

Serial Number: TWX00753 Product Family: LARGE WHEEL LOADER

Model: 988K SMU / Hours: Year: 2015

SERVICE HISTORY (227 Records)

Invoice Date	Invoice Type	SMU / Hours	Description	Notes
Jan 03, 2025	Service	1	Troubleshoot Fault Code	Troubleshoot fault code
Jan 03, 2025	Service	1	Troubleshoot Fault Code	Troubleshoot fault code

Oct 27, 2024	Service	20,738	Troubleshoot Fault Code	Customer complaint: Brake system loosing pressure. Cause of failure: Failed service brake valve Resultant damage: Loss of brake pressure. Repair process comments: Date: 2/8/2024 tech:3538 Parked service truck in safe location. performed jha inspection. hooked up et pulled product Status report. saw codes E284 (3) low brake accumulator pressure & e284 (2) Low brake accumulator pressure. hooked up analog Guages and checked pressures at brake charging Valve. pressures measured at in spec 800 +/- 50. Measured brake valve front and rear test ports. Also tested in spec 800 +/- 50. performed service Brake holding ability test. tested in 3rd gear (3f) holding break fully, and 100% throttle. Machine did not move. inspected brake Accumulators. removed schrader valve covers to Accumulators, saw inside of caps we were wet. Pressed on schrader valve for front and rear Brake accumulators. excessive amount of oil and Nitrogen came out, which is a sign of accumulator Failure. ordered parts, will arrive 2/9/2024. Date: 2/9/2024 tech: 3538 Received parts prior to leaving to machine Location. parked service truck in safe location. Began additional testing to verify accumulator Failure. suspect there may be an issue with Brakes/finals. staged machine to inspect front Left final and removed fill plug. had operator Depress brake pedal while inspecting through fill Plug for bypassing. found no issue on front left, Front right, and left rear. however right rear While inspecting saw fluid filling final drive. Recommend removal and inspection of all brake Discs and seals. 2/12/24 (2416) I arrived at site and began to inspect the Machine. i verified all fluids were up to mark And looked for any leaks on the brake system. i Saw that the front differential was leaking but Was not a concern of the brake system. the leak Was coming from the yoke. i then started the Machine and allowed it to build the brake charge Pressure. i then pressed the brake and observed The pressures on the machine parameters. i Noticed the rapid decrease in the brake charge Pressure when the brake was being applied. i Drained the front differential then recovered it With the truck. i then did the same with the rear Diff. we then started the machine and allowed it To get up to normal operating temperatures then Build the brake charge pressure. we then applied The brakes and viewed both differential drains to See if it the brake was bypassing. there was no Sign of it bypassing in the differentials. i then Hooked up some gauges to the brake valve and was Recieving 2400psi to charge pressure port but was Only recieving 560 psi at the service brake ports When it should be atleast 800 psi. this indicated A faulty brake valve. i got the parts ordered Then cleaned up area thoroughly before heading Back to shop. 2/13/24 (2416) I cleaned all the hazmat from the service truck. i Then had to drain the recovery tank then a 55 gal Barrel that was used to drain both diffs. i then Cleaned up and headed to jobsite. i drained the Right rear final as advised due to it having a High fluid level as per previous tech. i then Started the machin and applied the brakes to Verify there was no leaks. i neutralized the
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Oct 27, 2024	Service	20,738	Remove & Install Valve Actuator	R/i charging valve
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Oct 27, 2024	Service	20,738	Troubleshoot Fault Code	Customer complaint: Hydraulic code Cause of failure: Filter housing Resultant damage: N/a Repair process comments: I arrived at site to inspect the machine. customer Stated the machine had a hydraulic code. i hooked Up laptop and pulled a psr. i then looked up the Loed code and started to test the hydraulic Pressures. all the pressures were within spec Except for the pilot pressure which was at 510 Psi and was supposed to be at 550psi +/- 30 psi. I then tried to heat up the hydraulic system by Stalling the lift. after 1 hour of operating the Machine and trying to get the code to return i Noticed some other issues. the machine would have 4400 psi at idle when dead heading the tilt Cylinder in the rackback position but and would Eventually stall the engine after 4 - 6 seconds. I then performed the same test at high idle and Only got 2300 psi but it did not stall the Engine. i also noticed that the steering joy Stick was rattling very loud and fast. i then Wanted to test the pt2 port but i t wasnt on the Machine as displayed on the schematic. i couldnt Get the code to return so i called a tc and Informed him of previous repairs and current Issues. he advised to replace the hydraulic fan Filter housing due to a poppet that sometimes Fail causing the code. i ordered and replaced the Complete filter housing gp. i then tested the System again and the code would not return However i still had the same issues. i wanted to Verify where the steering joystick was getting Its pilot oil supply from since i didnt have Naything coming from the pt2 port. i informed the Tc with this information. i also noticed that the Brake charge pressure would very slowly decrease From 2200 psi to 1200 psi within 45 minutes at Idle. but if i increased the idle by 200 rpms it Would then build back the psi to 2200 in 10 to 20 Seconds. i read the system operations and the Brake pump is a fixed displacement pump. it had Me puzzled as to why the sytem would loose Pressure. was it due to the idle speeds set too Low which could also be the reason of stalling The engine while dead heading the tilt cylinder At idle. or was it a brake charge valve issue Where the vavle was bypassing which could cause The steering chattering if it recieves oil from The brake charging valve as its displayed in the Schematic. I returned to site after carefully going over the Systems operation and the schematic. since a few Of the parts had been replaced already, i had to Test if they were working properly. i decided To start over after replacing the brake charging Valve. so i started by placing a cap in between The brake pump oil filter and the charging valve. I started the machine with a 6000 psi gauge Hooked up at test port (bb) and immediately Received a pressure of 2400psi which indicates The pump has perfect flow and the pump relief Valve is set where its supposed to be. i then Removed the cap and decided to cap off the Parking brake supply pressure from the brake Actuator valve. i still had the same scenario With my brake charging pressure leaking at idle And needing an increased rpm to sustain the System pressure at 2200 psi. i removed the cap And then cap the rear brake supply line before it Tees into the brke valve and the parking brake
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difference. i tried it at The front brake supply line and nothing. so after Going over the schematic a few times, decided to Move the cap to the pilot pressure supply line Right after the (jj) test port. still having a 900 psi gauge hooked up, i started the machine And immediately my charge pressure increased to 2400 psi which is the spec for the brake charge Valve and i had a pressure of 700psi pilot Pressure. could this be the reason when adjusting The pilot pressure, my pressure fluctuated from 500 to 400 until it reached 550 psi. this Confirms my leak is coming from the pilot Pressure side of the system. there's no visible Leakes that would indicate this failure. i then Decided to moved the cap to the implement coil Supply and the system was able to keep its Pressure. this indicates a failure in the Implement pump since the implement pilot supply Only goes to the implement pump and the main Control valve. I returned to site a few weeks after when customer Approved us to work on machine. i then prepared All the parts that were ordered to work on the Implement pump. i then realized it required for Me to have pump completely removed to service but The customer denied the repair and i explained the Safety issue of the brakes. i then informed my Supervisor then headed back to shop. Troubleshoot

Oct 27, 2024	Service	20,738	Travel To/from Machine	Travel 9005 bradley ave sun valley
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Oct 25, 2024	Service	20,738	Remove & Install Valve Actuator	R/i charging valve
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Oct 25, 2024	Service	20,738	Travel To/from Machine	Travel 9005 bradley ave sun valley
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Oct 25, 2024	Service	20,738	Troubleshoot Fault Code	Customer complaint: Brake system loosing pressure. Cause of failure: Failed service brake valve Resultant damage: Loss of brake pressure. Repair process comments: Date: 2/8/2024 tech:3538 Parked service truck in safe location. performed jha inspection. hooked up et pulled product Status report. saw codes E284 (3) low brake accumulator pressure & e284 (2) Low brake accumulator pressure. hooked up analog Guages and checked pressures at brake charging Valve. pressures measured at in spec 800 +/- 50. Measured brake valve front and rear test ports. Also tested in spec 800 +/- 50. performed service Brake holding ability test. tested in 3rd gear (3f) holding break fully, and 100% throttle. Machine did not move. inspected brake Accumulators. removed schrader valve covers to Accumulators, saw inside of caps we were wet. Pressed on schrader valve for front and rear Brake accumulators. excessive amount of oil and Nitrogen came out, which is a sign of accumulator Failure. ordered parts, will arrive 2/9/2024. Date: 2/9/2024 tech: 3538 Received parts prior to leaving to machine Location. parked service truck in safe location. Began additional testing to verify accumulator Failure. suspect there may be an issue with Brakes/finals. staged machine to inspect front Left final and removed fill plug. had operator Depress brake pedal while inspecting through fill Plug for bypassing. found no issue on front left, Front right, and left rear. however right rear While inspecting saw fluid filling final drive. Recommend removal and inspection of all brake Discs and seals. 2/12/24 (2416) I arrived at site and began to inspect the Machine. i verified all fluids were up to mark And looked for any leaks on the brake system. i Saw that the front differential was leaking but Was not a concern of the brake system. the leak Was coming from the yoke. i then started the Machine and allowed it to build the brake charge Pressure. i then pressed the brake and observed The pressures on the machine parameters. i Noticed the rapid decrease in the brake charge Pressure when the brake was being applied. i Drained the front differential then recovered it With the truck. i then did the same with the rear Diff. we then started the machine and allowed it To get up to normal operating temperatures then Build the brake charge pressure. we then applied The brakes and viewed both differential drains to See if it the brake was bypassing. there was no Sign of it bypassing in the differentials. i then Hooked up some gauges to the brake valve and was Recieving 2400psi to charge pressure port but was Only recieving 560 psi at the service brake ports When it should be atleast 800 psi. this indicated A faulty brake valve. i got the parts ordered Then cleaned up area thoroughly before heading Back to shop. 2/13/24 (2416) I cleaned all the hazmat from the service truck. i Then had to drain the recovery tank then a 55 gal Barrel that was used to drain both diffs. i then Cleaned up and headed to jobsite. i drained the Right rear final as advised due to it having a High fluid level as per previous tech. i then Started the machin and applied the brakes to Verify there was no leaks. i neutralized the
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Oct 25, 2024	Service	20,738	Troubleshoot Fault Code	Customer complaint: Hydraulic code Cause of failure: Filter housing Resultant damage: N/a Repair process comments: I arrived at site to inspect the machine. customer Stated the machine had a hydraulic code. i hooked Up laptop and pulled a psr. i then looked up the Loed code and started to test the hydraulic Pressures. all the pressures were within spec Except for the pilot pressure which was at 510 Psi and was supposed to be at 550psi +/- 30 psi. I then tried to heat up the hydraulic system by Stalling the lift. after 1 hour of operating the Machine and trying to get the code to return i Noticed some other issues. the machine would have 4400 psi at idle when dead heading the tilt Cylinder in the rackback position but and would Eventually stall the engine after 4 - 6 seconds. I then performed the same test at high idle and Only got 2300 psi but it did not stall the Engine. i also noticed that the steering joy Stick was rattling very loud and fast. i then Wanted to test the pt2 port but i t wasnt on the Machine as displayed on the schematic. i couldnt Get the code to return so i called a tc and Informed him of previous repairs and current Issues. he advised to replace the hydraulic fan Filter housing due to a poppet that sometimes Fail causing the code. i ordered and replaced the Complete filter housing gp. i then tested the System again and the code would not return However i still had the same issues. i wanted to Verify where the steering joystick was getting Its pilot oil supply from since i didnt have Naything coming from the pt2 port. i informed the Tc with this information. i also noticed that the Brake charge pressure would very slowly decrease From 2200 psi to 1200 psi within 45 minutes at Idle. but if i increased the idle by 200 rpms it Would then build back the psi to 2200 in 10 to 20 Seconds. i read the system operations and the Brake pump is a fixed displacement pump. it had Me puzzled as to why the sytem would loose Pressure. was it due to the idle speeds set too Low which could also be the reason of stalling The engine while dead heading the tilt cylinder At idle. or was it a brake charge valve issue Where the vavle was bypassing which could cause The steering chattering if it recieves oil from The brake charging valve as its displayed in the Schematic. I returned to site after carefully going over the Systems operation and the schematic. since a few Of the parts had been replaced already, i had to Test if they were working properly. i decided To start over after replacing the brake charging Valve. so i started by placing a cap in between The brake pump oil filter and the charging valve. I started the machine with a 6000 psi gauge Hooked up at test port (bb) and immediately Received a pressure of 2400psi which indicates The pump has perfect flow and the pump relief Valve is set where its supposed to be. i then Removed the cap and decided to cap off the Parking brake supply pressure from the brake Actuator valve. i still had the same scenario With my brake charging pressure leaking at idle And needing an increased rpm to sustain the System pressure at 2200 psi. i removed the cap And then cap the rear brake supply line before it Tees into the brke valve and the parking brake
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Aug 26, 2024	Service	21,860	Travel To/from Machine	Travel
Aug 26, 2024	Service	21,860	Troubleshoot Hydr Hoses	Customer complaint: Oil coming out of the exhaust Repair process comments: Date:08-08-24 tech:3448 Travel to machine location check in customer and Complaint machine is leaking oil from exhaust Began trouble shooting connected laptop and Downloaded my product status report next removed Bolts hold exhaust pipe and found oil residue Inside tail pipe and on the outside of pipe and Around the affected area next removed def Injector to inspect and found no oil but did fine Injector had def build up from small leak on tip Nozzle next removed side covers and panels to Acces the pipe on the nrs coolers removed clamps And inspected inside cooler for leaks none found Cooler was dry put everything back together and Ran machine no leaks performed a force regen and Passed no leaks wear found as well put everything Back together and had customer test machine no Leaks wear found cat luber will come to top off Any fluids low Leak

				Pm includes: a/c receiver/dryer replace, air Filter element replace primary, air filter Element replace secondary, articulation pivot pin Lubricate bearing both, battery clean, battery Tighten holder, brake accumulator check, Brake/axle oil cooler replace filter, braking System test, crankshaft damper/pulley inspect, Differential check fluid level front, Differential check fluid level rear, differential Take & analyze s-o-s from front, differential Take & analyze s-o-s from rear, drive axle drain & refill oil front, drive axle drain & refill oil Rear, drive shaft lubricate spline center, drive Shaft support lubricate bearing, engine coolant Take & analyze s-o-s from Customer complaint: Pm 4 requested Resultant damage: Performed pm 4 Repair process comments: Pm-4 performed Contacted customer and located equipment. Performed hazard analyses. started up equipment. Performed ta 1. coolant valve damaged needs to be Replaced. hose going to pressure valve leaking Needs to be replaced. transmission drain plug Leaking o ring needs to be replaced. troubleshoot Leak on hose. hydraulic tank leaking. allowed Equipment to reach operating temperature. took Engine oil sample. took transmission oil sample. Took hydraulic oil sample. took differential oil Samples. took coolant sample. took all four hub Samples. shut of equipment. drained engine oil. Drained transmission oil. drained front and rear Differentials. drained hydraulic oil. removed and Replaced engine oil filter. removed and replace Fuel filters. removed and replace primary and Secondary air filter elements. removed and Replace primary and secondary cab filter. removed And replaced transmission filter. removed and Replaced transmission housing o rings. removed And replaced hydraulic filter . removed and Replaced fuel / water separator filter. closed of Engine oil drain plug .closed transmission drain Plug. closed front and rear diff drain plugs. Closed hydraulic drain plug. fill engine oil to Fill mark on dipstick (58 qt). filled Transmission (96 qt's) to fill mark on dipstick. Filled front and rear diff. filled hydraulic tank To full mark on sight glass. started equipment. Checked for any leaks. performed product status Report. notified customer job was completed. .
Aug 21, 2024	Service	21,828	Perform Pm 4	
Aug 21, 2024	Service	21,828	Travel To/from Machine	Customer complaint: Travel Travel

Jul 12, 2024	Service	21,556	Troubleshoot Hydraulic System	Customer complaint: Hydraulic oil leaks Cause of failure: Hoses worn into each other Resultant damage: Transmission hoses worn/leaking Repair process comments: Date: 6/18/2024 tech:3538 Parked service truck in safe location. hooked up Et and pulled product status report. inspected Hydraulic level. level was not empty but in the Safe zone between full and empty. ran machine for Approximately 30 minutes and shut off to inspect Leaks. saw transmission level was moderately low. Inspected transmission. transmission was covered In fluid. saw 4 hoses leaking, 2 of which had Worn into each other. looked up part numbers and Ordered parts. had operator run machine for Additional 30 minutes. at this time i had noticed A smaller leak coming from hydraulic hard line That had previously been welded. leak was not Substantial but will need attention in near Future. major leak was coming from transmission Lines/hoses. had all hoses except for one. Hose/parts will arrive 6/19/2024. Date: 6/19/2024 tech: 3538 Received parts prior to arriving at machine Location. parked service truck in safe location. Used lube truck to drain transmission fluid. Started removing transmission lines. removed hose Clamp flanges. removed hoses. cleaned mounting Surface areas for all hoses being replaced. Reinstalled hoses and reconnected flanges/clamps. Main suction hose had different fitting then Ordered. customer had his own vendor make and Supply hose. installed hose to bottom of pump, Twisted hose and mounted to transmission. used Lube truck to fill transmission. had customer Test machine. no more leaks from transmission Hoses. done with hydraulic leak repairs. 38.62hrs @ \$218 29.75hrs @ \$327 T/s oil leak
Jul 12, 2024	Service	21,556	Travel To/from Machine	Repair process comments: Date: 6/18/2024 tech: 3538 Travel to/from 9005 bradley ave, sun valley, ca, 91352 Date: 6/19/2024 tech:3538 Travel to/from 9005 bradley ave, sun valley, ca, 91352 Date: 6/20/2024 tech: 3538 Travel to/from 9005 bradley ave, sun valley, ca, 91352 Travel 7 round trips @ \$399.00

Jul 12, 2024	Service	21,556	Troubleshoot Air Conditioner	Repair process comments: Date: 6/20/2024 tech:3538 Parked service truck in safe location. used crane To offload a/c machine. hooked up high side and Low side from a/c machine to machine. recovered 4.7 pounds refrigerent. inspected expansion Valve, valve was full of debris. due to this Recommended replacing dryer as well. a/c temp Sensor showed signs of damage. wires pulling out Of probe. used air compressor and air gun to to Clean out evap/heater compartment. removed Electrical connector and removed temp sensor from Evap. installed new temp sensor. reconnected Electrical connector. pressure senor was zip tied And harness to sensor was also damaged due to zip Tie being secured to tight around harness, Removed zip tie and electrical connector. removed Pressure sensor. installed new sensor and Reconnected electrical connector. removed both Cabin air filters and cleaned per customer Request. reinstalled both filters. removed both Conections at dryer. removed clamps holding dryer In place. installed new dryer, installed new O-rings. reconnected a/c lines and secured dyer With clamps. vacuumed a/c system for 20 minutes. After vacuum was complete charged a/d system with 4.7 pounds of refrigerant. started machine and Then added 2.0 ounces of pag oil through low Side. a/c system was now working properly. Done with a/c repairs. 3hrs @ \$218.00 T/s air conditioner
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Jun 20, 2024	Service	20,738	Troubleshoot Fault Code	Customer complaint: Brake system loosing pressure. Cause of failure: Failed service brake valve Resultant damage: Loss of brake pressure. Repair process comments: Date: 2/8/2024 tech:3538 Parked service truck in safe location. performed jha inspection. hooked up et pulled product Status report. saw codes E284 (3) low brake accumulator pressure & e284 (2) Low brake accumulator pressure. hooked up analog Guages and checked pressures at brake charging Valve. pressures measured at in spec 800 +/- 50. Measured brake valve front and rear test ports. Also tested in spec 800 +/- 50. performed service Brake holding ability test. tested in 3rd gear (3f) holding break fully, and 100% throttle. Machine did not move. inspected brake Accumulators. removed schrader valve covers to Accumulators, saw inside of caps we were wet. Pressed on schrader valve for front and rear Brake accumulators. excessive amount of oil and Nitrogen came out, which is a sign of accumulator Failure. ordered parts, will arrive 2/9/2024. Date: 2/9/2024 tech: 3538 Received parts prior to leaving to machine Location. parked service truck in safe location. Began additional testing to verify accumulator Failure. suspect there may be an issue with Brakes/finals. staged machine to inspect front Left final and removed fill plug. had operator Depress brake pedal while inspecting through fill Plug for bypassing. found no issue on front left, Front right, and left rear. however right rear While inspecting saw fluid filling final drive. Recommend removal and inspection of all brake Discs and seals. 2/12/24 (2416) I arrived at site and began to inspect the Machine. i verified all fluids were up to mark And looked for any leaks on the brake system. i Saw that the front differential was leaking but Was not a concern of the brake system. the leak Was coming from the yoke. i then started the Machine and allowed it to build the brake charge Pressure. i then pressed the brake and observed The pressures on the machine parameters. i Noticed the rapid decrease in the brake charge Pressure when the brake was being applied. i Drained the front differential then recovered it With the truck. i then did the same with the rear Diff. we then started the machine and allowed it To get up to normal operating temperatures then Build the brake charge pressure. we then applied The brakes and viewed both differential drains to See if it the brake was bypassing. there was no Sign of it bypassing in the differentials. i then Hooked up some gauges to the brake valve and was Recieving 2400psi to charge pressure port but was Only recieving 560 psi at the service brake ports When it should be atleast 800 psi. this indicated A faulty brake valve. i got the parts ordered Then cleaned up area thoroughly before heading Back to shop. 2/13/24 (2416) I cleaned all the hazmat from the service truck. i Then had to drain the recovery tank then a 55 gal Barrel that was used to drain both diffs. i then Cleaned up and headed to jobsite. i drained the Right rear final as advised due to it having a High fluid level as per previous tech. i then Started the machin and applied the brakes to Verify there was no leaks. i neutralized the
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pressure was at 0 psi. i then removed all The lines to the brake valve. we then removed the Brake valve nuts and removed the brake valve. we Then transferred all athe fittings and valve from The old valve to the new one. we then reversed The removal steps to install the new one. we then Hooked up gauges to the test ports and started The machine. we allowed the system to warm up and Build pressure. they charge system was at 2300 Psi. the brakes awas applied and both the front And rear brakes had a pressure of 780 psi and it Held its pressure and the charge pressure only Decreased 150 psi which then returned to 2300 in Less than 30 seconds. i then pressed the brakes 13 times until the warning light came on then Allowed it to build its pressure. this showed the That the system was operating normal and had Improved from only pressing the brakes 5 times And the alarm would turn on. i then confirmed the Repair and informed the customer. we then had the Luber refill the final and differentials. we Packed up , cleaned area nd headed back to shop. Customer complaint: Brake system loosing pressure. Cause of failure: Failed service brake valve Resultant damage: Loss of brake pressure. Repair process comments: 2/12/24 (2416) I arrived at site and began to inspect the Machine. i verified all fluids were up to mark And looked for any leaks on the brake system. i Saw that the front differential was leaking but Was not a concern of the brake system. the leak Was coming from the yoke. i then started the Machine and allowed it to build the brake charge Pressure. i then pressed the brake and observed The pressures on the machine parameters. i Noticed the rapid decrease in the brake charge Pressure when the brake was being applied. i Drained the front differential then recovered it With the truck. i then did the same with the rear Diff. we then started the machine and allowed it To get up to normal operating temperatures then Build the brake charge pressure. we then applied The brakes and viewed both differential drains to See if it the brake was bypassing. there was no Sign of it bypassing in the differentials. i then Hooked up some gauges to the brake valve and was Recieving 2400psi to charge pressure port but was Only recieving 560 psi at the service brake ports When it should be atleast 800 psi. this indicated A faulty brake valve. i got the parts ordered Then cleaned up area thoroughly before heading Back to shop. 2/13/24 (2416) I cleaned all the hazmat from the service truck. i Then had to drain the recovery tank then a 55 gal Barrel that was used to drain both diffs. i then Cleaned up and headed to jobsite. i drained the Right rear final as advised due to it having a High fluid level as per previous tech. i then Started the machin and applied the brakes to Verify there was no leaks. i neutralized the Brake pressure by applying the brakes until the System pressure was at 0 psi. i then removed all The lines to the brake valve. we then removed the Brake valve nuts and removed the brake valve. we Then transferred all athe fittings and valve from The old valve to the new one. we then reversed The removal steps to install the new one. we then

system to warm up and Build pressure. they charge system was at 2300 Psi. the brakes awas applied and both the front And rear brakes had a pressure of 780 psi and it Held its pressure and the charge pressure only Decreased 150 psi which then returned to 2300 in Less than 30 seconds. i then pressed the brakes 13 times until the warning light came on then Allowed it to build its pressure. this showed the That the system was operating normal and had Improved from only pressing the brakes 5 times And the alarm would turn on. i then confirmed the Repair and informed the customer. we then had the Luber refill the final and differentials. we Packed up , cleaned area nd headed back to shop. Filters pump/accumulator

Jun 20, 2024	Service	20,738	Troubleshoot Fault Code	Customer complaint: Hydraulic code Cause of failure: Filter housing Resultant damage: N/a Repair process comments: I arrived at site to inspect the machine. customer Stated the machine had a hydraulic code. i hooked Up laptop and pulled a psr. i then looked up the Loed code and started to test the hydraulic Pressures. all the pressures were within spec Except for the pilot pressure which was at 510 Psi and was supposed to be at 550psi +/- 30 psi. I then tried to heat up the hydraulic system by Stalling the lift. after 1 hour of operating the Machine and trying to get the code to return i Noticed some other issues. the machine would have 4400 psi at idle when dead heading the tilt Cylinder in the rackback position but and would Eventually stall the engine after 4 - 6 seconds. I then performed the same test at high idle and Only got 2300 psi but it did not stall the Engine. i also noticed that the steering joy Stick was rattling very loud and fast. i then Wanted to test the pt2 port but i t wasnt on the Machine as displayed on the schematic. i couldnt Get the code to return so i called a tc and Informed him of previous repairs and current Issues. he advised to replace the hydraulic fan Filter housing due to a poppet that sometimes Fail causing the code. i ordered and replaced the Complete filter housing gp. i then tested the System again and the code would not return However i still had the same issues. i wanted to Verify where the steering joystick was getting Its pilot oil supply from since i didnt have Naything coming from the pt2 port. i informed the Tc with this information. i also noticed that the Brake charge pressure would very slowly decrease From 2200 psi to 1200 psi within 45 minutes at Idle. but if i increased the idle by 200 rpms it Would then build back the psi to 2200 in 10 to 20 Seconds. i read the system operations and the Brake pump is a fixed displacement pump. it had Me puzzled as to why the sytem would loose Pressure. was it due to the idle speeds set too Low which could also be the reason of stalling The engine while dead heading the tilt cylinder At idle. or was it a brake charge valve issue Where the vavle was bypassing which could cause The steering chattering if it recieves oil from The brake charging valve as its displayed in the Schematic. I returned to site after carefully going over the Systems operation and the schematic. since a few Of the parts had been replaced already, i had to Test if they were working properly. i decided To start over after replacing the brake charging Valve. so i started by placing a cap in between The brake pump oil filter and the charging valve. I started the machine with a 6000 psi gauge Hooked up at test port (bb) and immediately Received a pressure of 2400psi which indicates The pump has perfect flow and the pump relief Valve is set where its supposed to be. i then Removed the cap and decided to cap off the Parking brake supply pressure from the brake Actuator valve. i still had the same scenario With my brake charging pressure leaking at idle And needing an increased rpm to sustain the System pressure at 2200 psi. i removed the cap And then cap the rear brake supply line before it Tees into the brke valve and the parking brake
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difference. i tried it at The front brake supply line and nothing. so after Going over the schematic a few times, decided to Move the cap to the pilot pressure supply line Right after the (jj) test port. still having a 900 psi gauge hooked up, i started the machine And immediately my charge pressure increased to 2400 psi which is the spec for the brake charge Valve and i had a pressure of 700psi pilot Pressure. could this be the reason when adjusting The pilot pressure, my pressure fluctuated from 500 to 400 until it reached 550 psi. this Confirms my leak is coming from the pilot Pressure side of the system. there's no visible Leakes that would indicate this failure. i then Decided to moved the cap to the implement coil Supply and the system was able to keep its Pressure. this indicates a failure in the Implement pump since the implement pilot supply Only goes to the implement pump and the main Control valve. I returned to site a few weeks after when customer Approved us to work on machine. i then prepared All the parts that were ordered to work on the Implement pump. i then realized it required for Me to have pump completely removed to service but The customer denied the repair and i explained the Safety issue of the brakes. i then informed my Supervisor then headed back to shop. Troubleshoot

Jun 20, 2024	Service	20,738	Travel To/from Machine	Travel 9005 bradley ave sun valley
Jun 20, 2024	Service	20,738	Remove & Install Valve Actuator	R/i charging valve
Jun 10, 2024	Service	21,535	Perform Pm 1	Pm includes: battery clean, brake accumulator Check, braking system test, differential check Fluid level front, differential check fluid level Rear, drive shaft lubricate spline center, engine Oil take & analyze s-o-s from, final drive check Fluid level front, final drive check fluid level Rear, pm 1 perform csa, serpentine belt inspect. Customer complaint: Pm 1 requested Resultant damage: Pm 1 performed Repair process comments: Pm 1 Contacted customer located unit. traveled to unit. Performed hazard analysis. started unit and Allowed to reach operating temperature. performed Product status report. notified customer of large Hydraulic leak. noticed right and left fenders Damaged. took engine oil samples. took hydraulic Oil sample. took transmission oil sample. took Front and rear differential oil sample. took Coolant sample. moved unit to line up hub oil Plugs. took hub oil sample from all four wheels. Blew out all radiates. greased all fittings. shut Off unit. notified customer that job was done. .
Jun 10, 2024	Service	21,535	Travel To/from Machine	Customer complaint: Travel Travel

May 16, 2024	Service	21,345	Troubleshoot Exhaust Gas	Repair process comments: 5-6-24 Arrived at location. located machine. started Engine and checked engine compartment for Evidence of an exhaust leak. none fund. checked Engine exhaust manifold. did not have any leaks. Checked the turbo system and plumbing no exhaust Leaks detected. checked the clean air exhaust Module no leaks detected. exhaust system on the Engine is significantly detached from cab. found Engine oil leak at valve cover breather assembly. Found hydraulic oil leak at rear left side of Machine below the access cover behind cab. these Leaks can produce strong odors. Inspected the cab area and door seals. performed The procedure to pressurize the cab using the Hvac system. found left side door seal to be Torn. and right side emergency escape window to Have a gap in the seal. the cab is not completely Sealed. also found the cab hvac system in need of Service the evaporator is not draining correctly Water is building up in the hvac unit. producing A strong damp smell. advised customer that seals For doors had to be repaired to obtain a Completely sealed cab. cab air filters are in Good shape but can possibly be upgraded to a Premium filter that will capture outside smells. Customer did not advise if he would like to Replace seals. T/s exhaust leak in cab
May 16, 2024	Service	21,345	Travel To/from Machine	Customer complaint: Inspect for exhaust leaks Cause of failure: None Resultant damage: Cab door seal torn. Travel
May 16, 2024	Service	21,345	Troubleshoot Hydraulic System	Customer complaint: Inspect for hydraulic leak at steering valve Cause of failure: Oring torn Resultant damage: Valve must be removed and resealed. Repair process comments: 5-6-24 Inspected machine for hydraulic oil leak at Steering valve. leak was not evident due to dirt In this area. cleaned area and asked customer to Asist in moving vehicle to get steering valve to Leak. foundleak at center section of steering Valve. advised customer that this valve is Stacked and the most likely cause of this leak is A torn oring between sections. steering valve Will have to be removed to reseal. placed machine In a position where valve could be removed. Prepared machine for repair by releasing the Pressure from the steering hydraulic circuit. Released the implement pressure. released the Presssure in the hydraulic tank. began by Removing the steering neutralizer valves and Capping hose fittings. will return tomorrow. Sourced and ordered parts T/s leak from valve part number 361 2413

May 16, 2024	Service	21,345	Remove & Install Steering Valve	Repair process comments: 5-7-24 Verified no new hazards around machine. continued The removal of the steering valve. drained the Hydraulic tank as some of the hoses are below the Hydraulic tank causing the system to continue to Drain. removed return hose from tank and from Valve removed supply hoses to valve. removed Delivery tubes to each side of the steering Cylinder. removed valve And brought valve and other parts to clean at the Shop in a more controled clean environment. used Parts cleaner to clean valve and used pressure Washer for all other parts. 5-8-24 All parts arrived. began the dissassembly of the Steering valve on a bench. used parts cleaner to Finish cleaning valve. removed each section o Valve and replaced all orings associated withe The resealing of the valve. traveled to the site. Cleaned area where steering valve is Located.placed valve in position for install. Secured valve to mounting. will return to Complete install. 5-9-24 arrived at site verified no new hazards Around machine. began the process of insatlling Hoses and fittings back on to steering valve. Replaced all oring associated with reattaching Hoses and tubes on to valve. cleaned area. Advised customer machine was done. customer Advised he would supply hydraulic oil for Machine. customer filled machine with hydraulic Oil. observed hydraulic oil transfer to machine. There is a potential risk of oil contamination. New method of filling oil must be adopted. oil Was brought to level and machine was started. Cycled steering and implement function to fill Internal components with oil. once all functions Returned and all hoses and tubes and cylinder Were filled inspected for leaks. no leaks Detected in the section between steering valve. Advised customer machine was back in service. R/i valve disassemble and reseal
May 16, 2024	Service	21,345	Travel To/from Machine	Travel ramco sun valley
Apr 24, 2024	Service	21,241	Travel To/from Machine	Customer complaint: Travel Travel

Apr 24, 2024	Service	21,241	Perform Pm 2	Pm includes: air filter element replace primary, Air filter element replace secondary, battery Clean, brake accumulator check, braking system Test, differential check fluid level front, Differential check fluid level rear, differential Take & analyze s-o-s from front, differential Take & analyze s-o-s from rear, drive shaft Lubricate spline center, engine coolant take & Analyze s-o-s from level one, engine oil & filter Replace, engine oil take & analyze s-o-s from, Final drive check fluid level front, final drive Check fluid level rear, final drive take & Analyze s-o-s from front, final drive take & Analyze s-o-s from rear, fuel filter replace Secondary, fuel tank cl Customer complaint: Pm 2 requested Repair process comments: Contacted customer and located equipment. Performed hazard analyses. started up equipment. Performed ta 1. coolant valve damaged needs to be Replaced. hose going to pressure valve leaking Needs to be replaced. allowed equipment to reach Operating temperature. took engine oil sample. Took transmission oil sample. took hydraulic oil Sample. took differential oil samples. took Coolant sample. took oil samples of all four Hubs. shut of equipment. dropped engine belly Pan. drained engine oil. removed and replaced Engine oil filter. removed and replace fuel Filters. removed and replace primary and Secondary air filter elements. removed and Replace primary and secondary cab filter. removed And replaced transmission filter. removed and Replaced hydraulic filter. removed and replaced Fuel / water separator filter. closed of engine Oil drain plug. fill engine oil to fill mark on Dipstick (63 qt). started equipment. checked for Any leaks. closed engine oil belly pan. performed Product status report. notified customer job was Completed. .
Mar 27, 2024	Service	21,005	Perform Pm 1	Pm includes: battery clean, brake accumulator Check, braking system test, differential check Fluid level front, differential check fluid level Rear, drive shaft lubricate spline center, engine Oil take & analyze s-o-s from, final drive check Fluid level front, final drive check fluid level Rear, pm 1 perform csa, serpentine belt inspect. Customer complaint: Pm 1 requested Resultant damage: Pm 1 performed Repair process comments: Pm 1 Contacted customer located unit. traveled to unit. Performed hazard analysis. started unit and Allowed to reach operating temperature. performed Product status report. performed ta 1. noticed All steps bent. took engine oil samples. took Hydraulic oil sample. took transmission oil Sample. took front and rear differential oil Sample. took coolant sample. moved unit to line Up hub oil plugs. took hub oil sample from all Four wheels. blew out all radiates. shut off Unit. notified customer that job was done. .
Mar 27, 2024	Service	21,005	Travel To/from Machine	Customer complaint: Travel Travel

Feb 26, 2024	Service	20,771	Travel To/from Machine	Customer complaint: Travel Travel
				Pm includes: air filter element replace primary, Air filter element replace secondary, Articulation pivot pin lubricate bearing both, Battery clean, battery tighten holder, brake Accumulator check, braking system test, Differential check fluid level front, Differential check fluid level rear, differential Take & analyze s-o-s from front, differential Take & analyze s-o-s from rear, drive shaft Lubricate spline center, drive shaft support Lubricate bearing, engine coolant take & analyze S-o-s from level one, engine oil & filter Replace, engine oil take & analyze s-o-s from, Final drive check fluid level front, final drive Check fluid level rear, final drive take & ana Customer complaint: Pm 3 requested Resultant damage: Performed pm 3 Repair process comments: Pm-3 performed Contacted customer and located equipment. Performed hazard analyses. started up equipment. Performed ta 1. coolant valve damaged needs to be Replaced. hose going to pressure valve leaking Needs to be replaced. transmission drain plug Leaking o ring needs to be replaced. troubleshoot Leak on hose. allowed equipment to reach Operating temperature. took engine oil sample. Took transmission oil sample. took hydraulic oil Sample. took differential oil samples. took Coolant sample. took all four hub samples. shut Of equipment. drained engine oil. drained Transmission oil. removed and replaced engine oil Filter. removed and replace fuel filters. removed And replace primary and secondary air filter Elements. removed and replace primary and Secondary cab filter. removed and replaced Transmission filter. removed and replaced Transmission housing o rings. removed and Replaced hydraulic filter . removed and replaced Fuel / water separator filter. closed of engine Oil drain plug .closed transmission drain plug. Fill engine oil to fill mark on dipstick (58 qt). Filled transmission (96 qt's) to fill mark on Dipstick. started equipment. checked for any Leaks. performed product status report. notified Customer job was completed. .
Feb 26, 2024	Service	20,771	Perform Pm 3	
Jan 27, 2024	Service	20,555	Travel To/from Machine	Repair process comments: 1-9-24 Travel to site Travel to shop 1-11-24 Travel to site Travel to shop 1-12-24 Travel to site Travel to shop 1-16-24 Travel to site Travel to shop Travel ramco

Jan 27, 2024	Service	20,555	Remove & Install Pump Head	Repair process comments: 1-9-24 Found active fan filter restriction fault. Customer advised service was just performed. did Not state which service. inspected hydraulic oil Level. found filters for steering, fan, and brake Are separate from main hydraulic oil filter will Begin by replacing fan and brake filter mounted On right side below platform. 1-11-24 Arrived at site. replaced filters part #2226713. Checked hydraulic oil level. advised customer to Operate. operated for 30 minutes fault returned. Will continue to inspect. wil return and rplace Other filter in the same circuit.will order Sensor and main hydraulic filter. Vladimir to install pump 20r-9363 Previously replaced ref sy16063
Jan 27, 2024	Service	20,555	Troubleshoot Accumulator Press Gauge	Repair process comments: 1-9-24 Arrived at site. removed brake pump at left side Of torque converter. installed brake pump. Replaced all orings associated with the removal Of the pump and hydraulic hoses. checked Hydraulic oil was a little low but within range. Spoke with customer about oil being used for Machine. customer indicated 32 weight was being Used. turned machine on and allowed to get to Operating temperature. used gauge to test output Of brake pump at idle and high idle. 2250 psi was Reached at high idle with hydraulic at operating Temperature. pump responded to throttle Accordingly raise and decreased with throttle. Low brake pressure alarm will illuminate when 14 Or more brake applications are made at low idle. You then have to throttle up for about 7 second To charge system and light turns off indicating System is operating corretly. fan/ hydraulic oil Filter restricted alarm became active customer Advised service was just performed and would like Me to inspect. restriction fault. T/s accumulators
Jan 27, 2024	Service	20,555	Remove & Install Hydraulic Oil Filter	Repair process comments: 1-16-24 Replaced main hydraulic oil filter part #4656505 At right side under hydraulic oil tank. also Replaced sensor part #3767257 at mount housing. Advised customer hydraulic oil level was a little Low. customer operated machine in normal Conditions fault returned. inspect wiring by Placing jumper wire from signalto ground and Observed the value change on e.t. indicating that The wiring is good condition. did this test Twice. value changed from "bypassing" to "not Bypassing". replaced filter part#2956257 and Checked the wiring of the switch at the housing. Wiring looks to be in good condition. turn Machine on checked for leaks at repair none Found. operated function and raised fluid level To operating temperature. fault did not return Advised customer to put machine back in service. Install filters 222-6713 and 295-6257 Previously replaced in sy16475

Jan 27, 2024	Service	20,555	Troubleshoot Accumulator Press Gauge	Repair process comments: 1-9-24 Arrived at site. removed brake pump at left side Of torque converter. installed brake pump. Replaced all orings associated with the removal Of the pump and hydraulic hoses. checked Hydraulic oil was a little low but within range. Spoke with customer about oil being used for Machine. customer indicated 32 weight was being Used. turned machine on and allowed to get to Operating temperature. used gauge to test output Of brake pump at idle and high idle. 2250 psi was Reached at high idle with hydraulic at operating Temperature. pump responded to throttle Accordingly raise and decreased with throttle. Low brake pressure alarm will illuminate when 14 Or more brake applications are made at low idle. You then have to throttle up for about 7 second To charge system and light turns off indicating System is operating corretly. fan/ hydraulic oil Filter restricted alarm became active customer Advised service was just performed and would like Me to inspect. restriction fault. T/s accumulators
Jan 27, 2024	Service	20,555	Remove & Install Pump Head	Repair process comments: 1-9-24 Found active fan filter restriction fault. Customer advised service was just performed. did Not state which service. inspected hydraulic oil Level. found filters for steering, fan, and brake Are separate from main hydraulic oil filter will Begin by replacing fan and brake filter mounted On right side below platform. 1-11-24 Arrived at site. replaced filters part #2226713. Checked hydraulic oil level. advised customer to Operate. operated for 30 minutes fault returned. Will continue to inspect. wil return and rplace Other filter in the same circuit.will order Sensor and main hydraulic filter. Vladimir to install pump 20r-9363 Previously replaced ref sy16063
Jan 27, 2024	Service	20,555	Remove & Install Hydraulic Oil Filter	Repair process comments: 1-16-24 Replaced main hydraulic oil filter part #4656505 At right side under hydraulic oil tank. also Replaced sensor part #3767257 at mount housing. Advised customer hydraulic oil level was a little Low. customer operated machine in normal Conditions fault returned. inspect wiring by Placing jumper wire from signalto ground and Observed the value change on e.t. indicating that The wiring is good condition. did this test Twice. value changed from "bypassing" to "not Bypassing". replaced filter part#2956257 and Checked the wiring of the switch at the housing. Wiring looks to be in good condition. turn Machine on checked for leaks at repair none Found. operated function and raised fluid level To operating temperature. fault did not return Advised customer to put machine back in service. Install filters 222-6713 and 295-6257 Previously replaced in sy16475
Jan 27, 2024	Service	20,555	Travel To/from Machine	Repair process comments: 1-9-24 Travel to site Travel to shop 1-11-24 Travel to site Travel to shop 1-12-24 Travel to site Travel to shop 1-16-24 Travel to site Travel to shop Travel ramco

Jan 18, 2024	Service	20,563	Perform Pm 1	Customer complaint: Pm 1 Repair process comments: Pm-1 Contacted customer located unit. ordered all Hydraulic filters as instructed by the customer. Traveled to unit. performed hazard analysis. Started unit and allowed to reach operating Temperature. performed product status report. Performed ta 1. noticed all steps bent. took Engine oil samples. took transmission oil sample. Took front and rear differential oil sample. took Coolant sample. took hub oil sample from all four Wheels. turned of unit. removed upper and lower Panels to accuses all hydraulic filters. removed Hydraulic filters. installed new filters. Hydraulic oil was low. topped off hydraulic oil (27 qts of 10 w). blew out radiator. performed Product status report. contacted customer to Notify job was completed. Perfrom pm-1 per customer request to Replace filters
Jan 18, 2024	Service	20,563	Travel To/from Machine	Customer complaint: Travel Travel
Jan 17, 2024	Service	1	Replace Hoses & Lines	Replace hoses per customer request he will Install

Dec 29, 2023	Service	20,504	Troubleshoot Aftertreatment System	Customer complaint: Active codes Cause of failure: Bad def injector and def manifold Resultant damage: Active codes Repair process comments: Date:12-19-23 tech:3448 Travel to customer location check in with customer Began safety and visual inspection next connect With et and download my product status report and Began troubleshooting found active codes E1364 (2) low aftertreatment #1 def concentration E1389 (1) aftertreatment #1 scr operator Inducement Began troubleshooting those codes notice def level Gauge was not working added def and level did not Move Next i performed a aftertreatment system Functional test and did not pass inspected Inspected harness on dcu and found pinch point on Harness recommended replacing it to customer next Performed a def dosing test and injector was not Spraying evenly next performed a def system Verification test and system would not hold psi Line def supply line was leaking at injector Recommend replacing as well next checked Softwares and they wear out of date flashed all Ecms with updated software order parts and will Return Date:12-20-23 tech:3448 Travel to machine location and began working on Machine removed def tank panels and covers Removed tank straps and began removing def tank To wash it out due to contamination found def Screen very dirty and def manifold filter and Screens had lots of fine dirty and was very dirty Showed to customer washed and clean all parts and Installed tank and manifold also replaced def Pump filter also replaced def supply line to Injector due to it leaking and replaced injector As well and gaskets retested and performed a def System verification tested and passed no leaks Found next did 3 def dosing test and passed with In specs and tested machine and passsed no Active codes also recommended replacing nox Sensors with up dated parts customer aproved and Will order and return Date:12-22-23 tech:3448 Tarvel to machine location and began replacing nox Sensors and notice harness to nox sensors was Worn ans looked stretched out and while moving it Would get abnormal and unable to comunicate codes Secured harness as needed and tested no codes With harness is well secured recommend replacing Dcu and aftertrement harness to prevent any Issues tested machine and passed no codes clean And release machine The code e1364 emission
Dec 29, 2023	Service	20,504	Travel To/from Machine	Travel sun valley
Dec 29, 2023	Service	20,504	Remove & Install Sensor	
Nov 28, 2023	Service	20,360	Travel To/from Machine	Customer complaint: Travel Travel

Nov 28, 2023	Service	20,360	Perform Pm 2	Customer complaint: Pm 3 required Cause of failure: Pm 3 required Resultant damage: Performed pm 3 Repair process comments: Date: 11-21-23 hours: 20360 Tech:2368 Pm-3 performed Contacted customer and located equipment. Performed hazard analyses. started up equipment. Performed ta 1. coolant valve damaged needs to be Replaced. hose going to pressure valve leaking Needs to be replaced. transmission drain plug Leaking o ring needs to be replaced. troubleshoot Leak on hose. allowed equipment to reach Operating temperature. took engine oil sample. Took transmission oil sample. took hydraulic oil Sample. took differential oil samples. took Coolant sample. shut of equipment. drained Engine oil. drained transmission oil. removed and Replaced engine oil filter. removed and replace Fuel filters. removed and replace primary and Secondary air filter elements. removed and Replace primary and secondary cab filter. removed And replaced transmission filter. removed and Replaced hydraulic filter . removed and replaced Fuel / water separator filter. closed of engine Oil drain plug .closed transmission drain plug. Fill engine oil to fill mark on dipstick (58 qt). Filled transmission (90 qt's) to fill mark on Dipstick. started equipment. checked for any Leaks. performed product status report. notified Customer job was completed. Alert sent for pm3. pm4 completed at 19703. Complete pm2. (this note can be del at any time)
Aug 14, 2023	Service	19,703	Perform 2000 Service Hour Maint	Repair process comments: Date: 8-3-23 hour: 19703 tech: 2853 Perform 2000 service hour maintance Travled to unit location, performed visaul Inspection of unit. started unit to allow unit Fluid to reach operating temperature. once unit Fluid reach operating temperature took fluid Sample from engine oil, engine coolant, hydraulic System, transmission, and both axle. turn unit Off and placed suitable fluid catch container Under unit fluid drains. opened unit fluid drains And drained fluid in to container. removed and Replaced engine oil filter. remove and replace Primary and secondary fuel filter. removed and Replaced hydraulic filters. removed and replace Transmission filter element. removed and Replaced air cleaner filter. after unit fluid Finished draining closed all drain valves and Plugs and refilled to full level points. customer Suppled fluid, customer was using one o, tech Unable to tell amount of fluid put in due to Customer suppld pump not having a gauge. tech Refilled all fluidto full level point .started Unit and inspected service area from fluid leaks , no fluid leaks found in service area . turned Unit off and inspected unit fluid levels unit Fluid levels found to be at full level point at Time of inspection. removed and properly disposed Of waste oil/ hazmat. infromed customer that Service was completed. Perform 2000hr service
Aug 14, 2023	Service	19,703	Travel To/from Machine	Customer complaint: Travel to and from jobsite Travel to sun valley yard

Jan 24, 2023	Service	1,323	Replace Air Conditioner	Repair process comments: Date 11-21-22 hours: 1523 tech: 2060 Receive job to install ac hose on 988k i started By removing panels and brackets and then remove Old hose when insalling new hose routed hose to Proper location and then installed brackets and Covers back. when finished recharge ac unit and Tested.
Jan 24, 2023	Service	1,323	Travel To/from Machine	
Jan 24, 2023	Service	1,323	Travel To/from Machine	
Jan 24, 2023	Service	1,323	Replace Air Conditioner	Repair process comments: Date 11-21-22 hours: 1523 tech: 2060 Receive job to install ac hose on 988k i started By removing panels and brackets and then remove Old hose when insalling new hose routed hose to Proper location and then installed brackets and Covers back. when finished recharge ac unit and Tested.
Dec 12, 2022	Service	17,657	Credit To/for Marketing Info / Program	
Dec 12, 2022	Service	17,657	Loss On Quote	Loss on quote
Dec 12, 2022	Service	17,657	Credit To/for Marketing Info / Program	
Dec 12, 2022	Service	17,657	Loss On Quote	Loss on quote
Dec 12, 2022	Service	17,657	Credit To/for Marketing Info / Program	

Dec 12, 2022	Service	17,657	Remove & Install Engine	Repair process comments: 7/15/22(2555)(1873) Machine was delivered to shop, machine Was not able to power on due to engine not Working. machine was pulled off trailer and Pushed into shop. cat et was then connected to Machine and psr was downloaded, a ta 1 inspection Was then performed via cat inspect. started to Prep tools and machine to begin engine removal, Removed all hoods and engine covers. removed all Engine guards, top rails and supports. using the Crane, parts were lifted and safely lowered onto A pallet. drain pan was placed under the machine, Coolant was then drained into drain pan. coolant And fuel lines were then removed and capped from Cem. harness for cem was then removed along with Turbo outlet elbow from cem and turbo and air Inlet secondary tubing.cem hardware was then Removed and cem was lifted safely with crane and Placed onto a pallet, all inlet and outlet lines Were covered with foil tape. air box was then Unbolted and removed and placed in pallet box, h Frame hardware was removed and placed on pallet. 7/18/22(2555) Coolant lines were removed from engine along with Harness, power and ground and hydraulic lines, Lines were capped to prevent leaks. ac compressor Was removed and placed on frame. panels between Engine and torque converter were removed. engine Was hoisted up and torque converter bolts were Removed, engine mounts were removed and torque Converter was secured. engine was lifted and Moved forward and removed and placed on stands. Work area and tools were cleaned. engine removal Complete. 8/5/22(2555) Engine was received, new engine was prepped with Fittings from old engine with new o rings and Seals, o ring was placed around torque converter. Engine was then lifted with crane and mated onto Torque converter. bolts were installed around Torque converter, and engine mounts were Installed on engine and onto machine .coolant Lines were installed onto engine along with Harness, power and ground and hydraulic lines. ac Compressor was then installed along with new Belt. cem was then mounted onto engine, turbo Inlet and outlet lines were connected along with Cem harness. fuel lines were reconnected and air Box was mounted. all the tin ware was then Installed. awaiting on radiator cores and after Cooler. 8/29/22 #9102 Was asked to check machine out before shipping. Connected up to machine and updated software for Trans, implement, and both displays. once Software was updated i had to perform a fill Calibration on machine due to the new software. Fill calibration passed and machine was working Well. i then had the a/c charged and had to Calibrate the engine fan. calibrated fan to et Specs. once fan was calibrated active code went Away. ran machine and checked for leaks.
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Dec 12, 2022	Service	17,657	Remv Recondition & Instl Radiator	Repair process comments: 7/18/22(2555) Top radiator cover was removed, fuel cooler and Hydro cooler were unbolted and removed. ac Condenser was unbolted and placed on frame. all Coolant lines connecting radiator cores were Removed, radiator core mounts were removed and Cores were taken out and placed on pallet. after Cooler was unbolted and removed with crane and Placed on pallet ready to be sent to get Reconditioned 8/6/22(2555) After cooler and radiator cores were received and Installed with new seals and hoses/clamps. Hydraulic/ fuel coolers were put back into place And the rest of the tin ware was installed, Machine was then powered on and cat et was Connected, no active codes or events were found. Hydraulic leak was detected, awaiting approval to Repair.
Dec 09, 2022	Service	17,657	Credit To/for Marketing Info / Program	
Dec 09, 2022	Service	17,657	Loss On Quote	Loss on quote
Dec 06, 2022	Service	17,657	Credit To/for Marketing Info / Program	
Dec 06, 2022	Service	17,657	Remv Recondition & Instl Radiator	Repair process comments: 7/18/22(2555) Top radiator cover was removed, fuel cooler and Hydro cooler were unbolted and removed. ac Condenser was unbolted and placed on frame. all Coolant lines connecting radiator cores were Removed, radiator core mounts were removed and Cores were taken out and placed on pallet. after Cooler was unbolted and removed with crane and Placed on pallet ready to be sent to get Reconditioned 8/6/22(2555) After cooler and radiator cores were received and Installed with new seals and hoses/clamps. Hydraulic/ fuel coolers were put back into place And the rest of the tin ware was installed, Machine was then powered on and cat et was Connected, no active codes or events were found. Hydraulic leak was detected, awaiting approval to Repair.
Dec 06, 2022	Service	17,657	Credit To/for Marketing Info / Program	
Dec 06, 2022	Service	17,657	Credit To/for Marketing Info / Program	

				Repair process comments: 7/15/22(2555)(1873) Machine was delivered to shop, machine Was not able to power on due to engine not Working. machine was pulled off trailer and Pushed into shop. cat et was then connected to Machine and psr was downloaded, a ta 1 inspection Was then performed via cat inspect. started to Prep tools and machine to begin engine removal, Removed all hoods and engine covers. removed all Engine guards, top rails and supports. using the Crane, parts were lifted and safely lowered onto A pallet. drain pan was placed under the machine, Coolant was then drained into drain pan. coolant And fuel lines were then removed and capped from Cem. harness for cem was then removed along with Turbo outlet elbow from cem and turbo and air Inlet secondary tubing.cem hardware was then Removed and cem was lifted safely with crane and Placed onto a pallet, all inlet and outlet lines Were covered with foil tape. air box was then Unbolted and removed and placed in pallet box, h Frame hardware was removed and placed on pallet. 7/18/22(2555) Coolant lines were removed from engine along with Harness, power and ground and hydraulic lines, Lines were capped to prevent leaks. ac compressor Was removed and placed on frame. panels between Engine and torque converter were removed. engine Was hoisted up and torque converter bolts were Removed, engine mounts were removed and torque Converter was secured. engine was lifted and Moved forward and removed and placed on stands. Work area and tools were cleaned. engine removal Complete. 8/5/22(2555) Engine was received, new engine was prepped with Fittings from old engine with new o rings and Seals, o ring was placed around torque converter. Engine was then lifted with crane and mated onto Torque converter. bolts were installed around Torque converter, and engine mounts were Installed on engine and onto machine .coolant Lines were installed onto engine along with Harness, power and ground and hydraulic lines. ac Compressor was then installed along with new Belt. cem was then mounted onto engine, turbo Inlet and outlet lines were connected along with Cem harness. fuel lines were reconnected and air Box was mounted. all the tin ware was then Installed. awaiting on radiator cores and after Cooler. 8/29/22 #9102 Was asked to check machine out before shipping. Connected up to machine and updated software for Trans, implement, and both displays. once Software was updated i had to perform a fill Calibration on machine due to the new software. Fill calibration passed and machine was working Well. i then had the a/c charged and had to Calibrate the engine fan. calibrated fan to et Specs. once fan was calibrated active code went Away. ran machine and checked for leaks.
Dec 06, 2022	Service	17,657	Remove & Install Engine	
Dec 06, 2022	Service			
Dec 06, 2022	Service			

Dec 06, 2022	Service	17,657	Credit To/for Marketing Info / Program	
Dec 06, 2022	Service	17,657	Loss On Quote	Loss on quote
Dec 06, 2022	Service	17,657	Credit To/for Marketing Info / Program	
Dec 06, 2022	Service	17,657	Loss On Quote	Loss on quote
Dec 06, 2022	Service	17,657	Remv Recondition & Instl Radiator	Repair process comments: 7/18/22(2555) Top radiator cover was removed, fuel cooler and Hydro cooler were unbolted and removed. ac Condenser was unbolted and placed on frame. all Coolant lines connecting radiator cores were Removed, radiator core mounts were removed and Cores were taken out and placed on pallet. after Cooler was unbolted and removed with crane and Placed on pallet ready to be sent to get Reconditioned 8/6/22(2555) After cooler and radiator cores were received and Installed with new seals and hoses/clamps. Hydraulic/ fuel coolers were put back into place And the rest of the tin ware was installed, Machine was then powered on and cat et was Connected, no active codes or events were found. Hydraulic leak was detected, awaiting approval to Repair.

Dec 06, 2022	Service	17,657	Remove & Install Engine	Repair process comments: 7/15/22(2555)(1873) Machine was delivered to shop, machine Was not able to power on due to engine not Working. machine was pulled off trailer and Pushed into shop. cat et was then connected to Machine and psr was downloaded, a ta 1 inspection Was then performed via cat inspect. started to Prep tools and machine to begin engine removal, Removed all hoods and engine covers. removed all Engine guards, top rails and supports. using the Crane, parts were lifted and safely lowered onto A pallet. drain pan was placed under the machine, Coolant was then drained into drain pan. coolant And fuel lines were then removed and capped from Cem. harness for cem was then removed along with Turbo outlet elbow from cem and turbo and air Inlet secondary tubing.cem hardware was then Removed and cem was lifted safely with crane and Placed onto a pallet, all inlet and outlet lines Were covered with foil tape. air box was then Unbolted and removed and placed in pallet box, h Frame hardware was removed and placed on pallet. 7/18/22(2555) Coolant lines were removed from engine along with Harness, power and ground and hydraulic lines, Lines were capped to prevent leaks. ac compressor Was removed and placed on frame. panels between Engine and torque converter were removed. engine Was hoisted up and torque converter bolts were Removed, engine mounts were removed and torque Converter was secured. engine was lifted and Moved forward and removed and placed on stands. Work area and tools were cleaned. engine removal Complete. 8/5/22(2555) Engine was received, new engine was prepped with Fittings from old engine with new o rings and Seals, o ring was placed around torque converter. Engine was then lifted with crane and mated onto Torque converter. bolts were installed around Torque converter, and engine mounts were Installed on engine and onto machine .coolant Lines were installed onto engine along with Harness, power and ground and hydraulic lines. ac Compressor was then installed along with new Belt. cem was then mounted onto engine, turbo Inlet and outlet lines were connected along with Cem harness. fuel lines were reconnected and air Box was mounted. all the tin ware was then Installed. awaiting on radiator cores and after Cooler. 8/29/22 #9102 Was asked to check machine out before shipping. Connected up to machine and updated software for Trans, implement, and both displays. once Software was updated i had to perform a fill Calibration on machine due to the new software. Fill calibration passed and machine was working Well. i then had the a/c charged and had to Calibrate the engine fan. calibrated fan to et Specs. once fan was calibrated active code went Away. ran machine and checked for leaks.
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Dec 06, 2022	Service	17,657	Credit To/for Marketing Info / Program
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Dec 06, 2022	Service			
Dec 06, 2022	Service			
				Repair process comments: 7/15/22(2555)(1873) Machine was delivered to shop, machine Was not able to power on due to engine not Working. machine was pulled off trailer and Pushed into shop. cat et was then connected to Machine and psr was downloaded, a ta 1 inspection Was then performed via cat inspect. started to Prep tools and machine to begin engine removal, Removed all hoods and engine covers. removed all Engine guards, top rails and supports. using the Crane, parts were lifted and safely lowered onto A pallet. drain pan was placed under the machine, Coolant was then drained into drain pan. coolant And fuel lines were then removed and capped from Cem. harness for cem was then removed along with Turbo outlet elbow from cem and turbo and air Inlet secondary tubing.cem hardware was then Removed and cem was lifted safely with crane and Placed onto a pallet, all inlet and outlet lines Were covered with foil tape. air box was then Unbolted and removed and placed in pallet box, h Frame hardware was removed and placed on pallet. 7/18/22(2555) Coolant lines were removed from engine along with Harness, power and ground and hydraulic lines, Lines were capped to prevent leaks. ac compressor Was removed and placed on frame. panels between Engine and torque converter were removed. engine Was hoisted up and torque converter bolts were Removed, engine mounts were removed and torque Converter was secured. engine was lifted and Moved forward and removed and placed on stands. Work area and tools were cleaned. engine removal Complete. 8/5/22(2555) Engine was received, new engine was prepped with Fittings from old engine with new o rings and Seals, o ring was placed around torque converter. Engine was then lifted with crane and mated onto Torque converter. bolts were installed around Torque converter, and engine mounts were Installed on engine and onto machine .coolant Lines were installed onto engine along with Harness, power and ground and hydraulic lines. ac Compressor was then installed along with new Belt. cem was then mounted onto engine, turbo Inlet and outlet lines were connected along with Cem harness. fuel lines were reconnected and air Box was mounted. all the tin ware was then Installed. awaiting on radiator cores and after Cooler. 8/29/22 #9102 Was asked to check machine out before shipping. Connected up to machine and updated software for Trans, implement, and both displays. once Software was updated i had to perform a fill Calibration on machine due to the new software. Fill calibration passed and machine was working Well. i then had the a/c charged and had to Calibrate the engine fan. calibrated fan to et Specs. once fan was calibrated active code went Away. ran machine and checked for leaks.
Oct 17, 2022	Service	17,657	Remove & Install Engine	

Oct 17, 2022	Service	17,657	Remv Recondition & Instl Radiator	Repair process comments: 7/18/22(2555) Top radiator cover was removed, fuel cooler and Hydro cooler were unbolted and removed. ac Condenser was unbolted and placed on frame. all Coolant lines connecting radiator cores were Removed, radiator core mounts were removed and Cores were taken out and placed on pallet. after Cooler was unbolted and removed with crane and Placed on pallet ready to be sent to get Reconditioned 8/6/22(2555) After cooler and radiator cores were received and Installed with new seals and hoses/clamps. Hydraulic/ fuel coolers were put back into place And the rest of the tin ware was installed, Machine was then powered on and cat et was Connected, no active codes or events were found. Hydraulic leak was detected, awaiting approval to Repair.
Oct 17, 2022	Service			
Oct 17, 2022	Service			
Oct 17, 2022	Service	17,657	Credit To/for Marketing Info / Program	
Oct 17, 2022	Service	17,657	Credit To/for Marketing Info / Program	
Oct 17, 2022	Service	17,657	Credit To/for Marketing Info / Program	

Oct 17, 2022	Service	17,657	Remove & Install Engine	Repair process comments: 7/15/22(2555)(1873) Machine was delivered to shop, machine Was not able to power on due to engine not Working. machine was pulled off trailer and Pushed into shop. cat et was then connected to Machine and psr was downloaded, a ta 1 inspection Was then performed via cat inspect. started to Prep tools and machine to begin engine removal, Removed all hoods and engine covers. removed all Engine guards, top rails and supports. using the Crane, parts were lifted and safely lowered onto A pallet. drain pan was placed under the machine, Coolant was then drained into drain pan. coolant And fuel lines were then removed and capped from Cem. harness for cem was then removed along with Turbo outlet elbow from cem and turbo and air Inlet secondary tubing.cem hardware was then Removed and cem was lifted safely with crane and Placed onto a pallet, all inlet and outlet lines Were covered with foil tape. air box was then Unbolted and removed and placed in pallet box, h Frame hardware was removed and placed on pallet. 7/18/22(2555) Coolant lines were removed from engine along with Harness, power and ground and hydraulic lines, Lines were capped to prevent leaks. ac compressor Was removed and placed on frame. panels between Engine and torque converter were removed. engine Was hoisted up and torque converter bolts were Removed, engine mounts were removed and torque Converter was secured. engine was lifted and Moved forward and removed and placed on stands. Work area and tools were cleaned. engine removal Complete. 8/5/22(2555) Engine was received, new engine was prepped with Fittings from old engine with new o rings and Seals, o ring was placed around torque converter. Engine was then lifted with crane and mated onto Torque converter. bolts were installed around Torque converter, and engine mounts were Installed on engine and onto machine .coolant Lines were installed onto engine along with Harness, power and ground and hydraulic lines. ac Compressor was then installed along with new Belt. cem was then mounted onto engine, turbo Inlet and outlet lines were connected along with Cem harness. fuel lines were reconnected and air Box was mounted. all the tin ware was then Installed. awaiting on radiator cores and after Cooler. 8/29/22 #9102 Was asked to check machine out before shipping. Connected up to machine and updated software for Trans, implement, and both displays. once Software was updated i had to perform a fill Calibration on machine due to the new software. Fill calibration passed and machine was working Well. i then had the a/c charged and had to Calibrate the engine fan. calibrated fan to et Specs. once fan was calibrated active code went Away. ran machine and checked for leaks.
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Oct 17, 2022	Service	17,657	Remv Recondition & Instl Radiator	Repair process comments: 7/18/22(2555) Top radiator cover was removed, fuel cooler and Hydro cooler were unbolted and removed. ac Condenser was unbolted and placed on frame. all Coolant lines connecting radiator cores were Removed, radiator core mounts were removed and Cores were taken out and placed on pallet. after Cooler was unbolted and removed with crane and Placed on pallet ready to be sent to get Reconditioned 8/6/22(2555) After cooler and radiator cores were received and Installed with new seals and hoses/clamps. Hydraulic/ fuel coolers were put back into place And the rest of the tin ware was installed, Machine was then powered on and cat et was Connected, no active codes or events were found. Hydraulic leak was detected, awaiting approval to Repair.
Oct 17, 2022	Service			
Oct 17, 2022	Service			

Aug 30, 2022	Service	17,657	Remove & Install Engine	Repair process comments: 7/15/22(2555)(1873) Machine was delivered to shop, machine Was not able to power on due to engine not Working. machine was pulled off trailer and Pushed into shop. cat et was then connected to Machine and psr was downloaded, a ta 1 inspection Was then performed via cat inspect. started to Prep tools and machine to begin engine removal, Removed all hoods and engine covers. removed all Engine guards, top rails and supports. using the Crane, parts were lifted and safely lowered onto A pallet. drain pan was placed under the machine, Coolant was then drained into drain pan. coolant And fuel lines were then removed and capped from Cem. harness for cem was then removed along with Turbo outlet elbow from cem and turbo and air Inlet secondary tubing.cem hardware was then Removed and cem was lifted safely with crane and Placed onto a pallet, all inlet and outlet lines Were covered with foil tape. air box was then Unbolted and removed and placed in pallet box, h Frame hardware was removed and placed on pallet. 7/18/22(2555) Coolant lines were removed from engine along with Harness, power and ground and hydraulic lines, Lines were capped to prevent leaks. ac compressor Was removed and placed on frame. panels between Engine and torque converter were removed. engine Was hoisted up and torque converter bolts were Removed, engine mounts were removed and torque Converter was secured. engine was lifted and Moved forward and removed and placed on stands. Work area and tools were cleaned. engine removal Complete. 8/5/22(2555) Engine was received, new engine was prepped with Fittings from old engine with new o rings and Seals, o ring was placed around torque converter. Engine was then lifted with crane and mated onto Torque converter. bolts were installed around Torque converter, and engine mounts were Installed on engine and onto machine .coolant Lines were installed onto engine along with Harness, power and ground and hydraulic lines. ac Compressor was then installed along with new Belt. cem was then mounted onto engine, turbo Inlet and outlet lines were connected along with Cem harness. fuel lines were reconnected and air Box was mounted. all the tin ware was then Installed. awaiting on radiator cores and after Cooler. 8/29/22 #9102 Was asked to check machine out before shipping. Connected up to machine and updated software for Trans, implement, and both displays. once Software was updated i had to perform a fill Calibration on machine due to the new software. Fill calibration passed and machine was working Well. i then had the a/c charged and had to Calibrate the engine fan. calibrated fan to et Specs. once fan was calibrated active code went Away. ran machine and checked for leaks.
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Aug 30, 2022	Service	17,657	Remv Recondition & Instl Radiator	Repair process comments: 7/18/22(2555) Top radiator cover was removed, fuel cooler and Hydro cooler were unbolted and removed. ac Condenser was unbolted and placed on frame. all Coolant lines connecting radiator cores were Removed, radiator core mounts were removed and Cores were taken out and placed on pallet. after Cooler was unbolted and removed with crane and Placed on pallet ready to be sent to get Reconditioned 8/6/22(2555) After cooler and radiator cores were received and Installed with new seals and hoses/clamps. Hydraulic/ fuel coolers were put back into place And the rest of the tin ware was installed, Machine was then powered on and cat et was Connected, no active codes or events were found. Hydraulic leak was detected, awaiting approval to Repair.
Aug 30, 2022	Service			
Aug 30, 2022	Service			
May 17, 2022	Parts			
May 05, 2022	Parts			
Apr 26, 2022	Parts			
Apr 19, 2022	Parts			
Apr 18, 2022	Parts			

				Customer complaint: CUSTOMER COMPLAINT: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: REPAIR PROCESS COMMENTS: 4764 Jan 14, 2022 arrived late in 4764 JAN 14, 2022 ARRIVED LATE IN The morning. waited approx 1/2 hour, until Machine was brought over. it was being used. E1239 dpf #1 conditions not met for active E1239 DPF #1 CONDITIONS NOT MET FOR ACTIVE Regeneration, e1466 shut down with high exhaust REGENERATION, E1466 SHUT DOWN WITH HIGH EXHAUST Temperature, e993 dpf active regeneration TEMPERATURE, E993 DPF ACTIVE REGENERATION Inhibited due to inhibit switch, e1052 (2) low INHIBITED DUE TO INHIBIT SWITCH, E1052 (2) LOW Aftertreatment #1 fuel pressure #1. customer AFTERTREATMENT #1 FUEL PRESSURE #1. CUSTOMER States that the machine is low on power, derated. Cleared events, and codes related to the CLEARED EVENTS, AND CODES RELATED TO THE Failure. performed a priming pump command FAILURE. PERFORMED A PRIMING PUMP COMMAND Override. it's at 85 psi. good. performed a OVERRIDE. IT'S AT 85 PSI. GOOD. PERFORMED A Fuel pump relay override, electrical input is 26 FUEL PUMP RELAY OVERRIDE, ELECTRICAL INPUT IS 26 Volts. correct. performed the fuel pump override VOLTS. CORRECT. PERFORMED THE FUEL PUMP OVERRIDE Again, fuel pressure is 285 psi, good. removed AGAIN, FUEL PRESSURE IS 285 PSI, GOOD. REMOVED The fuel manifold inlet screen, and blew it out. THE FUEL MANIFOLD INLET SCREEN, AND BLEW IT OUT. It's not clogged. all passed. customer stated That the fuel filter housing, with the fuel THAT THE FUEL FILTER HOUSING, WITH THE FUEL Priming pump was replaced, due to the low fuel Pressure event. upon trying to regenerate, e1051 PRESSURE EVENT. UPON TRYING TO REGENERATE, E1051 (1) high fuel pressure #1, #2, and e593 (2) ard (1) HIGH FUEL PRESSURE #1, #2, AND E593 (2) ARD Temp low. performed an ard nozzle heater test, TEMP LOW. PERFORMED AN ARD NOZZLE HEATER TEST, Passed. 4.3 amps. tested the ard nozzle heater Wire, passed. installed a spark tester, passed. WIRE, PASSED. INSTALLED A SPARK TESTER, PASSED. Performed another manual dpf regeneration. this Time it passed. ?? next step would be, if it did Not pass, would be a fuel pilot solenoid, or an NOT PASS, WOULD BE A FUEL PILOT SOLENOID, OR AN Ard head. released the machine. done for now. ARD HEAD. RELEASED THE MACHINE. DONE FOR NOW.
Jan 19, 2022	Service	16,944	Troubleshoot Emission(s)	
Sep 30, 2021	Service	15,066	Travel To/from	

Sep 30, 2021	Service	15,066	Troubleshoot Emission(s)	Customer complaint: Error codes e931 (2) low aftertreatment #1 def ERROR CODES E931 (2) LOW AFTERTREATMENT #1 DEF Pressure #1 PRESSURE #1 Cause of failure: Old flash files OLD FLASH FILES Repair process comments: REPAIR PROCESS COMMENTS: 4-23-2021-(1873) SEVERAL ACTIVE CODES; E1389 SCR OPERATOR Travel to location. unit was parked in safe work TRAVEL TO LOCATION. UNIT WAS PARKED IN SAFE WORK Area. hooked up cat et and pulled psr .looked up AREA. HOOKED UP CAT ET AND PULLED PSR .LOOKED UP Error code that was last active and it was e931 ERROR CODE THAT WAS LAST ACTIVE AND IT WAS E931 (2) low aftertreatment #1 def pressure #1 no (2) LOW AFTERTREATMENT #1 DEF PRESSURE #1 NO Other codes were active. looked up flash files OTHER CODES WERE ACTIVE. LOOKED UP FLASH FILES Because unit had files from 2018. found flash BECAUSE UNIT HAD FILES FROM 2018. FOUND FLASH Update on engine, aftertreatment, trans, Implement and display. on the engine and Aftertreatment they both had diagnostic AFTERTREATMENT THEY BOTH HAD DIAGNOSTIC Improvement to prevent false tripping for low def IMPROVEMENT TO PREVENT FALSE TRIPPING FOR LOW DEF Pressure. performed all flash updates ,engine PRESSURE. PERFORMED ALL FLASH UPDATES ,ENGINE Ecm from 5663160 to 6074951, aftertreatment ecm ECM FROM 5663160 TO 6074951, AFTERTREATMENT ECM From 5663161 to 5793156, trans ecm from 4681893 To 4933083, implement ecm from 4792091 to TO 4933083, IMPLEMENT ECM FROM 4792091 TO 4933119, and lastly cluster ecm from 4701001 to 4933119, AND LASTLY CLUSTER ECM FROM 4701001 TO 5523605. after flash update was successful i turn 5523605. AFTER FLASH UPDATE WAS SUCCESSFUL I TURN Power off for 3 min. turn power on and test unit. POWER OFF FOR 3 MIN. TURN POWER ON AND TEST UNIT. No active codes were present. turn unit off and Remove left rear floor board and handrails. REMOVE LEFT REAR FLOOR BOARD AND HANDRAILS. Remove coolant lines, and 2 def lines from def REMOVE COOLANT LINES, AND 2 DEF LINES FROM DEF Manifold. remove an inspect def manifold, MANIFOLD. REMOVE AN INSPECT DEF MANIFOLD, Replaced the def manifold screen and filter. REPLACED THE DEF MANIFOLD SCREEN AND FILTER. Install def manifold and connect 2 def lines and Both coolant hoses. performed a def dosing system Verification test. unit passed the test with no VERIFICATION TEST. UNIT PASSED THE TEST WITH NO Issue. no leaks were found in repaired area. ISSUE. NO LEAKS WERE FOUND IN REPAIRED AREA. Performed a aftertreatment system functional test PERFORMED A AFTERTREATMENT SYSTEM FUNCTIONAL TEST And unit also passed with no issues. cleared all AND UNIT ALSO PASSED WITH NO ISSUES. CLEARED ALL Logged codes and pulled second psr. install left LOGGED CODES AND PULLED SECOND PSR. INSTALL LEFT Rear floor board and handrail. return unit back REAR FLOOR BOARD AND HANDRAIL. RETURN UNIT BACK To service clean out tools and area. done with TO SERVICE CLEAN OUT TOOLS AND
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AREA. DONE WITH Unit. called customer and update on unit
finish UNIT. CALLED CUSTOMER AND UPDATE ON UNIT
FINISH Status. STATUS.

Sep 30, 2021	Service	15,066	Travel To/from
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Sep 30, 2021	Service	15,066	Troubleshoot Emission(s)	Customer complaint: Error codes e931 (2) low aftertreatment #1 def ERROR CODES E931 (2) LOW AFTERTREATMENT #1 DEF Pressure #1 PRESSURE #1 Cause of failure: Old flash files OLD FLASH FILES Repair process comments: REPAIR PROCESS COMMENTS: 4-23-2021-(1873) SEVERAL ACTIVE CODES; E1389 SCR OPERATOR Travel to location. unit was parked in safe work TRAVEL TO LOCATION. UNIT WAS PARKED IN SAFE WORK Area. hooked up cat et and pulled psr .looked up AREA. HOOKED UP CAT ET AND PULLED PSR .LOOKED UP Error code that was last active and it was e931 ERROR CODE THAT WAS LAST ACTIVE AND IT WAS E931 (2) low aftertreatment #1 def pressure #1 no (2) LOW AFTERTREATMENT #1 DEF PRESSURE #1 NO Other codes were active. looked up flash files OTHER CODES WERE ACTIVE. LOOKED UP FLASH FILES Because unit had files from 2018. found flash BECAUSE UNIT HAD FILES FROM 2018. FOUND FLASH Update on engine, aftertreatment, trans, Implement and display. on the engine and Aftertreatment they both had diagnostic AFTERTREATMENT THEY BOTH HAD DIAGNOSTIC Improvement to prevent false tripping for low def IMPROVEMENT TO PREVENT FALSE TRIPPING FOR LOW DEF Pressure. performed all flash updates ,engine PRESSURE. PERFORMED ALL FLASH UPDATES ,ENGINE Ecm from 5663160 to 6074951, aftertreatment ecm ECM FROM 5663160 TO 6074951, AFTERTREATMENT ECM From 5663161 to 5793156, trans ecm from 4681893 To 4933083, implement ecm from 4792091 to TO 4933083, IMPLEMENT ECM FROM 4792091 TO 4933119, and lastly cluster ecm from 4701001 to 4933119, AND LASTLY CLUSTER ECM FROM 4701001 TO 5523605. after flash update was successful i turn 5523605. AFTER FLASH UPDATE WAS SUCCESSFUL I TURN Power off for 3 min. turn power on and test unit. POWER OFF FOR 3 MIN. TURN POWER ON AND TEST UNIT. No active codes were present. turn unit off and Remove left rear floor board and handrails. REMOVE LEFT REAR FLOOR BOARD AND HANDRAILS. Remove coolant lines, and 2 def lines from def REMOVE COOLANT LINES, AND 2 DEF LINES FROM DEF Manifold. remove an inspect def manifold, MANIFOLD. REMOVE AN INSPECT DEF MANIFOLD, Replaced the def manifold screen and filter. REPLACED THE DEF MANIFOLD SCREEN AND FILTER. Install def manifold and connect 2 def lines and Both coolant hoses. performed a def dosing system Verification test. unit passed the test with no VERIFICATION TEST. UNIT PASSED THE TEST WITH NO Issue. no leaks were found in repaired area. ISSUE. NO LEAKS WERE FOUND IN REPAIRED AREA. Performed a aftertreatment system functional test PERFORMED A AFTERTREATMENT SYSTEM FUNCTIONAL TEST And unit also passed with no issues. cleared all AND UNIT ALSO PASSED WITH NO ISSUES. CLEARED ALL Logged codes and pulled second psr. install left LOGGED CODES AND PULLED SECOND PSR. INSTALL LEFT Rear floor board and handrail. return unit back REAR FLOOR BOARD AND HANDRAIL. RETURN UNIT BACK To service clean out tools and area. done with TO SERVICE CLEAN OUT TOOLS AND
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AREA. DONE WITH Unit. called customer and update on unit finish UNIT. CALLED CUSTOMER AND UPDATE ON UNIT FINISH Status. STATUS.

Aug 11, 2021	Service	15,477	Troubleshoot & Repair No Start	
Aug 11, 2021	Service	15,477	Troubleshoot & Repair No Start	
Aug 11, 2021	Service	15,477	Troubleshoot & Repair No Start	
Jun 30, 2021	Service	15,477	Troubleshoot & Repair No Start	
Jun 29, 2021	Service	15,477	Troubleshoot & Repair No Start	Customer complaint: CUSTOMER COMPLAINT: No start NO START Cause of failure: Missing power supply to starter MISSING POWER SUPPLY TO STARTER Repair process comments: REPAIR PROCESS COMMENTS: 6-22-2021-(1873) Travel to units location unit was parked in safe TRAVEL TO UNITS LOCATION UNIT WAS PARKED IN SAFE Work area. hooked up cat et and pulled psr. WORK AREA. HOOKED UP CAT ET AND PULLED PSR. Talked to customer and he said that they replaced TALKED TO CUSTOMER AND HE SAID THAT THEY REPLACED The starter and no start. looked up part number And compare to starter that was installed. the AND COMPARE TO STARTER THAT WAS INSTALLED. THE Part number was the correct one that was PART NUMBER WAS THE CORRECT ONE THAT WAS Installed. customer asked on plug that was empty INSTALLED. CUSTOMER ASKED ON PLUG THAT WAS EMPTY Around the starter. we test for power and found AROUND THE STARTER. WE TEST FOR POWER AND FOUND That it was the signal wires to the starter THAT IT WAS THE SIGNAL WIRES TO THE STARTER Solenoid. made a new pig tail and wired as SOLENOID. MADE A NEW PIG TAIL AND WIRED AS Needed. test unit cranking and unit started up NEEDED. TEST UNIT CRANKING AND UNIT STARTED UP With no issue. clean out tools and area. talked WITH NO ISSUE. CLEAN OUT TOOLS AND AREA. TALKED To customer and he said he will finish installing All panels that were removed by them. travel back ALL PANELS THAT WERE REMOVED BY THEM. TRAVEL BACK To shop done with unit. TO SHOP DONE WITH UNIT.
Jun 29, 2021	Service	15,477	Travel To/from Machine	
Jun 15, 2021	Parts			

May 06, 2021	Service	14,576	Travel To/from
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May 06, 2021	Service	14,576	Troubleshoot Emission(s)	Customer complaint: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: 4764 feb 19, 2021 machine is in the Customer's shop, a service is being performed. CUSTOMER'S SHOP, A SERVICE IS BEING PERFORMED. Made visual, okay. hooked up et, and downloaded MADE VISUAL, OKAY. HOOKED UP ET, AND DOWNLOADED The product status report. e1389; aftertreatment THE PRODUCT STATUS REPORT. E1389; AFTERTREATMENT #1 scr operator inducement. **3609-12; #1 SCR OPERATOR INDUCEMENT. **3609-12; Aftertreatment #1 outlet #1 nox level sensor : Failure. looked up part, and ordered. customer FAILURE. LOOKED UP PART, AND ORDERED. CUSTOMER Went to pick up at the shop. updated all ecm WENT TO PICK UP AT THE SHOP. UPDATED ALL ECM Software's. SOFTWARE'S. While waiting, i was asked to look at the low WHILE WAITING, I WAS ASKED TO LOOK AT THE LOW Brake accumulator charge pressure. customer BRAKE ACCUMULATOR CHARGE PRESSURE. CUSTOMER Ensured me that the accumulators were just done. ENSURED ME THAT THE ACCUMULATORS WERE JUST DONE. He also indicated that dan, another tech removed HE ALSO INDICATED THAT DAN, ANOTHER TECH REMOVED The accumulator charging valve, and replaced THE ACCUMULATOR CHARGING VALVE, AND REPLACED Parts already. communicated with him, that the PARTS ALREADY. COMMUNICATED WITH HIM, THAT THE Pump is next in line. told him i would PUMP IS NEXT IN LINE. TOLD HIM I WOULD Communicate this with glen. hooked up gauges, and COMMUNICATE THIS WITH GLEN. HOOKED UP GAUGES, AND Noticed that the pressure stayed at 1400 psi. NOTICED THAT THE PRESSURE STAYED AT 1400 PSI. This is low, and does not achieve cut out THIS IS LOW, AND DOES NOT ACHIEVE CUT OUT Pressure of 2320 psi. this confirms it. will PRESSURE OF 2320 PSI. THIS CONFIRMS IT. WILL Request glen to follow up on the previous work, REQUEST GLEN TO FOLLOW UP ON THE PREVIOUS WORK, To verify the other was already done. TO VERIFY THE OTHER WAS ALREADY DONE. Removed, and replaced nox, engine output sensor. REMOVED, AND REPLACED NOX, ENGINE OUTPUT SENSOR. Cleared codes, and events associated with CLEARED CODES, AND EVENTS ASSOCIATED WITH Failure. performed a manual regeneration. FAILURE. PERFORMED A MANUAL REGENERATION. Released the machine. ***customer called the RELEASED THE MACHINE. ***CUSTOMER CALLED THE Next day, on saturday. he stated that the code NEXT DAY, ON SATURDAY. HE STATED THAT THE CODE Came back. asked if coolant, or engine oil has CAME BACK. ASKED IF COOLANT, OR ENGINE OIL HAS Been added, due to being low. he doesn't know BEEN ADDED, DUE TO BEING LOW. HE DOESN'T KNOW Yet. will have to check with lube the guy. YET. WILL HAVE TO CHECK WITH LUBE THE GUY. 4764 feb 22, 2021 looked at the 4764 FEB 22, 2021 LOOKED AT THE Part number again, just to double check. i PART NUMBER AGAIN, JUST TO DOUBLE CHECK. I Ordered the engine outlet nox sensor, code was ORDERED THE ENGINE OUTLET NOX SENSOR, CODE WAS
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For the outlet nox sensor. schematic terminology Shows that it's the inlet nox sensor that i SHOWS THAT IT'S THE INLET NOX SENSOR THAT I Ordered the other day. i then ordered 441-5128 ORDERED THE OTHER DAY. I THEN ORDERED 441-5128 Nox sensor. i also, ordered the flame temp Sensor/dpf temp sensor, due to a logged code. SENSOR/DPF TEMP SENSOR, DUE TO A LOGGED CODE. Once arrived, i did notice the 3609-12 code is ONCE ARRIVED, I DID NOTICE THE 3609-12 CODE IS Logged. cleared out the e1389 event, and LOGGED. CLEARED OUT THE E1389 EVENT, AND Replaced the nox outlet sensor 441-5128. the REPLACED THE NOX OUTLET SENSOR 441-5128. THE Other old code did not show up. will turn in the OTHER OLD CODE DID NOT SHOW UP. WILL TURN IN THE 374-4768 temp dual sensor. performed an 374-4768 TEMP DUAL SENSOR. PERFORMED AN Aftertreatment functional test, passed. AFTERTREATMENT FUNCTIONAL TEST, PASSED. Performed a nox sensor functional test, passed. Performed a manual regeneration test, passed. PERFORMED A MANUAL REGENERATION TEST, PASSED. Job done. JOB DONE.

May 06, 2021	Service	14,576	Replace Brake Pump	Customer complaint: CUSTOMER COMPLAINT: See instructions above Repair process comments: REPAIR PROCESS COMMENTS: 4764 mar 01, 2021 had made a quick 4764 MAR 01, 2021 HAD MADE A QUICK Visual, the other day. received a brake /pilot Pump. loaded up on truck. proceeded to the job PUMP. LOADED UP ON TRUCK. PROCEEDED TO THE JOB Site. machine was being used, when i arrived. SITE. MACHINE WAS BEING USED, WHEN I ARRIVED. Waited slightly. machine was parked. relieved WAITED SLIGHTLY. MACHINE WAS PARKED. RELIEVED Hydraulic pressure from the hydraulic tank. it's Overfilled. put a vacuum transducer, to put a OVERFILLED. PUT A VACUUM TRANSDUCER, TO PUT A Vacuum on hydraulic system, when i take the lines VACUUM ON HYDRAULIC SYSTEM, WHEN I TAKE THE LINES Off. removed platform behind cab. removed left OFF. REMOVED PLATFORM BEHIND CAB. REMOVED LEFT Side paneling from underneath stairwell. removed SIDE PANELING FROM UNDERNEATH STAIRWELL. REMOVED Lines, and unmounted pump. swapped fittings onto Replacement pump. installed replacement pump, REPLACEMENT PUMP. INSTALLED REPLACEMENT PUMP, Reconnected the lines, and put all back together. RECONNECTED THE LINES, AND PUT ALL BACK TOGETHER. Removed vacuum transducer, and pressurized Hydraulic tank at 5 psi, and removed case drain HYDRAULIC TANK AT 5 PSI, AND REMOVED CASE DRAIN Fitting from brake pump. took some time for the FITTING FROM BRAKE PUMP. TOOK SOME TIME FOR THE Pump to burp. needed to ensure, that oil is in PUMP TO BURP. NEEDED TO ENSURE, THAT OIL IS IN The pump before start up. hooked up et, and THE PUMP BEFORE START UP. HOOKED UP ET, AND Checked for brake charge pressure, and connected CHECKED FOR BRAKE CHARGE PRESSURE, AND CONNECTED Manual gauges. started machine, and brake charge MANUAL GAUGES. STARTED MACHINE, AND BRAKE CHARGE Pressure achieves cut out at 5 seconds. good. PRESSURE ACHIEVES CUT OUT AT 5 SECONDS. GOOD. Removed gauges, and disconnected et. released REMOVED GAUGES, AND DISCONNECTED ET. RELEASED Machine. seg: 03 done.
May 06, 2021	Service	14,818	Travel To/from	Customer complaint: CUSTOMER COMPLAINT: Travel to and from job site.

May 06, 2021	Service	14,818	Troubleshoot Level Indicator	Customer complaint: CUSTOMER COMPLAINT: Tilt sensor code TILT SENOSR CODE Repair process comments: Arrived at job site. found machine and talked to ARRIVED AT JOB SITE. FOUND MACHINE AND TALKED TO Customer. another tech had troubleshooted the CUSTOMER. ANOTHER TECH HAD TROUBLESHOOTED THE Tilt sensor to be bad. had a new sensor with me TILT SENSOR TO BE BAD. HAD A NEW SENSOR WITH ME And started to change that out. had to remove AND STARTED TO CHANGE THAT OUT. HAD TO REMOVE Guards from around the sensor in order to GUARDS FROM AROUND THE SENSOR IN ORDER TO Replace. once the guards were removed i was able REPLACE. ONCE THE GUARDS WERE REMOVED I WAS ABLE To replace the sensor and install it back to the TO REPLACE THE SENSOR AND INSTALL IT BACK TO THE Machine. i then went to calibrate the sensor and MACHINE. I THEN WENT TO CALIBRATE THE SENSOR AND The code was still active. i then back to the THE CODE WAS STILL ACTIVE. I THEN BACK TO THE Sensor and double checked everything and found SENSOR AND DOUBLE CHECKED EVERYTHING AND FOUND Out that the harness was broken. fount a wire was OUT THAT THE HARNESS WAS BROKEN. FOUNT A WIRE WAS Broken inside the proctive hose. tried to repair The wire but the code was still active. harness THE WIRE BUT THE CODE WAS STILL ACTIVE. HARNESS Had another break in it. talked with customer and HAD ANOTHER BREAK IN IT. TALKED WITH CUSTOMER AND He said to get a new harness and install next HE SAID TO GET A NEW HARNESS AND INSTALL NEXT Day. DAY. Came out the fallowing day and removed the old CAME OUT THE FALLOWING DAY AND REMOVED THE OLD Harness and installed the new harness. checked HARNESS AND INSTALLED THE NEW HARNESS. CHECKED For codes. no codes were active. calibrated the FOR CODES. NO CODES WERE ACTIVE. CALIBRATED THE Tilt sensor and made sure that everything was Working. took a download of machine and gave it WORKING. TOOK A DOWNLOAD OF MACHINE AND GAVE IT Back to the customer. BACK TO THE CUSTOMER.
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May 06, 2021	Service	14,576	Troubleshoot Emission(s)	Customer complaint: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: 4764 feb 19, 2021 machine is in the Customer's shop, a service is being performed. CUSTOMER'S SHOP, A SERVICE IS BEING PERFORMED. Made visual, okay. hooked up et, and downloaded MADE VISUAL, OKAY. HOOKED UP ET, AND DOWNLOADED The product status report. e1389; aftertreatment THE PRODUCT STATUS REPORT. E1389; AFTERTREATMENT #1 scr operator inducement. **3609-12; #1 SCR OPERATOR INDUCEMENT. **3609-12; Aftertreatment #1 outlet #1 nox level sensor : Failure. looked up part, and ordered. customer FAILURE. LOOKED UP PART, AND ORDERED. CUSTOMER Went to pick up at the shop. updated all ecm WENT TO PICK UP AT THE SHOP. UPDATED ALL ECM Software's. SOFTWARE'S. While waiting, i was asked to look at the low WHILE WAITING, I WAS ASKED TO LOOK AT THE LOW Brake accumulator charge pressure. customer BRAKE ACCUMULATOR CHARGE PRESSURE. CUSTOMER Ensured me that the accumulators were just done. ENSURED ME THAT THE ACCUMULATORS WERE JUST DONE. He also indicated that dan, another tech removed HE ALSO INDICATED THAT DAN, ANOTHER TECH REMOVED The accumulator charging valve, and replaced THE ACCUMULATOR CHARGING VALVE, AND REPLACED Parts already. communicated with him, that the PARTS ALREADY. COMMUNICATED WITH HIM, THAT THE Pump is next in line. told him i would PUMP IS NEXT IN LINE. TOLD HIM I WOULD Communicate this with glen. hooked up gauges, and COMMUNICATE THIS WITH GLEN. HOOKED UP GAUGES, AND Noticed that the pressure stayed at 1400 psi. NOTICED THAT THE PRESSURE STAYED AT 1400 PSI. This is low, and does not achieve cut out THIS IS LOW, AND DOES NOT ACHIEVE CUT OUT Pressure of 2320 psi. this confirms it. will PRESSURE OF 2320 PSI. THIS CONFIRMS IT. WILL Request glen to follow up on the previous work, REQUEST GLEN TO FOLLOW UP ON THE PREVIOUS WORK, To verify the other was already done. TO VERIFY THE OTHER WAS ALREADY DONE. Removed, and replaced nox, engine output sensor. REMOVED, AND REPLACED NOX, ENGINE OUTPUT SENSOR. Cleared codes, and events associated with CLEARED CODES, AND EVENTS ASSOCIATED WITH Failure. performed a manual regeneration. FAILURE. PERFORMED A MANUAL REGENERATION. Released the machine. ***customer called the RELEASED THE MACHINE. ***CUSTOMER CALLED THE Next day, on saturday. he stated that the code NEXT DAY, ON SATURDAY. HE STATED THAT THE CODE Came back. asked if coolant, or engine oil has CAME BACK. ASKED IF COOLANT, OR ENGINE OIL HAS Been added, due to being low. he doesn't know BEEN ADDED, DUE TO BEING LOW. HE DOESN'T KNOW Yet. will have to check with lube the guy. YET. WILL HAVE TO CHECK WITH LUBE THE GUY. 4764 feb 22, 2021 looked at the 4764 FEB 22, 2021 LOOKED AT THE Part number again, just to double check. i PART NUMBER AGAIN, JUST TO DOUBLE CHECK. I Ordered the engine outlet nox sensor, code was ORDERED THE ENGINE OUTLET NOX SENSOR, CODE WAS
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For the outlet nox sensor. schematic terminology Shows that it's the inlet nox sensor that i SHOWS THAT IT'S THE INLET NOX SENSOR THAT I Ordered the other day. i then ordered 441-5128 ORDERED THE OTHER DAY. I THEN ORDERED 441-5128 Nox sensor. i also, ordered the flame temp Sensor/dpf temp sensor, due to a logged code. SENSOR/DPF TEMP SENSOR, DUE TO A LOGGED CODE. Once arrived, i did notice the 3609-12 code is ONCE ARRIVED, I DID NOTICE THE 3609-12 CODE IS Logged. cleared out the e1389 event, and LOGGED. CLEARED OUT THE E1389 EVENT, AND Replaced the nox outlet sensor 441-5128. the REPLACED THE NOX OUTLET SENSOR 441-5128. THE Other old code did not show up. will turn in the OTHER OLD CODE DID NOT SHOW UP. WILL TURN IN THE 374-4768 temp dual sensor. performed an 374-4768 TEMP DUAL SENSOR. PERFORMED AN Aftertreatment functional test, passed. AFTERTREATMENT FUNCTIONAL TEST, PASSED. Performed a nox sensor functional test, passed. Performed a manual regeneration test, passed. PERFORMED A MANUAL REGENERATION TEST, PASSED. Job done. JOB DONE.

May 06, 2021	Service	14,576	Replace Brake Pump	Customer complaint: CUSTOMER COMPLAINT: See instructions above Repair process comments: REPAIR PROCESS COMMENTS: 4764 mar 01, 2021 had made a quick 4764 MAR 01, 2021 HAD MADE A QUICK Visual, the other day. received a brake /pilot Pump. loaded up on truck. proceeded to the job PUMP. LOADED UP ON TRUCK. PROCEEDED TO THE JOB Site. machine was being used, when i arrived. SITE. MACHINE WAS BEING USED, WHEN I ARRIVED. Waited slightly. machine was parked. relieved WAITED SLIGHTLY. MACHINE WAS PARKED. RELIEVED Hydraulic pressure from the hydraulic tank. it's Overfilled. put a vacuum transducer, to put a OVERFILLED. PUT A VACUUM TRANSDUCER, TO PUT A Vacuum on hydraulic system, when i take the lines VACUUM ON HYDRAULIC SYSTEM, WHEN I TAKE THE LINES Off. removed platform behind cab. removed left OFF. REMOVED PLATFORM BEHIND CAB. REMOVED LEFT Side paneling from underneath stairwell. removed SIDE PANELING FROM UNDERNEATH STAIRWELL. REMOVED Lines, and unmounted pump. swapped fittings onto Replacement pump. installed replacement pump, REPLACEMENT PUMP. INSTALLED REPLACEMENT PUMP, Reconnected the lines, and put all back together. RECONNECTED THE LINES, AND PUT ALL BACK TOGETHER. Removed vacuum transducer, and pressurized Hydraulic tank at 5 psi, and removed case drain HYDRAULIC TANK AT 5 PSI, AND REMOVED CASE DRAIN Fitting from brake pump. took some time for the FITTING FROM BRAKE PUMP. TOOK SOME TIME FOR THE Pump to burp. needed to ensure, that oil is in PUMP TO BURP. NEEDED TO ENSURE, THAT OIL IS IN The pump before start up. hooked up et, and THE PUMP BEFORE START UP. HOOKED UP ET, AND Checked for brake charge pressure, and connected CHECKED FOR BRAKE CHARGE PRESSURE, AND CONNECTED Manual gauges. started machine, and brake charge MANUAL GAUGES. STARTED MACHINE, AND BRAKE CHARGE Pressure achieves cut out at 5 seconds. good. PRESSURE ACHIEVES CUT OUT AT 5 SECONDS. GOOD. Removed gauges, and disconnected et. released REMOVED GAUGES, AND DISCONNECTED ET. RELEASED Machine. seg: 03 done.
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May 06, 2021	Service	14,576	Troubleshoot Emission(s)	Customer complaint: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: 4764 feb 19, 2021 machine is in the Customer's shop, a service is being performed. CUSTOMER'S SHOP, A SERVICE IS BEING PERFORMED. Made visual, okay. hooked up et, and downloaded MADE VISUAL, OKAY. HOOKED UP ET, AND DOWNLOADED The product status report. e1389; aftertreatment THE PRODUCT STATUS REPORT. E1389; AFTERTREATMENT #1 scr operator inducement. **3609-12; #1 SCR OPERATOR INDUCEMENT. **3609-12; Aftertreatment #1 outlet #1 nox level sensor : Failure. looked up part, and ordered. customer FAILURE. LOOKED UP PART, AND ORDERED. CUSTOMER Went to pick up at the shop. updated all ecm WENT TO PICK UP AT THE SHOP. UPDATED ALL ECM Software's. SOFTWARE'S. While waiting, i was asked to look at the low WHILE WAITING, I WAS ASKED TO LOOK AT THE LOW Brake accumulator charge pressure. customer BRAKE ACCUMULATOR CHARGE PRESSURE. CUSTOMER Ensured me that the accumulators were just done. ENSURED ME THAT THE ACCUMULATORS WERE JUST DONE. He also indicated that dan, another tech removed HE ALSO INDICATED THAT DAN, ANOTHER TECH REMOVED The accumulator charging valve, and replaced THE ACCUMULATOR CHARGING VALVE, AND REPLACED Parts already. communicated with him, that the PARTS ALREADY. COMMUNICATED WITH HIM, THAT THE Pump is next in line. told him i would PUMP IS NEXT IN LINE. TOLD HIM I WOULD Communicate this with glen. hooked up gauges, and COMMUNICATE THIS WITH GLEN. HOOKED UP GAUGES, AND Noticed that the pressure stayed at 1400 psi. NOTICED THAT THE PRESSURE STAYED AT 1400 PSI. This is low, and does not achieve cut out THIS IS LOW, AND DOES NOT ACHIEVE CUT OUT Pressure of 2320 psi. this confirms it. will PRESSURE OF 2320 PSI. THIS CONFIRMS IT. WILL Request glen to follow up on the previous work, REQUEST GLEN TO FOLLOW UP ON THE PREVIOUS WORK, To verify the other was already done. TO VERIFY THE OTHER WAS ALREADY DONE. Removed, and replaced nox, engine output sensor. REMOVED, AND REPLACED NOX, ENGINE OUTPUT SENSOR. Cleared codes, and events associated with CLEARED CODES, AND EVENTS ASSOCIATED WITH Failure. performed a manual regeneration. FAILURE. PERFORMED A MANUAL REGENERATION. Released the machine. ***customer called the RELEASED THE MACHINE. ***CUSTOMER CALLED THE Next day, on saturday. he stated that the code NEXT DAY, ON SATURDAY. HE STATED THAT THE CODE Came back. asked if coolant, or engine oil has CAME BACK. ASKED IF COOLANT, OR ENGINE OIL HAS Been added, due to being low. he doesn't know BEEN ADDED, DUE TO BEING LOW. HE DOESN'T KNOW Yet. will have to check with lube the guy. YET. WILL HAVE TO CHECK WITH LUBE THE GUY. 4764 feb 22, 2021 looked at the 4764 FEB 22, 2021 LOOKED AT THE Part number again, just to double check. i PART NUMBER AGAIN, JUST TO DOUBLE CHECK. I Ordered the engine outlet nox sensor, code was ORDERED THE ENGINE OUTLET NOX SENSOR, CODE WAS
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For the outlet nox sensor. schematic terminology Shows that it's the inlet nox sensor that i SHOWS THAT IT'S THE INLET NOX SENSOR THAT I Ordered the other day. i then ordered 441-5128 ORDERED THE OTHER DAY. I THEN ORDERED 441-5128 Nox sensor. i also, ordered the flame temp Sensor/dpf temp sensor, due to a logged code. SENSOR/DPF TEMP SENSOR, DUE TO A LOGGED CODE. Once arrived, i did notice the 3609-12 code is ONCE ARRIVED, I DID NOTICE THE 3609-12 CODE IS Logged. cleared out the e1389 event, and LOGGED. CLEARED OUT THE E1389 EVENT, AND Replaced the nox outlet sensor 441-5128. the REPLACED THE NOX OUTLET SENSOR 441-5128. THE Other old code did not show up. will turn in the OTHER OLD CODE DID NOT SHOW UP. WILL TURN IN THE 374-4768 temp dual sensor. performed an 374-4768 TEMP DUAL SENSOR. PERFORMED AN Aftertreatment functional test, passed. AFTERTREATMENT FUNCTIONAL TEST, PASSED. Performed a nox sensor functional test, passed. Performed a manual regeneration test, passed. PERFORMED A MANUAL REGENERATION TEST, PASSED. Job done. JOB DONE.

May 06, 2021	Service	14,818	Troubleshoot Level Indicator	Customer complaint: CUSTOMER COMPLAINT: Tilt sensor code TILT SENOSR CODE Repair process comments: Arrived at job site. found machine and talked to ARRIVED AT JOB SITE. FOUND MACHINE AND TALKED TO Customer. another tech had troubleshooted the CUSTOMER. ANOTHER TECH HAD TROUBLESHOOTED THE Tilt sensor to be bad. had a new sensor with me TILT SENSOR TO BE BAD. HAD A NEW SENSOR WITH ME And started to change that out. had to remove AND STARTED TO CHANGE THAT OUT. HAD TO REMOVE Guards from around the sensor in order to GUARDS FROM AROUND THE SENSOR IN ORDER TO Replace. once the guards were removed i was able REPLACE. ONCE THE GUARDS WERE REMOVED I WAS ABLE To replace the sensor and install it back to the TO REPLACE THE SENSOR AND INSTALL IT BACK TO THE Machine. i then went to calibrate the sensor and MACHINE. I THEN WENT TO CALIBRATE THE SENSOR AND The code was still active. i then back to the THE CODE WAS STILL ACTIVE. I THEN BACK TO THE Sensor and double checked everything and found SENSOR AND DOUBLE CHECKED EVERYTHING AND FOUND Out that the harness was broken. fount a wire was OUT THAT THE HARNESS WAS BROKEN. FOUNT A WIRE WAS Broken inside the proctive hose. tried to repair The wire but the code was still active. harness THE WIRE BUT THE CODE WAS STILL ACTIVE. HARNESS Had another break in it. talked with customer and HAD ANOTHER BREAK IN IT. TALKED WITH CUSTOMER AND He said to get a new harness and install next HE SAID TO GET A NEW HARNESS AND INSTALL NEXT Day. DAY. Came out the fallowing day and removed the old CAME OUT THE FALLOWING DAY AND REMOVED THE OLD Harness and installed the new harness. checked HARNESS AND INSTALLED THE NEW HARNESS. CHECKED For codes. no codes were active. calibrated the FOR CODES. NO CODES WERE ACTIVE. CALIBRATED THE Tilt sensor and made sure that everything was Working. took a download of machine and gave it WORKING. TOOK A DOWNLOAD OF MACHINE AND GAVE IT Back to the customer. BACK TO THE CUSTOMER.
May 06, 2021	Service	14,818	Travel To/from	Customer complaint: CUSTOMER COMPLAINT: Travel to and from job site.
Apr 28, 2021	Service	15,066	Travel To/from	

Apr 28, 2021	Service	15,066	Troubleshoot Emission(s)	Customer complaint: Error codes e931 (2) low aftertreatment #1 def ERROR CODES E931 (2) LOW AFTERTREATMENT #1 DEF Pressure #1 PRESSURE #1 Cause of failure: Old flash files OLD FLASH FILES Repair process comments: REPAIR PROCESS COMMENTS: 4-23-2021-(1873) SEVERAL ACTIVE CODES; E1389 SCR OPERATOR Travel to location. unit was parked in safe work TRAVEL TO LOCATION. UNIT WAS PARKED IN SAFE WORK Area. hooked up cat et and pulled psr .looked up AREA. HOOKED UP CAT ET AND PULLED PSR .LOOKED UP Error code that was last active and it was e931 ERROR CODE THAT WAS LAST ACTIVE AND IT WAS E931 (2) low aftertreatment #1 def pressure #1 no (2) LOW AFTERTREATMENT #1 DEF PRESSURE #1 NO Other codes were active. looked up flash files OTHER CODES WERE ACTIVE. LOOKED UP FLASH FILES Because unit had files from 2018. found flash BECAUSE UNIT HAD FILES FROM 2018. FOUND FLASH Update on engine, aftertreatment, trans, Implement and display. on the engine and Aftertreatment they both had diagnostic AFTERTREATMENT THEY BOTH HAD DIAGNOSTIC Improvement to prevent false tripping for low def IMPROVEMENT TO PREVENT FALSE TRIPPING FOR LOW DEF Pressure. performed all flash updates ,engine PRESSURE. PERFORMED ALL FLASH UPDATES ,ENGINE Ecm from 5663160 to 6074951, aftertreatment ecm ECM FROM 5663160 TO 6074951, AFTERTREATMENT ECM From 5663161 to 5793156, trans ecm from 4681893 To 4933083, implement ecm from 4792091 to TO 4933083, IMPLEMENT ECM FROM 4792091 TO 4933119, and lastly cluster ecm from 4701001 to 4933119, AND LASTLY CLUSTER ECM FROM 4701001 TO 5523605. after flash update was successful i turn 5523605. AFTER FLASH UPDATE WAS SUCCESSFUL I TURN Power off for 3 min. turn power on and test unit. POWER OFF FOR 3 MIN. TURN POWER ON AND TEST UNIT. No active codes were present. turn unit off and Remove left rear floor board and handrails. REMOVE LEFT REAR FLOOR BOARD AND HANDRAILS. Remove coolant lines, and 2 def lines from def REMOVE COOLANT LINES, AND 2 DEF LINES FROM DEF Manifold. remove an inspect def manifold, MANIFOLD. REMOVE AN INSPECT DEF MANIFOLD, Replaced the def manifold screen and filter. REPLACED THE DEF MANIFOLD SCREEN AND FILTER. Install def manifold and connect 2 def lines and Both coolant hoses. performed a def dosing system Verification test. unit passed the test with no VERIFICATION TEST. UNIT PASSED THE TEST WITH NO Issue. no leaks were found in repaired area. ISSUE. NO LEAKS WERE FOUND IN REPAIRED AREA. Performed a aftertreatment system functional test PERFORMED A AFTERTREATMENT SYSTEM FUNCTIONAL TEST And unit also passed with no issues. cleared all AND UNIT ALSO PASSED WITH NO ISSUES. CLEARED ALL Logged codes and pulled second psr. install left LOGGED CODES AND PULLED SECOND PSR. INSTALL LEFT Rear floor board and handrail. return unit back REAR FLOOR BOARD AND HANDRAIL. RETURN UNIT BACK To service clean out tools and area. done with TO SERVICE CLEAN OUT TOOLS AND
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AREA. DONE WITH Unit. called customer and update on unit
finish UNIT. CALLED CUSTOMER AND UPDATE ON UNIT
FINISH Status. STATUS.

Mar 29, 2021	Service	14,818	Troubleshoot Level Indicator	Customer complaint: CUSTOMER COMPLAINT: Tilt sensor code TILT SENOSR CODE Repair process comments: Arrived at job site. found machine and talked to ARRIVED AT JOB SITE. FOUND MACHINE AND TALKED TO Customer. another tech had troubleshooted the CUSTOMER. ANOTHER TECH HAD TROUBLESHOOTED THE Tilt sensor to be bad. had a new sensor with me TILT SENSOR TO BE BAD. HAD A NEW SENSOR WITH ME And started to change that out. had to remove AND STARTED TO CHANGE THAT OUT. HAD TO REMOVE Guards from around the sensor in order to GUARDS FROM AROUND THE SENSOR IN ORDER TO Replace. once the guards were removed i was able REPLACE. ONCE THE GUARDS WERE REMOVED I WAS ABLE To replace the sensor and install it back to the TO REPLACE THE SENSOR AND INSTALL IT BACK TO THE Machine. i then went to calibrate the sensor and MACHINE. I THEN WENT TO CALIBRATE THE SENSOR AND The code was still active. i then back to the THE CODE WAS STILL ACTIVE. I THEN BACK TO THE Sensor and double checked everything and found SENSOR AND DOUBLE CHECKED EVERYTHING AND FOUND Out that the harness was broken. fount a wire was OUT THAT THE HARNESS WAS BROKEN. FOUNT A WIRE WAS Broken inside the proctive hose. tried to repair The wire but the code was still active. harness THE WIRE BUT THE CODE WAS STILL ACTIVE. HARNESS Had another break in it. talked with customer and HAD ANOTHER BREAK IN IT. TALKED WITH CUSTOMER AND He said to get a new harness and install next HE SAID TO GET A NEW HARNESS AND INSTALL NEXT Day. DAY. Came out the fallowing day and removed the old CAME OUT THE FALLOWING DAY AND REMOVED THE OLD Harness and installed the new harness. checked HARNESS AND INSTALLED THE NEW HARNESS. CHECKED For codes. no codes were active. calibrated the FOR CODES. NO CODES WERE ACTIVE. CALIBRATED THE Tilt sensor and made sure that everything was Working. took a download of machine and gave it WORKING. TOOK A DOWNLOAD OF MACHINE AND GAVE IT Back to the customer. BACK TO THE CUSTOMER.
Mar 29, 2021	Service	14,818	Travel To/from	Customer complaint: CUSTOMER COMPLAINT: Travel to and from job site.

				Customer complaint: CUSTOMER COMPLAINT: See instructions above Repair process comments: REPAIR PROCESS COMMENTS: 4764 mar 01, 2021 had made a quick 4764 MAR 01, 2021 HAD MADE A QUICK Visual, the other day. received a brake /pilot Pump. loaded up on truck. proceeded to the job PUMP. LOADED UP ON TRUCK. PROCEEDED TO THE JOB Site. machine was being used, when i arrived. SITE. MACHINE WAS BEING USED, WHEN I ARRIVED. Waited slightly. machine was parked. relieved WAITED SLIGHTLY. MACHINE WAS PARKED. RELIEVED Hydraulic pressure from the hydraulic tank. it's Overfilled. put a vacuum transducer, to put a OVERFILLED. PUT A VACUUM TRANSDUCER, TO PUT A Vacuum on hydraulic system, when i take the lines VACUUM ON HYDRAULIC SYSTEM, WHEN I TAKE THE LINES Off. removed platform behind cab. removed left OFF. REMOVED PLATFORM BEHIND CAB. REMOVED LEFT Side paneling from underneath stairwell. removed SIDE PANELING FROM UNDERNEATH STAIRWELL. REMOVED Lines, and unmounted pump. swapped fittings onto Replacement pump. installed replacement pump, REPLACEMENT PUMP. INSTALLED REPLACEMENT PUMP, Reconnected the lines, and put all back together. RECONNECTED THE LINES, AND PUT ALL BACK TOGETHER. Removed vacuum transducer, and pressurized Hydraulic tank at 5 psi, and removed case drain HYDRAULIC TANK AT 5 PSI, AND REMOVED CASE DRAIN Fitting from brake pump. took some time for the FITTING FROM BRAKE PUMP. TOOK SOME TIME FOR THE Pump to burp. needed to ensure, that oil is in PUMP TO BURP. NEEDED TO ENSURE, THAT OIL IS IN The pump before start up. hooked up et, and THE PUMP BEFORE START UP. HOOKED UP ET, AND Checked for brake charge pressure, and connected CHECKED FOR BRAKE CHARGE PRESSURE, AND CONNECTED Manual gauges. started machine, and brake charge MANUAL GAUGES. STARTED MACHINE, AND BRAKE CHARGE Pressure achieves cut out at 5 seconds. good. PRESSURE ACHIEVES CUT OUT AT 5 SECONDS. GOOD. Removed gauges, and disconnected et. released REMOVED GAUGES, AND DISCONNECTED ET. RELEASED Machine. seg: 03 done.
Mar 03, 2021	Service	14,576	Replace Brake Pump	
Mar 03, 2021	Service	14,576	Travel To/from	

Mar 03, 2021	Service	14,576	Troubleshoot Emission(s)	Customer complaint: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: 4764 feb 19, 2021 machine is in the Customer's shop, a service is being performed. CUSTOMER'S SHOP, A SERVICE IS BEING PERFORMED. Made visual, okay. hooked up et, and downloaded MADE VISUAL, OKAY. HOOKED UP ET, AND DOWNLOADED The product status report. e1389; aftertreatment THE PRODUCT STATUS REPORT. E1389; AFTERTREATMENT #1 scr operator inducement. **3609-12; #1 SCR OPERATOR INDUCEMENT. **3609-12; Aftertreatment #1 outlet #1 nox level sensor : Failure. looked up part, and ordered. customer FAILURE. LOOKED UP PART, AND ORDERED. CUSTOMER Went to pick up at the shop. updated all ecm WENT TO PICK UP AT THE SHOP. UPDATED ALL ECM Software's. SOFTWARE'S. While waiting, i was asked to look at the low WHILE WAITING, I WAS ASKED TO LOOK AT THE LOW Brake accumulator charge pressure. customer BRAKE ACCUMULATOR CHARGE PRESSURE. CUSTOMER Ensured me that the accumulators were just done. ENSURED ME THAT THE ACCUMULATORS WERE JUST DONE. He also indicated that dan, another tech removed HE ALSO INDICATED THAT DAN, ANOTHER TECH REMOVED The accumulator charging valve, and replaced THE ACCUMULATOR CHARGING VALVE, AND REPLACED Parts already. communicated with him, that the PARTS ALREADY. COMMUNICATED WITH HIM, THAT THE Pump is next in line. told him i would PUMP IS NEXT IN LINE. TOLD HIM I WOULD Communicate this with glen. hooked up gauges, and COMMUNICATE THIS WITH GLEN. HOOKED UP GAUGES, AND Noticed that the pressure stayed at 1400 psi. NOTICED THAT THE PRESSURE STAYED AT 1400 PSI. This is low, and does not achieve cut out THIS IS LOW, AND DOES NOT ACHIEVE CUT OUT Pressure of 2320 psi. this confirms it. will PRESSURE OF 2320 PSI. THIS CONFIRMS IT. WILL Request glen to follow up on the previous work, REQUEST GLEN TO FOLLOW UP ON THE PREVIOUS WORK, To verify the other was already done. TO VERIFY THE OTHER WAS ALREADY DONE. Removed, and replaced nox, engine output sensor. REMOVED, AND REPLACED NOX, ENGINE OUTPUT SENSOR. Cleared codes, and events associated with CLEARED CODES, AND EVENTS ASSOCIATED WITH Failure. performed a manual regeneration. FAILURE. PERFORMED A MANUAL REGENERATION. Released the machine. ***customer called the RELEASED THE MACHINE. ***CUSTOMER CALLED THE Next day, on saturday. he stated that the code NEXT DAY, ON SATURDAY. HE STATED THAT THE CODE Came back. asked if coolant, or engine oil has CAME BACK. ASKED IF COOLANT, OR ENGINE OIL HAS Been added, due to being low. he doesn't know BEEN ADDED, DUE TO BEING LOW. HE DOESN'T KNOW Yet. will have to check with lube the guy. YET. WILL HAVE TO CHECK WITH LUBE THE GUY. 4764 feb 22, 2021 looked at the 4764 FEB 22, 2021 LOOKED AT THE Part number again, just to double check. i PART NUMBER AGAIN, JUST TO DOUBLE CHECK. I Ordered the engine outlet nox sensor, code was ORDERED THE ENGINE OUTLET NOX SENSOR, CODE WAS
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For the outlet nox sensor. schematic terminology Shows that it's the inlet nox sensor that i SHOWS THAT IT'S THE INLET NOX SENSOR THAT I Ordered the other day. i then ordered 441-5128 ORDERED THE OTHER DAY. I THEN ORDERED 441-5128 Nox sensor. i also, ordered the flame temp Sensor/dpf temp sensor, due to a logged code. SENSOR/DPF TEMP SENSOR, DUE TO A LOGGED CODE. Once arrived, i did notice the 3609-12 code is ONCE ARRIVED, I DID NOTICE THE 3609-12 CODE IS Logged. cleared out the e1389 event, and LOGGED. CLEARED OUT THE E1389 EVENT, AND Replaced the nox outlet sensor 441-5128. the REPLACED THE NOX OUTLET SENSOR 441-5128. THE Other old code did not show up. will turn in the OTHER OLD CODE DID NOT SHOW UP. WILL TURN IN THE 374-4768 temp dual sensor. performed an 374-4768 TEMP DUAL SENSOR. PERFORMED AN Aftertreatment functional test, passed. AFTERTREATMENT FUNCTIONAL TEST, PASSED. Performed a nox sensor functional test, passed. Performed a manual regeneration test, passed. PERFORMED A MANUAL REGENERATION TEST, PASSED. Job done. JOB DONE.

Feb 25, 2021	Service	14,557	Troubleshoot & Repair Hydraulic Leak	Customer complaint: CUSTOMER COMPLAINT: Hydraulic leak Cause of failure: CAUSE OF FAILURE: Damage hose Repair process comments: REPAIR PROCESS COMMENTS: 2-17-2021-(1873)--(2592) Travel to location. unit was parked in safe work Area. hooked up cat et and pulled psr. talked to Customer and he pointed out units leak. used sis CUSTOMER AND HE POINTED OUT UNITS LEAK. USED SIS To pin point hose location. parked unit turn all TO PIN POINT HOSE LOCATION. PARKED UNIT TURN ALL The way to the right. remove 4 hydraulic hoses to THE WAY TO THE RIGHT. REMOVE 4 HYDRAULIC HOSES TO Make room to get access to remove damage hose. MAKE ROOM TO GET ACCESS TO REMOVE DAMAGE HOSE. Used metal caps to plug hoses to stop leaks. USED METAL CAPS TO PLUG HOSES TO STOP LEAKS. Remove flange and remove damage hose. clean out REMOVE FLANGE AND REMOVE DAMAGE HOSE. CLEAN OUT Area and install new o-rings seal. install new AREA AND INSTALL NEW O-RINGS SEAL. INSTALL NEW Hose and secure it with hardware and hose clamp. HOSE AND SECURE IT WITH HARDWARE AND HOSE CLAMP. Install 4 hydraulic hoses and install new o-rings INSTALL 4 HYDRAULIC HOSES AND INSTALL NEW O-RINGS On the fittings. talked to customer to add ON THE FITTINGS. TALKED TO CUSTOMER TO ADD Hydraulic oil to test unit. turn unit on and HYDRAULIC OIL TO TEST UNIT. TURN UNIT ON AND Check for leaks in repair area. no leaks where CHECK FOR LEAKS IN REPAIR AREA. NO LEAKS WHERE Found in repaired area. FOUND IN REPAIRED AREA. Customer asked if i could calibrate the linkage CUSTOMER ASKED IF I COULD CALIBRATE THE LINKAGE Sensors. i performed the calibration for the SENSORS. I PERFORMED THE CALIBRATION FOR THE Levers and linkage sensors. after successful LEVERS AND LINKAGE SENSORS. AFTER SUCCESSFUL Calibration i test unit and no leaks where found CALIBRATION I TEST UNIT AND NO LEAKS WHERE FOUND In repair area. unit had error code for emissions 3609-12 aftertreatment #1 outlet #1 nox level 3609-12 AFTERTREATMENT #1 OUTLET #1 NOX LEVEL Sensor : SENSOR : Failure. talked to customer and he said that he FAILURE. TALKED TO CUSTOMER AND HE SAID THAT HE Will take care of the repair himself. hooked up WILL TAKE CARE OF THE REPAIR HIMSELF. HOOKED UP Cat et and pulled psr. clean out tools and Return unit back to service. done with repair. Per customer machine has hydraulic leak
Feb 25, 2021	Service	14,557	Travel To/from	

Feb 15, 2021	Service	14,314	Travel To/from	Customer complaint: CUSTOMER COMPLAINT: Travel to and from site to perform work on TRAVEL TO AND FROM SITE TO PERFORM WORK ON Machine. MACHINE. Cause of failure: CAUSE OF FAILURE: N/A Resultant damage: RESULTANT DAMAGE: N/A Repair process comments: REPAIR PROCESS COMMENTS: Tech traveled ot and from site to perform work on TECH TRAVELED OT AND FROM SITE TO PERFORM WORK ON Machine. MACHINE.
Feb 15, 2021	Service	14,314	Repair Axle	Customer complaint: Repair damaged drive line. REPAIR DAMAGED DRIVE LINE. Cause of failure: CAUSE OF FAILURE: Loose spider cap. LOOSE SPIDER CAP. Resultant damage: Broken cap which resulted in broken spider and BROKEN CAP WHICH RESULTED IN BROKEN SPIDER AND Yoke. YOKE. Repair process comments: (2416) 1/16/21 (2416) 1/16/21 Tech arrived at site and began to inspect he TECH ARRIVED AT SITE AND BEGAN TO INSPECT HE Machine. tech then removed the broken spider and MACHINE. TECH THEN REMOVED THE BROKEN SPIDER AND The broken yoke. tech then removed the yoke seal THE BROKEN YOKE. TECH THEN REMOVED THE YOKE SEAL And cleaned the mounting surface. tech cleaned AND CLEANED THE MOUNTING SURFACE. TECH CLEANED The area the shaft and yoke is in. tech then Installed a new seal and installed the plate. INSTALLED A NEW SEAL AND INSTALLED THE PLATE. Tech then cleaned up the yoke and tried to remove TECH THEN CLEANED UP THE YOKE AND TRIED TO REMOVE The burs. tech then realized the yoke was damaged THE BURS. TECH THEN REALIZED THE YOKE WAS DAMAGED Too bad for reuse. tech then made a list of parts TOO BAD FOR REUSE. TECH THEN MADE A LIST OF PARTS That would be needed. tech then cleaned up and Headed back to shop. tech would return when parts HEADED BACK TO SHOP. TECH WOULD RETURN WHEN PARTS Arrive. (2416)(2525) 1/18/21 (2416)(2525) 1/18/21 Tech returned with parts needed for the job and TECH RETURNED WITH PARTS NEEDED FOR THE JOB AND Began to repair machine. tech started by cleaning BEGAN TO REPAIR MACHINE. TECH STARTED BY CLEANING The area again and prep the shaft and yoke for THE AREA AGAIN AND PREP THE SHAFT AND YOKE FOR Installation. tech then installed and alligned The yoke. tech then mounted the spider and Coupled the driveline. tech then replaced the COUPLED THE DRIVELINE. TECH THEN REPLACED THE Damaged brake line. tech then installed the DAMAGED BRAKE LINE. TECH THEN INSTALLED THE Center bearing bolts and started to clean up. CENTER BEARING BOLTS AND STARTED TO CLEAN UP. Tech then packed up and the customers tech filled TECH THEN PACKED UP AND THE CUSTOMERS TECH FILLED The diff with oil. THE DIFF WITH OIL. Repair front axle REPAIR FRONT AXLE

Feb 15, 2021	Service	14,314	Repair Axle	Customer complaint: Repair damaged drive line. REPAIR DAMAGED DRIVE LINE. Cause of failure: CAUSE OF FAILURE: Loose spider cap. LOOSE SPIDER CAP. Resultant damage: Broken cap which resulted in broken spider and BROKEN CAP WHICH RESULTED IN BROKEN SPIDER AND Yoke. YOKE. Repair process comments: (2416) 1/16/21 (2416) 1/16/21 Tech arrived at site and began to inspect he TECH ARRIVED AT SITE AND BEGAN TO INSPECT HE Machine. tech then removed the broken spider and MACHINE. TECH THEN REMOVED THE BROKEN SPIDER AND The broken yoke. tech then removed the yoke seal THE BROKEN YOKE. TECH THEN REMOVED THE YOKE SEAL And cleaned the mounting surface. tech cleaned AND CLEANED THE MOUNTING SURFACE. TECH CLEANED The area the shaft and yoke is in. tech then Installed a new seal and installed the plate. INSTALLED A NEW SEAL AND INSTALLED THE PLATE. Tech then cleaned up the yoke and tried to remove TECH THEN CLEANED UP THE YOKE AND TRIED TO REMOVE The burs. tech then realized the yoke was damaged THE BURS. TECH THEN REALIZED THE YOKE WAS DAMAGED Too bad for reuse. tech then made a list of parts TOO BAD FOR REUSE. TECH THEN MADE A LIST OF PARTS That would be needed. tech then cleaned up and Headed back to shop. tech would return when parts HEADED BACK TO SHOP. TECH WOULD RETURN WHEN PARTS Arrive. (2416)(2525) 1/18/21 (2416)(2525) 1/18/21 Tech returned with parts needed for the job and TECH RETURNED WITH PARTS NEEDED FOR THE JOB AND Began to repair machine. tech started by cleaning BEGAN TO REPAIR MACHINE. TECH STARTED BY CLEANING The area again and prep the shaft and yoke for THE AREA AGAIN AND PREP THE SHAFT AND YOKE FOR Installation. tech then installed and aligned The yoke. tech then mounted the spider and Coupled the driveline. tech then replaced the COUPLED THE DRIVELINE. TECH THEN REPLACED THE Damaged brake line. tech then installed the DAMAGED BRAKE LINE. TECH THEN INSTALLED THE Center bearing bolts and started to clean up. CENTER BEARING BOLTS AND STARTED TO CLEAN UP. Tech then packed up and the customers tech filled TECH THEN PACKED UP AND THE CUSTOMERS TECH FILLED The diff with oil. THE DIFF WITH OIL. Repair front axle REPAIR FRONT AXLE
Feb 15, 2021	Service	14,314	Travel To/from	Customer complaint: CUSTOMER COMPLAINT: Travel to and from site to perform work on TRAVEL TO AND FROM SITE TO PERFORM WORK ON Machine. MACHINE. Cause of failure: CAUSE OF FAILURE: N/A Resultant damage: RESULTANT DAMAGE: N/A Repair process comments: REPAIR PROCESS COMMENTS: Tech traveled ot and from site to perform work on TECH TRAVELED OT AND FROM SITE TO PERFORM WORK ON Machine. MACHINE.

Jan 26, 2021	Service	14,314	Repair Axle	Customer complaint: Repair damaged drive line. REPAIR DAMAGED DRIVE LINE. Cause of failure: CAUSE OF FAILURE: Loose spider cap. LOOSE SPIDER CAP. Resultant damage: Broken cap which resulted in broken spider and BROKEN CAP WHICH RESULTED IN BROKEN SPIDER AND Yoke. YOKE. Repair process comments: (2416) 1/16/21 (2416) 1/16/21 Tech arrived at site and began to inspect he TECH ARRIVED AT SITE AND BEGAN TO INSPECT HE Machine. tech then removed the broken spider and MACHINE. TECH THEN REMOVED THE BROKEN SPIDER AND The broken yoke. tech then removed the yoke seal THE BROKEN YOKE. TECH THEN REMOVED THE YOKE SEAL And cleaned the mounting surface. tech cleaned AND CLEANED THE MOUNTING SURFACE. TECH CLEANED The area the shaft and yoke is in. tech then Installed a new seal and installed the plate. INSTALLED A NEW SEAL AND INSTALLED THE PLATE. Tech then cleaned up the yoke and tried to remove TECH THEN CLEANED UP THE YOKE AND TRIED TO REMOVE The burs. tech then realized the yoke was damaged THE BURS. TECH THEN REALIZED THE YOKE WAS DAMAGED Too bad for reuse. tech then made a list of parts TOO BAD FOR REUSE. TECH THEN MADE A LIST OF PARTS That would be needed. tech then cleaned up and Headed back to shop. tech would return when parts HEADED BACK TO SHOP. TECH WOULD RETURN WHEN PARTS Arrive. (2416)(2525) 1/18/21 (2416)(2525) 1/18/21 Tech returned with parts needed for the job and TECH RETURNED WITH PARTS NEEDED FOR THE JOB AND Began to repair machine. tech started by cleaning BEGAN TO REPAIR MACHINE. TECH STARTED BY CLEANING The area again and prep the shaft and yoke for THE AREA AGAIN AND PREP THE SHAFT AND YOKE FOR Installation. tech then installed and aligned The yoke. tech then mounted the spider and Coupled the driveline. tech then replaced the COUPLED THE DRIVELINE. TECH THEN REPLACED THE Damaged brake line. tech then installed the DAMAGED BRAKE LINE. TECH THEN INSTALLED THE Center bearing bolts and started to clean up. CENTER BEARING BOLTS AND STARTED TO CLEAN UP. Tech then packed up and the customers tech filled TECH THEN PACKED UP AND THE CUSTOMERS TECH FILLED The diff with oil. THE DIFF WITH OIL. Repair front axle REPAIR FRONT AXLE
Jan 26, 2021	Service	14,314	Travel To/from	Customer complaint: CUSTOMER COMPLAINT: Travel to and from site to perform work on TRAVEL TO AND FROM SITE TO PERFORM WORK ON Machine. MACHINE. Cause of failure: CAUSE OF FAILURE: N/A Resultant damage: RESULTANT DAMAGE: N/A Repair process comments: REPAIR PROCESS COMMENTS: Tech traveled ot and from site to perform work on TECH TRAVELED OT AND FROM SITE TO PERFORM WORK ON Machine. MACHINE.

Sep 30, 2020	Service	13,317	Replace Accumulator	Customer complaint: CUSTOMER COMPLAINT: Low brake accumulator pressure Cause of failure: CAUSE OF FAILURE: Brake charging valve not holding pressure BRAKE CHARGING VALVE NOT HOLDING PRESSURE Resultant damage: RESULTANT DAMAGE: Surge pressures caused accumulators to fail. Repair process comments: REPAIR PROCESS COMMENTS: 7-27-2020: 7-27-2020: Arrived to machine and verified customers concern. ARRIVED TO MACHINE AND VERIFIED CUSTOMERS CONCERN. Inspected accumulators and found excessive oil in INSPECTED ACCUMULATORS AND FOUND EXCESSIVE OIL IN Accumulators. ordered accumulators. 7-30-2020: 7-30-2020: Arrived to replace accumulators. bled hydraulic ARRIVED TO REPLACE ACCUMULATORS. BLED HYDRAULIC Pressure from accumulators, removed nitrogen Charge from accumulators. removed accumulators CHARGE FROM ACCUMULATORS. REMOVED ACCUMULATORS From machine. installed new accumulators onto Machine and charged accumulators to 800 psi. After installing and charging new accumulators AFTER INSTALLING AND CHARGING NEW ACCUMULATORS Braking system was checked and found that charge BRAKING SYSTEM WAS CHECKED AND FOUND THAT CHARGE Pressure was low (2200 psi). specification is PRESSURE WAS LOW (2200 PSI). SPECIFICATION IS 2270-2371 psi. pilot supply ok at 530 psi. charge 2270-2371 PSI. PILOT SUPPLY OK AT 530 PSI. CHARGE Pressure was adjusted to 2315 psi at high idle. PRESSURE WAS ADJUSTED TO 2315 PSI AT HIGH IDLE. With charge pressure properly adjusted hydrualic WITH CHARGE PRESSURE PROPERLY ADJUSTED HYDRUALIC Pressure was still dropping too fast. at this PRESSURE WAS STILL DROPPING TOO FAST. AT THIS Point it was decided that accumulator charging POINT IT WAS DECIDED THAT ACCUMULATOR CHARGING Valve was not hold pressure and rebuild kit was VALVE WAS NOT HOLD PRESSURE AND REBUILD KIT WAS Ordered for charging valve. ORDERED FOR CHARGING VALVE. 8-3-2020: 8-3-2020: Arrived to rebuld charge valve. bled brake ARRIVED TO REBULD CHARGE VALVE. BLED BRAKE Pressure off and removed charging valve from Machine. disassembled charge valve and inspected MACHINE. DISASSEMBLED CHARGE VALVE AND INSPECTED All vlaves and bores. found both check valves Galled and scored from uneven stroke. found GALLED AND SCORED FROM UNEVEN STROKE. FOUND Debris inside of valve block. block was cleaned DEBRIS INSIDE OF VALVE BLOCK. BLOCK WAS CLEANED And new components were installed and all oring Seals repalced. once components installed SEALS REPALCED. ONCE COMPONENTS INSTALLED Charging valve was reinstalled onto machine all Lines were secured, machine was started and LINES WERE SECURED, MACHINE WAS STARTED AND Checked for leaks, no leaks found. brake pressure CHECKED FOR LEAKS, NO LEAKS FOUND. BRAKE PRESSURE Was allowed to build and bleed off was checked. WAS ALLOWED TO BUILD AND BLEED OFF WAS CHECKED. Brake pressure holding. BRAKE PRESSURE HOLDING.
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Sep 30, 2020	Service	13,317	Troubleshoot & Repair Emission(s)	Customer complaint: Low def pressure alarms. LOW DEF PRESSURE ALARMS. Cause of failure: CAUSE OF FAILURE: Plugged def manifold filter. PLUGGED DEF MANIFOLD FILTER. Repair process comments: REPAIR PROCESS COMMENTS: 7-27-2020: Arrive to machine to inspect emissions system. Found codes for low def pressure. inspected def System and found no leaks, removed and inspected SYSTEM AND FOUND NO LEAKS, REMOVED AND INSPECTED Injector, injector ok. performed def dosing INJECTOR, INJECTOR OK. PERFORMED DEF DOSING Accuracy test and test passed. def verification ACCURACY TEST AND TEST PASSED. DEF VERIFICATION Test was performed and no leaks were found. def TEST WAS PERFORMED AND NO LEAKS WERE FOUND. DEF Cap was inspected and found dirt on vent and cap CAP WAS INSPECTED AND FOUND DIRT ON VENT AND CAP Was loose fitting. ordered cap. WAS LOOSE FITTING. ORDERED CAP. **def pump and injector were recently repalced for **DEF PUMP AND INJECTOR WERE RECENTLY REPALCED FOR Same issue** SAME ISSUE** 8-5-2020: 8-5-2020: Code still present. inspection of customers def CODE STILL PRESENT. INSPECTION OF CUSTOMERS DEF Storage was performed and found that def was Being stored outside and the customer was using BEING STORED OUTSIDE AND THE CUSTOMER WAS USING The same container to refill def from bulk THE SAME CONTAINER TO REFILL DEF FROM BULK Storage. bulk fill hose has no cap and is open to Atmosphere. jobsite is very dusty. customer was ATMOSPHERE. JOBSITE IS VERY DUSTY. CUSTOMER WAS Advised that this was not a recommended procedure ADVISED THAT THIS WAS NOT A RECOMMENDED PROCEDURE To refill def system. it is recommended that def TO REFILL DEF SYSTEM. IT IS RECOMMENDED THAT DEF Bulk be stored out of the sun and in a more BULK BE STORED OUT OF THE SUN AND IN A MORE Controlled environment. consulted with customer CONTROLLED ENVIRONMENT. CONSULTED WITH CUSTOMER On ways to improve def storage and transfer to ON WAYS TO IMPROVE DEF STORAGE AND TRANSFER TO Machine by; putting cap on def fill hose, and MACHINE BY; PUTTING CAP ON DEF FILL HOSE, AND Rinsing refill container out before and after RINSING REFILL CONTAINER OUT BEFORE AND AFTER Each use. step/cover was removed to gain access EACH USE. STEP/COVER WAS REMOVED TO GAIN ACCESS To def tank. def header was removed and filter TO DEF TANK. DEF HEADER WAS REMOVED AND FILTER Sock was found extremely dirty. tank was SOCK WAS FOUND EXTREMELY DIRTY. TANK WAS Inspected and found dirt and debris inside of INSPECTED AND FOUND DIRT AND DEBRIS INSIDE OF Tank. tank was drained and flushed with clean TANK. TANK WAS DRAINED AND FLUSHED WITH CLEAN Water. def header fitler sock was removed, def Intake filter was flushed with clean water. def INTAKE FILTER WAS FLUSHED WITH CLEAN WATER. DEF Filter sock replaced. def header was reinstalled. FILTER SOCK REPLACED. DEF HEADER WAS REINSTALLED. Platform was reinstalled def fill neck screen was PLATFORM WAS REINSTALLED DEF FILL NECK
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WAS Replaced and fill neck was reassembled. def pump
 REPLACED AND FILL NECK WAS REASSEMBLED. DEF PUMP
 Filter was replaced and def tank was filled with FILTER WAS
 REPLACED AND DEF TANK WAS FILLED WITH Known clean def
 from sealed 2.5 gallon KNOWN CLEAN DEF FROM SEALED 2.5
 GALLON Containers. CONTAINERS. Def purge test was
 performed and was successful. DEF PURGE TEST WAS
 PERFORMED AND WAS SUCCESSFUL. Def verification test
 passed. aftertreatment DEF VERIFICATION TEST PASSED.
 AFTERTREATMENT System function test was successful.
 machine SYSTEM FUNCTION TEST WAS SUCCESSFUL.
 MACHINE Released to customer. customer was once again
 RELEASED TO CUSTOMER. CUSTOMER WAS ONCE AGAIN
 Adviesd that containimation control is of the up Most
 importance when def system is concerned. MOST
 IMPORTANCE WHEN DEF SYSTEM IS CONCERNED.

Sep 30, 2020	Service	13,317	Perform Product Update On	Perform ps54360 PERFORM PS54360
Sep 30, 2020	Service	13,317	Replace Dpf Filter	Replace dpf filter REPLACE DPF FILTER

Sep 30, 2020	Service	13,317	Replace Accumulator	Customer complaint: CUSTOMER COMPLAINT: Low brake accumulator pressure Cause of failure: CAUSE OF FAILURE: Brake charging valve not holding pressure BRAKE CHARGING VALVE NOT HOLDING PRESSURE Resultant damage: RESULTANT DAMAGE: Surge pressures caused accumulators to fail. Repair process comments: REPAIR PROCESS COMMENTS: 7-27-2020: 7-27-2020: Arrived to machine and verified customers concern. ARRIVED TO MACHINE AND VERIFIED CUSTOMERS CONCERN. Inspected accumulators and found excessive oil in INSPECTED ACCUMULATORS AND FOUND EXCESSIVE OIL IN Accumulators. ordered accumulators. 7-30-2020: 7-30-2020: Arrived to replace accumulators. bled hydraulic ARRIVED TO REPLACE ACCUMULATORS. BLED HYDRAULIC Pressure from accumulators, removed nitrogen Charge from accumulators. removed accumulators CHARGE FROM ACCUMULATORS. REMOVED ACCUMULATORS From machine. installed new accumulators onto Machine and charged accumulators to 800 psi. After installing and charging new accumulators AFTER INSTALLING AND CHARGING NEW ACCUMULATORS Braking system was checked and found that charge BRAKING SYSTEM WAS CHECKED AND FOUND THAT CHARGE Pressure was low (2200 psi). specification is PRESSURE WAS LOW (2200 PSI). SPECIFICATION IS 2270-2371 psi. pilot supply ok at 530 psi. charge 2270-2371 PSI. PILOT SUPPLY OK AT 530 PSI. CHARGE Pressure was adjusted to 2315 psi at high idle. PRESSURE WAS ADJUSTED TO 2315 PSI AT HIGH IDLE. With charge pressure properly adjusted hydrualic WITH CHARGE PRESSURE PROPERLY ADJUSTED HYDRUALIC Pressure was still dropping too fast. at this PRESSURE WAS STILL DROPPING TOO FAST. AT THIS Point it was decided that accumulator charging POINT IT WAS DECIDED THAT ACCUMULATOR CHARGING Valve was not hold pressure and rebuild kit was VALVE WAS NOT HOLD PRESSURE AND REBUILD KIT WAS Ordered for charging valve. ORDERED FOR CHARGING VALVE. 8-3-2020: 8-3-2020: Arrived to rebuld charge valve. bled brake ARRIVED TO REBULD CHARGE VALVE. BLED BRAKE Pressure off and removed charging valve from Machine. disassembled charge valve and inspected MACHINE. DISASSEMBLED CHARGE VALVE AND INSPECTED All vlaves and bores. found both check valves Galled and scored from uneven stroke. found GALLED AND SCORED FROM UNEVEN STROKE. FOUND Debris inside of valve block. block was cleaned DEBRIS INSIDE OF VALVE BLOCK. BLOCK WAS CLEANED And new components were installed and all oring Seals repalced. once components installed SEALS REPALCED. ONCE COMPONENTS INSTALLED Charging valve was reinstalled onto machine all Lines were secured, machine was started and LINES WERE SECURED, MACHINE WAS STARTED AND Checked for leaks, no leaks found. brake pressure CHECKED FOR LEAKS, NO LEAKS FOUND. BRAKE PRESSURE Was allowed to build and bleed off was checked. WAS ALLOWED TO BUILD AND BLEED OFF WAS CHECKED. Brake pressure holding. BRAKE PRESSURE HOLDING.
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Sep 30, 2020	Service	13,317	Diagnose & Repair Brake Accum Charging Vlv	
Sep 30, 2020	Service	13,317	Perform Product Update On	Perform ps54360 PERFORM PS54360

Sep 30, 2020	Service	13,317	Troubleshoot & Repair Emission(s)	Customer complaint: Low def pressure alarms. LOW DEF PRESSURE ALARMS. Cause of failure: CAUSE OF FAILURE: Plugged def manifold filter. PLUGGED DEF MANIFOLD FILTER. Repair process comments: REPAIR PROCESS COMMENTS: 7-27-2020: Arrive to machine to inspect emissions system. Found codes for low def pressure. inspected def System and found no leaks, removed and inspected SYSTEM AND FOUND NO LEAKS, REMOVED AND INSPECTED Injector, injector ok. performed def dosing INJECTOR, INJECTOR OK. PERFORMED DEF DOSING Accuracy test and test passed. def verification ACCURACY TEST AND TEST PASSED. DEF VERIFICATION Test was performed and no leaks were found. def TEST WAS PERFORMED AND NO LEAKS WERE FOUND. DEF Cap was inspected and found dirt on vent and cap CAP WAS INSPECTED AND FOUND DIRT ON VENT AND CAP Was loose fitting. ordered cap. WAS LOOSE FITTING. ORDERED CAP. **def pump and injector were recently repalced for **DEF PUMP AND INJECTOR WERE RECENTLY REPALCED FOR Same issue** SAME ISSUE** 8-5-2020: 8-5-2020: Code still present. inspection of customers def CODE STILL PRESENT. INSPECTION OF CUSTOMERS DEF Storage was performed and found that def was Being stored outside and the customer was using BEING STORED OUTSIDE AND THE CUSTOMER WAS USING The same container to refill def from bulk THE SAME CONTAINER TO REFILL DEF FROM BULK Storage. bulk fill hose has no cap and is open to Atmosphere. jobsite is very dusty. customer was ATMOSPHERE. JOBSITE IS VERY DUSTY. CUSTOMER WAS Advised that this was not a recommended procedure ADVISED THAT THIS WAS NOT A RECOMMENDED PROCEDURE To refill def system. it is recommended that def TO REFILL DEF SYSTEM. IT IS RECOMMENDED THAT DEF Bulk be stored out of the sun and in a more BULK BE STORED OUT OF THE SUN AND IN A MORE Controlled environment. consulted with customer CONTROLLED ENVIRONMENT. CONSULTED WITH CUSTOMER On ways to improve def storage and transfer to ON WAYS TO IMPROVE DEF STORAGE AND TRANSFER TO Machine by; putting cap on def fill hose, and MACHINE BY; PUTTING CAP ON DEF FILL HOSE, AND Rinsing refill container out before and after RINSING REFILL CONTAINER OUT BEFORE AND AFTER Each use. step/cover was removed to gain access EACH USE. STEP/COVER WAS REMOVED TO GAIN ACCESS To def tank. def header was removed and filter TO DEF TANK. DEF HEADER WAS REMOVED AND FILTER Sock was found extremely dirty. tank was SOCK WAS FOUND EXTREMELY DIRTY. TANK WAS Inspected and found dirt and debris inside of INSPECTED AND FOUND DIRT AND DEBRIS INSIDE OF Tank. tank was drained and flushed with clean TANK. TANK WAS DRAINED AND FLUSHED WITH CLEAN Water. def header fitler sock was removed, def Intake filter was flushed with clean water. def INTAKE FILTER WAS FLUSHED WITH CLEAN WATER. DEF Filter sock replaced. def header was reinstalled. FILTER SOCK REPLACED. DEF HEADER WAS REINSTALLED. Platform was reinstalled def fill neck screen was PLATFORM WAS REINSTALLED DEF FILL NECK
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WAS Replaced and fill neck was reassembled. def pump REPLACED AND FILL NECK WAS REASSEMBLED. DEF PUMP Filter was replaced and def tank was filled with FILTER WAS REPLACED AND DEF TANK WAS FILLED WITH Known clean def from sealed 2.5 gallon KNOWN CLEAN DEF FROM SEALED 2.5 GALLON Containers. CONTAINERS. Def purge test was performed and was successful. DEF PURGE TEST WAS PERFORMED AND WAS SUCCESSFUL. Def verification test passed. aftertreatment DEF VERIFICATION TEST PASSED. AFTERTREATMENT System function test was successful. machine SYSTEM FUNCTION TEST WAS SUCCESSFUL. MACHINE Released to customer. customer was once again RELEASED TO CUSTOMER. CUSTOMER WAS ONCE AGAIN Adviesd that containimation control is of the up Most importance when def system is concerned. MOST IMPORTANCE WHEN DEF SYSTEM IS CONCERNED.

Aug 05, 2020	Service	11,656	Travel To/from	
Aug 05, 2020	Service	11,656	Troubleshoot Hoses & Lines	Troubleshoot hose leak TROUBLESHOOT HOSE LEAK
Aug 05, 2020	Service	11,656	Troubleshoot Hoses & Lines	Troubleshoot hose leak TROUBLESHOOT HOSE LEAK
Aug 05, 2020	Service	11,656	Travel To/from	
Dec 05, 2019	Service	10,917	Troubleshoot Code(s)	Customer complaint: CUSTOMER COMPLAINT: Machine power was derated. MACHINE POWER WAS DERATED. Cause of failure: CAUSE OF FAILURE: Torque converter lock up solenoid coil failure. Resultant damage: RESULTANT DAMAGE: None NONE Repair process comments: Found 679-5 torque converter lockup solenoid FOUND 679-5 TORQUE CONVERTER LOCKUP SOLENOID Votlage below normal. inspected troque converter Lock up solenoid and found no broken parts or LOCK UP SOLENOID AND FOUND NO BROKEN PARTS OR Wires. jumped circuit and -6 fault became active WIRES. JUMPED CIRCUIT AND -6 FAULT BECAME ACTIVE Indicating circuit is ok. repalced solenoid coil, Connected harness to coil and started machine. CONNECTED HARNESS TO COIL AND STARTED MACHINE. 679-5 was no longer active. ran machine around 679-5 WAS NO LONGER ACTIVE. RAN MACHINE AROUND Yard and through all forward and reverese gears. YARD AND THROUGH ALL FORWARD AND REVERSE GEARS. Machine is functioning as intended. MACHINE IS FUNCTIONING AS INTENDED.
Dec 05, 2019	Service	10,917	Travel To/from	

Sep 24, 2019	Service	10,532	Troubleshoot & Repair Coolant	Customer complaint: CUSTOMER COMPLAINT: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: REPAIR PROCESS COMMENTS: 4764 sept 16, 2019 arrived late in 4764 SEPT 16, 2019 ARRIVED LATE IN The afternoon to identify leak. customer wants After 2:00 pm arrival time. machine is being Used. slightly waited for the machine. seen USED. SLIGHTLY WAITED FOR THE MACHINE. SEEN Wetness on bottom of machine. customer (travis) WETNESS ON BOTTOM OF MACHINE. CUSTOMER (TRAVIS) Told me they are adding 1 gallon, an hour of TOLD ME THEY ARE ADDING 1 GALLON, AN HOUR OF Coolant. removed left engine access panel. seen COOLANT. REMOVED LEFT ENGINE ACCESS PANEL. SEEN Trans cooler rear hose leaking at seam. looked TRANS COOLER REAR HOSE LEAKING AT SEAM. LOOKED Up, and ordered hose, and clamps. not done. UP, AND ORDERED HOSE, AND CLAMPS. NOT DONE. 4764 sept 18, 2019 spoke to travis 4764 SEPT 18, 2019 SPOKE TO TRAVIS Early in the day. he mentioned that they are Putting in 5 gallons of water in an hour. told PUTTING IN 5 GALLONS OF WATER IN AN HOUR. TOLD Him way too much, should not use. he's is using HIM WAY TOO MUCH, SHOULD NOT USE. HE'S IS USING Anyway. told him i will be able to arrive after ANYWAY. TOLD HIM I WILL BE ABLE TO ARRIVE AFTER 3:00 like there request. asked if he wanted me To take elc coolant, he stated that they will use TO TAKE ELC COOLANT, HE STATED THAT THEY WILL USE Water until they can change it later. arrived Around 3:45 pm, machine still being used. AROUND 3:45 PM, MACHINE STILL BEING USED. Operator parked machine, made visual, okay. OPERATOR PARKED MACHINE, MADE VISUAL, OKAY. Removed left rear side engine access panel. blew Of area, and tried to cool area with air. used a OF AREA, AND TRIED TO COOL AREA WITH AIR. USED A Transducer to make a vacuum in cooling system. TRANSDUCER TO MAKE A VACUUM IN COOLING SYSTEM. Removed rear trans cooler hose from machine. had To slice off bottom connection area, would not TO SLICE OFF BOTTOM CONNECTION AREA, WOULD NOT Come off. installed the new replacement hose, COME OFF. INSTALLED THE NEW REPLACEMENT HOSE, And used new clamps. talked to colton, he Indicated that travis is no longer there, so i INDICATED THAT TRAVIS IS NO LONGER THERE, SO I Went to talked to dallas, about just adding water WENT TO TALKED TO DALLAS, ABOUT JUST ADDING WATER As travis wanted. he stated that they have elc AS TRAVIS WANTED. HE STATED THAT THEY HAVE ELC In a container, and will have it brought out. IN A CONTAINER, AND WILL HAVE IT BROUGHT OUT. Dropped belly pan, drained water into a Container, so it would not be muddy in the work CONTAINER, SO IT WOULD NOT BE MUDDY IN THE WORK Area. used crane to lift, and put near fill Neck. used vacuum fill tool, to fill cooling NECK. USED VACUUM FILL TOOL, TO FILL COOLING System. started engine, no leaks at area of Work. hooked up et, and downloaded product WORK. HOOKED UP ET, AND DOWNLOADED PRODUCT Status report again, after repair.
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				engine cooling pressure. this was E2112 (3) LOW ENGINE COOLING PRESSURE. THIS WAS Due to the cooling system leak. see after repair DUE TO THE COOLING SYSTEM LEAK. SEE AFTER REPAIR Product status report. put up belly pan. job PRODUCT STATUS REPORT. PUT UP BELLY PAN. JOB Done. DONE.
Sep 24, 2019	Service	10,532	Travel To/from	
Aug 26, 2019	Service	1	Update Fan	
Aug 26, 2019	Service	1	Replace Hydraulic Hoses/lines	
Aug 26, 2019	Service	1	Update Fan	
Aug 26, 2019	Service	1	Replace Hydraulic Hoses/lines	
Jun 06, 2019	Service	9,648	Troubleshoot Emission(s)	Repair process comments: REPAIR PROCESS COMMENTS: The machine had an active code for emissions. the Code then clear the codes one of the active code Was for low def fluid i didn't start up the Machine warm it up to normal operating MACHINE WARM IT UP TO NORMAL OPERATING Temperature and perform a manual regen all the TEMPERATURE AND PERFORM A MANUAL REGEN ALL THE Codes went away and machine is ready to put back Into service. INTO SERVICE.
Jun 06, 2019	Service	9,648	Travel To/from	
Apr 19, 2019	Service	9,119	Perform Product Update On Product Link	Customer complaint: CUSTOMER COMPLAINT: Performed product link update PERFORMED PRODUCT LINK UPDATE Cause of failure: N/A Resultant damage: N/a N/A Repair process comments: Arrived at job flashed product link with updated ARRIVED AT JOB FLASHED PRODUCT LINK WITH UPDATED Software job complete 1071 4-1-19 SOFTWARE JOB COMPLETE 1071 4-1-19 Ps46188 PS46188
Apr 19, 2019	Service	9,119	Perform Product Update On Product Link	Customer complaint: CUSTOMER COMPLAINT: Performed product link update PERFORMED PRODUCT LINK UPDATE Cause of failure: N/A Resultant damage: N/a N/A Repair process comments: Arrived at job flashed product link with updated ARRIVED AT JOB FLASHED PRODUCT LINK WITH UPDATED Software job complete 1071 4-1-19 SOFTWARE JOB COMPLETE 1071 4-1-19 Ps46188 PS46188

Apr 09, 2019	Service	8,903	Trouble Shoot Brake Park-adj/reapir/rpl	Customer complaint: Machine is making noise when loader is raised MACHINE IS MAKING NOISE WHEN LOADER IS RAISED Cause of failure: CAUSE OF FAILURE: The pump actuator was worn out Resultant damage: RESULTANT DAMAGE: Machine hydraulic pressure was surging at idle Repair process comments: REPAIR PROCESS COMMENTS: Arrived at machine. customer was informing me the Machine had a noise when loader arm was raising MACHINE HAD A NOISE WHEN LOADER ARM WAS RAISING And lowering. heard noise a few time sounded like AND LOWERING. HEARD NOISE A FEW TIME SOUNDED LIKE Possibly a pin was making noise. hooked up POSSIBLY A PIN WAS MAKING NOISE. HOOKED UP Pressure gauges and checked pressures found PRESSURE GAUGES AND CHECKED PRESSURES FOUND Pressures to be within spec. but has the machine PRESSURES TO BE WITHIN SPEC. BUT HAS THE MACHINE Was idling and the hydraulic pump was in the Neutral position and the pump was still surging NEUTRAL POSITION AND THE PUMP WAS STILL SURGING With pressure. looked up info and was unable to WITH PRESSURE. LOOKED UP INFO AND WAS UNABLE TO Determine why pump was surging contacted tc and DETERMINE WHY PUMP WAS SURGING CONTACTED TC AND There was an issue with the pump actuator part THERE WAS AN ISSUE WITH THE PUMP ACTUATOR PART Number 316-1438. ordered part. checked machine NUMBER 316-1438. ORDERED PART. CHECKED MACHINE For pin noise and it wasn't making a noise FOR PIN NOISE AND IT WASN'T MAKING A NOISE Anymore. turn auto lube pump on and working ANYMORE. TURN AUTO LUBE PUMP ON AND WORKING Implements and found no issues. job incomplete Until actuator is installed. 1071 UNTIL ACTUATOR IS INSTALLED. 1071 Arrived at job. removed actuator guard. removed ARRIVED AT JOB. REMOVED ACTUATOR GUARD. REMOVED Coil. removed actuator. found plunger worn down COIL. REMOVED ACTUATOR. FOUND PLUNGER WORN DOWN Compared to new actuator. installed new actuator Tested machine and issue was resolved. machine no Longer was surging. job complete 3-2-19 LONGER WAS SURGING. JOB COMPLETE 3-2-19 Customer states noise coming from brake CUSTOMER STATES NOISE COMING FROM BRAKE Accumulator area ACCUMULATOR AREA
Apr 09, 2019	Service	8,903	Travel To/from	Customer complaint: CUSTOMER COMPLAINT: N/a Cause of failure: CAUSE OF FAILURE: N/a N/A Resultant damage: RESULTANT DAMAGE: N/A Repair process comments: REPAIR PROCESS COMMENTS: Travel to and from job totaling 20 miles 1071 Traveled on another job 1071 3-2-19 TRAVELED ON ANOTHER JOB 1071 3-2-19

Apr 03, 2019	Service	8,903	Troubleshoot & Repair Emission(s)	Customer complaint: CUSTOMER COMPLAINT: Emissions fault EMISSIONS FAULT Cause of failure: CAUSE OF FAILURE: Out dated software OUT DATED SOFTWARE Resultant damage: RESULTANT DAMAGE: Repair process comments: REPAIR PROCESS COMMENTS: Arrived at machine. hooked up et and found active ARRIVED AT MACHINE. HOOKED UP ET AND FOUND ACTIVE Codes for low def concentration. found software CODES FOR LOW DEF CONCENTRATION. FOUND SOFTWARE Was out of date. updated engine, engine after WAS OUT OF DATE. UPDATED ENGINE, ENGINE AFTER Treatment and def controller software. the TREATMENT AND DEF CONTROLLER SOFTWARE. THE Software notes indicated fix's for false def SOFTWARE NOTES INDICATED FIX'S FOR FALSE DEF Faults. ran after treatment function test and FAULTS. RAN AFTER TREATMENT FUNCTION TEST AND Code when inactive. job complete 1071 3-2-19 CODE WHEN INACTIVE. JOB COMPLETE 1071 3-2-19
Apr 03, 2019	Service	8,903	Travel To/from	Customer complaint: N/A Cause of failure: CAUSE OF FAILURE: N/a N/A Resultant damage: RESULTANT DAMAGE: N/a N/A Repair process comments: REPAIR PROCESS COMMENTS: Travel to and from job totaling 20 miles 1071 TRAVEL TO AND FROM JOB TOTALING 20 MILES 1071 3-2-19 3-2-19
Apr 03, 2019	Service	8,903	Troubleshoot & Repair Emission(s)	Customer complaint: CUSTOMER COMPLAINT: Emissions fault EMISSIONS FAULT Cause of failure: CAUSE OF FAILURE: Out dated software OUT DATED SOFTWARE Resultant damage: RESULTANT DAMAGE: Repair process comments: REPAIR PROCESS COMMENTS: Arrived at machine. hooked up et and found active ARRIVED AT MACHINE. HOOKED UP ET AND FOUND ACTIVE Codes for low def concentration. found software CODES FOR LOW DEF CONCENTRATION. FOUND SOFTWARE Was out of date. updated engine, engine after WAS OUT OF DATE. UPDATED ENGINE, ENGINE AFTER Treatment and def controller software. the TREATMENT AND DEF CONTROLLER SOFTWARE. THE Software notes indicated fix's for false def SOFTWARE NOTES INDICATED FIX'S FOR FALSE DEF Faults. ran after treatment function test and FAULTS. RAN AFTER TREATMENT FUNCTION TEST AND Code when inactive. job complete 1071 3-2-19 CODE WHEN INACTIVE. JOB COMPLETE 1071 3-2-19
Apr 03, 2019	Service	8,903	Travel To/from	Customer complaint: N/A Cause of failure: CAUSE OF FAILURE: N/a N/A Resultant damage: RESULTANT DAMAGE: N/a N/A Repair process comments: REPAIR PROCESS COMMENTS: Travel to and from job totaling 20 miles 1071 TRAVEL TO AND FROM JOB TOTALING 20 MILES 1071 3-2-19 3-2-19

Mar 26, 2019	Service	8,903	Troubleshoot & Repair Emission(s)	Customer complaint: CUSTOMER COMPLAINT: Emissions fault EMISSIONS FAULT Cause of failure: CAUSE OF FAILURE: Out dated software OUT DATED SOFTWARE Resultant damage: RESULTANT DAMAGE: Repair process comments: REPAIR PROCESS COMMENTS: Arrived at machine. hooked up et and found active ARRIVED AT MACHINE. HOOKED UP ET AND FOUND ACTIVE Codes for low def concentration. found software CODES FOR LOW DEF CONCENTRATION. FOUND SOFTWARE Was out of date. updated engine, engine after WAS OUT OF DATE. UPDATED ENGINE, ENGINE AFTER Treatment and def controller software. the TREATMENT AND DEF CONTROLLER SOFTWARE. THE Software notes indicated fix's for false def SOFTWARE NOTES INDICATED FIX'S FOR FALSE DEF Faults. ran after treatment function test and FAULTS. RAN AFTER TREATMENT FUNCTION TEST AND Code when inactive. job complete 1071 3-2-19 CODE WHEN INACTIVE. JOB COMPLETE 1071 3-2-19
Mar 26, 2019	Service	8,903	Travel To/from	Customer complaint: N/A Cause of failure: CAUSE OF FAILURE: N/a N/A Resultant damage: RESULTANT DAMAGE: N/a N/A Repair process comments: REPAIR PROCESS COMMENTS: Travel to and from job totaling 20 miles 1071 TRAVEL TO AND FROM JOB TOTALING 20 MILES 1071 3-2-19 3-2-19
Oct 23, 2018	Service	8,025	Travel To/from	

Oct 23, 2018	Service	8,025	Troubleshoot Emission(s)	Customer complaint: CUSTOMER COMPLAINT: Machine not performing regen. MACHINE NOT PERFORMING REGEN. Cause of failure: CAUSE OF FAILURE: Excessive soot build up on ard head. EXCESSIVE SOOT BUILD UP ON ARD HEAD. Resultant damage: RESULTANT DAMAGE: Excessive soot build up on ard caused no ard EXCESSIVE SOOT BUILD UP ON ARD CAUSED NO ARD Ignition due to clogged injectors. failure to IGNITION DUE TO CLOGGED INJECTORS. FAILURE TO Ignite therefore prohibited dpf intake IGNITE THEREFORE PROHIBITED DPF INTAKE Tempurature to reach optimal tempurature to TEMPURATURE TO REACH OPTIMAL TEMPURATURE TO Initiate regeneration. INITIATE REGENERATION. Repair process comments: REPAIR PROCESS COMMENTS: Arrived at machine and confirmed customers Complaint of machine not going into regen. used COMPLAINT OF MACHINE NOT GOING INTO REGEN. USED Et and found codes (e1239-conditions not met for Active regen). performed manual regeneration, ACTIVE REGEN). PERFORMED MANUAL REGENERATION, Manual regeneration fialed due to dpf intake MANUAL REGENERATION FIALED DUE TO DPF INTAKE Tempurature below normal and ard fuel pressure to TEMPURATURE BELOW NORMAL AND ARD FUEL PRESSURE TO High. checked current flow of heating element at HIGH. CHECKED CURRENT FLOW OF HEATING ELEMENT AT Ard head- current was 5a, checks ok. checked for ARD HEAD- CURRENT WAS 5A, CHECKS OK. CHECKED FOR Eti code. eti code was recorded (eti6). checked ETI CODE. ETI CODE WAS RECORDED (ETI6). CHECKED Fuel rpressure from divereter valve- fuel pressure FUEL RPRESSURE FROM DIVERETER VALVE- FUEL PRESSURE Below 110 psi, diverter is ok. checked fuel pump, BELOW 110 PSI, DIVERTER IS OK. CHECKED FUEL PUMP, Fuel pump is ok. checked pilot and main valve Solenoids, solenoids are ok. removed ard head and Found ard head had excessive build up of soot FOUND ARD HEAD HAD EXCESSIVE BUILD UP OF SOOT Causing injectors to not function properly. CAUSING INJECTORS TO NOT FUNCTION PROPERLY. Replaced ard head and gaskets. reinstalled all REPLACED ARD HEAD AND GASKETS. REINSTALLED ALL Lines. LINES. After replacing ard head, an aftertreatment AFTER REPLACING ARD HEAD, AN AFTERTREATMENT Systems function test was ran. test was SYSTEMS FUNCTION TEST WAS RAN. TEST WAS Successful. performed manual regeneration. manual SUCCESSFUL. PERFORMED MANUAL REGENERATION. MANUAL Regeneration was sucessful. machine is in good REGENERATION WAS SUCESSFUL. MACHINE IS IN GOOD Working condition. all fluid levels ok. WORKING CONDITION. ALL FLUID LEVELS OK. 10-12-18. Customer complaint: CUSTOMER COMPLAINT: Machine not performing regen. MACHINE NOT PERFORMING REGEN. Cause of failure: CAUSE OF FAILURE: Excessive soot build up on ard head. EXCESSIVE SOOT BUILD UP ON ARD HEAD. Resultant damage: RESULTANT DAMAGE: Excessive soot build up on ard caused no ard EXCESSIVE SOOT BUILD UP ON ARD CAUSED NO ARD Ignition due to clogged injectors. failure to IGNITION DUE
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TO CLOGGED INJECTORS. FAILURE TO Ignite therefore prohibited dpf intake Tempurature to reach optimal tempurature to TEMPURATURE TO REACH OPTIMAL TEMPURATURE TO Initiate regeneration. INITIATE REGENERATION. Repair process comments: REPAIR PROCESS COMMENTS: Arrived at machine and confirmed customers ARRIVED AT MACHINE AND CONFIRMED CUSTOMERS Complaint of machine not going into regen. used Et and found codes (e1239-conditions not met for Active regen). performed manual regeneration, ACTIVE REGEN). PERFORMED MANUAL REGENERATION, Manual regeneration fialed due to dpf intake MANUAL REGENERATION FIALED DUE TO DPF INTAKE Tempurature below normal and ard fuel pressure to TEMPURATURE BELOW NORMAL AND ARD FUEL PRESSURE TO High. checked current flow of heating element at Ard head- current was 5a, checks ok. checked for ARD HEAD- CURRENT WAS 5A, CHECKS OK. CHECKED FOR Eti code. eti code was recorded (eti6). checked Fuel rpressure from divereter valve- fuel pressure FUEL RPESSURE FROM DIVERETER VALVE- FUEL PRESSURE Below 110 psi, diverter is ok. checked fuel pump, BELOW 110 PSI, DIVERTER IS OK. CHECKED FUEL PUMP, Fuel pump is ok. checked pilot and main valve FUEL PUMP IS OK. CHECKED PILOT AND MAIN VALVE Solenoids, solenoids are ok. removed ard head and SOLENOIDS, SOLENOIDS ARE OK. REMOVED ARD HEAD AND Found ard head had excessive build up of soot FOUND ARD HEAD HAD EXCESSIVE BUILD UP OF SOOT Causing injectors to not function properly. Replaced ard head and gaskets. reinstalled all REPLACED ARD HEAD AND GASKETS. REINSTALLED ALL Lines. LINES. After replacing ard head, an aftertreatment Systems function test was ran. test was SYSTEMS FUNCTION TEST WAS RAN. TEST WAS Successful. performed manual regeneration. manual SUCCESSFUL. PERFORMED MANUAL REGENERATION. MANUAL Regeneration was sucessful. machine is in good REGENERATION WAS SUCESSFUL. MACHINE IS IN GOOD Working condition. all fluid levels ok. WORKING CONDITION. ALL FLUID LEVELS OK. 10-12-18. 10-12-18. Customer states machine is derated for emission Codes needs tech asap CODES NEEDS TECH ASAP

Sep 18, 2018	Service	7,660	No Start	Customer complaint: CUSTOMER COMPLAINT: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: REPAIR PROCESS COMMENTS: Aug 17, 2018 arrived at job site, AUG 17, 2018 ARRIVED AT JOB SITE, Spoke to travis about machine. operator came Over and stated that the machine quit here, at OVER AND STATED THAT THE MACHINE QUIT HERE, AT The entrance of the south material pile, near the THE ENTRANCE OF THE SOUTH MATERIAL PILE, NEAR THE Plant. made visual, okay. hooked up et, no PLANT. MADE VISUAL, OKAY. HOOKED UP ET, NO Active codes, or related events. made custom ACTIVE CODES, OR RELATED EVENTS. MADE CUSTOM Screen for parameters. removed paneling, to Check for nrs cooler coolant entry to the engine CHECK FOR NRS COOLER COOLANT ENTRY TO THE ENGINE Intake. evidence of coolant leakage. asked if INTAKE. EVIDENCE OF COOLANT LEAKAGE. ASKED IF They had been adding coolant. customer answered THEY HAD BEEN ADDING COOLANT. CUSTOMER ANSWERED Yes. not excessive, but need to be corrected. YES. NOT EXCESSIVE, BUT NEED TO BE CORRECTED. Hooked up generator, to charge the batteries for An hour. upon cranking, engine cranking speed is AN HOUR. UPON CRANKING, ENGINE CRANKING SPEED IS Correct, not battery related, to begin with. all CORRECT, NOT BATTERY RELATED, TO BEGIN WITH. ALL Battery connections, to starter, is good. Checked all parameters for starting, engine oil CHECKED ALL PARAMETERS FOR STARTING, ENGINE OIL Pressure, fuel pressure, battery voltage, etc. PRESSURE, FUEL PRESSURE, BATTERY VOLTAGE, ETC. Did not see the problem as expected. no codes, Or anything related seen. it almost gave a OR ANYTHING RELATED SEEN. IT ALMOST GAVE A Symptom of running out of fuel, like an air lock, SYMPTOM OF RUNNING OUT OF FUEL, LIKE AN AIR LOCK, But the fuel pressure was correct. took some BUT THE FUEL PRESSURE WAS CORRECT. TOOK SOME Time to start machine. performed injector Solenoid test, passed. disconnected nrs outlet, SOLENOID TEST, PASSED. DISCONNECTED NRS OUTLET, To see if coolant comes out after starting. upon TO SEE IF COOLANT COMES OUT AFTER STARTING. UPON Start up, no coolant coming out of nrs. not a START UP, NO COOLANT COMING OUT OF NRS. NOT A Major coolant leak. put back on. had operator MAJOR COOLANT LEAK. PUT BACK ON. HAD OPERATOR Move machine to the shop area, and out of the way MOVE MACHINE TO THE SHOP AREA, AND OUT OF THE WAY OF the plant, and south pile entrance. OF THE PLANT, AND SOUTH PILE ENTRANCE.
Sep 18, 2018	Service	7,660	Travel To/from	

Sep 18, 2018	Service	7,660	Troubleshoot & Repair Accumulator	Customer complaint: CUSTOMER COMPLAINT: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: REPAIR PROCESS COMMENTS: Aug 17, 2018 made visual, okay. AUG 17, 2018 MADE VISUAL, OKAY. Operator stated that the low accumulator pressure OPERATOR STATED THAT THE LOW ACCUMULATOR PRESSURE Code comes on. accumulators were charged, but CODE COMES ON. ACCUMULATORS WERE CHARGED, BUT Have oil in the nitrogen side. ordered 2 each. HAVE OIL IN THE NITROGEN SIDE. ORDERED 2 EACH. Also, ordered check valve, relief valve, shuttle, ALSO, ORDERED CHECK VALVE, RELIEF VALVE, SHUTTLE, Pressure reducing valve for accumulator charging PRESSURE REDUCING VALVE FOR ACCUMULATOR CHARGING Valve. this needs to be done first, before Looking at the pump. system pressure does LOOKING AT THE PUMP. SYSTEM PRESSURE DOES Achieve 2300 psi cut off as per spec. not done. ACHIEVE 2300 PSI CUT OFF AS PER SPEC. NOT DONE. Customer requests for us to return on wed aug 22, 2018 2018 Aug 22, 2018 arrived, called, and AUG 22, 2018 ARRIVED, CALLED, AND Requested customer to release machine. machine REQUESTED CUSTOMER TO RELEASE MACHINE. MACHINE Brought over, and relieved hydraulic pressure in BROUGHT OVER, AND RELIEVED HYDRAULIC PRESSURE IN System. removed both brake accumulators. SYSTEM. REMOVED BOTH BRAKE ACCUMULATORS. Installed replacements, and swapped fittings INSTALLED REPLACEMENTS, AND SWAPPED FITTINGS Over. reconnected all that was removed. charged OVER. RECONNECTED ALL THAT WAS REMOVED. CHARGED Both accumulators to 750 psi. on accumulator BOTH ACCUMULATORS TO 750 PSI. ON ACCUMULATOR Charging valve, removed check valve, relief CHARGING VALVE, REMOVED CHECK VALVE, RELIEF Valve, shuttle, pressure reducing valve. this VALVE, SHUTTLE, PRESSURE REDUCING VALVE. THIS Needs to be done first, before looking at the Pump. installed replaced internals for Accumulator charging valve. not done, need to Finish seg: 04 nrs, before starting engine, and FINISH SEG: 04 NRS, BEFORE STARTING ENGINE, AND Checking system. Aug 23, 2018 hooked up gauges for AUG 23, 2018 HOOKED UP GAUGES FOR Brake accumulators. hydraulic pressure does BRAKE ACCUMULATORS. HYDRAULIC PRESSURE DOES Achieve 2275 psi, if normal operation at idle, Accumulator pressure will drop, and will show the ACCUMULATOR PRESSURE WILL DROP, AND WILL SHOW THE Code. if operator put rpm to 1000 rpm, system CODE. IF OPERATOR PUT RPM TO 1000 RPM, SYSTEM Does go up to cut off pressure for normal DOES GO UP TO CUT OFF PRESSURE FOR NORMAL Operation. found literature on pump issue. pump Efficiency has dropped, but still works. this Would be the next thing to do. pump 333-3788 can WOULD BE THE NEXT THING TO DO. PUMP 333-3788 CAN Be removed, and benched tested. but time would BE REMOVED, AND BENCHED TESTED. BUT TIME WOULD Be a factor. the machine would be down for some BE A FACTOR. THE MACHINE WOULD BE DOWN FOR SOME Time. did
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DID COMMUNICATE WITH MARCUS, AND TRAVIS ON This. suggest, to change out brake/pilot pump at THIS. SUGGEST, TO CHANGE OUT BRAKE/PILOT PUMP AT A scheduled service time, to be coordinated. Done for now. DONE FOR NOW. Customer concern, brake accumulator seems not to b CUSTOMER CONCERN, BRAKE ACCUMULATOR SEEMS NOT TO B E working.. brakes not working properly E WORKING.. BRAKES NOT WORKING PROPERLY

Sep 18, 2018	Service	7,660	Repair Nrs Cooler	Customer complaint: CUSTOMER COMPLAINT: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: REPAIR PROCESS COMMENTS: Aug 22, 2018 drained cooling system AUG 22, 2018 DRAINED COOLING SYSTEM Below nrs. removed right side ladder assembly BELOW NRS. REMOVED RIGHT SIDE LADDER ASSEMBLY With crane. removed paneling to access nrs WITH CRANE. REMOVED PANELING TO ACCESS NRS Again. removed all necessary for nrs cooler Removal. removed nrs. upon un packaging REMOVAL. REMOVED NRS. UPON UN PACKAGING Replacement nrs cooler, noticed that the part Number is different from the label. should be NUMBER IS DIFFERENT FROM THE LABEL. SHOULD BE 449-3065. 449-3068 was in the box. have to 449-3065. 449-3068 WAS IN THE BOX. HAVE TO Return, and reorder nrs. also, found that RETURN, AND REORDER NRS. ALSO, FOUND THAT Ps53495 new robust nrs replacement is now use, Along with additional parts needed. not done. ALONG WITH ADDITIONAL PARTS NEEDED. NOT DONE. Aug 23, 2018 continued on nrs AUG 23, 2018 CONTINUED ON NRS Replacement. ,removed old mounting bracket,and Installed new bracket, and installed new nrs INSTALLED NEW BRACKET, AND INSTALLED NEW NRS Cooler, along with new clamps, hoses, tubes, etc. COOLER, ALONG WITH NEW CLAMPS, HOSES, TUBES, ETC. In accordance with tebe5732. pulled a vacuum With vacuum filled cooling system tooling. held, WITH VACUUM FILLED COOLING SYSTEM TOOLING. HELD, Added coolant with tooling. no leaks. started Machine to ensure all good. put all tinware, MACHINE TO ENSURE ALL GOOD. PUT ALL TINWARE, Ladder, etc back on. nrs job done. LADDER, ETC BACK ON. NRS JOB DONE.
May 23, 2018	Service	4,537	Rework Arm Rest	
May 23, 2018	Service	4,537	Rework Arm Rest	

May 23, 2018	Service	4,537	Troubleshoot & Repair No Start	Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 3, 2017 had been mounting cat 4764 JULY 3, 2017 HAD BEEN MOUNTING CAT Detect for personnel on machine earlier in the DETECT FOR PERSONNEL ON MACHINE EARLIER IN THE Day; monitor, antenna unit, external alarm only. DAY; MONITOR, ANTENNA UNIT, EXTERNAL ALARM ONLY. Did not hook any wires up yet. at the same DID NOT HOOK ANY WIRES UP YET. AT THE SAME Time, a 2000 hour service was being performed, by Other personnel. no fault by anyone, just that OTHER PERSONNEL. NO FAULT BY ANYONE, JUST THAT The engine, and transmission disable switches THE ENGINE, AND TRANSMISSION DISABLE SWITCHES Were activated, along with the master switch. WERE ACTIVATED, ALONG WITH THE MASTER SWITCH. When the service was done, master was turned on, WHEN THE SERVICE WAS DONE, MASTER WAS TURNED ON, And was used to prime fuel filters. at that Time, the indicator burnt up, and caused damaged. TIME, THE INDICATOR BURNT UP, AND CAUSED DAMAGED. It was indicated that those safety switches have Never been used. used et, and multimeter to NEVER BEEN USED. USED ET, AND MULTIMETER TO Determine the extent of damage. machine had to DETERMINE THE EXTENT OF DAMAGE. MACHINE HAD TO Be moved out of customer's bay, since it's half Way in, and shop not big enough. jumped starter WAY IN, AND SHOP NOT BIG ENOUGH. JUMPED STARTER Solenoid, bypassing main starter relay to move SOLENOID, BYPASSING MAIN STARTER RELAY TO MOVE Outside. looked up parts, ordered starter OUTSIDE. LOOKED UP PARTS, ORDERED STARTER Assembly since, main start relay not close by ASSEMBLY SINCE, MAIN START RELAY NOT CLOSE BY #3496255, and part of starter assembly. led #3496255, AND PART OF STARTER ASSEMBLY. LED Indicator #382-4475. 382-4475 lockout switches INDICATOR #382-4475. 382-4475 LOCKOUT SWITCHES Are not available according to dbs. don't know ARE NOT AVAILABLE ACCORDING TO DBS. DON'T KNOW When arrival will be. not done. 4764 july 6, 2017 received parts, not All. removed starter assembly, had to use crane ALL. REMOVED STARTER ASSEMBLY, HAD TO USE CRANE To pull up on wrench to loosen on all mounting TO PULL UP ON WRENCH TO LOOSEN ON ALL MOUNTING Starter bolts. installed starter in machine, put STARTER BOLTS. INSTALLED STARTER IN MACHINE, PUT Back all tinware, brackets, etc that had been BACK ALL TINWARE, BRACKETS, ETC THAT HAD BEEN Removed. removed indicator for engine safety REMOVED. REMOVED INDICATOR FOR ENGINE SAFETY Disable. noticed that the push in feature on the Holder could not be done. it's stuck, and on all HOLDER COULD NOT BE DONE. IT'S STUCK, AND ON ALL The time. this is why maybe the wires burned up THE TIME. THIS IS WHY MAYBE THE WIRES BURNED UP At holder. replaced indicator holder. used AT HOLDER. REPLACED INDICATOR HOLDER. USED Multimeter to check engine safety disable switch. MULTIMETER TO CHECK ENGINE SAFETY DISABLE SWITCH. Used schematic to determine connections. Switch does not
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May 23, 2018	Service	4,537	Troubleshoot & Repair No Start	Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 3, 2017 had been mounting cat 4764 JULY 3, 2017 HAD BEEN MOUNTING CAT Detect for personnel on machine earlier in the DETECT FOR PERSONNEL ON MACHINE EARLIER IN THE Day; monitor, antenna unit, external alarm only. DAY; MONITOR, ANTENNA UNIT, EXTERNAL ALARM ONLY. Did not hook any wires up yet. at the same DID NOT HOOK ANY WIRES UP YET. AT THE SAME Time, a 2000 hour service was being performed, by Other personnel. no fault by anyone, just that OTHER PERSONNEL. NO FAULT BY ANYONE, JUST THAT The engine, and transmission disable switches THE ENGINE, AND TRANSMISSION DISABLE SWITCHES Were activated, along with the master switch. WERE ACTIVATED, ALONG WITH THE MASTER SWITCH. When the service was done, master was turned on, WHEN THE SERVICE WAS DONE, MASTER WAS TURNED ON, And was used to prime fuel filters. at that Time, the indicator burnt up, and caused damaged. TIME, THE INDICATOR BURNT UP, AND CAUSED DAMAGED. It was indicated that those safety switches have Never been used. used et, and multimeter to NEVER BEEN USED. USED ET, AND MULTIMETER TO Determine the extent of damage. machine had to DETERMINE THE EXTENT OF DAMAGE. MACHINE HAD TO Be moved out of customer's bay, since it's half Way in, and shop not big enough. jumped starter WAY IN, AND SHOP NOT BIG ENOUGH. JUMPED STARTER Solenoid, bypassing main starter relay to move SOLENOID, BYPASSING MAIN STARTER RELAY TO MOVE Outside. looked up parts, ordered starter OUTSIDE. LOOKED UP PARTS, ORDERED STARTER Assembly since, main start relay not close by ASSEMBLY SINCE, MAIN START RELAY NOT CLOSE BY #3496255, and part of starter assembly. led #3496255, AND PART OF STARTER ASSEMBLY. LED Indicator #382-4475. 382-4475 lockout switches INDICATOR #382-4475. 382-4475 LOCKOUT SWITCHES Are not available according to dbs. don't know ARE NOT AVAILABLE ACCORDING TO DBS. DON'T KNOW When arrival will be. not done. 4764 july 6, 2017 received parts, not All. removed starter assembly, had to use crane ALL. REMOVED STARTER ASSEMBLY, HAD TO USE CRANE To pull up on wrench to loosen on all mounting TO PULL UP ON WRENCH TO LOOSEN ON ALL MOUNTING Starter bolts. installed starter in machine, put STARTER BOLTS. INSTALLED STARTER IN MACHINE, PUT Back all tinware, brackets, etc that had been BACK ALL TINWARE, BRACKETS, ETC THAT HAD BEEN Removed. removed indicator for engine safety REMOVED. REMOVED INDICATOR FOR ENGINE SAFETY Disable. noticed that the push in feature on the Holder could not be done. it's stuck, and on all HOLDER COULD NOT BE DONE. IT'S STUCK, AND ON ALL The time. this is why maybe the wires burned up THE TIME. THIS IS WHY MAYBE THE WIRES BURNED UP At holder. replaced indicator holder. used AT HOLDER. REPLACED INDICATOR HOLDER. USED Multimeter to check engine safety disable switch. MULTIMETER TO CHECK ENGINE SAFETY DISABLE SWITCH. Used schematic to determine connections. Switch does not
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Apr 30, 2018	Service	6,823	Weld W/a.r.m.	Part 467-9815; qty 8; 90" each @ \$1.50/in PART 467-9815; QTY 8; 90" EACH @ \$1.50/IN Part 467-9815; qty 8; 90" each @ \$1.50/in PART 467-9815; QTY 8; 90" EACH @ \$1.50/IN
Apr 30, 2018	Service	6,823		

Mar 16, 2018	Service	6,365	Replace Dpf Filter	Customer complaint: CUSTOMER COMPLAINT: 5000 hour service 5000 HOUR SERVICE Repair process comments: REPAIR PROCESS COMMENTS: Arrived at job. removed top covers to gain access To the def. performed a dpf ash service regen TO THE DEF. PERFORMED A DPF ASH SERVICE REGEN That took around a 1 1/2 to complete. waited for THAT TOOK AROUND A 1 1/2 TO COMPLETE. WAITED FOR Dpf to cool down to handle. removed clamps and DPF TO COOL DOWN TO HANDLE. REMOVED CLAMPS AND Sealing clamps. noticed a large amount of white SEALING CLAMPS. NOTICED A LARGE AMOUNT OF WHITE Powder residue indicating coolant being POWDER RESIDUE INDICATING COOLANT BEING Combusted. sent pictures to manager and he will COMBUSTED. SENT PICTURES TO MANAGER AND HE WILL Inform customer. installed new dpf and new INFORM CUSTOMER. INSTALLED NEW DPF AND NEW Sealing rings. torque all clamps and sealing SEALING RINGS. TORQUE ALL CLAMPS AND SEALING Rings to spec. had to add 5 gallons of coolant to Reservoir to get to proper level. reset ash RESERVOIR TO GET TO PROPER LEVEL. RESET ASH Service to a reman unit. started machine and ran A system function tested and it passed. A SYSTEM FUNCTION TESTED AND IT PASSED. Removed def injector and replaced with a new one. REMOVED DEF INJECTOR AND REPLACED WITH A NEW ONE. Ran a system function test and it passed. will RAN A SYSTEM FUNCTION TEST AND IT PASSED. WILL Recommend to replace the coolant lines to RECOMMEND TO REPLACE THE COOLANT LINES TO Injector as they are worn will order parts. INJECTOR AS THEY ARE WORN WILL ORDER PARTS. Removed spark plug boots and removed old spark REMOVED SPARK PLUG BOOTS AND REMOVED OLD SPARK Plug installed new one. PLUG INSTALLED NEW ONE. Removed def cap cover and removed def cap. pulled REMOVED DEF CAP COVER AND REMOVED DEF CAP. PULLED Out filter and installed a new one. job complete OUT FILTER AND INSTALLED A NEW ONE. JOB COMPLETE 3-3-18
Mar 16, 2018	Service	6,365	Travel To/from Job Site	

Mar 16, 2018	Service	6,365	Perform 500-hour Pm Service	Customer complaint: Perform 500 hr pm PERFORM 500 HR PM Cause of failure: CAUSE OF FAILURE: N/A Resultant damage: RESULTANT DAMAGE: N/a N/A Repair process comments: Performed 500 hr pm. samples obtained: engine oil, PERFORMED 500 HR PM. SAMPLES OBTAINED: ENGINE OIL, Transmission fluid, coolant, hydraulic oil, front TRANSMISSION FLUID, COOLANT, HYDRAULIC OIL, FRONT Differential, front right final drive, front left DIFFERENTIAL, FRONT RIGHT FINAL DRIVE, FRONT LEFT Final drive, rear differential, right rear final FINAL DRIVE, REAR DIFFERENTIAL, RIGHT REAR FINAL Drive, left rear final drive. changed; engine oil DRIVE, LEFT REAR FINAL DRIVE. CHANGED; ENGINE OIL And filter, fuel/water separator, sencondary fuel Filters, transmission filter, hydraulic pilot FILTERS, TRANSMISSION FILTER, HYDRAULIC PILOT Filter, hydrualic fan filter. machine was Inspected and a small leak in the transmission Area was found. in addition to leak and it AREA WAS FOUND. IN ADDITION TO LEAK AND IT Sounded like a hydrualic pump was surging. SOUNDED LIKE A HYDRUALIC PUMP WAS SURGING. Machine was 5 gallons low on engine coolant. no MACHINE WAS 5 GALLONS LOW ON ENGINE COOLANT. NO Other concerns were present. all fluid levels ok. OTHER CONCERNS WERE PRESENT. ALL FLUID LEVELS OK. No other concerns present at this time. machine NO OTHER CONCERNS PRESENT AT THIS TIME. MACHINE Is in operating condition. IS IN OPERATING CONDITION.
Feb 27, 2018	Service	4,537	Rework Arm Rest	

Feb 27, 2018	Service	4,537	Troubleshoot & Repair No Start	Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 3, 2017 had been mounting cat 4764 JULY 3, 2017 HAD BEEN MOUNTING CAT Detect for personnel on machine earlier in the DETECT FOR PERSONNEL ON MACHINE EARLIER IN THE Day; monitor, antenna unit, external alarm only. DAY; MONITOR, ANTENNA UNIT, EXTERNAL ALARM ONLY. Did not hook any wires up yet. at the same DID NOT HOOK ANY WIRES UP YET. AT THE SAME Time, a 2000 hour service was being performed, by Other personnel. no fault by anyone, just that OTHER PERSONNEL. NO FAULT BY ANYONE, JUST THAT The engine, and transmission disable switches THE ENGINE, AND TRANSMISSION DISABLE SWITCHES Were activated, along with the master switch. WERE ACTIVATED, ALONG WITH THE MASTER SWITCH. When the service was done, master was turned on, WHEN THE SERVICE WAS DONE, MASTER WAS TURNED ON, And was used to prime fuel filters. at that Time, the indicator burnt up, and caused damaged. TIME, THE INDICATOR BURNT UP, AND CAUSED DAMAGED. It was indicated that those safety switches have Never been used. used et, and multimeter to NEVER BEEN USED. USED ET, AND MULTIMETER TO Determine the extent of damage. machine had to DETERMINE THE EXTENT OF DAMAGE. MACHINE HAD TO Be moved out of customer's bay, since it's half Way in, and shop not big enough. jumped starter WAY IN, AND SHOP NOT BIG ENOUGH. JUMPED STARTER Solenoid, bypassing main starter relay to move SOLENOID, BYPASSING MAIN STARTER RELAY TO MOVE Outside. looked up parts, ordered starter OUTSIDE. LOOKED UP PARTS, ORDERED STARTER Assembly since, main start relay not close by ASSEMBLY SINCE, MAIN START RELAY NOT CLOSE BY #3496255, and part of starter assembly. led #3496255, AND PART OF STARTER ASSEMBLY. LED Indicator #382-4475. 382-4475 lockout switches INDICATOR #382-4475. 382-4475 LOCKOUT SWITCHES Are not available according to dbs. don't know ARE NOT AVAILABLE ACCORDING TO DBS. DON'T KNOW When arrival will be. not done. 4764 july 6, 2017 received parts, not All. removed starter assembly, had to use crane ALL. REMOVED STARTER ASSEMBLY, HAD TO USE CRANE To pull up on wrench to loosen on all mounting TO PULL UP ON WRENCH TO LOOSEN ON ALL MOUNTING Starter bolts. installed starter in machine, put STARTER BOLTS. INSTALLED STARTER IN MACHINE, PUT Back all tinware, brackets, etc that had been BACK ALL TINWARE, BRACKETS, ETC THAT HAD BEEN Removed. removed indicator for engine safety REMOVED. REMOVED INDICATOR FOR ENGINE SAFETY Disable. noticed that the push in feature on the Holder could not be done. it's stuck, and on all HOLDER COULD NOT BE DONE. IT'S STUCK, AND ON ALL The time. this is why maybe the wires burned up THE TIME. THIS IS WHY MAYBE THE WIRES BURNED UP At holder. replaced indicator holder. used AT HOLDER. REPLACED INDICATOR HOLDER. USED Multimeter to check engine safety disable switch. MULTIMETER TO CHECK ENGINE SAFETY DISABLE SWITCH. Used schematic to determine connections. Switch does not
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Feb 27, 2018	Service	4,537	Rework Arm Rest
Feb 27, 2018	Service	4,537	Rework Arm Rest
Feb 27, 2018	Service	4,537	Rework Arm Rest

Feb 27, 2018	Service	4,537	Troubleshoot & Repair No Start	Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 3, 2017 had been mounting cat 4764 JULY 3, 2017 HAD BEEN MOUNTING CAT Detect for personnel on machine earlier in the DETECT FOR PERSONNEL ON MACHINE EARLIER IN THE Day; monitor, antenna unit, external alarm only. DAY; MONITOR, ANTENNA UNIT, EXTERNAL ALARM ONLY. Did not hook any wires up yet. at the same DID NOT HOOK ANY WIRES UP YET. AT THE SAME Time, a 2000 hour service was being performed, by Other personnel. no fault by anyone, just that OTHER PERSONNEL. NO FAULT BY ANYONE, JUST THAT The engine, and transmission disable switches THE ENGINE, AND TRANSMISSION DISABLE SWITCHES Were activated, along with the master switch. WERE ACTIVATED, ALONG WITH THE MASTER SWITCH. When the service was done, master was turned on, WHEN THE SERVICE WAS DONE, MASTER WAS TURNED ON, And was used to prime fuel filters. at that Time, the indicator burnt up, and caused damaged. TIME, THE INDICATOR BURNT UP, AND CAUSED DAMAGED. It was indicated that those safety switches have Never been used. used et, and multimeter to NEVER BEEN USED. USED ET, AND MULTIMETER TO Determine the extent of damage. machine had to DETERMINE THE EXTENT OF DAMAGE. MACHINE HAD TO Be moved out of customer's bay, since it's half Way in, and shop not big enough. jumped starter WAY IN, AND SHOP NOT BIG ENOUGH. JUMPED STARTER Solenoid, bypassing main starter relay to move SOLENOID, BYPASSING MAIN STARTER RELAY TO MOVE Outside. looked up parts, ordered starter OUTSIDE. LOOKED UP PARTS, ORDERED STARTER Assembly since, main start relay not close by ASSEMBLY SINCE, MAIN START RELAY NOT CLOSE BY #3496255, and part of starter assembly. led #3496255, AND PART OF STARTER ASSEMBLY. LED Indicator #382-4475. 382-4475 lockout switches INDICATOR #382-4475. 382-4475 LOCKOUT SWITCHES Are not available according to dbs. don't know ARE NOT AVAILABLE ACCORDING TO DBS. DON'T KNOW When arrival will be. not done. 4764 july 6, 2017 received parts, not All. removed starter assembly, had to use crane ALL. REMOVED STARTER ASSEMBLY, HAD TO USE CRANE To pull up on wrench to loosen on all mounting TO PULL UP ON WRENCH TO LOOSEN ON ALL MOUNTING Starter bolts. installed starter in machine, put STARTER BOLTS. INSTALLED STARTER IN MACHINE, PUT Back all tinware, brackets, etc that had been BACK ALL TINWARE, BRACKETS, ETC THAT HAD BEEN Removed. removed indicator for engine safety REMOVED. REMOVED INDICATOR FOR ENGINE SAFETY Disable. noticed that the push in feature on the Holder could not be done. it's stuck, and on all HOLDER COULD NOT BE DONE. IT'S STUCK, AND ON ALL The time. this is why maybe the wires burned up THE TIME. THIS IS WHY MAYBE THE WIRES BURNED UP At holder. replaced indicator holder. used AT HOLDER. REPLACED INDICATOR HOLDER. USED Multimeter to check engine safety disable switch. MULTIMETER TO CHECK ENGINE SAFETY DISABLE SWITCH. Used schematic to determine connections. Switch does not
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DOES NOT CONNECT TO PIN 1 AND 2. NO QUICK Availability on the switches. used a 6 pin AVAILABILITY ON THE SWITCHES. USED A 6 PIN Connector, and bypassed u733 white, and g457 pink CONNECTOR, AND BYPASSED U733 WHITE, AND G457 PINK Wire. on the trans lock out switch, the WIRE. ON THE TRANS LOCK OUT SWITCH, THE Connection is not correct also. used a 6 pin Connector, wiring to bypass. connected t909 CONNECTOR, WIRING TO BYPASS. CONNECTED T909 Yellow to a723 black. this is a field fix, until YELLOW TO A723 BLACK. THIS IS A FIELD FIX, UNTIL We get the replacement switches. done for now.

Feb 06, 2018	Service	5,830	Weld W/a.r.m.	Part 467-9815; qty: 8; 53" each @ \$1.25/in PART 467-9815; QTY: 8; 53" EACH @ \$1.25/IN Part 467-9815; qty: 8; 53" each @ \$1.25/in
Feb 06, 2018	Service	5,830		

Jan 11, 2018	Service	4,699	Install	Customer complaint: CUSTOMER COMPLAINT: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 31, 2017 loaded up, proceeded 4764 JULY 31, 2017 LOADED UP, PROCEEDED To job site. notified dallas upon my arrival. TO JOB SITE. NOTIFIED DALLAS UPON MY ARRIVAL. Monitor is mounted on right side of display on MONITOR IS MOUNTED ON RIGHT SIDE OF DISPLAY ON Pillar. antenna box is mounted on rear external Fan guard, and alarm next to it on the right. FAN GUARD, AND ALARM NEXT TO IT ON THE RIGHT. Hooked up wiring to antenna box, alarm, and began To wire up the monitor in cab. had to unmount TO WIRE UP THE MONITOR IN CAB. HAD TO UNMOUNT Right side console, and rear paneling behind seat RIGHT SIDE CONSOLE, AND REAR PANELING BEHIND SEAT To access wiring. notified tech support on TO ACCESS WIRING. NOTIFIED TECH SUPPORT ON Product link ground, the green wire, as to which PRODUCT LINK GROUND, THE GREEN WIRE, AS TO WHICH One, external ground, or ground in product link ONE, EXTERNAL GROUND, OR GROUND IN PRODUCT LINK (vims) ecm. also asked about the command white (VIMS) ECM. ALSO ASKED ABOUT THE COMMAND WHITE Wire, to pin 41, or 44. no wire is input to pin WIRE, TO PIN 41, OR 44. NO WIRE IS INPUT TO PIN 44 at product link ecm. pin 41 has a r976 green Wire to it. do i tie both together, or input to WIRE TO IT. DO I TIE BOTH TOGETHER, OR INPUT TO Pin 44? will need to wait, and see what the PIN 44? WILL NEED TO WAIT, AND SEE WHAT THE Correct way is. need to know, before continuing. Not done. Customer complaint: Seg: 01 install cat detect for personnel; *****special instructions- m0073624-03 dated: *****SPECIAL INSTRUCTIONS- M0073624-03 DATED: Oct 5, 2016***** si #m0074000 software dated: OCT 5, 2016***** SI #M0074000 SOFTWARE DATED: 9-20-16***** t & a #m0073844 antenna config 9-20-16***** T & A #M0073844 ANTENNA CONFIG Dated: #9-16-16 *****t & a nodes DATED: #9-16-16 *****T & A NODES Dated:9-16-16***** DATED:9-16-16***** Repair process comments: 4764 july 3, 2017 looked over 4764 JULY 3, 2017 LOOKED OVER Instructions, and machine overview. layed out INSTRUCTIONS, AND MACHINE OVERVIEW. LAYED OUT All parts. several parts not here. okay to Start. machine is being serviced now, and did START. MACHINE IS BEING SERVICED NOW, AND DID What i could. had turned off the aux engine Disconnect, and trans disconnect switch, at left DISCONNECT, AND TRANS DISCONNECT SWITCH, AT LEFT Rear of machine. upon service being done, the Machine did not start. this was documented on MACHINE DID NOT START. THIS WAS DOCUMENTED ON Segment 02. not done. SEGMENT 02. NOT DONE. 4764 july 31, 2017 loaded up, proceeded 4764 JULY 31, 2017 LOADED UP, PROCEEDED To job site. notified dallas upon my arrival. TO JOB SITE. NOTIFIED DALLAS UPON MY ARRIVAL. Monitor is mounted on right side of display on MONITOR IS MOUNTED ON RIGHT SIDE OF DISPLAY ON Pillar. antenna box is mounted on rear external PILLAR.
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Jan 10, 2018	Service	4,699	Install	Customer complaint: CUSTOMER COMPLAINT: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 31, 2017 loaded up, proceeded 4764 JULY 31, 2017 LOADED UP, PROCEEDED To job site. notified dallas upon my arrival. TO JOB SITE. NOTIFIED DALLAS UPON MY ARRIVAL. Monitor is mounted on right side of display on MONITOR IS MOUNTED ON RIGHT SIDE OF DISPLAY ON Pillar. antenna box is mounted on rear external Fan guard, and alarm next to it on the right. FAN GUARD, AND ALARM NEXT TO IT ON THE RIGHT. Hooked up wiring to antenna box, alarm, and began To wire up the monitor in cab. had to unmount TO WIRE UP THE MONITOR IN CAB. HAD TO UNMOUNT Right side console, and rear paneling behind seat RIGHT SIDE CONSOLE, AND REAR PANELING BEHIND SEAT To access wiring. notified tech support on TO ACCESS WIRING. NOTIFIED TECH SUPPORT ON Product link ground, the green wire, as to which PRODUCT LINK GROUND, THE GREEN WIRE, AS TO WHICH One, external ground, or ground in product link ONE, EXTERNAL GROUND, OR GROUND IN PRODUCT LINK (vims) ecm. also asked about the command white (VIMS) ECM. ALSO ASKED ABOUT THE COMMAND WHITE Wire, to pin 41, or 44. no wire is input to pin WIRE, TO PIN 41, OR 44. NO WIRE IS INPUT TO PIN 44 at product link ecm. pin 41 has a r976 green Wire to it. do i tie both together, or input to WIRE TO IT. DO I TIE BOTH TOGETHER, OR INPUT TO Pin 44? will need to wait, and see what the PIN 44? WILL NEED TO WAIT, AND SEE WHAT THE Correct way is. need to know, before continuing. Not done. Customer complaint: Seg: 01 install cat detect for personnel; *****special instructions- m0073624-03 dated: *****SPECIAL INSTRUCTIONS- M0073624-03 DATED: Oct 5, 2016***** si #m0074000 software dated: OCT 5, 2016***** SI #M0074000 SOFTWARE DATED: 9-20-16***** t & a #m0073844 antenna config 9-20-16***** T & A #M0073844 ANTENNA CONFIG Dated: #9-16-16 *****t & a nodes DATED: #9-16-16 *****T & A NODES Dated:9-16-16***** DATED:9-16-16***** Repair process comments: 4764 july 3, 2017 looked over 4764 JULY 3, 2017 LOOKED OVER Instructions, and machine overview. layed out INSTRUCTIONS, AND MACHINE OVERVIEW. LAYED OUT All parts. several parts not here. okay to Start. machine is being serviced now, and did START. MACHINE IS BEING SERVICED NOW, AND DID What i could. had turned off the aux engine Disconnect, and trans disconnect switch, at left DISCONNECT, AND TRANS DISCONNECT SWITCH, AT LEFT Rear of machine. upon service being done, the Machine did not start. this was documented on MACHINE DID NOT START. THIS WAS DOCUMENTED ON Segment 02. not done. SEGMENT 02. NOT DONE. 4764 july 31, 2017 loaded up, proceeded 4764 JULY 31, 2017 LOADED UP, PROCEEDED To job site. notified dallas upon my arrival. TO JOB SITE. NOTIFIED DALLAS UPON MY ARRIVAL. Monitor is mounted on right side of display on MONITOR IS MOUNTED ON RIGHT SIDE OF DISPLAY ON Pillar. antenna box is mounted on rear external PILLAR.
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Ensure alarm would go off. tim had stopped by, ENSURE
ALARM WOULD GO OFF. TIM HAD STOPPED BY, And he
positioned the vest, hard hat, and to Adjust antenna position,
for alarm actuation. ADJUST ANTENNA POSITION, FOR ALARM
ACTUATION. Job done. JOB DONE. Cat detect

Jan 09, 2018	Service	5,830	Troubleshoot Cooling System	Customer complaint: CUSTOMER COMPLAINT: Bad oil sample indicating combusted coolant BAD OIL SAMPLE INDICATING COMBUSTED COOLANT Cause of failure: CAUSE OF FAILURE: Unknown UNKNOWN Repair process comments: REPAIR PROCESS COMMENTS: Arrived at machine. took psr. suspected nrs ARRIVED AT MACHINE. TOOK PSR. SUSPECTED NRS Cooler. took off panels too gain access. found COOLER. TOOK OFF PANELS TOO GAIN ACCESS. FOUND Traces of coolant on outlet of nrs coolant. TRACES OF COOLANT ON OUTLET OF NRS COOLANT. Removed tube and inspected inside cooler and REMOVED TUBE AND INSPECTED INSIDE COOLER AND Found no traces of coolant. pressurized system FOUND NO TRACES OF COOLANT. PRESSURIZED SYSTEM And found multiple coolant leaks and the cooling AND FOUND MULTIPLE COOLANT LEAKS AND THE COOLING System t be a gallons low. repaired leaks and SYSTEM T BE A GALLONS LOW. REPAIRED LEAKS AND Tested system for a extended period of time. Found no leaks. ran machine to operating temp for A extended period of time found no leaks. took a Sample to see what result would be with only 20 Hours on oil. released unit need to monitor. job HOURS ON OIL. RELEASED UNIT NEED TO MONITOR. JOB Complete for now.1071 12-20-17 COMPLETE FOR NOW.1071 12-20-17
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Jan 09, 2018	Service	5,830	Troubleshoot Cooling System	Customer complaint: CUSTOMER COMPLAINT: Bad oil sample indicating combusted coolant BAD OIL SAMPLE INDICATING COMBUSTED COOLANT Cause of failure: CAUSE OF FAILURE: Unknown UNKNOWN Repair process comments: REPAIR PROCESS COMMENTS: Arrived at machine. took psr. suspected nrs ARRIVED AT MACHINE. TOOK PSR. SUSPECTED NRS Cooler. took off panels too gain access. found COOLER. TOOK OFF PANELS TOO GAIN ACCESS. FOUND Traces of coolant on outlet of nrs coolant. TRACES OF COOLANT ON OUTLET OF NRS COOLANT. Removed tube and inspected inside cooler and REMOVED TUBE AND INSPECTED INSIDE COOLER AND Found no traces of coolant. pressurized system FOUND NO TRACES OF COOLANT. PRESSURIZED SYSTEM And found multiple coolant leaks and the cooling AND FOUND MULTIPLE COOLANT LEAKS AND THE COOLING System t be a gallons low. repaired leaks and SYSTEM T BE A GALLONS LOW. REPAIRED LEAKS AND Tested system for a extended period of time. Found no leaks. ran machine to operating temp for A extended period of time found no leaks. took a Sample to see what result would be with only 20 Hours on oil. released unit need to monitor. job HOURS ON OIL. RELEASED UNIT NEED TO MONITOR. JOB Complete for now.1071 12-20-17 COMPLETE FOR NOW.1071 12-20-17
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Dec 29, 2017 Service 4,699 Install

Customer complaint: CUSTOMER COMPLAINT: See instructions above SEE INSTRUCTIONS ABOVE Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 31, 2017 loaded up, proceeded 4764 JULY 31, 2017 LOADED UP, PROCEEDED To job site. notified dallas upon my arrival. TO JOB SITE. NOTIFIED DALLAS UPON MY ARRIVAL. Monitor is mounted on right side of display on MONITOR IS MOUNTED ON RIGHT SIDE OF DISPLAY ON Pillar. antenna box is mounted on rear external Fan guard, and alarm next to it on the right. FAN GUARD, AND ALARM NEXT TO IT ON THE RIGHT. Hooked up wiring to antenna box, alarm, and began To wire up the monitor in cab. had to unmount TO WIRE UP THE MONITOR IN CAB. HAD TO UNMOUNT Right side console, and rear paneling behind seat RIGHT SIDE CONSOLE, AND REAR PANELING BEHIND SEAT To access wiring. notified tech support on TO ACCESS WIRING. NOTIFIED TECH SUPPORT ON Product link ground, the green wire, as to which PRODUCT LINK GROUND, THE GREEN WIRE, AS TO WHICH One, external ground, or ground in product link ONE, EXTERNAL GROUND, OR GROUND IN PRODUCT LINK (vims) ecm. also asked about the command white (VIMS) ECM. ALSO ASKED ABOUT THE COMMAND WHITE Wire, to pin 41, or 44. no wire is input to pin WIRE, TO PIN 41, OR 44. NO WIRE IS INPUT TO PIN 44 at product link ecm. pin 41 has a r976 green Wire to it. do i tie both together, or input to WIRE TO IT. DO I TIE BOTH TOGETHER, OR INPUT TO Pin 44? will need to wait, and see what the PIN 44? WILL NEED TO WAIT, AND SEE WHAT THE Correct way is. need to know, before continuing. Not done. Customer complaint: Seg: 01 install cat detect for personnel; *****special instructions- m0073624-03 dated: *****SPECIAL INSTRUCTIONS- M0073624-03 DATED: Oct 5, 2016***** si #m0074000 software dated: OCT 5, 2016***** SI #M0074000 SOFTWARE DATED: 9-20-16***** t & a #m0073844 antenna config 9-20-16***** T & A #M0073844 ANTENNA CONFIG Dated: #9-16-16 *****t & a nodes DATED: #9-16-16 *****T & A NODES Dated:9-16-16***** DATED:9-16-16***** Repair process comments: 4764 july 3, 2017 looked over 4764 JULY 3, 2017 LOOKED OVER Instructions, and machine overview. layed out INSTRUCTIONS, AND MACHINE OVERVIEW. LAYED OUT All parts. several parts not here. okay to Start. machine is being serviced now, and did START. MACHINE IS BEING SERVICED NOW, AND DID What i could. had turned off the aux engine Disconnect, and trans disconnect switch, at left DISCONNECT, AND TRANS DISCONNECT SWITCH, AT LEFT Rear of machine. upon service being done, the Machine did not start. this was documented on MACHINE DID NOT START. THIS WAS DOCUMENTED ON Segment 02. not done. SEGMENT 02. NOT DONE. 4764 july 31, 2017 loaded up, proceeded 4764 JULY 31, 2017 LOADED UP, PROCEEDED To job site. notified dallas upon my arrival. TO JOB SITE. NOTIFIED DALLAS UPON MY ARRIVAL. Monitor is mounted on right side of display on MONITOR IS MOUNTED ON RIGHT SIDE OF DISPLAY ON Pillar. antenna box is mounted on rear external PILLAR.

EXTERNAL Fan guard, and alarm next to it on the right. FAN GUARD, AND ALARM NEXT TO IT ON THE RIGHT. Hooked up wiring to antenna box, alarm, and began HOOKED UP WIRING TO ANTENNA BOX, ALARM, AND BEGAN To wire up the monitor in cab. had to unmount Right side console, and rear paneling behind seat RIGHT SIDE CONSOLE, AND REAR PANELING BEHIND SEAT To access wiring. notified tech support on TO ACCESS WIRING. NOTIFIED TECH SUPPORT ON Product link ground, the green wire, as to which One, external ground, or ground in product link ONE, EXTERNAL GROUND, OR GROUND IN PRODUCT LINK (vims) ecm. also asked about the command white Wire, to pin 41, or 44. no wire is input to pin WIRE, TO PIN 41, OR 44. NO WIRE IS INPUT TO PIN 44 at product link ecm. pin 41 has a r976 green 44 AT PRODUCT LINK ECM. PIN 41 HAS A R976 GREEN Wire to it. do i tie both together, or input to Pin 44? will need to wait, and see what the Correct way is. need to know, before continuing. CORRECT WAY IS. NEED TO KNOW, BEFORE CONTINUING. Not done. NOT DONE. 4764 sept 25, 2017 finished hooking up 4764 SEPT 25, 2017 FINISHED HOOKING UP Wires for alarm box in cab. i did not receive WIRES FOR ALARM BOX IN CAB. I DID NOT RECEIVE Additional information, as per wire connecting ADDITIONAL INFORMATION, AS PER WIRE CONNECTING Clarification. hooked up the way i though it CLARIFICATION. HOOKED UP THE WAY I THOUGH IT Should be. once i had downloaded the software, SHOULD BE. ONCE I HAD DOWNLOADED THE SOFTWARE, Into a zipped file folder, from the website, i INTO A ZIPPED FILE FOLDER, FROM THE WEBSITE, I Could not advance to the next level to unzip, COULD NOT ADVANCE TO THE NEXT LEVEL TO UNZIP, Run, and save into pc. i needed admin rights. Tried to have it do it over the air, but could TRIED TO HAVE IT DO IT OVER THE AIR, BUT COULD Not do it. the connection kept dropping. need NOT DO IT. THE CONNECTION KEPT DROPPING. NEED To go to shop, and have the lan cable connected, TO GO TO SHOP, AND HAVE THE LAN CABLE CONNECTED, So this can be achieved. note: damaged left SO THIS CAN BE ACHIEVED. NOTE: DAMAGED LEFT Side arm rest cushion. ordered, will take SIDE ARM REST CUSHION. ORDERED, WILL TAKE Several days to get here. not done. SEVERAL DAYS TO GET HERE. NOT DONE. 4764 sept 27, 2017 could not return the 4764 SEPT 27, 2017 COULD NOT RETURN THE 25th, machine had to be used. another machine Will be scheduled down. once i returned, had WILL BE SCHEDULED DOWN. ONCE I RETURNED, HAD Spoke to dallas about the circumstances. tried SPOKE TO DALLAS ABOUT THE CIRCUMSTANCES. TRIED To perform the procedures as per instructions. TO PERFORM THE PROCEDURES AS PER INSTRUCTIONS. This did not happen as expected. antenna THIS DID NOT HAPPEN AS EXPECTED. ANTENNA Configuration, nodes pairing, dongle view, CONFIGURATION, NODES PAIRING, DONGLE VIEW, Configuration settings could not be done as Expected. used vest, hard hat with nodes to EXPECTED. USED VEST, HARD HAT WITH NODES TO Ensure

GO OFF. TIM HAD STOPPED BY, And he positioned the vest, hard hat, and to Adjust antenna position, for alarm actuation. Job done. JOB DONE. Customer complaint: CUSTOMER COMPLAINT: Seg: 01 install cat detect for personnel; SEG: 01 INSTALL CAT DETECT FOR PERSONNEL; *****special instructions- m0073624-03 dated: *****SPECIAL INSTRUCTIONS- M0073624-03 DATED: Oct 5, 2016***** si #m0074000 software dated: OCT 5, 2016***** SI #M0074000 SOFTWARE DATED: 9-20-16***** t & a #m0073844 antenna config Dated: #9-16-16 *****t & a nodes DATED: #9-16-16 *****T & A NODES Dated:9-16-16***** DATED:9-16-16***** Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 3, 2017 looked over 4764 JULY 3, 2017 LOOKED OVER Instructions, and machine overview. layed out INSTRUCTIONS, AND MACHINE OVERVIEW. LAYED OUT All parts. several parts not here. okay to ALL PARTS. SEVERAL PARTS NOT HERE. OKAY TO Start. machine is being serviced now, and did START. MACHINE IS BEING SERVICED NOW, AND DID What i could. had turned off the aux engine WHAT I COULD. HAD TURNED OFF THE AUX ENGINE Disconnect, and trans disconnect switch, at left Rear of machine. upon service being done, the REAR OF MACHINE. UPON SERVICE BEING DONE, THE Machine did not start. this was documented on MACHINE DID NOT START. THIS WAS DOCUMENTED ON Segment 02. not done. SEGMENT 02. NOT DONE. 4764 july 31, 2017 loaded up, proceeded 4764 JULY 31, 2017 LOADED UP, PROCEEDED To job site. notified dallas upon my arrival. TO JOB SITE. NOTIFIED DALLAS UPON MY ARRIVAL. Monitor is mounted on right side of display on MONITOR IS MOUNTED ON RIGHT SIDE OF DISPLAY ON Pillar. antenna box is mounted on rear external Fan guard, and alarm next to it on the right. Hooked up wiring to antenna box, alarm, and began HOOKED UP WIRING TO ANTENNA BOX, ALARM, AND BEGAN To wire up the monitor in cab. had to unmount TO WIRE UP THE MONITOR IN CAB. HAD TO UNMOUNT Right side console, and rear paneling behind seat RIGHT SIDE CONSOLE, AND REAR PANELING BEHIND SEAT To access wiring. notified tech support on TO ACCESS WIRING. NOTIFIED TECH SUPPORT ON Product link ground, the green wire, as to which PRODUCT LINK GROUND, THE GREEN WIRE, AS TO WHICH One, external ground, or ground in product link ONE, EXTERNAL GROUND, OR GROUND IN PRODUCT LINK (vims) ecm. also asked about the command white (VIMS) ECM. ALSO ASKED ABOUT THE COMMAND WHITE Wire, to pin 41, or 44. no wire is input to pin WIRE, TO PIN 41, OR 44. NO WIRE IS INPUT TO PIN 44 at product link ecm. pin 41 has a r976 green Wire to it. do i tie both together, or input to WIRE TO IT. DO I TIE BOTH TOGETHER, OR INPUT TO Pin 44? will need to wait, and see what the PIN 44? WILL NEED TO WAIT, AND SEE WHAT THE Correct way is. need to know, before continuing. CORRECT WAY IS. NEED TO KNOW, BEFORE CONTINUING. Not done. NOT DONE. 4764 sept 25, 2017 finished hooking up 4764 SEPT 25, 2017 FINISHED HOOKING UP Wires for alarm box in cab. i did not receive WIRES FOR

RECEIVE Additional information, as per wire connecting Clarification. hooked up the way i though it CLARIFICATION. HOOKED UP THE WAY I THOUGH IT Should be. once i had downloaded the software, Into a zipped file folder, from the website, i Could not advance to the next level to unzip, COULD NOT ADVANCE TO THE NEXT LEVEL TO UNZIP, Run, and save into pc. i needed admin rights. Tried to have it do it over the air, but could TRIED TO HAVE IT DO IT OVER THE AIR, BUT COULD Not do it. the connection kept dropping. need NOT DO IT. THE CONNECTION KEPT DROPPING. NEED To go to shop, and have the lan cable connected, TO GO TO SHOP, AND HAVE THE LAN CABLE CONNECTED, So this can be achieved. note: damaged left SO THIS CAN BE ACHIEVED. NOTE: DAMAGED LEFT Side arm rest cushion. ordered, will take SIDE ARM REST CUSHION. ORDERED, WILL TAKE Several days to get here. not done. 4764 sept 27, 2017 could not return the 4764 SEPT 27, 2017 COULD NOT RETURN THE 25th, machine had to be used. another machine Will be scheduled down. once i returned, had WILL BE SCHEDULED DOWN. ONCE I RETURNED, HAD Spoke to dallas about the circumstances. tried SPOKE TO DALLAS ABOUT THE CIRCUMSTANCES. TRIED To perform the procedures as per instructions. This did not happen as expected. antenna Configuration, nodes pairing, dongle view, Configuration settings could not be done as CONFIGURATION SETTINGS COULD NOT BE DONE AS Expected. used vest, hard hat with nodes to EXPECTED. USED VEST, HARD HAT WITH NODES TO Ensure alarm would go off. tim had stopped by, ENSURE ALARM WOULD GO OFF. TIM HAD STOPPED BY, And he positioned the vest, hard hat, and to Adjust antenna position, for alarm actuation. ADJUST ANTENNA POSITION, FOR ALARM ACTUATION. Job done. JOB DONE. Cat detect

Dec 27, 2017	Service	5,799	Perform 1000-hour Pm Service	Customer complaint: CUSTOMER COMPLAINT: Perform 1000 hr pm PERFORM 1000 HR PM Repair process comments: REPAIR PROCESS COMMENTS: Samples obtained: engine oil, hydraulic oil, SAMPLES OBTAINED: ENGINE OIL, HYDRAULIC OIL, Transmission fluid, coolant, front differential, TRANSMISSION FLUID, COOLANT, FRONT DIFFERENTIAL, Rear differential. changed: engine oil and REAR DIFFERENTIAL. CHANGED: ENGINE OIL AND Filter, fuel/water separator, secondary fuel FILTER, FUEL/WATER SEPARATOR, SECONDARY FUEL Filter, transmission oil and filter, hydrulic FILTER, TRANSMISSION OIL AND FILTER, HYDRULIC Filter.machine has hydraulic leak at upper hitch FILTER.MACHINE HAS HYDRAULIC LEAK AT UPPER HITCH Area, customer is aware of leak and will fix AREA, CUSTOMER IS AWARE OF LEAK AND WILL FIX Themselves. machine has minor coolant leaks. THEMSELVES. MACHINE HAS MINOR COOLANT LEAKS. Machine is in operating condition. no other MACHINE IS IN OPERATING CONDITION. NO OTHER Concerns are present at this time. CONCERNS ARE PRESENT AT THIS TIME. Please note: customer uses own oil. PLEASE NOTE: CUSTOMER USES OWN OIL.
Dec 19, 2017	Service	4,537	Rework Arm Rest	

Dec 19, 2017	Service	4,537	Troubleshoot & Repair No Start	Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 3, 2017 had been mounting cat 4764 JULY 3, 2017 HAD BEEN MOUNTING CAT Detect for personnel on machine earlier in the DETECT FOR PERSONNEL ON MACHINE EARLIER IN THE Day; monitor, antenna unit, external alarm only. DAY; MONITOR, ANTENNA UNIT, EXTERNAL ALARM ONLY. Did not hook any wires up yet. at the same DID NOT HOOK ANY WIRES UP YET. AT THE SAME Time, a 2000 hour service was being performed, by Other personnel. no fault by anyone, just that OTHER PERSONNEL. NO FAULT BY ANYONE, JUST THAT The engine, and transmission disable switches THE ENGINE, AND TRANSMISSION DISABLE SWITCHES Were activated, along with the master switch. WERE ACTIVATED, ALONG WITH THE MASTER SWITCH. When the service was done, master was turned on, WHEN THE SERVICE WAS DONE, MASTER WAS TURNED ON, And was used to prime fuel filters. at that Time, the indicator burnt up, and caused damaged. TIME, THE INDICATOR BURNT UP, AND CAUSED DAMAGED. It was indicated that those safety switches have Never been used. used et, and multimeter to NEVER BEEN USED. USED ET, AND MULTIMETER TO Determine the extent of damage. machine had to DETERMINE THE EXTENT OF DAMAGE. MACHINE HAD TO Be moved out of customer's bay, since it's half Way in, and shop not big enough. jumped starter WAY IN, AND SHOP NOT BIG ENOUGH. JUMPED STARTER Solenoid, bypassing main starter relay to move SOLENOID, BYPASSING MAIN STARTER RELAY TO MOVE Outside. looked up parts, ordered starter OUTSIDE. LOOKED UP PARTS, ORDERED STARTER Assembly since, main start relay not close by ASSEMBLY SINCE, MAIN START RELAY NOT CLOSE BY #3496255, and part of starter assembly. led #3496255, AND PART OF STARTER ASSEMBLY. LED Indicator #382-4475. 382-4475 lockout switches INDICATOR #382-4475. 382-4475 LOCKOUT SWITCHES Are not available according to dbs. don't know ARE NOT AVAILABLE ACCORDING TO DBS. DON'T KNOW When arrival will be. not done. 4764 july 6, 2017 received parts, not All. removed starter assembly, had to use crane ALL. REMOVED STARTER ASSEMBLY, HAD TO USE CRANE To pull up on wrench to loosen on all mounting TO PULL UP ON WRENCH TO LOOSEN ON ALL MOUNTING Starter bolts. installed starter in machine, put STARTER BOLTS. INSTALLED STARTER IN MACHINE, PUT Back all tinware, brackets, etc that had been BACK ALL TINWARE, BRACKETS, ETC THAT HAD BEEN Removed. removed indicator for engine safety REMOVED. REMOVED INDICATOR FOR ENGINE SAFETY Disable. noticed that the push in feature on the Holder could not be done. it's stuck, and on all HOLDER COULD NOT BE DONE. IT'S STUCK, AND ON ALL The time. this is why maybe the wires burned up THE TIME. THIS IS WHY MAYBE THE WIRES BURNED UP At holder. replaced indicator holder. used AT HOLDER. REPLACED INDICATOR HOLDER. USED Multimeter to check engine safety disable switch. MULTIMETER TO CHECK ENGINE SAFETY DISABLE SWITCH. Used schematic to determine connections. Switch does not
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DOES NOT CONNECT TO PIN 1 AND 2. NO QUICK Availability on the switches. used a 6 pin AVAILABILITY ON THE SWITCHES. USED A 6 PIN Connector, and bypassed u733 white, and g457 pink CONNECTOR, AND BYPASSED U733 WHITE, AND G457 PINK Wire. on the trans lock out switch, the WIRE. ON THE TRANS LOCK OUT SWITCH, THE Connection is not correct also. used a 6 pin Connector, wiring to bypass. connected t909 CONNECTOR, WIRING TO BYPASS. CONNECTED T909 Yellow to a723 black. this is a field fix, until YELLOW TO A723 BLACK. THIS IS A FIELD FIX, UNTIL We get the replacement switches. done for now.

Dec 19, 2017	Service	4,537	Rework Arm Rest
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Dec 19, 2017	Service	4,537	Troubleshoot & Repair No Start	Repair process comments: REPAIR PROCESS COMMENTS: 4764 july 3, 2017 had been mounting cat 4764 JULY 3, 2017 HAD BEEN MOUNTING CAT Detect for personnel on machine earlier in the DETECT FOR PERSONNEL ON MACHINE EARLIER IN THE Day; monitor, antenna unit, external alarm only. DAY; MONITOR, ANTENNA UNIT, EXTERNAL ALARM ONLY. Did not hook any wires up yet. at the same DID NOT HOOK ANY WIRES UP YET. AT THE SAME Time, a 2000 hour service was being performed, by Other personnel. no fault by anyone, just that OTHER PERSONNEL. NO FAULT BY ANYONE, JUST THAT The engine, and transmission disable switches THE ENGINE, AND TRANSMISSION DISABLE SWITCHES Were activated, along with the master switch. WERE ACTIVATED, ALONG WITH THE MASTER SWITCH. When the service was done, master was turned on, WHEN THE SERVICE WAS DONE, MASTER WAS TURNED ON, And was used to prime fuel filters. at that Time, the indicator burnt up, and caused damaged. TIME, THE INDICATOR BURNT UP, AND CAUSED DAMAGED. It was indicated that those safety switches have Never been used. used et, and multimeter to NEVER BEEN USED. USED ET, AND MULTIMETER TO Determine the extent of damage. machine had to DETERMINE THE EXTENT OF DAMAGE. MACHINE HAD TO Be moved out of customer's bay, since it's half Way in, and shop not big enough. jumped starter WAY IN, AND SHOP NOT BIG ENOUGH. JUMPED STARTER Solenoid, bypassing main starter relay to move SOLENOID, BYPASSING MAIN STARTER RELAY TO MOVE Outside. looked up parts, ordered starter OUTSIDE. LOOKED UP PARTS, ORDERED STARTER Assembly since, main start relay not close by ASSEMBLY SINCE, MAIN START RELAY NOT CLOSE BY #3496255, and part of starter assembly. led #3496255, AND PART OF STARTER ASSEMBLY. LED Indicator #382-4475. 382-4475 lockout switches INDICATOR #382-4475. 382-4475 LOCKOUT SWITCHES Are not available according to dbs. don't know ARE NOT AVAILABLE ACCORDING TO DBS. DON'T KNOW When arrival will be. not done. 4764 july 6, 2017 received parts, not All. removed starter assembly, had to use crane ALL. REMOVED STARTER ASSEMBLY, HAD TO USE CRANE To pull up on wrench to loosen on all mounting TO PULL UP ON WRENCH TO LOOSEN ON ALL MOUNTING Starter bolts. installed starter in machine, put STARTER BOLTS. INSTALLED STARTER IN MACHINE, PUT Back all tinware, brackets, etc that had been BACK ALL TINWARE, BRACKETS, ETC THAT HAD BEEN Removed. removed indicator for engine safety REMOVED. REMOVED INDICATOR FOR ENGINE SAFETY Disable. noticed that the push in feature on the Holder could not be done. it's stuck, and on all HOLDER COULD NOT BE DONE. IT'S STUCK, AND ON ALL The time. this is why maybe the wires burned up THE TIME. THIS IS WHY MAYBE THE WIRES BURNED UP At holder. replaced indicator holder. used AT HOLDER. REPLACED INDICATOR HOLDER. USED Multimeter to check engine safety disable switch. MULTIMETER TO CHECK ENGINE SAFETY DISABLE SWITCH. Used schematic to determine connections. Switch does not
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Sep 22, 2017	Service	4,530	Weld W/a.r.m. Cutting Edge	Part# 109-9080 qty:1 received 135 inches of arm PART# 109-9080 QTY:1 RECEIVED 135 INCHES OF ARM Part# 109-9081 qty:3 received 135 inches of arm PART# 109-9081 QTY:3 RECEIVED 135 INCHES OF ARM Part# 109-9082 qty:3 received 135 inches of arm Part# 467-9815 qty:8 received 54 inches of arm PART# 467-9815 QTY:8 RECEIVED 54 INCHES OF ARM Total inches received: 1377 TOTAL INCHES RECEIVED: 1377 . .
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Jul 06, 2017	Service	4,530	Perform 2000-hour Pm Service	Customer complaint: CUSTOMER COMPLAINT: Perform 2000 hour pm service. using customer PERFORM 2000 HOUR PM SERVICE. USING CUSTOMER Supplied oils. Repair process comments: Performed 2000 hour pm service. changed oil in; PERFORMED 2000 HOUR PM SERVICE. CHANGED OIL IN; Engine, transmission, front and rear ENGINE, TRANSMISSION, FRONT AND REAR Differentials. changed; engine, transmission, and Fuel filters. obtained samples from; engine oil, Transmission, hydraulic, coolant, front and rear TRANSMISSION, HYDRAULIC, COOLANT, FRONT AND REAR Differentials. customer requested to not have DIFFERENTIALS. CUSTOMER REQUESTED TO NOT HAVE Hydraulic oil filters changed due to them having HYDRAULIC OIL FILTERS CHANGED DUE TO THEM HAVING Been changed recently. during repair normal BEEN CHANGED RECENTLY. DURING REPAIR NORMAL Lockout/tagout procedure was followed. due to LOCKOUT/TAGOUT PROCEDURE WAS FOLLOWED. DUE TO Unrelated work being done to the machine while Service was being performed all safeties were SERVICE WAS BEING PERFORMED ALL SAFETIES WERE Activated (transmission and engine cranking ACTIVATED (TRANSMISSION AND ENGINE CRANKING Disabled). master switch was turned on, while DISABLED). MASTER SWITCH WAS TURNED ON, WHILE Trans and engine were still disabled, in order to TRANS AND ENGINE WERE STILL DISABLED, IN ORDER TO Propelry prime the fuel system. after fuel system PROPELRY PRIME THE FUEL SYSTEM. AFTER FUEL SYSTEM Was primed master was locked out again. once WAS PRIMED MASTER WAS LOCKED OUT AGAIN. ONCE Complete with service, and all safties COMPLETE WITH SERVICE, AND ALL SAFTIES Disengaged, an unsucesful attempt to start the Machine was made. the light for the engine Disable switch had shorted out causing the wires DISABLE SWITCH HAD SHORTED OUT CAUSING THE WIRES Behind the light to burn and become disconnected. BEHIND THE LIGHT TO BURN AND BECOME DISCONNECTED. Further diagnosis found that the starter relay Could be faulty causing the engine not to start. COULD BE FAULTY CAUSING THE ENGINE NOT TO START. Customer was notfied of this concern. no other CUSTOMER WAS NOTFIED OF THIS CONCERN. NO OTHER Concerns were present at this time. CONCERNS WERE PRESENT AT THIS TIME.
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Jun 13, 2017	Service	4,385	Troubleshoot & Repair Hydraulic Oil	Customer complaint: High hydraulic oil temp HIGH HYDRAULIC OIL TEMP Cause of failure: CAUSE OF FAILURE: Failed cooler bypass valve FAILED COOLER BYPASS VALVE Resultant damage: RESULTANT DAMAGE: The bypass valve is controlled by a thermostat. THE BYPASS VALVE IS CONTROLLED BY A THERMOSTAT. When the thermostat gets to operating temp it Opens and allows oil to flow through the cooler. OPENS AND ALLOWS OIL TO FLOW THROUGH THE COOLER. The thermostat failed causing the oil to dump Straight to the tank and not pass through the STRAIGHT TO THE TANK AND NOT PASS THROUGH THE Cooler. COOLER. Repair process comments: REPAIR PROCESS COMMENTS: Arrived at job at 9:00 am. talked with customer ARRIVED AT JOB AT 9:00 AM. TALKED WITH CUSTOMER About issue. hooked up et took psr. found a ABOUT ISSUE. HOOKED UP ET TOOK PSR. FOUND A Logged code e878(2) for high hydraulic temp 5 LOGGED CODE E878(2) FOR HIGH HYDRAULIC TEMP 5 Occurrences. looked up schematic and found the OCCURRENCES. LOOKED UP SCHEMATIC AND FOUND THE Cooling system to have a bypass valve. removed COOLING SYSTEM TO HAVE A BYPASS VALVE. REMOVED Valve and disassembled. found it to be a VALVE AND DISASSEMBLED. FOUND IT TO BE A Thermostat controlled valve. removed thermostat THERMOSTAT CONTROLLED VALVE. REMOVED THERMOSTAT And boiled it to see if it would open and it did AND BOILED IT TO SEE IF IT WOULD OPEN AND IT DID Not. valve failed causing the oil to not pass NOT. VALVE FAILED CAUSING THE OIL TO NOT PASS Through the hydraulic oil cooler and dump THROUGH THE HYDRAULIC OIL COOLER AND DUMP Straight to tank. ordered valve next day air for STRAIGHT TO TANK. ORDERED VALVE NEXT DAY AIR FOR Monday 6-12-17. also found the oil filters for MONDAY 6-12-17. ALSO FOUND THE OIL FILTERS FOR Tank return have not been replaced so ordered all TANK RETURN HAVE NOT BEEN REPLACED SO ORDERED ALL 3. job incomplete until valve is replaced and 3. JOB INCOMPLETE UNTIL VALVE IS REPLACED AND Machine is tested. 1071 6-9-17 MACHINE IS TESTED. 1071 6-9-17 Arrived at job. started removing fittings off the Old valve and installing new o-rings onto each OLD VALVE AND INSTALLING NEW O-RINGS ONTO EACH Fitting. installed valve and hooked up hoses. FITTING. INSTALLED VALVE AND HOOKED UP HOSES. Reinstalled guards. replaced all return filters To tank. replaced hydraulic temp sensor. added Oil. customer will run machine tomorrow as there OIL. CUSTOMER WILL RUN MACHINE TOMORROW AS THERE Shift had already ended. ran machine and temp was Staying low. customer will contact if machine has STAYING LOW. CUSTOMER WILL CONTACT IF MACHINE HAS Over heating issue again. job complete. 1071 6-12-17 6-12-17 Part causing failure: 459-1718 PART CAUSING FAILURE: 459-1718
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Jun 13, 2017	Service	4,385	Troubleshoot & Repair Hydraulic Oil	Customer complaint: High hydraulic oil temp HIGH HYDRAULIC OIL TEMP Cause of failure: CAUSE OF FAILURE: Failed cooler bypass valve FAILED COOLER BYPASS VALVE Resultant damage: RESULTANT DAMAGE: The bypass valve is controlled by a thermostat. THE BYPASS VALVE IS CONTROLLED BY A THERMOSTAT. When the thermostat gets to operating temp it Opens and allows oil to flow through the cooler. OPENS AND ALLOWS OIL TO FLOW THROUGH THE COOLER. The thermostat failed causing the oil to dump Straight to the tank and not pass through the STRAIGHT TO THE TANK AND NOT PASS THROUGH THE Cooler. COOLER. Repair process comments: REPAIR PROCESS COMMENTS: Arrived at job at 9:00 am. talked with customer ARRIVED AT JOB AT 9:00 AM. TALKED WITH CUSTOMER About issue. hooked up et took psr. found a ABOUT ISSUE. HOOKED UP ET TOOK PSR. FOUND A Logged code e878(2) for high hydraulic temp 5 LOGGED CODE E878(2) FOR HIGH HYDRAULIC TEMP 5 Occurrences. looked up schematic and found the OCCURRENCES. LOOKED UP SCHEMATIC AND FOUND THE Cooling system to have a bypass valve. removed COOLING SYSTEM TO HAVE A BYPASS VALVE. REMOVED Valve and disassembled. found it to be a VALVE AND DISASSEMBLED. FOUND IT TO BE A Thermostat controlled valve. removed thermostat THERMOSTAT CONTROLLED VALVE. REMOVED THERMOSTAT And boiled it to see if it would open and it did AND BOILED IT TO SEE IF IT WOULD OPEN AND IT DID Not. valve failed causing the oil to not pass NOT. VALVE FAILED CAUSING THE OIL TO NOT PASS Through the hydraulic oil cooler and dump THROUGH THE HYDRAULIC OIL COOLER AND DUMP Straight to tank. ordered valve next day air for STRAIGHT TO TANK. ORDERED VALVE NEXT DAY AIR FOR Monday 6-12-17. also found the oil filters for MONDAY 6-12-17. ALSO FOUND THE OIL FILTERS FOR Tank return have not been replaced so ordered all TANK RETURN HAVE NOT BEEN REPLACED SO ORDERED ALL 3. job incomplete until valve is replaced and 3. JOB INCOMPLETE UNTIL VALVE IS REPLACED AND Machine is tested. 1071 6-9-17 MACHINE IS TESTED. 1071 6-9-17 Arrived at job. started removing fittings off the Old valve and installing new o-rings onto each OLD VALVE AND INSTALLING NEW O-RINGS ONTO EACH Fitting. installed valve and hooked up hoses. FITTING. INSTALLED VALVE AND HOOKED UP HOSES. Reinstalled guards. replaced all return filters To tank. replaced hydraulic temp sensor. added Oil. customer will run machine tomorrow as there OIL. CUSTOMER WILL RUN MACHINE TOMORROW AS THERE Shift had already ended. ran machine and temp was Staying low. customer will contact if machine has STAYING LOW. CUSTOMER WILL CONTACT IF MACHINE HAS Over heating issue again. job complete. 1071 6-12-17 6-12-17 Part causing failure: 459-1718 PART CAUSING FAILURE: 459-1718
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May 22, 2017	Service	3,991	Weld W/a.r.m.	Customer complaint: Weld a.r.m. Cause of failure: Resultant damage: RESULTANT DAMAGE: N/A Repair process comments: REPAIR PROCESS COMMENTS: Set all parts on a.r.m. weld table. remove paint. SET ALL PARTS ON A.R.M. WELD TABLE. REMOVE PAINT. Begin a.r.m. weld process. part number 467-9815 BEGIN A.R.M. WELD PROCESS. PART NUMBER 467-9815 (qty: 8) received 45" inches of a.r.m. weld per (QTY: 8) RECEIVED 45" INCHES OF A.R.M. WELD PER Part. total amount of a.r.m. weld applied was PART. TOTAL AMOUNT OF A.R.M. WELD APPLIED WAS 360" inches. 360" INCHES. Part#467-9815 (qty:8) received 45 in each PART#467-9815 (QTY:8) RECEIVED 45 IN EACH Total of 360 inches
Apr 25, 2017	Service	3,991	Perform 500-hour Pm Service	Customer complaint: CUSTOMER COMPLAINT: 500 hour service 500 HOUR SERVICE Repair process comments: 4-21-17 (9496) 4-21-17 (9496) Took samples of engine, hydraulic, trans, coolant, Both diifs, and all final drives. replaced BOTH DIFFS, AND ALL FINAL DRIVES. REPLACED Engine, hydraulic and fuel filters. replaced ENGINE, HYDRAULIC AND FUEL FILTERS. REPLACED Engine oil. took product status report. customer ENGINE OIL. TOOK PRODUCT STATUS REPORT. CUSTOMER Provided oil. PROVIDED OIL. Note: noticed leak around starter. NOTE: NOTICED LEAK AROUND STARTER.
Feb 07, 2017	Service	3,406	Perform 1000-hour Pm Service	
Oct 10, 2016	Service	2,735	Perform 500-hour Pm Service	Repair process comments: REPAIR PROCESS COMMENTS: 10-10-16 (9496) 10-10-16 (9496) Arrived on job site at 1:00. did walk around ARRIVED ON JOB SITE AT 1:00. DID WALK AROUND Inspection. took oil samples of engine, hyd, INSPECTION. TOOK OIL SAMPLES OF ENGINE, HYD, Trans, and both diiffs. removed and replaced TRANS, AND BOTH DIIFFS. REMOVED AND REPLACED Engine oil. removed and replaced engine, ENGINE OIL. REMOVED AND REPLACED ENGINE, Hydraulic, trans, fuel cap and fuel filters. HYDRAULIC, TRANS, FUEL CAP AND FUEL FILTERS. Primed machine and fired machine up. job PRIMED MACHINE AND FIRED MACHINE UP. JOB Complete. COMPLETE. Customer will provide fluids CUSTOMER WILL PROVIDE FLUIDS

Sep 21, 2016	Service	2,186	Weld W/a.r.m.	Customer complaint: CUSTOMER COMPLAINT: Weld a.r.m. WELD A.R.M. Cause of failure: CAUSE OF FAILURE: N/A Resultant damage: N/A Repair process comments: REPAIR PROCESS COMMENTS: Set all parts on pallet to prep for sandblast. SET ALL PARTS ON PALLET TO PREP FOR SANDBLAST. Sandblast all parts to prep for a.r.m. weld SANDBLAST ALL PARTS TO PREP FOR A.R.M. WELD Process. set all parts on a.r.m. weld table. PROCESS. SET ALL PARTS ON A.R.M. WELD TABLE. Begin a.r.m. weld process. part number 467-9816 BEGIN A.R.M. WELD PROCESS. PART NUMBER 467-9816 (qty: 8) recieved 50 inches of a.r.m. weld per (QTY: 8) RECIEVED 50 INCHES OF A.R.M. WELD PER Part. part number 109-9080 (qty: 1) recieved PART. PART NUMBER 109-9080 (QTY: 1) RECIEVED 126" inches of a.r.m. weld per part. part 126" INCHES OF A.R.M. WELD PER PART. PART Number 109-9081 (qty: 3) recieved 121.5" inches NUMBER 109-9081 (QTY: 3) RECIEVED 121.5" INCHES Of a.r.m. weld per part. part number 109-9082 OF A.R.M. WELD PER PART. PART NUMBER 109-9082 (qty: 3) recieved 121.5" inches of a.r.m. weld Per part. total amount applied was 1,255" PER PART. TOTAL AMOUNT APPLIED WAS 1,255" Inches of a.r.m. weld. INCHES OF A.R.M. WELD. Part number 467-9816(qty: 8) recieved 50 inches PART NUMBER 467-9816(QTY: 8) RECIEVED 50 INCHES Part number 109-9080(qty: 1) received 126 inches Part number 109-9081(qty: 3) received 121.5 inches Part number 109-9082(qty: 3) received 121.5 inches PART NUMBER 109-9082(QTY: 3) RECEIVED 121.5 INCHES
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Sep 21, 2016	Service	2,186	Weld W/a.r.m.	Customer complaint: CUSTOMER COMPLAINT: Weld a.r.m. WELD A.R.M. Cause of failure: CAUSE OF FAILURE: N/A Resultant damage: N/A Repair process comments: REPAIR PROCESS COMMENTS: Set all parts on pallet to prep for sandblast. SET ALL PARTS ON PALLET TO PREP FOR SANDBLAST. Sandblast all parts to prep for a.r.m. weld SANDBLAST ALL PARTS TO PREP FOR A.R.M. WELD Process. set all parts on a.r.m. weld table. PROCESS. SET ALL PARTS ON A.R.M. WELD TABLE. Begin a.r.m. weld process. part number 467-9816 BEGIN A.R.M. WELD PROCESS. PART NUMBER 467-9816 (qty: 8) recieved 50 inches of a.r.m. weld per (QTY: 8) RECIEVED 50 INCHES OF A.R.M. WELD PER Part. part number 109-9080 (qty: 1) recieved PART. PART NUMBER 109-9080 (QTY: 1) RECIEVED 126" inches of a.r.m. weld per part. part 126" INCHES OF A.R.M. WELD PER PART. PART Number 109-9081 (qty: 3) recieved 121.5" inches NUMBER 109-9081 (QTY: 3) RECIEVED 121.5" INCHES Of a.r.m. weld per part. part number 109-9082 OF A.R.M. WELD PER PART. PART NUMBER 109-9082 (qty: 3) recieved 121.5" inches of a.r.m. weld Per part. total amount applied was 1,255" PER PART. TOTAL AMOUNT APPLIED WAS 1,255" Inches of a.r.m. weld. INCHES OF A.R.M. WELD. Part number 467-9816(qty: 8) recieved 50 inches PART NUMBER 467-9816(QTY: 8) RECIEVED 50 INCHES Part number 109-9080(qty: 1) received 126 inches Part number 109-9081(qty: 3) received 121.5 inches Part number 109-9082(qty: 3) received 121.5 inches PART NUMBER 109-9082(QTY: 3) RECEIVED 121.5 INCHES
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Sep 21, 2016	Service	2,186	Weld W/a.r.m.	Customer complaint: CUSTOMER COMPLAINT: Weld a.r.m. WELD A.R.M. Cause of failure: CAUSE OF FAILURE: N/A Resultant damage: N/A Repair process comments: REPAIR PROCESS COMMENTS: Set all parts on pallet to prep for sandblast. SET ALL PARTS ON PALLET TO PREP FOR SANDBLAST. Sandblast all parts to prep for a.r.m. weld SANDBLAST ALL PARTS TO PREP FOR A.R.M. WELD Process. set all parts on a.r.m. weld table. PROCESS. SET ALL PARTS ON A.R.M. WELD TABLE. Begin a.r.m. weld process. part number 467-9816 BEGIN A.R.M. WELD PROCESS. PART NUMBER 467-9816 (qty: 8) recieved 50 inches of a.r.m. weld per (QTY: 8) RECIEVED 50 INCHES OF A.R.M. WELD PER Part. part number 109-9080 (qty: 1) recieved PART. PART NUMBER 109-9080 (QTY: 1) RECIEVED 126" inches of a.r.m. weld per part. part 126" INCHES OF A.R.M. WELD PER PART. PART Number 109-9081 (qty: 3) recieved 121.5" inches NUMBER 109-9081 (QTY: 3) RECIEVED 121.5" INCHES Of a.r.m. weld per part. part number 109-9082 OF A.R.M. WELD PER PART. PART NUMBER 109-9082 (qty: 3) recieved 121.5" inches of a.r.m. weld Per part. total amount applied was 1,255" PER PART. TOTAL AMOUNT APPLIED WAS 1,255" Inches of a.r.m. weld. INCHES OF A.R.M. WELD. Part number 467-9816(qty: 8) recieved 50 inches PART NUMBER 467-9816(QTY: 8) RECIEVED 50 INCHES Part number 109-9080(qty: 1) received 126 inches Part number 109-9081(qty: 3) received 121.5 inches Part number 109-9082(qty: 3) received 121.5 inches PART NUMBER 109-9082(QTY: 3) RECEIVED 121.5 INCHES
Apr 28, 2016	Service	1,527	Perform 500-hour Pm Service	Repair process comments: Took oil samples of engine, hydraulic, trans and TOOK OIL SAMPLES OF ENGINE, HYDRAULIC, TRANS AND Both differentials. drained engine oil. removed And replaced engine, hydraulic, and fuel filters. Oil that was added back to the machine was OIL THAT WAS ADDED BACK TO THE MACHINE WAS Provided by the customer. ran machine and no Problems were visible. PROBLEMS WERE VISIBLE.
Feb 19, 2016	Service	1,077	Perform 1000-hour Pm Service	Repair process comments: REPAIR PROCESS COMMENTS: Performed the 1000 hr service, changed engine oil, PERFORMED THE 1000 HR SERVICE, CHANGED ENGINE OIL, And filter, changed transmission oil, changed AND FILTER, CHANGED TRANSMISSION OIL, CHANGED Both fuel filters, and water/fuel sep, took BOTH FUEL FILTERS, AND WATER/FUEL SEP, TOOK Samples of engine, hyd, trans, diffs. changed The fuel cap filter assy. checked the batteries, THE FUEL CAP FILTER ASSY. CHECKED THE BATTERIES, And connections good. checked all safety AND CONNECTIONS GOOD. CHECKED ALL SAFETY Equipment. changed hydraulic filters, both. EQUIPMENT. CHANGED HYDRAULIC FILTERS, BOTH. Checked the axle level, good front and CHECKED THE AXLE LEVEL, GOOD FRONT AND Rear.checked all lights, good. consulted with REAR.CHECKED ALL LIGHTS, GOOD. CONSULTED WITH The customer all the work performed.

Feb 11, 2016	Service	830	Trouble Shoot Tilt Bucket	Customer complaint: CUSTOMER COMPLAINT: Bucket tilt wont kick out BUCKET TILT WONT KICK OUT Cause of failure: CAUSE OF FAILURE: Damaged sensor DAMAGED SENSOR Resultant damage: RESULTANT DAMAGE: Wont kick out WONT KICK OUT Repair process comments: REPAIR PROCESS COMMENTS: I started by hooking up e/t to machine and found I STARTED BY HOOKING UP E/T TO MACHINE AND FOUND Active code sensor voltage above normal i tested The sensor and found it to be bad, so i ordered a THE SENSOR AND FOUND IT TO BE BAD, SO I ORDERED A New one and will return the next day. NEW ONE AND WILL RETURN THE NEXT DAY.
Feb 11, 2016	Service	830	Travel To/from Job Site	
Feb 11, 2016	Service	830	Trouble Shoot Tilt Bucket	Customer complaint: CUSTOMER COMPLAINT: Bucket tilt wont kick out BUCKET TILT WONT KICK OUT Cause of failure: CAUSE OF FAILURE: Damaged sensor DAMAGED SENSOR Resultant damage: RESULTANT DAMAGE: Wont kick out WONT KICK OUT Repair process comments: REPAIR PROCESS COMMENTS: I started by hooking up e/t to machine and found I STARTED BY HOOKING UP E/T TO MACHINE AND FOUND Active code sensor voltage above normal i tested The sensor and found it to be bad, so i ordered a THE SENSOR AND FOUND IT TO BE BAD, SO I ORDERED A New one and will return the next day. NEW ONE AND WILL RETURN THE NEXT DAY.
Feb 11, 2016	Service	830	Travel To/from Job Site	
Feb 11, 2016	Service	830	Trouble Shoot Tilt Bucket	Customer complaint: CUSTOMER COMPLAINT: Bucket tilt wont kick out BUCKET TILT WONT KICK OUT Cause of failure: CAUSE OF FAILURE: Damaged sensor DAMAGED SENSOR Resultant damage: RESULTANT DAMAGE: Wont kick out WONT KICK OUT Repair process comments: REPAIR PROCESS COMMENTS: I started by hooking up e/t to machine and found I STARTED BY HOOKING UP E/T TO MACHINE AND FOUND Active code sensor voltage above normal i tested The sensor and found it to be bad, so i ordered a THE SENSOR AND FOUND IT TO BE BAD, SO I ORDERED A New one and will return the next day. NEW ONE AND WILL RETURN THE NEXT DAY.

Jan 30, 2016	Service	830	Trouble Shoot Tilt Bucket	Customer complaint: CUSTOMER COMPLAINT: Bucket tilt wont kick out BUCKET TILT WONT KICK OUT Cause of failure: CAUSE OF FAILURE: Damaged sensor DAMAGED SENSOR Resultant damage: RESULTANT DAMAGE: Wont kick out WONT KICK OUT Repair process comments: REPAIR PROCESS COMMENTS: I started by hooking up e/t to machine and found I STARTED BY HOOKING UP E/T TO MACHINE AND FOUND Active code sensor voltage above normal i tested The sensor and found it to be bad, so i ordered a THE SENSOR AND FOUND IT TO BE BAD, SO I ORDERED A New one and will return the next day. NEW ONE AND WILL RETURN THE NEXT DAY.
Jan 30, 2016	Service	830	Travel To/from Job Site	
Jan 30, 2016	Service	830	Trouble Shoot Tilt Bucket	Customer complaint: CUSTOMER COMPLAINT: Bucket tilt wont kick out BUCKET TILT WONT KICK OUT Cause of failure: CAUSE OF FAILURE: Damaged sensor DAMAGED SENSOR Resultant damage: RESULTANT DAMAGE: Wont kick out WONT KICK OUT Repair process comments: REPAIR PROCESS COMMENTS: I started by hooking up e/t to machine and found I STARTED BY HOOKING UP E/T TO MACHINE AND FOUND Active code sensor voltage above normal i tested The sensor and found it to be bad, so i ordered a THE SENSOR AND FOUND IT TO BE BAD, SO I ORDERED A New one and will return the next day. NEW ONE AND WILL RETURN THE NEXT DAY.
Dec 05, 2015	Service	1	500 Hour Pm	
Nov 16, 2015	Parts			

FLUID ANALYSIS (148 Records)

Aug 03, 2024	No Action Required	21,831	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2024	No Action Required	21,831	Final Drive Rear Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2024	No Action Required	21,831	Final Drive Front Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2024	Monitor	21,831	Engine	LEAD IS ELEVATED AND MAY INDICATE BEARING WEAR. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Aug 03, 2024	Monitor	21,831	Engine	LEAD IS ELEVATED AND MAY INDICATE BEARING WEAR. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Aug 03, 2024	No Action Required	21,831	Hydraulic System	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2024	No Action Required	21,831	Final Drive Front Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2024	No Action Required	21,831	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Aug 03, 2024	 No Action Required	21,831	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2024	 No Action Required	21,831	Final Drive Rear Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 03, 2024	 No Action Required	21,535	Final Drive Front Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 03, 2024	 No Action Required	21,535	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 03, 2024	 No Action Required	21,535	Final Drive Front Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 03, 2024	 No Action Required	21,535	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 03, 2024	 No Action Required	21,535	Final Drive Rear Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 03, 2024	 No Action Required	21,535	Final Drive Rear Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 03, 2024	 No Action Required	21,535	Engine	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Jun 03, 2024	 No Action Required	21,535	Hydraulic System	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 03, 2024	 No Action Required	21,535	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Final Drive Front Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Hydraulic System	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Final Drive Rear Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 Monitor	21,241	Engine	UNKNOWN HOURS ON THE OIL. LEAD IS ELEVATED AND MAY INDICATE BEARING WEAR. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Apr 23, 2024	 No Action Required	21,241	Hydraulic System	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Apr 23, 2024	 No Action Required	21,241	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Final Drive Rear Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Final Drive Front Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Final Drive Rear Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Final Drive Front Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Final Drive Rear Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Apr 23, 2024	 No Action Required	21,241	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 23, 2024	 No Action Required	21,241	Final Drive Front Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Mar 25, 2024	 No Action Required	21,005	Hub Right Trailer	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. MORE SAMPLE HISTORY NEEDED TO ESTABLISH A NORMAL WEAR TREND. CONTINUE SAMPLING AT NORMAL INTERVAL.
Mar 25, 2024	 No Action Required	21,005	Hub Left Trailer	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. MORE SAMPLE HISTORY NEEDED TO ESTABLISH A NORMAL WEAR TREND. CONTINUE SAMPLING AT NORMAL INTERVAL.
Mar 25, 2024	 No Action Required	21,005	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Mar 25, 2024	 No Action Required	21,005	Bearing Front Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. MORE SAMPLE HISTORY NEEDED TO ESTABLISH A NORMAL WEAR TREND. CONTINUE SAMPLING AT NORMAL INTERVAL.
Mar 25, 2024	 No Action Required	21,005	Bearing Front Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. MORE SAMPLE HISTORY NEEDED TO ESTABLISH A NORMAL WEAR TREND. CONTINUE SAMPLING AT NORMAL INTERVAL.
Mar 25, 2024	 No Action Required	21,005	Engine	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Mar 25, 2024	 No Action Required	21,005	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Mar 25, 2024	 No Action Required	21,005	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Mar 25, 2024	 No Action Required	21,005	Hydraulic System	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 21, 2024	 No Action Required	NaN	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 21, 2024	 No Action Required	NaN	Hydraulic System	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 21, 2024	 No Action Required	NaN	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 21, 2024	 No Action Required	NaN	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 21, 2024	 No Action Required	NaN	Engine	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Jan 03, 2024	 No Action Required	20,540	Differential Rear	VISCOSITY IS LOW FOR A 50.PLEASE CONFIRM WT. OF OIL BEING USED IN THIS COMPARTMENT. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jan 03, 2024	 No Action Required	20,540	Differential Front	VISCOSITY IS LOW FOR A 50.PLEASE CONFIRM WT. OF OIL BEING USED IN THIS COMPARTMENT. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jan 03, 2024	 No Action Required	20,540	Final Drive Front Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jan 03, 2024	 No Action Required	20,540	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jan 03, 2024	 No Action Required	20,540	Final Drive Rear Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jan 03, 2024	 No Action Required	20,540	Final Drive Front Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jan 03, 2024	 Monitor	20,540	Hydraulic System	TRACE LEVELS OF WATER DETECTED (0.1%) MAY BE CONDENSATION. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. RESAMPLE IN 250 HOURS TO MONITOR.
Jan 03, 2024	 No Action Required	20,539	Engine	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Jan 03, 2024	 No Action Required	20,540	Final Drive Rear Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 21, 2023	 No Action Required	20,360	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 21, 2023	 Monitor	20,360	Engine	UNKNOWN HOURS ON THE OIL. LEAD IS ELEVATED AND MAY INDICATE BEARING WEAR. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. CHANGE OIL AND FILTER(S) AND RESAMPLE IN 250 HOURS TO MONITOR.
Nov 21, 2023	 No Action Required	20,360	Hydraulic System	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Oct 06, 2023	 No Action Required	20,116	Hydraulic System	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Oct 06, 2023	 No Action Required	20,116	Engine	COPPER ALONE USUALLY INDICATES COOLER CORE LEACHING (NO FAILURE) AND IS NOT NORMALLY WEAR OF BRONZE/BRASS PARTS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2023	 No Action Required	19,703	Differential Rear	UNKNOWN HOURS ON THE OIL. VISCOSITY IS LOW FOR A 50.PLEASE CONFIRM WT. OF OIL BEING USED IN THIS COMPARTMENT. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2023	 No Action Required	19,703	Hydraulic System	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Aug 03, 2023	 No Action Required	19,703	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2023	 No Action Required	19,703	Engine	UNKNOWN HOURS ON THE OIL. COPPER IS HIGH. COPPER ALONE USUALLY INDICATES COOLER CORE LEACHING (NO FAILURE) AND IS NOT NORMALLY WEAR OF BRONZE/BRASS PARTS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 03, 2023	 No Action Required	19,703	Differential Front	UNKNOWN HOURS ON THE OIL. VISCOSITY IS LOW FOR A 50.PLEASE CONFIRM WT. OF OIL BEING USED IN THIS COMPARTMENT. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 22, 2023	 No Action Required	19,010	Engine	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 22, 2023	 No Action Required	19,101	Hydraulic System	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 22, 2023	 No Action Required	19,101	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 11, 2023	 No Action Required	18,547	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 11, 2023	 Monitor	18,547	Hydraulic System	PARTICLE COUNT IS ELEVATED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. CHANGE OIL AND FILTER(S) AND RESAMPLE IN 250 HOURS TO MONITOR.
Feb 11, 2023	 No Action Required	18,547	Engine	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Nov 08, 2022	 Monitor	18,080	Engine	UNKNOWN HOURS ON THE OIL. IRON IS ELEVATED AND MAY INDICATE CYLINDER WEAR. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Nov 08, 2022	 No Action Required	18,080	Hydraulic System	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 08, 2022	 No Action Required	18,080	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 24, 2022	 Action Required	17,363	Engine	SODIUM LEVEL IS HIGH. NO GLYCOL/WATER DETECTED AND MAY BE BURNING OFF IN THE COMBUSTION PROCESS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. PRESSURIZE COOLING SYSTEM TO CHECK FOR POSSIBLE SOURCES OF COOLANT ENTRY AND REPAIR AS NECESSARY.
Feb 01, 2022	 Monitor	17,078	Hydraulic System	PARTICLE COUNT IS ELEVATED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Feb 01, 2022	 No Action Required	17,078	Engine	SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 01, 2022	 Monitor	17,078	Hydraulic System	PARTICLE COUNT IS ELEVATED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Feb 01, 2022	 No Action Required	17,078	Engine	SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Feb 01, 2022	 No Action Required	17,078	Transmission Power Shift	COPPER ALONE USUALLY INDICATES COOLER CORE LEACHING (NO FAILURE) AND IS NOT NORMALLY WEAR OF BRONZE/BRASS PARTS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 01, 2022	 No Action Required	17,078	Transmission Power Shift	COPPER ALONE USUALLY INDICATES COOLER CORE LEACHING (NO FAILURE) AND IS NOT NORMALLY WEAR OF BRONZE/BRASS PARTS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 10, 2021	 Monitor	16,552	Engine	SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. LEAD IS ELEVATED AND MAY INDICATE BEARING WEAR. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. MONITOR FLUID LEVELS/USAGE RESAMPLE IN 100 HOURS TO MONITOR.
Nov 10, 2021	 Monitor	16,552	Hydraulic System	PARTICLE COUNT IS HIGH. SILICON AND ALUMINUM ARE ELEVATED AND MAY INDICATE DIRT ENTRY. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. INSPECT FOR SOURCE OF DIRT ENTRY INTO THE SYSTEM. RESAMPLE IN 250 HOURS TO MONITOR.
Nov 10, 2021	 Monitor	16,552	Hydraulic System	PARTICLE COUNT IS HIGH. SILICON AND ALUMINUM ARE ELEVATED AND MAY INDICATE DIRT ENTRY. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. INSPECT FOR SOURCE OF DIRT ENTRY INTO THE SYSTEM. RESAMPLE IN 250 HOURS TO MONITOR.
Nov 10, 2021	 No Action Required	16,552	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 10, 2021	 No Action Required	16,552	Differential Front	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Aug 30, 2021	 No Action Required	15,996	Engine	SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 30, 2021	 No Action Required	15,996	Transmission Power Shift	COPPER ALONE USUALLY INDICATES COOLER CORE LEACHING (NO FAILURE) AND IS NOT NORMALLY WEAR OF BRONZE/BRASS PARTS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 30, 2021	 No Action Required	15,996	Engine	SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Aug 30, 2021	 Monitor	15,996	Hydraulic System	PARTICLE COUNT IS HIGH. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Jul 26, 2021	 Monitor	15,500	Hydraulic System	PARTICLE COUNT IS ELEVATED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Jun 26, 2021	 No Action Required	15,500	Engine	SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 26, 2021	 Monitor	15,500	Transmission Power Shift	PARTICLE COUNT IS ELEVATED. COPPER HAS INCREASED ABOVE THE TREND. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.

Apr 24, 2021	 No Action Required	15,073	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 24, 2021	 Monitor	15,073	Hydraulic System	UNKNOWN HOURS ON THE OIL. PARTICLE COUNT IS HIGH. SILICON AND ALUMINUM ARE ELEVATED AND MAY INDICATE DIRT ENTRY. IRON IS ELEVATED AND MAY INDICATE CYLINDER WEAR. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. INSPECT FOR SOURCE OF DIRT ENTRY INTO THE SYSTEM. OIL AND FILTER WERE CHANGED. RESAMPLE IN 250 HOURS TO MONITOR.
Apr 24, 2021	 No Action Required	NaN	Engine	UNKNOWN HOURS ON THE OIL. SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 24, 2021	 No Action Required	15,073	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 19, 2021	 Monitor	14,576	Engine	SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 19, 2021	 Monitor	14,576	Engine	SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 27, 2020	 Monitor	14,074	Engine	SODIUM IS ELEVATED NO GLYCOL DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. MONITOR FLUID LEVELS/USAGE RESAMPLE IN 250 HOURS TO MONITOR.

Nov 27, 2020	 No Action Required	14,074	Transmission Power Shift	COPPER ALONE USUALLY INDICATES COOLER CORE LEACHING (NO FAILURE) AND IS NOT NORMALLY WEAR OF BRONZE/BRASS PARTS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 27, 2020	 No Action Required	14,074	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 27, 2020	 Monitor	14,074	Engine	SODIUM IS ELEVATED NO GLYCOL DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. MONITOR FLUID LEVELS/USAGE RESAMPLE IN 250 HOURS TO MONITOR.
Nov 27, 2020	 No Action Required	14,074	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 29, 2020	 No Action Required	13,072	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 29, 2020	 No Action Required	13,072	Engine	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 29, 2020	 No Action Required	13,072	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jun 29, 2020	 No Action Required	13,072	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

May 02, 2020	 Monitor	12,500	Engine	UNKNOWN HOURS ON THE OIL. SODIUM IS ELEVATED NO GLYCOL DETECTED. LEAD IS ELEVATED AND MAY INDICATE BEARING WEAR. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. MONITOR FLUID LEVELS/USAGE CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Mar 14, 2020	 No Action Required	12,027	Differential Center	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. MORE SAMPLE HISTORY NEEDED TO ESTABLISH A NORMAL WEAR TREND. CONTINUE SAMPLING AT NORMAL INTERVAL.
Mar 14, 2020	 No Action Required	12,027	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Feb 29, 2020		12,027	Engine	SAMPLE LABEL AND BOTTLE CAP INDICATE THIS IS FROM THE ENGINE COMPARTMENT. VISCOSITY AND OIL ADDITIVES DO NOT APPEAR TO BE ENGINE OIL. RECOMMEND TO RESAMPLE TO CONFIRM ANALYSIS.
Feb 29, 2020	 Monitor	12,027	Hydraulic System	UNKNOWN HOURS ON THE OIL. OIL TOO DARK FOR PARTICLE COUNT TO REGISTER VALUES AND IS HIGH. VISCOSITY IS ELEVATED FOR A 10WT. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. CHANGE OIL AND FILTER(S) AND RESAMPLE IN 250 HOURS TO MONITOR.
Feb 29, 2020	 No Action Required	12,027	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jan 18, 2020	 No Action Required	12,027	Engine	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Oct 29, 2019	 No Action Required	10,924	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. COPPER ALONE USUALLY INDICATES COOLER CORE LEACHING (NO FAILURE) AND IS NOT NORMALLY WEAR OF BRONZE/BRASS PARTS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Oct 29, 2019	 No Action Required	10,924	Hydraulic System	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Oct 29, 2019	 No Action Required	10,924	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Oct 29, 2019	 No Action Required	10,924	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. COPPER ALONE USUALLY INDICATES COOLER CORE LEACHING (NO FAILURE) AND IS NOT NORMALLY WEAR OF BRONZE/BRASS PARTS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Oct 29, 2019	 No Action Required	10,924	Engine	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Oct 29, 2019	 No Action Required	10,924	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Oct 29, 2019	 No Action Required	10,924	Engine	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Sep 21, 2019	 No Action Required	10,573	Engine	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Apr 18, 2019	 No Action Required	9,212	Transmission Power Shift	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Apr 18, 2019	 No Action Required	9,212	Engine	UNKNOWN HOURS ON THE OIL. SODIUM IS ELEVATED. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jan 17, 2019	 Action Required	8,635	Engine	SODIUM LEVEL IS HIGH. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. PRESSURIZE COOLING SYSTEM TO CHECK FOR POSSIBLE SOURCES OF COOLANT ENTRY AND REPAIR AS NECESSARY.
Jan 17, 2019	 Action Required	8,635	Engine	SODIUM LEVEL IS HIGH. NO GLYCOL/WATER DETECTED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. PRESSURIZE COOLING SYSTEM TO CHECK FOR POSSIBLE SOURCES OF COOLANT ENTRY AND REPAIR AS NECESSARY.
Nov 02, 2018	 No Action Required	8,119	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 02, 2018	 No Action Required	8,119	Differential Front	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 02, 2018	 No Action Required	8,119	Differential Rear	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 02, 2018	 No Action Required	8,119	Final Drive Rear Left	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Nov 02, 2018	 No Action Required	8,119	Final Drive Rear Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 01, 2018	 No Action Required	8,119	Differential Center	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. MORE SAMPLE HISTORY NEEDED TO ESTABLISH A NORMAL WEAR TREND. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 01, 2018	 No Action Required	8,119	Differential Center	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. MORE SAMPLE HISTORY NEEDED TO ESTABLISH A NORMAL WEAR TREND. CONTINUE SAMPLING AT NORMAL INTERVAL.
Nov 01, 2018	 No Action Required	8,119	Final Drive Rear Right	UNKNOWN HOURS ON THE OIL. ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Oct 28, 2018	 Monitor	8,119	Hydraulic System	UNKNOWN HOURS ON THE OIL. PARTICLE COUNT IS ELEVATED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.
Oct 25, 2018	 Action Required	8,119	Engine	SODIUM LEVEL IS HIGH. POTASSIUM IS ELEVATED. NO GLYCOL/WATER DETECTED AND MAY BE BURNING OFF IN THE COMBUSTION PROCESS. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. PRESSURIZE COOLING SYSTEM TO CHECK FOR POSSIBLE SOURCES OF COOLANT ENTRY AND REPAIR AS NECESSARY.
Oct 25, 2018	 No Action Required	9,005	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Sep 21, 2018	 No Action Required	9,006	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.

Sep 21, 2018	 No Action Required	9,006	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Sep 21, 2018	 Monitor	9,005	Engine	UNKNOWN HOURS ON THE OIL. IRON IS ELEVATED AND MAY INDICATE CYLINDER WEAR. LEAD IS ELEVATED AND MAY INDICATE BEARING WEAR. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. CHANGE OIL AND FILTER(S) AND RESAMPLE IN 100 HOURS TO MONITOR.
Jul 26, 2018	 No Action Required	7,443	Transmission Power Shift	ALL TESTS APPEAR NORMAL. CONTINUE SAMPLING AT NORMAL INTERVAL.
Jul 26, 2018	 Action Required	7,443	Engine	SODIUM LEVEL IS HIGH. POTASSIUM IS HIGH. NO GLYCOL/WATER DETECTED AND MAY BE BURNING OFF IN THE COMBUSTION PROCESS. IRON IS ELEVATED AND MAY INDICATE CYLINDER WEAR. LEAD IS ELEVATED AND MAY INDICATE BEARING WEAR. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. PRESSURIZE COOLING SYSTEM TO CHECK FOR POSSIBLE SOURCES OF COOLANT ENTRY AND REPAIR AS NECESSARY. E-MAILED RESULTS TO SERVICE BRANCH
Jul 26, 2018	 Monitor	7,443	Hydraulic System	PARTICLE COUNT IS ELEVATED. ALL OTHER ANALYSIS READINGS APPEAR NORMAL. CUT OPEN FILTER(S) AND INSPECT FOR DEBRIS. RESAMPLE IN 250 HOURS TO MONITOR.

PSP (15 Records)

Issue Date	End Date	PSP No.	Description	Status
May 09, 2023	May 31, 2025	PS55074	Replacing the water lines elbow on certa	Expired
Mar 09, 2023	Oct 31, 2023	PS54720	Reworking the park brake valve on certai	Expired
Jun 27, 2022	Jul 31, 2022	PS54360	Replacing the def pump on certain caterp	Expired
May 11, 2022	Mar 31, 2024	PS54820	Replacing the fuel tank on certain 988k	Expired
Jun 02, 2021	Jun 30, 2023	PS54609	Reworking the alternator ground cable on	Expired
Dec 18, 2019	Dec 31, 2019	PS46188	Updating product link pl121 satellite ra	Expired
Dec 06, 2019	Apr 30, 2021	PS46233	Replacing the current ride control check	Expired
Jun 27, 2019	Jun 30, 2021	PS54088	Replacing the engine oil hoses on certai	Expired
Jan 15, 2019	Aug 31, 2023	PS53847	Replacing 516-9693 cylinder liners on ce	Expired
Nov 01, 2018	Nov 30, 2020	PS53884	Reworking front frame welds on certain 9	Expired
Apr 09, 2018	Mar 31, 2020	PS53721	Product support program replacing the 36	Expired
Nov 29, 2017	Nov 30, 2019	PS53640	Reworking the fuel pickup tube on certai	Expired
Jun 23, 2017	Jun 30, 2019	PS53495	Replacing nrs coolers on certain 824k/83	Expired
Jan 04, 2016	Jan 31, 2018	PS44954	Repairing the flow sharing valve and ste	Expired
Jul 30, 2015	Jul 31, 2018	PS52985	Replacing the transmission oil cooler ho	Expired

CONFIGURATION (37 Records)

Configuration Code	Description
1099051	SEGMENT, BOLT-ON,SET OF 7
2297122	TIP, PENETRATION
3450538	LIGHTS, STANDARD
3463859	RADIO, CB (READY)
3463863	VISOR, CAB
3463864	MIRRORS, STANDARD
3474900	LIFT, STANDARD 2V
3474940	ENGINE, BRAKE
3474960	BUCKET-ROCK 10.0 CYD
3475045	DECALS, ANSI
3475105	NO SOUND SUPPRESSION
3475108	FUEL TANK, FAST FILL
3475138	GUARD, STEERING CYLINDER
3475246	AXLES, STANDARD
3566437	PROTECTORS, SIDEBAR (SET OF 2)
3594566	TIRES,35/65 R33 XLDD2 ** MX L5
3672710	LOADER, STANDARD
3675432	COOLER, AXLE OIL
3675580	AUTOLUBE, CENTROMATIC
3723042	DETECTION, OBJECT (RADAR)
3729038	GUARD, CRANKCASE
3737057	RIDE CONTROL
3739357	HYDRAULIC ARRANGEMENT, CANADA
3754687	CAB GLASS, STANDARD
3761572	OIL CHANGE SYSTEM, HIGH SPEED
3764800	CAB DOOR, STANDARD WINDOW (LH)
3766936	STEERING, STANDARD
3779320	PRECLEANER, TURBINE
3814540	SEAT BELT, 3", 2-POINT, MINDER
3832164	PRECLEANER, STANDARD
4333842	WEATHER AR, STANDARD

4351139	PRODUCT LINK PL321
4351144	HYDRAULIC OIL, STD
4521394	RADIO GP
4562024	TRANSPORT, BKT REM
4675822	CPM PAYLOAD WEIGHING READY
4696681	SEAT, STANDARD