



Instruction Sheet For Part No.1290

JIMS® CAM GEAR INSTALLER



This precision tool will locate the cam gear on any 1970-99 Big Twin cam shaft, and reposition it on another cam shaft exactly in the same spot. Pressing the gear on in the advanced or retarded position is also possible. Save time and ensure accuracy time after time.

No.1290 - Use on all Single Cam 1970-99.

Tools needed: Press Fit Lube, 2-ton press and 3/8" ball bearing

NOTE: Read all instructions before using this tool.

Cam Gear Exchange Overview

1. Before removing the existing gear from the cam that you will be using, you must first record the position of that cam and gear combination. For a reference **(See Diagram A)**
2. Before installing the cam gear that you will be using, you must make sure that it has the proper fitment to the pinion gear you will be installing.
3. Refer to JIMS® Catalog or H.D. service manual for cam to pinion gear fitment chart.

NOTE: Always wash cam and gears before installing into tool. For Ease of aligning cam in tool, mark the backside of gear with a felt pen for pinion gear timing mark. **(See Diagram B)**. Also take note of the top of tool. **(See Diagram C)** for early and late pinholes.

1. Place cam with gear into tool top bore with pinion gear timing mark aligned with reference mark on top of tool. **(See Diagram B)** At the same time gently align the notch **(See Diagram D)** at the nose of cam with the locator pin in the bore of tool. **(See Diagram C)**. By gently rotating Cam clockwise, until cam locks into tool.
NOTE: At this time the two knurled thumbscrews should be loose enough to move indexer plate clockwise and counter clockwise. **(See Diagram A)**
2. Gently hold cam with light pressure in the clockwise direction, at the same time rotate indexer plate **(See Diagram A)** of tool clockwise or counter clockwise to align pinholes to be in the center of two gear teeth **(See Diagram B)**. Gently slip in the two tapered pins No.1298 into either the L marked holes for late cams or the E marked holes for early cams. **(See Diagram C)**. With both pins installed and still applying light pressure clockwise, finger tighten down the two knurled thumbscrews. **(See Diagram A)**
3. With thumbscrews tight, you can release pressure on cam. With your felt pin, mark the two taper pins location on the backside of gear **(See Diagram B)**. Just to be safe, record the degree that the tool is now locked at. **(See Diagram A)** If the long line on tindexer plate of tool is between two of shorter lines. This will be considered one degree.
4. Remove cam from tool by gently pulling cam straight up away from tool. **NOTE:** Always remove taper pins from tool as a safe guard for the next gear installment.
5. Press cam from gear using Jims cam gear removal tool No.1390. **NOTE:** You need to have .0017 to .0025 press fit, for a good cam to gear lock up.

Instructions continue from page 2.

CAUTION: Wear safety glasses. Excessive force may damage parts and tool. See JIMS® catalog for over 200 other top quality professional tools. The last tools you will ever need to buy.

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Instructions continue from page 1.

6. With cam and gear washed and cleaned ready for reassembly, apply JIMS® No.2124 press fit lube to cam and gear.
7. Place gear back on cam tool with felt pen mark showing and aligned with pinion reference mark, also the tapered pin installed back in the holes they were removed from. **(See Diagram E)**
8. Gently place the cam into bore of gear. At the same time, turn the cam in a clockwise direction. The cam will drop down about 1/8". At the same time, all clockwise rotation will stop. **NOTE:** *All clockwise rotation will stop because the ignition drive notch has mated with locator pin in the bore of the tool and the cam should make contact with the gear.* By holding the cam in this position. Place your 3/8" ball bearing into the center at the end of cam. You can start the pressing of cam into gear. As soon as the cam's shoulder makes contact with gear, the pressing is complete.
9. As a reference check to see if large key in cam is 180° from to the pinion reference mark you put on backside of gear.

Degreeing in a cam Example:

10. If you decide to degree this cam into your motor. **NOTE:** *This tool will control the gear to cam to better than a 1/4 of a degree.* With the tool still locked in position for the above cam. (For example: Let us say the above cam required the tool to be set at "0" degrees just like Diagram A). Next example: If you have degreeed the above cam into your motor and it is showing that you need to retard by 2 degrees.

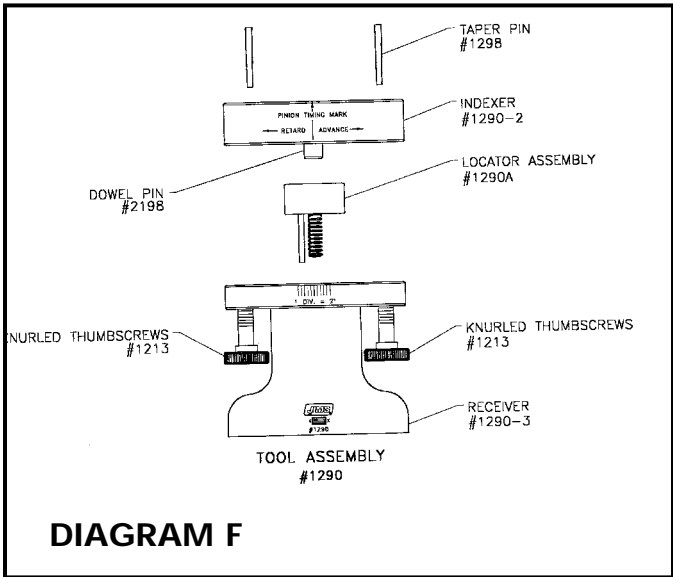
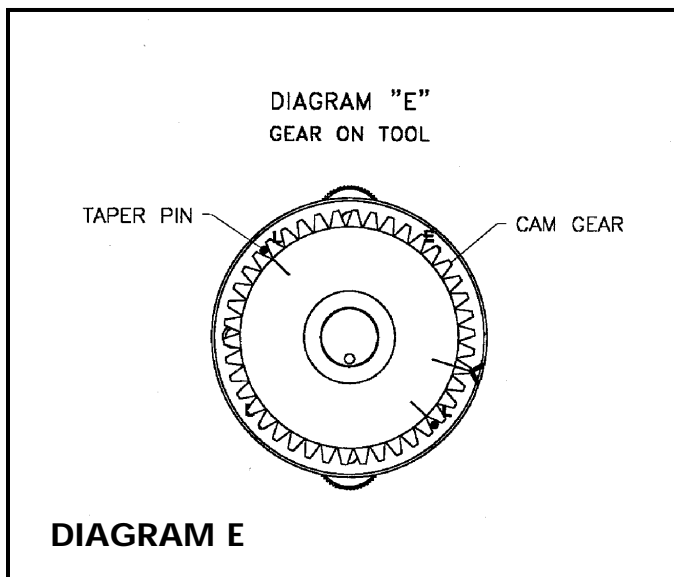
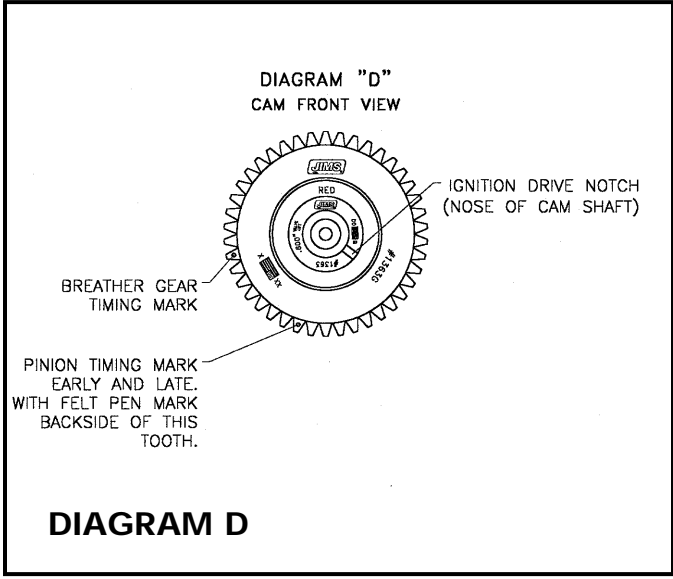
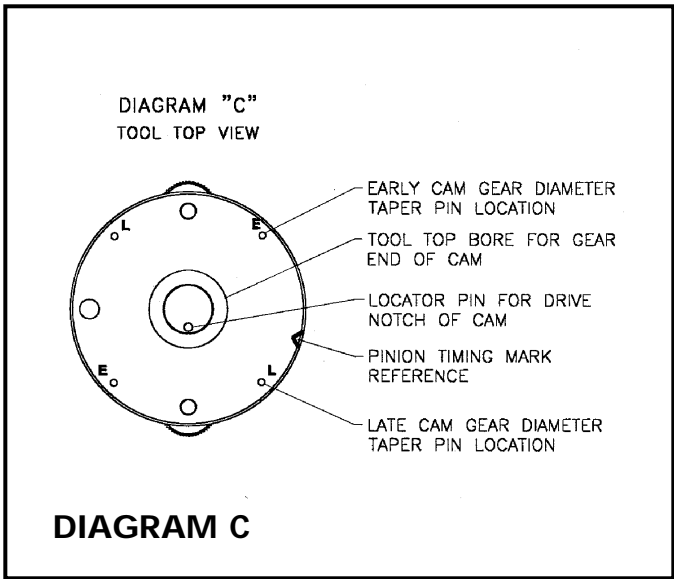
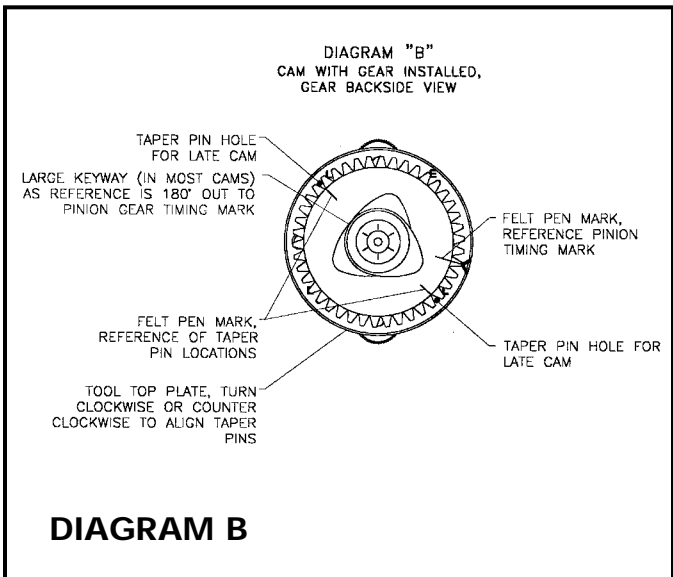
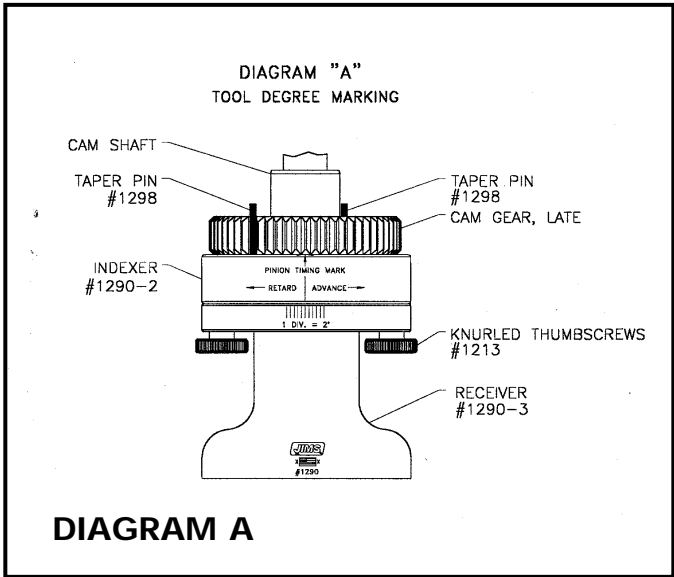
Proceed as follows:

11. After reading line 10 reinstall cam assembly in tool to make it easier to adjust. **NOTE:** *Do not install the tapered pins at this time.* Rotate cam assembly clockwise until cam locks into tool (See line 1.). Loosen the two knurled thumbscrews, just enough to turn indexer plate 2 degrees retard **(See Diagram A)** (Note: Each line lasered on tool base is two degrees).
12. Retighten the two knurled thumbscrews by hand only. (Check side of tool for 2 degrees retard position you have set).
13. Remove gear from cam with JIMS® tool No.1390.
14. Follow line 6, 7, 8.
15. You can recheck your degreeing of cam, and or install in motor per H.D. service manual and cam's instruction sheet.

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