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Service—

64046/72046/72058ExN Washer-Extractors



Lubrication and Preventive Maintenance For 64" and 72"ExN and JxN Models

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Access Date..... 20001204
Applicability.....IEA

1. Required Equipment

Maintenance procedures require a hand operated grease gun and the specified lubricants.

2. Lubrication Requirements

To achieve the optimum performance and service life from the Milnor® machine, and as a warranty requirement, the machine must be lubricated in strict accordance with the instructions in this section.

DANGER [1]: Entangle and Crush Hazard—Belts and pulleys can entangle and crush body parts.

- Lock OFF and tag out power at the wall disconnect before servicing, except where specifically instructed otherwise in this section.
- Insure belt and pulley guards are in place during service procedures.
- Permit only qualified maintenance personnel to perform these procedures.

3. Correct Grease Gun Procedures

1. Do not use a pneumatic grease gun. Pump grease slowly, taking 10-12 seconds to complete each stroke. A grease gun can build up extremely high pressure which will force seals out of position and cause them to leak, even though both the seal and bearing housing are equipped with spring loaded relief plugs.
2. Apply quantity of grease called for in the checklist. Over-lubrication can be as damaging as under-lubrication. Where quantities are stated in strokes, one stroke of the grease gun is assumed to provide .0624 fluid oz. (1.77 grams) (by volume) of grease. Therefore, one fluid ounce (28.3 grams) of grease would be provided by 16 strokes of the grease gun. Determine the flow rate of your grease gun by pumping one ounce into a calibrated container. If fewer than 16 strokes are required, all quantities in strokes in the chart should be reduced accordingly, and if more than 16 strokes are required, the number of strokes should be increased. Before starting lubrication, make sure your grease gun is working and that you get a full charge of grease with every stroke.
3. Do not pump grease in until it oozes out of the spring loaded relief plugs. Plugs bleed out excess grease and help prevent abnormal pressures from building up in the housing during operation (especially when the machine is first commissioned and after each lubrication). Plugs will not protect against over-lubrication.
4. Do not over-lubricate motors. Over-lubrication of a motor can seriously damage it by forcing grease into motor windings. Over-lubrication of the extract motor can force grease into the centrifugal switch causing it to malfunction.
5. Do not allow grease to drip on the brake disk or clutch tire/drum during lubrication. This will reduce the braking action considerably, and may permit the cylinder to creep while loading and unloading.

Table 1: Lubricant Specifications

Assembly (location)	Components	Specifications
Bearing housing (Figure 1)	Seals and bearings	Shell Alvania EP or equivalent
Hydraulics (Figures 1 and 3)	Shell pivot grease fittings, hydraulic cylinder grease fittings, pump	Shell Alvania EP or equivalent
	Hydraulic fluid reservoir	Shell Tellus 68 or equivalent
Motors (Figure 1)	Motor bearings	See motor nameplate. If not specified, use Shell Alvania EP or equivalent.
Gear reducer (Figure 1)	Gear reducer	Shell Morlina 220
Braking (Figure 2)	Brake reservoir	DOT 3 brake fluid or equivalent
Isolators (Figure 4)	Isolator bodies	10W30 (ISO 30-100) motor oil or equivalent
Load door (Figure 5)	Locking latches	Door-ease stick lubricant or equivalent
	Gears and hinges	Shell Alvania EP or equivalent

4. Greasing Bearings and Seals

DANGER [2]: Entangle and Crush Hazard—Belts and pulleys can entangle and crush body parts. Power is ON and cylinder is turning during the following procedure.

- Insure belt and pulley guards are in place during service procedures.
- Use extreme care when working near moving components

Grease seals and main bearing as follows:

1. Locate the seal and bearing grease fittings (Figure 1, item 9).
2. Place the machine in a wash step.
3. With the cylinder turning, grease the seals and bearings as called for on the “Preventive Maintenance Checklist.”

5. Maintenance Checklist

Table 2: Preventive Maintenance Checklist

Components		Action	Frequency (hours of operation)	Figure Number
Pulleys and Belts	Pulley condition and alignment (See Note 1)	Check sheaves for wear and alignment	Monthly (200 hours)	Figure 1
	Belts	Check for wear, replace if required		
Gear Reducer, Motors and Drive Components	Drive gear reducer	Check level at plug, add oil as required	Semiannually	
		Change oil (drain valve below)	Annually	
	Centrifugal switch	Check brushes for wear, replace as required	Monthly	
	Jack shaft (Note 3)	0.18 ounces (5.31 grams) (three strokes) at two locations	Monthly	
	Low extract motor (Note 2)	See "BALDOR MOTOR MAINTENANCE..." MSSM0274AE in this manual.		
	Drain motor (Notes 2 and 4)			
	High extract motor (Notes 2 and 4)			
	Wash motor			
	Air clutch quick release valve	Change internal diaphragm	Annually	
Bearing Housing	Front bearing grease fitting (Note 3)	Slowly grease: 1.87 ounces (53.1 grams), thirty strokes at one location	Monthly (200 hours)	
	Rear bearing grease fitting (Note 3)	Slowly grease: 0.62 ounces (17.7 grams), ten strokes at one location		
	Seal grease fitting (except J2N)	Slowly grease: 0.19 ounces (5.31 grams), three strokes at one location		
	J2N seal grease fitting	Slowly grease: 0.19 ounces (5.31 grams), three strokes at one location	Weekly (40 hours)	
	Main bearing air pad gauge	Verify pressure: 10 psi (0.70 kg/cm ²)	Monthly (200 hours)	
Brake Components	Reservoir (Note 4)	Check levels, add fluids if required	Monthly (200 hours)	Figure 2
	Pad/Shoes	Check for wear, replace if required	Monthly (200 hours)	
Hydraulic Components	Hydraulic cylinders	0.12 ounces (3.54 grams) (two strokes) at two locations	Monthly (200 hours)	Figure 1

Components		Action	Frequency (hours of operation)	Figure Number
	Shell pivot	0.12 ounces (3.54 grams) (two strokes) at two locations	Monthly (200 hours)	Figure 3
	Shell stop(s)	Check for wear, replace if required	Semiannually	
	Line pressure (Note 4)	Check pressure while machine is tilting to the load position 900-1000 PSI (62-69 bar) E6N and J5N machines	Daily	
	Filter	Replace	Semiannually	
	Filter pressure	Check pressure while machine is tilting to the load position 30-60 PSI (2-4 bar)	Daily	
	Pump motor	0.12 ounces (3.54 grams) (two strokes) at two locations	Semiannually	
	All hoses/couplings	Check for leaks, cracks and bulges	Monthly (200 hours)	
	Reservoir level	Check level with machine tilted to the load position. Add if below black mark on gauge	Daily	
		Replace fluid, ExN and J5N - 47.5 U. S. Gallons (179.9 Liters) J2N - 11.5 U.S. Gallons (43.3 Liters)	Annually	
Shocks and Isolators	Isolators	Check oil level	Quarterly	Figure 4
		Replace oil	Annually	
	Shocks	Check for leaks, replace as required (four locations)	Semiannually	
	Isolator cushions	Check cushions for cracks and deterioration (eight locations)	Monthly (200 hours)	
Doors	Gears	Lubricate	Monthly (200 hours)	Figure 5
	Hinges	0.12 ounces (3.54 grams) (two strokes) at three locations		
	Locking latches	Lubricate (two locations)		
Water	Cooldown water adjustment	Adjust as required	Monthly (200 hours)	Figure 6
	Water pressure regulator	Check water pressure (28 PSI) when there is no flow of flushing or balancing water		Figure 7
Inverter	Enclosure, screen and fan	Vacuum out enclosure, clean screen and verify fan operation	Weekly (40 hours)	Figure 8
	Inverter vents	Vacuum out vents		Figure 9

Components		Action	Frequency (hours of operation)	Figure Number
Recirculation (if so equipped)	All recirculation hoses and couplings	Check for leaks, cracks and bulges	Monthly (200 hours)	Figure 10
	Door hose	Replace door hose every 6 months or 840 hours, whichever occurs first.	Semiannually	

Note 1: See “Tensioning and Aligning Main Drive Belts...BIIEUM01” in this manual.

Note 2: J2N machines have two motors: one wash/drain motor (Figure 1, item 8) and one extract motor (Figure 1, item 4).

Note 3: Main bearings and jack shaft bearings (if equipped) are pre-packed with lubricant at the factory. Do not grease for 30 days.

Some grease will ooze out of the grease relief fittings during the first month of operation and every time the bearings are re-lubricated. These fittings avoid overheating by permitting excessive grease to escape. The escaping lubricant does not have to be replaced.

Bearings run hot enough to be uncomfortably warm to the touch. This is normal.

Note 4: E6N and J5N machines only.

6. Maintenance Points

Figure 1: Motor Platform, Hydraulic Cylinder, Shell and Suspension Maintenance Points

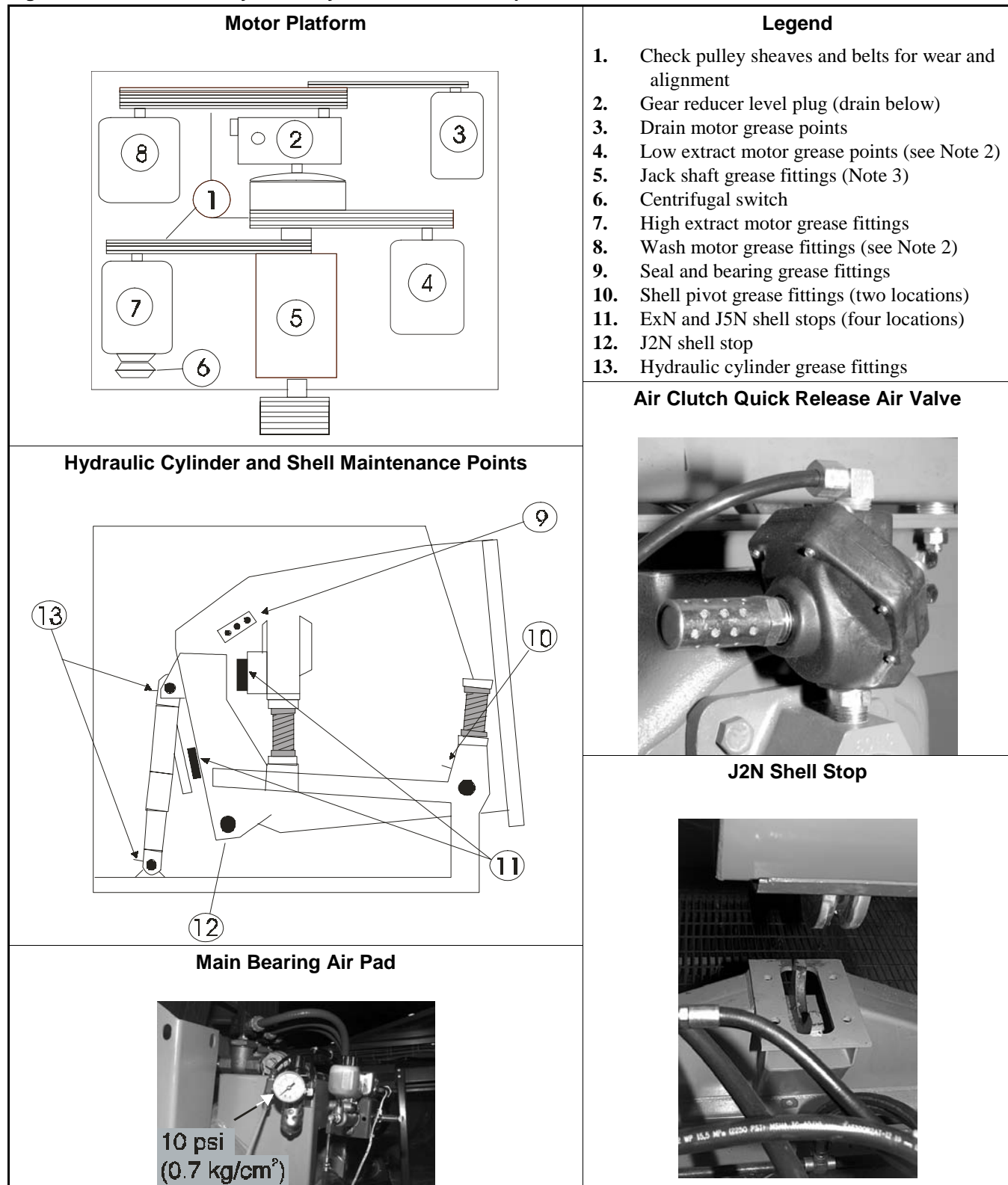


Figure 2: Brake Components

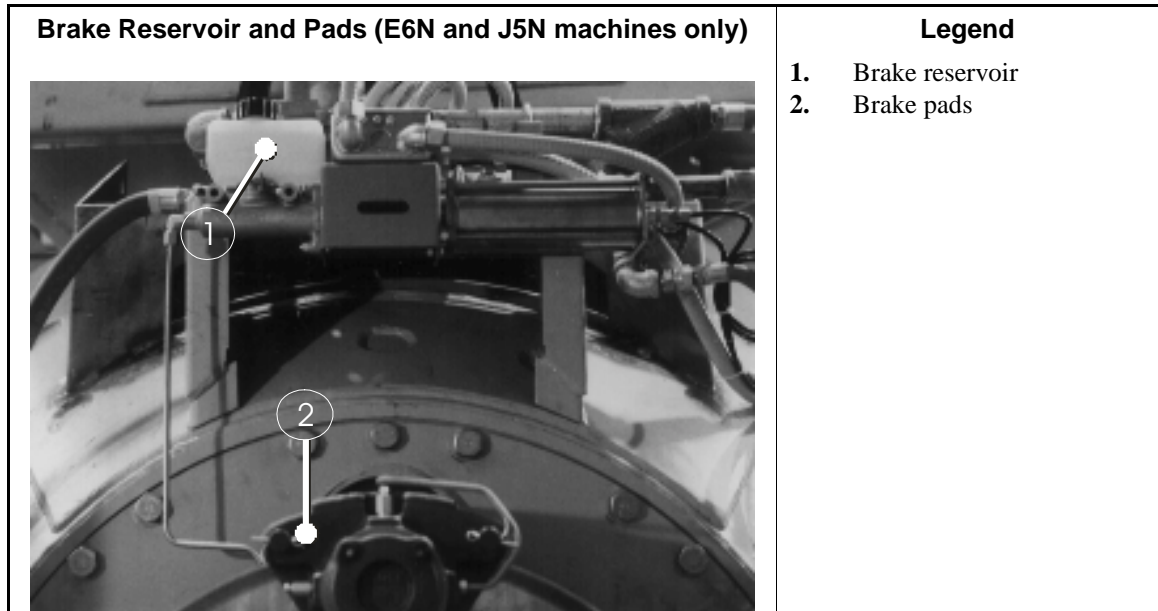


Figure 3: Hydraulic System Maintenance Points

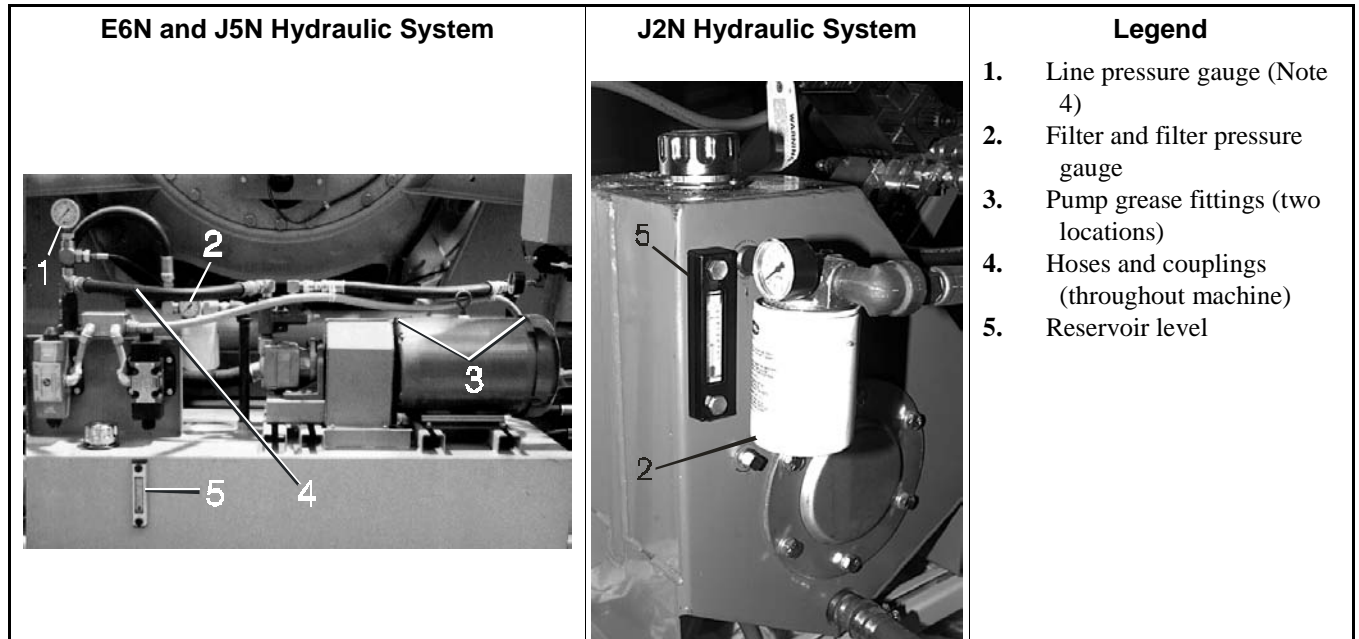


Figure 4: Isolators and Shocks

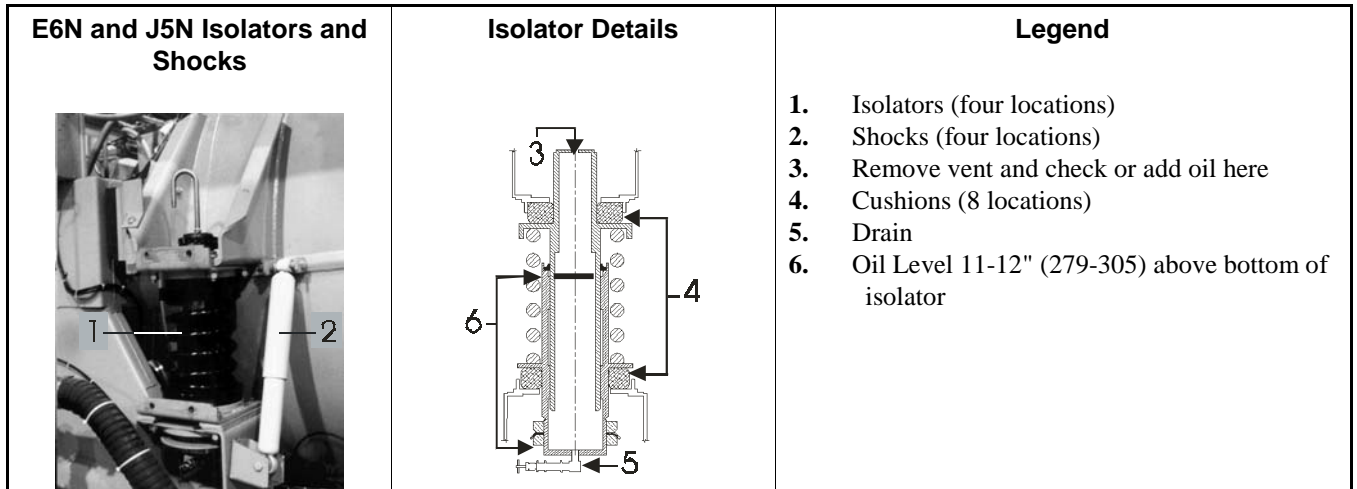


Figure 5: Door Maintenance Points

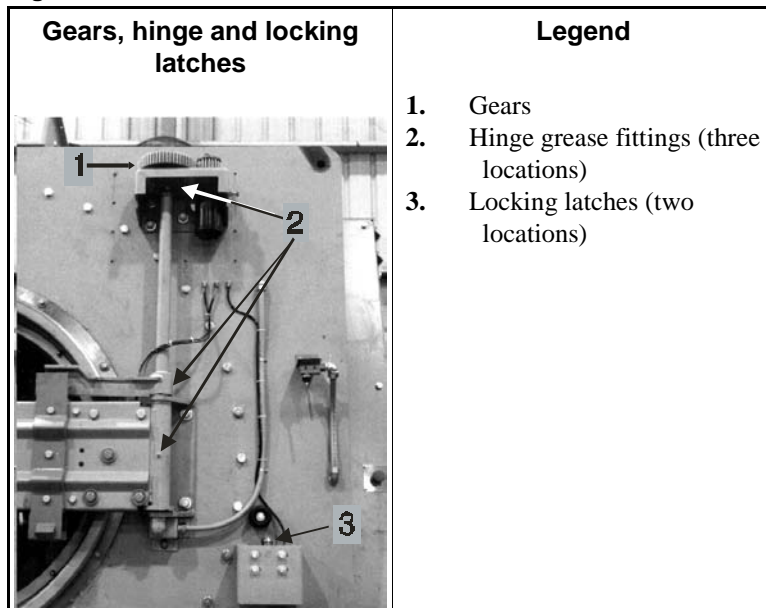


Figure 6: Cooldown Vernier Valve

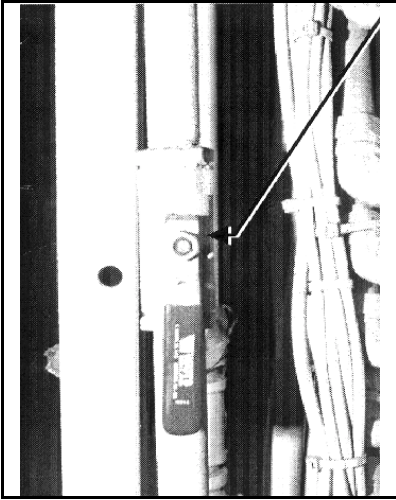


Figure 7: Water Pressure Adjustment

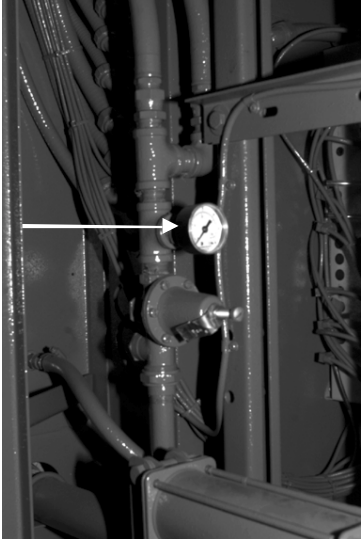
<p>Water pressure regulator</p> 	<p>Legend</p> <p>Use hot water if it is available.</p> <p>Set pressure regulator for 28 psi when there is no flow of flushing or balancing water.</p>
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Figure 8: Inverter Enclosure, Screen and Fan

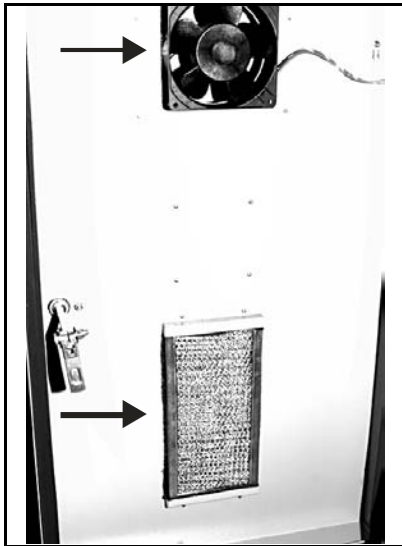


Figure 9: Inverter Vents



Figure 10: Recirculation Equipped Machines

Recirculation hoses	Legend
	<p>The hose behind this plate must be replaced every 6 months or 840 hours of operation. A weak hose can burst, causing hot bath liquor to spray onto personnel, scalding them.</p>

Tensioning and Aligning Main Drive Belts on 64046, 72046, 72058ExN and JxN Washer-Extractors

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Check belt tension and main drive pulley alignment whenever the main drive belts are replaced or tensioned. Also check belt tension and alignment whenever the drive base is moved or when called for in the preventive maintenance checklist. Determine the type of belts fitted to the machine then refer to either “Setting Belt Tension...with Individual Main Drive Belts” or “Setting Belt Tension...with Banded Main Drive Belts.” After setting the belt tension, see “Aligning The Main Drive Pulleys (Both Belt Types)” for alignment information.

Check tension for new belts according to the following schedule:

- After 24 hours of operation (three eight-hour shifts)
- After 80 hours of operation (ten eight-hour shifts)
- After 160 hours of operation (twenty eight-hour shifts)

Note 1: Do not refer to instruction sheet provided with the tension testing tool. Use this instruction instead.

Note 2: All belts are not alike. Certain belts are better suited to certain applications. Consequently, it is always best to purchase replacement belts from the original manufacturer of the equipment. Alternatively, purchase the exact style and type of belts with which the machine was originally equipped. If you were not satisfied with the life of the original set, you should ask the factory if a better belt has been developed for the specific application.

1. Setting Belt Tension on Machines Equipped with Individual Main Drive Belts

These machines use the “belt tension gauge method” for tensioning the main drive belts. This method requires a belt tension testing tool and straight edge.

Use the tension gauge to set belt tension as follows:

1. Move upper O-ring on tension testing tool to uppermost position (resting against bottom edge of sliding cap).
2. Determine belt deflection for the tested belt (see Table A for the setting).
3. Move lower O-ring to the correct setting (inches or centimeters) on scale. Read the bottom edge of the O-ring.
4. Place a straight edge along the top edge (pulley to pulley) of the belt to be tested. Depress the tension testing tool by sliding the cap against the middle of the belt span until the bottom edge of the lower O-ring aligns with the straight edge as shown in (Figure 1).
5. Read the top of the upper O-ring position and determine if it is within specified range.
 - See specifications in the “Individual belt initial tension” column for belts that have never been used.
 - See specifications in the “Individual belt final tension” column for belts that have been in use for more than 24 hours (three eight-hour shifts).
6. If reading is below specified range, belt must be tightened. If reading is above specified range, belt must be loosened. Adjust belt and repeat Steps 1 through 5 until tension is within specified range

Figure 1: Testing Belt Tension (Individual Belts)

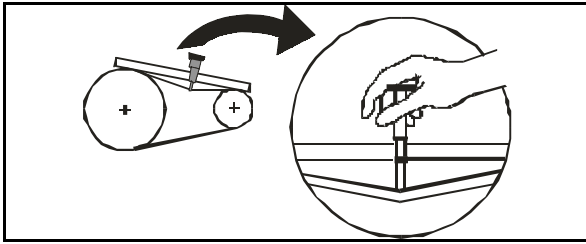


Table 1: Table A - ExN and JxN Main Drive Belt Tension

Belts	Belt deflection inches (mm)	Hertz	Individual belt initial tension pounds (kilograms)	Individual belt final tension pounds (kilograms)
Final stage	3/4" (19)	All	17 - 20 (7.7 - 9.1)	13 - 16 (5.9 - 7.2)

2. Setting Belt Tension on Machines Equipped with Banded Main Drive Belt

These machines use the “belt elongation method” for tensioning the main drive belts. This method requires a tape measure and either “Table B - 64" ExN and JxN Main Drive Belt Tension (Banded Belts)” or “Table C - 72" ExN and JxN Main Drive Belt Tension (Banded Belts),” depending on the machine type.

1. Accurately measure the outer diameter of the belt. Call this measurement L1. Look up L1 in Table B for 64" machines or Table C for 72" machines. Find the corresponding “Banded Belt Tension Length.” Tie a string to this length.
2. Install belt.
3. Fit string to the outer diameter of both pulleys.
4. Slowly raise motor platform until string is tight.

Table 2: Table B - 64" ExN and JxN Main Drive Tension (Banded Belts)

L1 inches (mm)	Multiplier	Tensioned Length inches (mm)
149 (3784.6)	1.007	150.04 (3811.0)
149.3 (3792.2)		150.29 (3817.4)
149.5 (3797.3)		150.55 (3824.0))
149.8 (3804.9)		150.80 (3830.3)
150 (3810.0)		151.05 (3836.7)
150.3 (3817.6)		151.30 (3843.0)
150.5 (3822.7)		151.55 (3849.4)
150.8 (3830.3)		151.81 (3856.0)
151 (3835.4)		152.06 (3862.3)
151.3 (3843.0)		152.31 (3868.7)
151.5 (3848.1)		152.56 (3875.0)
151.8 (3855.7)		152.81 (3881.4)
152 (3860.8)		153.06 (3887.7)
152.3 (3868.4)		153.32 (3894.3)
152.5 (3873.5)		153.57 (3900.7)
152.8 (3881.1)		153.82 (3907.0)
153 (3886.2)		154.07 (3913.4)
153.3 (3893.8)		154.32 (3919.7)
153.5 (3898.9)		154.57 (3926.1)
153.8 (3906.5)		154.83 (3932.7)
154 (3911.6)	155.08 (3939.0)	
154.3 (3919.2)	155.33 (3945.4)	
154.5 (3924.3)	155.58 (3951.7)	

Table 3: Table C - 72" ExN and JxN Main Drive Belt Tension (Banded Belts)

Banded Belt Tension		
L1 inches (mm)	Multiplier	Tensioned Length inches (mm)
163.5 (4152.9)	1.007	164.64 (4181.9)
163.75 (4159.2)		164.90 (4188.5)
164 (4165.6)		165.15 (4194.8)
164.25 (4172.0)		165.40 (4201.2)
164.5 (4178.3)		165.65 (4207.5)
164.75 (4184.7)		165.90 (4213.9)
165 (4191)		166.16 (4220.5)
165.25 (4197.4)		166.41 (4228.8)
165.5 (4203.7)		166.66 (4233.2)
165.75 (4210.1)		166.91 (4239.5)
166 (4216.4)		167.16 (4245.9)
166.25 (4222.8)		167.41 (4252.5)
166.50 (4229.1)		167.67 (4258.8)
166.75 (4235.4)		167.92 (4265.2)
167.00 (4241.8)		168.17 (4271.5)
167.25 (4284.2)		168.42 (4277.9)
167.50 (4254.5)		168.67 (4284.2)
167.75 (4260.9)		168.92 (4290.6)
168.00 (4267.2)		169.18 (4297.2)
168.25 (4273.6)		169.43 (4303.5)
168.50 (4279.9)		169.68 (4309.9)
168.75 (4286.3)		169.93 (4316.2)
169.00 (4292.6)		170.18 (4322.6)
169.25 (4298.9)		170.43 (4328.9)
169.50 (4305.3)		170.69 (4335.5)
169.75 (4311.6)		170.94 (4341.9)
170.00 (4318.0)		171.19 (4348.2)
170.25 (4325.4)		171.44 (4354.6)
170.50 (4330.7)		171.69 (4361.0)
170.75 (4337.0)		171.95 (4367.5)
171.00 (4343.4)	172.20 (4373.9)	
171.25 (4349.8)	172.45 (4380.2)	

3. **Aligning The Main Drive Pulleys (Both Belt Types)**

Correct pulley alignment is critical to maximize the main drive belt life. Pulley alignment must be checked whenever any of the main drive components (motors, pulleys, or belts) are

adjusted or replaced. Also check pulley alignment whenever excessive amounts of belt wear and dust are noticed (a small amount of belt dust is normal).

Required tools: laser level (available at many local hardware stores), ruler and tape measure.

We recommend the use of laser levels since these have proven to yield much greater accuracy in pulley alignment than older methods of alignment which utilize string. Use a laser level to align pulleys as follows:

1. Determine the distance between the level's edge and the laser emitter lens. Place the level on a flat surface. Hold a ruler upright to the beam and note where the beam hits the ruler (Figure 5).
2. If the machine is a tilting model, tilt the machine so that the main bearing shaft face is perpendicular to the floor (Figure 2). Hold the level vertically on the main bearing shaft face to check for plumb. If the bearing shaft face is plumb, then the main bearing shaft pulley is plumb.
3. Check the plumb on the motor pulley. If the motor pulley is not plumb, then shim motor platform between the hinge and the motor base (Figure 3).
4. Once both pulleys are plumb, check the pulley to pulley alignment as follows:
 - Place the laser on the face of the small motor pulley (Figure 5).
 - Check at the 2, 4, 8 and 10 o'clock points on the outer edge of the large pulley (Figure 5). This measurement must equal the laser emitter lens to level's edge distance (measured in step 1), plus or minus 1/16th of an inch. The closer the alignment is to ideal, the longer the belt life.
 - The small motor pulley can be aligned with the big pulley by either of two methods. Either move the small motor pulley on the shaft or loosen the hinge side bolts and adjust the drive base threaded rod closest to the front of the machine (Figure 4).
 - If the hinge bolts are loosened, be sure to coat the bolt threads with Loctite 242 before tightening.

Figure 2: Identifying the Main Bearing Shaft Face

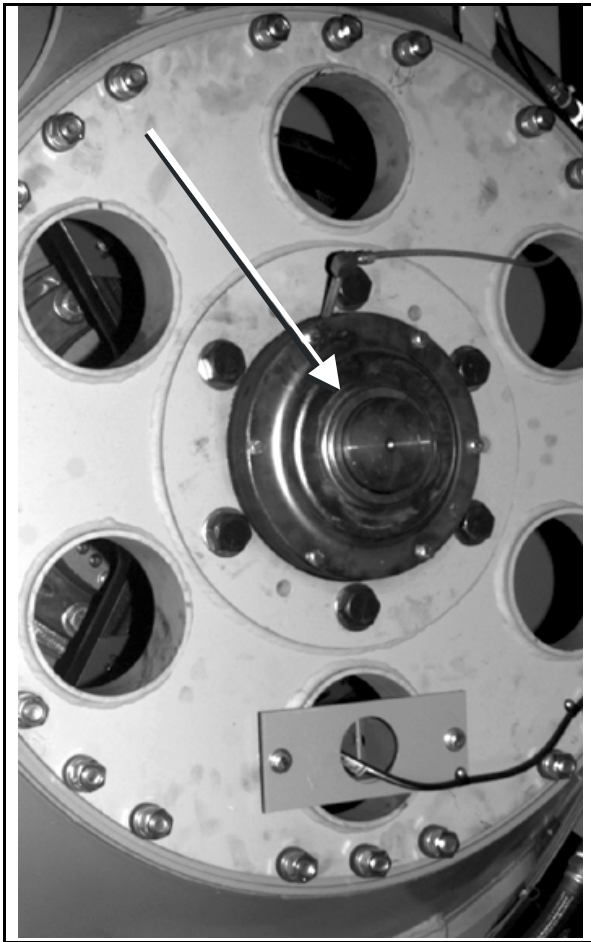


Figure 3: Shim Motor Platform to Plumb Motor Pulley

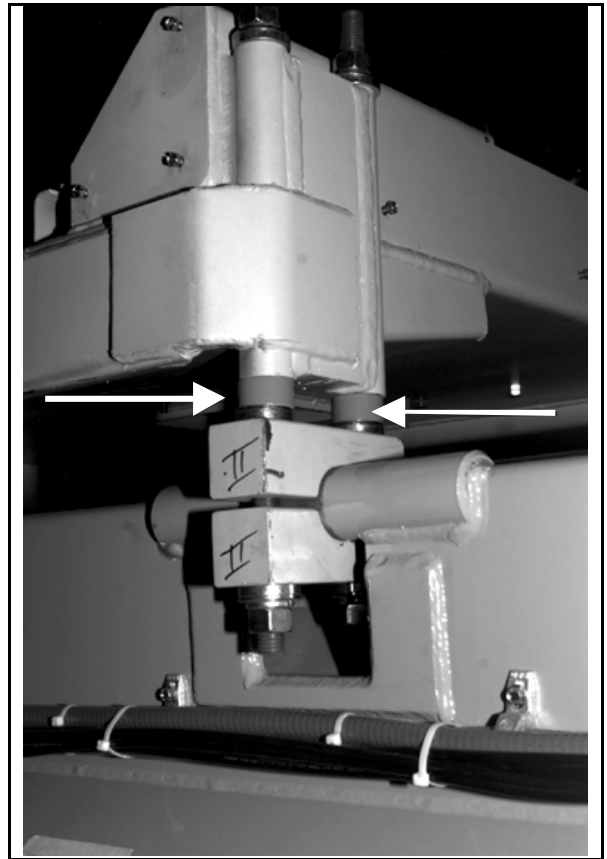


Figure 4: Second Method of Adjusting Pulley Alignment

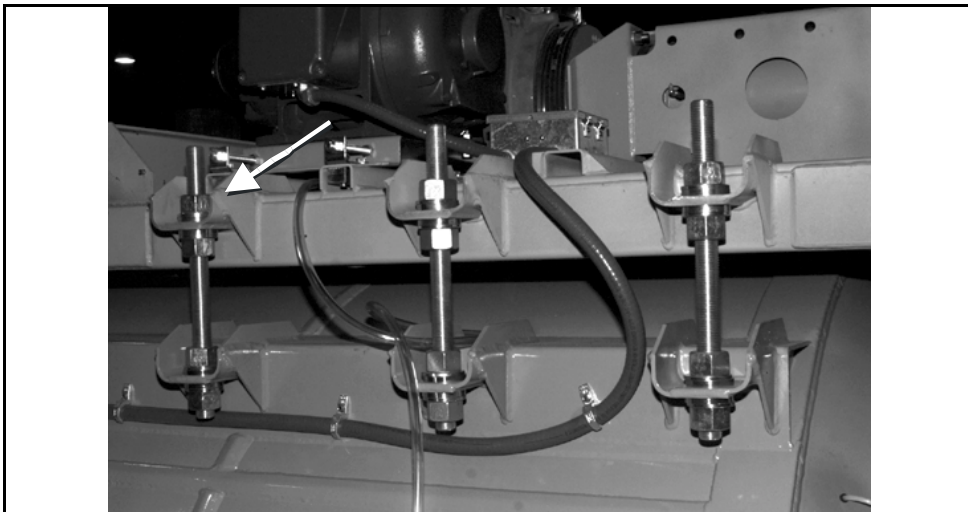
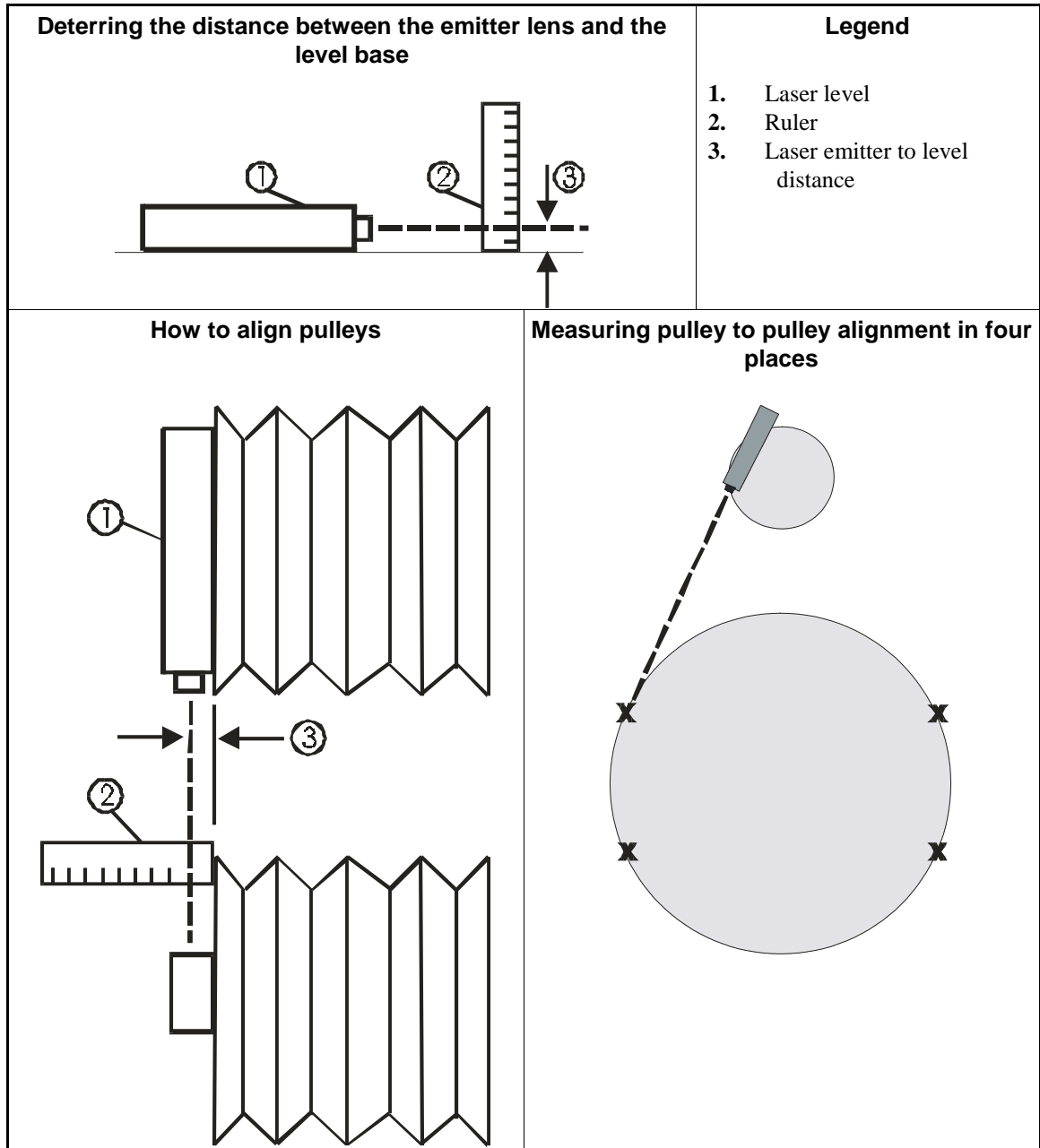


Figure 5: Pulley Alignment



BALDOR MOTOR MAINTENANCE

MSSM0274AE/9731AV

Most of the information in this document is taken from the *Baldor Electric Company Instruction, Operation, and Maintenance Manual*, and provides a means of more accurately determining motor lubrication requirements based on local conditions.

General Maintenance

Inspect, clean, and test motors at regular intervals— approximately every 500 operating hours or every three months, whichever comes first. Lubricate motors at the intervals determined herein. Keep accurate maintenance records.

DANGER: Electrocuting and Electrical Burn Hazards



Contact with high voltage will electrocute or burn you. Power switches on the machine and the control box do not eliminate these hazards. High voltage is present at the machine unless the main power is off. Electrical power can cause death or severe injury.

- Do not service machine unless qualified and authorized.
- Lock OFF and tag out power at the wall disconnect before servicing, or in accordance with factory service procedures.

DANGER: Entangle and Crush Hazard



Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

- Do not service machine unless qualified and authorized.
- Lock OFF and tag out power at the wall disconnect before servicing, or in accordance with factory service procedures.

Clean—Keep the exterior of the motor free of dirt, oil, grease, water, etc. Keep ventilation openings clear. Oily vapor, paper pulp, textile lint, etc., can accumulate and block ventilation, causing overheating and early motor failure.

Test—Periodically, check the motor and winding insulation integrity using a “megger.” Record the megger readings and immediately investigate any significant drop in insulation resistance. Check all electrical connectors to be sure they are tight.

Lubricate—Determine the proper lubrication interval for your motor as explained in “How to Determine Lubrication Interval” in this section, and lubricate accordingly.

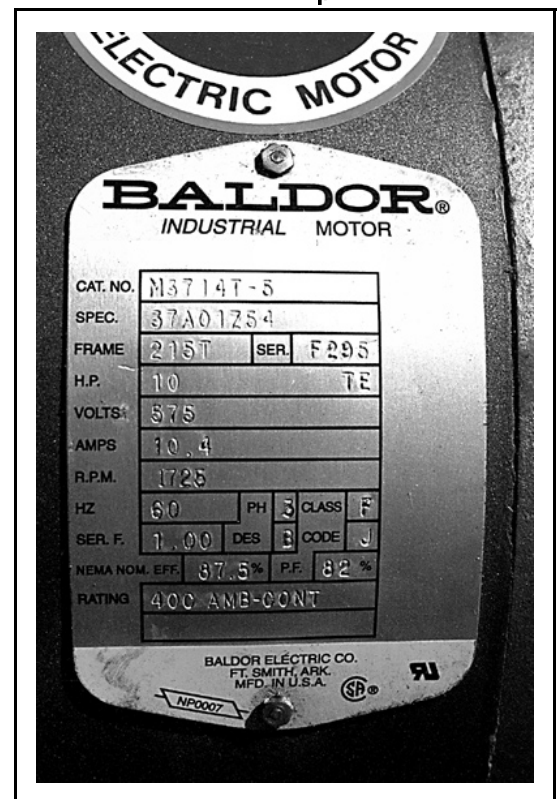


FIGURE 1 (MSSM0274AE)
Typical Motor Data Plate

How to Determine Lubrication Interval—The useful life of antifriction bearing grease can be estimated, based on service conditions, frame type, and motor rpm. An example of determining the correct lubrication interval is provided below.

Ex: A fan motor, operating at an ambient temperature of 109°F (43°C) in a moderately corrosive atmosphere. The motor has a NEMA 286T/(IEC 180) frame and is rated at 1750 rpm.

1. Table 1 classifies the service condition as “severe.”
2. Table 2 specifies a 0.5 service condition multiplier value for “severe” service condition.
3. Table 3 specifies 9500 hours as the recommended lubrication interval for frame sizes 254 to 286 (see nameplate), given standard service conditions.
4. Multiply .5 (*service condition multiplier value*) by 9500 hours (*recommended lubrication interval*) = 4750 hours (*calculated lubrication interval*).
5. Table 4 shows that the amount of grease to be added is 0.32 ounces (9.1 grams).

Table 1 — Determining the Service Condition

Severity of Service	Maximum Ambient Temperature	Atmospheric Contamination	Type of Bearing
Standard	104°F (40°C)	Clean, little corrosion	Deep groove ball bearing
Severe	122°F (50°C)	Moderate dirt, corrosion	Ball thrust, Roller
Extreme	>122°F (>50°C) or Class H Insulation (Note 1)	Severe dirt, abrasive dust, corrosion	All bearings
Low Temperature	-22°F (-30°C) (Note 2)		

Note 1: Special high temperature grease is recommended.

Note 2: Special low temperature grease is recommended.

Table 2 — Service Condition Multiplier Value

Operating Condition	Multiplier
Standard	1.0
Severe	0.5
Extreme	0.1

Table 3 — Recommended Lubrication Intervals at Standard Service Conditions

NEMA (IEC) Frame Size	Rated Speed - RPM			
	3600	1800	1200	900
Up to 215 (132)	5500 Hrs.	12000 Hrs.	18000 Hrs.	22000 Hrs.
254 to 286 (160 - 180)	3600 Hrs.	9500 Hrs.	15000 Hrs.	18000 Hrs.
324 to 365 (200 - 225)	2200 Hrs.(Note 3)	7400 Hrs.	12000 Hrs.	15000 Hrs.
404 to 5000 (280 - 315)	2200 Hrs.(Note 3)	3500 Hrs.	7400 Hrs.	10500 Hrs.

Note 3: Bearings in 404 through 5000 frame, 2 pole motors are either 6313 or 6314 bearings and the lubrication interval is shown in the table. **If roller bearings are used, the bearings must be lubricated more frequently. Divide the listed lubrication interval by two.**

Table 4 — Lubrication Amounts per Frame

NEMA (IEC) Frame Size	Bearing Description					
	These are the “Large” bearings (Shaft End) in each frame size (Note 4)					
	Largest bearing in size category	OD D mm	Width B mm	Grease gun strokes (Note 5)	Volume of grease to be added	
ounces					grams	
Up to 215 (132)	6307	80	21	2.5	0.16	4.7
254 to 286 (160 - 180)	6311	120	29	5.0	0.32	9.1
324 to 365 (200 - 225)	6313	140	33	7.0	0.43	12.2
404 to 5000 (280 - 315)	NU322	240	50	18.0	1.11	31.5

Note 4: Smaller bearings in size category may require reduced amounts of grease.

Note 5: See “Correct Grease Gun Procedures” for information on estimating the output of hand-operated grease guns.

Lubrication Recommendations

Type of Grease—Use Shell Dolium R (factory installed) or Chevron SRI greases for standard service conditions. The extreme and low temperature conditions are not normally encountered in the laundry. However, for extreme conditions, use Darmex 707 and for low temperature conditions, use Arrowsell 7. Contact Baldor for equivalents, if necessary.

Correct Grease Gun Procedures

1. Use hand-operated grease gun, not a pneumatic grease gun. Pump grease slowly, taking 10 to 12 seconds to complete each stroke.
2. Apply quantity of grease called for. Over-lubrication can be as damaging as under-lubrication. Where quantities are stated in strokes, one stroke of the grease gun is assumed to provide .0624 fluid oz. (1.77 grams) (by volume) of grease. Therefore, one fluid ounce (28.3 grams) of grease would be provided by 16 strokes of the grease gun. Determine the flow rate of your grease gun by pumping one ounce into a calibrated container. If fewer than 16 strokes are required, all quantities in strokes in the chart should be reduced accordingly. If more than 16 strokes are required, the number of strokes should be increased. **Before starting lubrication, make sure your grease gun is working and that you get a full charge of grease with every stroke.**
3. Do not over-lubricate motors. Over-lubrication of a motor can seriously damage it by forcing grease into motor windings. Over-lubrication of the extract motor can force grease into the centrifugal switch causing it to malfunction.
4. Do not allow grease to drip on the brake disk or clutch tire/drum during lubrication. This will reduce the braking action considerably, and may permit the cylinder to creep while loading and unloading.

Lubrication Procedure

	NOTICE: Motor Damage
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To avoid damage to motor bearings, grease must be kept free of dirt. For an extremely dirty environment, contact your Baldor distributor or an authorized Baldor Service Center for additional information.

1. Clean grease fittings.
2. Remove grease outlet plug.
3. Add recommended amount of grease. Be sure grease to be added is compatible with the grease already in motor. Consult your Baldor distributor or an authorized Baldor Service Center if grease other than recommended is to be used. Stop when new grease appears at shaft hole in the endplate or grease outlet plug.
4. Replace grease outlet plug.