

Cat® 305.5E2 CR

MINI HYDRAULIC EXCAVATOR
WITH SWING BOOM

FEATURES:

The Cat® 305.5E2 CR Mini Hydraulic Excavator delivers high performance, durability and versatility in a compact design to help you work in a variety of applications. The 305.5E2 CR features the following:

QUALITY

- The durable hoods and frame and the compact radius design of the 305.5E2 let you work comfortably and confidently in confined areas.
- The operator environment includes a high quality suspension seat, easy to adjust armrests and 100% pilot controls which offer consistent and long-lasting controllability.

EFFICIENCY

- High Definition Hydraulic System provides a load sensing and flow sharing capability leading to operational precision, efficient performance and greater controllability.
- Power on Demand provides optimal efficiency and performance the moment you need it. This automatic system ensures fuel efficiency through appropriate engine rating to meet all operational needs as required.

VERSATILITY

- Broad range of Cat Work Tools make the Cat Mini Excavator a versatile machine able to meet the requirements of any job site.
- Over 200 degrees of bucket rotation provides greater material retention during truck loading and easier flat wall digging without having to reposition the machine.

PERFORMANCE

- Front shovel bucket orientation provides the operator with more ways to get the job done faster.
- COMPASS Control Panel is a standard feature that allows the operator to easily adjust auxiliary flows to achieve the optimal work tool performance, activate auto idle for improved fuel efficiency and utilize the security system to ensure protection of valuable assets with the simple touch of a button.
- The Site Reference System included in the COMPASS monitor provides output from pitch and roll sensors to aid in grading and level trenching. This impacts accuracy and productivity for job site finishing.

SERVICEABILITY

- Convenient service and maintenance requirements include ease of access to daily check points, 500 hour engine oil and filter change period, 500 hour grease interval on front implement, S-O-SSM oil sampling valve and overall long term durability.

SAFETY

- All Cat Mini Excavators from 3.5 metric tons to 8 metric tons are ROPS, TOPS and Top Guard Level 1 certified and include the Cat Interlock (hydraulic lockout) System, a certified accumulator which allows for auxiliary pressure to be released, making connecting and disconnecting work tools safer and easier, and a travel alarm. All of these safety features are standard on the E2 model lineup (travel alarm optional in Europe).

Specifications

Engine

Engine Model*	Cat C2.4	
Rated Net Power @ 2,200 rpm ISO 9249/EEC 80/1269	32.9 kW	44.1 hp
Gross Power ISO 14396	34.1 kW	45.7 hp
Bore	87 mm	3.4 in
Stroke	102.4 mm	4 in
Displacement	2.4 L	146 in ³

*Meets U.S. EPA Tier 4 Final/EU Stage IIIA emission standards.

Weights*

Weight – Canopy, Standard Stick	5217 kg	11,503 lb
Weight – Canopy, Long Stick	5259 kg	11,596 lb
Weight – Cab, Standard Stick	5380 kg	11,863 lb
Weight – Cab, Long Stick	5423 kg	11,958 lb

*Weight includes counterweight, rubber tracks, bucket, operator, full fuel and auxiliary lines.



305.5E2 CR Mini Hydraulic Excavator with Swing Boom

Swing System

Machine Swing Speed	10 rpm
Boom Swing – Left* (without stop)	80°
Boom Swing – Left* (with stop)	60°
Boom Swing – Right	50°

*Automatic swing brake, spring applied, hydraulic release.

Travel System

Travel Speed – High	4.5 km/h	2.8 mph
Travel Speed – Low	2.8 km/h	1.7 mph
Max Traction Force – High Speed	26.8 kN	6,025 lb
Max Traction Force – Low Speed	47.8 kN	10,746 lb
Ground Pressure – Canopy	31 kPa	4.5 psi
Ground Pressure – Cab	31.9 kPa	4.6 psi
Gradeability (maximum)	30°	

Service Refill Capacities

Cooling System	10.5 L	2.8 gal
Engine Oil	9.5 L	2.5 gal
Fuel Tank	63 L	16.6 gal
Hydraulic Tank	68.3 L	18 gal
Hydraulic System	78 L	20.6 gal

Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump		
Pump Flow at 2,400 rpm	150 L/min	39.6 gal/min
Operating Pressure – Equipment	245 bar	3,553 psi
Operating Pressure – Travel	245 bar	3,553 psi
Operating Pressure – Swing	216 bar	3,132 psi
Auxiliary Circuit – Primary (186 bar/2,734 psi)	80 L/min	21.1 gal/min
Auxiliary Circuit – Secondary (174 bar/2,524 psi)	25 L/min	6.6 gal/min
Digging Force – Stick (standard)	28.9 kN	6,500 lb
Digging Force – Stick (long)	24.8 kN	5,575 lb
Digging Force – Bucket	50.9 kN	11,445 lb

Blade

Width	1980 mm	78.0 in
Height	375 mm	14.8 in
Dig Depth	555 mm	21.9 in
Lift Height	405 mm	15.9 in

Cab

Dynamic Operator Sound Pressure Level (ISO 6396:2008)	81 dB(A)
Exterior Sound Power Level (ISO 6395:2008)*	97 dB(A)

*European Union Directive "2000/14/EC"

Certification – Cab and Canopy

Roll Over Protective Structure (ROPS)	ISO 12117-2
Tip Over Protective Structure (TOPS)	ISO 12117
Top Guard	ISO 10262 (Level I)

Operating Specifications

Stick Length – Standard	1420 mm	55 in
Stick Length – Long	1820 mm	70 in
Counterweight	165.3 kg	364.4 lb

Undercarriage

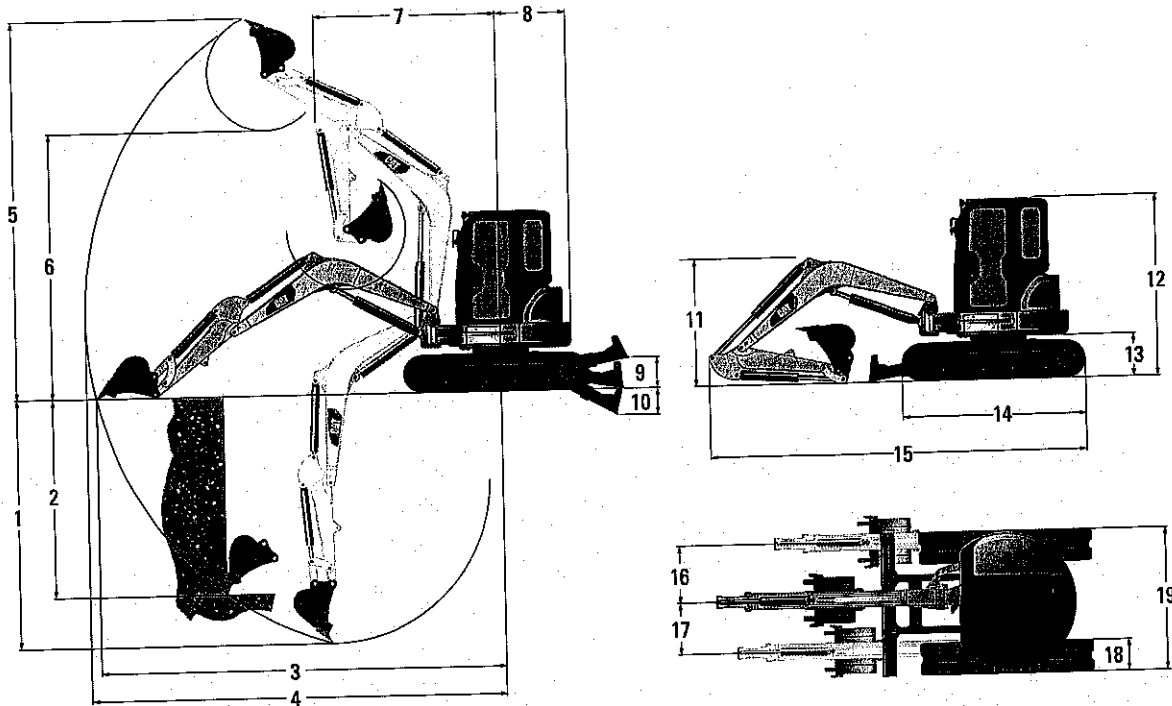
Number of Carrier Rollers	3
Number of Track Rollers	3
Track Roller Type	Triple Flange

Lift Capacities at Ground Level*

Lift Point Radius		3000 mm (9'8")		4500 mm (14'9")	
		Front	Side	Front	Side
Blade Down	kg	2590	1290	1380	690
	(lb)	(5,710)	(2,844)	(3,042)	(1,521)
Blade Up	kg	1550	1150	820	620
	(lb)	(3,417)	(2,535)	(1,808)	(1,367)

*The above loads are in compliance with hydraulic excavator lift capacity rating standard ISO 10567:2007 and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. The excavator bucket weight is not included on this chart. Lifting capacities are for standard stick.

305.5E2 CR Mini Hydraulic Excavator with Swing Boom



Dimensions

	Standard Stick		Long Stick	
	mm	in	mm	in
1 Dig Depth	3470	137	3870	152
2 Vertical Wall	2330	92	2730	107
3 Maximum Reach at Ground Level	5630	222	6020	237
4 Maximum Reach	5790	228	6170	243
5 Maximum Dig Height	5330	210	5590	220
6 Maximum Dump Clearance	3820	150	4080	161
7 Boom In Reach	2400	94	2530	100
8 Tail Swing	1130	44	1130	44
9 Maximum Blade Height	405	16	405	16
10 Maximum Blade Depth	555	22	555	22
11 Boom Height in Shipping Position	1740	69	2150	85
12 O/A Shipping Height	2550	100	2550	100
13 Swing Bearing Height	615	24	615	24
14 O/A Undercarriage Length	2580	102	2580	102
15 O/A Shipping Length	5330	210	5460	215
16 Boom Swing Right	785	31	785	31
17 Boom Swing Left	695	27	695	27
18 Track Belt/Shoe Width	400	16	400	16
19 O/A Track Width	1980	78	1980	78

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STANDARD EQUIPMENT

- ENGINE**
 - Cat C2.4 diesel engine (meets U.S. EPA Tier 4 Final emission standards for North America and EU Stage IIIA/Tier 4 Interim emission standards for all other regions)
 - Automatic engine idle
 - Automatic engine shut-off
 - Automatic two speed travel
 - Diesel Particulate Filter (North America only)
 - Diesel Oxidation Catalyst (North America only)
 - Fuel and water separator
 - Power on demand
- HYDRAULIC SYSTEM**
 - 1-way and 2-way (combined function)
 - Accumulator
 - Automatic swing parking brake
 - Auxiliary hydraulic lines
 - Adjustable auxiliary relief
 - Auxiliary line quick disconnects
 - Cat interlock system: hydraulic lockout
 - Continuous auxiliary flow
 - Ecology drain
 - Hydraulic oil cooler
 - High definition hydraulics
 - Load sensing/flow sharing
- OPERATOR ENVIRONMENT**
 - 100% pilot control ergonomic joysticks
 - Adjustable armrests
 - COMPASS: complete, operation, maintenance, performance and security system
 - Multiple languages
 - Cup holder
 - Hydraulic neutral lockout bar
 - Literature holder
 - Pattern changer (optional in Europe)
 - Site reference system: leveling
 - Tool storage area
 - Travel control pedals with hand levers
 - Washable floor mat
- UNDERCARRIAGE**
 - Dozer blade with float function
 - Track, rubber belt, 400 mm (16 in) width
 - Tie down eyes on track frame
 - Towing eye on base frame
- FRONT LINKAGE**
 - 200 degree bucket rotation
 - Certified lifting eye on bucket linkage (optional in Europe)
 - Front shovel capable
 - Thumb ready stick
- ELECTRICAL**
 - 12 volt electrical system
 - 60 ampere alternator
 - 650 CCA maintenance free battery
 - Fuse box
 - Ignition key start/stop switch
 - Slow blow fuse
 - Warning horn
- LIGHTS AND MIRRORS**
 - Boom light with time delay capability
- SAFETY AND SECURITY**
 - Anti-theft system (COMPASS)
 - Caterpillar Corporate "One Key" System
 - Door locks
 - Lockable fuel cap
 - Retractable seat belt
 - Roll Over Protective Structure (ROPS) (ISO 12117-2)
 - Tip Over Protective Structure (TOPS) (ISO 12117)
 - Top guard – ISO 10262 (Level 1)
 - Travel alarm (optional in Europe)

OPTIONAL EQUIPMENT

- ENGINE**
 - Engine block heater
- HYDRAULIC SYSTEM**
 - Quick coupler lines
 - Boom lowering check valve
 - Stick lowering check valve
 - Secondary auxiliary hydraulic lines
- OPERATOR ENVIRONMENT**
 - Cab:
 - Air conditioning
 - Heat
 - High back suspension seat
 - Interior light
 - Interlocking front window system
 - Radio
 - Windshield wiper
- UNDERCARRIAGE**
 - Power angle blade
 - Track, double grouser (steel), 400 mm (16 in)
 - Track, double grouser (steel) with rubber pad, 400 mm (16 in)
- FRONT LINKAGE**
 - Quick coupler: manual or hydraulic
 - Thumb
 - Buckets
 - Full range of performance matched work tools
 - Auger, hammer, ripper
- LIGHTS AND MIRRORS**
 - Light, cab with time delay capability
 - Mirror, canopy right
 - Mirror, canopy left
 - Mirror, cab rear
- SAFETY AND SECURITY**
 - Battery disconnect
 - Beacon socket
 - Front wire mesh guard
 - Rearview camera
 - Vandal guard
- TECHNOLOGY**
 - Product Link™
- OTHER ATTACHMENTS**
 - Counterweight, extra

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PM 3 PERFORM (1000 HOURS INTERVAL)

● 0 ● 0 ● 26 ● 0

PM Checklist

Inspection Number 11673167
Serial Number CR500774
Equipment Family EXCAVATORS
Location

Make CATERPILLAR
Model 3055E
SMU 3009 Hours
Coordinates

Completed On 15/02/2023 4:01:10 PM

Inspector Ray Berry

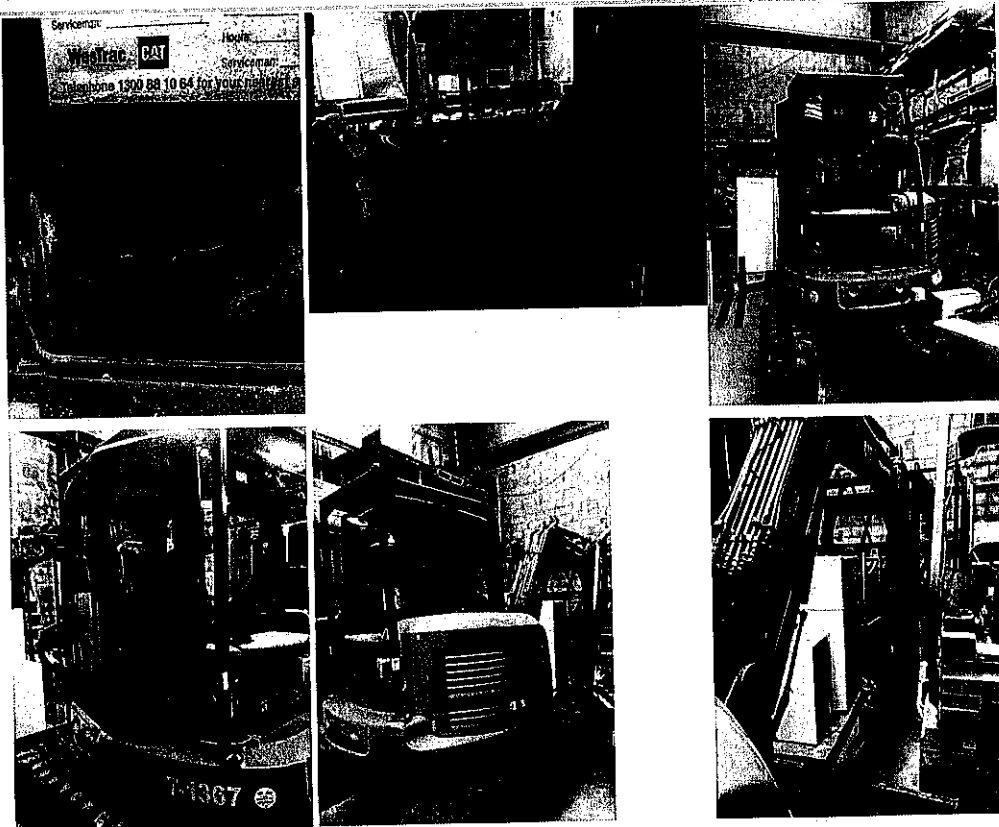
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Technician *RB*

General Info & Comments

● General info/Comments

NORMAL





PM 3 PERFORM (1000 HOURS INTERVAL)

● **1.1 TAKE & ANALYZE SOS SAMPLE FROM ENGINE OIL**

NORMAL

Job : 008
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :
Part Number : SOS
Part Quantity : 1.0

● **1.2 CHECK FINAL DRIVE FLUID LEVEL**

NORMAL

Job : 535
Modifier : FLV
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

● **1.3 CHECK QUICK COUPLER**

NORMAL

Job : 535
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

● **1.4 INSPECT MAIN FRAME**

NORMAL

Job : 040

Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

NORMAL

● **1.5 LUBRICATE STICK LINKAGE**

Job : 086
Modifier : KL
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

NORMAL

● **1.6 INSPECT STICK**

Job : 040
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

NORMAL

● **1.7 LUBRICATE BOOM**

Job : 086
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

NORMAL

● **1.8 INSPECT BOOM**

Job : 040
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

NORMAL

● **1.9 LUBRICATE BLADE LINKAGE**

Job : 086
Modifier : KL
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

● **1.10 LUBRICATE SWING CYLINDER PIN**

NORMAL

Job : 086
Modifier : PN
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

● **1.11 REPLACE WITH NEW ENGINE OIL & FILTER**

NORMAL

Job : 511
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :
Part Number : DEO-ULS
Part Quantity : 2.5360528978

● **1.12 TAKE & ANALYZE SOS SAMPLE FROM HYDRAULIC SYSTEM**

NORMAL

Job : 008
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :
Part Number : SOS
Part Quantity : 1.0

● **1.13 REPLACE WITH NEW WATER SEPARATOR ELEMENT**

NORMAL

Job : 511
Modifier : FQ
Quantity :
WorkApp :
JobLocation :

JobCond :
CabType :
Part Number : 3635819
Part Quantity : 1.0

● **1.14 TAKE & ANALYZE SOS SAMPLE FROM FINAL DRIVE**

NORMAL

Job : 008
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :
Part Number : SOS
Part Quantity : 2.0

● **1.15 CLEAN BATTERY**

NORMAL

Job : 070
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

● **1.16 TIGHTEN/TORQUE BATTERY BOX/SUPPORT**

NORMAL

Job : 527
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

● **1.17 DRAIN / REFILL FINAL DRIVE OIL**

NORMAL

Job : 044
Modifier : OC
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :
Part Number : GO
Part Quantity : 0.5283443537

● **1.18 INSPECT BLADE**

NORMAL

Job : 040
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

● **1.19 CLEAN PRIMARY AIR FILTER ELEMENT ELEMENT**

NORMAL

Job : 070
Modifier : FQ
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

● **1.20 INSPECT LIFTING HOOK**

NORMAL

Job : 040
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :

● **1.21 REPLACE WITH NEW V-BELT(S)**

NORMAL

Job : 511
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :
Part Number : 3891590
Part Quantity : 1.0

● **1.22 CHECK INLET/EXHAUST VALVE**

NORMAL

Job : 535
Modifier :
Quantity :
WorkApp :
JobLocation :

JobCond :
CabType :
Part Number : 3830565
Part Quantity : 1.0

● **1.23 REPLACE WITH NEW SECONDARY AIR FILTER ELEMENT**

NORMAL

Job : 511
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :
Part Number : 4152593
Part Quantity : 1.0

● **1.24 INSPECT V-BELT(S)**

NORMAL

Job : 040
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :
Part Number : 3891590
Part Quantity : 1.0

● **1.25 PERFORM PM 3**

NORMAL


Job : 540
Modifier :
Quantity :
WorkApp :
JobLocation :
JobCond :
CabType :



CSA MACHINE INSPECTION REPORT

● 2 ● 1 ● 45 ● 11

PM

Inspection Number 15000215
 Serial Number CR500774
 Make CATERPILLAR
 Model 305.5
 Equipment Family EXCAVATORS
 SMU 3504 Hours
 Location
 Coordinates 0, 0, 0
 Technician 

Customer No
 Customer Name
 Customer Phone
 Customer Email
 Work Order
 Completed On 13/11/2023 12:17:48 PM
 Inspector Miles Myres
 PDF Generated On 13/11/2023

General Info & Comments

General info/Comments

NORMAL

Comments: Product link radio harness severed

Air Filters:

1.1 Air Filters

VERY GOOD

Air Intake

2.1 Air Intake

VERY GOOD

Automatic Grease System Fittings / Lines & Hoses

3.1 Automatic Grease System Fittings / Lines & Hoses

VERY GOOD

Brakes Operations

4.1 - Accumulator

VERY GOOD

4.2 - Service

VERY GOOD

4.3 - Park

VERY GOOD

Bucket

5.1 - Pins & Bushes

GOOD

5.2 - Kickouts

GOOD

5.3 - Quick Coupler

GOOD

5.4 - Cutting Edges / Tips & Wear Plates

GOOD

Condition of Machine

6.1 - Accident Damage

GOOD

6.2 - Cleanliness

GOOD

6.3 - Corrosion

GOOD

6.4 - Cab

GOOD

Drive Shaft / Uni Joints

7.1 - Drive Shaft / Uni Joints

NA

Electrical

8.1 - Batteries

GOOD

8.2 - Backup Alarm

GOOD

8.3 - Harnesses

POOR

Comments: Product link radio harness severed

8.4 - Horn

VERY GOOD

● 8.5 -Lights/ Work/ Beacon / Indicators/ Stop -Tail	VERY GOOD
● 8.6 -Circuit Breakers/ Fuses	VERY GOOD
● 8.7 -Emergency Stop	VERY GOOD
Exhaust / Muffler	VERY GOOD
● 9.1 Exhaust / Muffler	VERY GOOD
Fire Extinguisher / Suppression System	GOOD
● 10.1 Fire Extinguisher / Suppression System	GOOD
Fluid Leaks	FAIR
● 11.1 Fluid Leaks	FAIR
Comments: Minor weep around control valve	
Fluid Levels	VERY GOOD
● 12.1 -Engine Oil	VERY GOOD
● 12.2 -Coolant	NA
● 12.3 -Transmission	VERY GOOD
● 12.4 -Hydraulic	NA
● 12.5 -Diff	VERY GOOD
● 12.6 -Final Drive	VERY GOOD
● 12.7 -Swing Drive	NA
● 12.8 -Wheel Bearings	NA
Hydraulic Cylinders	GOOD
● 13.1 - Rods Bent or Pitted	GOOD
● 13.2 - Pins & Bushes	GOOD
● 13.3 Hoses & Lines	GOOD
● 13.4 Leaking	GOOD
Loader Frame	NA
● 14.1 Pins & Bushes	NA
Product Link / Synchronizes with Machine SMU	POOR
● 15.1 Product Link/ Synchronizes with Machine SMU	POOR
Comments: Radio harness severed	
Radiator	GOOD
● 16.1 Core	GOOD
● 16.2 Cooler	GOOD
● 16.3 Hoses	GOOD
ROPS	VERY GOOD
● 17.1 ROPS	VERY GOOD
Seat / Seat Belt	GOOD
● 18.1 -Seat / Seat Belt	GOOD
Steering	NA
● 19.1 -Supplementary	NA
Steps / Walkways & Handrails	VERY GOOD
● 20.1 -Steps / Walkways & Handrails	VERY GOOD
Undercarriage	NA
● 21.1 -Centre (Artic) Hitch	NA
● 21.2 Chain	GOOD
● 21.3 Idlers	NA
● 21.4 Rims	GOOD
● 21.5 Shoes	GOOD
● 21.6 Sprockets	NA
● 21.7 Tyres	NA
● 21.8 Trunnions	NA
Vee' Belts & Pulleys	GOOD
● 22.1 Vee' Belts & Pulleys	GOOD

Windows

- 23.1 Windows

GOOD

Window Wiper / Washers

- 24.1 Window Wiper / Washers

GOOD

Additional Faults Found

- 25.1 Additional Faults Found

SELECT TO ADD TEXT