



Multi-Fruit Juicer

Operator & Service Manual



December 2016



Multi-Fruit Juicer

Operator & Service Manual

Copyright © John Bean Technologies Corporation 2016
JBT Corporation
400 Fairway Avenue
Lakeland, FL 33801
(863) 683-5411

Manual No. FNS-0002-060-EN



Table of Contents

Important Safety Information	4
Specifications	6
General Information	7
Operating Instructions	10
Operator Do's and Don'ts	13
Cleaning Instructions	14
Maintenance	20
Troubleshooting Table	27
Troubleshooting	28
Rebuilding	34
Rebuild Tooling Kit and Spare Parts Kit	48
Juicing Parts, 060-00099	50
Hopper Assembly Parts, 060-00043	52
Drive Parts, 060-00103	54
Upper Drive Arm Assembly Parts, 060-00116	56
Rod End Assembly, Upper Cup Drive Parts 060-00114, 060-00114-01 for Field Replacement	57
Orifice Drive Arm Assembly Parts, 060-00115	58
Rod End Assembly, Orifice Drive Parts, 060-00113, 060-00113-01 for Field Replacement	59
Frame & Stand Assembly Parts, 060-00117	60
Bracng Rail Kit, 060-10126	62
Cover Assembly Parts, ABS, 060-00118	64
Cover Assembly Parts, Stainless Steel, 060-01001	66
Splash Shield Assembly Parts, 060-01054	69
Decals, Warning Labels, Bumpers	70
Electrical Parts, 060-00034	72
Electrical Box Assembly Parts (115 Volt), 060-00168	74
Electrical Box Assembly Parts (220 Volt), 060-00169	76
Motor Assembly Parts (110 Volt), 060-00106 and (220 Volt), 060-00196	78
Miscellaneous Parts	80



Important Safety Information

You can help prevent personal injury and/or property damage.

**Please read this manual carefully before operating the Multi-Fruit Juicer.
DO NOT attempt any operation until you understand exactly how the machine functions.**

If uncertainty remains after studying this manual, **please contact John Bean Technologies Corporation.**

We're here to help. With proper handling, the JBT Multt-Fruit Juicer will provide safe, efficient and convenient service for years to come.

	<p>North America JBT Corporation 400 Fairway Ave Lakeland, FL 33801 USA Phone: +1 863 683 5411 Fax: +1 863 680 3672</p>	<p>Europe JBT Corporation, S.L. Julián Camarillo 26, 4ª 28037 Madrid Spain Phone: +34 91 304 00 45 Fax: +34 91 327 50 03</p>	<p>South Africa JBT (Pty) Ltd. Koper Street Brackenfell Cape Town, South Africa 7560 Phone: +27 21 982 1130 Fax: +27 21 982 1136</p>
	<p>Brazil JBT Máquinas e Equipamentos Industriais Ltda. Av. Eng. Camilo Dinucci 4605 14808-900 Araraquara São Paulo Brazil Phone: +55 16 3301 2000 Fax: +55 16 3332 0565</p>	<p>Latin America JBT Corporation Carr. Mty-Salttillo Km 7—Bodega 4 Colonia Las Mitras Santa Catarina, NL Mexico 66350 Phone: +52 81 81 23 70 55 Fax: +52 81 81 23 70 54</p>	<p>Asia / Pacific JBT (Shanghai) Co. Ltd. Room 3002-3003 Haitong Security Building No. 689 Guangdong Road Shanghai 200001, China Phone: +86 21 6341 1616 Fax: +86 21 6341 0708</p>

www.jbtcorporation.com

Revision History

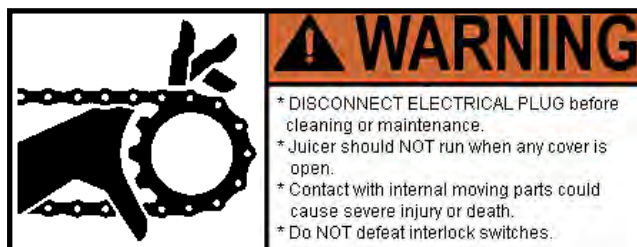
Manual Code	Rev. No.	Date	Pages	Change History
060-00203	1	03/15/09	62, 63, 65, 66, 67	Updates and modifications
060-00203	2	03/15/11	6, 50, 54, 68, 69, 70, 71, 72, 73, 74	Updates to specifications and part numbers for assemblies 060-00099-F, 060-00103-F, 060-00034-D, 060-00168-C, 060-00169-C, 060-00106C, 060-00196-C
FNS-0002-060-EN	A	09/15/14	Entire manual	Updates, modifications and alignment to JBT global version control and inventory standards
FNS-0002-060-EN	B	12/15/15	Entire manual	Addition of new Fresh'n Squeeze logo
FNS-0002-060-EN	C	3/1/16	62	Updates for part number information for assembly 060-00118
FNS-0002-060-EN	D	8/9/16	40, 50, 51, 60	Update of torque values and illustration on Page 41. Updates for part number information for assemblies 060-00117, 060-00099
FNS-0002-060-EN	E	12/14/16	Entire manual	Edits and additions

Safety Labels

The safety labels shown below appear on the Juice Extractor. Safety labels provide essential instructions on how to avoid possible hazards.

Please, for your safety: FOLLOW THOSE INSTRUCTIONS AT ALL TIMES.

Should the Juicer safety labels become damaged or unreadable, contact JBT Corporation for replacement labels.



Safety Instructions

Carefully review the following safety instructions.

Make them a habit when using the JBT Corporation Multi-Fruit Juicer.

1. If Juicer continues to run when any access cover is open, the interlock switch is defective. **Turn Juicer off immediately.** Call for service.
2. Prevent unauthorized access to Juicer by locking all covers with supplied key.
3. Prevent unauthorized operation of Juicer by placing electrical plug inside cart door.
4. **NEVER** attempt to make any safety device inoperative.
5. **NEVER** operate or perform maintenance or repair work on the Juicer when taking any kind of drug or sedative, when under the influence of alcohol, or when fatigued.
6. **ALWAYS** check adjustment of all nuts, bolts, and screws after installation, repair, or periodic maintenance.



Specifications

Technical Specifications

Fruit size: 2 1/2" to 3 3/4" diameter (6.5 cm to 9.5 cm)
 Oranges — FL:..... 125 to 50 count
 Oranges — CA: 138 to 48 count
 Grapefruit — FL:..... 56 to 48 count
 Hopper capacity:..... 40 lb. (1 carton) (18 kg)
 Reservoir capacity:..... 3.5 gal. (1 carton) (13.2 liters)
 Waste container capacity: 40 lb. of peel (2 cartons) (18 kg)
 Speed:..... 20 fruit/minute
 (20 to 60 gallons/hour)
 (75 to 225 liters/hour)

Electrical Specifications

115V, 60 Hz Single Phase 20 AMP Service on a dedicated circuit
 10 GA. wire — up to 200 ft. from main breaker panel
 or
 220 VAC, 50 Hz / 60Hz Single Phase 16 AMP Service
 10 GA. wire — up to 200 ft. from main breaker panel

Shipping Specifications

Machine With Stand:
 Height: 67" (170 cm)
 Width: 27" (69 cm)
 Depth: 32" (81 cm)
 Weight: 535 lbs (243 kg)

Patents

U.S. Patents - #4905586 and #4922814
 and Patents Pending

General Information

The JBT Corporation Juicer is designed to provide years of dependable service. It uses a unique patented design to extract every available amount of juice from the fruit with the least amount of peel oil. The peel is completely separated from the juice and juice sacs before being compressed and strained.

The machine will juice all types of citrus — oranges, grapefruit, lemons, limes, tangerines, etc. — without changing or adjusting parts. In fact, different varieties and sizes of fruit can be juiced to create various fruit juice blends.

Clean-up is simple, requiring disassembly of only five parts. All waste material — peel, membranes, and seeds — is collected in a disposable garbage bag for easy removal and disposal.

The Juice Extractor is solidly built using heavy duty components in all assemblies, including the drive. It is simple to operate and uses a minimal number of parts.

ALWAYS follow cleaning and maintenance schedules in this manual to prevent equipment damage.



Figure 1. JBT Multi-Fruit Juicer



Figure 2. Multi-Fruit Juicer – Exterior Components

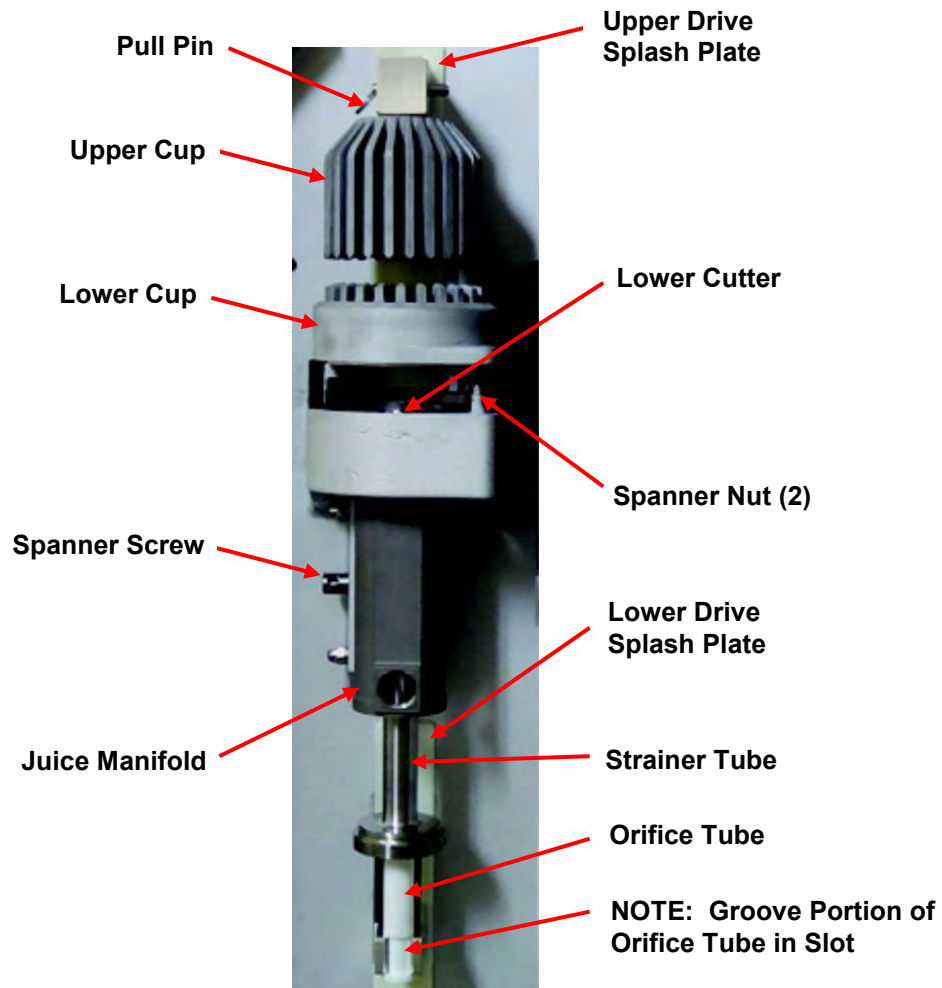


Figure 3. Juicing Components Assembly

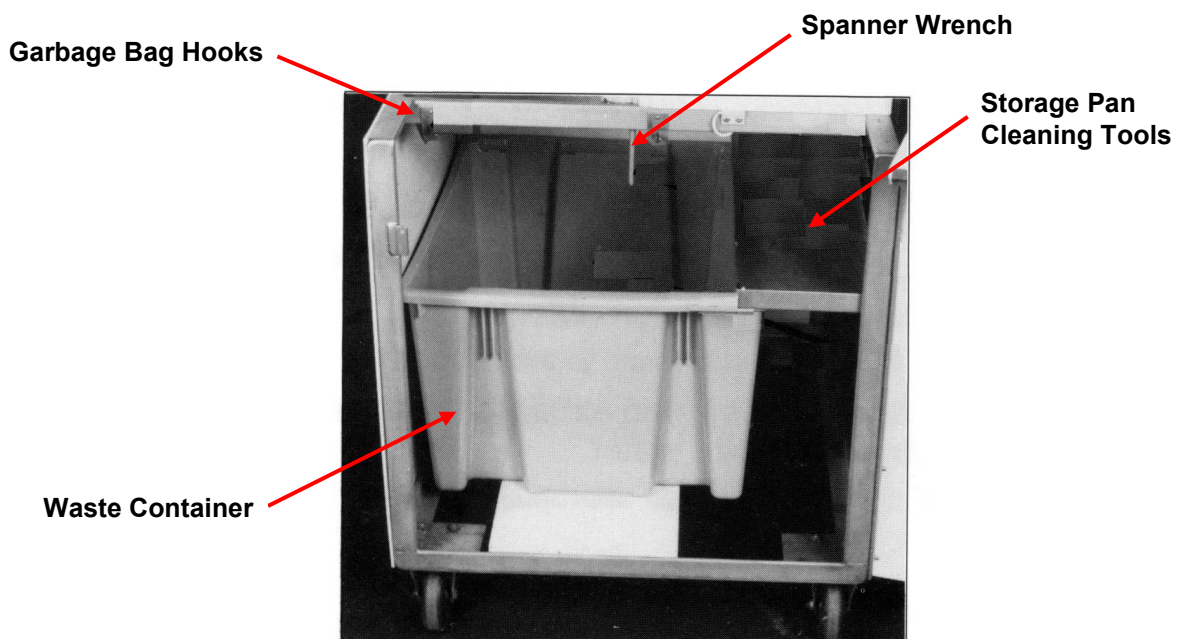


Figure 4. Inside Cart Door



Operating Instructions

Equipment Check

Before plugging the Multi-Fruit Juicer into an electrical outlet, the following steps must be performed:

- 1. Locate the Multi-Fruit Juicer on a level surface.**
This will prevent fruit feed problems.

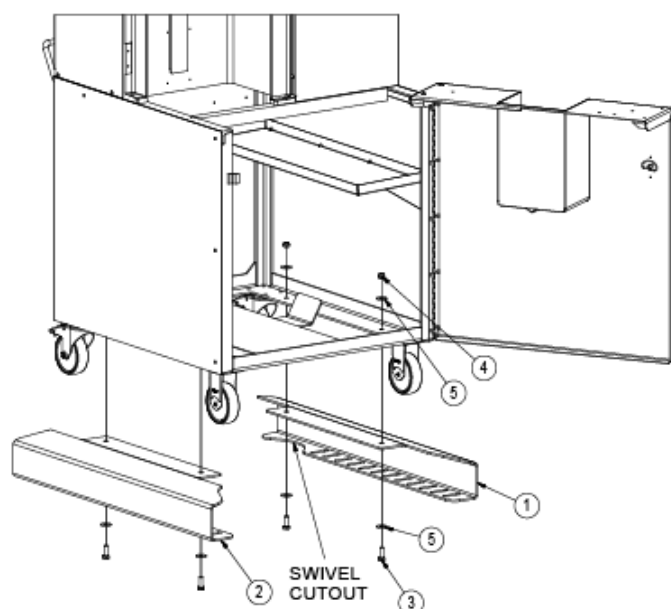
CAUTION: WHEN MOVING JUICER, ALWAYS TRANSPORT ON LEVEL SURFACE. USE RAMPS IF NECESSARY. AVOID LEDGES, IRREGULAR FLOORS OR DRAIN INDENTIONS. TO AVOID TIPPING, NEW JUICER UNITS ARE SHIPPED WITH BRACING RAILS. UNITS IN THE FIELD CAN BE UPGRADED USING THE BRACING RAIL KIT. SEE FIGURE 5 FOR INSTALLATION INFORMATION.

- 2. Lock both rear casters.**
To lock, push down on caster with foot. To unlock, push again with foot.
- 3. Check waste container.**
Open cart door to verify that waste container is in place. A plastic bag may be attached to the hooks above the waste container (30 gallon capacity or equivalent).
- 4. Check juicing components.**
 - a. Twist and pull juice nozzle off.
 - b. Use key to unlock juicing components cover. Open cover and check that juicing components are installed and securely fastened. See Figure 3, Page 9.
- 5. Close and lock all access covers.**
There are 4 separate access covers: hopper cover, juicing components cover, cart door (cover) and back cover.
NEVER operate juicer unless all covers are in place.
- 6. Replace juice nozzle. Wet the o-ring before installing the nozzle.**
- 7. Make sure juice reservoir is firmly in place.**
- 8. Make sure juice reservoir valve is in closed position.**
- 9. Check the hopper for foreign objects.**
Remove any foreign objects found in the hopper.
- 10. Make sure floor area around Juicer is clean and free of obstructions and water.**
Wear appropriate non-slip footwear when water is necessary.

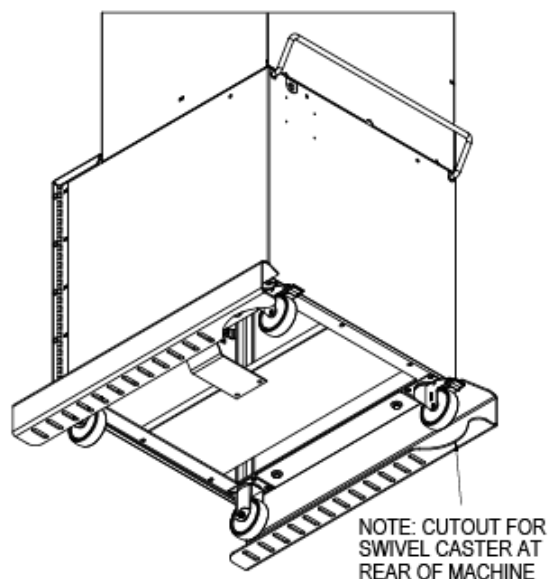
BRACING RAIL INSTALLATION

NEW UNITS: THE BRACING RAILS ARE SHIPPED ALONG WITH ALL NECESSARY HARDWARE AND INSTALLATION INSTRUCTIONS. THE BRACING RAILS ARE PLACED UNDER THE CART. HARDWARE AND INSTRUCTIONS ARE ENCLOSED IN A PLASTIC BAG AND PLACED IN THE JUICER WASTE BIN.

FIELD UNITS: THE BRACING RAILS ARE SHIPPED AS A KIT ALONG WITH ALL NECESSARY HARDWARE AND INSTALLATION INSTRUCTIONS.



EXPLODED VIEW



COMPLETED INSTALLATION

Item	Qty	Part No.	Part Description
1	1	060-10123	RH BRACING RAIL, MFJ
2	1	060-10124	LH BRACING RAIL, MFJ
3	4	004-352-395	HEX CAP SCREW, 3/8-16 x 1", SS
4	4	004-156-074	HEX NUT, SELF LOCKING, 3/8-16, 304SS
5	8	004-160-082	FLAT WASHER, 3/8", SS

INSTALLATION INSTRUCTIONS:

1. PLACE BRACING RAILS UNDER EACH SIDE OF THE MACHINE.
2. INSTALL HARDWARE AS SHOWN IN EXPLODED VIEW.
WITH WASTE BIN REMOVED, INSTALLATION CAN BE PERFORMED THROUGH THE DOOR OPENING.
3. TORQUE ALL HARDWARE TO 20 FT-LBS.

Figure 5. Bracing Rail Installation



Juicing

**CAUTION: DO NOT RUN JUICER WITHOUT FRUIT FOR MORE THAN ONE MINUTE.
EQUIPMENT DAMAGE MAY RESULT.**

1. **Turn on Juicer.**
Push the "ON-OFF" button to "ON" position.
2. **Fruit may be fed into Juicer one at a time (Single Feed) or in bulk.**
 - a. **Single Feed**
Remove hopper single feed hole cover.
Twist and pull cover to remove.
Drop fruit individually down single-feed chute through hole in hopper cover.
DO NOT overload chute or fruit will accidentally be double fed.
 - b. **Bulk Feed**
Unlock and open the hopper cover.
Dump up to one carton (40 lbs.) of fruit into the hopper.
Fruit may be divided between the carton and carton lid for ease of lifting.
3. **DO NOT use the single-feed chute when hopper is full.**
Fruit will accidentally be double fed.
4. **Turn-off Juicer.**
Push the "ON-OFF" Switch to the "OFF" position.
5. **Stir juice.**
Use stirrer handle to stir juice in reservoir before filling containers.
6. **Fill containers.**
Place container under juice reservoir valve. Open valve by turning lever until container is full.
7. **Clean Juicer.**
If finished juicing, clean Juicer as soon as possible.
(See Page 14 for cleaning instructions.)



Operator Do's and Don'ts

Do's	Don'ts
Unplug juicer before opening juicing component door	DO NOT open juicing component door before unplugging
Stop juicer when cups are in most open position	DO NOT stop juicer when cups are in closed position
Use light water spray when rinsing juicer	DO NOT use high pressure or volume water when rinsing juicer
When hopper cleaning, use spray bottle and damp towel	When hopper cleaning, DO NOT use chemical dosage and water system
Use spray bottle with cleaner on main frame casting in juicing components area	DO NOT use chemical dosage and water system to clean main casting (can result in mechanical damage)
Rinse sanitizer off juicer five minutes after applying	DO NOT leave sanitizer on juicer without rinsing (can damage aluminum)
Use fruit within size range (2-1/2" to 3-7/8" diameter)	DO NOT use oversized fruit
Use fruit within size range (2-1/2" to 3-7/8" diameter)	DO NOT use small fruit (can result in double feed and cause cups to break)
Inspect and test safety switches and door locks weekly	DO NOT use juicer if safety switches are not work properly
Install juicing components using spanner tool; tighten spanner nuts and screw from top to bottom	DO NOT hand tighten spanner nuts and screw (can result in major equipment damage)
Install orifice tube into slot on lower arm (see Figure 6 on Page 19)	DO NOT install orifice tube on top of lower arm slot (see Figure 6 on Page 19)
Inspect cutter daily. Replace if damaged; adjust and tighten screw	If cutter is damaged, loose or dull, juice quality and yield can be impacted
Mix juice and pulp slowly to reduce foam in reservoir	DO NOT mix juice quickly in reservoir (can result in foam and off flavor)



Cleaning Instructions

ALWAYS follow cleaning and maintenance schedules in this manual to prevent equipment damage.

Clean Juicer as soon as possible after juicing. Use a soft towel or sponge to wipe equipment parts. **DO NOT** use abrasive pads such as steel wool.

The recommended cleaner is JBT Corporation brand CorKlean. CorKlean is a low-foaming alkaline equipment cleaner. It is safe on aluminum, 100% water soluble and free rinsing. CorKlean has been especially formulated for cleaning food processing equipment and is USDA accepted. Follow instructions on cleaner label for dilution.

1. **Turn-off Juicer with Juicing Component cups separated. Open Upper Cup to highest position.**
2. **DISCONNECT ELECTRICAL PLUG.**



3. **Pull Juicer to clean-up area, if one is available.**



4. **Brush all loose peel into waste container or bag.**
5. **Empty and rinse waste container.**

6. DO NOT move or pull out splash guards.



7. Remove juicing components.

- a. Cups should be separated. (Juicer should have been turned off with cups in the separated position.)
- b. Remove splatter shield by sliding upwards off mounting screws.

CAUTION: DO NOT PLACE HANDS OR FINGERS BETWEEN CUPS.

- c. Grasp upper cup and pull out pin just above it. Place upper cup in waste container.
- d. Remove lower cup by removing spanner nuts on either side of lower cup. (Spanner wrench is provided to loosen/tighten spanner nuts). Place lower cup in waste container.

CAUTION: CUTTER AND KNIVES ARE SHARP.

- e. Install red protective cap on cutter. (Red protective cap is provided.)
- f. Grasp juice manifold and orifice tube firmly. Remove entire juicing components assembly.
- g. Grasp orifice tube and pull out of strainer tube.
- h. Remove strainer tube from inside juice manifold by turning tube counter-clockwise and sliding out. (Spanner wrench is provided to loosen/tighten strainer tube.) Place juicing components into waste container.



8. Prepare cleaning solution.

JBT Corporation brand CorKlean is recommended, see Page 14.
Read the product label. Follow the manufacturer's mixing directions and safety precautions.

9. Immerse all components in cleaning solution.

Use the blunt end of plastic rod provided to displace any fruit material lodged in the bore of the orifice tube.

Use pointed end of plastic rod to displace any fruit material lodged in cup fingers.

10. Scrub components.

Use a brush, towel, or sponge. **DO NOT** use abrasive pads such as steel wool.
Thoroughly rinse with clean water, then thoroughly rinse with sanitizer solution.
Follow the manufacturer's mixing directions and safety precautions.

11. For best results, soak strainer tube overnight.

After soaking overnight, rinse the strainer tube thoroughly before using. Check that all strainer tube holes are clean. Clean strainer tube with a hard spray from a hose while moving orifice tube back and forth in strainer tube. Rinse thoroughly with sanitizer solution. Allow to air dry.

12. If possible, hose down juicing area and cover.

If location prohibits using a hose to clean juicing area and cover, ensure waste container is in place. Wash down the exposed juicing area and cover with a sponge or spray applicator using the recommended cleaning solution. Cover may be rinsed in place or removed by lifting it off the hinges. Allow to stand for two minutes before rinsing thoroughly with water.

13. Re-assemble juicing components.

Start by re-assembling strainer tube into juice manifold. Tighten with spanner wrench. Insert orifice tube into bottom of strainer tube. Mount juice manifold assembly onto locating pins with orifice tube notch engaging lower drive. Tighten spanner screw with spanner wrench. Remove red protective cap from cutter. Install lower cup and tighten spanner nuts with spanner wrench. Install upper cup by slipping pin into stem hole. Install splatter shield.

Refer to Figure 6.

14. Verify that orifice tube is properly installed (Figure 7).

15. Remove wax build-up as needed.

Cups, hopper and other parts may acquire a build-up of wax over time.

a. Soak cups for five minutes in an ammonia cleaning solution.

Rinse thoroughly with sanitizer solution.

b. Wipe hopper and other parts with a cloth soaked in ammonia cleaning solution.



16. Remove orange discoloration as needed.

Equipment may exhibit some build-up or orange coloration over time. CorKlean solution should remove this. Wipe with a cloth soaked in any pine based cleaner to remove discoloration from plastic covers.

Rinse thoroughly with sanitizer solution.

17. Clean Tomlinson faucet.

Daily cleaning is crucial to the performance, maintenance and sanitation of the faucet.

Take apart handle assembly and flush with clean water, then sanitize.

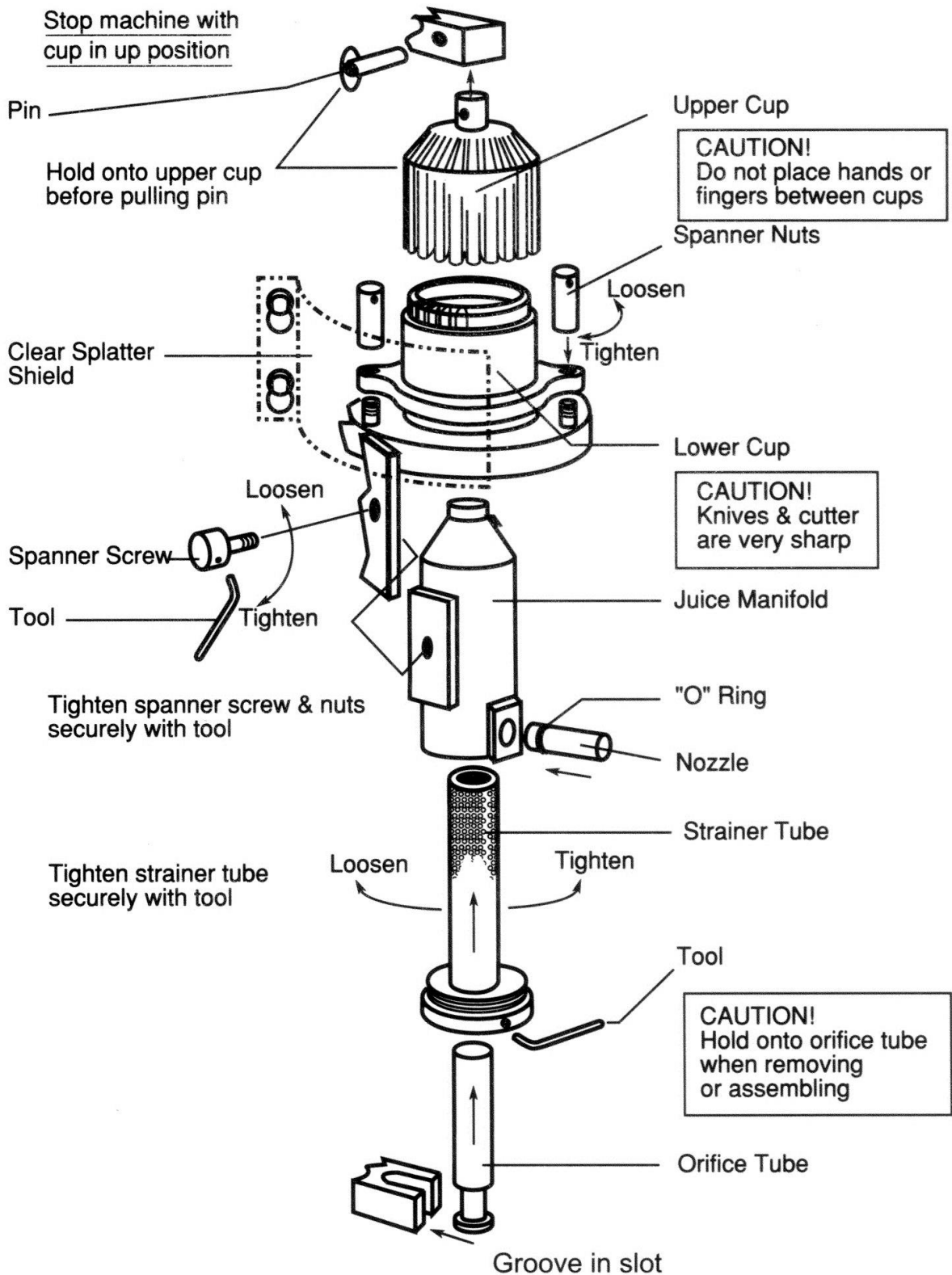


Figure 6. Juicing Components

ORIFICE TUBE INSTALLATION



CORRECT ✓

GROOVE OF ORIFICE TUBE
INSTALLED IN LOWER ARM SLOT



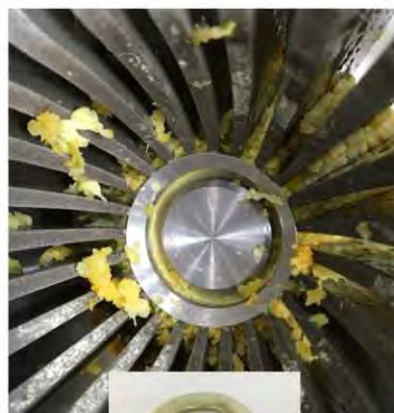
INCORRECT ✗

ORIFICE TUBE INSTALLED
ON TOP OF LOWER ARM SLOT

RESULTS OF IMPROPER ORIFICE TUBE INSTALLATION



DAMAGED ORIFICE TUBE
AND CUTTER



ORIFICE TUBE BROKEN OFF
INSIDE UPPER CUP



ORIFICE TUBE DOES NOT
CLEAN STRAINER TUBE
(EFFECTS JUICE YIELD
AND QUALITY)

Figure 7. Proper Orifice Tube Installation



Maintenance

Before performing any maintenance,

DISCONNECT ELECTRICAL PLUG.



After every juice run:

1. **Check cutter and knives for sharpness.**

Refer to **Figure 8** to determine condition of cutter.

If dull, sharpen with a whetstone provided.

Refer to **Figure 8** to sharpen cutter.

If cutter is severely damaged or rolled over, replace cutter.

a. **Cutter removal:**

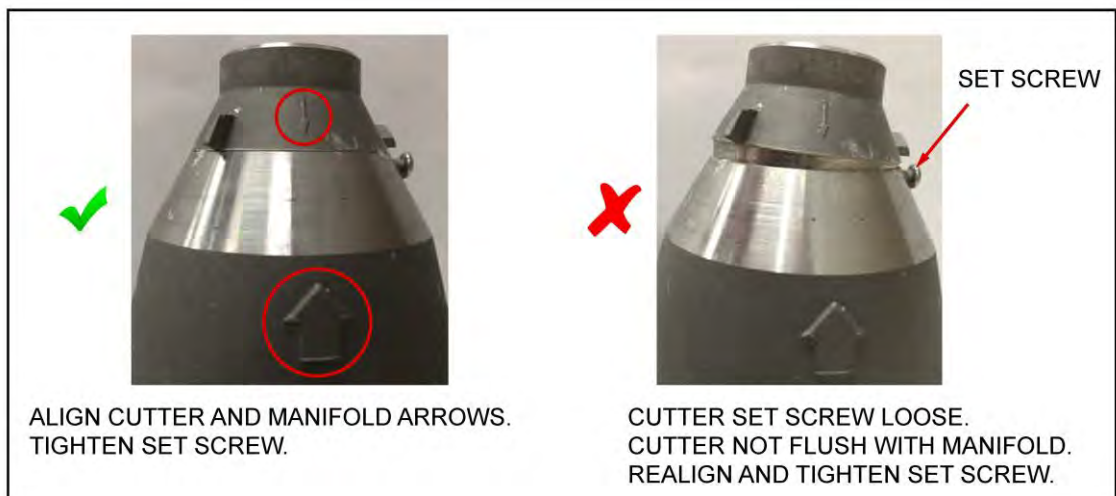
Disassemble juicing components (Figure 3, Page 9). Loosen set screw under front knife (make sure screw is backed out far enough to clear cutter). Cutter should lift out, if not, tap the cutter lightly from inside the juice manifold with a 1-1/4" diameter rod (hammer handle).

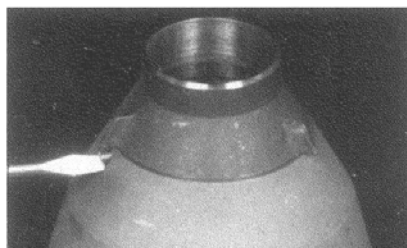
CAUTION: CUTTER AND KNIVES ARE SHARP.

Install red protective cap provided onto cutter. After red protective cap is installed, remove cutter. Handle cutter with care to avoid direct contact with sharp edge.

b. **Cutter installation:**

Align arrows on cutter and juice manifold to seat cutter. Make sure cutter is fully seated. Tighten set screw. (**DO NOT** over-tighten.)





INSTALLATION OF
GOOD CUTTER



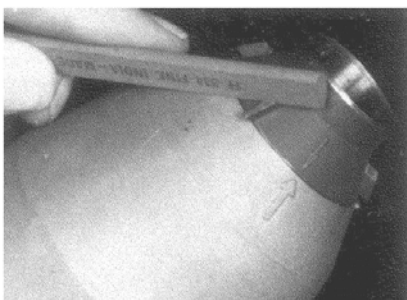
BAD CUTTER
REPLACE CUTTER



CUTTER THAT
CAN BE SHARPENED



SHARPENING CUTTER
WITH WHETSTONE



SHARPENING KNIFE
WITH WHETSTONE

Figure 8 Sharpening Cutter



Maintenance (continued)

- 2. Check orifice tube for damage.
Refer to Figure 9.**

Replace tube when:

- a. Chunks are missing from top end.
- b. Score marks 1/32" or deeper appear along the length of the tube.

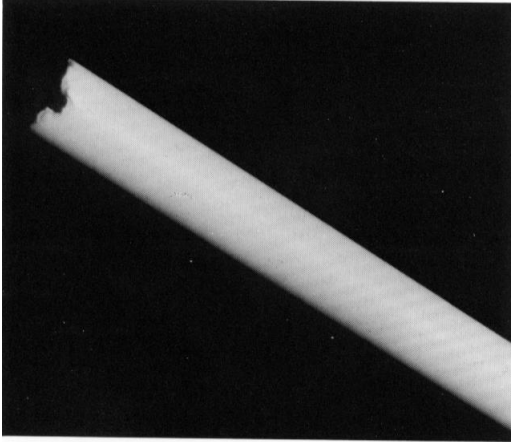


Figure 9. Severely Damaged Orifice Tube

- 3. Check for loose or missing nuts and bolts.**
 - a. Tighten or replace nuts and bolts as necessary.
 - b. **DO NOT** exceed torque ranges specified in Service Manual.
 - c. **ALWAYS** use JBT Corporation recommended spare parts.

Periodic Inspection

Perform the following steps every week.

1. Test all access cover interlock switches.

Juicer should stop automatically when any access cover is opened. Individually open and close the four access covers (hopper, juice components, cart and back). If juicer continues to run when any access cover is opened, the interlock switch is defective.

Stop the juicer and replace the defective interlock switch immediately.

See Troubleshooting Section.

2. Check all fasteners for tightness.

Check especially on the Sprockets, Crank Arms, Fruit Lift, and Hopper.

3. Check chain for tightness.

Refer to Figure 10.

Chain should have 1/4 inch maximum slack on top side. To adjust, (see **Figure 11**) loosen the four bolts holding the gearbox base to frame, move motor/ gearbox to the correct adjustment. (If necessary, use a small board to pry between frame and motor.)

CAUTION: DO NOT OVER TIGHTEN CHAIN.

4. Check chain and sprockets for rust.

Lubricate chain and sprockets should rust appear. JBT Select FG Spray (Non-Drip), p/n 575054, is recommended.

5. Lubricate the seven grease fittings with JBT Select 2FG grease, p/n 575066.

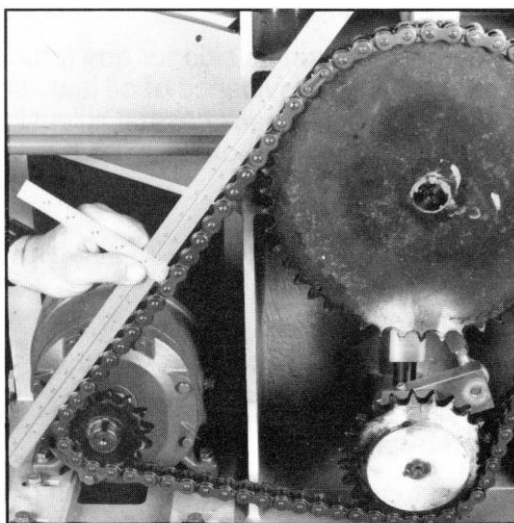


Figure 10. Checking Chain Slack

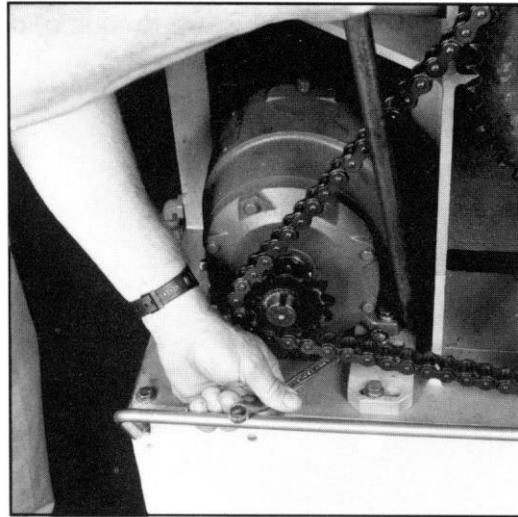


Figure 11. Loosening Bolts on Base of Motor and Prying Motor

**6. Check oil level in gearbox.
Refer To Figure 12.**

If Juicer has been laid on its side for any reason (i.e., during shipping), or if there is any evidence of oil leak, check gearbox for proper oil level. Remove back cover. Oil level plug is located on the left side of gearbox. Filler plug is located on the top of the gearbox.

Use S.A.E. 40W oil only.

**7. Check hopper bump button.
Refer to Figure 13.**

Replace bump button if it has worn to less than 1/8" high. To locate hopper bump button, remove hopper. If hopper does not lift out, see Troubleshooting, Page 28, item 'a', to remove electrical switch cover.

a. Hopper removal:

Fruit lift (upper cup drive) must be in down position. Remove two spanner screws using spanner wrench. Remove hopper.

b. Hopper installation:

DO NOT over tighten spanner screws. Hopper is designed to be loose. Hopper must be free to "bump" during each cycle to prevent fruit bridging.

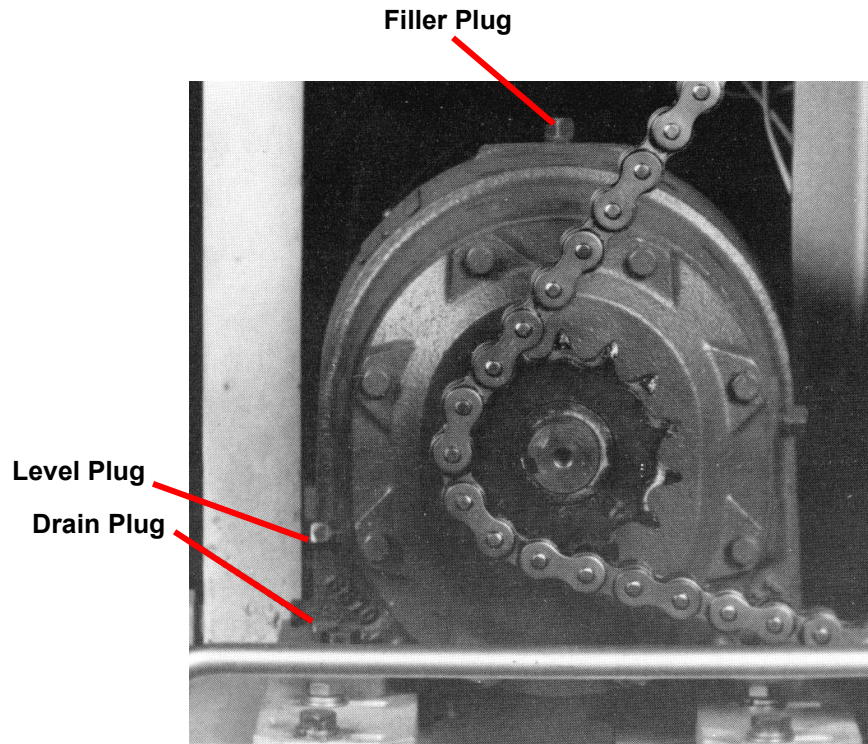


Figure 12. Checking Oil Level in Gearbox

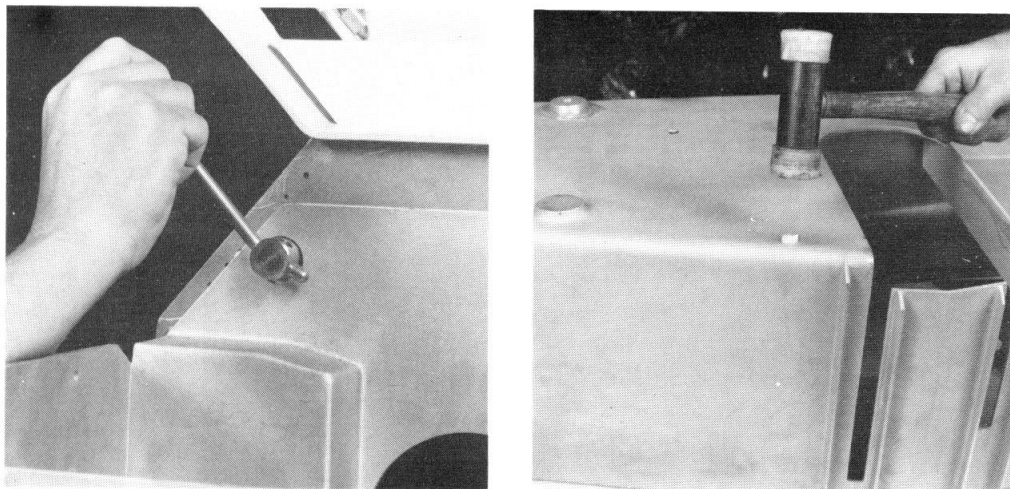


Figure 13. Hopper Removal / Bump Button Installation



Periodic Inspection (continued)

**8. Check alignment of fruit lift.
Refer to Figure 14.**

Fruit lift agitator dividers must align with the middle of slots in bottom of hopper.

**a. Fruit lift adjustment:
Refer to Figure 15.**

Loosen the two cap screws attaching the fruit lift to upper cup drive arm. Adjust fruit lift. Tighten cap screws.

b. Fruit lift repair:

If fruit lift is damaged (bent, but not broken), it can be removed and straightened. Remove hopper before fruit lift. Straighten fruit lift.

Reinstall fruit lift with Loctite #242 on cap screws.

9. Check to make sure two plastic bearing buttons have been installed on bottom face of fruit lift. Refer to Figure 16.



Figure 14. Fruit Lift Alignment



Figure 15. Fruit Lift Bolts



Figure 16. Fruit Lift Plastic Bearings

Troubleshooting Table

Condition	Corrective Action
Juicer will not run	<ul style="list-style-type: none"> • Reset breaker • Power cord plugged in? • Doors and covers closed and locked?
Orifice tube stuck in strainer tube	<ul style="list-style-type: none"> • Orifice tube installed incorrectly • Top of orifice tube damaged • Strainer tube damaged or bent
Peel and seeds in juice	<ul style="list-style-type: none"> • Cutter missing or loose • Strainer tube not tight in manifold • Top of strainer tube damaged
Foam in reservoir	<ul style="list-style-type: none"> • Cutter damaged • Mixing juice and pulp too fast causes air to mix in juice
Fruit bursting and waste is wet	<ul style="list-style-type: none"> • Fruit is too large (3-7/8" max); use hopper cover hole to measure • Check for damaged fruit
Juice in waste and/or discharge is wet	<ul style="list-style-type: none"> • Check for damaged fruit • Inspect orifice tube top for damage or wear • Strainer tube holes are plugged • Fruit too large
Juice nozzle leaking juice	<ul style="list-style-type: none"> • Nozzle o-ring missing or damaged; replace o-ring
Fruit not feeding out of hopper into cup	<ul style="list-style-type: none"> • Remove wax build-up in hopper • Wipe with food grade non-stick product inside hopper
Cutter damaged and has rolled top edge	<ul style="list-style-type: none"> • Dried peel, stems stuck in upper cup cutter • Broken top edge of orifice tube wedged inside cutter • Clean out obstruction
Juicer stalls and shuts off	<ul style="list-style-type: none"> • Cutter dull • Fruit too large • Orifice tube damaged • Strainer tube needs cleaning
Juicer runs then shuts off	<ul style="list-style-type: none"> • Check door safety switches, locks and reservoir high level switch
Juice yield less than 2-1/2 gallons per case	<ul style="list-style-type: none"> • Fruit soft or too large • Orifice tube, strainer tube and/or cutter damaged; replace damaged parts
Clear plastic window of juice reservoir scratched	<ul style="list-style-type: none"> • Do not use scrub pads on any plastic parts



Troubleshooting

- **Juicer will not start**

1. Juicer is not plugged into electrical outlet.
2. Building circuit breaker has tripped.
3. All covers are not completely closed.
4. Defective interlock switch.

Machines built before 1997 have five interlock switches.

- 1 - Hopper cover
- 1 - Back cover
- 1 - Cart door (cover)
- *1 - Juicing Component cover (two covers on machines without high level switch)
- 1 - High Level Switch

Machines built in 1997 and later have two Schmersal Switches.
Refer to Figure 18c.



- a. **Remove the large cover protecting electrical box and motor.**
Refer to Figure 17.

Loosen three screws in juicing area. Remove three screws on the right side.
Remove electrical box cover with on-off switch.

CAUTION: WHEN RE-INSTALLING ELECTRICAL BOX COVER, DO NOT OVER TIGHTEN MOUNTING BOLTS. OVER TIGHTENING MOUNTING BOLTS CAN CAUSE PLASTIC COVER TO CRACK. TIGHTEN BOLTS TO 10 TO 11 LB-IN.

- **Juicer will not start (continued)**

- b. Check continuity thru all switches.**
Refer to Figure 18b or 18c.

- c. Check continuity across each switch.**
Refer to Figure 18b or 18c.

Using a meter, check each switch individually. Check by opening and closing each cover related to the switch being checked. Replace any defective switches.

- d. Some linkage adjustment may be required on juice reservoir float switch.**

- e. Machines built in 1997 and later have two Schmersal Switches.**
Check alignment of key and switch, adjust if necessary.

- 5. Loose wire connection.**

Check all spade and screw terminals.

With wires still connected, remove cover to motor starter and check for loose wires on D1 and D2.

- 6. Defective under voltage coil.**

Check continuity from terminals D1 to D2.

Using a meter, check for continuity from terminal D1 to D2.

If no continuity is detected, replace under voltage coil.

- 7. Defective motor starter.**

Check continuity from terminal 1 to 6.

For Square D switch, remove cover on motor starter by grasping both sides and pulling straight out. Remove under voltage coil by lifting and pulling out. Push "ON" button. Button should stay in down position. Using a meter, check for continuity from terminal '1' to '6.' If no continuity is detected, or "ON" button does not stay down, replace motor starter.

- 8. Defective motor.**

If "ON" button on starter stayed in when trying to start machine and motor did not start or rotate, replace entire gear motor. If there is a humming noise, the capacitor needs to be replaced. To replace capacitor, remove long cylindrical cover on motor. Reseal motor cover with RTV Silicone.



Figure 17. Removal of Switch Cover Panel

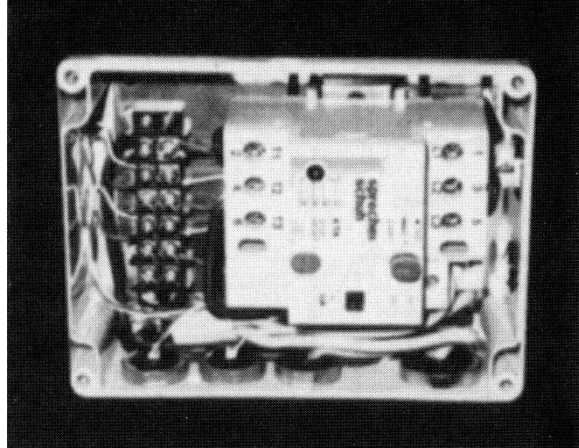


Figure 18a. 110 Volt - Sprecher Schuh Electrical Box

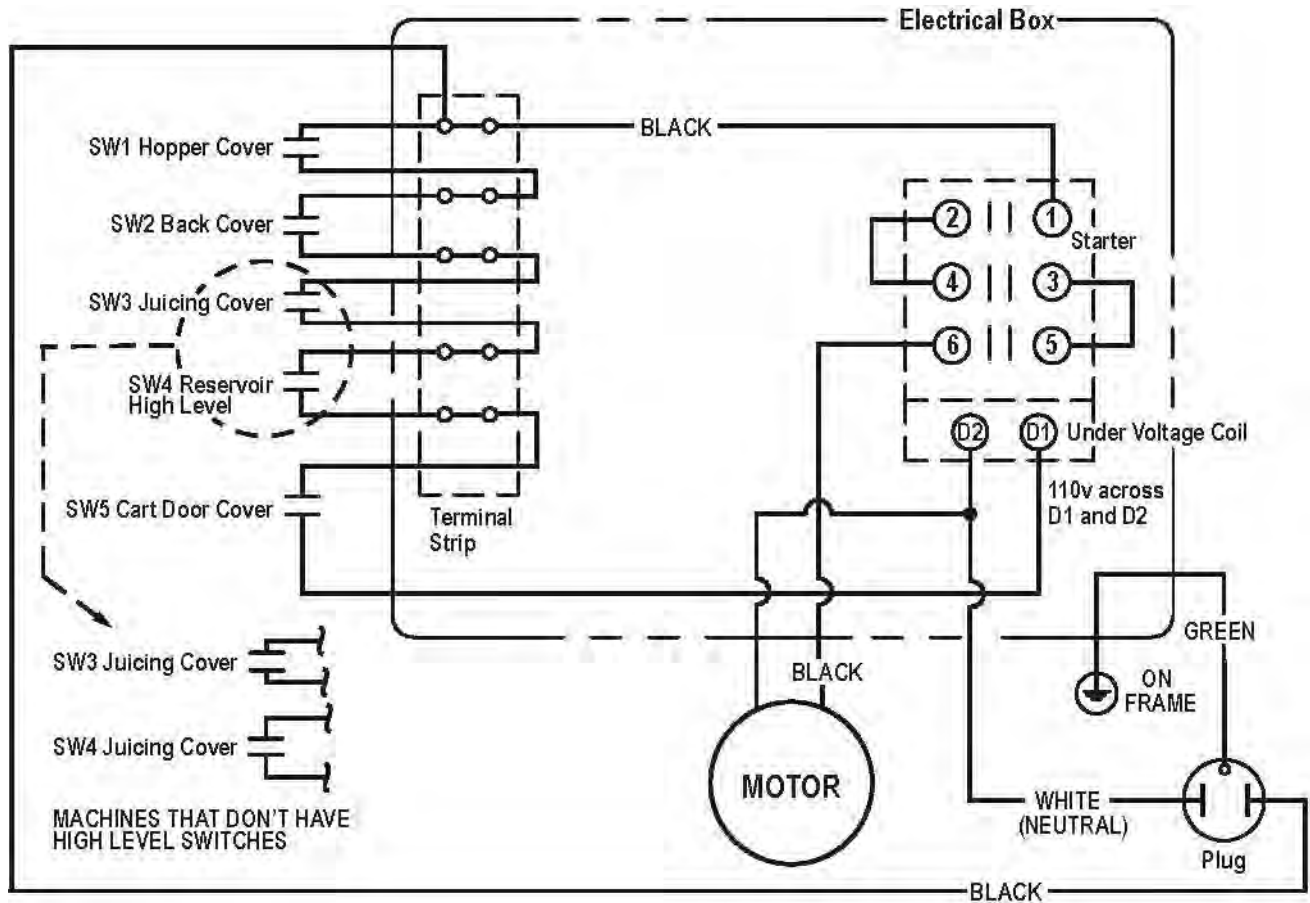


Figure 18b. 110 Volt Electrical Diagram (Machines before 1997)

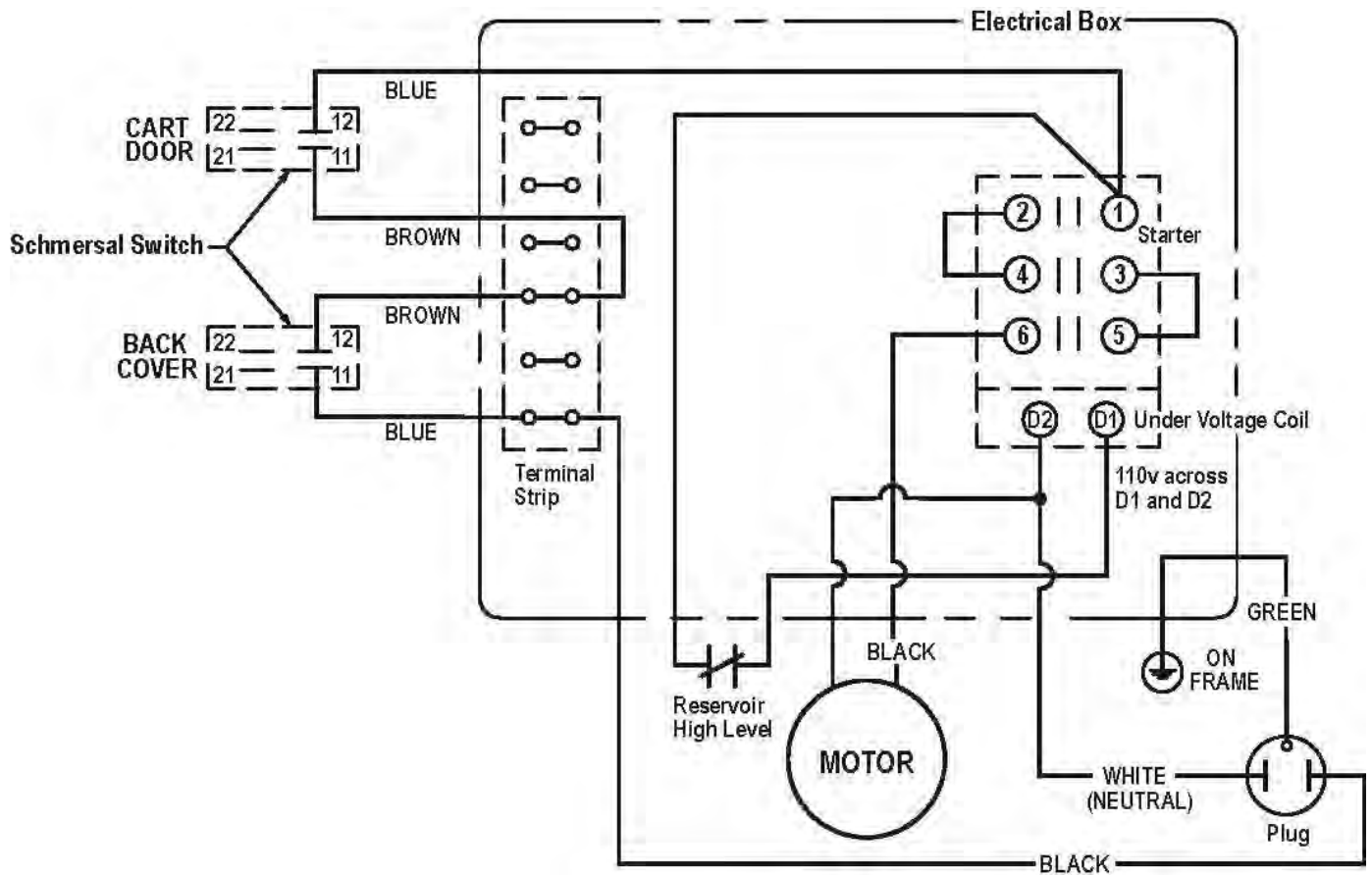


Figure 18c. 110 Volt Electrical Diagram (Machines 1997 and later)

See Page 32 for 220V Diagrams

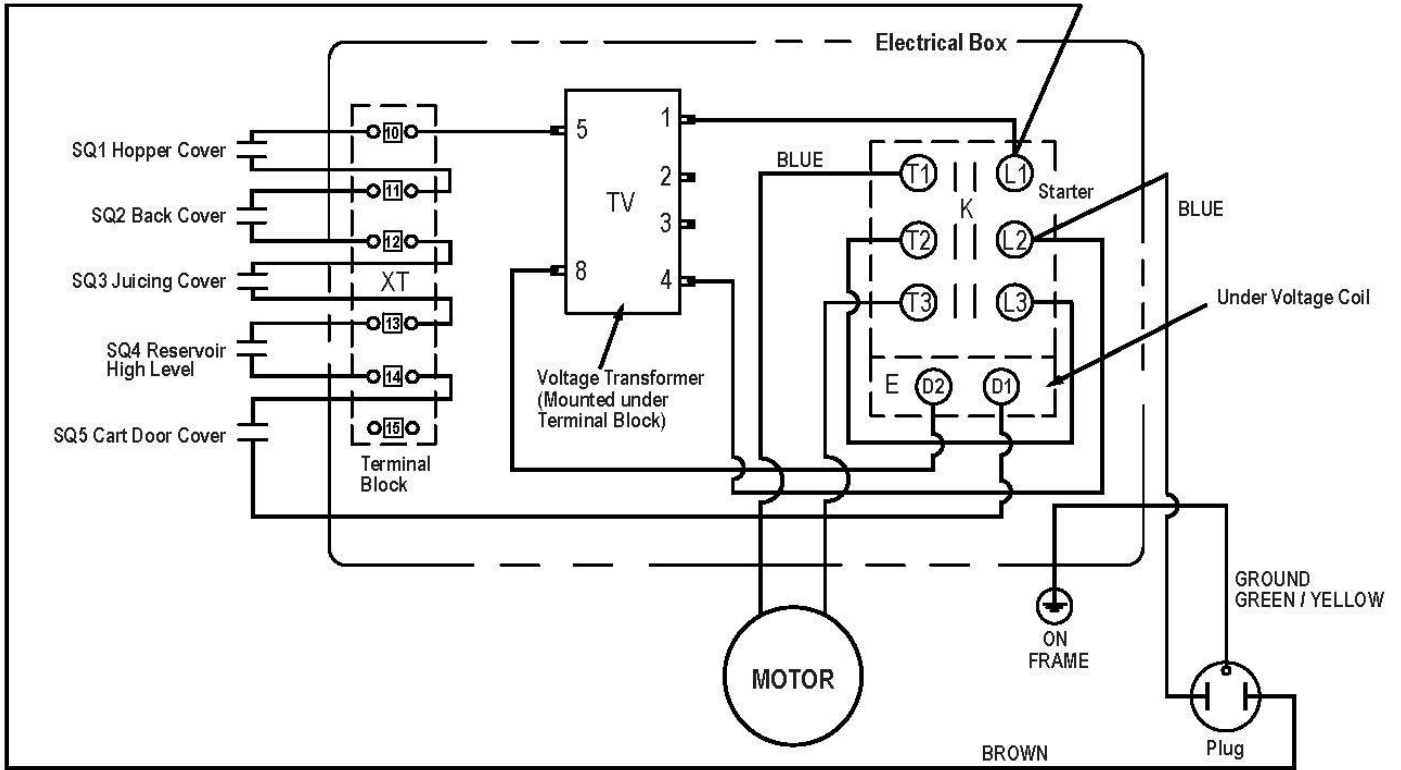


Figure 19a. 220 Volt Electrical Diagram (Machines before 1997)

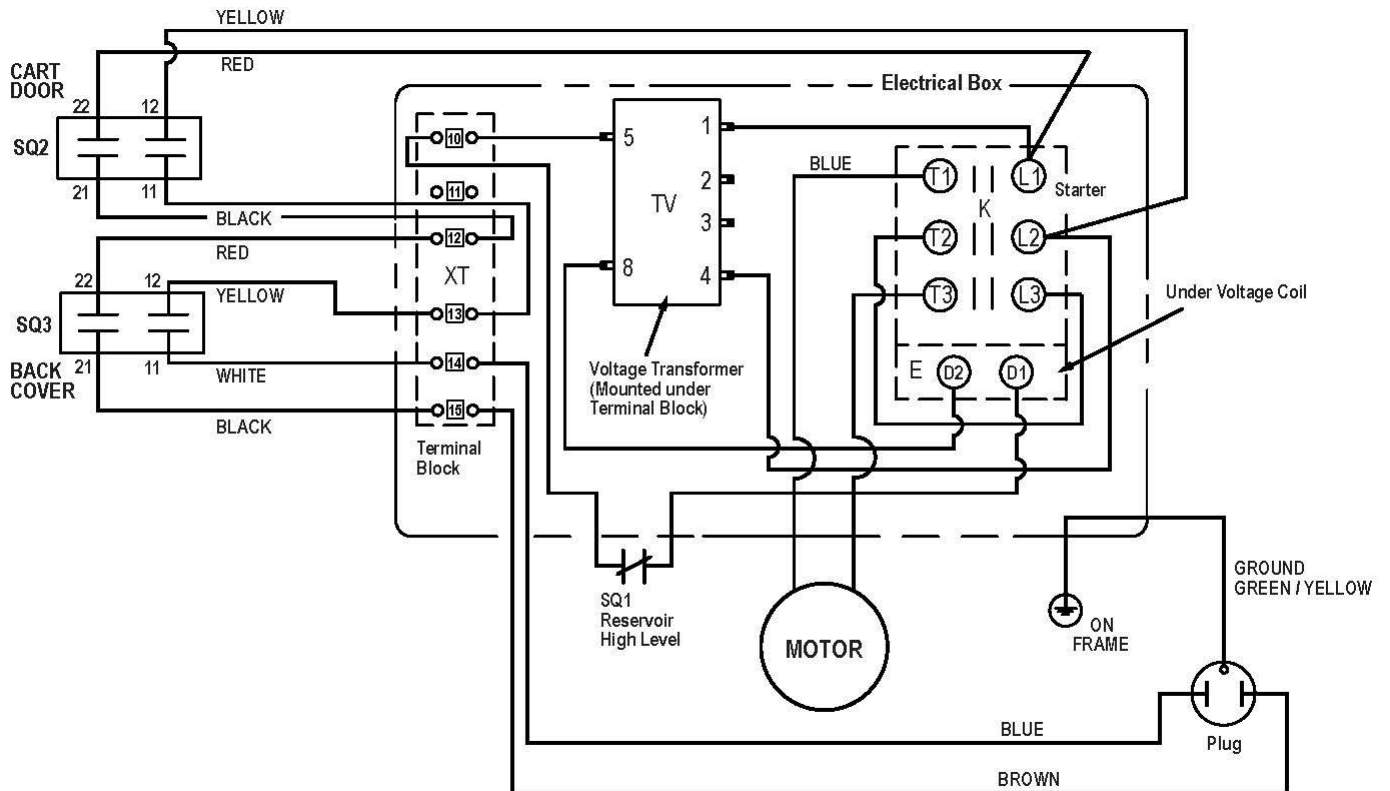


Figure 19b. 220 Volt Electrical Diagram (Machines 1997 and later)

Troubleshooting (continued)

- **Juicer starts, but shuts off**

1. **Building circuit breaker is not rated for 20 Amps.**
2. **Extension cord or wiring is too long.**
Shorten extension cord or use heavier gauge wire.
(See Page 6 "Electrical Specifications")
3. **All covers not completely closed (including cart).**
Juicer may be flexing when squeezing fruit, causing switch to open. Make sure all latches are completely locked.
4. **Amperage setting on motor starter on machine set too low.**
See Page 28 under "Juicer will not start" for removing covers.
The dial next to OFF button should be set to 14.

CAUTION: IF SETTING IS TOO HIGH, MOTOR CAN BURN UP.

- **Juicer stalls trying to squeeze fruit**

1. **Fruit has part of stem on it.**
Turn off Juicer. Remove fruit from the Juicer and restart.
2. **Peel is too thick.**
Turn off Juicer. Remove fruit from the Juicer and restart.
3. **Cutter is damaged.**
Sharpen or replace cutter as specified in Maintenance section.

CAUTION: CUTTER AND KNIVES ARE SHARP.

Install red protective cap onto cutter.

After red protective cap is installed, remove cutter. Handle cutter with care to avoid direct contact with sharp edge.

- **Juicer runs with covers open or off**

1. **Defective interlock switch. Replace immediately.**
See Page 28 under "Juicer will not start" for removing covers.

- **Juicer emits "squealing" sound during operation**

1. **Lubricate grease fittings on machine.**
If noise continues, rod end or bearing may be defective.
See Rebuilding section to replace bearings.

- **Scraping noise coming from hopper area**

1. **Fruit lift mechanism is dragging on hopper.**
See Page 26, Item 8 under "Periodic inspection".



Rebuilding

It is best to replace all bearings at the same time.



Step-by-Step instructions for replacing all bearings and rod ends

1. Remove all juicing components.
2. Lift juicing component cover off its hinges.
Refer to Figure 2.

Remove back cover (1/4 turn lock at top, pull cover out by using finger hole to the left of the lock, then lift and pull using finger hole of bottom. **DO NOT** loosen any screws).

Remove drive cover, one screw on top, and two on the side.

(**DO NOT** loosen lower two screws).

3. Remove upper and lower drive splash plates in juicing area.
Refer to Figure 20.

Use knife to cut away Silicone from plastic splash plates and drive arms. If necessary, use hand crank adapter on motor sprocket with 1/2" drive ratchet to rotate machine into position to pull off splash plates.

Refer to Figure 21 and Figure 41, item 12.

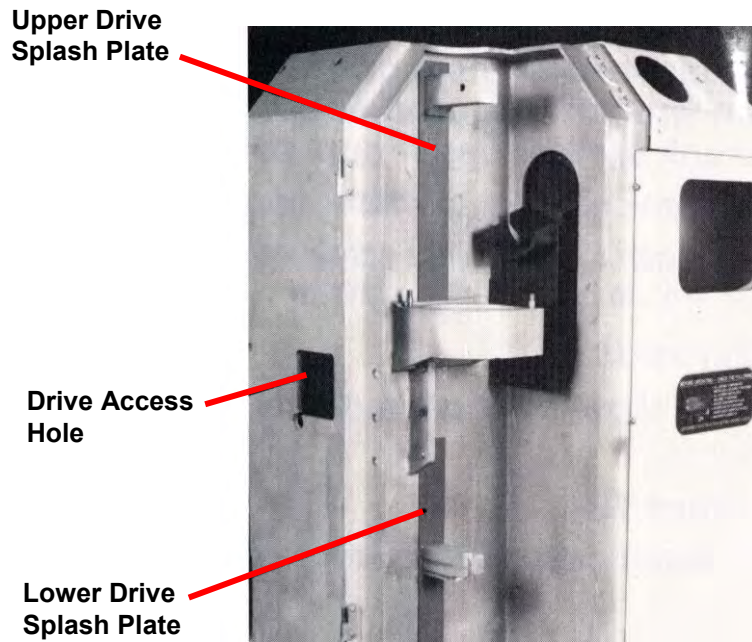


Figure 20. Front View of Juicer

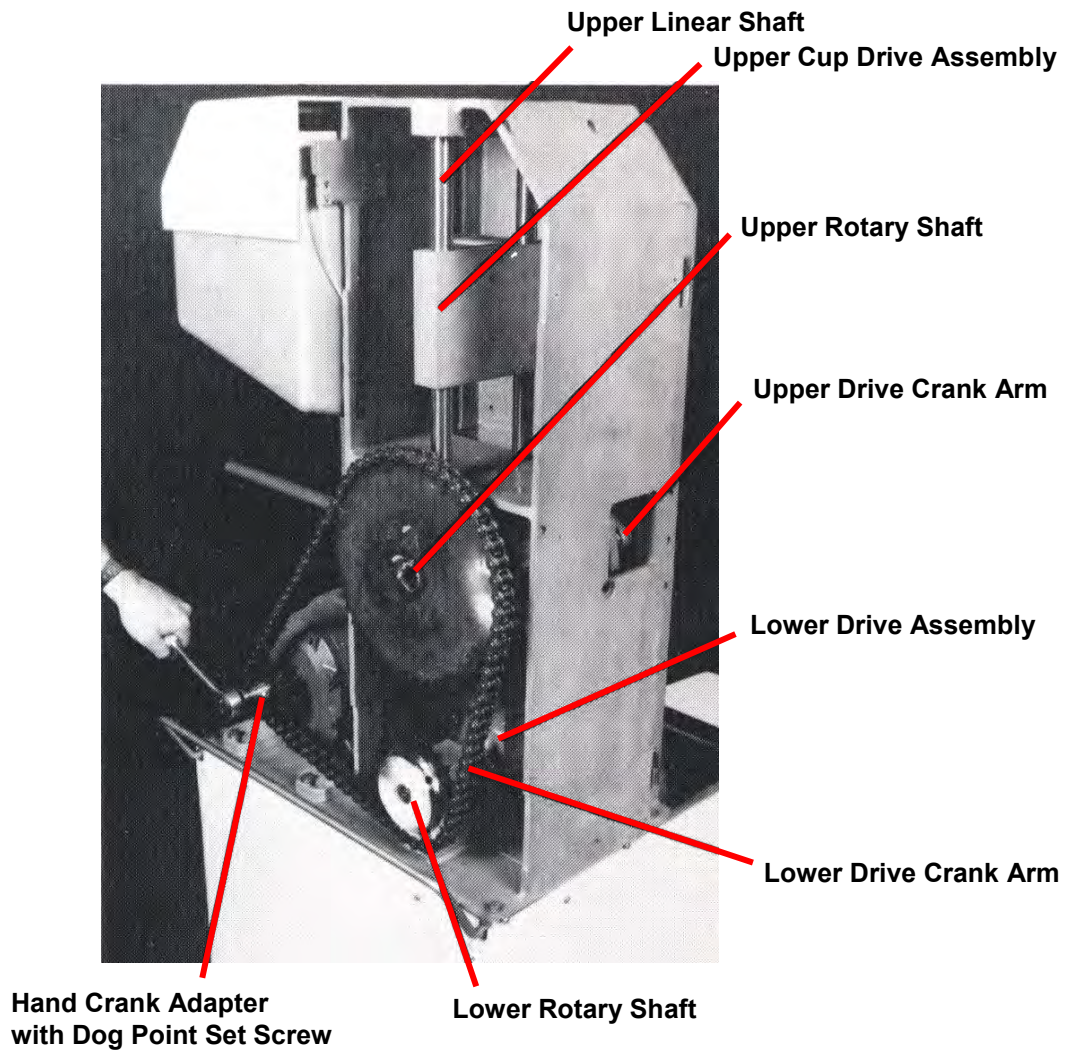


Figure 21. Back View of Juicer



Rebuilding (Continued)

4. From 3 inch square access hole on side of machine, use a 5/16" Allen wrench to loosen socket head cap screw on crank arm for upper cup drive .

(Use hand crank adapter to rotate as necessary).

Use a 3/16" Allen wrench to loosen set screw on keyway. Back screws out at least 1/4" to clear flats on shafts.

Refer to Figure 22.

From the back repeat above steps on crank arm for lower drive.

Refer to Figure 23.

5. **Rotate drive so upper cup drive is in the down position.**

Remove chain, spring clip type master link.

Be careful- drive arms may move as chain is removed.

6. **Remove sprockets with shafts still connected.**

Pull or pry on large diameter upper drive sprocket, repeat for lower drive sprocket.

Refer to Figure 24.



Figure 22. Using Allen Wrench to Loosen Upper Cup Crank Arm

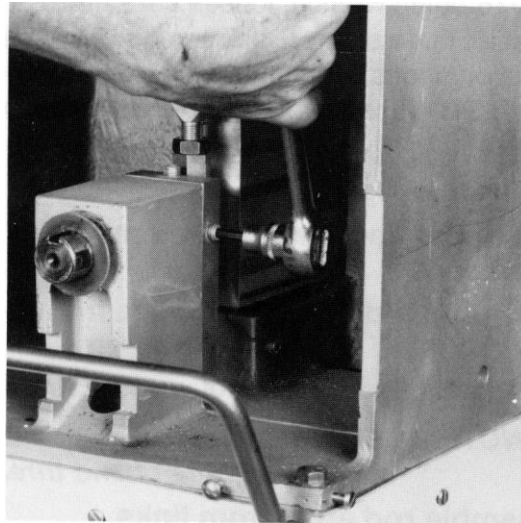


Figure 23. Loosening Lower Crank Arm

Note Number of Thrust Washers

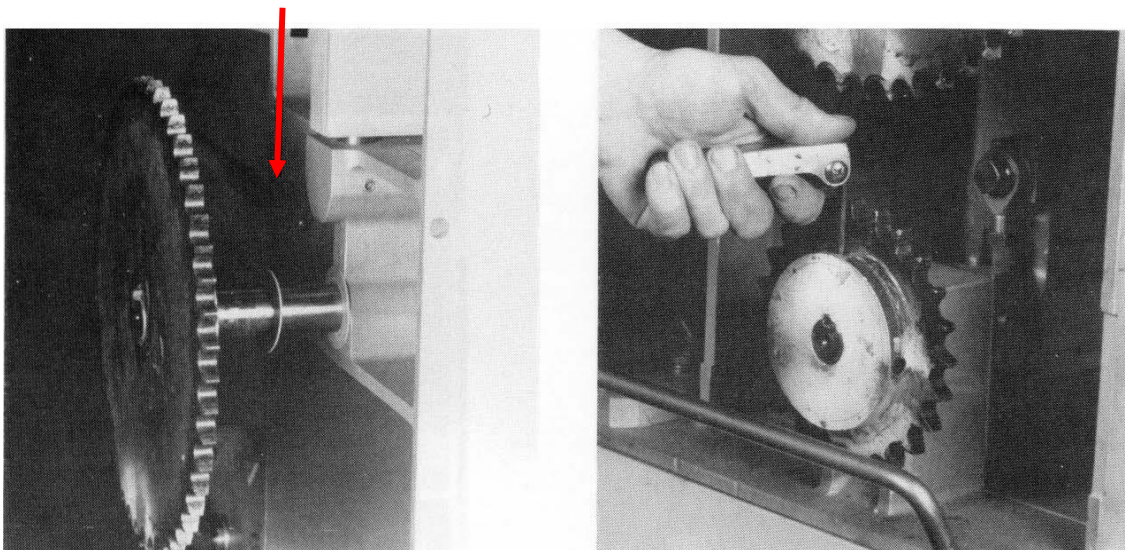


Figure 24. Sprockets with Shaft being Removed

Rebuilding (Continued)

7. Remove linear shafts.

With a 3/16" Allen wrench, loosen set screws at top and bottom of all three shafts. Back screws out at least 1/4" to clear flats on shafts. If shafts are stuck, use bearing removal puller with 3/8"-16 x 2" hex head cap screw to break free shafts. **Refer to Figure 25.**

8. Lift out upper and lower drive arms with linkages still attached.

9. Disassemble rod end assemblies from drive and crank arms.

Note location and numbers of washers and spacers.

NOTE: Screws and rod ends on both crank arms are left hand threads.

10. Disassemble rod ends from links.

Reassemble with new rod ends (**Refer to Figures 26 and 27**), using rod end adjustment bar with the appropriate rod and tooling washer. Remember one end is a left-handed thread. Wrenches required - 3/4", 7/8", and 15/16".

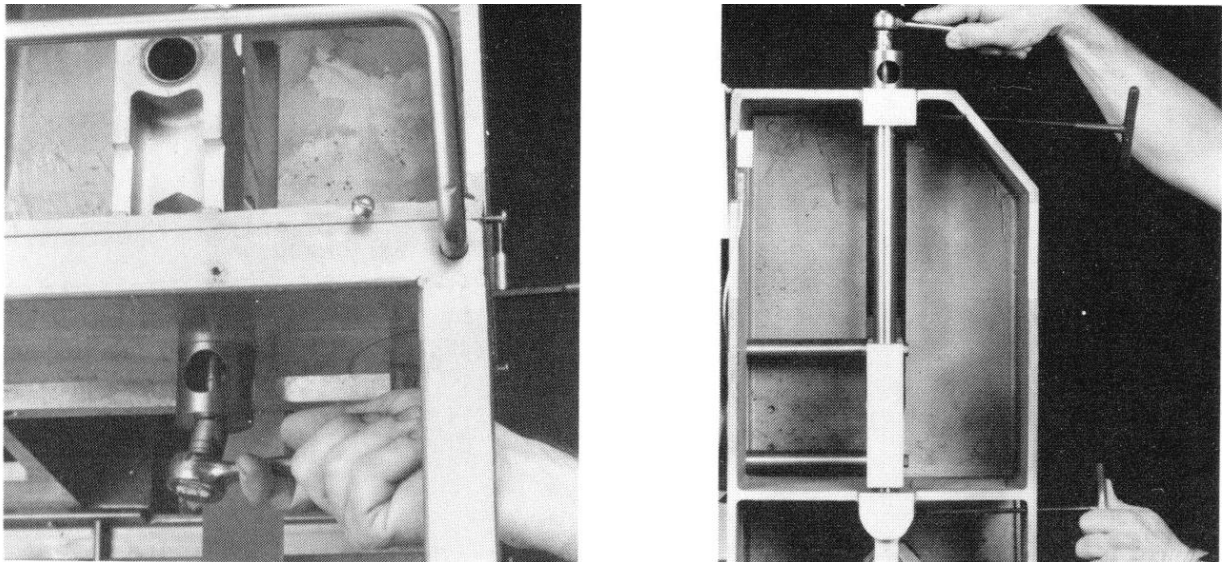


Figure 25. Removal of Linear Shafts with Puller



Figure 26. Assembly of 5/8" Rod Ends



Figure 27. Assembly of 1/2" Rod Ends

Rebuilding (Continued)

11. Remove sleeve bearings from upper and lower drive arms.
Refer to Figures 28 and 29.

Bearings can be pulled out using puller, 1" removal slug, and short threaded removal rod; or can be driven or pressed out using driver. New bearings can be installed by compression (**Figure 30**) by using installation pilot, installation washer and long threaded installation rod, or just use installation pilot and press bearings into place. Light coat of Teflon[®] grease can be used on outer diameter of bearings.

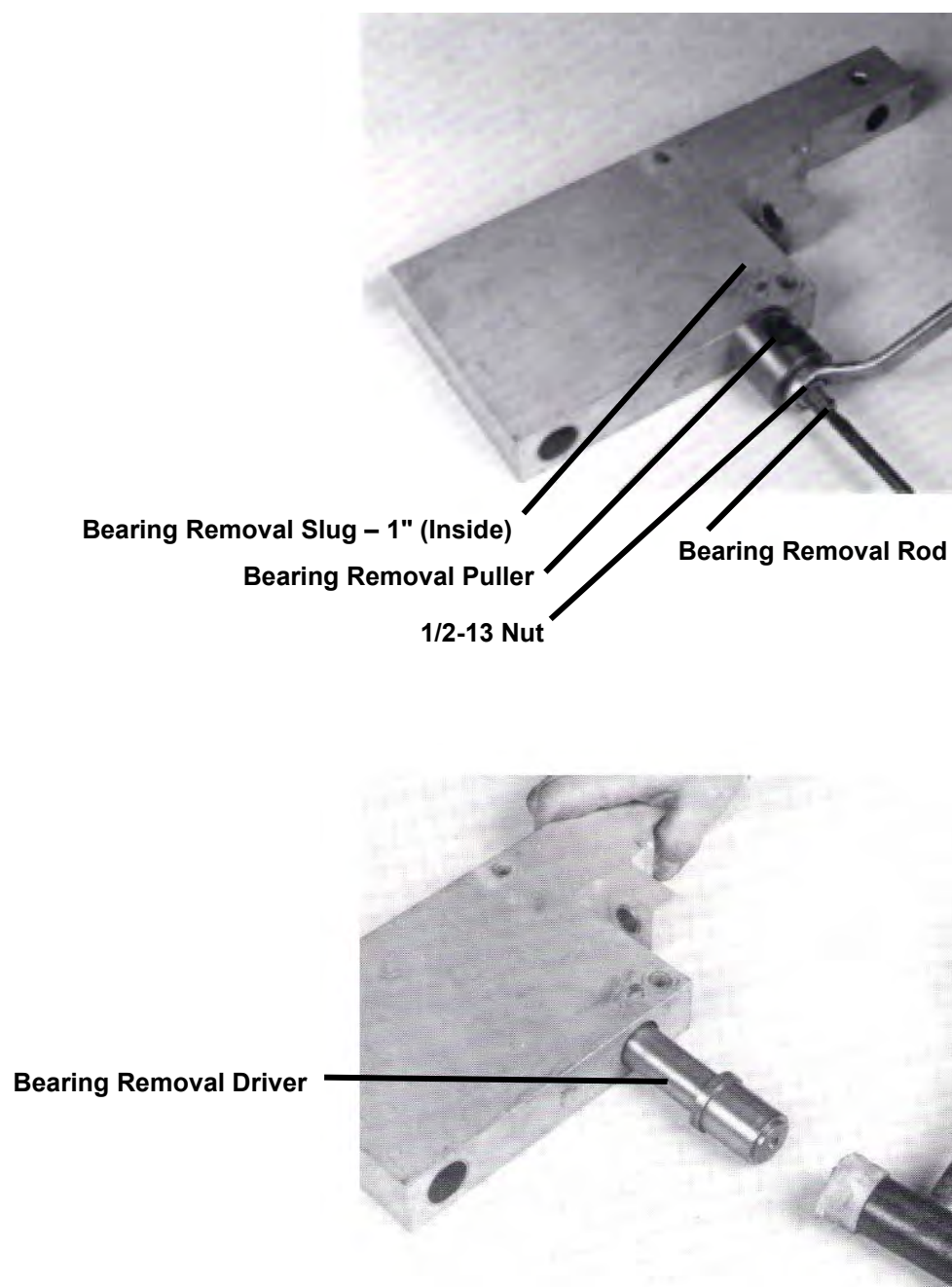


Figure 28. Removing Bearings from Upper Drive Arm

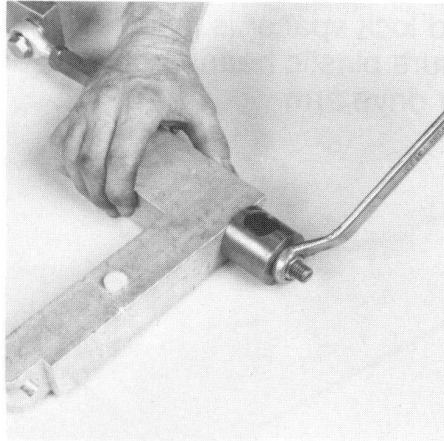
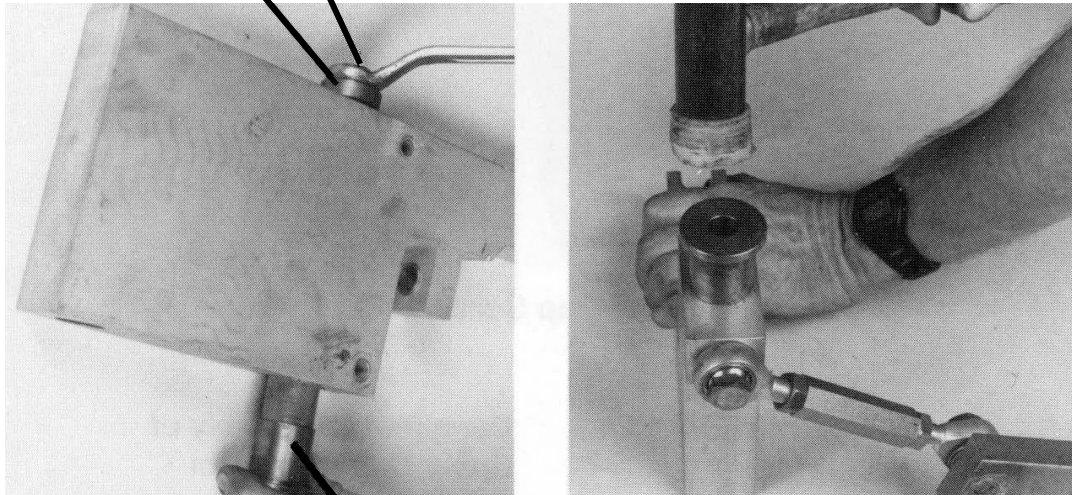


Figure 29. Removing Bearings from Lower Drive Arm

Bearing Installation Washer
Bearing Installation Rod



Bearing Installation Pilot

Figure 30. Installation of Bearings into Drive Arms

Rebuilding (Continued)

12. Reassemble rod end assemblies to drive arms, again making sure left hand threaded ends are on the crank arms.
Refer to Figures 31 and 32.

Use Loctite #242 on all fasteners. Tighten to torques as shown. Make sure rod end lock spacer is installed on rod end in upper drive arm. Make sure plastic bearing buttons are installed on each side of lower drive arm.

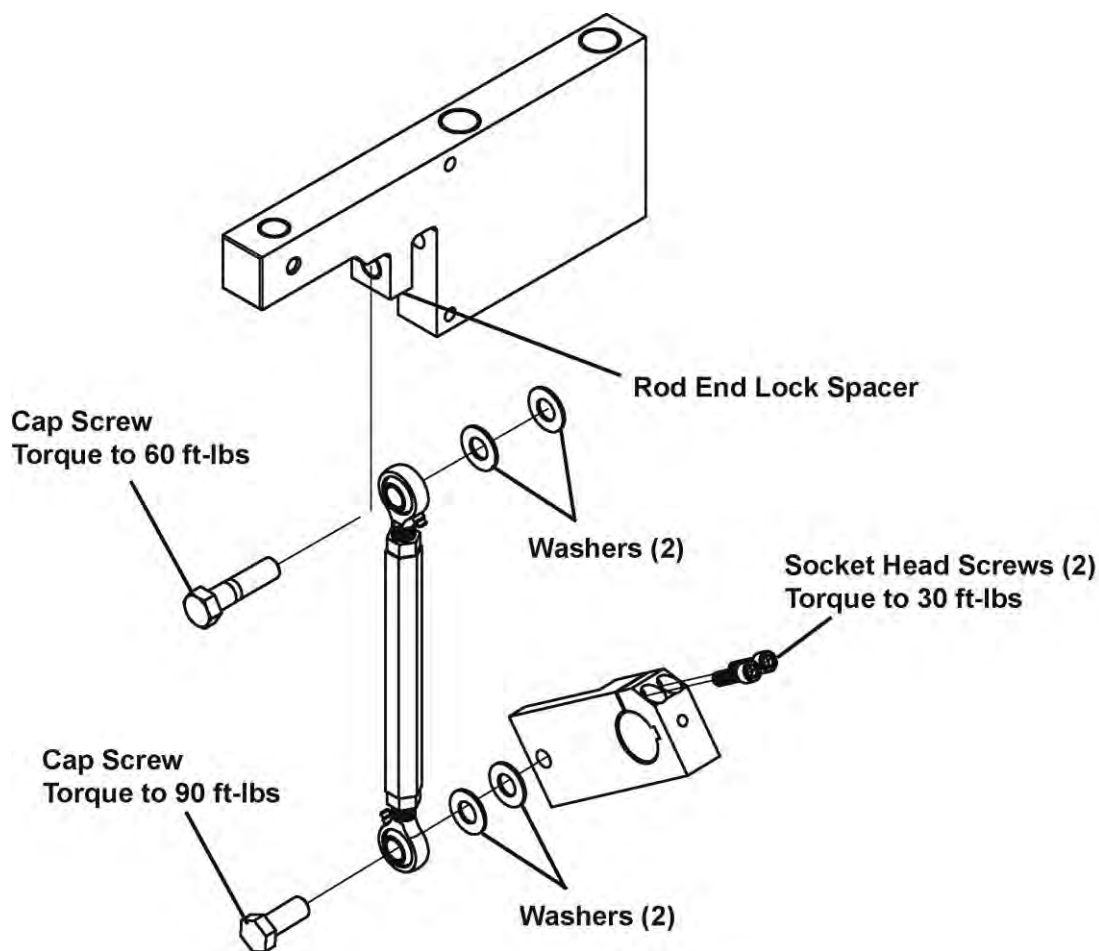


Figure 31. Completed Assembly of Upper Cup Drive Arm

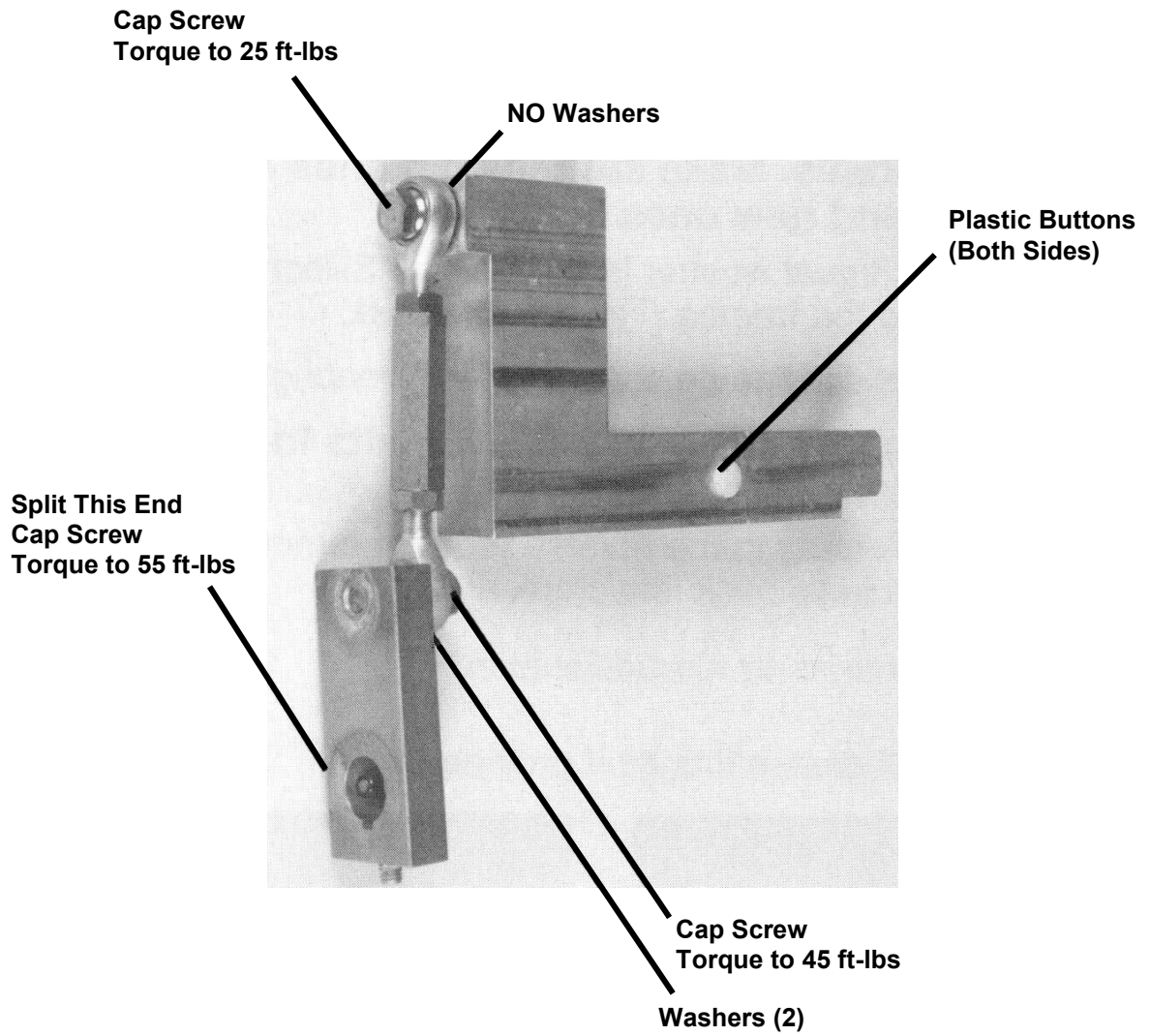


Figure 32. Completed Assembly of Lower Drive Arm

Rebuilding (Continued)

- 13. Remove sleeve bearings from main frame.
Refer to Figures 33 and 34.**

The outer upper drive shaft bearing can be removed using puller, 1-1/4" removal slug, and short threaded removal rod.

The inner bearing can be removed the same way, or can be pressed out using driver. The lower shaft bearing can be removed the same way except using 1" removal slug. New bearings can be installed by compression (**Figure 35**) by using installation pilot, installation washer, and long threaded installation rod. Light coat of Teflon grease can be used on outer diameter of bearings to aid in installation.

- 14. There are thrust washers next to each bearing on the main frame. Make sure the old ones have been removed and new ones installed.**

One side of thrust washer is plain metal. Silicone this side and glue them to the frames (Typical 4 places).

DO NOT get silicone on surface of any bearing.

- 15. Before reassembling, check all shafts for excessive wear; replace as necessary.**

Reassemble parts in the reverse order of removal. **DO NOT** forget to put keys back into crank arms.

On both crank arms, be sure to tighten socket head cap screw first. And then the set screw.

Tighten fasteners to torques shown.

Lubricate all grease fittings if provided.

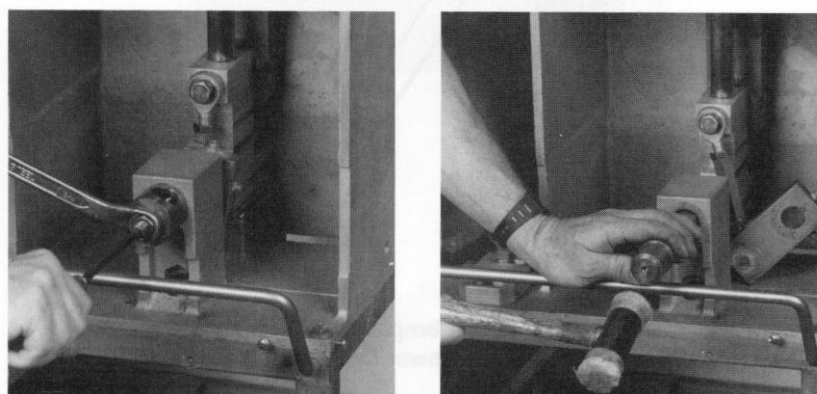


Figure 33. Removing Bearing from Lower Rotary Drive

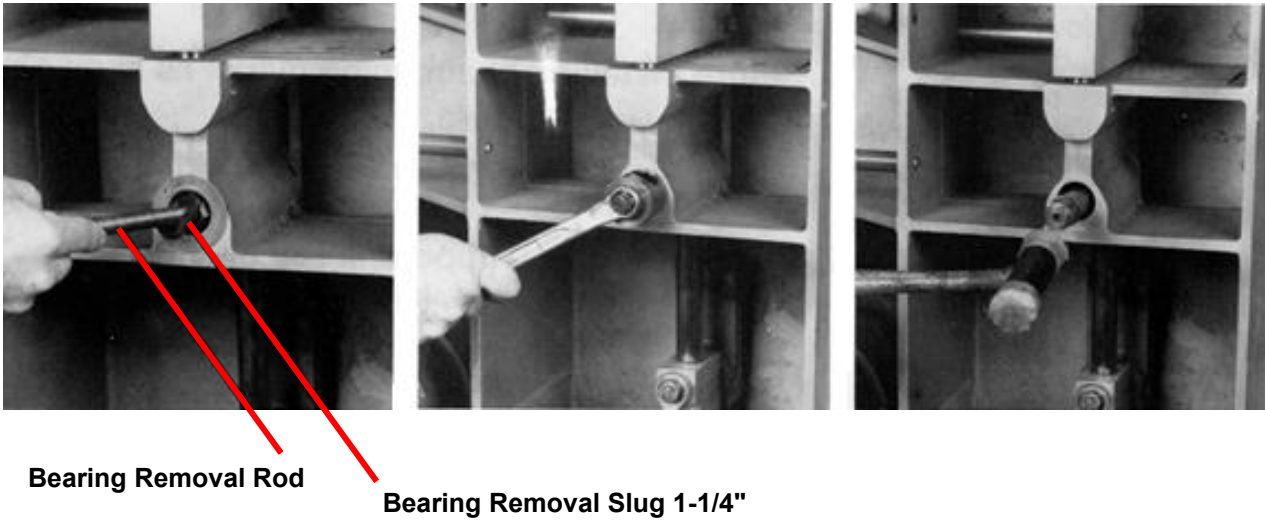


Figure 34. Removing Bearing from Upper Rotary Drive

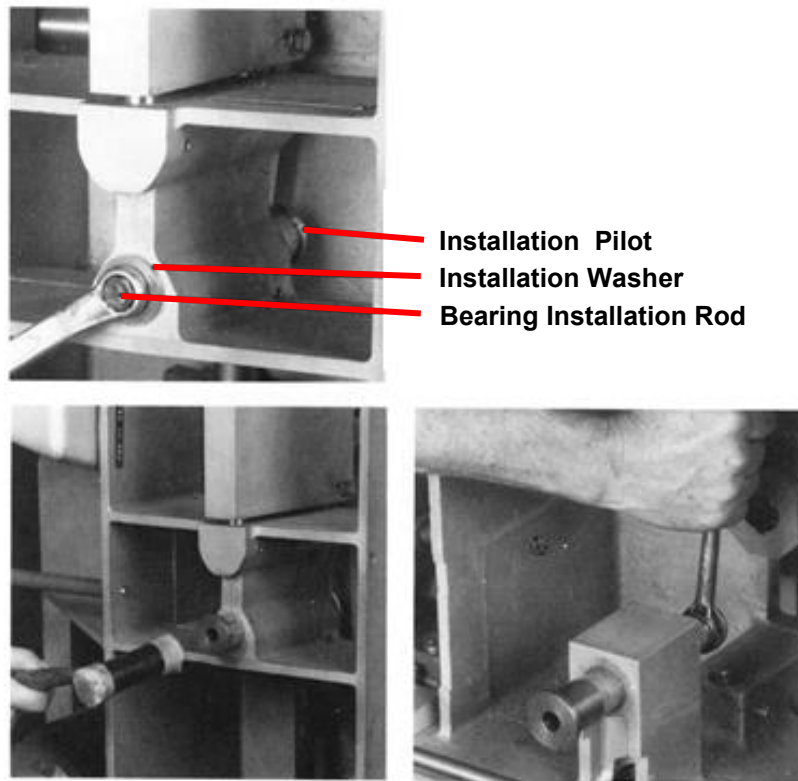


Figure 35. Installation of Bearings and Thrust Washers

Rebuilding (Continued)

16. Before installing chain, align timing marks as shown.
Refer to Figure 36.

This is critical to operation of the machine. Adjust chain as shown in Maintenance section.

17. To check if the upper cup crank rod end link needs to be adjusted, install juice manifold, upper and lower cup.
Refer to Figure 37.

Using hand crank adapter, gently rotate until upper cup drive is in the full down position.

DO NOT force, if it appears to be binding, readjust rod end link (**Figure 38**). If it rotates freely past bottom position, check for too much clearance. In the full down position, remove pull pin from upper cup. Cup should not drop down; if it does, readjust rod end link.

Cups should just meet - no clearance - no bind.

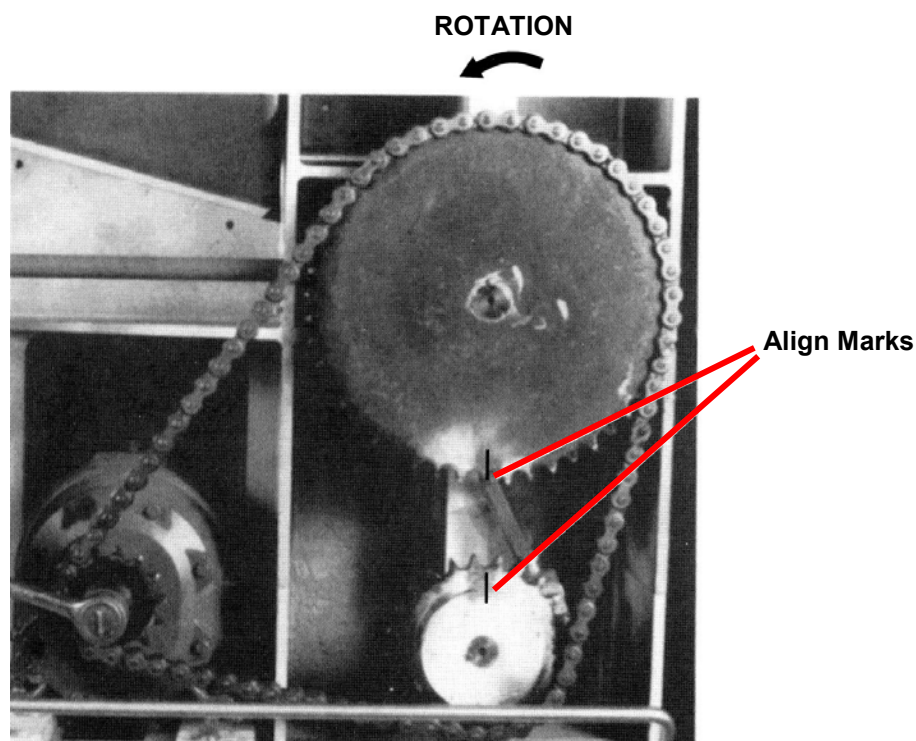


Figure 36. Alignment of Timing Marks

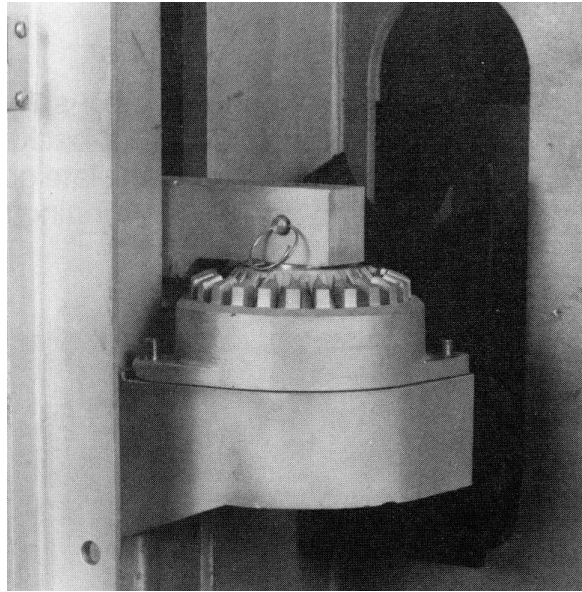


Figure 37. Checking for Cup Clearance

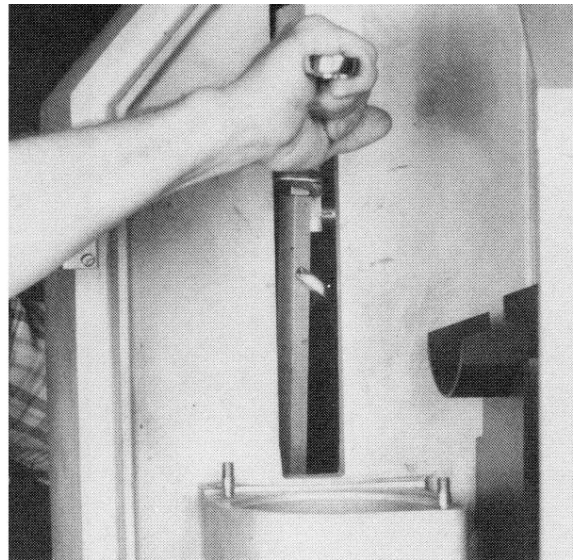
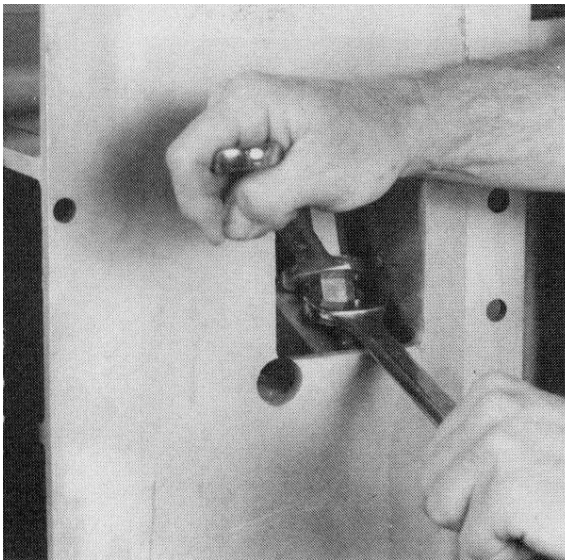


Figure 38. Adjusting Rod Link Ends

Rebuilding (Continued)

- 1. Remove juicing components and install upper and lower drive splash plates.
Refer to Figure 39 and 40.**

Note that chamfer on top front edge of lower splash plate goes up and out. Put thin part to the top, and flat backside against the wall. Also note that groove in upper drive splash plate goes down and in. Seal with RTV Silicone. Allow to dry before running machine.

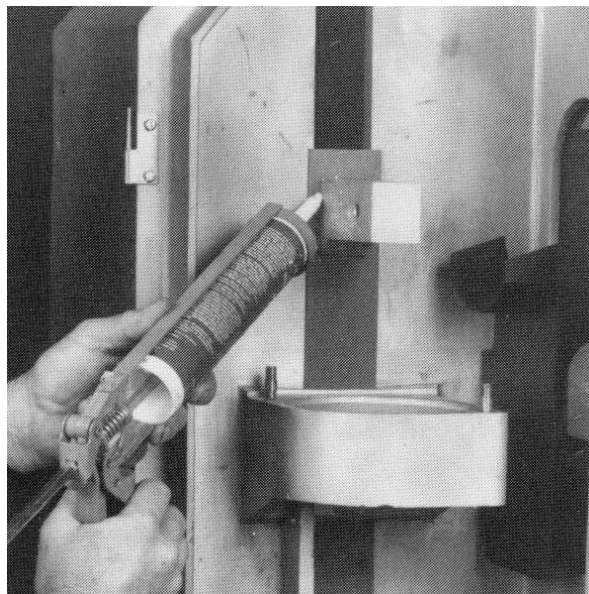


Figure 39. Applying Silicone to Upper Splash Plate

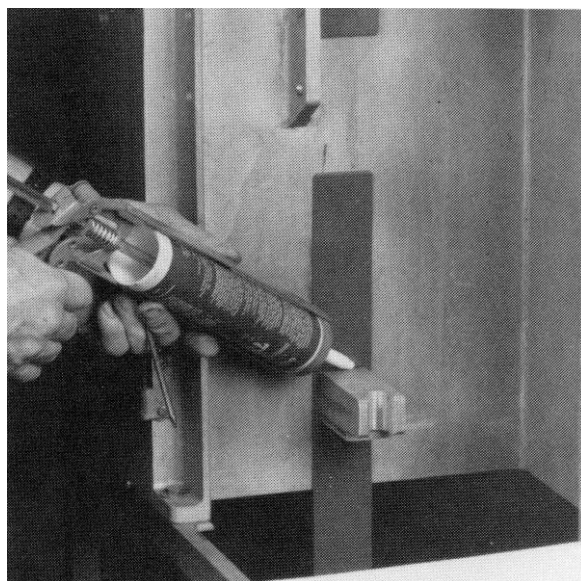


Figure 40. Applying Silicone to Lower Splash Plate



Rebuild Tooling Kit & Spare Parts Kit, 060-00202

<u>Item</u>	<u>Part Number</u>	<u>Description</u>
1	060-00180-B	Tool, Bearing Installation Pilot
2	060-00181-B	Tool, Bearing Installation Washer
3	060-00182-B	Tool, Bearing Puller
4	060-00183-B	Tool, Bearing Removal Slug 1"
5	060-00184-B	Tool, Bearing Removal Slug 1-1/4"
6	060-00185-B	Tool, Bearing Removal Driver
7	060-00186-B	Tool, Bearing Installation Rod
8	060-00187-B	Tool, Bearing Removal Rod
9	060-00188-B	Tool, Washer, Rod End, 1/2"
10	060-00189-B	Tool, Washer, Rod End, 5/8"
11	060-00190-B	Tool, Rod End Adjust Bar
12	060-00191-B	Tool, Adapter, Hand Crank
13	004-350-648	Screw, Cap, Hex, 5/8-11 x 1-1/2", C/G
14	004-350-571	Screw, Cap, Hex, 1/2-13 x 1-1/2", Full Thread, C/G
15	004-110-063	Nut, Hex, 1/2-13, Grade 8 Steel
16	004-815-100	Washer, Plain Narrow, 1/2", C/G
17	00-4815-080	Washer, Plain Narrow, 3/8", C/G
18	004-350-407	Screw, Cap, Hex, 3/8-16 x 2", C/G
20	009-998-004	Bit, Spanner Insert, #8, 1/4 Hex (Not Pictured)
	060-00202	Kit, Tool, CJ & MFJ (Includes above Items 1 - 20)

Other Multi-Fruit Juicer Kits

060-00201	Kit, Bearing Overhaul
060-00215	Kit, Complete Overhaul w/ shafts
060-00200	Kit, Spare Parts

Cleaning Components & Other Parts

060-00084	Rod, Orifice Clean Out
009-080-326	Brush, 1-1/16" x 8"
003-091-001	CorKlean Cleaner
009-710-031	Stone, Sharpening
003-460-053	Lubricant, W/ Teflon, 3 Oz Tube
003-460-057	Lubricant, W/ Teflon, 14 Oz Can
003-015-905	Silicone, White, 3 Oz Tube
009-092-018	Cutter Cap



Figure 41. Rebuild Kit



Juicing Parts, 060-00099

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>	
1	1	060-00103	Drive Assembly (see Pages 54-55 for details)	
2	2	004-352-410	Screw, Cap, Hex, 3/8-16 x 2-1/4", SS	
3	2	004-816-080	Washer, Plain Narrow, 3/8",SS	
4	1	060-10084	Upper Splash Guard (after 7/16)	
	1	060-00056	Upper Splash Guard (before 7/16)	
5	3	060-00051	Spanner Screw	
6	1	060-00043	Hopper Assembly, ABS	
	1	060-00043-01	Hopper Assembly, SS	
7	1	060-00118	Cover Assembly, ABS (see Pages 64-65 for details)	
	1	060-01001	Cover Assembly, Stainless Steel (see Pages 66-67 for details)	
8	1	060-00038	Lift, Fruit, FDA Material	
9	1	060-00028	Guide, Fruit, FDA Grade	
10	1	060-00004	Cup, Lower	
11	2	060-00098	Spanner Nut	
12	2	060-00109	Stud, Cup, Lower	
13	1	060-00092	Cutter w/ Screw (includes Item 14)	
14	1	004-406-003	Screw, Mach, Round, 4-40 x 3/16,SS	
15	1	060-00108	Manifold, Juice	
16	1	007-486-119	O-Ring, Nozzle, 1 x 1-1/8 x 1/16	
17	2	004-352-398	Screw, Cap, Hex, 3/8-16 x 1-1/4", SS	
18	1	060-00022	Nozzle, Straight , Plastic	
18a	1	060-01059	Nozzle, SS, 90° Bend, Jamba	
19	2	060-00068	Bearing, Fruit Lift	
20	1	060-00086	Tube, Strainer, 0.033	
20a	1	060-00208	Tube, Strainer, 0.040	
20b	1	060-00230	Tube, Strainer ,0.055	
21	1	060-10085	Lower Splash Guard (after 7/16)	
	1	060-00055	Lower Splash Guard (before 7/16)	
22	1	060-00008	Tube, Orifice	
26	1	060-00077	Tool, Wrench	(Not Shown)
30	1	009-092-018	Cap, Cover for Cutter	(Not Shown)
31	1	060-00121	Warning Label, Shear, Hopper	
32	2	060-00192	Pin, Manifold Locator	
33	2	004-100-018	Nut, Acorn, 3/8-16, SS	
34	2	004-806-070	Washer, Lock, 3/8", SS	
35	1	060-00027	Upper Cup	
36	1	004-226-039	Pin, Faspin, 3/8 x 1-5/8"	
37	1	060-00088	Small Fruit Adapter	

Note: Contact JBT Corporation for small fruit application recommendations.

1	060-01070	Small Fruit Conversion Kit	(Not Shown)
---	-----------	----------------------------	-------------

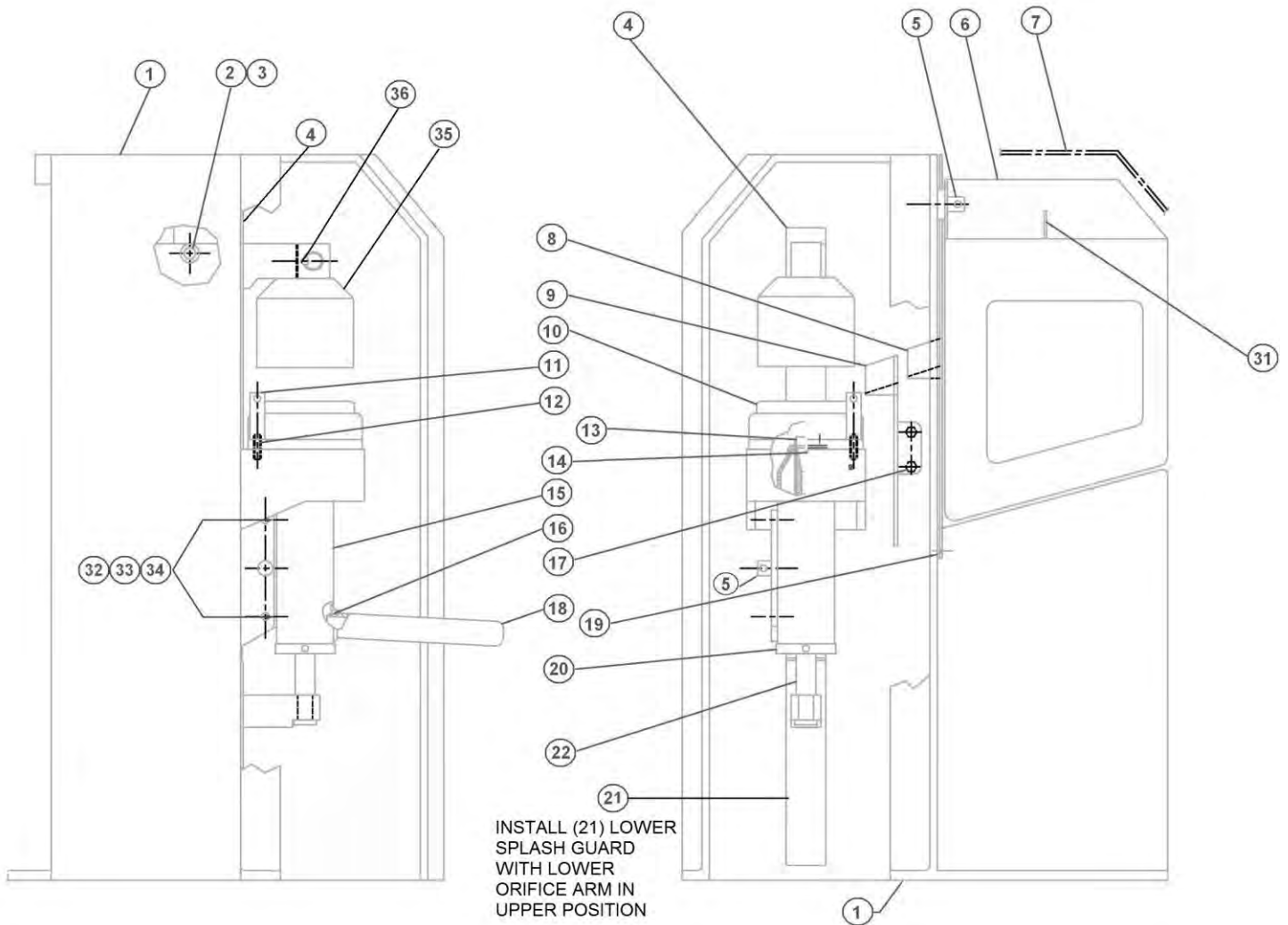
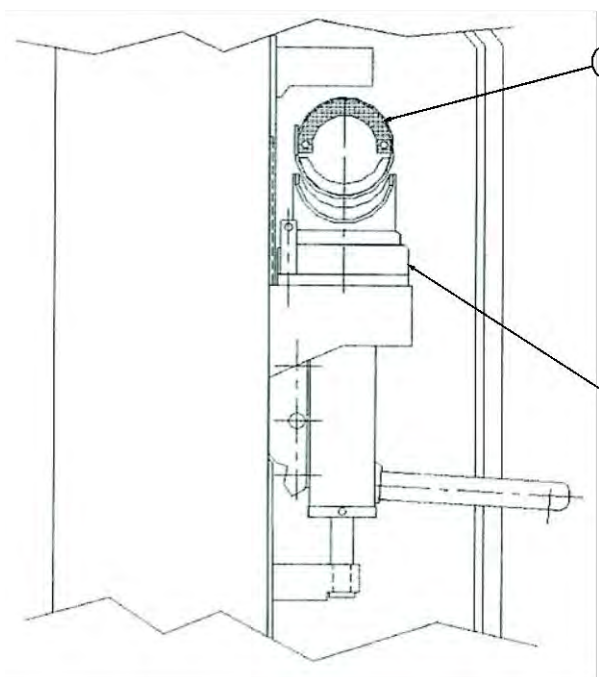


Figure 42a. Juicing Parts



- SMALL FRUIT INSERT (PART #060-00088-B) PREVENTS DOUBLE FEEDING OF SMALL FRUIT DOWN TO 2 ¼" DIAMETER.
- SLIPS OVER UPPER HALF OF HOLE FLANGE IN FRUIT LIFT
- REMOVE WHEN RUNNING LARGER FRUIT
- USING SPANNER WRENCH IN HOLES WILL AID IN INSTALLATION & REMOVAL

Figure 42b. Small Fruit Adapter



Hopper Assembly Parts, 060-00043

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	060-00089	Button, Hopper Bump
2	2	004-392-184	Screw, Machine, Pan, Slotted, #8-32 X 3/8" LG, 304 SS
3	2	004-111-018	Nut, Hex, 304 SS, #8-32

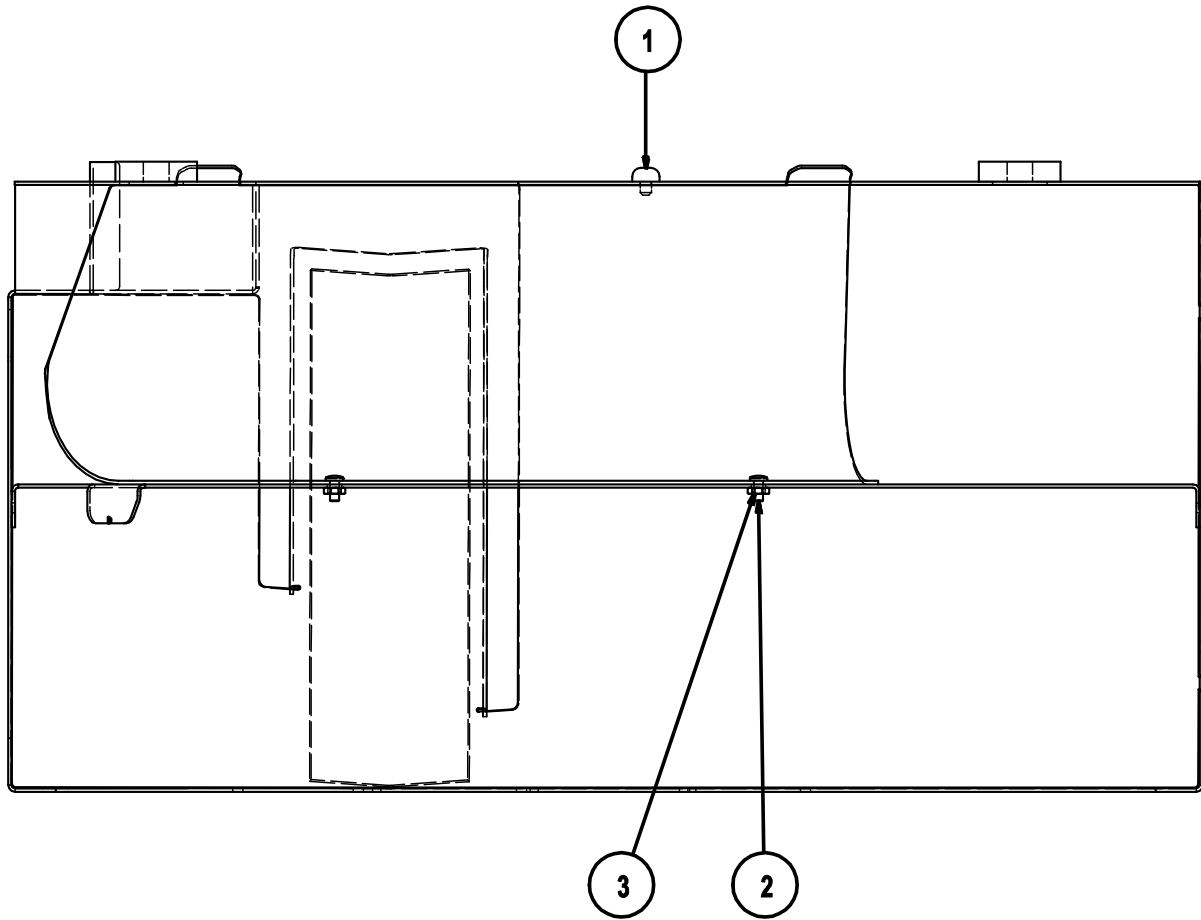


Figure 43. Hopper Assembly Parts



Drive Parts, 060-00103

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	005-220-145	Chain, #60 x 60-3/4" Lg (81 Links)
2	1	005-221-291	Link, Connecting For #60
3	1	060-00034	Electrical Assembly (see Pages 72-73 for details)
4	1	005-806-227	Sprocket, 60B14, Set Screw (for motor), 1-1/8" bore, KWSS, (2) Set Screws, 90°
4a	1	005-806-052	OPTIONAL, Sprocket, 60B12
5	4	004-352-404	Screw, Cap, Hex, 3/8-16 x 1-3/4"
6	4	004-806-070	Washer, Lock Reg, 3/8", SS
7	4	004-816-080	Washer, Plain Narrow, 3/8", SS.
8	1	060-00117	Frame & Stand Assembly (see Pages 60-61 for details)
9	2	060-00064	Shaft, Linear, Upper
10	1	060-00116	Upper Drive Arm Assembly (see Page 56 for details)
11	1	060-00010	Sprocket, U.C. Drive Arm, Upper Cup
12	2	004-355-051	Screw, Cap, Socket, S.L. 3/8-16 x 2"
13	2	005-098-113	Washer, Thrust, 1-1/4"
14	1	060-00062	Shaft, Rotary Drive, Upper
15	2	005-576-249	Key, Sq, 1/4" x 1-1/2", SS
16	1	060-00065	Sprocket, Drive, Orifice
17	2	005-098-112	Washer, Thrust, 1"
18	1	005-576-242	Key, Sq, 1/4" x 1", SS
19	11	004-541-138	Screw, Set, Cup Point, S/L, 3/8-16 x 3/4", SS
20	1	060-00061	Shaft, Rotary Drive, Lower
21	1	005-576-061	Key, Sq, 1/4" x 3/4", SS
22	1	005-575-246	Key, Sq, 1/4" x 1-1/4", High Carbon Plain Steel
23	1	060-00115	Orifice Drive Arm Assembly (see Page 56 for details)
24	1	060-00063	Shaft, Linear Orifice Drive
25	2	004-541-112	Screw, Set, Socket, 5/16-18 x 3/4", C/G (for Motor Sprocket)
26	2	004-356-109	Screw, Cap, Hex Socket Head, 3/8-16 x 1-1/4" Lg, S/L, Steel
27	2	005-098-732	Bearing, 1-1/4" x 1-1/4"
28	2	005-098-731	Bearing, 1" x 1"

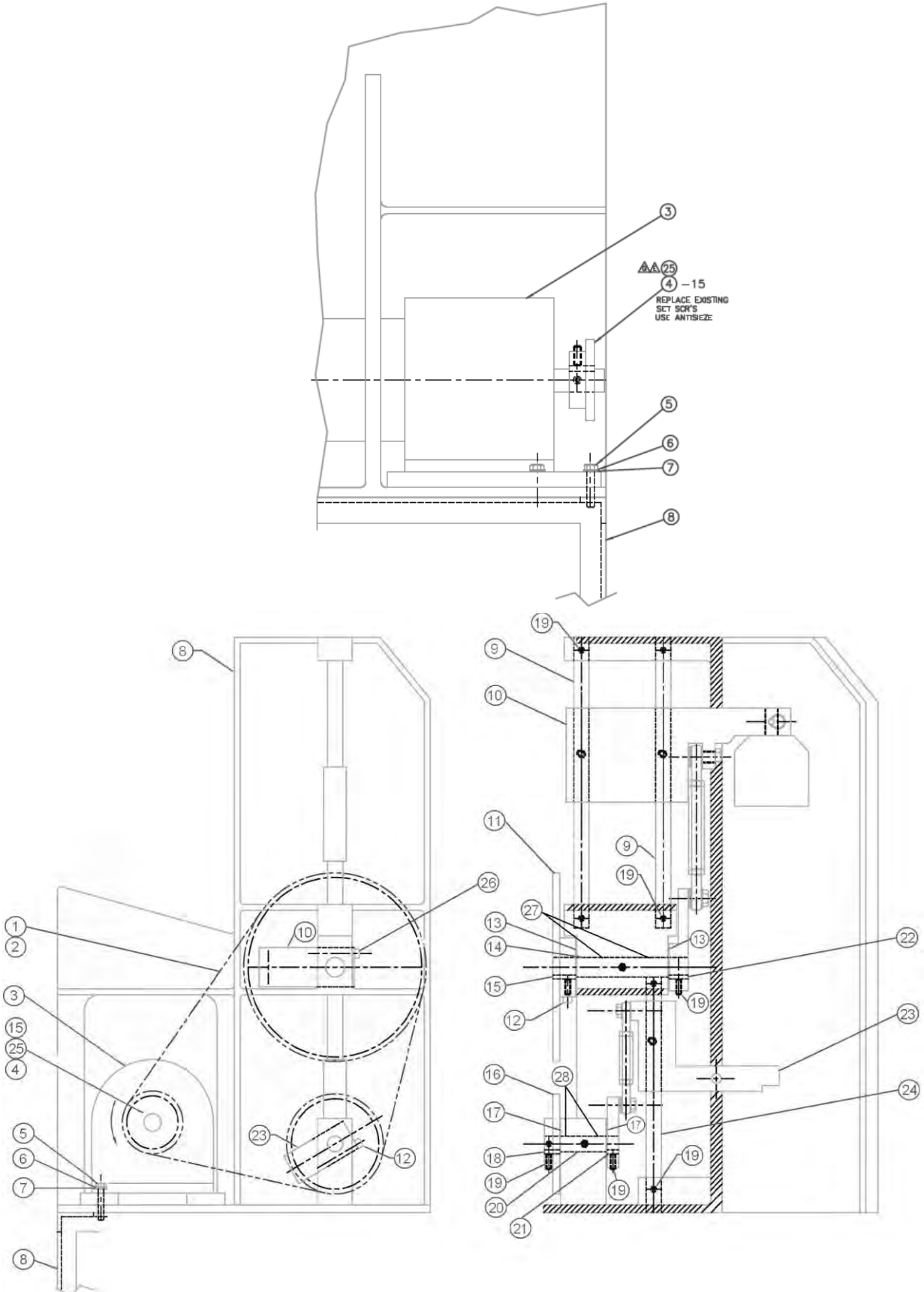


Figure 44. Drive Parts



Upper Drive Arm Assembly Parts, 060-00116

Item	Qty	Part Number	Description
1	1	060-00030	Arm, Upper Drive (includes items 1a & 1b)
1a	2	007-120-205	Fitting, Grease, 1/4"-28, 45°
1b	4	005-098-731	Bearing, 1" x 1"
2	1	004-226-039	Pin, Faspin, 3/8 x 1-5/8"
3	1	060-00027	Cup, Upper
4	1	004-352-661	Screw, Cap, Hex, 5/8-11 x 2-1/2"
5	1	060-00057	Lock, Rod End
6	1	060-00114-01	Rod End Assembly, Upper Cup Drive (see Page 57 for details)
7	1	060-00078	Screw, Upper Cup Crank, LH
8	4	004-816-120	Washer, Plain Narrow, 5/8
9	1	060-00009	Crank, Upper Cup Drive
10	1	004-541-138	Screw, Socket, Set, 3/8-16 x 3/4" Lg, Elastic Pellet, SS
11	Ref	004-356-109	Screw, Cap, Hex Socket Head, 3/8-16 x 1-1/4" Lg, S/L, Steel

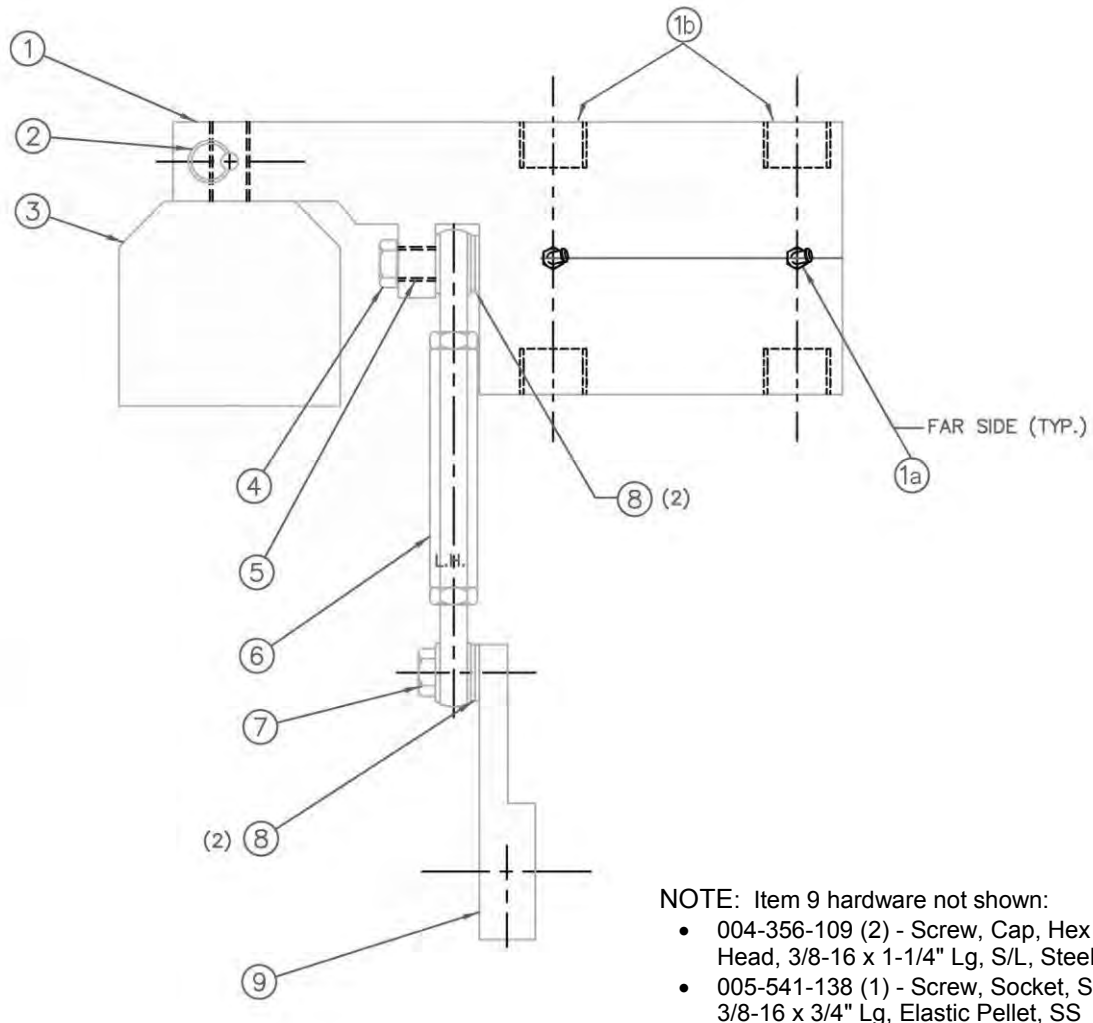


Figure 45. Upper Drive Arm Assembly Parts

**Rod End Assembly, Upper Cup Drive, Parts 060-00114,
060-00114-01 for Field Replacement**

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	005-098-729	Rod End, RH, 5/8"
2	1	060-01235	Nut, Jam Hex, 5/8-18, SS
3	1	060-00060	Linkage, Cup Drive
4	1	060-01236	Nut, Jam Hex LH, 5/8-18, SS
5	1	005-098-730	Rod End, LH, 5/8"

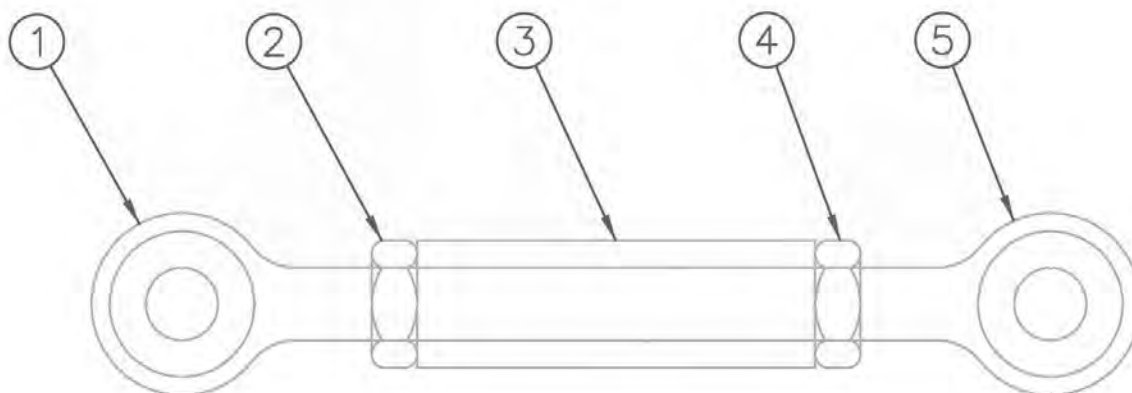


Figure 46. Rod End Assembly, Upper Cup Drive



Orifice Drive Arm Assembly Parts, 060-00115

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	060-00058	Orifice Crank Arm
2	2	004-816-100	Washer, Plain Narrow, 1/2, SS
3	1	004-352-572	Screw, Cap, Hex , LH
4	1	060-00113-01	Rod End Assembly, Orifice Drive (see Page 57 for details)
5	1	004-352-571	Screw, Cap, Hex, 1/2-13 x 1-1/2"
6	1	060-00011	Arm ,Orifice Tube Drive (this part includes items 6a & 6b)
6a	1	007-120-205	Fitting, Grease, 1/4"-28, 45°
6b	2	005-098-731	Bearing, 1" x 1"
7	2	060-00068	Bearing, Fruit Lift

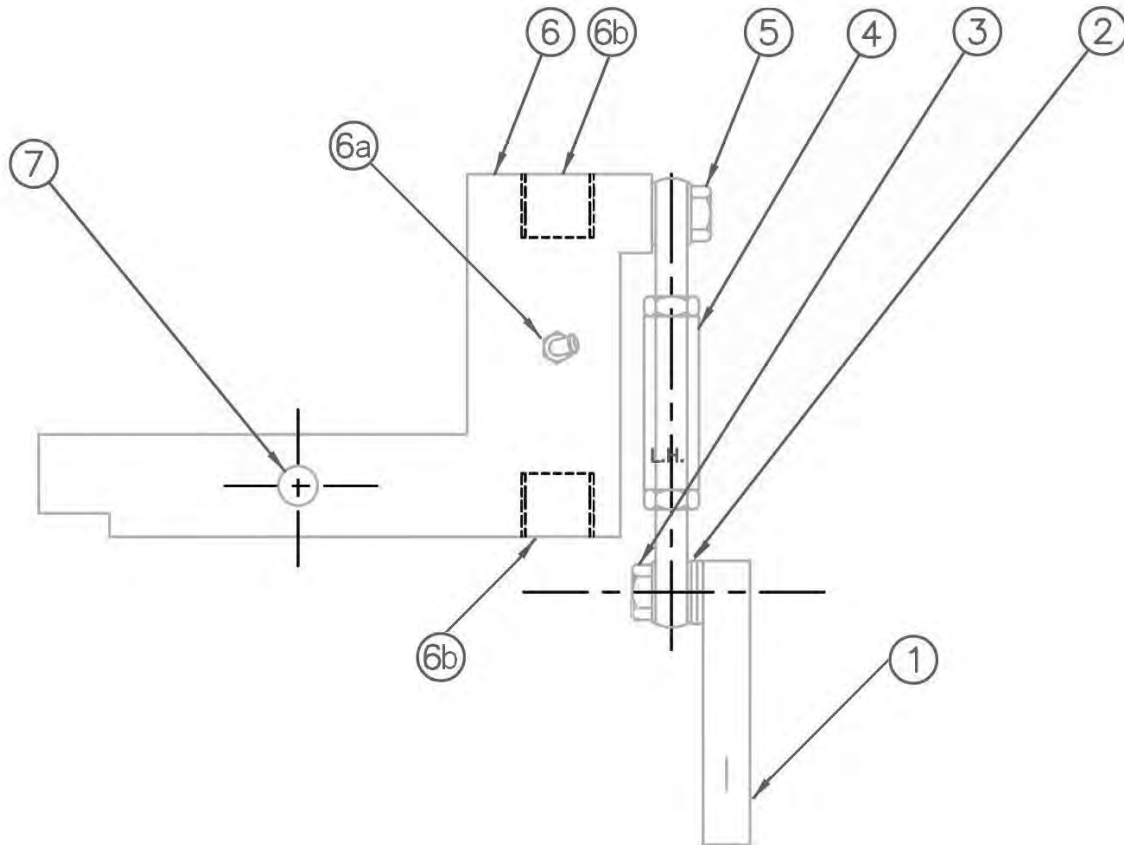


Figure 47. Orifice Drive Arm Assembly Parts

Rod End Assembly, Orifice Drive Parts, 060-00113, 060-00113-01 for Field Replacement

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	005-098-727	Rod End, Male, RH
2	1	004-116-037	Nut, Jam Hex, 1/2-20
3	1	060-00059	Linkage, Orifice Drive
4	1	004-116-038	Nut, Jam Hex LH, 1/2-20
5	1	005-098-728	Rod End, Male LH, 1/2"

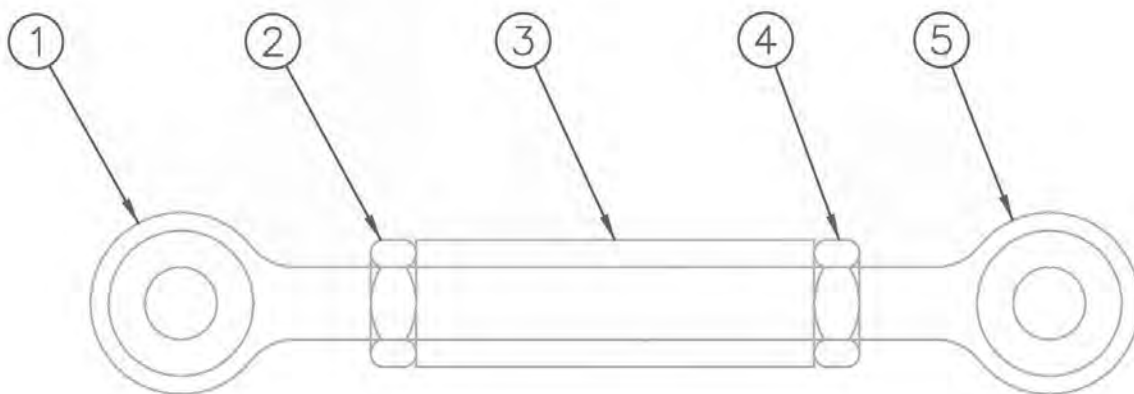


Figure 48. Rod End Assembly, Orifice Drive, Parts



Frame & Stand Assembly Parts, 060-00117

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	060-00101	Frame (The frame contains items 1a, 1b & 1c)
1a	2	007-120-203	Fitting, Grease, 1/4"-28, Straight (Not Shown)
1b	2	005-098-731	Bearing, 1" x 1" (Not Shown)
1c	2	005-098-732	Bearing, 1-1/4" x 1-1/4" (Not Shown)
2	1	060-00048	Stand
3	2	009-080-554	Caster, Total Lock, 4", SS (after 6/16)
	2	009-080-547	Caster, Swivel, 4" (7/15 to 6/16)
	2	009-080-526	Caster, Swivel, 4" (before 7/15)
5	5	004-352-392	Screw, Cap, Hex, 3/8-16 x 7/8"
6	4	004-111-022	Nut, Hex, #10-24, SS
7	4	004-461-025	Hook
12	2	009-080-553	Caster, Rigid, 4", SS (after 6/16)
	2	009-080-546	Caster, Rigid, 4" (7/15 to 6/16)
	2	009-080-527	Caster, Rigid, 4" (before 7/15)
13	1	060-00079	Locator, Waste Bin
14	16	004-111-040	Nut, Hex, 5/16-18, SS
15	18	004-816-070	Washer, Plain Narrow, 5/16, SS
16	22	004-352-315	Screw, Cap, Hex, 5/16-18 x 3/4"

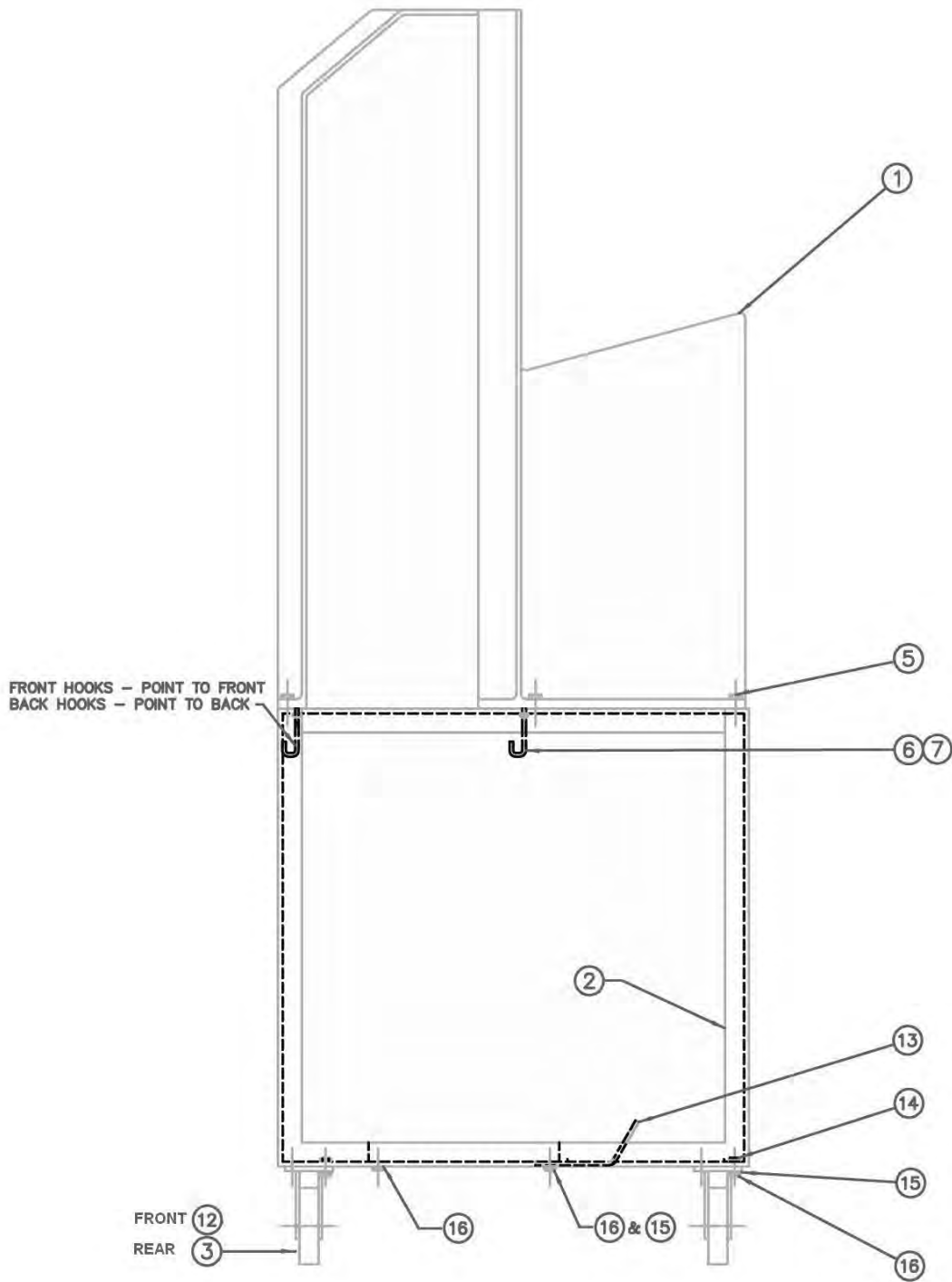


Figure 49. Frame & Stand Assembly Parts



Bracing Rail Kit, 060-10126

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	060-10123	Bracing Rail, RH
2	1	060-00124	Bracing Rail, LH
3	4	004-352-395	Screw, Cap, Hex, 3/8-16 x 1", SS
4	4	004-156-074	Nut, Hex, S/L, LT, 3/8-16, 304SS
5	8	004-816-082	Washer, Flat, 3/8" Wide x 1" OD x 25/64" ID x .062" Thick, SS
	1	060-10125	Bracing Rail Installation Instructions

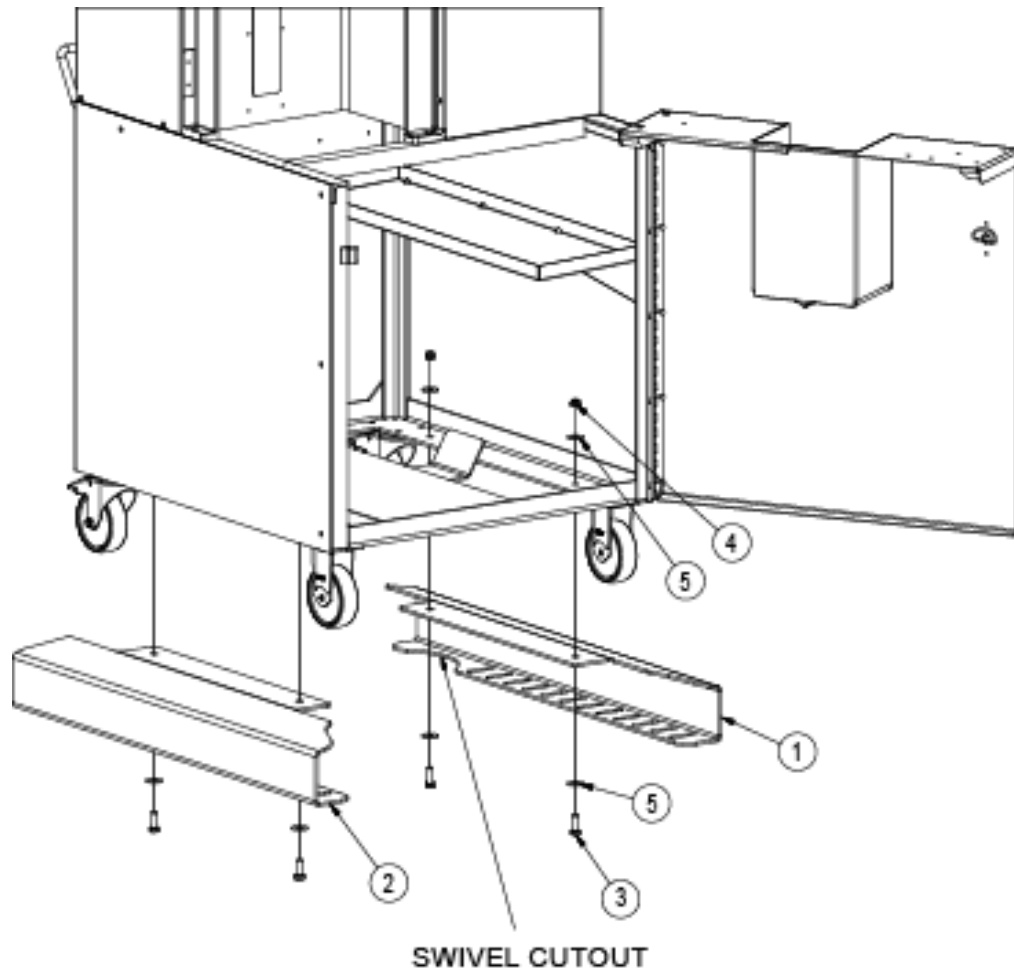


Figure 50. Bracing Rail Kit



Cover Assembly Parts, ABS, 060-00118

Item	Qty	Part Number	Description
1	1	060-00044	Cover, Drive, UL #R597016
2	1	060-01054	Shield, Splash, Assembly, 90° Bend (see page 69 for details)
		060-00111	Shield, Splash, Curved (Obsolete-Old Style)
3	1	060-00045	Cover, Juice Components, UL #R597016
4	1	060-00123	Clip, Latch
5	24	004-401-022	Screw, Mach Truss, Nylok, #10-24 x 3/8" Phillips, SS
6	1	060-00110	Plug, Hopper Hole, UL #R597016
7	2	060-00071	Hinge, Cover, Front, Male
8	4	004-816-060	Washer, Plain Narrow 1/4", SS
*9	1	060-00025	Reservoir Lid, FDA Material
*10	1	060-00107	Stirrer, Reservoir
*11	1	060-00036	Reservoir, Juice, FDA Material
*12	1	060-00162	Faucet-Tomlinson
13	14	004-401-026	Screw, Mach Truss, #10-24 x 5/8" Phillips, SS
14	1	060-00047	Cover, Door Stand, UL #R597016
15	1	060-00035	Cover, Main Stand, UL #R597016
16	2	060-00097	Pin, Reservoir Holder
17	1	060-00032	Cover, Hopper, UL #R597016
18	1	060-00033	Cover, Back, UL #R597016
19	1	060-00046	Cover, Switch, UL #R597016
20	1	060-00090	Spacer, Switch Cover
21	1	015-03939	Name Plate
22	8	004-265-016	Rivet Blind, Pop, 1/8 Dia. x 1/4 Grip
23	1	015-03937	Patent Plate
24	1	009-092-022	Container, Trash, 19-1/2" x 23-1/2" x 13"
26	1	060-00148	Decal, "Install Trash Bag On Hooks Before Juicing"
27	1	060-00120	Decal, Warning Sign
28	6	060-00125	Retainer, Back Cover
29	2	004-816-052	Washer, Plain, #10, SS
*30	1	009-210-013	Float, Cyl, 1-1/2 D. x 2-5/8 Lg., Polyp
*31	1	060-00137	Frame, Reservoir Float, Pivot
*32	1	060-00140	Magnet Holder, Reservoir
*33	1	006-210-291	Magnet, Proximity, G.R.I. #PSM19, 3/16 Dia.
34	1	009-080-050	Bumper, Hopper Cover, Stem Type, 5/8" x 15/16"
35	2	006-200-267	Switch, Safety, Schmersal, AZ16
36	2	007-143-395	Strain Relief Fitting, #CD20MR-BK
37	2	004-356-012	Screw, Socket Head Cap, Button Head, #10-24 x 3/4" Lg., SS
38	4	060-02059	Button, Threaded Nut
39	1	004-401-024	Screw, Mach, Truss Head #10-24 x 1/2", SS (Phillips)
40	2	009-654-003	Holder, Wire
41	3	006-270-141	Tie, Wire
42	1	004-385-012	Screw, Flat Head, #6-32 x 3/4" Lg., SS
44	4	004-392-174	Screw, Pan Head, #8-32 x 1/2" Lg., Spanner Type, SS
45	2	060-00524	Strip, Backing
46	1	060-00121	Decal, Warning Sign, Shear
47	2	006-200-489	Funnel Adapter with Long Key
48	1	007-160-029	Grommet, 7/16 Dia Hole x 15/16 OD Use on SS Covers Only
49	1	009-097-002	Cable Tie Holder
50	4	004-156-041	Nut, Hex, #10-24, Self Locking, SS
51	2	004-385-028	Screw, Flat Head, #8-32 x 3/8" Lg., Spanner Type, SS
52	2	004-356-013	Screw, Socket Head, Cap, Button Head, #10-24 x 1" Lg., SS
53	4	004-806-030	Washer, Lock, #10, SS
54	2	060-00104-B	Decal, Warning Sign, English/Spanish
			Covers, Items 3, 14, 17, & 18 Include the Following Parts:
	4	009-425-019	Latch, Spring Toolhead, Southco #57-T-10 (items 3, 14, 17 & 18)
	6		Rivet, Blind, 1/8 Dia x 3/8, Alum. (Items 3, 17 & 18)
	2		Rivet, Blind, 1/8 Dia x 1/4, Alum. (item 14 only)
			Covers, Items 3, 14, & 17 Include the Following Hinges:
	1	060-00073	Hinge, Cover, Hopper (Quantity of (1) on Item 17 above)
	2	060-00072	Hinge, Front Cover, Female (Quantity of (2) on Item 3 above)
	1	060-00080	Hinge, Door, Stand (Quantity of (1) on Item 14 above)

* Part number for complete Reservoir Assembly (Items 9, 10, 11, 12, 30, 31, 32 & 33):

1	060-07000	Reservoir Assembly with Lid, Float, Stirrer and Faucet
---	-----------	--

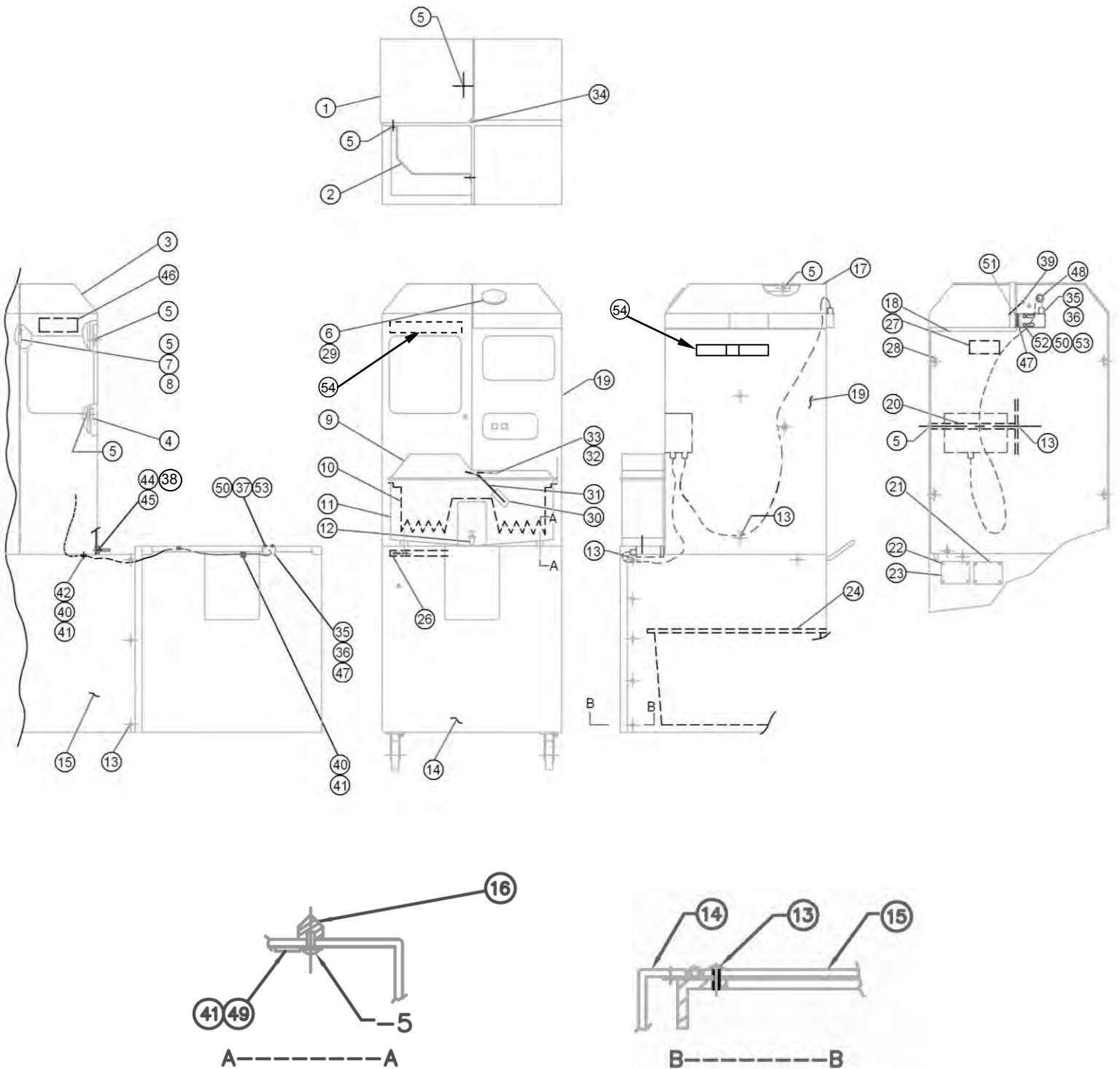


Figure 51. Cover Assembly Parts, ABS



Cover Assembly Parts, Stainless Steel, 060-01001

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	060-01036	Hopper Modification
2	1	060-01038	Cover, Main
4	1	060-01055	Cover, Door
5	1	060-01044	Spacer, Switch Cover
6	1	060-01042	Cover, Hopper Switch
	1	060-10127	Cover, Hopper Switch, SS, Assembly for Field Replacement (includes items 6, 29, 33) – see Page 68 for details
7	1	060-01041	Cover, Drive, SS
8	1	060-01040	Cover, Back
	1	060-10128	Cover, Back, SS, Assembly for Field Replacement (includes items 8, 15, 17, 21) – see Page 68 for details
9	1	060-01025	Shield, Clear
10	1	060-01024	Bracket, RH
11	1	060-01024-01	Bracket, LH
12	1	060-01060	Cover, Hopper
13	1	060-01061	Cover, Juice, Assembly, SS
14	1	009-425-019	Latch, Spring Toolhead
15	2	060-00120	Sign, Warning ,Cover Switches
16	1	009-450-040	Assembly Instructions
17	1	009-450-041	Cleaning Instructions, White Mylar w/Black Letters, 8.5" x 11"
18	11	004-401-022	Screw, Mach Truss, Nylok, #10-24 x 3/8" Phillips
19	4	004-156-041	Nut, S/L, #10-24, SS
21	1	060-00122	Sign, Warning, Moving Juicer
22	1	015-03937	Patent Plate
23	1	015-03944	Name Plate
24	10	004-260-017	Rivet, Pop, 1/8 Dia x 1/8 Grip
25	6	060-00125	Retainer, Back Cover
26	1	009-097-002	Cable Tie Holder
28	1	060-05058	Key Ring & Key (Not Shown)
29	1	060-00083	Label, On/Off
30	1	060-00121	Warning Label, Shear, Hopper
31	2	060-00097	Pin, Reservoir Holder
32	1	009-080-050	Bumper, Stem Type, 5/8" x 15/16"
33	1	060-00104	Decal, Warning Sign, Hand Crush, English/Spanish
Covers, Items 4, 12, & 13 Include the Following Parts:			
	3	009-425-019	Latch, Spring Toolhead, Southco #57-T-10 (Items 4, 12 & 13)
	4		Rivet, Blind, 1/8 Dia x 3/8, Alum. (Items 12 & 13)
	2	004-265-017	Rivet, Pop, 1/8 Dia x 1/8 Grip (Item 4 only)
Covers, Items 4, 12, & 13 Include the Following Hinges:			
	1	060-00080	Hinge, Door, Stand (Hinge, Quantity of (1) on Item 4)
	1	060-00073	Hinge, Cover, Hopper (Hinge, Quantity of (1) on Item 12)
	2	060-00072	Hinge, Front Cover, Female (Hinges, Quantity of (2) on Item 13)

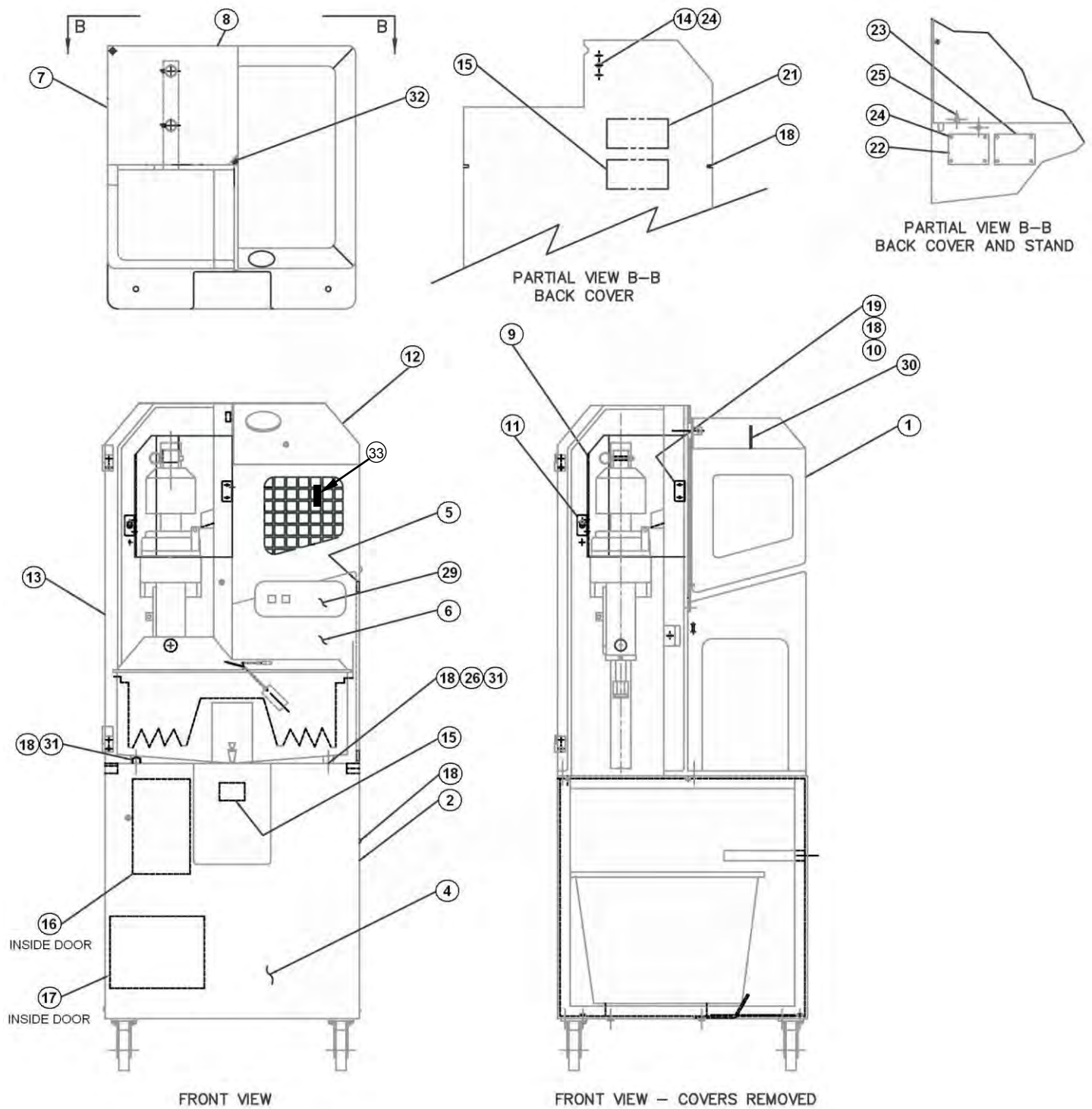
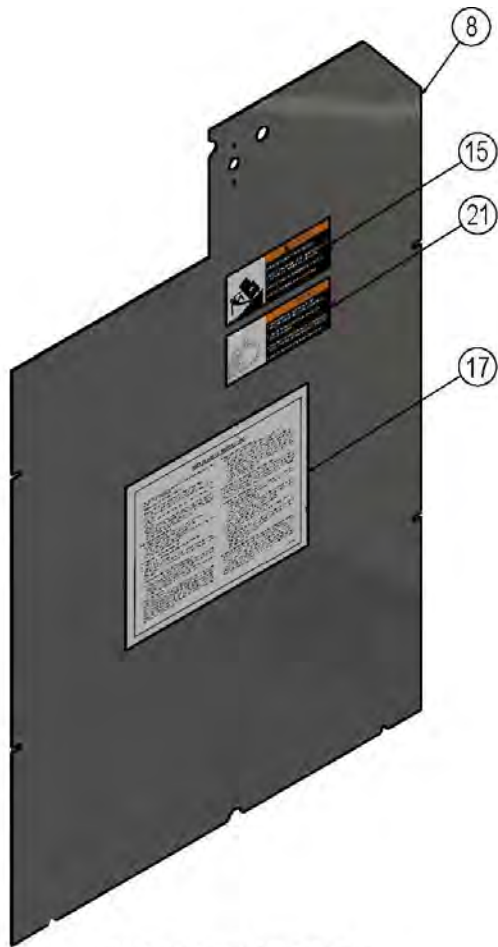
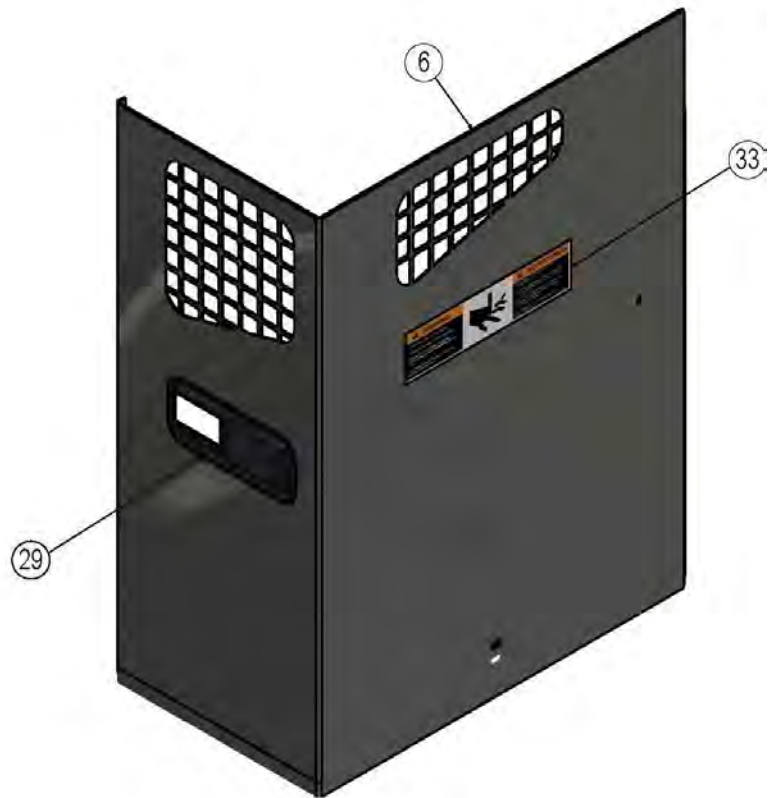


Figure 52. Cover Assembly Parts, Stainless Steel (Page 1 of 2)



BACK COVER ASSEMBLY
(FIELD REPLACEMENT)
060-10128



HOPPER SWITCH COVER ASSEMBLY
(FIELD REPLACEMENT)
060-10127

Figure 52. Cover Assembly Parts, Stainless Steel (Page 2 of 2)

Splash Shield Assembly Parts, 060-01054

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	060-01025	Shield, Clear
2	1	060-01024	Bracket, Clear Shield, RH
3	1	060-01024-01	Bracket, Clear Shield, LH
4	4	004-401-022	Screw, Mach Truss, Nylok, Phil, 10-24 x 3/8"
5	4	004-156-041	Nut, Hex S/L, 10-24,SS

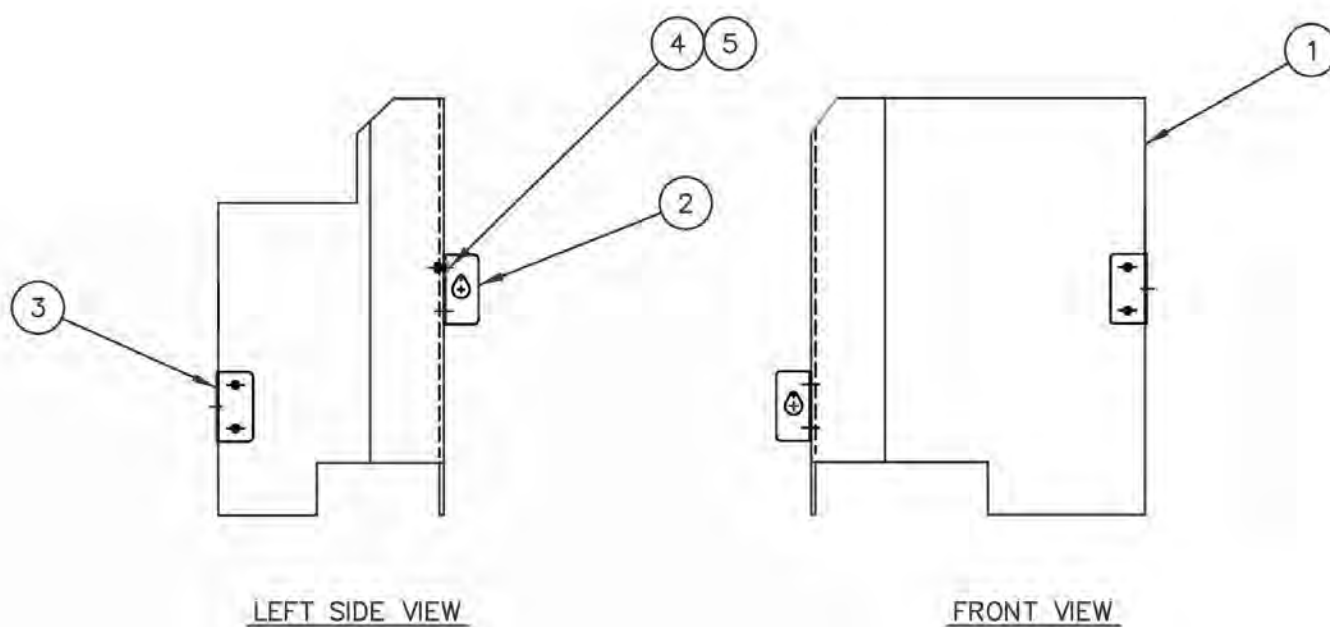


Figure 53. Splash Shield Assembly Parts



Decals, Warning Labels, Bumpers

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	3	060-00120	Decal, Warning Sign (Decals on item 3, 14 & 17 Interior)
3	3	060-00121	Decal, Warning Sign ((1) on item 3, (1) on Hopper Side & (1) Back of Hopper)
4	1	009-450-040	Decal, Component Assembly Instructions (Decal on item 3)
5	1	009-450-041	Decal, Cleaning Instructions (Decal on item 18)
6	1	060-00122	Decal, Warning Sign, "Moving Juicer" (Decal on item 18)
7	1	060-00083	Label, On/Off, UL #NNP-101 (Label on item19)
8	1	060-00082	Decal, Warning Sign, "Do Not Open" (Label on item 17-Exterior)
9	3	009-450-034-01	Decal, Base Fruit, Recessed (Decals on items (1) 14 & (2) 15)
10	4	009-450-031	Decal, Logo, Fresh'n Squeeze, (Decals on items (1) 1, (1) 3 & (2) 17)
11	3	009-450-033	Decal, Roof, Fruit (Decals on items 3, 17 & 18)
13	2	060-00193-01	Bumper, Urethane x 26" Lg (Bumpers on item 15)
14	2	060-00193-03	Bumper, Front, Urethane x 7-1/2" Lg (Bumpers on item 14)
15	2	060-00104-B	Decal, Warning Sign, English/Spanish ((1) inside item 3, (1) on item 19)

The referenced item numbers in the description above within parenthesis refer to the item numbers on Pages 64-65.

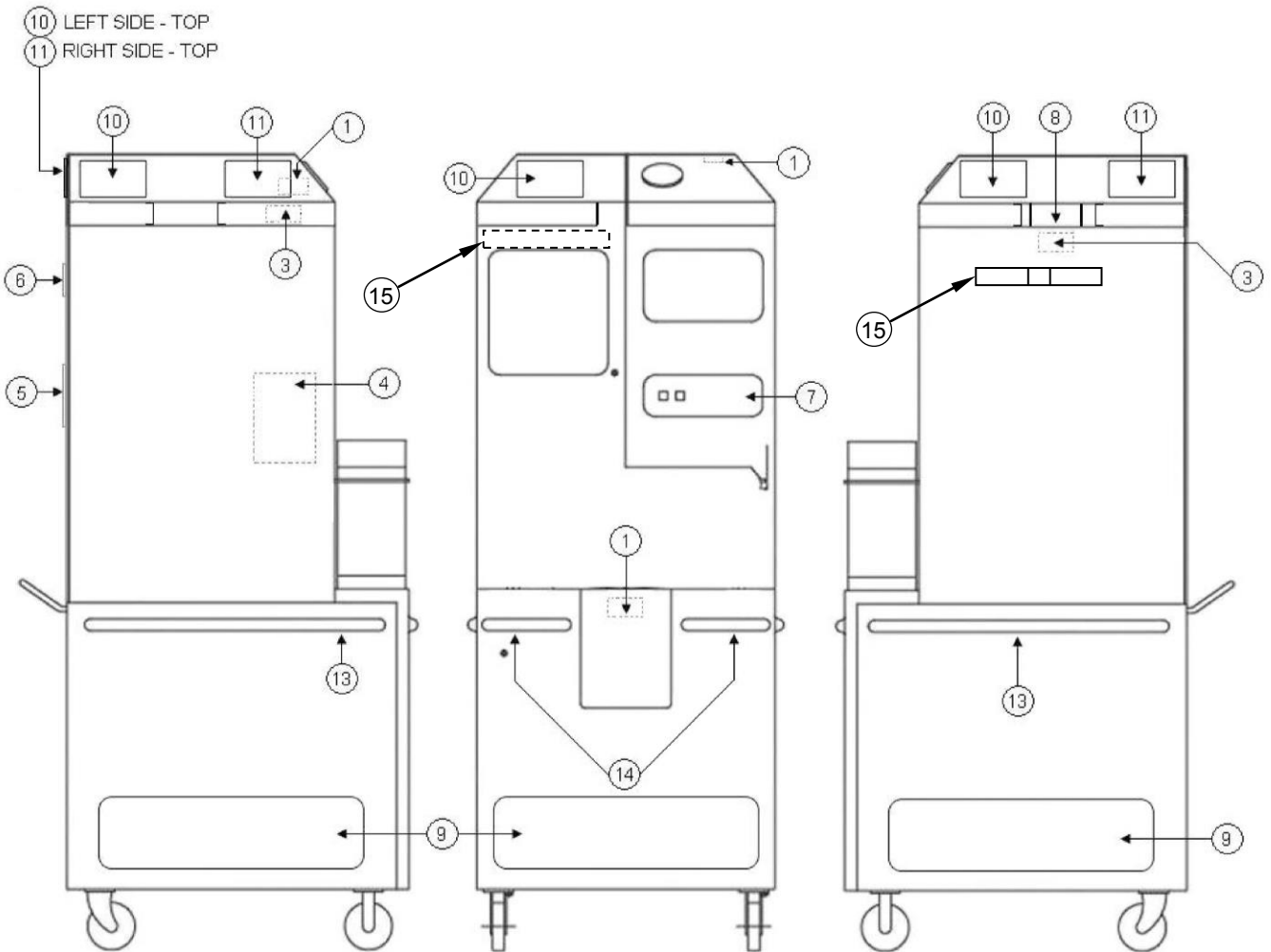


Figure 54. Decals, Warning Labels, Bumpers



Electrical Parts, 060-00034

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>	
110 Volt Parts				
1	4	004-401-022	Screw, Mach, Truss #10-24 x 3/8", SS (Phillips)	
2	2	004-440-004	Screw, Tap "F" #6-32 x 3/8", SS (Phillips)	(Not Shown)
3	1	060-00076	Switch Plate	
6	1	060-00168	Electrical Box Assembly (115 V)	
7	1	006-061-003	Wire Nut #74-B	(Not Shown)
*8	1	060-00141	Switch Bracket	
9	1	060-00292	Field Replacement Gear Motor (110 V)	
10	1	006-220-014	Terminal #10 Ring End For 10-12 Ga	
11	1	060-00096-03	Wire, 20 Ga. x 5" Lg., White	(Not Shown)
*12	1	006-210-290	Prox Switch, NC, With Gray Leads	
13	1	060-00094	Supply Wire with plug and connector	
13a	1	006-270-194	Connector, cord, Hubbell #NHC-1023-CRN	
13b	1	006-080-071	Power Cord x 10' LG with plug	
14	1	060-00527	Cable (Back Cover)	
15	1	060-00527-01	Cable (Cart Door)	
220 Volt Parts				
1	4	004-401-022	Screw, Mach, Truss #10-24 x 3/8", SS (Phillips)	
2	2	004-440-004	Screw, Tap "F" #6-32 x 3/8", SS (Phillips)	
3	1	060-00076	Switch Plate	
6	1	060-00169	Electrical Box Assembly (220v – 50 Hz)	
*8	1	060-00141	Switch Bracket	
9	1	060-00293	Field Replacement Gear Motor (220 V – 50 Hz)	
9a	1	060-00106-03	Field Replacement Gear Motor (220 V – 60 Hz)	
10	1	006-220-004	Terminal #10 Ring End For 14-16 Ga.	
*12	1	006-210-290	Prox Switch, NC, With Gray Leads	
13	1	060-00198	Supply Wire (220 V 50 Hz)	
13a	1	006-270-194	Connector, cord, Hubbell #NHC-1023-CRN	
13b	1	006-080-072	Power cord x 10' Lg, 14 GA (no plug), Olflex H07RN-F	
14	1	060-00525	Cable (Back Cover)	
15	1	060-00525-01	Cable (Cart Door)	
16	1		Plug (Depends On Machine Destination)	(Not Shown)
17	1	009-450-057	Decal, Electrical Hazard	(Not Shown)
18	1	060-00522	Schmersal Switch Conversion	(Not Shown)

*** Machines equipped with high level switches, all others have two proximity switches on juicing cover.**

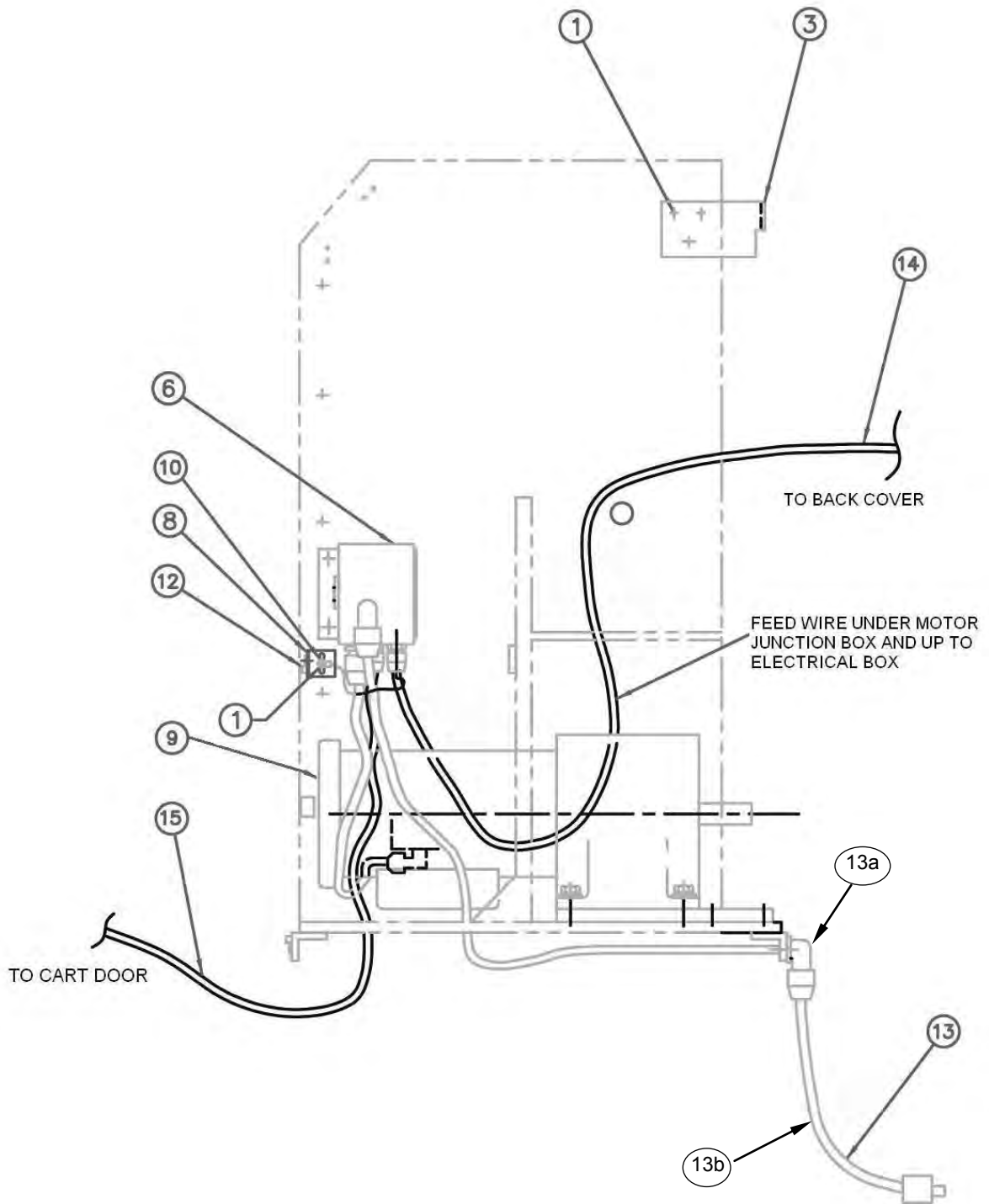
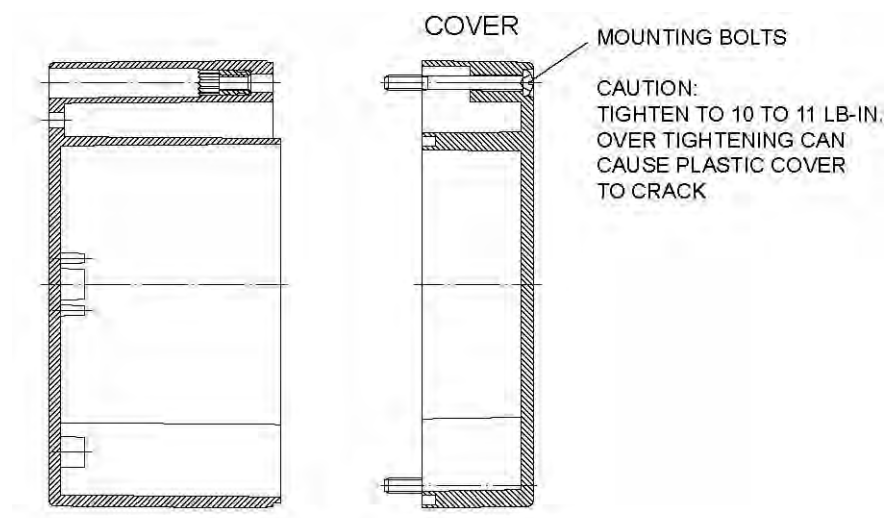
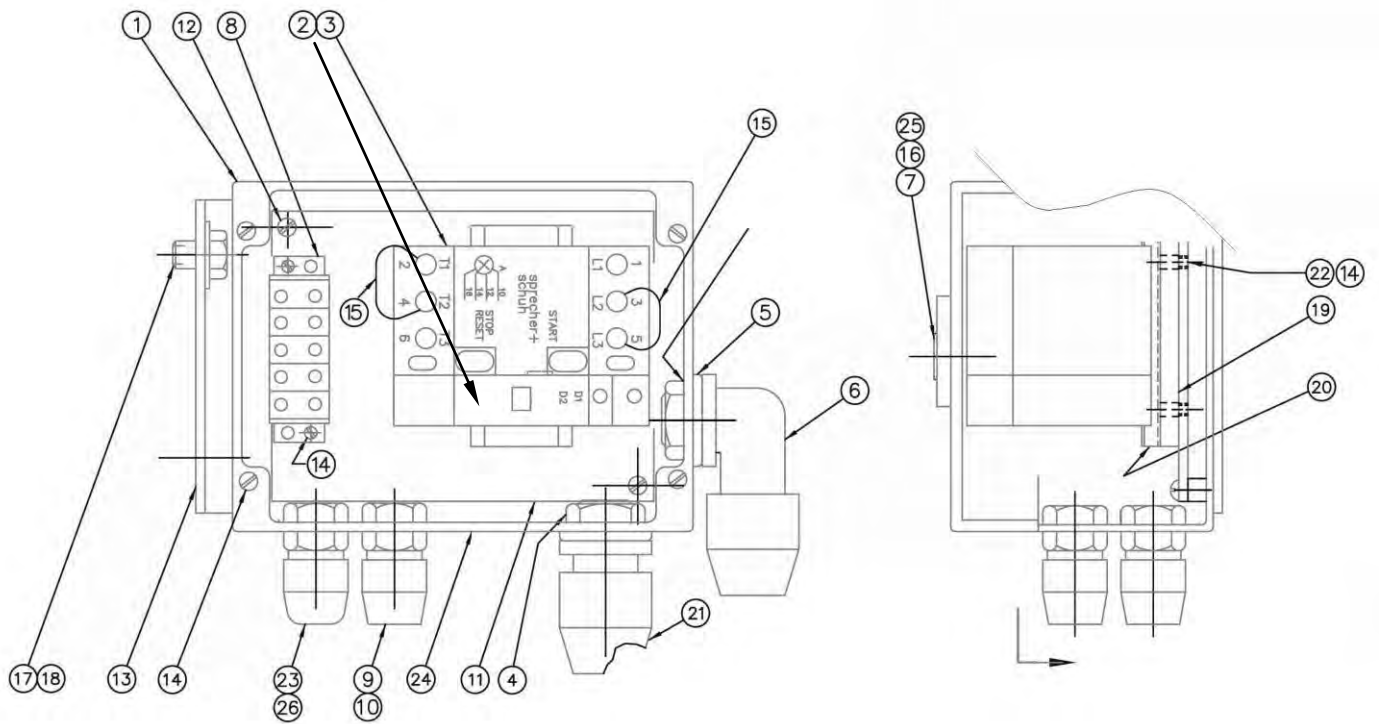


Figure 55. Electrical Parts



Electrical Box Assembly Parts (115 Volt), 060-00168

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	060-00167	Electrical Box, Sprecher-Schuh M.S.
2	1	006-040-062	Under volt Release "Sprecher-Schuh" KT4-CUXKD
3	1	006-190-054	Manual Starter "Sprecher-Schuh" KT4-C2A-C16
4	2	007-146-010	Nut, Tru-Seal, 1/2 NPT
5	2	007-486-118	Sealing Ring Hubbell #20509001
6	1	006-060-044	Cord Conn. T&B #2682 (1/2 NPT -90°)
7	1	060-00538	Switch Diaphragm
8	1	006-221-066	Terminal Block, Curtis #1505 W
9	2	006-060-074	Cord Conn. T&B #2671 (3/8 NPT -Straight)
10	2	007-146-009	Nut, Tru-Seal, 3/8 NPT
11	1	060-00074	Panel
12	2	004-397-137	Screw, Mach, Round, #10-24 x 3/8", SS
13	1	060-00075	Box Mounting Plate
14	8	004-397-077	Screw, Mach, Round, #8-32 x 1/2", SS
15	2	060-00096-01	Jumper Wire, 12 Ga. x 2 1/4" Lg.
16	1	060-00537	Frame - Diaphragm
17	2	004-352-383	Screw, Cap, Hex, 3/8 -16 x 1/2", SS
18	2	004-816-080	Washer, Plain Narrow 3/8", SS
19	1	060-00165	Spacer
20	1	060-00166	Din Rail, Motor Starter Mounting
21	1	006-060-077	Cord Conn., Straight, T&B #2673 (1/2 NPT x 1/2 Dia. Cord)
22	2	004-816-052	Washer, Plain, #10, SS
23	2	007-143-396	Strain Relief Fitting
24	2	006-090-245	Plug, Snap-In, Nylon
25	4	004-430-002	Screw, #4 x 3/8" Lg. Type "B", SS
26	2	007-143-397	Nut, Locking, PG11



ELECTRICAL BOX ENCLOSURE (SIDE VIEW)

Figure 56. Electrical Box Assembly Parts (115 Volt)



Electrical Box Assembly Parts (220 Volt), 060-00169

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	060-00167	Electrical Box, Sprecher-Schuh M.S.
2	1	006-040-062	Under volt Release "Sprecher-Schuh" KT4-CUXKD
3	1	006-190-063	Manual Starter "Sprecher-Schuh" KT4-C2A-C10
4	2	007-146-010	Nut, Tru-Seal, 1/2 NPT
5	2	007-486-118	Sealing Ring Hubbell #20509001
6	1	006-060-044	Cord Conn. T&B #2682 (1/2 NPT -90°)
7	1	060-00537	Frame - Diaphragm
8	1	006-221-079	Terminal Block, Phoenix G5/6
9	2	006-060-074	Cord Connector, T&B #2671 (3/8 NPT -Straight)
10	2	007-146-009	Nut, Tru-Seal, 3/8 NPT
11	1	060-00074	Panel
12	2	004-397-137	Screw, Mach, Round, #10-24 x 3/8", SS
13	1	060-00075	Box Mounting Plate
14	6	004-397-077	Screw, Mach, Round, #8-32 x 1/2", SS
15	1	060-00096-03	Jumper Wire, 20 Ga. x 5" Lg
16	1	060-00096-02	Jumper Wire, 12 Ga. x 10" Lg
17	2	004-352-383	Screw, Cap, Hex, 3/8 -16 x 1/2", SS
18	2	004-816-080	Washer, Plain Narrow 3/8", SS
19	1	006-240-027	Transformer, Signal #DP241-4-120
20	6	006-221-081	Terminal, Fully Insul., Panduit #DNF18-206FIB-C
21	2	060-00170	Stand-Off, Terminal Strip
22	2	004-397-104	Screw, Mach, Round, #8-32 x 1-1/4" Lg, SS
23	1	004-397-072	Screw, Mach, Round, #8-32 x 1/4" Lg, SS
24	2	004-816-052	Washer, Plain, #10, SS
25	1	060-00165	Spacer
26	1	060-00166	Din Rail, Motor Starter Mounting
27	1	006-060-077	Cord Conn., Straight, T&B #2673 (1/2 NPT x 1/2 Dia. Cord)
28	A/R	009-455-004	Marker Pins, Phoenix #BNB, Set 10 Thru 15
29	1	060-00194	Mounting Pad - Terminal Block
30	2	004-440-001	Screw, Mach, Round Head, #4-40 x 3/4" Lg, SS
31	3	060-00096-07	Jumper Wire, 20 Ga. x 10" Lg.
32	A/R		Wire Markers
33	2	007-143-396	Strain Relief Fitting
34	2	006-090-245	Plug, Snap-In, Nylon
35	1	060-00538	Diaphragm - Switch
36	4	004-430-002	Screw, #4 x 3/8" Lg. Type "B", SS
37	2	007-143-397	Nut, Locking, PG11

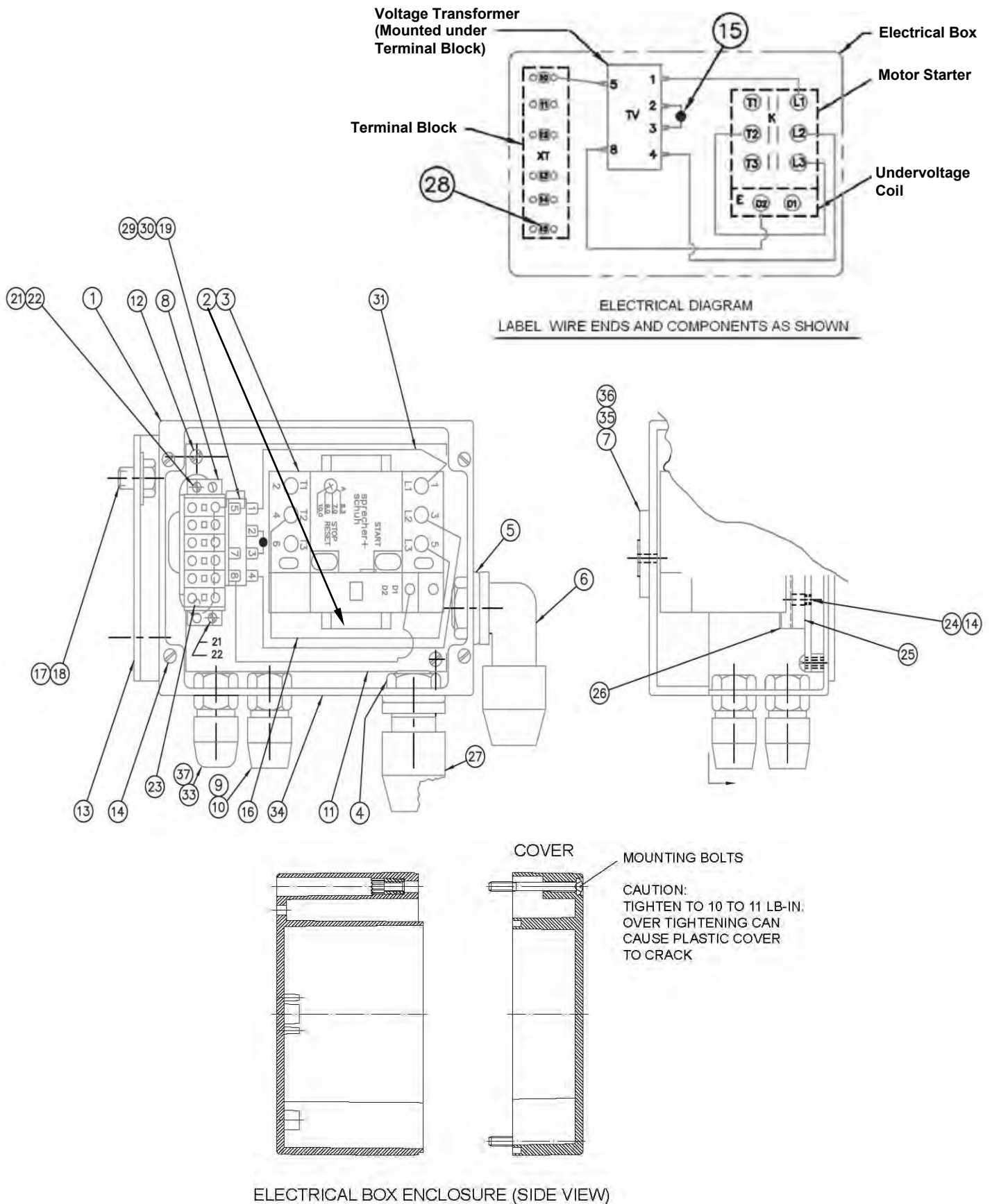


Figure 57. Electrical Box Assembly Parts (220 Volt)



Motor Assembly Parts (110 Volt), 060-00106 and (220 Volt), 060-00196

Item	Qty	Part Number	Description
1	6	006-220-004	Terminal, #10 Ring End for 16-14 Ga
2	2	004-397-137	Screw, Mach. Round Head, #10-24 x 3/8, SS
3	2	004-111-022	Nut, Hex, #10-24, SS
4	1	006-090-242	Hole Plug, Hoffman #AS075 (3/4)
5	1	006-060-044	Connector, Cord, 1/2 NPT, 90°
6	1	007-486-118	Sealing Ring, Hubbell #205-09-001
7	1	007-146-010	Nut, Tru-Seal, 1/2 NPT
10	4	004-352-398	Screw, Cap, Hex, 3/8-16 x 1-1/4, SS
11	4	004-806-070	Washer, Lock Reg, 3/8", SS
12	4	004-816-080	Washer, Plain Narrow 3/8", SS
13	2	060-00066	Base, Motor
14	1	007-661-052	V-Ring, Seal, C/R #400161 (5/8)
110 Volt-60Hz (See Note 1)			
8	1	060-00093	Motor Wire, 110/220 Volt, 60 Hz
9	1	060-00292	Field Replacement Gear Motor (110 V) (See Note 3)
220V Volt-60Hz (See Note 1)			
8	1	060-00093	Motor Wire, 110/220 Volt, 60 Hz
9	1	060-00106-03	Field Replacement Gear Motor (220 V – 60 Hz) (See Note 4)
220 Volt-50Hz (See Note 2)			
8	1	060-00197	Motor Wire, 220 Volt, 50 Hz
9	1	060-00293	Field Replacement Gear Motor (220 V – 50 Hz) (See Note 5)

Note 1: 006-035-022 Capacitor, 60 Hz, 590 mfd (for Reliance only)
006-035-030 Capacitor, 60Hz, 324-389 mfd (for Baldor only)
006-200-016 SINPAC Switch, Stearn #47210402UA, 115Vac, 50/60Hz, Max. Start Cap. Current
40 amps, Cut Out Voltage 130

Note 2: 006-035-026 Capacitor, 50 Hz, 460-552 mfd
006-200-016 SINPAC Switch, Stearn #47210402UA, 115Vac, 50/60Hz, Max. Start Cap. Current
40 amps, Cut Out Voltage 130

Note 3: 060-00292 Gear Motor, 1 HP, 110V-60 Hz Field Replacement (Does not require motor wire, item 8,
motor base, item 13, or fasteners, items 10, 11, and 12).

Note 4: 060-00106-03 Gear Motor, 1 HP, 220V-60 Hz Field Replacement (Does not require motor wire,
item 8, motor base, item 13, or fasteners, items 10, 11, and 12).

Note 5: 060-00293 Gear Motor, 1 HP, 220V-50 Hz Field Replacement (Does not require motor wire, item 8,
motor base, item 13, or fasteners, items 10, 11, and 12).

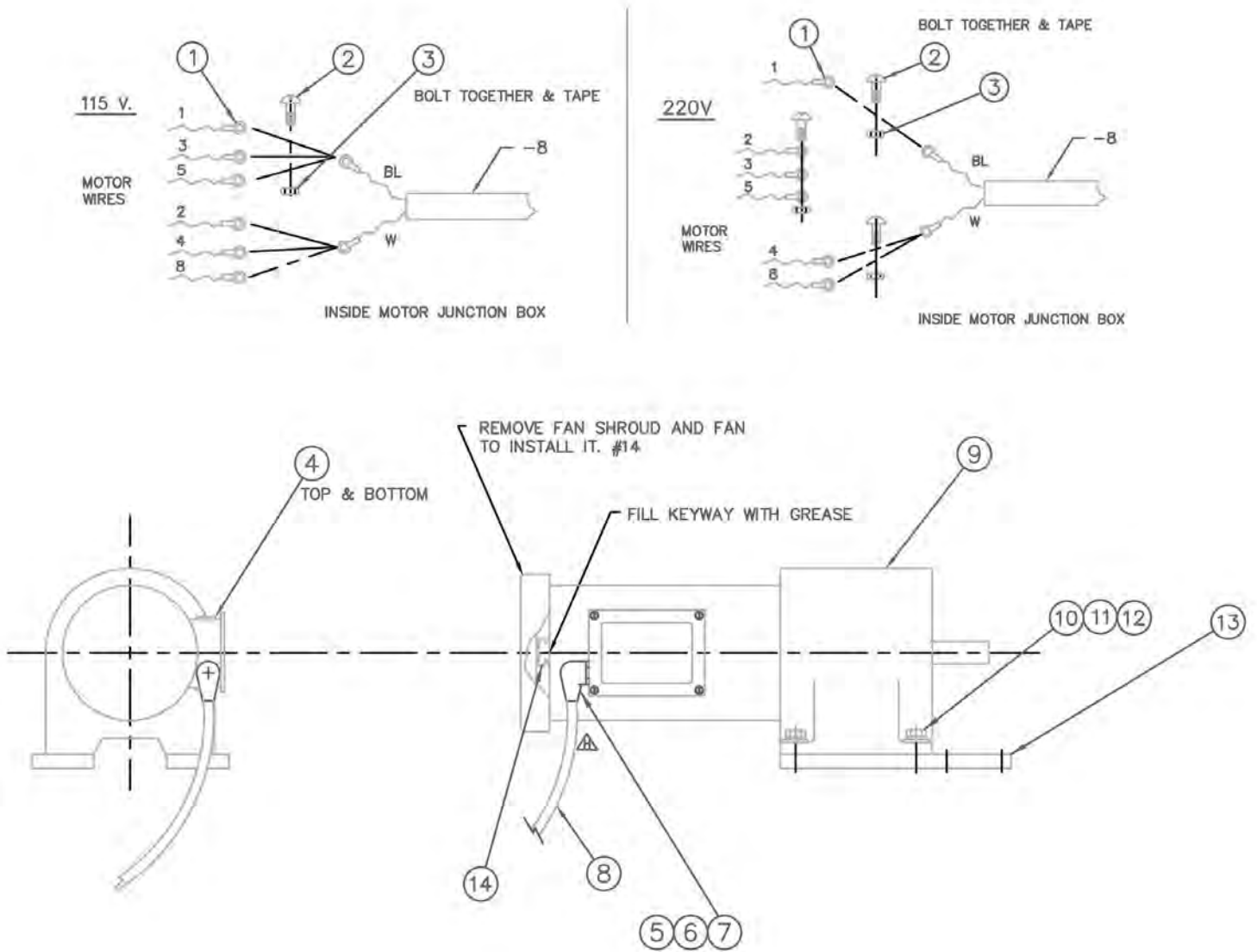


Figure 58. Motor Assembly Parts



Miscellaneous Parts

<u>Item</u>	<u>Part Number</u>	<u>Description</u>	
1	060-00084-B	Rod, Orifice Clean Out	
2	009-080-328	Brush, Metal Wire, Plastic Bristles, 1" Diameter	
3	009-080-327	Brush, Plastic	
4	003-091-001	CorKlean Cleaner, 10 lb.	
5	009-092-019	Decanter, 1 Gallon, Translucent	
6	009-425-020	Key, Tool Head	
7	009-710-031	Sharpening Stone	
8	009-092-018	Cutter Cap, Red	
9	060-011-27	CorKlean Cleaning Kit	(Not Shown)
10	575066	Grease, 2FG Select, 14 oz. Tube	(Not Shown)

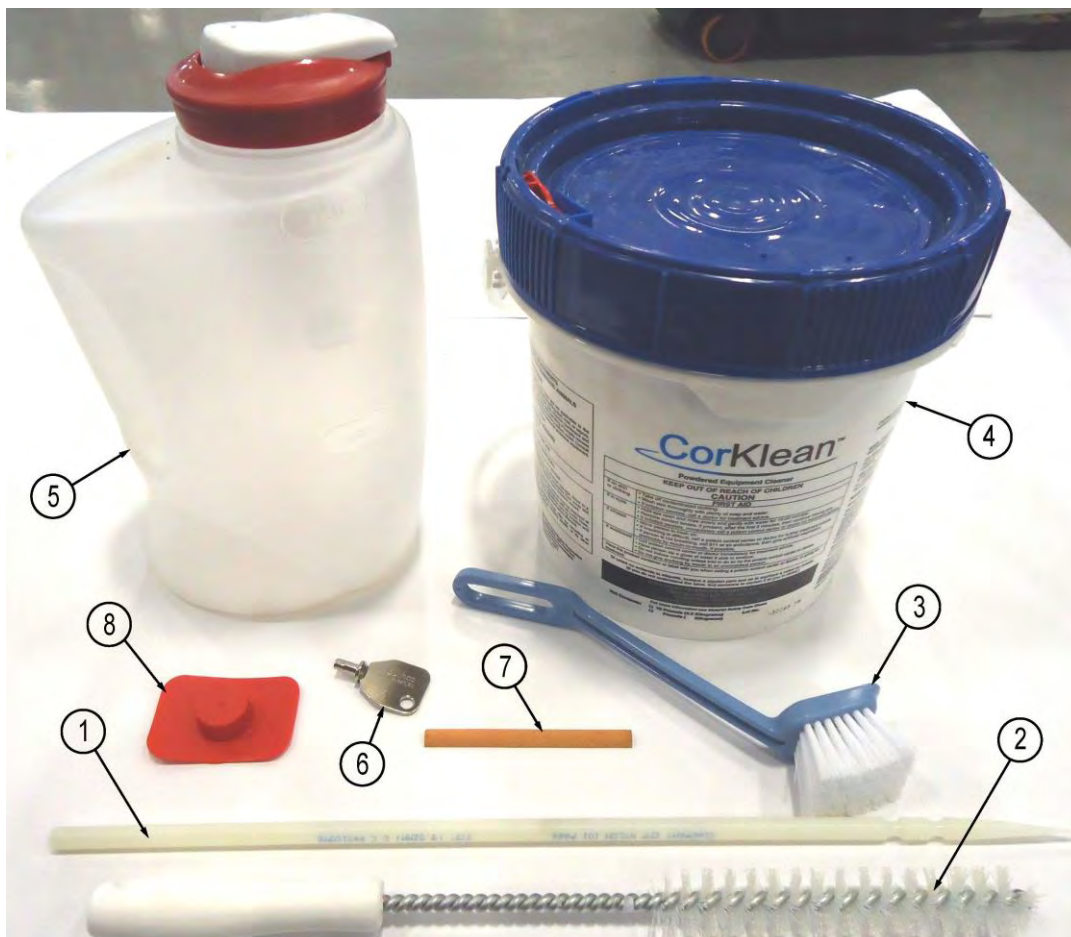


Figure 59. Miscellaneous Parts