Service Invoice

Invoice Date
5/14/2018

	Customer PO	Division
		CM
	Service Call Date	Service Writer
	04/11/2018	

Make	Model	Serial Number	Customer Equipment Number	Equipment Number	Last Meter
AA	D6R	ADE00215		ID5067501_12	11,938.00

Workscope	Extended Price

Remove & Install - Transmission

Customer complaint:
Troubleshoot transmission and remove for repair.

Resultant damage:
None.

Cause of failure:
Burnt clutch.

Repair process comments:
Removed the rear belly pan and checked both suction screens. The transmission scavenge screen had disc material and a broken piece of clutch plate in it. Decided at that time to remove the transmission for repair. Drained oil, pulled all of the axles, disconnected all necessary wiring and lines and removed the transmission. Removed all lines from the transmission pump and removed it for rebuild. Cleaned out the transmission housing and installed the trans using all new gaskets and seals. Filled with new oil and changed the filter. Installed the pump using all new seals. Performed clutch engagement pressure and clutch fill calibrations.

Parts

1.00	1328876	TRANS FILTR
188.00	CTO1556213	BULK 30W TDTO
12.00	CTO8T9577S	50W TDTO OUT DRUM

Labor

Flat Rate Labor

Total Segment Parts
Total Segment Labor
Total Segment Miscellaneous

Segment Total

Remove & Install - Torque Converter

Customer complaint:
Remove converter for rebuild.

Resultant damage:
None.

Cause of failure:
None.

Repair process comments:
Removed all lines and valves from the converter and removed from the engine. Removed the flywheel and replaced the rear crankshaft seal. Installed the converter with new seals, and five new hoses because the old ones were brittle and leaking.

Parts

1.00	2854074	SEAL GP-CSHA

Continued on back

Workscope			Extended Price
1.00	9Y0810	SLEEVE	
43.00	5P1424	CM-HOSE STK	
2.00	6L1649	SEAL O RING	
2.00	6L5359	SEAL O RING	
1.00	6V5188	Seal	
2.00	MSC705-1012	#10 CLAMP	
3.00	3J1907	SEAL	
4.00	6V8182	NUT	
2.00	7X0375	BOLT	
4.00	7X0582	WASHER	
1.00	1109709	HOSE AS	
1.00	4W9972	SENDER	
2.00	3T2747	RETAINER	
8.00	CTO3145168	BULK 10W HYD ADV	
1.00	3W2470	HOSE A	
1.00	1746127	HOSE AS	
1.00	3T7310	HOSE A	

Labor

Flat Rate Labor

Miscellaneous

1.00 FRT

Total Segment Parts
Total Segment Labor
Total Segment Miscellaneous

Segment Total

Repair - Torque Converter

Customer complaint:
Rebuild torque converter.

Resultant damage:
None.

Cause of failure:
None.

Repair process comments:
Disassembled converter, cleaned and inspected all parts. Assembled with all new seals and bearings, one bearing retainer due to wear, and new shafts and gears in the power divider planetary because of wear.

Parts

1.00	1774134	GASKET KIT -
1.00	3132064	KIT-DT BEARI
8.00	1T0414	BOLT
1.00	3181178	SENSOR GP-SP
1.00	1T2077	RETAINER-BEA
1.00	1428540	RING-SEAL
3.00	2A3746	PLUG
3.00	3T4011	SHAFT A
3.00	3T4008	GEAR

Labor

Flat Rate Labor

Continued on next page

Service Invoice

Workscope	Extended Price

Miscellaneous

1.00	FRT
1.00	FRT

Total Segment Parts
Total Segment Labor
Total Segment Miscellaneous

Segment Total

Repair - Transmission

Customer complaint:
Material found in the screen. Transmission slipping in certain gears.

Resultant damage:
Slippage in forward clutch

Cause of failure:
Low pressure to clutch

Repair process comments:
Disassembled the transmission and bevel gears. Installed all new bearings and seals. Put in new discs and plates as needed. Installed 4 new speed sensors and the two harnesses that hooked to them. Put in 5 modulating valves. Installed new spool and spring in the relief valve.

Parts

1.00	5P5045	BEARING
1.00	7H7628	BEARING A
2.00	1P3934	CUP
2.00	1P3935	CONE
6.00	3S2708	PIN
1.00	4H0019	ROLLER A
3.00	5D2989	BEARING A
1.00	6B6863	DOWEL
1.00	6V2404	WASHER
1.00	7M5130	PIN
12.00	8E8304	DISC
6.00	8E8305	DISC
2.00	8H5352	BEARING
1.00	8P2053	RING-SEAL
3.00	1124511	SPRING
1.00	1314091	SEAL-RING
1.00	3457551	KIT DT GASKE
1.00	5P7592	RACE
2.00	6S2828	CUP
2.00	6S2829	CONE
2.00	8D1817	CUP
2.00	8D1819	CONE
1.00	9G0832	DOWEL
1.00	9W8612	SPACER
2.00	3T4377	SEAL RING
6.00	5M6126	BEARING A
3.00	5P3930	BEARING
3.00	7T8816	BEARING
6.00	8E8299	DISC
1.00	9P7072	WASHER
4.00	3284375	DISC-FRICTIO
3.00	8P1964	PLATE

Continued on back

Service Invoice

Workscope			Extended Price
3.00	7G2343	SPRING	
5.00	3284374	DISC-FRICTIO	
4.00	9P7390	DISC A	
4.00	3181178	SENSOR GP-SP	
5.00	2443114	VALVE GP-MDL	
1.00	1114919	SEAL LIP TYP	
2.00	1H5728	SEAL-O-RING	
1.00	6H3977	RING	
1.00	2054626	HARNESS AS.	
4.00	1618068	SEAL	
1.00	5P9439	BEARING	
1.00	6I8500	PLATE	
1.00	2K8257	SEAL	
2.00	2S4078	SEAL	
4.00	5P7085	SEAL	
12.00	8M4986	SEAL O RING	
1.00	8M8157	SEAL O RING	
1.00	1447871	HARNESS AS.	
2.00	8M8514	SEAL O RING	
1.00	9P1922	SHIM PACK	
1.00	9P1478	SHIM PACK	
1.00	9M9647	SEAL O RING	
1.00	8M4390	SEAL O RIN	
3.00	9M7002	SEAL O RING	
1.00	7D1677	RACE	
1.00	2D6506	SEAL O RING	
1.00	1M9011	SEAL	
1.00	1093968	SPOOL A	
1.00	2M7041	SLUG	
1.00	1069212	SPRING	
Labor			
		Flat Rate Labor	
Miscellaneous			
1.00		FRT	
1.00		FRT	
1.00		FRT	
1.00		FRT	
-1.00		CAT_PRT	

Total Segment Parts	
Total Segment Labor	
Total Segment Miscellaneous	
Segment Total	

Wash - Machine

Customer complaint:
Machine needed a wash job before transmission removal

Resultant damage:
none

Cause of failure:
none

Continued on next page

Service Invoice

Workscope	Extended Price

Repair process comments:
Pulled machine into wash bay and washed machine

Labor

Total Labor

Total Segment Parts
Total Segment Labor
Total Segment Miscellaneous

Segment Total

Rebearing & Reseal - Pump - Transmission

Customer complaint:
Rebuild transmission pump.

Resultant damage:
None.

Cause of failure:
None.

Repair process comments:
Disassembled the pump, cleaned and inspected all parts. Assembled with new seals and drive coupling ball bearing.

Labor

Total Labor

Total Segment Parts
Total Segment Labor
Total Segment Miscellaneous

Segment Total

Troubleshoot - Transmission

Customer complaint:
Transmission slippage.

Resultant damage:
None.

Cause of failure:
Burnt clutch.

Repair process comments:
Checked clutch pressures and they were all within spec. Removed both suction screens and found a lot of clutch disc material in the trans scavenge screen and a broken piece of reaction plate. Cut the filter apart and found metal and more clutch material. All indications are a burnt clutch.

Labor

Total Labor

Continued on back

Service Invoice

Workscope	Extended Price

Total Segment Parts
Total Segment Labor
Total Segment Miscellaneous

Segment Total

Total Invoice Parts
Total Invoice Labor
Total Invoice Miscellaneous
Total Tax

Please detach and include this portion with your payment.

	Invoice Date
	05/14/2018

Please Pay This Amount: $17,942.09

Permit Tax