

ENGINE REAR

EQUIP NUM: 0715

SERIAL NUMBER: IDL00715

E250-55303-1082

SHOP JOB NUM : SUMMER

FIELDS

SAMPLE SHIP TIME (days) : 14

SAVERY CREEK

ENTERPRISES

RECEIVED DATE: 30-Oct-25

CAT 627F



No Action Required

WEAR PATTERN IS ACCEPTABLE AT THIS TIME. RESAMPLE AT THE NORMAL INTERVAL.

Interp By: Getnet Abayie

Interpreted On: 11-Nov-25

SAMPLE INFORMATION

Sampled Date	16-Oct-25	29-May-25
Sample Id	E250-55303-1082	E250-55157-1108
Lab Date	30-Oct-25	06-Jun-25
Meter [Hr]	1383	917
Comp Meter [Hr]	1383	248
Meter On Fluid	228	917
Fluid Brand		
Fluid Weight	15W-40	15W-40
Fluid Type		
Fluid Change	Y	Y
Filter Change	Y	Y
Kidney Loop	U	U
Total Fluid Added	0	0

PREVIOUS SAMPLE

IRON IS SHOWING HEAVY BREAK IN WEAR. WEAR PATTERN IS ACCEPTABLE AT THIS TIME. RESAMPLE AT THE NORMAL INTERVAL.

For additional sample history, go to:

S.O.S WEB

CONDITION / CONTAMINATION

	16-Oct-25	29-May-25
VISCOSITY (CENTISTOKES) ASTM D445		
V100 Viscosity at 100 C	13.34	14

INFRARED (UFM) ASTM E2412

ST	Soot	59	84
OXI	Oxidation	15	19
SUL	Sulfate By-Product	23	24
NIT	Nitration	0	0

WEAR LEVELS / ADDITIVES

ELEMENTAL ANALYSIS (PPM) ASTM D6186 (OIL) / ASTM D6130 (COOLANT)

Cu	Copper	5	9
Fe	Iron	60	106
Cr	Chromium	1	2
Al	Aluminum	0	0
Pb	Lead	0	4
Sn	Tin	0	0
Si	Silicon	3	6
Na	Sodium	1	3
K	Potassium	1	3
Mo	Molybdenum	33	73
Ni	Nickel	1	1
Ag	Silver	0	0
Ca	Calcium	2782	2492
P	Phosphorus	1171	1058
Zn	Zinc	1381	1279
Mg	Magnesium	42	80
B	Boron	20	49

WATER

W	Water	N	N
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ANTIFREEZE

A	Antifreeze	N	N
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FUEL

F	Fuel	N	N
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ENGINE FRONT

EQUIP NUM: 0715

SERIAL NUMBER: IDL00715

E250-55303-1079

SHOP JOB NUM : SUMMER

FIELDS

SAMPLE SHIP TIME (days) : 14

SAVERY CREEK

ENTERPRISES

RECEIVED DATE: 30-Oct-25

CAT 627F

No Action Required



SOOT IS EXTREMELY HIGH. ELEVATED SOOT LEVEL MAY RELATE TO INTAKE RESTRICTION, A/F RATIO, ENG. TEMP, OIL SERVICE, LOAD, BOOST, IDLE TIMES. ALL OTHER DATA IS NORMAL. LABEL SAID OIL & FILTER(S) WERE CHG'D WHEN THIS SAMPLE WAS TAKEN. RESAMPLE IN 250 HRS.

Interp By: Mary Gossett

Interpreted On: 16-Nov-25

SAMPLE INFORMATION

Sampled Date	16-Oct-25	29-May-25
Sample Id	E250-55303-1079	E250-55157-1105
Lab Date	30-Oct-25	06-Jun-25
Meter [Hr]	1383	917
Comp Meter [Hr]	1383	917
Meter On Fluid	228	917
Fluid Brand		
Fluid Weight	15W-40	15W-40
Fluid Type		
Fluid Change	Y	Y
Filter Change	Y	Y
Kidney Loop	U	U
Total Fluid Added	0	0

PREVIOUS SAMPLE

SOOT IS EXTREMELY HIGH. HIGH SOOT CAN BE CAUSED BY EXTENDED USAGE, INCORRECT TIMING, PLUGGED AIR FILTERS. OXIDATION IS HIGH. MODERATELY ELEVATED OXIDATION CAN RESULT FROM HIGHER TEMPERATURES, EXTENDED OIL SERVICE DURATION. LABEL SAID OIL & FILTER(S) WERE CHG'D WHEN THIS SAMPLE WAS TAKEN. RESAMPLE IN 100 HRS.

For additional sample history, go to:

S.O.S WEB

CONDITION / CONTAMINATION

16-Oct-25 29-May-25

VISCOSITY (CENTISTOKES) ASTM D445

V100	Viscosity at 100 C	16.06	19
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INFRARED (UFM) ASTM E2412

ST	Soot	255	363
OXI	Oxidation	16	70
SUL	Sulfate By-Product	28	51
NIT	Nitration	0	49

WATER

W	Water	N	N
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ANTIFREEZE

A	Antifreeze	N	N
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FUEL

F	Fuel	N	N
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WEAR LEVELS / ADDITIVES

16-Oct-25 29-May-25

ELEMENTAL ANALYSIS (PPM) ASTM D5185 (OIL) / ASTM D6130 (COOLANT)

Cu	Copper	3	5
Fe	Iron	38	61
Cr	Chromium	0	1
Al	Aluminum	0	0
Pb	Lead	0	4
Sn	Tin	0	0
Si	Silicon	3	8
Na	Sodium	1	3
K	Potassium	1	2
Mo	Molybdenum	28	93
Ni	Nickel	1	1
Ag	Silver	0	0
Ca	Calcium	2819	2252
P	Phosphorus	1207	1047
Zn	Zinc	1390	1225
Mg	Magnesium	46	40
B	Boron	15	46

DIFFERENTIAL FRONT

EQUIP NUM: 27-715

SERIAL NUMBER: 1DL00715

CAT 627F

No Action Required

Interp By: Mary Gossett

Interpreted On: 23-Nov-25

E250-55317-4159

SHOP JOB NUM :

SUMMERFIELD

SAMPLE SHIP TIME (days) : 14

SAVERY CREEK

ENTERPRISES

RECEIVED DATE: 13-Nov-25

BREAK-IN WEAR CONTINUES. WEAR PATTERN IS ACCEPTABLE AT THIS TIME. RESAMPLE AT THE NORMAL INTERVAL.

SAMPLE INFORMATION

Sampled Date	30-Oct-25	08-May-20
Sample Id	E250-55317-4159	E250-50132-4102
Lab Date	13-Nov-25	11-May-20
Meter [Hr]	1431	579
Comp Meter [Hr]	1431	579
Meter On Fluid	1431	579
Fluid Brand		
Fluid Weight	80W-90	
Fluid Type		
Fluid Change	Y	Y
Filter Change	U	U
Kidney Loop	U	U
	0	

PREVIOUS SAMPLE

NOTE LENGTH OF TIME SINCE LAST SAMPLE TAKEN. WEAR PATTERN IS ACCEPTABLE AT THIS TIME. RESAMPLE IN 500 HRS.

For additional sample history, go to:

[S.O.S WEB](#)

CONDITION / CONTAMINATION

30-Oct-25 08-May-20

VISCOSITY (CENTISTOKES) ASTM D445

V100 Viscosity at 100 C 14.45 18.5

WATER

W Water N N

CLEANLINESS

WEAR LEVELS / ADDITIVES

30-Oct-25 08-May-20

ELEMENTAL ANALYSIS (PPM) ASTM D6186 [OIL] / ASTM D6130 [COOLANT]

Cu	Copper	68	6
Fe	Iron	227	45
Cr	Chromium	0	0
Al	Aluminum	2	6
Pb	Lead	8	1
Sn	Tin	4	0
Si	Silicon	18	25
Na	Sodium	0	2
K	Potassium	18	3
Mo	Molybdenum	6	1
Ni	Nickel	1	0
Ag	Silver	0	0
Ca	Calcium	2414	2682
P	Phosphorus	955	969
Zn	Zinc	1008	1139
Mg	Magnesium	24	16
B	Boron	28	5

TRANSMISSION POWER

SHIFT FRONT

E250-55282-3015

SHOP JOB NUM : ERIE

SAMPLE SHIP TIME (days) : 7

A C EXCAVATING

RECEIVED DATE: 09-Oct-25

EQUIP NUM: 27-715

CAT 627F



Monitor Compartment

PARTICLE COUNT IS ABOVE THE RECOMMENDED ISO CODE LEVEL FOR THIS COMPONENT. SILICON (SI) AND ALUMINUM (AL) MAY INDICATE DIRT CONTAMINATION. DIRT DOES NOT APPEAR TO BE CAUSING ANY ACCELERATED WEAR AT THIS TIME. CHECK BREATHER AND FOR ANY LOOSE CAPS OR COVERS THAT MAY ALLOW DIRT INTO COMPARTMENT. SAMPLE IN 250 HOURS TO MONITOR.

SERIAL NUMBER: 1DL00715

Interp By: Julio Sanchez

Interpreted On: 29-Oct-25

SAMPLE INFORMATION

	02-Oct-25	03-Aug-23	15-Jan-22	04-Jul-21
Sampled Date	02-Oct-25	03-Aug-23	15-Jan-22	04-Jul-21
Sample Id	E250-55282-3015	E250-53220-3018	E250-52031-3031	E250-51218-3022
Lab Date	09-Oct-25	08-Aug-23	31-Jan-22	06-Aug-21
Meter [Hr]	1323	3523	2013	1750
Comp Meter [Hr]	1323	3523	2013	1750
Meter On Fluid	1121	180	500	1171
Fluid Brand				
Fluid Weight	30	30	30	30
Fluid Type				
Fluid Change	Y	Y	N	Y
Filter Change	Y	Y	Y	Y
Kidney Loop	U	U	U	U
PM Level			800	
Total Fluid Added	0	0	0	0

PREVIOUS SAMPLE

WEAR PATTERN IS ACCEPTABLE AT THIS TIME. RESAMPLE AT THE NORMAL INTERVAL.

For additional sample history, go to:

S.O.S WEB

CONDITION / CONTAMINATION

	02-Oct-25	03-Aug-23	15-Jan-22	04-Jul-21
VISCOSITY (CENTISTOKES) ASTM D445				
V100 Viscosity at 100 C	7.732	9.700	9.700	10.8
INFRARED (UFM) ASTM E2412				
ST Soot	0	0	0	3
OXI Oxidation	4	5	5	6
SUL Sulfate By-Product	13	14	15	16
Sulfur Products	13	14	15	16
NIT Nitration	0	0	5	5

WEAR LEVELS / ADDITIVES

	02-Oct-25	03-Aug-23	15-Jan-22	04-Jul-21
ELEMENTAL ANALYSIS (PPM) ASTM D6185 (OIL) / ASTM D6130 (COOLANT)				
Cu Copper	99	42	20	49
Fe Iron	13	32	11	18
Cr Chromium	0	0	0	0
Al Aluminum	4	2	1	1
Pb Lead	4	9	2	5
Sn Tin	0	0	1	0
Si Silicon	16	11	9	5
Na Sodium	1	2	2	2
K Potassium	2	1	2	2
Mo Molybdenum	2	3	2	2
Ni Nickel	0	1	0	0
Ag Silver	0	0	0	0
Ca Calcium	2230	3310	3244	2569
P Phosphorus	862	1003	1019	940
Zn Zinc	975	1311	1235	1108
Mg Magnesium	24	29	23	17
B Boron	3	6	4	6

WATER

	02-Oct-25	03-Aug-23	15-Jan-22	04-Jul-21
W Water	N	N	N	N
ANTIFREEZE				
A Antifreeze	N	N	N	N

CLEANLINESS

	02-Oct-25	03-Aug-23	15-Jan-22	04-Jul-21
PARTICLE COUNT - ISO 11171:1999 reported per ISO 4406				
ISO ISO Code Rating	24/22/15	21/16/12	23/21/14	
4μ 4μ	108905	16573	47373	
6μ 6μ	32970	629	17493	
10μ 10μ	2250	72	1260	
14μ 14μ	310	31	138	
18μ 18μ		19	34	
21μ 21μ	45	12	14	
38μ 38μ	25	4	1	
50μ 50μ		3	0	

TRANSMISSION POWER

SHIFT REAR

E250-55282-3017

SHOP JOB NUM : ERIE

SAMPLE SHIP TIME (days) : 7

A C EXCAVATING

RECEIVED DATE: 09-Oct-25

EQUIP NUM: 27-715

CAT 627F



No Action Required

WEAR METALS ARE STEADY WITH TREND. OTHER ANALYSIS READINGS APPEAR TO BE ACCEPTABLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

SERIAL NUMBER: 1DL00715

Interp By: Julio Sanchez

Interpreted On: 29-Oct-25

SAMPLE INFORMATION

	02-Oct-25	03-Aug-23	15-Jan-22	19-Aug-21
Sampled Date	02-Oct-25	03-Aug-23	15-Jan-22	19-Aug-21
Sample Id	E250-55282-3017	E250-53220-3031	E250-52031-3030	E250-51236-3021
Lab Date	09-Oct-25	08-Aug-23	31-Jan-22	24-Aug-21
Meter [Hr]	1323	3523	2013	1572
Comp Meter [Hr]	1323	3523	2013	1572
Meter On Fluid	1212	1951	500	1253
Fluid Brand				
Fluid Weight	30	30	30	30
Fluid Type				
Fluid Change	Y	U	N	Y
Filter Change	Y	U	Y	Y
Kidney Loop	U	U	U	U
PM Level			800	
Total Fluid Added	0	0	0	0

WEAR LEVELS / ADDITIVES

02-Oct-25 03-Aug-23 15-Jan-22 19-Aug-21

ELEMENTAL ANALYSIS (PPM) ASTM D6185 (OIL) / ASTM D6130 (COOLANT)

Cu	Copper	28	36	32	46
Fe	Iron	12	22	12	20
Cr	Chromium	0	0	0	0
Al	Aluminum	3	2	1	2
Pb	Lead	0	4	2	3
Sn	Tin	0	1	1	0
Si	Silicon	11	11	11	12
Na	Sodium	3	3	3	5
K	Potassium	2	0	3	2
Mo	Molybdenum	3	3	1	2
Ni	Nickel	0	1	0	0
Ag	Silver	0	0	0	0
Ca	Calcium	2347	3417	3260	2824
P	Phosphorus	911	1087	1006	934
Zn	Zinc	1097	1420	1212	1089
Mg	Magnesium	22	26	22	22
B	Boron	3	6	3	5

PREVIOUS SAMPLE

PARTICLE COUNT IS UNAVAILABLE AT THIS TIME. WEAR PATTERN IS ACCEPTABLE AT THIS TIME. RESAMPLE IN 500 HRS.

For additional sample history, go to:

S.O.S WEB

CONDITION / CONTAMINATION

02-Oct-25 03-Aug-23 15-Jan-22 19-Aug-21

VISCOSITY (CENTISTOKES) ASTM D445

V100 Viscosity at 100 C 10.45 9.900 10.10 10.5

INFRARED (UFM) ASTM E2412

ST	Soot	0	0	0	0
OXI	Oxidation	4	5	6	6
SUL	Sulfate By-Product	12	13	15	15
	Sulfur Products	12	13	15	15
NIT	Nitration	0	0	5	5

WATER

W Water N N N N

ANTIFREEZE

A Antifreeze N N N N

CLEANLINESS

02-Oct-25 03-Aug-23 15-Jan-22 19-Aug-21

PARTICLE COUNT - ISO 11171:1999 reported per ISO 4406

ISO	ISO Code Rating	21/15/14	21/17/14	22/17/14
4μ	4μ	10730	12660	20056
6μ	6μ	263	848	1152
10μ	10μ	113	228	179
14μ	14μ	100	129	83
18μ	18μ		80	54
21μ	21μ	65	61	41
38μ	38μ	45	19	14
50μ	50μ		12	10