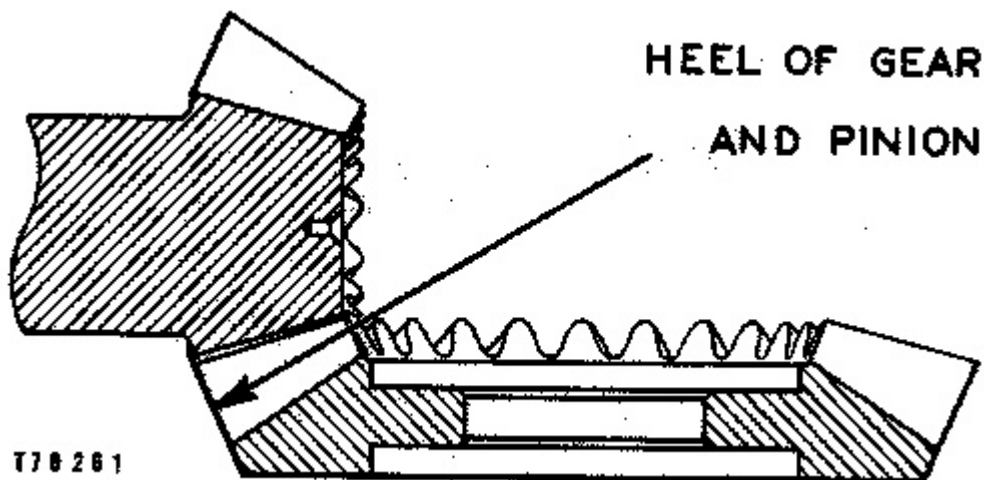


Bevel Pinion Location

If the same pinion shaft is reinstalled, use the same shims that were removed. The pinion can be located by observing the tooth contact pattern made by the pinion gear teeth on the bevel gear teeth. This can be done in the following manner.

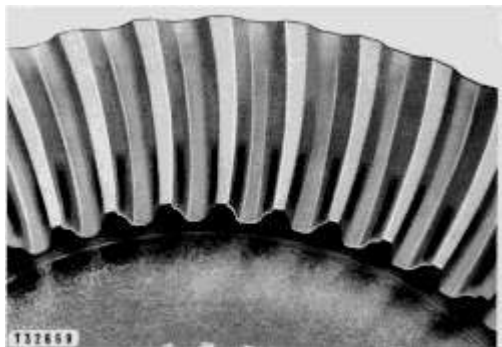


ALIGNING THE BEVEL GEAR AND PINION

Use sufficient shims to align the heel ends of the bevel gear and pinion gear teeth. This will place the pinion in nearly the correct relationship with the bevel gear.

Adjust the bevel gear backlash as described in the topic, DIFFERENTIAL AND BEVEL GEAR. This should give a very close adjustment.

To further check the adjustment, chalk the bevel gear teeth (discolor). Rotate the pinion and bevel gear to produce a tooth contact pattern on the bevel gear teeth. Correct tooth contact starts near the toe and extends approximately 30 percent of the length of a bevel gear tooth.



CORRECT TOOTH CONTACT

If tooth contact is more on one side of a tooth or is near the heel of a tooth, the location of the pinion shaft must be readjusted. Add or remove shims to locate the pinion shaft. Readjust the bevel gear backlash. Produce another tooth contact pattern. It may be necessary to make several pinion and bevel gear adjustments to obtain both correct tooth contact and backlash.