



Hale Products, Inc. Service Bulletins

Bulletin#: Revision#: Date:

Product Type Covered: Hale Products Class 1

Product Covered:

Problem Statement:

Written by: Date:

Approved by:

Product Manager:

Customer Service Designee:

BODY OF THE BULLETIN

The recommended grade of oil for Hale gearboxes is provided in the table attached (Table C1: Oil Capacity and Recommendations). See next page, **Appendix C1: Lube and Sealant Specifications**. This table is also found in your product Installation, Operation and Service Maintenance Manual.

The Oil Capacity and Recommendations Table lists the grade of oil and approximate capacities required, as tested by Hale and found suitable for normal operating conditions.

Hale does not recommend any particular supplier / manufacturer of oil for Hale gearboxes as long as the proper grade / weight and service ratings are used.

IMPORTANT !

SHOULD THE PUMP BE OPERATING UNDER EXTREME ENVIRONMENTAL CONDITIONS (I.E., AMBIENT TEMPERATURES BELOW 0° [-18C]), CONTACT HALE PRODUCTS, INC. FOR PROPER GRADE / WEIGHT OIL TO BE USED.

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Appendix C1: Lube and Sealant Specifications

Pump	Gearbox	Approximate Capacity		Recommended Oil
		Quarts	Liters	
4DK		5	4.7	SAE 50 - above 0° F (above -18° C); Dextron III or Cognis 2803 - between -40°F to 0°F (-40° to -18°C)
APS APSM MBP MBPM 4DB SBP	B (Vertical)	2	1.9	SAE 50 80W-90; 75W-80 Synthetic
	B (Horizontal)	1.5	1.4	SAE 50 80W-90; 75W-80 Synthetic
	B (Inverted)	1.75	1.7	SAE 50 80W-90; 75W-80 Synthetic
QTWO / QMAX QPAK / QFLO / DSD QFLOPLUS / SMD	G X, L and R Series	4	3.8	SAE EP90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
SMM / QSMG / QG 8FGF / 8FGR / RGA / QMID / LGA	G S Series	3	2.8	SAE EP90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
QPAK-J	J	2	1.9	SAE EP 90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
RSD-M / RSD PSM / SMR-A	HG *	1.4	1.3	ISO 68 Grade; SAE 50W 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
QFLO-A / QPAK-A HFM / CSD / PSD	A	1	0.95	SAE 20W Non-Detergent Oil SAE 30W
PSD (Inverted)		2.5	2.4	SAE 20W Non-Detergent Oil SAE 30W
HP Portables		1.5	1.4	SAE 30W
	P	4	3.8	SAE EP 90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
A		4	3.8	SAE EP 90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
APM / AP (Inverted)		1.25	1.2	SAE EP90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
APMG MG	MGA (Horizontal or Vertical)	3	2.8	SAE EP90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
	I (Special)	3.5	3.3	SAE EP90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
CBP4 / CBP5 2CBP4 / 2CBP5	Table continued on next page	1	0.95	SAE EP90; 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)

Table C1-2: Oil Capacity and Recommendation



□ Lubricant Specifications

Pump	Gearbox	Approximate Capacity		Recommended Oil
		Quarts	Liters	
APM / AP / CBP 2CBP / CBP2 / CBP3 2CBP2 / 2CBP3		1.75	1.7	SAE EP90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
20FS 30FS		1.75	1.7	SAE EP90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)
50FBG / 80FBG 609FBG	G	3	2.8	SAE EP90 80W-90; 75W-140 Synthetic (Lubricants must meet service rating API GL-5.)

Table C1-2: Oil Capacity and Recommendation

* For domestic use, Hale recommends using an SAE EP-90, 80W-90 Lubricant or “Roadrunner” Full Synthetic SAE 50 Transmission Lubricant, manufactured by the Eaten® Corporation, or equivalent.

Grease

Use a Lithium-based grease with 1% to 3% Molybdenum Dissolved, i.e.,

- Dow Corning BR2-PLUS
- Shell Super Duty Grease
- Mobile Grease Special
- Lubricate-Fiske #3000
- Imperial #777
- Sunoco Moly #2EP

Note: For Hale SVS Torrent Stainless Valves see separate manual for additional lubrication information.

Loctite Sealant

- #246 High Temperature Removable Threadlock (or equivalent) - primarily for gearbox assembly
- #242 Medium Strength Threadlock (or equivalent) - primarily for pump assembly

Oil

See “Appendix C: Alternate Lubricant Manufacturers” on page 115.

Recommended Cleaners

- Safety Kleen®
- Stoddard Solvent

IMPORTANT ! The use and disposal of solvents / cleaners must be in accordance with your local environmental regulations.