NEW EQUIPMENT WARRANTY

We warrant that this equipment from U.S. Stoneware Corporation is within stated specifications and is free from defects in materials and workmanship.

Our obligation under this warranty is limited to repairing or replacing F.O.B. our factory and defective parts in this product that to our satisfaction existed at time of shipment, provided the purchaser gives us written notice immediately upon discovery thereof, or in any event within one year from time of shipment.

Our warranty does not cover work or replacement of parts made necessary by carelessness, misuse, accident or by incidents which occur outside of use of the instrument such as water damage, lightning, etc. U.S. Stoneware's liability under this warranty shall not exceed the cost of correcting defects whether it is the correction of the defects or the replacement of the product. Claims based on any defect must be made in writing within 30 days of the purchaser's becoming aware of that defect for this warranty to apply. U.S. Stoneware assumes no liability for consequential or special damages in connection with this contract.

U.S. Stoneware shall have no liability for damages of any kind arising from the installation and / or use of this equipment by anyone. The purchaser, by the acceptance of this equipment, will assume all liability for any damages which may result from its use or misuse.

This is our sole warranty with respect to this equipment. We make no other warranty of any kind whatever, express or implies, and all implied warranties of merchantability and fitness for a particular purpose which exceeds the above obligations are hereby disclaimed by U.S. Stoneware Corporation.

600 East Clark Street * East Palestine, OH * 44413 * 1-800-426-8808 * Fax (330)-426-1859

INSTRUCTIONS FOR INSTALLATION,
OPERATION AND MAINTENANCE OF
MODEL 784 CV-XP JAR MILL

INSTALLATION:

* After placing machine in the desired location, position it so that the rolls are level. (Leveling feet are provided for this purpose)
* Wire the motor for proper voltage in accordance with the name plate instructions.

Note: Proper rotation should be such that the top of the drive roller turns toward the jar being turned. (CW rotation when viewed from drive end of roller) If the machine is running backwards, it will have a tendency to throw the jars from the unit.

OPERATION:

* Refer to the enclosed chart to adjust the idle roller to the size of jar being used.
* To adjust the idle rollers, remove the wing nuts, etc. from the underside of the securing bolts and move the roller to desired location. Replace the bolts, wing nuts, etc.
* Roller speed is controlled by the hand crank located on the tilting motor base.

LUBRICATION:

* The motor and bearings are lubricated for life.
* Speed reducer - the oil should be replaced after the initial 1,000 hours of operation. Subsequent oil changes are required every 5,000 hours. An AGMA #4 SAE 40 weight gear lube is recommended. Never mix compounded and synthetic oils in the reducer.
* Roller Chain - lubricate bi-weekly with an SAE #30 weight oil.

  Note: New chains will loosen up slightly as the joints seat themselves causing initial elongation which is many times greater than the elongation during the balance of chain life. A chain tensioner is located on the middle and upper tier chains to keep the chain taut as it may slacken. To adjust the tension on these chains, loosen the set screw on the tensioner arm, rotate the assembly further into the chain, and re-tighten the set screw. To adjust the tension of the chain from the reducer on the first tier, loosen the four jam nuts on the underside of the machine, <u>evenly</u> tighten the four cap screws located at the corners of the drive mounting plate, then re-tighten the jam nuts on the bottom of the machine.

* Variable Speed Pulley – It is extremely important to follow the provided maintenance schedule for this item. Failure to follow the schedule will cause the part to “lock up” and void the warranty.

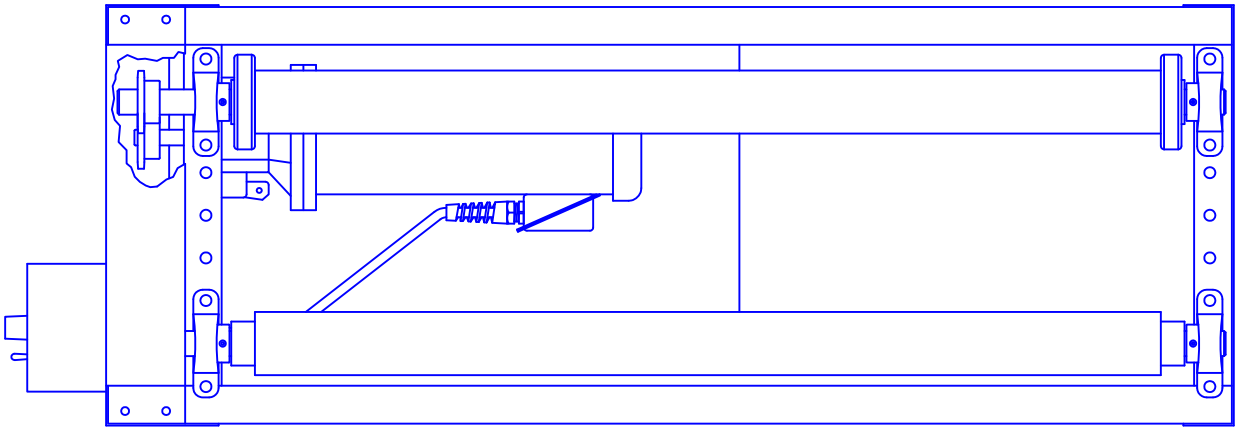
REPLACEMENT PARTS:

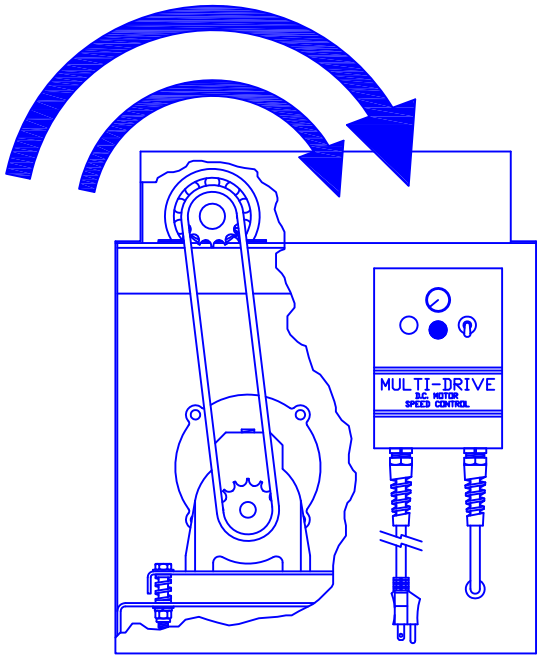
* Parts can be identified by referring to the assembly drawing, bill of material, and power pack. When ordering replacement parts for this machine please furnish part number, part name, and serial number.

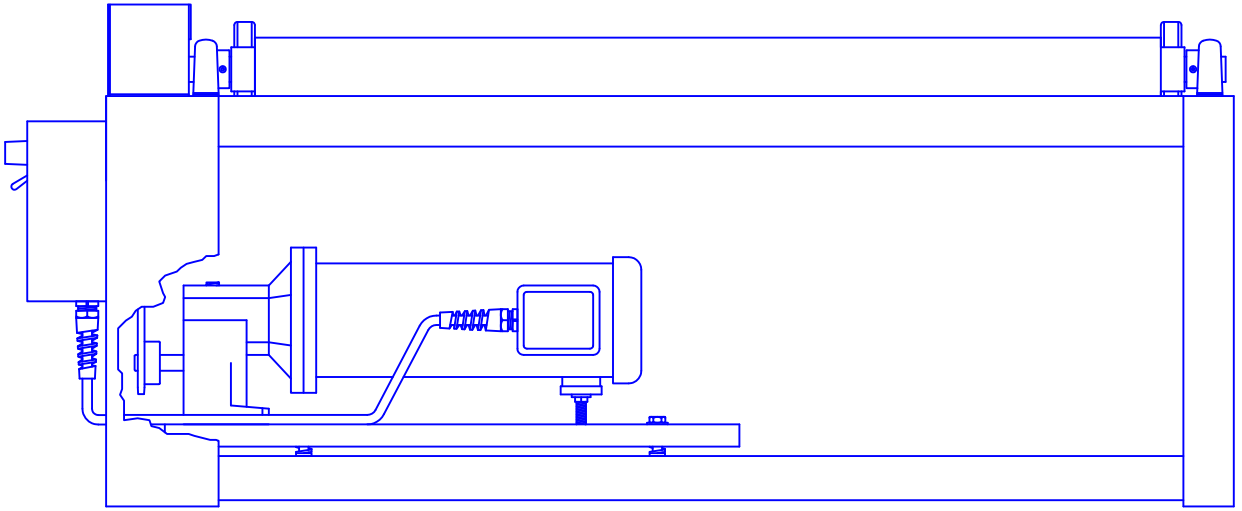
600 East Clark St. * East Palestine, OH. 44413 * 1-800-426-8808 * Fax (330)-426-1859

ARROWS INDICATE THE PROPER ROTATION FOR THE DRIVE ROLLER ON ALL JAR MILL MODELS.

IF THE ROLLER IS TURNING IN THE OPPOSITE DIRECTION THE MACHINE WILL HAVE THE TENDENCY TO "THROW" THE VESSEL BEING TURNED, OR EXCESSIVE "WALKING" OF THE VESSEL WILL OCCUR.







MANUFACTURING STANDARDS	
ALL WELDS TO CONFORM TO AWS D1.1–LATEST REVISION	
UNTOLERANCED FABRICATED DIMENSIONS	
.X = +.020	PROPRIETARY NOTICE
.XX = +.010	THE SUBJECT AND MATERIALS SHOWN ARE EXCLUSIVE PROPERTY OF U.S. STONEWARE CORP. REPRODUCTION OF THIS DRAWING IN WHOLE OR PART OR ANY UNAUTHORIZED UTILIZATION IS STRICTLY PROHIBITED WITHOUT SPECIFIC WRITTEN PERMISSION.
.XXX = +.005	
FRACTIONS = +1/32	
ANGLES = +1/2	

THIS DRAWING IS THE PROPERTY OF
U.S. STONEWARE
600 EAST CLARK STREET
EAST PALESTINE, OHIO 44413

JOB NO.

SCALE: N/A

DRAWING OF:

CORRECT DRIVE ROTATION FOR ALL JAR MILLS

DRAWN BY: G.L.G. DATE 10/30/2008

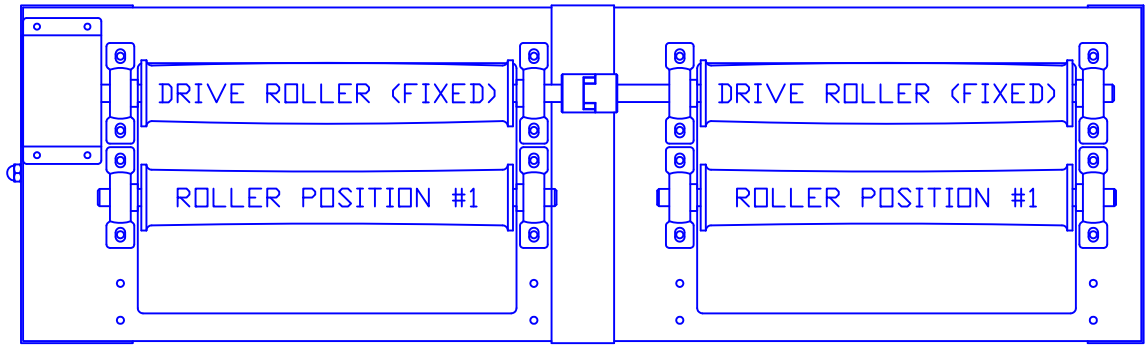
CHECKED BY XXXX DATE XXXX

DRAWING NO. DRIVEROTATION

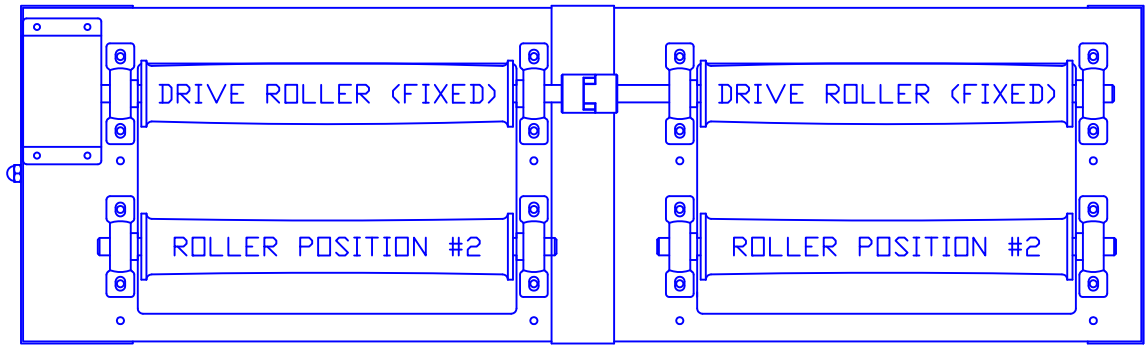
OF SHEETS

SHEET NO.

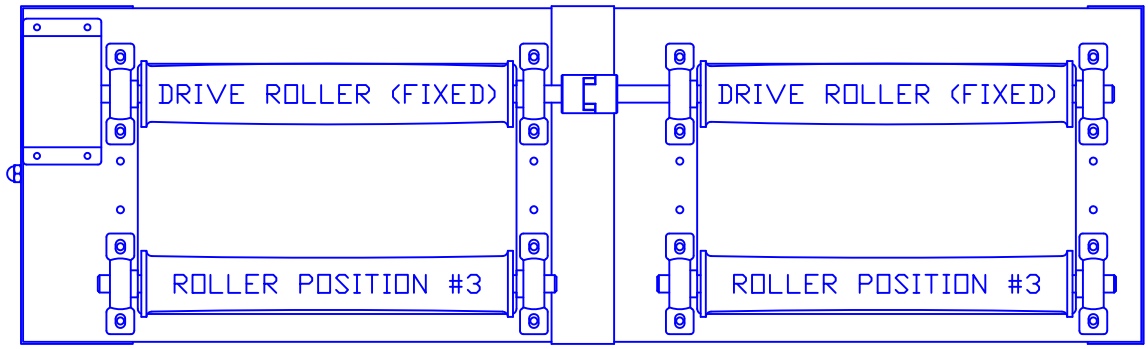
784 B & C SERIES JAR MILLS



SUGGESTED JAR
DIAMETERS 2 1/2"-4"



SUGGESTED JAR
DIAMETERS 4"-7"



SUGGESTED JAR
DIAMETERS 7"-10"

U.S. STONEWARE™

Recommended Jar / Roller Speeds

For Optimum Grinding Efficiency

Jar Model & Size	Recommended Jar Speed	Roll Speed (700 Series)	Roll Speed (800 Series)
774 – 000	106.46	180	144
774 – 00	77.14	222	177
774 – 0	75.28	235	188
774 – 1	60.98	274	220
774 – 2	54.54	300	240
774 – 3	49.79	**N/A**	259
774 – 4	46.10	**N/A**	277
774 – 6	46.10	**N/A**	277
773 – 00	75.28	240	192
773 – 1	60.98	288	230
773 – 3	51.14	**N/A**	266
611 – 00	72.63	218	174
611 – 0	72.63	218	174
611 – 1	62.39	250	200
611 – 2	55.56	278	222
611 – 3	55.56	278	222
611 – 4	50.56	**N/A**	243
611 – 6	46.70	**N/A**	262
612 – 00	72.92	229	183
612 – 0	72.92	229	183
612 – 1	62.59	261	209
612 – 2	55.69	284	227

774 – Roalox

773 – High Alumina

611 – Stainless Steel

612 – Rubber Lined Carbon Steel Jar

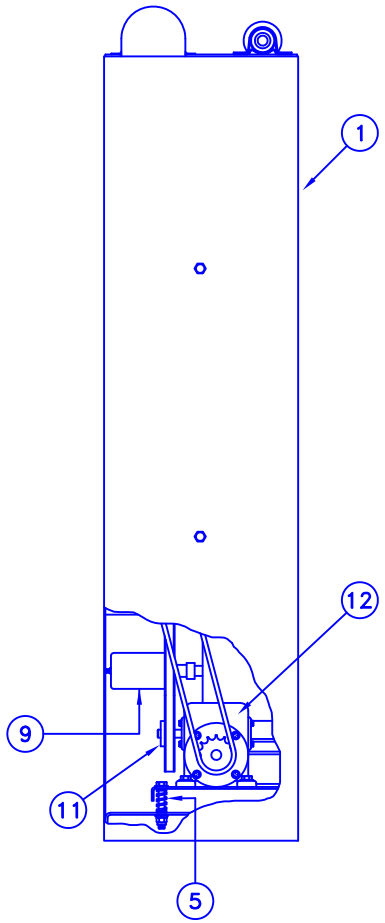
N/A – Jar Size Not Recommended For This Machine

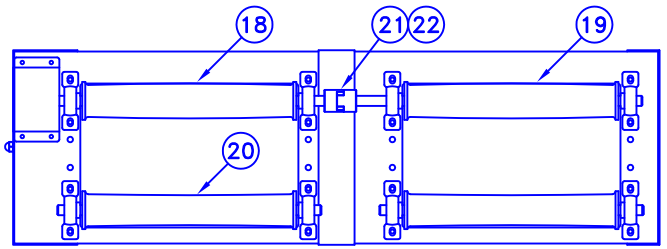
600 East Clark Street – East Palestine, OH. 44413 – 1-800-426-8808 – Fax (330)-426-1859

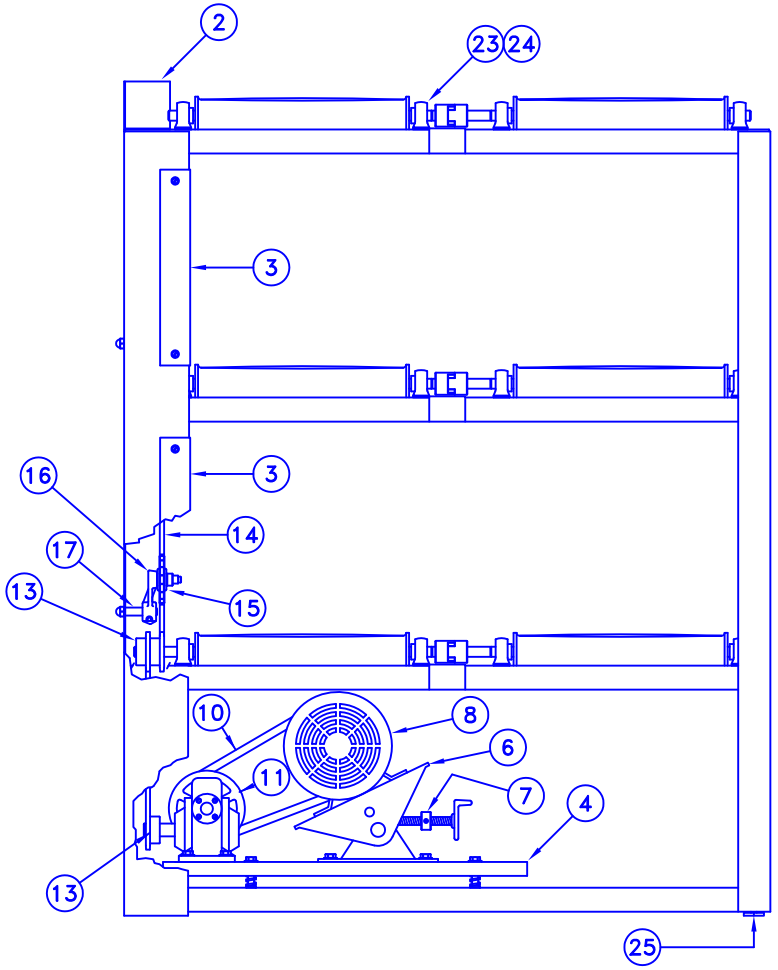
BILL OF MATERIAL FOR: M93130

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	P90417	MACHINE BASE
2	1	P90401	TOP GUARD
3	2	P90402DC	SIDE GUARD
4	1	P90421	MOTOR MOUNT PLATE
5	4	P32436	SPRING
6	1	P08931	TILTING MOTOR BASE
7	2	P05140	COLLAR, LOCKING
8	1	P13721	MOTOR – 3/4 HP XP 115–230/60/1
9	1	P05350	VARIABLE SPEED PULLEY
10	1	P14508	V–BELT
11	1	P06433	DRIVEN SHEAVE
12	1	P07821	REDUCER – 5:1 REDUCTION
13	6	P06112	DRIVE SPROCKET
14	108	P06216	#41 ROLLER CHAIN
15	2	P08109	IDLER SPROCKET
16	2	P08108	CHAIN TENSIONER ARM
17	2	P08117	IDLE EXTENSION SHAFT
18	3	P07504	DRIVE ROLLER
19	3	P07505	DRIVEN ROLLER
20	6	P07501	IDLE ROLLER
21	6	P05110	COUPLING HALF
22	3	P05112	COUPLING INSERT
23	24	P06516	BEARING
24	24	P06517	PILLOW BLOCK SET (BEARING CLAMP)
25	2	P09964	ADJUSTABLE FOOT

VOLTAGE REQUIREMENTS: 115–230/60/1 ROLLER R.P.M. ~ 160 – 320







JOB NO. XXXX
SCALE: N/A
DRAWING OF:
PART IDENTIFICATION FOR
784 CVXP JAR MILL
DRAWN BY G.L.G. DATE 02/02/2010
CHECKED BY XXXX DATE XXXX
DRAWING NO. PTID784CVXP
NO. OF SHEETS SHEET NO.

EXPANDABLE SHEAVE

MAINTENANCE SCHEDULE

Variable speed sheaves provided with grease fittings should be greased once every two weeks, with an ARCO Caldron EP 2 grease or equivalent.

(ARCO Litholene HEP 2, Texaco Multifax EP 2 or Mobil Mobilux EP 2)

Avoid using automotive chassis and other non-interchangeable lubricants.

A small amount of grease is sufficient. Wipe excess off of belt faces.

After greasing the unit, start the machine and run the sheave through its entire speed range at least once.

The opening and closing of the sheave flanges distributes the grease and helps to prevent galling and seizing on the sliding surfaces.

Light oil on the adjusting screw and guide rods (or pivot points) of the motor base once a month will make adjustment easier and help prevent corrosion.

Following this schedule will help to ensure proper functioning of the parts when the speed is adjusted.

Thank You For Purchasing A Quality U.S. Stoneware Product!

600 East Clark Street * East Palestine, OH. * 1-800-426-8808 * Fax (330)-426-1859

INSTRUCTIONS FOR CHANGING SPEED ON EXPLOSION-PROOF UNITS WITH MECHANICAL SPEED ADJUSTMENT

This machine is equipped with a mechanical speed adjustment drive; the following instructions must be followed to prevent damage to the drive and / or other components.

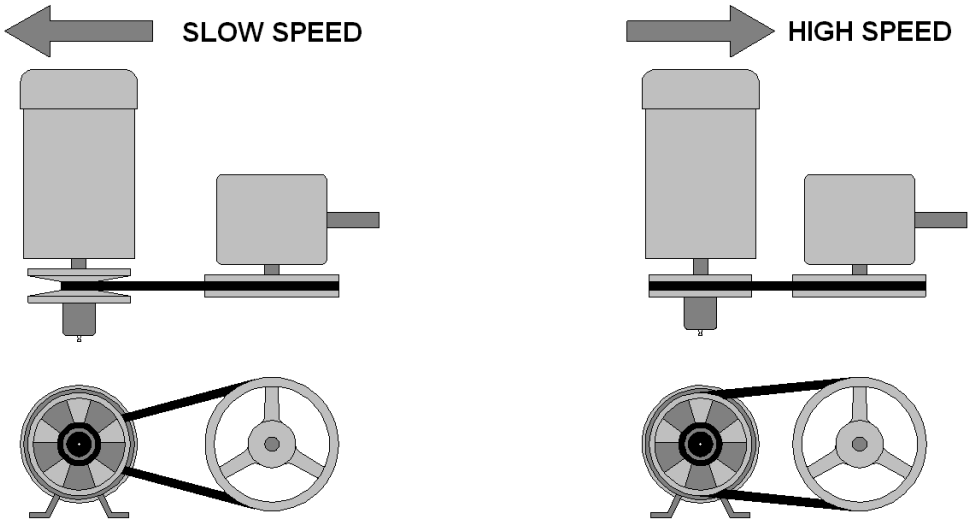
Due to the nature of explosion-proof machines, standard electronic speed controls cannot be used due to NEMA ratings.

Unless special controls have been ordered with the machine to control the speed, all U.S. Stoneware explosion-proof machines are provided with a mechanical speed adjustment drive.

These drives offer the ability to adjust the speed of the machine by varying the pitch diameter of the drive sheave.

IMPORTANT! – These drive sheaves must be adjusted only while the drive is in operation. Do not turn the speed adjustment knob for any reason without first turning on the machine.

Please refer to the maintenance schedule regarding lubrication instructions for applicable sheaves.



General Motor Maintenance

Introduction

1. Motors, properly selected and installed, are capable of operating for many years with a reasonably small amount of maintenance.

2. Before servicing a motor or motor-operated equipment, disconnect the power supply from motors and accessories. Use safe working practices during servicing of the equipment.

3. Clean motor surfaces and ventilation openings periodically, preferably with a vacuum cleaner. Heavy accumulations of dust and lint will result in overheating and premature motor failure.

Lubrication Procedure

Motors 10 HP and smaller are usually lubricated at the factory to operate for long periods under normal service conditions without re-lubrication. Excessive or too frequent lubrication may actually damage the motor. Follow instructions furnished with the motor, usually on the nameplate or terminal box cover or on a separate instruction. If instructions are not available, re-lubricate according to the following chart. Use high quality ball bearing grease. Grease consistency should be suitable for the motor's insulation class. For Class B, F or H use a medium consistency polyurea grease such as Shell Dolium R.

If the motor is equipped with lubrication fitting, clean the fitting tip and apply grease gun. Use 1 to 2 full strokes on NEMA 215 frame and smaller motors. Use 2 to 3 strokes on NEMA 254 through NEMA 365 frame. Use 3 to 4 strokes on NEMA 404 frames and larger. For motors that have grease drain plugs, remove the plugs and operate the motor for 20 minutes before replacing the plugs.

For motors equipped with slotted head grease screws, remove the screw and insert a two to three-inch long grease string into each hole on motors in NEMA 215 frame and smaller.

Insert a three to five-inch length on larger motors. For motors having grease drain plugs, remove the plug and operate the motor for 20 minutes before replacing the plugs.

Relubrication Intervals Chart For Motors Having Grease Fittings

Hours of Service Per Year	HP Range	Hours of Relube Value
5000	**1/18 to 7 1/2** **10 to 40** **50 to 100**	**5 years** **3 years** **1 years**
Continuous Normal Applications	**to 7 1/2** **10 to 40** **50 to 100**	**2 years** **1 years** **9 months**
Seasonal Service - Motor is idle for 6 months or more	**ALL**	**1 year (beginning of season)**
Continuous high ambient, high vibration or where shaft end is hot	**1/8 to 40** **50 to 150**	**6 months** **3 months**

Caution: Keep grease clean. Lubricate motors at a standstill. Do not mix petroleum grease and silicone grease in motor bearings.