

Sold  
To

Ship  
To

SERVICE INVOICE RA104005885:01  
ESTIMATE: ES104005004

UNIT NO: 76  
VIN: 1FUJGED53FLGF3665  
YEAR/MAKE/MODEL: 2015 / FREIGHTLINER / CA125 CASCADIA  
ENGINE/MODEL/SN: Detroit / D472906 / 472906S0261258  
TRANS/MODEL/SN: / DT12 / 71538401423668  
RXLS/MODEL/SN: / ART400-4 / 771AAC-A133661H

CONTACT #:   
P.O. NO:   
DATE CREATE: 1/11/23  
DATE INVOICED: 1/18/23  
DRIVER CONTACT:   
DATE SCHEDULED: 1/11/2023 3:31:47A

MILEAGE: 728,054  
LICENSE:   
ENG HRS: 0  
R RATIO: 3.31  
TAG #: 4487  
DEL MILE:

Sold Operations

JOB #1 CI

COURTESY INSPECTION

COMPLAINT  
CAUSE  
CORRECTION

COURTESY INSPECTION CALL FOR APPROVALS

QTY	ITEM	DESCRIPTION	UNIT PRICE	EXTD PRICE

Prepay: Parts: Labor: Misc: Sublet:

## Sold Operations (Cont.)

## JOB #2 EA

## EXPRESS ASSESSMENT

## COMPLAINT

CHECK ENGINE LIGHT ON FOR CODE 401. TRUCK IS DERATED--CHECK AND ADVISE

## CAUSE

## CORRECTION

352-HAD TROUBLE GETTING TRUCK PULLED IN DUE TO TRANSMISSION SHIFTING ISSUE. CHECKED CODES. PRINTED CODES. HAS INACTIVE CODE 411 MODE 1 FOR EGR DIFFERENTIAL PRESSURE FAILED. PERFORMED TROUBLESHOOTING. CHECKED MCM SOFTWARE LEVEL. MCM SOFTWARE LEVEL IS UP TO DATE. CHECKED EGR DELTA P VOLTAGE USING DIAGNOSTIC LINK. VOLTAGE WAS 0.69V. REMOVED EGR COOLER HOT PIPE, EGR CROSSOVER TUBE AND MIXER PIPE AND INSPECTED FOR EXCESSIVE BUILD-UP OR BLOCKAGE. NONE FOUND. DISCONNECTED EGR DELTA P SENSOR CONNECTOR AND INSPECTED FOR LOOSE, BENT, SPREAD, OR CORRODED PINS. NONE FOUND. INSPECTED EGR SYSTEM FOR LEAKS, OBSTRUCTIONS, LOOSE HARDWARE, CLAMPS OR DAMAGE. NONE FOUND. INSPECTED EGR VALVE LINKAGE FOR LOOSE OR BROKEN ACTUATOR PULL ARM OR FASTENERS. ALSO CHECKED THAT THE EGR VALVE IS ABLE TO MOVE FREELY. VALVE MOVES FREELY. CHECKED EGR VALVE FOR DAMAGE. NO DAMAGE FOUND. STEP 12 ON TROUBLESHOOTING IS THE NEXT STEP. 241- DISCONNECTED THE MCM 120 PIN CONNECTOR AND INSPECTED IT FOR DAMAGE. GOOD. MEASURED THE RESISTANCE BETWEEN PINS 1 AND 2 OF THE EGR DELTA P HARNESS SIDE. IN SPEC. MEASURED THE RESISTANCE BETWEEN PINS 2 AND 3. IN SPEC. MEASURE THE RESISTANCE BETWEEN PIN 1 OF THE EGR DELTA P SENSOR CONNECTOR HARNESS SIDE AND PIN 117 OF THE MCM 120-PIN CONNECTOR HARNESS SIDE. IS THE RESISTANCE LESS THAN 5 OHMS? IN SPEC. MEASURE THE RESISTANCE BETWEEN PIN 1 OF THE EGR DELTA P SENSOR CONNECTOR HARNESS SIDE AND BATTERY GROUND. IS THE RESISTANCE GREATER THAN 10K OHMS? IN SPEC. MEASURE THE RESISTANCE BETWEEN PIN 3 OF THE EGR DELTA P SENSOR CONNECTOR HARNESS SIDE AND PIN 109 OF THE MCM 120-PIN CONNECTOR. IS THE RESISTANCE LESS THAN 5 OHMS? IN SPEC. MEASURE THE RESISTANCE BETWEEN PIN 3 OF THE EGR DELTA P SENSOR AND BATTERY GROUND. IS THE RESISTANCE GREATER THAN 10K OHMS? IN SPEC. CHECKED VENTURI PIPE FOR BLOCKED DELTA P PORTS. FREE FLOWING. 352-UNPLUGGED AND REMOVED EGR DIFFERENTIAL PRESSURE SENSOR. CLEANED SEALING SURFACES FOR SENSOR SEALS. CUT LOOM OFF OF SENSOR HARNESS. CUT ONE WIRE AT A TIME AND SPLICED NEW PIGTAIL IN. INSTALLED NEW SENSOR. WRAPPED NEW PIGTAIL IN ABRASION TAPE AND WIRE LOOM. PLUGGED PIGTAIL INTO SENSOR. SECURED HARNESS WITH ZIP TIE. WILL NEED VERIFICATION AFTER TRANSMISSION IS DONE.

QTY	ITEM	DESCRIPTION	UNIT PRICE	EXTD PRICE
1	104D/DDE 23539639	DP SNSOR KIT		
1	104D/DDE A0119812025	PILOT BEARING		
1	104D/PHM 5 025	LOOM-WIRE 3/8IN SPLIT 100FT		
	LABOR EA-10	LABOR		

\$906.32

## Sold Operations (Cont.)

## JOB #2 EA

## EXPRESS ASSESSMENT

## COMPLAINT

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	LABOR EA-10	LABOR		

\$906.32

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## Sold Operations (Cont.)

QTY	ITEM	DESCRIPTION	UNIT PRICE	EXTD PRICE
1	104D/23-13149-029	PLUG 21CAV MCP2 8S AI BK SEAL		
1	104D/23-13454-001	CLAMP 0000 BATT CA		
1	104D/A 948 260 05 63	CONTROLLER SHIFT W/O TCM		
-1	104D/A 948 260 05 63-CORE	CONTROLLER SHIFT W/O TCM		
1	104D/A 948 260 05 63-CORE	CONTROLLER SHIFT W/O TCM		
1	104D/A 960 261 06 80	SEAL SHIFT ACTUATOR		
1	104D/A02-14135-000	ZB SINGLE DISC DRY CLUTCH		
1	104D/CI U500F1	CLAMP-EXHAUST U-BOLT ASSEMBLY		
12	104D/DDE A0029905500	MOUNTING BOLT FLYWHEEL		
1	104D/DDE A0159974946	OIL SEAL CRANKSHAFT REAR		
1	104D/DDE A0309979045	O-RING CYLINDER HEAD CLOSING C		
1	104D/DDE A4720150280	SEAL		
1	104D/DDE A4720160133	COVER		
1	104D/TCX AMS013	GASKET-5 INCH SPHERICAL W/TABS		
2	104D/TDA 2208X440	GASKET		
	LABOR 26-10	LABOR		
1	SUB106	ESTIMATE		

Sold Operations Totals

\$11,229.48

## AR CUSTOMER

	ESTIMATED	BILLED
LABOR		
PARTS		
MISC		
SUBLET		
PREPAY		
SUBTOTAL		
SHOP SUPPLIES		
MISC SUPPLIES		
TAX		
TOTAL		\$12,336.54

Please Remit Payment to:

AUTHORIZED BY

DATE

REMIT TO: