

OWNER'S MANUAL

RLX-3 MIXER Type D



SAFETY WARNINGS



FOLLOW OWNER'S MANUAL & LUBRICATION/THREADLOCKING INSTRUCTIONS TO ENSURE PROPER ASSEMBLY OF MIXER. USE THE REPAIR PARTS LIST IN CONJUNCTION WITH ASSEMBLY PROCEDURES.

SAFETY CAREFULLY READ THE CAUTION AND WARNING MESSAGES.

CAUTION

- Review instructions before operating.
- This unit requires two people when assembling.
- All bolts should be fastened with the nuts facing toward the center of the mixer. Use Repair Parts List in conjunction with assembly procedures.
- Parts may have sharp edges. Gloves should be worn. Use caution when assembling. Hearing protection and safety glasses should be worn while operating this mixer.

WARNING - ELECTRICAL PRECAUTIONS

All wiring, electrical connections, and system grounding must comply with the National Electrical Code (NEC) and with any local codes and ordinances. Employ a licensed electrician.

WARNING - RISK OF ELECTRICAL SHOCK

- A ground fault interrupter (GFI) protected circuit is recommended for all outdoor electrical devices.
- Keep motor operating area as dry as possible.
- Always disconnect the power before servicing.

TECHNICAL SUPPORT

If you have any difficulties assembling or using this mixer, phone 1-800-667-1457 (7:30 am to 5:00 pm central time). Our factory rep will be pleased to help solve any problems.

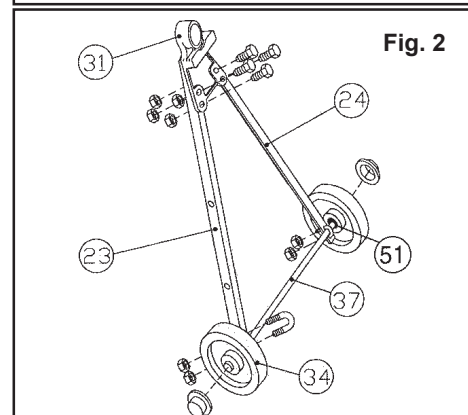
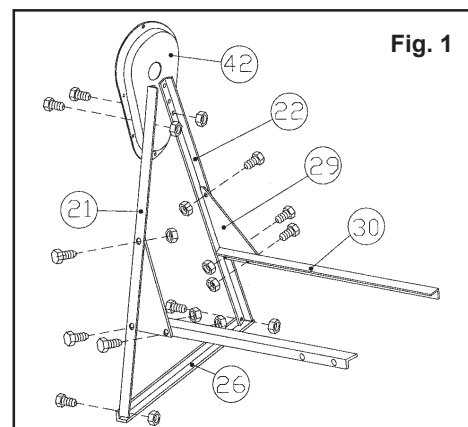
TOOLS REQUIRED

- 1/2" Socket or Wrench
- 9/16" Socket or Wrench
- Adjustable Wrench 12" long
- Screwdriver (flat head)
- Hammer/Mallet
- Grease Gun
- Pliers
- Builder's Square

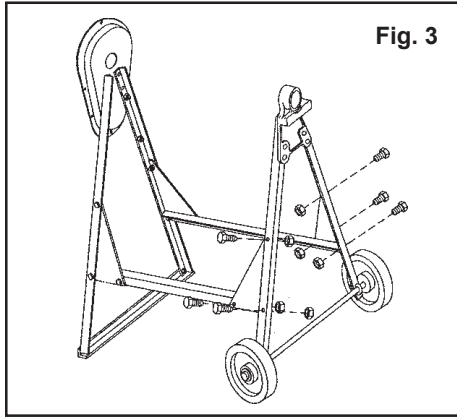
STEP 1 - ASSEMBLE FRAME

NOTE: Loosely fit all parts together, DO NOT TIGHTEN ANY BOLTS AT THIS TIME. Tightening bolts now will create problems aligning the components. Use fastener packages, numbers 1a & 3, for steps 1A through D. Refer to Fig. 1, below and Fig. 19 on Page 8.

- Assemble the rear cover (42) to the back legs (21) (22) using one 3/8 x 1 bolt and nut (8) (10) in each leg. Use the bolt holes furthest away from the large hole in cover. Temporarily install one 3/8 x 1 bolt and nut into one of the remaining holes to stabilize for assembly.
- Assemble base angle (26) to the back legs using two 5/16 x 3/4 bolts and nuts (6)(7).
- Assemble the two corner braces (29) and the cross braces (30) with open face of angles facing inward and downward (one on each side) to the back leg assembly using six 5/16 x 3/4 bolts and nuts (6)(7).
- Assemble the yoke support (31) to the front legs (23) (24) using four 3/8 x 1 carriage bolts(rounded head type) and nuts (10) (11) (Fig. 2).
- Slide washers (51) onto axle (37), assemble wheels (34) onto axle (37) (**making sure the six ribs on the rim are facing toward the center of the mixer**). Using a mallet or hammer, tap the push nuts (33) onto the ends of the axle. Using U-bolts (35) and 5/16 nuts (36), attach the axle assembly to mixer frame.



1g) Assemble the front leg assembly to the rear leg assembly with two corner braces (29) using six 5/16 x 3/4 bolts and nuts (6)(7) (Fig. 3).



2c) Hold the yoke in place and slip the drive end plate (19) into the groove in the yoke and bolt it to the back legs using four 3/8 x 1 bolts and nuts (38)(10) (Fig. 6). Remove temporarily installed bolt and nut from step 1a.

NOTE: The two remaining 3/8 x 1 bolts and nuts are in package #2.



STEP 2 - ASSEMBLE YOKE

2a) Slip the drive end of the yoke (20) (the end with one large hole) through the hole in the rear cover, then slip the opposite end into the yoke support (Fig. 4).

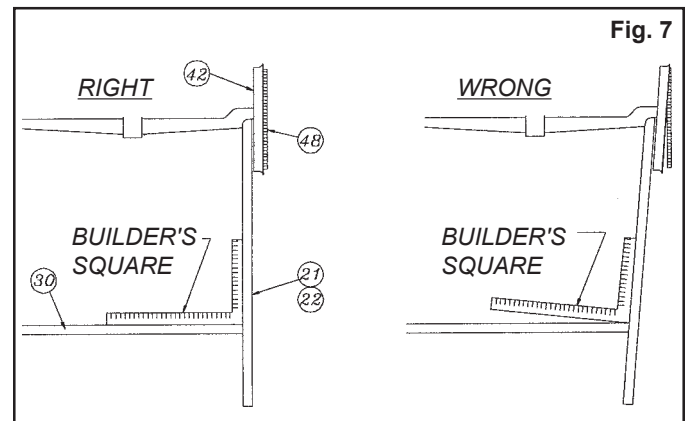
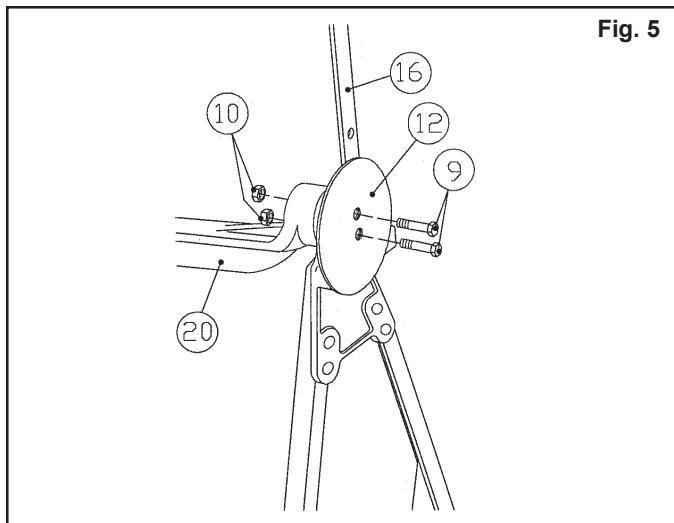
NOTE: Hold the yoke firmly in position until steps 2b and 2c are completed.



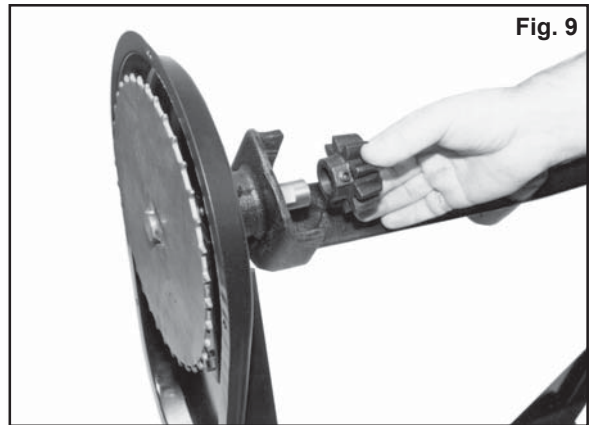
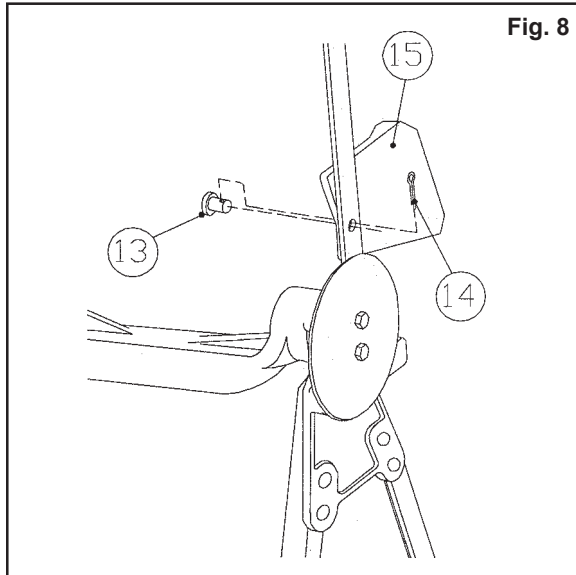
SQUARE THE FRAME AND TIGHTEN ALL BOLTS NOW!

All assembly from this point on can be fully tightened. For alignment use a builder's square (Fig. 7).

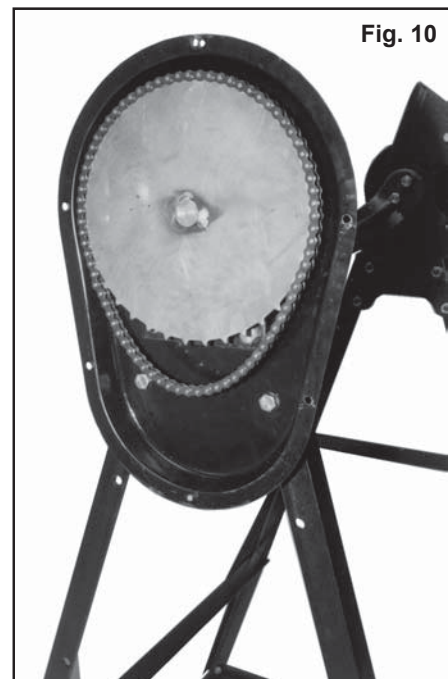
2b) Assemble the dump lever (16) and safety guard (12) to the yoke using two 3/8 x 2-3/4 bolts and nuts (9)(10) (Fig. 5).



- 2d) Assemble the stop plate (15) to the dump lever using the clevis pin (13) and the cotter pin (14) (Fig. 8).



- 3d) Temporarily place the drive chain (48) onto the large sprocket (45) (Fig. 10), to verify that the chain hangs perpendicular to the frame.



STEP 3 - ASSEMBLE DRIVE SPROCKET

- 3a) Wipe the shaft of the sprocket weldment (45) and the hole in the drive end of the yoke clean.
- 3b) Apply grease to the inside of the yoke drive end and to the outside surface of the sprocket drive shaft (refer to separate sheet for lubrication instructions).

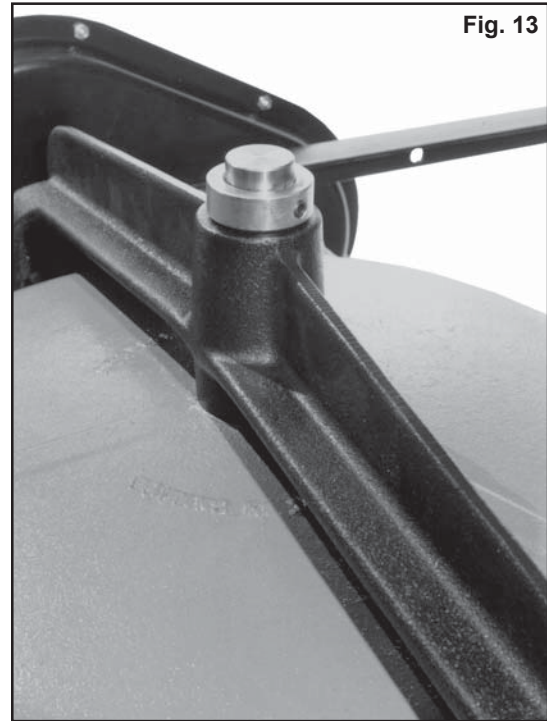
CAUTION: If you don't grease the mixer, it will fail, lock up, or wear out in a few hours.

- 3c) Insert the sprocket weldment (45) into the yoke and install the pinion gear (18) on the end of the shaft using two 5/16 X 1/2 set screws (17). Lightly push the sprocket and gear towards each other to ensure minimal end play in the shaft (Fig. 9). Tighten the first set screw on the flat area of the shaft with 5/32 Allen wrench (spin the sprocket weldment to ensure there is no binding). Wipe away excess grease (Fig. 9).

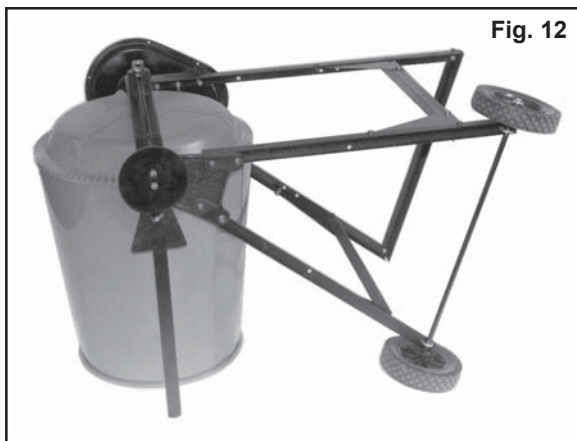
NOTE: To ensure smooth operation, the drive chain (48) should hang parallel to the sprocket weldment (45). If it does not hang parallel, loosen the frame bolts and **align with a builder's square as shown in Fig. 7**. The mixer legs (21)(22) should be square with the cross brace (30). After squaring the frame, remove the chain (48).

STEP 4 - ASSEMBLE DRUM TO FRAME

- 4a) **Wipe clean** bowl shaft (32) and threaded area of the bowl bottom then apply supplied loctite as per lubrication/thread locking instruction sheet. Assemble the bowl shaft (32) to the bottom of the bowl. Tighten the bowl shaft securely using an adjustable wrench. (Fig. 11)



- 4b) **Wipe clean** yoke (center hole) bowl shaft bearing surface. Being careful not to damage bushings, insert bushing (2) into top and bottom of yoke, making sure anti-spin tab is located in groove (see lubricating instructions). Position the yoke and the mixer frame onto the bowl shaft as shown (Fig. 12).



- 4c) Assemble the collar onto the bottom of the bowl shaft. The collar should be snug against the yoke, but not tight enough to bind. Tighten using 5/32 Allen wrench (Fig. 13).

- 4d) Two people are required to stand the mixer in an upright position as shown in Fig. 14.

NOTE: Hand turn the bowl to ensure no binding of mating parts occur.



NOTE: Two people are required to stand the mixer in an upright position as shown in Fig. 14.

CAUTION: If the mixer bowl does not turn freely, it may burn out the motor or wear out the mixer.

STEP 5 - ASSEMBLE DRIVE

- 5a) Reapply the drive chain (48) onto the large sprocket as previously shown on page 3, Fig. 10. Mount the motor cover assembly (49) by placing the small sprocket into the drive chain and then fasten the front and rear covers together using the #10 screws and nuts (40)(41) (Fig. 15 & 15a).

NOTE: Align top and bottom holes first to allow for proper chain and sprocket tension.



Fig. 15



Fig. 15a

STEP 6 - ASSEMBLE PADDLES

- 6a) Assemble the three mixer blades (5) into the drum using three 5/16 x 3/4 bolts and nuts (3)(4), with the bolt heads on the outside of the drum (Fig. 16).

NOTE: The lower end of the blades do not require bolts. Simply locate the hole in the blade over the left hand cast pin in the bottom of the drum.

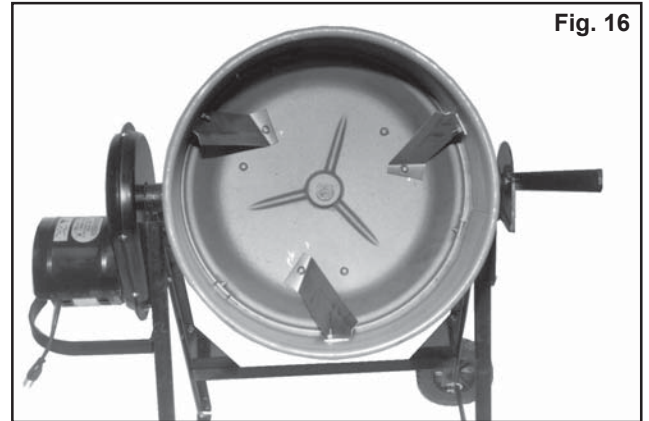


Fig. 16

- 6b) Assemble the handle (25) to the legs on the drive end of mixer using 5/16 x 3/4 bolts and nuts (6)(7) (Fig. 17).

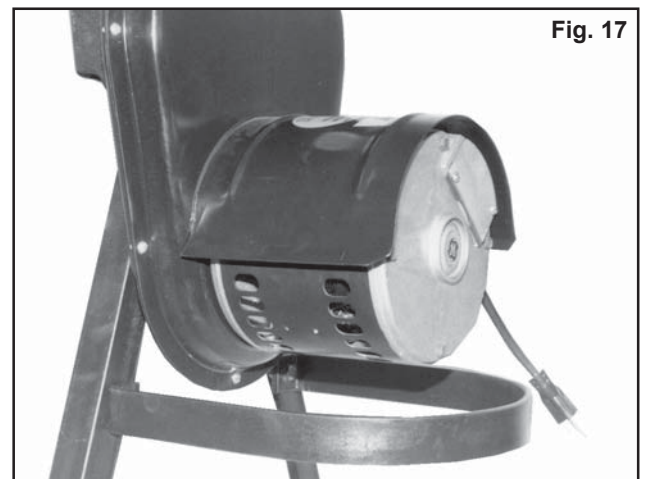


Fig. 17

- 6c) Before filling the mixer, spin the drum by hand to ensure that it is not binding. Keep hands clear of all moving parts. Plug the mixer in, and run it empty to ensure that it has been assembled properly.

If a problem occurs unplug it and see the **"TROUBLE SHOOTING GUIDE"** on Page 7.

BEFORE FILLING THE MIXER

- Spin the drum by hand to ensure that it is not binding.
- Ensure all bolts are tightened!
- Reread all safety messages!
- **A "GROUND FAULT INTERRUPTER" protected circuit is recommended for all outdoor electric devices!**
- Make certain grease has been applied to the drive shaft!
- Run empty to check for smooth and stable operation!
- **Refer to special instructions for initial mix!**

FOR SAFETY

- Do not use multiple extension cords
- Do not use over 145 ft. cord (see note).
- **Too thin or too long an extension cord may cause the motor to burn out!**

	Recommended Electrical Cord Gauge Distance (in feet)		
	0-55 ft.	55-90 ft.	90-145 ft.
Gauge	16	14	12

INITIAL MIX INSTRUCTIONS

NOTE: Follow these directions for the initial batch, to seal the mixer drum for best performance and longest possible mixer life.

- 1) Put the drum into the mixing position.
- 2) Grease drive shaft cavity with a grease gun.
- 3) Start the mixer.
- 4) **Add the full quantity of cement and mix for two minutes.**
- 5) **Add the full quantity of aggregate and mix for two minutes.**
- 6) **Add water until desired workability is attained.**
- 7) Dump the load gently (Fig. 18).

OPERATION

NOTE: These instructions are for regular operation. **For the first batch, see the initial mix instructions.**

- 1) Put the drum into the mixing position.
- 2) Start the mixer.
- 3) Add the required amount of water.
- 4) Add a small amount of aggregate.
- 5) Add the full quantity of cement.
- 6) Slowly add aggregate until desired workability is attained.
- 7) Dump the load gently (Fig. 18).

MAINTENANCE

BEFORE USE: with a grease gun, apply grease to the yoke grease fitting at the drive shaft.

AFTER USE: Clean out the drum with water and approximately 2 shovelfuls of 3/4" gravel. All sand and gravel should be removed from the pinion gear and the ring gear. Regrease the yoke cavities.

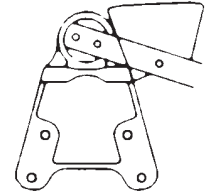
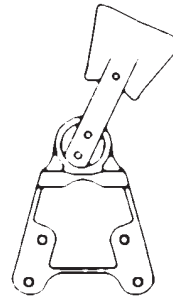
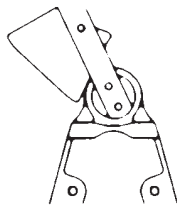
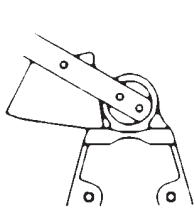
MOTOR: Ensure that the motor is connected to 115V outlet. Ensure long extension cords are of heavy gauge construction. Do not use extension over 145 ft. (see chart above)

NOTE: Insufficient conductor size or too long an extension cord will result in a low voltage condition causing premature motor failure.

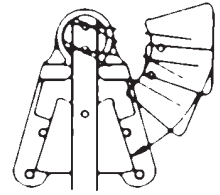
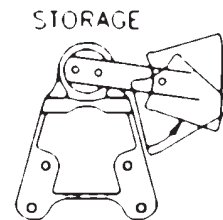
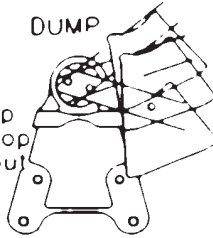
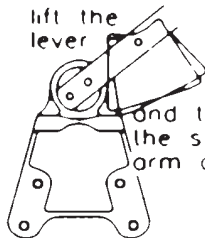
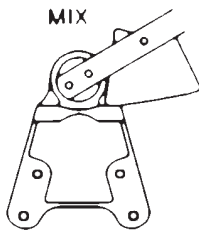
Fig. 18 LEVER OPERATION

YOU CAN MIX ON THIS SIDE

AND THEN DUMP ON THIS SIDE



OR MIX AND DUMP ON THE SAME SIDE



TROUBLE SHOOTING GUIDE FOR RLX-3 MIXER

PROBLEMS	CAUSES	SOLUTIONS
<ul style="list-style-type: none"> • Motor hums, but doesn't start 	<ul style="list-style-type: none"> • Poor connection from motor to power supply. • Extension cord too long. • Power supply cord too thin. 	<ul style="list-style-type: none"> • Check connections; do not use Multiple extension cords (see Page 6). • Refer to Page 6 for proper length. • Refer to Page 6 for recommended gauge to be used.
<ul style="list-style-type: none"> • Mixer is plugged in, but does not start (motor is not humming). 	<ul style="list-style-type: none"> • Low voltage to unit. • The drive system is binding. 	<ul style="list-style-type: none"> • USE ONLY recommended cord lengths. If a generator is being used, check the setting on generator. • Check the mixer drive to see where it is binding and adjust the component that is binding. • When the above solutions have been checked, PRESS THE MANUAL RESET BUTTON located on the motor. Mixer will commence operation. CAUTION: if the mixer is jammed and the manual reset is pressed repeatedly, you will burn out the motor and void any warranty.
<ul style="list-style-type: none"> • Drum doesn't turn freely by hand 	<ul style="list-style-type: none"> • Gears not meshing properly. • Chain is binding. • Frame is out of alignment. 	<ul style="list-style-type: none"> • Check that the drive gear is flush with sprocket shaft (see Page 3, Fig. 9). • Remove front cover to verify that chain is hanging straight down square to frame (see Page 2, Fig. 7). • Check to see if the frame is square using a builder's square (see Page 2, Fig. 7). NOTE: If frame is out of square loosen bolts and square it off.

TROUBLE SHOOTING GUIDE FOR RLX-3 MIXER

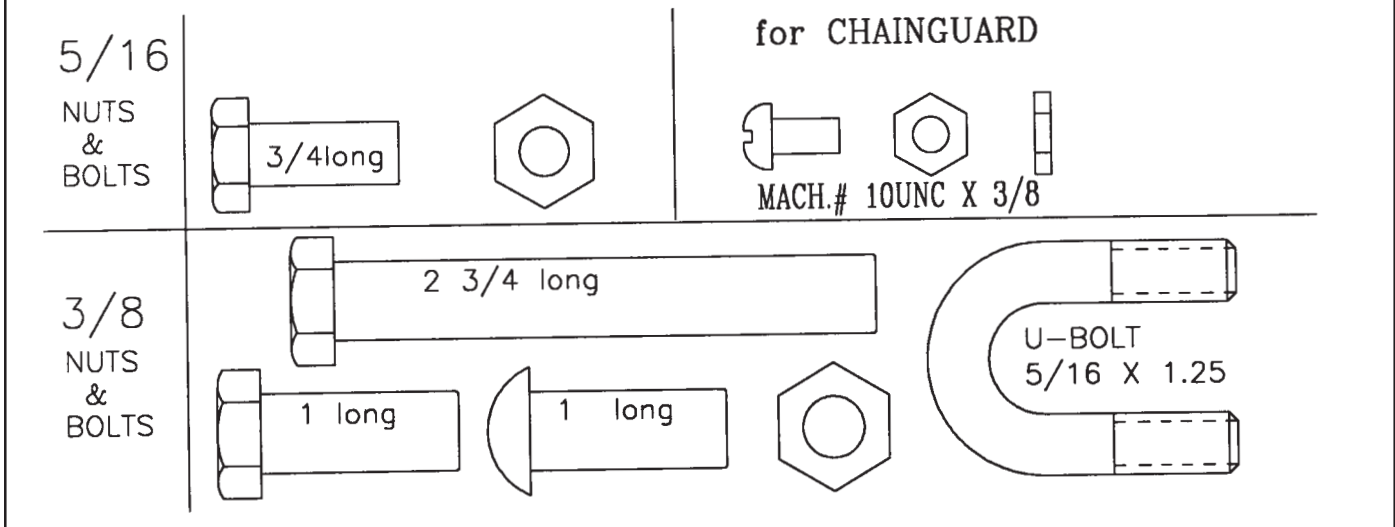
PROBLEMS	CAUSES	SOLUTIONS
<ul style="list-style-type: none"> • Drum doesn't turn freely by hand 	<ul style="list-style-type: none"> • The pinion gear binding into the side of the bowl bottom. • Chain jumps off the large sprocket. 	<ul style="list-style-type: none"> • Loosen set screw, reset, and tighten with minimal end play (see Page 3, Fig. 9). • Remove the motor cover, check to see if the sprocket turns true and is flush with the motor cover. Ensure the chain hangs straight down, square to the frame (see Page 2, Fig. 7).
<ul style="list-style-type: none"> • Drum leaks water 	<ul style="list-style-type: none"> • Drum isn't sealed properly. 	<ul style="list-style-type: none"> • Refer to initial mix instructions on Page 6.

If you experience any problems assembling your mixer or if you require further information please call **1 (800) 667-1457** during regular business hours and our service department will be able to help you.

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NOTE: For easier separation of bolts and nuts, use this full sized chart as a guide.

Fig. 19 SIZING CHART



LIMITED REDLION WARRANTY

For one year from date of purchase, Red Lion will replace or repair for the original purchaser, free of charge, any part or parts, found upon examination by any Red Lion Authorized Service Depot or by the Red Lion factory, to be defective in material or workmanship or both. Equipment and accessories not manufactured by Red Lion are warranted only to the extent of the original manufacturer's warranty. All transportation charges on parts submitted for replacement or repair under this warranty must be borne by the purchaser. For warranty service, see your nearest Red Lion Authorized Service Depot.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO ONE YEAR FROM PURCHASE AND TO THE EXTENT PERMITTED BY LAW. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW.

This warranty is in addition to any statutory warranty.

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