

ORDNANCE MAINTENANCE -- POWER TRAINS AND INTERCHANGES:
MILITARY/ CIVILIAN TRUCKS 1941 TO 1971 (DODGE)

- 2) **Early two-pinion differential.** (All 1/2-ton WC, some civilian series trucks.) See figure 5-2.
- a) Differential case contains two pinion gears
 - b) Two large triangular holes are cast in the side of the differential case
 - c) Differential case and side gears are for axles with 1-5/16 - 16 splines
 - d) Input flange is the "Mechanics" type (flat with slot recesses for the U-joint caps)
 - e) A bronze thrust pad is used behind the ring gear
 - f) Light is visible by looking through the side gears past the pinion shaft
- 3) **Early two-pinion differential.** (3/4-ton WC series trucks through vehicle S/N 81560738.) Similar to the unit in 2), with the following exceptions.
- a) Differential case and side gears are for axles with 1-3/8 - 16 splines
 - b) Input flange is the early "Detroit" type (U-shaped with two half-round recesses for the U-joint caps)
 - c) Gear ratio

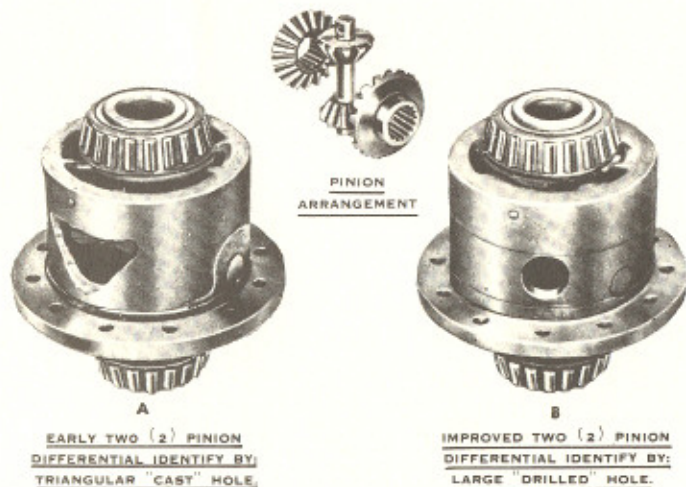


Figure 5-2 -- Two-pinion Differentials

THIRD MEMBERS

- 4) **Improved two-pinion differential.** (3/4-ton WC series trucks from vehicle S/N 81560739 through S/N 81589500.) Similar to the unit in 3) with the following exceptions; see figure 5-2.
- a) A large round hole is located in the side of the differential case instead of the triangular hole
 - b) A steel thrust pad is used after vehicle S/N 81561240
- 5) **Early four-pinion differential.** (3/4-ton WC series trucks from vehicle S/N 81589501 through S/N 81657581 and S/N 81674101 through S/N 81674747.) Similar to the unit in 4) with the following exceptions; see figure 5-3.
- a) Differential case contains four pinion gears
 - b) Light is not visible by looking through the side gears because of the pinion shaft block
 - c) A steel thrust pad is used in all units
- b) **9-5/8 diameter ring gear assemblies.** (Late 3/4-ton WC, 1-1/2-ton WC, M, PW, WM, EU series trucks.) See figures 5-3 and 5-4. Most of the parts in these various units are identical, except for the input flanges and ring and pinion (see table 5-1). Many of the individual parts are larger than their counterparts in the 8-3/4 units, and they also have characteristics 3a, 5a, 5b, 5c above.
- 1) **Notable differences between the 9-5/8 and 8-3/4 units are:**
- a) The axle shaft center is 1/16 further away from the mounting face of the differential carrier. (Proper allowance for this is extremely important, as explained in paragraph 6.1 (c)).
 - b) Differential case bearing adjuster caps are held on by studs and nuts rather than by bolts (bolts again '61-'71 WM300 only)
 - c) A set screw is located above the front seal
 - d) Three drive pinion shaft bearings are used instead of two
 - e) Complete unit weight is about 100 pounds
 - f) On many third member housings, the gear ratio is stamped on a pad located at the bottom near the stud holes on the side away from the ring gear