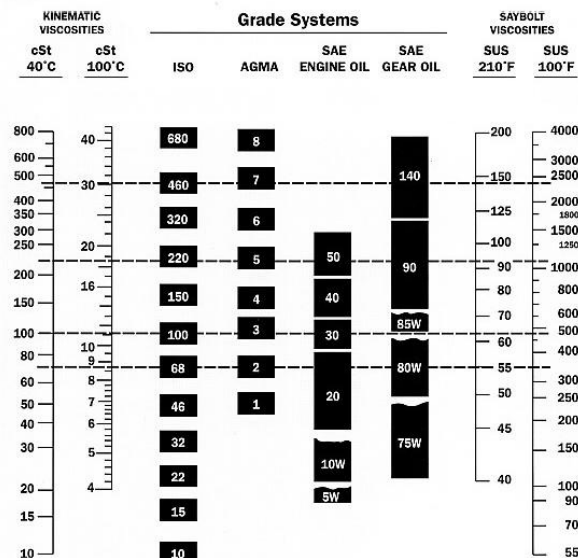


Oil Recommendations – Soviet Motorcycles

Model	Engine	Gearbox	Final Drive
IMZ Ural OHV 650cc and Sidevalve 750cc	Detergent Straight 40 or 50 in summer. See note 3 below.	Spec: GL4 or GL5. 75w/85 or 75w/90 Older specs:- 'Light EP80' for winter or EP90 for summer.	Spec: GL5 80w/90
KMZ Dnepr OHV 650cc	Detergent 20w/50	Dnepr 4 speed & reverse gearboxes Spec: GL4 (Not GL5, see note 2 below) 75w/85 or 75w/90 Older specs:- 'Light EP80' for winter or EP90 for summer.	Spec: GL5 80w/90
Two strokes:- (IZH Jupiter /Planeta, Voskhod, Tula, Riga etc)	Mineral two stroke oil at 25:1 NB If you use synthetic oil AND run at 50:1 then you may need to weaken the mixture.	Spec: GL4 or GL5 75w/85 or 75w/90 Not synthetic. Older specs:- 'Light EP80' for winter or EP90 for summer. NB The thicker the oil then the slower the clutch will be to engage, a thin oil will give quicker clutch engagement.	Use engine oil or gear oil in enclosed chain cases & chain spray on exposed chains.
IMZ Ural OHV 750cc	IMZ recommendation:- Detergent 20w/50	IMZ recommendation:- Detergent 20w/50. COC recommendation is to use a gear oil such as 75w/90 see note 4 below.	Spec: GL5 80w/90

Notes:

- The old EP grades have been replaced by the GL4 specification.
- The old Hypoy grades designed for highly loaded 'hypoid' gears have been replaced with GL5. Many GL5 oils contain additives that attack bronze/brass and so must not be used in the Dnepr 4 speed & reverse gearboxes that have such bushes. Those GL5 grades that are suitable have a note on the bottle to say they are safe with older car synchromesh gearboxes that of course do contain bronze/brass components.
- Multigrade engine oils such as 20w/50 are not recommended for the 650cc OHV engines, though many owners use such with no apparent problems. The wide operating temperature range of a multigrade is an advantage in very cold weather, the long chain molecules in a multigrade to facilitate sliding in plain bearings is a disadvantage for older roller bearing engines.
- Engine oil viscosities are measured at engine operating temperatures that are higher than the temperatures used to measure the viscosity of gear oils. Thus a 30 grade engine oil is a similar viscosity to a 80 grade gear oil, see chart below. Thus a 20w/50 engine oil that IMZ recommend for a gearbox is very similar viscosity to a 75w/90 gear oil that is actually designed for use in a gearbox.



Viscosities can be related horizontally only. For example, the following oils have similar viscosities: ISO 460, AGMA 7 and SAE GEAR OIL 140.
The viscosity/temperature relationships are based on 95 VI oils and are usable only for mono grade engine oils, gear oils and other 95 VI oils.
Crankcase oils and gear oils are based on 100°C viscosity. The "W" grades are classified on low temperature properties. ISO oils and AGMA grades are based on 40°C viscosity.