



IMPORTANT **MIXING INSTRUCTIONS**

AGGREGATE BIGGER THAN 3/8" WILL DAMAGE MIXER

| SAND LIME CEMENT | PRE - MIX 60 lb SPEC - MIX 80 lb | SILO |
|---------------------------------|---|-------------------------|
| Set up mixer | Set up mixer | Set up mixer |
| Start mixer | Start mixer | Start mixer |
| Do not add water | Do not add water | Do not add water |
| 1. Add 1/2 sand | 1. Check bag weight | 1. Add 1/2 of max load |
| 2. Add lime | 2. Determinate max load | 2. Add 3/4 of water |
| 3. Add cement | 3. Add 1/2 of max load | 3. Add rest of material |
| 4. Mix materials dry | 4. Add 3/4 of water | 4. Add rest of water |
| 5. Add 3/4 of water | 5. Add rest of bags | 5. Mix up thoroughly |
| 6. Add rest of sand | 6. Mix up thoroughly | |
| 7. Add rest of water | | |
| 8. Mix up thoroughly | | |

MIXER DRUM CAPACITY

120:4.5 CUBIC FEET (250 lbs)*

240:9 CUBIC FEET (400 lbs)*

360:13 CUBIC FEET (700 lbs)*

755:27 CUBIC FEET (1700 lbs)*

*** WEIGHT IS COMBINED SAND, LIME, AND CEMENT MIXTURE**



Contents

IMER U.S.A., INC. INSTRUCTION MANUAL MORTARMAN 360"A" MORTAR MIXER

NOTE:Please read this manual before beginning to assemble or operate this piece of equipment.

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ASSEMBLY

Essentially the Mortarman 360 is fully assembled and ready to operate when it leaves the assembly facility here at **IMER U.S.A.** However, there are a couple items which should always be checked before towing and operating the Mortarman 360.

1. Retrieve the dump handle from inside the drum and thread it into the dump gate mechanism.
2. Make sure each tire is inflated to 40 lbs. PSI.
3. Make certain the retractable stability legs are raised up fully and locked in place with the anchor pin and safety clips provided.
4. Make certain that the tow bar is properly anchored and its tow chain is in place. It is also important to loop the tow chain around the tow bar several times before connecting it to the vehicle.
5. Make sure the engine canopy door is latched shut.
6. Make certain that the hitch system on your car or truck is compatible to the tow bar tongue.
7. Finally, local laws and ordinances vary from state to state regarding the registration of towable construction equipment.
Check with your local Department of Motor Vehicles for the proper procedure to follow.

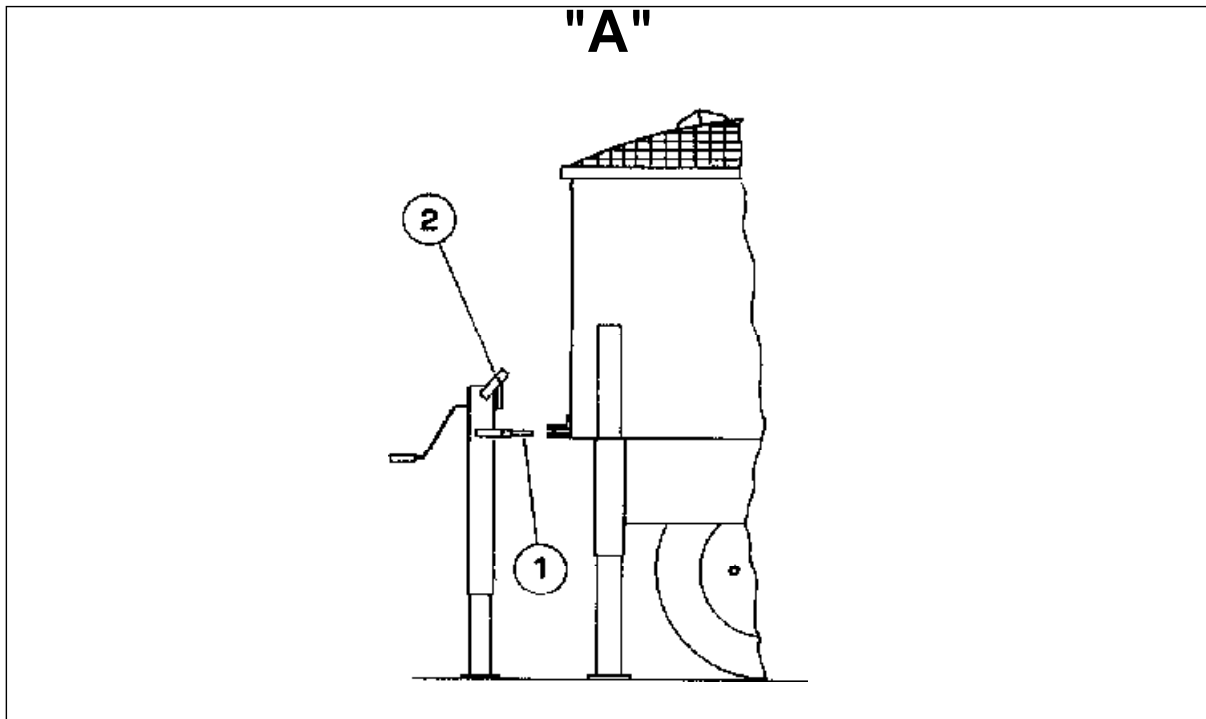
NOTE: *State law may also require a tail light assembly.*



SET UP PROCEDURE

Raising the 360 to Wheelbarrow Discharge Height.

1. Using the tow bar as a lifting lever, lift the front of the machine upward until the front legs are well off the ground. At this time drop the legs to the 3rd hole from the foot base and slide the anchor pins through the same holes. Then lower the machine until the legs are back on the ground.
2. Next, remove the lift jack from its storage bracket.
3. Now place the lift jack directly behind the drum and slide the #1 lifting tongue into the lifting bracket that is welded onto the rear of the drum (see Diagram A 170 below). Now crank the mixer upwards until it is possible to slide the anchor pins through the desired hole. Now remove the jack stand from the mixer.



CAUTION : *Make sure the lift jack is on a solid flat surface before beginning to raise the machine. Additionally, NEVER work on or around the Mortarman 360 while the jack stand is holding it up.....Serious injury can result!*



4. Next, return to the front of the mixer and once again lift the front legs off the ground and lower the legs until the appropriate hole is aligned and the anchor pins set in place.

CAUTION : Always slide the safety clips through the anchor pins, this ensures the pins cannot slip.

5. Finally, return to the rear of the mixer and slide the #2 lifting tongue into the lifting bracket and raise the mixer until it is possible to slide the anchor pins through the hole leveling the mixer. Slide the safety clips through the anchor pins and the initial set-up is complete.

Lowering the 360 Mixer

1. Start at the rear of the mixer and engage the #2 lifting tongue and raise the rear of the mixer off the ground, now raise the rear legs up to the 5th hole from the foot base. Now lower the mixer down and remove the jack.

2. Return to the front of the mixer and lift the front legs off the ground. Next raise the front legs to the 5th hole from the footbase, set the anchor pins and lower the mixer back to the ground.

3. Return to the rear of the mixer and use the #1 lifting tongue to raise the mixer off the ground. Now, raise the rear legs to their upper most position and set the anchor pins and safety clips. Then lower the mixer and remove the jack stand. The rear wheels should now be resting on the ground.

4. Finally, return to the front of the mixer and tilt it back by lifting upwards on the tow bar, then slide the legs up to their highest position and set the anchor pins and safety clips.

NOTE: Before towing always make sure the support legs are set in their highest position.....and that the safety clips are used with the anchor pins.



IMPORTANT NOTES AND ADVICE

Do's and Don'ts on the Safe Use of the Mortarman 360

In the interest of safety, whoever uses or maintains the MORTARMAN 360 should first read this manual and become familiar with all of the important safety notes. Failure to follow this advice may result in injury to yourself and others.

WHAT TO DO !

- Carefully read and understand these instructions before operating the mixer.
- Always turn off the engine and disconnect the spark plug wire before cleaning or maintaining the mixer. Mixes powered by electric motors should be unplugged from their power source before servicing is performed.
- Make sure the safety guards are always in place.
- When using the machine always wear safety boots with reinforced toe-caps, safety glasses, gloves, hard hat, and clothing with the appropriate fit.
- Practice starting and stopping the machine.
- Keep the mixer clean and free of debris build-up.
- Periodically inspect your mixer for abnormal wear or damage.
- **Always stop the engine before adding fuel.**
- Whenever the mixer begins to sound or run in an unusual manner..... **STOP THE MACHINE !....** and do not re-start the mixer until the difficulty is understood and repaired.



IMPORTANT NOTES AND ADVICE

What NOT TO DO !

DO NOT

- place your hands or any other object inside the mixer drum while it is running.

DO NOT

- place any tools or other objects in or around the mixer drum while it is running.

DO NOT

- operate the mixer on a surface that is UNEVEN.. .. if the MORTARMAN 360 is placed on an incline, it can fall over or roll away!

DO NOT

- clean, assemble or work on the mixer while it is plugged in, or while the spark plug wire is connected to the spark plug!

DO NOT

- operated the mixer in or around water puddles!

DO NOT

- leave the mixer unattended!

DO NOT

- use the safety grate interlock switch for stopping the mixer.....shut off the motor.....this safety interlock system is designed to provide some protection for negligent operators.**REMEMBER**, never raise the safety grate while the mixer is running, unplug the mixer from its power source, then the grate may be raised properly.

DO NOT

- allow other persons around the mixer while it is operating.

DO NOT

- operate the MORTARMAN 360 if you are uncertain as to how to run the machine.... Contact your local **IMER DISTRIBUTOR** or call **IMER U.S.A. at (650) 872-2200.**

NOTE: *These safety instructions are simple and straight forward.....FOLLOW THEM!*

***WE WANT SAFE AND EFFICIENT
PRODUCTION/OPERATION
FOR ALL OUR CUSTOMERS!***



OPERATING INSTRUCTIONS

1. Before starting the engine read the Honda manual provided and become familiar with the GXV270 powerplant.

2. Place the MORTARMAN 360 at the appropriate working height. The working height is determined by which type of container the material mixed is to be discharged into:

For Example :

Wheelbarrow

Mud Bucket

Mud Pan

For raising and lowering the MORTARMAN 360, see the previous section on the set-up procedure.

3. Connect the water supply hose to the Chicago fitting provided. Practice operating the water control lever.....one direction discharges water into the drum.....the other direction sends water into the clean up hose.

****IMPORTANT NOTE* Before adding material to the mixing drum make certain no foreign objects are in the drum, and that the discharge gate is in the closed position.***

4. Now start the mixer, the mixing paddles should move smoothly as they pass around the drum, if their action is irregular and noisy, stop the mixer.....contact your local IMER Distributor or call IMER U.S.A. direct of (650) 872-2200.

5. With the mixer running at full power, add the cement and sand into drum dry....the MORTARMAN has the ability to spin and mix a full load dry. This is a great feature , as it allows material to thoroughly blend and mix before water is added.

****IMPORTANT NOTE* The Mortarman 360 is much different from a concrete mixer and cannot be used to mix material with aggregate (rocks). This is because the Mortarman 360 has paddles which are driven through the material with huge amounts of torque.....should a paddle wedge a rock between itself and the drum, substantial damage will result.***

If the material being mixed is not bagged pre-mix or discharged from a silo system, then make certain there are no rocks in it.

Be especially cautious if sand is delivered by truck from a sand and gravel supply yard. Let them know when you order, that no rocks or pebbles of any type are allowed in your sand.

Some light aggregates, such as terrazzo pieces may be run in the mixer, however, contact IMER U.S.A. or your local dealer for the proper set-up techniques.

6. Fill the mixer to the top of the free spinning agitation trident paddle.....filling the mixer above this point will not provide sufficient mixing action for the loaded material.

REMEMBER: the MORTARMAN 360 mixes incredibly fast.....there is no need to over load it.

7. Now that the material has mixed a few seconds dry, the water can be added until the desired consistency has been achieved.

8. Once the material is mixed to the consistency desired, position the appropriate container beneath the discharge chute area and then slide the discharge gate open.

9. If the mixer is stopped while material is still in the drum, do not allow the material to harden up. It is possible to re-start the mixer with up to 3/4 of a load in the drum. If the drum was at full capacity when the mixer stopped, discharge some material, then re-start the machine.



MAINTENANCE

The **MORTARMAN 360** is designed to require very low maintenance, however, following the few basic maintenance procedures listed below will greatly reduce your machine's down time.

1. Clean the mixer thoroughly after each use and do not allow material to build up on any portion of the mixer.

REMEMBER - Always unplug the mixer, or disconnect the spark plug wire before performing any maintenance procedures.

2. Change the gearbox oil after the first 50 hours of operation, after that the oil should be changed every 250 hours. Changing the oil is a simple procedure, as the drain bolt and a sight window for the full level marking are located on the gearbox body. Use a premium SAE 90 gearbox oil when making the change.

3. Check the drive belt tightness when the machine arrives from our factory.....maintain the belts at this tension.....taunt, yet not extremely tight. **Caution**, if the belts are overly tightened, damage can result to the motor and the gearbox.

REMEMBER: drive belts experience the majority of stretch during the first 15 hours of operation, monitor the belts closely during break-in.

NOTE : NEVER touch or adjust the belts while the machine is operating

To tighten the belts the motor is moved forward, further away from the rear pulley. Make sure the two adjusting bolts are tightened in equal amounts, as the motor's drive pulley must stay in alignment • with the gearbox pulley. Should the belts continually come off the pulley, check the following:

- condition of the belts, are they worn out, are they the proper specification
- alignment of the drive pulley and gearbox pulley, are they in line
- are the pulleys themselves in good condition?not bent or clogged with debris.

NOTE : it is not advisable to replace just one belt, they need to be replaced in sets. This is because a new belt needs a different degree of tightness than a used belt. It is always a good idea to have a spare set of belts in your truck.....replacement is straight forward and simple.....be smart and be prepared!

4. The paddle assembly hardware should be monitored and retightened the first 15 hours of operation. After the components have seated in, it is still a good idea to check the paddle hardware on a weekly basis, or whenever the machine is thoroughly cleaned.

Many contractors have found it very effective to have an additional set of paddles....when one set becomes ready for maintenance, remove the entire paddle spider and drop on the spare. <R>• This procedure takes less than one hour and allows the used set of paddles to be set aside and maintained at your leisure.

As the paddle wiper rubber wears it is important to bring the distance between the wiper rubber, and the drum back to its original specification.....which is 5mm or 1/5".

DO NOT place the rubber flush against the drum..... this will cause the paddle to drag excessively and can lead to the paddle bending or breaking.

NOTE : Should the paddles ever begin to emit sharp scraping sounds, or the paddle spider system begin to vibrate heavily, stop the mixer. Disconnect all power and unload by hand if necessary. Do not restart the machine until the cause of the malfunction has been ascertained.



5. The area underneath the discharge gate will need to be hosed off a few times a day. The discharge gate mechanism is equipped with a wiper which continually sweeps debris off the safety grate, however, a shot of water every now and then will ensure smooth discharge.

REMEMBERdo not remove the discharge safety grate under any circumstances.....keep this area clean and material discharge will be no problem...it is not worth lost fingers and hands to remove the safety grate!

6. Do not disconnect the safety interlock system on the mixer drum safety grate. Should it begin to malfunction see your IMER Distributor immediately, or call IMER U.S.A. direct at (650) 872-2200.

7. Regarding motor maintenance, please review the manufacturer's manual which is supplied with each machine.

IT IS IMPORTANT that the mixer power plant run properly, or the material mixing action may not be thorough enough. The motor is the heart of this machine.....take care of it!

TECHNICAL SPECIFICATION

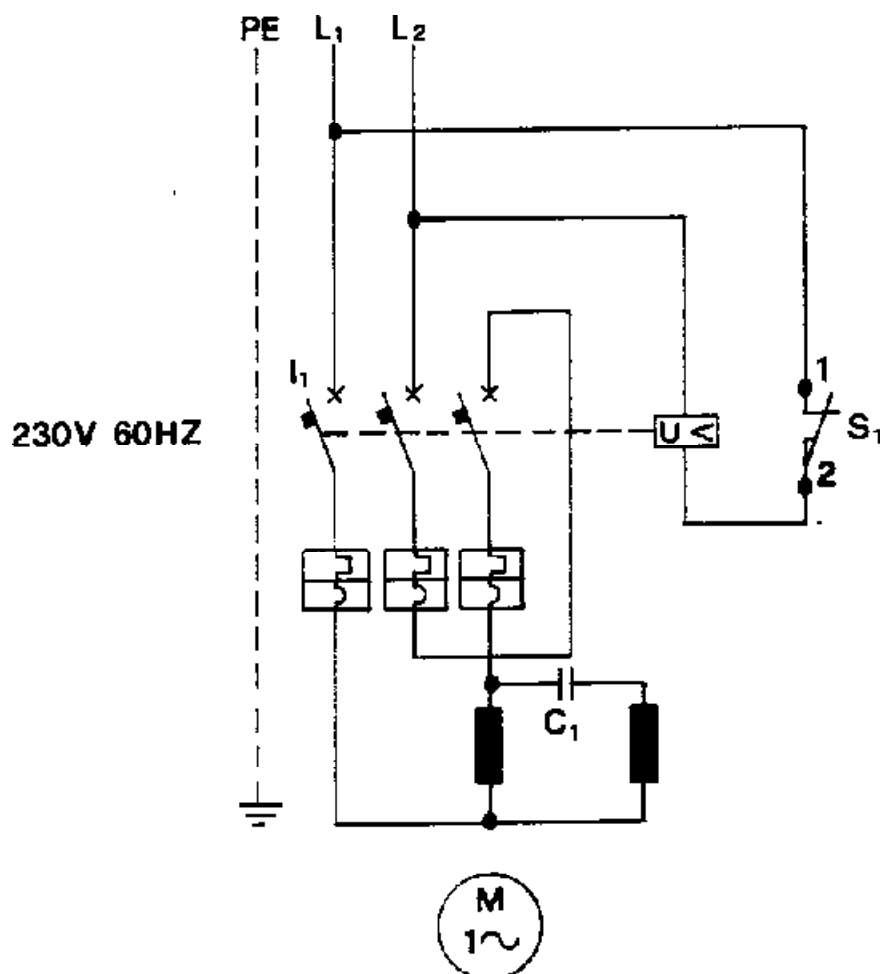
MORTARMAN 360 MORTAR MIXER

| | | 1 - PHASE | GASOL MOTOR |
|------------------------|---|-----------|-----------------|
| DRUM CAPACITY | l/Cu.ft | 360/13 | 360/13 |
| BATCH OUTPUT | l/Cu.ft | 200/7 | 200/7 3 bags |
| DICHARGE GATE | mm/inc | 900(35") | 900(35") |
| DIMENSION OF DRAW POS. | MIN.1680(66")x1155(46")x1080(43") MAX.2710(106")x1155(46")x1710(67") | | |
| WEIGHT | Kg/Pounds | 360/794 | 360/794 |
| WHEELS | inc | 4.50/10" | 4.50/10" |
| MOTOR POWER | Kw/Hp | 2.2/3 | 4/5.5 |
| R.P.M. | g/1' | 22 | 36 |
| MIX.TIME | min. | 3 ÷ 4 | 3 ÷ 4 |
| DRUM DIAMETER | mm/inc | 952(37") | 952(37") |

***Due to Imer U.S.A. 's commitment to
Reasearch and Development,
specifications are subject to change
without notice.***



WIRING DIAGRAM



- I1** SWITCH 16 - 25A + BOB.
S1 SAFETY SWITCH
U< LOW VOLTAGE PROTECTION
C1 CONDENSOR



SPARE PARTS LIST
MORTARMAN 360"A" MORTAR MIXER



TABLE 1 Mixer drum and paddle assembly

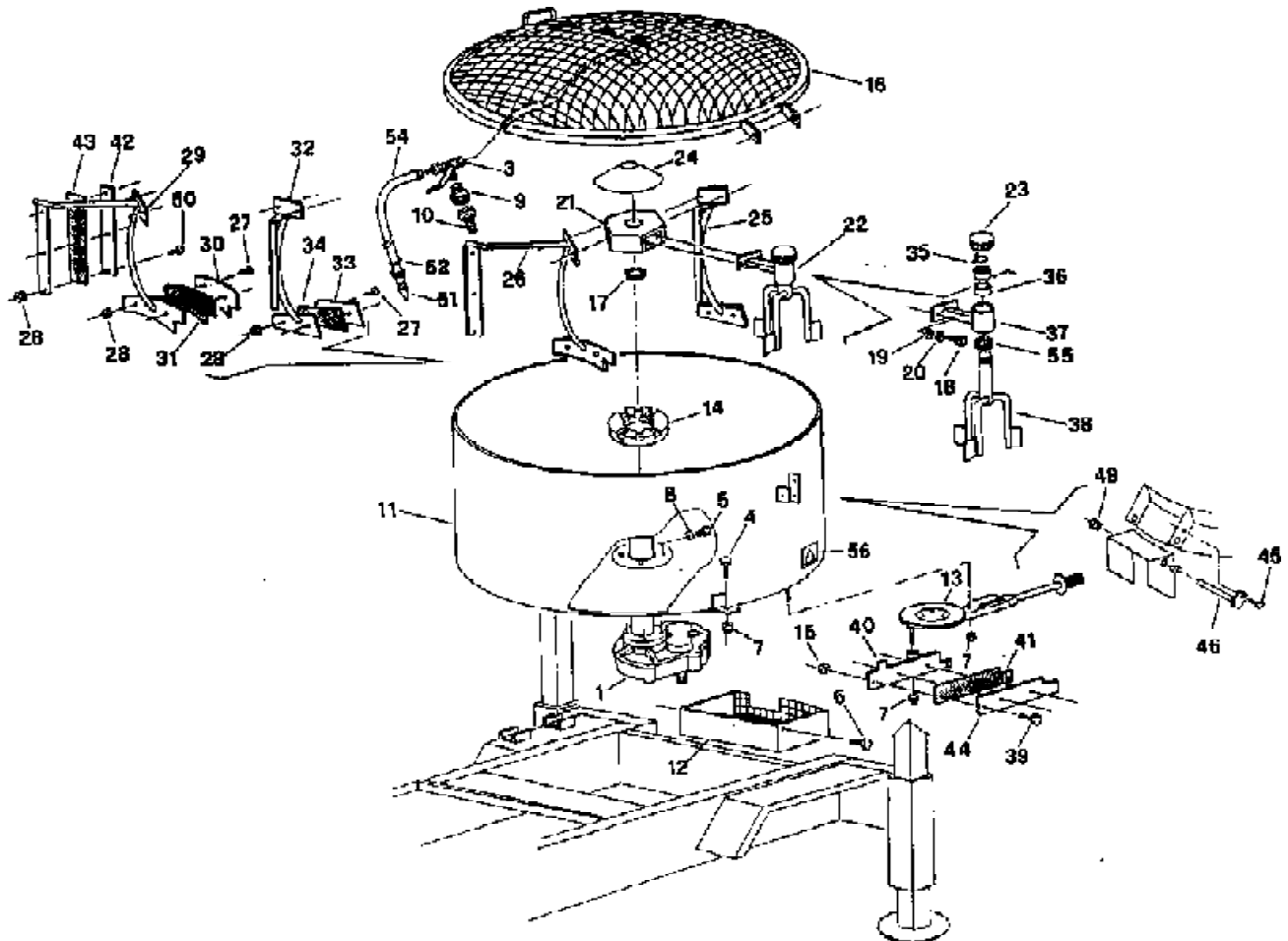




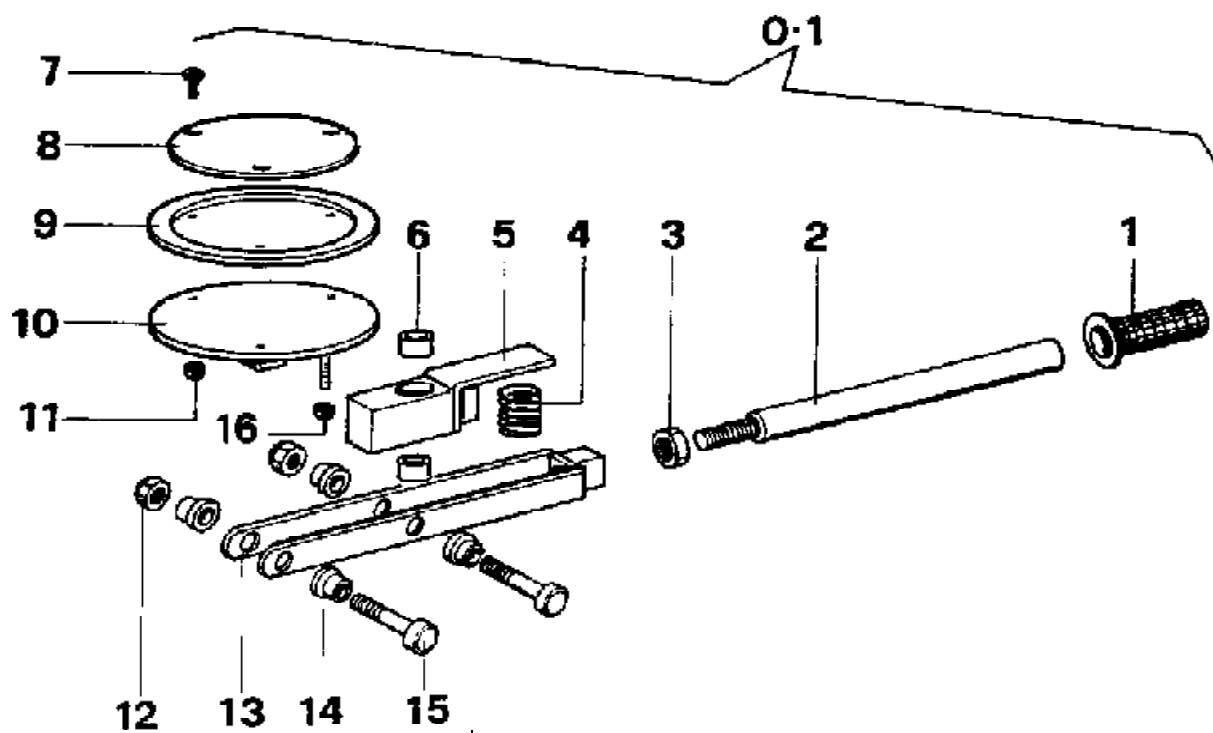
TABLE 1 Mixer drum and paddle assembly-Mortarman 360

| Ref. | P.n. | Description | NOTES |
|------|---------|-------------------------|-------------|
| 1 | 2206763 | REDUCTION GEAR | |
| 3 | 2218068 | PETCOCK | |
| 4 | 2222035 | BOLT | 5739 M12x25 |
| 5 | 2222073 | BOLT | 5739 M10x35 |
| 6 | 2222076 | BOLT | 5739 M8x25 |
| 7 | 2223921 | NUT | M12 |
| 8 | 2224910 | WASHER | DEV.C72 Ø10 |
| 9 | 2226805 | CONNECTOR FEMALE | |
| 10 | 2226800 | CONNECTOR MALE | |
| 11 | 3210979 | DRUM | |
| 12 | 3211100 | DISCHARGE SAFETY GRATE | |
| 13 | 3211022 | DISCHARGE OPENING | |
| 14 | 2236593 | DRUM COLLAR | |
| 15 | 2223924 | LOCK-NUT | M6 |
| 16 | 3211012 | DRUM SAFETY GRATE | |
| 17 | 2207750 | SEAL | |
| 18 | 2222550 | BOLT | 5931 M12x35 |
| 19 | 2224380 | WASHER | 6593 Ø12x25 |
| 20 | 2224900 | WASHER | DEV.C72 Ø12 |
| 21 | 2250334 | MIXER HEAD | |
| 22 | 3211025 | TRIDENT PADDLE | |
| 23 | 2257710 | CAP | |
| 24 | 2252604 | MUSHROOM | |
| 25 | 2250916 | INNER PADDLE COMPLETE | |
| 26 | 3211028 | OUTER PADDLE COMPLETE | |
| 27 | 2222599 | BOLT | |
| 28 | 2223655 | NUT | 5589 M10 |
| 29 | 2250918 | OUTER PADDLE- ARM ONLY | |
| 30 | 2224771 | WIPER PLATE | |
| 31 | 2250934 | RUBBER WIPER | |
| 32 | 2250919 | INNER PADDLE - ARM ONLY | |
| 33 | 2294770 | WIPER PLATE | |
| 34 | 2250935 | WIPER | |
| 35 | 2227220 | CIRCLIP | 3653 E/40 |
| 36 | 2204505 | BEARING | |
| 37 | 3211026 | SUPPORT ARM - TRIDENT | |
| 38 | 3206002 | TRIDENT ONLY | |
| 39 | 2222016 | BOLT | 5739 M6x20 |
| 40 | 2253891 | WIPER PLATE | |
| 41 | 2247873 | WIPER | |
| 42 | 3211033 | WIPER PLATE | |
| 43 | 3211036 | WIPER | |
| 44 | 2253893 | WIPER PLATE | |
| 45 | 2222002 | BOLT | 5739 M6x16 |
| 46 | 2201912 | PIVOT SHAFT | |
| 47 | 2209952 | COLLAR | |
| 48 | 2225150 | SET SCREW | 5927 M10x10 |
| 49 | 2209953 | BUSHING | |
| 50 | 2222601 | BOLT | 5933 M10x30 |
| 51 | 2218069 | NOZZLE | |
| 52 | 2225741 | HOSE CLAMP | |
| 53 | 2226779 | NIPPLE | |
| 54 | 2292356 | WATER TUBE | L=1.8 m |
| 55 | 3206003 | OIL SEAL RING | |
| 56 | 2288205 | ADHESIVE LABEL | |



TABLE 2 Dump gate - Mortarman 360

| Ref. | P.n. | Description | NOTES |
|------|---------|--------------------|--------------|
| 0.1 | 3211022 | DUMP GATE COMPLETE | |
| 1 | 2288885 | GRIP | |
| 2 | 2259893 | ACTUATING ARM | |
| 3 | 2223807 | NUT | 5589 M16 |
| 4 | 2231301 | SPRING | |
| 5 | 2237795 | ACTUATOR | |
| 6 | 2209822 | BUSHING | |
| 7 | 2222600 | SCREW | TSP 963-6x25 |
| 8 | 2225033 | BASE PLATE | |
| 9 | 2292581 | SEAL | |
| 10 | 2253863 | BASE PLATE | |
| 11 | 2223924 | LOCK-NUT | M6 |
| 12 | 2223920 | LOCK-NUT | M10 |
| 13 | 2254015 | ACTUATOR FRAME | |
| 14 | 2209821 | BUSHING | |
| 15 | 2223006 | BOLT | |
| 16 | 2223921 | LOCK-NUT | M12 |





| TABLE 3 Wheel and suspension assembly | | | |
|---------------------------------------|---------|----------------|----------------|
| Ref. | P.n. | Description | NOTES |
| 1 | 3208128 | AXLE | |
| 2 | 3210607 | BOLT | |
| 3 | 3201789 | WHEEL COMPLETE | |
| 4 | 2222142 | BOLT | 5737 M12X100 Z |
| 5 | 3207392 | NUT | METALBLOC M12 |
| 6 | 2224380 | WASHER | 6593 D.12X25 Z |

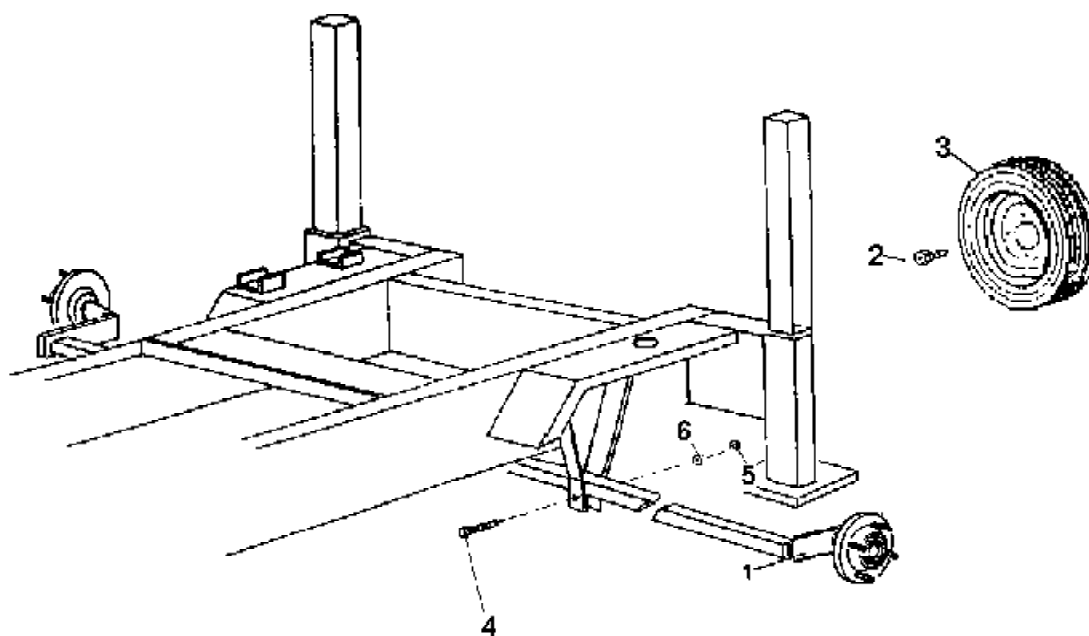
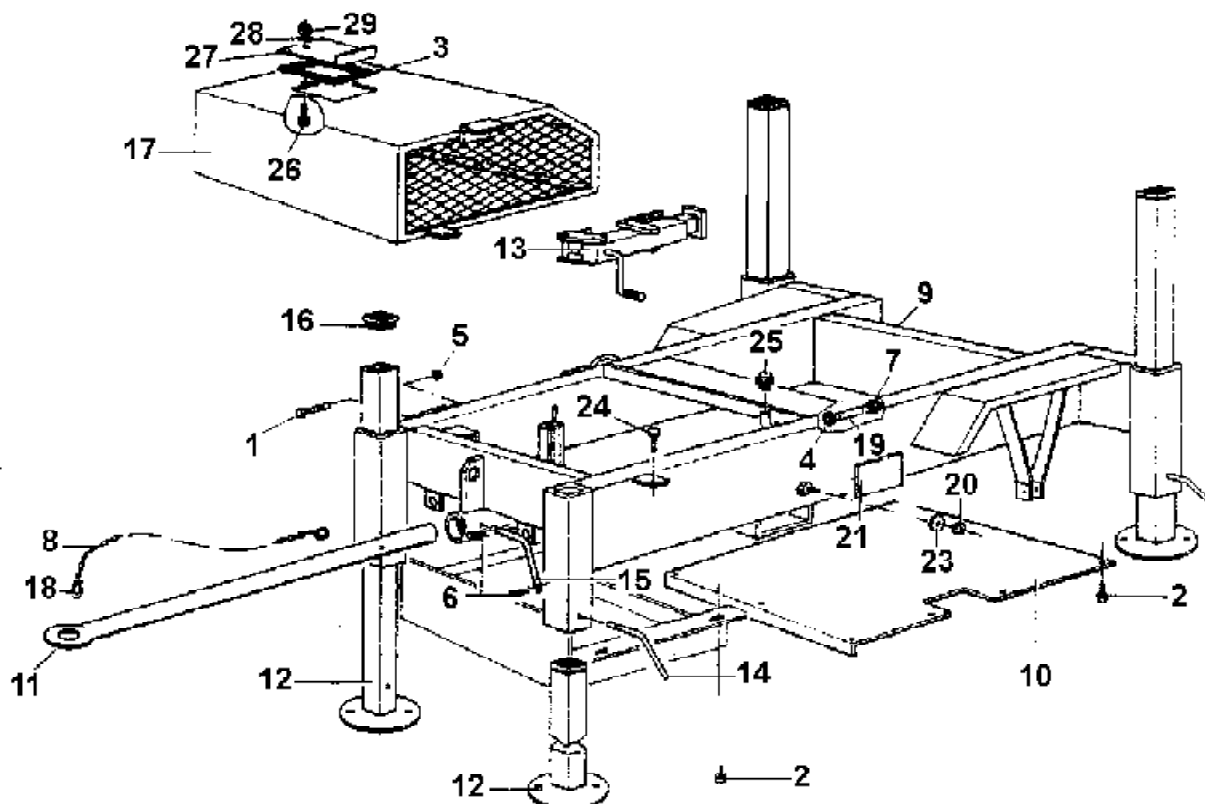




TABLE 4 Frame

| Ref. | P.n. | Description | NOTES |
|------|---------|-----------------|-------------|
| 1 | 2222566 | BOLT | 5931 M12x80 |
| 2 | 2222016 | BOLT | 6950 M6x20 |
| 3 | 2216277 | GASKET | |
| 4 | 2225745 | CAP | Ø 32 - 52 |
| 5 | 2222421 | NUT | M12 |
| 6 | 2226700 | SLIP PIN | |
| 7 | 3211268 | THREADED INSERT | |
| 8 | 2234861 | TOW CHAIN | |
| 9 | 3210977 | MAIN FRAME | |
| 10 | 3201044 | BASE PLATE | |
| 11 | 2255211 | TOW BAR | |
| 12 | 2256128 | TELESCOPIC FOOT | |
| 13 | 3210978 | JACK | |
| 14 | 2256550 | ANCHOR PIN | |
| 15 | 2256600 | ANCHOR PIN | |
| 16 | 2257706 | CAP | |
| 17 | 3211087 | CANOPY | 230V-60 |
| 17.1 | 3211052 | CANOPY | HONDA SC |
| 18 | 2292298 | QUICK CLIP | |
| 19 | 2292370 | RUBBER HOSE | |
| 20 | 2223570 | NUT | 5588 M8 |
| 21 | 3211085 | I.D. PLATE | 400V-60 |
| 21.1 | 3211051 | I.D. PLATE | HONDA |
| 23 | 2288825 | WASHER | |
| 24 | 2222513 | BOLT | |
| 25 | 2235460 | COTTER PIN | M. 1" |
| 26 | 2222056 | BOLT | 5739 M10x25 |
| 27 | 2259537 | PROTECTION | |
| 28 | 2224340 | WASHER | Ø10x20 |
| 29 | 2223920 | NUT | M10 |





| TABLE 5 Gearbox | | | |
|-----------------|---------|---------------------|-----------------|
| Ref. | P.n. | Description | NOTES |
| 1 | 2223840 | NUT | 5589 - MB 42 |
| 2 | 2229602 | KEY | 10x8x50 |
| 3 | 2222530 | ALLEN BOLT | TCEI593 18x35 Z |
| 4 | 2258007 | DRIVE SHAFT HOUSING | |
| 5 | 2201161 | DRIVE SHAFT | |
| 6 | 2228740 | LOCATING PIN | |
| 7 | 2229549 | KEY | 10x8x30 |
| 8 | 2227260 | CIRCLIP | 3653 E/34 |
| 9 | 2235420 | OIL LEVEL WINDOW | |
| 10 | 2204509 | BEARING | |
| 11 | 2202517 | CROWN GEAR | |
| 12 | 2204510 | BEARING | |
| 13 | 2224140 | WASHER | 6593 Ø8X18 |
| 14 | 2222006 | BOLT | TE8.8 57398x30Z |
| 15 | 2236735 | GEAR BOX HALF | M 21 |
| 16 | 2204550 | BEARING | |
| 17 | 2229450 | KEY | 8x7x20 |
| 18 | 2202858 | PINION GEAR | |
| 19 | 2202871 | PINION GEAR | |
| 20 | 2229400 | KEY | 8x7x30 |
| 21 | 2202526 | CROWN GEAR | |
| 22 | 2237256 | SPACER | |
| 23 | 2216319 | GASKET | |
| 24 | 2228820 | LOCATING PIN | |
| 25 | 2215092 | GEARBOX HALF | |
| 26 | 2207301 | SEAL | |
| 27 | 2227270 | CIRCLIP | 3653 E/24 |
| 28 | 3211268 | DRAIN PLUG | |





TABLE 7 ASSEMBLY OF MOTOR 400V 60HZ (1194583)

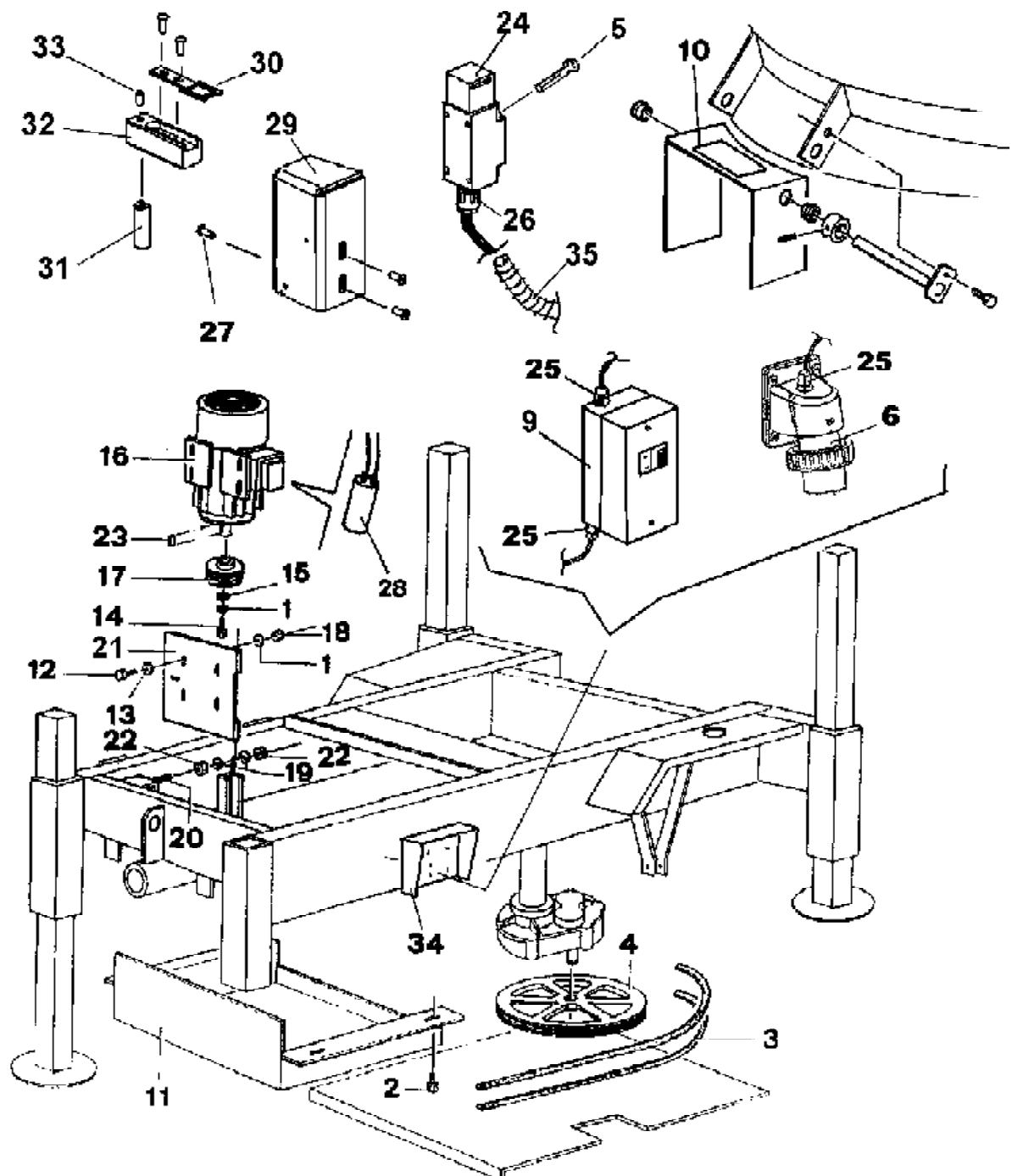




TABLE 7 ASSEMBLY OF MOTOR 400V 60Hz

| Ref. | P.n. | Description | NOTES |
|------|---------|----------------------|------------------|
| 1 | 2224910 | WASHER | |
| 2 | 2222425 | BOLT | AUTOFORTE 4,2X13 |
| 3 | 3211097 | BELT | AX70 |
| 4 | 3211095 | PULLEY | DP 250 |
| 5 | 3209690 | BOLT | DEV.C72 Ø5 |
| 6 | 2278707 | PLUG | |
| 7 | 2222580 | SREW | DIN 4A M4X20 |
| 8 | 2223500 | NUT | 5588 M4 |
| 9 | | SWITCH | |
| 10 | 3211086 | ADHESIVE LABEL | |
| 11 | 3211047 | PROTECTION | |
| 12 | 2222851 | SCREW | |
| 13 | 2224260 | WASHER | |
| 14 | 2222735 | SCREW | |
| 15 | 2224206 | WASHER | |
| 16 | | ELECTRIC MOTOR | 400V-60HZ KW3 |
| 17 | 2205581 | PULLEY | |
| 18 | 2223600 | NUT | |
| 19 | 2224206 | WASHER | 6592 12X36X4 |
| 20 | 2222768 | BOLT | 5739 4S M12X90 |
| 21 | 2253164 | MOTOR MOUNTING PLATE | |
| 22 | 2223700 | NUT | 5588 M12Z |
| 23 | 2229340 | KEY | 8X7X50 |
| 24 | 3211072 | LIMIT SWITCH | |
| 25 | 3201442 | CABLE CLAMP | PG16 |
| 26 | 3201216 | CABLE CLAMP | PG13.5 |
| 27 | 3211066 | BOLT | 7380 M6X16 |
| 28 | | CONDENSER | |
| 29 | 3211068 | SUPPORT | |
| 30 | 3211065 | SPANNER | |
| 31 | 3211067 | PIN | |
| 32 | 3211064 | SUPPORT | |
| 33 | 3211075 | BOLT | 7380 M6X40 |
| 34 | 3211091 | SUPPORT | |
| 35 | 3211391 | SHEATH | |



TABLE 8 Drive train Honda (1194555)

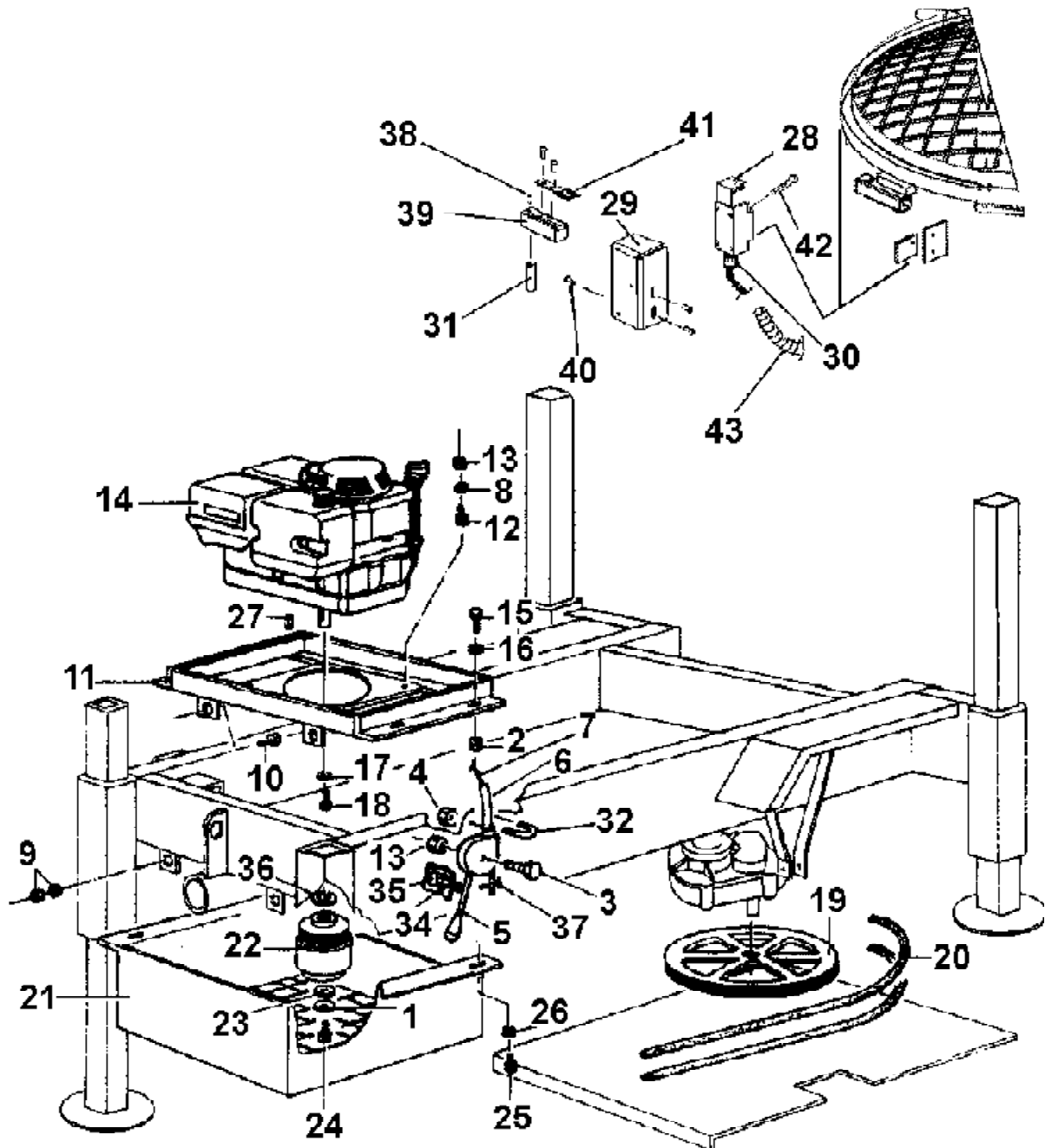


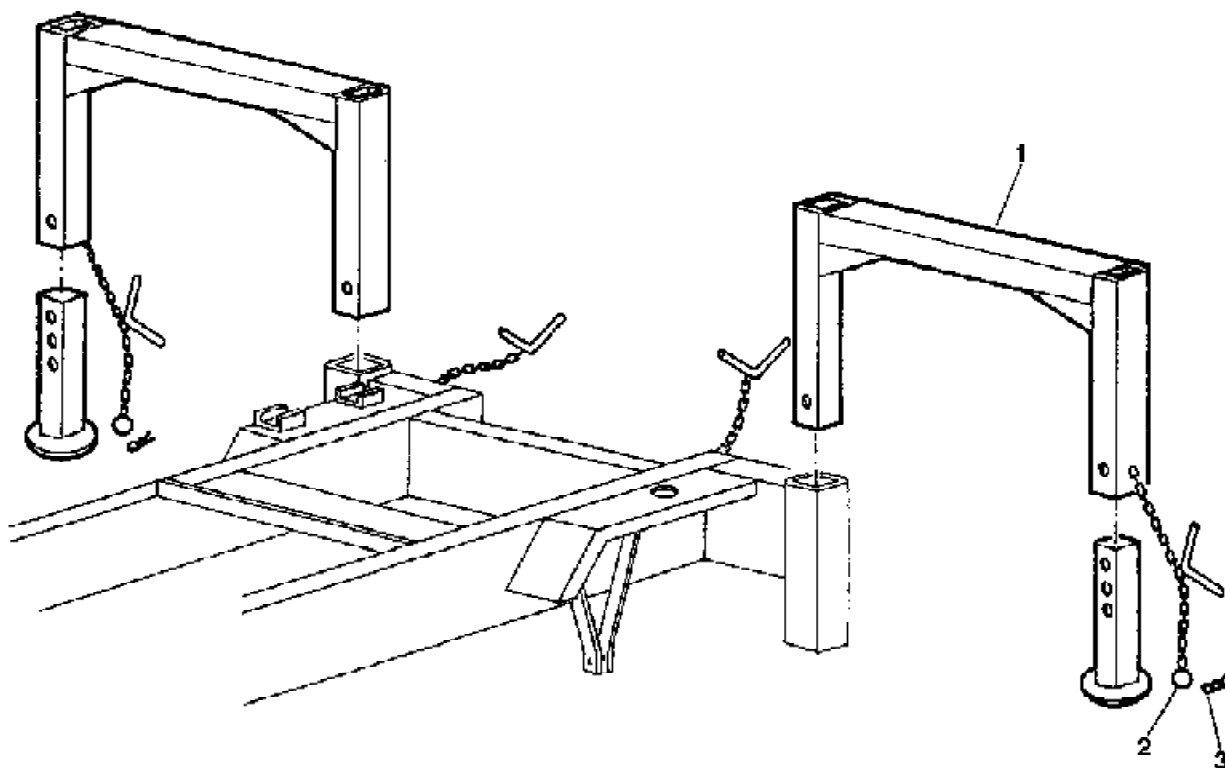


TABLE 8 Drive train Honda (1194580)

| Ref. | P.n. | Description | NOTES |
|------|---------|-----------------------|--------------------|
| 01 | 2224910 | WASHER | Dev.C72 Ø10Z |
| 02 | 2223920 | NUT | Autobl. M10 |
| 03 | 2222587 | SCREW | 5933 M8x20 |
| 04 | 2223500 | NUT | 5588 M4Z |
| 05 | 2284805 | THROTTLE CONTROL | |
| 06 | 2284398 | THROTTLE CABLE SHEATH | |
| 07 | 2212120 | INNER CABLE | |
| 08 | 2224140 | WASHER | 6593 Ø8 x18 |
| 09 | 2223700 | NUT | 5588 M12 |
| 10 | 2222054 | BOLT | TE 8.8 5739 12x80Z |
| 11 | 3211057 | MOTOR MOUNTINGPLATE | |
| 12 | 2222088 | BOLT | 5737 M8x40 |
| 13 | 2223923 | LOCK-NUT | M8 |
| 14 | | MOTOR | GXV 270 |
| 15 | 2222146 | BOLT | TE 8.8 5739 10x30Z |
| 16 | 2224260 | WASHER | 6593 Ø10x30Z |
| 17 | 2224940 | WASHER | DEV.C 72 Ø8 Z |
| 18 | 2221994 | BOLT | TE 8.8 5/16"x25 Z |
| 19 | 2205529 | PULLEY | |
| 20 | 3211073 | BELT | Ax82 |
| 21 | 3211047 | CLUTCH COVER GUARD | |
| 22 | 2289357 | CLUTCH COMPLETE | |
| 23 | 2224340 | WASHER | 6592 Ø10x20 Z |
| 24 | 2221991 | BOLT | TE8.8UNF3/8"x60Z |
| 25 | 2222776 | BOLT | TE/4S 5739 6x16 Z |
| 26 | 2223924 | LOCK-NUT | AUTOBL.M6 |
| 27 | 2229845 | KEY | 4X 6.5 UNI 6606 |
| 28 | 3211072 | SAFETY SWITCH | FD515 |
| 29 | 3211068 | SUPPORT | |
| 30 | 2278090 | CORD GRIP | PG13.5 |
| 31 | 3211067 | PIN | |
| 32 | 2292298 | SPRING CATCH | |
| 33 | 2224951 | WASHER | Dev.Ø5 |
| 34 | 2222006 | STOP BOLT | 5739 M8x30 |
| 35 | 2223570 | NUT | 5588 M8 |
| 36 | 2237747 | SPACER | |
| 37 | 2225796 | CLAMP | |
| 38 | 3211075 | BOLT | 7380 M6x40 |
| 39 | 3211064 | SUPPORT | |
| 40 | 3211066 | BOLT | 7380 M6x16 |
| 41 | 3211065 | SPANNER | |
| 42 | 3209690 | BOLT | |
| 43 | 3211391 | SHEATH | |



| TABLE 10 Frame extension kit (item 1194650 - OPTIONAL) | | | |
|--|---------|-----------------|-------|
| Ref. | P.n. | Description | NOTES |
| 1 | 3200457 | FRAME EXTENSION | |
| 2 | 2227048 | CHAIN | |
| 3 | 2226715 | ANCHOR PIN | |





IMER U.S.A. Inc.
MORTARMAN 360"A"



IMER U.S.A. INC.

EQUIPMENT WARRANTY

IMER U.S.A. INC.

207 Lawrence avenue
So. San Francisco, CA 94080
Tel.(650) 872-2200
Fax(650) 873-6482

We warrant to the original purchaser that the IMER equipment described herein (the "equipment") shall be free from defects in material and workmanship under normal use and service for which it was intended for period of one (1) year from the date of purchase by the original purchaser.

Our obligation under this warranty is expressly limited to replacing or repairing, free of charge, F. O.B. our designated service facility, such part of the equipment as our inspection shall disclose to be defective. Parts such as engines, motors, pumps, valves, electric motors, etc. furnished by us, but not manufactured by us, will carry only the warranty of the manufacturer. Transportation charges or duties shall be borne by purchaser. This shall be the limit of our liability with respect to the quality of the equipment.

This warranty shall not apply to any equipment, or parts thereof, which has been damaged by reason of accident, negligence, unreasonable use, faulty repairs, or which has not been maintained and operated in accordance with our printed instructions for the equipment. Further, this warranty is void if the equipment, or any of its components, is altered or modified in any way.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

We make no other warranty, representation or guarantee, nor is anyone authorized to make one on our behalf. We shall not be liable for consequential damage of any kind, including loss or damage resulting, directly or indirectly, from the use or loss of use of the machine. Without limiting the generality of the foregoing, this exclusion from liability embraces the purchaser's expenses for downtime, damages for which the purchaser may be liable to other person, damages to property, and injury or death of any persons.

This warranty shall not be deemed to cover maintenance parts, including but not limited to blades, belts, hoses, hydraulic oil, or filters, for which we shall have no responsibility or liability whatsoever.





IMER U.S.A. Inc.
MORTARMAN 360°A

When you mail the Guarantee-Registration Card below, your



IMER U.S.A. INC.

Guarantee is void unless Guarantee-Registration Card is returned to us within 10 days of delivery. (The terms of our Guarantee are given on the back of this card.)

IMER U.S.A. INC.

207 Lawrence Avenue
So. San Francisco, CA 94080
Tel. (650) 872-2200
Fax (650) 873-6482

"TOOLS AND SERVICES FOR THE 21st CENTURY"

FILL OUT CARD BELOW - TEAR OFF AND MAIL

Guarantee-Registration Card

(Return this card within 10 days after delivery of your new machine)

My Name _____
My Address _____
City, State _____
Zip, Code _____
Type of Machine _____
 Model _____
 Serial N. _____
Purchased from _____
City, State _____
Zip Code _____
Date Delivered _____
Condition of crate package at time of delivery _____

Information asked below is required for guarantee but will help us provide you better service.

Do you have other IMER USA Inc products?

Yes ☐ No ☐

What type of material will be cut this Machine?

Do you wish FACTORY RECOMMENDATIONS for this type of material? _____

Yes ☐ No ☐

Thank you for the opportunity to be of service.

IMER U.S.A. INC.

207 Lawrence Avenue
So. San Francisco, CA 94080
Tel. (650) 872-2200
Fax (650) 873-6482



As soon as your Guarantee-Registration Card is received, the Serial Number of your IMER USA Inc. Machine will be registered in our log and our guarantee will be in effect.

Your IMER USA Inc. Machine is guaranteed against mechanical defects for one year from date of purchase. Special parts such as engines, motors, power transmissions, etc., not of IMER USA Inc. manufacture are guaranteed as stated in the operating instructions accompanying the machine.

"This guarantee does not apply if the above equipment 1) has been repaired without factory direction or 2) if it has been damaged by improper assembling or 3) from other cause for which the user is responsible, or 4) used for an improper purpose. Thoroughly inspect the above equipment periodically and give prompt notice of any defects if you desire this guarantee to remain effective".

IMER U.S.A. INC.

207 Lawrence avenue
So. San Francisco, CA 94080
Tel.(650) 872-2200
Fax(650) 873-6482



This is a contact addendum to our manuals

Imer USA East

221 Westhampton Pl
Capitol Heights, MD 20743
Phone: 301-336-3700
Fax: 301-336-6687
Order Fax: 301-336-5811

Imer USA West

3654 Enterprise Ave
Hayward, CA 94545

800-275-5463



MORTARMAN 360" A" Mortar Mixer

Thank you for purchasing a Mortarman 360 from an IMERU.S.A dealer.

Your decision is an intelligent one. There is no other mortar mixer in the world which delivers the benefits and features of the Mortarman 360:

- Revolutionary horizontal mixing action.
- Oil bath gearbox, plenty of torque to mix materials wet or dry.
- Full width fenders and independent suspensionstandard gas or electric motors can be swapped back and forth in under an hour.
- Advance drum and paddle design, excellent mixing and discharge action.
- Telescopic foot stands which provide additional stability during operation.
- Reduced Maintenanceno zerks to grease or bearings to pack.

At **IMER U.S.A** we continually search for ways to better serve our customers.

Should you have an idea or thought to share with us regarding this product we would appreciate hearing from you. Our motto is **"Tools and Services for the 21st Century"**. We look forward to delivering the goods.

Thank you again for your purchase,

Mace

Mace T. Coleman Jr.
President, Imer U.S.A. Inc.
207 Lawrence Avenue
So. San Francisco, CA 94080
Tel (650) 872-2200
Fax (650) 873-6482

Part. number 3211378 - 09/03

Machine serial N°

[illegible]



IMPORTANT **MIXING INSTRUCTIONS**

AGGREGATE BIGGER THAN 1/8" WILL DAMAGE MIXER

| SAND LIME CEMENT | PRE - MIX 60 lb SPEC - MIX 80 lb | SILO |
|---|---|-------------------------|
| Set up mixer | Set up mixer | Set up mixer |
| Start mixer | Start mixer | Start mixer |
| Do not add water | Do not add water | Do not add water |
| 1. Add 1/2 sand | 1. Check bag weight | 1. Add 1/2 of max load |
| 2. Add lime | 2. Determinate max load | 2. Add 3/4 of water |
| 3. Add cement | 3. Add 1/2 of max load | 3. Add rest of material |
| 4. Mix materials dry | 4. Add 3/4 of water | 4. Add rest of water |
| 5. Add 3/4 of water | 5. Add rest of bags | 5. Mix up thoroughly |
| 6. Add rest of sand | 6. Mix up thoroughly | |
| 7. Add rest of water | | |
| 8. Mix up thoroughly | | |

MIXER DRUM CAPACITY

120:4.5 CUBIC FEET (250 lbs)*

240:9 CUBIC FEET (400 lbs)*

360:13 CUBIC FEET (700 lbs)*

755:27 CUBIC FEET (1700 lbs)*

*** WEIGHT IS COMBINED SAND, LIME, AND CEMENT MIXTURE**

Contents

IMER U.S.A., INC. INSTRUCTION MANUAL MORTARMAN 360" A" MORTAR MIXER

NOTE:Please read this manual before beginning to assemble or operate this piece of equipment.

| | |
|--|------------------|
| <i>ASSEMBLY</i> | <i>4</i> |
| <i>SET UP PROCEDURES</i> | <i>5</i> |
| <i>IMPORTANT NOTES AND ADVICE</i> | <i>7</i> |
| <i>OPERATING INSTRUCTIONS.....</i> | <i>9</i> |
| <i>MAINTENANCE</i> | <i>10</i> |
| <i>TECHNICAL SPECIFICATIONS</i> | <i>11</i> |
| <i>WIRING DIAGRAM.....</i> | <i>12</i> |
| <i>SPARE PARTS LIST</i> | <i>13</i> |



ASSEMBLY

Essentially the Mortarman 360 is fully assembled and ready to operate when it leaves the assembly facility here at **IMER U.S.A.** However, there are a couple items which should always be checked before towing and operating the Mortarman 360.

1. Retrieve the dump handle from inside the drum and thread it into the dump gate mechanism.
2. Make sure each tire is inflated to 40 lbs. PSI.
3. Make certain the retractable stability legs are raised up fully and locked in place with the anchor pin and safety clips provided.
4. Make certain that the tow bar is properly anchored and its tow chain is in place. It is also important to loop the tow chain around the tow bar several times before connecting it to the vehicle.
5. Make sure the engine canopy door is latched shut.
6. Make certain that the hitch system on your car or truck is compatible to the tow bar tongue.
7. Finally, local laws and ordinances vary from state to state regarding the registration of towable construction equipment.
Check with your local Department of Motor Vehicles for the proper procedure to follow.

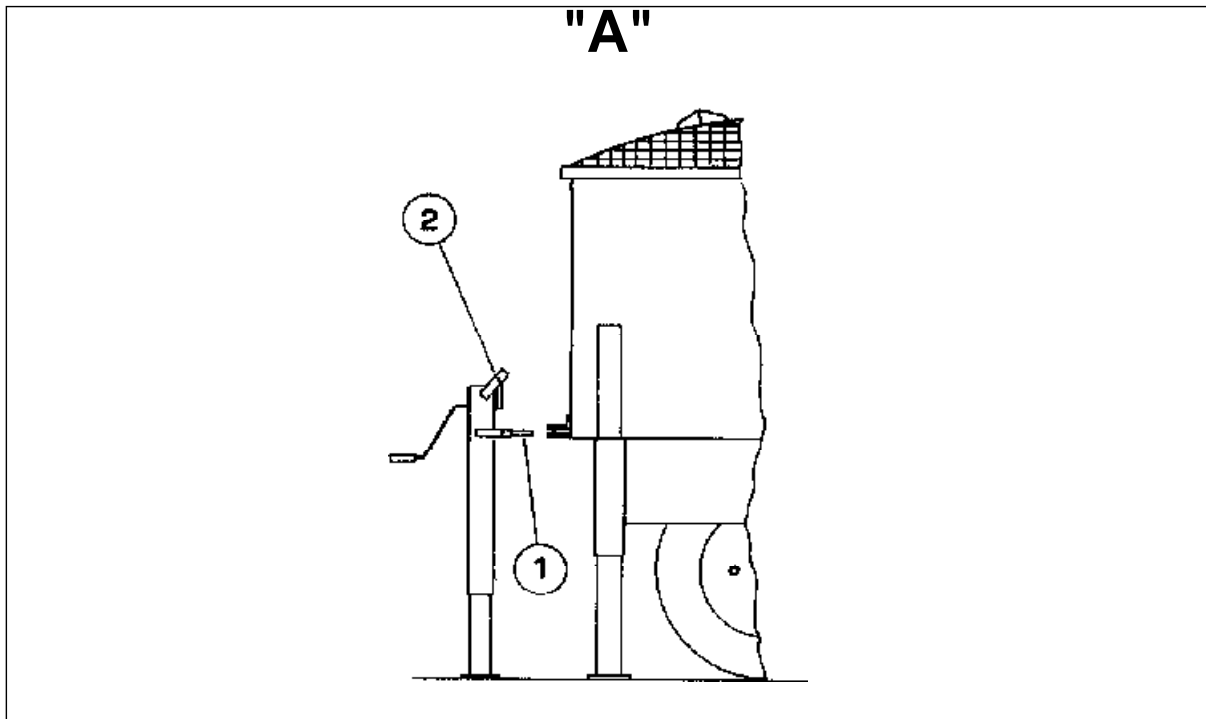
NOTE: State law may also require a tail light assembly.



SET UP PROCEDURE

Raising the 360 to Wheelbarrow Discharge Height.

1. Using the tow bar as a lifting lever, lift the front of the machine upward until the front legs are well off the ground. At this time drop the legs to the 3rd hole from the foot base and slide the anchor pins through the same holes. Then lower the machine until the legs are back on the ground.
2. Next, remove the lift jack from its storage bracket.
3. Now place the lift jack directly behind the drum and slide the #1 lifting tongue into the lifting bracket that is welded onto the rear of the drum (see Diagram A 170 below). Now crank the mixer upwards until it is possible to slide the anchor pins through the desired hole. Now remove the jack stand from the mixer.



CAUTION : *Make sure the lift jack is on a solid flat surface before beginning to raise the machine. Additionally, NEVER work on or around the Mortarman 360 while the jack stand is holding it up.....Serious injury can result!*



4. Next, return to the front of the mixer and once again lift the front legs off the ground and lower the legs until the appropriate hole is aligned and the anchor pins set in place.

CAUTION : Always slide the safety clips through the anchor pins, this ensures the pins cannot slip.

5. Finally, return to the rear of the mixer and slide the #2 lifting tongue into the lifting bracket and raise the mixer until it is possible to slide the anchor pins through the hole leveling the mixer. Slide the safety clips through the anchor pins and the initial set-up is complete.

Lowering the 360 Mixer

1. Start at the rear of the mixer and engage the #2 lifting tongue and raise the rear of the mixer off the ground, now raise the rear legs up to the 5th hole from the foot base. Now lower the mixer down and remove the jack.

2. Return to the front of the mixer and lift the front legs off the ground. Next raise the front legs to the 5th hole from the footbase, set the anchor pins and lower the mixer back to the ground.

3. Return to the rear of the mixer and use the #1 lifting tongue to raise the mixer off the ground. Now, raise the rear legs to their upper most position and set the anchor pins and safety clips. Then lower the mixer and remove the jack stand. The rear wheels should now be resting on the ground.

4. Finally, return to the front of the mixer and tilt it back by lifting upwards on the tow bar, then slide the legs up to their highest position and set the anchor pins and safety clips.

NOTE: Before towing always make sure the support legs are set in their highest position.....and that the safety clips are used with the anchor pins.



IMPORTANT NOTES AND ADVICE

Do's and Don'ts on the Safe Use of the Mortarman 360

In the interest of safety, whoever uses or maintains the MORTARMAN 360 should first read this manual and become familiar with all of the important safety notes. Failure to follow this advice may result in injury to yourself and others.

WHAT TO DO !

- Carefully read and understand these instructions before operating the mixer.
- Always turn off the engine and disconnect the spark plug wire before cleaning or maintaining the mixer. Mixes powered by electric motors should be unplugged from their power source before servicing is performed.
- Make sure the safety guards are always in place.
- When using the machine always wear safety boots with reinforced toe-caps, safety glasses, gloves, hard hat, and clothing with the appropriate fit.
- Practice starting and stopping the machine.
- Keep the mixer clean and free of debris build-up.
- Periodically inspect your mixer for abnormal wear or damage.
- **Always stop the engine before adding fuel.**
- Whenever the mixer begins to sound or run in an unusual manner..... **STOP THE MACHINE !....** and do not re-start the mixer until the difficulty is understood and repaired.



IMPORTANT NOTES AND ADVICE

What NOT TO DO !

DO NOT

- place your hands or any other object inside the mixer drum while it is running.

DO NOT

- place any tools or other objects in or around the mixer drum while it is running.

DO NOT

- operate the mixer on a surface that is UNEVEN.. .. if the MORTARMAN 360 is placed on an incline, it can fall over or roll away!

DO NOT

- clean, assemble or work on the mixer while it is plugged in, or while the spark plug wire is connected to the spark plug!

DO NOT

- operated the mixer in or around water puddles!

DO NOT

- leave the mixer unattended!

DO NOT

- use the safety grate interlock switch for stopping the mixer.....shut off the motor.....this safety interlock system is designed to provide some protection for negligent operators.**REMEMBER**, never raise the safety grate while the mixer is running, unplug the mixer from its power source, then the grate may be raised properly.

DO NOT

- allow other persons around the mixer while it is operating.

DO NOT

- operate the MORTARMAN 360 if you are uncertain as to how to run the machine.... Contact your local **IMER DISTRIBUTOR** or call **IMER U.S.A. at (650) 872-2200.**

NOTE: These safety instructions are simple and straight forward.....FOLLOW THEM!

***WE WANT SAFE AND EFFICIENT
PRODUCTION/OPERATION
FOR ALL OUR CUSTOMERS!***



OPERATING INSTRUCTIONS

1. Before starting the engine read the Honda manual provided and become familiar with the GXV270 powerplant.

2. Place the MORTARMAN 360 at the appropriate working height. The working height is determined by which type of container the material mixed is to be discharged into:

For Example :

Wheelbarrow

Mud Bucket

Mud Pan

For raising and lowering the MORTARMAN 360, see the previous section on the set-up procedure.

3. Connect the water supply hose to the Chicago fitting provided. Practice operating the water control lever.....one direction discharges water into the drum.....the other direction sends water into the clean up hose.

****IMPORTANT NOTE* Before adding material to the mixing drum make certain no foreign objects are in the drum, and that the discharge gate is in the closed position.***

4. Now start the mixer, the mixing paddles should move smoothly as they pass around the drum, if their action is irregular and noisy, stop the mixer.....contact your local IMER Distributor or call IMER U.S.A. direct of (650) 872-2200.

5. With the mixer running at full power, add the cement and sand into drum dry....the MORTARMAN has the ability to spin and mix a full load dry. This is a great feature , as it allows material to thoroughly blend and mix before water is added.

****IMPORTANT NOTE* The Mortarman 360 is much different from a concrete mixer and cannot be used to mix material with aggregate (rocks). This is because the Mortarman 360 has paddles which are driven through the material with huge amounts of torque.....should a paddle wedge a rock between itself and the drum, substantial damage will result.***

If the material being mixed is not bagged pre-mix or discharged from a silo system, then make certain there are no rocks in it.

Be especially cautious if sand is delivered by truck from a sand and gravel supply yard. Let them know when you order, that no rocks or pebbles of any type are allowed in your sand.

Some light aggregates, such as terrazzo pieces may be run in the mixer, however, contact IMER U.S.A. or your local dealer for the proper set-up techniques.

6. Fill the mixer to the top of the free spinning agitation trident paddle.....filling the mixer above this point will not provide sufficient mixing action for the loaded material.

REMEMBER: the MORTARMAN 360 mixes incredibly fast.....there is no need to over load it.

7. Now that the material has mixed a few seconds dry, the water can be added until the desired consistency has been achieved.

8. Once the material is mixed to the consistency desired, position the appropriate container beneath the discharge chute area and then slide the discharge gate open.

9. If the mixer is stopped while material is still in the drum, do not allow the material to harden up. It is possible to re-start the mixer with up to 3/4 of a load in the drum. If the drum was at full capacity when the mixer stopped, discharge some material, then re-start the machine.



MAINTENANCE

The **MORTARMAN 360** is designed to require very low maintenance, however, following the few basic maintenance procedures listed below will greatly reduce your machine's down time.

1. Clean the mixer thoroughly after each use and do not allow material to build up on any portion of the mixer.

REMEMBER - Always unplug the mixer, or disconnect the spark plug wire before performing any maintenance procedures.

2. Change the gearbox oil after the first 50 hours of operation, after that the oil should be changed every 250 hours. Changing the oil is a simple procedure, as the drain bolt and a sight window for the full level marking are located on the gearbox body. Use a premium SAE 90 gearbox oil when making the change.

3. Check the drive belt tightness when the machine arrives from our factory.....maintain the belts at this tension.....taut, yet not extremely tight. **Caution**, if the belts are overly tightened, damage can result to the motor and the gearbox.

REMEMBER: drive belts experience the majority of stretch during the first 15 hours of operation, monitor the belts closely during break-in.

NOTE : NEVER touch or adjust the belts while the machine is operating

To tighten the belts the motor is moved forward, further away from the rear pulley. Make sure the two adjusting bolts are tightened in equal amounts, as the motor's drive pulley must stay in alignment • with the gearbox pulley. Should the belts continually come off the pulley, check the following:

- condition of the belts, are they worn out, are they the proper specification
- alignment of the drive pulley and gearbox pulley, are they in line
- are the pulleys themselves in good condition?not bent or clogged with debris.

NOTE : it is not advisable to replace just one belt, they need to be replaced in sets. This is because a new belt needs a different degree of tightness than a used belt. It is always a good idea to have a spare set of belts in your truck.....replacement is straight forward and simple.....be smart and be prepared!

4. The paddle assembly hardware should be monitored and retightened the first 15 hours of operation. After the components have seated in, it is still a good idea to check the paddle hardware on a weekly basis, or whenever the machine is thoroughly cleaned.

Many contractors have found it very effective to have an additional set of paddles....when one set becomes ready for maintenance, remove the entire paddle spider and drop on the spare. <R>•

This procedure takes less than one hour and allows the used set of paddles to be set aside and maintained at your leisure.

As the paddle wiper rubber wears it is important to bring the distance between the wiper rubber, and the drum back to its original specification.....which is 5mm or 1/5".

DO NOT place the rubber flush against the drum..... this will cause the paddle to drag excessively and can lead to the paddle bending or breaking.

NOTE : Should the paddles ever begin to emit sharp scraping sounds, or the paddle spider system begin to vibrate heavily, stop the mixer. Disconnect all power and unload by hand if necessary. Do not restart the machine until the cause of the malfunction has been ascertained.



5. The area underneath the discharge gate will need to be hosed off a few times a day. The discharge gate mechanism is equipped with a wiper which continually sweeps debris off the safety grate, however, a shot of water every now and then will ensure smooth discharge.

REMEMBERdo not remover the discharge safety grate under any circumstances.....keep this area clean and material discharge will be no problem...it is not worth lost fingers and hands to remove the safety grate!

6. Do not disconnect the safety interlock system on the mixer drum safety grate. Should it begin to malfunction see your IMER Distributor immediately, or call IMER U.S.A. direct at (650) 872-2200.

7. Regarding motor maintenance, please review the manufacturer's manual which is supplied with each machine.

IT IS IMPORTANT that the mixer power plant run properly, or the material mixing action may not be thorough enough. The motor is the heart of this machine.....take care of it!

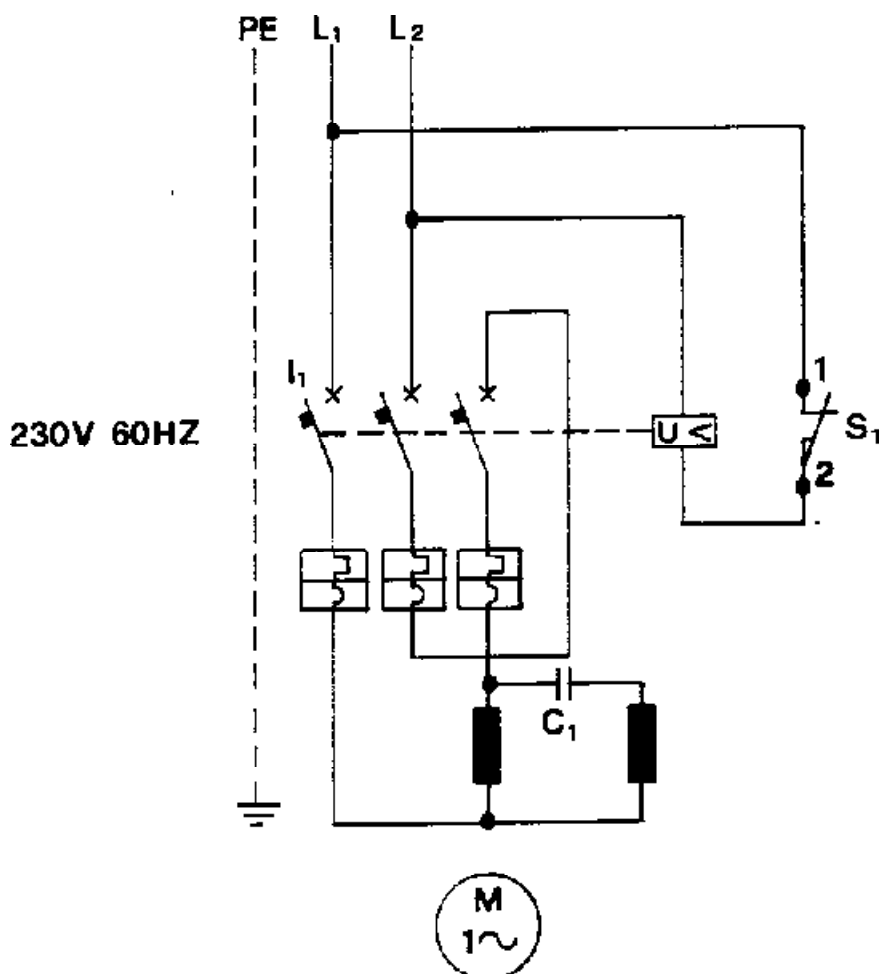
TECHNICAL SPECIFICATION **MORTARMAN 360 MORTAR MIXER**

| | | 1 - PHASE | GASOL MOTOR |
|------------------------|---|-----------|-----------------|
| DRUM CAPACITY | l/Cu.ft | 360/13 | 360/13 |
| BATCH OUTPUT | l/Cu.ft | 200/7 | 200/7 3 bags |
| DICHARGE GATE | mm/inc | 900(35") | 900(35") |
| DIMENSION OF DRAW POS. | MIN.1680(66")x1155(46")x1080(43") MAX.2710(106")x1155(46")x1710(67") | | |
| WEIGHT | Kg/Pounds | 360/794 | 360/794 |
| WHEELS | inc | 4.50/10" | 4.50/10" |
| MOTOR POWER | Kw/Hp | 2.2/3 | 4/5.5 |
| R.P.M. | g/1' | 22 | 36 |
| MIX.TIME | min. | 3 ÷ 4 | 3 ÷ 4 |
| DRUM DIAMETER | mm/inc | 952(37") | 952(37") |

***Due to Imer U.S.A. 's commitment to
Reasearch and Development,
specifications are subject to change
without notice.***



WIRING DIAGRAM



- I1** SWITCH 16 - 25A + BOB.
S1 SAFETY SWITCH
U< LOW VOLTAGE PROTECTION
C1 CONDENSOR



SPARE PARTS LIST
MORTARMAN 360" A" MORTAR MIXER



TABLE 1 Mixer drum and paddle assembly

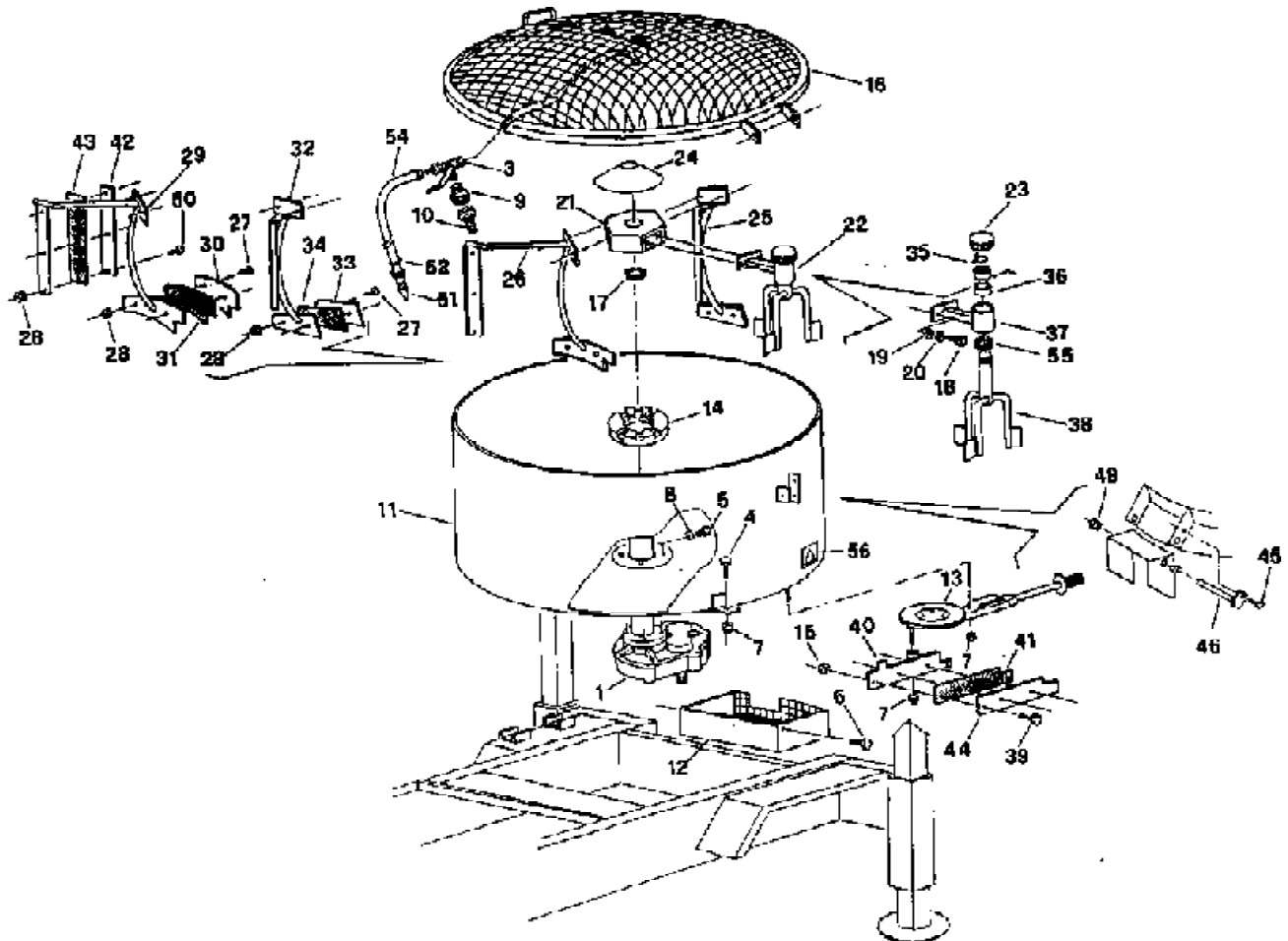




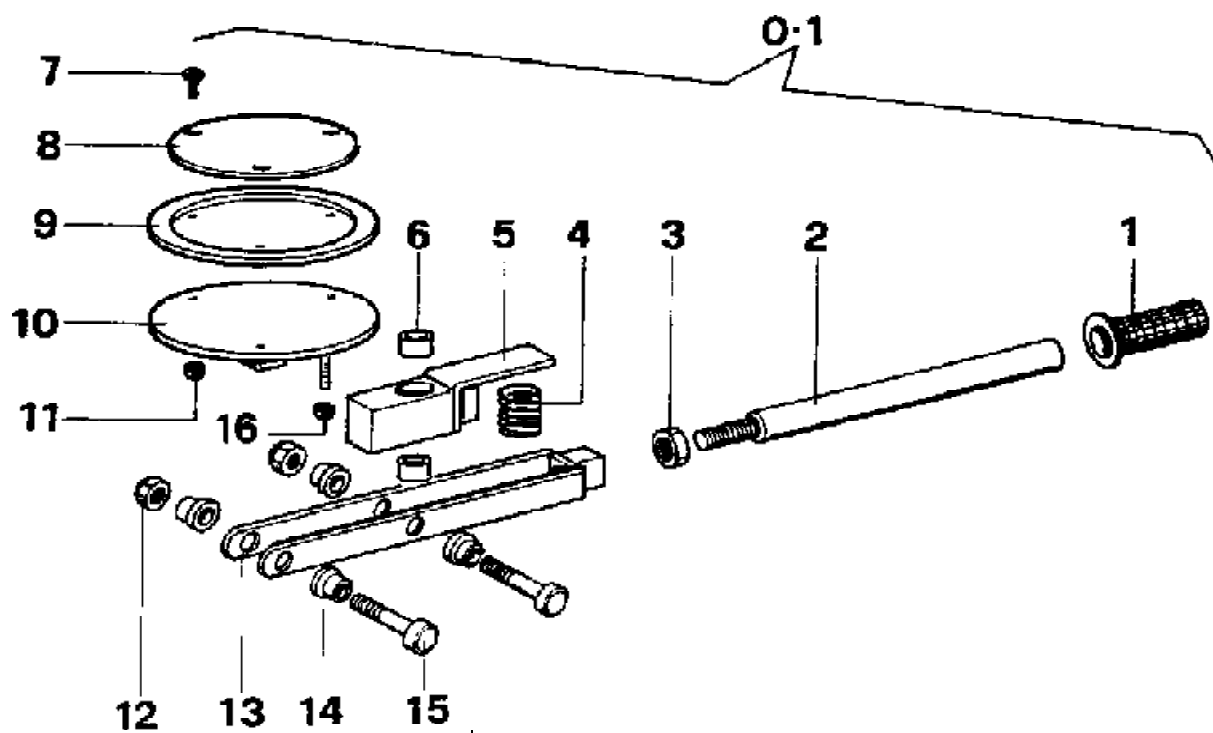
TABLE 1 Mixer drum and paddle assembly-Mortarman 360

| Ref. | P.n. | Description | NOTES |
|------|---------|-------------------------|-------------|
| 1 | 2206763 | REDUCTION GEAR | |
| 3 | 2218068 | PETCOCK | |
| 4 | 2222035 | BOLT | 5739 M12x25 |
| 5 | 2222073 | BOLT | 5739 M10x35 |
| 6 | 2222076 | BOLT | 5739 M8x25 |
| 7 | 2223921 | NUT | M12 |
| 8 | 2224910 | WASHER | DEV.C72 Ø10 |
| 9 | 2226805 | CONNECTOR FEMALE | |
| 10 | 2226800 | CONNECTOR MALE | |
| 11 | 3210979 | DRUM | |
| 12 | 3211100 | DISCHARGE SAFETY GRATE | |
| 13 | 3211022 | DISCHARGE OPENING | |
| 14 | 2236593 | DRUM COLLAR | |
| 15 | 2223924 | LOCK-NUT | M6 |
| 16 | 3211012 | DRUM SAFETY GRATE | |
| 17 | 2207750 | SEAL | |
| 18 | 2222550 | BOLT | 5931 M12x35 |
| 19 | 2224380 | WASHER | 6593 Ø12x25 |
| 20 | 2224900 | WASHER | DEV.C72 Ø12 |
| 21 | 2250334 | MIXER HEAD | |
| 22 | 3211025 | TRIDENT PADDLE | |
| 23 | 2257710 | CAP | |
| 24 | 2252604 | MUSHROOM | |
| 25 | 2250916 | INNER PADDLE COMPLETE | |
| 26 | 3211028 | OUTER PADDLE COMPLETE | |
| 27 | 2222599 | BOLT | |
| 28 | 2223655 | NUT | 5589 M10 |
| 29 | 2250918 | OUTER PADDLE- ARM ONLY | |
| 30 | 2224771 | WIPER PLATE | |
| 31 | 2250934 | RUBBER WIPER | |
| 32 | 2250919 | INNER PADDLE - ARM ONLY | |
| 33 | 2294770 | WIPER PLATE | |
| 34 | 2250935 | WIPER | |
| 35 | 2227220 | CIRCLIP | 3653 E/40 |
| 36 | 2204505 | BEARING | |
| 37 | 3211026 | SUPPORT ARM - TRIDENT | |
| 38 | 3206002 | TRIDENT ONLY | |
| 39 | 2222016 | BOLT | 5739 M6x20 |
| 40 | 2253891 | WIPER PLATE | |
| 41 | 2247873 | WIPER | |
| 42 | 3211033 | WIPER PLATE | |
| 43 | 3211036 | WIPER | |
| 44 | 2253893 | WIPER PLATE | |
| 45 | 2222002 | BOLT | 5739 M6x16 |
| 46 | 2201912 | PIVOT SHAFT | |
| 47 | 2209952 | COLLAR | |
| 48 | 2225150 | SET SCREW | 5927 M10x10 |
| 49 | 2209953 | BUSHING | |
| 50 | 2222601 | BOLT | 5933 M10x30 |
| 51 | 2218069 | NOZZLE | |
| 52 | 2225741 | HOSE CLAMP | |
| 53 | 2226779 | NIPPLE | |
| 54 | 2292356 | WATER TUBE | L=1.8 m |
| 55 | 3206003 | OIL SEAL RING | |
| 56 | 2288205 | ADHESIVE LABEL | |



TABLE 2 Dump gate - Mortarman 360

| Ref. | P.n. | Description | NOTES |
|------|---------|--------------------|--------------|
| 0.1 | 3211022 | DUMP GATE COMPLETE | |
| 1 | 2288885 | GRIP | |
| 2 | 2259893 | ACTUATING ARM | |
| 3 | 2223807 | NUT | 5589 M16 |
| 4 | 2231301 | SPRING | |
| 5 | 2237795 | ACTUATOR | |
| 6 | 2209822 | BUSHING | |
| 7 | 2222600 | SCREW | TSP 963-6x25 |
| 8 | 2225033 | BASE PLATE | |
| 9 | 2292581 | SEAL | |
| 10 | 2253863 | BASE PLATE | |
| 11 | 2223924 | LOCK-NUT | M6 |
| 12 | 2223920 | LOCK-NUT | M10 |
| 13 | 2254015 | ACTUATOR FRAME | |
| 14 | 2209821 | BUSHING | |
| 15 | 2223006 | BOLT | |
| 16 | 2223921 | LOCK-NUT | M12 |





| TABLE 3 Wheel and suspension assembly | | | |
|---------------------------------------|---------|----------------|----------------|
| Ref. | P.n. | Description | NOTES |
| 1 | 3208128 | AXLE | |
| 2 | 3210607 | BOLT | |
| 3 | 3201789 | WHEEL COMPLETE | |
| 4 | 2222142 | BOLT | 5737 M12X100 Z |
| 5 | 3207392 | NUT | METALBLOC M12 |
| 6 | 2224380 | WASHER | 6593 D.12X25 Z |

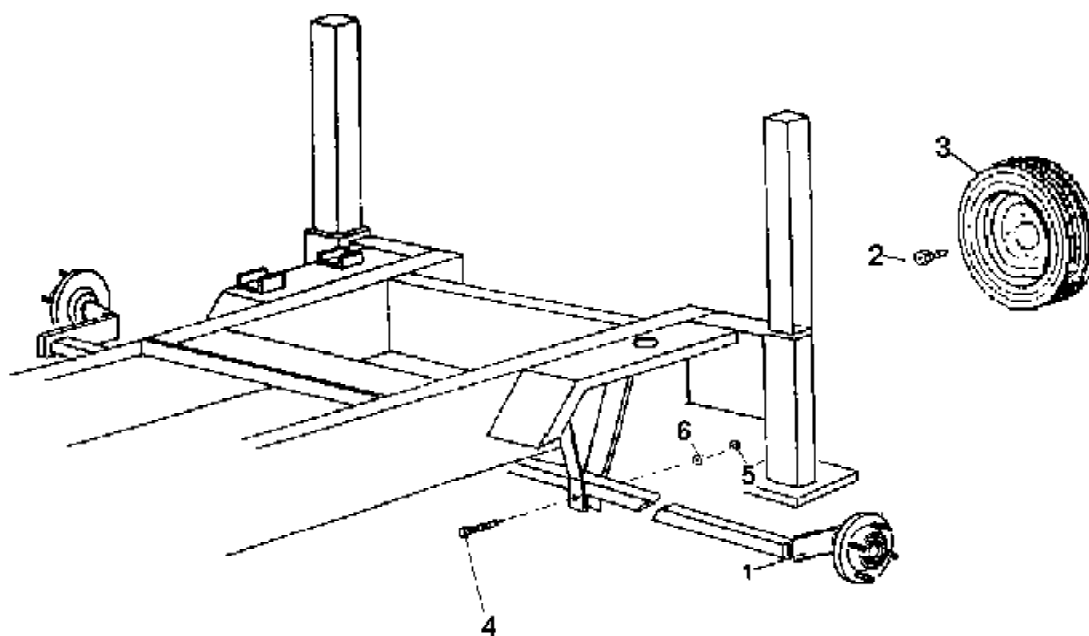




TABLE 4 Frame

| Ref. | P.n. | Description | NOTES |
|------|---------|-----------------|-------------|
| 1 | 2222566 | BOLT | 5931 M12x80 |
| 2 | 2222016 | BOLT | 6950 M6x20 |
| 3 | 2216277 | GASKET | |
| 4 | 2225745 | CAP | Ø 32 - 52 |
| 5 | 2222421 | NUT | M12 |
| 6 | 2226700 | SLIP PIN | |
| 7 | 3211268 | THREADED INSERT | |
| 8 | 2234861 | TOW CHAIN | |
| 9 | 3210977 | MAIN FRAME | |
| 10 | 3201044 | BASE PLATE | |
| 11 | 2255211 | TOW BAR | |
| 12 | 2256128 | TELESCOPIC FOOT | |
| 13 | 3210978 | JACK | |
| 14 | 2256550 | ANCHOR PIN | |
| 15 | 2256600 | ANCHOR PIN | |
| 16 | 2257706 | CAP | |
| 17 | 3211087 | CANOPY | 230V-60 |
| 17.1 | 3211052 | CANOPY | HONDA SC |
| 18 | 2292298 | QUICK CLIP | |
| 19 | 2292370 | RUBBER HOSE | |
| 20 | 2223570 | NUT | 5588 M8 |
| 21 | 3211085 | I.D. PLATE | 400V-60 |
| 21.1 | 3211051 | I.D. PLATE | HONDA |
| 23 | 2288825 | WASHER | |
| 24 | 2222513 | BOLT | |
| 25 | 2235460 | COTTER PIN | M. 1" |
| 26 | 2222056 | BOLT | 5739 M10x25 |
| 27 | 2259537 | PROTECTION | |
| 28 | 2224340 | WASHER | Ø10x20 |
| 29 | 2223920 | NUT | M10 |

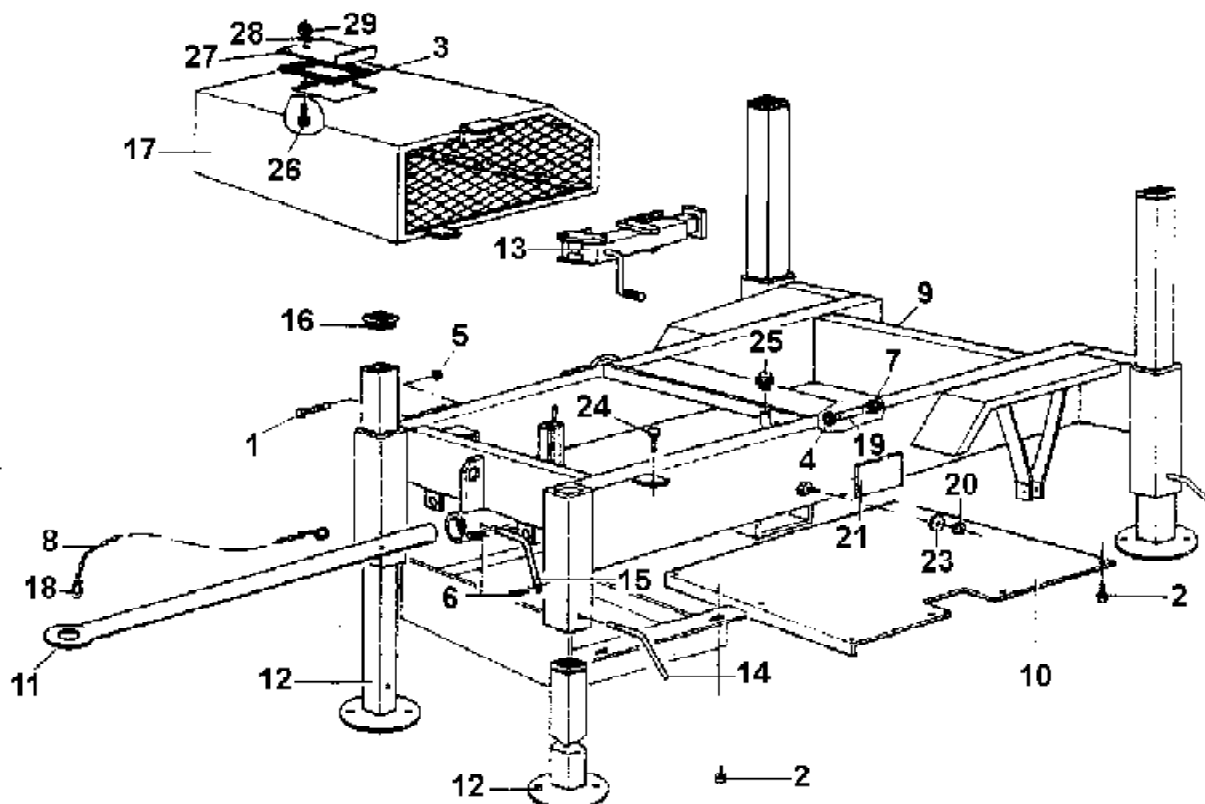




TABLE 5 Gearbox

| Ref. | P.n. | Description | NOTES |
|------|---------|---------------------|-----------------|
| 1 | 2223840 | NUT | 5589 - MB 42 |
| 2 | 2229602 | KEY | 10x8x50 |
| 3 | 2222530 | ALLEN BOLT | TCEI593 18x35 Z |
| 4 | 2258007 | DRIVE SHAFT HOUSING | |
| 5 | 2201161 | DRIVE SHAFT | |
| 6 | 2228740 | LOCATING PIN | |
| 7 | 2229549 | KEY | 10x8x30 |
| 8 | 2227260 | CIRCLIP | 3653 E/34 |
| 9 | 2235420 | OIL LEVEL WINDOW | |
| 10 | 2204509 | BEARING | |
| 11 | 2202517 | CROWN GEAR | |
| 12 | 2204510 | BEARING | |
| 13 | 2224140 | WASHER | 6593 Ø8X18 |
| 14 | 2222006 | BOLT | TE8.8 57398x30Z |
| 15 | 2236735 | GEAR BOX HALF | M 21 |
| 16 | 2204550 | BEARING | |
| 17 | 2229450 | KEY | 8x7x20 |
| 18 | 2202858 | PINION GEAR | |
| 19 | 2202871 | PINION GEAR | |
| 20 | 2229400 | KEY | 8x7x30 |
| 21 | 2202526 | CROWN GEAR | |
| 22 | 2237256 | SPACER | |
| 23 | 2216319 | GASKET | |
| 24 | 2228820 | LOCATING PIN | |
| 25 | 2215092 | GEARBOX HALF | |
| 26 | 2207301 | SEAL | |
| 27 | 2227270 | CIRCLIP | 3653 E/24 |
| 28 | 3211268 | DRAIN PLUG | |

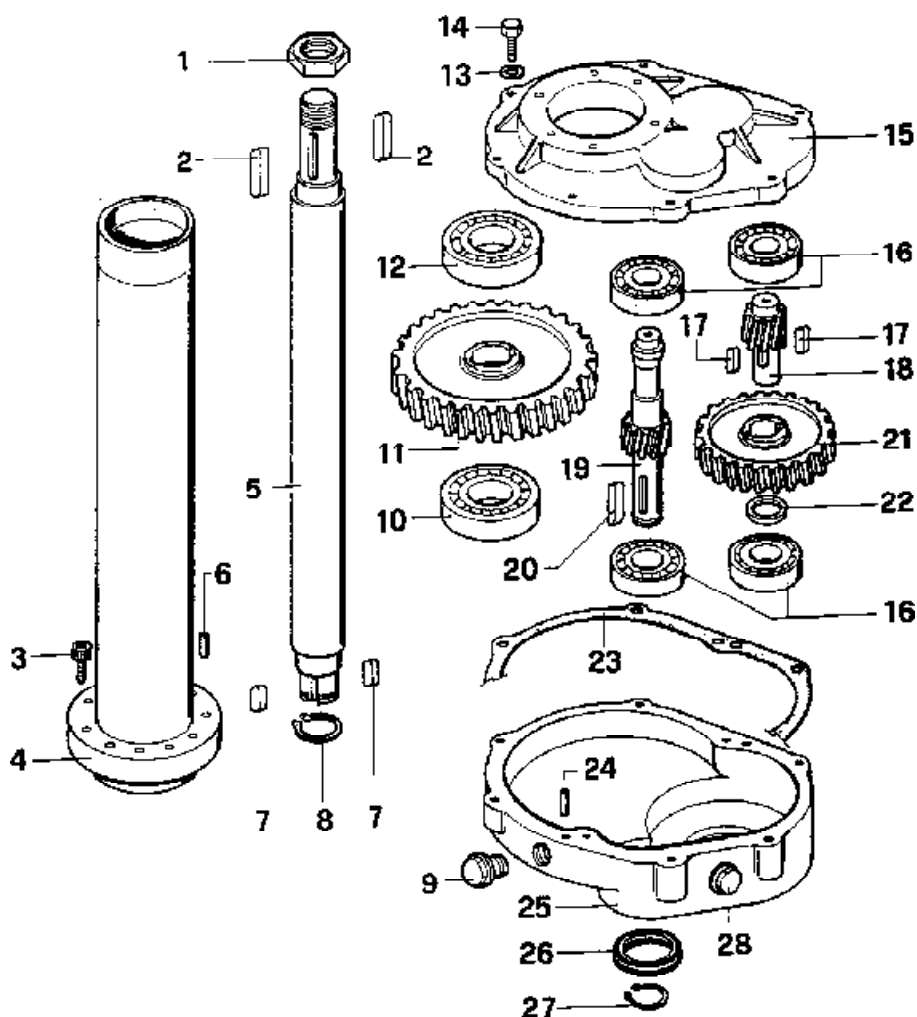


TABLE 7 ASSEMBLY OF MOTOR 400V 60HZ (1194583)

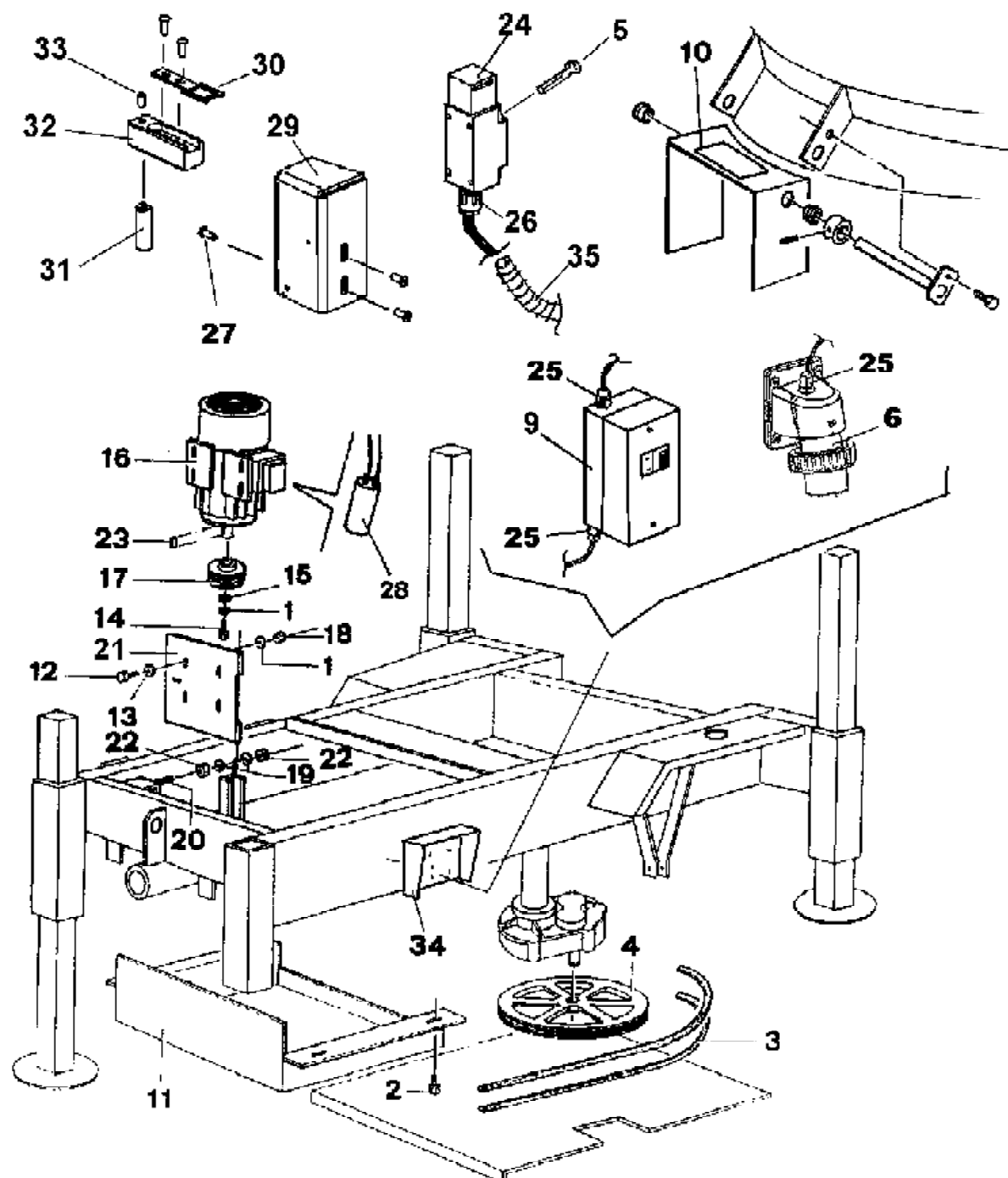




TABLE 7 ASSEMBLY OF MOTOR 400V 60Hz

| Ref. | P.n. | Description | NOTES |
|------|---------|----------------------|------------------|
| 1 | 2224910 | WASHER | |
| 2 | 2222425 | BOLT | AUTOFORTE 4,2X13 |
| 3 | 3211097 | BELT | AX70 |
| 4 | 3211095 | PULLEY | DP 250 |
| 5 | 3209690 | BOLT | DEV.C72 Ø5 |
| 6 | 2278707 | PLUG | |
| 7 | 2222580 | SREW | DIN 4A/M4X20 |
| 8 | 2223500 | NUT | 5588 M4 |
| 9 | | SWITCH | |
| 10 | 3211086 | ADHESIVE LABEL | |
| 11 | 3211047 | PROTECTION | |
| 12 | 2222851 | SCREW | |
| 13 | 2224260 | WASHER | |
| 14 | 2222735 | SCREW | |
| 15 | 2224206 | WASHER | |
| 16 | | ELECTRIC MOTOR | 400V-60HZ KW/3 |
| 17 | 2205581 | PULLEY | |
| 18 | 2223600 | NUT | |
| 19 | 2224206 | WASHER | 6592 12X36X4 |
| 20 | 2222768 | BOLT | 5739 4S M12X90 |
| 21 | 2253164 | MOTOR MOUNTING PLATE | |
| 22 | 2223700 | NUT | 5588 M12Z |
| 23 | 2229340 | KEY | 8X7X50 |
| 24 | 3211072 | LIMIT SWITCH | |
| 25 | 3201442 | CABLE CLAMP | PG16 |
| 26 | 3201216 | CABLE CLAMP | PG13.5 |
| 27 | 3211066 | BOLT | 7380 M6X16 |
| 28 | | CONDENSER | |
| 29 | 3211068 | SUPPORT | |
| 30 | 3211065 | SPANNER | |
| 31 | 3211067 | PIN | |
| 32 | 3211064 | SUPPORT | |
| 33 | 3211075 | BOLT | 7380 M6X40 |
| 34 | 3211091 | SUPPORT | |
| 35 | 3211391 | SHEATH | |



TABLE 8 Drive train Honda (1194555)

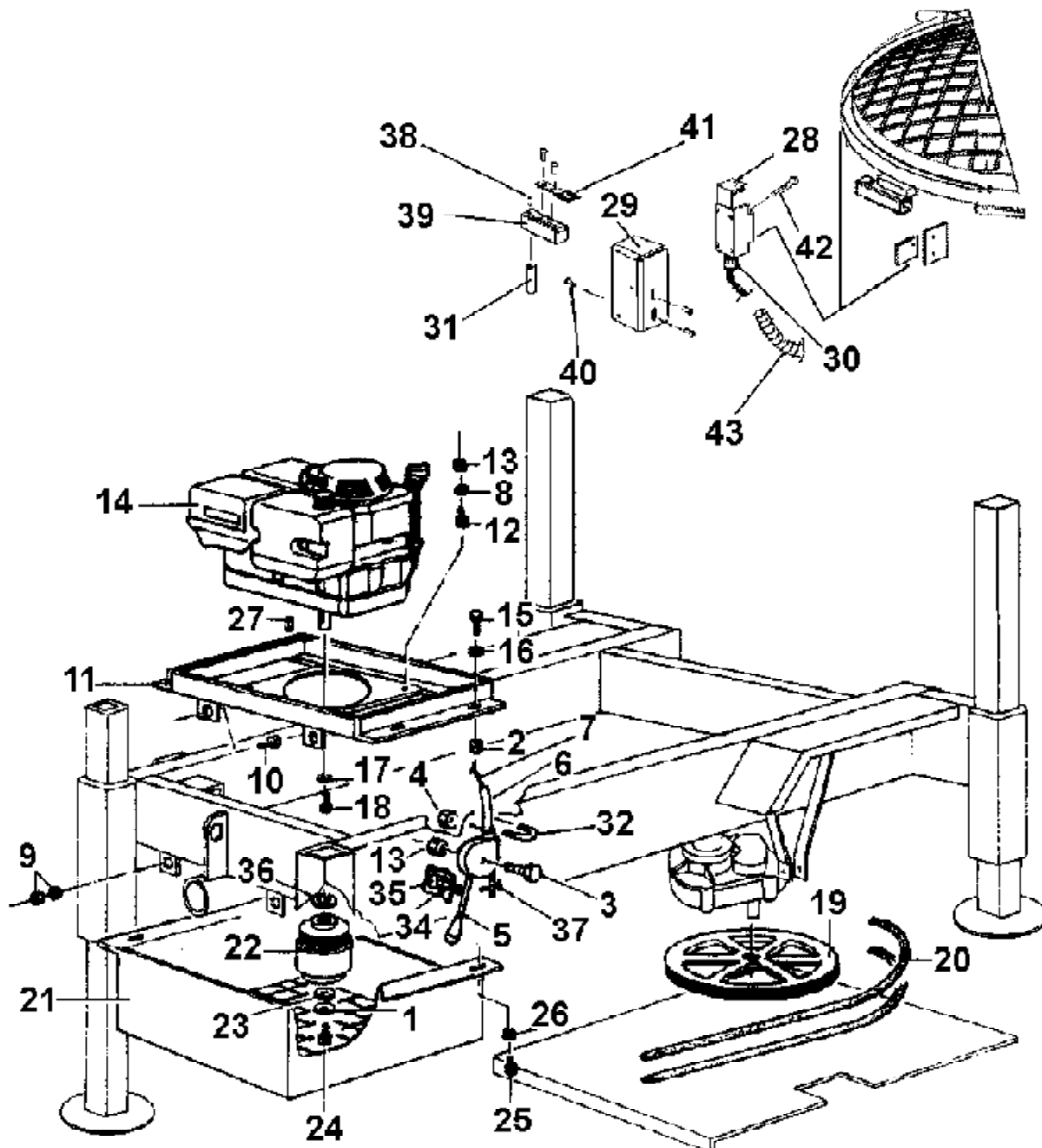




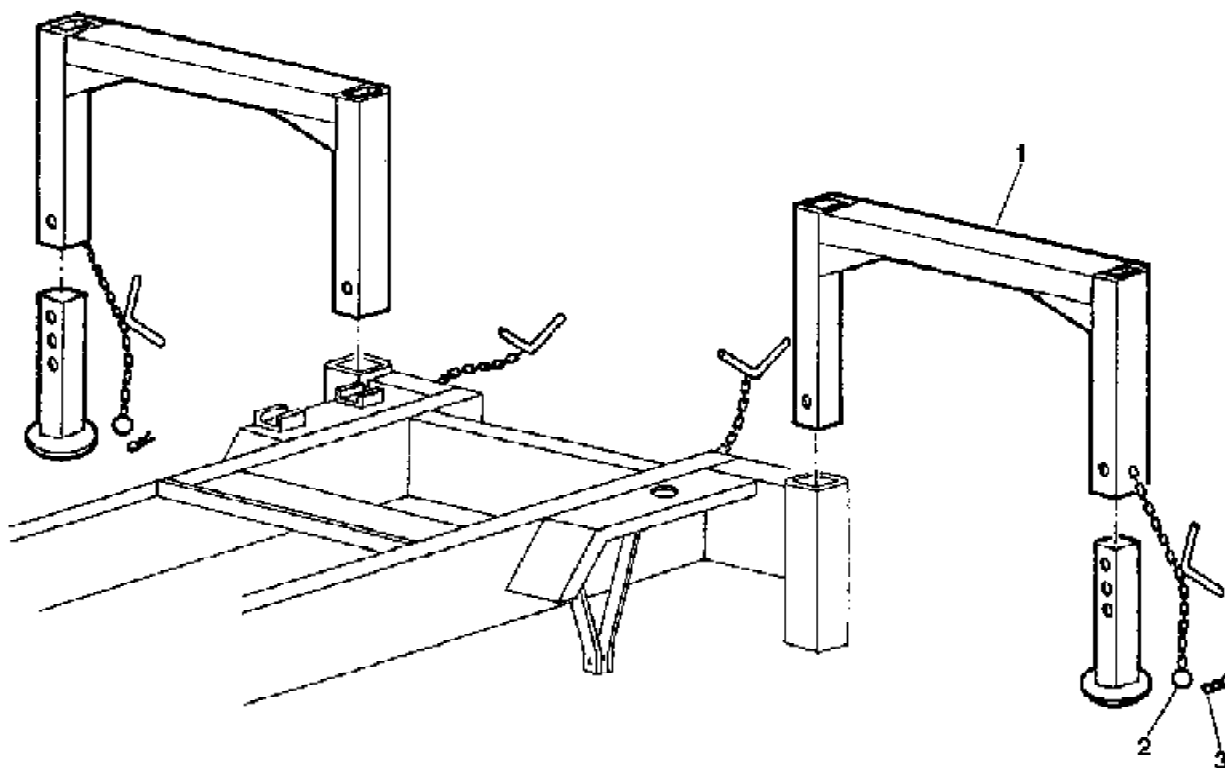
TABLE 8 Drive train Honda (1194580)

| Ref. | P.n. | Description | NOTES |
|------|---------|-----------------------|--------------------|
| 01 | 2224910 | WASHER | Dev.C72 Ø10Z |
| 02 | 2223920 | NUT | Autobl. M10 |
| 03 | 2222587 | SCREW | 5933 M8x20 |
| 04 | 2223500 | NUT | 5588 M4Z |
| 05 | 2284805 | THROTTLE CONTROL | |
| 06 | 2284398 | THROTTLE CABLE SHEATH | |
| 07 | 2212120 | INNER CABLE | |
| 08 | 2224140 | WASHER | 6593 Ø8 x18 |
| 09 | 2223700 | NUT | 5588 M12 |
| 10 | 2222054 | BOLT | TE 8.8 5739 12x80Z |
| 11 | 3211057 | MOTOR MOUNTINGPLATE | |
| 12 | 2222088 | BOLT | 5737 M8x40 |
| 13 | 2223923 | LOCK-NUT | M8 |
| 14 | | MOTOR | GXV 270 |
| 15 | 2222146 | BOLT | TE 8.8 5739 10x30Z |
| 16 | 2224260 | WASHER | 6593 Ø10x30Z |
| 17 | 2224940 | WASHER | DEV.C 72 Ø8 Z |
| 18 | 2221994 | BOLT | TE 8.8 5/16"x25 Z |
| 19 | 2205529 | PULLEY | |
| 20 | 3211073 | BELT | Ax82 |
| 21 | 3211047 | CLUTCH COVER GUARD | |
| 22 | 2289357 | CLUTCH COMPLETE | |
| 23 | 2224340 | WASHER | 6592 Ø10x20 Z |
| 24 | 2221991 | BOLT | TE8.8UNF3/8"x60Z |
| 25 | 2222776 | BOLT | TE/4S 5739 6x16 Z |
| 26 | 2223924 | LOCK-NUT | AUTOBL.M6 |
| 27 | 2229845 | KEY | 4X 6.5 UNI 6606 |
| 28 | 3211072 | SAFETY SWITCH | FD515 |
| 29 | 3211068 | SUPPORT | |
| 30 | 2278090 | CORD GRIP | PG13.5 |
| 31 | 3211067 | PIN | |
| 32 | 2292298 | SPRING CATCH | |
| 33 | 2224951 | WASHER | Dev.Ø5 |
| 34 | 2222006 | STOP BOLT | 5739 M8x30 |
| 35 | 2223570 | NUT | 5588 M8 |
| 36 | 2237747 | SPACER | |
| 37 | 2225796 | CLAMP | |
| 38 | 3211075 | BOLT | 7380 M6x40 |
| 39 | 3211064 | SUPPORT | |
| 40 | 3211066 | BOLT | 7380 M6x16 |
| 41 | 3211065 | SPANNER | |
| 42 | 3209690 | BOLT | |
| 43 | 3211391 | SHEATH | |



TABLE 10 Frame extension kit (item 1194650 - OPTIONAL)

| Ref. | P.n. | Description | NOTES |
|------|---------|-----------------|-------|
| 1 | 3200457 | FRAME EXTENSION | |
| 2 | 2227048 | CHAIN | |
| 3 | 2226715 | ANCHOR PIN | |





IMER U.S.A. Inc.
MORTARMAN 360° A"



IMER U.S.A. INC.

EQUIPMENT WARRANTY

IMER U.S.A. INC.

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Fax(650) 873-6482

We warrant to the original purchaser that the IMER equipment described herein (the "equipment") shall be free from defects in material and workmanship under normal use and service for which it was intended for period of one (1) year from the date of purchase by the original purchaser.

Our obligation under this warranty is expressly limited to replacing or repairing, free of charge, F. O.B. our designated service facility, such part of the equipment as our inspection shall disclose to be defective. Parts such as engines, motors, pumps, valves, electric motors, etc. furnished by us, but not manufactured by us, will carry only the warranty of the manufacturer. Transportation charges or duties shall be borne by purchaser. This shall be the limit of our liability with respect to the quality of the equipment.

This warranty shall not apply to any equipment, or parts thereof, which has been damaged by reason of accident, negligence, unreasonable use, faulty repairs, or which has not been maintained and operated in accordance with our printed instructions for the equipment. Further, this warranty is void if the equipment, or any of its components, is altered or modified in any way.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

We make no other warranty, representation or guarantee, nor is anyone authorized to make one on our behalf. We shall not be liable for consequential damage of any kind, including loss or damage resulting, directly or indirectly, from the use or loss of use of the machine. Without limiting the generality of the foregoing, this exclusion from liability embraces the purchaser's expenses for downtime, damages for which the purchaser may be liable to other person, damages to property, and injury or death of any persons.

This warranty shall not be deemed to cover maintenance parts, including but not limited to blades, belts, hoses, hydraulic oil, or filters, for which we shall have no responsibility or liability whatsoever.



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MORTARMAN 360° A"



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Zip Code _____
Date Delivered _____
Condition of crate package at time of delivery _____

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Yes ☐ No ☐

What type of material will be cut this Machine?

Do you wish FACTORY RECOMMENDATIONS for this type of material? _____

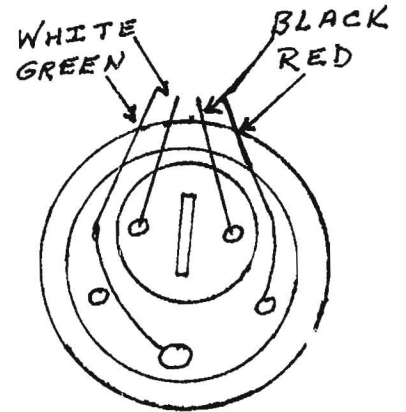
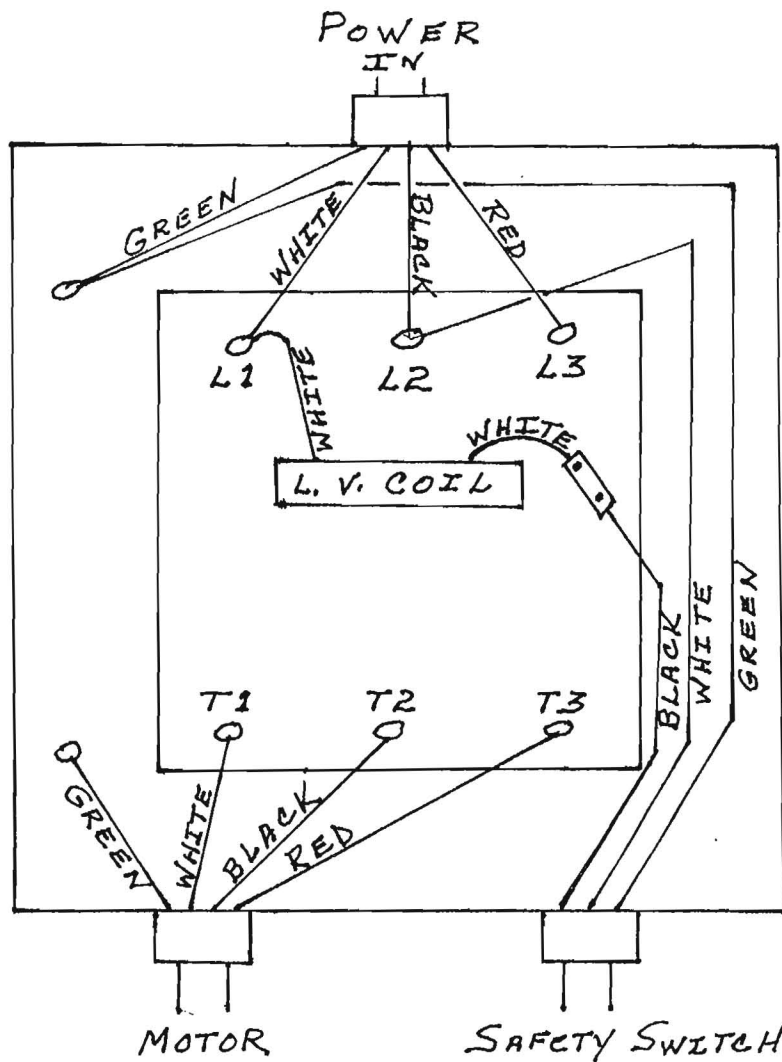
Yes ☐ No ☐

Thank you for the opportunity to be of service.

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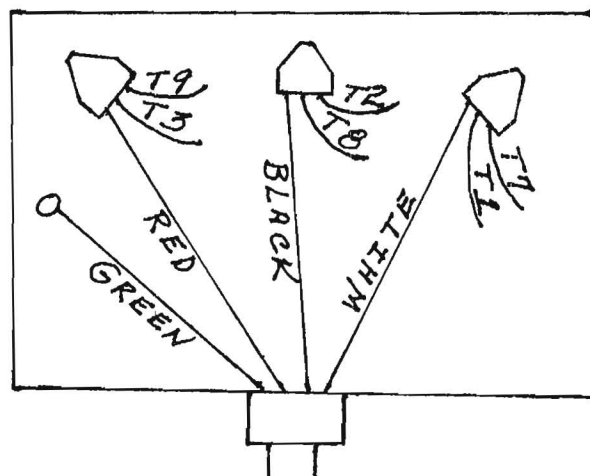
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MORTARMAN 360 220 VOLT 3 PHASE



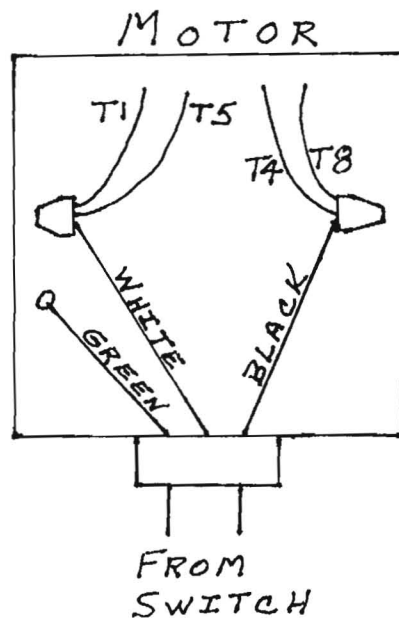
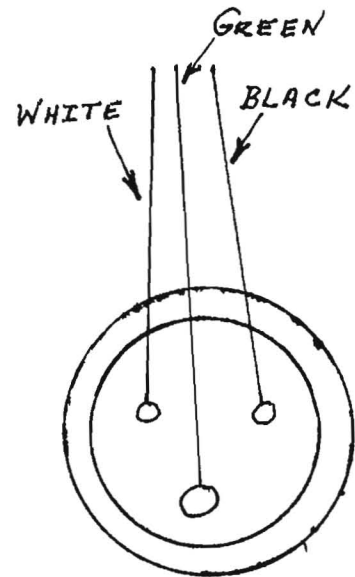
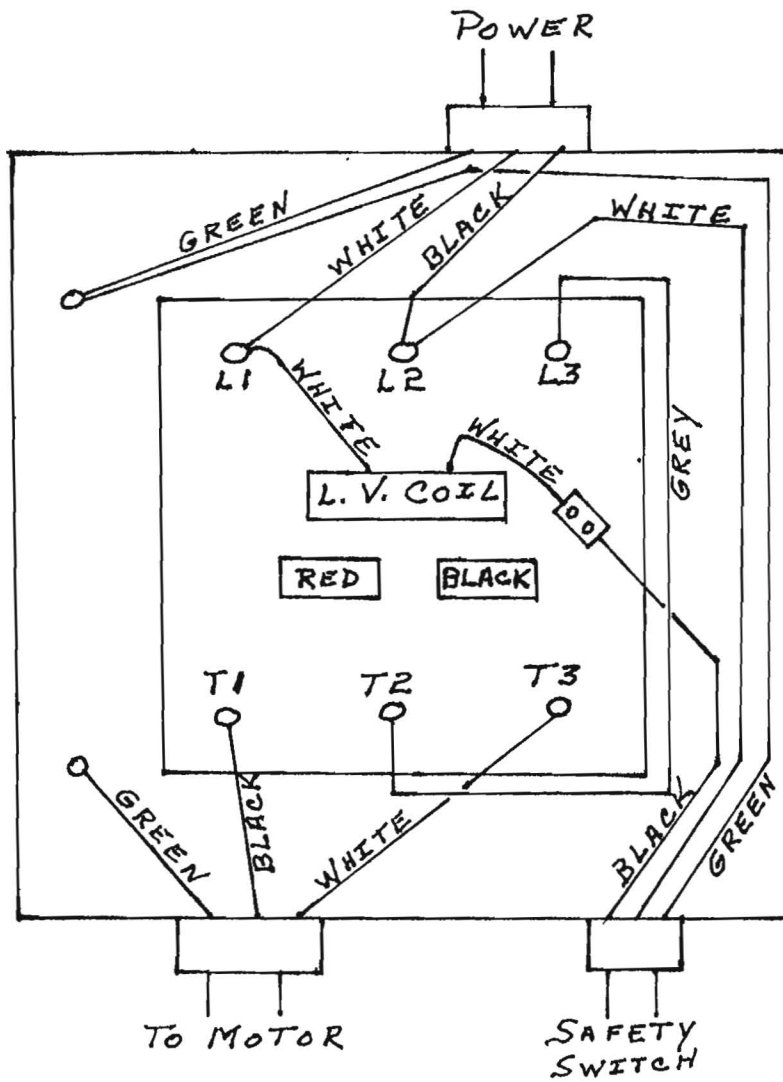
SWITCH

MOTOR



12/1/09

MORTARMAN 360 220V 1 PHASE 1194585



3/4/10
AW



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