

Tool Instruction HARMONIC BALANCER PULLER / INSTALLER SET

4328339R1

Tool Number: OTC4531



0000390364

Figure 1. OTC4531 Harmonic Balancer Puller / Installer Set.

Purpose

Essential tool utilized to assist in removal / installation of the harmonic balancer and / or drive pulleys that are press-fitted onto the crankshaft.

Application(s)

2015 PSI 8.8L Engine

Application(s) (cont.)



GOVERNMENT REGULATION: Engine fluids (oil, fuel, and coolant) may be a hazard to human health and the environment. Handle all fluids and other contaminated materials (such as filters or rags) in accordance with applicable regulations. Recycle or dispose of engine fluids, filters, and other contaminated materials according to applicable regulations.



WARNING: To prevent property damage, personal injury, and / or death, read all safety instructions in the “Safety Information” section of the *Engine Service Manual* or *Engine Diagnostic Manual*.



WARNING: To prevent property damage, personal injury, and / or death, park vehicle on hard flat surface, turn the engine off, set the parking brake, and install wheel chocks to prevent the vehicle from moving in either direction.



WARNING: To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.


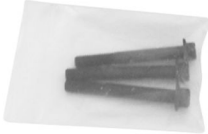

CAUTION: To prevent component / tool / engine damage, **ALWAYS** install crankshaft protector prior to removing harmonic balancer.

CAUTION: To prevent component / tool damage, **NEVER** use power / impact tools with this essential tool.

CAUTION: To prevent component / tool damage, use a small amount of clean oil / grease on the threads and tip of the forcing screw.

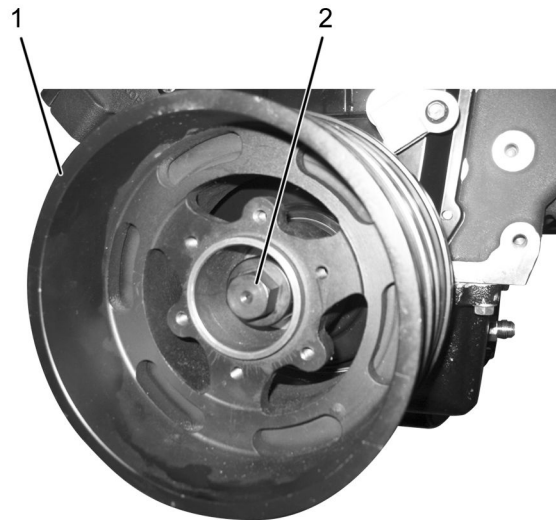
Tool Contents

Table 1

Image	Tool Number	Qty	Description
 <p>0000390372</p>	OTC4531	1	Harmonic Balancer Puller / Installer Set (Includes 2/3 Way Puller Flange, Heavy-Duty Forcing Screw, Metric and Fractional Bolts, Washers, Threaded Adapters, Storage Case, User Guide)
 <p>0000390373</p>	1818726C1	3	M8 X 70 mm Bolt
 <p>0000160075</p>	4328339R1	1	Tool Instruction

Instructions

NOTE: Some engine components have been removed from graphics depicted in this procedure for clarity purposes.



0000390365

Figure 2. 12-075-01 Crankshaft Protector.

1. Harmonic balancer
2. Crankshaft protector

NOTE: This procedure requires the use of an additional essential tool (12-075-01 Crankshaft Protector) not included in this kit.

1. Bring vehicle into shop and park on flat surface.
2. Shift transmission to Park or Neutral and set parking brake.
3. Install wheel chocks.
4. Unlatch and open hood.
5. Access harmonic balancer (Figure 2, Item 1). Refer to service manual, service bulletin, or equivalent for detailed instruction.

CAUTION: To prevent component / tool / engine damage, **ALWAYS** install crankshaft protector prior to removing harmonic balancer.

6. Install crankshaft protector (Figure 2, Item 2) into the crankshaft end. Hand tighten only.

Instructions (cont.)

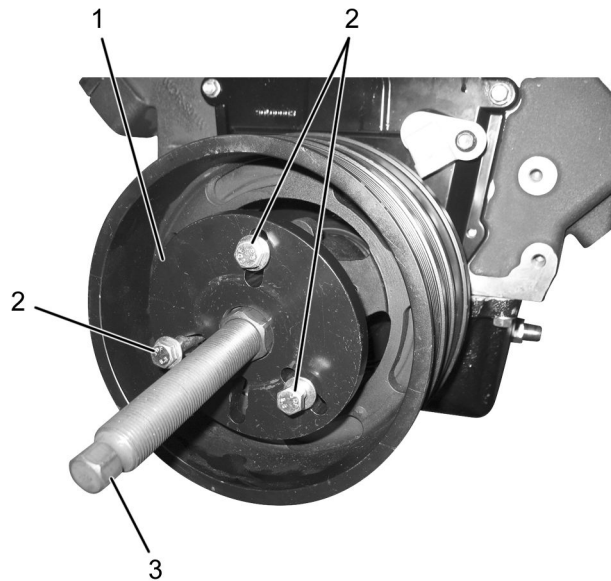


Figure 3. 2/3 Way Puller Flange – Removal Position.

1. 2/3 way puller flange
2. Bolt / washer asy (3)
3. Forcing screw

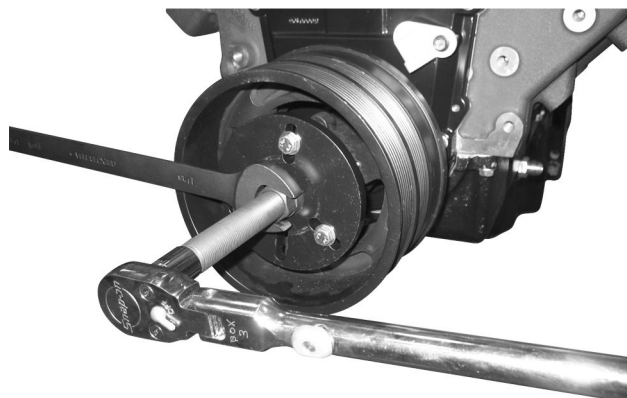
CAUTION: To prevent component / tool damage, use a small amount of clean oil / grease on the threads and tip of the forcing screw.

7. Preassemble puller flange (Figure 3, Item 1) and forcing screw (Figure 3, Item 3) in removal position with appropriate sized adapter. Refer to tool user guide for detailed instruction.
8. Position puller flange assembly onto harmonic balancer. Loosely install three bolts and washers (Figure 3, Item 2) through puller flange into harmonic balancer.

CAUTION: To prevent component / tool damage, NEVER use power / impact tools with this essential tool.

9. Hand tighten three bolt and washer assemblies evenly.

Instructions (cont.)



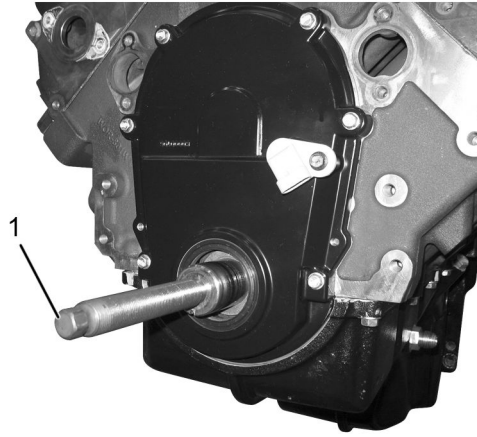
0000390367

Figure 4. Harmonic Balancer Remover Assembly.

NOTE: The following step requires an additional wrench to perform removal procedure.

10. Using socket and ratchet / breaker bar / wrench, hold forcing screw in place. Use wrench to turn puller body /adapter to disengage harmonic balancer / drive pulley (Figure 4).
11. Remove harmonic balancer / drive pulley.
12. Remove crankshaft protector.

Instructions (cont.)



0000390368

Figure 5. Forcing Screw.

1. Forcing screw

CAUTION: To prevent component / tool damage, NEVER use power / impact tools with this essential tool.

13. Install forcing screw (Figure 5, Item 1) into crankshaft. Hand tighten only.



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Figure 6. Harmonic Balancer.

14. Position harmonic balancer / drive pulley onto crankshaft (Figure 6).

Instructions (cont.)

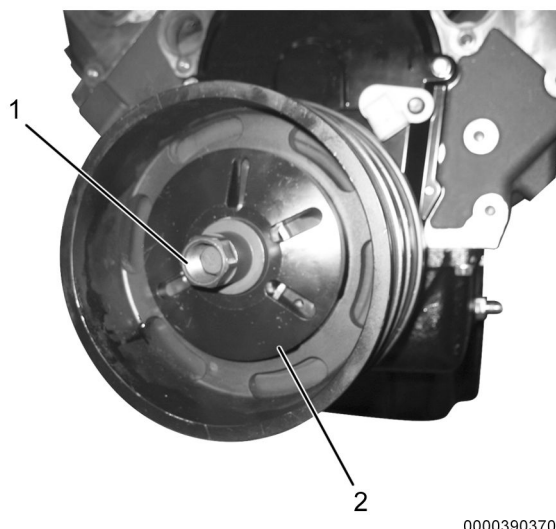
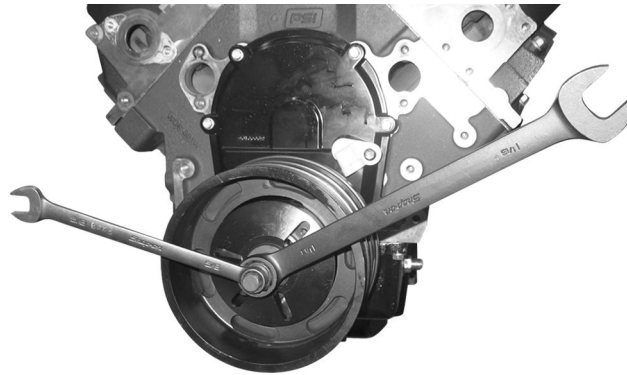


Figure 7. 2/3 Way Puller Flange – Installation Position.

1. Adapter
2. 2/3 way puller flange

15. Position puller flange (Figure 7, Item 2) for installation position with adapter (Figure 7, Item 1).
16. Using wrench, tighten puller body adapter until head of forcing screw is fully visible.

Instructions (cont.)



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Figure 8. Harmonic Balancer Installer Assembly.

NOTE: The following step requires a backup wrench to perform removal procedure.

17. Using wrenches, engage harmonic balancer / drive pulley until fully seated (Figure 8). Refer to service manual, service bulletin, or equivalent for detailed instruction.
18. Install necessary components removed for access. Refer to service manual, service bulletin, or equivalent for detailed instruction.
19. Remove wheel chocks.

Contact Information

If you would like to order additional tools or need replacement parts, please refer to the Navistar Service Tool Catalog. If you have questions, concerns, or feedback, please contact Navistar Service Tool Support Center:

- Submit a Service Tool iKNow Case File.
- Phone: 800-365-0088 (toll free).