

**Table 2 - Recommended Oil Grades**

Ambient* Temperature °F (°C)	ISO Viscosity No.
Above 90° (32°)	320
32° to 90° (0° to 32°)	220
0° to 32° (-18° to 0°)	150
Below 0° (-18°)	100

\*Ambient temperature is defined as the temperature of the space in which the blower and drive are located.

**URAI GAS Blower Oil and Grease Specifications**

The specified oil should be ROOTS® Synthetic Oil P/N 813-106-xxx of the proper viscosity.

**Table 3 - Approximate Oil Sump Capacities**

These capacities are provided to assist in stocking the correct amount of oil. Exact sump capacities may differ slightly. See “Lubrication” section for proper filling instructions.

**UNIVERSAL RAI®, URAI-J, URAI-G**

Model No./Drive shaft location	Gear End Approx. Oil Sump Capacities	
	Fl. Oz	Liters
22, 24 (left or right)	6.1	0.18
22, 24 (top or bottom)	3.4	0.1
32, 33, 36 (left or right)	10.5	0.31
32, 33, 36 (top or bottom)	8.5	0.25
42, 45, 47 (left or right)	14.5	0.43
42, 45, 47 (top or bottom)	12.7	0.37
53, 56, 59 (left or right)	27.6	0.82
53, 56, 59 (top or bottom)	16	0.47
65, 68, 615 (left or right)	52.1	1.54
65, 68, 615 (top or bottom)	28.3	0.84
76, 711, 718 (left or right)	59.5	1.76
76, 711, 718 (top or bottom)	32.3	0.96

See page 14 and 15 for illustration of vertical and horizontal configurations.

**UNIVERSAL URAI series-DSL Splash Lubricated Drive End**

Note that the gear end sump capacity is provided on the adjacent table.

Model No./Drive shaft location	Drive End Capacity	
	Fl. Oz	Liters
32, 33, 36 (left or right)	6.5	0.19
32, 33, 36(top or bottom)	4	0.12
42, 45, 47 (left or right)	10.8	0.32
42, 45, 47 (top or bottom)	5.5	0.16
53, 56, 59 (left or right)	14.8	0.44
53, 56, 59(top or bottom)	7.5	0.22
65, 68, 615 (left or right)	31	0.91
65, 68, 615 (top or bottom)	16	0.47

**Table 4 - Universal URAI series with Grease Lubricated Drive End: Specified Bearing Greasing Intervals**

Speed in RPM	Operating Hours Per Day		
	8	16	24
	Greasing Interval in Weeks		
750-1000	7	4	2
1000-1500	5	2	1
1500-2000	4	2	1
2000-2500	3	1	1
2500-3000	2	1	1
3000 and up	1	1	1

The specified grease for servicing drive end bearings of a gas blower, use a NLGI #2 premium grade aluminum complex\* grease, Roots P/N T20019001 with 300°F (149°C) service temperature and moisture resistance and good mechanical stability.

When servicing drive end bearings of non gas blower, use a NLGI #2 premium grade microgel grease with 250°F (121°C) service temperature and moisture resistance and good mechanical stability. Roots specifies Shell Darina SD2 NLGI#2. Product Code 5067628.

NOTE: Lithium based greases are not compatible with the ROOTS® Synthetic Grease used when assembling a gas blower or the non-soap base grease used when assembling a standard URAI blower. Lithium based grease is not approved for any ROOTS™ blowers.