



Plant History

Model: CAT 140M Grader

Serial No: CAT0140MTN9M00213

Registration No: 66063C

Plant No: GR507

Date/Hours	Description
06.02.20	Register machine. Fit plates. Fit fire extinguishers.
06-20.02.20	ACES – Mount and wire up double pole isolator for battery with double insulation, wire up start isolator with main energy isolation, wire up 3 e-stops, two outside and one inside, wire up park brake door alarms, wire up and mount UHF and antenna, check wiring for beacon, insulate all battery cables, check air conditioning system and all electrics
11.02.20	CQ Diesel – made up front and rear number plate holders, resecured wiring at front, made isolator bracket and fitted
12.02.20	CQ Diesel – place fire extinguisher on machine, place grazer tips on machine, made 2 x door switches
20.02.20	Sitech – Fit Trimble system. Full wash and detail.
21.02.20 3046hrs	Carry out pre hire inspection
28.02.20	Sitech – CGC upgrade to 140M3
23.07.20	Full wash and detail. Pre hire inspection completed.
24.07.20	CQ Diesel - fit new cutting edge. Drain Ad Blue tank due to possibly being contaminated with diesel. Repair L/H Door not shutting. Ocean Tyres repair air leak on Pos 1.
11.08.20	CQ Diesel – remove rear guards to remove header tank, drain 20L coolant, place back together
14.08.20	ACES – inspect fault with starting, found batteries are faulty, source new ones, fit plug for number plate light, source batteries, remove and replace faulty batteries and test operation, inspect starting fault and test operation of isolation, all tested okay

14.08.20	Full wash and detail. Pre hire inspection completed.
18.10.20 4000hr service	REO – begin 4000-hour service and inspection. Change engine oil and filters, change fuel filters, change air filters. Change hydraulic return and servo filters. c/o tandem breathers. c/o transmission breather. c/o fuel tank breather. c/o cabin filters. Take samples, carry out running checks, check linkages in steering and wheel lean area. Compile defect list. Blowout radiator, intercooler and all coolers. Refit rear window wiper arm and test. Unlock left-hand rear window washer jet. Remove cover to access belts and refit, fully grease machine.
22.10.20	Hastings – Warranty – repair broken chain
23.10.20	Hastings – diagnose DPF burn not complete. DPF soot loading percentage too high to complete burn. Active fault code preventing burn. Reset fault codes, tried to perform manual burn, kept failing due to high intake pressure, performed ARD air system test, failed due to restriction. Check air pressures and turbo boots pressure, checked software, check all air lines, pressure sensors and air flow regulator valve with parameter override, okay. Removed hood and guards, removed and cleaned DPF, installed DPF with new clamps, installed guards, hood and door, performed ash service reset. Performed manual DPF burn, cleaned codes.
24.10.20	REO – replace swing motor oil, replace tandem oils, replace transmission filter, remove guards and replace fan belt, remove belly guar and replace transmission and diff oil and scavenger hose and refit guard. Operate and check fluid levels
09.11.20 4168hrs	B Inman – check over machine, top up hydraulic oil, straighten step treads on right-hand side cab. Adjust a-frame ball. Clean belly guard from leaking fuel hose. Remove blade lift cylinder yokes and inspect bushes and pins for leak. Replace all wiper blades.
10.11.20 4168hrs	B Inman – replace left-hand tie rod end boot. Replace bent step on left-hand side cab. Replace circle wheel strips and blade slides. Replace lift cylinder yoke bushes and thrust washers. Fit new fuel return hose.
11.11.20 4168hrs	B Inman – finish fitting fuel return hoses. Fit belly guards. Adjust circle and replace lift and side shift shells. Wash machine.,
17-19.11.20	CQ Diesel – fabricate triangle bracket, fabricate fire suppression bracket
20.11.20 4169hrs	B Inman – mount fire suppression bottle brackets. Fit reflective tape
23.11.20	Place call sign, fit fire extinguisher, fit flashing lights
23.11.20	ACES – install new UHF and mine radio. Fit and tested.

23.11.20 4169hrs	CQ Diesel – fit fire suppression bottles, sticker machine, replace panels, repair Trimble bracket
23.11.20	DMS – Install QTEC loss of pressure system with 2 x manual remotes, 2 x 25L cylinders and 6 x nozzles. Loss of pressure tubing for automatic detection, pressure monitoring system.
24.11.20	CQ Diesel – place stickers on machine, fit all covers. Remove and replace Trimble harness. Extend steps. Clean machine. Fit turbo cover.
24.11.20	Full wash and detail. Pre hire inspection completed. Fit burst protection to machine. Check all oil levels – ok.
24.11.20	ACES – wire in fire suppression system to emergency e-stop circuit and test
26.11.20	ACES – remove UHF and mount and wire programable UHF. Mount and wire up mine radio. Modify mounting and wiring to suit.
03.12.20 4206hrs	Connect computer and diagnose DPF fault
07.12.20	Replace DPF assembly
07.12.20	CQ Diesel – Fault find ATF fan fault
07.01.21	Complete off-hire inspection
14.01.21	Wash and detail. Pre hire inspection completed.
22.01.21	Carry out off-hire inspection.
23.01.21	Remove Trimble GPS system
01.02.21	Adjust left-hand door switch
20.04.21	Remove and replace cutting edge, fit new bolts and 1 scraper tip.
23.04.21	Re-shim draw bar assembly and replace main bolts for ball.
08.05.21 4540hrs 500hr service	Service done 500hr
21.06.21	Repaired fire suppression
24.06.21 4723hr	Remove sleeve bleed of injector lines tested ok.
07.07.21	Done Reger passed.
13.09.21 5006hrs 500hr service	Carry out 500hr service and edges
09.10.21	Set up machine and replace top blade slides- adjust and test –

	tested okay.
15.10.21 5117hrs	Removed and replaced edge including new bolts.
26.10.21	Attempt to diagnose ECM fault.
27.10.21	Diagnose ECM fault. Inspected all harnesses – pin out. All okay. Inspected all resistors – check resistance in every ECM plug – test all okay. Possible ECM software issue.
27.10.21	ACES – inspected data link fault. Carried out test on all data link systems, connections and resistors, all okay. Checked for power to controllers, all okay. Followed testing procedures for fault codes, all okay.
16.11.21	ACES – inspect data link fault. Carried out tests on all data link wiring and power supplies to controllers, all okay. Reassembled and would not fault again.
10.12.21 5220hrs	Changed out cutting edge. Removed and replaced 8 x bolts and nuts.
12.01.22	ACES – inspect air conditioner. Carried out tests and found thermostat cutting out and not coming back on. Run system to test.
17.01.22	ACES – inspect fault with injector 1 / 2. Carried out tests on wiring to ECU and injectors. Wiring going into block are stiff and could be faulting when operating. To monitor. Test injectors and fault did not occur again.
05.02.22	DMS – carried out 12-month fire suppression service
08.02.22	finish off over size signs
09.02.22	fitted over size sign on machine
01.03.22	finish of operational checks and place panels on.
04.03.22	Hastings – troubleshoot engine miss. Number 1 and 2 injectors missing and throwing codes. Download, remove and replace engine ECM. Flash and reload configuration. Calibrate fan. Test machine – okay.
12.04.22	Full wash and detail. Pre hire inspection completed.
15.02.22	Change out edge resourced bolts.
17.02.22	Found blown o ring on right steer cylinder fitter. Removed and replaced, topped up hydraulic oil.
25.02.22 500HR Service	Started 500hr service, found injector line 6 leaks tighten up and check, clean.

12.04.22	Complete pre hire inspection. Replace edges, repair right hand washer wiper, remove and replace right hand windscreen washer pump.
12.04.22	Straighten up left hand lower step, topped up hydraulic oil, completed pre hire inspection, remove replace cutting edge.
29.04.22 5654hr	Complete off hire and pre hire inspections.
04.05.22	Remove and replace blade lower slides, adjust up. Remove and replace right hand wiper motor test all okay.
28.06.22	DMS Fire – Carry out fire suppression service.
29.06.22	Complete off hire inspection.
04.07.22	Off hire completed and found wiper not working, right hand side. Fit new wiper and remove oversized signs
08.07.22	Started machine exhaust shroud.
09.07.22	Finish off exhaust guards, prep and paint.
11.07.22	Pre hire inspections completed, top up engine oil, clean filters
31.10.22	Off hire inspection completed. Remove and replace grease lines, straighten l/h steps and rippers.
03.11.22	Carry out return hire inspection. Replace damaged grease line. Remove Trimble gear. Straighten belly plates.
04.11.22 6151hrs. 2000hr service	Carry out 2000hr service. Drop belly plates and clean out. Full wash and detail. Carry out pre hire inspection.
06.12.22	Carry out pre hire inspection. Full wash and detail. Drain AdBlue. Crimp off coolant hoses and unbolt. Reman hoses. Reman and replace tank. Fill with AdBlue. Check all ok.
07.12.22	Clean out radiators. Check A/C.
17.1.23 6211hrs	Fit new key. Top up AdBlue. Fit new screw to dash. Remove and replace purge light.
09.02.23	Carry out off hire inspection.
16.02.23	Pre hire inspection completed. Washed and detailed.
03.03.23	Removed washer bottle, cleaned bottle, has some leaf material inside, installed new rear washer pump.
14.03.23	Jacks Diesel & Mechanical – carry out return-hire inspection. Clean out washer bottle hoses and repair splits. Clean out washer jets.

15.03.23	Left and right window washer jets not working, blew compressed air through hoses and cleared jets. Completed on hire inspection. Detailed and washed.
31.03.23	Heavy Maintenance – remove and replace call sign. Carry out off hire inspection.
06.04.23	Complete off hire inspection. Straighten right hand step that was bent by the blade. Wash and detail. Complete on hire inspection.
17.05.23 6335hrs	Comet Contracting – carry out test, found no power to cab of machine. Inspected batteries, found circuit breaker was tripping. Inspected isolators and power and earth posts, found all okay. Determined main relay to have failed. Able to jump power. Inspected continuity and main relay was short to ground.
18.05.23	Comet Contracting – source relay, fit new relay – had issues. With circuit breaker going, tested, and eventually traced back to the fan circuit wiring. Pulled these apart to test and machine was fine as they were taped together. Carry out DPF purge and manual burn due to machine sudden shut down, clear any faults that were active prior to finishing.
19.05.23	Comet Contracting – found correct connectors to repair fan harness, re-test machine once completed.
20.05.23	Comet Contracting – received photos regarding DPF faults. Travelled to machine, rectified DPF issue as the voltage below normal checked 5V supply 781YL found a bad connection at the Adem 3 40 pin plug on the engine.
31.05.23	Aces – Inspect fault with wiring to e-stop, reconnect and test operations.
01.06.23	Replace unit number on right hand side door. Remove grass from radiator cores. Door proximity switches need adjusting hitting door. Replaced first aid bag. Replaced fire extinguishers. Replaced missing bolt on estop guard front of cab. Rectify estops not working front guard. Wash and detail. Carry out and complete on hire inspection. ACES – Inspect fault with e-stop wiring shorting out. Carried out tests, all okay. Repaired wiring in behind dash and tested operations.
04.06.23 6382hrs	Replaced top blade slides and adjusted. Greased machine and replaced right hand hinge pin nipple. Tightened right hand hinge pin retainer. Inflated all tyres. Replaced unit number stickers.
21.06.23 6458hrs	Change out cutting edges
22.06.23	Begin repairs to cutting edge. Change out front lights. ACES – Inspect E-stop wiring. Make new wiring harness and wire

	up 2 x external E-stop and 1 x cab Estop. Wire into ECU shut down input and test operation. Ok.
23.06.23	ACES – Inspect fault with data link wiring. Found fault wiring to engine controller. Repaired all wiring and tested operations. Refit all removed panels. Remove bypass wires for data link and test operation.
24.06.23 6458	Torque cutting edge bolts.
27.06.23	DMS – Carry out 6 monthly fire suppression service
18.07.23	Check brake and hydraulic accumulator pressures. Replace hydraulic filter.
19.07.23 6458hrs 500hr Service	Remove and replaced damaged scarifier Tyne and tip. Fire suppression service completed. Removed pin, made up 2 shims fitted to machine and tested. Adjust clearance on lift cylinder cups. Adjust frame ball clearance. Disassembled and repaired right hand front indicator and fitted back to machine. Carry out and complete 500hr service. Wash and detailed. Complete on hire inspection. Heavy Duty Welding – Fabricate shim for steering linked.
18.08.23	ACES – Carried out tests on injector fault. Repaired wiring and tested.
28.08.23	ACES – Inspected fault with air conditioning system. Found blower motor faulty.
12.09.23	Wash and detail machine. Carry out pre hire inspection.
15.09.23	ACES – Remove old engine harness and fit new. Tested operations. Carried out air conditioning system repairs. Removed seat and evaporator box. Replaced faulty blower motor and resistor. Refit all removed parts and tested.
18.09.23	ACES – Inspect fault codes. Carry out tests on fuel solenoid. Repair faulty connection and test. Refit all removed panels and cleared all old codes.
25.09.23 6518hrs	Remove and disassemble cabin door. Repair rust and prepare for paint
26.09.23 6518hrs	Undercoat and respray door. Reassemble door. Wash out radiator, condenser, aftercooler, and hydraulic coolers. Fit new washer motor and washer bottle.
27.09.23 6518hrs	Repair windscreen washer bottle and washer motor wiring harness. Replace washer hoses and reassemble cab. Remove and clean belly guards.
28.09.23 6518hrs	Remove belly guards, remove broken bolts, replace fan hoses.

29.09.23	DMS – Carry out fire suppression repairs
30.09-01.10.23 6519hrs	Re-seal both tandem pivot seals.
02.10.23 6519hrs	Reseal both tandem pivot seals. Found damaged bearing on right hand side
03.10.23	Reseal tandem cases. Disassemble right hand final drive for repairs to housing. Remove door glass. Heavy Duty Welding – Lance pins out
04.10.23 6519hrs	Reseal tandem cases, assemble left hand diff housing
12.10.23	Gladstone Machining and Fabrication – weld build up inside of component. Machine down to suit bearing supplied for interference fit.
16.10.23 6519hrs	Assemble diff housing and tandem pivot
17.10.23 6519hrs	Assemble tandems
18.10.23 6519hrs	Assemble tandem cases and clean
22.10.23 6498hrs	Fit left hand door
23.10.23 6498hrs	Repair belly guards and fit. Remove broken belly guard bolts. Fabricate speaker mount and fit AM/FM radio.
24.10.23 6499hrs	Drain on fuel tank right hand side bottom behind pos 4 leaking. Replace left hand door glass. Replace right hand mirror. Left hand engine door latch tight. Left hand middle cab pillar a/c vent broken. Front window washer not working. Transmission oil level overfull. a/c blower fan noisy. Screw missing right hand cab speaker cover. Right hand rear belly guard missing a bolt. Oil leak on T piece hose underneath batteries. Inspect cooler fan is running full noise all the time. Replace fuel hose assembly that runs from top of filter housing. Replace air inlet hump hose. Replace engine harness and tandem housings leaking. Remove both tandem housings according to D&A procedure. Removed leaking isolating seals and cleaned all parts, found bearing on right hand side axle housing was unserviceable. Removed right hand side planet housing to be repaired. Fitted all new seals in left hand tandem carrier assemble shimmed to cat specs. Clean and assemble axle housing and final drive, tandem housings cleaned and oils filled.
27.10.23	DMS – Carry out 12 monthly fire suppression service and repairs.
7.11.23	LMS – Install breath safe cabin pressuriser kit. Wire into machine. Install new door seals and adjust doors for best sealing.
13.11.23 6521hrs	Align both front steps. Loosen and align blade slide retainers. Repair bent aerial on top of roof of cab. Replace fire extinguishers. Carry out and complete pre hire inspection.

11.1.23 6740hrs	Rectify right hand park light not working. Adjust cab door latches right and left. Lube and adjust engine door catches and hinges. Clean primary engine air filter and internal recirc cab filter. Topped up add blue and fuel. topped up hydraulic and engine oils. Blow out radiator and coolers. Wash detail and grease machine. Carry out and complete pre hire inspection.
29.1.24 6742hrs	Replace first aid sticker. Adjust and re-seal cabin doors to assist cab pressuriser. Paint all wheel rims and pain rim red. Paint front push pad and steer linkage yellow. Paint ripper assembly and repair dints in frame from towing. Replace high vis stickers on ripper frame and front tie down point.