

SCOTT COUNTY CONSERVATION		SCOTT COUNTY CONSERVATION		Invoice Number: 385316 Invoice Date: 01/09/2019 Location: 4 Work Order Number: 83861 Payment Type: Account Page: 1 of 3	
Make/Model:	Meter	Serial Number:	EQ Id:	Fleet No:	
JOHN DEERE 310SG	2749	T0310SG929499	33691W		

/DT1000 Retail

CORRECTION:

Service Call

<u>Miscellaneous</u>	<u>Description</u>	<u>Quantity</u>	<u>Net Price</u>	<u>Extended Price</u>	<u>Taxed Ind</u>
MILEAGE150	MILEAGE - 1.50 PER MILE	68.00	\$1.50	\$102.00	N
Labor: \$212.69	Parts: \$0.00	OL&M: \$0.00	Misc:	Sub-Total:	

Gen2- Retail

COMPLAINT:

Noise in the MFWD
 Tim 563-340-2004

CORRECTION:

Attempted to start machine but batteries were dead. Charged batteries. Test drove machine and listened to front axle noise. Noise is only evident during a turn. Raised machine up with loader and outriggers. Ran MFWD and noise was not as bad. Lowered front end down to apply weight to the front axle and noise returned. Switched transmission to reverse and front axle would make a ratcheting sound. Brought unit in to shop. Removed front counterweight. Removed front tires. Disconnected driveshaft, steering cylinder hoses, and grease line. Removed axle pivot pin and removed axle from machine. Split axle housing and removed differential. Disassembled differential and inspected. Did not find any obvious issues with differential. Reassembled differential. Removed tie rod ends. Cleaned greased and replaced torn tie rod boots on both inner and outer joints. Installed tie rods back on axle. Installed axle in machine and set toe in. Filled axle with oil. Tested axle to see if there was any difference in operation. Still has the same issue. Put machine up on stands. Removed transmission guard from frame. Drained trans oil and hydraulic oil. Removed hydraulic pump and driveshafts from trans. Disconnected lines and harnesses from trans. Unbolted torque converter from flywheel. Fabricated bracket to hold trans to jack. Unbolted trans from engine and removed from machine. Put trans on bench and removed torque converter and front case. Found MFWD gear and hub worn. Rebuilt MFWD shaft with new gear, hub and bearings then installed in trans. Cleaned sealing surfaces on case halves. Installed front case. Installed torque converter. Mounted trans back on jack and installed in machine. Bolted trans to engine. Bolted torque converter to flywheel. Connected lines and harnesses to trans. Installed hydraulic pump and driveshafts to trans. Filled trans and hydraulic system with oil. Test ran trans and checked pressures. When removing the test plug for the MFWD the threads came out of the housing with the plug. Tapped housing to next bigger sized plug and installed. Checked for leak at test port. Trans and MFWD pressure was about 240psi which is in spec. Took machine off of stands. Installed trans guard on frame. Installed counterweight. Installed floor plates and floor mat in cab. Checked fluid levels. Test drove machine and MFWD function works fine now.

<u>PartNumber</u>	<u>Description</u>	<u>Quantity</u>	<u>Net Price</u>	<u>Extended Price</u>	<u>Taxed Ind</u>
19M9124	Cap Screw	1.00			
34MS723	Spring Pin	5.00			
409	.BRAKE CLEAN	5.00			
449558	WASHER	1.00			

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		EQ Id: 33691W
		Fleet No:

AL113451	BOOT
AL113460	BOOT
AR69444	HY-GARD TM
AT179316	SEAL
AT179468	Tapered Roller Bearing
AT179472	Tapered Roller Bearing
AT224949	HOSE
AT444943	Seal
AT466863	OIL FILTER
AT467975	SEAL
F37030242	O-RING
H81744	O-RING
L40306	O-Ring
L55580	O-RING
L56822	PIPE PLUG
L78069	Ring
PM38655	SEALANT
R35352	Fitting
T113128	SCREW
T158722	Snap Ring
T158742	RING
T158744	Ring
T158745	Ring
T158760	Thrust Washer
T158762	Spring
T158855	End Plate
T158859	Sleeve
T159567	Plate
T159572	Dust Shield
T164572	Bushing
T164575	Gear
T69938	HALF CLAMP
T76938	O-RING
T77613	O-RING
T77814	O-RING

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		Fleet No:

T77932	O-RING
TY22028	HY-Gard TM
X4P5ON-S	Fitting Plug
XPD34BTX	DIAGNOSTIC
XPD357	Diagnostic Coupling
<u>Miscellaneous</u>	<u>Description</u>
INFREIGHT	INBOUND FREIGHT

Miscellaneous Charges:

- Enviromental Fees
- Service Supplies

Labor: \$6,125.00	Parts: \$3,174.05	OL&M: \$0.00	Misc: \$123.00	Sub-Total: \$9,422.05
				Labor: Parts: OL&M: Misc: Sales Tax:
				Total: \$9,736.74

TERMS AND CONDITIONS
 TERMS: All accounts due 30 days from date of invoice. A FINANCE CHARGE of 1.5% (ANNUAL PERCENTAGE RATE OF 18%) will be added to unpaid balance. Merchandise must be returned within 30 days - 15% restocking charge.

Received by: Date: