

CUSTOMER INVOICE

|||||
CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

SHIP TO

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	1
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLOCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

WORK DONE IN BMC SHOP ABERDEEN SD
TROUBLESHOOT TRANSMISSION
COMPLAINT: TRANSMISSION SLIPPING IN 3RD GEAR AND
6TH GEAR FORWARD.
CORRECTION: INSPECTED TRANSMISSION FILTER AND
TRANSMISSION SCREEN AND MAGNET, FOUND LARGE PIECES
OF CLUTCH MATERIAL AND PISTON SEALING RING IN THE
SCREEN. CLEANED, INSTALLED SCREEN, CHECKED
PRESSURE AND FOUND EXTREMELY LOW CLUTCH PRESSURE
IN CLUTCH #5. REASON FOR TRANSMISSION SLIPPING WAS
AN INTERNAL FAILURE OF THE TRANSMISSION.

TOTAL LABOR SEG. 01
LESS 50%-LABOR
SEGMENT 01 TOTAL

REMOVE& INSTALL DIFFERENTIAL
COMPLAINT: INTERNAL FAILURE OF TRANSMISSION AND
EXCESSIVE METALLIC MATERIAL PRESENT IN
DIFFERENTIAL SCREEN.
CORRECTION: REMOVED THE TRANSMISSION AND THE
DIFFERENTIAL FROM THE MACHINE AND INSTALLED THE

RECEIVED
5-8-15

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	2
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

COMPONENTS AFTER THE REPAIRS WERE MADE TO THE
TRANSMISSION AND THE DIFFERENTIAL.

1	2J-3506	NUT	S		
1	5K-9090	SEAL O RING	S		
1	5P-3863	SEAL O RING	S		
1	6V-7981	BOLT	S		
3	6V-9746	SEAL O RING	S		
1	8F-6230	SEAL	N		
1	328-3655	ELEMENT AS	S		
25	1556213BT	30W TRANS TOTE	S		
		TOTAL PARTS		SEG. 04	
		LESS 50%-PARTS			
		TOTAL LABOR		SEG. 04	
		LESS 50%-LABOR			
		SEGMENT 04 TOTAL			

REPAIR POWER SHIFT TRANSMISSION
COMPLAINT: INTERNAL TRANSMISSION FAILURE.
CAUSE: THE NO.1 AND 2 CLUTCH PACKS BURNT UP. NO.2
CLUTCH VALVE STICKING.
RESULTANT DAMAGE: FAILED CLUTCHES AND DEBRIS IN

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	3
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

SYSTEM.
CORRECTION: DISASSEMBLED TRANSMISSION, THE NO.1 AND 2 CLUTCHES WERE BURNT UP, THE REST OF THE CLUTCHES LOOKED AND MEASURED OK. THE GEARS ALL LOOKED OK. REPLACED THE BEARINGS AND SEALS IN THE PUMP. THE VALVES WERE CLEANED AND INSPECTED, THE NO.2 VALVE PISTON WOULD NOT MOVE FREELY AND THE INNER VALVE BODY WAS BROKEN IN THE NO.7 CLUTCH AREA. THE NO.2 SPOOLS WERE REPLACED ALONG WITH THE ONE VALVE BODY AND ALL PRESSURE SPRINGS AND ORIFICES. THE VALVES WERE PUT BACK TOGETHER WITH NEW SEALS AND ALL ELECTRICAL PARTS. THE MAIN HOUSINGS WERE TAKEN APART AND CLEANED OUT. THE CLUTCHES WERE REASSEMBLED AND INSTALLED IN THE MAIN HOUSINGS. AIR TESTED CLUTCH PACKS AND VERIFIED NO LEAKS WERE PRESENT. INSTALLED THE VALVES AND PUMP. THE PARKING BRAKE LOOKED OK AND WAS RESEALED AND INSTALLED. REPLACED THE TEMP AND SPEED SENSORS. RESEALED THE OIL LINE FITTINGS.

1	3E-8700	SENSOR G-ELE	N
2	3J-1907	SEAL	S
1	4J-0520	SEAL-O-RING	S
1	4J-5477	SEAL O RING	S
6	5C-7423	SCREW	S
1	5K-9090	SEAL O RING	S
5	6I-8911	DISC FRIC	N
6	6I-8912	DISC FRIC	N
6	6I-9502	PLATE-CLUTCH	N
8	6V-3965	NIPPLE A	S

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	4
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

2	6V-9746	SEAL O RING	S		
1	7G-5453	SPRING	N		
2	7M-8485	SEAL	S		
4	7T-0570	SPRING	S		
1	8E-7713	ORIFICE	S		
2	8E-7714	ORIFICE	S		
1	8E-9896	PISTON SELER	N		
2	9U-8620	ORIFICE	S		
1	9U-8815	SPRING	N		
6	9U-9995	PLATE	N		
1	9W-7410	SPRING	S		
4	9W-7412	SPRING	S		
2	108-5751	DISC FRIC	N		
1	159-0927	DISC-FRICTIO	N		
1	161-7055	BODY	N		
3	175-3893	VALVE GP-SOL	N		
1	183-6775	SPOOL AS.	N		
2	183-8597	SENSOR GP	N		
5	186-1526	VALVE GP-SOL	S		
1	191-8303	SENSOR G-SPD	S		
1	196-4000	BEARING KIT	N		
1	288-2547	KIT-DT GASKE	N		
TOTAL PARTS				SEG. 51	
LESS 50%-PARTS					
TOTAL LABOR				SEG. 51	
LESS 50%-LABOR					

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	5
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

SEGMENT 51 TOTAL

REPAIR DIFFERENTIAL

COMPLAINT: BEVEL GEAR BEARING SPUN IN DIFFERENTIAL HOUSING AND BEARING FOR THE SPIDER GEARS WERE FAILED AND SEIZED TO THE CROSS SHAFT.
CORRECTION: DISASSEMBLED DIFFERENTIAL, CLEANED AND INSPECTED COMPONENTS. THE DIFFERENTIAL WAS ASSEMBLED WITH 2 NEW SPIDER GEARS AND BEARINGS, THE OTHER TWO GEARS WERE REUSED, THE ONE DIFFERENTIAL HOUSING WAS DAMAGED DUE TO THE CONE SPINNING ON THE HOUSING, IT WAS REPLACED. THE DIFF LOCK PLATES AND DISC WERE REUSED, NEW PISTON SEALS INSTALLED, THE DIFFERENTIAL HOUSING BOLTS WERE ALL INSTALLED WITH LOCK-TITE AND TIGHTENED TO SPEC. THE PINION WAS ASSEMBLED NEXT WITH NEW BEARINGS, THE ROLLING TORQUE WAS ADJUSTED TO 10INLBS, THE NUT WAS LOCKED IN PLACE, NEW YOKE WAS INSTALLED AND NEW LIP SEAL IN THE HOUSING. THE PINION ASSEMBLY WAS INSTALLED IN THE DIFFERENTIAL HOUSING WITH THE SAME THICKNESS OF SHIMS THAT WAS REMOVED, THE DIFFERENTIAL WAS THEN INSTALLED IN THE HOUSING AND ADJUSTED. THE PRELOAD OF THE DIFFERENTIAL WAS SET UP THEN THE BACK LASH WAS ADJUSTED TO .010", THE DIFFERENTIAL WAS ROTATED AND THE TOOTH CONTACT WAS CHECKED. THE MOUNTING BOLTS FOR THE COLLAR

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	6
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

WERE TIGHTENED TO SPEC, THE LOCKS WERE THEN
INSTALLED IN THE SIDE ADJUSTMENTS ON THE
DIFFERENTIAL AND TIGHTENED TO SPECIFICATION.

1	1J-2860	CUP	S
1	1J-4757	CONE	S
1	1P-2636	CUP	N
1	1P-2662	CONE	N
1	2H-5001	RING	S
1	2K-5106	SHIM PACK	S
1	2K-5109	GASKET	N
2	4F-7389	RING	S
1	4H-6520	RING	S
2	4J-2506	SEAL	S
3	4J-5477	SEAL O RING	S
1	5L-2030	CONE	S
1	5L-2031	CUP	S
1	5P-2503	CUP-ROLLER	N
1	6F-0698	DOWEL	N
1	6G-5979	KIT-SEAL	N
1	7D-8225	SEAL	N
1	7D-8226	SEAL	N
2	7S-4571	SEAL-O-RING	N
2	8D-4064	WASHER	N
2	8M-4438	SEAL O RING	S
1	8T-8883	SEAL O RING	N
1	8W-1592	YOKE A	N
1	8X-2528	HOUSING	N
2	8X-4641	WASHER	N
1	9B-0143	LOCK	N

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	7
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

2	9G-2991		RING-SEAL	N	
2	030-8535		BOLT	S	
1	123-4003		SEAL-LIP TYP	S	
1	126-2729		CONE-SPL TAP	N	
2	155-2283		PINION AS	N	
2	174-6819		BEARING-SLEE	N	
1	310-6159		SPIDER	N	
			TOTAL PARTS		SEG. 06
			LESS 50%-PARTS		
			TOTAL LABOR		SEG. 06
			LESS 50%-LABOR		
1.00			OVERSEAS IN		
			TOTAL MISC CHGS		SEG. 06
			SEGMENT 06 TOTAL		

REPAIR FINAL DRIVE

BOTH SIDES

REMOVED AND DISASSEMBLED THE FINAL DRIVES AND
INSPECTED BECAUSE OF THE DIFFERENTIAL FAILURE.

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	8
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

CLEANED FINALS DRIVE COMPONENTS AND ASSEMBLED WITH
NEW BEARINGS.

12	1S-9110	BEARING A	N	
12	8X-8377	WASHER	N	
		TOTAL PARTS		SEG. 16
		LESS 50%-PARTS		
		TOTAL LABOR		SEG. 16
		LESS 50%-LABOR		
		SEGMENT 16 TOTAL		

REPLACE TC/TRANS OIL COOLER

REPLACED THE TRANSMISSION OIL COOLER BECAUSE IT
WAS CONTAMINATED FROM THE TRANSMISSION FAILURE.

1	10R-5665	CORE AS OIL	N	
1		CORE CHARGE	N	
1-		CORE CREDIT	N	
2	129-2861	GASKET	N	
		TOTAL PARTS		SEG. 10
		LESS 50%-PARTS		

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER		INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708			05-04-15	05WO0073471	9
SHIP VIA		DOC.DATE		REFERENCE NO.		
03-18-15				0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.	
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900	
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE	

TOTAL LABOR	SEG. 10
LESS 50%-LABOR	
SEGMENT 10 TOTAL	

KIDNEY LOOP POWER SHIFT TRANSMISSION
COMPLAINT: TRANSMISSION WAS RECONDITIONED, OIL
PARTICLE COUNT NEEDED BE AT OR BELOW ISO 16/13.
CORRECTION: OPERATED MACHINE WHILE CHECKING AND
ADJUSTING PRESSURES, TESTED PARTICLE COUNT IN THE
OIL AND IT WAS AT 19/15. REMOVED TRANSMISSION
FILTER AND INSPECTED IT AND INSTALLED NEW FILTER.
OPERATED MACHINE, CONNECTED KIDNEY LOOP, RAN
MACHINE, TESTED PARTICLE COUNT ON THE OIL
THROUGHOUT KIDNEY LOOP CYCLE, RAN KIDNEY LOOP
UNTIL OIL WAS AT SPEC. (OIL COUNT WAS AT 16/12)
REPLACED MACHINE TRANSMISSION OIL FILTER, RAN
MACHINE DOWN ROAD, TESTED PARTICLE COUNT AGAIN AND
IT WAS BELOW SPEC. REMOVED KIDNEY LOOP FITTINGS
FROM MACHINE.

4	1R-0755	FILTER A	S
2	328-3655	ELEMENT AS	S
9	1556213BT	30W TRANS TOTE	S

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	10
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

TOTAL PARTS	SEG. 07
LESS 50%-PARTS	
TOTAL LABOR	SEG. 07
LESS 50%-LABOR	
SEGMENT 07 TOTAL	

ADJUST TRANSMISSION

PRESSURE(S)

INSTALLED TEST PLATE UNDER COVER OF TRANSMISSION VALVE BODY PLATE SO THE INITIAL PRESSURES COULD BE CHECKED, STARTED MACHINE, ALLOWED TRANSMISSION OIL TO WARM TO OPERATING TEMP THEN CHECKED THE PUMP AND INITIAL TRANSMISSION PRESSURES. THE PUMP PRESSURE WAS ADJUSTED TO 435PSI. FOUND THE INITIAL PRESSURES FOR CLUTCHES 5, 6 AND 7 WERE ALL ABOUT 15PSI LOW, THE SOLENOID MANIFOLD WAS THEN REMOVED AND ONE SHIM WAS REMOVED FROM EACH SPOOL, THE MANIFOLD WAS REINSTALLED, THE INITIAL PRESSURES WERE RECHECKED AND ADJUSTED AS FOLLOWS: PORT 4=57PSI, 5=56PSI, 6=53PSI, 7=48PSI, 8=50PSI. AFTER INITIAL PRESSURES WERE ADJUSTED THE PLATE WAS REMOVED AND THE TRANSMISSION PRESSURES WERE

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	11
SHIP VIA	DOC.DATE	REFERENCE NO.			
	03-18-15	0518297			
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

CHECKED, THE FOLLOWING ARE THE PRESSURES FOR EACH
CLUTCH/TEST PORT 3=325PSI, 4=280PSI, 5=305PSI,
6=390PSI, 7=340PSI, 8=405PSI, 9=385PSI ALL
PRESSURES WERE IN SPEC. THE COVER WAS INSTALLED
OVER THE TRANSMISSION VALVE BODY.

TOTAL LABOR SEG. 18
LESS 50%-LABOR
SEGMENT 18 TOTAL

REPLACE CRANKSHAFT REAR SEAL
REPLACED REAR CRANKSHAFT SEAL WHEN THE
TRANSMISSION IS REMOVED. REMOVED THE FLYWHEEL,
EXTRACTED THE SEAL, POLISHED SEALING SURFACES, SET
UP TOOLING AND PRESSED NEW SEAL INTO PLACE AND
INSTALLED THE FLYWHEEL.

1 226-4757 SEAL GP-CSHF S
TOTAL PARTS SEG. 08
F/R LBR
SEGMENT 08 TOTAL

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	12
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

REPLACE ENG OUTPUT DR AS/COUPLING
REPLACED THE DRIVE COUPLING DAMPER BETWEEN THE
TRANSMISSION AND ENGINE, WHEN THE TRANSMISSION WAS
REMOVED, BECAUSE THE SPRINGS WERE WORN.

1	422-2480	COUPLING AS	N	
TOTAL PARTS				SEG. 09
				F/R LI
SEGMENT 09 TOTAL				

REPLACE TURBOCHARGER
REPLACED THE TURBOCHARGER BECAUSE THE INNER SEALS
WERE FAILED, ALLOWING OIL INTO THE ENGINE INTAKE.

1	0R-9956	TURBO GP	N	
1		CORE CHARGE	N	
1-		CORE CREDIT	N	
1	1W-2431	CLAMP	N	
1	8C-3089	SEAL FACE	S	
1	416-2498	KIT GASKET	N	
TOTAL PARTS				SEG. 11
				F/R LI

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

1

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	13
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

SEGMENT 11 TOTAL

1858.27 T

REPLACE HOSES & LINES
TRANSMISSION

REPLACED THE TWO TRANSMISSION OIL COOLER LINES,
TWO FILTER LINES, VENT HOSE AND DIFFERENTIAL
SUCTION HOSE BECAUSE THEY WERE HARD AND RUBBING IN
SPOTS. TIED UP NEW HOSES AFTER THEY WERE ROUTED
INTO PLACE.

3	4J-0520	SEAL-O-RING	S
1	4J-0522	SEAL-O-RING	S
2	5D-1026	CLAMP	S
2	5K-9090	SEAL O RING	S
47	5P-0765	CM-HOSE STK	S
2	6V-9746	SEAL O RING	S
2	8T-4983	CLAMP	S
1	8X-7317	HOSE	S
199	122-6872	L/M HOSE-IN	S
2	124-2102	COUPLING	N
2	124-2121	COUPLING	S
2	124-2122	COUPLING	N
1	176-8199	COUPLING AS	N
1	180-4712	COUPLING	N

TOTAL PARTS

SEG. 12

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	14
SHIP VIA	DOC DATE	REFERENCE NO.			
	03-18-15	0518297			
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

4.00

HOSE LABOR TXBL
TOTAL MISC CHGS
SEGMENT 12 TOTAL

F/R LBR

SEG. 12

REPLACE GASKET/RESEAL VALVE COVER BASE
COMPLAINT: OIL LEAKING FROM ENGINE VALVE COVER
BASE.
CORRECTION: REMOVED AIR CLEANER, MUFFLER, AND OIL
FILTER STEEL LINES TO GAIN ACCESS TO VALVE COVER,
REMOVED VALVE COVER AND BASE FROM ENGINE, CLEANED
SEALING SURFACES, HAD TO HEAT UP AND DRIVE OUT
THREE OF THE SPACERS FOR THE VALVE COVER BASE.
INSTALLED BASE WITH NEW GASKET, HOOKED UP INJECTOR
WIRING, ADJUSTED THE INTAKE/EXHAUST VALVE
CLEARANCES TO SPECIFICATION AND ADJUSTED THE
INJECTOR HEIGHT DIMENSIONS TO SPECIFICATION. VALVE
CLEARANCES WERE SLIGHTLY LOOSE. RESEALED AND
INSTALLED VALVE COVERS AND INSTALLED THE REST OF
THE COMPONENTS THAT WERE REMOVED TO GAIN ACCESS TO
THE VALVE COVER BASE.

3	5K-9090	SEAL O RING	S
3	5P-5678	M-SEAL STK	S
8	7C-8292	ISOLATOR	S

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	15
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

1	9Y-1758	GASKET	S	
3	9Y-7215	SLEEVE	N	
1	109-5309	GASKET	S	
TOTAL PARTS				SEG. 13
				F/R LBR
SEGMENT 13 TOTAL				

REPLACE COOLANT HOSE/LINES
REPLACED RADIATOR HOSES BECAUSE THEY WERE HARD AND BRITTLE.

1	4N-7431	HOSE	N	
17	122-6869	L/M HOSE-IN	S	
1	124-1956	COUPLING	S	
1	124-1980	COUPLING	S	
16	371-8946	CM HOSE BULK	S	
TOTAL PARTS				SEG. 14
				F/R LBR
1.00		HOSE LABOR TXBL		SEG. 14
		TOTAL MISC CHGS		
		SEGMENT 14 TOTAL		

CUSTOMER INVOICE

SHIP TO

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	16
SHIP VIA		DOC.DATE	REFERENCE NO.		
		03-18-15	0518297		
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCOA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

 REPLACE SERPENTINE BELT
 COMPLAINT: HOLES IN THE SERPENTINE DRIVE BELT.
 CAUSE: ROCKS CAUGHT BETWEEN BELT AND PULLEYS.
 CORRECTION: REMOVED DRIVE SHAFT FROM FRONT OF
 ENGINE TO THE HYDRAULIC PUMP. REMOVED FRONT ENGINE
 COMPARTMENT PANELS, REMOVED BELTS, INSPECTED ALL
 IDLERS AND BELT TENSIONER PULLEY. FOUND THE
 TENSIONER WAS NOT RUNNING SQUARE. INSTALLED NEW
 TENSIONER, REPLACED THE COVER OVER THE A/C
 COMPRESSOR BECAUSE IT WAS BROKE, INSTALLED NEW
 BELT, BOLTED COMPARTMENT PANELS AND DRIVE SHAFT
 BACK INTO POSITION AND VERIFIED THE BELT WAS
 RUNNING STRAIGHT ON THE PULLEYS.

1	190-0649	TIGHTENER	S
1	194-5141	GUARD - A/C	N
1	312-8933	BELT	N

TOTAL PARTS

SEG. 15
F/R LBR

SEGMENT 15 TOTAL

 ADJUST STEERING LINKAGE

CUSTOMER INVOICE

CAMPBELL COUNTY SOUTH DAKOTA
HIGHWAY DEPARTMENT

SHIP TO

STORE	CUSTOMER NUMBER	YOUR ORDER NUMBER	INVOICE DATE	INVOICE NUMBER	PAGE
05	C13708		05-04-15	05WO0073471	17
SHIP VIA			DOC.DATE	REFERENCE NO.	
			03-18-15	0518297	
UNIT NUMBER	MAKE	MODEL	SERIAL NUMBER	METER READING	MACHINE ID NO.
0910	AA	140H	*CAT0140HLCCA02760*	7263.0	M005900
QUANTITY	PART NUMBER	N/R	DESCRIPTION	UNIT PRICE	EXTENDED PRICE

TOTAL LABOR SEG. 19
LESS 100%-LABOR
SEGMENT 19 TOTAL

TRAVEL TO/FROM MACHINE
SERVICE MILEAGE FOR DRIVING TO THE MACHINE AND
TROUBLESHOOTING TRANSMISSION SLIPPING COMPLAINT.
1.00

SERVICE CALL Z10
TOTAL MISC CHGS SEG. 9A
SEGMENT 9A TOTAL

ABER SALES GOODWILL
COVERED REPAIRS
TAX EXEMPTION LICENSE 466000328