

***** Customer Review *****

Date / Time: 9/13/2022 3:02:36PM
Repair Order: 28073

Customer P/O: jholm

Completion Date:

Unit Number: 222

Model Year: 2006

Make/Model: PETERBILT 379

Type: Heavy Duty Truck

VIN: 1XP5D49X16D894026

Task: 2 1062-1 Diag-General

Department: Service

Complaint: General Diagnostics

CUSTOMER STATED THEY HAVE COOLANT IN EXHAUST MAY HAVE HEAD GASKET ISSUE C&A

Correction: 2/21/2022 9:25:42 PM 11413 Check out unit.

Start unit and run very rough.

Unit is low on coolant not sure if it using if or pushing it out.

Looking over the engine and look like the head gasket has been replaced.

Advise foreman that cel is on but need to verify cam timing.

3/16/2022 8:53:07 PM 11413 Pulled unit in shop.

Hook up computer

Perform cylinder cut out test .

3 cylinder not responding.

Unit smoke alot out of the exhaust.

Found theirs no coolant in the surge tank .

Found a puddle of oil on floor. It was coming out of the exhaust pipe.

Remove the turbo outlet pipe and found the fins on the turbine are damaged.

Check the oil and found it is a gray in color.

Advise foreman that need to remove the vacle cover and injectors to inspect the clinders for possible dropped valve.

3/17/2022 4:37:30 PM 11413 Remove the cleaner ducting .

Remove the valve cover.

Remove the injector and valve rocker shafts .

Remove and bag all 6 injectors.

Used the bore scope and took a picture of the # 3 cylinder.

Attach the picture to the Ro .

Advise the foremen the head need to be removed.

3/18/2022 5:16:44 PM 11413 Got okayu to remove the head.

Drain coolant.

Recover fingerant 4.65 lbs

Remove the condenser, hose and wiring.

Remove the mount bolts for radiator.

Remove the shroud.

Remove the radiator.

Remove the fan the hud assembl.

Removethe timing cover.

Found the cone spacer for injector cam was broken and laying in the front cover can't find the other peice.

Found the the case is damage and the other gears are chipped.

Advise the foreman was took to stop and i sent pictures to service.

Clear up area.

5/13/2022 5:39:45 PM 3688 3688- Helped get truck towed out of the shop, Helped clean floor and bring different truck inside.

5/13/2022 5:44:45 PM 11413 box up parts and put in or on unit, and then put unit outside.

Clean up bay.

| Supp. Part | Description / Ref Number |
|--------------|-----------------------------------|
| D66-1103-435 | PIPE-AIR INTAKE 90DEG 5" MLD Part |
| 07-03286POLY | BSHG-POLY-RAD MOUNT Part |

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P037ST-PAS

RING-RETAINING-HOOD CABLE

Part

EA

P062STPA

RING-RETAINING-HOOD SPRG

Part

EA

Task Subtotals

Hours: 10.00

M

Task 2 Subtotals:

\$1,818.46

Task: 3 1060

Cummins Overhaul Special 15% Off Retail Labor

Department: Service

Complaint: In-Frame

CUSTOMER REVIEW

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Repair Order: 28073
Customer: 23335
Branch: FTWYN
Invoice Total: \$ 52,339.86

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Customer P/O: jholm

Completion Date:

Correction: 7/18/2022 10:17:26 PM 11413 Tow unit in shop.

Drain the oil.

Remove the oil pan.

Drop #2 and 6 main

Check the crank and is good

Drop #1 and 6 rod and the rod journals are good.

Disassembled unit engine

Remove the head and piston.

Clean up bay.

7/19/2022 4:35:13 PM 11413 Up date the parts list.

Advise the crank gear and tone ring will need replaced.

Tone wheel has missing tooth. Sent in pictures.

Remove the liners and clean the deck of the block.

8/15/2022 7:10:18 PM 11413 Drilled out the hole in the crank adaptor.

Remove the adaptor

Remove the tone wheel

Inspect the crank gear and its okay.

Put the new tone wheel in the the hot plate for 2 hrs to get to 400 F

While the tone wheel is heating up.

Installed the liners.

Measure the liner protrusion, put findings with RO.

Installed the tone wheel on crankshaft.

Measure to see if the tone wheel is seated to the crank gear with a .010 feller gauge can't get in between the tone and gear. this passes.

Found the kit is updated kit the piston are different.

Read tsb's and found this is update for the kits but the no where do it say any thing on the rods.

8/16/2022 5:33:30 PM 11413 Put the adaptor in the oven.

Call cummins and talk to clay level 2 Case # 1-114421894613 He said the piston are ok to use with the old rod but advise me to change them sense the damage done to the engine.

Put in parts request for the new rod for unit.

Started to do the main bearing and rolled one upper bearing out. rolled new bearing in and went in too easy.

Inspect the old main and rod bearing and found the main are .25 over size and the rods are .5mm oversized.

The rod bearing kit that was order was stand size and only contain 1 upper and 1 lower for 1 rod.

Request the correct rod and main bearing kits.

Check on the adaptor and was at the right temp and went to install it and stuck on the crank.

tried to heat it and remove it and no luck, have to cut it off replace and try again.

order other adaptor.

8/22/2022 10:26:27 PM 11413 Cut the adaptor off.

Had to keep sharpening the drill bits.

Started to installed the main bearing 2 and 6 main are done.

Went to remove the oil pump.

Found one of the bolt head was rounded off. Tried to get the bolt out no luck.

Cut the head of the bolt remove pump and the rest of the bolt.

Sent in request new bolts.

8/23/2022 10:47:04 PM 11413 Installed the main bearings.

Torque the bolts to spec.

Clean up bay and tools.

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8/24/2022 10:47:37 PM 11413 Check crank end play reading at .010 in spec.
Went to go installed the crank adaptor and it was too cold to o install.
Assembled the piston and rods.
Installed the rings on the piston.
Look foir the tooling to installed the piston in the block and found the is at new up dated tool.
OIL up the liners and installed the piston/rod assembly in the block.
Torque the bolts to 40n*m then 70 n*m then loosen and torque to 40n*m then 70n*m then 60 degress.
Repeat the for all the 6 cylinders.
Installed the piston cooling nozzles.

Remove the old egr cooler and installed the new one, with new o rings
Torque all bolts to spec.

Remove the old air compressor and p/s pump
Installed the new air compressor and gaskets and reinstalled the p/s pump with new gasket.
Torque all bolts to spec.

8/25/2022 10:52:39 PM 11413 Put the crank adaptor on the crank. Held in place til cool down.
Clean out the head bolt holes.
Clean the deck of block and check cylinder was clear.
Installed the head gasket.
Put braket on the new head lift it up and put on the block.
Request new head bolts .
Got them and installed them with engine oil, and torque the bolt to 150lb-ft then 300lb-ft then 90 degress.
Lube up the cam bearing and instaled the injector and valve cams.
Clean up the bay and the cores.

8/26/2022 10:41:05 PM 11413 Tansfer and coolant fitting over to the new head
Clean the exahast manifold, Installed on head torque to 44lbft
Installedthe turbo and torque the mount to 44lbft
Hook up the turbo drain coolant line and oil feed line.

Installed the ecm cooling plate and the ecm
Installed the fuel management unit.
Instaled the intake inlet.
Torque all bolt to spec.
Replace the broken oil pressure sensor .
Started hooking up the engine harness.

8/29/2022 7:39:15 PM 11413 Put part in parts washer.
Start to put oil pump up and found no shim kit.
Order shim kit .
Request the jake brake rockers.
Assembled the injector rocker shafts and the valve rocker shaft.
Installed them on engine waiting for cam gear to run overhead
Installed the idle gears.
Put cores on skid.

8/30/2022 4:13:36 PM 11413 Installed the oil pump with shims torque pump to 41lbft
Check the back lash .013 in spec.
Installed the stifner plate, and pick up tube.

9/2/2022 10:40:04 PM 11413 Installed cam gears.
Set the backlash on the gears and the toroqure the ilder ger to spec.
Then torque the cam gears to spec.
Installed the cam covers and the fornt seal .

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Installed the damper and the pulley and torque to spec.

Torque the rocker arm down.

Ran the overhead.

Had to order valve cover bolts.

Installed the valve cover loosely.

Hook up the harness.

Installed the oil pan. Torque the bolts to spec.

Installed the fan hub and fan

Installed the radiator. Hook most of it up.

Put in parts request for parts for the rad and air pipe .

9/6/2022 10:48:56 PM 11413 Charge the batteries.

Filled the oil and change the oil and filter.

Change the fuel filter.

Installed the condensor and a/c lines

Prime the oil system and fuel system.

Instaleed the air filters and the air piping.

Charge the a/c system

Filled the coolant system.

Started unit for to get some air out of the fuel system.

Wait on parts.

9/7/2022 10:17:11 PM 11413 Instaled the the air pipe ,and the lower rad monut.

Clean up the cores and the tools.

Move unit out side to get to temp and then test drive unit cel come on .

Troubleshoot the code 781 timing mismatched.

Check the base timing and found the unit is out of time 2 degress.

Advise will need to retime the cams.

The engien is pin and WONT RUN.

9/8/2022 8:06:47 PM 11413 Remove the frant gear cover.

Loosen up the fan hub

Loosen up the idler gear.

Lossen the rocker shafts

Remove the injector cam gear

Clean up the gear and nose of cam.

Put in the timing wedges

Installed th 609 on gear and cam nose/.

Installed the gear hand tight set the gear lash .

Torque the idle gear bolt to spec.

Then torque the cam gear bolt to spec.

Torque the rocker shaft to spep.

Set the over head.

Installed valve cover

Installed the gear cover and the fan hub.

Installed the air piping.

Retorqued the oil pan bolts

Start unit to air up and no cel .

Test drive unit, runs fine

Task complete.

Supp. Part

Description / Ref Number

U/M Quantity

Price

Extended
Price

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| Customer P/O: | jholm | Completion Date: |
|----------------|---|------------------|
| 5658283CUM | HEAD, CYLINDER DOUBLE CAM (5413782CUM) | Part EA 1.00 |
| 4101432CUM | CAMSHAFT (INJ) | Part EA 1.00 |
| 4298626CUM | CAMSHAFT (VALVE) | Part EA 1.00 |
| 4311990CUM | LEVER-RKR-INJECTOR | Part EA 6.00 |
| 5484228CUM | LEVER-RKR-EXHST (FRONT) | Part EA 3.00 |
| 5484229CUM | LEVER-RKR-EXHST (REAR) | Part EA 3.00 |
| 5484230CUM | LEVER-RKR-INTAKE (FRONT) | Part EA 3.00 |
| 5484231CUM | LEVER-RKR-INTAKE (REAR) | Part EA 3.00 |
| 2881993RXCUM | TURBOCHARGER-KIT | Part EA 1.00 |
| 2881993RXCUM-C | 408915200 D - TURBOCHARGER-KIT | Inherent 1.00 |
| 222290-981 | CHV DELO 400 SDE 15W40CK-4 (55/208DR) | Part QT 44.00 |
| AFC13100/F | Prestone Command CorGuard OAT NF ELC 50/50 | Part PC 13.00 |
| 5693814CUM | KIT, OVERHAUL | Part EA 1.00 |
| 5679854 | PUMP,LUBRICATING OIL | Part EA 1.00 |
| 231 | PARTS FREIGHT-5679854-UPSG | Misc 1.00 |
| 4965400 | ADAPTER,CRANKSHAFT | Part EA 1.00 |
| 3689001CUM | RING-SPEED INDICATOR | Part EA 1.00 |
| 5579049CUM | KIT, AIR COMPRESSOR | Part EA 1.00 |
| 2869656CUM | RETAINER-GEAR | Part EA 1.00 |
| 3680817CUM | SCREW,HEX FLANGE HEAD CAP | Part EA 1.00 |
| 5575513CUM | SCREW,HEX FLANGE HEAD CAP | Part EA 1.00 |
| 3680522CUM | GEAR-CAMSHAFT (VALVE) | Part EA 1.00 |
| 3689620CUM | GEAR,IDLER | Part EA 1.00 |
| 3689630CUM | GEAR,IDLER | Part EA 1.00 |
| 231 | PARTS FREIGHT 5298565 | Misc 1.00 |
| 3679037 | SCREW,HEX FLANGE HEAD CAP | Part EA 6.00 |
| 3687058 | NOZZLE,PISTON COOLING | Part EA 6.00 |
| 4059429RXCUM | ROD-CONNECTING | Part EA 6.00 |
| 4059429RXCUM-C | 405942900 D - ROD-CONNECTING | Inherent 6.00 |
| 4309434CUM | KIT,EXH RCN COOLER | Part EA 1.00 |
| 079340-21453 | LOCTITE 542 FINE THREAD H/P | Part EA 1.00 |
| 5406111CUM | KIT,MAIN BEARING | Part EA 1.00 |
| 4090017CUM | KIT-ROD BEARING .020 | Part EA 2.00 |
| 4965400 | ADAPTER,CRANKSHAFT | Part EA 1.00 |
| 3678574CUM | SCREW,CONNECTING ROD CAP | Part EA 18.00 |
| 3102651 | SCREW,HEX FLANGE HEAD CAP | Part EA 4.00 |
| L0034-094 | GREASE-MOTOR ASSY 10 OZ L003 | Part EA 1.00 |
| 4988280CUM | GASKET-PUMP HYDRAULIC | Part EA 1.00 |

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|---------------------|-----------------------------|------------------|----|--|
| 3678804CUM | BOLT-CYL | Part | EA | |
| | HEAD-M18X1.5X225mm | | | |
| 3678506CUM | BOLT-CYL | Part | EA | |
| | HEAD-M18X1.5X170mm | | | |
| 4962722CUM | SEAL-RECTANGULAR STRIP | Part | EA | |
| 3906216CUM | NUT,HEXAGON FLANGE | Part | EA | |
| 4955383CUM | SEAL,CRANKSHAFT,ISX,FRONT | Part | EA | |
| 4088665RXCUM | INJECTOR-HD | Part | EA | |
| 4088665RXCUM-C | 406256700 D - INJECTOR-HD | Inherent | | |
| 4298220CUM | STUD-TURBO MNT | Part | EA | |
| 4985492CUM | NUT-HEX LOCKING | Part | EA | |
| 4298220FL | STUD | Part | EA | |
| 4985492FL | NUT | Part | EA | |
| 4921517CUM | SENSOR-PRESSURE | Part | EA | |
| 4393087CUM | LEVER-RKR-ENGINE BRAKE | Part | EA | |
| 3800751CUM | SHIM - KIT | Part | EA | |
| 4101852TTP | GEAR-CAMSHAFT *USED* | Part | EA | |
| 4026507CUM | GASKET-VALVE COVER | Part | EA | |
| 3100895CUM | ISOLATOR,NOISE | Part | EA | |
| P534925 | FILTER-AIR | Part | EA | |
| FF105FLG | FILTER-FUEL | Part | EA | |
| B9226-0325TRP | CLAMP-T BOLT SPRING 3 1/4-3 | Part | EA | |
| 5491994CUM | SENSOR, POSITION | Part | EA | |
| 2881993RXCUM-C | 408915200 D - | Part | EA | |
| | TURBOCHARGER-KIT | | | |
| 4059429RXCUM-C | 405942900 D - | Part | EA | |
| | ROD-CONNECTING | | | |
| 4088665RXCUM-C | 406256700 D - INJECTOR-HD | Part | EA | |

Task Subtotals

Hours: 55.00

Mi

Task 3 Subtotals: \$50,171.40

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Completion Date:

Payment Method

COD

invoiced Total: \$52,339.86

ANY COMPLAINT REGARDING WORKMANSHIP CONCERNING REPAIRS PERFORMED BY THE DEALERSHIP MUST BE BROUGHT TO THE ATTENTION OF THIS DEALERSHIP WITHIN 30 DAYS OF RECEIPT OF THE VEHICLE BY THE CUSTOMER FOLLOWING A REPAIR OR IT WILL BE DEEMED WAIVED FOR ALL PURPOSES. THIS LANGUAGE SHALL NOT CONSTITUTE A WARRANTY FOR ANY PURPOSE. PARTS RETURNED FOR CREDIT MUST BE ACCOMPANIED BY THIS INVOICE AND MAY BE SUBJECT TO A MINIMUM RETURN CHARGE OF 10% OF THE PURCHASE PRICE. SPECIAL ORDER PARTS MAY ALSO BE SUBJECT TO A NON-REFUNDABLE DEPOSIT. SPECIAL ORDER ELECTRICAL PARTS ARE NOT RETURNABLE. CORES MUST BE RETURNED WITHIN 30 DAYS. ALL ACCOUNTS ARE DUE AND PAYABLE WITHIN TERMS. A FINANCE CHARGE OF .5% (18% PER ANNUM) WILL BE CHARGED ON ALL PAST DUE ACCOUNTS. A \$25 FEE WILL BE CHARGED FOR ALL RETURNED CHECKS.

Signature: _____

Under section 405(b) of the Internal Revenue Code, you may be liable for a 12% tax on the total charge invoiced here if you purchased this vehicle new within the 6 months.

I hereby authorize the repair work herein 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 in parts shipments by the supplier or the 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 repairs therein. Seller not responsible for alternate transportation due to the above.

The only warranties applying to this part(s) are those which may be offered by the manufacturer. The seller 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 shall not be entitled to recover from the selling dealer any consequential damages, damages to property, damager for loss of use, loss of time, loss of profit or income or any other incidental damages.