



Analysis Report

BELL B45E
(B93A645EC03007141)

System: AUT. TRANSMISSION
Sump Capacity: ?
Lubricant: BELL ALLISON TES 295
Labocodenbr: 117433-AAa5
Samplenummer: 06.07.23 G004
Labelnummer:
Date sample drawn: 28.03.2023
Sampling: by client

Customer: GmbH BELL EQUIPMENT DEUTSCHLAND
CHRISTOPH ZIELEN
Address: OBERSTE ELPERSWEIDE 4
D-36304 ALSFELD
Your customer: KIESEL SUD GMBH
Your ref.:



Oil



Pollution



Wear



Diagnostic

Attention: high ISO class. Attention: high content of iron. Aluminium content above the normal value.

Action

Results: Method* Unit Current sample 06.07.23 G004

Results:	Method*	Unit	Current sample	06.07.23 G004
Analysis date			6/07/2023	
Date of receipt			6/07/2023	
Sample date			28/03/2023	
H/Km Oil			2000 H	
H/Km total			4063 H	
Top up			?	

Oil Condition:

Viscosity at 40°C	ASTM D7279	cSt	33.9	
Viscosity at 100°C	ASTM D7279	cSt	7.0	
Viscosity-index	ASTM D2270		174	
Fuel dilution	ASTM D7593	%		
AN	ASTM D8045	mg KOH/g	3.03	
BN	ASTM D2896B	mg KOH/g		
Oxidation	ASTM E2412	Abs/0.1mm	102.0	
Nitration	ASTM E2412	Abs/0.1mm	4.8	
PMCC	ASTM D93	°C		
COC	ASTM D92B	°C		
Color	ASTM D1500		6.0	

Additives:

Ba: Barium	ASTM D5185	ppm	1	
Ca: Calcium	ASTM D5185	ppm	169	
Mg: Magnesium	ASTM D5185	ppm	1	
P: Phosphorus	ASTM D5185	ppm	530	
S: Sulfur	ASTM D5185	%	0.26	
Zn: Zink	ASTM D5185	ppm	9	

Pollution:

Si: Silicium	ASTM D5185	ppm	9	
B: Boron	ASTM D5185	ppm	350	
Na: Sodium	ASTM D5185	ppm	11	
Water	WI-0002	%		
Water (KF)	ASTM D6304C	ppm	906	
Soot content	ASTM E2412	%		
Antifreeze	ASTM D2982A			
PC ISO grade	ASTM D7647		22/18/14	
PC Cleanliness class	ASTM D7647		12 A	
Insolubles	ASTM D4898	mg/l		

Wear metals:

Al: Aluminium	ASTM D5185	ppm	21	
Cr: Chromium	ASTM D5185	ppm	< 1	
Cu: Copper	ASTM D5185	ppm	10	
Fe: Iron	ASTM D5185	ppm	105	
Mo: Molybdenum	ASTM D5185	ppm	1	
Pb: Lead	ASTM D5185	ppm	39	
Sn: Tin	ASTM D5185	ppm	2	
PQ index	WI-0021			

These conclusions are based on the supplied samples and information where the representativeness and validity cannot be guaranteed. Opinions and interpretation are outside the scope of accreditation. The measurement uncertainty is available on request. Samples are destroyed 2 months after receipt. The report may only be reproduced complete. Distribution on the responsibility of the client. *Methods are modified according to specified method. (A)Accreditation. (U)Outsourced.

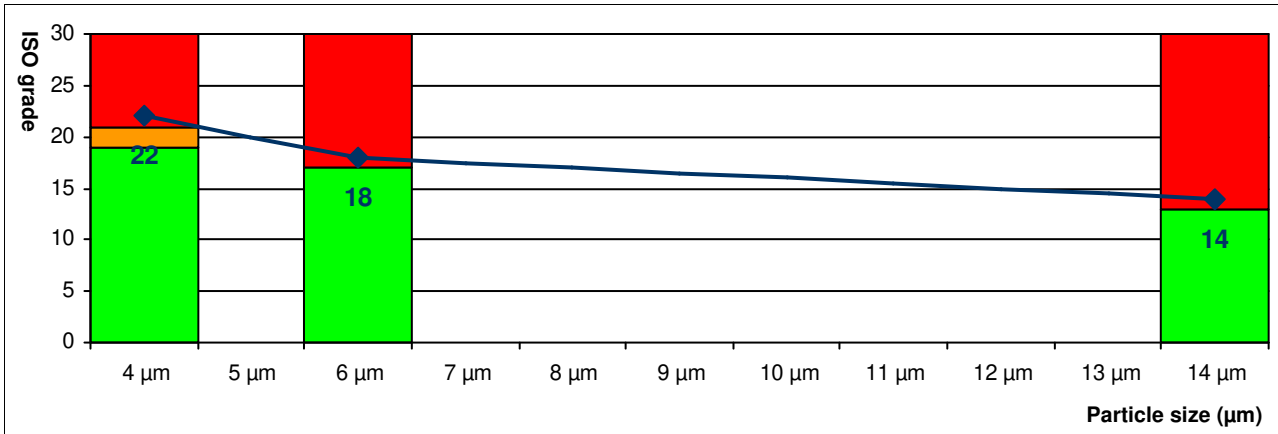
Batch: 2318806 - p.1 / 2 Diagnosis: ANW Date of issue: 07/07/2023 BE01 BELL EQUIPMENT DEUTSCHLAND.

Alpha MS - Bergensesteenweg 713 - 1600 Sint-Pieters-Leeuw - Belgium - Tel.: 00 32 2 365 02 29 - Fax.: 00 32 2 361 34 58.

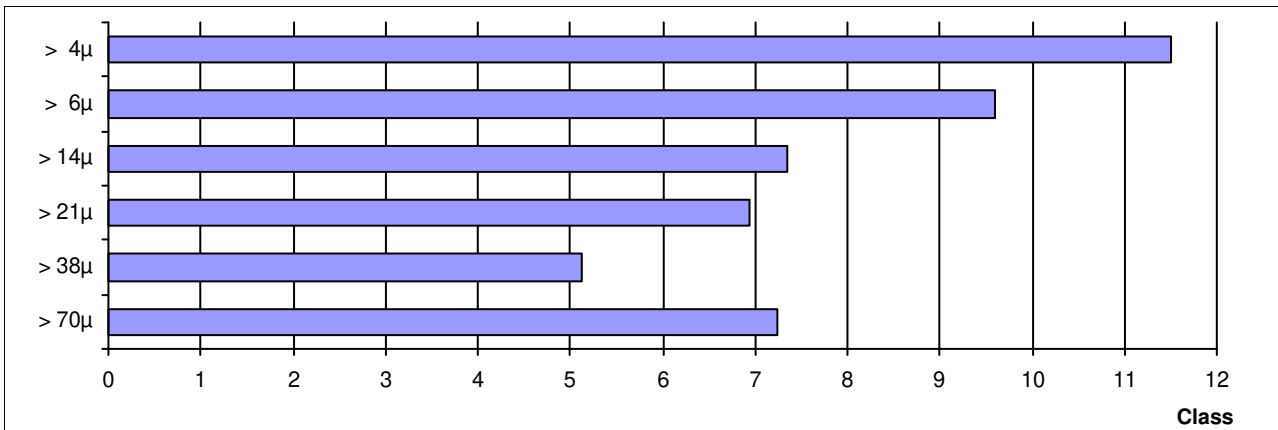


ISO score	22 / 18 / 14
AS4059 class	12 A

ISO score (4406:2021)	Particles / 100ml	Score
> 4μ	2401890	22
> 6μ	247540	18
> 14μ	9360	14
> 21μ	1190	
> 38μ	60	
> 70μ	40	



AS4059 class	Particles / 100ml	Class
A: > 4μ	2401890	A12
B: > 6μ	247540	B10
C: > 14μ	9360	C8
D: > 21μ	1190	D7
E: > 38μ	60	E6
F: > 70μ	40	F8



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