Re: Lubrication of king pins PV 444 - 445

If the king pins are lubricated with excessively high pressures, the seal washers can be pushed out. The following measures decrease the risk for such pressures occurring.

A. In our production, the steering knuckles have now a drain groove in the mating surface with the steering knuckle retainer. This allows grease to pass out when the space is full.

B. While greasing is being carried out, the front end of the car should be jacked up to unload the wheels.

C. In order to ensure that the grease reaches all the lubricating points, the grease gun is usually designed to work with a pressure that is 40 - 50 times greater than the compressor pressure. Under certain conditions lubricating pressures of up to 500 kg/cm² (7100 p.s.i.*) can occur and can force the seal washers out of position. A relief valve should thus be fitted in the compressed air line between the compressor and the greaser or in some other position recommended by the manufacturers of the greasing plants concerned.

In this case the axial clearance between the steering knuckle and its retainer has a certain significance. When this clearance is being adjusted, as many shims should be added that the frictional moment when turning the knuckle exceeds 45 kg·cm. (3 lb·ft). If a spring balance, for example, is fitted to the knuckle cotter pin hole, it should not show a higher reading than 3 kg (6 1/2 lb.) when a pull is exerted at right angles to the knuckle.