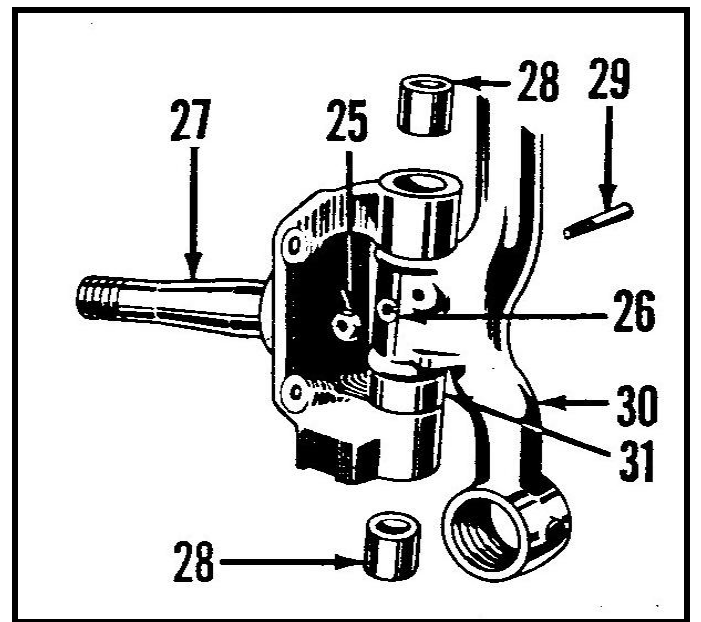


# Kingpins & Bushings

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Early- type steering knuckles were fitted with needle bearings. Intermediate models were fitted with pressed-in bushings. Later both of these types were superseded by knuckles in which the bores are micro-finished for use of floating, split-type, steel-backed bushings. This latest type permits free rotation of the bushings in the knuckle and also around the kingpin, resulting in more even distribution of wear. NOTE: There is no record by serial number as to when these changes took place.

1. Block, brake pedal so it cannot be depressed.
2. Remove wheel and hub assembly.
3. Unfasten brake support plate from knuckle.
4. Remove steering arm from knuckle.
5. Remove brake hose and connection and lift off brake support.
6. Remove kingpin lock pin (29 NOTE: On early models the lock pin was fastened with a lock washer and nut (25). Later models were merely driven in securely. On the driven-in type, use a blunt brass (preferred) or steel punch and drive the lock pin out from the front where the pin is recessed. CAUTION. Do not attempt to drive the lock pin out from the protruding side except on the early models which were secured with a nut .
7. Drive a very sharp small punch into the upper steering knuckle dust plug and pry it out.
8. Drive kingpin downward, forcing out the kingpin and the lower dust plug. A soft brass drift should be used in driving against top of kingpin. Be sure the brass drift is only slightly smaller than the kingpin.
9. If needle bearings are used in the knuckle they should be removed with a suitable puller. A puller should be used when pressed-in bushings are used.
10. The floating bushings are a free fit and do not require driving, reaming or burnishing. Floating type bushings must be used only in steering knuckles in which the bores are micro-finished for these bushings. However, pressed-in bushings can be used in micro-finished knuckles and must be used in early-type knuckles. Use of needle bearings is no longer recommended and when replacement of them in the original steering knuckle is necessary, pressed-in bushings should be used. Pressed-in bushings must be burnished and line-reamed after installation.



11. Remove the thrust bearing and shims and remove the bushings from the knuckle.
12. If pressed-in bushings are to be used, press them in place so that each bushing is flush with the face of the knuckle which is toward the knuckle support, and the oil hole in the bushing must align with the hole in the knuckle.
13. If floating bushings are to be installed, press them in place by hand after wiping the outside of the bushing with lubricant. In these bushings the oil groove rims out at one end. Install the bushing with this end toward the knuckle support. In this position the closed end of the oil groove in each bushing will be next to the dust plugs in the knuckle.
14. To install the knuckle, place it on the knuckle support. Insert the thrust bearing, open side down, between the lower face of the support and steering knuckle. Fit shims between the top face of the support and knuckle as required to provide 0 to 5 lbs. Pull measured with a spring scale attached to the cotter pin hole at the outer end of the spindle. These shims are available in thicknesses of .003, .010 and .030 in. The kingpin must be installed before making this check.
15. Complete the assembly in the reverse order of disassembly.

Note: Original source unknown.

- *Kaiser Bill*