



Lube Type & Rate Recommendations

TABLE 6-2: CYLINDER/PACKING LUBE OIL RECOMMENDATIONS FOR VARIOUS GAS STREAM COMPONENTS

GAS STREAM	CYLINDER DISCHARGE PRESSURE				
	< 1000 PSIG < (70 bar _g)	1000 TO 2000 PSIG (70 to 140 bar _g)	2000 TO 3500 PSIG (140 to 240 bar _g) ^A	3500 TO 5000 PSIG (240 to 345 bar _g) ^A	> 5000 PSIG > (345 bar _g) ^A
Pipeline Quality Natural Gas Including CNG (Dry)	SAE 40 wt. ISO 150 1 x Base Rate or Various Synthetics 1 x Base Rate	SAE 40-50 wt. ISO 150 - 220 1.25 x Base Rate or Various Synthetics 1 x Base Rate	SAE 50 wt. ISO 220 w/ Compounding 1.5 x Base Rate or Various Synthetics 1.25 x Base Rate	Cylinder Oil ISO 320 - 460 w/ Compounding 2 x Base Rate or Synthetic - Diester/Polyglycol 1.5 x Base Rate	Cylinder Oil ISO 460 - 680 w/ Compounding 3 x Base Rate or Synthetic - Polyglycol 2 x Base Rate
Natural Gas (Water Saturated and/or Heavy hydrocarbons ^B Methane < 90% Propane > 8% SG > 0.7)	SAE 40 - 50 wt. ISO 150 - 220 1.25 x Base Rate or Various Synthetics 1 x Base Rate	SAE 50 - 60 wt. ISO 220 - 320 or SAE 40 wt. ISO 150 w/ Compounding 1.5 x Base Rate or Var. Synthetics 1.25 x Base Rate	Cylinder Oil ISO 460 - 680 w/ Compounding 2 x Base Rate or Various Synthetics 1.5 x Base Rate	Cylinder Oil ISO 680 w/ Compounding 3 x Base Rate or Synthetic - Diester/Polyglycol 2 x Base Rate	Contact Lubricant Supplier
Natural Gas (Water Saturated and Carbon Dioxide > 2% to 10%)	SAE 40 - 50 wt. ISO 150 - 220 1.25 x Base Rate or Various Synthetics Base Rate	SAE 50 - 60 wt. ISO 220 - 320 or SAE 40 wt. ISO 150 w/ Compounding 1.5 x Base Rate or Var. Synthetics 1.25 x Base Rate	Cylinder Oil ISO 460-680 w/ Compounding 2 x Base Rate or Synthetic PAG 1.5 x Base Rate	Cylinder Oil ISO 680 w/ Compounding 3 x Base Rate or Synthetic PAG 2 x Base Rate	Contact Lubricant Supplier
Natural Gas (Water Saturated and Carbon Dioxide ≥ 10%)	SAE 40 - 50 wt. ISO 150 - 220 1.5 x Base Rate or Various Synthetics 1.25 Base Rate	SAE 50 - 60 wt. ISO 220 - 320 or SAE 40 weight ISO 150 w/ Compounding 2 x Base Rate or Var. Synthetics 1.5 x Base Rate	Cylinder Oil ISO 460-680 w/ Compounding 3 x Base Rate or Synthetic PAG 2 x Base Rate	Cylinder Oil ISO 680 w/ Compounding 4 x Base Rate or Synthetic PAG 3 x Base Rate	Contact Lubricant Supplier
Natural Gas (Water Saturated and H ₂ S > 2% to 30%)	SAE 40 wt. ISO 150 w/ Compounding 1.25 x Base Rate or Various Synthetics 1 x Base Rate	SAE 40 - 50 wt. ISO 150 - 220 w/ Compounding 1.5 x Base Rate or Various Synthetics 1.25 x Base Rate	SAE 50 wt. ISO 220 w/ Compounding 2 x Base Rate or Various Synthetics 1.5 x Base Rate	SAE 60 wt. ISO 320 w/ Compounding 3 x Base Rate or Various Synthetics 2 x Base Rate	Cylinder Oil ISO 460 - 680 w/ Compounding 4 x Base Rate or Various Synthetics 3 x Base Rate



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Natural Gas (Water Saturated and H ₂ S ≥ 30%)	SAE 40 wt. ISO 150 w/ Compounding 1.5 x Base Rate or Various Synthetics 1.25 Base Rate	SAE 40 - 50 wt. ISO 150 - 220 w/ Compounding 2 x Base Rate or Various Synthetics 1.5 x Base Rate	SAE 50 wt. ISO 220 w/ Compounding 2.5 x Base Rate or Various Synthetics 2 x Base Rate	SAE 60 wt. ISO 320 w/ Compounding 3.5 x Base Rate or Various Synthetics 2.5 x Base Rate	Cylinder Oil ISO 460 - 680 w/ Compounding 5 x Base Rate or Various Synthetics 3 x Base Rate
Air	SAE 40 wt. ISO 150 Air Compressor Oil 1 x Base Rate or Various Synthetics 1 x Base Rate	SAE 50 wt. ISO 220 Air Compressor Oil w/ Compounding 1.5 x Base Rate or Various Synthetics 1.25 x Base Rate	Synthetic - Diester 1.5 x Base Rate	Contact Lubricant Supplier	Contact Lubricant Supplier
Wet Air (Water Saturated)	SAE 40 - 50 wt. ISO 150 - 220 Air Compressor Oil w/ Compounding 1 x Base Rate or Various Synthetics 1 x Base Rate	Synthetic - Diester 1.5 x Base Rate	Synthetic - Diester 2 x Base Rate	Contact Lubricant Supplier	Contact Lubricant Supplier
Nitrogen (Bone Dry - Contact Ariel)	SAE 40 wt. ISO 150 1 x Base Rate or Various Synthetics 1 x Base Rate	SAE 40 - 50 wt. ISO 150 - 220 1 x Base Rate or Various Synthetics 1 x Base Rate	SAE 50 wt. ISO 220 1 x Base Rate or Various Synthetics 1 x Base Rate	SAE 60 wt. ISO 320 1 x Base Rate or Various Synthetics 1 x Base Rate	Cylinder Oil ISO 460 - 680 1 x Base Rate or Various Synthetics 1 x Base Rate
Propane ^C (Refrigerant)	SAE 40 wt. ISO 150 or Refrigerant Oil 0.5 x Base Rate or Various Synthetics 0.5 x Base Rate	SAE 40 wt. ISO 150 or Refrigerant Oil 1 x Base Rate or Various Synthetics 1 x Base Rate	Refrigerant Oil Contact Lubricant Supplier	Refrigerant Oil Contact Lubricant Supplier	Refrigerant Oil Contact Lubricant Supplier

A. Also requires water cooled packing (except cylinders on JG, JGA, JGM, JGN, JGP, JGQ & JGI).
 B. Lean burn engine oils contain detergents, dispersants and ash additives, which hold water in suspension. This suspension does not provide adequate lubrication in the cylinder and packings.
 C. Verify oil pour point temperature is below inlet gas temperature.
 D. Reference Table 6-3 for base rate.