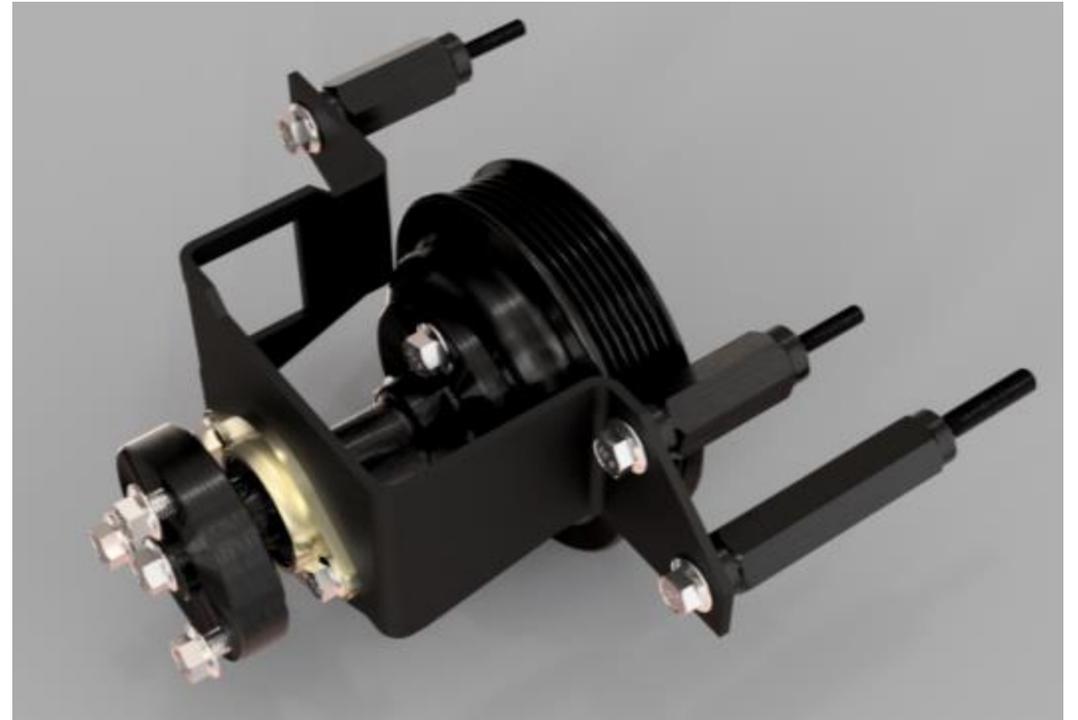


EDI Fan Support Kit Installation Instructions

Hayes Kit #132675

List of tools and steps to install fan support kit



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Rev. D – Updated 12/11/2017

What's in the kit

Your Fan Support Kit should include the following:

- 132669 – fan support bracket – Qty. 1
- 132673 – water pump pulley – Qty. 1
(could also be reworked Ford pulley #R-0099)
- 132671 – fan drive shaft – Qty. 1
- 132674 – fan drive hub – Qty. 1
- 132672 – standoff, 2.18" studded – Qty. 1
- 132682 – standoff, 2.18" thru hole – Qty. 1
- 132670 – standoff, 3.49" studded – Qty. 1
- 5913K72 – flanged bearing, self-aligning – Qty. 1
- Bolt – m8x1.25x20mm Flange head, 10.9 – Qty. 8
- Bolt – m6x1.0x25mm flange head, 10.9 – Qty. 2
- Bolt – m6x1.0x90mm hex head, full thread, 8.8 – Qty. 1
- Nut – m6x1.0 flange head locknut – 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 132675

Included loose with 132675 Kit

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



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"
- Open end wrenches – 15mm, 12mm, and 3/4"
- 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

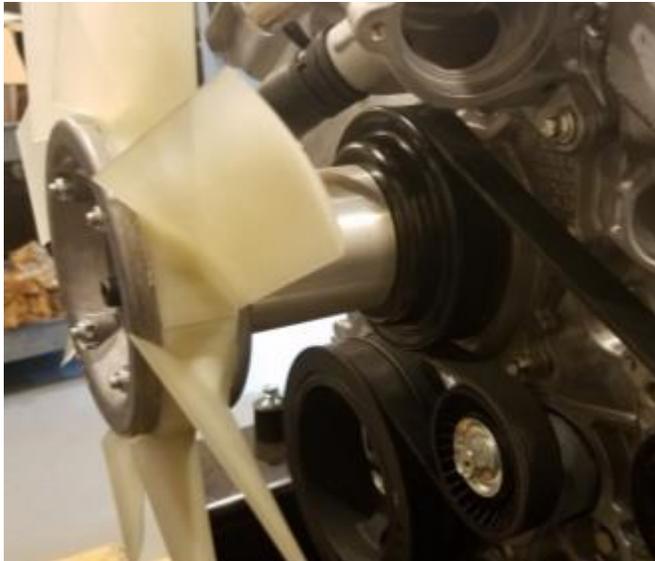
Step 2

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

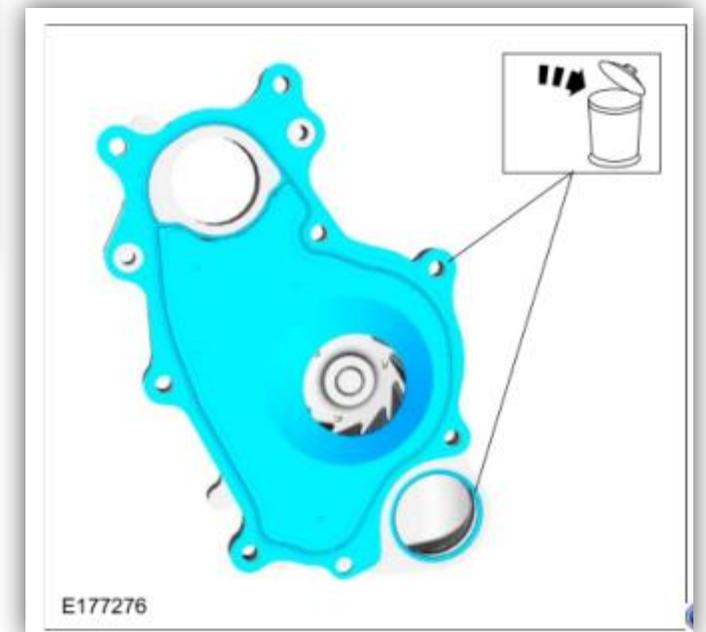
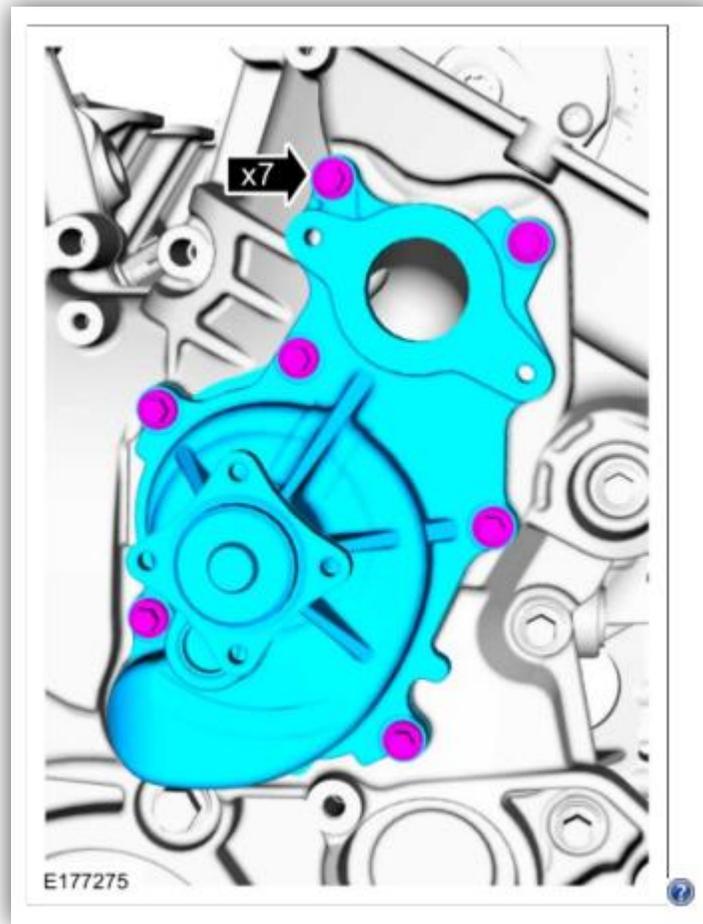
Loosen the (3) socket head cap screws, do not remove. Using the 15mm wrench on the tensioner remove the accessory drive belt. Remove the fan, spacer, and pulley from the water pump by removing the 3 socket head cap screws. You may discard the 3 bolts, spacer, and pulley. Save the fan and belt we will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



Remove these 3 bolts

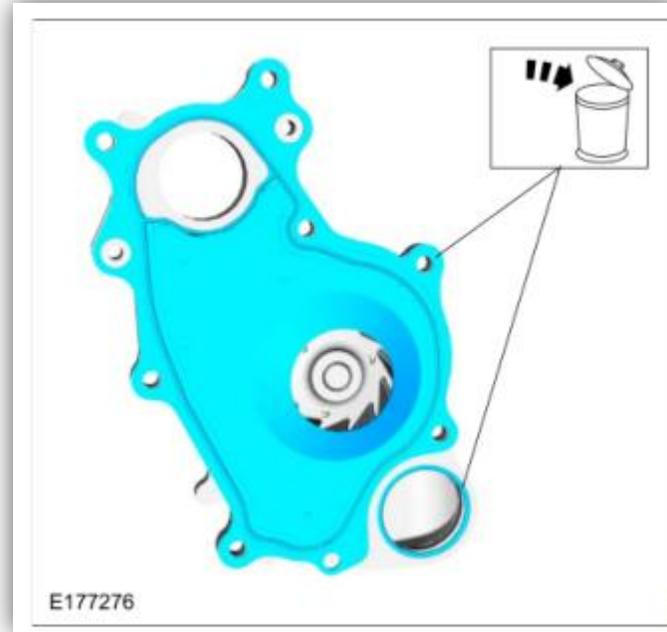
Step 3

- 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

Next we will install the standoffs.

Parts required:

- 132672 – standoff, 2.18” studded – Qty. 1
- 132670 – standoff, 3.49” studded – Qty. 1

Tools required:

- Torque wrench
- $\frac{3}{4}$ ” socket

Thread 132670 into the front cover of the engine. Using the torque wrench, tighten this standoff to 18 ft.lbs.

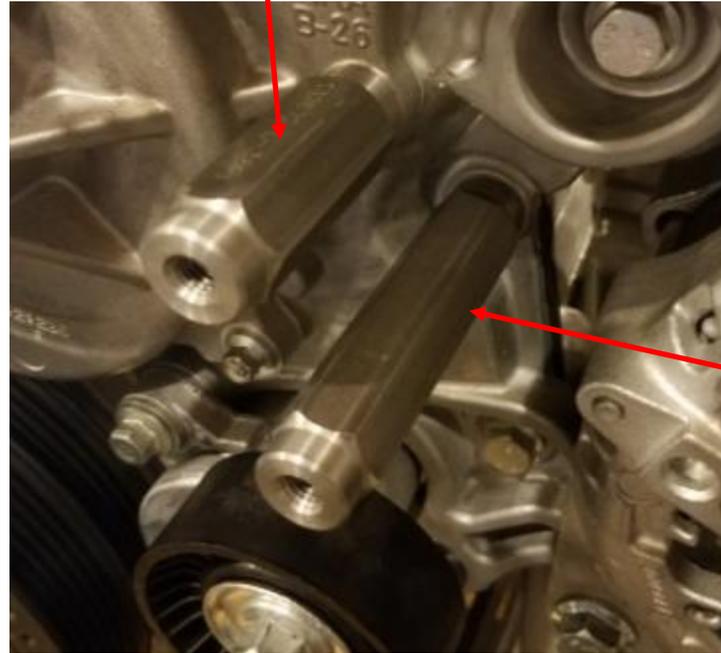
Thread 132672 into the water pump housing. Using the torque wrench, tighten this standoff.
Stage 1 – tighten to 89 in.lbs
Stage 2 – $\frac{1}{4}$ turn

132672

Torque:

Stage 1 – 89 in.lbs

Stage 2 – $\frac{1}{4}$ turn



132670

Torque: 18 ft.lbs.

Step 7

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

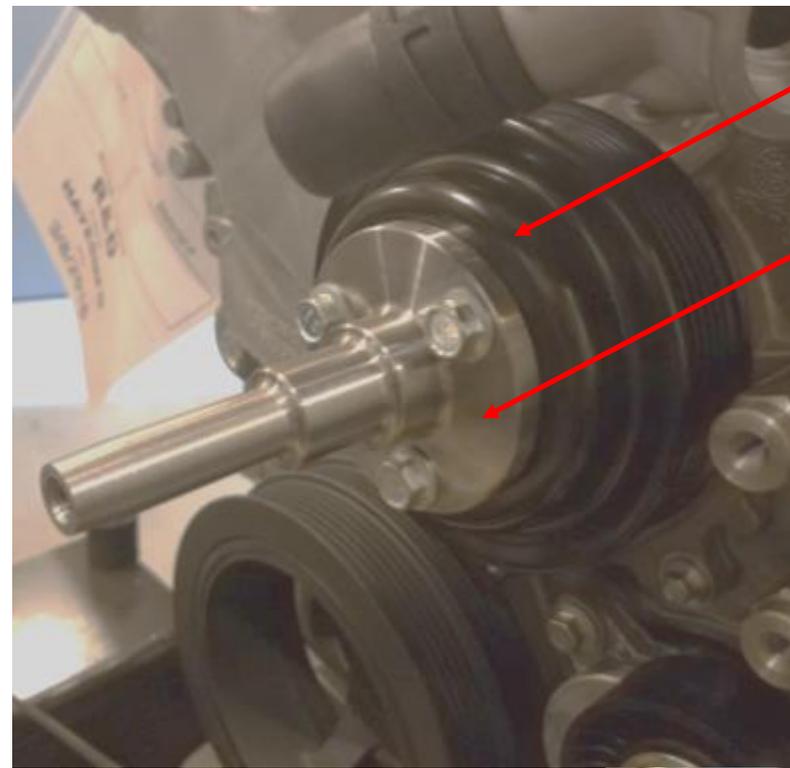
Parts required:

- 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.

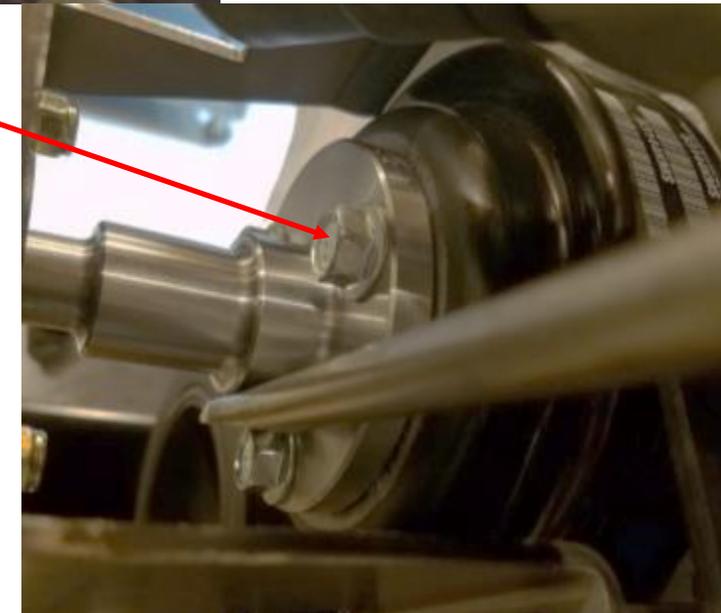


132673 water pump pulley (or R-0099)

132671 fan drive shaft

M8x1.25x20mm Flange head bolts

Torque: 26 ft.lbs.



Step 8

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 9

Now we will assemble to bearing to the fan support bracket.

Parts required:

- 132669 – fan support bracket – Qty. 1
- 5913K72 – flanged bearing, self-aligning – Qty. 1
- Bolt – m6x1.0x25mm flange head, 10.9 – Qty. 2
- Nut – m6x1.0 flange head locknut – Qty. 2

Tools required:

None

Place bearing 5913K72 onto outside of bracket 132669 with set screw hub facing out. Assemble m6x1.0x25mm Flange head bolts and m6x1.0 Flange head locknuts loosely. We will torque these bolts in a later step. Fan support bracket should now look like picture on the right.

5913K72
flanged
bearing



132669 – fan
support bracket

M6x1.0x25mm
flange head bolts
& m6x1.0 flange
head locknuts

Set screw hub of
bearing facing out
from bracket



Step 10

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

Parts required:

- 132682 – standoff, 2.18” thru hole – Qty. 1
- Bolt – m8x1.25x20mm Flange head, 10.9 – Qty. 2
- Bolt – m6x1.0x90mm hex head, full thread, 8.8 – Qty. 1
- Washer – m6 flat washer – Qty. 1

Tools required:

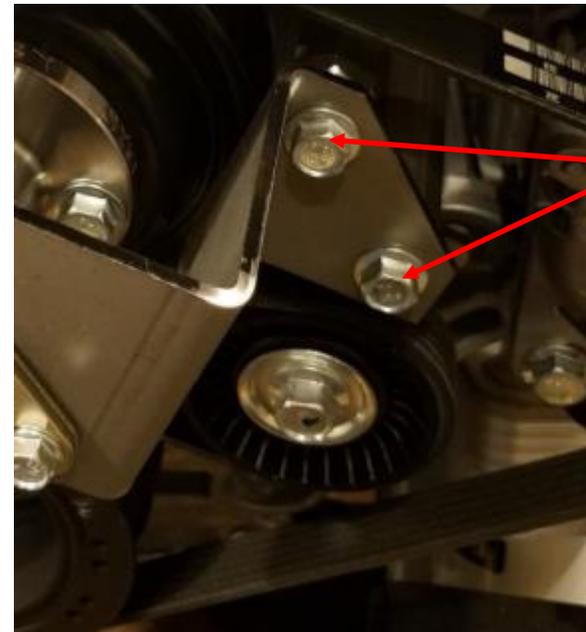
- none

Slide bearing and assembled bracket over fan drive shaft. Loosely install (2) m8X1.25x20mm flange head bolts to secure the bracket to the standoffs previously installed in the engine. Do not tighten yet.

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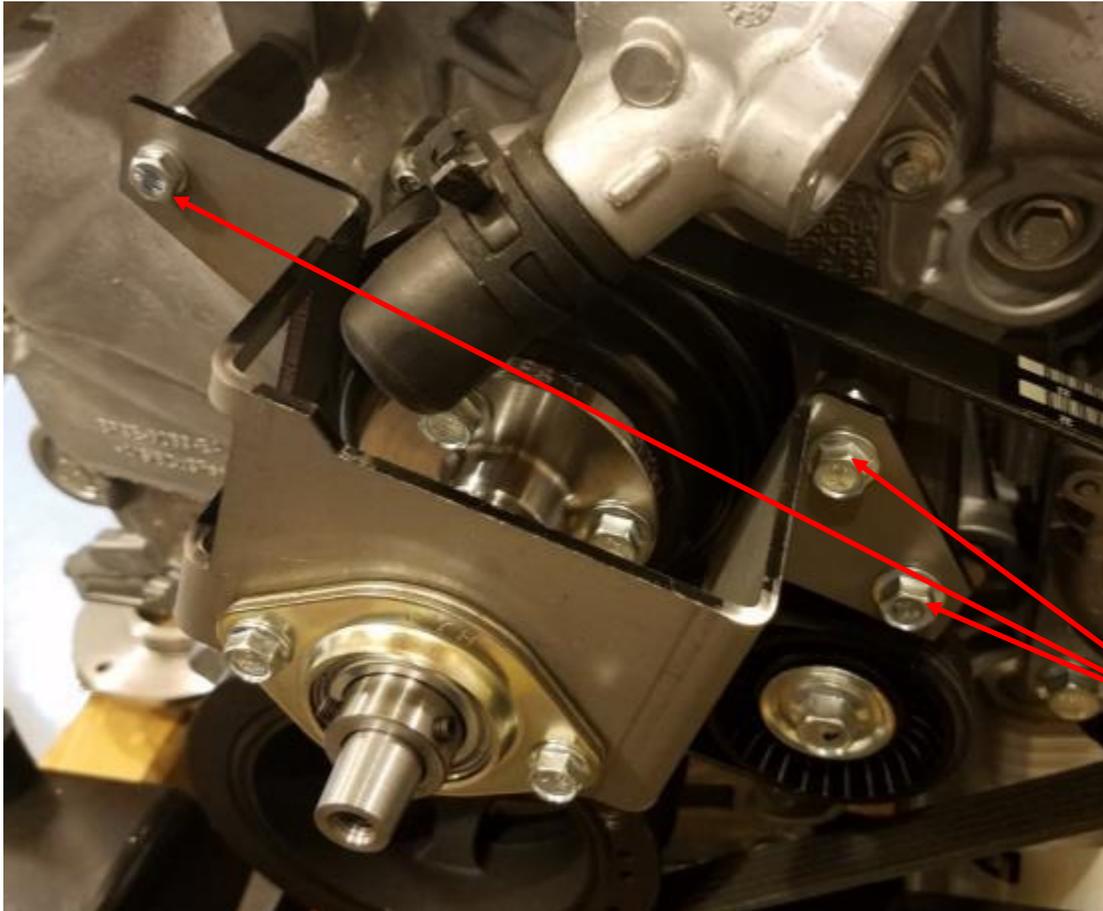
Assembled fan support bracket



M8x1.25x20mm
Flange head bolts
Do not tighten yet

Step 10 cont.

Now install the 132682 standoff using the m6x1.0x90mm Hex head bolt and m6 flat washer. Hand tighten the (2) m8 flange head bolts and the (1) m6 hex head bolt.



132682
standoff



M6x1.0x90mm
hex head, full
thread bolt and
m6 flat washer

All bolts are now hand tight

Step 11

Now we will torque the bracket to the engine.

Tools required:

- Torque wrench
- Sockets – 10mm, 12mm
- Open end wrench – 10mm and $\frac{3}{4}$ "
- $\frac{3}{32}$ " hex key wrench or socket
- Red Loctite

Using the torque wrench and $\frac{3}{4}$ " end wrench tighten the m8 bolts to 26 ft.lbs. Place the $\frac{3}{4}$ " wrench on the standoffs to keep them from turning during tightening.

Next torque the m6x1.0x90mm bolt to 71 in.lbs., then turn an additional $\frac{1}{4}$ turn.

Next torque the (2) m6x1.0x25mm flange head bolts to 11 ft.lbs.

Use $\frac{1}{32}$ drill bit and drill onto shaft through bearing set screw taps. Just the tip of the bit is needed to mark the shaft. Reinstall set screw with red Loctite and torque 29 in.lbs. Then do other set screw.

Apply red Loctite to the (2) 10-32 set screws in the bearing and torque to 29 in.lbs.

M8x1.25x20mm Flange head bolts

Torque: 26 ft.lbs

Backup with $\frac{3}{4}$ " open end wrench on standoffs



M6 bolt torque:

Stage 1- 71 in.lbs

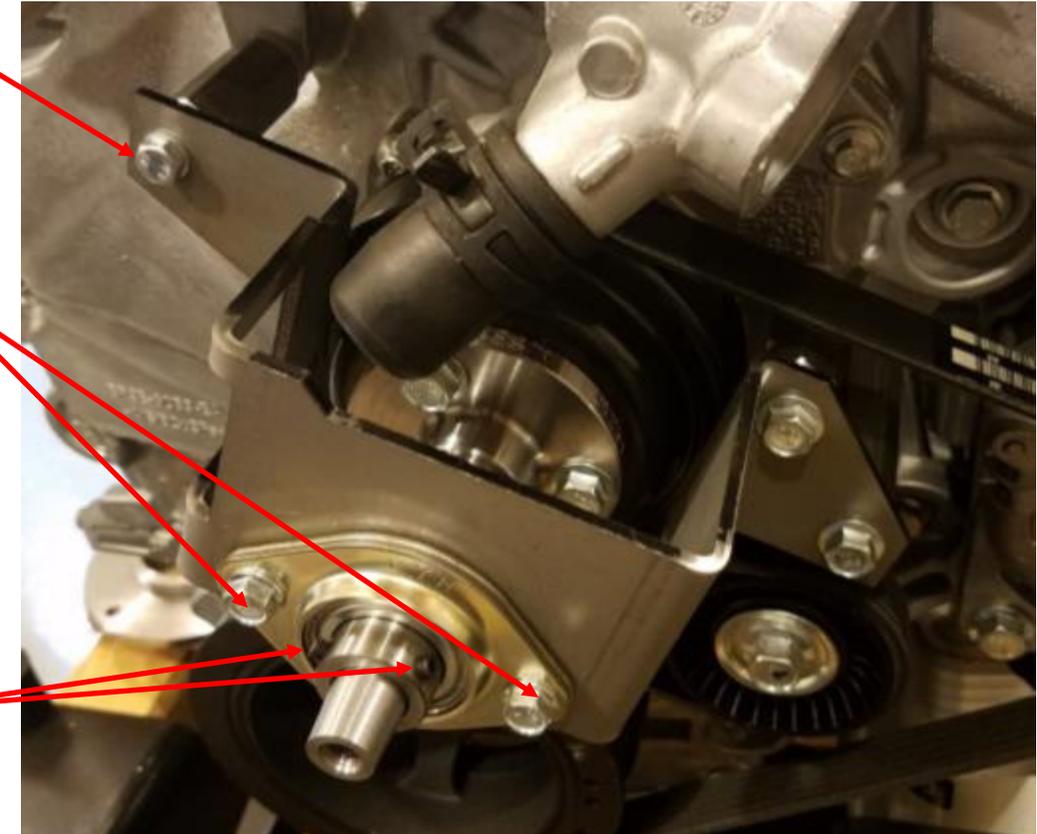
Stage 2- $\frac{1}{4}$ turn

M6x1.0x25mm

Flange head bolts

Torque: 11 ft.lbs.

Backup with 10mm open end wrench



10-32 set screws

Apply red Loctite

Torque: 29 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:

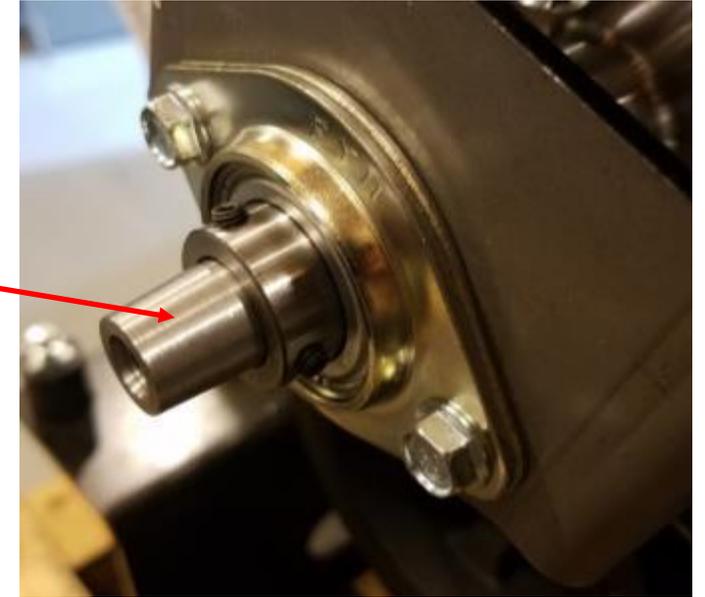
- 132674 – fan drive hub – Qty. 1
- Bolt – 3/8-16x1” hex head, Left hand thread, grade 8 – Qty. 1
- Washer – 3/8” oversized flat washer – Qty. 1

Tools required:

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

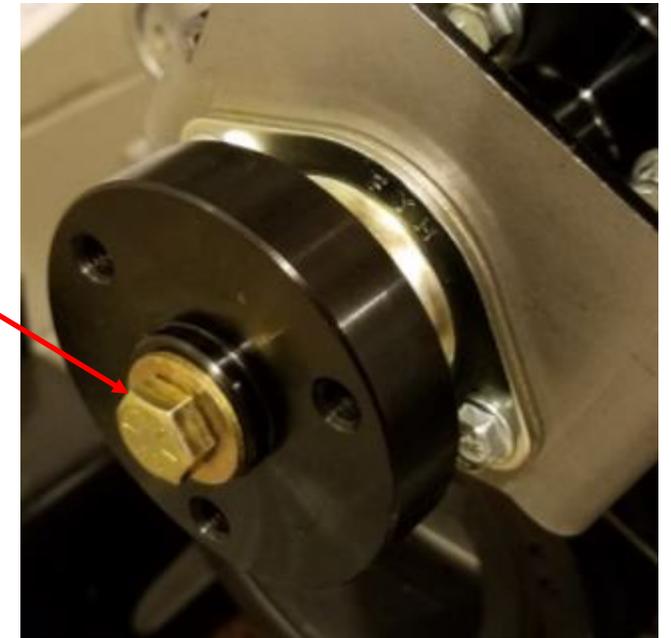
Apply red Loctite to the tapered end of the fan drive shaft. Slide fan drive hub 132674 over taper and press firmly onto shaft. Place 3/8” oversize flat washer over 3/8-16x1” hex head bolt. Apply red Loctite to 3/8-16x1” hex head bolt and thread into end of shaft. Using the flat head screw driver to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

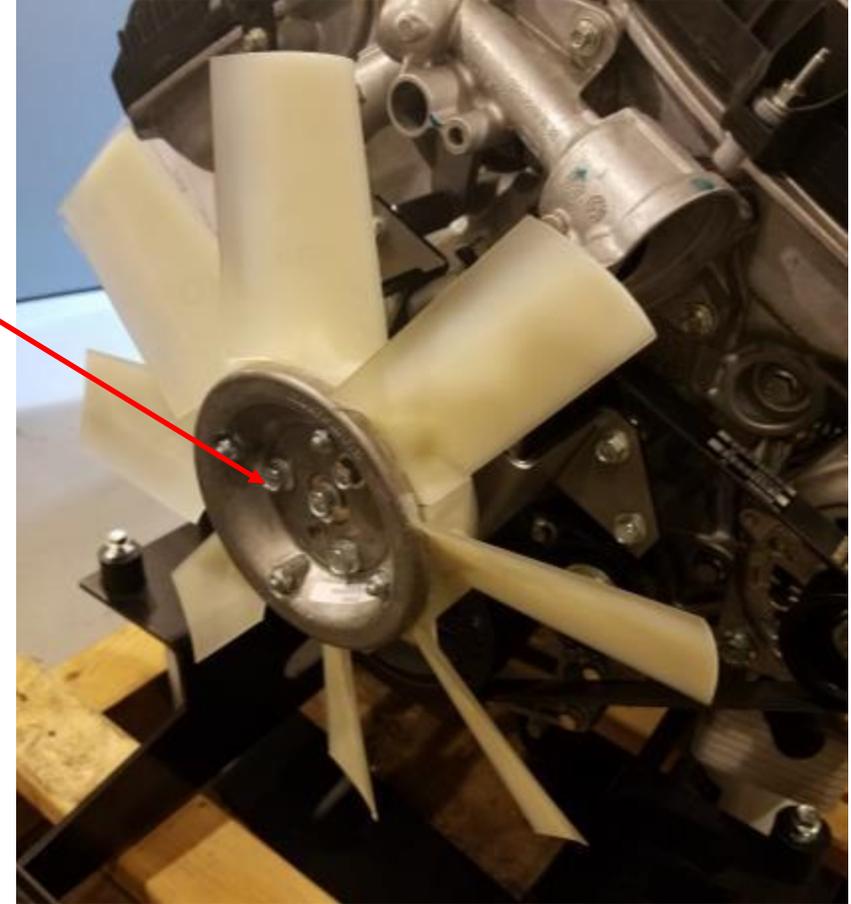
Tools required:

- 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.

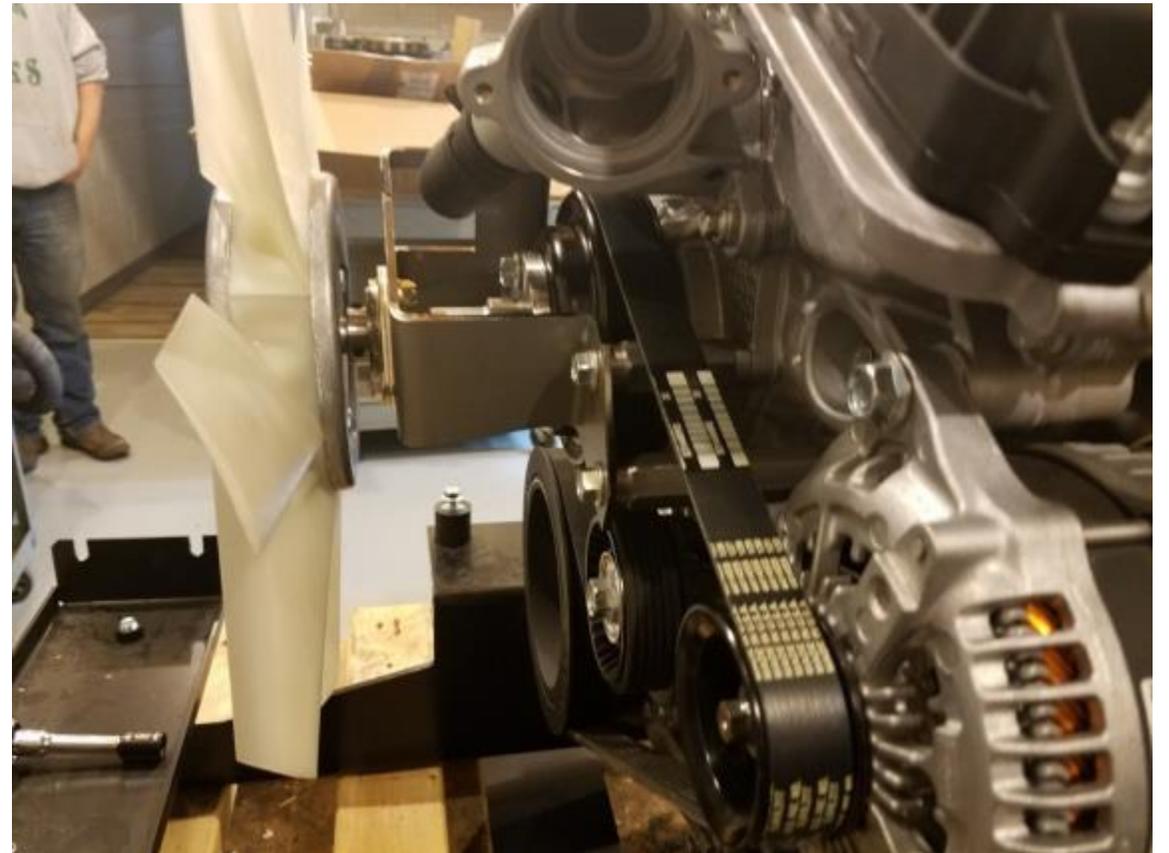
M8x1.25x20mm
Flange head bolts
Apply red Loctite
Torque: 26 ft.lbs.



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

Your successfully installed fan support kit should look similar to the below pictures. If something does not look right or you have any questions at all about the installation please contact EDI or Hayes Manufacturing.



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