

ENGINE

EQUIP NUM: 336F

SERIAL NUMBER: RKB01316

D12W-56252-0257

SAMPLE SHIP TIME (days) : 12

FISCHER CONSTRUCTION

RECEIVED DATE: 09-Sep-26

CAT 336F



Action Required

FUEL DILUTION ABOVE 16% BY VOLUME IN OIL. OTHER READINGS APPEAR TO BE NORMAL. POSSIBLE SOURCES OF FUEL DILUTION ARE: LEAKING INJECTORS, INJECTOR O-RINGS, FAILED INJECTORS, FUEL TRANSFER PUMP AND ENGINE OVER FUELING. OIL AND FILTER CHANGE NOTED. REVIEWING MAINTENANCE RECORDS, COMPONENT SERVICE LIFE ETC, MAY HELP DETERMINE A COURSE OF ACTION .

Interp By: Linda Lovejoy

Interpreted On: 09-Sep-26

SAMPLE INFORMATION

Sampled Date	28-Aug-26	13-Jul-26	20-May-26	13-May-26
Sample Id	D12W-56252-0257	D12W-56198-0249	D12W-56148-0025	D12W-56148-0013
Lab Date	09-Sep-26	17-Jul-26	28-May-26	28-May-26
Meter [Hr]	0	0	10508	10508
Comp Meter [Hr]	0	0	10508	10508
Meter On Fluid	0	0	0	10508
Fluid Brand	MOBIL	MOBIL	MOBIL	MOBIL
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type				
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Total Fluid Added	0	0	0	0

WEAR LEVELS / ADDITIVES

		28-Aug-26	13-Jul-26	20-May-26	13-May-26
ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]					
Cu	Copper	0	0	1	1
Fe	Iron	14	12	13	22
Cr	Chromium	1	1	1	1
Al	Aluminum	2	3	2	2
Pb	Lead	0	2	4	3
Sn	Tin	0	0	0	0
Si	Silicon	3	4	4	6
Na	Sodium	3	5	5	8
K	Potassium	0	3	0	0
Mo	Molybdenum	51	57	55	59
Ni	Nickel	0	0	1	0
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Mn	Manganese	0	0	0	0
Cd	Cadmium	0	0	0	0
Ca	Calcium	1449	1790	1685	1926
P	Phosphorus	904	1115	1118	1145
Zn	Zinc	1041	1280	1277	1393
Mg	Magnesium	422	514	492	551
Ba	Barium	1	1	0	0
B	Boron	9	9	10	12

PREVIOUS SAMPLE

READINGS APPEAR TO BE NORMAL. CONTINUE SAMPLING AT THE NORMAL INTERVAL. OIL AND FILTER CHANGE NOTED.

For additional sample history, go to:

[Vision Link](#)

CONDITION / CONTAMINATION

		28-Aug-26	13-Jul-26	20-May-26	13-May-26
VISCOSITY (CENTISTOKES) ASTM D445					
V100	Viscosity at 100 C	8.923	11.85	10.86	12.13

INFRARED (UFM) ASTM E2412

ST	Soot	20	32	31	39
OXI	Oxidation	17	22	23	20
SUL	Sulfate By-Product	21	24	24	23
NIT	Nitration	0	1	2	1

WATER

W	Water	N	N	N	N
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ANTIFREEZE

A	Antifreeze	N	N	N	N
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FUEL

F	Fuel	P	N	N	N
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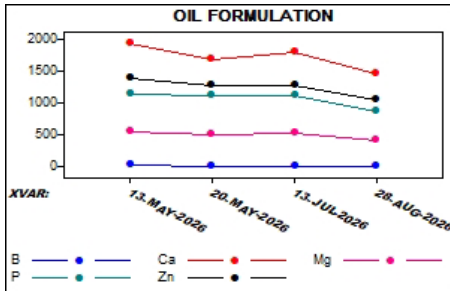
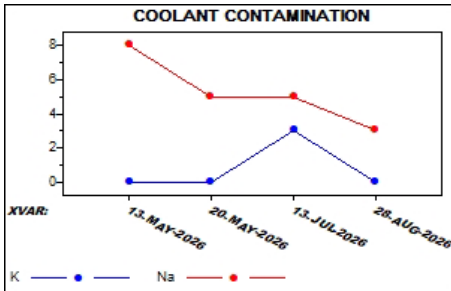
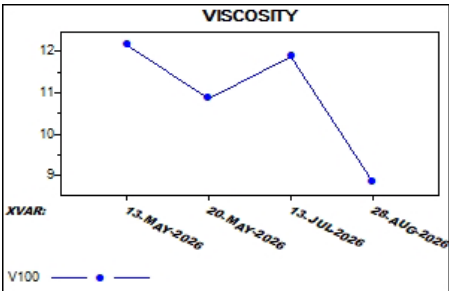
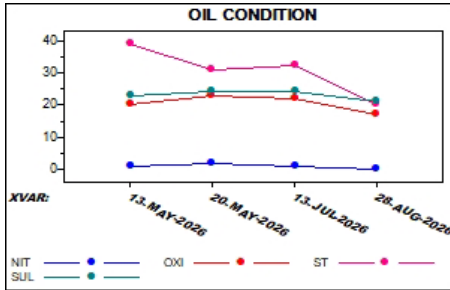
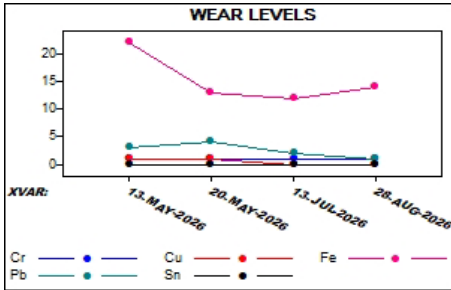
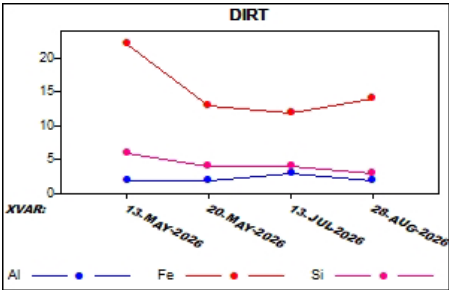
FUEL CONTENT (%) ASTM D3524

PfC	Percent Fuel	16.9	3.0		
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ENGINE
SERIAL NUMBER: RKB01316
EQUIP NUM: 336F
CAT 336F

D12W-56252-0257

Action Required



Report Comment

S-O-S fluid sample result recommendations are now available in VisionLink. Please go to [vlcat.com](https://vl.cat.com) to set up your VisionLink account and enable notifications. Visit <https://vl.cat.com> to learn more.

ENGINE

EQUIP NUM: 336F

SERIAL NUMBER: RKB01316

D12W-56252-0283

SAMPLE SHIP TIME (days) : 12

FISCHER CONSTRUCTION

RECEIVED DATE: 09-Sep-26

CAT 336F



Action Required

FUEL DILUTION ABOVE 16% BY VOLUME IN OIL. OTHER READINGS APPEAR TO BE NORMAL. POSSIBLE SOURCES OF FUEL DILUTION ARE: LEAKING INJECTORS, INJECTOR O-RINGS, FAILED INJECTORS, FUEL TRANSFER PUMP AND ENGINE OVER FUELING. OIL AND FILTER CHANGE NOTED. REVIEWING MAINTENANCE RECORDS, COMPONENT SERVICE LIFE ETC, MAY HELP DETERMINE A COURSE OF ACTION .

Interp By: Linda Lovejoy

Interpreted On: 09-Sep-26

SAMPLE INFORMATION

				
Sampled Date	28-Aug-26	28-Aug-26	13-Jul-26	20-May-26
Sample Id	D12W-56252-0283	D12W-56252-0257	D12W-56198-0249	D12W-56148-0025
Lab Date	09-Sep-26	09-Sep-26	17-Jul-26	28-May-26
Meter [Hr]	10583	0	0	10508
Comp Meter [Hr]	10583	0	0	10508
Meter On Fluid	10583	0	0	0
Fluid Brand	MOBIL	MOBIL	MOBIL	MOBIL
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type				
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Total Fluid Added	0	0	0	0

PREVIOUS SAMPLE

FUEL DILUTION ABOVE 16% BY VOLUME IN OIL. OTHER READINGS APPEAR TO BE NORMAL. POSSIBLE SOURCES OF FUEL DILUTION ARE: LEAKING INJECTORS, INJECTOR O-RINGS, FAILED INJECTORS, FUEL TRANSFER PUMP AND ENGINE OVER FUELING. OIL AND FILTER CHANGE NOTED. REVIEWING MAINTENANCE RECORDS, COMPONENT SERVICE LIFE ETC, MAY HELP DETERMINE A COURSE OF ACTION .

For additional sample history, go to:

[Vision Link](#)

CONDITION / CONTAMINATION

		28-Aug-26	28-Aug-26	13-Jul-26	20-May-26
VISCOSITY (CENTISTOKES) ASTM D445					
V100	Viscosity at 100 C	8.855	8.923	11.85	10.86

INFRARED (UFM) ASTM E2412

ST	Soot	20	20	32	31
OXI	Oxidation	17	17	22	23
SUL	Sulfate By-Product	21	21	24	24
NIT	Nitration	0	0	1	2

WATER

W	Water	N	N	N	N
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ANTIFREEZE

A	Antifreeze	N	N	N	N
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FUEL

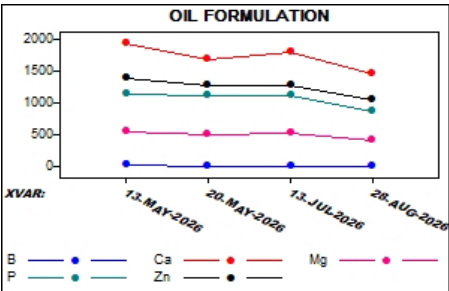
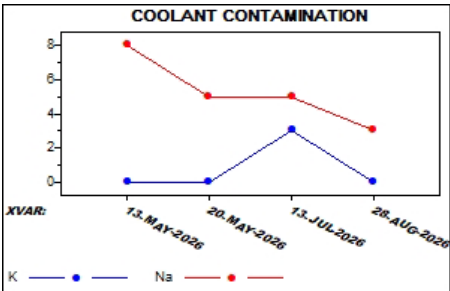
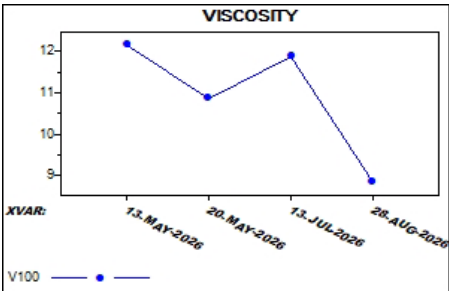
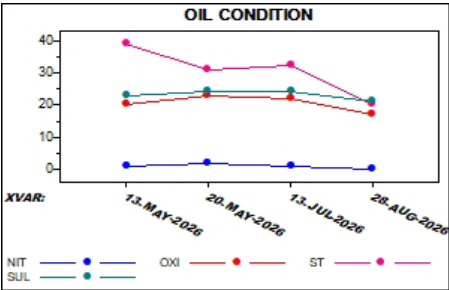
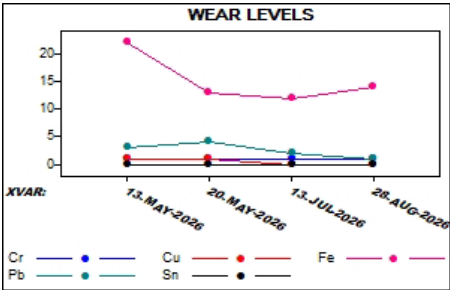
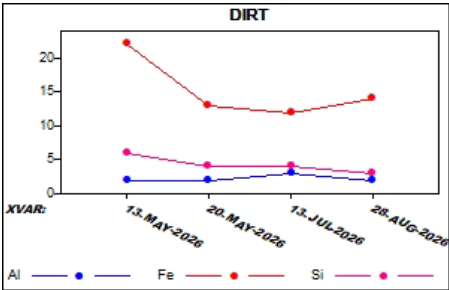
F	Fuel	P	P	N	N
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FUEL CONTENT (%) ASTM D3524

PFc	Percent Fuel	16.5	16.9	3.0
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WEAR LEVELS / ADDITIVES

		28-Aug-26	28-Aug-26	13-Jul-26	20-May-26
ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]					
Cu	Copper	0	0	0	1
Fe	Iron	13	14	12	13
Cr	Chromium	1	1	1	1
Al	Aluminum	2	2	3	2
Pb	Lead	1	0	2	4
Sn	Tin	0	0	0	0
Si	Silicon	3	3	4	4
Na	Sodium	4	3	5	5
K	Potassium	1	0	3	0
Mo	Molybdenum	49	51	57	55
Ni	Nickel	0	0	0	1
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Mn	Manganese	0	0	0	0
Cd	Cadmium	0	0	0	0
Ca	Calcium	1433	1449	1790	1685
P	Phosphorus	869	904	1115	1118
Zn	Zinc	1025	1041	1280	1277
Mg	Magnesium	418	422	514	492
Ba	Barium	1	1	1	0
B	Boron	9	9	9	10



Report Comment

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ENGINE

EQUIP NUM: 336F

SERIAL NUMBER: RKB01316

D12W-56252-0295

SAMPLE SHIP TIME (days) : 12

FISCHER CONSTRUCTION

RECEIVED DATE: 9/9/2026

CAT 336F



Action Required

FUEL DILUTION ABOVE 16% BY VOLUME IN OIL. OTHER READINGS APPEAR TO BE NORMAL. POSSIBLE SOURCES OF FUEL DILUTION ARE: LEAKING INJECTORS, INJECTOR O-RINGS, FAILED INJECTORS, FUEL TRANSFER PUMP AND ENGINE OVER FUELING. OIL AND FILTER CHANGE NOTED. REVIEWING MAINTENANCE RECORDS, COMPONENT SERVICE LIFE ETC, MAY HELP DETERMINE A COURSE OF ACTION.

Interp By: Linda Lovejoy

Interpreted On: 9/9/2026

SAMPLE INFORMATION

Sampled Date	28-Aug-26	28-Aug-26	28-Aug-26	13-Jul-26
Sample Id	D12W-56252-0295	D12W-56252-0283	D12W-56252-0257	D12W-56198-0249
Lab Date	09-Sep-26	09-Sep-26	09-Sep-26	17-Jul-26
Meter [Hr]	10583	10583	0	0
Comp Meter [Hr]	10583	10583	0	0
Meter On Fluid	0	10583	0	0
Fluid Brand	MOBIL	MOBIL	MOBIL	MOBIL
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type				
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Total Fluid Added	0	0	0	0

PREVIOUS SAMPLE

FUEL DILUTION ABOVE 16% BY VOLUME IN OIL. OTHER READINGS APPEAR TO BE NORMAL. POSSIBLE SOURCES OF FUEL DILUTION ARE: LEAKING INJECTORS, INJECTOR O-RINGS, FAILED INJECTORS, FUEL TRANSFER PUMP AND ENGINE OVER FUELING. OIL AND FILTER CHANGE NOTED. REVIEWING MAINTENANCE RECORDS, COMPONENT SERVICE LIFE ETC, MAY HELP DETERMINE A COURSE OF ACTION.

For additional sample history, go to:

[Vision Link](#)

CONDITION / CONTAMINATION

		28-Aug-26	28-Aug-26	28-Aug-26	13-Jul-26
VISCOSITY (CENTISTOKES) ASTM D445					
V100	Viscosity at 100 C	8.887	8.855	8.923	11.85

WEAR LEVELS / ADDITIVES

		28-Aug-26	28-Aug-26	28-Aug-26	13-Jul-26
ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]					
Cu	Copper	0	0	0	0
Fe	Iron	13	13	14	12
Cr	Chromium	1	1	1	1
Al	Aluminum	2	2	2	3
Pb	Lead	1	1	0	2
Sn	Tin	0	0	0	0
Si	Silicon	3	3	3	4
Na	Sodium	3	4	3	5
K	Potassium	4	1	0	3
Mo	Molybdenum	48	49	51	57
Ni	Nickel	0	0	0	0
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Mn	Manganese	0	0	0	0
Cd	Cadmium	0	0	0	0
Ca	Calcium	1418	1433	1449	1790
P	Phosphorus	882	869	904	1115
Zn	Zinc	1023	1025	1041	1280
Mg	Magnesium	414	418	422	514
Ba	Barium	1	1	1	1
B	Boron	9	9	9	9

INFRARED (UFM) ASTM E2412

ST	Soot	20	20	20	32
OXI	Oxidation	17	17	17	22
SUL	Sulfate By-Product	21	21	21	24
NIT	Nitration	0	0	0	1

WATER

W	Water	N	N	N	N
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ANTIFREEZE

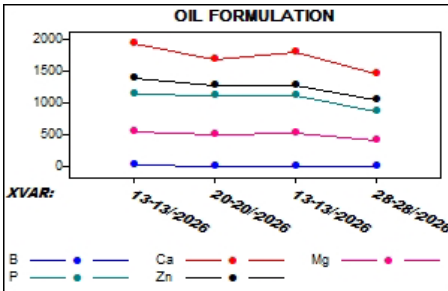
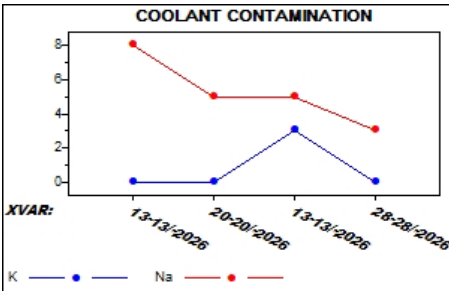
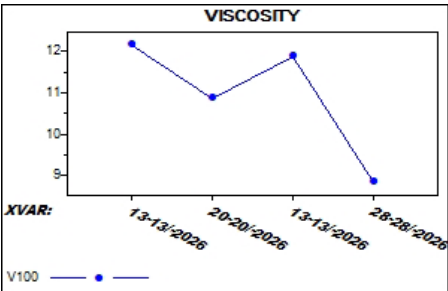
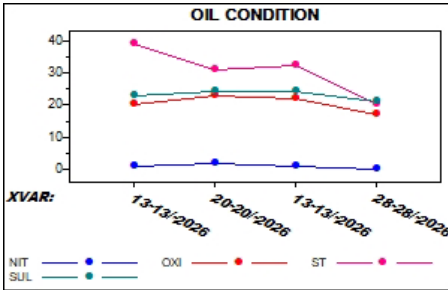
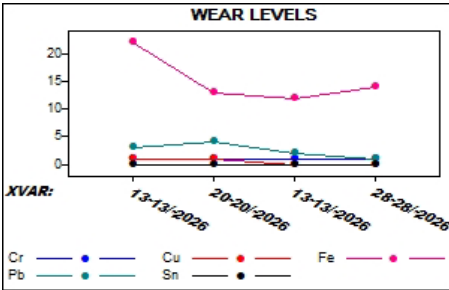
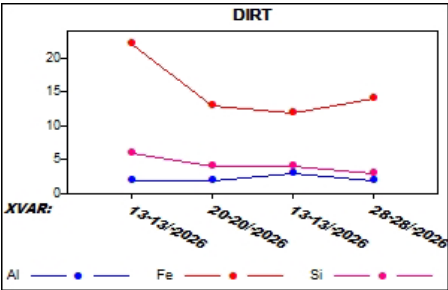
A	Antifreeze	N	N	N	N
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FUEL

F	Fuel	P	P	P	N
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FUEL CONTENT (%) ASTM D3524

PFC	Percent Fuel	16.8	16.5	16.9	
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Report Comment

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