

GEARBOX MAINTENANCE



DISCLAIMER:

Unless otherwise noted, the maintenance specifications herein apply to all RAINTEK gearboxes. These specifications are subject to change without notice. For the most recent version refer to the RainTek website www.raintekglobal.com, under the Service and Download tab.



WARNING



To reduce the potential of a severe electrical shock and to prevent bodily injury from sudden startup of the motor, always disconnect all electrical power sources before initiating any maintenance or repairs.



OIL CHANGES AND MAINTENANCE

After the first operating season or 3,000 operating hours, whichever occurs first, change the oil in all gearboxes. Fill the gearbox with the proper oil, through the top fill hole, to the operating oil level range. The oil level range is from the top of the shank to the bottom of the oil fill hole (at 70°F ambient temperature).

After the first oil change, replace the gearbox oil every 3 years or 3,000 operating hours, whichever occurs first. Fill the gearbox with the proper oil, through the top fill hole, to the operating oil level range. The oil level range is from the top of the shank to the bottom of the oil fill hole (at 70°F ambient temperature).

After each operating season, drain any water and contaminated or emulsified oil from the gearbox and top off the gearbox with the proper oil, through the top fill hole, to the operating oil level range. The oil level range is from the top of the shank to the bottom of the oil fill hole (at 70°F ambient temperature).



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GEARBOX LUBRICANTS REQUIREMENTS

A GL-5 SAE 85W-140, SAE J2360, or ISO 460 AGMA 7EP equivalent gear oil must be used in the gearbox. Oil capacity **3.6L**, some common brands meeting this specification are shown below:

- * Mobil Gear Oil: 85W-140
- * Chevron Delo Gear EP-5 SAE 85W-140
- * Chevron MEROPA 460 7EP

Please note: use of improper gear oil will void the gearbox warranty!

GEARBOX MAINTENANCE TO BE PERFORMED AFTER EACH PERATING SEASON

The vent hole located on the side of the expansion chamber must be kept clear of dirt. Use a soft brush to clear the opening. Do not insert any objects into the vent hole, damage to the rubber diaphragm may occur.

Inspect input and output shaft seals for leakage. Should either input or output shaft seals show excessive leakage, the seals should be replaced.

External dust seals should be used to keep dirt and water out of internal shaft seal locations. If the external dust seals are damaged or worn, replace with new seals.

Check all the cover and end cap bolts, torque should be 34-39 ft. lbs. Adjust if necessary.

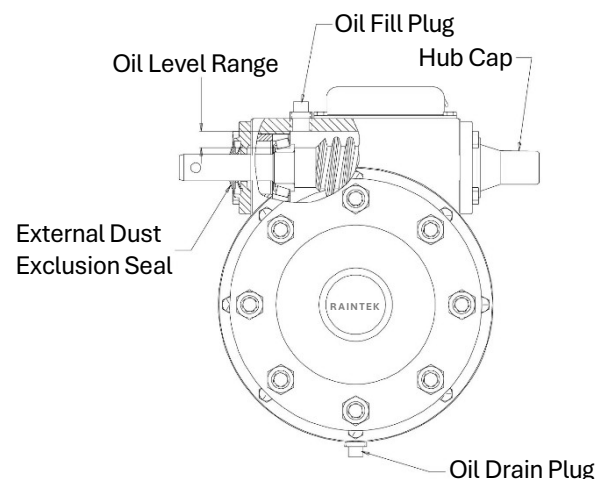
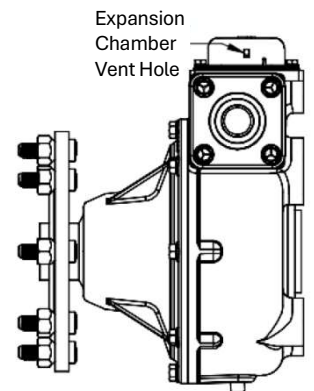
Check all the wheel lug nuts, torque to irrigation machine manufacturer's specifications.

Ensure that at least 5 × 1/2-13 grade 8 mounting bolts are used to fasten the gearbox to the base beam, torque to irrigation machine manufacturer's specifications.

Remove the drain plug located at bottom of the gearbox and completely drain any water and contaminated or emulsified oil from the gearbox.

After oil is drained, replace the drain plug at the bottom, fill the gearbox with the proper oil.

Check tire pressure to prevent operating with low pressure, as this can damage the gearbox.



sales@raintekglobal.com



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FIELD MAINTENANCE TO BE PERFORMED AFTER EACH PERATING SEASON

Ensure that wheel track depth does not exceed 4 inches / 100mm. Severe wheel tracks will damage gearboxes. Wheel tracks can be maintained by using track fillers, discs, or flotation tires.

IN SEASON GEARBOX MAINTENANCE

The gearbox should be inspected periodically during the operating season for the following:

- * Check tire pressure before starting the operating season and monthly thereafter to prevent operating with low pressure. Operating with low pressure will damage the gearbox.
- * Expansion chamber vent hole should be kept clear. Do not insert any objects into the vent hole, damage to the rubber diaphragm may occur.

RAINTEK GEARBOX MAINTENANCE CHECKLIST

Check Item	Pre-Season	Mid-Season	Post-Season	Comments
Change Oil	●			Change after the first season or 3,000 hours and then every 3 years or 3,000 hours thereafter.
Check Oil Level and Drain Water & Emulsified Oil	●		●	Drain water and emulsified oil at least twice per year and top off the oil.
Check Seals	●	●	●	Check for leaks.
Check Wheel Lug Nut Torque	●	●	●	See irrigation machine manufacturer's recommendations.
Check Gearbox Mount Bolt Torque	●	●	●	See irrigation machine manufacturer's recommendations.
Check Couplers for Damage and / or Wear	●	●	●	The pucks should be replaced every 4 years, all the fasteners are tight, clean any mud or debris off.
Check Tire Pressure	●	●	●	Low tire pressure will damage the gearboxes.
Maintain Wheel Tracks			●	Wheel track depth should not exceed 4 inches / 100mm.



RAINTEK

Professional * Responsible



Innovative * Sustainable



RainTek (Ningbo) Irrigation Co., Ltd.
No.299, Tongji Road, Ningbo, China
0574 8787 8639 / sales@raintekglobal.com
www.raintekglobal.com