



CUSTOMER

W.F. VOSKERO
Aggeliki Kritikou

SAMPLE DATA

Ref: VEST00649-0002-S50.1

Descrip.: Gearbox - Gearbox

Tmk:

Model: V-52

Serial N.: 18508

Sample Ref.: 17/06/2016-1070945

Oil label:

Date sampled: 26/02/2016

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.



RESULTS

Date sampled:	26/02/2016	27/07/2015	30/01/2015	09/04/2014
Sample Ref.:	1070945	1016850	943357	872647
Machine serv.:				
Oil serv.:				

Report date:	20/06/2016	23/11/2015	25/02/2015	09/05/2014
--------------	------------	------------	------------	------------

Status

Oxidation (A/cm)		<1	<1	
Oxidation (A/cm)	<1			<1
Appearance (Adim)	Dark transp.	Dark transp.	Dark transp.	Bright Transp.
Water content (mg/kg)	545	365	367	233
TAN (mgr KOH/gr)	0.92	1.18	1.45	1.33
Visc. Index (Adim)	151	153	150	150
Viscosity 100°C (cst)		34.92	34.39	34.38
Viscosity 100°C (cst)	33.8			
Viscosity 40°C (cst)		323.6	324.5	323.11
Viscosity 40°C (cst)	314.1			

Particles count

ISO 4406/99 (Adim)	19/18/13	18/16/10	18/16/12	17/16/13
Part > 4 microns (100ml)	416982	182718	191914	96525
Part > 6 microns (100ml)	145238	52685	45316	32239
Part > 14 microns (100ml)	5058	691	3157	4141

Additives

B Content (ppm)	<30		0	0
Ba Content (ppm)	0	0	0	0
Ca Content (ppm)	1575	1632	2168	1695
Mg Content (ppm)	5	6	6	5
P Content (ppm)	291	303	409	320
Zn Content (ppm)	3	1	1	1

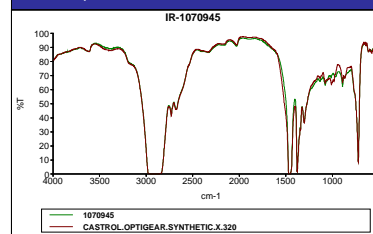
Contamination and wear metals

Al Content (ppm)	0	3	0	0
Cr Content (ppm)	0	0	0	0
Cu Content (ppm)	1	0	1	0
Fe Content (ppm)	1	1	1	1
K Content (ppm)	1	0	1	0
Mo Content (ppm)	846	879	1085	909
Na Content (ppm)	2	2	0	2
Ni Content (ppm)	0	0	0	0
Pb Content (ppm)	0	0	0	0

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



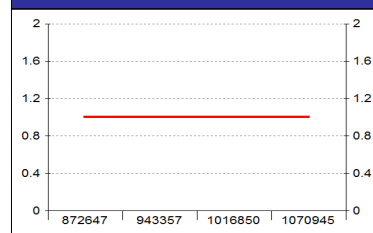
FTIR Spectrum



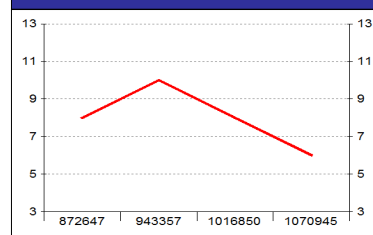
Sample:



Fe Content



Si Content



Performed by: Manuel Bilbao

17/06/2016



CUSTOMER

W.F. VOSKERO
Aggeliki Kritikou

SAMPLE DATA

Ref: VEST00649-0002-S50.1

Descrip.: Gearbox - Gearbox

Tmk:

Model: V-52

Serial N.: 18508

Sample Ref.: 17/06/2016-1070945

Oil label:

Date sampled: 26/02/2016

Oil type: CASTROL OPTIGEAR SYNTHETIC X 320

S/Ref. :

Lab. date: 10/06/2016

Machine serv.:

Oil serv.:

Adds (l):

Capac.(l):

LAST SAMPLE CONCLUSIONS

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



RESULTS

Date sampled: 26/02/2016 27/07/2015 30/01/2015 09/04/2014

Sample Ref.: 1070945 1016850 943357 872647

Machine serv.:

Oil serv.:

Report date: 20/06/2016 23/11/2015 25/02/2015 09/05/2014

Contamination and wear metals

Si Content (ppm) 6 8 10 8

Sn Content (ppm) 2 2 1 2

Particles

PQ Index (Adim) 2 3 4 4

Performed by: Manuel Bilbao

17/06/2016

Status: Normal Caution Alarm
Tests 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 nor totally without the express written 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- c/Iñaki Goenaga,5-20600-EIBAR-Gipuzcoa.(SPAIN)-Tel.: +34943206744-CIF:ESG20545729
www.tekniker.es www.lubrication-management.com



CUSTOMER

W.F. VOSKERO
Aggeliki Kritikou

[illegible]

NOTE: The obtained results only correspond to the tested samples. This report can not be reproduced neither partially nor totally without the express written 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.

Like the TEI, this close to clearly 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- c/Itaki Goenaga, 5-20600-EIBAR-Gipuzcoa- (SPAIN)- Tel.: +34943206744- CIF: ESG20545729

www.tekniker.es www.lubrication-management.com