

Approved List of Lubricants

for Cone Drive Double Enveloping Worm Speed Reducers & Gearsets

CENTER DISTANCE	WORM SPEED (RPM)	† AMBIENT TEMPERATURE		‡ WORM SPEED ABOVE (RPM)	‡ AMBIENT TEMPERATURE	AGMA LUBRICANT NUMBER	VISCOSITY RANGE		
		-10°C to +10°C (14°F to 50°F)	+10°C to +50°C (50°F to 125°F)				ASTM SYSTEM		ISO GRADE
							SUS@210°F	SUS@100°F	CST@40°F
Up to 6" inclusive	0-700	8 Comp.	8A Comp.	700	-10°C to +50°C (14°F to 125°F)	7 Comp.	125-150	1919-2346	ISO460 (414-506)
Over 6" to 12"	0-450	8 Comp.	8A Comp.	450		8 Comp.	150-190	2837-3467	ISO680 (612-748)
over 12" to 18"	0-300	8 Comp.	8A Comp.	300		8 Comp.	190-250	4171-5098	ISO1000 (900-1100)
Over 18" & above	0-200	8 Comp.	8A Comp.	200		8 Comp.			

MANUFACTURER	AGMA #8 COMPOUND (NON-E.P.)			AGMA #8A COMPOUND (NON-E.P.)		
	BRAND NAME	P.P.F.	SUS@210°F	BRAND NAME	P.P.F.	SUS@210°F
Distributed by Cone Drive/Textron, Inc. expressly from Mobil Oil Corp.	Uptime 600W Super Cylinder Oil	10	155	Uptime Extra Hecla Super Cylinder Oil	20	198
Amoco	Cylinder Oil 680	15	200	Cylinder Oil 1000	15	243
BP Oil NOT AVAILABLE IN THE U.S.				Energol DC-C 1000	6	1000 CST
Behnke Lubricants Inc.	Jax Super Cylinder	30	190	Jax Super Cylinder	15	243
Bel-Ray Company, Inc.	Steam Cylinder Oil 150	5	167	Steam Cylinder Oil 250	10	205
Bel-Ray Company, Inc.	No-Tox Worm Gear Lube (FOOD GRADE H1) Oil ISO 680	5	216	No-Tox Worm Gear Lube (FOOD GRADE H1) Oil ISO 1000	5	292
Cato Oil and Grease Corp.	Mystik Power Lube #680	5	212	Mystik Power Lube #1000	5	315
Century Lubricating Oils, Inc.	Garwal #680	35	183			
Chevron Products Comp.	Cylinder Oil W-ISO #680	10	191	Cylinder Oil W-ISO #1000	10	252
Citgo Petroleum Corp.	Cylinder Oil #680-7	15	193			
Conoco Inc.	Inca Oil #680	30	165	Inca Oil #1000	35	211
Dryden Oil Company Inc.	Worm Gear Oil #680	20	180	Worm Gear #1000	20	222
Engineered Lubricants	Enlubol SCO-3400	15	685CST	Enlubol SCO-193 Comp.	15	916CST
Exxon Company	Cyclesstic TK 680	20	184	Cyclesstic TK 1000	30	227
Fina Oil Company	Cylan Steam Cyl. Oil 680	20	175			
Fiske Brothers Refining	Lubriplate CP-8	22	160	Lubriplate CP-8A	35	230
Fiske Brothers Refining	*Lubriplate SPO-288	20	173			
Huls	PQ-AGMA#8	10	175			
Imperial/Esso Oil	Cylesso TK 680	37	680 CST	Cylesso TK 1000	37	925 CST
Kendall Motor Oil Company	Kendco 155 Comp.	25	177	Kendco 206 Comp.	35	229
Lubrication Engineers	680 Almasol	15	191			
Lyondell Lubricants	Modoc #175	30	190			
Mobil Oil Corp.	600W Super Cyl. Oil	20	155	Extra Hecla Super Cyl. Oil	30	200
Pennzoil Products Company	Cylinder Oil #680	30	680 CST	Cylinder Oil #1000	30	1000 CST
Pennzoil Products Company	Cylinder Oil #6-NR	36	680 CST			
Phillips 66 Company	Hector 630-S	10	172			
Primrose Oil Company				243 Cylinder Oil #8A	15	220
Schaeffer Mfg. Company	#147 Steam Cylinder Oil	10	190			
Shell Oil Products Company	Valvata J-680	20	650 CST			
Sunoco	Sun Gear Oil 8C	10	677			
Texaco Lubricants Company	Vanguard 680	20	190	Vanguard 1000	25	220

Approved List of Lubricants (continued)

for Cone Drive Double Enveloping Worm Speed Reducers & Gearsets

MANUFACTURER	BRAND NAME -SYNTHETICS
Distributed by Cone Drive/Textron, Inc expressly from Mobil Oil Company	*Uptime SHC634 Synthetic Lubricant
Henkel Corp./Emery Group	*Emery-2843 Synthetic Lubricant
Keystone / Atochem	*Keystone KSL-367 Synthetic Lubricant
Mobil Oil Corp.	*Mobil SHC634 Synthetic Lubricant
Texaco Lubricants Co.	*Pinnacle 460 Synthetic Lubricant

BEARING GREASE: High quality lithium base NLGI #2 or NLGI #3

NOTES:

- Note #1** The listed synthetic lubricants are acceptable for use as an AGMA #7, AGMA #8 and AGMA #8A. AGMA #7 lubricants are primarily used in force feed lubrication systems or other special applications.
- Note #2** Worm gears operating at a sliding velocity in excess of 10 m/s (2,000 ft. per min.) may require force feed lubrication. For force feed lubrication recommendations, see Cone Drive Product Catalog or contact Cone Drive Engineering.
- Note #3** Major oil companies, not on the above list, do not have products which meet the requirements of AGMA. #9005-D94
- Note #4** **Manufacturers** listed above, **in bold print**, have product available world wide. Contact a listed manufacturer for availability in your area.
- Note #5** All lubricants are listed per the manufacturers recommendation.
- Note #6** (*) This is a special lubricant, not an AGMA compound
- Note #7** Centistoke viscosity values are at 40 centigrade
- Note #8** **If a Cone Drive reducer is to be operated at an input rpm other than that shown on the name plate, contact Cone Drive Engineering Department for recommendations.**
- Note #9** For double and triple reduction reducers an ISO 1000 (AGMA #8A) lubricant can be used in the primary as well as the final reduction stages.
- Note #10** Pour point of the oil used should be 5° C (9° F) less than the minimum ambient temperature expected. For special temperature or operating conditions, contact Cone Drive Engineering Department for the proper lubrication selection.
- Note #11** AGMA specifications require a viscosity index (VI) of 90 (min.). However, lubricants listed with a VI of less than 90 may be used if a recommended lubricant with a VI of 90 (min.) is not available.