

DBS Lubrication & Maintenance Schedule

For E / F Type Drives

A DBS drive unit is made up of several speed reducers coupled together. Every speed reducer is totally enclosed and lubricated. The recommended lubricants and oil change intervals are listed in this section. Some gearboxes are sealed and permanently lubricated, and require no further service. Proper care of your drive unit will ensure long machine life. Always maintain proper oil levels and follow the recommendations below.

BASIC LUBRICATION AND MAINTENANCE SCHEDULE

	All Drives	F Type Drive	E-Type Drive
Storage (>30 Days)	Add oil to the main gear housing.		
First 10 Days		Replace filter.	
Every Week	Inspect oil in the main gear housing.		
Every Month	On DE-_X models & DF-_X models, grease main bearing grease fitting 6 pumps while running.		
Every 3 Months		Replace filter.	Grease worm box top bearing.
Every 6 Months	On "D" models, change oil in the main gear housing.		
Every 1 Year	On "S" models, change oil in the main gear housing.	Change oil.	
Every 10 Years	Inspect all reducers, overhaul as required.		

SEVERE ENVIRONMENT LUBRICATION AND MAINTENANCE SCHEDULE

The time interval specified in the basic lubrication and maintenance schedule should be reduced if the following conditions exist:

1. High humidity, dust or dirt, and/or corrosive chemical atmosphere.
2. **Water Contamination** - Check for any accumulated water in the main gearbox and drain condensate as required. The frequency will depend on the amount of humidity in the atmosphere. The gearbox should be checked weekly until it is determined how quickly the condensate accumulates.

PROCEDURES TO REPLACE HYDRAULIC FILTER—F-TYPE.

1. Turn the machine off and wait 2 minutes for the oil in the filter to drain.
2. Unscrew the filter counterclockwise slowly until the seal is broken. Allow one additional minute to drain the filter; then remove the old filter. Wipe off the surface where the filter contacts the lid.
3. Put a layer of oil on the new filter gasket surface. Tighten new filter 3/4 of a turn after seal contacts base.

PROCEDURES TO CHANGE GEAR/BEARING OIL (EXCEPT “_-X” DRIVES)

1. Turn the machine off; drain the old oil by opening the drain valve or removing the drain plug.
2. Close the drain valve. Slowly add new oil through the inspection port on drive unit top deck until the oil level reaches the range on the dip stick. Do not over fill.

Recommended Lubricants And Volume

Lubricant Volume and Level

Drive Model	Main Gear/Bearing Housing		F-Primary Reducer		E-Primary Reducer Worm / Worm / Worm / Helical (Permanently Lubricated)				Planetary Gearbox (Permanently Lubricated)	
	Capacity (Gallons)	Level (depth)	Capacity (Gallons)	Level	HC 383 Full (oz)	HC 322 HC 323 Full (oz)	HC 211 Full (oz)	HC 254 Full (oz)	Capacity (oz)	Level
D_-3X S_-3X	None	N/A	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	88 oz	Full
D_-7X S_-7X	None	N/A	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	192 oz	Full
D_-10X S_-10X	None	N/A	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	300 oz	Full
D_-30-12	2.32	2."	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	70 oz	Full
D_-30-120	2.32	2."	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	85 oz	Full
D_-42-120	3.15	2."	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	85 oz	Full
D_-42-7	3.74	2."	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	170 oz	Full
D-42-22	3.74	2."	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	152 oz	Full
D-42H-22	3.74	2."	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	152 oz	Full
D_-42-10	3.44	2."	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	300 oz	Full
D_-60-10	6.66	2.25"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	300 oz	Full
D_-60-20	5.97	2.25"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	512 oz	Full
D_-60-50	5.97	2.25"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	588 oz	Full
D_-80-20	9.0	3."	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	512 oz	Full
D_-80-50	8.5	3."	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	588 oz	Full
S_-25-12	8.8	2.25"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	70 oz	Full
S__X-25	8.8	2.25"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	70 oz	Full
S_-34-12	12.1	2.38"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	70 oz	Full
S_-34-120	16.1	2.38"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	85 oz	Full
S_-44-7	19.1	2.25"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	170 oz	Full
S_-44-10	23.8	2.25"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	300 oz	Full
S_-60-10	34	2.75"	6 or 10	Full	70 oz	48 oz	20 oz	14 oz	300 oz	Full

Recommended Lubricants

Component		Recommended Lubricant	
Description	Manufacturer	Brand	Product
Type F Speed Reducer Hydraulic Power Unit	DBS Parker Hannifin	Mobil Exxon	DTE 24 (30° to 100° F) ¹ DTE 13M (-40° to 40° F) NUTOH 32 (30° to 100° F) UNIVIS N32 (-30° to 100° F)
Planetary Gearbox	Fairfield and Eskridge	Lubriplate Mobilith Chevron Texaco Exxon	MAG-00 ² SHC-007 DURALITH 00 STARFAK 00 UNIREX 00
Worm Gearbox	Hub City	Lubriplate Mobilith Chevron Texaco Exxon	MAG-00 SHC-007 DURALITH 00 STARFAK 00 UNIREX 00
Helical Gearbox	Hub City	Lubriplate Mobilith Chevron Texaco Exxon	MAG-00 SHC-007 DURALITH 00 STARFAK 00 UNIREX 00
Helical Gearbox	Nord	See instructions in Nord Section	
Variable Speed Reducer	Lenze	See instructions in Lenze Section	
Main Gear/bearing	Rotek/Avon	See table below	

Oil Type For Main Gear/Bearing

	Temperature Range ³		
	-30 to 10 F (-34 to -12 C)	0 to 40 F (-17 to 5C)	30 to 125 F (-1 to 51C)
AGMA Number	#4	#6	#8
Automotive	80W90	85W140	
Mobilgear	629	632	636
Texaco	Meropa 150	Meropa 320	Meropa 680
Exxon	Spartan EP150	Spartan EP 320	Spartan EP 680
Chevron Gear EP	ISO 150	ISO 320	ISO 680
Amoco		94492	94494

¹ The recommended hydraulic fluid should be a premium grade all-weather anti-wear rust and oxidation inhibited mineral base hydraulic oil. For continuous operation in excess of 140°F oil temperature, ISO viscosity grade 46 is recommended.

² Lubriplate MAG-00 is made by Fiske Brothers Refining Company at 129 Lockwood Street, Newark, New Jersey 07105.

³ For temperature extremes beyond those listed, synthetic lubricants are recommended.