

CUSTOMER #: 16471
UNIT# 33

20049367



INVOICE

Remit to: PO Box 3486 · Portland, OR 97208
5555 N. LAGOON AVE.
PORTLAND, OR 97217
PHONE (503) 285-7771
FAX (503) 283-8761

CITY TOWING CO INC
2500 NE COLUMBIA BLVD
PORTLAND, OR 97211
HOME: CONT:503-255-3500
BUS: 503-255-3500 CELL:

PAGE 1

SERVICE ADVISOR: 131 JIM E BRICKEY

COLOR	YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE IN / OUT	TAG	
	10	PETERBILT 386	2NPLHN7X5AM101621		117787/117787	TLL005	
DEL. DATE	PROD. DATE	WARR. EXP.	PROMISED	PO NO.	RATE	PAYMENT	INV. DATE
08AUG11 DD			15:30 17MAR21			CHG	26MAR21
R.O. OPENED	READY	OPTIONS: ENG:46998809 TRN:6510875159					

LINE	OPCODE	TECH	TYPE	HOURS	LIST	NET	TOTAL	
A								
A ELECTRONIC STOP ENGINE WARNING LIGHT ON								
EN92 ELECTRONIC STOP ENGINE WARNING LIGHT ON								
			1065	CL				
			1135	CL				
						2799.13	2799.13	
		COMP	COMPULINK			79.50	79.50	
		SC	SHOP CONSUMABLES			20.00	20.00	
			6 14-50 CABLE TIE				1.68	
			3 BT31S91EXCH BATTERY-HD GRP 31 TERM STUD					
			950CCA				321.99	
			CORE CHARGE C			109.35	109.35	
			1 4034122RXCUM KIT-VG TURBO ACTUATOR					
			ISC/ISL/ISX/QSX				1134.25	
			CORE CHARGE C			168.75	168.75	
			1 4943134RXCUM MODULE-CENTINEL CONTROL				1695.58	
			CORE CHARGE C			810.00	810.00	
			-1 4034122RXCUM CORE RETURN				-168.75	
			6 14-50 CABLE TIE				1.68	
			-1 4943134RXCUM CORE RETURN				-810.00	
		LUBE	4.40 Quarts DELO PREDILUTED 50/50 EXTENDED LIFE COOL					
			CL			21.65	21.65	
		LUBE	8.30 Quarts DELO PREDILUTED 50/50 EXTENDED LIFE COOL					
			CL			40.84	40.84	
		LUBE	22.00 Quarts DELO PREDILUTED 50/50 EXTENDED LIFE COOL					
			CL			108.24	108.24	
		PARTS:	3264.53	LABOR:	2799.13	OTHER:	270.23	
							TOTAL LINE A:	6333.89

117787
T/S active FC2636 in QSOL. Load tested the batteries (rated at 925 CCA) ...
remove and installed batteries. cleaned up connection and check for charging. good,
Cleared all faults - FC2636 would not clear. Continued with the troubleshooting tree. Plugged in a new VGT actuator in Step 8, and ran the engine at idle for 1 minute. FC2636 went inactive.

RETAIN THIS INVOICE - NO ITEMS WILL BE ACCEPTED FOR CREDIT WITHOUT THIS INVOICE AND OUR PRIOR CONSENT. A 10% HANDLING CHARGE WILL BE MADE ON RETURNED ITEMS.
NO REFUNDS AFTER 30 DAYS. THERE MAY BE NO REFUND ALLOWED ON SPECIAL ORDERED OR ELECTRICAL PARTS.
VEHICLES NOT PICKED UP WITHIN 3 DAYS OF COMPLETION DATE WILL BE SUBJECT TO A STORAGE CHARGE OF \$10.00 PER DAY.
Parts and/or Service Disclaimer: DSU (Seller states that the only warranties applying to the part(s) are those which may be offered by the manufacturer. The selling dealer hereby expressly disclaims all warranties, either express or implied, including any implied warranties of merchantability or fitness for a particular purpose, and neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of this part(s) and/or service. Buyer and/or user shall not be entitled to recover from the selling dealer any consequential damages to property, damages for loss of use, loss of time, loss of profits, or income, or any other incidental charges.
TERMS: CASH unless prior arrangement made. Accounts due and payable by the 10th of month following month of purchase. 1 1/2% per month service charge (annual percentage rate: 18%) applied to balance of all past due accounts from month due. Purchaser agrees to pay collection costs and fees including reasonable attorney fees if account is collected by suit or otherwise. Title to this property does not pass until fully paid for.
RETURNED CHECKS: I agree to pay a \$25.00 charge for any returned checks plus I agree to pay collection costs including reasonable attorney fees if item is collected by suit or otherwise.
CORE RETURNS must be accompanied by original invoice number. Cores returned after 60 days will not be issued credit.

DESCRIPTION	TOTALS
LABOR AMOUNT	
PARTS AMOUNT	
GAS, OIL, LUBE	
SUBLET AMOUNT	
MISC. CHARGES	
TOTAL CHARGES	
LESS INSURANCE	
SALES TAX	
PLEASE PAY THIS AMOUNT	

CUSTOMER SIGNATURE X

CUSTOMER COPY

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08AUG11 DD			15:30 17MAR21			CHG	26MAR21
R.O. OPENED	READY	OPTIONS:	ENG:46998809 TRN:6510875159				
16:18 16MAR21	15:26 26MAR21						

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Made 5 attempts at calibrating the new actuator, but the procedure failed each time. The install procedure passed all 5 times. Tried calibrating the actuator connected directly to the 3-pin engine harness connector, but the calibration again failed. Called Cummins support (CCR# 1-109211420109) for assistance. I also followed all of the T/S steps again in the 2636 tree, and everything checked out OK (the new actuator may be faulty). Waiting to hear back from Cummins support to update them. The 2634 fault related to the actuator not being calibrated went inactive after trying to calibrate it, and FC2636 again went active.

Called the ESC... re-checked the terminating resistance at the inline resistor - 121 ohms measured. He suggested that the problem was with the ECM, terminating resistor, or the new actuator.

Contacted Andy with Cummins Care for troubleshooting assistance, and again after the results of running the overlay. Put a load on the PWR and GND circuit using a headlight at pins 1 and 2 of the actuator harness connector - the bulb did no illuminate. Put a load on pins 1 and 4 at the 4-pin PWR connector at the ECM - the bulb illuminated brightly. Ran an overlay between pins 1 and 33, and pins 2 and 40 (between the turbo actuator harness connector and the engine harness connector at the ECM). Again load tested the engine harness at the actuator connector - the bulb still did not illuminate.

Replaced the ECM and calibrated with ECM code: AU90118.36. Transferred the saved template from the old ECM, and manually changed those adjustable not transferred during the cal. Entered the injector barcodes from the old job image. R/I the fuel lines beside the ECM for access. Replaced the turbo actuator (the old ECM damaged the old actuator). Re-filled the cooling system with new ELC. Cleared all faults, and turned in the old ECM and actuator cores to parts. Ran a manual regen to verify the repair - no faults logged during.

STOP Engine light

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CUSTOMER SIGNATURE

DESCRIPTION	TOTALS
LABOR AMOUNT	2799.13
PARTS AMOUNT	3264.53
GAS, OIL, LUBE	170.73
SUBLET AMOUNT	0.00
MISC. CHARGES	99.50
TOTAL CHARGES	6333.89
LESS INSURANCE	0.00
SALES TAX	0.00
PLEASE PAY THIS AMOUNT	6333.89

CUSTOMER COPY