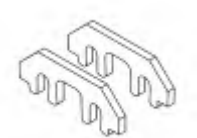


SECTION 303-01A: Engine — 3.5L GTDI
IN-VEHICLE REPAIR

2014 F-150 Workshop Manual
Procedure revision date: 10/25/2013

Camshaft — LH

Special Tool(s)

 ST3234-A	Hold Down, Secondary Chain 303-1530
 ST2979-A	Tool, Camshaft Holding 303-1248

Material

Item	Specification
Motorcraft® SAE 5W-30 Premium Synthetic Blend Motor Oil (US); Motorcraft® SAE 5W-30 Super Premium Motor Oil (Canada) XO-5W30-QSP (US); CXO-5W30-LSP12 (Canada)	WSS-M2C946-A

Removal

NOTICE: During engine repair procedures, cleanliness is extremely important. Any foreign material, including any material created while cleaning gasket surfaces that enters the oil passages, coolant passages or the oil pan, may cause engine failure.

1. Remove the engine front cover. For additional information, refer to [Engine Front Cover](#) in this section.
2. Rotate the crankshaft clockwise and align the timing marks on the VCT assemblies as shown.