

407 ADVENTURELAND DRIVE NE  
ALTOONA, IA 500094224  
PHONE: (515) 957-3300  
FAX: (515) 957-3301  
www.istate.com

ACCOUNT NUMBER: 124262  
INVOICE NUMBER: R012043265:01  
INVOICE DATE: 01/07/2015  
INVOICE TERMS: CASH  
PURCHASE ORDER#: CK# 2008  
VEHICLE#: 451684



**SERVICE INVOICE**

**BILL-TO**

**2 U TRUCKING**  
33807 305TH AVE  
RICHLAND, IA 52585

**SHIP-TO**

**2 U TRUCKING**  
33807 305TH AVE  
RICHLAND, IA 52585

Cust. Unit #: 703	Make: FREIGHTLINER	Model: CL120	Tag #: GV
VIN: 1FUJA6CK37LW29058	Model #: CL120064ST	In Serv Date: 08/21/2006	Year: 2007
Engine S/N: 06R0896765	Model #: 6067HV6E	In Serv Date:	Mileage: 952,394
Tran S/N: P0199860	Model #: FRO-16210C	In Serv Date:	Eng Hrs: 0
Reefer S/N:	Model #:	In Serv Date:	Warr ID:
APU S/N:	APU Gen S/N:	In Serv Date:	Date Create: 12/18/2014
		BOM/Spec:	

Job#1 SHP-DETS60

SHOP - DDC S40/50/60 LABOR

S-CUST

**Condition** CHECK & ADVISE FOR PUSHING WATER, WHITE SMOKE & POSSIBLE LEAKING HEAD GASKET

CONTACT: STEVE # 319-461-5609

**Cause**

**Correction** PULLED UNIT IN SHOP, TOPPED OFF THE COOLANT SYSTEM, INSTALLED APPROPRIATE GAUGE AND MONITORED, UNIT BUILT 15 PSI, IN ROUGHLY 10 SEC, HEAD IS CRACKED/GASKET BLOWN, ALSO COOLANT CONTAMINATED THE COOLER AND VALVE-WOULD RECOMMEND REPLACEMENT, GOT OK TO PULL HEAD, STORY.

Qty	Item	Description	Price Each	Extended
	!CandA	CHECK & ADVISE		116.00
1	DDE 05107607	HOSE	16.46	16.46
1	DDE 23530714	M--HOSE P	14.83	14.83
2	DDE 08929875	HOSE	14.43	28.86
1	DDE 23513509	SEALANT GSKT	21.15	21.15
1	DDE 23536842	TUBE ASM	32.85	32.85
1	DDE 23539160	TUBE ASM	37.57	37.57
1	DDE 23530753	M--TUBE P	68.90	68.90
1	DDE 23527385	SEAL RINGP	0.63	0.63
4	72310	HOSE CLAMP M	1.50	6.00
4	72306	HOSE CLAMP M28S	1.28	5.12
1	DDE 23507182	BOLT	7.15	7.15
10	DDE 23522281	BOLT ASSY	7.74	77.40
6	DDE 08929393	M--BOLT PAC/24	2.55	15.30
2	DDE 23532326	M--O-RING	3.40	6.80
2	DDE 08926958	C--CLAMP	20.05	40.10
1	DDE 05137618	CLAMP	63.11	63.11
4	DDE 23531401	NUT P	5.15	20.60
4	DDE 08929169	WASHER	0.60	2.40
1	70R5032	WASHER #8 STAT-O-SEAL RED HNBR	1.16	1.16
2	70R5031	WASHER #6 STAT-O-SEAL RED HNBR	1.16	2.32

**INTERSTATE  
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2	70R5034	WASHER #12 STAT-O-SEAL RED HNB	1.16	2.32
1	BRZ B9224 0425FRU	CLAMP	4.64	4.64
6	OWI 23528203	COOLANT-GAL	9.83	58.98
1	A22-59792-004	A.C. HOSE	124.03	124.03
2	70R5034	WASHER #12 STAT-O-SEAL RED HNB	1.16	2.32
1	70R5032	WASHER #8 STAT-O-SEAL RED HNBR	1.16	1.16
1	70R5031	WASHER #6 STAT-O-SEAL RED HNBR	1.16	1.16
1	DN P527682	ELEMENT, AIR FILTER, PRIMARY	68.55	68.55
1	OWI 23528203	COOLANT-GAL	9.83	9.83
2	1025	PS DIESEL	12.05	24.10
Total Labor 116.00		Total Parts 765.80	Total Sub/Misc 0.00	Total 881.80

Job#2 CI COURTESY TRUCK INSPECTION S-CUST

**Condition** COURTESY TRUCK INSPECTION

**Cause**

**Correction** PERFORMED INSPECTION.

Qty	Item	Description	Price Each	Extended
	!Canda-CI	COURTESY INSPECTION		0.00
Total Labor 0.00		Total Parts 0.00	Total Sub/Misc 0.00	Total 0.00

Job#3 SHP-DETS60 SHOP - DDC S40/50/60 LABOR S-CUST

**Condition** REPLACE RADIATOR & CAC

**Cause**

**Correction** RECOVERED 1 LBS OF FREON, UNHOOKED AND REMOVED RADIATOR, CAC, AND CONDENSOR AS ONE - SWAPPED RADIATOR FRAME TO NEW RAD. INSTALLED NEW CAC, MOUNTED CONDENSOR, ORDERED MOUNT. INSTALLED NEW MOUNT, TIGHTEN THE SUPPORT BRACKETS FOR THE RADAITOR. INSTALL THE LOWER RADAITOR HOSE AND TIGHTEN THE CLAMP.

Qty	Item	Description	Price Each	Extended
	DETS60-GEN	SHOP - DDC S40/50/60 LABOR		580.00
1	AHD 8000-22PT	RADIATOR	730.20	730.20
1	AHD FRT18122-N	CHARGE AIR COOLER	774.45	774.45
1	BCD 28847 1	RADIATOR MOUNT	59.31	59.31
1	90324	PIPE BUSHING	1.31	1.31
1	14BV	1/4 BALL VAL	11.79	11.79
	COM-1	RAD S/N PT130857	0.00	0.00
	COM-1	A/A SN CAC17975	0.00	0.00
Total Labor 580.00		Total Parts 1,577.06	Total Sub/Misc 0.00	Total 2,157.06

Job#4 \*IPS-PKG000089 S60 EGR STEP 2 S-CUST

**Condition** S60 EGR STEP 2

**Cause**

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**Correction**

DRAINED COOLANT, REMOVED CAC PIPING, AIR CLEANER W/DUCTING, HEAT SHIELD, EXHAUST CLAMP, TURBO FEED LINE, AIR LINE TO ACTUATOR, SENSOR CONNECTIONS, TURBO MOUNTING BOLTS, TURBO, DELTA P ASSEMBLY W/VENTURI, BYPASS HOSE, UPPER RADIATOR HOSE, CAC PIPING/COLD PIPE ASSEMBLY, BRACKETS, RAIN TRAY W/WIPERS (HAD TO CUT COOLANT TANK MOUNTING BOLTS, VALVE COVER, JAKES, UNPLUGGED INJECTOR HARNESS (10PIN), ROCKER ASSEMBLY, INJECTORS, CAM CAPS AND CAM (FOUND THE THRUST PLATE BOLTS LOOSE-NOT TIGHT), INTAKE MANIFOLD, FUEL LINES, HEAD BOLTS (COUPLE BROKE INSIDE OF THE BLOCK), HEAD, PLUGGED HOLES ON ENGINE, THEN EXTRACTED THE BROKEN HEAD BOLTS, CLEANED BLOCK, AND INSPECTED, CHECKED AND RECORDED LINER PROTRUSION, THERE ARE A FEW LINERS OUT OF SPEC, AND WILL NEED TO BE ADDRESSED-HEAD WILL NOT SEAL GASKET PROPERLY, CLEANED AND INSPECTED THE HEAD, FOUND PITTING AND GROOVES, INSPECTED THE GASKET-BETWEEN #3 AND #4 GASKET BLEW, THERE IS ALSO OTHER AREAS TO BE CONCERNED ABOUT, ALSO WHILE TAKING PARTS OFF THE UNIT INSPECTED THEM AND COLLECTED A LIST OF ITEMS NEEDED TO BE ADDRESSED, RADIATOR BLOWN, AND COOLANT/WATER WAS GOING THROUGH THE EGR COOLER AND VALVE WHICH MAY CAUSE PREMATURE FAILURE, CAC WAS ALSO TAKING WATER AND INTAKE, MADE A PARTS ESTIMATE, STORY. DRAINED OIL, REMOVED PAN, OIL PUMP, PULLED KITS, PUT RODS IN WASHER, CLEANED GASKET MATERIAL OFF CAM AND COVERS, CLEANED MANIFOLD, AND MOUNTING BOLTS, PREPPED BOLTS, REMOVED WASHERS OFF THE HEAD BOLTS. CLEANED LINERS AND RODS ASSEMBLED PISTONS AND RODS. BOXED ALL OLD LINERS. STARTED REMOVING MAIN BEARING CAPS. FINISHED REMOVING #6 MAIN BEARING CAP CLEANED 2,3,5,6 MAIN CAPS, REMOVED NEW HEAD AND PUT OLD HEAD BACK IN BOX. INSTALLED FITTINGS IN NEW HEAD. REMOVED THERMOSTATS FROM THERMOSTAT HOUSING BEAD BLASTED HOUSING. REMOVE UPPER BEARING SHELLS FROM LOCATIONS WHERE CAPS HAD BEEN PREVIOUSLY REMOVED, CLEAN CRANKSHAFT ETC, FIT UPPER BEARING SHELLS. NOTE:- I HAD TO CAREFULLY REMOVE BURRS FROM BEARING TUNNEL IN ALL LOCATIONS IN ORDER TO GET UPPER BEARING SHELLS TO START. THIS OPERATION TOOK SOME CONSIDERABLE TIME BECAUSE OF THE LOCATION & PLUS THE CRANKSHAFT IS IN THE ENGINE. FIT PREVIOUSLY REMOVED CAPS WITH NEW BEARINGS. REMOVE REMAINING BEARING CAPS ETC. CLEAN UP ALL PARTS FOR THE ENGINE OIL COOLER, REASSEMBLE COOLER USING NEW GASKETS & SEALS ETC, CLEAN UP SEALING SURFACES ON ENGINE BLOCK ETC. GRIT BLAST TURBO RETURN TUBE & GET NUT FREE FROM TUBE SO AS IT CAN BE USED AGAIN. STRIP DOWN, CLEAN & INSPECT ENGINE OIL PUMP, LUBRICATE PARTS & REASSEMBLE PUMP, REFIT PUMP, SUCTION TUBE WITH NEW 'O' RINGS & GASKETS, FIT NEW OIL REGULATOR & PRESSURE VALVE WITH NEW GASKETS. FIT NEW SEALS ETC TO OIL COOLER MOUNT & REFIT OIL COOLER TO ENGINE, FIT NEW EGR COOLER WITH NEW COOLANT HOSE & CLAMPS TO ENGINE OIL COOLER, REFIT CAB HEATER COOLANT TUBES & BRACKETS ETC. FIT NEW OIL LINES FROM OIL COOLER TO EGR VALVE & MAKE UP BRACKETS TO SECURE LINES, REFIT TURBO OIL DRAIN TUBE ETC, REFIT ALL 'P' CLAMPS TO COOLANT TUBES ETC. REFIT ENGINE OIL PAN USING NEW GASKET & ISOLATORS. NEW ISOLATORS WERE NEEDED BECAUSE THE OLD ONES HAD SWELLED BEYOND USE. CLEAN UP EXHAUST MANIFOLD, FIT MANIFOLD TO CYLINDER HEAD, REMOVE ALL CAM CAPS, LIFT HEAD ONTO ENGINE, CONNECT FUEL LINES ETC. REMOVED THE ROCKER ARMS FROM THE BOX. OIL THE ROCKER ARMS. LUBRICATE, INSTALL, & TORQUE HEAD BOLTS. PLACED THE OLD ROCKER ARMS IN THE BOX. REMOVED THE O-RINGS ON THE INJECTOR. INSTALL THE O-RINGS ON THE INJECTOR. HELP INSTALL THE CYLINDER HEAD ON THE BLOCK. REFIT ALL ROCKER ADJUSTERS TO ROCKERS ETC, CONNECT INJECTOR HARNESS, FIT NEW ROCKER SHAFT ASSEMBLYS & TORQUE DOWN TO 100ft lbs, RUN VALVE & INJECTOR SETTINGS, REMOVE SHORT ROCKER BOLTS & FIT ENGINE BRAKES, TORQUE DOWN TO 100 ft lbs. RESET BRAKES CLEARANCES. REFIT COOLANT FILL TUBE BRACKETS, REFIT EGR HOT PIPE BRACKETS ETC ONTO CAM GEAR HOUSING ETC. INSTALL VALVE COVER, INSTALL THERMOSTATS & SEALS INTO HOUSING, INSTALL MIXER HOUSING, CONNECT SENSORS, CLEAN UP & REFIT A/C LINES AT COMPRESSOR & CONDENSOR USING NEW SEALS,

Qty	Item	Description	Extended
	*IPS-DET000089	S60 EGR STEP 2	14,199.00
	OTH-GEN	SHOP - OTHER LABOR	
1	DDE R23538858	CYLINDER HD (HWMMA)	
-1	C23538858-CORE	CORE DEPOSIT	
1	DDE R23538418	O/H KIT 14L (hw)	
-1	C23538418-CORE	CORE DEPOSIT	
1	DDE 23533692	BRG AND GSKTKT	
1	DDE 23536019	HARNESS	
1	DDE 23539103	GASKET, ROCKER COVER	

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1	DDE 23539104	OIL PAN GASKET
1	DDE 23512901	VALVE ASSY
1	DDE 23528691	M--ELBOW ASSY
1	DDE E23535277	RKR ARM KIT
2	DN 23530573	ELEMENT-OIL FILTER
1	DN 23533816	ELEMENT-FUEL FILTER
10	MBL 23512740	BULK 1300S 15W40 (PER GAL)
6	OWI 23528203	COOLANT-GAL
1	DDE E23535288	BLTD FLG EG SEE R23535288
-1	C23535288-CORE	CORE DEPOSIT
1	DDE R23539301	EGR VLV ASM
-1	C23539301-CORE	CORE DEPOSIT
-1	C23535277-CORE	CORE DEPOSIT
1	C23538858-CORE	CORE DEPOSIT
1	C23538418-CORE	CORE DEPOSIT
1	C23535277-CORE	CORE DEPOSIT
1	C23535288-CORE	CORE DEPOSIT
1	C23539301-CORE	CORE DEPOSIT

<b>Total Labor</b>	<b>3,975.56</b>	<b>Total Parts</b>	<b>10,223.44</b>	<b>Total Sub/Misc</b>	<b>0.00</b>	<b>Total</b>	<b>14,199.00</b>
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Job#5 SHP-DETS60 SHOP - DDC S40/50/60 LABOR S-CUST

**Condition** CUT COUNTER BORES

**Cause**

**Correction** REMOVE PISTON OIL COOLING NOZZLES. REMOVE A/C LINES & OTHER LINES & EQUIPMENT TO GET BETTER ACCESS TO BLOCK TOP. CLEAN OFF BLOCK TOP. CHECK OVER & SET MACHINE CUTTER TOOL TO CUT # 6 COUNTER BORE WHICH ALREADY HAS AN INSERT FITTED, CUT OUT INSERT. CLEAN UP DEBRIS & CLEAN ALL SEALANT ETC FROM LIP. SET UP TOOLING TO PRESS NEW INSERT. MACHINE CUT REMAINING COUNTERBORES, CLEAN UP DEBRIS & REMOVE BURRS FROM EDGES OF CUT. FIT REMAINING INSERTS. HAND FILE NEW COUNTERBORE INSERTS DOWN LEVEL WITH BLOCK, CUT ALL COUNTERBORE INSERTS TO A DEPTH OF 0.352", CLEAN UP LINER BORES WHERE 'O' RING SEALS FIT ETC, CLEAN UP BOTTOM SIDE OF ENGINE ETC & CRANKSHAFT. RAISE VEHICLE & MAKE SAFE ON JACK STANDS. DRY FIT ALL LINERS TO BORES, MEASURE LINER HEIGHTS ETC, REMOVE 'O' RING SEALS PREVIOUSLY FITTED TO LINERS SO LINERS CAN BE PROPERLY CLEANED & DEGREASED BEFORE ASSEMBLY.

Qty	Item	Description	Price Each	Extended			
	DETE600075	SL3:CYLINDER BORE - REWORK FOR LINER INSERT (ONE):01.10-07		375.84			
	DETE600081	SL3:CYLINDER BORE FOR LINER INSERT - REWORK (EACH ADDITIONAL):01.10-08		939.60			
6	DDE 23525500	M--C/B SLEEVE	41.83	250.98			
1	PT22006	CUTTER BIT	43.97	43.97			
1	PT2000109	CUTTER BIT	67.82	67.82			
<b>Total Labor</b>	<b>1,315.44</b>	<b>Total Parts</b>	<b>362.77</b>	<b>Total Sub/Misc</b>	<b>0.00</b>	<b>Total</b>	<b>1,678.21</b>

Job#6 SHP-DETS60 SHOP - DDC S40/50/60 LABOR S-CUST

**Condition** STORY CONTINUED FROM LINE # 4

**Cause**

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**Correction**

REFIT AIR CLEANER TUBING, CLEAN UP TURBO SEALING FACE & ELBOW TO CAC THEN REFIT TO TURBO. PROCURE & FIT OPROPRIATE 'P' CLAMPS ETC TO SECURE A/C LINES. REFIT RHS RADIATOR STAY ETC. REMOVE EGR HOT PIPE & INTAKE TUBE & COOLANT FILL TUBE ETC TO REPOSITION ALTERNATOR WIRING THAT WAS RESTING AGAINST EGR HOT PIPE THAT WAS PREVIOUSLY FITTED. CUT & REMOVE STRIPPED OUT 'P' CLAMP BOLT ON CAM BOX BRACKET SO COOLANT FILL TUBE CAN BE SECURED. REMOVE COOLANT SURGE TANK & LOCATE WINDSHIELD WASHER HOSES TO THE REAR OF THE TANK, REFIT TANK TO MOUNTS. FIT 'P' CLAMPS TO COOLANT HOSES FROM SURGE TANK ETC, FILL COOLING SYSTEM WITH 12gls NEW COOLANT, CONNECT ENGINE TO COMPUTER & ENTER INJECTOR CALIBRATION CODES, PRIME FUEL SYSTEM, START & RUN ENGINE. DRAIN COOLING SYSTEM & NOTIFY CURTIS DEERY THAT LOWER RADIATOR HOSE IS LEAKING BADLY. DISCUSS WITH CURTIS REMAINING WORK NEEDED TO COMPLETE JOB. HAD TO DRAIN COOLANT TO FIX COOLANT HOSE CLAMPS, TIGHTENED UP ALL COOLANT HOSE CLAMPS, HAD TO REMOVED AIR CLEANER TO INSTALL CLAMP ON TURBO FEED LINE, THEN REINSTALLED HEAT SHIELD AND AIR CLEANER, INSTALLED COOLANT, CHANGED FUEL FILTER, VACCUMED AND RECHARGED AC SYSTEM, THEN WHEN RAN AC THEN AC LINE BLEW TO TOP OF CONDENSOR, INSTALLED WHEEL ON RIGHT SIDE. INSTALLED AC LINE WITH NEW SEALING WASHERS, VACUMED SYSTEM AND WOULD NOT HOLD VACCUME, TOOK BACK APART AND INSTALLED NEW SEALING WASHERS AGAIN STILL WONT HOLD VACCUME, SO LET TRUCK DOWN OFF STANDS, AND AJUSTED BRAKES, PUT NEW CAC CLAMP ON THAT WAS LEAKING, INSTALLED NEW AIR FILTER, TOOK TRUCK TO WASH BAY AND STEAMED OFF LET RUN OUT SIDE, CLEANED UP BAY AND THREW TRASH AWAY, PICKED UP TOOLS, PULLED TRUCK IN AND NO LEAKS FOUND. NEED TO CONTINUE WITH FINDING AC LEAKS. LOCATE SUITABLE HOSE & FITTINGS FOR A/C NITROGEN BOTTLE, CONNECT TO SYSTEM & CHECK FOR LEAKS ETC. REMOVE TEST EQUIPMENT. CONNECT A/C MACHINE TO VEHICLE & PUT SYSTEM IN A VACUUM. RECHARGE SYSTEM WITH 3.75lbs FREON. START & RUN ENGINE & CHECK A/C OPERATION. TEST DROVE UNIT AND CHECKED OVER FOUND NO ISSUES AND HAD NO ISSUES.

Qty	Item	Description	Price Each	Extended			
	DETS60-GEN	SHOP - DDC S40/50/60 LABOR		0.00			
Total Labor	0.00	Total Parts	0.00	Total Sub/Misc	0.00	Total	0.00

*Paid ✓ #2008  
1-7-15  
Ch*

Labor/Diagnostic/Tech Services: 5,987.00  
Misc. Charges: 0.00  
Parts: 12,929.07  
Sublet: 0.00  
Shop Supplies (ESC) 0.00  
Taxes: 1,134.97  
**Total: 20,051.04**

Subject to the terms and conditions on the back of this invoice, including the disclaimer of implied warranties of merchantability and fitness for a particular purpose.

All claims must be accompanied by this invoice. Diagnostic or Technical service charge may apply.

Customer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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## PRE-INVOICE

### BILL-TO

2 U TRUCKING  
33807 305TH AVE  
RICHLAND, IA 52585

### SHIP-TO

2 U TRUCKING  
33807 305TH AVE  
RICHLAND, IA 52585

Cust. Unit #: 703	Make: FREIGHTLINER	Model: CL120	Tag #: CF
VIN: 1FUJA6CK37LW29058	Model #: CL120064ST	In Serv Date: 08/21/2006	Year: 2007
Engine S/N: 06R0896765	Model #: 6067HV6E	In Serv Date:	Mileage: 953,317
Tran S/N: P0199860	Model #: FRO-16210C	In Serv Date:	Eng Hrs: 0
Reefer S/N:	Model #:	In Serv Date:	Warr ID:
APU S/N:	APU Gen S/N:	In Serv Date:	Date Create: 01/10/2015
		BOM/Spec:	

Job#2 SHP-DETS60

SHOP - DDC S40/50/60 LABOR

S-CUST

**Condition** ENGINE MISS & WILL NOT GO ABOVE 45 MPH

**Cause**

**Correction** I PULLED THE UNIT IN THE SHOP, CHECKED THE RETURN FUEL SPILL-BACK FOR ANY SIGNS OF AIR & FOUND THE SPILL-BACK FULL OF AIR. I STRONGLY SUSPECT AN INJ. TIP TO BE INTERMITTENTLY ALLOWING COMBUSTION GASSES INTO THE RETURN FUEL SYSTEM. WE NEED TO REMOVE ALL SIX INJ'S & TEST THE TIPS FOR LEAKING.

Qty	Item	Description	Price Each	Extended
	DETS60-GEN	SHOP - DDC S40/50/60 LABOR		0.00
Total Labor	0.00	Total Parts	0.00	Total 0.00
		Total Sub/Misc	0.00	

Job#3 SHP-DETS60

SHOP - DDC S40/50/60 LABOR

S-CUST

**Condition** TURBO KICKS IN & OUT EVERY 5 - 10 SECONDS

**Cause**

**Correction** TOOK FOR A TEST DRIVE AND IT HAD GOOD POWER, BUILT GOOD BOOST. BROUGHT BACK AND CHECKED FOR LEAKS. NONE FOUND.

Qty	Item	Description	Price Each	Extended
	DETS60-GEN	SHOP - DDC S40/50/60 LABOR		90.00
Total Labor	90.00	Total Parts	0.00	Total 90.00
		Total Sub/Misc	0.00	

Job#4 SHP-DETS60

SHOP - DDC S40/50/60 LABOR

S-CUST

**Condition** FUEL FILTER WAS EMPTY SATURDAY A.M.

**Cause**

**Correction** I REMOVED & REPLACED THE DAVCO FUEL FILTER & COVER SEALS. I PRIMED THE FUEL SYSTEM, STARTED THE UNIT & CHECKED THE TANKS FOR ANY SIGNS OF AIR.=OK. THIS PORTION OF REPAIRS IS NOW COMPLETED. "DONE"

Qty	Item	Description	Price Each	Extended
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DETS60-GEN	SHOP - DDC S40/50/60 LABOR	24.00			
1 DN 23533816	ELEMENT-FUEL FILTER	15.59			15.59
<b>Total Labor</b>	<b>Total Parts</b>	<b>15.59</b>	<b>Total Sub/Misc</b>	<b>0.00</b>	<b>Total 39.59</b>

Job#5 \*IPS-PKG000121 S60 INJECTORS: BUY 5, GET 1 FREE S-CUST

**Condition** S60 INJECTORS: BUY 5, GET 1 FREE

**Cause**

**Correction** I REMOVED THE RAIN GUTTER, ROCKER COVER, JAKES & ROCKER SHAFT ASSY'S. I PURGED THE FUEL FROM THE CYL. HEADS & REMOVED THE OLD FUEL INJ'S. (I VACUMN TESTED THE INJ TIPS & FOUND #1 INJ TIP WAS LEAKING.) I CLEANED THE INJ. TUBES & INSTALLED THE NEW SIX-PACK OF INJ'S. I REINSTALLED THE ROCKER SHAFT ASSY'S & TUNED THE ENGINE. I REINSTALLED THE JAKES & SET THE LASH. I INSTALLED THE ROCKER COVER, RAINGUTTER, PRIMED THE FUEL SYSTEM, INSTALLED THE CORRECT INJ. CAL. CODES IN THE ECM, STARTED & RAN THE ENGINE FOR LEAKS.=OK. I TOOK THE UNIT FOR A SHORT TEST DRIVE TO VALIDATE THE REPAIR. I FOUND THAT THE JAKES WERE NOT FUNCTIONING PROPERLY. I RETURNED TO THE SHOP, REMOVED THE RAIN GUTTER & ROCKER COVER TO GAIN ACCESS TO THE JAKE SOLENOIDS. I REMOVED & TESTED BOTH JAKE SOLENOID & FOUND ONE TOTALLY FAILED & THE OTHER SOLENOID LEAKED WHEN ENERGIZED. I CHECKED PRICE & AVAILABILITY ON TWO JAKE SOLENOIDS. WE ARE AWAITING APPROVAL TO REPLACE THE SOLENOIDS. WE REPLACED THE JAKE SOLENOIDS, REINSTALLED THE ROCKER COVER & RAIN GUTTER. I TOOK THE UNIT FOR A TEST DRIVE TO VALIDATE THE REPAIR.=OK. THIS PORTION OF REPAIRS IS NOW COMPLETED. "DONE"

Qty	Item	Description	Extended
	*IPS-DET000121	S60 INJECTORS: BUY 5, GET 1 FREE	2,599.00
1	DDE R414703003S	INJECTOR6PAK	
-1	C414703003S-CORE	CORE DEPOSITE/INJECTOR6PAK	
6	DDE 08929393	M--BOLT	
1	DDE 23539103	GASKET	
1	C414703003S-CORE	CORE DEPOSITE/INJECTOR6PAK	
<b>Total Labor</b>	<b>623.76</b>	<b>Total Parts 1,975.24</b>	<b>Total Sub/Misc 0.00</b>
			<b>Total 2,599.00</b>

Job#6 SHP-DETS60 SHOP - DDC S40/50/60 LABOR S-CUST

**Condition** JAKE BRAKES ARE WEAK

**Cause**

**Correction** I TOOK THE UNIT FOR A SHORT TEST DRIVE & FOUND THE JAKES WERE INOPERATIVE SOMETIMES & ALWAYS INOPERATIVE IN THE LOW POSITION & VERY WEAK WHEN THEY DID WORK IN THE HIGH POSITION. I RETURNED TO THE SHOP, PERFORMED THE TROUBLESHOOTING & IDENTIFIED BOTH JAKE SOLENOIDS FAILED, (THE LOW JAKE SOLENOID WAS COMPLETELY DEAD & THE HIGH JAKE SOLENOID LEAKED SO BAD THAT IT WOULD ONLY BARELY WORK.) I ALSO IDENTIFIED THE CLUTCH-PEDAL SWITCH WAS ONLY WORKING INTERMITTENTLY. (THIS IS ALSO THE REASON THAT THE CRUISE IS DROPPING OUT.) A NEW CLUTCH SWITCH IS ON ORDER, WHEN IT ARRIVES, THE CUSTOMER WILL BRING THE UNIT BACK TO HAVE IT INSTALLED.

Qty	Item	Description	Price Each	Extended
	DETS60-GEN	SHOP - DDC S40/50/60 LABOR		48.00
2	DDE 1024612	SOLENOID	153.30	306.60
<b>Total Labor</b>	<b>48.00</b>	<b>Total Parts 306.60</b>	<b>Total Sub/Misc 0.00</b>	<b>Total 354.60</b>

**INTERSTATE  
PowerSystems**

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407 ADVENTURELAND DRIVE NE  
ALTOONA, IA 500094224  
PHONE: (515) 957-3300  
FAX: (515) 957-3301  
www.istate.com

ACCOUNT NUMBER: 124262  
INVOICE NUMBER: R012043579  
INVOICE DATE:  
INVOICE TERMS: CASH  
  
VEHICLE#: 451684



CASH

Labor/Diagnostic/Tech Services:	785.76
Misc. Charges:	0.00
Parts:	2,297.43
Sublet:	0.00
Shop Supplies (ESC)	0.00
Taxes:	184.99
<b>Total:</b>	<b>3,268.18</b>

Subject to the terms and conditions on the back of this invoice, including the disclaimer of implied warranties of merchantability and fitness for a particular purpose.

All claims must be accompanied by this invoice. Diagnostic or Technical service charge may apply.