

773E Off-Highway Truck TA2 Technical Inspection (S/N: PRB1-UP; ASK1-UP; DJS1-UP)

TA2

● 0 ● 0 ● 37 ● 9

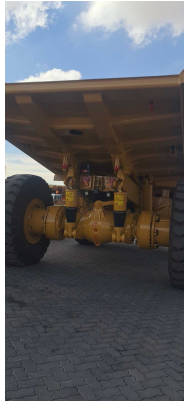
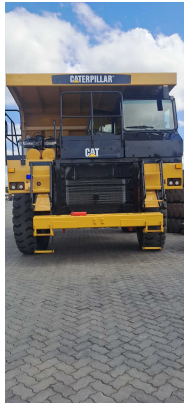
Inspection Number	16088778	Customer No	2969960194
Serial Number	PRB00800	Customer Name	SOUTHWEST MIDDLE EAST LLC
Make	CATERPILLAR	Customer Email	roshen.rajamma@albahar.com
Model	773E	Work Order	sh
Equipment Family	Small Off Highway Truck	Completed On	2/14/2024 9:20:58 AM
SMU	10188 Hours	Inspector	Roshen Rajamma
Location	JEBEL Ali	PDF Generated On	2/14/2024
Coordinates	0, 0, 0		
Technician			

General Info & Comments

● General info/Comments NORMAL

Comments: Inspection (TA2)
As per the TA1 & TA2 Inspection, visually & technically all compartments of the machine is fine.
(Couldn't observed any oil spillage or machine performance related issues.)





Electrical System

1.1 Inspect Battery Cables NORMAL

Comments: Good position

1.2 Battery Test-12.4 VDC or more NORMAL

Comments: 12.6

1.3 Charging System Test-18 VDC to 32 VDC NORMAL

Comments: 28 V

1.4 Starting System Test NORMAL

Comments: Ok

1.4.1 Electric Starting System Test 20 V 16 to 24 V at 10° C (50° F) to 27° C (80° F)

Engine

● **2.1 Cooling System** *NORMAL*

Comments: Cooling system is working fine

2.1.1 Radiator Pressure Relief (Radiator Cap)(2)	15 psi .
2.1.2 Freezing Point of Engine Coolant	N/A .
2.1.3 Conditioner Test of Engine Coolant	OK .
2.1.4 Belt Tension	
2.1.5 Difference between the Upper and Lower Radiator Tank Temperatures	7 Degrees Celsius .
2.1.6 Jacket Water Outlet Temperature	92 .
2.1.7 Aftercooler Water Outlet Temperature	Ok .
2.1.8 Jacket Water Inlet Temperature from Cooling System	Ok .
2.1.9 Oil Cooler Water Outlet Temperature	96 .

● **2.2 Fuel System** *NORMAL*

Comments: Fuel system is working fine

2.2.1 Fuel Pressure at low idle	80 Psi 538 kPa (78 psi)
2.2.2 Fuel Pressure at high idle	94 Psi 641 kPa (93 psi)

● **2.3 Lubrication System** *NORMAL*

Comments: Oil pressure is ok

2.3.1 Engine Oil Pressure at Low Idle	38 Psi 138 kPa (20 psi)
2.3.2 Engine Oil Pressure	60 psi 352 kPa (51 psi)

● **2.4 Basic Engine** *NORMAL*

Comments: Stall speed is with maximum service limit.

2.4.1 Engine Speed at Low Idle	650 rpm 700 rpm
2.4.2 Engine Speed at High Idle	2250 rpm 2250 rpm
2.4.3 Torque Converter Stall Test Engine RPM	
2.4.4 Cylinder Cutout Test	Ok .

● **2.5 Air Inlet and Exhaust System** *NORMAL*

Comments: OK

2.5.1 Torque Converter Stall Test Boost Pressure	13 psi .
2.5.2 Cylinder # 1 Exhaust Temperature(2)	199 .
2.5.3 Cylinder # 2 Exhaust Temperature(2)	197 .
2.5.4 Cylinder # 3 Exhaust Temperature(2)	198 .
2.5.5 Cylinder # 4 Exhaust Temperature(2)	200 .
2.5.6 Cylinder # 5 Exhaust Temperature(2)	201 .

2.5.7 Cylinder # 6 Exhaust Temperature(2)	199 .
2.5.8 Cylinder # 7 Exhaust Temperature(2)	201 .
2.5.9 Cylinder # 8 Exhaust Temperature(2)	199 .

Performance Checks

● 3.1 Operational Checks NORMAL

Comments: Ok

3.1.1 Raise the Dump Body	11.60 seconds 11 seconds
3.1.2 Rear Suspension Collapsed Pin to Pin Length (Approximate)(2)	885 887 mm (35 inch)
3.1.3 Front Suspension Collapsed Chrome length (Approximate)(2)	20 21 mm (0.83 inch)
3.1.4 Toe Out Measurement	57.8 58.7 mm (2.31 inch)

Hydraulic System

● 4.1 Hoist Cylinder Performance - Test NORMAL

Comments: No drifting (OK)

4.1.1 Minutes-7.0-38° to 48°C	2.5 Cylinder Drift-6.35 mm
4.1.2 Minutes-49° to 64°C	2.6 Cylinder Drift-6.35 mm
4.1.3 Minutes-65° C	2.7 Cylinder Drift-6.35 mm

● 4.2 Relief Valve (Hoist Dual Stage) - Test and Adjust NORMAL

Comments: Ok

4.2.1 Relief Valve Test (Low Pressure) Engine at High Idle, Hoist Control Lever in the LOWER position)	520 psi 500 ± 50 psi
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● 4.3 Relief Valve (Brake Oil Cooler) - Test and Adjust NORMAL

Comments: Ok

4.3.1 Brake Cooler Relief Valve Pressure at Low Idle	85 psi 85 ± 2 psi
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Braking System

● 5.1 Parking Brake System Pressure - Test and Adjust NORMAL

Comments: Ok

5.1.1 Parking Brake System Pressure	450 psi. 460 ± 29 psi
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● 5.2 Air Compressor and Governor - Test and Adjust NORMAL

Comments: Ok

5.2.1 Cut-in Pressure	87 psi. 95 psi
5.2.2 Cut out Pressure	114 psi 120 ± 5 psi

● **5.3 Service Brake Discs - Check -Determining The Wear Of Friction Disc**

NORMAL

Comments: 4.94 (Almost 30% Wear ony.)

5.3.1 Percentage Of Disc Wear-0 percent	4.94 Disc Thickness-5.08 mm
5.3.2 10 percent	5.03 Disc Thickness-5.03 mm
5.3.3 20 percent	4.98 4.98 mm
5.3.4 30 percent	4.93 4.93 mm
5.3.5 40 percent	4.88 4.88 mm
5.3.6 50 percent	4.83 4.83 mm
5.3.7 60 percent	4.78 4.78 mm
5.3.8 70 percent	4.72 4.72 mm
5.3.9 80 percent	4.67 4.67 mm
5.3.10 90 percent	4.63 4.63 mm
5.3.11 100 percent	4.57 4.57 mm

● **5.4 Determining The Wear Of The Grooves In The Friction Disc(1)**

NORMAL

Comments: 0.59 (Wear level is almost 30%)

5.4.1 Percentage Of Disc Wear-0 percent	0.59 0.64 mm
5.4.2 10 percent	0.62 0.62 mm
5.4.3 20 percent	0.60 0.60 mm
5.4.4 30 percent	0.59 0.59 mm
5.4.5 40 percent	0.57 0.57 mm
5.4.6 50 percent	0.55 0.55 mm
5.4.7 60 percent	0.53 0.53 mm
5.4.8 70 percent	0.51 0.51 mm
5.4.9 80 percent	0.50 0.50 mm
5.4.10 90 percent	0.48 0.48 mm
5.4.11 100 percent	0.46 0.46 mm

● **5.5 Service Brakes and Retarder System Pressure - Test**

NORMAL

Comments: System is Ok

5.5.1 Oil Pressure at the Rear Slack Adjuster (Retarder Control Lever in ON Position at High Idle	525 psi 3650 kPa (530 psi)
max	
5.5.2 Oil Pressure to the Front Brakes (Retarder Control Lever in ON Position at High Idle)	0 psi 0 kPa (0 psi)
5.5.3 Air Pressure at the Rear Air/Hydraulic Cylinder (Retarder Control Lever in ON Position at High Idle)	78 psi 550 kPa (80 psi)
5.5.4 Air Pressure at the Front Air/Hydraulic Cylinder (Retarder Control Lever in ON Position at High Idle)	0 psi 0 kPa (0 psi)

5.5.5 Oil Pressure at the Rear Slack Adjuster with Service Brake applied (Retarder Control Lever in OFF Position at High Idle)	700 psi 630 to 790 psi
5.5.6 Oil Pressure at the Front Brakes (Retarder Control Lever in OFF Position at High Idle)	2500 psi 2185 to 2760 psi
5.5.7 Air Pressure at the Rear Air/Hydraulic Cylinder with Service Brake applied (Retarder Control Lever in OFF Position at High Idle)	114 psi 95 to 120 psi
5.5.8 Air Pressure at the Front Air/Hydraulic Cylinder with Service Brake applied (Retarder Control Lever in OFF Position at High Idle)	114 psi 95 to 120 psi

● **5.6 Slack Adjuster - Test and Adjust** *NORMAL*

Comments: Good position

5.6.1 Residual Pressure at the Rear Wheels	15 psi Spec-0 to 18 psi
5.6.2 Force to move piston	218 N 220 N (50 lb)

● **5.7 Brake Cooling Pressure - Check** *NORMAL*

Comments: Ok

5.7.1 Brake Cooling Pressure at LOW IDLE	15 kpa 14 kPa (2 psi)
5.7.2 Brake Cooling Pressure at HIGH IDLE	170 kPa 172 kPa (25 psi)

Power Train System

● **6.1 Gear Pump (Power Train Charging) Pressure - Test and Adjust** *NORMAL*

Comments: Ok

6.1.1 Gear Pump (Power Train Charging) Pressure at Low Idle	350 psi 2480 kPa (360 psi)
6.1.2 Gear Pump (Power Train Charging) Pressure at High Idle	490 psi 3445 kPa (500 psi)

● **6.2 Torque Converter Lockup Clutch Supply Pressure - Test and Adjust** *NORMAL*

Comments: Ok

6.2.1 Torque Converter Lockup Clutch Supply Pressure at Low Idle	400 psi 405 ± 5 psi
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● **6.3 Torque Converter Lockup Clutch Pilot Pressure - Test and Adjust** *NORMAL*

Comments: Ok

6.3.1 Torque Converter Lockup Clutch Pilot Pressure at Low Idle	255 psi 250 ± 10 psi
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● **6.4 Torque Converter Lockup Clutch Maximum Pressure - Test** *NORMAL*

6.4.1 Torque Converter Lockup Clutch Maximum Pressure at Medium Idle	300 psi 300 ± 10 psi
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● **6.5 Torque Converter Lockup Clutch Primary Pressure - Test and Adjust** *NORMAL*

Comments: Ok

	6.5.1 Torque Converter Lockup Clutch Primary Pressure at Low Idle	134 psi 139 ± 5 psi
●	6.6 Relief Valve (Torque Converter Inlet) Pressure - Test and Adjust	NORMAL
	6.6.1 Torque Converter Inlet Pressure at High Idle	130 psi 139 ± 14 psi
●	6.7 Relief Valve (Torque Converter Outlet) Pressure - Test and Adjust	NORMAL
	Comments: Ok	
	6.7.1 Torque Converter Outlet Pressure at High Idle	60 psi 60 ± 5 psi
●	6.8 Transmission Hydraulic Control Primary Clutch Pressure - Test and Adjust (Refer Help)	NORMAL
	Comments: Comments: Clutch 1: (45 psi), Clutch 2: (63) psi, Clutch 3: (46 psi), Clutch 4: (46 psi), Clutch 5: (45 psi), Clutch 6: (46 psi), Clutch 7: (45 psi) Ok	
●	6.9 Transmission Hydraulic Control Clutch Pressure - Test (Refer Help)	NORMAL
	Comments: Comments: Clutch 1: (430 psi), Clutch 2: (328 psi), Clutch 3: (352 psi), Clutch 4: (330 psi), Clutch 5: (328 psi), Clutch 6: (424 psi), Clutch 7: (426psi). Pressures are Ok.	
●	6.10 Transmission Hydraulic Control Pilot Pressure - Test and Adjust	NORMAL
	Comments: Ok	
	6.10.1 Transmission Hydraulic Control Pilot Pressure at Medium Idle	250 psi 255 ± 5 psi
Steering System		
●	7.1 Relief Valve (Primary Steering Backup) - Test and Adjust	NORMAL
	Comments: Ok	
	7.1.1 Backup Relief Valve Pressure	3750 psi 3771 ± 58 psi
●	7.2 Piston Pump (Steering) Pressure - Test and Adjust	NORMAL
	Comments: Ok	
	7.2.1 High-Pressure Cut off Valve Pressure	3100 psi 3075 ± 50 psi
	7.2.2 Low-Pressure Standby	450 psi 460 psi
●	7.3 Relief Valve (Secondary Steering Backup) - Test and Adjust	NORMAL
	Comments: Ok	

	7.3.1 Secondary Steering Backup Relief Valve Pressure	3000 psi 3002 ± 58 psi
●	7.4 Relief Valve (Secondary Steering Main) - Test and Adjust	NORMAL
	Comments: Ok	
	7.4.1 Secondary Steering Main Relief Valve Pressure	2520 psi 2500 ± 50 psi
●	7.5 Pressure Reducing Valve (Steering) - Test	NORMAL
	Comments: Ok	
	7.5.1 Pressure Reducing Valve Pressure	3800 psi 377 + 73 - 29 psi
●	7.6 Relief Valve (Steering Cylinder) - Test	NORMAL
	Comments: Ok	
	7.6.1 Steering Cylinder Relief Valve Pressure	3950 psi 3945 psi
SOS Sampling		
●	8.1 Engine Oil Sample	N/A
●	8.2 Cooling System Coolant Sample (Level 1)	N/A
●	8.3 Engine Coolant Sample (Level II)	N/A
●	8.4 Hoist, Torque Converter, and Brake Tank Oil Sample	N/A
●	8.5 Front Wheel Oil Sample	N/A
●	8.6 Differential and Final Drive Oil Sample	N/A
●	8.7 Differential and Final Drive Oil Sample	N/A
●	8.8 Transmission Tank Oil Sample	N/A
●	8.9 Steering System Oil Sample	N/A