

## ENGINE FRONT

EQUIP NUM: 0314

SERIAL NUMBER: IDL00314

E250-55282-1069

SHOP JOB NUM : TALLON

POINTE

SAMPLE SHIP TIME (days) : 7

SAVERY CREEK

ENTERPRISES

RECEIVED DATE: 09-Oct-25

CAT 627F

No Action Required

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

Interp By: Mary Gosselt

Interpreted On: 18-Oct-25

## SAMPLE INFORMATION

|                   | 02-Oct-25       | 04-Aug-25       | 25-Apr-25       | 20-Dec-24       |
|-------------------|-----------------|-----------------|-----------------|-----------------|
| Sample Id         | E250-55282-1069 | E250-55223-1128 | E250-55125-1126 | E250-55007-1067 |
| Lab Date          | 09-Oct-25       | 11-Aug-25       | 05-May-25       | 07-Jan-25       |
| Meter [Hr]        | 209             | 11419           | 11220           | 11011           |
| Comp Meter [Hr]   | 209             | 11419           | 11220           | 11011           |
| Meter On Fluid    | 11565           | 199             | 250             | 283             |
| Fluid Brand       |                 |                 |                 |                 |
| Fluid Weight      | 15W-40          | 15W-40          | 15W-40          | 15W-40          |
| Fluid Type        |                 |                 |                 |                 |
| Fluid Change      | Y               | Y               | Y               | Y               |
| Filter Change     | Y               | Y               | Y               | Y               |
| Kidney Loop       | U               | U               | U               | U               |
| Total Fluid Added | 0               | 0               | 0               | 0               |

## PREVIOUS SAMPLE

HIGHLY ELEVATED SOOT LEVEL MAY RELATE TO INTAKE RESTRICTION, A/F RATIO, ENG.TEMP, OIL SERVICE, LOAD, BOOST, IDLE TIMES. VISCOSITY IS HIGH BASED ON OIL GRADE PROVIDED. IRON HAS INCREASED. MONITOR COMPARTMENT.

For additional sample history, go to:

S.O.S WEB

## CONDITION / CONTAMINATION

|                                   | 02-Oct-25 | 04-Aug-25 | 25-Apr-25 | 20-Dec-24 |
|-----------------------------------|-----------|-----------|-----------|-----------|
| VISCOSITY (CENTISTOKES) ASTM D445 |           |           |           |           |
| V100 Viscosity at 100 C           | 15.17     | 16.80     | 16.5      | 14        |

## INFRARED (UFM) ASTM E2412

|     |                    |     |     |     |    |
|-----|--------------------|-----|-----|-----|----|
| ST  | Soot               | 146 | 260 | 184 | 76 |
| OXI | Oxidation          | 14  | 25  | 25  | 19 |
| SUL | Sulfate By-Product | 24  | 36  | 31  | 24 |
|     | Sulfur Products    | 24  | 36  | 31  | 24 |
| NIT | Nitration          | 0   | 0   | 0   | 0  |

## WATER

|   |       |   |   |   |   |
|---|-------|---|---|---|---|
| W | Water | N | N | N | N |
|---|-------|---|---|---|---|

## ANTIFREEZE

|   |            |   |   |   |   |
|---|------------|---|---|---|---|
| A | Antifreeze | N | N | N | N |
|---|------------|---|---|---|---|

## FUEL

|   |      |   |   |   |   |
|---|------|---|---|---|---|
| F | Fuel | N | N | N | N |
|---|------|---|---|---|---|

## WEAR LEVELS / ADDITIVES

02-Oct-25 04-Aug-25 25-Apr-25 20-Dec-24

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

|    |            |      |      |      |      |
|----|------------|------|------|------|------|
| Cu | Copper     | 4    | 10   | 8    | 8    |
| Fe | Iron       | 40   | 56   | 47   | 38   |
| Cr | Chromium   | 1    | 0    | 1    | 0    |
| Al | Aluminum   | 2    | 1    | 2    | 2    |
| Pb | Lead       | 1    | 2    | 3    | 1    |
| Sn | Tin        | 0    | 0    | 0    | 1    |
| Si | Silicon    | 6    | 8    | 8    | 3    |
| Na | Sodium     | 2    | 3    | 2    | 2    |
| K  | Potassium  | 2    | 2    | 2    | 4    |
| Mo | Molybdenum | 18   | 65   | 105  | 40   |
| Ni | Nickel     | 0    | 1    | 1    | 0    |
| Ag | Silver     | 0    | 0    | 0    | 0    |
| Ca | Calcium    | 2621 | 2514 | 2589 | 2351 |
| P  | Phosphorus | 1054 | 1102 | 1204 | 1163 |
| Zn | Zinc       | 1225 | 1331 | 1462 | 1321 |
| Mg | Magnesium  | 51   | 61   | 43   | 148  |
| B  | Boron      | 12   | 36   | 67   | 102  |

## ENGINE REAR

EQUIP NUM: 0314

SERIAL NUMBER: IDL00314

E250-55282-1065

SHOP JOB NUM : TALLON

POINTE

SAMPLE SHIP TIME (days) : 7

SAVERY CREEK

ENTERPRISES

RECEIVED DATE: 09-Oct-25

CAT 627F



## Monitor Compartment

SILICON (SI) AND ALUMINUM (AI) INDICATE A MODERATE LEVEL OF DIRT ENTRY. IRON (FE) AND CHROME (CR) ARE ELEVATED SUGGESTING INCREASED WEAR DUE TO DIRT. CONSIDER INSPECTING AIR FILTER FOR PLUGGING AND INTAKE FOR ANY LOOSE/ DAMAGED GASKETS THAT MAY ALLOW DIRT PAST FILTER. SAMPLE IN 250 HOURS TO MONITOR.

Interp By: Dipali Rote

Interpreted On: 29-Oct-25

## SAMPLE INFORMATION

| Sampled Date      | 02-Oct-25       | 25-Apr-25       | 20-Dec-24       |
|-------------------|-----------------|-----------------|-----------------|
| Sample Id         | E250-55282-1065 | E250-55125-1128 | E250-55007-1080 |
| Lab Date          | 09-Oct-25       | 05-May-25       | 07-Jan-25       |
| Meter [Hr]        | 209             | 11220           | 11011           |
| Comp Meter [Hr]   | 209             | 11220           | 11011           |
| Meter On Fluid    | 11565           | 250             | 281             |
| Fluid Brand       |                 |                 |                 |
| Fluid Weight      | 15W-40          | 15W-40          | 15W-40          |
| Fluid Type        |                 |                 |                 |
| Fluid Change      | Y               | Y               | Y               |
| Filter Change     | Y               | Y               | Y               |
| Kidney Loop       | U               | U               | U               |
| Total Fluid Added | 0               | 0               | 0               |

## WEAR LEVELS / ADDITIVES

02-Oct-25 25-Apr-25 20-Dec-24

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

|    |            |      |      |      |
|----|------------|------|------|------|
| Cu | Copper     | 4    | 11   | 8    |
| Fe | Iron       | 60   | 99   | 46   |
| Cr | Chromium   | 17   | 6    | 7    |
| Al | Aluminum   | 9    | 14   | 10   |
| Pb | Lead       | 1    | 3    | 2    |
| Sn | Tin        | 0    | 3    | 1    |
| Si | Silicon    | 25   | 35   | 31   |
| Na | Sodium     | 3    | 5    | 11   |
| K  | Potassium  | 3    | 5    | 12   |
| Mo | Molybdenum | 27   | 99   | 77   |
| Ni | Nickel     | 0    | 1    | 1    |
| Ag | Silver     | 0    | 0    | 0    |
| Ca | Calcium    | 2543 | 2382 | 1993 |
| P  | Phosphorus | 1036 | 1112 | 1078 |
| Zn | Zinc       | 1226 | 1371 | 1209 |
| Mg | Magnesium  | 57   | 95   | 366  |
| B  | Boron      | 16   | 66   | 60   |

## PREVIOUS SAMPLE

IRON, CHROME, COPPER AND SILICON ARE HIGH. POSSIBLE PISTON RINGS, LINERS, BUSHINGS, WASHER, OIL COOLER, COOLER CORE LEACHING, WASHERS, PUMP AND TURBOCHARGER BEARING WEAR. SOOT IS HIGH. CHECK FOR PLUGGED AIR FILTER, TURBOCHARGER FLOW RESTRICTIONS OR INTAKE RESTRICTIONS. LIMIT IDLE TIME. INSPECT SYSTEM. RESAMPLE AT 250 HOURS.

For additional sample history, go to:

S.O.S WEB

## CONDITION / CONTAMINATION

|                                   |                    | 02-Oct-25 | 25-Apr-25 | 20-Dec-24 |
|-----------------------------------|--------------------|-----------|-----------|-----------|
| VISCOMITY (CENTISTOKES) ASTM D445 |                    |           |           |           |
| V100                              | Viscosity at 100 C | 14.28     | 13.6      | 13        |

## INFRARED (UFM) ASTM E2412

|     |                    |    |     |    |
|-----|--------------------|----|-----|----|
| ST  | Soot               | 62 | 100 | 15 |
| OXI | Oxidation          | 13 | 20  | 15 |
| SUL | Sulfate By-Product | 20 | 26  | 19 |
|     | Sulfur Products    | 20 | 26  | 19 |
| NIT | Nitration          | 0  | 0   | 0  |

## WATER

|   |       |   |   |   |
|---|-------|---|---|---|
| W | Water | N | N | N |
|---|-------|---|---|---|

## ANTIFREEZE

|   |            |   |   |   |
|---|------------|---|---|---|
| A | Antifreeze | N | N | N |
|---|------------|---|---|---|

## FUEL

|   |      |   |   |   |
|---|------|---|---|---|
| F | Fuel | N | N | N |
|---|------|---|---|---|

**TRANSMISSION POWER**
**SHIFT FRONT**

E250-55079-3004

SHOP JOB NUM : TALON

POINTE

SAMPLE SHIP TIME (days) : 8

SAVERY CREEK

ENTERPRISES

RECEIVED DATE: 20-Mar-25

EQUIP NUM: 0314

CAT 627F


**No Action Required**

SERIAL NUMBER: IDL00314

Interp By: Mary Gossett

Interpreted On: 26-Mar-25

NO OBVIOUS PROBLEMS INDICATED ON A FIRST SAMPLE BASIS. RESAMPLE AT NORMAL INTERVAL TO ESTABLISH A TREND.

**SAMPLE INFORMATION**

Sampled Date 12-Mar-25  
 Sample Id E250-55079-3004  
 Lab Date 20-Mar-25  
 Meter [Hr] 11099  
 Comp Meter [Hr] 11099  
 Meter On Fluid 11099  
 Fluid Brand  
 Fluid Weight 30  
 Fluid Type  
 Fluid Change Y  
 Filter Change Y  
 Kidney Loop U  
 Total Fluid Added 0

For additional sample history, go to:

[S.O.S WEB](#)
**CONDITION / CONTAMINATION**

12-Mar-25

**VISCOSITY (CENTISTOKES) ASTM D445**

V100 Viscosity at 100 C 9.900

**INFRARED (UFM) ASTM E2412**

|     |                    |    |
|-----|--------------------|----|
| ST  | Soot               | 0  |
| OXI | Oxidation          | 3  |
| SUL | Sulfate By-Product | 12 |
| NIT | Nitration          | 0  |

**WATER**

W Water N

**WEAR LEVELS / ADDITIVES**

12-Mar-25

**ELEMENTAL ANALYSIS (PPM) ASTM D6185 [OIL] / ASTM D6190 [COOLANT]**

|    |            |      |
|----|------------|------|
| Cu | Copper     | 34   |
| Fe | Iron       | 33   |
| Cr | Chromium   | 0    |
| Al | Aluminum   | 3    |
| Pb | Lead       | 6    |
| Sn | Tin        | 1    |
| Si | Silicon    | 11   |
| Na | Sodium     | 0    |
| K  | Potassium  | 2    |
| Mo | Molybdenum | 2    |
| Ni | Nickel     | 0    |
| Ag | Silver     | 0    |
| Ca | Calcium    | 2436 |
| P  | Phosphorus | 861  |
| Zn | Zinc       | 1024 |
| Mg | Magnesium  | 14   |
| B  | Boron      | 3    |

**ANTIFREEZE**

A Antifreeze N

**CLEANLINESS**

12-Mar-25

**PARTICLE COUNT - ISO 11171:1999 reported per ISO 4406**

| ISO | ISO Code Rating | 24/21/15 |
|-----|-----------------|----------|
| 4μ  | 4μ              | 101940   |
| 6μ  | 6μ              | 10620    |
| 10μ | 10μ             | 890      |
| 14μ | 14μ             | 320      |
| 21μ | 21μ             | 50       |
| 38μ | 38μ             | 5        |

# TRANSMISSION POWER

## SHIFT REAR

E250-55079-3003

SHOP JOB NUM : TALON

POINTE

SAMPLE SHIP TIME (days) : 8

SAVERY CREEK

ENTERPRISES

RECEIVED DATE: 20-Mar-25

EQUIP NUM: 0314

CAT 627F



No Action Required

SERIAL NUMBER: 4YK00313

Interp By: Mary Gossett

Interpreted On: 28-Mar-25

NO OBVIOUS PROBLEMS INDICATED ON A FIRST SAMPLE BASIS. RESAMPLE AT NORMAL INTERVAL TO ESTABLISH A TREND.

## SAMPLE INFORMATION

Sampled Date 12-Mar-25  
 Sample Id E250-55079-3003  
 Lab Date 20-Mar-25  
 Meter [Hr] 11099  
 Comp Meter [Hr] 11099  
 Meter On Fluid 11099  
 Fluid Brand  
 Fluid Weight 30  
 Fluid Type  
 Fluid Change Y  
 Filter Change Y  
 U  
 Kidney Loop  
 Total Fluid Added 0

For additional sample history, go to:

S.O.S WEB

## CONDITION / CONTAMINATION

12-Mar-25

### VISCOSITY (CENTISTOKES) ASTM D445

V100 Viscosity at 100 C 10.20

### INFRARED (UFM) ASTM E2412

|     |                    |    |
|-----|--------------------|----|
| ST  | Soot               | 0  |
| OXI | Oxidation          | 4  |
| SUL | Sulfate By-Product | 13 |
| NIT | Nitration          | 0  |

### WATER

W Water N

## WEAR LEVELS / ADDITIVES

12-Mar-25

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

|    |            |      |
|----|------------|------|
| Cu | Copper     | 28   |
| Fe | Iron       | 20   |
| Cr | Chromium   | 0    |
| Al | Aluminum   | 2    |
| Pb | Lead       | 1    |
| Sn | Tin        | 0    |
| Si | Silicon    | 4    |
| Na | Sodium     | 0    |
| K  | Potassium  | 0    |
| Mo | Molybdenum | 3    |
| Ni | Nickel     | 0    |
| Ag | Silver     | 0    |
| Ca | Calcium    | 2294 |
| P  | Phosphorus | 841  |
| Zn | Zinc       | 1021 |
| Mg | Magnesium  | 24   |
| B  | Boron      | 4    |

### ANTIFREEZE

A Antifreeze N

## CLEANLINESS

12-Mar-25

### PARTICLE COUNT - ISO 11171:1999 reported per ISO 4406

| ISO | ISO Code Rating | 19/17/12 |
|-----|-----------------|----------|
| 4μ  | 4μ              | 3890     |
| 6μ  | 6μ              | 730      |
| 10μ | 10μ             | 80       |
| 14μ | 14μ             | 35       |
| 21μ | 21μ             | 5        |
| 38μ | 38μ             | 0        |