SECTION 4

SPECIFICATIONS

DIFFERENTIAL LUBRICATION

It is not our intent to recommend any particular brand or make of lubricant for the Spicer hypoid axle. However, an S.A.E. 80W-90 multi-purpose gear lubricant meeting Mil. Spec. L-2105-C, and suitable for [1]A.P.I. Service Classification GL-5, is suggested as a minimum requirement.

IMPORTANT

Motor vehicles are operated under various requirements, conditions, and environments. This manual specifies the minimum requirements that the lubricants should meet. However, it is recommended that the lubricants specified by the vehicle manufacturer be used. They may provide additional lubricating characteristics which may be required for your vehicle's operation. Contact your local service dealer or refer to your owner's manual for obtaining the proper lubricant specification.

AXLE LUBRICANT CHANGE SCHEDULE

The following schedule is a suggested lubricant change schedule. Lubricant in your vehicle may require more frequent changes depending upon the environment in which it is operated in. Contact your local service dealer or refer to your owner's manual for obtaining the proper lubricant change schedule for your vehicle.

Drain lubricant at first oil change and refill with specified lubricant. FOR NORMAL ON HIGHWAY USE, change lubricant every 100,000 miles or 24 months, whichever comes first. FOR OFF HIGHWAY, SANDY, DUSTY, OR WET CONDITIONS, change lubricant every 25,000 miles or 6 months, whichever comes first.

Lubricant may be drained by removing the carrier cover plate. This also allows for visual inspection of the internal components. Follow the service procedure in the manual for reassembly of the cover plate.

WHEEL BEARING LUBRICATION

Wheel bearings are lubricated by packing with grease. For grease packing it is recommended that a [2]N.L.G.I. No. 2 lithium EP grease suitable for automotive wheel bearings be used. Contact your local vehicle service dealer or refer to your owner's manual for obtaining the proper lubricant specification, and maintenance schedule.

SUBMERSION OR DEEP WATER FORDING

If the vehicle is exposed to water deep enough to cover the hubs, it is recommended that the wheel ends be diassembled and inspected for water damage and/or contamination.

In the event the carrier housing should become submerged in water, particularly if over the breather, it is recommended that the hypoid gear lubricant be drained and internal parts be inspected for water damage and/or contamination.

Clean, examine, and replace damaged parts if necessary, prior to assembling the housing cover and refilling with the specified hypoid lubricant.

NOTE

If the hubs are exposed to deep water, it is possible that the water could enter the carrier at the point the axle shaft enters the tube in the wheel end. This could also necessitate the draining of the hypoid lubricant as described above.

It is recommended that whenever bearings are removed, they be replaced with new ones, regardless of mileage.

[1]A.P.I. - American Petroleum Institute
[2]N.L.G.I. - National Lubricating Grease Institute

RTV SILICONE RUBBER SEALER SPECIFICATION

Sealant material must meet specification of [1]A.S.T.M. 1, GE 503, Z1, Z2, Z3.

FASTENER STRENGTH IDENTIFICATION

IMPORTANT

Whenever fasteners are replaced, it is very important that the fastener be replaced with one of equal or higher grade and quality. Fasteners should be torqued as recommended or specified for the application.

WARNING

IF FASTENERS OF A LOWER GRADE OR CLASS ARE TORQUED TO THE REQUIREMENTS OF A HIGHER GRADE OR CLASS FASTENER, IT MAY RESULT IN COMPONENT FAILURE. (E.G. GRADE 5 FASTENER TORQUED TO THE REQUIREMENTS OF A GRADE 8 FASTENER.)

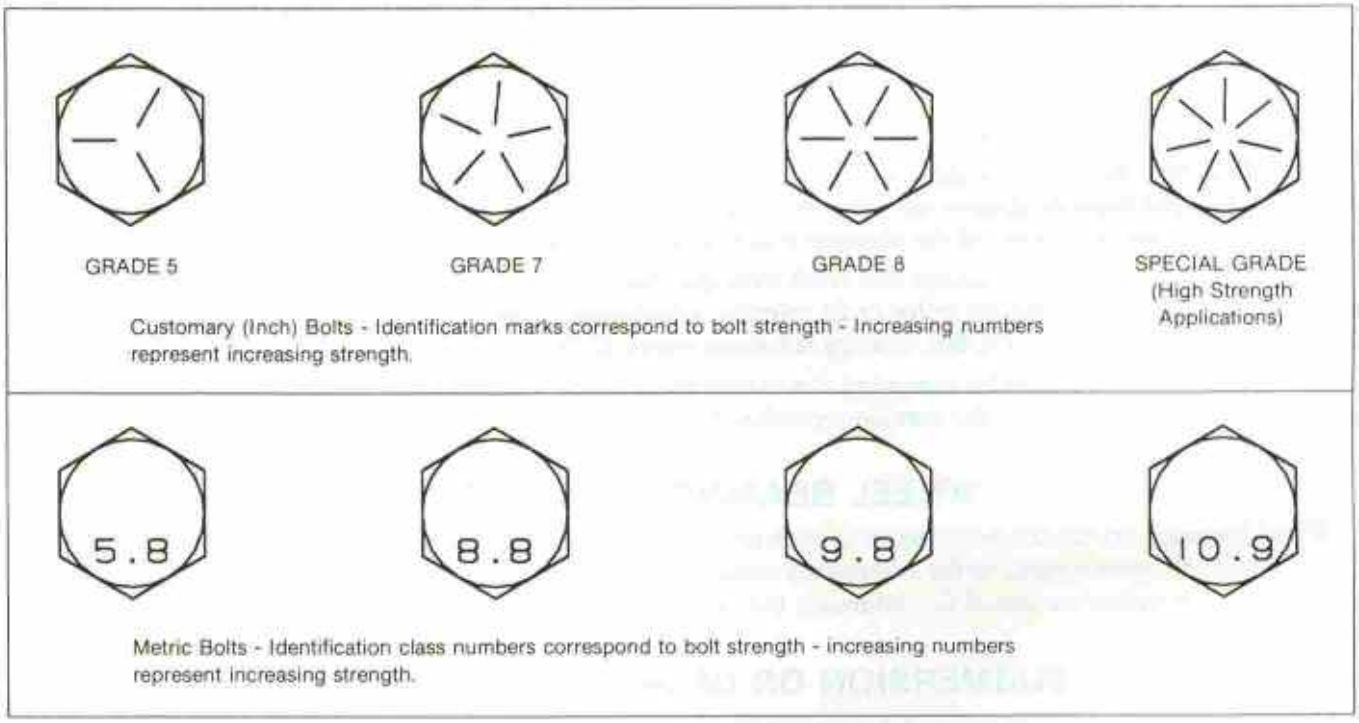

Figure 4-1

Inch grade fasteners can be identified by the radial lines embossed upon the head of the fastener and will correspond to the fastener strength by two-lines less than actual grade (i.e. grade 8 fastener will display 6 radial lines on the head).

Metric fastener strength can be identified with the class identification embossed on the head of each fastener. Increasing numbers represent increasing strength.

[1]A.S.T.M. - American Society for Testing and Material

WRENCH TIGHTENING TORQUE SPECIFICATIONS

	LBS. FT.	N•m
Cover Screws	35	47.5
Differential Bearing Cap Screws	80	108.5
Drive Pinion Nut	470	637.2
Fill Plug	25	33.9
Ring Gear Screws	220	298.3

PINION BEARING AND DIFFERENTIAL BEARING PRELOAD SPECIFICATION

	LBS. IN.	N•m
Torque to Rotate Drive Pinion Only (New bearings only)	20-40	2.26 - 4.52
Torque to Rotate Drive Pinion and Differential Case Assembly (Less Axle Shafts) (New bearings only)	SEE NOTE 1	

BACKLASH SPECIFICATION

Drive Gear to Drive Pinion ..... .005 - .008 (.13 - .20 mm)

DRIVE PINION GEAR DEPTH SPECIFICATION

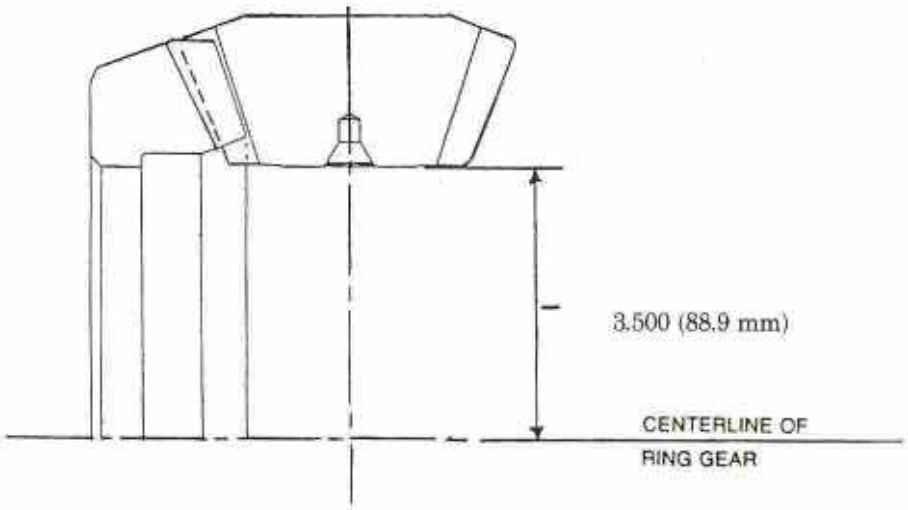

Figure 4-2

The pinion setting dimension is measured from the centerline of differential carrier (center line of ring gear) to face of pinion (button), plus or minus the etch on the button of the pinion. This dimension must be held within ± .002 in (.05 mm). For example: The model 80 pinion setting dimension is 3.500 (88.9 mm). If the pinion etch is a +2, this dimension becomes 3.502 (88.95 mm).

WHEEL BEARING SPECIFICATION

SPECIFIED BY VEHICLE MANUFACTURER. CONTACT YOUR LOCAL VEHICLE SERVICE DEALER OR REFER TO YOUR VEHICLE SERVICE MANUAL FOR OBTAINING THE PROPER WHEEL BEARING SPECIFICATION.

Notes:

(1) Torque to rotate drive pinion only plus 6-8 lbs. in. (.68 - .90 N•m) for ratios 4.63 to 5.13.