

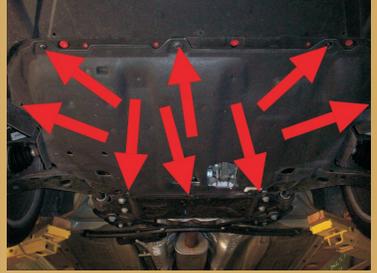
FORD FOCUS ST PULLEYS

TOOLS REQUIRED

M7, M8, M10, M13, M19, M21, M28 sockets
M10, M12, M15 box wrench
M24 open end wrench
M4 allen wrench
T27, T30 Torx wrench
Flat screw driver
Pliers
Impact wrench
Torque wrench with angular read out

MATERIALS REQUIRED

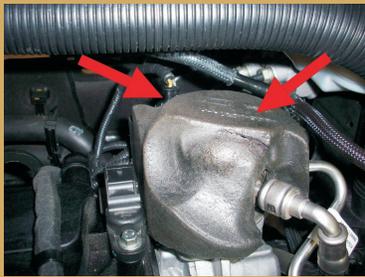
Black oil resistant gasket maker
Blue Loctite

<p>1 When lifting the car always use stands to secure the car.</p>	<p>2 There are no physical features (dowel pins or key ways) registering the pulley and timing to the crank shaft. Follow manual to avoid damage to the engine.</p>	<p>3 Remove the right front wheel.</p>	<p>4 Remove the right wheel well liner.</p>
			
<p>5 Remove the front lip and the under tray.</p>	<p>6 Remove the middle air supply duct.</p>	<p>7 Remove the air supply elbow.</p>	<p>8 Remove valve cover vent hose.</p>
			
<p>9 Remove the bolts securing the turbo supply air duct to the valve cover.</p>	<p>10 Loosen the turbo air inlet hose clamp. Remove the turbo supply air duct.</p>	<p>11 Disconnect the wire harness plugs on the top of the valve cover. Disconnect BOV solenoid hoses.</p>	<p>12 Disconnect the main vacuum line from the vacuum pump. Remove the BOV solenoid valve.</p>
			

13 Remove the ignition coils.



14 Disconnect the fuel pressure sensor and remove the fuel pump cover.



15 Remove the bolt holding the wire harness bracket.



16 Remove the wire harness bracket.



17 Remove the valve cover.



18 Remove the vacuum line holder from the bracket.



19 Remove the vacuum pump.



20 Remove the vacuum pump drive cover.



21 Remove the AC belt. Gently force it off the pulley with a screw driver while rotating the crank shaft clockwise.



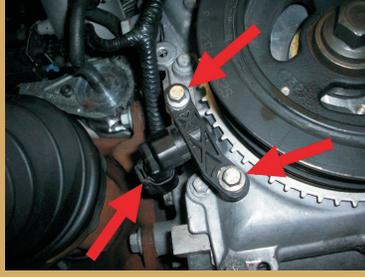
22 Force the belt tensioner counterclockwise and remove the main belt.



23 Manually move the crank shaft clockwise until the intake cam lobes start moving off of the valve pushers.



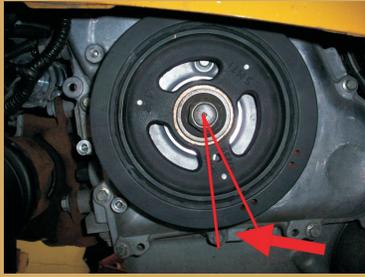
24 Disconnect and remove the crank position sensor.



25 Remove the engine block plug.



26 Rotate the crank shaft clockwise until it is roughly 30 degrees off the vertical.



27 Select the crank shaft lock tool from the installation tool kit (sold separately).



28 Install the crank shaft lock tool in place of the engine block plug.



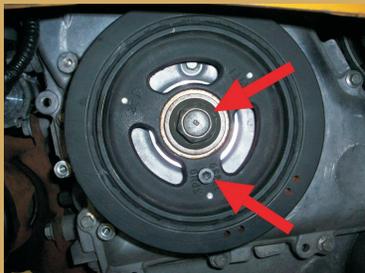
29

Select the M6x25 socket head cap screw from the installation tool kit (sold separately).



30

Carefully rotate the crank shaft pulley clockwise until the crank shaft hits the crank shaft lock tool. Thread the M6 socket head cap screw through the hole in the pulley into the timing cover. **Finger tighten only.**



31

Check if the cylinder 1 cam lobes are in the same position as on the picture. Using the open end wrench hold the cam shaft in place.



32

While holding the cam shaft in place, remove the vacuum pump drive bolt.



33

Select the cam shaft lock tool from the installation tool kit (sold separately).



34

Insert the tool into the slot in the cam shaft and secure it to the engine head with one of the vacuum drive cover's bolts.



35

Using an impact wrench remove the crank shaft pulley bolt. **Discard the bolt after removing.** Remove the M6 socket head cap screw securing the crank shaft pulley in place. Remove the pulley.



36

Remove and clean the diamond washer. The diamond washer is located behind the pulley and may be stuck to the pulley. This is an essential component assuring that the crank pulley and timing stay in proper orientation to the crank shaft.



37

Remove the crank shaft position sprocket from the crank shaft pulley.



38

Prepare the Boomba Racing Pulley Set for installation.



39

Install the crank shaft position sprocket to the pulley with the provided M6 button head screws (use blue Loctite). The sprocket section with two missing teeth must be placed opposite of the pulley locating hole.



40

Apply a slight amount of clean engine oil to the outside of the pulley hub.



41

Install the diamond washer on the crank shaft.



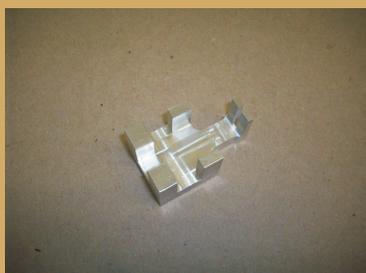
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Install the pulley, set it in place with the M6 socket head cap screw threaded to the timing cover through the pulley arm hole. Pre-torque the pulley bolt to 74 ft lbs final torque additional 90 degrees. **DO NOT USE AN IMPACT WRENCH.**



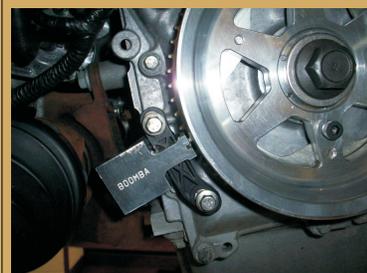
43

Select the crank sensor position tool from the installation tool kit (sold separately).



44

Align the crank shaft position sensor to the tooth of the crank shaft position sprocket. Secure sensor to the timing cover. **Remove M6 socket head cap screw.**



45 Install the engine block plug. Connect the wire harness to the Crank shaft position sensor.



46 Hold the cam shaft in place with the open end of the wrench and install the vacuum pump drive bolt. Torque the bolt to 46 ft lbs. Apply a slight amount of Gasket Maker to the marked area.



47 Install the vacuum pump and the vacuum pump drive cover.



48 Apply a slight amount of Gasket Maker to the marked area.



49 Apply a slight amount of Gasket Maker to the marked area.



50 Install the valve cover and secure it to the engine head.



51 Install the ignition coils. Install the BOV solenoid. Install the fuel pump cover. Connect the wire harness connectors. Connect the vacuum lines.



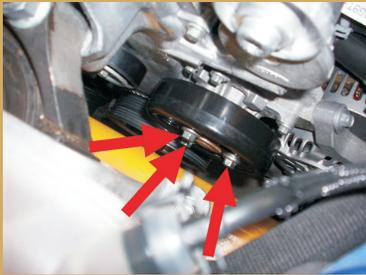
52 Install and secure the air supply ducts.



53 Remove the belt tensioner pulley.
CAUTION THIS IS A LEFT HAND THREAD BOLT.



54 Remove the water pump pulley.



55 Remove the idler pulley.



56 Remove the bolt and the washers from the idler pulley.



57 Install the bolt and the washers on the Boomba Racing idler pulley.



58 Install the pulleys. Install the belt.



59 Install the AC belt slowly forcing it on the AC pulley while turning the crank shaft clockwise.



60 Install and secure the under tray, the wheel well liner and the right front wheel.

