

## Branch

Ship to:

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Account No.	Phone No.	Invoice No.
Ship Via	Purchase Order	
Tax Exemption Number	Federal ID Number	
	Salesperson	

Invoice to:

## SERVICE INVOICE

STK#/FLEET#	HRS	PIN/EIN	WARRANTY DATE	HRS
X836751 ENGINE	2782	PE5030T193009	04/01/14	2000
V -21 5030T		PE5030T193009		

SEGMENT# 1 C NSC01 02090J 09/10/19 09/19/19

INJECTION PUMP UNITS, R&amp;R

CONDITION:

Replace injectors.

CORRECTION:

- Removed engine side covers
- Removed fan guard
- Removed alternator and alternator bracket
- Removed valve cover from cylinder head and turbocharger
- Pinned engine at #1 TDC
- Removed 5 injector nozzle hold down clamps
- Removed 5 injector nozzles from injection pumps and set aside
- Removed 5 injector pumps
- Unpackaged new injector pumps
- Installed new injector pumps in sequence to time fuel metering rack
- Installed 5 new injector nozzles to injection pumps
- Installed 5 new injector clamps to injector nozzles
- Installed valve cover back to original location on cylinder head and turbocharger
- Service manager said customer is going to come get machine
- Assembled engine. Clamps are broken on intake and exhaust
- Notified Driver of busted clamps on intake and exhaust pipe they are going to take care of it.

FRTIN

SHIP/HANDLING

1

ORDER

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X836751	ENGINE	2782	PE5030T193009	04/01/14	2000
V -21	5030T		PE5030T193009		
PM710XX280			MARKER&SEALANT	1	
PROMOCE			RDO coverage	1-	
RE527599			Fuel Injection	5 N	
CRRE527599			Fuel Injection		
RE532211			FUEL PUMP	1	
RE540179			HOSE FITTING	1 N	
20100			ONE SHOT	4	
				LABOR	
10401099				SEGMENT TOTAL==>	

SEGMENT# 2 C NSC01 RDO-020-DIAG 09/10/19 09/13/19

ENGINE DIAGNOSTICS

CONDITION:

Need to set fuel rack

Blake Friend: 605-848-2692

Sam: 605-360-2497

TranSource just put fuel shut off solenoid, worked for a while, but engine smokes and runs rough. Sometimes will not start.

605-848-2692

Engine will not run.

CORRECTION:

- Tried started machine and machine will crank but not start with excessive smoke coming out of exhaust
- Removed outer engine covers
- Primed fuel system
- Tried starting engine again and same symptoms still persist
- Removed fuel supply line from mechanical fuel pump and checked fuel output to cylinder head and there is barely any fuel coming out of hose

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V -21	5030T		PE5030T193009		

-Replaced mechanical fuel pump  
 -Tried starting engine and engine still does not start  
 -Determined injection pumps and injector nozzles need to be replaced  
 -Replaced injection pumps and nozzles on another segment of this work order  
 -Tried starting engine and engine still would not start  
 -Submitted DTAC case  
 -DTAC said engine timing is most likely the cause of no start issue with everything we've replaced and diagnostics performed  
 -Engine would need to come out or front cooling package would have to be removed to get front timing cover off to adjust timing

10401099

LABOR  
 SEGMENT TOTAL==>

\*\*\*\*\* WORK ORDER TOTALS \*\*\*\*\*

LABOR  
 SUB TOTAL==>  
 SD ABERDEEN 6.5%  
 SD ABERDEEN 6.5%  
 TOTAL DUE RDO 3194.15

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### SERVICE INVOICE

STK#/FLEET#

X836751 ENGINE

V -21 5030T

PLEASE REMIT TO:

HRS PIN/EIN  
2782 PE5030T193009  
PE5030T193009

WARRANTY DATE HRS  
04/01/14 2000

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