

A Division of Thiessen Products, Inc.

# INSTRUCTION SHEET FOR No.1658 TOOL

This tool removes and installs the H-D 35186-06 shifter shaft sleeve without removing the transmission case from the frame.

No. **1658** - Use on all 2006 to present H-D 6-speed Cruise Drive transmissions.

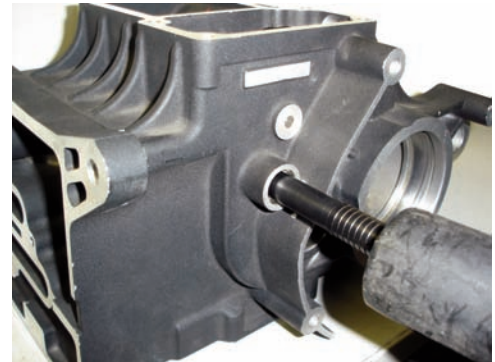
**ADDITIONAL TOOLS NEEDED:**

1. 1/4" Allen wrench or Allen socket and ratchet
2. 3/4" box end wrench
3. H-D Service book or equivalent
4. JIMS No. **1080** brass hammer or equivalent

Read the complete instructions before using this tool and performing this service.

**REMOVING THE SHIFTER SHAFT SLEEVE:**

1. You don't have to remove the transmission case from the chassis but you will need to remove the trap door gear set assembly, the primary drive assy, and the shift lever mechanism to get access to shifter shaft sleeve. Refer to H-D service manual or equivalent for proper removal of these assemblies.
2. Insert the stepped remover tool JIMS No. **1658-1** into the bore of the sleeve. Use a light brass hammer like JIMS No. **1080** to drive the sleeve from the case. **See Fig 1.**
3. Lube the Allen screw, washers, bearing, installer tool No. **1658-2** and the O.D. of new H-D No. 35186-06 sleeve.
4. Install washer No. **1662**, then bearing No. **1663**, then the other No. **1662** washer and spacer No. **1658-3** onto the Allen screw No. **1661**.
5. Insert the Allen screw assembly into the bore from outside the case. **See Fig 2.**
6. From inside the case hand thread the small end of the remover tool No. **1658-1** onto the Allen screw assembly.

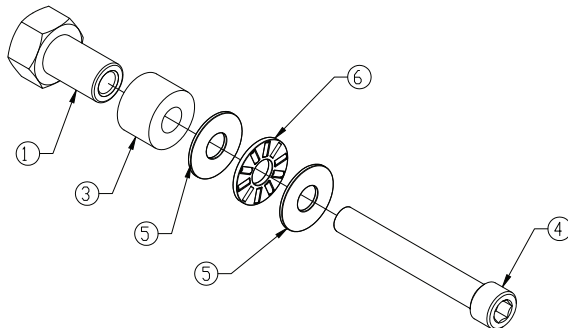
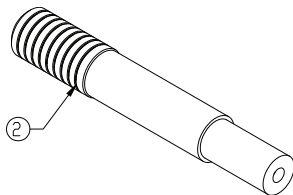
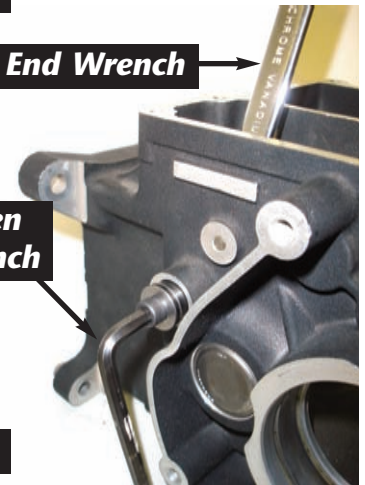


**FIG. 1**

**Box End Wrench** →

**Allen Wrench** →

**FIG. 1**



7. Next use the 1/4" Allen to tighten the screw from outside the case while holding the remover with a 3/4" box wrench. Tighten Allen until it bottoms out and then remove tool from case. At this point the bushing should be positioned correctly in the case. **See Fig 2.**
8. Reassemble shifter mechanism, trap door gear set assembly and the primary Assy.

**PARTS AVAILABLE SEPARATELY**

NO.	QTY.	DESCRIPTION	PART NO.
1	1	INSTALLER, SHIFTER SHAFT, CRUISE DRIVE	1658-2
2	1	REMOVER, SHIFTER SHAFT SLEEVE, CRUISE DRIVE	1658-1
3	1	SPACER, SHIFTER SHAFT, CRUISE DRIVE	1658-3
4	1	SCREW	1661
5	2	WASHER, THRUST	1662
6	1	BEARING, THRUST, NEEDLE	1663
7	1	INSTRUCTION SHEET	1658-IS

*Performance Parts For Harley-Davidson Motorcycles*