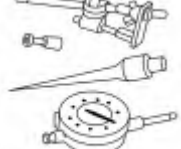
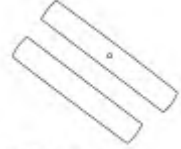


SECTION 307-01: Automatic Transaxle/Transmission — 6R80
DISASSEMBLY AND ASSEMBLY OF SUBASSEMBLIES

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

Low/Reverse Clutch Assembly

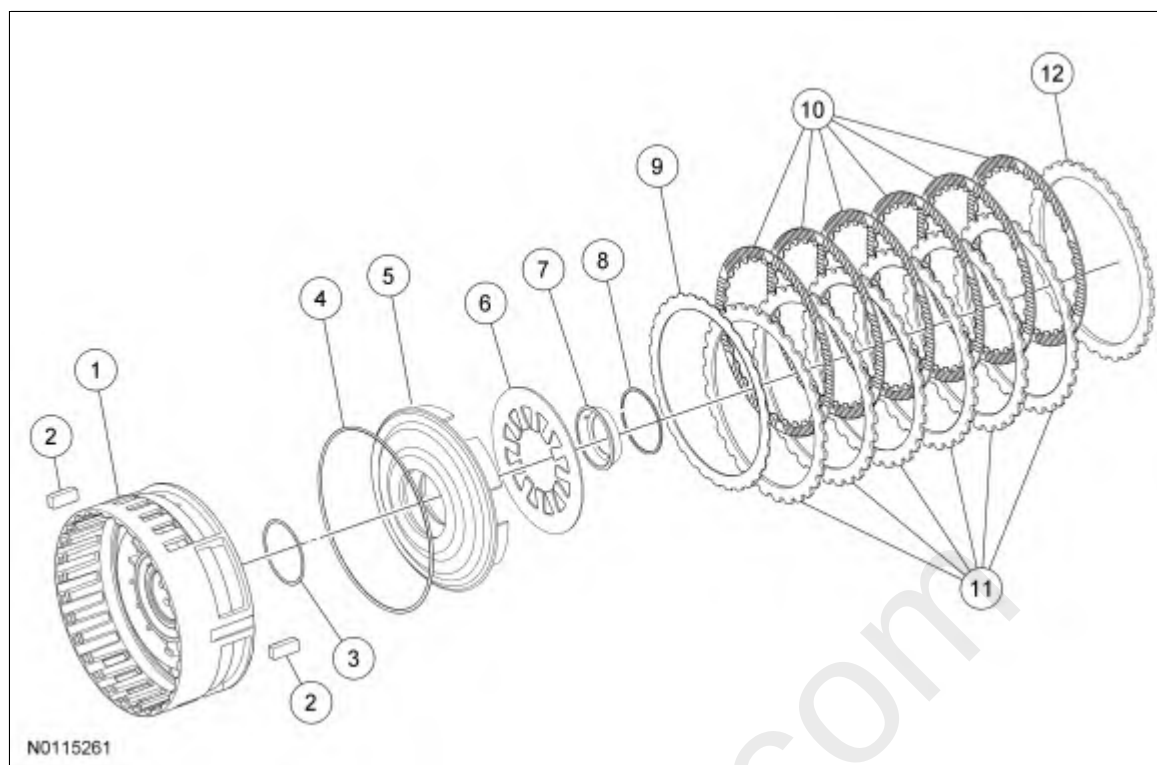
Special Tool(s)

 ST2881-A	Compressor, Clutch Spring 307-525
 ST1274-A	Depth Micrometer 303-D075 (D92P-4201-A) or equivalent
 ST1214-A	Dial Indicator Gauge with Holding Fixture 100-002 (TOOL-4201-C) or equivalent
 ST2892-A	End Play Gauge, Clutch 307-555
 ST2896-A	Gauge, D-Clutch Measurement 307-554

Material

Item	Specification
Motorcraft® MERCON® LV Automatic Transmission Fluid XT-10-QLVC (US); CXT-10-LV12 (Canada)	MERCON® LV

Low/Reverse Clutch Assembly



Item	Part Number	Description
1	7A130	Intermediate/low/reverse clutch center support
2	7B220	Center support keys (2 required)
3	7F225	Low/reverse clutch piston center seal
4	7D403	Low/reverse clutch cylinder outer seal
5	7A262	Low/reverse clutch piston
6	7B070	Low/reverse clutch return spring
7	7H318	Low/reverse clutch return spring retainer
8	7D483	Low/reverse clutch return spring snap ring
9	7E085	Low/reverse clutch cushion spring
10	7B164	Low/reverse clutch internal splined friction plates (internally splined to the rear planetary carrier)
11	7B442	Low/reverse clutch external splined steel plates (externally splined to the case)
12	7B066	Low/reverse clutch pressure plate (externally splined to the case) (select fit)

Disassembly

NOTICE: The low/reverse clutch plate quantity is model dependent on engine size. Check the clutch plate quantity charts in specifications for the correct clutch plate quantity. Failure to install the correct clutch plate quantity will result in transmission failure.

NOTE: The low/reverse clutch plates are installed in the case during the transmission assembly procedure.

1. Using the Clutch Spring Compressor, remove and discard the low/reverse clutch return spring retainer.



2. Remove and discard the low/reverse clutch return spring retainer.



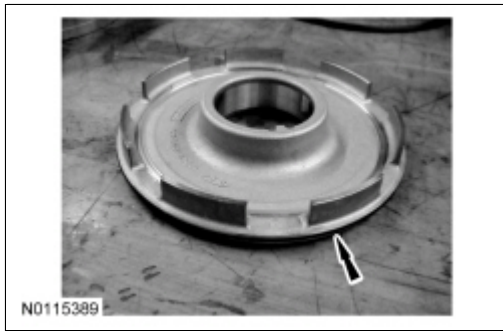
3. Remove the low/reverse clutch return spring.



4. Apply a slight amount of air to the port, remove the low/reverse clutch piston from the low/reverse clutch drum.



5. Remove and discard the low/reverse outer piston O-ring seal.



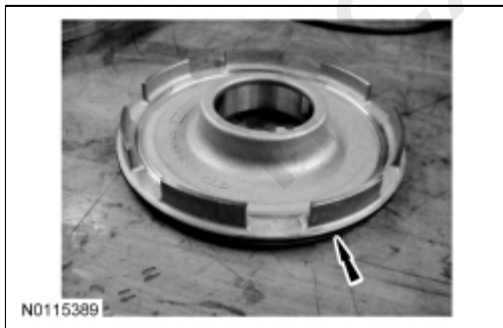
6. Remove and discard the low/reverse drum O-ring seal.



Assembly

Low/reverse piston

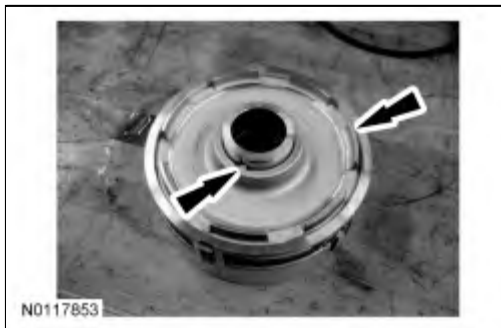
1. Install new low/reverse outer piston O-ring seal.



2. Install new low/reverse drum O-ring seal.



3. Lubricate the O-ring seal with clean transmission fluid. Align the alignment tab on the piston with the groove in the center support and install the low/reverse piston.



4. Install the low/reverse clutch return spring.



5. Install a new low/reverse clutch return spring retainer. Align the alignment tab on the retainer with the groove in the center support and install the low/reverse piston return spring retainer.



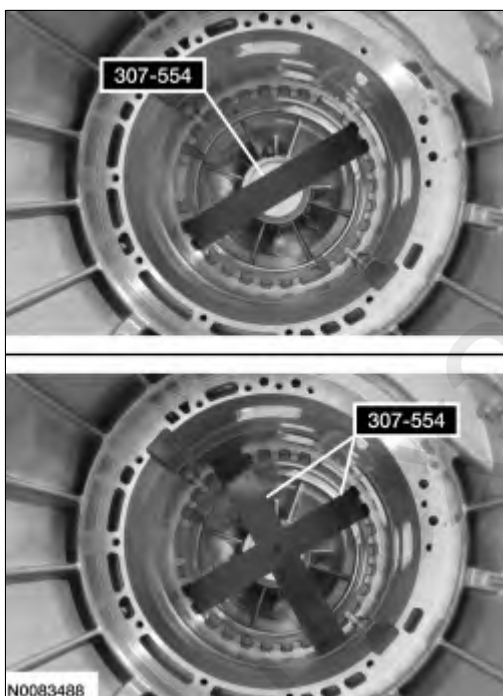
6. Using the Clutch Spring Compressor, compress the low/reverse clutch return spring and install the retaining ring.



Low/reverse clutch stackup

7. **NOTE:** All low/reverse clutch plates, friction and steel are of a wave-type design.

Install the D-Clutch Measurement Gauge into the case.



8. With the D-Clutch Measurement Gauge positioned in the case, use the Depth Micrometer to measure the case stop depth.

Description	Reading
Measure the distance from the top of the upper gauge bar to the top of the lower gauge bar. Record this reading as the case measurement. Record as reading A.	



9. Measure the clutch pack height.

	Description	Reading
A.	Place the low/reverse clutch pack on the Clutch End Play Gauge with the wave spring down and the pressure plate on top. Using the Dial Indicator Gauge with Holding Fixture, place the plunger on the pressure plate. Slide the clutch to the side so the plunger of the Dial Indicator is touching the gauge plate of the Clutch End Play Gauge. Zero out the Dial Indicator Gauge.	
B.	Carefully lift the plunger enough to slide the clutch pack under the plunger to take a reading. Record this reading. Rotate the clutch pack 180 degrees and take a second reading. Add the first and second readings together and divide the total by 2. Record this reading as B.	



10. Using the Depth Micrometer, measure the piston to center support shoulder height.

Description	Reading
Measure the piston to center support shoulder height. Record this measurement. Rotate the center support 180 degrees and record this measurement. Add the first and the second measurements, then divide by 2. Record this as reading C.	



11. Calculate the end clearance.

Description	Reading
Subtract B and C from A to determine end clearance	
Total C measurement	
End clearance specification	1.0-1.6 mm (0.039-0.062 in)

Compare the end clearance to the specification. If the end clearance is out of specification, select the next thinner or thicker plate as required and repeat Steps 10, 11 and 12.
