

TO: Service Locations

FROM: Service Operations

SUBJECT: **GHG17 Camshaft Timing Tool Set W470589062300**

GENERAL INFORMATION

Detroit™ recently made a running production change to both camshafts and idler gears No.3 and No. 5 on GHG17 DD13, DD15 and DD16 engines. The new camshafts and idler gears require a new camshaft timing tool for timing verification and repairs. **If the old camshaft timing tools are used, the exhaust camshaft will show to be approximately one half of a tooth out of time when the engine is rotated to No. 1 Top-Dead-Center (TDC). The intake camshaft will show to be very close to being in time. It is important to note the front locking fork from the old camshaft timing tools will not function with the new camshafts.**

The easiest way to identify an engine with the new camshafts and idler gears is by inspecting the intake camshaft tone wheel. The new tone wheel has individual fingers. The old tone wheel is more of a plate style with cutouts. See illustrations below.

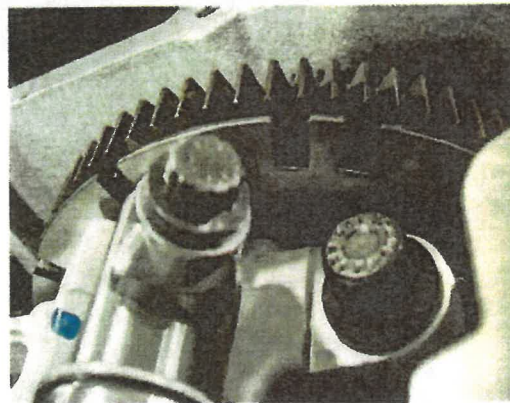


Figure 1. New intake camshaft tone wheel (left) and old tone wheel (right)

The new camshaft timing tool set (W470589062300) includes a timing plate and spacer stand that is red in color and functions only on GHG17 DD13, DD15 and DD16 engines with the new camshafts and idler gears.

COMPONENTS SUPPLIED IN THE TOOL SET

- Timing Plate
- Spacer Stand (only used in some applications)
- Short Mounting Bolts
- Long Mounting Bolts (only used when spacer stand is needed)

TOOL USAGE INSTRUCTIONS

1. Install the timing plate onto the camshaft housing with two short mounting bolts. Use the markings on the plate to line up the holes with the appropriate engine. DD15 and DD16 engines use the 15.6 holes and indicator lines. The DD13 engine uses the 12.8 holes and indicator lines. The 10.6 engine is not used in North America.
2. Hand-tighten the mounting bolts.
3. Rotate the engine to No. 1 TDC.
4. Mark the tooth on each camshaft gear that corresponds with the indicator (triangle).
5. Compare the marked tooth on each gear with the indicator line on the timing plate. They should be very close if the engine is in time. See illustrations below.

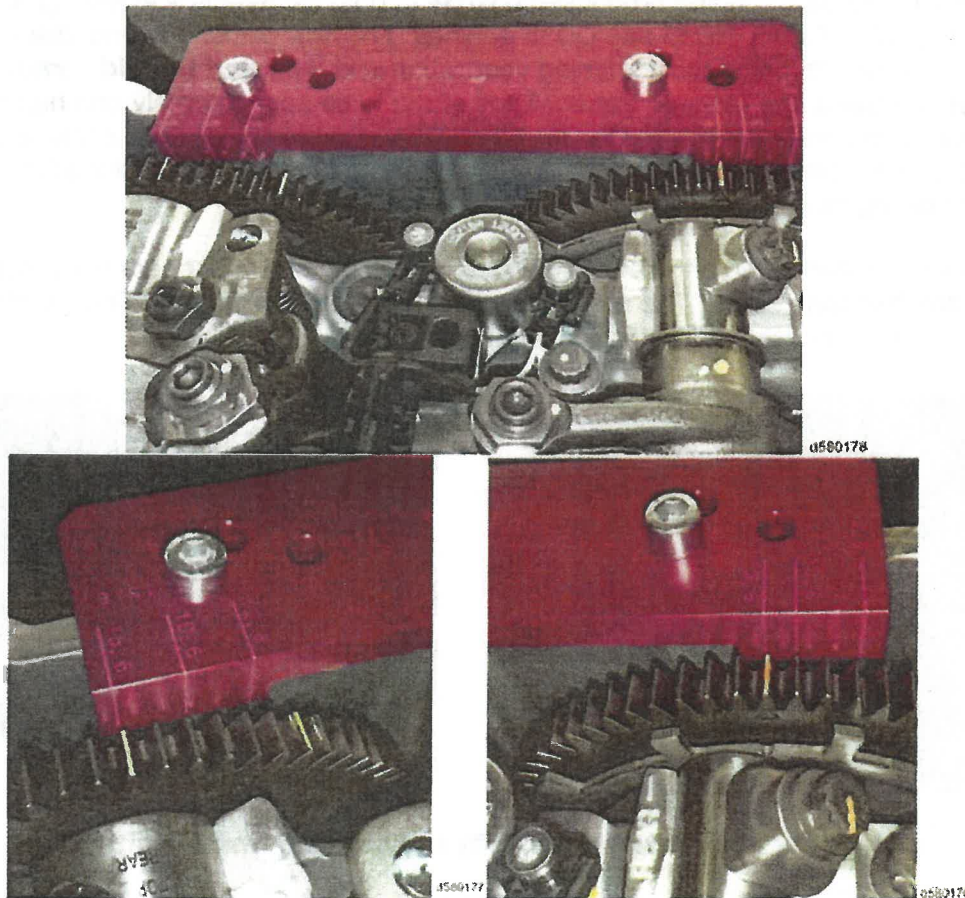


Figure 2. Comparing indicator marks on camshaft gears with indicator lines on timing plate. DD15/DD16 engine shown.

ORDERING INFORMATION

The GHG17 Camshaft Timing Tool Set W470589062300 is an essential tool and will automatically be shipped and invoiced to all DD heavy duty certified locations.