### **VEHICLE AND MACHINERY MAINTENANCE LOG**

Unit # 142 2012 Al-Jon 500 Advantage Compactor Model # 11-10010 SERIAL /VIN # 14905 ENGINE # G.L. CODE 2.99.43.520.142 LICENSE # No Plates

#### October 18, 2012

Odometer/Hour Meter Reading: N/A.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: Re-Calibrate MC 400 controller F1 Key and F3 Key. Parts

Installed: No Parts.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

#### **December 21, 2013**

Odometer/Hour Meter Reading: 489 Hours.

General Inspection: N/A; Service Completed: N/A.

Parts Installed: 4 X New Batteries- Finning Canada (Med. Hat).

Work Completed By: Finning.

Next General Inspection/Service Recommended on N/A.

## **January 3, 2013**

Odometer/Hour Meter Reading: 489.9 Hours.

General Inspection: Yes; Service Completed: Yes.

Repairs Completed: Change splitter box oil & sample, sample hydraulic oil & engine oil; drain engine oil, change oil filter, change inner & outer air filter &top up levels.

Parts Installed: 3 Oil sample bottles, SHC 632 oil splitter Box (Mobile Lube), 1 Oil filter- CAT I(R1808; 0W40 DEO/ULS Engine Oil CAT, 1 Outer Air Filter (Fleet Guard- P/N AF891M; 1 Inner air filter- Fleet Guard P/N AF890.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

#### **January 4, 2013**

Odometer/Hour Meter Reading: 489.9 Hours.

General Inspection: Yes; Service Completed: Yes.

Repairs Completed: Test coolant & record, change fuel filters (2), sample all planetarys (4 in total), measure wheel lugs- front Left 8.5/ Front Right 8.5-

minimum: 4 ½ ", Rear Left 8.5/ Rear Right 8.5- maximum: 9".

Parts Installed: 1 Water fuel separator CAT P/N 326-1643, 1 Fuel Filter (CAT P/N

IRO749) & 4 sample bottles. Work Completed By:

Next General Inspection/Service Recommended on N/A.

### **February 5, 2013**

Odometer/Hour Meter Reading: 560.5 Hours/ 60.5 on Oil.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: Take engine oil sample & send to Lab in Edmonton to check

for diesel in the engine oil. Requested by Finning- Medicine Hat.

Parts Installed: 1 Sample bottle.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

### July 17, 2013

Odometer/Hour Meter Reading: 1000 Hours.

General Inspection: Yes; Service Completed: Yes.

Repairs Completed: Rear washer hose broken cut & push back on. Coolant low-add 22 Litres, change engine oil & filter, change all hydraulic filters, fuel filters, air filters-inner & outer, pilot steering filter. Glue weather stripping on for left door, change splitter box oil, sample coolant and all oil, check all levels, check fan belt, measure all wheel cleats- All OK.

Parts Installed: 1 Oil filter, 2 Fuel filters, 1 Outer air, 1 inner air, 1 Pilot filter, 7 Hydraulic filters, 1 tube of 3M weather strip glue, 22 litres of Cat coolant, 2 pails DEO/ULS 0W40 Engine oil and 94 Litres SHC 632 Gear oil.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

## **December 2, 2013**

Odometer/Hour Meter Reading: 1250 Hours.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: Change engine oil in Planataries (4), coolant good for -38

degrees.

Parts Installed: 68 Litres of SHC632 Exxon - Mobil

Work Completed By:

Next General Inspection/Service Recommended on N/A.

#### **December 5, 2013**

Odometer/Hour Meter Reading: N/A.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: Aux heater not working- take generator to landfill, plug in block heater to warm up engine. Start engine. Operators told to take machine

down to Shop at end of day & plug in Block heater.

Parts Installed: No parts.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

**Date: ????** 

Odometer/Hour Meter Reading: 2000 Hours.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: Change engine oil & filter, take oil sample, R&R fuel filter, fuel/water separator filters, R&R Pilot filter-Hydac P/N 015-59880682, R&R Hydraulic breather filte- Donaldson P/N P564424, R&R inner air filter, R&R outer air filter, R&R splitter box oil-take oil sample, R&R all planetary oil-take oil sample, R&R all engine coolant, degrease engine compartment, engine, center pivot area, axle housings & rear hydraulic compartment, remove steel pipe off 2 wheel cleats-take hydraulic sample.

Parts Installed: No parts.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

## August 11, 2014

Odometer/Hour Meter Reading: N/A.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: Check noise turbo line clamp-broken- replace with new one,

start engine-check turbo boost- All OK.

Parts Installed: 2 Turbo Line clamps (Summit Motors).

Work Completed By:

Next General Inspection/Service Recommended on N/A.

# October 29, 2014

Odometer/Hour Meter Reading: N/A.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: R&R tachometer, take planetary samples, check engine heater

- fuse burned out- replace & test- runs OK, tighten screws on inner gauge.

Parts Installed: 1 Tachometer & 1-20 AMP fuse.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

#### **November 4, 2014**

Odometer/Hour Meter Reading: N/A.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: R&R rear window-make pattern for making window.

Parts Installed: 1 custom built rear window glass.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

#### **November 25, 2014**

Odometer/Hour Meter Reading: N/A.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: R&R engine fan blade.

Parts Installed: 1 Fan blade.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

#### **January 9, 2015**

Odometer/Hour Meter Reading: N/A.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: Check for "no start"- engine cold, batteries worn down-try to boost. Turn engine heater on for 30 minutes-temp finally at 145, batteries with boost still not cranking engine over, R&R 4 batteries- possible ice in batteries.

Parts Installed: 4 new 12 Volt Batteries (

Work Completed By:

Next General Inspection/Service Recommended on N/A.

## **January 13, 2015**

Odometer/Hour Meter Reading: 2500 Hours.

General Inspection: N/A; Service Completed: N/A.

Repairs Completed: Change engine oil & filter, sampled oil, change fuel filters, sample hydraulic oil & splitter box, wheel housings full of garbage & frozen- no samples on planatarys.

Parts Installed: CAT 0W40 Engine oil, 1 oil filter, 2 fuel filters & 3 sample bottles.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

## **April 27, 2015**

Odometer/Hour Meter Reading: 1750 Hours. -?? Less than in January

General Inspection: N/A; Service Completed: Yes.

Repairs Completed: Change engine oil & filter, fuel filters, air filters, sample oils X 7.

Parts Installed: 0W40 engine oil (CAT), 1 Oil filter, 2 Fuel filters, 1 Outer Air and 1 Inner air.

Work Completed By:

Next General Inspection/Service Recommended on N/A.

### July 2, 2015

Odometer/Hour Meter Reading: 3000 Hours.

General Inspection: Yes; Service Completed: Yes.

Repairs Completed: Changed all oils & filters on unit, back hood latches installed.

Parts Installed: All filters & back hood latches.

Work Completed By:

Next General Inspection/Service Recommended on 3250 Hours.

### August-31-15

Hour reading: 3250

Work completed by:

- -Changed engine oil/filter
- -Changed the primary and secondary fuel filter
- -Changed inner and outer air filter
- -Sampled oil from all oils

Parts installed: engine oil filter, Fuel filters, Air filters.

Unit should be serviced at 3500H

## October 26, 2015

Hour reading: Around 3450H

Work completed by:

- Valve lash and injector set
- Throttle positon sensor is not a finning product and will need to order.

## **November 5, 2015**

Hours: 3500

Work completed by:

Completed 250H service

- Took oil samples
- Changed engine oil and filter
- Changed fuel filters
- Changed outer air filter
- Installed missing bolts.

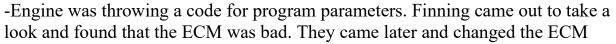
Parts installed: oil and fuel filters, Air filter.

Next service: 3750H

#### **December 15, 2015**

Hours: 3606

Work completed by:



#### **December 22, 2015**

Hours: 3708

Work completed by:

- Tech came down to check on a no drive situation and found that the left rear motor had gone out causing low charge pressure in the one pump section. There were also codes that were indicating shorted wires however this was coming from the motor as the sensor was destroyed and shorting out. will be back in 2-3 weeks with the parts to repair the unit.

## **January 18,19 2016**

- Left rear drive motor/pump were replaced on warranty along with the charge filters. A large amount of particulates were found in the filters. Was recommended that the oil and all filters be changed.

### **January 20, 2016**

Hours: 3708

Work completed by:

- Replaced articulation switch harnesses as the old ones were damaged by debris getting past the shield. Straightened articulation sensor rod and lubricated sensor.
- Was advised by warranty service tech to change the oil and filters on the unit after finding all the metal in the case drain filters. Tech also stated that we should be running a full synthetic oil.
- Sampled hydraulic oil and sent to lab
- Checked drain plug and found nothing on it.
- Changed all hydraulic oil and filters and filled with BOSS 36 non-synthetic Parts installed: Harness #R-FA4TZV072HTM, Zinga SE-100 ×2, Donaldson Duramax P164375 ×5, Parker element #9373980, pilot filter #1260880, Breather filter #P564424, 385L of BOSS 36.

Next service: 3750H

## **February 4, 2016**

Hours: 3747H

Work completed by:

- Clamp around the hot side turbo line broke off
- Replaced clamp

Parts installed: One clamp

Next service: 3750H

### **February 8, 2016**

Hours: 3747H

Work completed by:

- Changed engine oil and filter

- Changed fuel filters

- Checked air filter and it was fine

- Took oil samples

- Fixed oil leak coming from valve in center from left side and replaced a leaking line on the hydraulic tank.

Parts installed: Oil and fuel filters, Two O-rings and one line. Next service: 4000H Full service subtracting the hydraulic oil

## February 11, 2016

Hours: 3765

Work completed by:

- Almost all of the test couplers on the hydrostatic drives were leaking oil. Removed 12 test couplers and installed new ones.
- Asked for unit to be washed to find if leaks were fixed and to find any new ones.

Parts installed: 12 test couplers from farm land

Next service: 4000H full service subtracting the hydraulic oil

## February 22, 2016

Hours: 3792H

Work completed by:

- Oil sample for RR planetary came back with a high iron level and was recommended to be replaced. Talked to and he said to change the oil and resample next oil change. Oil Sample #N030-46049-0144
- Changed RR Planetary oil. Checked for fillings in oil and found none. Nothing on the drain magnet.

Parts installed: SHC 632 Lube

Next Service: 4000H full service subtracting the hydraulic oil

## March 15, 2016

Hours: N/A

Work completed by:

- Ignition switch had dead spot in it. Changed the switch and it worked fine.

Parts installed: Ignition switch

Next service: 4000H full service subtracting the hydraulic oil

## **April 5, 2016**

Hours: 3944

Work completed by:

- Went out to repair for no A/C from last year fall when it stopped working because the receiver dryer relief valve leaked.
- Replaced the receiver dryer and found that the venting in the cab was broken on the right lower side. This will need to be replaced at a later date.
- When attempting to charge unit it was found that he compressor clutch would not engage. After troubleshooting the electrical it was found that a weather pack connector had broken. Replaced connector and charged unit with R134A.
- Might need to go back later to adjust pressures when its hotter out to get a more accurate charge.

Parts installed: Red dot Receiver Drier #74R2447 or #RD-5-7272-1P

Next service: 4000H

## **April 20, 2016**

Hours: 4000H

Work completed by:

- Changed engine oil and filter
- Changed fuel filters
- Changed all planetary oils
- Changed pump drive oil
- Took all oil samples
- Cleaned planetary breathers
- Cleaned pump drive gearbox breather

Parts installed: oil filter #IR1808, Fuel w/s #3261643, FF #1R0749, Outer air filter

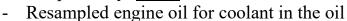
#P116446, Inner #P182049

Next Service: 4250H

## May 4, 2016

Hours: 4043H

Work completed by:



Next Service: 4250H

## May 17, 2016

Hours: 4087

Work completed by:

- Replaced broken vent ducting that feel apart from the A/C repair.
- Replaced outer cab air filter and topped up A/C charge from first repair

Parts installed: AF25788 Next Service: 4250H

### May 18, 2016

Hours: 4092

Work completed by:

- When checking for leaks it was found that oil was bubbling out the top of the splitter gearbox from the mounting flange on the top left pump.
- Checked the breather and found it was plugged up, Cleaned and reinstalled.

Next Service: 4250H

#### June 27, 2016

Hours: 4250

Work completed by:

- Preformed 4250H service
- Took oil samples
- Changed engine and cab air filters
- Changed engine oil/filter and fuel filters
- Changed pump drive breather filter

Parts installed: Inner/outer air filter, AF25788Cab air, 1R-1808, 1R-0749 and 326-

1643 fuel filters, pump drive breather filter

Next Service: 4500H

### July 26, 2016

**Hours 4356** 

Work completed by:

- Unit had a code for center articulation joint value to high and the left rear wheel was going faster than the others.
- Preformed a calibration on the mc400 controller and the unit works well now.

Next Service: 4500H

## August 17, 2016

Hours: 4413

Work completed by:



- Found code 91-08?
- Checked for no start throttle lock fuse is burnt out replaced the fuse and started but it burnt out again.
- came out and replaced the engine harness. Hooded up cam censer into the tractor harness as didn't know where it went.

Parts installed: Engine harness on warranty

Next Service: 4500H

#### August 22, 2016

Hours: 4413

Work completed by:

- Checked for no start blown fuse for throttle lock SPN 91.08 CAN communication error
- Checked wiring and found a big mouse nest in the bottom. Pulled the wires up and found bare wires stuck together.
- Cleaned out mouse nest and cleaned.
- Repaired the bare wires in harness
- Started the unit and got operators to run. Everything seems to be working fine with no codes.

Next Service: 4500H

#### August 31, 2016

Hours: 4460

Work completed by:

- Checked for no start with funning. Found that the starter motor was not turning.
- Finning installed a new starter on warranty.

Parts installed: Starter Next Service: 4500H

### **September 15, 2016**

Hours: 4500

Work completed by:



- Changed engine oil and filter
- Changed fuel filters
- Changed inner and outer air filter
- Sampled oils
- Checked oil levels

Parts installed: 1R-1808 oil filter, 1R-0749 and 326-1643 fuel filters, Donaldson outer air #P182049, Inner P116446

## **September 19, 2016**

Hours: 4505

Work Completed by:

- Replaced clamp on top air to air cooler hose.

Next Service: 4750

#### October 19, 2016

Hours: 4632

Work completed by:

- Coolant line rubbed through going into the coolant heater. Repaired line and filled with 50L of CAT premix coolant

Next Service: 4750

#### **November 1, 2016**

Hours: 4660

Work completed by:

- Operators complaining that there is low air flow out of the vents
- Took cab apart and found mice had eaten through the ducting.
- Cleaned all the mice out of the HVAC unit and disinfected
- Installed all new ducting as the old was full of mice droppings and rotting.
- Repaired the heater nobs for the HVAC control
- Glued the weather stripping back on the right door

#### **November 23, 2016**

Hours: 4750

Work completed by:



- Changed engine oil and filter
- Changed fuel filters
- Changed inner and outer air filter
- Sampled oils
- Checked oil levels

Parts installed: 1R-1808 oil filter, 1R-0749 and 326-1643 fuel filters, Donaldson

outer air #P182049, Inner P116446

Next Service: 5000H

## **November 28, 2016**

Hours: 4752

Work completed by:



- Reset MC400 Controller

Next Service: 5000H

## **January 18, 2017**

Hours: 4963H

Work completed by:



- Left rear wheel would not go forward and would go in revers when sitting still. Trouble shooted and found the pilot valve on the lower right hydrostat pump was faulty. Replaced the valve. Calibrated and the unit worked fine. This pump was replaced in January 2016.

Parts installed: Pilot valve #MCV116G4204 from Flo-Draulic group Nisku \$602

#### **January 31, 2017**

Hours: 5000

Work completed by:

- Changed engine oil/filters, fuel filters, engine/cab air filters, All hydraulic/Hydrostat filters.
- Changed planetary and pump drive oil.
- Rear window wiper motor fell apart, put it back together and it worked fine.
- Roof beacon was not working, tested and the unit was getting power/ground. Replaced unit.

Parts installed: Baldwin # PA3828, Donuldson # P164375×5, P550275×2, P564424×2 Cat # 1R-1808, 1R-0749, 326-1643 Parker # 937398Q, Pilot filter, inner and outer air filters, Jetco strobe beacon.

Next Service: 5250H

## **April 3, 2017**

Hours: 5261

Work completed by:

- Changed engine oil/filter, fuel filters, air filters, cab air filter and the hydraulic tank breather held over from the last service as there was no parts.
- Checked oil levels
- Took oil samples

Parts installed: AF4884, oil filter, primary/secondary fuel filter, primary/secondary air filter, cab air filter.

Next Service: 5500H

## May 23, 2017

Hours: 5455

Work completed by:

- Turbo boost pressure was fluctuating from 5-70PSI and code 202-03 was displaying.
- Troubleshooted and found the red hot wire going to the turbo boost sensor had broken off the pin.
- Took connector apart and installed a new pin

Parts installed: One pin out of service truck

Next Service: 5500H

June 12, 2017 Hours: 5498H

- Changed engine oil/filter
- Changed fuel filters
- Changed engine and cab filters
- Sampled engine, pump drive and hydraulic oil

- Found a pinhole in the steel intake elbow off the air filter housing, patched.
- The temporary harness for the throttle was replaced with a permanent one.

Parts installed: oil filter #1R-1808, primary fuel #326-1643, Secondary fuel #1R-0749, Cab air #PA3828, Engine air AF891M, AF890,

Next Service: 5750H

#### June 26, 2017

Hours: 5545

Work completed by:

- Operator was complaining about low power
- 0 psi was being displayed with no codes
- Found signal wire pilled out of connector to sensor
- Installed new pin on wire and reinstalled
- Tested and unit works fine now

#### **August 9, 2017**

Hours: 5750

Work completed by:

- Changed engine oil/filter
- Change fuel filters
- Changed air filters
- Took oil samples
- Checked over unit

Parts installed: AF891M, WIX42547. Oil filter #1R-1808, Fuel primary #326-1643

Secondary #1R-0749 Next Service: 6000H

#### October 9-11, 2017

Hours: 6001H

Work completed by:

- Changed engine oil/filter, fuel filters, hydraulic oil/filters, operator changed air filters two days before, Changed planetary oil.
- Replaced leaking fuel hand priming pump and found that the fuel system wouldn't prime. Talked to funning and they gave me a number for a check valve. Installed a new valve and the primer worked fine.
- When installing new fan belt it was found that two idlers were bad. Installed two new idlers and belt.
- Installed two new latches on the back door and gas struts.
- Webasto was not working. Found blown fuse. Tested and found unit took 15 min to light up. Took apart and cleaned eye and other parts. Unit now starts up right away.

Parts installed: Engine oil #1R-1808, Fuel Prim/second #326-1643, 1R-0749, Tank breather #AF4884, Gearbox Breather #HBF16, Case Drain filter

#HF6722×2, Charge filters HF6552×5, Parker main filter #937398Q, Cab filter #PA3828, Piolet filter #1260880, AF890, AF891M, Belt #243-1276, Hand pump #137-5541, Hand pump gasket #1P0436, Pulleys #197-9641, 197-9442, Fuel check valve #281-2725, Gas struts #C9-8-510-400N, latch southco #62-42-351-2 Next Service: 6250H

### **April 19, 2018**

Hours: 6050H

Work completed by:

- Code for left front EDC Value to high, Front left wheel would move fine forward and drag in reverse. Inspected and swapped front wheel speed sensors. No change.
- Inspected harness to rear pumps. Pumps were fine, control valve was fine.
- Found harness from pin 13 to control valve was bad.
- Ran a temp wire from controller to pump. Will need to run it in a better spot later.

Next Service: 6050H

#### October 29, 2018

Hours: 6135

Work completed by:

- Code for front left PPU value out of range was displayed. Swapped sensors from left to right and the problem followed. Tracked down a sensor and installed. Problem went away.
- New sensor had to be adapted to fit.

Parts installed: Sensor #KPPG12508 from Flo Draulic

## March 26, 2019

Hours: 6250

Work completed by:



- Changed oil/filter
- Changed engine air filters
- Changed fuel filters

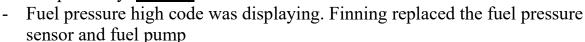
Parts installed: LF691A, AF890, AF891M, FS20007, FF5319

Next Service: 6500

## June 3, 2019

Hours: 6342

Work completed by:



- Boost pressure sensor was not working. Found harness was damaged, replaced connector and sensor.

#### **December 4, 2019**

Hours: 6500 and 6750 Work completed by:

- Changed engine oil/filter, fuel filters and engine air filters

- Added coolant

Parts installed: LF691A, AF890, AF891M, FS20007, FF5319

Next Service: 7000H

#### **December 17, 2019**

Hours: 6771

Work completed by:

- Alternator failed. Replaced with a cat reman and unit charges at 27V so said the display

Parts installed: Reman Cat alternator #10R9789(Cat)

Next Service: 7000H

#### **December 23, 2019**

Hours: 6791

Work completed by:

- Fuel gauge would not read. Troubleshooted and found sending unit was bad. Replaced the sender and gauge works normally
- FL planetary would spin in reverse when not commanded. Trubleshooted and found the pilot head was bad. Replaced and planetary operated normally.

Parts installed: Fuel level indicator #23132300, Piolet head #MCV116G4204

Next Service: 7000H

## **January 29, 2020**

Hours: ?

Work completed by:

- Unit would not start. Found power for the 200 controller was cut from a blown fuse caused by a bad blade float solenoid coil.
- Replaced coils

Parts installed: Coil #M13-12D-20W-DE×2

Next Service: 7000H

## July 21, 2020

Hours: 6982

- Changed engine oil/filter, fuel filters, hydraulic filters, engine air filters, cab filters, and pump drive gearbox oil.
- Washed unit for cylinder repair prep.

- Front blade cylinder was replaced by along with rebuilding the steering cylinders.

Parts installed: Cab filter #PA3828, Parker #937398Q, HF6722×2, HF6552×5, AF4884, piolet filter#1260880, LF691A, FS20007, FF5319, AF890, AF891M,

New front cylinder reman.

Next Service: 7250H

#### September 8, 2020

Hours: 7002

Work completed by:

- Operators said there was low charge pressure code. Found charge pressure would fall off when moving in reverse and wheel would lock up.
- Testing indicated a that as pressure was good in forward and not in reverse it was a bad flushing valve. Took valve out and found springs were shattered. Installed new springs and retested same problem.
- Installed flushing defeat spool to test for case drain flow. Found in reverse the case drain test failed.
- Removed FL motor from unit and took apart. Found that the center drive coupler of the rotating group had shattered.
- Recommended that the motor/pump be changed as a set however to save cost it was decided to just do the motor.
- Installed new motor with new gaskets, Changed the case drain filters and filled back up with oil.
- Calibrated and tested. All works good now.
- Changed planetary oils. As it was missed in last service

Parts installed: Spool shuttle #11140476, Guide spring #11140392×2, Spring #506829×2, Pump #519056 Pump Code #90M130NC0N8N0F3W00EGF0000F3, Gaskets #SAE-D6004×2, Filters #SF6790×2

Next Service: 7250H

## **December 16, 2020**

Hours: 7224

Work completed by:

- Changed engine oil/filter, Fuel filters
- Put half a pail of coolant into unit
- Boost clamp off turbo was missing, Replaced with new.
- No hydraulic oil in sight glass. Filled up with oil in tank.
- Ground was broken off fuel sending unit. Replaced ground wire.
- Tried to find leak on unit however it must need to be very hot as nothing can be seen. Will need to test later on.

Parts installed:FS20007, FF5319, LF691A Turbo clamp.

#### March 23, 2021

Hours: 7415

Work completed by:

- Operators complaining that RF wheel was stopping and starting.
- When troubleshooting it was found that the rear engine gear box had very little oil in it with no lube pressure on the gauge. Filled up gear box and found pressure was to low.
- Inspected lube pump and found it was in good shape
- Inspected pressure control valve and found it was full of steel and crap. Replaced the valve and pressures were good.
- There was also a large coolant leak off engine by alternator. Replaced the

Parts installed: Pressure valve #YZ560214

## **April 9, 2021**

Hours: 7425

Work completed by:

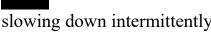
- FR wheel would not move in forward with no trouble codes.
- Tested hydraulics and they are fine
- Replaced the piolet head of pump thinking we had a control problem however no change. This is normally the problem
- Trouble shooted electrical and found that the controller would not output to the forward side of the valve.
- Installed new controller and unit works fine now.
- Repaired a hydraulic leak of sun steering cartridge.

Parts intalled: SVC kit #8510120, MC 400 controller

# May 4, 2021

Hours: 7443

Work completed by:



- FR wheel was slowing down intermittently but not stopping this time. Found that the wire for the forward movement was intermittently shorting to another source but not to frame or pin in that controller harness.
- Ran two new wires and replaced and old repair on the other side with a custom harness.
- A/C was not working. Found low side shrader valve was leaking. Replaced and charged with 4Lbs of R134A

Parts installed: 4Lbs of R134A

#### June 16, 2021 (WO-2780)

Hours: 7477

Work completed by:

- Changed engine oil/filter, fuel filters and engine air filters Parts installed: LF691A, AF890, AF891M, FS20007, FF5319

Next Service: 7750H

#### July 23, 2021 (WO-2881)

Hours: 7554

Work completed by:

- A/C was not working. Found compressor adapter high side had broken and worn into retainer housing not allowing for a good clamp load.
- Installed oversized o-rings to try and compensate for wear. Unit held a vacume so its good to charge.
- Filled with 4lbs of R134A. Tested and A/C works fine now.
- Door missing on hydro fill. Welder installed new door.
- Pump drive gear box very low on oil. Topped up.

Next service: 7750

### **UNIT # 142 - August 30, 2021 (WO-3018)**

Hours/Mileage: 7,570 Work Completed by:

- The operators reported that the fuel gauge was not working. The technician found that the wire was pulled out of the connector.
- The mechanic reconnected the wire.

## November 30, 2021 (WO-3485)

Hours: 7700

- Operators were complaining of vibrations in cab when operating in gear two or above
- Verified complaint and found that the top case drain filter was pulsating in conjunction with the vibrations.
- Cut open charge filter and found large amounts of brass/steel in the filter indicating a major failure had occurred.
- Tested charge pressures and found the RR was pulsating when driving and would fall off to nothing when not moving.
- Preformed case drain flow test with flushing defeat valve installed and found it had extreme internal leakage.
- Drained oil from unit
- Removed wheel motor and inspected. Found that the housing that holds the splines in the rotating group had shattered. This is the same failure that the

other left side wheel motors have had indicating this is a pattern. The FR wheel motor should be changed to prevent.

- Sealing face was damaged indicating material went through the hydrostatic pump.
- Installed reman wheel motor
- Installed reman pump
- Replaced all filters
- Filled with new oil
- Tested and calibrated unit for proper drive function.

Parts installed: Reman pump and motor, Parker #937398Q, HF6722×2, HF6552×5, piolet filter#1260880 Zynga

Next service: 7725, 7750.

### **December 14, 2021 (WO-3558)**

Hours/Mileage: 7,725 Hours Work Completed by:

- The technician found that the unit would not steer and the horn did not work.
- He found a break in the harness and replaced the harness.
- We also replaced the hydraulic filter as per break in specifications of the new wheel motor.
- The steering and horn now work as they should.

Parts Installed: HF6552 x1, Harness L Side Joystick x1

## **December 29, 2021 (WO-3669)**

Hours/Mileage: 7,763 Hours Work Completed by:

- The unit could not be shut down for a service at 7750H so it only got a simple drain and fill. Oil samples came back ok.

## **December 30, 2021 (WO-3677)**

Hours/Mileage: NA

Work Completed by:

- On December 30, 2021, the technician noticed that the left-hand side joystick cord was missing the grommet and the wiring harness was starting to fray again.
- On January 4, 2022 the other technician installed a new grommet in the hole to prevent further rubbing.
- Please see attached photo and VSR in City Wide.

## January 14, 2022 (WO-3804)

Hours: 7894

- Operators report that unit stopped running when going for fuel and produced code SPN 91 FMI 08 Indicating an out of range throttle.
- Trouble shooted code and found that the wires/connectors and voltage from the PWM signal generator was all good right back to the engine controller. Throttle position would be displayed on diagnostic display so unit should have no problems with the throttle. Even when you have a problem with the throttle the unit should still start but stay at base idle.
- When cranking the voltage jumps past 12V max to 13.5V which is most likely the reason for the code. Only on extended cranking the code is produced.
- Preformed a general inspection of the unit and found a fresh fuel leak coming from the low-pressure fuel pump on the suction side. Found that the o-ring boss fitting going into the pump had been completely backed off to the point that it couldn't be loosened any more and fuel was actively dripping out. As this was on the suction side of the pump air would be drawn into the fuel system and make the unit unable to run. Purged the air from the fuel system and cranked to start.
- Unit started hard like a typical engine that had been run out of fuel or with bad air ingression.
- Tested for proper operation and found the unit ran fine with no codes.

Next service: 8000H

### February 3, 2022 (WO-3885)

Hours: 7,948

Work Completed by:

- The technician went out to the Landfill on February 3, 2022 to perform and oil change service.
- The planetarys still need to be done for the 8,000 hour service but we will wait for a warmer day so we can wash the unit.
- The mechanic changed the engine oil/filter, the hydraulic tank breather, the fuel filter, and the water separator.
- The air filters were left alone as they were changed at the end of December 2021 when we could not get the unit started.
- The hydraulic oil was replaced in November when we did the hydrostat and wheel motor and December when the main hydraulic line burst.
- No hydraulic oil change is necessary at this time.

Parts Installed: LF691A, 40L of 0W40, FF5319, FS20007, AF4884

# February 4, 2022 (WO-3889)

Hours/Mileage: 7,948 Hours

- The technician went out to the landfill with from to assist with welding on the exhaust/muffler system that fell off into the pit a while ago.
- Luckily, we were able to re-use the exhaust system. The mechanic installed one exhaust.

Parts Installed: Fleetrite Clamp FLTEC60PLA

### **UNIT # 142 - February 9, 2022 (WO-3937)**

Hours/Mileage: 7,948 Hours Work Completed by:

- On February 9, 2022, the technician went to the landfill and replaced the 4 struts that hold open the engine bay lids.
- Please see attached invoice and VSR.
- The other mechanic also topped up the gear box oil which was low.

Parts Installed: 4x 80-07662

## April 29, 2022 (WO-4644)

Hours: 7992

Work completed by:

- Changed engine oil/filter, fuel filters, cab filter, engine air filters and planetary oil.
- Pump drive gearbox was below the add line on dipstick, topped up oil.
- Took oil samples
- Installed missing RH joystick harness gromit to stop harness damage.

Parts installed: LF691A, AF890, AF891M, FS20007, FF5319, Cab filter PA3828 Next service: 8250H

## May 24, 2022 (WO-4664)

Hours: 8008

- Operators report A/C not working. Pressure tested with nitrogen and found two leaks. Replaced suction line, compressor to condenser line and compressor adapter block.
- There was still a leak that I couldn't find. Can't use sniffer outside. Added UV die to try and find leak and charged with 4lbs of R134A. Added A/C oil.
- Changed receiver dryer as system was open for a long time.
- Replaced foam for front A/C panel
- HVAC 3 position switch had come loos in the top panel and would twist and pull on the wires when being used. When attempting to remove the knob to tighten the switch the shaft broke out of the switch. Ordered a replacement.
- Cleaned out evaporator.
- Replaced broken LH engine compartment latch.

- Found RH center articulation door was damaged. repaired the door.
- Found harness for RH steering stop was damaged. Made a harness from some spare parts. Electronic stop now works.
- Resampled hydraulic oil as last one came back bad.

Parts installed: Engine latch #2339750, A/C Dryer #23152100, 4lbs of R134A, 2oz of PAG oil, One home made harness, A/C suction line, A/C compressor to condenser line, A/C compressor adapter.

Next service: 8250H

## June 28, 2022 (WO-4821)

Hours: 8031

Work completed by:

- Replaced broken HVAC Hot/Cold/Defrost switch, lined up and installed a new knob. Tested HVAC system and it works as expected.
- Found that the hot water valve potentiometer is very loose and only starts working about halfway through its travel. Will look into getting a new switch.
- Block heater cord provided was incorrect. Sam is looking into getting the correct cord.

Parts installed: Three position A/C switch #23310100, Control knob #23310000

Next service: 8250H

## Octobe<u>r 12, 2022 (WO-5193)</u>

Hours:

Work completed by:

- Replaced block heater cord

Parts installed: #11PR72T Next service: 8250H

## **December 10, 2022**

Hours: 8135

Work completed by:

- Operator reports zero pressure on main drive gearbox.
- Inspected pressure valve and found it was stuck open. Cleaned and freed up.
- Tested and pressure is now at 120Psi at idle

## **December 23, 2022 (WO-5442)**

Hours/Mileage: NA

- On December 23, 2022 the landfill supervisor called and said that the Al-Jon would not start.
- This was not surprising due to the cold.

- We were going to charge the batteries over the weekend, however two were cracked.
- It was decided that the batteries would be replaced.
- The mechanic went out to the landfill and replaced the batteries.
- He had to chip and chisel the ice and soot out of the battery box.
- Please see attached VSR.

Next service: 8250H

#### October 19, 2023

Hours: 8234

Work completed by:

- Changed engine oil/filter, fuel filters, engine and cab air <u>filters</u>.

- Fuel gauge/sender not working. Will need more testing. does not want to fix fuel sender.

Parts installed: LF691A, FS20007, FF5319, AF891M, AF890, PA3828, Cab reserk

filters×2, 40L of 0W40 Next service: 8500