

Excavator 500HR SERVICE

Unit Number: EX02 SMU: 9500 EX02 Date: 17-8-21

ENSURE MACHINE IS ISOLATED CORRECTLY AND ALL PERSONS WORKING ON MACHINE HAVE THE CORRECT TAG IN PLACE.

Engine	Initial
SOS Engine Oil	✓
Change engine oil filters -	✓
Change engine oil -	✓
Change fuel pre-filter -	✓
Change fuel filter -	✓
Change air cleaner	✓
Change inner air cleaner	✓
Check engine oil level	✓
Lubricate fan bearings	N/A

Pump Drive	Initial
SOS pump drive	✓
Change pump drive filter	N/A
Change pump drive oil- NOTE NEW SERVICE INTERVAL OF 250 HOURS	N/A
Check front pump drive oil level -	✓

Hydraulic System	Initial
SOS hydraulic oil	✓
Change hydraulic oil @ 4000hr intervals SEE SUPERVISOR FIRST	N/A
Check hydraulic oil level -	✓
Change hydraulic filters	/
Change hydraulic filter O'Rings -	
Replace hydraulic drain filters	
Replace pilot oil filter	
Clean hydraulic filter/strainer for auto greaser	

Swing Drives	Initial
SOS front swing drive	/
Change front swing drive oil -	
Check front swing drive oil level	✓
SOS rear swing drive	/
Change rear swing drive oil -	
Check rear swing drive oil level	

EXCAVATOR SERVICING

Excavator Scheduled Servicing

500HR SERVICE

Unit No: EX02 Date: 29/12/20 SMU: 7787HRS

ENSURE MACHINE IS ISOLATED CORRECTLY AND ALL PERSONS WORKING ON MACHINE HAVE THE CORRECT TAG IN PLACE.

Engine	Initial
SOS Engine Oil	RR
Change engine oil filters -	EB
Change engine oil -	EB
Change fuel pre-filter -	RR
Change fuel filter -	RR
Change air cleaner	RR
Lubricate fan bearings	N/A
Check engine oil level	EB
Pump Drive	Initial
SOS pump drive	N/A
Change pump drive oil filter	N/A
Change pump drive oil- NOTE NEW SERVICE INTERVAL OF 250 HOURS	N/A
Check front pump drive oil level -	N/A

Hydraulic System	Initial
SOS hydraulic oil	RR
Check hydraulic oil level -	RR
Change hydraulic filters -	RR
Change hydraulic filter O'Rings	RR
Change hydraulic tank breather	RR
Swing Drives	Initial
SOS front swing drive	RR
Check front swing drive oil level	RR
SOS rear swing drive	N/A
Check rear swing drive oil level	N/A

Rev 2

PREPARED BY

CHECKED BY

APPROVED BY

12/06/2019

Willie Weismantel

EXCAVATOR SERVICING

Final Drives	Initial
SOS left side final drive	RL
Check left side final drive oil level - Mobil Lube HD Plus 80W90	RL
SOS right side final drive	RL
Check right side final drive oil level - Mobil Lube HD Plus 80W90	RL

Mechanical Inspection

1. DESCRIPTION	2. Initial	COMMENTS
Engine		
Check engine oil level	EB	
Check engine for leaks-coolant, fuel, oil and exhaust	RL	
Check engine coolant level	RL	
Check for coolant leaks	RL	
Check all hose clamps	RL	
Check air intake hose condition	RL	
Check/clean radiator core	RL	
Check radiator cap-Use caution if hot	RL	
Check all belts for tension and condition	RL	
Check engine mounts for condition and bolt tension	RL	
Pump Drive		
Check pump drive oil level	N/A	
Check for pump drive oil leaks	RL	
Check pump drive mounting bolts	RL	
Hydraulic System		
Check hydraulic oil level	RL	
Check pump mount bolts for tension	RL	
Check pumps for leaks	RL	
Check system for leaks and record/repair	RL	
Check hoses for leaks and abrasions and repair/record	RL	
Check/clean hydraulic oil cooler core	RL	
Check operation of hydraulic lock out	RL	
Check all cylinders leaks and damage	RL	
Electrical System		
Check function of LED screen when machine is running	RL	
Check warning lights on all in cab control systems	RL	
Check all machine lights and repair as required	RL	
Clean battery terminals	RL	
Check battery hold down clamps	RL	
Check harnesses for security and damage	RL	
Check air-conditioner for operation and clean filters	RL	
Check auto greaser for operation and all points receiving grease	N/A	
Swing Drives		
Check swing drive levels front and rear Front(✓) Rear(N/A)	RL	
Check swing drives for oil leaks	RL	
Check swing drive mounting bolts	RL	
Undercarriage and Bucket		
Check final drive oil levels Left(✓) Right(✓)	RL	

EXCAVATOR SERVICING

1. DESCRIPTION	2. Initial	COMMENTS
Check sprocket bolts	RR	
Check final drives for leaks	RR	
Check and adjust track tension as required	RR	
Check track s for loose pads	RR	
Check idlers and rollers for leaks, loose bolts and condition	RR	
Inspect track frames for cracks and damage	RR	Visual.
Check bucket GET condition	RR	* Rock breaker
Check bucket for cracks	RR	* Attachment

	DEFECTS	PARTS SHEET YES/NO	COMPLETED YES/NO
1.	Access ladder & handrail bent-		
2.	R/H Side Guard damage.		
3.	9KG FIRE EXT BLACKET w/s		
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

Comments:

CARRIED OUT BY:

Ray Roberts

Roberts

29/12/20

CHECKED & RECORDED BY:

Print Name:

Signed:

Date:

EXCAVATOR SERVICING

ITEM	DATE	INITIALS	EX1200-5	Litres	OIL	Oil used
Completed						
1000hr test						
1000hr sent						
1000hr form						
Defects						

Service History

Filter Clear											
		Group Number	Partcausing Failure	Repairing Dealer	Service Meter Measurement	Repair Date			Work Order Number		Comment
		7501	No Part Number	<u>T110</u>	6336 Hours	05Aug2019			<u>EW11345</u>		Pm1 Service
		7755	PS46186	<u>T110</u>	6056 Hours	29Jun2019			<u>EW11283</u>		S/L 24 March 2019
		7524	No Part Number	<u>T070</u>	4793 Hours	21Sep2018			9441809		250 Hr Pm Service
		7525	No Part Number	<u>T070</u>	4512 Hours	25May2018			9441805		500 Hr Pm Service
		7529	No Part Number	<u>T070</u>	4084 Hours	03Mar2018			<u>EA81448</u>		4000 Hr Pm Service
		7524	No Part Number	<u>T070</u>	3777 Hours	20Dec2017			9441712		250HR Service
		7525	No Part Number	<u>T070</u>	3471 Hours	29Sep2017			9441710		500HR Service
		7524	No Part Number	<u>T070</u>	3255 Hours	03Aug2017			9441708		250HR Service
		7545	No Part Number	<u>T070</u>	3039 Hours	18Jun2017			<u>EA77395</u>		3000 Hour Pm Service
		7524	No Part Number	<u>T070</u>	2812 Hours	17May2017			9441705		250 Hr Service
		7525	No Part Number	<u>T070</u>	2633 Hours	08Apr2017			9441704		500 Hour Services
		7524	No Part Number	<u>T070</u>	2230 Hours	13Jan2017			9441701		250 Hour Service
		7527	No Part Number	<u>T070</u>	1979 Hours	27Nov2016			<u>EA74551</u>		2000 Hour Pm Service

Regards

Matthew Curtis | WesTrac Pty Ltd | Sales Consultant | General Construction

T: (08) 9362 7404 | M: 0400 968 194 | I: www.westrac.com.au

Date 21/07/2020

Work Order FS57958

Purchase Order
W100715

Caterpillar
Serial No. 0KBZ00196

Caterpillar
Model 321DLCR

SMU Reading
0 Hours

Last Labour Date
9/07/2020

COMPLAINT

CUSTOMER

U/EQUIP MACH - BUY-INS
MARKETING SUPPORT
GUILDFORD

CORRECTION

Description		Action Taken
(01)	CARRY OUT MACHINE	COMPLAINT: COMPLETE 500HR SERVICE. CAUSE: UP ON HOURS. CORRECTION: 08.07.20 COMPLETE 500HR SERVICE ON MACHINE AS PER OMM. ALSO COMPLETE MACHINE INSPECTION WITH PROVIDED PAPERWORK. CHANGED OUT BATTERIES & ENGINE OIL DIPSTICK.
(03)	TROUBLESHOOT PRODUCT LINK SYSTEM	09.07.20 DOWNLOAD ECMS. UPDATE ALL FLASH FILES. ADJUST CONFIGURATION AS REQUIRED. INSPECT ALL PARAMETERS. RECTIFY ANTENNA WIRING. SEND REGISTRATION REQUEST. REGISTRATION CONFIRMATION RECEIVED.

SO4 CONTROLLED DOCUMENT

1000hr (6 Monthly) Excavator Servicing Instructions for CAT320D c/w
Wetland Mods



Description:

- To regularly maintain the amphibious excavator as per the required service schedule to ensure the excavator operates effectively and reliably.

Risk Assess Your Task:

- Complete a Take 5 for your task with consideration to your environment and conditions.
- If determined by your Take 5, then a JHA will need to be developed prior to starting the job. Discuss the task with your supervisor and ensure all controls identified are effective at controlling the hazards.

Tools & Equipment:

- Service tool kit
- Cleaning rags
- Grease gun
- Waste oil container

Materials & Parts:

- Spray bottle (detergent / water mixture)
- SAE10W Hydraulic oil (CAT HYDO Adv. 10)
- SAE15W/40 Diesel engine oil (CAT DEO)
- First fuel (water separator) filter / element
- Secondary fuel filter
- Secondary air filter
- CRC battery terminal protector
- Hydraulic System Pilot Oil Filter
- Castrol EPLX 200-2 Grease (CAT Prime application grease – NLGI Grade 2)
- Oil sample kits/bottles.
- Engine oil filter
- Nulon long life red engine coolant
- Engine crankcase breather o-ring
- Fuel tank cap filter kit
- Third fuel filter
- CRC battery terminal cleaner
- Hydraulic System Case Drain Oil Filter
- API GL4 Gear oil (SAE 90)

Procedure:

Carry out the visual inspections and checks as listed below and apply inspection condition code:

- ☒ Item in good repair and functioning correctly.
- ☒ Item faulty, repair/replace if possible, otherwise inform supervisor.

Section 1: Engine

Tasks	☒ / ☒ or value
1. Obtain cooling system coolant sample. Return sample together with documentation to your supervisor.	X
2. Check cooling system coolant level. Level to be maintained between "Full" and "Low" level marks on reservoir. If required, top up reservoir.	✓

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Wetland Mods



3. Inspect cooling system (reservoir, radiator, hose) for leaks, damage (cracks, chaffing) or loose clamps.	✓
4. Clean radiator core. Inspect for leaks or damage.	✓
5. Obtain engine oil sample. Return sample together with documentation to your supervisor.	X
6. Change engine oil and filter. Requires 30 litres of SAE15W/40 oil. Oil level should be between "H" and "L" mark on dipstick.	✓
7. Inspect engine for oil and coolant leaks. Repair leaks if related to looseness.	✓
8. Clean engine crankcase breather.	No stock X
9. Replace fuel system water separator filter element.	✓
10. Replace fuel system secondary filter.	✓
11. Replace fuel system third filter.	✓
12. Drain fuel tank for water and sediment into appropriate container by opening drain valve.	X
13. Clean fuel tank cap and strainer.	✓
14. Inspect fuel supply tank pipework, hoses and connectors for leaks, damage (chaffing, degradation) or looseness.	✓
15. Inspect turbo for oil leaks, looseness, and damage.	✓
16. Clean refrigerant condenser. Inspect for damage (fins).	✓
17. Clean primary air filter. Inspect element for pleat damage, tears and/or holes.	✓
18. Replace secondary air filter.	✓
19. Inspect engine gauges for damage. Ensure window/s and gauge needle/s are intact and operational.	✓
20. Clean battery surface with cloth. Tighten battery hold-downs and inspect cable connection to battery terminals for looseness. Clean and lubricate with battery terminal protector	✓
21. Inspect engine ground stud for signs of looseness or corrosion.	✓
22. Inspect electrical wiring for chaffing, heat damage and degradation.	✓
23. Inspect alternator and starter motor mounting is secure, and electrical connections for looseness.	✓
24. Inspect alternator belt for correct tension, wear, fraying and cracking.	✓
25. Inspect air conditioner belt for correct tension, wear, fraying and cracking.	✓
26. Inspect engine valve lash, adjust if required	N/A

Section 2: Hydraulics

Tasks	☑ / ☒ or value
1. Obtain hydraulic system oil sample. Return sample together with documentation to your supervisor.	N/A
2. Check hydraulic system oil Level. If required, refill to specified level with SAE10W hydraulic oil (CAT HYDO Adv. 10)	✓

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Wetland Mods



3. Replace hydraulic system case drain oil filter.	X
4. Replace hydraulic system pilot oil filter	X
5. Inspect hydraulic hoses for leaks, damage (chaffing, cracking) and looseness.	✓
6. Inspect hydraulic tank, pump and valves for leaks, damage and looseness. Tighten loose connectors.	✓

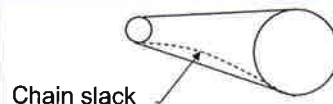
Section 3: Cabin

Tasks	✓ / ✗ or value
1. Inspect "Run Strobe Light". Ensure lens is intact and light is operational.	✓
2. Test the travel alarm. Ensure alarm operates in forward and reverse.	✓
3. Test indicators and gauges. Look for broken lenses on the gauges, broken indicator lights, broken switches, and other broken components in the cab. Look for inoperative gauges.	✓
4. Test machine lights. Turn on all machine lights. Check for proper operation.	✓
5. Check the operation of emergency stop button. NB: Idle down engine before operating the button. Ensure button latches when depressed and engine shuts down completely.	✓
6. Inspect condition and legibility of emergency stop label.	✓
7. Inspect electrical wiring for chaffing, heat damage and degradation.	✓
8. Inspect seat belt for worn, frayed or damaged webbing. Inspect buckle and mounting hardware for damage, wear and looseness.	✓
9. Clean windows.	✓
10. Inspect wiper blades for wear, damaged or if streaking occurs.	✓
11. Inspect window washer reservoir level. If required, top up with washer fluid. Inspect for leaks, damage and looseness.	✓
12. Clean the camera lens. Use a soft cloth for cleaning.	✓
13. Clean cabin air filter (fresh air). Inspect filter for damage or badly contaminated.	✓
14. Clean air conditioner / cab heater recirculation filter element. Inspect filter for damage or badly contaminated.	✓

*Air can not
work*

Section 4: Undercarriage

Tasks	✓ / ✗ or value
1. Inspect drive chain adjustment. Chain slack/sag should be approx. 1½ inches (between 35mm – 40mm).	_____ mm
2. Inspect drive end push ram adjuster assembly for damage and looseness.	✓
3. Inspect drive chain for excessive wear or damage.	✓



Chain slack

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4. Inspect drive sprockets for excessive wear, looseness or damage.		✓
5. Check alignment of drive sprockets. Centre line of each sprocket must not be more than 1mm (3/32") out of line. - Record left and right side		R _____ mm L _____ mm
6. Replace drive gearbox oil. Use API GL4 Gear oil (SAE 90)		X
7. Replace swing drive gearbox oil. Use API GL4 Gear oil (SAE 90) a) Remove drain hose "2" from holder "1" face hose towards waste container b) Use a socket extension to loosen the drain valve in hole "3", drain oil. c) Close drain valve back up d) Add specified oil (8 litres/drive) through the dipstick tube. e) Check oil level	 Illustration 433 g00101586 The oil drain hose is under the center of the upper structure.	X
8. Inspect drive assembly (motor, gearbox, hoses) for damage, oil leaks, looseness.		✓
9. Inspect track chain adjustment at rear sprocket). Track slack is correct when 7 th cleat from top sprocket touched pontoon.		N/A
10. Inspect idler end push ram adjuster assembly for damage and looseness.		N/A
11. Inspect track sprockets for excessive wear or damage.		✓
12. Check track chain and sprocket assembly alignment.		✓
13. Inspect track idler assembly for damage or looseness.		✓
14. Inspect track chain for excessive wear or damage.		✓
15. Inspect the track cleats for loose or missing bolts, damage (bent, distortion), wear and for excessive dirt build-up.		✓
16. Inspect track for missing, worn or loose wear pads.		✓
17. Inspect pontoon track guide channels for wear or damage.		N/A
18. Inspect pontoons for damage (deformations, punctures) or cracks (welds and structure).		N/A
19. Check pontoon drain plugs are secure and not missing.		N/A
20. Inspect stairs/steps/ladders are secure and clean.		✓

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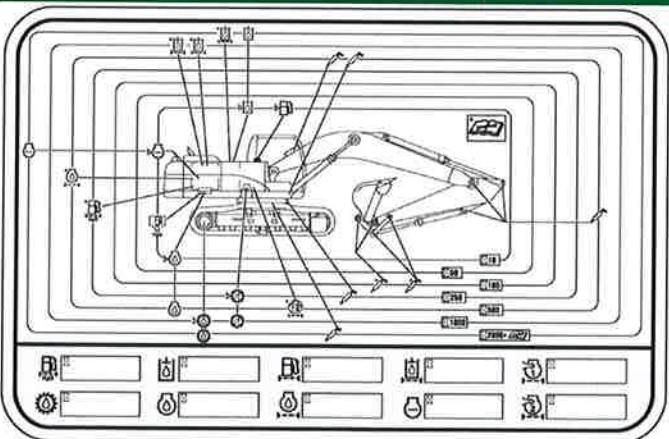
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Section 5: Structure

Tasks	☑ / ☒ or value
1. Inspect overall vehicle structure (boom, cabin, guards, handrails) for signs of damage and looseness. <i>PANEL & HANDRAIL DAMAGE</i>	<i>X</i>
2. Inspect bucket linkage (gap between bucket and stick). The gap (bucket control linkage clearance) should be 0.5-1.0mm. <i>✓</i>	<i>✓</i> _____ mm
3. Inspect bucket and teeth for excessive wear, damage or looseness	<i>✓</i>
4. Inspect boom and stick pivot pins / joints for excessive wear and loose or missing keepers and bolts. <i>BUSHINGS AROUND QUICK HITCH</i>	<i>✓</i>
5. Check swing gear for loose or missing bolts and nuts.	<i>✓</i>
6. Inspect the Rollover Protective Structure (ROPS) for cracks, loose or missing bolts.	<i>✓</i>

Section 6: Lubrication

Tasks	☑ / ☒ or value
NB: For location of lubrication points, refer to service interval chart located on near cab door. <i>Typical example of Service Chart</i> 	
1. Lubricate boom and stick linkage. Apply grease using a standard grease gun until grease witnessed, generally 2 – 3 pumps. Do not overgrease, wipe away excess grease.	<i>✓</i>
2. Lubricate bucket linkage. Apply grease using a standard grease gun until grease witnessed, generally 2 – 3 pumps. Do not overgrease, wipe away excess grease.	<i>✓</i>
3. Lubricate quick coupler. Apply grease using a standard grease gun until grease witnessed, generally 2 – 3 pumps. Do not overgrease, wipe away excess grease.	<i>✓</i>
4. Lubricate swing bearing. Apply grease until lubricant overflows the bearing seals.	<i>✓</i>
5. Obtain swing drive oil sample. Return sample together with documentation to your supervisor.	<i>N/A</i>
6. Check swing drive oil level. Check dipstick, maintain oil level between marks "FULL" and "ADD". If required, add oil through dipstick tube.	<i>✓</i>
7. Lubricate track drive bearings (4 points). Apply grease using a standard grease gun until grease witnessed, generally 3 – 4 pumps.	<i>N/A</i>

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8. Lubricate track idler bearings (4 points). Apply grease using a standard grease gun until grease witnessed, generally 3 – 4 pumps.	
9. Lubricate track jacking bolts & nuts (8 points). Apply grease using a standard grease gun until grease witnessed, generally 2 – 3 pumps.	NA
10. Lubricate track chain. Apply oil, using brush, into the gap between the pin link and roller link on the slack side of the chain.	
11. Lubricate drive chain. Apply oil, using brush, into the gap between the pin link and roller link on the slack side of the chain.	

Clean-up Procedures:

- Clean up all spills & clean brine residue from tools
- Dispose general waste and used materials into rubbish trailer
- Dispose used oil into waste oil tank

Data Capturing / Method:

- Oil Sampling

References:

- CAT Operation and Maintenance Manual 320D Excavator
- Wetland Equipment 12-20 Ton Operation Instructions, Service Manual and Parts List

Work Instruction Details:

Asset ID: EX02 Hour Reading: 10731 HR Completion Date: 13/9/22

WI Completed by: IAN OBBY Signature: [Signature]

General Comments: AIR CAN NOT WORK, RANS LEAKING,
CAB IS A DUST MESS, RAILS & HANDRAIL DAMAGE, PINS
AND BUSHINGS AROUND QUICK HITCH, COOLANT RADIATOR
OIL NEEDS REPLACING, SEAT SUSPENSION NOT WORKING

SO4 CONTROLLED DOCUMENT

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Wetland Mods

**Follow-up Actions:**

Section / Task	Action required to rectify	Work Request Raised (Y / N)
/		
/		
/		
/		
/		

Supervisor Sign-off:

Supervisor Name: Rob. G

Sign-off Date: 16/9/22.

Supervisor Signature 



EXCAVATOR – SERVICE SHEET

NOTE: Fitters to initial each task they have done.

ACCIDENT PREVENTION

READ AND UNDERSTAND SAFETY WARNING IN THE OPERATION AND MAINTENANCE MANUAL

HAVE YOU COMPLETED A TAKE 5

HAVE YOU COMPLETED AND UNDERSTAND YOUR JHA or JSA

HAS YOUR JOB CIRCUMSTANCES CHANGED SINCE COMPLETING YOUR TAKE 5

- ☒ Cleaned Machine Prior to Commencement of service?
- ☒ Positioned the Machine on Flat Level Ground?
- ☒ Made work area safe / delineation?
- ☒ Attach out of Service Tags?
- ☒ Have you locked out machine isolator as per site regulations?

HD FITTER:

IAN Casey

SIGN:

[Signature]

DATE:

26.7.23

SUPERVISOR:

SIGN:

DATE:

____/____/____

SITE: LAKE WAY, WILUNA

ASSET ID

MODEL/ VIN

SERVICE TYPE

DATE

CURRENT SMU

EX02

500hr

26-7-23

11113



EXCAVATOR – SERVICE SHEET

	DESCRIPTION	250 Hrs.	500 Hrs.	1,000 Hrs.	2,000 Hrs.	COMMENT
Walk	Inspect underside of machine for oil / coolant leaks		/			
	Inspect all joints on auto lube grease supply if installed		/			
	Inspect auto lube hose condition, damage, and clamping		/			
	Inspect hydraulic hose condition, damage, and clamping		/			
	Inspect wiring harness condition , damage, and clamping		/			
Frame	Check battery acid level and wash battery's		/			
	Inspect ROPS		/			
	Clean and lubricate battery terminals		/			
	Tighten battery hold down bolts		/			
	Fill windscreen washer bottle		/			
	Grease machine if no auto lube installed		/			
	Fill auto lube system with grease if installed and inspect grease lines.		/			
	Check fire suppression test date if installed		/			Date ___ / ___ / ___ - 6-month max
	Check fire extinguisher test date		/			Date ___ / ___ / ___ - 6-month max
	Check fire extinguisher bracket mount bolts for security		/			
	Check fire extinguisher bracket for clamp effectiveness and adjust if required		/			
	Measure grease in swing gear compartment (under 4 bolt cover)		/			Approx. 15-20 mm up pinion tooth
	Replace refrigerant drier		/			
	Engine	Replace engine outer air filter		/		
Clean engine air pre-cleaner			/			
Wash radiator core externally			/			
Check radiator coolant level			/			Topped up.
Check for coolant leaks / hose clip tension			/			
Wash / inspect radiator, cooler, condenser externally			/			
Sample coolant			/			
Sample engine oil			/			
Replace engine oil –			/			
Replace engine oil filter			/			
Replace secondary fuel filter			/			
Inspect / adjust all vee belts			/			
Cut open / inspect engine oil			/			
Check fan and tensioner pulley bearings			/			
Replace primary fuel element (water separator)			/			
Clean engine crankcase breather			/			
Replace inner air cleaner			/			
Pressure test engine induction system for leaks			/			
Adjust valve clearance			/			And initial 250 hr. service



EXCAVATOR – SERVICE SHEET

	DESCRIPTION	250 Hrs.	500 Hrs.	1,000 Hrs.	2,000 Hrs.	COMMENT
	Measure cylinder mounting pin joint wear		/			
	Inspect boom / stick for cracking		/			
Cab	Inspect / replace windscreen wiper blades		/			
	Clean / replace cab recirculation filter		/			
	Clean / replace cab pressurizer filter		/			
	Lubricate operator seat slides		/			
	Inspect operators seat suspension for wear		/			
Test Operation	Test operation of air conditioner		/			
	Test operation of all lights		/			
	Test operation of all instruments		/			
	Test operation of wiper blades and washers		/			
	Test operation of travel alarm		/			
	Test operation of warning horn		/			
	Test operation of auto lube		/			
	Test operation of all radios		/			
	Test ALL e-stops for correct operation		/			
	Test operation of seat belt / inspect condition		/			(Replace every 3 yr.)
	Test operation of implements		/			



EXCAVATOR – SERVICE SHEET

	DESCRIPTION	250 Hrs.	500 Hrs.	1,000 Hrs.	2,000 Hrs.	COMMENT
Final Drive Pump	Check swing drive oil level		✓			
	Check both final drive oil levels		✓			
	Inspect both final drive magnetic plugs for particles		✓			
	Sample both final drive oil		✓			
	Sample swing drive oil		✓			
	Replace both final drive oil					
	Replace swing drive oil					
Hydraulic system	Check hydraulic tank oil level		✓			
	Clean hydraulic tank screen		✓			
	Sample hydraulic tank oil		✓			
	Replace pilot hydraulic filter					
	Replace hydraulic return oil filter					
	Replace hydraulic case drain oil filter					
	Cut open and inspect hydraulic return oil filter					
	Cut open and inspect hydraulic case drain filter					
	Cut open and inspect Pilot hydraulic filter					
	Inspect / replace as required hydraulic hoses					
Undercarriage	Replace hydraulic tank breather					Under fire suppression bottle
	Replace hydraulic oil	Refer Sample				
	Visually inspect, master link for wear master pin to link		✓			
Undercarriage	Measure / adjust track sag (idler to carrier roller)		✓			40mm – 55mm
	Inspect track roller frame for damage / fasteners		✓			X 2 New Rollers Filled.
	Inspect track carrier roller for leaks / damage / fasteners		✓			
	Inspect track roller for leaks / damage / fasteners		✓			
	Inspect track idlers for leaks / damage / fasteners		✓			
	Inspect for cracking track frames / lower structure		✓			
	Check bucket teeth or wear (replace if required)		✓			
GET / Bucket / Backhoe	Check bucket lip protectors for wear (replace if required)		✓			
	Inspect bucket weld on wear plate (replace if required)		✓			
	Shim adjusts bucket pivot pin side clearance		✓			
	Check backhoe linkage for operation		✓			
	Inspect backhoe linkage for loose / lost fasteners		✓			
	Inspect bucket cylinder for leaks / condition / damage		✓			
	Inspect stick cylinder for leaks / condition / damage		✓			
	Inspect boom cylinder for leaks / condition / damage		✓			
	Measure backhoe linkage pin joints for wear		✓			



EXCAVATOR – SERVICE SHEET

Compartment Drain / Fill Plugs	S or T	250 Hrs.	500 Hrs.	1,000 Hrs.	2,000 Hrs.	Comment
Check engine oil drain plug for tension	T					Print name: <u>Don Cuddy</u> Signed: <u>Don Cuddy</u> Date: <u>24 7 23</u>
Check final drive fill & drain plugs for tension Test Operation	T					Print name: _____ Signed: _____ Date: ____ / ____ / ____
Check swing drive drain plug for tension	T					Print name: _____ Signed: _____ Date: ____ / ____ / ____
Check hydraulic oil tank drain for tension	T					Print name: _____ Signed: _____ Date: ____ / ____ / ____

[illegible][illegible]



EXCAVATOR – SERVICE SHEET

COMMENTS / WORK ORDERS TO BE CREATED



EXCAVATOR – SERVICE SHEET

NOTE: Fitters to initial each task they have done.

ACCIDENT PREVENTION

READ AND UNDERSTAND SAFETY WARNING IN THE OPERATION AND MAINTENANCE MANUAL

HAVE YOU COMPLETED A TAKE 5

HAVE YOU COMPLETED AND UNDERSTAND YOUR JHA or JSA

HAS YOUR JOB CIRCUMSTANCES CHANGED SINCE COMPLETING YOUR TAKE 5

- ☐ Cleaned Machine Prior to Commencement of service?
- ☐ Positioned the Machine on Flat Level Ground?
- ☐ Made work area safe / delineation?
- ☐ Attach out of Service Tags?
- ☐ Have you locked out machine isolator as per site regulations?

HD FITTER: *Glen Leonard*

SIGN: *Glen Leonard*

DATE: 12/10/23

SUPERVISOR:

SIGN:

DATE: / /

SITE: LAKE WAY, WILUNA

ASSET ID	MODEL/ VIN	SERVICE TYPE	DATE	CURRENT SMU
<i>EX02</i>		<i>250</i>	<i>12/10</i>	<i>11350</i>

EXCAVATOR – SERVICE SHEET

	DESCRIPTION	250 Hrs.	500 Hrs.	1,000 Hrs.	2,000 Hrs.	COMMENT
Walk	Inspect underside of machine for oil / coolant leaks	/				
	Inspect all joints on auto lube grease supply if installed	/				
	Inspect auto lube hose condition, damage, and clamping	/				
	Inspect hydraulic hose condition, damage, and clamping	/				
	Inspect wiring harness condition , damage, and clamping	/				
Frame	Check battery acid level and wash battery's					
	Inspect ROPS	/				
	Clean and lubricate battery terminals	/				
	Tighten battery hold down bolts	/				
	Fill windscreen washer bottle	/				
	Grease machine if no auto lube installed	/				
	Fill auto lube system with grease if installed and inspect grease lines.	/				
	Check fire suppression test date if installed	/				Date ___ / ___ / ___ - 6-month max
	Check fire extinguisher test date	/				Date ___ / ___ / ___ - 6-month max
	Check fire extinguisher bracket mount bolts for security	/				
	Check fire extinguisher bracket for clamp effectiveness and adjust if required	/				
	Measure grease in swing gear compartment (under 4 bolt cover)					Approx. 15-20 mm up pinion tooth
	Replace refrigerant drier					
Engine	Replace engine outer air filter	/				
	Clean engine air pre-cleaner	/				
	Wash radiator core externally	/				
	Check radiator coolant level	/				
	Check for coolant leaks / hose clip tension	/				
	Wash / inspect radiator, cooler, condenser externally	/				
	Sample coolant	/				
	Sample engine oil	/				
	Replace engine oil –	/				
	Replace engine oil filter	/				
	Replace secondary fuel filter	/				
	Inspect / adjust all vee belts	/				
	Cut open / inspect engine oil					
	Check fan and tensioner pulley bearings					
	Replace primary fuel element (water separator)	/				
	Clean engine crankcase breather					
	Replace inner air cleaner	/				
	Pressure test engine induction system for leaks					
	Adjust valve clearance					And initial 250 hr. service

EXCAVATOR – SERVICE SHEET

	DESCRIPTION	250 Hrs.	500 Hrs.	1,000 Hrs.	2,000 Hrs.	COMMENT
Final Drive Pump	Check swing drive oil level	✓				
	Check both final drive oil levels	✓				
	Inspect both final drive magnetic plugs for particles	✓				
	Sample both final drive oil					
	Sample swing drive oil					
	Replace both final drive oil					
	Replace swing drive oil					
Hydraulic system	Check hydraulic tank oil level	✓				
	Clean hydraulic tank screen					
	Sample hydraulic tank oil					
	Replace pilot hydraulic filter					
	Replace hydraulic return oil filter					
	Replace hydraulic case drain oil filter					
	Cut open and inspect hydraulic return oil filter					
	Cut open and inspect hydraulic case drain filter					
	Cut open and inspect Pilot hydraulic filter					
	Inspect / replace as required hydraulic hoses					
	Replace hydraulic tank breather					Under fire suppression bottle
	Replace hydraulic oil	Refer Sample				
Undercarriage	Visually inspect, master link for wear master pin to link	✓				
	Measure / adjust track sag (idler to carrier roller)	✓				40mm – 55mm
	Inspect track roller frame for damage / fasteners	✓				
	Inspect track carrier roller for leaks / damage / fasteners	✓				
	Inspect track roller for leaks / damage / fasteners	✓				
	Inspect track idlers for leaks / damage / fasteners	✓				
	Inspect for cracking track frames / lower structure	✓				
GET / Bucket / Backhoe	Check bucket teeth or wear (replace if required)	✓				
	Check bucket lip protectors for wear (replace if required)					
	Inspect bucket weld on wear plate (replace if required)	✓				
	Shim adjusts bucket pivot pin side clearance					
	Check backhoe linkage for operation					
	Inspect backhoe linkage for loose / lost fasteners					
	Inspect bucket cylinder for leaks / condition / damage	✓				
	Inspect stick cylinder for leaks / condition / damage	✓				
	Inspect boom cylinder for leaks / condition / damage	✓				
	Measure backhoe linkage pin joints for wear					



EXCAVATOR – SERVICE SHEET

	DESCRIPTION	250 Hrs.	500 Hrs.	1,000 Hrs.	2,000 Hrs.	COMMENT
	Measure cylinder mounting pin joint wear					
	Inspect boom / stick for cracking	/				
Cab	Inspect / replace windscreen wiper blades	/				
	Clean / replace cab recirculation filter	/				
	Clean / replace cab pressurizer filter	/				
	Lubricate operator seat slides	/				
	Inspect operators seat suspension for wear	/				
	Test operation of air conditioner	/				
	Test operation of all lights	/				
Test Operation	Test operation of all instruments	/				
	Test operation of wiper blades and washers	/				
	Test operation of travel alarm	/				
	Test operation of warning horn	/				
	Test operation of auto lube	/				
	Test operation of all radios	/				
	Test ALL e-stops for correct operation	/				
	Test operation of seat belt / inspect condition	/				(Replace every 3 yr.)
	Test operation of implements	/				



EXCAVATOR – SERVICE SHEET

Compartment Drain / Fill Plugs	S or T	250 Hrs.	500 Hrs.	1,000 Hrs.	2,000 Hrs.	Comment
Check engine oil drain plug for tension	T	/				Print name: <u>Shea</u> Signed: <u>Shea</u> Date: <u>12/10/23</u>
Check final drive fill & drain plugs for tension Test Operation	T	/				Print name: <u>Shea</u> Signed: <u>Shea</u> Date: <u>12/10/23</u>
Check swing drive drain plug for tension	T					Print name: _____ Signed: _____ Date: ____/____/____
Check hydraulic oil tank drain for tension	T					Print name: _____ Signed: _____ Date: ____/____/____



EXCAVATOR – SERVICE SHEET

COMMENTS / WORK ORDERS TO BE CREATED

changed engine and fuel filters

Needs a Seal on the top ram

tightened all boost pipes

Second bucket is badly cracked

Final Drives	Initial
SOS left side final drive	—
Change left side final drive oil	—
Check left side final drive oil level -	✓
SOS right side final drive	—
Change right side final drive oil	—
Check right side final drive oil level -	✓

Mechanical inspection

DESCRIPTION	Initial	COMMENTS
Engine		
Check engine oil level	✓	
Check engine for leaks-coolant, fuel, oil and exhaust	✓	
Check engine coolant level	✓	
Check for coolant leaks	✓	
Check all hose clamps	✓	
Check air intake hose condition	✓	
Check/clean radiator core	✓	
Check radiator cap- Use caution if hot	✓	
Check all belts for tension and condition	✓	
Check engine mounts for condition and bolt tension	✓	
Pump Drive		
Check pump drive oil level	✓	
Check for pump drive oil leaks	✓	
Check pump drive mounting bolts	✓	
Hydraulic System		
Check hydraulic oil level	✓	
Check pump mount bolts for tension	✓	
Check pumps for leaks	✓	
Check system for leaks and record/repair	✓	
Check hoses for leaks and abrasions and repair/record	✓	
Check/clean hydraulic oil cooler core	✓	
Check operation of hydraulic lock out	✓	
Check all cylinders leaks and damage	✓	
Electrical System		
Check function of LED screen when machine is running	✓	
Check warning lights on all in cab control systems	✓	
Check all machine lights and repair as required	✓	
Clean battery terminals	✓	
Battery Box, Alternator & Starter Motor Inspection	✓	
Clean for satisfactory inspection, remove covers (e.g. belly guards) of condition and function	✓	
Check electrical sheathing & Solenoids	✓	
Check conditions of boots over terminals (Ensure Black boots are over negative and Red Boots over Positive)	✓	
Check battery hold down clamps	✓	
Check harnesses for security and damage	✓	
Check air-conditioner for operation and clean filters	✓	
Check auto greaser for operation and all points receiving grease	✓	

DESCRIPTION	Initial	COMMENTS
Swing Drives		
Check swing drive levels front and rear Front() Rear()	✓	
Check swing drives for oil leaks	✓	
Check swing drive mounting bolts	✓	
Undercarriage and Bucket		
Check final drive oil levels Left() Right()	✓	
Check sprocket bolts	✓	
Check final drives for leaks	✓	
Check and adjust track tension as required	✓	
Check track s for loose pads	✓	
Check idlers and rollers for leaks, loose bolts and condition	✓	Needs 1 top roller
Inspect track frames for cracks and damage	✓	
Check bucket GET condition	✓	
Check bucket for cracks	✓	
Check pins for excessive movement and bucket shimming	✓	
Machine Crack Inspection		
Inspect bucket adapters for cracking and wear	✓	
Inspect bucket bridge welds for cracking	✓	
Inspect bucket pin retainers for loose bolts	✓	
Check bucket wear package for wear and cracks	✓	
Inspect bucket linkage for cracking and loose pin retainers	✓	
Inspect stick arm front bash plate for excessive wear	✓	
Inspect stick arm for cracking at welds at stress points	✓	
Inspect upper boom cylinder casting on boom for cracking	✓	
Check welds on boom for cracking	✓	
Inspect ring gear to undercarriage weld for cracking	✓	
Operators Cab		
Inspect operators seat for wear	✓	
Inspect seat belt for tears and record date code-	✓	
Ensure seat is adjustable in all directions	✓	
Check operation of 2-way radio	✓	
Check operation of AM/FM radio	✓	
Check operation of window washers and wipers	✓	Needs wiper blade
Inspect wiper blades and replace as required		
Ensure machine cannot be operated with boarding ladder down	N/A	

	DEFECTS	PARTS SHEET YES/NO	COMPLETED YES/NO
1.	wiper blade		
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			