



SRM30+

PLANETARY MIXER PARTS AND SERVICE MANUAL



Persons under the age of 18 are not permitted to operate or have access to this equipment per U.S. Dept. Of Labor Employment Standards Administration Sheet No. ESA913

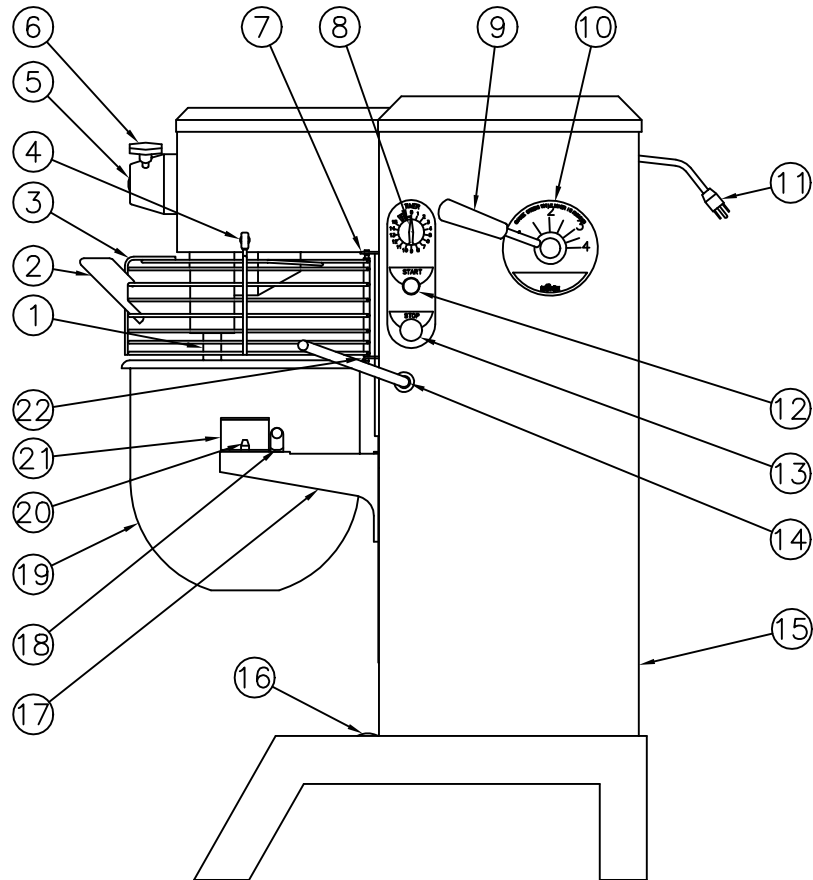
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OVERALL VIEW OF MIXER
FIGURE 1



- | | |
|---------------------------|----------------------------|
| 1. BEATER HEAD | 12. START BUTTON |
| 2. CHUTE | 13. STOP BUTTON |
| 3. SAFETY RING ASSEMBLY | 14. BOWL LIFT HANDLE |
| 4. MAGNET | 15. REAR ACCESS PANEL |
| 5. No.12 HUB | 16. CAP |
| 6. THUMB SCREW | 17. BOWL SUPPORT |
| 7. UPPER MOUNTING BRACKET | 18. BOWL CLAMP |
| 8. TIMER (OPTIONAL) | 19. BOWL |
| 9. SPEED CONTROL LEVER | 20. BOWL SUPPORT PIN |
| 10. SPEED INDICATOR LABEL | 21. BOWL MOUNTING BRACKET |
| 11. CORD | 22. LOWER MOUNTING BRACKET |

SRM30+ TROUBLESHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	REMEDY
1. Mixer will not operate.	1.1 Timer not turned on. 1.2 Burned switch contacts. 1.3 Electrical service down. 1.4 Motor capacitor defective. (1 HP only) 1.5 Burned out motor. 1.6 Magnetic starter tripped due to overload. 1.7 Safety ring not mounted or closed. 1.8 Bowl not raised.	1.1 Turn timer on. 1.2 Replace. 1.3 Check electrical service. Replace fuse or reset circuit breaker if necessary. 1.4 Replace motor. 1.5 Remove, test, repair or replace. 1.6 Wait several minutes and push start button. 1.7 Install safety ring. 1.8 Raise bowl completely.
2. Mixer runs but agitator will not turn.	2.1 Drive belt off pulley. 2.2 Key or pin sheared on input shaft, input gear, bevel pinion, bevel gear, vertical shaft or beater head. 2.3 Shifting speed with mixer not running.	2.1 Reinstall drive belt on motor pulley and adjust mounting center distance. 2.2 Locate by step inspection and replace defective part. 2.3 With mixer running, slowly move speed control lever fully forward then backward to re-engage belt.
3. Agitator stalls during mixing.	3.1 Mixer bowl is overloaded. 3.2 Speed is set to high for the mix. 3.3 Loose belt. 3.4 Contamination of belt with grease.	3.1 Adjust contents of bowl. 3.2 Shift speed lower till action rotates smoothly. 3.3 Readjust pulley center distance to tighten belt. 3.4 Clean pulleys and replace belt.
4. Speed does not change properly.	4.1 Loose belts. 4.2 Vari-speed pulley inoperative.	4.1 Tighten or replace belts. 4.2 Remove, clean and lubricate or replace.
5. Mixer runs, but repeatedly cuts out and stops.	5.1 Bowl overloaded. 5.2 Speed is set too high for the mix. 5.3 Service voltage too low or fluctuating. 5.4 Starter improperly set.	5.1 Adjust contents of bowl. 5.2 Reduce speed. 5.3 Check electrical voltage. 5.4 Adjust amp setting on starter.
6. Attachments contact bottom of bowl.	6.1 Dented bowl. 6.2 Bowl height is set too high.	6.1 Remove dent or replace bowl. 6.2 Reset bowl height.

SRM30+ TROUBLESHOOTING GUIDE (CONTINUED)

7. Attachments contact side of bowl	7.1 Dented bowl. 7.2 Insufficient clearance between bottom of bowl and beater.	7.1 Remove dents or replace bowl. 7.2 Adjust bowl height.
8. Excessive noise	8.1 Gears need to be repacked with grease. 8.2 Badly worn or frayed drive belts. 8.3 Attachments hitting bowl. 8.4 Overloaded mixing bowl.	8.1 Locate source by inspection and repack with grease. 8.2 Replace belts. 8.3 Inspect for cause in items 6 & 7 above. 8.4 Adjust contents of bowl.

MECHANICS MAINTENANCE

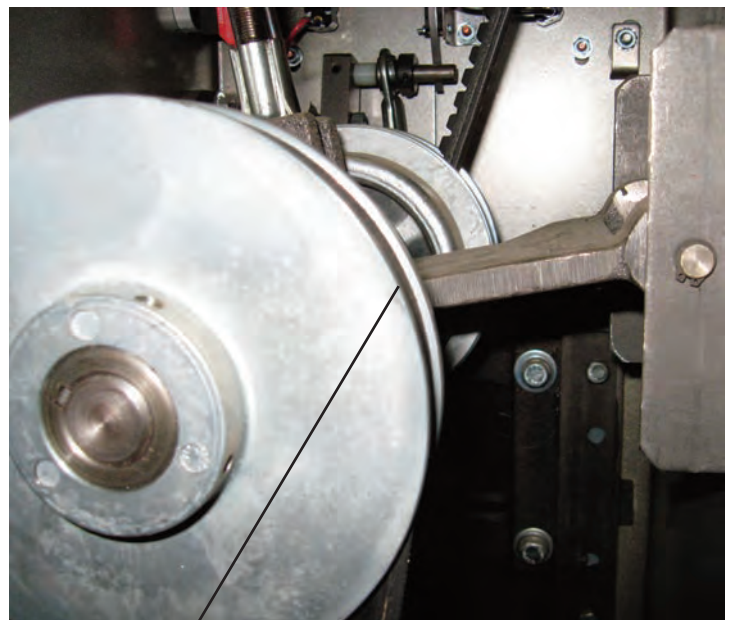
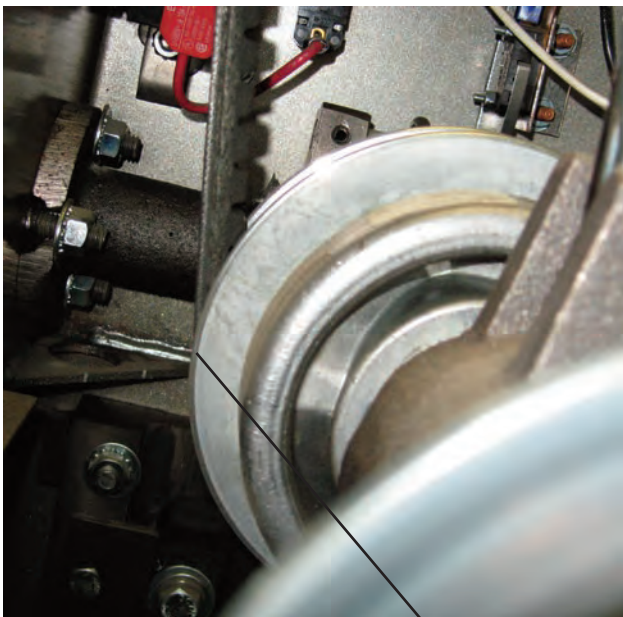
Every six months a mechanic should perform the following inspection and maintenance.

1. BELTS:

a. **WARNING:** Start the mixer and adjust the speed control (Figure 1 [9]) to speed 4. Stop the mixer.

FOR SAFETY, DISCONNECT THE ELECTRICAL POWER CORD.

- b. Remove the top cover (Figure 12 [4]) per section 2 mechanics maintenance “REMOVAL OF TOP COVER” on page 2.4.
- c. Remove the rear access cover (Figure 12 [5]).
- d. Check the belts (Figure 10 [11 & 22]). If broken, glazed or worn, replace them.
- e. Check the belt (Figure 10 [11]) for proper tension. The outer edge of the belt should be flush with the outer diameter of the variable speed pulley (Figure 10 [10]). If not, adjust it by loosening the jam nut (Figure 11 [16]) and turning the connecting rod (Figure 11 [17]) until the outer edge of the belt is flush with the outer diameter of the variable speed pulley. Retighten the jam nut.
- f. Plug in the electrical power supply cord and turn the mixer on. Adjust the speed control to speed 1. Stop the mixer and **DISCONNECT THE ELECTRICAL POWER SUPPLY CORD.**
- g. Check the belt (Figure 10 [22]) for proper tension. The outer edge of the belt should be flush with the outer diameter of the variable speed pulley (Figure 10 [10]). If not, adjust it by loosening the four 5/16-18 Kep nuts (Figure 10 [14]), securing the motor to the mixer housing, raise or lower the motor until the outer edge of the belt is flush with the outer diameter of the variable speed pulley. Retighten the nuts.



belt flush with pulley flange

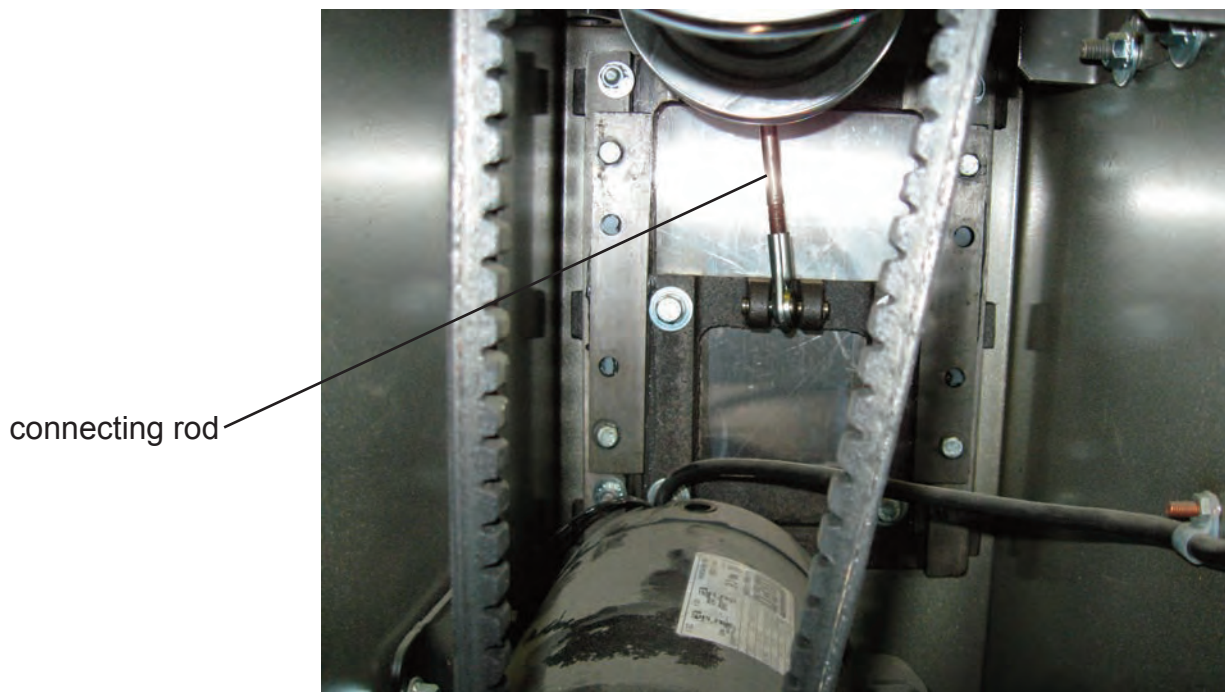
MECHANICS MAINTENANCE

2. **MOTOR:**

Check the motor (Figure 10 [29]) for overheating, noise and excessive end play of the shaft. Replace the motor if defective.

3. **BOWL LIFT ADJUSTMENT:** (Figure 8 and 9)

- a. Place the 30 quart mixing bowl on the bowl support (Figure 1 [17]) and the 30 quart batter beater on the beater head shaft (Figure 1 [1]).
- b. Raise the bowl support to the up position.
- c. Check the clearance between the bottom of the bowl and the lowest point of the batter beater. The clearance should be 3/16 inch, plus or minus 1/16 inch.
- d. If adjustment is required, disconnect the electrical power supply cord, loosen the lock nut (Figure 9 [11]) and turn the connecting rod (Figure 9 [12]) until the correct clearance is obtained. Retighten the lock nut.



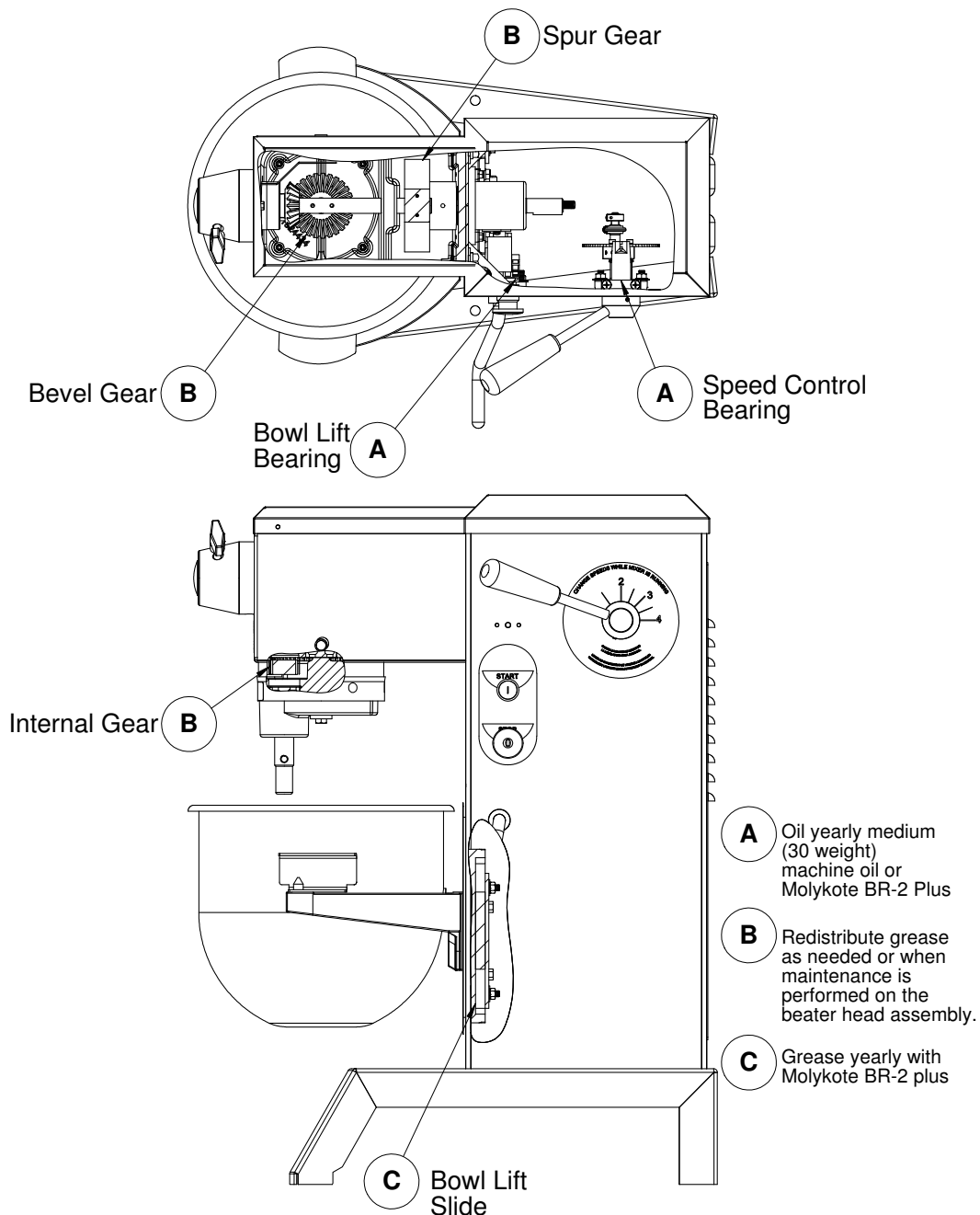
LUBRICATION

The lubrication instructions are in Figure 2. The motor has pre-lubricated bearings with a service interval of ten years. The transmission and beater head gearing are packed with Nevastane 5P7 grease.

WARNING: NEVER WORK ON THE TRANSMISSION WITH THE MIXER RUNNING. IT IS RECOMMENDED THAT THE ELECTRICAL SERVICE POWER CORD BE DISCONNECTED TO PREVENT ACCIDENTAL START UP.

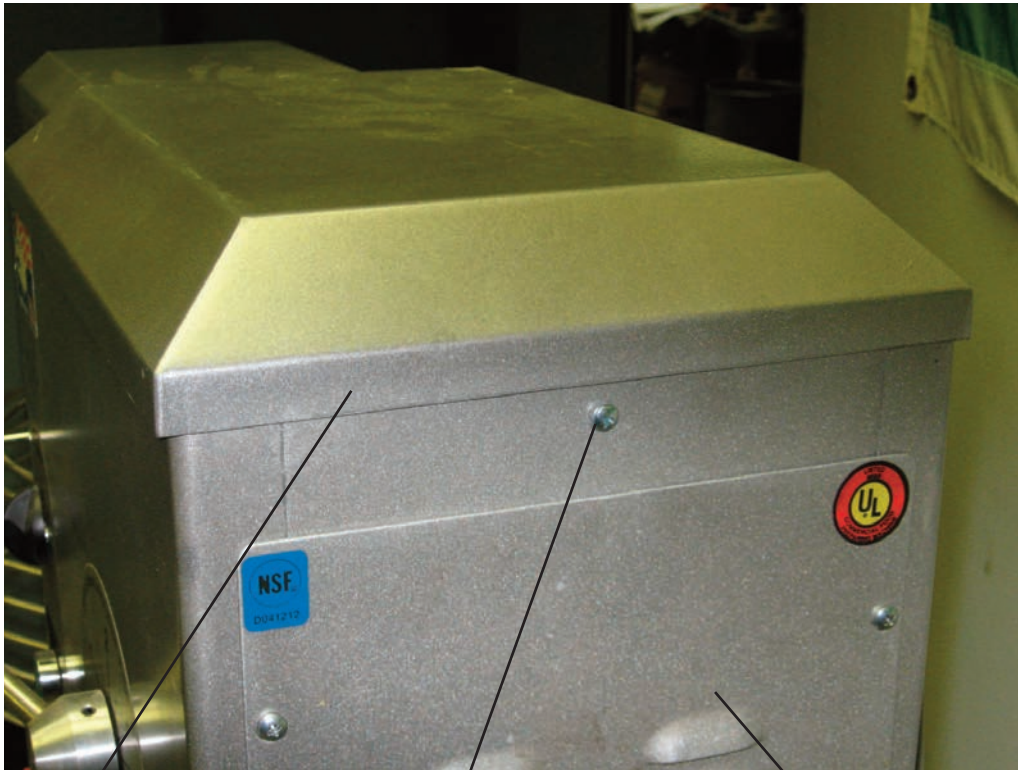
LUBRICATION INSTRUCTIONS

FIGURE 2



REMOVAL OF TOP COVER

- a. The top cover (Figure 12 [4]) must be removed to perform maintenance operations on the mixer. It is secured by a spring clip at its front end and a screw in back. Before removing the top cover **DISCONNECT THE ELECTRICAL POWER CORD**. Remove the screw in the rear, lift the rear of the cover and push it forward about 2 inches and lift it off.
- b. Reinstall the top cover in the reverse of the above procedures using care to insure that the cover sits squarely and uniformly on the mixer housing.



top cover

top cover screw

rear access panel

REPAIR INSTRUCTIONS

TRANSMISSION: (Figure 3)

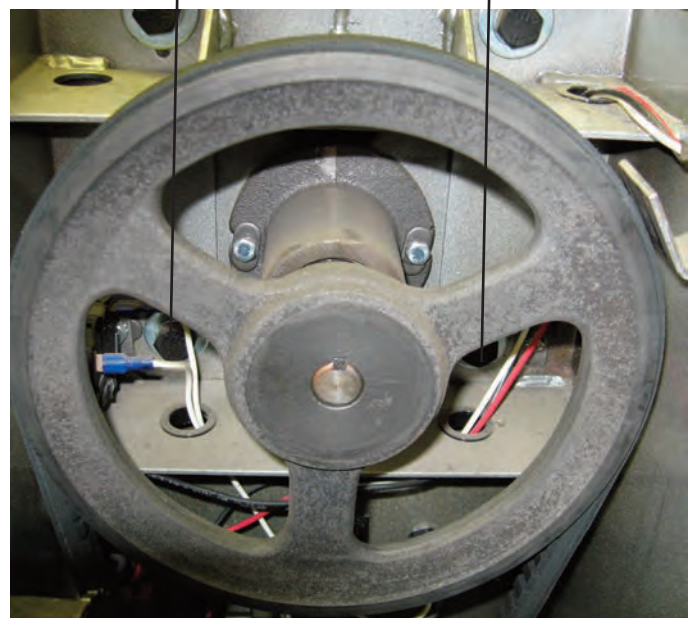
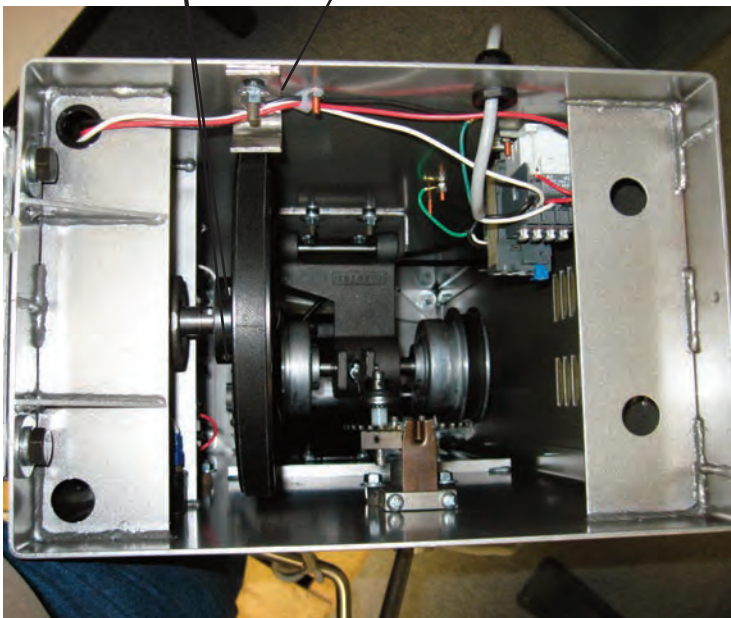
REMOVAL:

1. **WARNING:** DISCONNECT THE ELECTRICAL POWER SUPPLY CORD.
2. Remove the mixer top cover (Figure 12 [4]) per section 2, mechanics maintenance “REMOVAL OF TOP COVER” instructions on page 2.4
3. Remove the transmission cover (Figure 3 [2]) by removing the four phillips pan head screws (Figure 3 [3]) and sliding it towards the rear and lifting up.
4. Rotate the gear train by hand and inspect it for worn or chipped gears, bent shafts, worn bearings and excessive backlash. Removal of grease may be necessary. Backlash, measured at the gear teeth, exceeding .030 inch is considered excessive. After inspecting the gear train to isolate any problems, proceed to disassembly.
5. Remove the kep nut and washer and remove the upper belt retainer.
6. Adjust the speed control lever (Figure 1 [9]) to low speed, then back to high speed. Loosen the two set screws in the upper pulley (Figure 10 [1]) and remove the upper pulley and the belt.
7. **CAUTION:** The transmission assembly is heavy and must be supported prior to removing it. Remove the four 1/2-20 hex head cap screws (Figure 3 [8]) securing the transmission housing to the mixer housing. Remove the transmission assembly and place it on a workbench.

Set screws

Upper Belt Retainer

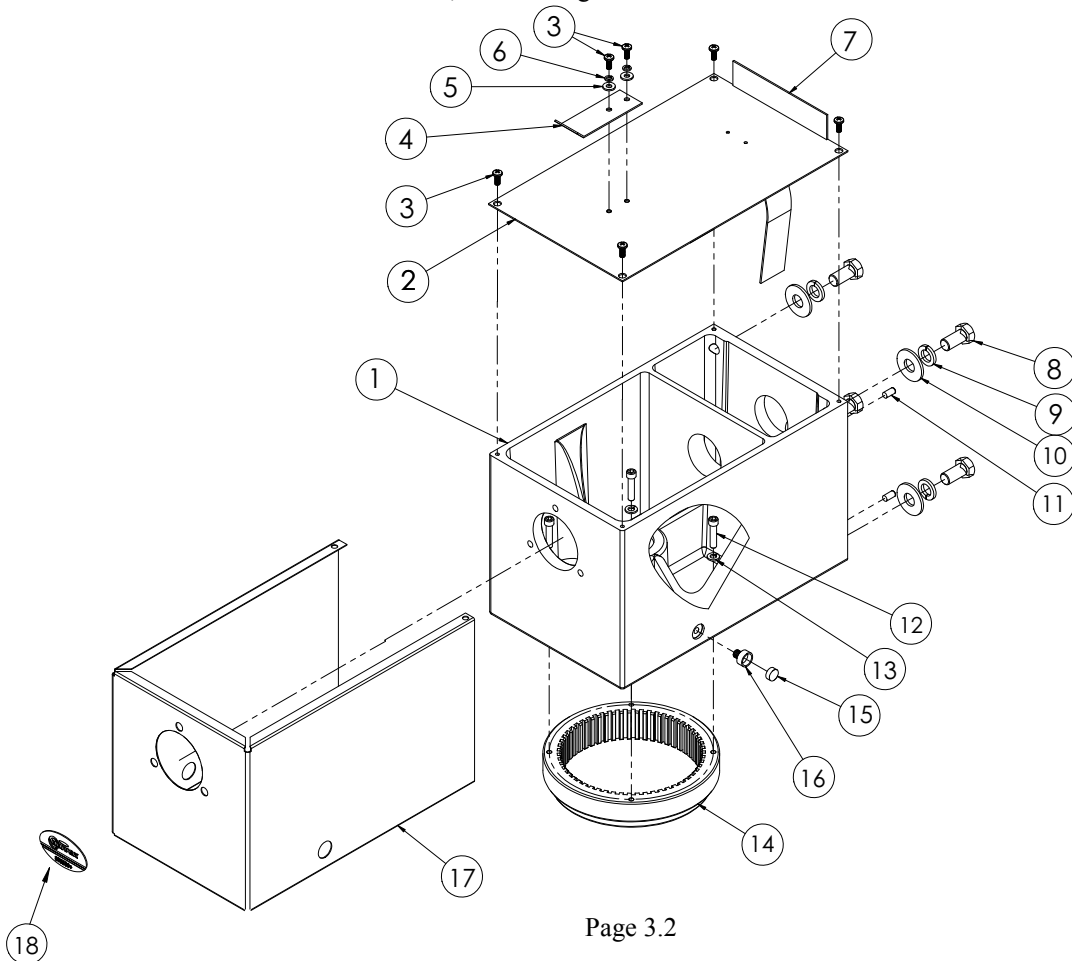
1/2-20 Hex Head Screws



Transmission Assembly

Figure 3

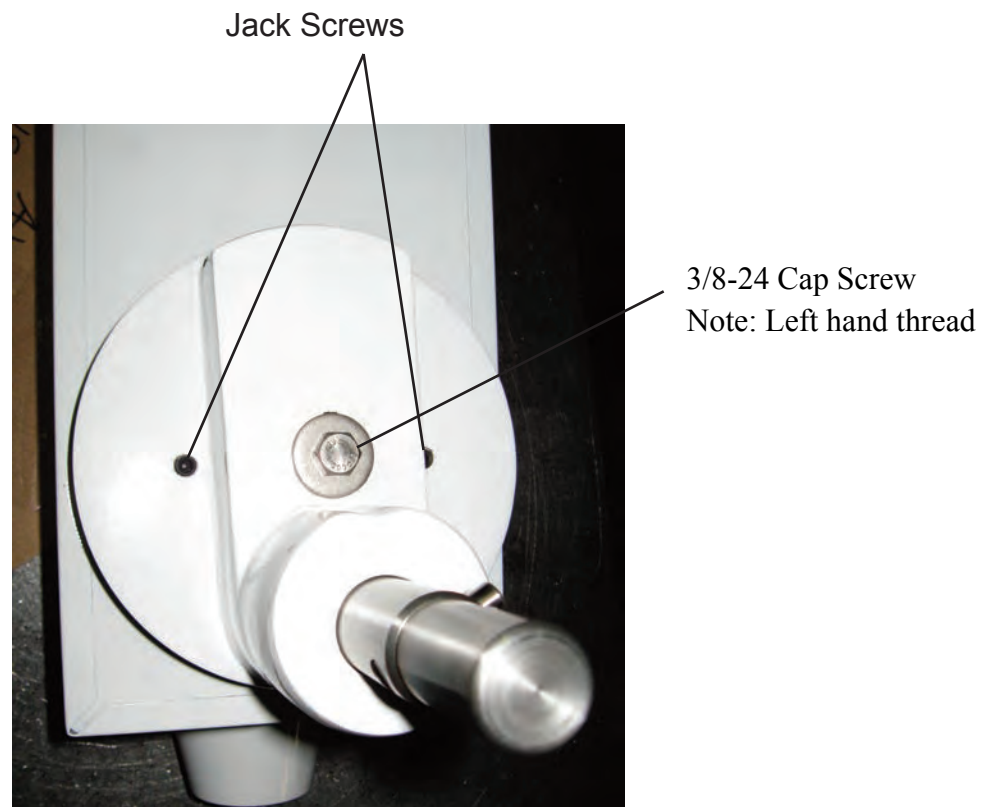
<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
1	1035044 1035015A	Transmission Housing Transmission Cover Assembly (Includes 2-6)	1
2	1035015	Transmission Cover	1
3	1200012	Phillips Pan Head Screw 10-32 X 1/2	6
4	1024041	Spring Clip	1
5	1200076	Flat Washer #10	2
6	4400065	Lock Washer #10	2
7	8800022	Foam Strip	1
8	1200057	Hex Head Cap Screw 1/2-20 X 1	4
9	1200085	Lock Washer 1/2	4
10	1200084	Flat Washer 1/2	4
11	4400194 1030174A	Dowel Pin 1/4 Dia X 1/2 Internal Gear Kit (Includes 12 - 14)	2
12	1200437	Socket Head Cap Screw 1/4-20 X 1-1/8 Nyloc	4
13	4400005	Lock Washer 1/4	4
14	1030174 1012439A	Internal Gear Magnet Kit (Includes 15 - 16)	1
15	1012439	Magnet	2
16	1012438 1035048A	Holder, Magnet Transmission Wrap Assembly (Includes 17 - 18)	2
17	1035048	Transmission Wrap	1
18	4400503	Label, Univex Logo	1



Beater head assembly: (Figure 4)

1. Remove the 3/8-24 hex head cap screw (Figure 4 [14]), (left hand thread), and remove the beater head assembly using the two jack screws (Figure 4 [10]) if necessary.
2. Remove the drive pin (Figure 4 [3]).
3. Remove the retaining ring [9], beater head pinion gear [8] and the key [4] from the beater head shaft.
4. Remove the internal retaining ring [7] and press the shaft assembly upwards out of the housing.

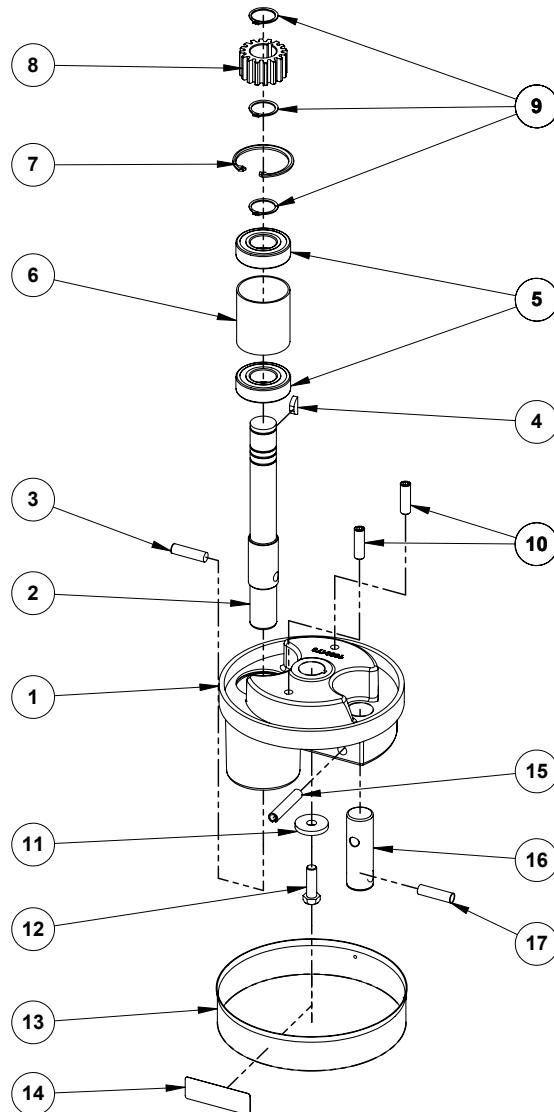
NOTE: If the gear requires replacement, always replace it's mating gear.



Beaterhead Assembly

Figure 4

<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
	1000443A	Beaterhead Assembly (Includes 1 - 12, 15 - 17)	
1	1030173	Beaterhead Housing	1
2	1033236	Shaft, Beaterhead	1
3	1200110	Pin, Dowel 3/8 X 1-3/8	1
4	1200113	Key, Woodruff #9	1
5	1030148	Bearing 6205 LL	2
6	1030149	Spacer, Beaterhead Shaft	1
	1012003A	Beaterhead Pinion Gear Assembly (Includes 4, 7 - 9)	
7	1200254	Retaining Ring, Internal	1
8	1031039	Beater Head Gear, Pinion	1
9	1200253	Retaining Ring, External	3
10	8900038	Socket Head Set Screw 3/8-16 X 1-1/4	2
11	4400399	Flat Washer 7/16 X 1-1/4 X 5/64	1
12	1200051	Hex Head Cap Screw 3/8-24 X 1-1/4 Left Hand Thread	1
13	1030209	Ring, Splash	1
14	4400269	Label, Rotation	1
15	1200406	Pin, Roll	1
16	1000438	Shaft, Bowl Scraper	1
17	1200110	Pin, Bowl Scraper	1

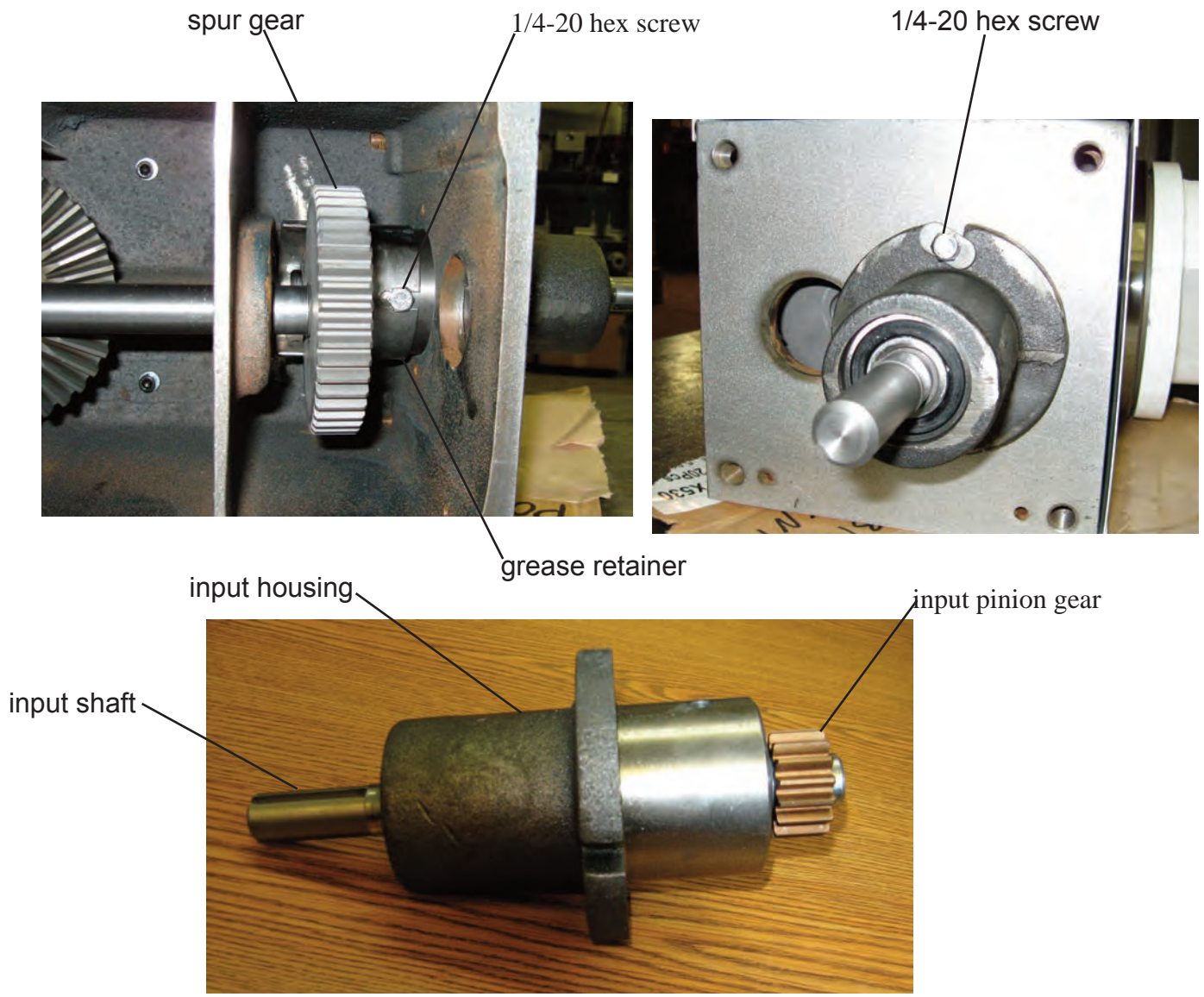


BOWL SCRAPER:
POLY - 1000423
SUPPORT - 1000422

INPUT ASSEMBLY: (Figure5)

1. Remove the 1/4-20 hex head cap screw (Figure5 [8]) and the washers [9 & 10] to detach the grease retainer [14] from the input housing [13].
2. Remove the two 1/4-20 hex head cap screws [11] and remove the input assembly from the transmission housing.
3. Remove the retaining rings [1], gear [2] and woodruff key [5] from the input shaft [6].

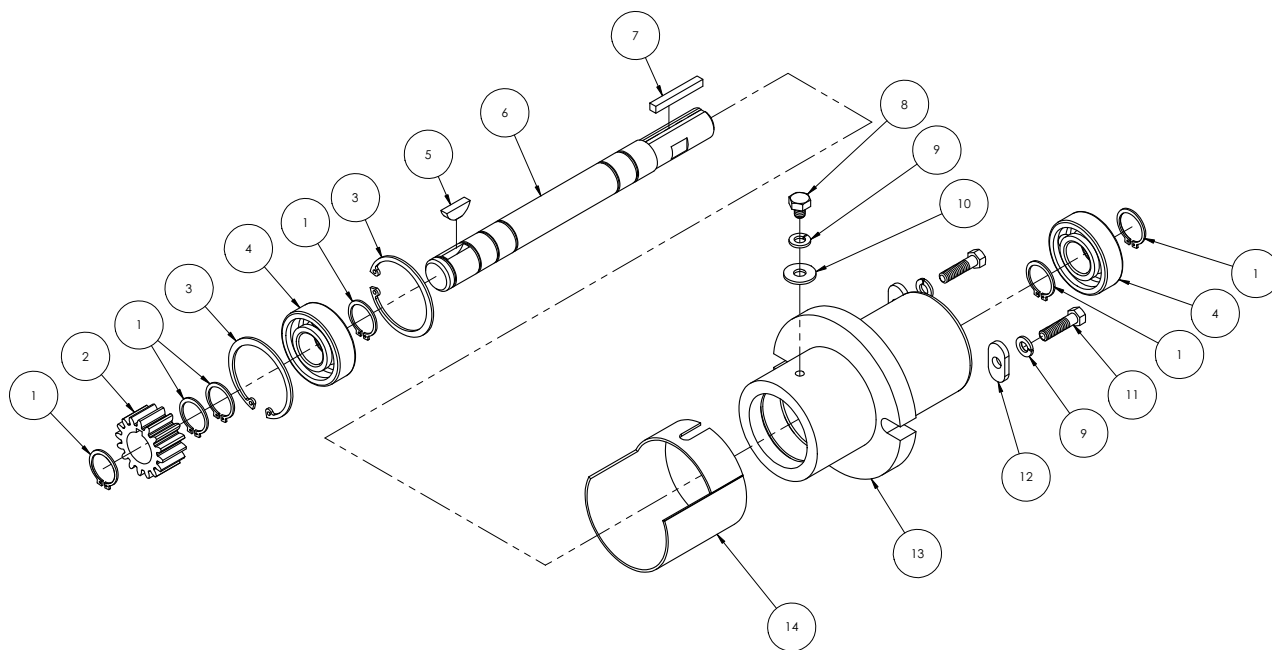
NOTE: The grease retainer can only be removed from the gearbox when the power take-off gear (Figure6 [15]) has been removed.



input assembly
Page 3.5

Input Assembly Figure 5

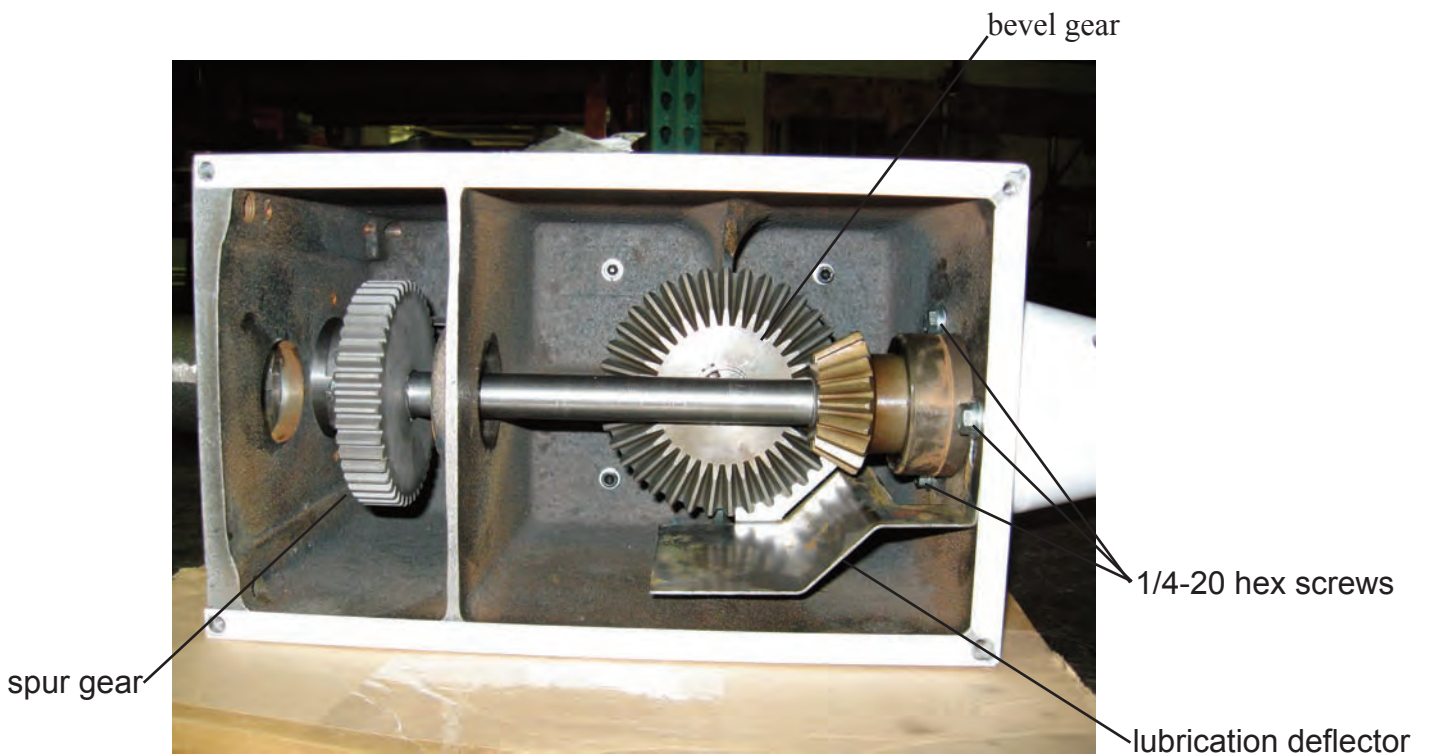
<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
	1035055	Input Assembly (Includes All)	
	1020010A	Pinion Gear Assembly (Includes 1, 2, 5)	
1	1200119	Retaining Ring, External 5101-78	6
2	1020010	Pinion Gear	1
3	1200117	Retaining Ring, Internal N5002-185	2
4	1030019	Bearing, 6204 LL	2
5	1200113	Woodruff Key #9	1
6	1035021	Input Shaft	1
7	4400230	Key 3/16 Square X 1-1/2	1
8	1200328	Hex Head Cap Screw 1/4-20 X 5/16	1
9	4400005	Lock Washer 1/4	3
10	1200075	Flat Washer 1/4	1
11	1200022H	Hex Head Cap Screw 1/4-20 X 1	2
12	4400003	Strap Washer 1/4	2
13	1038017	Input Housing	1
14	1035028	Grease Retainer	1



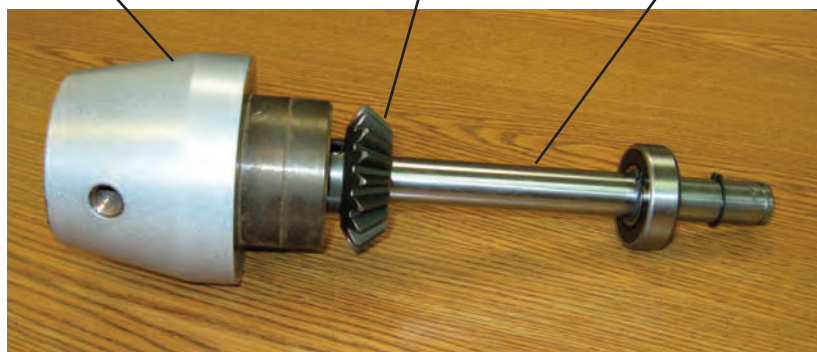
POWER TAKE-OFF ASSEMBLY: (Figure 6)

1. Remove the retaining ring Figure 6[10] from the end of the PTO shaft [14] and remove the spur gear [15] from the PTO shaft.
2. Remove the three 1/4-20 hex head cap screws (Figure 6 [9 & 18]), Washers (8 & 19)), deflector [7], retaining ring [10] at the gear [15] end of the shaft. Thread two of the 1/4-20 screws into the threaded holes in the transmission housing and turning the screws alternately, jack the power take-off assembly from the transmission housing.

NOTE: Gear [15] should be replaced as a set with the input spur gear PN1020010.



power take-off housing bevel gear power take-off shaft

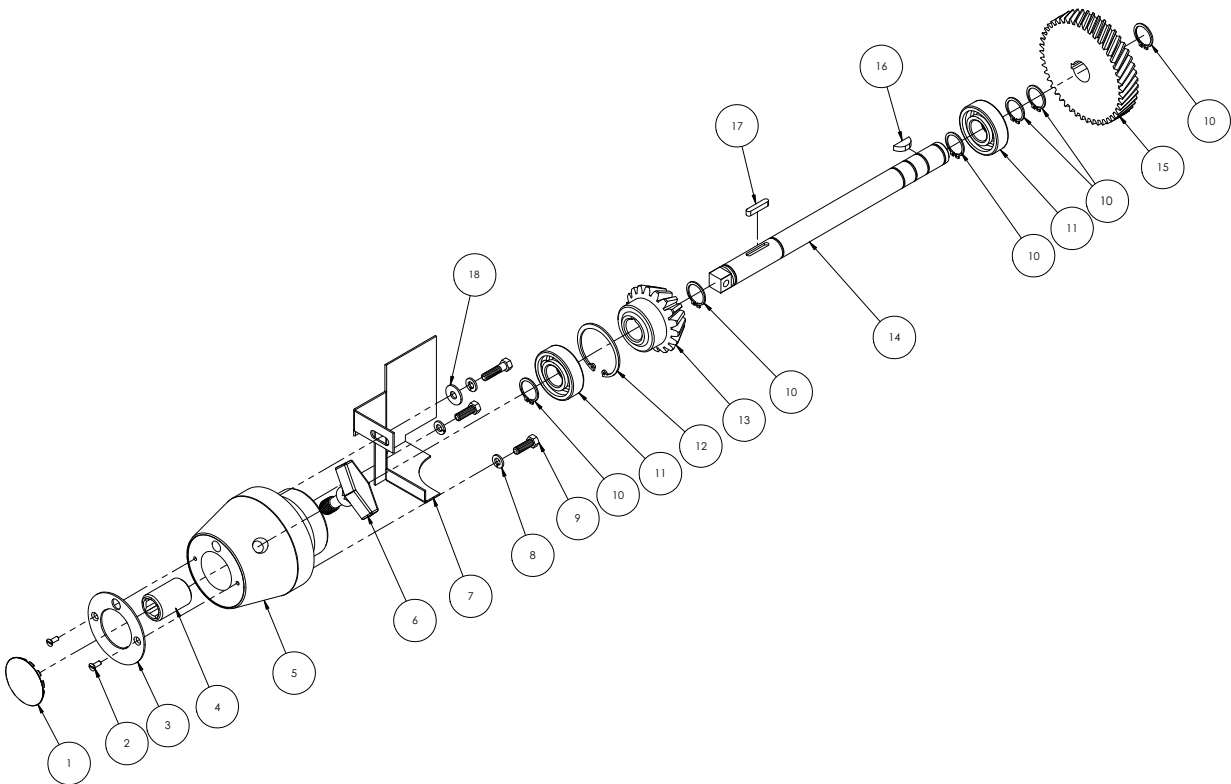


power take-off assembly

Power Take Off Assembly

Figure 6

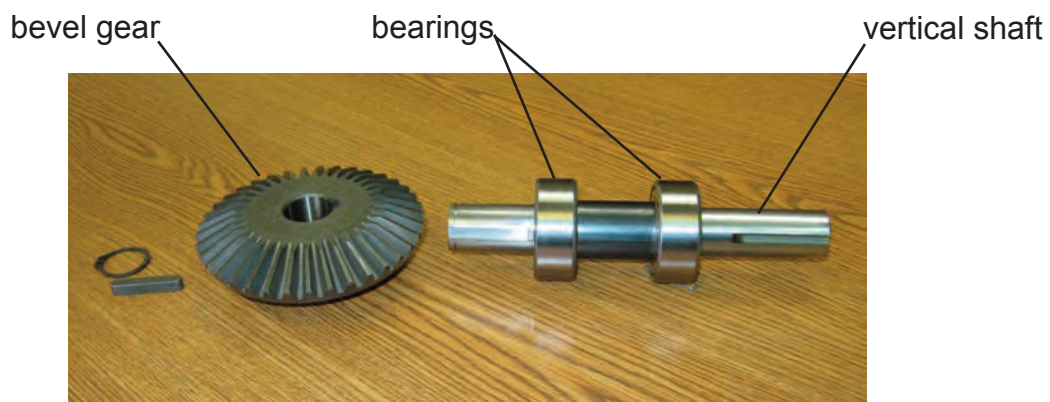
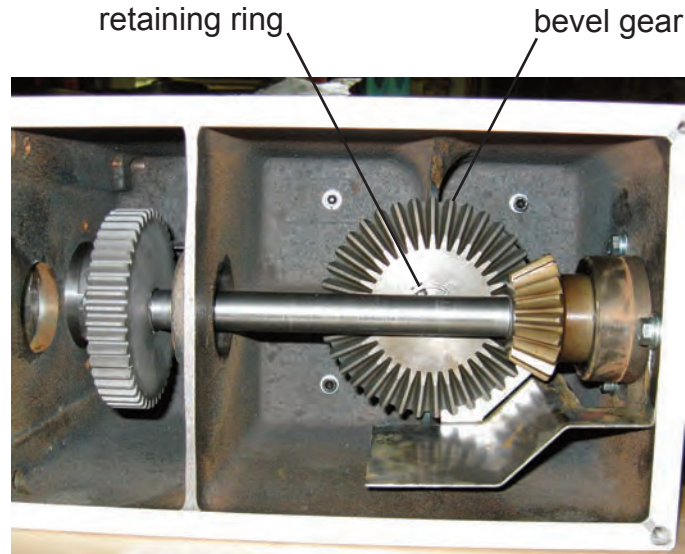
<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
	1035501	Power Take Off Assembly (Includes All)	
1	8800033	PTO Cover	1
2	8900019	Screw, SFHD 6-32 X 3/8	2
3	4400210	PTO Washer	1
4	8800012	PTO Adaptor	1
5	4400030	PTO Housing	1
6	4400229	PTO Knob Assembly	1
7	1035025	Lubrication Deflector	1
8	4400005	Lock Washer 1/4	3
9	1200022H	Hex Head Cap Screw 1/4-20 X 1	2
10	1200119	Retaining Ring, External 5101-78	6
11	1030019	Ball Bearing 6204 LL	2
12	1200117	Retaining Ring, Internal N5002-185	1
13	1035016	Bevel Pinion Gear	1
14	1035019	PTO Shaft	1
15	1020004	Spur Gear	1
16	1200113	Woodruff Key #9	1
17	4400232	Key, 3/16 Square X 1" Rounded Ends	1
18	1200075	Flat Washer 1/4	1



VERTICAL SHAFT ASSEMBLY: (Figure 7)

1. Remove the retaining ring (Figure 7 [1]) from the vertical shaft [6] and remove the bevel gear [2] from the vertical shaft..
2. Press the vertical shaft [6] and lower bearing [3] downward out of the transmission housing.

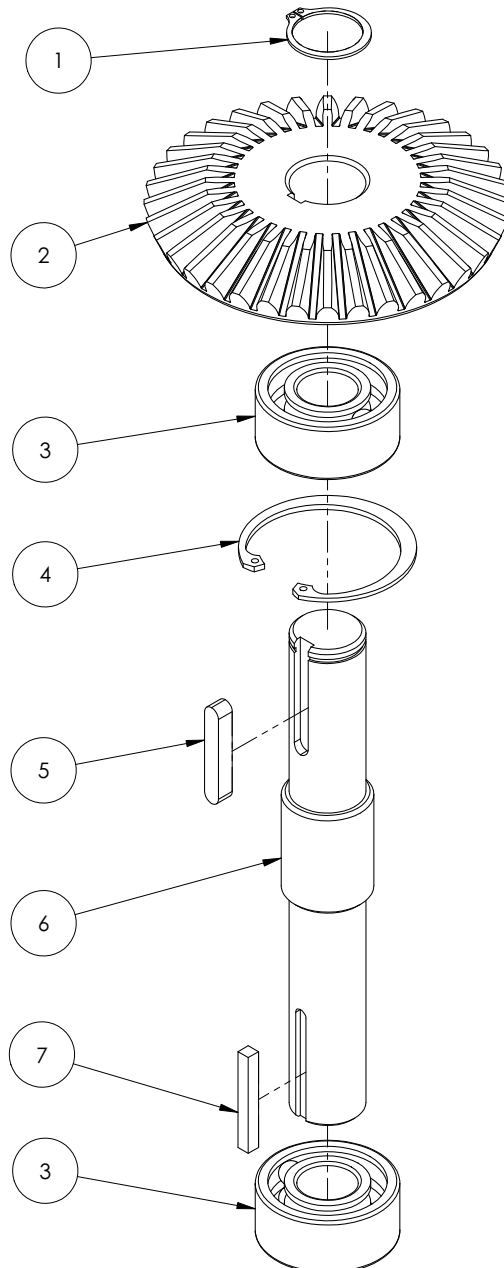
NOTE: If the bevel gear requires replacement, the bevel pinion gear (Figure 5[13]) should also be replaced.



vertical shaft assembly

Vertical Shaft Assembly Figure 7

<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
	1035502	Vertical Shaft Assembly (Includes All)	
1	1200253	Retaining Ring, External (5101-98)	1
2	1035018	Bevel Gear	1
3	1030142	Bearing 5205DR	2
4	1200254	Retaining Ring, Internal (N5002-206)	1
5	4400500	Key 1/4 Square X 1-1/2 Rounded Ends	1
6	1035017	Vertical Shaft	1
7	4400230	Key 3/16 Square X 1-1/2	1



TRANSMISSION

REASSEMBLY:

1. Clean all components except the bearings with safety approved cleaning solvent. Inspect all components for defects and replace those found to be defective.

NOTE: All gears should be replaced as sets.

2. If any shafts have become slightly scored during the disassembly process, polish the shafts with fine machinist's crocus cloth. Use care to avoid excessive removal of shaft surface or proper fit of components will be lost.
3. Reassembly should be carried out in the reverse of the disassembly procedures as follows:
 - a. Reassemble and reinstall the vertical shaft assembly.
 - b. Reassemble and reinstall the power take-off assembly except the spur gear (Figure 5 [15])
 - c. Place the input assembly grease retainer (Figure 6 [14]) in place in the transmission housing, then install the power take-off spur gear (Figure 5 [15]) on the power take-off shaft and replace the retaining ring (Figure 5 [10]) on the power take-off shaft. Slide the input assembly into the transmission housing and attach the grease retainer (Figure 6 [14]) to the input housing (Figure 6 [13]) with the 1/4-20 hex head cap screw (Figure 6 [8]) and the flat washer and lock washer (Figure 6 [9 & 10]). Attach the input housing to the transmission with the two 1/4-20 hex head cap screws (Figure 6 [11]), lock washers (Figure 6 [9]) and strap washer (Figure 6 [12]).
4. Reassemble and reinstall the beater head assembly. Lightly lubricate the beater head screw and torque the screw to 20 foot-pounds.

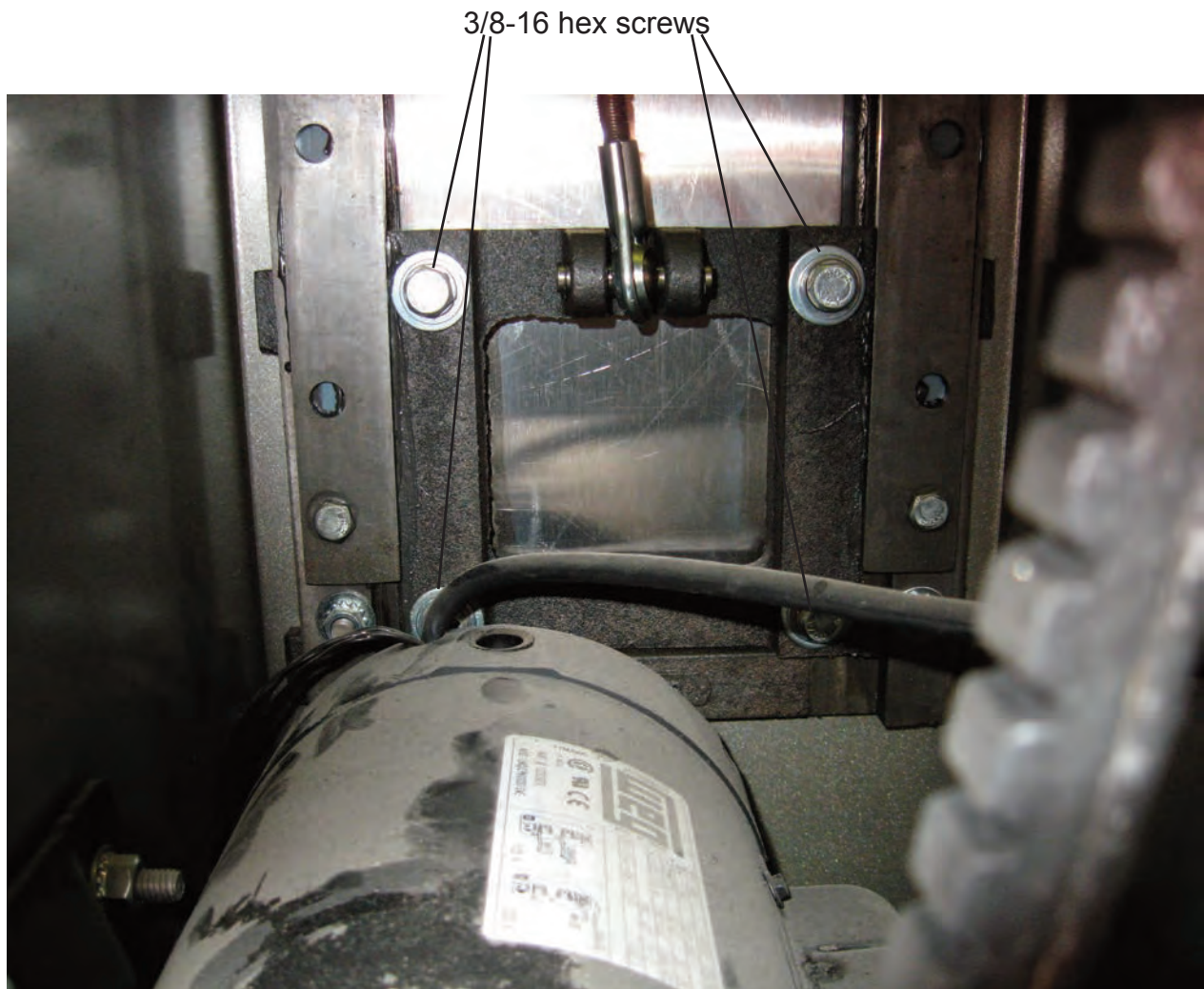
NOTE: The screw is left hand thread.
5. The transmission should be progressively checked for smooth operation while on the workbench by turning each assembly as it is installed.
6. Lubrication of the transmission should be done following its installation on the mixer. Apply Keystone Nevastane 5P7 grease to the spur gear and bevel gear meshes. This may be simplified by feeding the grease into the rotating gear meshes. Caution should be exercised to avoid entrapment of the applicator in the gear teeth. Insure the grease deflector (Figure 5[7]) is positioned to dynamically guide the lubrication into the bevel gear mesh.

BOWL SUPPORT ASSEMBLY (Figure 8)

1. **WARNING:** DISCONNECT THE ELECTRICAL POWER SUPPLY CORD.
2. Remove the mixer top cover (Figure 12 [4]) per section 2, mechanics maintenance “REMOVAL OF TOP COVER” instructions on page 2.4.
3. Remove the rear access panel (Figure 12 [5]).
4. Remove the four 3/8-16 hex screws (Figure 8 [16]) and remove the bowl support (Figure 8 [1]) and the slide cover (Figure 8 [6]).

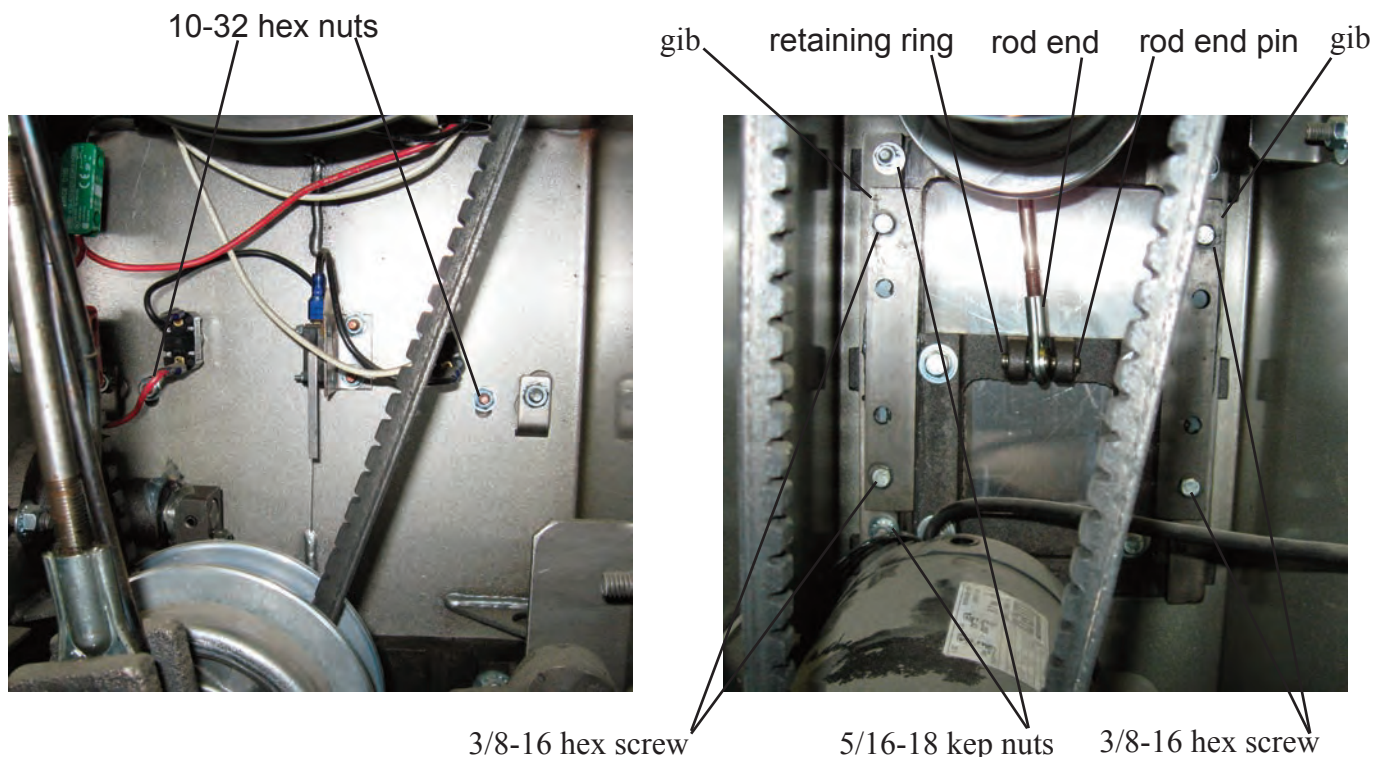
CAUTION: The bowl support must be held while the screws are being removed to prevent it from falling.

5. Reassemble in the reverse order.



SLIDE ASSEMBLY (Figure 8)

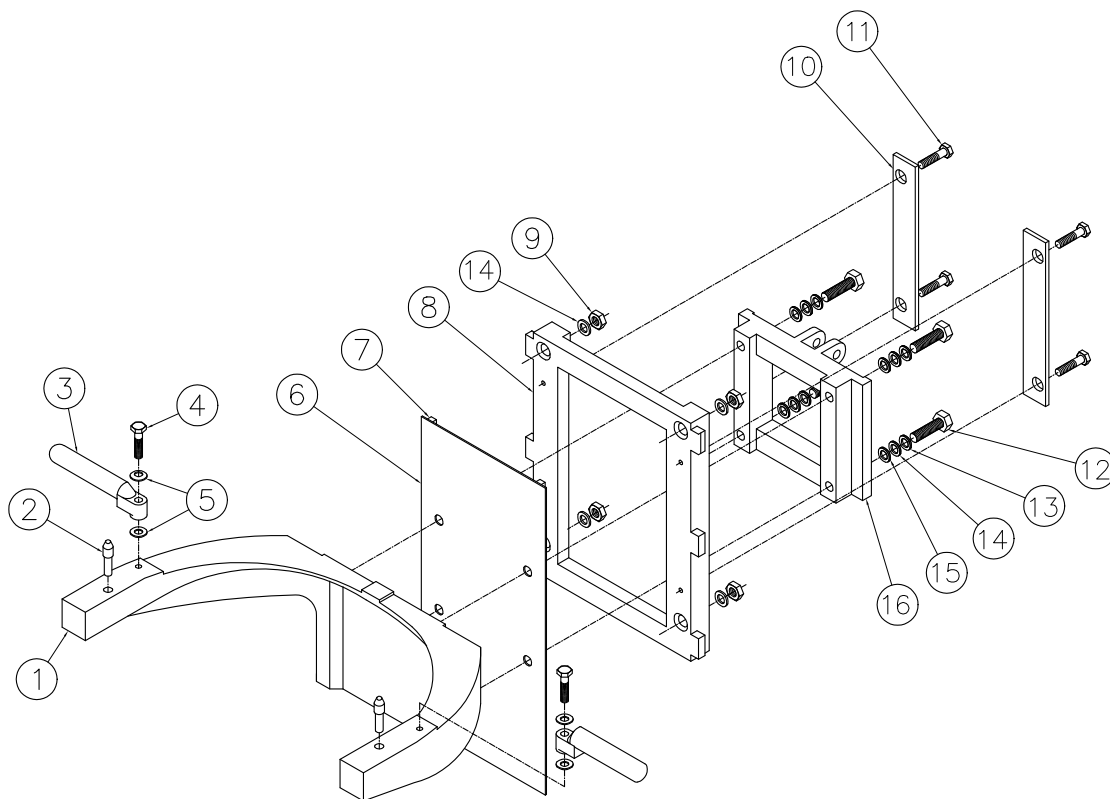
1. Remove the bowl support and slide cover per the instructions on page 4.1.
2. Remove the fixed slide cover (Figure 12 [4]) by removing the two 10-32 hex nuts (Figure 12 [28]).
3. Remove the retaining ring (Figure 8 [10]) from the rod end pin (Figure 8 [13]). Withdraw the rod end pin from the rod end (Figure 8 [12]).
4. Remove the four 5/16-18 Kep nuts (Figure 8 [9]) and remove the slide frame (Figure 8 [8]) from the mixer housing studs.
5. Remove the four 3/8-16 hex screws (Figure 8 [15]) and remove the gibes (Figure 8 [14]). Remove the slide (Figure 8 [20]) from the slide frame.
6. Clean and inspect the sliding surfaces for excessive wear.
7. Replace all parts that show excessive wear.
8. Lubricate sliding surfaces with Molykote BR2 plus grease per the lubrication instructions on page 2.3
9. Reassemble and reinstall the slide assembly in the reverse of the above procedures.
10. Check the clearance between the batter beater and the bowl per section 2, Mechanics Maintenance paragraph 3 a-d on page 2.2 and readjust it as necessary.



Bowl Support and Slide Assembly

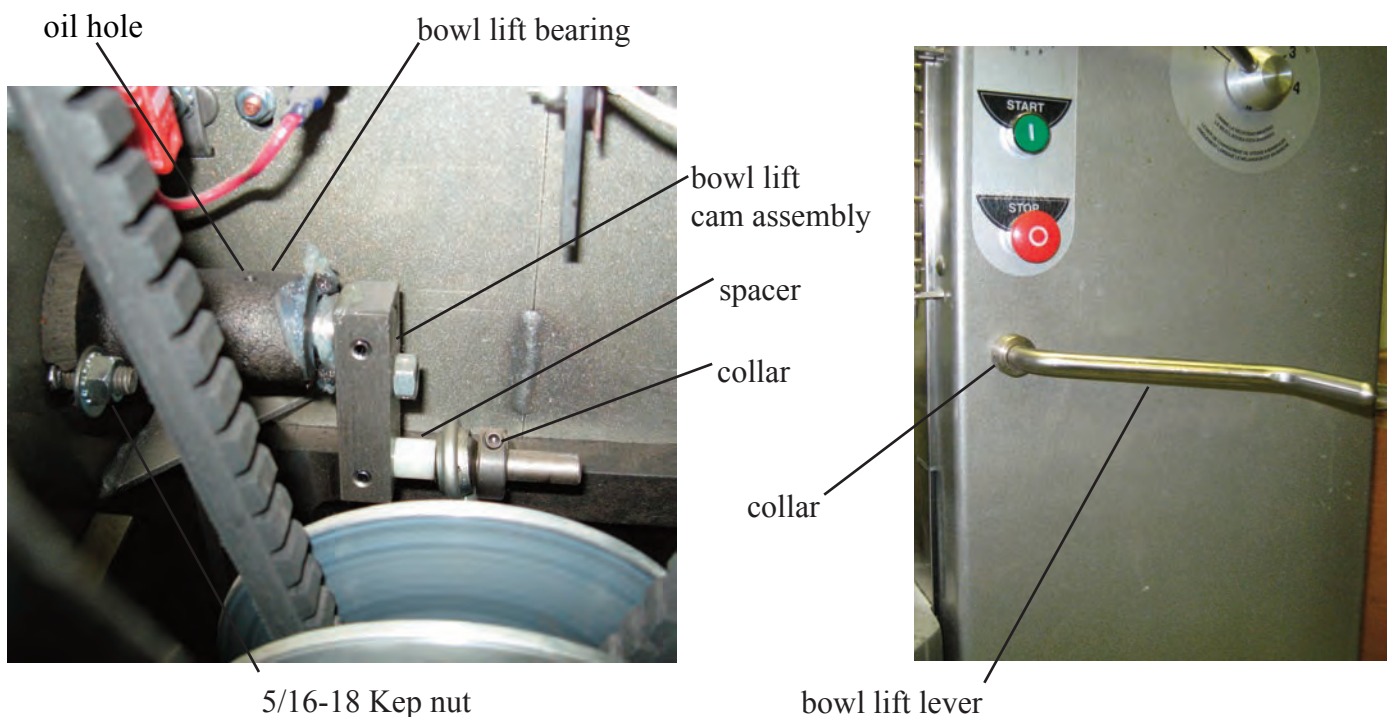
Figure 8

<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
	1035505	<i>Bowl Support and Slide Assembly (Includes All)</i>	
	1030166A	<i>Bowl Support Assembly (Includes 1 - 5)</i>	
1	1030166	Bowl Support	1
2	4400219	Pin, Bowl Support	2
	1030322A	<i>Bowl Clamp Kit (Includes 3 - 5)</i>	
3	1030322	Bowl Clamp	2
4	1200448	Hex Head Cap Screw Shldr 3/8 X 1, Thd 5/16-18 X 1/2	2
5	1200091	Belleville Washer	2
6	1030193	Moveable Slide Cover	1
7	1020040	Gasket Strip	2
	1030177A	<i>Bowl Support Frame Assembly (Includes 8 - 16)</i>	
8	1030178	Frame, Bowl Lift	1
9	1200063	Kep Nut, 5/16-18	4
10	1030179	Gibb, Bowl Lift	2
11	1200039	Hex Head Cap Screw 5/16-18 X 3/4	4
12	1200049	Hex Head Cap Screw 3/8-16 X 2	4
13	1200079	Lock Washer 3/8	4
14	4400127	Flat Washer 3/8	8
15	1200083	Steel Flat Washer 3/8	4
16	1030177	Slide, Bowl Lift	1



BOWL LIFT ASSEMBLY (Figure 9)

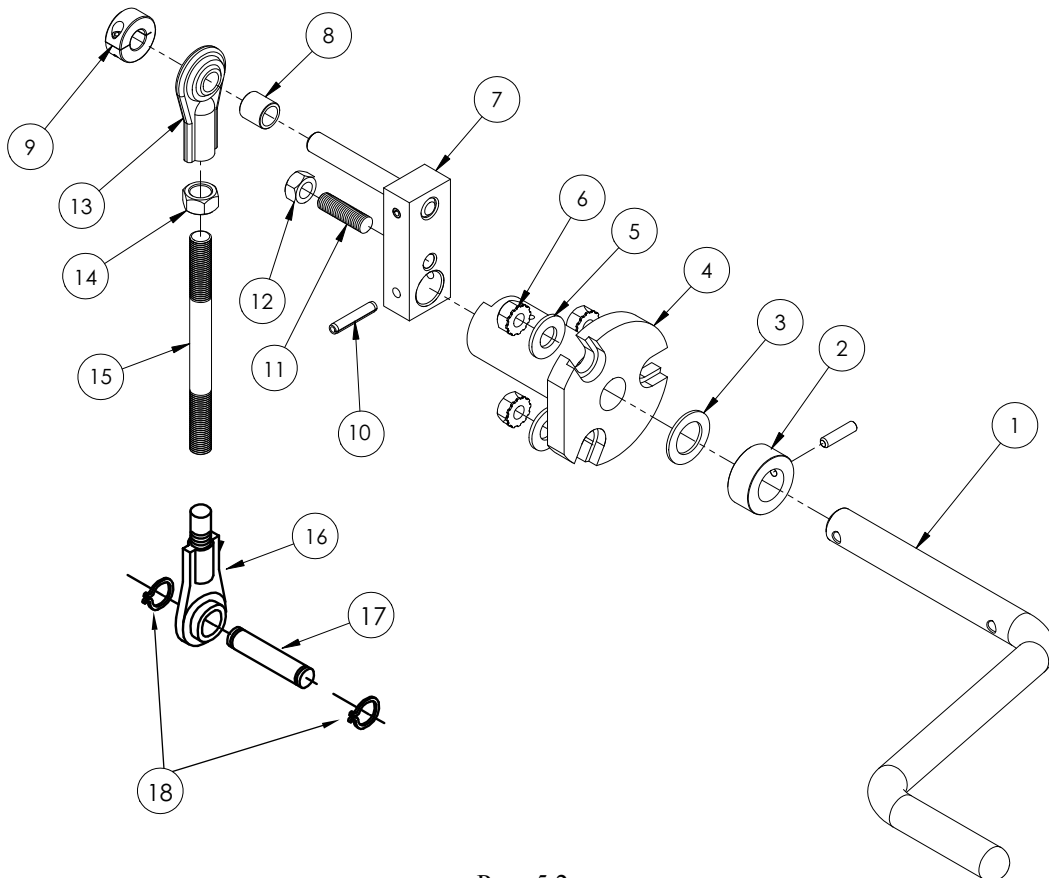
1. **WARNING:** DISCONNECT THE ELECTRICAL POWER SUPPLY CORD.
2. Remove the mixer top cover (Figure 12 [4]) per section 2, mechanics maintenance “REMOVAL OF TOP COVER” instructions on page 2.4.
3. Remove the rear access panel (Figure 12 [5]).
4. Loosen the screw on the collar (Figure 9 [9]) and remove the collar, rod end [10] and the spacer [8] from the cam assembly (Figure 9 [7]).
5. Drive the roll pin [15] from the cam assembly [7] and remove the cam assembly and the bowl lift lever [1] from the bowl lift bearing [4].
6. Remove the washer [3] from the bowl lift lever [1]. Loosen the set screw and remove the collar [2] from the bowl lift lever.
7. Remove the three 5/16-18 Kep nuts [6] and washers [5] from the studs holding the bowl lift bearing [4] to the mixer housing. Remove the bowl lift bearing from the mixer housing.
8. Lubricate the bowl lift bearing with #30 machine oil per. the lubrication instructions on page 2.3 prior to reassembling the bowl lift assembly.
8. Reassemble the bowl lift in the reverse of the above procedure.



Bowl Lift Assembly

Figure 9

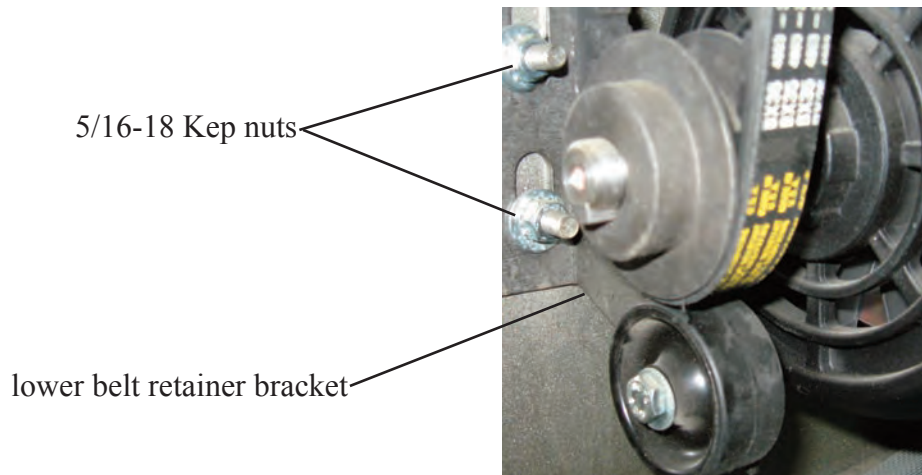
<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
	1035504	<i>Bowl Lift Assembly (Includes All)</i>	
	1024512A	<i>Bowl Lift Lever Assembly (Includes 1 - 2)</i>	
1	1024512	Lever, Bowl Lift	1
2	1012350	Collar, Bowl Lift (Comes with set screw)	1
	1012133A	<i>Bowl Lift Bearing Assembly (Includes 3 - 6)</i>	
3	1200301	Nylon Washer	1
4	1012133	Bowl Lift Bearing	1
5	4400127	Steel Flat Washer	3
6	1200063	Kep Nut, 5/16-18	3
	1035026A	<i>Cam Assembly (Includes 7 - 12)</i>	
7	1035026	Cam	1
8	1030318	Nylon Spacer	1
9	1020441	Collar and Set Screw	1
10	4400118	Roll Pin, 3/16 X 1	1
11	1200434	Socket Head Set Screw 5/16-24 X 1-1/8	1
12	1200435	Lock Nut 5/16-24	1
	1020078A	<i>Connecting Rod Assembly (Includes 13 - 18)</i>	
13	1012201	Rod End 3/8-24 R.H.	1
14	1200155	Hex Nut 3/8-24	1
15	1020078	Connecting Rod	1
16	1012202	Rod End 3/8-24 L.H.	1
17	1012181	Pin, Rod End	1
18	1200311	Retaining Ring, External (5101-37)	2



VARI-SPEED ASSEMBLY (Figure 10)

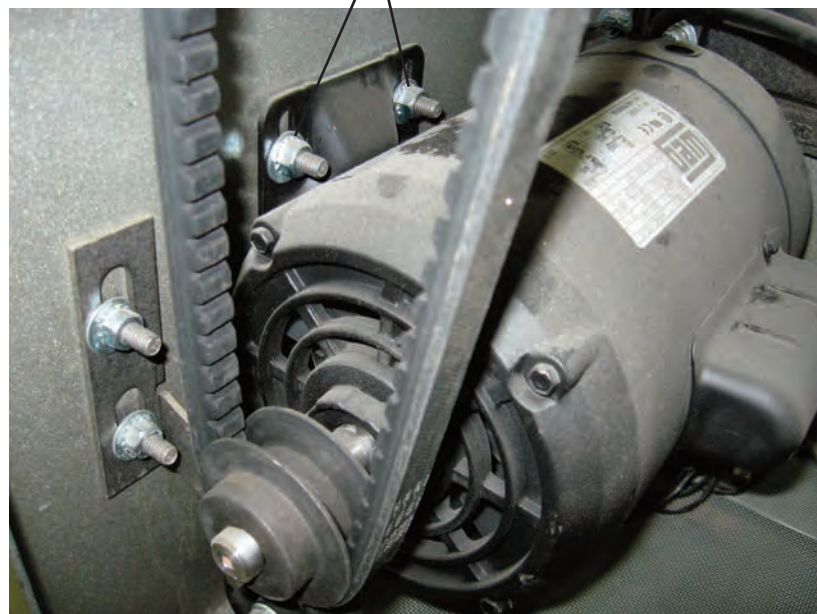
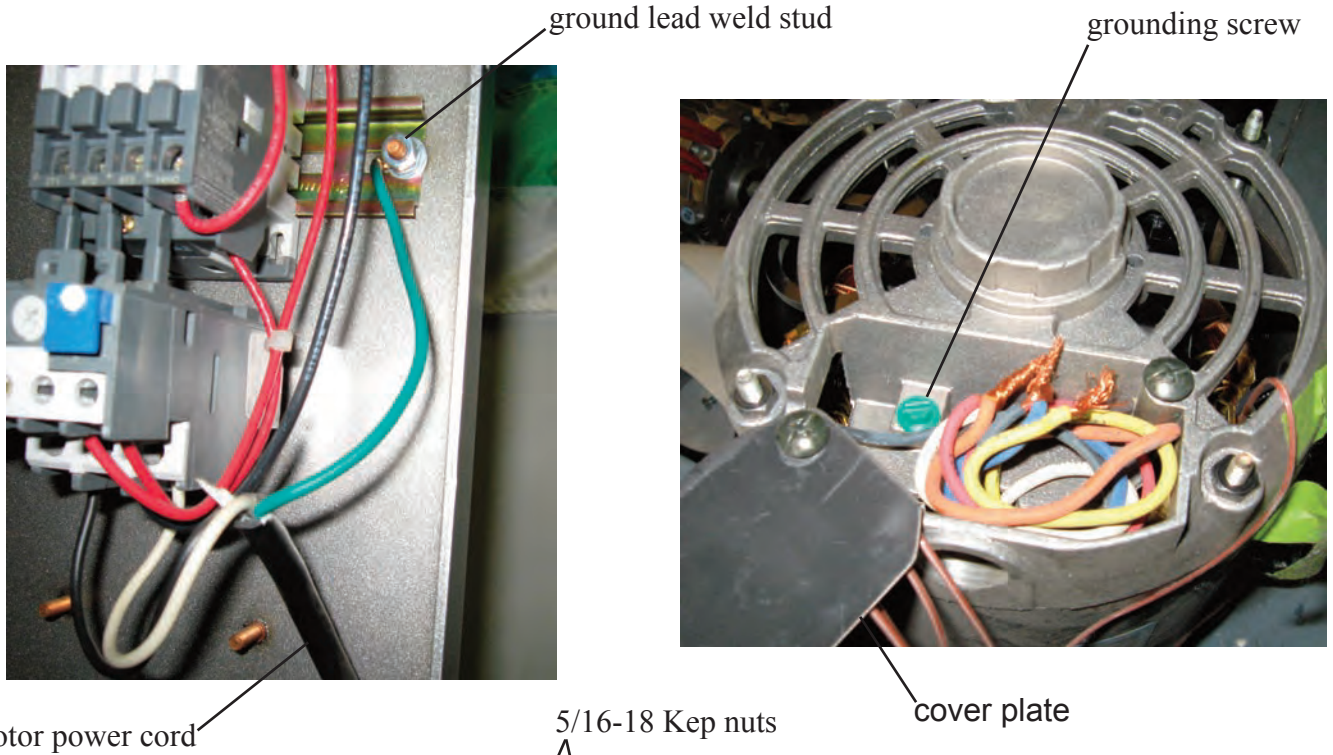
DISASSEMBLY

1. **WARNING:** DISCONNECT THE ELECTRICAL POWER SUPPLY CORD.
2. Remove the mixer top cover (Figure 12 [4]) per section 2, mechanics maintenance “REMOVAL OF TOP COVER” instructions on page 2.4.
3. Remove the rear access panel (Figure 12 [5]).
4. Shift the speed control lever (Figure 1 [9]) from fourth speed to first speed and back to fourth speed with the mixer OFF. (squeezing the belts together at mid span will help.)
5. Remove the kep nut and washer and remove the upper belt retainer (Figure 10 [8]).
6. Remove the driven pulley (Figure 10 [7]) from the input shaft.
7. Remove the upper belt from the pulley and remove it from the vari-speed pulley [5].
8. Shift the speed control lever (Figure 1 [9]) to first speed.
9. Remove the lower belt retainer assembly [1].
10. Unwrap the lower belt from the pulley [2] and remove it from the vari-speed pulley [5].



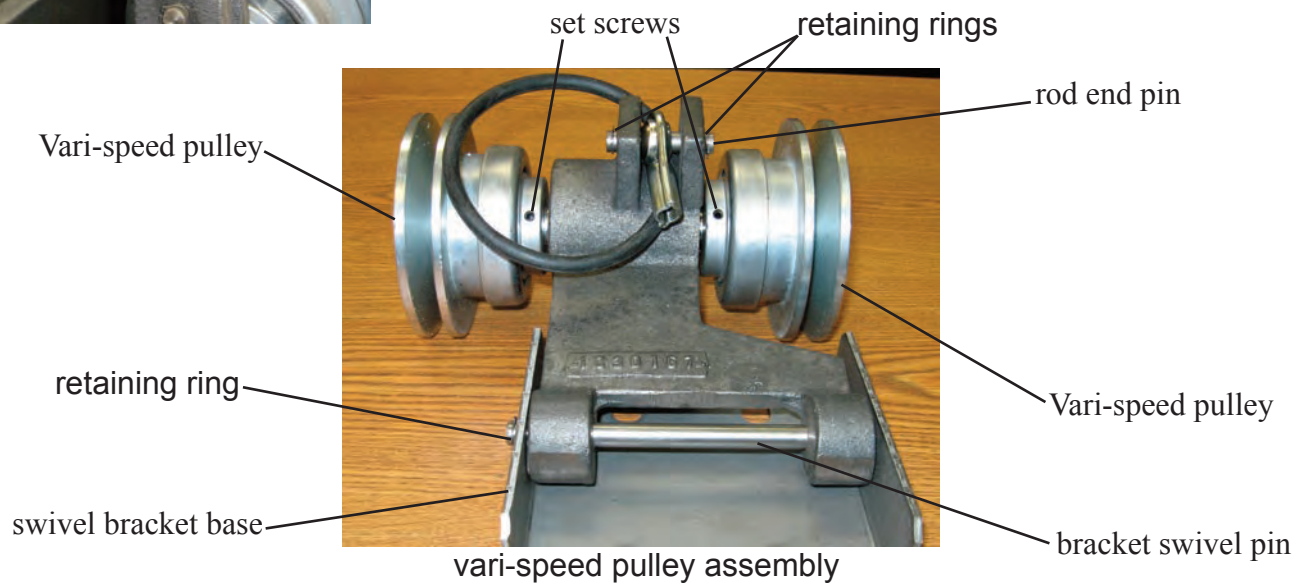
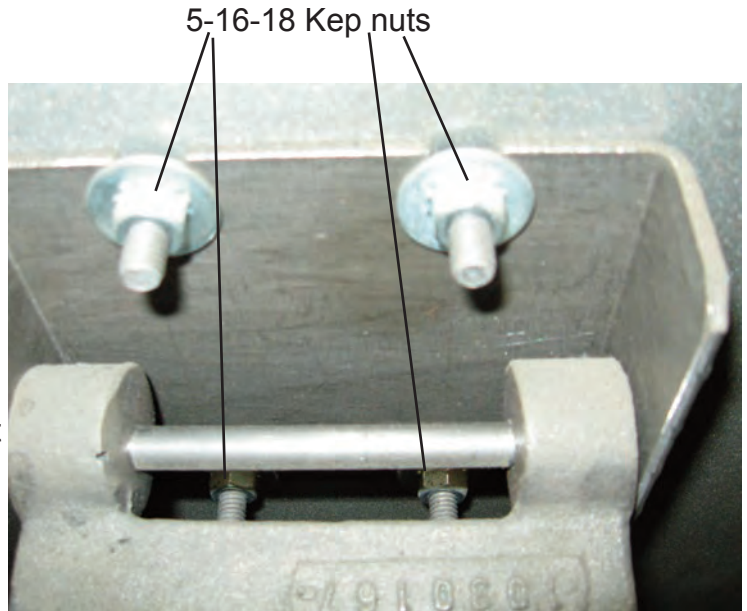
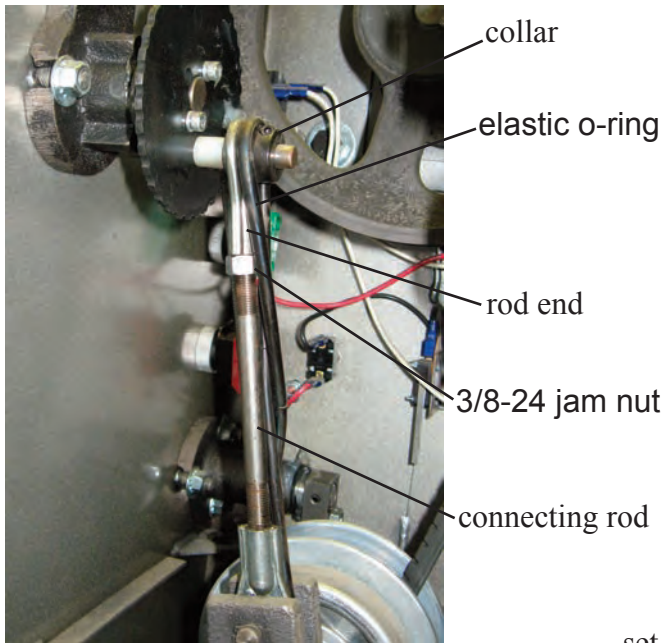
VARI-SPEED ASSEMBLY

11. Loosen the screws on the starter which secure the motor cord power leads (Figure 10 [14]). Remove the 10-32 nut, lock washer and the motor cord ground lead from the weld stud. Remove the 10-32 nuts and cord clamps.
12. Remove the four 5/16-18 Kep nuts securing the motor [3] and remove the motor from the mixer housing. Loosen the set screw on the pulley [2] and slide the pulley and key off the motor shaft.
13. Remove the two screws securing the cover plate on the rear of the motor. Remove the green grounding screw securing the motor cord ground lead. Remove the wire nuts and pull the motor cord from the motor.



VARI-SPEED ASSEMBLY

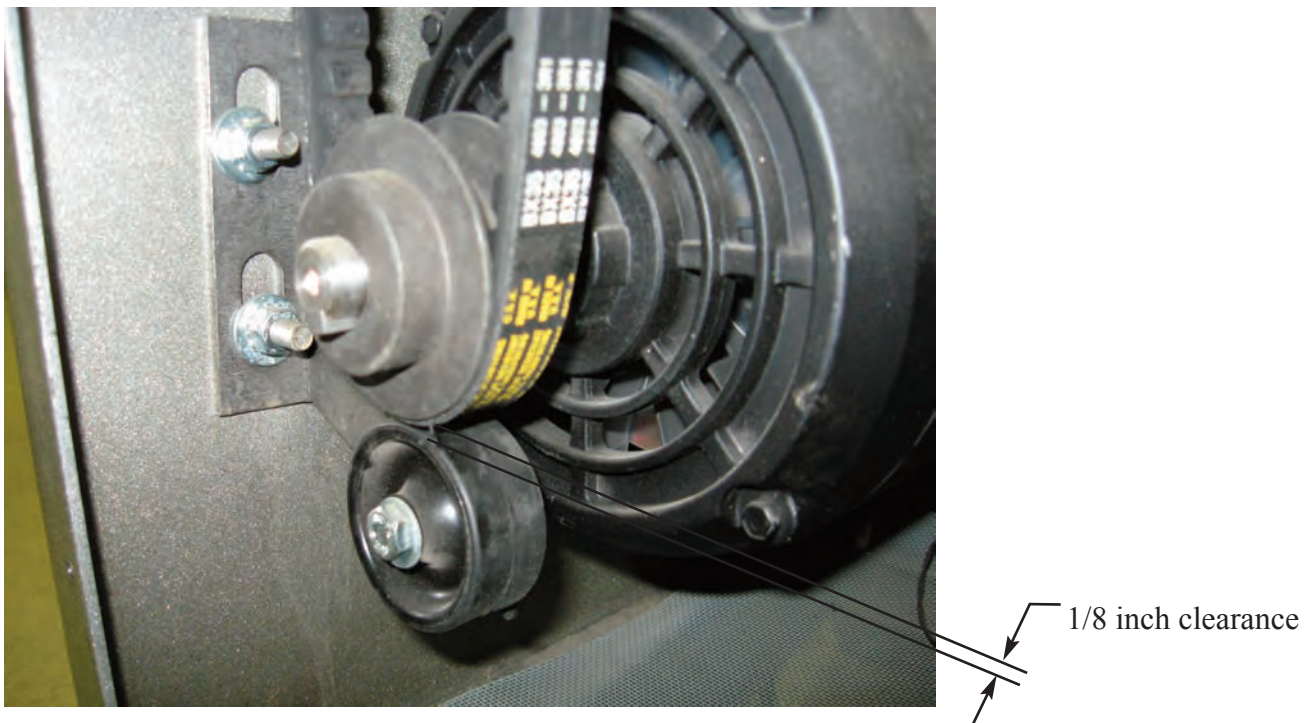
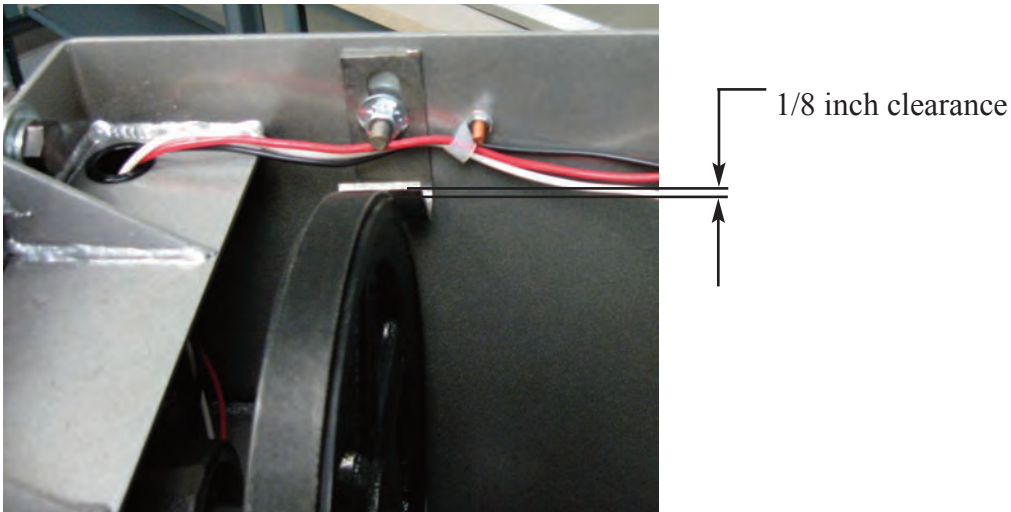
14. Remove the elastic o-ring (Figure 10 [9]) from the cam assembly. Loosen the screw on the collar (Figure 11[14]) and slide the collar and rod end off the cam assembly.
15. Remove the four 5/16-18 Kep nuts and washers and remove the Vari-speed pulley assembly from the mixer housing.
16. Loosen the two set screws on each Vari-speed pulley and slid the Vari-speed pulleys from shaft . Remove the two woodruff keys and the retaining rings from the shaft. Drive the shaft from the pulley swivel bracket.
17. Remove the four retaining rings from the rod end pin and the bracket swivel pin. Drive the pins from the pulley swivel bracket and the swivel bracket base.



VARI-SPEED ASSEMBLY

REASSEMBLY

18. Reassemble the Vari-speed assembly in the reverse of the above procedures. Adjust the belts as described in section 2, Mechanics Maintenance on page 2.1.
19. Adjust the upper and lower belt retainers (Figure 10 [19 &20]) 1/8 inch from the outer belt surface.

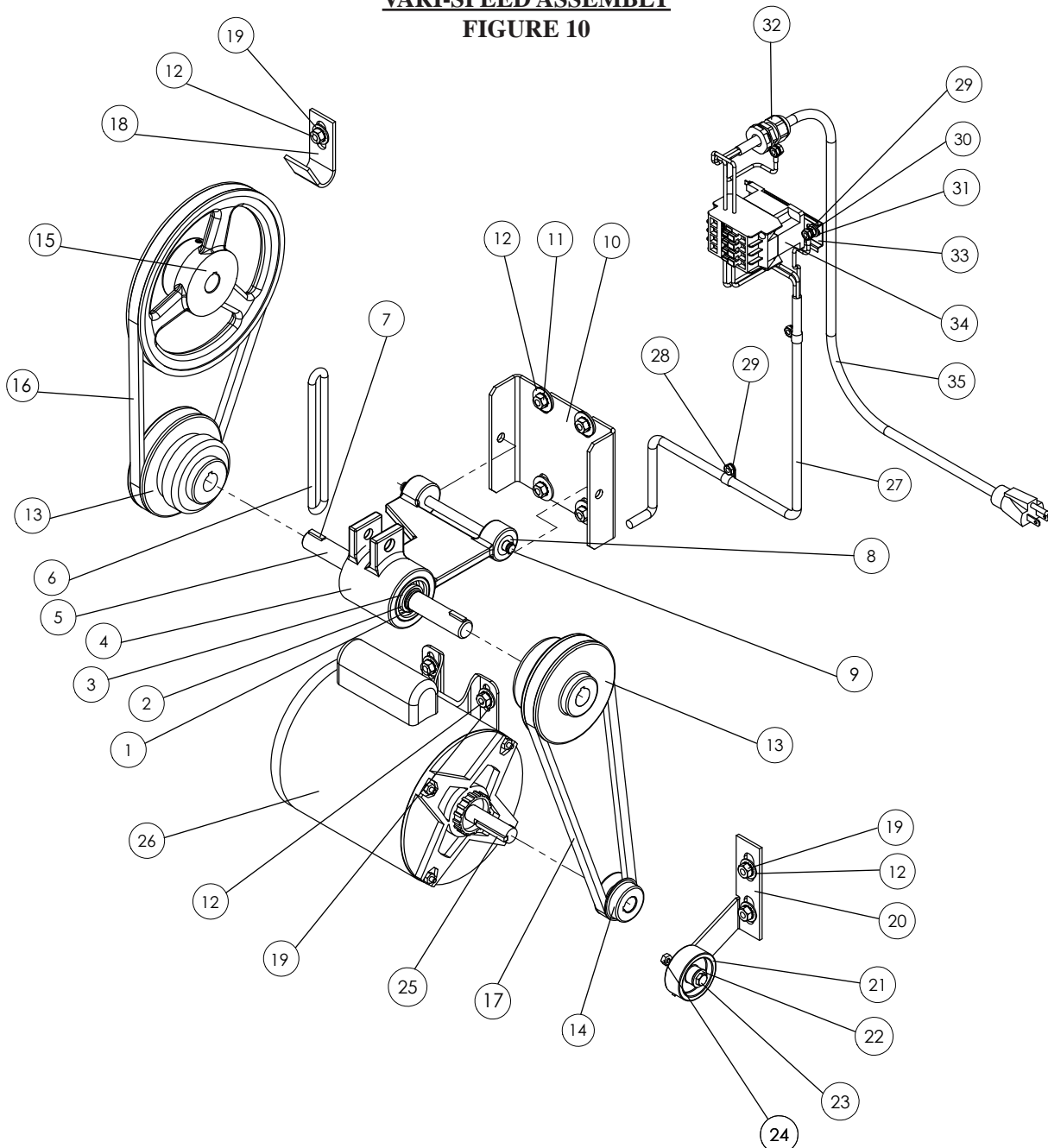


Vari-Speed Assembly
Figure 10

<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
	<i>1035020A</i>	<i>Vari-Speed Swivel Assembly (Includes 1 - 9)</i>	
1	1200119	Retaining Ring, External (5101-78)	2
2	1030019	Bearing, 6204 LL	2
3	1200117	Retaining Ring, Internal	2
4	1030167	Pulley, Swivel Bracket	1
5	1035020	Vari-Speed Shaft	1
6	4400009	Rubber "O" Ring 3/16 X 4"	1
7	1200113	Woodruff Key #9	2
8	1200311	Retaining Ring, External (5101-37)	4
9	1030191	Bracket, Swivel Pin	1
	<i>1030216A</i>	<i>Swivel Base Bracket Assembly (Includes 10 - 12)</i>	
10	1030216	Base, Swivel Bracket	1
11	1200063	Kep Nut 5/16-18 X 5/16	11
12	1200083	Flat Washer 3/8	4
13	1035154	Vari-Speed Pulley (Comes With (2) 1/4-20 X 3/8 Set Screws)	2
14	1030155	Pulley, Drive BK 24 X 318 (Comes With 5/8-18 X 3/8 Set Screw)	1
15	1030152	Pulley, Driven BK 95 X 3/4 (Comes With (2) 5/16-18 X 5/8 Set Screws)	1
	<i>1030153A</i>	<i>Belt Kit (Includes 16 - 17)</i>	
16	1030153	Cog Belt BX42	1
17	1030157	Cog Belt BX35	1
18	1023240	Bracket, Upped Belt Retainer	1
	<i>1033220A</i>	<i>Lower Belt Retainer Assembly (Includes 19 - 24, 11)</i>	
19	4400127	Washer, Steel Flat 3/8	4
20	1033220	Bracket Belt Retainer	1
21	1023219	Wheel, Poly	1
22	1200075	Flat Washer 1/4	1
23	1200413	Screw, Hex Head Cap 1/4-20 X 1-1/2	1
24	4400141	Kep Nut 1/4-20	1
25	4400232	Key, 3/16 SQ X 1	1
26	1030308	Motor, 1 HP, 115/230V, 60HZ, 1PH	1
	1031309	Motor, 1 HP, 220-240V, 50HZ, 1PH	
	1031311	Motor, 1 HP, 208-230/460V, 60HZ, 3PH	
	1031312	Motor, 1 HP, 220-240/380-400V, 50HZ, 3PH	
	1031314	Motor, 1 HP, 100v, 50/60HZ, 1PH	
27	8800225	Cord, Motor 1PH	1
	8800226	Cord, Motor 3PH	
28	4400101	Clamp, Cord	2
29	4400065	Lock Washer #10	4
30	1200060	Hex Nut, 10-32	2

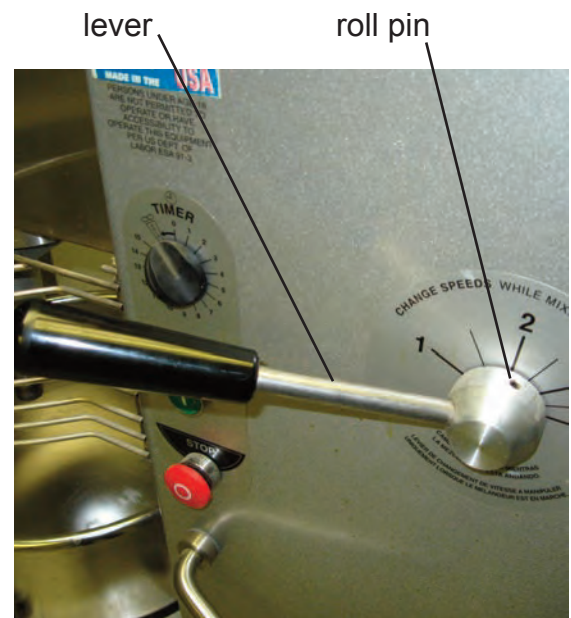
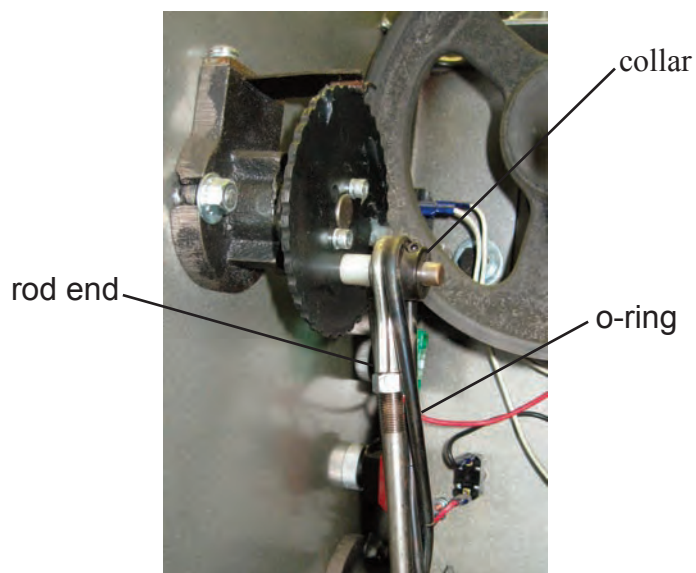
31	4400398	Wire Tie	3
32	7100107	Strain Relief	1
33	7100010	Mount, Contactor	1
34	1033328	Contactor / Starter, 115V, 60HZ, 1PH	1
	7100041	Contactor / Starter, 208-230V, 60HZ, 1PH	
	7100110	Contactor / Starter, 220-240V, 50HZ, 1PH	
	7100113	Contactor / Starter, 100V, 50/60HZ, 1PH	
	7100042	Contactor / Starter, 220V, 50HZ, 3PH	
	7100111	Contactor / Starter, 380/460V, 50HZ, 3PH (Europe)	
	1033325	Contactor / Starter, 208-230V, 60HZ, 3PH	
35	8800200	Electrical Supply Cord, 115V, 60HZ, 1PH 100V, 50/60HZ, 1PH	1
	8800201	Electrical Supply Cord, 230V, 60HZ, 1PH 220-240V, 50HZ, 1PH	
	8800101	Electrical Supply Cord, 230V, 50HZ, 1PH (British)	
	7100100	Electrical Supply Cord, 380V, 50HZ, 3PH 460V, 60HZ, 3PH	
36	1033326	Transformer, 440-460V, 60HZ, 3 PH (Not Shown)	
	7100106	Transformer, 380V, 50HZ, 3 PH (Not Shown)	

VARI-SPEED ASSEMBLY
FIGURE 10

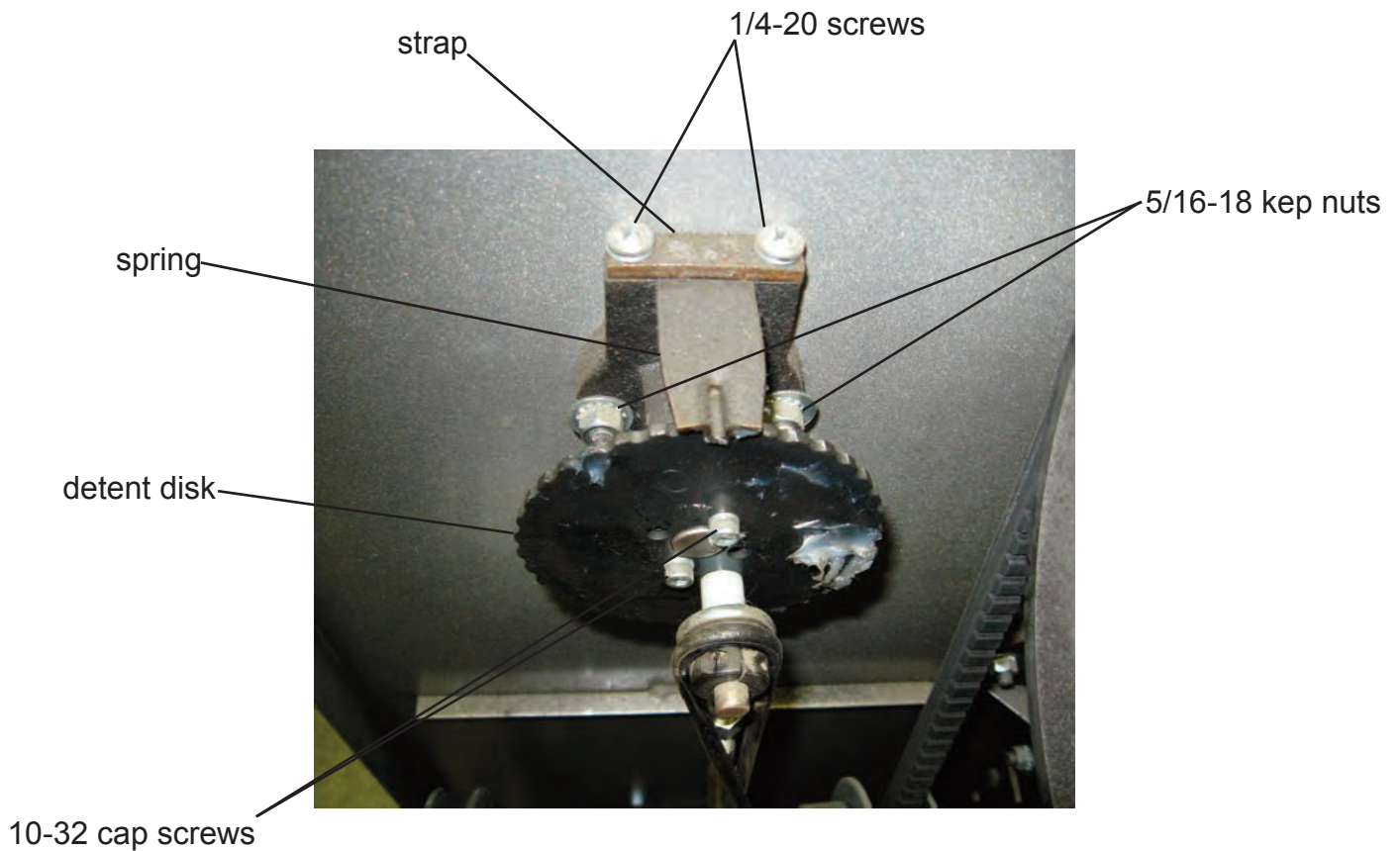


SPEED CONTROL ASSEMBLY (Figure 11)

1. **WARNING:** DISCONNECT THE ELECTRICAL POWER SUPPLY CORD.
2. Remove the mixer top cover (Figure 12 [4]) per section 2, mechanics maintenance “REMOVAL OF TOP COVER” instructions on page 2.4.
3. Remove the rear access panel (Figure 12 [5]).
4. Remove the elastic o-ring from the cam assembly pin.
5. Loosen the screw on the collar (Figure 11 [11]) and remove the collar and connecting rod assembly.
6. Loosen the set screws [12] in the cam assembly [7].
7. Drive the roll pin [17] from the speed control lever [1] and pull the speed control lever assembly from the cam assembly shaft. Remove the washer [2] from the cam assembly shaft.
8. Remove the two 5/16-18 Kep nuts [5] and washers [4] from the studs holding the speed control bearing [3] to the mixer housing. Remove the speed control assembly from the mixer housing.
9. Pull the cam assembly from the speed control bearing.
10. Remove the two 1/4-20 screws [14], lock washers [15], strap [16] and spring [13] from the speed control bearing [3].
11. Remove the two 10-32 cap screws and remove the detent disk [8].



SPEED CONTROL



REASSEMBLY

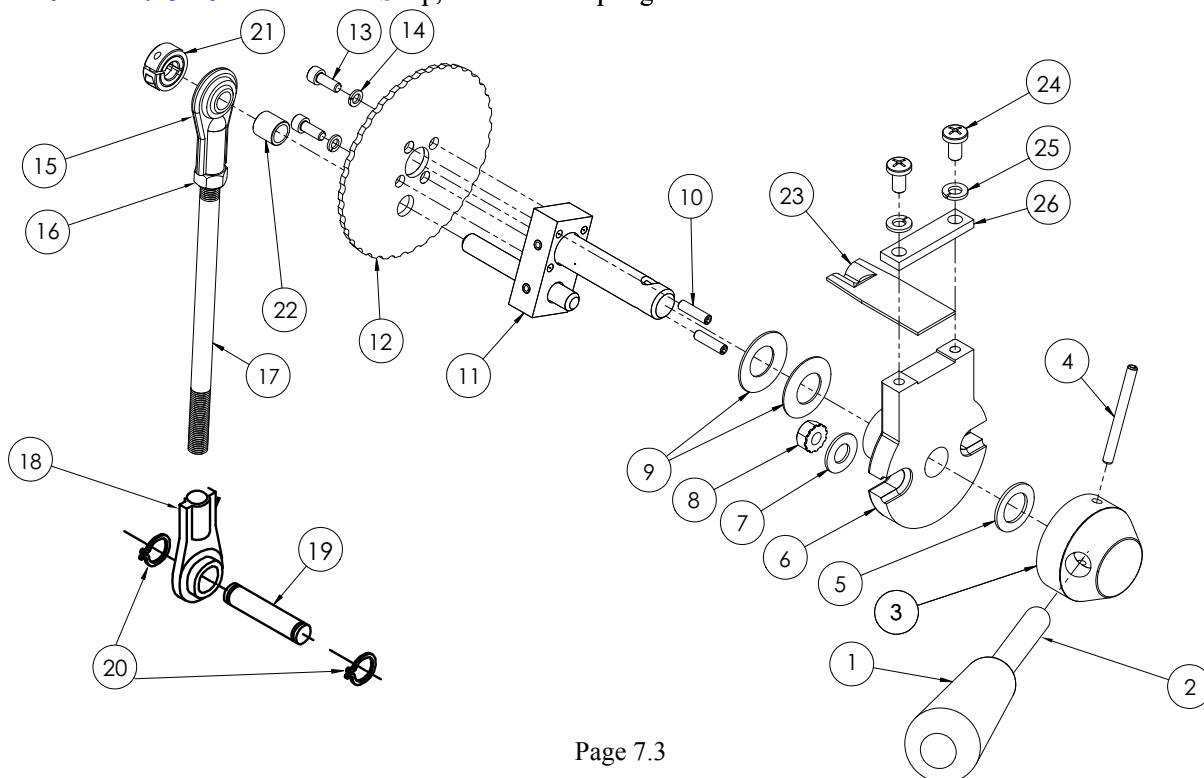
11. Reassemble the speed control in the reverse of the above procedures. Grease the cam assembly shaft and the detent disk with MolyKote BR2 plus or general purpose bearing grease. Adjust the belts as described in section 2, Mechanics Maintenance on page 2.1.

NOTE: The detent disk [8] has a slight angle on the outside diameter, assemble it with the small diameter toward the cam assembly [7].

12. If the speed control lever moves while the mixer is running, tighten the set screws [10] against the spring washers [6] until movement stops.

Speed Control Assembly Figure 11

<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
	1025032	Speed Control Assembly (Includes All)	
	1012137A	Speed Control Lever Assembly (Includes 1 - 5)	
1	4400202	Speed Control Knob	1
2	1020066	Speed Control Lever	1
3	1012137	Speed Control Hub	1
4	1200300	Roll Pin, 3/16 X 2	1
5	1200301	Nylon Washer 5/8	1
	1020068A	Speed Control Bearing Assembly (Includes 6 - 8)	
6	1020068	Speed Control Bearing	1
7	1200063	Kep Nut 5/16-18	2
8	4400127	Steel Flat Washer 3/8	2
9	1200156	Spring Washer 5/8	2
10	1200304	Set Screw, 10-32 X 3/4	2
11	1020069	Cam	1
	1023222A	Detent Disk Assembly (Includes 12 - 14, 23 - 26)	
12	1023222	Detent Disk	1
13	1200471	Socket Head Screw Cap 10-32 X 1/2	2
14	4400065	Lock Washer #10	2
	1030223A	Connecting Rod Assembly (Includes 15 - 20)	
15	1012201	Rod End, RH 3/8-24	1
16	1200155	Hex Nut, 3/8-24 X 9/16	1
17	1030223	Connecting Rod	1
18	1012202	Rod End, LH 3/8-24	1
19	1012181	Rod End Pin	1
20	1200311	Retaining Ring (5101-37)	2
21	1020441	Collar and Set Screw	1
22	1030318	Nylon Spacer, 3/8 ID	1
23	1023223	Spring, Detent Disk	1
24	4400208	Screw, Phillips Pan Head 1/4-20 X 1/2	2
25	4400005	Lock Washer, 1/4 X 1/2	2
26	1023225	Strap, Detent Disk Spring	1



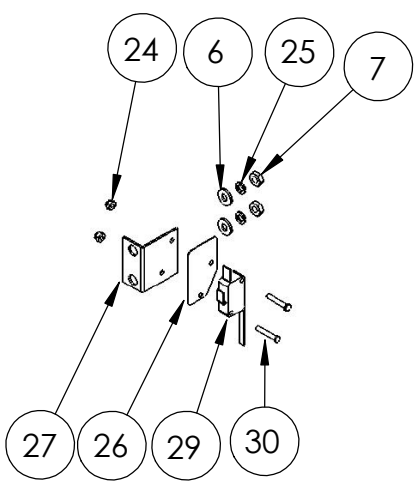
HOUSING ASSEMBLY (Figure 12)

The remaining parts which have not been discussed pertain to electrical components and the mixer housing. Figures 12, 14A, 14B, and 14C should provide adequate guidance for the disassembly and reassembly of these parts.

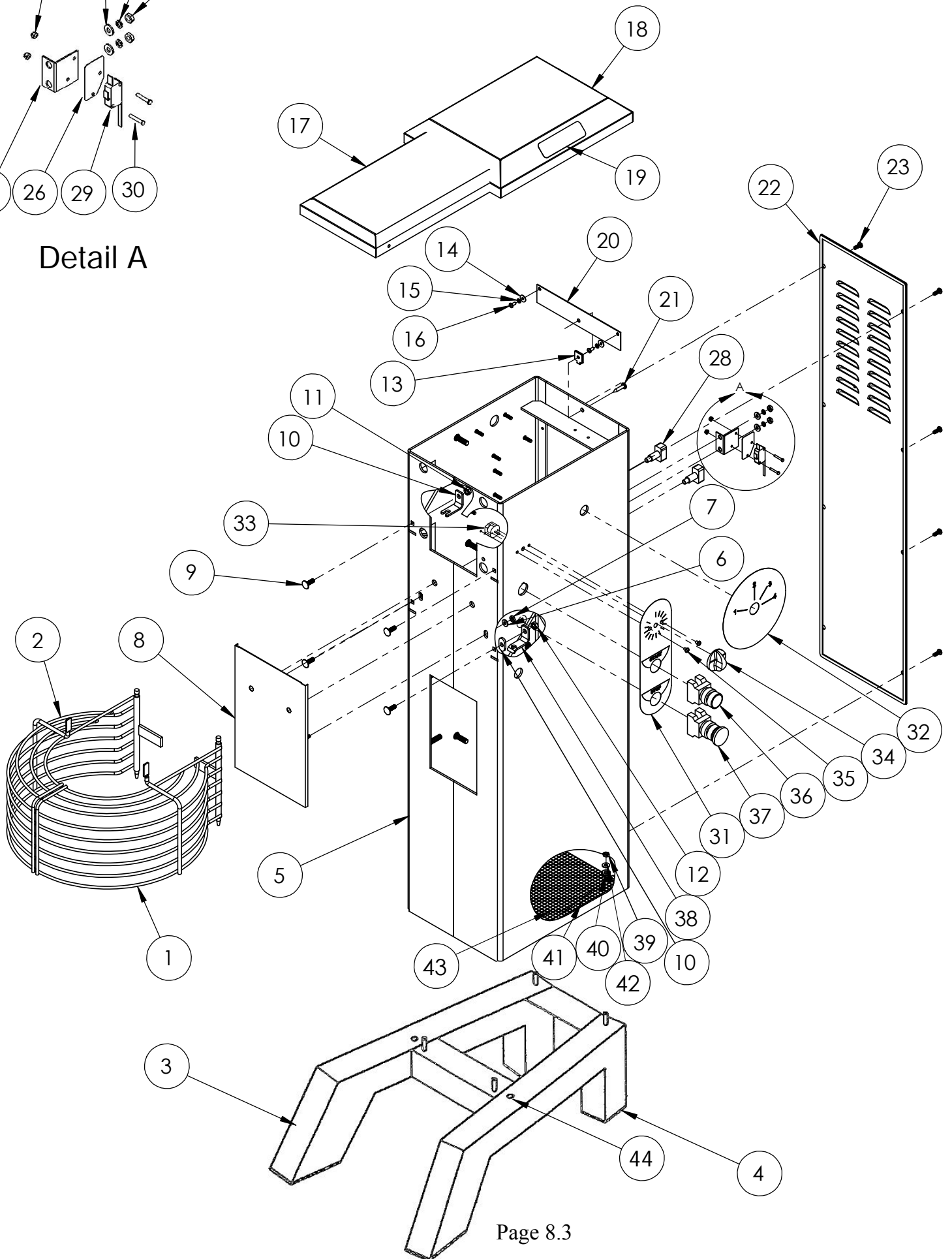
Mixer Housing Assembly
Figure 12

<u>Illus</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
	1035041A	Safety Ring Set (Includes 1 - 2)	
1	1035041	Safety Ring Right	1
2	1035042	Safety Ring Left	1
3	1035011	Mixer Base	1
4	4400237	Mixer Feet	4
5	1035043	Mixer Housing	1
6	1200076	Washer, Flat Steel #10	10
7	1200060	Hex Nut 10-32 X 3/8 X 1/8	6
8	1035045	Fixed Slider Cover	1
	1012441A	Safety Ring Bracket Set (Includes 9 - 12, 40)	
9	4400413	Bolt, Carriage 1/4-20 X 3/4 SS	4
10	4400003	Spacer	4
11	1012441	Bracket, Upper	2
12	4400141	Nut, Kep 1/4-20	4
	1035013A	Top Cover Assembly (Includes 13 - 20)	
13	4400001	Nut, Tinnerman	1
14	1200092	Washer, Flat #8	2
15	4400183	Washer, Lock #8	2
16	1200008	Screw, 8-32 X 3/8 PPHD	2
17	1035013	Housing Cover	1
18	4400114	Label, Cover Lift	1
19	4400113	Label, Stop Unplug	1
20	1024042	Spring, Top Cover	1
21	1200422	Screw, Sheet Metal # 12 PPHD 1"	1
	1030190A	Rear Access Panel Assembly (Includes 23 - 23)	
22	1030190	Rear Access Panel	1
23	1200012	Screw, Phillips 10-32 X 1/2	8
	1200451	Screw (Security Option)	8
	1024411A	Switch Assembly (Includes 6, 7, 24 - 30)	
24	1200433	Nut, Elastic Stop 4-40	6
25	4400065	Lock Washer # 10	4
26	7100023	Insulating Barrier	1
27	1024411	Bracket, Bowl Switch	1
28	7100123	Switch, Safety Guard	2
29	7100103	Switch, Bowl Lift	1
30	1200432	Screw, Hex HD 4-40 X 3/4	6
31	4400311	Decal, Start/ Stop/ Timer	1
32	4400349	Decal, Speed Control	1
	7100026A	Timer Assembly (Includes 33 - 35)	
33	7100026	Timer, 15 Min, 120 Volt	1
34	7100028	Knob, Timer	1
35	4400079	Screw, CHZ HD M4 - .7mm X 6mm	2
36	7100101	Push Button, Start	1
37	7100102	Push Button, Stop	1
38	1012442	Bracket, Lower	2
39	4400015	Nut, Kep 3/8-16	4
40	1200083	Steel Flat Washer 5/16	4
41	1200302	Steel Flat Washer 5/8	4
42	4400081	Screw Drive (CE and Canada Only)	4
43	1035012	Screening	1
44	1200125	Cap	4
	4400171	Bushing (Not Shown)	3
	1200450	Tool Kit (Security Option, Not Shown)	1

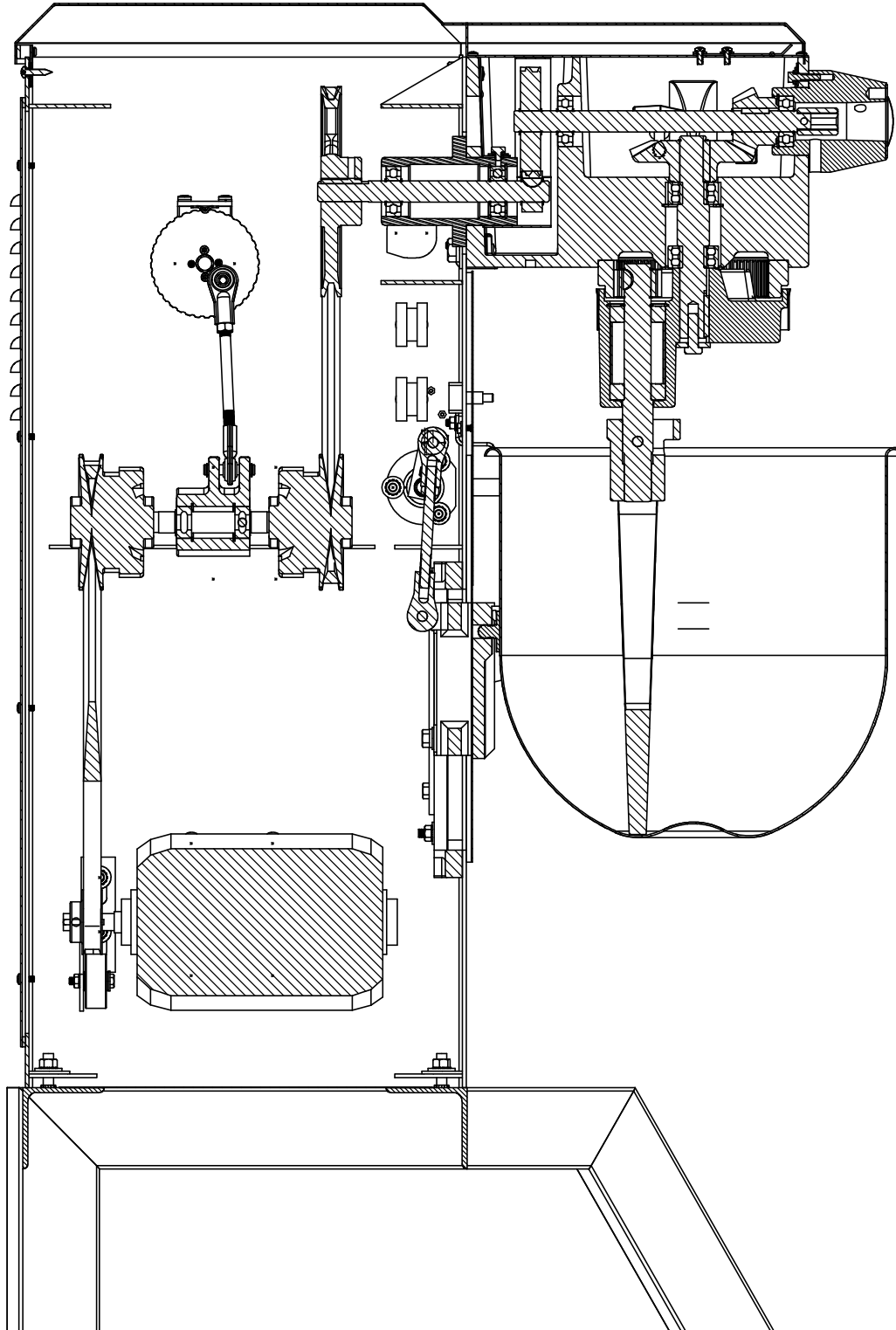
Mixer Housing Assembly
Figure 12



Detail A



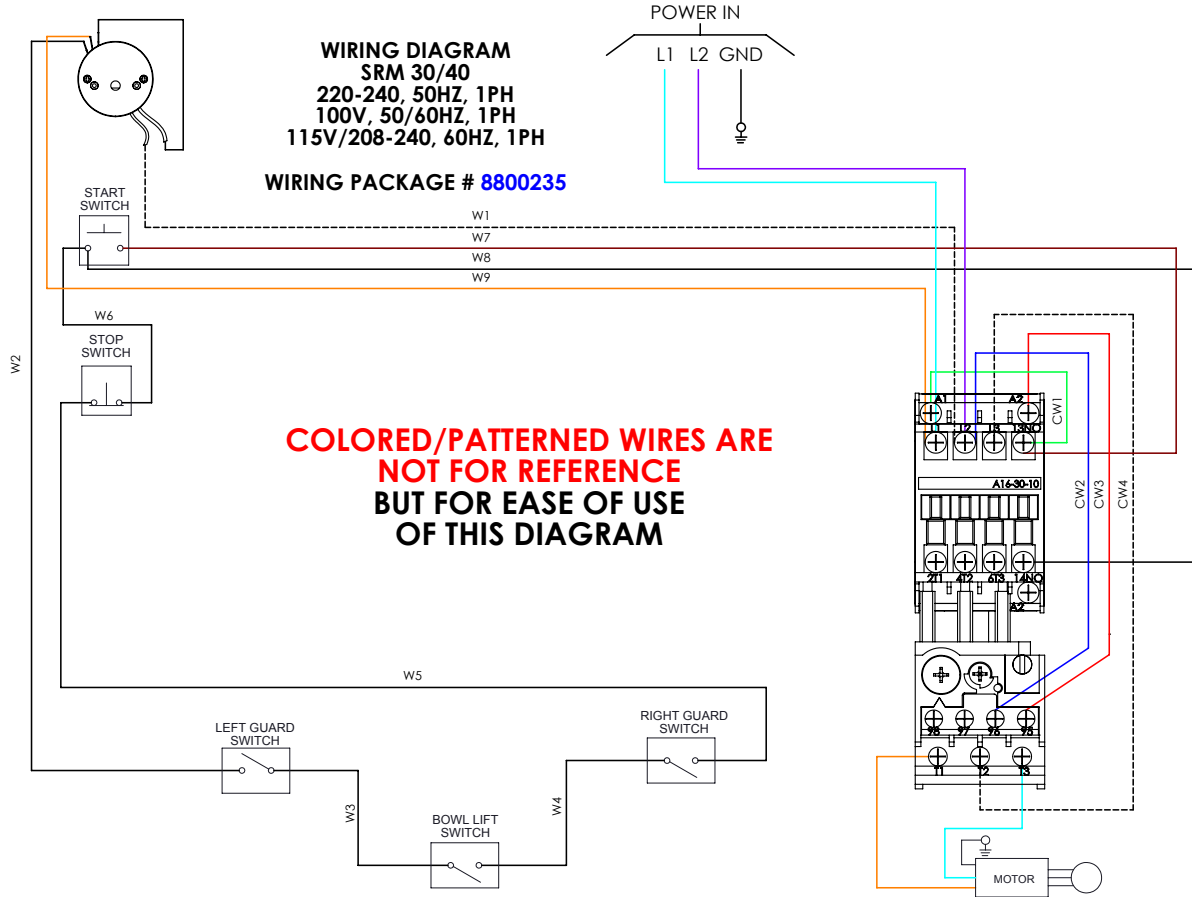
30 QUART MIXER
CUTAWAY VIEW
FIGURE 13



SCHEMATIC 115/208-240V, 60HZ, 1PH

220-240V 50/60HZ, 1PH

FIGURE 14A



COLORED/PATTERNED WIRES ARE NOT FOR REFERENCE BUT FOR EASE OF USE OF THIS DIAGRAM

PART NUMBER	WIRE NUMBER	GA	SEE NOTE	LENGTH	END A SEE NOTE	END B SEE NOTE	COLOR
8800235	W1	16	5	31	1	3	WHITE
	W2	16	5	12	2	4	BLACK
	W3	16	5	6	2	2	WHITE
	W4	16	5	6	2	2	RED
	W5	16	5	21	1	2	RED
	W6	16	5	2 1/2	1	1	BLACK
	W7	16	5	31	1	2	WHITE
	W8	16	5	34	1	1	RED
	W9	16	5	31	1	4	WHITE
	W10	16	5	12	1	1	WHITE
	W11	16	5	12	1	1	WHITE
	W12	16	5	12	1	1	WHITE

NOTES:

- ATTACH AMP 925552-2
- ATTACH MOLEX 19002-0025(1/4" F)
- ATTACH MOLEX 19001-0009(3/16" M)
- ATTACH MOLEX 19002-0029(3/16" F)
- MATERIAL: 1015TEW CSA AND UL APPROVED
- TO BE PACKAGED IN SEALED PLASTIC BAG WITH PART NUMBER LABEL

PART OF CONTACTOR	WIRE NUMBER	GA	SEE NOTE	LENGTH	END A SEE NOTE	END B SEE NOTE	COLOR
PART OF CONTACTOR	CW1	16	5	2 1/2	1	1	RED
	CW2	16	5	7	1	1	RED
	CW3	16	5	7	1	1	RED
	CW4	16	5	10	1	1	BLACK

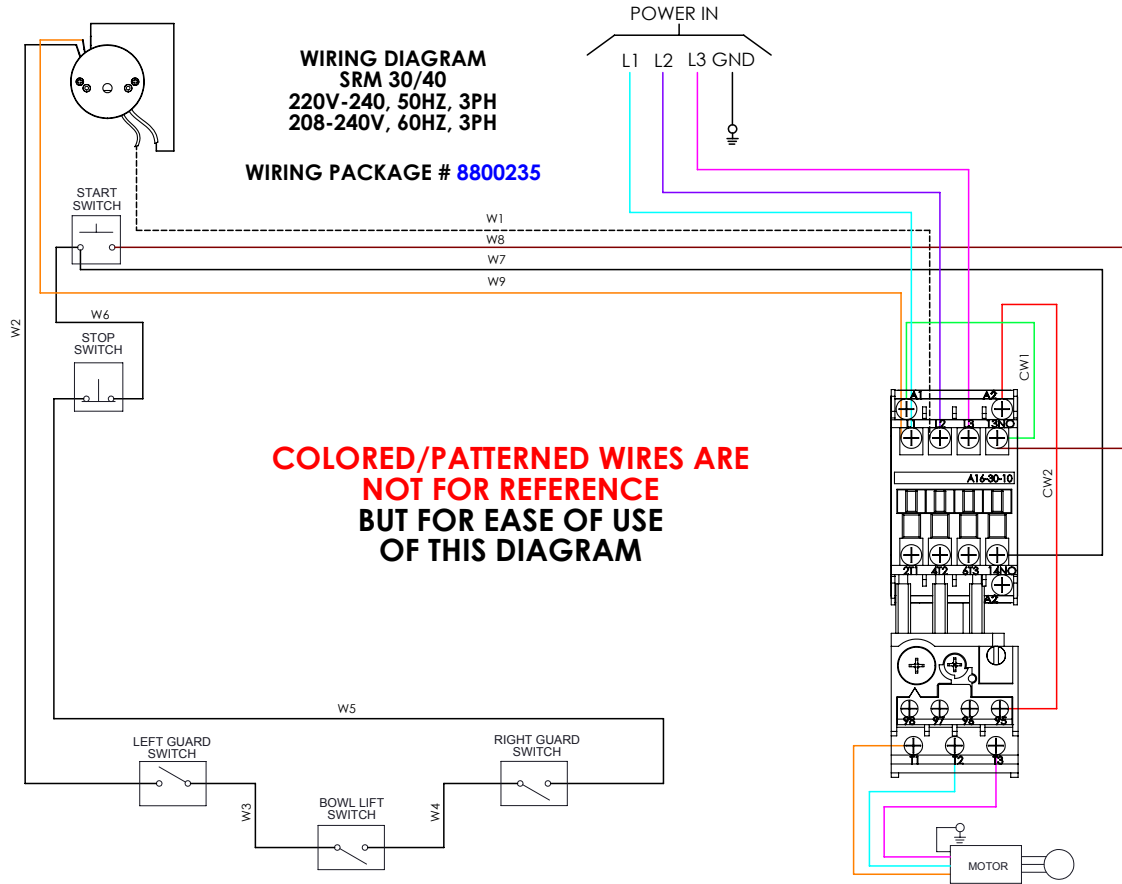
IMPORTANT: Before making electrical connections, check the specifications on the data plate, (located on the rear access panel), to assure they agree with those of your electrical service.

WARNING: Whenever maintenance is being performed or whenever the top cover or rear access panel have been removed, DISCONNECT the electrical power cord and place a tag on it indicating the mixer is being worked on.

SCHEMATIC 208-240V, 60HZ, 3PH

220-240V 50HZ, 3PH

FIGURE 14B



PART NUMBER	WIRE NUMBER	GA	SEE NOTE	LENGTH	END A SEE NOTE	END B SEE NOTE	COLOR
8800235	W1	16	5	31	1	3	WHITE
	W2	16	5	12	2	4	BLACK
	W3	16	5	6	2	2	WHITE
	W4	16	5	6	2	2	RED
	W5	16	5	21	1	2	RED
	W6	16	5	2 1/2	1	1	BLACK
	W7	16	5	31	1	2	WHITE
	W8	16	5	34	1	1	RED
	W9	16	5	31	1	4	WHITE
	W10	16	5	12	1	1	WHITE
	W11	16	5	12	1	1	WHITE
	W12	16	5	12	1	1	WHITE

PART OF CONTACTOR	WIRE NUMBER	GA	SEE NOTE	LENGTH	END A SEE NOTE	END B SEE NOTE	COLOR
PART OF CONTACTOR	CW1	16	5	2 1/2	1	1	RED
	CW2	16	5	7	1	1	RED
	CW3	16	5	7	1	1	RED
	CW4	16	5	10	1	1	BLACK

NOTES:

1. ATTACH AMP 925552-2
2. ATTACH MOLEX 19002-0025(1/4" F)
3. ATTACH MOLEX 19001-0009(3/16" M)
4. ATTACH MOLEX 19002-0029(3/16" F)
5. MATERIAL: 1015TEW CSA AND UL APPROVED
6. TO BE PACKAGED IN SEALED PLASTIC BAG WITH PART NUMBER LABEL

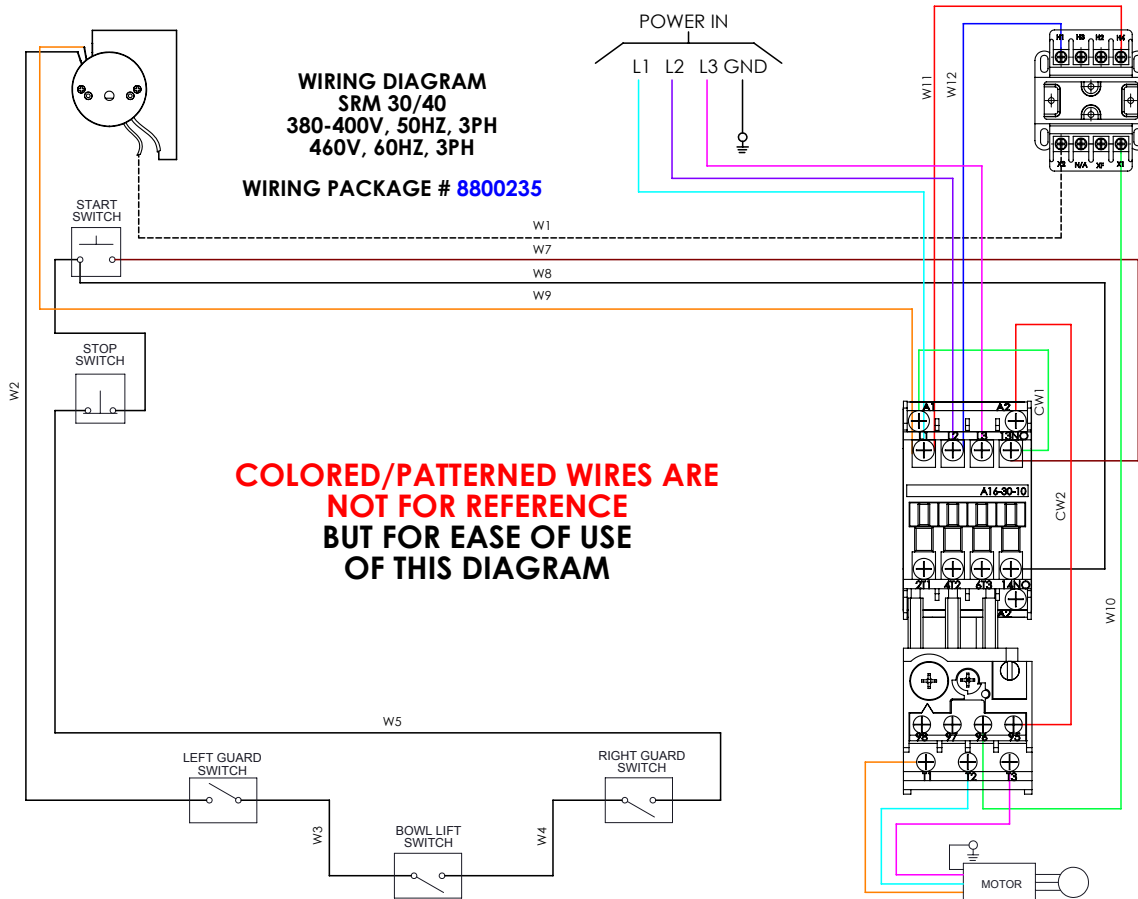
IMPORTANT: Before making electrical connections, check the specifications on the data plate, (located on the rear access panel), to assure they agree with those of your electrical service.

WARNING: Whenever maintenance is being performed or whenever the top cover or rear access panel have been removed, DISCONNECT the electrical power cord and place a tag on it indicating the mixer is being worked on.

SCHEMATIC 380-400V, 50HZ, 3PH

460V, 60HZ, 3PH

FIGURE 14C



**WIRING DIAGRAM
SRM 30/40
380-400V, 50HZ, 3PH
460V, 60HZ, 3PH
WIRING PACKAGE # 8800235**

**COLORED/PATTERNED WIRES ARE
NOT FOR REFERENCE
BUT FOR EASE OF USE
OF THIS DIAGRAM**

PART NUMBER	WIRE NUMBER	GA	SEE NOTE	LENGTH	END A SEE NOTE	END B SEE NOTE	COLOR
8800235	W1	16	5	31	1	3	WHITE
	W2	16	5	12	2	4	BLACK
	W3	16	5	6	2	2	WHITE
	W4	16	5	6	2	2	RED
	W5	16	5	21	1	2	RED
	W6	16	5	2 1/2	1	1	BLACK
	W7	16	5	31	1	2	WHITE
	W8	16	5	34	1	1	RED
	W9	16	5	31	1	4	WHITE
	W10	16	5	12	1	1	WHITE
	W11	16	5	12	1	1	WHITE
W12	16	5	12	1	1	WHITE	

PART OF CONTACTOR	WIRE NUMBER	GA	SEE NOTE	LENGTH	END A SEE NOTE	END B SEE NOTE	COLOR
PART OF CONTACTOR	CW1	16	5	2 1/2	1	1	RED
	CW2	16	5	7	1	1	RED
	CW3	16	5	7	1	1	RED
	CW4	16	5	10	1	1	BLACK

NOTES:

- ATTACH AMP 925552-2
- ATTACH MOLEX 19002-0025(1/4" F)
- ATTACH MOLEX 19001-0009(3/16" M)
- ATTACH MOLEX 19002-0029(3/16" F)
- MATERIAL: 1015TEW CSA AND UL APPROVED
- TO BE PACKAGED IN SEALED PLASTIC BAG WITH PART NUMBER LABEL

IMPORTANT: Before making electrical connections, check the specifications on the data plate, (located on the rear access panel), to assure they agree with those of your electrical service.

WARNING: Whenever maintenance is being performed or whenever the top cover or rear access panel have been removed, DISCONNECT the electrical power cord and place a tag on it indicating the mixer is being worked on.



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