

# Martin's Peterbilt

of West Virginia

715 Orchard Park Rd.  
Hurricane, WV 25526



Toll Free: (855)898-8333  
Local: (304)562-7999  
Fax: (304)849-7470

Remit to:  
PO Box 98  
London, KY 40743-0098

Toll Free: (800)255-2746  
Local: (606)878-6410  
Fax: (606)878-2800

**\*\* Reprint \*\***

Invoice: **040415265**  
Date / Hour: 4/13/2022 2:45:14PM  
Repair Order: 15265  
Customer: 90004  
Branch: HUR  
Total Invoice: \$25,773.36  
\*\*\*Peterbilt Warranty\*\*\*

Page 1 of 4

**Bill To:** PETERBILT WARRANTY  
1700 Woodbrook Street  
DENTON, TX 76201

**Ship To:** Cordial Trucking  
PO BOX 98  
LONDON, WV 40741  
Office Phone: (855) 487-7898

Work: (855) 487-7898

Customer P/O: CU-538001

Orig R/O: 15115

Open Date: 03/25/2022

Completion Date: 04/12/2022

Add User: jcollett

Salesperson: House

**Unit Number: 460677**

**Model Year: 2018**

**Make/Model: PETERBILT 389**

**Type: Class 8**

**VIN: 1XPXDP9X5JD460677**

**Meter: 552047 Miles**

**Task: 2 43-00000 Exhaust System**

**Department: Service**

**Complaint:** customer states engine has fuel coming out of egr valve

**Correction:** Pulled unit into shop and performed visual inspection. Verified fuel was leaking at exhaust manifold. Noticed that CEL was illuminated and unit had a bad engine misfire. Hooked up with Davie and printed DTCs. Had multiplied DTCs for misfires and torque contribution as well as faults for every sensor down stream in exhaust system that fuel has come in contact with. Started diag in P0278. Checked for other faults for bank 2 injectors. None logged. Performed "assess MX engine brake" test. Passed text. Removed valve cover for valve train inspection. No damage found under valve cover. Checked for fuel codes causing misfire. None logged. Verified P0278 was active in the last 25 hours. Got unit up to operating temp and attempted to run cylinder performance test automatically. Failed everytime #2 started to test. Unit will need #2 and #6 injector. Also due to fuel damage EGR valve has internal error and needs replaced. NOX sensor before catalyst needs replaced due to fuel damage, and the DOC/DPF temp sensors will need replaced. DOC and DPF may not clean up depending on how much fuel has passed through them. Need to perform a regen in slow increments to slowly burn out aftertreatment. Got with part dept and quoted parts. Found that exhaust manifold is busted. Drained coolant, removed EGR valve, EGR cooler, exhaust manifold. Found that exhaust valve seals are severely leaking in #6. Since having so many problems with this injector, removed valve cover and checked valve lash again. Valve lash is good and within spec. But decided to remove injector and run compression test on that cylinder. Will not hold compression. Removed rocker assy and removed pushtubes. Found that #6 intake pushtube was slightly bent. Also found exhaust bridge was damaged. Started TCS case with findings. Removed oil filter and cut open to check for metal. Very small amount found. Sent pics of findings. Awaiting reply from TCS 04975564. Removed injectors and ran leakdown test as requested by TCS. Failed miserably. Vut open oil filter. Found no metal. Updated TCS case. Instructed to pull cylinder head and inspect. Removed cylinder head and all remaining bracketry/wiring. Found that #6 piston has hit the valve. Updated TCS case. Was instructed to replace piston, bearings, liner, rings and cap bolts on #6. Drained oil and removed oil pan. Removed #6 piston assy. Removed liner. Cleaned deck surface. Awaiting parts. Transferred all parts from old head to new head. Parts came in but liner was damaged during shipping as well as bearing shells. Had to reorder. Cleaned up bay area. Cleaned deck surface. Installed liner and piston assy into #6 hole. Torqued to spec. Installed cylinder head. Torqued to spec. Started installing all bracketry and wiring. Installed injectors with new orings and hold down bolts. Installed fuel lines. Valvetrain needs installed and valve lash needs adjusted. Also oil pan needs installed and filled with oil. Washed oil pan and installed new gasket. Installed oil pan. Filled unit with oil. Replaced valve cover and rocker box gaskets. Installed pushtubes and rocker assemblies. Adjusted valve lash. Installed injectors. Torqued rockers and injectors to spec as well as fuel lines. Installed rocker box and valve cover. Installed EGR cooler. Installed return fuel line on back of head and fuel return manifold on driver side. Primed fuel system and started engine. Fired right off. Fuel system still needs bled a bit. Bled fuel system. Installed coolant elbow on side of block. Swapped over flex pipe from EGR valve. Installed EGR valve. Filled unit with coolant. Secured up wiring with zip ties. Cleared faults and bled fuel system. Filled with coolant. Stared unit and let run up to operating temp. CEL illuminated with a VTG fault code. Too slow to respond. Will need to diag this fault in the am. P2563. Reassembled aftertreatment from inspection of oil. Did not see anything out of the ordinary. Started diag on P2563. Checked software. All up to date. Visually inspected turbo, actuator and wiring. Nothing out of the ordinary. Measured supply voltage at actuator. 12.4VDC. All good. Checked E-CAN resistance. Was 120ohms. All good. Backed unit out of shop and performed turbo actuator functionality test. Failed 3 times. Drained coolant, removed VTG actuator. Sector gear is stuck. Updating TCS case with findings. Updated TCS case. Was instructed to replace turbo. Removed EGR cooler, removed turbo, cleaned mating surfaces. Installed new turbo, torqued to spec. Installed EGR cooler and valve, Filled with coolant. Ran unit up to operating temp and cleared faults. Put unit through stationary regen. Topped coolant off. checked for faults. None found. Took unit on extended road test to seat rings and break in new bearings. No issues to report at this time. Task complete.

Supp.	Part	Description / Ref Number	U/M	Quantity	Price	Extended Price
MXR	2301180PEX-C	TURBOCHARGER-MX13, W/ ACTUATOR, EPA17-Core EA		-1.0	\$730.00	\$(730.00)

\*\* See Last Page for Invoice Total \*\*

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Customer P/O: CU-538001      Orig R/O: 15115      Open Date: 03/25/2022      Completion Date: 04/12/2022  
Add User: jcollett      Salesperson: House

<b>Original Invoice: 040415115</b>						
MXR	2047600PEX-C	CORE	EA	-2.0	\$190.00	\$(380.00)
<b>Original Invoice: 040415115040415115</b>						
MXR	2188417PEX-C	CYLINDER HEAD, MX13 EPA17, HHP-Core	EA	-1.0	\$1,400.00	\$(1,400.00)
<b>Original Invoice: 040415115</b>						
MXE	1603977PE	O-RING	EA	1.0	\$16.65	\$16.65
MXE	1603978PE	O-RING	EA	2.0	\$16.65	\$33.30
MXE	1655712PE	BEARING SHELL CON-ROD STAND	EA	1.0	\$32.79	\$32.79
MXE	1858819PE	BEARING SHELL CON-ROD STAND	EA	1.0	\$32.79	\$32.79
MXE	1858819PE	BEARING SHELL CON-ROD STAND	EA	1.0	\$32.79	\$32.79
MXE	1878508PE	BOLT-CONNECTING ROD	EA	2.0	\$2.12	\$4.24
MXE	1935136PE	CYLINDER LINER - W/ ANTIPOLI	EA	1.0	\$222.56	\$222.56
MXE	1935136PE	CYLINDER LINER - W/ ANTIPOLI	EA	1.0	\$222.56	\$222.56
MXE	2124730PE	EXHAUST MANIFOLD ASSEMBLY	EA	1.0	\$773.50	\$773.50
MXE	2131567PE	OIL NOZZLE	EA	1.0	\$19.50	\$19.50
MXE	2132582PE	PISTON, W/ RINGS, CLIPS, PIN	EA	1.0	\$627.64	\$627.64
MXR	2301180PEX	TURBOCHARGER-MX13, W/ ACTUATOR, EPA17	EA	1.0	\$5,958.99	\$5,958.99
MXR	2301180PEX-C	TURBOCHARGER-MX13, W/ ACTUATOR, EPA17-Core	EA	1.0	\$730.00	\$730.00
MXE	2312234PE	GASKET-CYLINDER HEAD, SERVICE	EA	1.0	\$922.04	\$922.04
MXE	1922496PE	ELEMENT-FILTER OIL CENTRIFUG	EA	1.0	\$42.52	\$42.52
MXE	2234788PE	OIL FILTER ELEMENT	EA	1.0	\$34.06	\$34.06
MXE	2138143PE	GASKET-EXHAUST MANIFOLD	EA	6.0	\$17.13	\$102.78
MXE	1858035PE	RING-SEAL	EA	2.0	\$1.31	\$2.62
MXE	1858036PE	SEAL RING	EA	1.0	\$1.33	\$1.33
MXE	1638270PE	O-RING INJECTOR	EA	6.0	\$5.60	\$33.60
MXE	1865847PE	INJECTOR O-RING	EA	6.0	\$5.88	\$35.28
MXE	1917870PE	EXHAUST GASKET	EA	1.0	\$9.19	\$9.19
MXE	2127551PE	RING SEAL, INJECTOR	EA	6.0	\$7.87	\$47.22
MXE	2127357PE	SENSOR-PRESSURE, PRE TURBO	EA	1.0	\$91.94	\$91.94
MXE	1923003PE	GASKET	EA	1.0	\$10.36	\$10.36
MXR	2188417PEX	CYLINDER HEAD, MX13 EPA17, HHP	EA	1.0	\$5,793.26	\$5,793.26
MXR	2188417PEX-C	CYLINDER HEAD, MX13 EPA17, HHP-Core	EA	1.0	\$1,400.00	\$1,400.00
JO	15W40BULK	BULK-15W40 CHEVRON URSA PLUS	EA	11.0	\$14.98	\$164.78
MXE	2240650PE	VALVE BRIDGE, EXHAUST	EA	2.0	\$20.88	\$41.76
MXE	2240650PE	VALVE BRIDGE, EXHAUST	EA	1.0	\$20.88	\$20.88
IP	6754	MOLYKOTE 111 COMP SEALANT	EA	1.0	\$53.63	\$53.63

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Add User: jcollett

Salesperson: House

# REPRINT

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

I hereby authorize the repair work hereinafter set forth to be done along with the necessary material and agree that you are not responsible for loss or damage to vehicle or articles left in vehicle in case of fire, theft, or any other cause beyond your control or for any delays caused by unavailability of parts or delays in parts shipments by the supplier or transporter. I hereby grant you and/or your employees permission to operate the vehicle herein described on streets, highways, or elsewhere for the purpose of testing and/or inspection. An express mechanic's lien is hereby acknowledged on above vehicle to secure the amount of repair thereto. Martins Peterbilt is not responsible should the owner select to request their vehicle to be left unattended or after hours for pickup.