

# Ratech

## Pinion Setting Tool Instructions

This tool is designed to work with aftermarket gears that have the checking distance marked on the pinion head. It does not work with oem. gears which do not contain the checking distance info.

1. Clean and remove any burrs or paint from the top of the pinion head.
2. Mount the head bearing on to the pinion shaft and install in the housing without the pinion seal or crushsleeve. Tighten the pinion nut enough to take up the slack in the bearings.
3. Place the pinion setting tool on top of the pinion head with the slot end of the tool in the carrier bearing journal. (fig. 3,4,5) The end of the tool will rest against the end of axle tube surface.
4. With the tool being held by your left hand firmly against the top of the pinion head and the slotted end touching the face of the axle tube, insert the dial caliper with your right hand into the slot and position the depth rod so it touches the bottom of the carrier bearing journal. (fig. 6)
5. Take the measurement from the dial caliper and subtract it from the dimension printed on the tool. The answer is the current checking distance of the pinion gear. Add the appropriate amount of shims to arrive at the number marked on the end of the pinion gear by the manufacturer.



### Part Number Description

10002	8.2 Chevrolet (65-72)
10003	7.5/7.625 GM
10004	8.5 GM (1973-97) carrier brg. LM501314
10008	8.5/8.625 GM (1998-up) carrier brg. LM603012
10005	12 Bolt GM (auto) (1965-72)
10006	8.8 Ford will work for installing <b>Ford OEM.</b> or <b>Ford SVT</b> gear sets.(see note below)
10009	Dana 60
10010	12 Bolt GM (truck)

**NOTE:** 8.8 Ford gear sets do not have a checking distance marked on the pinion head like aftermarket pinions. To use this tool you need to establish that number. It is a very simple two step procedure: 1. Measure the thickness of the pinion head. 2. Subtract that dimension from 4.420. The answer is the checking distance number needed. Proceed with procedures 1 through 5.

Thanks John,

As an engineer, I appreciate how you guys have come up with such a simple tool to replace thousand-dollar super complicated pinion depth tools. I was very excited when I found that you guys had an easy answer for taking the "black magic" out of pinion depth measurements for the average person. Even the fancy Rotuda pinion depth tools the dealer uses assume a published dimension for the housing, right? So even if their \$2500 tool is the most accurate and repeatable thing ever, there will still be error induced from the housing deviating from the published values? It seems silly to use such outrageously expensive tools if the measurement is really only as good as the housing.

Thanks again  
Steve

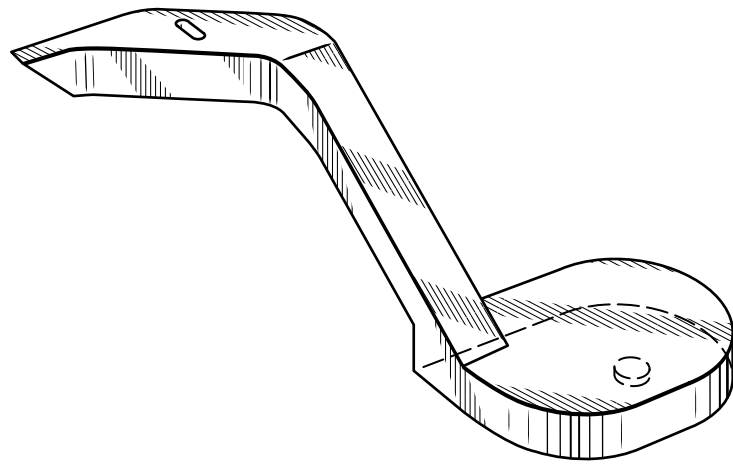


FIG. 1

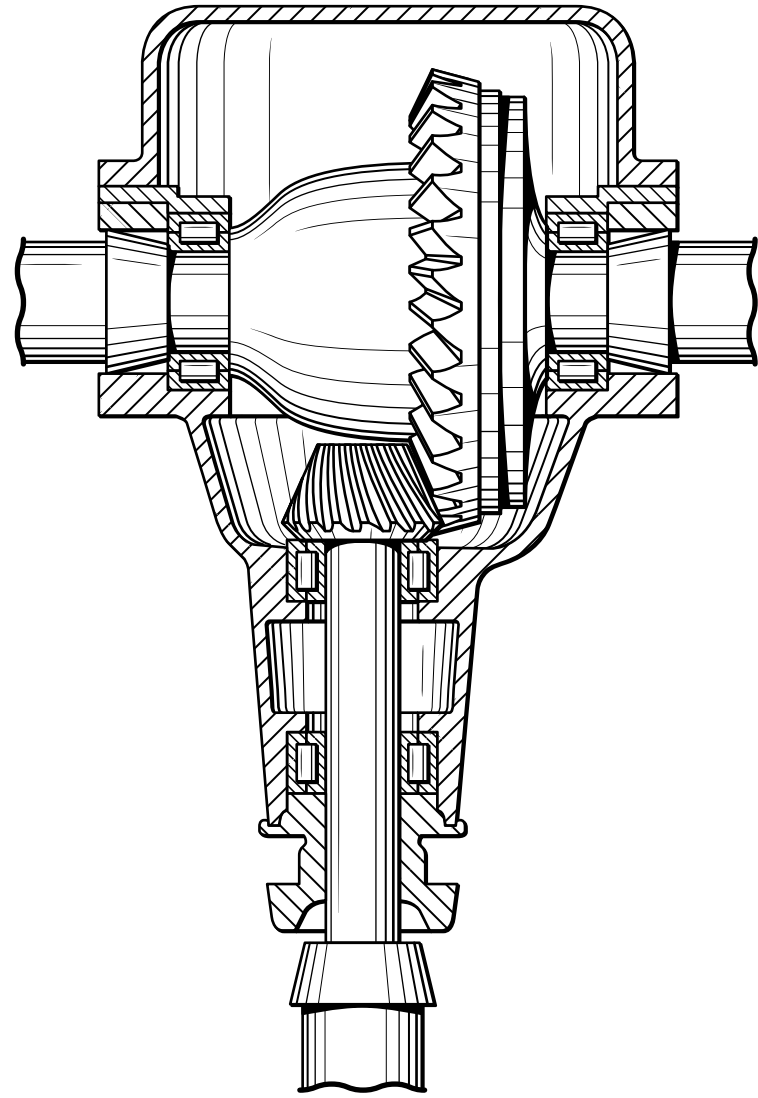


FIG. 2

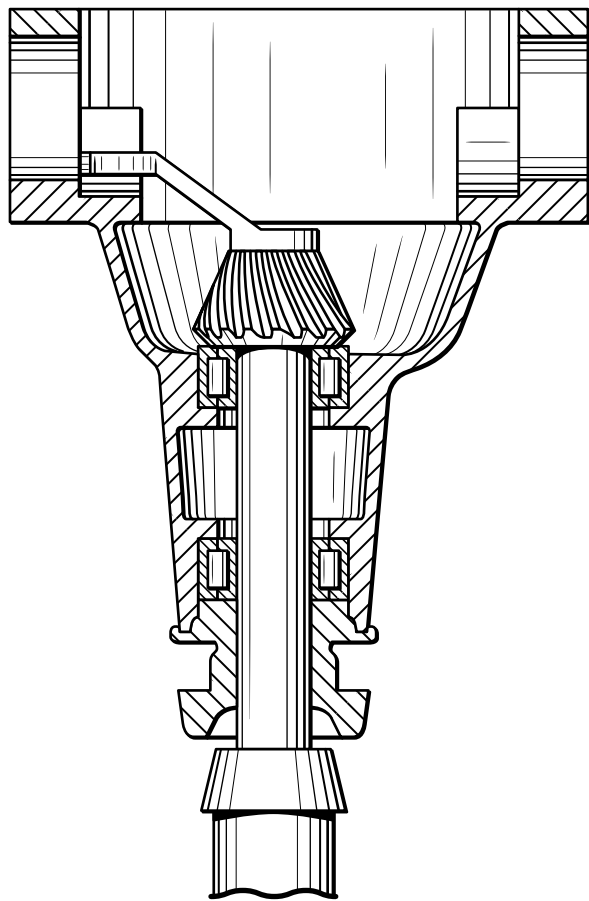


FIG. 3

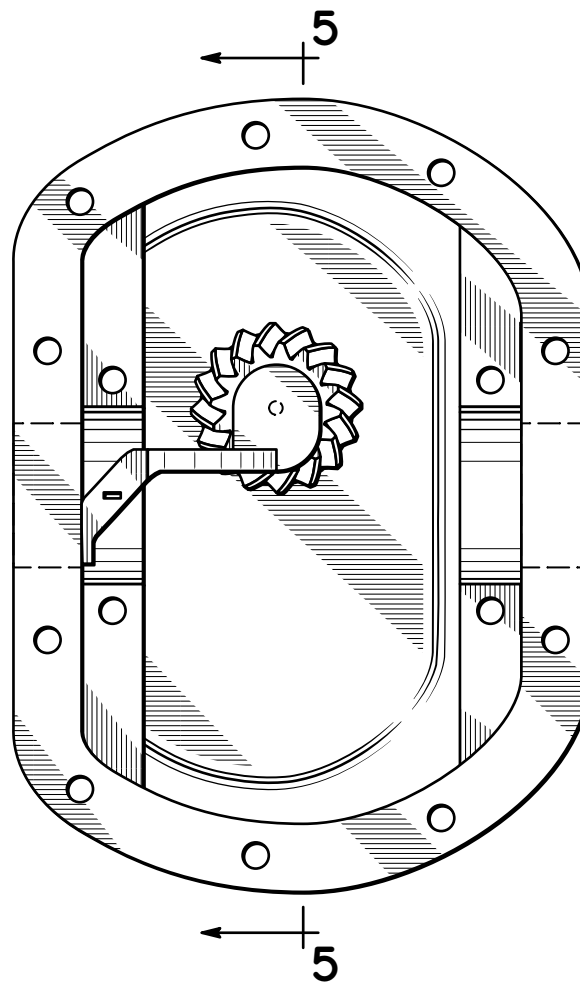
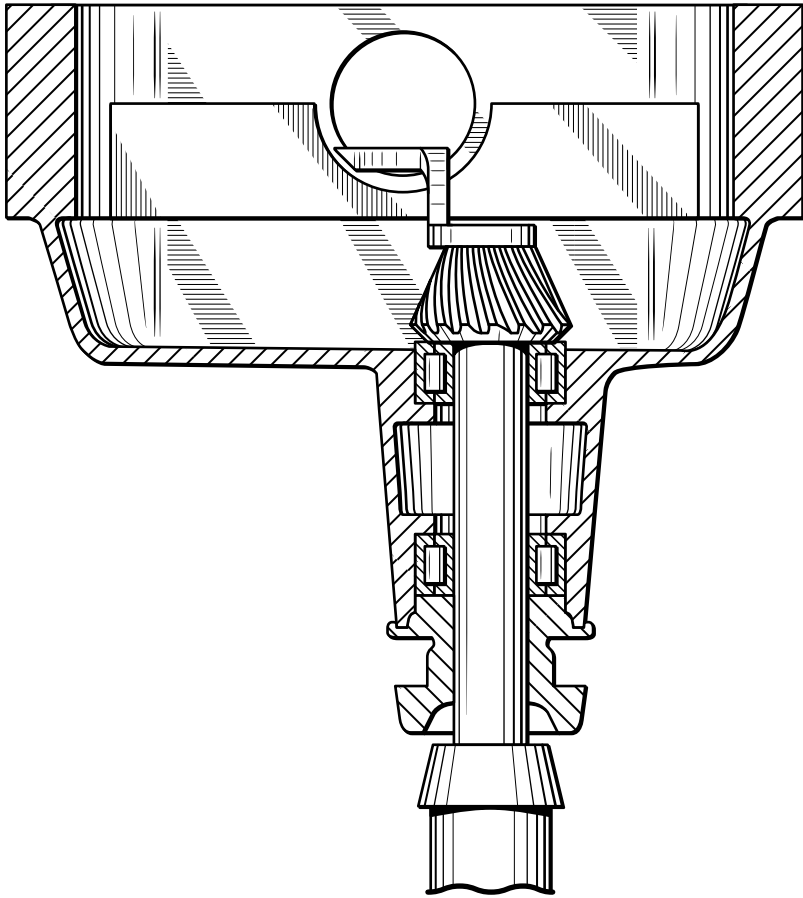
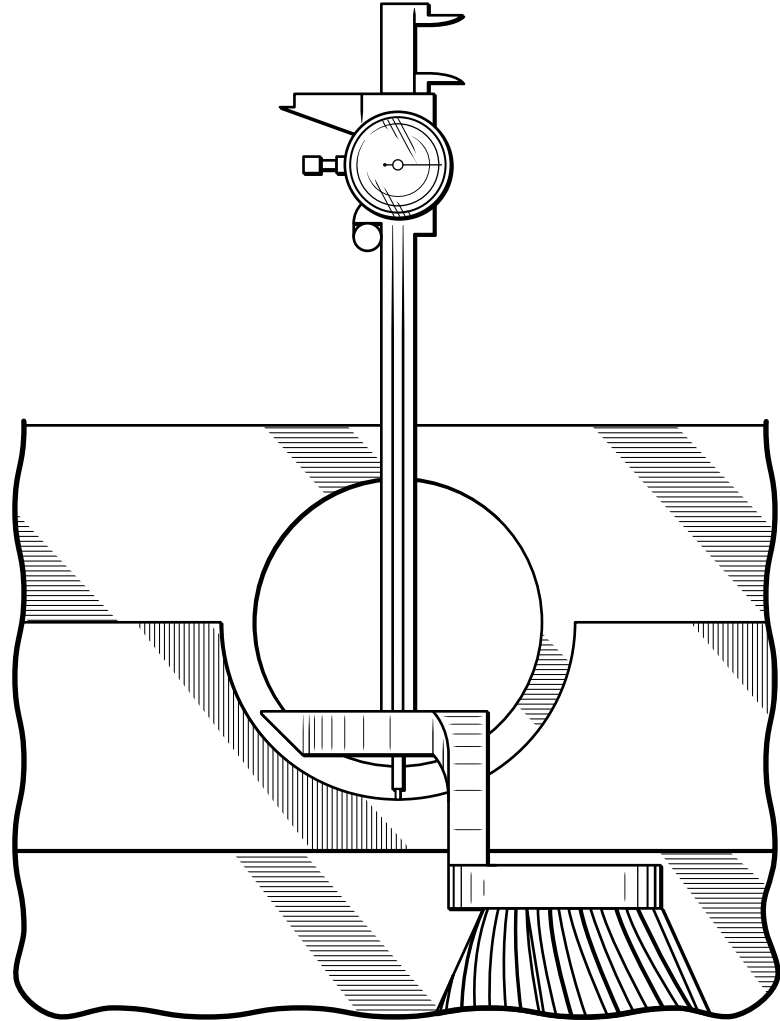


FIG. 4



**FIG. 5**



**FIG. 6**

