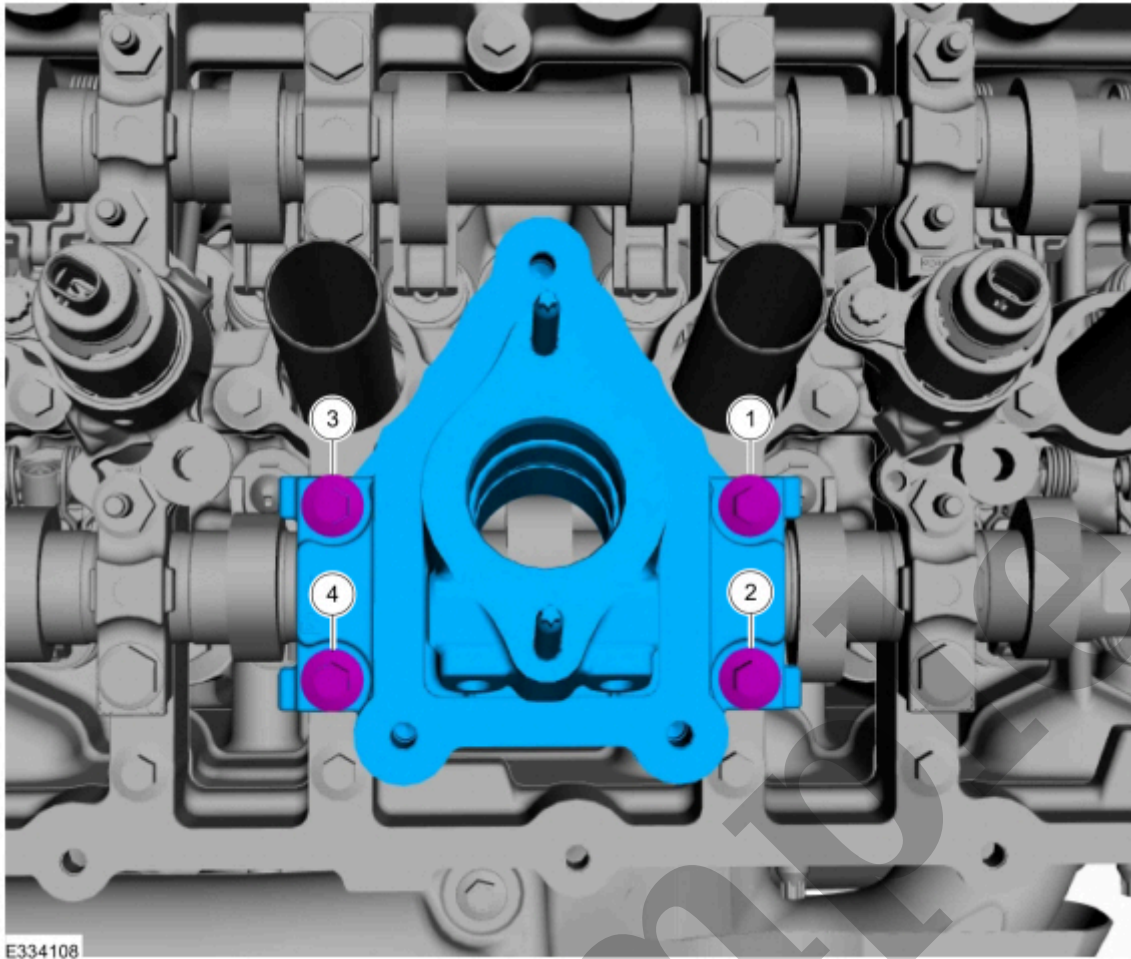


Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

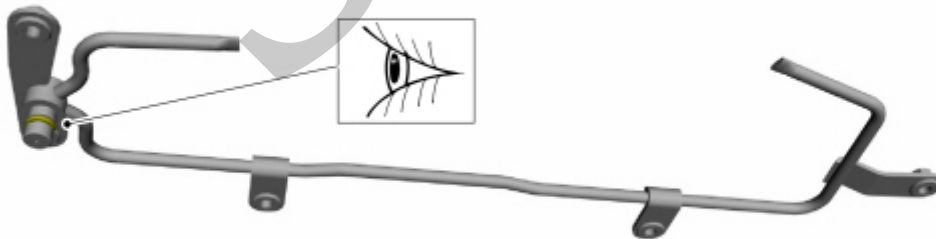
2014 Ford F-450 Super Duty Service and Repair Manual

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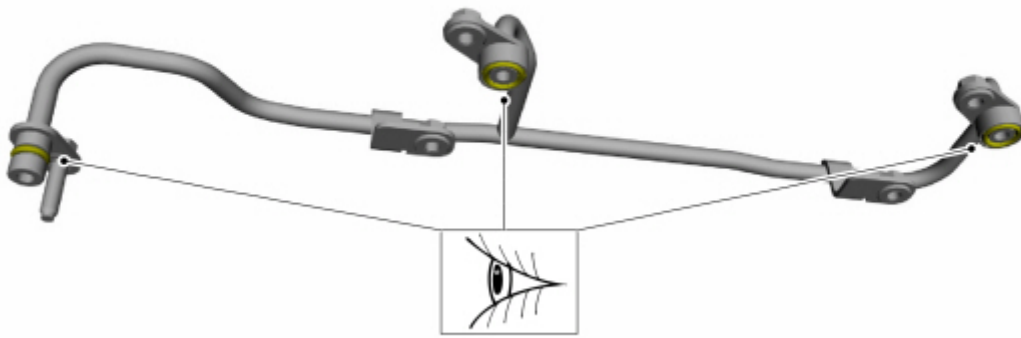
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70. Inspect the O-ring seal. If damaged, discard the oil tube assembly.



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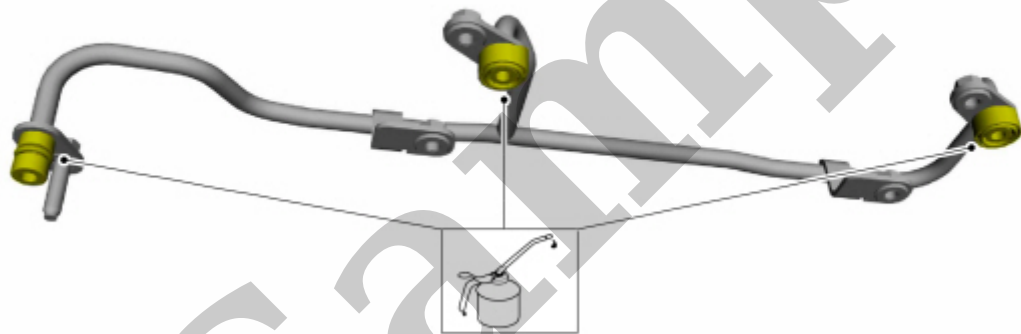
71. Apply clean engine oil to the O-ring seal and oil tube.



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74. Apply clean engine oil to the seals and oil tube.



E333440

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75. Install the oil tube and tighten the fasteners in sequence.

Torque : 89 lb.in (10 Nm)

77. **NOTE**

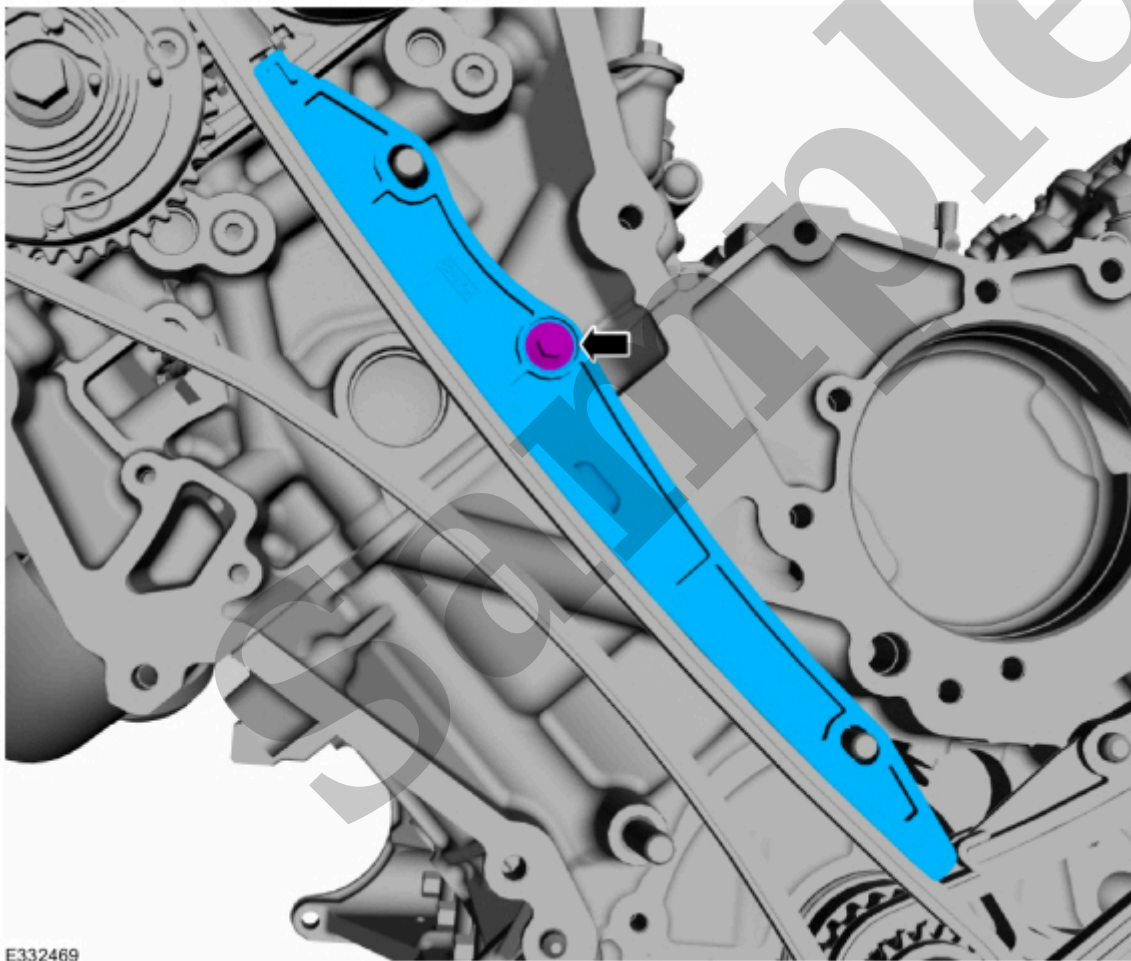
It may be necessary to rotate the crankshaft slightly to provide enough slack in the chain to install the RH (right-hand) timing chain guide. Return the crankshaft keyway to the 9:00 position after installing the RH (right-hand) timing chain guide.

Install the RH (right-hand) timing chain guide and bolt.

Torque :

Stage 1: 89 lb.in (10 Nm)

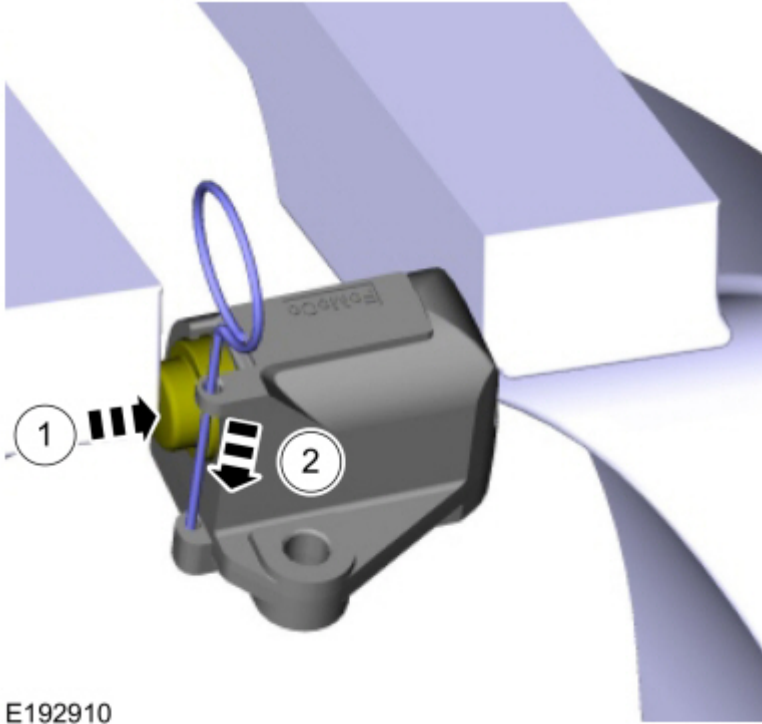
Stage 2: 25°



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78. **NOTE**

It may be necessary to rotate the crankshaft slightly to provide enough slack in the chain to install the RH (right-hand) timing chain arm. Return the crankshaft keyway to the 9:00 position after installing



E192910

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80. 1. Install the RH (right-hand) primary timing chain tensioner and bolts.

Torque :

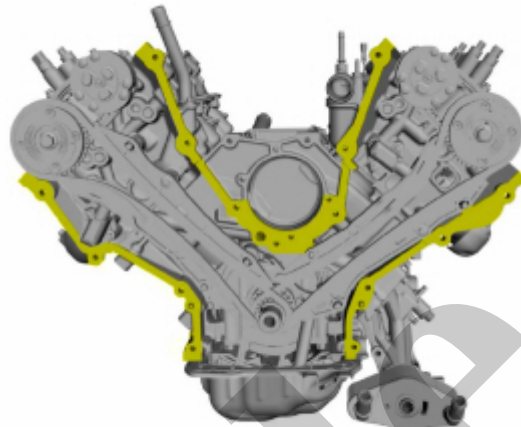
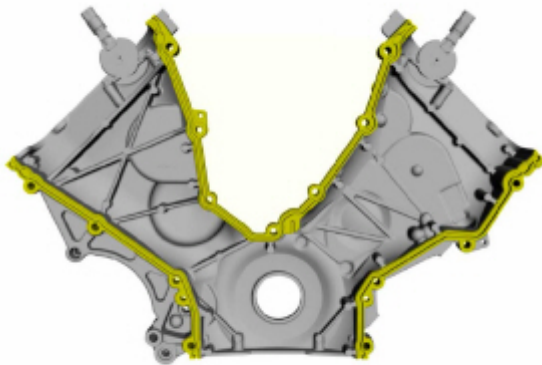
Stage 1: 89 lb.in (10 Nm)

Stage 2: 25°

2. Remove the holding pin from the tensioner.

82. Clean and prepare the RTV sealing surface.

Refer to: [RTV Sealing Surface Cleaning and Preparation](#)(303-00 Engine System - General Information, General Procedures).



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83. Install new gaskets on the engine front cover.



E262443

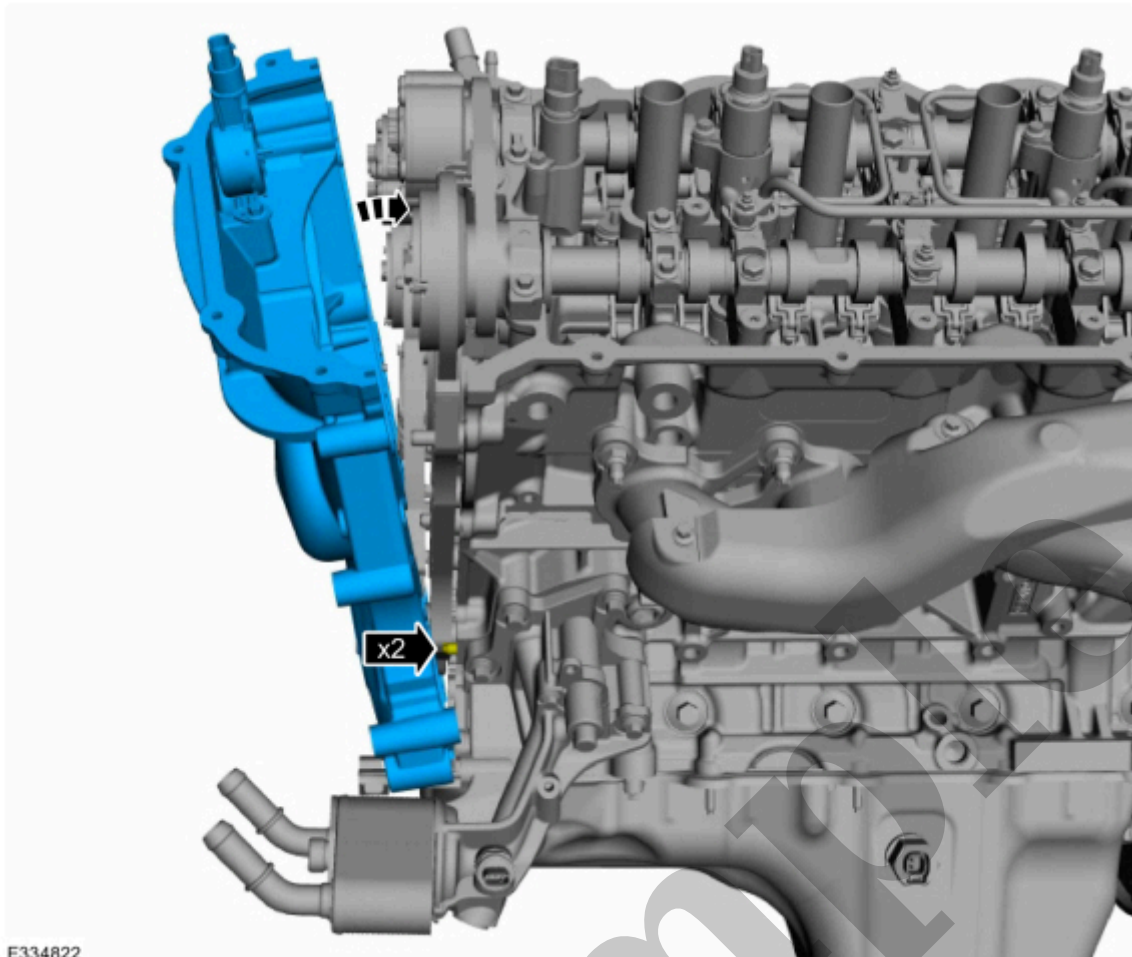
[Click here to learn about symbols, color coding, and icons used in this manual.](#)

85. NOTICE

The engine front cover must be installed and all fasteners final tightened within 5 minutes of applying the sealer. If this cannot be accomplished, install the engine front cover and tighten fasteners 6, 7, 8, 9, 10 and 11 to 8 Nm (71 lb-in) within 5 minutes of applying the sealer. All of the fasteners must then be final tightened within 1 hour of applying the sealer. If this time limit is exceeded, all sealant must be removed and the sealing area cleaned. Failure to follow this procedure can cause future oil leakage.

Apply a 15 mm (0.59 in) diameter drop of silicone gasket and sealant to the camshaft carrier-to-cylinder head joints, the cylinder head-to-cylinder block joints and the oil pan-to-cylinder block joints.

Material : Motorcraft® High Performance Engine RTV Silicone / TA-357 (WSE-M4G323-A6)



E334822

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87. NOTICE

The engine front cover must be installed and all fasteners final tightened within 5 minutes of applying the sealer. If this cannot be accomplished, install the engine front cover and tighten fasteners 6, 7, 8, 9, 10 and 11 to 8 Nm (71 lb-in) within 5 minutes of applying the sealer. All of the fasteners must then be final tightened within 1 hour of applying the sealer. If this time limit is exceeded, all sealant must be removed and the sealing area cleaned. Failure to follow this procedure can cause future oil leakage.

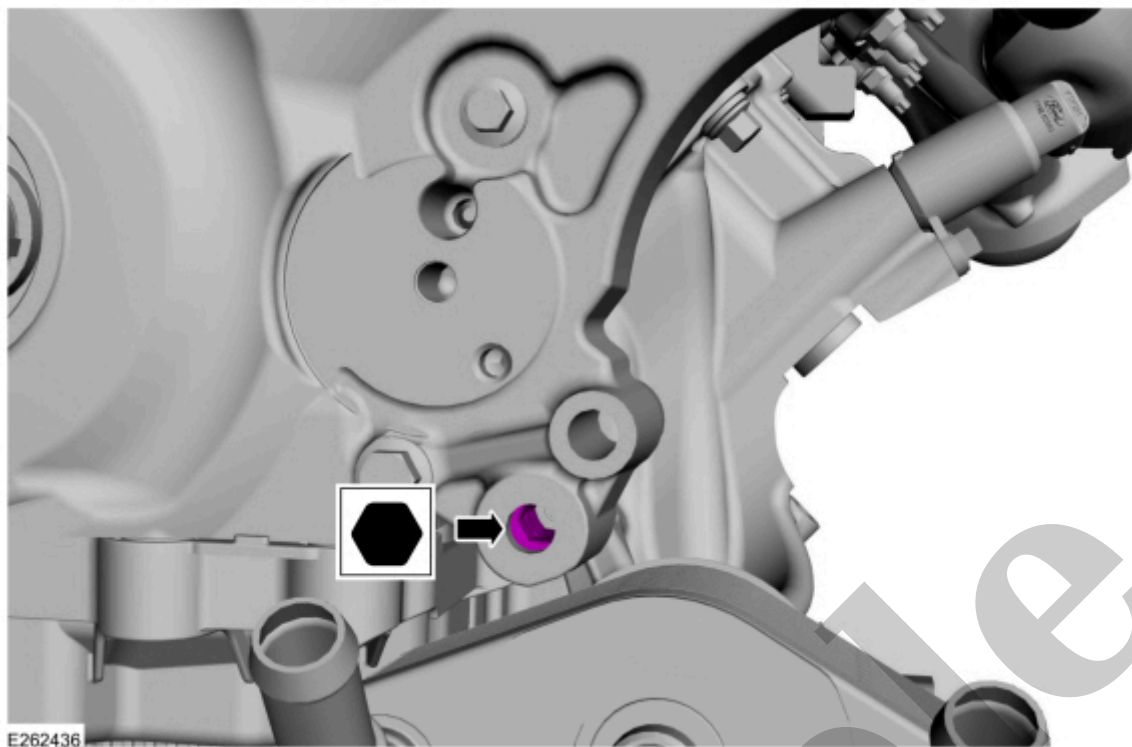
Install the bolts and stud bolts.

Torque :

Stage 1: Fasteners 1-15 : 18 lb.ft (25 Nm)

Stage 2: Fasteners 16-19 : 89 lb.in (10 Nm)

Stage 3: Fasteners 1-15 : 60°



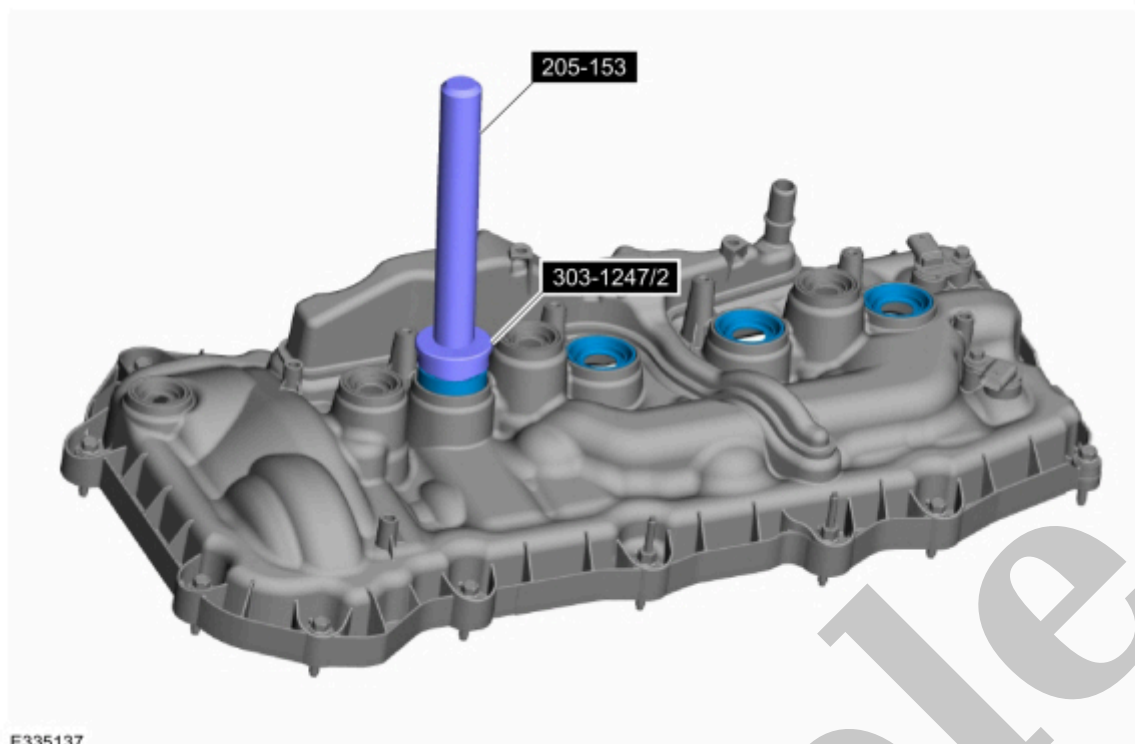
[Click here to learn about symbols, color coding, and icons used in this manual.](#)

89. Install the engine front cover-to-oil filter adapter bolt.

Torque :

Stage 1: 18 lb.ft (25 Nm)

Stage 2: 60°



[Click here to learn about symbols, color coding, and icons used in this manual.](#)

91. **NOTE**

Installation of a new seal is only required if damaged seal was removed.

Using the special tools, install a new seal(s).

Use Special Service Tool : 205-153 (T80T-4000-W) Handle , 205-142 (T80T-4000-J) Installer, Differential Bearing Cone