

API GEAR LUBRICANT CLASSIFICATION

API SYSTEM OF LUBRICANT SERVICE DESIGNATIONS FOR AUTOMOTIVE MANUAL TRANSMISSIONS AND AXLES- SAE J308b

This system is intended to assist the users of automotive equipment in the selection of differential and manual transmission lubricants for field use, and to promote a uniform practice for use by marketers of lubricants and by equipment buyers in identifying and recommending these lubricants by type of service.

The table below shows the various gear lubricant classifications.

API GEAR LUBRICANT CLASSIFICATION

API GL-1 - This service is in automotive spiral-bevel and worm-gear axles and some manual transmissions operated under conditions so mild that straight mineral oil will work satisfactorily. Oxidation and rust inhibitors, deformers and pour depressants may be used to improve the oil. Fraction modifiers and extreme pressure agents may not be used.

API GL-2 - This service is in automotive worm-gear axles operating under such a load, temperature and sliding velocity that API GL-1 lubricants are not satisfactory.

API GL-3 - This service is in spiral-bevel axles and manual transmissions under moderately severe speed and load, where API GL-2 lubricants are not satisfactory.

API GL-4 - This service is characteristic of automotive gears, particularly hypoid*, operated under high speed, low torque, and low speed, high torque conditions.

API GL-5 - This service is characteristic of automotive gears, particularly

API GL-6 - This service is characteristic of gears with very high pinion offset. Original GL-6 test equipment and procedures are obsolete.

API-MT-1 - This service is in non-synchronized manual transmissions used in buses and heavy-duty trucks.