

Baldor•Dodge Maxum XTR: Lubrication Instructions

C.O. Engineering - Gearing
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Baldor•Dodge Maxum XTR reducers are shipped sealed without lube oil. The reducer will need to be filled to the correct level with the recommended viscosity oil and the air vent will need to be installed prior to operation. The information below is provided for applications with the foundation below the shafts and in the horizontal plane. Contact Baldor•Dodge if the reducer is being mounted on an incline.

The air vent should replace the larger of the two pipe plugs in the top of the reducer housing. One oil sight plug is provided with the gear reducer and is installed in the high side plug hole at the factory. Based on output speed, the plug may need to be relocated to the low side plug hole on the opposite side of the housing. Refer to Table 1 to identify the appropriate oil sight plug location. Fill the reducer to the center of the oil site plug with recommended lubricant. Lubricant capacities shown in Table 1 are approximate. Mineral based or synthetic oils with EP additives are the preferred lubricant for reducers without backstops. Mineral based or synthetic oils without EP additives are suitable for reducers with backstops. ISO viscosity recommendations based on operating conditions are provided in Table 2. Consult Baldor•Dodge for ambient conditions beyond those listed.

Table 1 – Oil Level & Sump Capacity

Reducer Size	Output Speed (RPM)	Side Hole Location for Oil Sight Plug	Oil Capacity (U.S. Gallons)
CR50	Above 250	Low	1.7
	250 & Below	High	2.7
CR60	Above 225	Low	2.7
	225 & Below	High	4.8
CR70	Above 205	Low	3.2
	205 & Below	High	5.6
CR80	Above 180	Low	4.6
	180 & Below	High	8.3
CR90	Above 150	Low	7.2
	150 & Below	High	12.2
CR100	Above 135	Low	7.7
	135 & Below	High	13.0
CR110	Above 122	Low	11.5
	122 & Below	High	19.3
CR120	Above 107	Low	14.9
	107 & Below	High	22.6
CR130	Above 95	Low	17.6
	95 & Below	High	28.0

Table 2 – Oil Viscosity Recommendations

ISO Grades For Ambient Temperatures of 15° to 60° F									
Output RPM	Reducer Size								
	CR50	CR60	CR70	CR80	CR90	CR100	CR110	CR120	CR130
Above 125	150	150	150	150	150	150	150	150	150
116-125	220	150	150	150	150	150	150	150	150
106-115	220	220	150	150	150	150	150	150	150
91-105	220	220	220	150	150	150	150	150	150
76-90	220	220	220	220	150	150	150	150	150
71-75	220	220	220	220	220	150	150	150	150
62-70	220	220	220	220	220	220	150	150	150
54-61	220	220	220	220	220	220	220	150	150
49-53	220	220	220	220	220	220	220	220	150
48 & Lower	220	220	220	220	220	220	220	220	220

ISO Grades For Ambient Temperatures of 50° to 125° F									
Output RPM	Reducer Size								
	CR50	CR60	CR70	CR80	CR90	CR100	CR110	CR120	CR130
Above 125	220	220	220	220	220	220	220	220	220
116-125	320	220	220	220	220	220	220	220	220
106-115	320	320	220	220	220	220	220	220	220
91-105	320	320	320	220	220	220	220	220	220
76-90	320	320	320	320	220	220	220	220	220
71-75	320	320	320	320	320	220	220	220	220
62-70	320	320	320	320	320	320	220	220	220
54-61	320	320	320	320	320	320	320	220	220
49-53	320	320	320	320	320	320	320	320	220
48 & Lower	320	320	320	320	320	320	320	320	320

Notes:

1. Assumes auxiliary cooling where recommended in the catalog.
2. Pour point of lubricant selected should be at least 10°F lower than expected minimum ambient starting temperature.
3. Special lubricants may be required for food and drug industry applications where contact with the product being manufactured may occur. Consult a lubrication manufacturer's representative for his recommendations.
4. For reducers operating in ambient temperatures between -22°F (-30°C) and 20°F (-6.6°C) use a synthetic hydrocarbon lubricant, 100 ISO grade or AGMA 3 grade (for example, Mobil SHC627). Above 125°F (51°C), consult Baldor•Dodge Gear Application Engineering for lubrication recommendation.
5. Mobil SHC630 Series oil is recommended for high ambient temperatures.

CAUTION: Too much oil will cause overheating and too little will result in gear failure. Check oil level regularly. Failure to observe this precaution could result in bodily injury and damage to equipment.

Under average industrial operating conditions using mineral oil, the lubricant should be changed every 2500 hours of operation or every 6 months, whichever occurs first. If using synthetic oils, the change interval can be increased to 8000 hours of operation or 18 months of service, whichever occurs first. Under extreme operating conditions, such as rapid rise and fall of temperature, dust, dirt, chemical particles, chemical fumes, or oil sump temperatures above 200°F, the oil should be changed every 1 to 3 months, depending on severity of

conditions. Drain reducer and flush with kerosene, clean magnetic drain plug and refill to proper level with new lubricant.

The performance of the new oil will be higher if a better job is done in draining the old oil from the reducer. A small amount of residual oil is usually not detrimental to performance. Never mix gear oils from different manufacturers or type. If changing oil brands or type, flush the geardrive by pouring a charge of the new oil into the gearbox and allow it to drain.