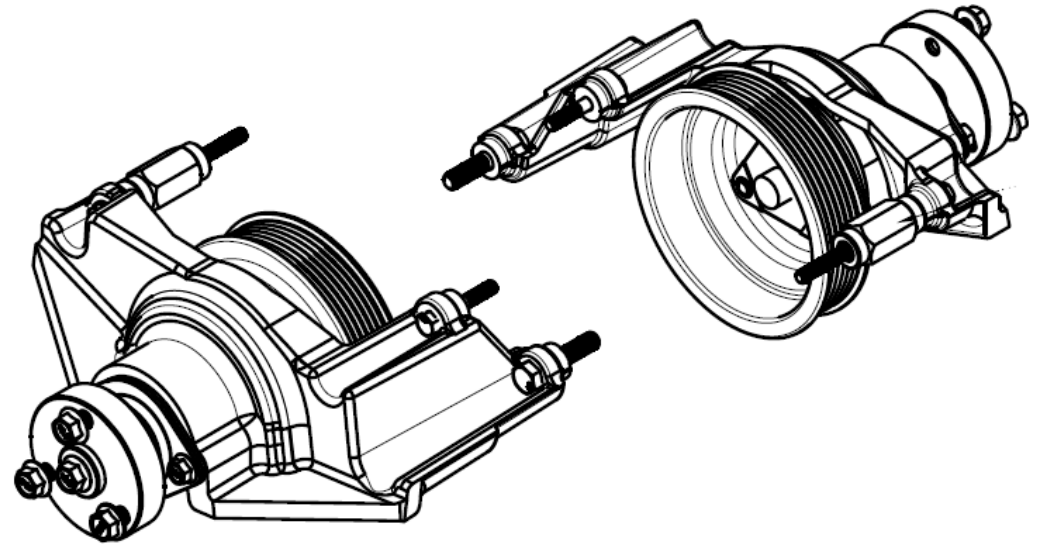


EDI Fan Support Kit Installation Instructions

Hayes Kit #132980

List of tools and steps to install fan support kit



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Rev. B – Updated 7/5/2018

What's in the kit

Your Fan Support Kit should include the following:

- 132955 – fan support bracket – Qty. 1
- 132673 – water pump pulley – Qty. 1
- 132671 – fan drive shaft – Qty. 1
- 132674 – fan drive hub – Qty. 1
- 133049 – spacer, 1-11/16" thru – Qty. 1
- 5913K72 – flanged bearing, self-aligning – Qty. 1
- Bolt – m8x1.25x20mm, 10.9 – Qty. 6
- Bolt – m8x1.25x40mm, 10.9 – Qty. 1
- Bolt – m6x1.0x40mm, 10.9 – Qty. 1
- Bolt – m6x1.0x90mm hex head, full thread, 8.8 – Qty. 1
- Bolt – m6x1.0x16mm, 10.9 – Qty. 2
- Washer – m6 flat washer – Qty. 1
- Bolt – 3/8-16x1" hex head, Left hand thread, grade 8 – Qty. 1
- Washer – 3/8" oversized flat washer – Qty. 1



If any of these parts are missing from your kit contact EDI or Hayes Manufacturing for replacement parts.

Supplied by EDI with Kit 132675A

Included loose with 132786 Kit

- 9050120 – high flow suction fan – Qty. 1
- BR3Z8501N – Ford 3.7L water pump – Qty. 1*

*Only included upon request



What tools are needed?

Basic hand tools are all that is needed for installation of this kit. Below is a list of hand tools need to install just the fan support kit. Additional tools may be required to get to the fan and water pump area of the engine.

Tools needed:

- Torque wrenches – in.lbs. and ft.lbs.
- Sockets – 8mm, 10mm, 12mm, 13mm, 9/16", 3/4"
- Ratchet wrench
- Ratchet extensions – 3"
- Hex key socket – 6mm, & 3/32" or
Hex key wrench – 6mm & 3/32"
- Flat head screw driver – 3/8" blade or similar
- Red Loctite



Step 1

In the TUG MT8-37

- Remove upper radiator hose
 - Ensure coolant is capture
- Remove Fan shroud
 - Three bolts on each side

Step 2

The front of the engine should look similar to this, with the fan mounted to an aluminum spacer.

Tools required:

- 6mm hex key wrench or socket
- 15mm open end wrench

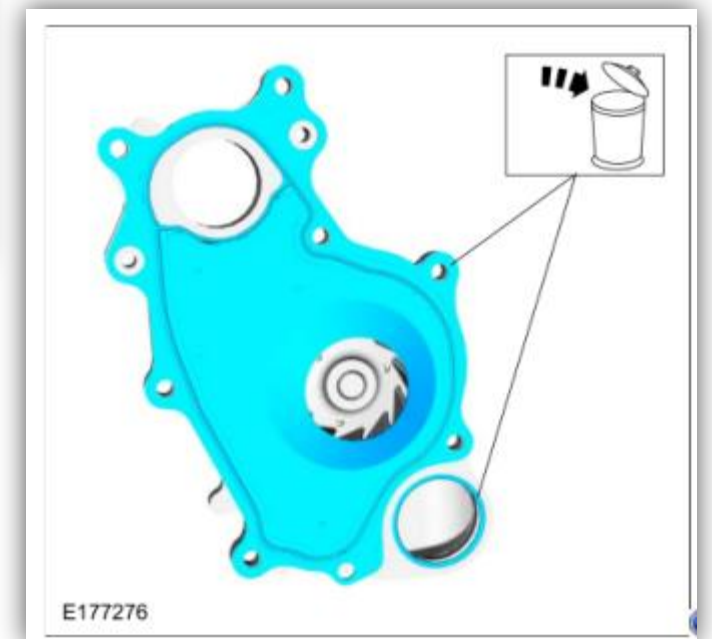
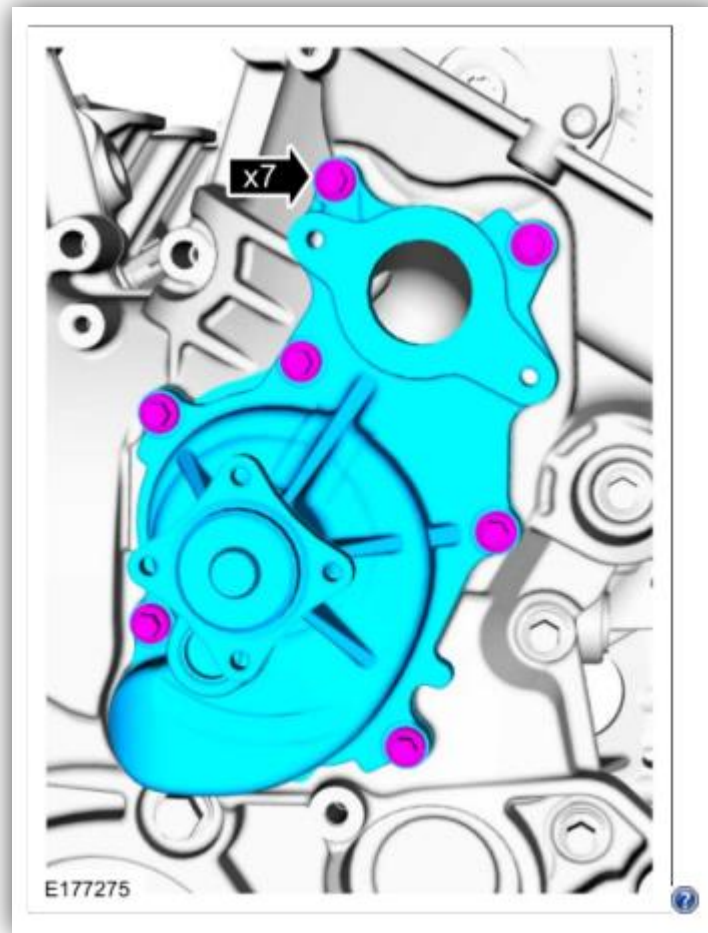
Loosen the (3) socket head cap screws, do not remove. Using the 15mm wrench on the tensioner remove the accessory drive belt. Remove the fan, spacer, and pulley from the water pump by removing the 3 socket head cap screws. You may discard the 3 bolts, spacer, and pulley. Save the fan and belt we will reuse them later.



Remove these 3 bolts

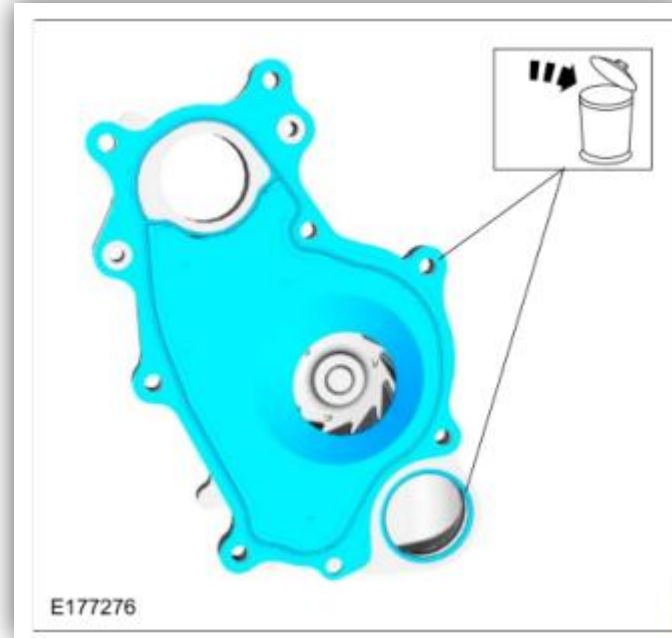
Step 3

- Remove the seven coolant pump bolts
 - Do not discard
- Remove and discard the coolant pump gasket and o-ring seal



Step 4

- Install new coolant pump gasket and o-ring seal
- Install new coolant pump and the seven bolts
 - Stage 1: 89 lb.in. (10 Nm)
 - Stage 2: 45°

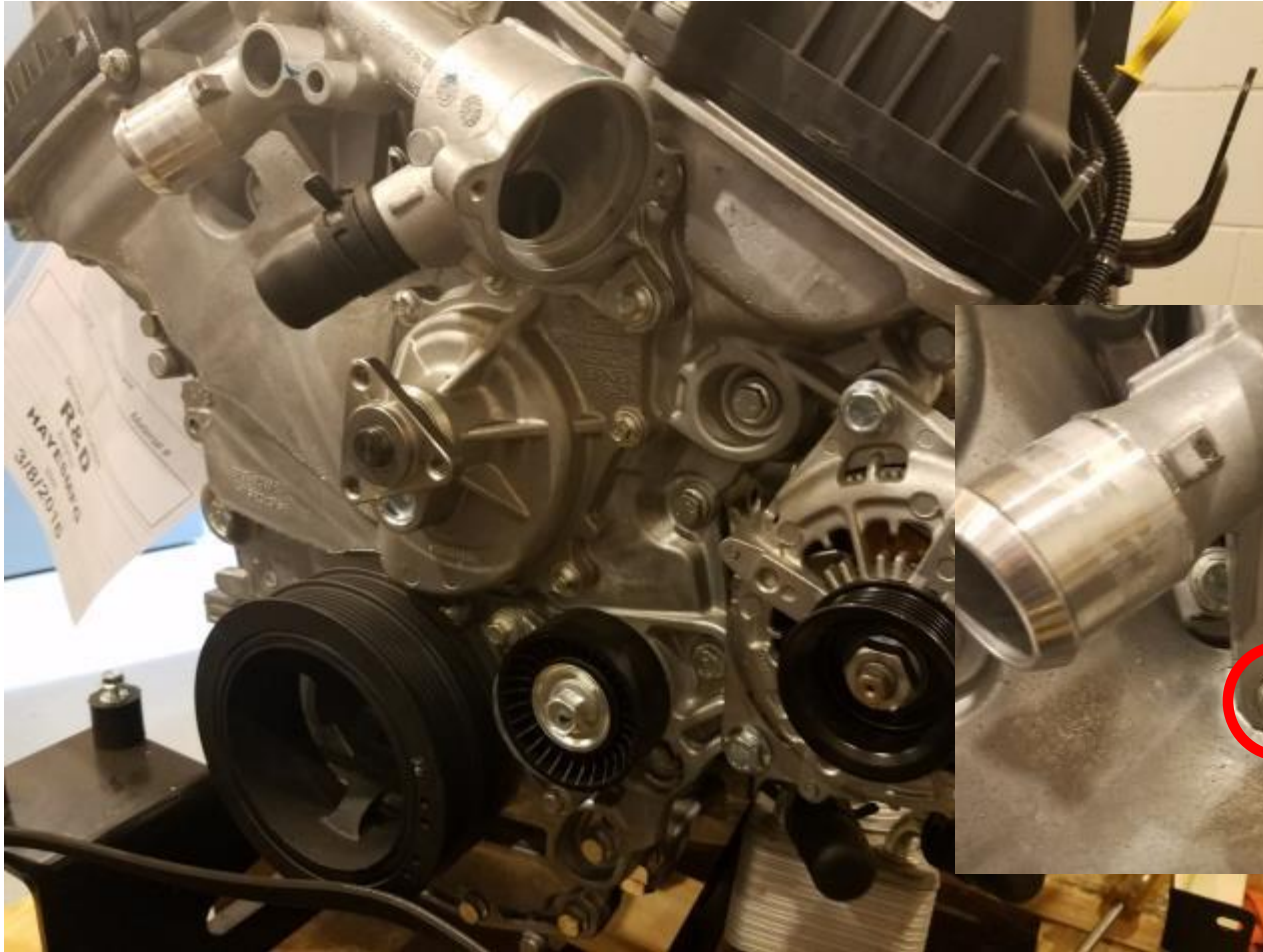


Step 5

The front of the engine should now look like this, just a water pump remaining. We will now remove 3 bolts from the engine. 1- water pump bolt, 1-front cover bolt, and 1 thermostat housing bolt. These bolts can be discarded, they will not be needed for this kit.

Tools required:

Socket – 8mm & 13mm



Remove these bolts

Step 6

After installing the standoffs we will install the fan drive shaft and water pump pulley.

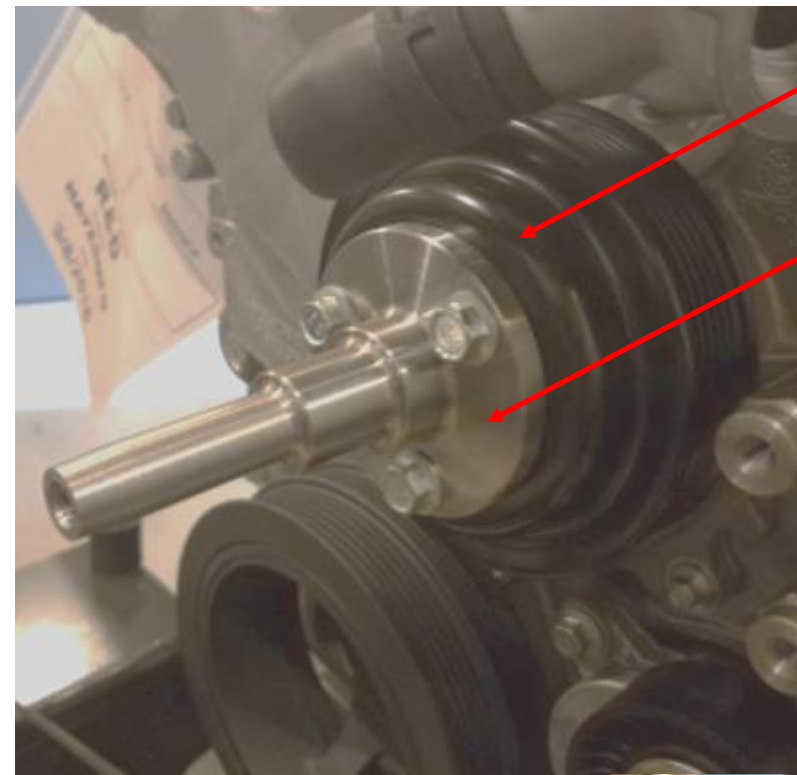
Parts required:

- 132673 – water pump pulley – Qty. 1
(could also be reworked Ford pulley #R-0099)
- 132671 – fan drive shaft – Qty. 1
- Bolt – m8x1.25x20mm Flange head bolt – Qty. 3

Tools required:

- Torque wrench
- 12mm socket
- 3” ratchet extension
- Flat head screw driver
- Red lock tight

Fit pulley 132673 (or R-0099) to fan drive shaft 132671, aligning the holes. Now fit the shaft and pulley to the water pump hub, also aligning the holes in the shaft with the tapped holes in the water pump hub. Install 3 M8x1.25x20mm Flange head bolts after using red lock tight. Torque the 3 M8 bolts to 26 ft.lbs. You may use a large screw drive to hold the pulley from spinning while you torque the bolts.

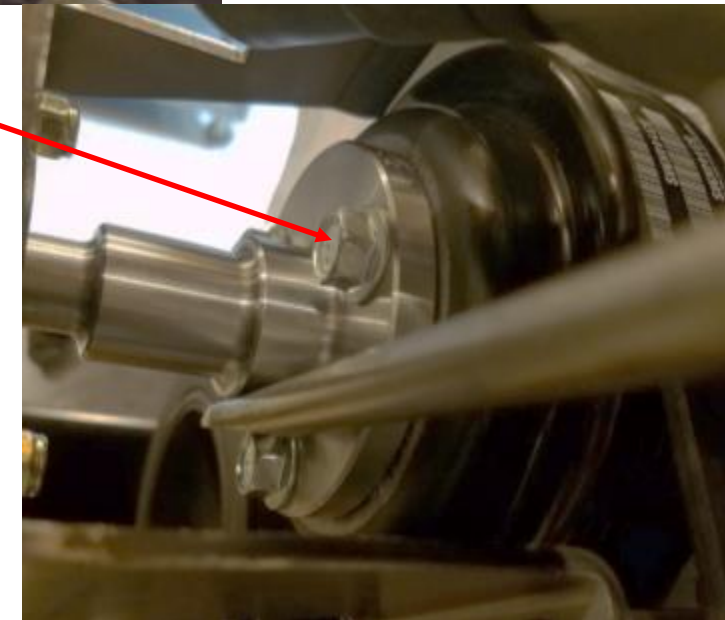


132673 water pump pulley (or R-0099)

132671 fan drive shaft

M8x1.25x20mm Flange head bolts

Torque: 26 ft.lbs.



Step 7

After installing the fan drive shaft and water pump pulley you may reinstall the accessory drive belt.

Tools require:

15mm open end wrench

Place belt around pulleys as shown, leaving the belt free of the crank pulley. Using the 15mm open end wrench, open the tensioner and place belt around crank pulley. Release the tensioner.



Step 8

After assembling the fan support bracket we will install it on the engine.

Parts required:

- 133049 – spacer, 1-11/16” thru hole – Qty. 1
- Bolt – m8x1.25x40mm Hex head, 10.9 – Qty. 1
- Bolt – m6x1.0x40mm Hex head, 10.9 – Qty. 1
- Bolt – m6x1.0x90mm hex head, full thread, 8.8 – Qty. 1
- Washer – m6 flat washer – Qty. 1

Tools required:

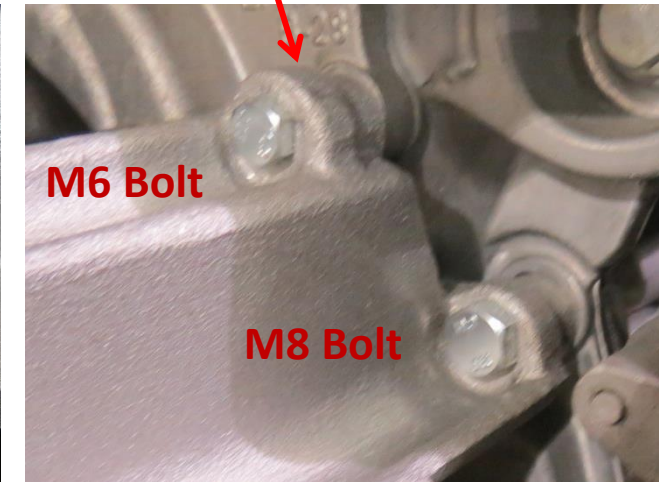
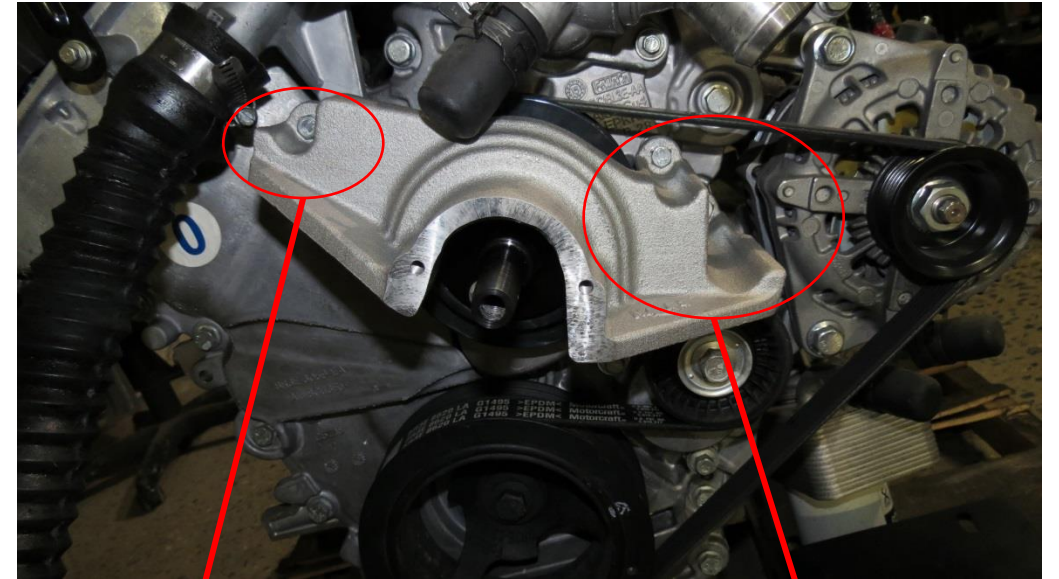
- 13mm socket
- 10mm socket
- Socket extension
- Torque wrench

Put bracket in place and insert all bolts hand tight in the configuration shown in the pictures (Right)

Torque to the following specifications:

M6 bolts – 71 in.lbs

M8 bolt – 26 ft.lbs



-133049

-M6x1.0x90mm hex head

-m6 flat washer

-m6x1.0x40mm Hex head

-m8x1.25x40mm Hex head

Step 9

Now we will need to install the bearing onto our bracket.

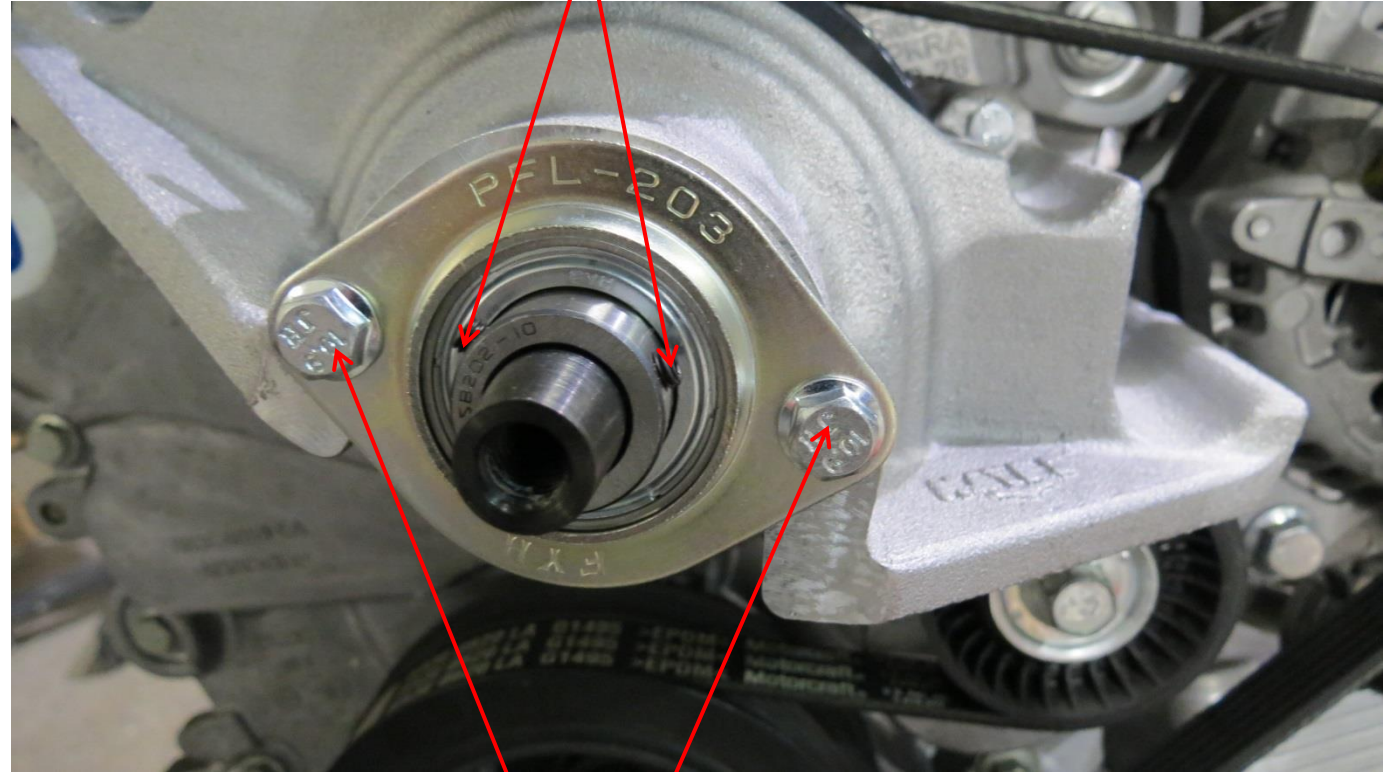
Tools required:

- 3/32" hex key wrench or socket
- Red Loctite
- 10mm Socket
- Torque Wrench

Slide the bearing over the shaft and line up the holes in the bracket of the bearing with the casted bracket. Install the M6x1.0x16mm bolts into the holes and tighten to 71 in.lbs

Once bearing is installed, torque the set screws down to 29 in.lbs

10-32 set screws
Torque: 29 in.lbs.



M6x1.0x16mm Bolts
Torque: 71 in. lbs

Step 12

Now that the bracket assembly has been tightened in place and the bearing fastened to the shaft, there should be no end play or “wobble” in the shaft. The next step is to fasten the fan drive hub to the fan drive shaft and secure it.

Parts required:

- 132674 – fan drive hub – Qty. 1
- Bolt – 3/8-16x1” hex head, Left hand thread, grade 8 – Qty. 1
- Washer – 3/8” oversized flat washer – Qty. 1

Tools required:

- Torque wrench
- Socket – 9/16”
- Flat head screw driver
- Red Loctite

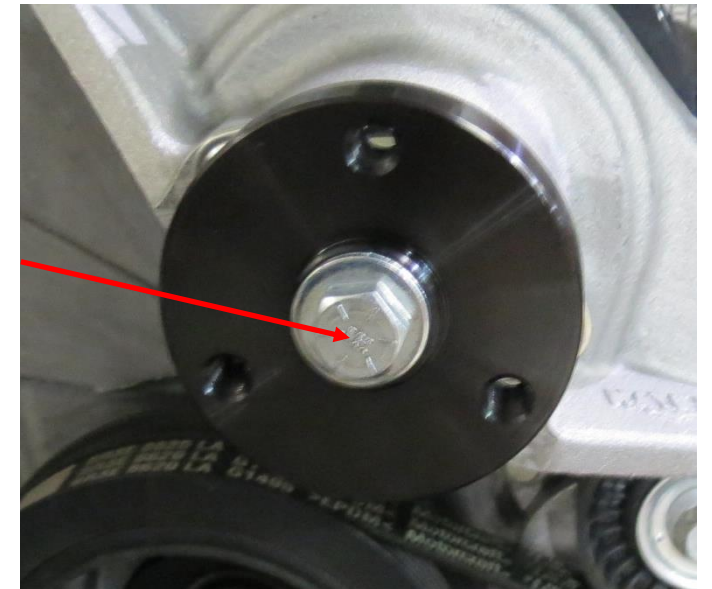
Apply red Loctite to the tapered end of the fan drive shaft. Slide fan drive hub 132674 over taper and press firmly onto shaft. Place 3/8” oversize flat washer over 3/8-16x1” hex head bolt. Apply red Loctite to 3/8-16x1” hex head bolt and thread into end of shaft. Using the flat head screw driver to hold the shaft still, torque the 3/8 hex head bolt to 40 ft.lbs using the torque wrench.

Apply red Loctite to shaft taper



Install hub on taper
Install 3/8-16X1” hex head, left hand thread bolt and 3/8” oversized washer

Apply red Loctite
Torque: 40 ft.lbs



Step 13

The last step is to reinstall the fan.

Parts required:

- New high flow suction fan
- Bolt – m8x1.25x20mm Flange head, 10.9 – Qty. 3

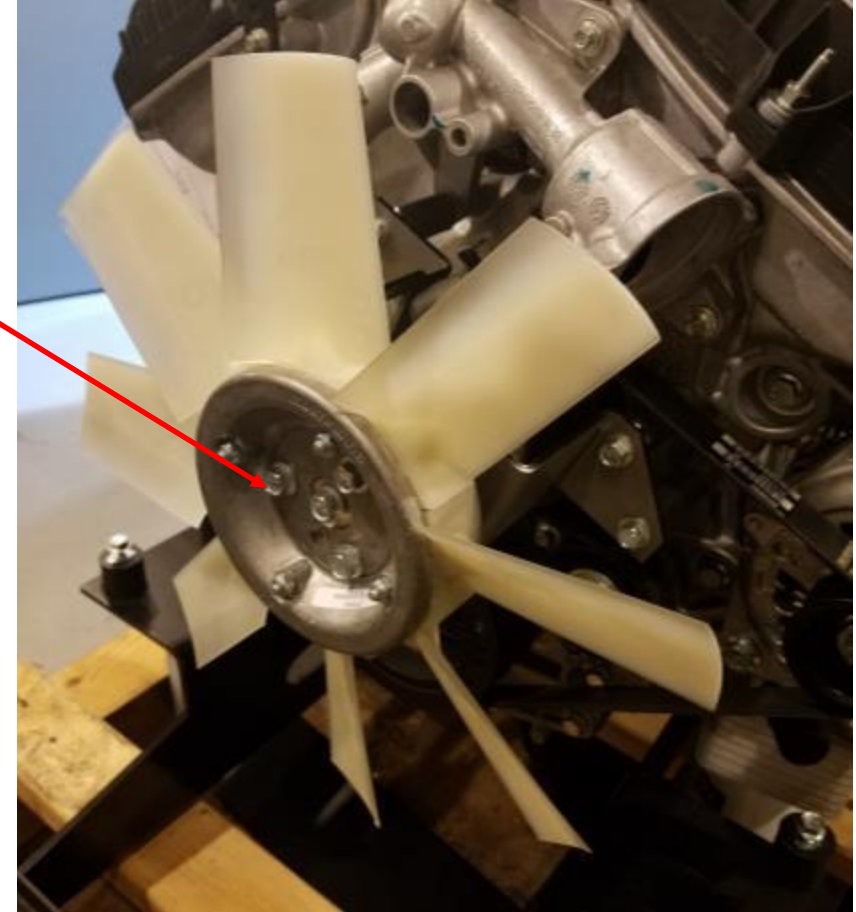
Tools required:

- Torque wrench
- Socket – 12mm
- Red Loctite

Place fan on previously installed fan hub. Apply red Loctite and thread in the (3) m8X1.25x20mm flange head bolts. Hand tighten all bolts. Using the torque wrench tighten these bolts to 26 ft.lbs.

Installation of the Fan Support Kit is now complete.

M8x1.25x20mm
Flange head bolts
Apply red Loctite
Torque: 26 ft.lbs.



Step 14

- Reinstall fan shroud on radiator mount
- Reconnect upper radiator hose and tighten worm gear clamps
 - Top radiator up with coolant as deemed necessary

Revisions

- Rev A – 6/12/2017 – Revised instructions to include new 3/8-16X1” hex head bolt, left hand thread & 3/8” oversized washer. Replaced fixed hub picture showing new bolt and washer. Added new torque spec for 3/8” bolt and new Loctite requirement.
- Rev B – 6/19/2017 – Added steps for water pump removal and installation. Added note to remove upper coolant hose and fan shroud on machine. Made notes of using new high flow fan and not original.
- Rev C – 6/26/2017 – Removed green Loctite. Added note to drill shaft for bearing set screws.
- Rev D – 12/11/2017 – Changed M6X1.0x16mm bolt to 25mm length