

From the Garage

by Paul Hunter

Oil or Grease in the steering gearbox?

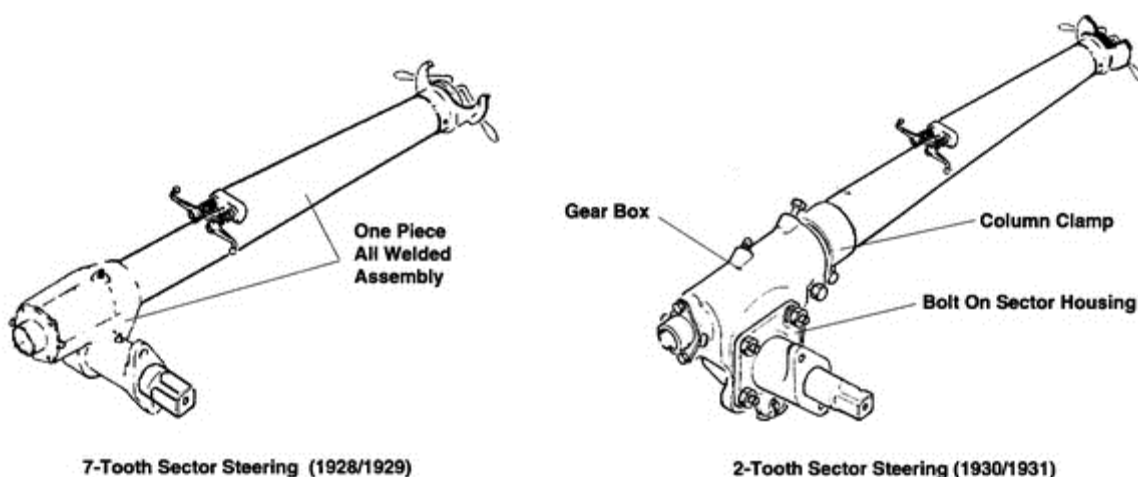


Photo courtesy of Les Andrews Model A Ford Mechanics Handbook Vol1

When the Model A was first manufactured, the fill port for the steering gearbox was a Zerk grease fitting, identical to all others on the car. However, all owner's manuals and service bulletins issued at the time, warned emphatically that only 600W oil should be used as lubrication for the steering gearbox. Grease is unable to function in the steering gearbox because the **worm and sector**, like other gearing (for example, the transmission and differential) must be operated in an oil bath at all times, due to high-pressure action of the moving parts. Standard grease is a non-fluid lubricant and a coating of it is quickly worn off the mating surfaces. It's also a valueless lubricant in the steering box, since the worm action will "bore a hole" through grease and leave load-bearing parts uncoated. Ford engineers were aware of this problem and soon realised that owners and service personnel were ignoring the warnings, resulting in premature wear in steering boxes, their solution was to replace the grease fitting with a pipe plug and to issue more warnings.

So what do we use today SAE250/ISO600 weight oil or a modern grease? There are pros and cons for both, the important issue is making sure that the worm and sector run in a liquid lubricant. We now have a choice as there are newer types of "liquid greases" that have excellent flow characteristics that would make them more suitable for our needs and in using liquid greases, perhaps the issues with oil seepages from the steering box may be resolved. There are now available liquid greases such as Penrite's Steering Box Lube, suitable for veteran/vintage and some classic car steering boxes, this is a high viscosity "self-leveling" grease featuring non-corrosive extreme pressure additives to provide film strength. Ross Bolton has been running a BP liquid grease for some time in his 1930 Town Sedan and reports no issues.

Check your steering box fluid level and keep it topped up, as every little bit helps your Model A to steer better.