

User: E500

Catalog #:

D6T Track Type Tractors, 2009
SN: OKJL00890Current Hours (SMU): 8650
Sale Date: 01/05/2009

Delivery Date: 01/05/2009

Service History

Service Date	Invoice Type	Hours	Description	Service Notes
01/20/2009	Service	4	INSTALL BLADE	INSTALL DOZER BEFORE SHIPPING TO ALTOONA. HYDRAULIC OIL SAMPLES WERE BEFORE BLADE 16/13 AND AFTER BLADE 17/13.
01/20/2009	Service	4	INSTALL RADIO	INSTALL RADIO BEFORE SENDING TO ALTOONA
02/28/2009	Service	12	PERFORM MAINTENANCE ON PRE-DELIVERY INSPECTION	PDI OKAY
02/28/2009	Service	12	PERFORM 10 SERVICE HOUR MAINT	WENT THROUGH THE PDI CHECK LIST. CHECKED ALL THE OILS. THE HYDRAULIC OIL WAS LOW BY 2 GALLON. LOW IDLE WAS 800 RPM AND HIGH IDLE WAS 2010 RPM. A/C LOW WAS 13 PSI AND A/C HIGH WAS 160 PSI. THE SHOP TEMP WAS 65 DEG. THE COOLANT WAS -55 DEG. OPERATED THE MACHINE AND CHECKED FOR LEAKS. NO LEAKS FOUND AT THIS TIME.
02/28/2009	Service	12	PERFORM MAINTENANCE ON PRE-DELIVERY INSPECTION	PDI OKAY
02/28/2009	Service	12	FINAL INSPECT MACHINE	
02/28/2009	Service	12	CLEAN MACHINE	WASHED UNDERCARRIAGE. WASHED MACHINE, CLEANED CAB AND WINDOWS.
02/28/2009	Service	12	TOUCH-UP MACHINE	SANDED DOZER AND LIFTING ARMS, BLEW OFF DUST. MASKED MACHINE AND PAINTED DOZER AND ARMS. UNMASKED. TOUCHED SMALL AREAS WITH PAINT BRUSH. 3 QUARTS CAT YELLOW PAINT.
02/28/2009	Service	12	INSTALL WEAR PLATE	REPAIR PROCESS COMMENTS: CLEAN OFF PAINT FROM DOZER FACE. CUT PUSH PLATE TO FIT DOZER BLADE. INSTALL ON BLADE AND PRESS IN PLACE WITH C/CLAMP. WELD PUSH PLATE TO DOZER BLADE. CLEAN UP AREA WITH SOFT DISC.
02/28/2009	Service	12	INSTALL PRODUCT LINK SYSTEM	INCLUDE ACTIVATION OF PRODUCT LINK YY INSTALLED PRODUCT LINK PL321.
02/28/2009	Service	12	INSTALL AUTOMATIC GRADE CONTROL	
02/28/2009	Service	12	TEST/CHECK & ADJUST BLADE	REDO JOINTS YY BOTH THE TRUNNIONS WERE TOO LOOSE. I REMOVED THE TWO END CAPS AND RE-SHIMMED BOTH OF THE TRUNNIONS. BOTH OF THE LIFT CYLINDERS WERE TOO TIGHT. REMOVED BOTH THE CAPS AND RE-SHIMMED THEM. THE TILT CYLINDER WAS LOOSE. I REMOVED THE END CAP AND RE-SHIMMED IT. OPERATED THE MACHINE ONCE ALL THE PIVOT POINTS WERE RE-SHIMMED. THEY WERE ALL GOOD.
02/28/2009	Service	12	PERFORM SYSTEMS ANALYSIS	PULLED MACHINE UP TO SHOP AND CYCLED IMPLEMENTS. CLEARED SAMPLE HOSE AND WASHED OUT SAMPLE BOTTLES. PULLED 2 SAMPLES AND RAN THROUGH PARTICLE COUNTER. BOTH SAMPLES TESTED 16/12, PASSED. TOOK MACHINE BACK TO LINE.
07/07/2009	Service	331	REVISIT FIRST REVISIT	CUSTOMER COMPLAINT: PERFORM REVISIT INSPECTION REPAIR PROCESS COMMENTS: PERFORMED REVISIT INSPECTION AS PER ZIEGLER INSPECTION SHEET. FOUND THAT THE TILT CYLINDER TRUNNION END IS A LITTLE BIT LOOSE. THE OPERATOR HAD THE FOLLOWING COMPLAINTS WITH THE MACHINE; HE WOULD LIKE AN ADDITIONAL STEP INSTALLED ON THE BLADE FOR ACCESS TO THE GPS ANTENNAS, AND HE ALSO SAYS THE OPERATION OF THE TILT SEEMS TO BE STIFF IN THE HANDLE. OTHER THAN THIS THE MACHINE LOOKS TO BE IN GOOD WORKING ORDER AND FLUID LEVELS ALL CHECK GOOD.
07/07/2009	Service	331	TROUBLESHOOT HYDRAULIC CYLINDER	CUSTOMER COMPLAINT: TILT CYLINDER TRUNNION LOOSE REPAIR PROCESS COMMENTS: CHECKED LOOSENESS OF TRUNNION. REMOVED 2 SHIMS FROM TRUNNION. RECHECKED TRUNNION-GOOD.
07/07/2009	Service	331	TRAVEL TO/FROM	
07/07/2009	Service	331	REVISIT FIRST REVISIT	CUSTOMER COMPLAINT: PERFORM REVISIT INSPECTION REPAIR PROCESS COMMENTS: PERFORMED REVISIT INSPECTION AS PER ZIEGLER INSPECTION SHEET. FOUND THAT THE TILT CYLINDER TRUNNION END IS A LITTLE BIT LOOSE. THE OPERATOR HAD THE FOLLOWING COMPLAINTS WITH THE MACHINE; HE WOULD LIKE AN ADDITIONAL STEP INSTALLED ON THE BLADE FOR ACCESS TO THE GPS ANTENNAS, AND HE ALSO SAYS THE OPERATION OF THE TILT SEEMS TO BE STIFF IN THE HANDLE. OTHER THAN THIS THE MACHINE LOOKS TO BE IN GOOD WORKING ORDER AND FLUID LEVELS ALL CHECK GOOD.
07/07/2009	Service	331	TROUBLESHOOT HYDRAULIC CYLINDER	CUSTOMER COMPLAINT: TILT CYLINDER TRUNNION LOOSE REPAIR PROCESS COMMENTS: CHECKED LOOSENESS OF TRUNNION. REMOVED 2 SHIMS FROM TRUNNION. RECHECKED TRUNNION-GOOD.
07/07/2009	Service	331	TRAVEL TO/FROM	
10/27/2009	Service	660	REPAIR LIFT/HOIST CYLINDER	CUSTOMER COMPLAINT: OIL LEAK ON LEFT LIFT CYLINDER. CAUSE OF FAILURE: FOUND NUT CAME LOOSE ON LINE CAUSING SEAL TO BLOW. REPAIR PROCESS COMMENTS: REMOVED LINE AND REPLACED SEAL. TIGHTENED LINE. RAN, NO LEAKS FOUND.
10/27/2009	Service	660	TRAVEL TO/FROM MACHINE	

10/27/2009	Service	660	REPAIR LIFT/HOIST CYLINDER	CUSTOMER COMPLAINT: OIL LEAK ON LEFT LIFT CYLINDER. CAUSE OF FAILURE: FOUND NUT CAME LOOSE ON LINE CAUSING SEAL TO BLOW. REPAIR PROCESS COMMENTS: REMOVED LINE AND REPLACED SEAL. TIGHTENED LINE. RAN, NO LEAKS FOUND.
10/27/2009	Service	660	TRAVEL TO/FROM MACHINE	
04/09/2010	Service	717	CLEAN MACHINE	FOR SALE WASHED UNDERCARRIAGE. WASHED MACHINE WITH SOAP AND BRUSH THEN RINSED. REMOVED FLOOR MAT AND CLEANED INSIDE OF CAB. WASHED WINDOWS INSIDE AND OUT. REMOVED CUSTOMER DECALS.
04/09/2010	Service	717	INSPECT MACHINE	DTERMINE NEEDED SERVICE AND NEEDED REPAIRS INSPECTED MACHINE USING INCOMING INSPECTION SHEET. ALL REPAIRS ARE NOTED. MACHINE DUE FOR LEVEL 3 PM. OTHER REPAIRS WILL BE MADE ON DIFFERENT SEGMENTS.
04/09/2010	Service	717	PERFORM MAINTENANCE ON LEVEL-1,2&3 PM (1000 HR)	***** PREVENTIVE MAINTENANCE SERVICE ***** YOUR MACHINE MAINTENANCE WAS COMPLETED USING OUR CUSTOMIZED INSPECTION CHECK LIST. THIS SERVICE INCLUDES THE LABOR, PARTS, FLUIDS AND OIL SAMPLES. REPAIR PROCESS COMMENTS: PERFORMED LEVEL 3 PM PER ZIEGLER CHECKLIST. I ALSO CUT OPEN THE FILTERS TO CHECK FOR DEBRIS, EVERYTHING LOOKED GOOD.
04/09/2010	Service	717	REPAIR MISCELLANEOUS	CUT OFF OLD WELD WITH ARC AIR AND MADE NEW PIN. WELDED NEW PIN INTO PLACE. REPAIRED BROKEN GRILLE HINGE, DRILLED AND TAPPED TWO BROKEN GRILLE BOLTS, REPLACED MISSING BOLT AND WASHER ON LEFT HAND SIDE ENGINE COVER AND REPLACED DAMAGED BELLY PAN BOLT, NUT AND WASHER.
04/09/2010	Service	717	REMOVE & INSTALL GUARDS	CLEAN OUT REMOVED BELLY PANS FROM THE MACHINE SO MACHINE COULD BE WASHED, AFTER MACHINE WAS WASHED INSTALLED THE BELLY PANS.
04/09/2010	Service	717	REPLACE GUARDS	REPLACE BOTH MAST GUARDS-ORDERED TO WELD SHOP AIR ARC OFF BENT GUARDS FROM BLADE. CLEAN OFF AREA WITH SOFT DISC. LINE UP NEW GUARDS ON BLADE AND WELD IN PLACE.
04/23/2010	Service Credit	717	CLEAN MACHINE	FOR SALE WASHED UNDERCARRIAGE. WASHED MACHINE WITH SOAP AND BRUSH THEN RINSED. REMOVED FLOOR MAT AND CLEANED INSIDE OF CAB. WASHED WINDOWS INSIDE AND OUT. REMOVED CUSTOMER DECALS.
04/23/2010	Service Credit	717	INSPECT MACHINE	DTERMINE NEEDED SERVICE AND NEEDED REPAIRS INSPECTED MACHINE USING INCOMING INSPECTION SHEET. ALL REPAIRS ARE NOTED. MACHINE DUE FOR LEVEL 3 PM. OTHER REPAIRS WILL BE MADE ON DIFFERENT SEGMENTS.
04/23/2010	Service Credit	717	PERFORM MAINTENANCE ON LEVEL-1,2&3 PM (1000 HR)	***** PREVENTIVE MAINTENANCE SERVICE ***** YOUR MACHINE MAINTENANCE WAS COMPLETED USING OUR CUSTOMIZED INSPECTION CHECK LIST. THIS SERVICE INCLUDES THE LABOR, PARTS, FLUIDS AND OIL SAMPLES. REPAIR PROCESS COMMENTS: PERFORMED LEVEL 3 PM PER ZIEGLER CHECKLIST. I ALSO CUT OPEN THE FILTERS TO CHECK FOR DEBRIS, EVERYTHING LOOKED GOOD.
04/23/2010	Service Credit	717	REPAIR MISCELLANEOUS	CUT OFF OLD WELD WITH ARC AIR AND MADE NEW PIN. WELDED NEW PIN INTO PLACE. REPAIRED BROKEN GRILLE HINGE, DRILLED AND TAPPED TWO BROKEN GRILLE BOLTS, REPLACED MISSING BOLT AND WASHER ON LEFT HAND SIDE ENGINE COVER AND REPLACED DAMAGED BELLY PAN BOLT, NUT AND WASHER.
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04/23/2010	Service Credit	717	REPLACE GUARDS	REPLACE BOTH MAST GUARDS-ORDERED TO WELD SHOP AIR ARC OFF BENT GUARDS FROM BLADE. CLEAN OFF AREA WITH SOFT DISC. LINE UP NEW GUARDS ON BLADE AND WELD IN PLACE.
04/24/2010	Service	717	CLEAN MACHINE	FOR SALE WASHED UNDERCARRIAGE. WASHED MACHINE WITH SOAP AND BRUSH THEN RINSED. REMOVED FLOOR MAT AND CLEANED INSIDE OF CAB. WASHED WINDOWS INSIDE AND OUT. REMOVED CUSTOMER DECALS.
04/24/2010	Service	717	INSPECT MACHINE	DTERMINE NEEDED SERVICE AND NEEDED REPAIRS INSPECTED MACHINE USING INCOMING INSPECTION SHEET. ALL REPAIRS ARE NOTED. MACHINE DUE FOR LEVEL 3 PM. OTHER REPAIRS WILL BE MADE ON DIFFERENT SEGMENTS.
04/24/2010	Service	717	PERFORM MAINTENANCE ON LEVEL-1,2&3 PM (1000 HR)	***** PREVENTIVE MAINTENANCE SERVICE ***** YOUR MACHINE MAINTENANCE WAS COMPLETED USING OUR CUSTOMIZED INSPECTION CHECK LIST. THIS SERVICE INCLUDES THE LABOR, PARTS, FLUIDS AND OIL SAMPLES. REPAIR PROCESS COMMENTS: PERFORMED LEVEL 3 PM PER ZIEGLER CHECKLIST. I ALSO CUT OPEN THE FILTERS TO CHECK FOR DEBRIS, EVERYTHING LOOKED GOOD.
04/24/2010	Service	717	REPAIR MISCELLANEOUS	CUT OFF OLD WELD WITH ARC AIR AND MADE NEW PIN. WELDED NEW PIN INTO PLACE. REPAIRED BROKEN GRILLE HINGE, DRILLED AND TAPPED TWO BROKEN GRILLE BOLTS, REPLACED MISSING BOLT AND WASHER ON LEFT HAND SIDE ENGINE COVER AND REPLACED DAMAGED BELLY PAN BOLT, NUT AND WASHER.

				CLEAN OUT
04/24/2010	Service	717	REMOVE & INSTALL GUARDS	REMOVED BELLY PANS FROM THE MACHINE SO MACHINE COULD BE WASHED, AFTER MACHINE WAS WASHED INSTALLED THE BELLY PANS.
04/24/2010	Service	717	REPLACE GUARDS	REPLACE BOTH MAST GUARDS-ORDERED TO WELD SHOP AIR ARC OFF BENT GUARDS FROM BLADE. CLEAN OFF AREA WITH SOFT DISC. LINE UP NEW GUARDS ON BLADE AND WELD IN PLACE.
07/17/2010	Service	1076	YARD DUTIES AIR CONDITIONER	CUSTOMER CONCERN A/C WAS NOT WORKING ON MACHINE. CAUSE OF FAILURE PLUGGED ACCUMULATOR AND DRIER. REPAIR COMMENTS HOOKED MY GAUGES UP TO THE MACHINE. STARTED AND RAN THE MACHINE. FOUND THAT THE LOW SIDE OF THE SYSTEM WAS ALMOST PULLING A VACUUM AND THE HIGH SIDE HAD VERY HIGH PRESSURE. THE ACCUMULATOR WAS PLUGGED. ORDERED NEW ACCUMULATOR AND DRIER. CUSTOMER INSTALLED THE ACCUMULATOR AND DRIER.
07/17/2010	Service	1076	YARD DUTIES AIR CONDITIONER	CUSTOMER CONCERN A/C WAS NOT WORKING ON MACHINE. CAUSE OF FAILURE PLUGGED ACCUMULATOR AND DRIER. REPAIR COMMENTS HOOKED MY GAUGES UP TO THE MACHINE. STARTED AND RAN THE MACHINE. FOUND THAT THE LOW SIDE OF THE SYSTEM WAS ALMOST PULLING A VACUUM AND THE HIGH SIDE HAD VERY HIGH PRESSURE. THE ACCUMULATOR WAS PLUGGED. ORDERED NEW ACCUMULATOR AND DRIER. CUSTOMER INSTALLED THE ACCUMULATOR AND DRIER.
08/04/2010	Service	1458	REPAIR THOMAS HERRELL	CUSTOMER CONCERN OIL LEAKING OUT OF THE REAR BELLY PAN. REPAIR COMMENTS REMOVED THE FLOOR PLATE AND RAN THE MACHINE. OIL WAS LEAKING OUT OF THE SIGNAL LINE FOR THE HYDRAULIC PUMP. REMOVED THE LINE OFF THE FITTING AND THE FITTING WAS LOOSE, REMOVED THE FITTING AND THE O-RING WAS CUT IN HALF. PUT A NEW O-RING ON, PUT THE FITTING AND LINE BACK ON. RAN MACHINE AND THE LEAK STOPPED.
09/07/2011	Service	2566	WINTER SNOW REMOVAL UNDERCARRIAGE SHOP	
09/07/2011	Service	2566	WINTER SNOW REMOVAL TRUCK ENGINES	
09/07/2011	Service	2566	REPAIR AIR CONDITIONER	CUSTOMER CONCERN THE A/C NOT COOLING. CAUSE OF FAILURE I FOUND IT WAS LOW ON FREON AND THE FILTERS WERE PLUGGED. REPAIR COMMENTS I HAD TO BLOW THE FILTERS OUT AND THEN I HOOKED MY GAUGES UP AND FOUND IT WAS LOW ON FREON SO I CHARGED IT UP AND IT WAS COOLING FIND THEN SO I PUT THE COVERS BACK ON AND LET IT GO. I HAD TO BLOW THE CONDENSER OUT ALSO IT WAS PLUGGED.
09/07/2011	Service	2566	WINTER SNOW REMOVAL UNDERCARRIAGE SHOP	
09/07/2011	Service	2566	WINTER SNOW REMOVAL TRUCK ENGINES	
10/25/2011	Service	2619	TROUBLESHOOT AIR CONDITIONER	CUSTOMER CONCERN A/C NOT WORKING. CAUSE OF FAILURE LOW ON FREON. RESULTANT DAMAGE NO DAMAGE. REPAIR COMMENTS DROVE TO JOB CHECKED PRESSURES ON A/C SYSTEM FOUND THAT THEY WERE A LITTLE LOW ADDED 1.8 LBS. OF FREON, AC WORKED GOOD AFTER THAT.
12/08/2011	Service	3155	INSTALL POWER TN/TRANS OIL FILLER	CUSTOMER CONCERN RIGHT FINAL DRIVE DRAIN PLUG MISSING. CAUSE OF FAILURE PLUG VIBRATED LOOSE. RESULTANT DAMAGE LOST OIL IN FINAL DRIVE. REPAIR COMMENTS DELIVER NEW PLUG AND TOOK SAMPLE OF FINAL DRIVE OIL.
12/08/2011	Service	3155	INSTALL POWER TN/TRANS OIL FILLER	
12/09/2011	Service	3150	PERFORM SERVICE LTR AUTHORIZATION	CUSTOMER CONCERN MACHINE NEEDS PS43260 PERFORMED CAUSE OF FAILURE THE PLANET GEAR BEARINGS IN THE FINAL DRIVES MAY FAIL PREMATURELY ON CERTAIN D6T TRACK-TYPE TRACTORS. THIS FAILURE CAN CAUSE RESULTANT DAMAGE TO OTHER ROLLING COMPONENTS IN THE FINAL DRIVE. RESULTANT DAMAGE NONE REPAIR COMMENTS INSTALL NEW RING GEAR AND FINAL DRIVE PLANETARY BEARINGS. REFER TO KENR5126 FOR REMOVAL AND INSTALLATION OF THE FINAL DRIVE PLANETARY CARRIER (IN CHASSIS). DUE TO THE HOURS ON THE MACHINE THE CUSTOMER IS RESPONSIBLE FOR SOME OF THE REPAIRS. NATIONAL CAT REP. CHARLES RIGGERT IS COVERING ANY EXPENSES NOT COVERED BY SERVICE LETTER. SCOTT WEYANT ISSUED A AUTH: SW120711C. POLICY CODE IS HGG.
12/09/2011	Service	3150	REPLACE PLANETARY FNL DR CARRIER	CUSTOMER CONCERN FOUND 2 CHIPPED PLANETARY GEARS CAUSE OF FAILURE N/A RESULTANT DAMAGE NO OTHER DAMAGE REPAIR COMMENTS REPLACED GEARS. CAT IS PAYING FOR THESE GEARS. SCOTT WEYANT ISSUED A AUTH. NUMBER SW120711C. POLICY CODE HGG.
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02/01/2012	Service	2971	INSPECT TRACK PINS & BUSHINGS-S&L	REPAIR PROCESS COMMENTS: INSPECTED BOTH RAILS, AND FOUND 13 DRY ON ONE RAIL, AND 6 DRY ON THE OTHER.
02/01/2012	Service	2971	REMOVE AND INSTALL YARD TRUCK	**REPAIR SPECIFICATION INCLUDES** -REMOVE SET OF OLD SHOES FROM OLD LINKS ON BOTH SIDES -REPLACEMENT OF SET OF LINKS ON BOTH SIDES -REMOVE PAINT FROM MATING SURFACES OF NEW SET OF LINKS -INSTALL OLD SHOES ON NEW SET OF LINKS BOTH SIDES **AVAILABLE AS NEEDED AT ADDITIONAL COST** -REMOVE & INSTALL TRACKS -CUT OFF TARCK SHOE BOLTS -PALLETIZE OLD LINKS -CLEANING OF OLD SHOES OR LINKS -REPLACEMENT OF HARDWARE CAUSE OF FAILURE: SEAL FAILURE RESULTANT DAMAGE: REPLACED BOTH RAILS REPAIR PROCESS COMMENTS: REMOVED SHOES FROM OLD RAILS. PREPPED MATING SURFACES ON NEW RAILS. INSTALLED OLD SHOES ON NEW RAILS WITH OLD HARDWARE. TORQUED BOLTS TO CAT SPECS. REPLACED 6 NUTS AND BOLTS, AND REPLACED 1 SHOE. OLD S/N NOT FOUND. NEW S/N PM304R12=I.D#192, PM304S16=I.D#193. SHOE WIDTH 36 IN. BUSHING=.48 IN.=18%WORN. LINKS=1.49 IN.=24%WORN. PS51233 MAY 19 2011
02/01/2012	Service	2971	TROUBLESHOOT AND REPAIR TRACK SHOES	TRACK SHOE CRACKED
02/01/2012	Service	2971	INSPECT TRACK PINS & BUSHINGS-S&L	REPAIR PROCESS COMMENTS: INSPECTED BOTH RAILS, AND FOUND 13 DRY ON ONE RAIL, AND 6 DRY ON THE OTHER.
02/01/2012	Service	2971	REMOVE AND INSTALL YARD TRUCK	**REPAIR SPECIFICATION INCLUDES** -REMOVE SET OF OLD SHOES FROM OLD LINKS ON BOTH SIDES -REPLACEMENT OF SET OF LINKS ON BOTH SIDES -REMOVE PAINT FROM MATING SURFACES OF NEW SET OF LINKS -INSTALL OLD SHOES ON NEW SET OF LINKS BOTH SIDES **AVAILABLE AS NEEDED AT ADDITIONAL COST** -REMOVE & INSTALL TRACKS -CUT OFF TARCK SHOE BOLTS -PALLETIZE OLD LINKS -CLEANING OF OLD SHOES OR LINKS -REPLACEMENT OF HARDWARE CAUSE OF FAILURE: SEAL FAILURE RESULTANT DAMAGE: REPLACED BOTH RAILS REPAIR PROCESS COMMENTS: REMOVED SHOES FROM OLD RAILS. PREPPED MATING SURFACES ON NEW RAILS. INSTALLED OLD SHOES ON NEW RAILS WITH OLD HARDWARE. TORQUED BOLTS TO CAT SPECS. REPLACED 6 NUTS AND BOLTS, AND REPLACED 1 SHOE. OLD S/N NOT FOUND. NEW S/N PM304R12=I.D#192, PM304S16=I.D#193. SHOE WIDTH 36 IN. BUSHING=.48 IN.=18%WORN. LINKS=1.49 IN.=24%WORN. PS51233 MAY 19 2011
02/01/2012	Service	2971	TROUBLESHOOT AND REPAIR TRACK SHOES	TRACK SHOE CRACKED
05/25/2012	Service	3769	TROUBLESHOOT FAN ASSEMBLY	CUSTOMER CONCERN FAN NOT WORKING CAUSE OF FAILURE ECM PROGRAMING REPAIR COMMENTS DROVE TO JOB TROUBLESHOT FAN FOUND THAT THE ECM NEEDED UPDATED, INSTALLED NEW FLASH FILE.
05/25/2012	Service	3769	TROUBLESHOOT JOYSTICK	CUSTOMER CONCERN JOYSTICK IS SLOW TO DROP THE BLADE CAUSE OF FAILURE PILOT PRESSURE SET TO LOW REPAIR COMMENTS ADJUSTED PRESSURE TO THE PROPER SETTING
06/07/2012	Service	3790	TROUBLESHOOT JOYSTICK	CUSTOMER CONCERN BLADE DROPS SLOW. 3790 HOURS. CAUSE OF FAILURE IMPLEMENT PUMP STAND BY PRESSURE LOW. RESULTANT DAMAGE NOT ENOUGH PILOT PRESSURE TO FULLY SHIFT VALVE FROM HOLD TO FLOAT. REPAIR COMMENTS CHECKED PILOT VALVE RELIEF, PRV, CHECK VALVE AND ACCUMULATOR, FOUND IMPLEMENT PUMP STAND BY WAS AT 300 PSI, ADJUSTED UP TO SPEC 520 PSI, RECHECKED OPERATION BLADE WENT TO FLOAT LIKE IT SHOULD, RETURNED MACHINE TO SERVICE.
06/07/2012	Service	3790	TROUBLESHOOT PRESURE REGULATOR VALVE	CUSTOMER CONCERN MACHINE LOW ON POWER. CAUSE OF FAILURE SCREEN STUCK IN RELIEF VALVE. RESULTANT DAMAGE LOW FUEL PRESSURE. REPAIR COMMENTS CHECKED OPERATION HAD VERY LOW FUEL PRESSURE, CHECKED LINES AND REPLACED FUEL WATER SEPARATOR, STILL HAD LOW PRESSURE WITH THE TRANSFER PUMP AND PRIMMING PUMP, REMOVED FLOOR PLATES AND INSPECTED FUEL RETURN VALVE FOUND SCREEN HAD CAME LOOSE AND LODGED IN RELIEF PORTION OF VALVE, RETURNED TO SHOP FOR NEW VALVE, INSTALLED NEW VALVE IN MACHINE, CHECKED OPERATION RETURNED MACHINE TO SERVICE.
07/31/2012	Service	3934	WARRANTY REPAIRS	CUSTOMER CONCERN DOOR POP OFF AND GOT RAN OVER CAUSE OF FAILURE BOLT NOT TIGHT REPAIR COMMENTS REPLACED DOOR
07/31/2012	Service	3934	TROUBLESHOOT AIR CONDITIONER	CUSTOMER CONCERN CUSTOMER COMPLAINED THAT THE A/C WAS BLOWING HOT AIR AND THE COMPRESSOR WAS SMOKING WHEN THE A/C QUIT WORKING. CAUSE OF FAILURE A/C COMPRESSOR CLUTCH BURNED UP DUE TO THAT IT DIDN'T HAVE ENOUGH OIL IN IT FROM THE FACTORY. RESULTANT DAMAGE THE A/C COMPRESSOR BURNT UP & CONTAMINATED THE WHOLE SYSTEM. REPAIR COMMENTS EVACUATED THE FREON FROM THE SYSTEM. REMOVED THE COMPRESSOR FROM THE ENGINE. REMOVED THE DRYER AND THE ACCUMULATOR FROM THE SYSTEM. FLUSHED THE LINES, EVAPORATOR, AND CONDENSER. BLEW THEM OUT WITH NITROGEN. INSTALLED A NEW ACCUMULATOR. INSTALLED A NEW COMPRESSOR. INSTALLED A NEW DRYER. PULLED THE SYSTEM DOWN INTO A VACUUM AND CHECKED FOR LEAKS. FOUND NONE. INSTALLED 6 OUNCES OF OIL INTO THE SYSTEM AND THEN CHARGED THE SYSTEM WITH THE SPECIFIC AMOUNT OF FREON IT CALLED FOR. RAN THE MACHINE AND CHECKED THE TEMPERATURE DROP FROM OUTSIDE TO INSIDE AND IT WAS 30 DEGREES DIFFERENT. TOLD THE CUSTOMER THE MACHINE WAS READY TO RUN.

07/31/2012	Service	3934	TROUBLESHOOT ELECTRIC ARMREST	CUSTOMER CONCERN A/C NOT WORKING CAUSE OF FAILURE EVAPORATOR CORE PLUGGED INTERNALLY REPAIR COMMENTS DROVE TO THE JOB WERE THE MACHINE WAS LOCATED TROUBLESHOT MACHINE FOUND THAT THE EVAPORATOR CORE WAS PLUGGED INTERNALLY FORM CONTAMINATION IN THE SYSTEM FROM OLD FAILURES REPLACED EVAPORATOR CORE, DRYER, AND ACCUMULATOR ALSO REMOVED ALL LINE AND CLEANED OUT THEN REINSTALLED THEN CHARGED THE SYSTEM WITH 3.5 LBS. OF FREON LINES, EVAPORATOR, AND CONDENSOR. BLEW THEM OUT WITH NITROGEN. FLUSHED SYSTEM, INSTALLED NEW ACCUMULATOR, NEW COMPRESSOR, NEW DRYER PULLED THE SYSTEM DOWN INTO A VACUUM AND CHECKED FOR LEAKS. FOUND NONE. INSTALLED 6 OUNCES OF OIL INTO THE SYSTEM AND THEN CHARGED THE SYSTEM WITH THE SPECIFIC AMOUNT OF FREON IT CALLED FOR. RAN THE MACHINE AND CHECKED THE TEMPERATURE DROP FROM OUTSIDE TO INSIDE AND IT WAS 30 DEGREES DIFFERENT. TOLD THE CUSTOMER THE MACHINE WAS READY TO RUN.
07/31/2012	Service	3934	WARRANTY REPAIRS	
07/31/2012	Service	3934	TROUBLESHOOT AIR CONDITIONER	CUSTOMER CONCERN CUSTOMER COMPLAINED THAT THE A\C WAS BLOWING HOT AIR AND THE COMPRESSOR WAS SMOKING WHEN THE A\C QUIT WORKING. CAUSE OF FAILURE A/C COMPRESSOR CLUTCH BURNED UP DUE TO THAT IT DIDN'T HAVE ENOUGH OIL IN IT FROM THE FACTORY. RESULTANT DAMAGE THE A/C COMPRESSOR BURNT UP & CONTAMINATED THE WHOLE SYSTEM. REPAIR COMMENTS EVACUATED THE FREON FROM THE SYSTEM. REMOVED THE COMPRESSOR FROM THE ENGINE. REMOVED THE DRYER AND THE ACCUMULATOR FROM THE SYSTEM. FLUSHED THE LINES, EVAPORATOR, AND CONDENSER. BLEW THEM OUT WITH NITROGEN. INSTALLED A NEW ACCUMULATOR. INSTALLED A NEW COMPRESSOR. INSTALLED A NEW DRYER. PULLED THE SYSTEM DOWN INTO A VACUUM AND CHECKED FOR LEAKS. FOUND NONE. INSTALLED 6 OUNCES OF OIL INTO THE SYSTEM AND THEN CHARGED THE SYSTEM WITH THE SPECIFIC AMOUNT OF FREON IT CALLED FOR. RAN THE MACHINE AND CHECKED THE TEMPERATURE DROP FROM OUTSIDE TO INSIDE AND IT WAS 30 DEGREES DIFFERENT. TOLD THE CUSTOMER THE MACHINE WAS READY TO RUN.
07/20/2013	Service	4568	TROUBLESHOOT FAULT CODES	CUSTOMER CONCERN FAULT CODES CAUSE OF FAILURE PLUGGED FILTERS REPAIR COMMENTS DROVE TO THE JOB WERE THE MACHINE WAS LOCATED,
07/20/2013	Service	4568	TROUBLESHOOT BLADE FLOAT	CUSTOMER CONCERN CUSTOMER COMPLAINED THAT THE BLADE WOULD NOT GO INTO FLOAT CAUSE OF FAILURE THE ACCUMULATOR WAS BAD RESULTANT DAMAGE THE BLADE FLOAT WOULD NOT WORK REPAIR COMMENTS DROVE TO THE MACHINE. CHECKED THE FLOAT OF THE MACHINE AND IT WOULD NOT WORK EVERY TIME. CHECKED THE ACCUMULATOR CHARGE PRESSURE AND THERE WAS NO CHARGE. CHARGED THE ACCUMULATOR AND IT WAS LEAKING NITROGEN. CALLED PARTS AND ORDERED A NEW ONE. THEN HAD IT DELIVERED TO ME. WHEN I RECEIVED THE NEW ONE CHARGED IT WITH NITROGEN. REMOVED THE OLD ONE FROM THE MACHINE AND INSTALLED THE NEW ONE. TRIED THE BLADE FLOAT AND IT WORKED. TOLD THE CUSTOMER THE MACHINE WAS READY TO RUN. MACHINE HOURS 4618
07/20/2013	Service	4618	TROUBLESHOOT HYDRAULIC SYSTEM	CUSTOMER CONCERN CUSTOMER COMPLAINED THAT THE GRADE CONTROL WOULDNT CALIBRATE CAUSE OF FAILURE THE PILOT PRESSURE WAS OUT OF SPEC RESULTANT DAMAGE THE GRADE CONTROL WOULD NOT CALIBRATE REPAIR COMMENTS DROVE TO THE MACHINE. CHECKED THE PILOT PRESSURE OF THE MACHINE. THE PILOT PRESSURE WAS 100 PSI HIGH. TURNED THE PRESSURE DOWN AND CHECKED THE BLADE FLOAT. CHECKED THE REST OF THE HYDRAULIC PRESSURES AND THEY WERE ALL WITHIN CAT SPEC. TOLD THE CUSTOMER TO CALL IF THEY HAVE A PROBLEM CALIBRATING THE GRADE CONTROL. MACHINE HOURS 4618
07/20/2013	Service	4618	TROUBLESHOOT HYDRAULIC SYSTEM	CUSTOMER CONCERN CUSTOMER COMPLAINED THAT THE GRADE CONTROL WOULDNT CALIBRATE CAUSE OF FAILURE THE PILOT PRESSURE WAS OUT OF SPEC RESULTANT DAMAGE THE GRADE CONTROL WOULD NOT CALIBRATE REPAIR COMMENTS DROVE TO THE MACHINE. CHECKED THE PILOT PRESSURE OF THE MACHINE. THE PILOT PRESSURE WAS 100 PSI HIGH. TURNED THE PRESSURE DOWN AND CHECKED THE BLADE FLOAT. CHECKED THE REST OF THE HYDRAULIC PRESSURES AND THEY WERE ALL WITHIN CAT SPEC. TOLD THE CUSTOMER TO CALL IF THEY HAVE A PROBLEM CALIBRATING THE GRADE CONTROL. MACHINE HOURS 4618
07/20/2013	Service	4618	TROUBLESHOOT ELECTRIC ARMREST	CUSTOMER CONCERN THE CUSTOMER COMPLAINED THAT THE A\C WOULD NOT BLOW COLD AIR. CAUSE OF FAILURE THE FREON CHARGE WAS LOW RESULTANT DAMAGE THE A\C WOULD NOT BLOW COLD REPAIR COMMENTS INSTALLED THE A/C GAGES ONTO THE SYSTEM. THERE WAS SOME FREON IN THE SYSTEM BUT NOT ENOUGH. PUT SOME FREON INTO THE SYSTEM AND THEN CHECKED THE VENT TEMP AND IT WAS GETTING COLDER. CHECKED THE PRESSURES OF THE SYSTEM. GOT THE VENT TEMP DOWN TO 45 DEGREES AND THEN CHECKED GAGE PRESSURES AND THEY WERE GOOD. TOLD THE CUSTOMER THE MACHINE WAS READY TO GO.
08/02/2013	Service	4620	TROUBLESHOOT ENGINE	CUSTOMER CONCERN MACHINE HAS LOW POWER CAUSE OF FAILURE NO FAILURE REPAIR COMMENTS DROVE TO THE JOB WHERE THE MACHINE WAS LOCATED TROUBLESHOT THE MACHINE. I COULD NOT FIND ANY ISSUES WITH THE MACHINE I RAN IT FOR OVER AN HOUR AND IT ALL CHECKED OUT FOUND THAT THERE WAS AN UPDATE FOR THE ENGINE SOFTWARE SO I INSTALLED IT.

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03/14/2016	Service	8648	REMOVE & INSTALL UNDERCARRIAGE	PRORATE CHARGE IN MISCELLANEOUS FOR TRACK SHOES WORN 73% (CUSTOMER PAYS FOR WEAR) 88 TRACK SHOES AT 68.10 = \$5992.80 2 TRACK MASTER SHOES AT 74.92 = \$149.84 REPAIR PROCESS COMMENTS: REMOVE & INSTALL UNDERCARRIAGE REMOVED ROLLERS, IDLERS, GUIDING GUARDS, CENTER AND FRONT & REAR, REMOVED CARRIER ROLLERS REMOVED SCRAPERS AND CUT WELDS ON SCRAPER MOUNTING PLATES TO REMOVE FRONT AND REAR. GROUND OLD WELDS SMOOTH REINSTALLED IDLERS, ROLLERS GUIDING GUARDS, WITH NEW HARDWARE AND IDLER BLOCKS AND CAPS TORQUED ALL HARDWARE TO CAT SPECS. TAPPED ALL ROLLER BOLT HOLES WITH TAP TO CLEAN UP THREADS, ALONG WITH IDLER BOLT HOLES
03/14/2016	Service	8648	MODIFY TRACK ROLLER FRAME	REPAIR PROCESS COMMENTS: REMOVED IDLERS, AND OLD MOUNTING BLOCKS, FILLED OLD HOLE WITH WELD AND GROUND FLAT WITH GRINDER POUNDED IN PINS AS PER INSTRUCTIONS. USED NEW BLOCKS AND TRANSFER PUNCH TO MARK NEW HOLE LOCATION. PUT PLATE ON REAR OF ROLLER FRAMES TO HOLD MAGNETIC DRILL. DRILLED HOLES TO CAT SPECS. AND TAPPED TO 20MM.
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03/14/2016	Service	8648	REPLACE SPROCKET SEGMENT	
03/14/2016	Service	8648	REPLACE TRACK ROLLER	
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03/14/2016	Service	8648	EXTRA PARTS/LABOR/MIS FOR	THIS SEGMENT IS FOR COST NOT INCLUDED IN THE UNDERCARRIAGE PRICE.
03/14/2016	Service	8648	REPAIR TRACK ADJUSTER	REPAIR PROCESS COMMENTS: DRAINED ROLLER FRAMES REMOVED TWISTER RESISTER TO REMOVE FRONT TUBE FROM FRAMES. REMOVED TRACK ADJUSTER. TOOK APART TRACK ADJUSTER CLEANED AND INSPECTED FOR WEAR BUFFED PISTON RESEALED WITH NEW FITTINGS AND VALVES ORINGS, AND SEALS ALONG WITH PLUGS. REINSTALLED IN TUBE. REMOVED TUBE SEAL, BEARING RETAINER, AND BEARINGS CLEANED ALL SURFACES, AND REPLACED WITH NEW. REINSTALLED TUBES IN FRAMES REINSTALLED TWISTER RESISTERS. AND FILLED WITH 7 GALLONS OIL.
03/14/2016	Service	8648	MODIFY TRACK ROLLER FRAME	REPAIR PROCESS COMMENTS: REMOVED IDLERS, AND OLD MOUNTING BLOCKS, FILLED OLD HOLE WITH WELD AND GROUND FLAT WITH GRINDER POUNDED IN PINS AS PER INSTRUCTIONS. USED NEW BLOCKS AND TRANSFER PUNCH TO MARK NEW HOLE LOCATION. PUT PLATE ON REAR OF ROLLER FRAMES TO HOLD MAGNETIC DRILL. DRILLED HOLES TO CAT SPECS. AND TAPPED TO 20MM.
03/14/2016	Service	8648	REMOVE & INSTALL TRACK GUIDE/GUARD	REPAIR PROCESS COMMENTS: REMOVED ALL GUIDING GUARDS & STRAIGHTEN, REPLACED WITH NEW HEAVY DUTY STYLE AND ALL NEW HARDWARE. ANTI SEIZED ALL HARDWARE.
03/14/2016	Service	8648	REPAIR TRACK ASSEMBLY	REPLACE STRIPED OUT SPLIT LINKS
03/14/2016	Service	8648	COMPLETE PRE-SAFETY CHECK	
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03/21/2016	Service Credit	8648	CLEAN TRACK ROLLER FRAME	
03/21/2016	Service Credit	8648	MEASURE UNDERCARRIAGE	CAUSE OF FAILURE: LINK HT. -34.7 MM= 48% WORN BUSHINGS- 12.6 MM= 30% WORN GROUSER HT. - 76.6 MM= 25% WORN RAILS ARE 45 SECTIONS LONG AND SHOES ARE 36" PUNCHED IN THE PLUGS ON BOTH RAILS. RAIL MARKED AS RAIL "A" HAS 4 FAILED AND 4 LOW JOINTS. RAIL MARKED AS RAIL "B" HAS 2 FAILED AND 2 LOW JOINTS. TOTAL OF 6 FAILED JOINTS AND 6 LOW JOINTS. WARRANTY TAG# WR121326 CONVERTING SYSTEM ONE UNDERCARRIAGE TO HEAVY DUTY UNDERCARRIAGE. NEW RAIL ID# FOR HEAVY DUTY TRACKS ARE; PS302B09 AND PS302B08. ROLLERS MEASURED 60% WORN IDLERS MEASURED 44% WORN TOP ROLLERS MEASURED 67.5% WORN
03/21/2016	Service Credit	8648	REMOVE & INSTALL UNDERCARRIAGE	PRORATE CHARGE IN MISCELLANEOUS FOR TRACK SHOES WORN 73% (CUSTOMER PAYS FOR WEAR) 88 TRACK SHOES AT 68.10 = \$5992.80 2 TRACK MASTER SHOES AT 74.92 = \$149.84 REPAIR PROCESS COMMENTS: REMOVE & INSTALL UNDERCARRIAGE REMOVED ROLLERS, IDLERS, GUIDING GUARDS, CENTER AND FRONT & REAR, REMOVED CARRIER ROLLERS REMOVED SCRAPERS AND CUT WELDS ON SCRAPER MOUNTING PLATES TO REMOVE FRONT AND REAR. GROUND OLD WELDS SMOOTH REINSTALLED IDLERS, ROLLERS GUIDING GUARDS, WITH NEW HARDWARE AND IDLER BLOCKS AND CAPS TORQUED ALL HARDWARE TO CAT SPECS. TAPPED ALL ROLLER BOLT HOLES WITH TAP TO CLEAN UP THREADS, ALONG WITH IDLER BOLT HOLES
03/21/2016	Service Credit	8648	EXTRA PARTS/LABOR/MISFOR	THIS SEGMENT IS FOR COST NOT INCLUDED IN THE UNDERCARRIAGE PRICE.
03/21/2016	Service Credit	8648	REPAIR TRACK ADJUSTER	REPAIR PROCESS COMMENTS: DRAINED ROLLER FRAMES REMOVED TWISTER RESISTER TO REMOVE FRONT TUBE FROM FRAMES. REMOVED TRACK ADJUSTER. TOOK APART TRACK ADJUSTER CLEANED AND INSPECTED FOR WEAR BUFFED PISTON RESEALED WITH NEW FITTINGS AND VALVES ORINGS, AND SEALS ALONG WITH PLUGS. REINSTALLED IN TUBE. REMOVED TUBE SEAL, BEARING RETAINER, AND BEARINGS CLEANED ALL SURFACES, AND REPLACED WITH NEW. REINSTALLED TUBES IN FRAMES REINSTALLED TWISTER RESISTERS. AND FILLED WITH 7 GALLONS OIL.
03/21/2016	Service Credit	8648	MODIFY TRACK ROLLER FRAME	REPAIR PROCESS COMMENTS: REMOVED IDLERS, AND OLD MOUNTING BLOCKS, FILLED OLD HOLE WITH WELD AND GROUND FLAT WITH GRINDER POUNDED IN PINS AS PER INSTRUCTIONS. USED NEW BLOCKS AND TRANSFER PUNCH TO MARK NEW HOLE LOCATION. PUT PLATE ON REAR OF ROLLER FRAMES TO HOLD MAGNETIC DRILL. DRILLED HOLES TO CAT SPECS. AND TAPPED TO 20MM.
03/21/2016	Service Credit	8648	REMOVE & INSTALL TRACK GUIDE/GUARD	REPAIR PROCESS COMMENTS: REMOVED ALL GUIDING GUARDS & STRAIGHTEN, REPLACED WITH NEW HEAVY DUTY STYLE AND ALL NEW HARDWARE. ANTI SEIZED ALL HARDWARE.
03/21/2016	Service Credit	8648	REPAIR TRACK ASSEMBLY	REPLACE STRIPED OUT SPLIT LINKS
03/21/2016	Service Credit	8648	COMPLETE PRE-SAFETY CHECK	
03/21/2016	Service Credit	8648	REPLACE IDLER/IDLER WHEEL	
03/21/2016	Service Credit	8648	REPLACE SPROCKET SEGMENT	
03/21/2016	Service Credit	8648	REPLACE TRACK ROLLER	

03/21/2016	Service Credit	8648	REPLACE CARRIER ROLLER	
03/22/2016	Service	8648	MEASURE UNDERCARRIAGE	CAUSE OF FAILURE: LINK HT.-34.7 MM= 48% WORN BUSHINGS- 12.6 MM= 30% WORN GROUSER HT.- 76.6 MM= 25% WORN RAILS ARE 45 SECTIONS LONG AND SHOES ARE 36" PUNCHED IN THE PLUGS ON BOTH RAILS. RAIL MARKED AS RAIL "A" HAS 4 FAILED AND 4 LOW JOINTS. RAIL MARKED AS RAIL "B" HAS 2 FAILED AND 2 LOW JOINTS. TOTAL OF 6 FAILED JOINTS AND 6 LOW JOINTS. WARRANTY TAG# WR121326 CONVERTING SYSTEM ONE UNDERCARRIAGE TO HEAVY DUTY UNDERCARRIAGE. NEW RAIL ID# FOR HEAVY DUTY TRACKS ARE; PS302B09 AND PS302B08. ROLLERS MEASURED 60% WORN IDLERS MEASURED 44% WORN TOP ROLLERS MEASURED 67.5% WORN
03/22/2016	Service	8648	REMOVE & INSTALL UNDERCARRIAGE	PRORATE CHARGE IN MISCELLANEOUS FOR TRACK SHOES WORN 73% (CUSTOMER PAYS FOR WEAR) 88 TRACK SHOES AT 68.10 = \$5992.80 2 TRACK MASTER SHOES AT 74.92 = \$149.84 REPAIR PROCESS COMMENTS: REMOVE & INSTALL UNDERCARRIAGE REMOVED ROLLERS, IDLERS, GUIDING GUARDS, CENTER AND FRONT & REAR, REMOVED CARRIER ROLLERS REMOVED SCRAPERS AND CUT WELDS ON SCRAPER MOUNTING PLATES TO REMOVE FRONT AND REAR. GROUND OLD WELDS SMOOTH REINSTALLED IDLERS, ROLLERS GUIDING GUARDS, WITH NEW HARDWARE AND IDLER BLOCKS AND CAPS TORQUED ALL HARDWARE TO CAT SPECS. TAPPED ALL ROLLER BOLT HOLES WITH TAP TO CLEAN UP THREADS, ALONG WITH IDLER BOLT HOLES
03/22/2016	Service	8648	MODIFY TRACK ROLLER FRAME	REPAIR PROCESS COMMENTS: REMOVED IDLERS, AND OLD MOUNTING BLOCKS, FILLED OLD HOLE WITH WELD AND GROUND FLAT WITH GRINDER POUNDED IN PINS AS PER INSTRUCTIONS. USED NEW BLOCKS AND TRANSFER PUNCH TO MARK NEW HOLE LOCATION. PUT PLATE ON REAR OF ROLLER FRAMES TO HOLD MAGNETIC DRILL. DRILLED HOLES TO CAT SPECS. AND TAPPED TO 20MM.
03/22/2016	Service	8648	REMOVE & INSTALL TRACK GUIDE/GUARD	REPAIR PROCESS COMMENTS: REMOVED ALL GUIDING GUARDS & STRAIGHTEN, REPLACED WITH NEW HEAVY DUTY STYLE AND ALL NEW HARDWARE. ANTI SEIZED ALL HARDWARE.
03/22/2016	Service	8648	REPLACE IDLER/IDLER WHEEL	
03/22/2016	Service	8648	REPLACE SPROCKET SEGMENT	
03/22/2016	Service	8648	REPLACE TRACK ROLLER	
03/22/2016	Service	8648	REPLACE CARRIER ROLLER	
03/22/2016	Service	8648	CLEAN TRACK ROLLER FRAME	
03/22/2016	Service	8648	MEASURE UNDERCARRIAGE	CAUSE OF FAILURE: LINK HT.-34.7 MM= 48% WORN BUSHINGS- 12.6 MM= 30% WORN GROUSER HT.- 76.6 MM= 25% WORN RAILS ARE 45 SECTIONS LONG AND SHOES ARE 36" PUNCHED IN THE PLUGS ON BOTH RAILS. RAIL MARKED AS RAIL "A" HAS 4 FAILED AND 4 LOW JOINTS. RAIL MARKED AS RAIL "B" HAS 2 FAILED AND 2 LOW JOINTS. TOTAL OF 6 FAILED JOINTS AND 6 LOW JOINTS. WARRANTY TAG# WR121326 CONVERTING SYSTEM ONE UNDERCARRIAGE TO HEAVY DUTY UNDERCARRIAGE. NEW RAIL ID# FOR HEAVY DUTY TRACKS ARE; PS302B09 AND PS302B08. ROLLERS MEASURED 60% WORN IDLERS MEASURED 44% WORN TOP ROLLERS MEASURED 67.5% WORN
03/22/2016	Service	8648	REMOVE & INSTALL UNDERCARRIAGE	PRORATE CHARGE IN MISCELLANEOUS FOR TRACK SHOES WORN 73% (CUSTOMER PAYS FOR WEAR) 88 TRACK SHOES AT 68.10 = \$5992.80 2 TRACK MASTER SHOES AT 74.92 = \$149.84 REPAIR PROCESS COMMENTS: REMOVE & INSTALL UNDERCARRIAGE REMOVED ROLLERS, IDLERS, GUIDING GUARDS, CENTER AND FRONT & REAR, REMOVED CARRIER ROLLERS REMOVED SCRAPERS AND CUT WELDS ON SCRAPER MOUNTING PLATES TO REMOVE FRONT AND REAR. GROUND OLD WELDS SMOOTH REINSTALLED IDLERS, ROLLERS GUIDING GUARDS, WITH NEW HARDWARE AND IDLER BLOCKS AND CAPS TORQUED ALL HARDWARE TO CAT SPECS. TAPPED ALL ROLLER BOLT HOLES WITH TAP TO CLEAN UP THREADS, ALONG WITH IDLER BOLT HOLES
03/22/2016	Service	8648	EXTRA PARTS/LABOR/MISFOR	THIS SEGMENT IS FOR COST NOT INCLUDED IN THE UNDERCARRIAGE PRICE.
03/22/2016	Service	8648	REPAIR TRACK ADJUSTER	REPAIR PROCESS COMMENTS: DRAINED ROLLER FRAMES REMOVED TWISTER RESISTER TO REMOVE FRONT TUBE FROM FRAMES. REMOVED TRACK ADJUSTER. TOOK APART TRACK ADJUSTER CLEANED AND INSPECTED FOR WEAR BUFFED PISTON RESEALED WITH NEW FITTINGS AND VALVES ORINGS, AND SEALS ALONG WITH PLUGS. REINSTALLED IN TUBE. REMOVED TUBE SEAL, BEARING RETAINER, AND BEARINGS CLEANED ALL SURFACES, AND REPLACED WITH NEW. REINSTALLED TUBES IN FRAMES REINSTALLED TWISTER RESISTERS. AND FILLED WITH 7 GALLONS OIL.
03/22/2016	Service	8648	MODIFY TRACK ROLLER FRAME	REPAIR PROCESS COMMENTS: REMOVED IDLERS, AND OLD MOUNTING BLOCKS, FILLED OLD HOLE WITH WELD AND GROUND FLAT WITH GRINDER POUNDED IN PINS AS PER INSTRUCTIONS. USED NEW BLOCKS AND TRANSFER PUNCH TO MARK NEW HOLE LOCATION. PUT PLATE ON REAR OF ROLLER FRAMES TO HOLD MAGNETIC DRILL. DRILLED HOLES TO CAT SPECS. AND TAPPED TO 20MM.
03/22/2016	Service	8648	REMOVE & INSTALL TRACK GUIDE/GUARD	REPAIR PROCESS COMMENTS: REMOVED ALL GUIDING GUARDS & STRAIGHTEN, REPLACED WITH NEW HEAVY DUTY STYLE AND ALL NEW HARDWARE. ANTI SEIZED ALL HARDWARE.
03/22/2016	Service	8648	REPAIR TRACK ASSEMBLY	REPLACE STRIPED OUT SPLIT LINKS
03/22/2016	Service	8648	COMPLETE PRE-SAFETY CHECK	
03/22/2016	Service	8648	REPLACE IDLER/IDLER WHEEL	
03/22/2016	Service	8648	REPLACE SPROCKET SEGMENT	

03/22/2016	Service	8648	REPLACE TRACK ROLLER	
03/22/2016	Service	8648	REPLACE CARRIER ROLLER	
03/29/2016	Service	10821	TROUBLESHOOT TRANSMISSION	
07/07/2016	Service	9175	REPAIR GPS	CUSTOMER COMPLAINT: -JOBSITE- MS992 SHOWING NOT CONNECTED INTERMITTENTLY LEFT AND RIGHT SIDE REPAIR PROCESS COMMENTS: INSPECTED MACHINE AND VERIFIED COMPLAINT. SPOKE WITH OPERATOR AND PROBLEM HAS BEEN OCCURRING FOR AN EXTENDED PERIOD OF TIME. CHECKED CAN RESISTANCE @ THE HARDNOSE HARNESSES AND IT WAS 60 OHMS. SWITCHED COIL CABLES AND TEST RAN. PROBLEM STILL OCCURRED. FOREMAN BROUGHT A DIFFERENT SET OF MS992 ANTENNAS. SWAPPED OUT ANTENNAS AND PROBLEM STILL OCCURRED. SPOKE WITH TECHNICAL AND INSPECTED HARDNOSE HARNESSES AND DISPLAY HARNESS. FOUND THE HARDNOSE HARNESSES WERE BEGINNING TO FRAY. RETURNED TO MACHINE AND INSTALLED NEW HARDNOSE HARNESSES AND FASTENED DOWN AS NEEDED. TEST RAN MACHINE AND PROBLEM IS STILL PRESENT. TEMPORARILY INSTALLED A DIFFERENT DISPLAY HARNESS AND TEST RAN. PROBLEM IS STILL PRESENT. INSTALLED A LOANER CB460 DISPLAY AND LOADED MACHINE SETTINGS ONTO TEST DISPLAY. RAN MACHINE AND PROBLEM STILL OCCURRED. INFORMED CUSTOMER THAT THE
07/07/2016	Service	9175	TRAVEL TO/FROM MACHINE	
07/07/2016	Service	9175	COMPLETE PRE-SAFETY CHECK	
01/24/2017	Service	9175	REPLACE GASKET / SEAL IDLER/IDLER WHEEL	
01/24/2017	Service	9175	PURCHASE PARTS ONLY	
01/24/2017	Service	9175	REPLACE GASKET / SEAL IDLER/IDLER WHEEL	
01/24/2017	Service	9175	MACHINE/GRIND/MILL EQUALIZER BAR	CUSTOMER COMPLAINT: ALL BORES WORN AND OVERSIZE ON BAR REPAIR PROCESS COMMENTS: PERFORMED ALL SETUPS AND MACHINED 3 BORES IN BAR INSTALLED ALL PARTS IN BAR
01/24/2017	Service	9175	COMPLETE PRE-SAFETY CHECK	
02/02/2017	Service	0	WELD FRAME	CUSTOMER COMPLAINT: MACHINE WAS IN BURNSVILLE MN. WELD FRAME. REPAIR PROCESS COMMENTS: BOTH THE RIGHT AND LEFT SIDE PIVOT SHAFTS HAD CRACKS IN THE WELD WHERE IT IS WELDED TO THE FRAME. GOUGED OUT THE CRACKS ON THE PIVOT SHAFTS AND REWELDED THE CRACKED AREAS. CLEANED UP THE AREA. PRIMED AND PAINTED THE REPAIRED AREA. STL
02/02/2017	Service	0	WELD FRAME	CUSTOMER COMPLAINT: MACHINE WAS IN BURNSVILLE MN. WELD FRAME. REPAIR PROCESS COMMENTS: BOTH THE RIGHT AND LEFT SIDE PIVOT SHAFTS HAD CRACKS IN THE WELD WHERE IT IS WELDED TO THE FRAME. GOUGED OUT THE CRACKS ON THE PIVOT SHAFTS AND REWELDED THE CRACKED AREAS. CLEANED UP THE AREA. PRIMED AND PAINTED THE REPAIRED AREA. STL
02/02/2017	Service	0	COMPLETE PRE-SAFETY CHECK	CUSTOMER COMPLAINT: PERFORM PRE-SAFETY CHECK REPAIR PROCESS COMMENTS: THE MACHINE WAS IN A SAFE WORKING AREA.
02/18/2017	Service	0	RECONDITION BEFORE FAILURE TRANS & DIFFERENTIAL UNIT	***** 3 YEAR/5000 HOUR WARRANTY EFFECTIVE: 01/31/2017 CUSTOMER MUST PERFORM SCHEDULED MAINTENANCE AND SOS 1 HOUR AFTER INSTALLATION AND EVERY 500 HOURS THEREAFTER IN ORDER TO VALIDATE WARRANTY. FAILURE TO DO SO MAY VOID WARRANTY. *****
02/18/2017	Service	0	EXTRA PARTS/LABOR/MIS FOR TRANS & DIFFERENTIAL UNIT	THIS SEGMENT IS FOR TRANSMISSION AND DIFFERENTIAL EXTRAS NOT INCLUDED IN THE RECONDITION FLAT RATE CUSTOMER COMPLAINT: RECONDITION BEFORE FAILURE TRANS/DIFF CAUSE OF FAILURE: HIGH HOURS REPAIR PROCESS COMMENTS: DISASSEMBLED THE TRANSMISSION. INSPECTION FOUND ALL OF THE GEARS IN THE PLANETARY TO BE PITTING AND THE LARGE GEAR IN THE OUTPUT TRANSFER GEAR GP. THERE WERE A FEW PLATES DISCOLORED IN FORWARD, 2ND AND 3RD, ALONG WITH 1ST. THE REST OF THE TRANSMISSION LOOKED GOOD. REPLACED ALL OF THE PITTING GEARS ALONG WITH THE DISCOLORED PLATES AND INSTALLED NEW DISCS. INSTALLED ALL NEW ELECTRICAL COMPONENTS AS PREVENTATIVE ACTION. SET THE TRANSFER GEAR ENDPLAYS ALL TO .002"-.003". SPEC IS .004" +/- .002". SET THE BACKLASH TO .014". SPEC IS .008"-.017". FLOW TESTED THE TRANSMISSION ONCE ASSEMBLED. SEE THE ATTACHED TEST SHEET. S/N KKA05872 A/N 220-1429 CLH
02/18/2017	Service	0	REBEARING & RESEAL DIFFERENTIAL DRIVE & BRAK	
02/18/2017	Service	0	EXTRA PARTS/LABOR/MIS FOR DIFFERENTIAL DRIVE & BRAK	THIS SEGMENT IS FOR DIFFERENTIAL DRIVE AND BRAKE EXTRAS NOT INCLUDED IN THE REBEARING AND RESEAL FLAT RATE CUSTOMER COMPLAINT: REBEARING & RESEAL DIFFERENTIAL DRIVE & BRAKE CAUSE OF FAILURE: HIGH HOURS RESULTANT DAMAGE: BEARING DAMAGE REPAIR PROCESS COMMENTS: INSTALLED ALL NEW BEARINGS AND GEARS. RESEALED AND ASSEMBLED ALL PARTS. INSTALLED NEW PLATE CLUTCHES, FRICTION DISCS AND RING. CLH
02/18/2017	Service	0	REBEARING & RESEAL PLANETARY & BRAKE	

02/18/2017	Service	0	EXTRA PARTS/LABOR/MISFOR PLANETARY & BRAKE	THIS SEGMENT IS FOR RIGHT SIDE BRAKE & PLANETARY EXTRAS NOT INCLUDED IN THE REBEARING AND RESEAL FLAT RATE CUSTOMER COMPLAINT: REBEARING & RESEAL PLANETARY & BRAKE CAUSE OF FAILURE: HIGH HOURS RESULTANT DAMAGE: BEARING DAMAGE REPAIR PROCESS COMMENTS: INSTALLED ALL NEW BEARINGS AND GEARS FROM PLANETARY. RESEALED AND ASSEMBLED ALL PARTS. ADJUSTED AND SET. INSTALLED NEW PLATE CLUTCHES, FRICTION DISCS AND RING. CLH
02/22/2017	Service	0	REBEARING & RESEAL TORQUE CONVERTER	
02/22/2017	Service	0	EXTRA PARTS/LABOR/MISFOR TORQUE CONVERTER	THIS SEGMENT IS FOR TORQUE CONVERTER EXTRAS NOT INCLUDED IN THE REBEARING AND RESEAL FLAT RATE CUSTOMER COMPLAINT: REBEARING AND RESEAL TORQUE CONVERTER CAUSE OF FAILURE: NO FAILURES WERE FOUND. DOES NEED SOME UPDATED PARTS. INSTALLING UPDATED CARRIER 336-2433 AND 336-2435 RETAINER PER SERVICE MAGAZINE SEPD1686. REPLACING ALL BEARINGS, SEALS AND ELECTRICAL. REPAIR PROCESS COMMENTS: REPLACED ALL PARTS MENTIONED ABOVE. TORQUED ALL BOLTS TO CAT SPECS. SENT TO TEST CELL FOR ADJUSTMENTS. CLH
02/25/2017	Service	0	PURCHASE TRACK ASSEMBLY	
02/25/2017	Service	0	COMPLETE PRE-SAFETY CHECK	
03/02/2017	Service	9175		
03/02/2017	Service	9175	TURN/REPOSITION TR PIN & BSHG (S&L)	
03/02/2017	Service	9175		
03/02/2017	Service	9175	COMPLETE PRE-SAFETY CHECK	
03/16/2017	Service	9999999	REBEARING & RESEAL FINAL DRIVE	
03/16/2017	Service	9999999	EXTRA PARTS/LABOR/MISFOR FINAL DRIVE	THIS SEGMENT IS FOR LEFT FINAL DRIVE EXTRAS NOT INCLUDED IN THE REBEARING AND RESEAL FLAT RATE CUSTOMER COMPLAINT: REBEARING & RESEAL FINAL DRIVE - LEFT CAUSE OF FAILURE: SEALS LEAK REPAIR PROCESS COMMENTS: INSPECTED PARTS. ASSEMBLED WITH ALL NEW BEARINGS AND SEALS. CLH
03/16/2017	Service	9999999	REBEARING & RESEAL FINAL DRIVE	
03/16/2017	Service	9999999	EXTRA PARTS/LABOR/MISFOR FINAL DRIVE	THIS SEGMENT IS FOR RIGHT FINAL DRIVE EXTRAS NOT INCLUDED IN THE REBEARING AND RESEAL FLAT RATE CUSTOMER COMPLAINT: REBEARING & RESEAL FINAL DRIVE - RIGHT CAUSE OF FAILURE: SEALS LEAK REPAIR PROCESS COMMENTS: INSPECTED PARTS. ASSEMBLED WITH ALL NEW BEARINGS AND SEALS. CLH
03/23/2017	Service	0	ASSEMBLE MACHINE	
03/23/2017	Service	0	RECONDITION ENGINE	***** 3 YEAR/5000 HOUR WARRANTY EFFECTIVE: 01/31/2017 CUSTOMER MUST PERFORM SCHEDULED MAINTENANCE (INCLUDING 500 HR VALVE ADJUSTMENT) AND SCHEDULED OIL SAMPLING. SOS MUST BE TAKEN 1 HOUR AFTER INSTALLATION AND EVERY 250 HOURS THEREAFTER IN ORDER TO VALIDATE WARRANTY. FAILURE TO DO SO MAY VOID WARRANTY. ***** REPAIR PROCESS COMMENTS: DISASSEMBLED ENGINE, CLEANED AND INSPECTED ALL PARTS. ASSEMBLED ENGINE AS TO CATERPILLAR PROCEDURES WITH ALL NEW GASKETS AND SEALS. INSTALLED CRANKSHAFT (STD/STD) WITH MAIN BEARINGS PN# 151-2939. INSTALLED CYLINDER PACKS PN# 20R-1750 ALONG WITH ROD BEARINGS PN# 213-3190 (STD/STD). THE ROD AND MAIN BEARINGS WERE THEN TORQUED. INSTALLED THE FRONT GEAR TRAIN ALONG WITH THE CAMSHAFT AND LIFTERS. THE FRONT AND REAR HOUSINGS WERE INSTALLED ALONG WITH DAMPER AND FLYWHEEL. THE CYLINDER HEAD WAS INSTALLED AS WERE THE PUSH TUBES AND ROCKER SHAFT ASSEMBLIES. THE VALVES WERE ADJ REPAIR PROCESS COMMENTS: THE FOLLOWING PARTS WERE UNABLE TO BE REPAIRED AND HAD TO BE REPLACED; OIL COOLER PN# 10R-2312, CONTAMINATED; AIR INLET ELBOW PN# 246-0597, BAD FITTING HOLE; TURBO DRAIN TUBE PN# 263-3464, WORN THIN; OIL PICKUP PN # 420-3655, CONTAMINATED; REAR MOUNTS PN # 7-3567, RUBBER SEPARATING; FRONT REUNION PN# 311-8096, SEPARATING; TRANS OIL COOLER PN# 10R-3644, SOFT RUBBER; DIPSTICK PN # 261-3162, WORN THIN; DIPSTICK TUBE PN# 246-7899, WORN THIN; VALVE COVER PN# 358-7872, WORN; CRANKSHAFT PULLEY PN# 236-8239, GROOVED SHAFT; AND REPLACED ALL ELECTRICAL HARNESSSES, SWITCHES, SENSORS, AND SENDERS. CLH
03/23/2017	Service	0	EXTRA PARTS/LABOR/MISFOR ENGINE	REPAIR PROCESS COMMENTS: REMOVED AND INSTALLED TORQUE CONVERTER, TORQUE CONVERTER LINES, RADIATOR LINES, AIR TO AIR INTERCOOLER LINES, HEATER LINES, AIR CONDITIONER COMPONENTS, AIR CONDITIONER LINES, FAN DRIVE, FAN DRIVE OIL LINES, AND MACHINE HARNESS. DURING THE ENGINE RECONDITION THE FOLLOWING ITEMS WERE FOUND TO BE UNSERVICEABLE: A/C DRYER PN # 3E-3535; A/C HOSES PN # 173-9815, 173-9816, 230-5106, 236-5132; FLOOD LIGHT SWITCH PN # 139-2116; FLOOD LIGHT PN # 254-8155; ETHER VALVE PN # 239-1134; ETHER BOTTLE PN # 7N-0296; MUFFLER PN # 229-9601; AIR LINE HOSES PN # 243-1588, 243-1589, 250-7533, 201-1260, 250-6052; WATER LINE HOSES PN # 185-0844, 187-3961, 213-1724, 371-8094, 5P-1465; AND ALL CLIPS AND CLAMPS REQUIRED FOR INSTALLATION. CLH
03/23/2017	Service	0	EXTRA PARTS/LABOR/MISFOR ENGINE	

03/23/2017	Service	0	REPAIR FAN DRIVE	CUSTOMER COMPLAINT: REPAIR FAN DRIVE PART NUMBER 2513600 S/N 01091. CAUSE OF FAILURE: POOR SEAL LIP. RESULTANT DAMAGE: SEEPING OIL EXTERNALLY. REPAIR PROCESS COMMENTS: INSTALLED REBUILD KIT 2872083. NEW BEARINGS AND FRICTION DISCS AND SPEED SENSOR. JAM
05/23/2017	Service	9180	REPAIR FINAL DRIVE	CUSTOMER COMPLAINT: REPAIR FINAL DRIVE. REPAIR PROCESS COMMENTS: CUSTOMER STATED THE RIGHT FINAL DRIVE WAS BECOMING OVERFILLED FROM THE TRANSMISSION. REMOVED THE COVER FROM THE FINAL. REMOVED THE AXLE. FOUND THE SEAL TO BE DAMAGED. REMOVED THE SEAL FROM THE FINAL. CLEANED THE BORE. INSTALLED A NEW UPDATED SEAL. INSTALLED THE AXLE. CHECKED OIL LEVEL.
05/23/2017	Service	9180	TRAVEL TO/FROM MACHINE	
05/23/2017	Service	9180	COMPLETE PRE-SAFETY CHECK	
06/28/2017	Service Credit	9180	REPAIR FINAL DRIVE	CUSTOMER COMPLAINT: REPAIR FINAL DRIVE. REPAIR PROCESS COMMENTS: CUSTOMER STATED THE RIGHT FINAL DRIVE WAS BECOMING OVERFILLED FROM THE TRANSMISSION. REMOVED THE COVER FROM THE FINAL. REMOVED THE AXLE. FOUND THE SEAL TO BE DAMAGED. REMOVED THE SEAL FROM THE FINAL. CLEANED THE BORE. INSTALLED A NEW UPDATED SEAL. INSTALLED THE AXLE. CHECKED OIL LEVEL.
06/28/2017	Service Credit	9180	TRAVEL TO/FROM MACHINE	
06/28/2017	Service Credit	9180	COMPLETE PRE-SAFETY CHECK	
06/28/2017	Service	9180	REPAIR FINAL DRIVE	CUSTOMER COMPLAINT: REPAIR FINAL DRIVE. REPAIR PROCESS COMMENTS: CUSTOMER STATED THE RIGHT FINAL DRIVE WAS BECOMING OVERFILLED FROM THE TRANSMISSION. REMOVED THE COVER FROM THE FINAL. REMOVED THE AXLE. FOUND THE SEAL TO BE DAMAGED. REMOVED THE SEAL FROM THE FINAL. CLEANED THE BORE. INSTALLED A NEW UPDATED SEAL. INSTALLED THE AXLE. CHECKED OIL LEVEL.
06/28/2017	Service	9180	REPAIR FINAL DRIVE	CUSTOMER COMPLAINT: REPAIR FINAL DRIVE. REPAIR PROCESS COMMENTS: CUSTOMER STATED THE RIGHT FINAL DRIVE WAS BECOMING OVERFILLED FROM THE TRANSMISSION. REMOVED THE COVER FROM THE FINAL. REMOVED THE AXLE. FOUND THE SEAL TO BE DAMAGED. REMOVED THE SEAL FROM THE FINAL. CLEANED THE BORE. INSTALLED A NEW UPDATED SEAL. INSTALLED THE AXLE. CHECKED OIL LEVEL.
06/28/2017	Service	9180	TRAVEL TO/FROM MACHINE	
06/28/2017	Service	9180	COMPLETE PRE-SAFETY CHECK	
03/02/2018	Parts	0		
03/07/2018	Parts	0		
03/31/2018	Parts	0		
05/09/2018	Parts	0		
05/09/2018	Parts	0		
05/09/2018	Parts	0		
05/24/2018	Parts	0		
05/31/2018	Parts Credit	0		
06/15/2018	Service	11797	REPAIR TRIMBLE	CUSTOMER COMPLAINT: CUSTOMER COMPLAINED THAT THE MACHINE WAS MISSING COMPONENTS FOR THE TRIMBLE GPS SYSTEM. REPAIR PROCESS COMMENTS: THE MACHINE WAS MISSING A DISPLAY HARNESS AND MOUNT. A DISPLAY HARNESS WAS FOUND IN THE TRUCK AND INSTALLED ON THE MACHINE, THE HARNESS IS NOT CORRECT, BUT AT LEAST LETS THE CUSTOMER USE 3D INDICATE WHILE WE NEXT-DAY THE CORRECT HARNESS FROM TRIMBLE. THE DISPLAY MOUNT WAS ALSO FOUND IN THE TRUCK AND INSTALLED ON THE MACHINE. THE NEW CONTROL BOX HARNESS WAS INSTALLED. THE MACHINE NOW HAS FULL UTILITY OF AUTOMATICS AND EXTERNAL LIGHTBAR ABILITY. MACHINE WAS RETURNED TO SERVICE.
06/15/2018	Service	11797	TRAVEL TO/FROM MACHINE	
06/15/2018	Service	11797	COMPLETE PRE-SAFETY CHECK	
07/21/2018	Parts	0		
07/21/2018	Parts	0		
07/21/2018	Parts	0		
07/21/2018	Parts	0		
07/21/2018	Parts	0		
07/21/2018	Parts	0		
07/21/2018	Parts	0		
07/21/2018	Parts	0		
07/31/2018	Service	12000	PURCHASE TRACK ASSEMBLY	
07/31/2018	Service	12000	PURCHASE TRACK ASSEMBLY	
07/31/2018	Service	12000	COMPLETE PRE-SAFETY CHECK	

[illegible]

07/13/2019	Service	13607	INSTALL SOFTWARE	CUSTOMER COMPLAINT: ARDEN HILLS (ANOKA CO.) NEED NEW ENGINE SOFTWARE. CAUSE OF FAILURE: CUSTOMER WAS REPLACING FAN DRIVE. RESULTANT DAMAGE: UPDATED FAN DRIVE. REPAIR PROCESS COMMENTS: UPDATED ENGINE SOFTWARE FOR THE CONVERSION OF THE NEW FAN DRIVE SYSTEM.
07/13/2019	Service	13607	TRAVEL TO/FROM MACHINE	
08/08/2019	Service	13903	REPAIR TRIMBLE	CUSTOMER COMPLAINT: GPS SYSTEM IS SHOWING VALVE MODULE NOT CONNECTED INTERMITTANTLY. REPAIR PROCESS COMMENTS: OPERATOR RAN MACHINE AND AFTER A WHILE WAS ABLE TO RECREATE THE COMPAINT. INSPECTED EASILY ACESABLE HARNESSES AND MANIPULATED THEM WITH NO CHANGE IN PERFORMANCE. REMOVED THE SEAT, SUSPENSION, FLOOR MATS, FLOOR PANS AND SIDE ACCESS PANELS TO FURTHER INSPECT HARNESS. MANIPULATED ALL HARNESSES WITH NO CHANGE. CUT GPS HARNESSING LOOSE AND LAYED IT OUT TO BE INSPECTED AND FOUND A VERY LARGE ABRASION ON THE REAR MAIN HARNESS WITH MULTIPLE WIRES RUBBED THROUGH TO BARE WIRE. LOOKED UP PARTS AND FOUND WE HAD A HARNESS ON HAND. COMPLETED REMOVING DAMAGED HARNESS. WENT AND GOT NEW HARNESS AND INSTALLED IN MACHINE AND TIED UP TO PREVENT RUBBING IN THE FUTURE. ALL COMONANTS NOW SHOW CONNECTED. PUT CAB BACK TOGETHER AND RETURNED MACHINE TO SERVICE.
08/08/2019	Service	13903	TRAVEL TO/FROM MACHINE	
08/08/2019	Service	13903	COMPLETE PRE-SAFETY CHECK	
08/16/2019	Service	13903	PURCHASE SPROCKET SEGMENT	
08/16/2019	Service	13903	COMPLETE PRE-SAFETY CHECK	
08/29/2019	Service	1	REPAIR GRADE CONTROL	CUSTOMER COMPLAINT: MACHINE GPS IS NOT WORKING. REPAIR PROCESS COMMENTS: CALLED SITE CONTACT TO GET MACHINE LOCATION. DROVE UP TO ARDEN HILLS AND COUNTY I TO FIND MACHINE. MACHINE WAS NOT AT LOCATION. WAITED FOR CONTACT TO CALL ME BACK AND GET ME THE CORRECT MACHINE LOCATION. FOUND THE MACHINE WAS SOUTH OF 694 ON 35W. FOUND MACHINE AND SPOKE WITH OPERATOR AND HE DIDNT KNOW OF ANYTHING WRONG WITH THE MACHINE. A HARNESS WAS REPLACED TWO WEEKS BEFORE BECAUSE OF RUBBED THROUGH WIRES FOR THE GPS. OPERATOR CALLED NIGHT SHIFT OPERATOR WHO ALSO DIDNT KNOW OF ANYTHING WRONG. CUSTOMER DETERMINED THAT THERE MUST HAVE BEEN A MISCOMMUNICATION AND THERE WAS NO PROBLEM WITH THE MACHINE.
08/29/2019	Service	1	TRAVEL TO/FROM MACHINE	
08/29/2019	Service	1	COMPLETE PRE-SAFETY CHECK	
11/09/2019	Service	13903	TROUBLESHOOT IMPLEMENT CONTROLS	CUSTOMER COMPLAINT: BLADE LOWERING AND RAISING WITHOUT LEVER CONTROL. GPS CAUSING ISSUE. REPAIR PROCESS COMMENTS: GOT TO THE MACHINE AND THE OPERATOR SAID HE IS NOT EVEN USING GPS. GPS WAS NOT TURNED ON. OPERATOR SHOWED ME THAT AFTER MOVING THE IMPLEMENT LEVER THE BLADE WOULD INTERMITTENTLY KEEP MOVING UP OR DOWN. TOLD THE OPERATOR IT WAS MOST LIKELY IN THE VALVE BUT WOULD HAVE TO TROUBLESHOOT. OPERATOR SAID HE COULD NOT GIVE UP THE MACHINE BECAUSE OF ALL THE TRUCKS COMING. TOLD OPERATOR TO LET US KNOW WHEN THE MACHINE WILL BE SITTING AND WE CAN TAKE A LOOK.
11/09/2019	Service	13903	TRAVEL TO/FROM MACHINE	
11/09/2019	Service	13903	COMPLETE PRE-SAFETY CHECK	
12/20/2019	Service	14559	INSTALL PRODUCT LINK SYSTEM	CUSTOMER COMPLAINT: THE MACHINE WAS LOCATED IN NEW BRIGHTON, MN REPAIR PROCESS COMMENTS: INSTALLED A PL542 ON THIS MACHINE. EMAILED THE INFORMATION TO THE VISIONLINK GROUP TO BE REGISTERED.
12/20/2019	Service	14559	TRAVEL TO/FROM MACHINE	
12/20/2019	Service	14559	INSTALL PRODUCT LINK SYSTEM	
12/20/2019	Service	14559	TRAVEL TO/FROM MACHINE	
12/20/2019	Service	14559	COMPLETE PRE-SAFETY CHECK	
04/15/2020	Service	14629	TROUBLESHOOT TRIMBLE	CUSTOMER COMPLAINT: THE CUSTOMER STATED THAT THE MACHINE WAS ONLY SHOWING ONE RECEIEVER CONNECTED, CUSTOMER TROUBLESHOT MACHINE AND DETERMINED FRONT HARNESS NEEDED REPLACEMENT. CAUSE OF FAILURE: IMPROPER SOFTWARE LOADING IN THE RECEIVERS. RESULTANT DAMAGE: BOTH RECEIVERS SHOWING FW MISMATCH IN DIAGNOSTICS. REPAIR PROCESS COMMENTS: MACHINE WAS INSPECTED AND FOUND TO POWER ALL COMPONENTS CORRECTLY. BOTH LEFT AND RIGHT RECEIVERS SHOWED FW MISMATCH WHICH VERIFIES WIRING TO EACH IS CORRECT. LEFT RECEIVER WAS AT V5.21 AND RIGHT RECEIVER WAS AT V5.07. LEFT RECEIVER WAS DOWNGRADED TO V.5.07 AND AFTER SUCCESSFULLY DOWNGRADING, MACHINE WORKS AS NORMAL. BOTH RECEIVERS UPDATED TO V5.31. MACHINE OPERATED WITHOUT BASE AND NO ISSUES WERE FOUND. MACHINE WAS RETURNED TO SERVICE.
04/15/2020	Service	14629	TRAVEL TO/FROM MACHINE	
04/15/2020	Service	14629	COMPLETE PRE-SAFETY CHECK	

04/25/2020	Service	14629	REMOVE, CLEAN & INSTALL TRACK SHOE	REMOVED TRACK SHOE HARDWARE AND SHOES FROM OLD LINK ASSEMBLIES. CLEANED MOUNTING SURFACES OF SHOES AND INSTALLED SHOES ONTO NEW LINK ASSY TORQUED SHOE BOLTS AT 300 FOOT POUNDS PLUS THIRD TURN. SHOE WIDTH IS 36" RAIL ID# HW351F09/HW351F10
04/25/2020	Service	14629	PURCHASE PARTS ONLY	
04/25/2020	Service	14629	REPAIR TRACK ROLLER FRAME	REMOVED BROKEN IDLER BOLT. FLAME GOUGED CRACK AROUND IDLER BOLT HOLE. WELDED CRACK. DRILLED AND TAPPED NEW IDLER BOLT HOLE. FLAME GOUGED TWO CRACKS ON THE INSIDE OF RECOIL TUBE, WELDED CRACKS. COMPRESSED RECOIL SPRING AND REMOVED CRACKED RECOIL PLATE, INSPECTED RECOIL SPRING. PLACED RECOIL SPRING INTO RECOIL TUBE AND INSTALLED NEW RECOIL PLATE. RECOMPRESSED RECOIL SPRING.
04/25/2020	Service	14629	COMPLETE PRE-SAFETY CHECK	
05/12/2020	Service	14659	REPAIR GRADE CONTROL	CUSTOMER COMPLAINT: NO POWER ON ANY OF THE GPS. CAUSE OF FAILURE: GROUND FOR THE DISPLAY POWER WAS NOT CONNECTED TO ANYTHING. POWER WIRE FOR THE DISPLAY WAS PINCHED BETWEEN A P-CLIP AND WASHER. RESULTANT DAMAGE: GPS COULD NOT BE USED. REPAIR PROCESS COMMENTS: VERIFIED CUSTOMER COMPLAINT. CHECKED ALL FUSES AND ALL WERE GOOD. NOTICED THAT THE KEY POWER ONLY HAD 4 VOLTS. TRIED A NEW POWER MODULE, NO CHANGE. REMOVED THE SEAT AND FLOOR PANELS TO LOOK AT WIRING. ALL WIRING LOOKED GOOD AND EVERYTHING WAS CONNECTED. STARTED TO LOOK AT THE MAIN POWER HARNESS. TRIED TO CHECKED FOR POWER AT THE POWER MODULE BUT WAS NOT SURE WHAT PINS WERE POWER AND GROUND. COMPUTER WOULD NOT OPEN ANY PDF'S. TALKED TO RAMSEY NICHOLS IN THE TC GROUP. HE TOLD ME WHICH WIRES WERE POWER AND GROUND AND ALL CHECKED OUT GOOD. NEXT CHECKED THE POWER HARNESS FOR THE DISPLAY. DID NOT HAVE ANY POWER GOING TO THE DISPLAY. FOLLOWED THE HARNESS BACK INTO THE BATTERY COMPARTMENT BUT COULD NOT SEE WHERE THE WIRES WERE HOOKED UP A
05/12/2020	Service	14659	TRAVEL TO/FROM MACHINE	
05/12/2020	Service	14659	COMPLETE PRE-SAFETY CHECK	
06/27/2020	Service	14819	REMOVE & INSTALL UNIT INJECTOR	CUSTOMER COMPLAINT: CYLINDER 3 WAS MISSING. COUNCIL BLUFFS, IA OUTSIDE CITY LIMITS POTTAWATTAMIE COUNTY. CAUSE OF FAILURE: INTERNAL FAILURE OF INJECTOR 3. RESULTANT DAMAGE: CYLINDER 3 WAS MISSING. REPAIR PROCESS COMMENTS: CUSTOMER TROUBLESHOT MISS AND ORDERED INJECTOR FROM NMC. I GOT TO MACHINE AND GOT INJECTOR FROM CUSTOMER. I REMOVED THE AIR BREATHER AND ETHER INJECTION CYLINDER TO GET ACCESS TO THE VALVE COVER. I REMOVED THE VALVE COVER AND UNPLUGGED THE INJECTOR. REMOVED INJECTOR HOLDDOWN BOLTS THEN PRIED INJECTOR OUT OF THE HEAD. CLEANED THE BORE AND VACUUMED THE OIL AND FUEL OUT OF THE CYLINDER. LUBED NEW INJECTOR AND INSTALLED IT IN THE BORE. TIGHTENED HOLDDOWN BOLTS AND FLASHED INJECTOR WITH THE NEW TRIM FILE. REINSTALLED THE VALVE COVER, AIR BREATHER, AND ETHER CYLINDER. STARTED ENGINE AND MADE SURE IT WAS RUNNING PROPERLY. NO MISS WAS THERE. RETURNED MACHINE TO SERVICE.
06/27/2020	Service	14819	TRAVEL TO/FROM	
07/14/2020	Service	14978	TROUBLESHOOT ENGINE	CUSTOMER COMPLAINT: ENGINE HAS A MISS. COUNCIL BLUFFS, IA, POTTAWATTAMIE COUNTY, OUTSIDE CITY LIMITS. CAUSE OF FAILURE: INJECTOR HARNESS FAILED. RESULTANT DAMAGE: LOSS OF PRODUCTION. REPAIR PROCESS COMMENTS: USING ET THE ENGINE CODE WAS FOUND TO SHOW FAULT FOR AN OPEN CIRCUIT ON THE AIR INTAKE SENSOR. THE SENSOR WAS FOUND BROKEN OFF AND A SENSOR WAS ORDERED TO BE REPLACED. WITH THE NEW SENSOR INSTALLED THE MACHINE WAS RUNNING WITH NO ACTIVE CODES AND SENT BACK TO PRODUCTION. A FEW HOURS LATER THE OPERATOR STATED THE ENGINE WAS RUNNING ROUGH AGAIN. ET SHOWED A OPEN CIRCUIT CODE FOR INJECTOR #3. KNOWING THE INJECTOR HAD BEEN RECENTLY INSTALLED, THE VALVE COVER WAS REMOVED AND THE CONNECTION CHECKED FOR BEING LOOSE. ALL CONNECTIONS WERE TIGHT AND THE ENGINE CODE HAD GONE AWAY AFTER DISTURBING THE WIRE HARNESS. A NEW INJECTOR HARNESS WAS ORDERED TO BE REPLACED THE NEXT DAY.
07/14/2020	Service	14978	REPAIR ENGINE	CUSTOMER COMPLAINT: ENGINE RUNNING ROUGH. CAUSE OF FAILURE: INJECTOR HARNESS FAILED. RESULTANT DAMAGE: LOSS OF PRODUCTION. REPAIR PROCESS COMMENTS: REMOVED THE AIR CLEANER AND THE START AID TO ACCESS THE VALVE COVER AND REPLACE THE HARNESS. WITH THE NEW HARNESS INSTALLED AND BEFORE THE VALVE COVER WAS INSTALLED THE INJECTOR TEST WAS DONE TO CONFIRM ALL 6 INJECTORS WERE ACTIVATING. INSTALLED THE VALVE COVER AND AIR CLEANER BEFORE STARTING THE ENGINE AND CONFIRMED THE INJECTOR CODE HAD CLEARED. THE MACHINE WAS SENT BACK INTO PRODUCTION.

07/31/2020	Service	14819	REPAIR LIFT/HOIST CYLINDER	CUSTOMER COMPLAINT: REPLACE BROKEN LIFT CYLINDER YOKE. COUNCIL BLUFFS, IA; POTTAWATTAMIE COUNTY; OUTSIDE CITY LIMITS CAUSE OF FAILURE: WEAR MARKS INDICATE THE YOKE HAD BEEN BROKEN FOR LONG PERIOD OF TIME, POSSIBLE INCLUSION OR CRACK RESULTANT DAMAGE: LIFT CYLINDER FELL AND RIPPED LINES AND DAMAGED GUARD. REPAIR PROCESS COMMENTS: LIFTED CYLINDER WITH CRANE, REMOVED HARD LINE AND DAMAGED HOSES. SECURED CYLINDER WITH COME-ALONG AND REMOVED BROKEN YOKE. REMOVED LOCK FROM YOKE BORE AND REMOVED THE REST OF THE YOKE AND CLEANED THE BORE. INSTALLED THE NEW YOKE, CYLINDER, HARD LINE, HYDRAULIC LINES, AND CYLINDER GUARD. HAD CUSTOMER FILL HYDRAULIC OIL AND RAN THE MACHINE TO VERIFY THERE WAS NO OTHER DAMAGE OR LEAKS. RELEASE MACHINE. FORGOT TO DOWNLOAD A PSR. CUSTOMER SUPPLIED PARTS
07/31/2020	Service	14819	TRAVEL TO/FROM MACHINE	CUSTOMER COMPLAINT: TRAVEL TO/FROM MACHINE CAUSE OF FAILURE: TRAVEL TO/FROM MACHINE RESULTANT DAMAGE: TRAVEL TO/FROM MACHINE REPAIR PROCESS COMMENTS: TRAVELED TO/FROM MACHINE
09/07/2021	Service	16285	UPDATE TRACK PINS & BUSHINGS-S&L	
09/07/2021	Service	16285	UPDATE TRACK PINS & BUSHINGS-S&L	
09/07/2021	Service	16285	REMOVE AND INSTALL TRACK SHOES	
03/01/2022	Service	10821	REPLACE UNDERCARRIAGE COMPLETE	
03/01/2022	Service	10821	REPLACE SPROCKET SEGMENT	
03/01/2022	Service	10821	ASSEMBLE TRACK SHOES	
03/01/2022	Service	10821	USED EQUIPMENT TRACK ASSEMBLY	

Configuration

Configuration Code	Price List	Description
3015768	MAC1	ENGINE S/N THX19032
2228757	MAC1	6SLGP DOZER S/N: B9B01125

After Order Configuration

Date	Description	Repair Cost	Notes
02/28/2009	INSTALL AUTOMATIC GRADE CONTROL	\$0.00	

Attachments

Manufacturer Name	Attachment Serial No.	Attachment Id	Mfg Year	Description	Updated Date
TRIMBLE GPS SYSTEM EQUIPMENT	AMES#K7316	K7316			04/16/2010
TRIMBLE GPS SYSTEM EQUIPMENT	AMES#K7316	K7316			04/16/2010

PIP / PSP

Start Date	End Date	PIP No.	PIP Type	Hrs Req.	Description	Status
09/17/2009	09/30/2012	PS51728	A	24.00	Repairing cracks in the rear track rolle	Expired
12/22/2009	12/31/2012	PS51784	A	6.00	Repairing d3:c4 nav 10.4 displays (239-9	Expired
04/06/2011	04/30/2013	PS43260	C	8.00	Replacing the ring gear and final drive	Complete
08/20/2012	08/31/2014	PS60040	A	32.00	Replacing the lifter spring guides and t	Expired
09/13/2012	09/30/2014	PS52292	A	7.00	Replacing the heui pump on certain 330d,	Expired
02/06/2013	12/31/2018	PS52390	A	48.00	Repairing cracks in the rear track rolle	Expired
10/09/2013	10/31/2015	PS52535	A	5.00	Replacing the wire fan guards on various	Expired
12/17/2013	12/31/2015	PS52577	A	3.00	Replacing the hood harness on certain d6	Expired
09/19/2014	09/30/2016	PS52764	A	13.00	The replacement of the engine fan clutch	Expired
07/21/2016	07/31/2018	PS53257	A	3.00	Repairing the weld joining the frame to	Expired

Historical Warranty

Product Code	Description	Start Date	End Date	Start Hours	End Hours
D6T	EPP1 36/5000 TM - 6MO STD	01/05/2009	01/05/2012	0	0