed by: Manuel Bilbao



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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Test report Ref: 5-23311-2016-1070946-0



CUSTOMER

W.F. VOSKERO Aggeliki Kritikou

SAMPLE DATA

Ref: VEST00649-0004-S50.1 Descrip.: Gearbox - Gearbox

Tmk: Model: V-52 Serial N.: 18510

Sample Ref.: 17/06/2016-1070946 Oil label: Date sampled: 03/03/2016 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.



		RES	ULTS		
					<u> </u>
Date sampled:	03/03/2016	28/07/2015	01/04/2015	12/05/2014	
Sample Ref.:	1070946	1016851	976191	886432	
Machine serv.:					
Oil serv.:					
Report date:	20/06/2016	23/11/2015	22/06/2015	02/07/2014	
Contamination and wear metals					
Si Content (ppm)	6	8	8	6	
Sn Content (ppm)	2	3	<5	1	
Particles					
PQ Index (Adim)	3	1	5	2	
	F 1770	P 17502	F 175.02	CONTRACT	
Status: Normal Caution Alarm Tests done from 09/06/2016 to 20/06/2016	\checkmark	\checkmark	~	\checkmark	

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Ref: 5-23311-2016-1070946-0 **Test report** 3/3



CUSTOMER

W.F. VOSKERO Aggeliki Kritikou

	Test methods			
Status				
Oxidation (A/cm)	(ASTM E2412-10) Differential Trending			
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	(NOTHER DIGHT 10)			
B Content (ppm)	(PE-TA.007)			
	(PE-TA.007)			
Ba Content (ppm)	(PE-TA.007) (PE-TA.007)			
Ca Content (ppm)				
Mg Content (ppm)	(PE-TA-007)			
P Content (ppm)	(PE-TA.007)			
Zn Content (ppm) Contamination and wear metals	(PE-TA.007)			
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)	(PE-TA.007)			
Particles				
PQ Index (Adim)	(PE-TA.024)			