



LUBRICATION

LUBRICATION MAINTENANCE

1. Lubricant should be drained from a new gear unit after 500 hours of operation. Then the gear unit should be flushed with a flushing oil and refilled to the proper level.
2. Under normal operating conditions, the lubricant should be changed every 2,500 hours of operation or every six (6) months, whichever comes first. Under adverse operating conditions such as extreme temperature variation, high moisture or abrasive atmospheres, the lubricant should be changed more frequently. To determine the frequency,

have the lubricant checked periodically. SUMITOMO MACHINERY CORP. OF AMERICA should be consulted when adverse atmospheric conditions are encountered.

3. Every day visually inspect the Sumitomo gear units for oil leaks and listen for unusual sounds. Check any gauges if the drive is so equipped. If anything is amiss, shut down immediately and determine the cause.
4. Once a week, check the oil level and add oil as needed. If adding oil is recurrent, or excessive amounts of oil are required, check the gear unit for a leak.
5. When the lubricant in the gear unit is changed, inspect the lubricant for foreign matter. This will be a good indication of impending problems. Often during "run-in" very small pieces of metallic particles will be present in the oil. They will be removed with the first oil change and their presence will greatly diminish in time. If the gear unit is equipped with a pressure lubrication system, inspect the system completely when the lubricant is changed.
6. Some bearings and/or heavy duty seal systems are grease lubricated. Fittings are supplied for grease feed and relief. Replenish grease with NLGI No. 2 every 1500 hours of operation or every 3 months, whichever comes first.
7. Refer to specific manuals for specific equipment.

METHOD OF LUBRICATION

TYPE	SIZE	INPUT SPEED: n	
		n < 750 RPM	750 RPM ≤ n ≤ 1800 RPM
Horiz.	8015 to 8135	Oil bath Higher oil level than standard	Oil bath and splash Standard oil level
Vertical	8015 to 8085	Forced lubrication by motor driven pump	Forced lubrication by shaft driven pump
	8090 to 8135	Forced lubrication by motor driven pump (shaft driven – consult factory)	

RECOMMENDED LUBRICANT GRADES

Reducer Sizes	Output Speed	AGMA lubricant numbers ambient temperature C° (F°)			
		-40 to -10 (-40 to +14)	-10 to +10 (14 to 50)	10 to 35 (50 to 95)	35 to 55 (95 to 131)
8015 - 8035	To 400 RPM	3S	4	6	8
8015 - 8035	401-1100 RPM	3S	3	5	7
8045 - 8065	To 250 RPM	3S	4	6	8
8045 - 8065	251 - 750 RPM	3S	3	5	7
8075 - 8085	To 200 RPM	3S	4	6	8
8075 - 8085	201 - 550 RPM	3S	3	5	7
8090 - 8115	To 120 RPM	3S	4	6	8
8090 - 8115	121 - 350 RPM	3S	3	5	7
8120 - 8135	To 75 RPM	3S	4	6	8
8120 - 8135	76 - 225 RPM	3S	3	5	7

NOTES

1. Oil grade recommendations are taken from AGMA standard 9005-D94.
2. Ambient temperature refers to the air temperature surrounding the reducer (not necessarily the outside ambient temperature).
3. Grades with suffix 's' denote synthetic gear lubricant. Synthetic versions of other grades may be substituted where deemed necessary.
4. For output speeds in excess of those noted above and very low output speeds (< 1 RPM) – consult factory for oil recommendation.

TYPICAL PRODUCTS

MANUFACTURER	AGMA GRADE					
	3EP	4EP	5EP	6EP	7EP	8EP
AMOCO	Permagear EP LUB 100	Permagear EP LUB 150	Permagear EP LUB 220	Permagear EP LUB 320	Permagear EP 460	Permagear EP 680
MOBIL	Mobilgear 627	Mobilgear 629	Mobilgear 630	Mobilgear 632	Mobilgear 634	Mobilgear 636
EXXON	Spartan EP100	Spartan EP150	Spartan EP220	Spartan EP320	Spartan EP460	Spartan EP680
CHEVRON	Gear Compound EP 100	Gear Compound EP 150	Gear Compound EP 220	Gear Compound EP 320	Gear Compound EP 460	Gear Compound EP 680
SHELL	Omala 100	Omala 150	Omala 220	Omala 320	Omala 460	Omala 680
TEXACO	Meropa 100	Meropa 150	Meropa 220	Meropa 320	Meropa 460	Meropa 680
SUNOCO	—	Sunep 150	Sunep 220	Sunep 320	Sunep 460	Sunep 680

Lubricants above are typical products ONLY and should not be construed as exclusive recommendations. Synthetic alternatives available upon request.