

## Technical Service Bulletin 060122

### Cooling Pump Motor Lubrication Procedure

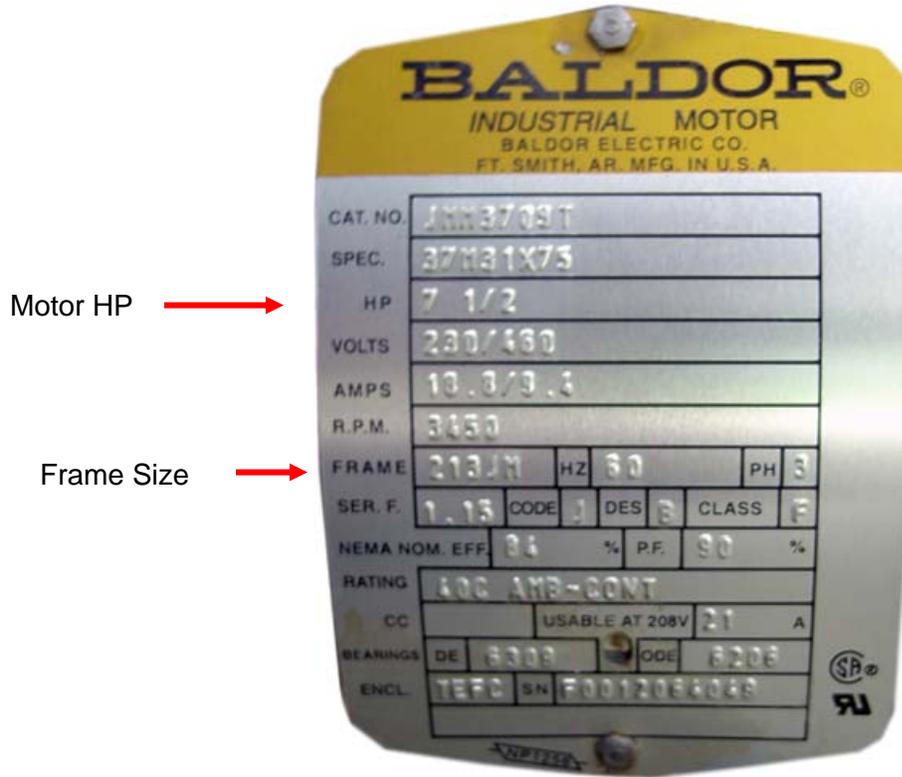
Service Bulletin 060122 applies to all Comark liquid-cooled transmitters equipped with Baldor® motors (Consult motor manufacturer for specific maintenance recommendations on Comark transmitters equipped with other brands of cooling pump motors). The purpose of this bulletin is to detail the procedure required to properly lubricate the Baldor® pump motor bearings at regular intervals, and to recommend incorporating this procedure into your preventive maintenance program. **Regular lubrication of the Baldor® motor is required to maintain warranty status.**

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**NOTE:** This procedure applies to Baldor® motors with grease fitting provisions. Pump motors may vary in sizes between 2 and 10 horsepower (HP) according to the cooling system requirements. For motors without grease fitting provisions, contact motor manufacturer or authorized service center for maintenance recommendations.

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The recommended high-grade ball or roller bearing grease for Baldor® motors is Polyrex EM (Exxon Mobil) and is currently used in production (EM #98GN42 or Grainger #5XB54). Equivalent and compatible greases include: Texaco Polystar, Rykon Premium #2, Pennzoil Pen 2 Lube and Chevron SRI. The typical recommended service interval is approximately 3600 hours or about every five months. Please reference the Baldor® maintenance document *MN400* and the Baldor® reference tag located on the motor for the NEMA frame size.



Cooling Pump Motor Lubrication Procedure for Dual pump Systems	
Applicability	All Comark liquid cooled transmitters equipped with Baldor® motors.
Prerequisites	Fully read and understand this bulletin before attempting procedure.
Equipment Required	Grease gun loaded with approved grease and socket set with ratchet (7/16 for most models).
Comments	The motor must be off in order to lubricate the bearings properly; therefore dual systems that incorporate main/standby pumps may be serviced while the other pump is running. Use caution while working near the operational on-air pump motor.

1. Place System Controller in LOCAL mode. This will allow you to manually transfer pumps and to ensure that the transmitter cannot be operated remotely.
2. Transfer to standby pump (Pump B). From the lower system controller buttons, or the cooling system page on the Millennium/Paragon, Press “Select”, “Pump”, “1” (cooling system selection) “Transfer”, “Enter” to transfer.
3. Turn off service disconnect to the non-operating pump.

**WARNING:** Be sure that the proper service disconnect is off before working on the motor. This is vital to ensure that the motor being serviced does not start up if prompted by a cooling pressure fault and motor transfer signal. Use extreme caution while working near the operational on-air pump motor.



4. Clean grease fittings. Remove both grease outlet plugs on the bottom side of motor (opposite of each grease fitting) and place them in a clean safe place.
5. Add the recommended amount of grease, or add until grease exits the outlet plug. The fittings may take more than the recommended amount of grease if maintenance was not performed at the specified time intervals.

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**NOTE:** As an example, according to the Baldor® maintenance document *MN400*, a typical 7.5 HP motor (NEMA Frame 213) needs approximately 0.6 ounces (4 teaspoons) of grease (front and back) every 3600 hours or about every 5 months. This amounts to approximately 20 pumps from a typical grease gun. Another typical example is the 5 HP (NEMA Frame 184) needs approximately 0.3 ounces (2 teaspoons) of grease (front and back) about every 5500 hours or about every 7.5 months. This amounts to approximately 10 pumps from a typical grease gun

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6. **Do not** install the outlet plugs at this time.
7. Turn on the service disconnect for the offline motor and manually transfer the pumps back to the newly lubricated pump.
8. Let the pump run for at least 15 minutes to purge any excess grease.

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**NOTE:** Be sure to purge out the excess grease. Over-greasing may cause excessive bearing temperatures that may lead to premature lubrication breakdown.

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9. Transfer back to the standby pump and turn off the service disconnect. Install the outlet plugs and clean excess grease that may have purged out.
10. Transfer to main pump (Pump A) and follow steps 3-9 to lubricate the standby pump.
11. Return transmitter to previous state and place the System Controller to REMOTE mode.
12. Procedure complete.

Cooling Pump Motor Lubrication Procedure for Single Pump Systems	
Applicability	All Comark liquid cooled transmitters utilizing Baldor motors.
Prerequisites	Fully read and understand this bulletin before attempting procedure.
Equipment Required	Grease gun loaded with approved grease and socket set with ratchet. (7/16 for most models).
Comments	The motor must be off in order to lubricate the bearings properly.

1. Place System Controller in LOCAL mode. This will ensure that the transmitter cannot be operated remotely.
2. Place transmitter in off mode, and allow the cool-down timer to expire in order for the pump to turn off.
3. Turn off service disconnect to the pump.

**WARNING:** Be sure that the proper service disconnect is off before working on the motor. This is vital to ensure that the motor being serviced cannot start up.



4. Clean grease fittings. Remove both grease outlet plugs on the bottom side of motor (opposite of each grease fitting) and place them in a clean safe place.
5. Add the recommended amount of grease, or add until grease exits the outlet plug. The fittings may take more than the recommended amount of grease if maintenance was not performed at the specified time intervals.

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**NOTE:** As an example, according to the Baldor® maintenance document MN400, a typical 7.5 HP motor (NEMA Frame 213) needs approximately 0.6 ounces (4 teaspoons) of grease (front and back) every 3600 hours or about every 5 months. This amounts to approximately 20 pumps from a typical grease gun. Another typical example is the 5 HP (NEMA Frame 184) needs approximately 0.3 ounces (2 teaspoons) of grease (front and back) about every 5500 hours or about every 7.5 months. This amounts to approximately 10 pumps from a typical grease gun

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6. **Do not** install the outlet plugs at this time.
7. Turn on the service disconnect for the pump motor and manually turn on (force) the pump. This may be accomplished by the pump override switches or by the pump starter, if so equipped. If no other way is available to manually turn on the pump, power up the transmitter.

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**NOTE:** Refer to Service Bulletin 040503 for IOX, 040505 for DCX1, 040507 for Millennium/Paragon transmitter systems for location and operation of override switches (reference only). On solid state systems equipped with PLC Pump Controller 453201, open the box to access override switches.

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8. Let pump run for at least 15 minutes to purge any excess grease.

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**NOTE:** Be sure to purge out the excess grease. Over-greasing may cause excessive bearing temperatures that may lead to premature lubrication breakdown.

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9. Turn off the service disconnect. Install the outlet plugs and clean any excess grease that may have purged out.
10. Turn on the service disconnect and turn on the transmitter.
11. Return transmitter to previous state and place the System Controller to REMOTE mode.
12. Procedure complete.

Here at Comark, we are constantly striving to improve the satisfaction of both our new and existing customers. Continually working to improve the reliability of the installed fleet of Comark transmitters in the field is another way in which we demonstrate our commitment to you, our valued customer.

Comark Communications  
104 Feeding Hills Road  
Southwick, MA 01077 U.S.A.  
(800) 345-9295  
<http://www.comarktv.com>