

CAUTION: The steering knuckle must be replaced in any and all cases of broken, bent, or loose ball joint studs in knuckle.

CAUTION: Proper service and repair procedures are essential for safe and reliable installation of chassis parts, and require experience and tools specially designed for the purpose. These parts **MUST** be installed by a qualified mechanic, otherwise an unsafe vehicle and/or personal injury could result.

WARNING: Before attempting to remove the stud from the steering knuckle, make sure the stud of the old ball joint was firmly seated in the steering knuckle. If ball joint stud was loose in the steering knuckle, or if any out-of-roundness, deformation, or damage is observed, the **STEERING KNUCKLE MUST BE REPLACED**. Failure to replace a damaged or worn steering knuckle may cause loss of steering ability since the ball joint **STUD MAY BREAK** and cause the wheel to separate from the vehicle.

- 1 Raise vehicle and remove the wheel and tire assembly.
- 2 Remove tie rod end cotter pin and slotted nut and disconnect tie rod end from the steering knuckle.
- 3 Using a suitable tool, separate the lower ball joint stud from the steering knuckle. (**never strike steering knuckle with hammer**)

WARNING: For safety reasons support the lower control arm and leave nut threaded on a few threads on the stud.

- 4 Remove the two lower mounting nuts and bolt. This mounting hardware will be re-used during new ball joint installation, so do not discard them.
- 5 Using a suitable press tool, remove the ball joint from the control arm. Examine ball joint contact area of the arm and make sure it is clean and free of cracks.

WARNING: If any cracks or damage is found, the **CONTROL ARM MUST BE REPLACED**. Failure to replace a cracked or damaged control arm may cause loss of steering ability because the **CONTROL ARM MAY BREAK** and cause the wheel to separate from the vehicle.

- 6 Clean steering knuckle taper. Insert new ball joint stud into steering knuckle by hand and check fit of stud taper to the knuckle. Stud should seat firmly without any rocking. Only the threads of the stud should extend through the steering knuckle. If the parts do not meet these requirements either the steering knuckle is worn and needs replacement or incorrect parts are being used.
- 7 Position the new ball joint onto the lower control arm with the mounting studs located through the two outermost holes. Apply a patch of the supplied thread locking compound to the threads of the two outermost mounting studs as well as the original innermost mounting bolt that is to be re-used.
- 8 Install the mounting bolt and the original two lower mounting nuts and torque to 43 ft. lbs. (59 N-m).
- 9 Thoroughly clean the hole of the steering knuckle before assembly of the stud with the knuckle. Insert the stud of the new ball joint through the hole of the knuckle.
- 10 Install the new slotted nut supplied.
- 11 Torque the slotted nut to 51-58 ft. lbs. (69-78 N-m).

- 12 Continue to tighten the slotted nut to the next available slot. **Never back off the slotted nut to achieve alignment with the hole in the stud.** Install and spread the cotter pin.
- 13 Thoroughly clean the tapered hole of the steering knuckle for the outer tie rod end. Reattach tie rod end to the steering knuckle. Torque the original slotted nut to 36 ft. lb. (49 N-m).
- 14 If included, install the grease fitting into the ball joint and lubricate with a good grade of chassis grease.
- 15 Install the wheel and torque to O.E. specifications and lower the vehicle to the floor.
- 16 Align the front end of the vehicle to specifications. A check of the wheel balance is recommended.

NOTE: The parts in this kit are designed to replace the worn or nonfunctioning original equipment parts in the vehicle as produced by the vehicle manufacturer. These parts are not designed for installation on vehicles where the vehicle suspension and/or steering systems have been modified for racing, competition, or any other purpose.

CAUTION: This kit may contain selftapping grease fitting(s) for threaded or non-threaded holes.

