





# IMPORTANT MIXING INSTRUCTIONS

**AGGREGATE BIGGER THAN 3/8" WILL DAMAGE MIXER**

<b>SAND</b>  <b>LIME</b>  <b>CEMENT</b>	<b>PRE - MIX 60 lb</b>  <b>SPEC - MIX 80 lb</b>	<b>SILO</b>
<p>Set up mixer</p> <p>Start mixer</p> <p>Do not add water</p> <ol style="list-style-type: none"> <li>1. Add 1/2 sand</li> <li>2. Add lime</li> <li>3. Add cement</li> <li>4. Mix materials dry</li> <li>5. Add 3/4 of water</li> <li>6. Add rest of sand</li> <li>7. Add rest of water</li> <li>8. Mix up thoroughly</li> </ol>	<p>Set up mixer</p> <p>Start mixer</p> <p>Do not add water</p> <ol style="list-style-type: none"> <li>1. Check bag weight</li> <li>2. Determinate max load</li> <li>3. Add 1/2 of max load</li> <li>4. Add 3/4 of water</li> <li>5. Add rest of bags</li> <li>6. Mix up thoroughly</li> </ol>	<p>Set up mixer</p> <p>Start mixer</p> <p>Do not add water</p> <ol style="list-style-type: none"> <li>1. Add 1/2 of max load</li> <li>2. Add 3/4 of water</li> <li>3. Add rest of material</li> <li>4. Add rest of water</li> <li>5. Mix up thoroughly</li> </ol>

**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.

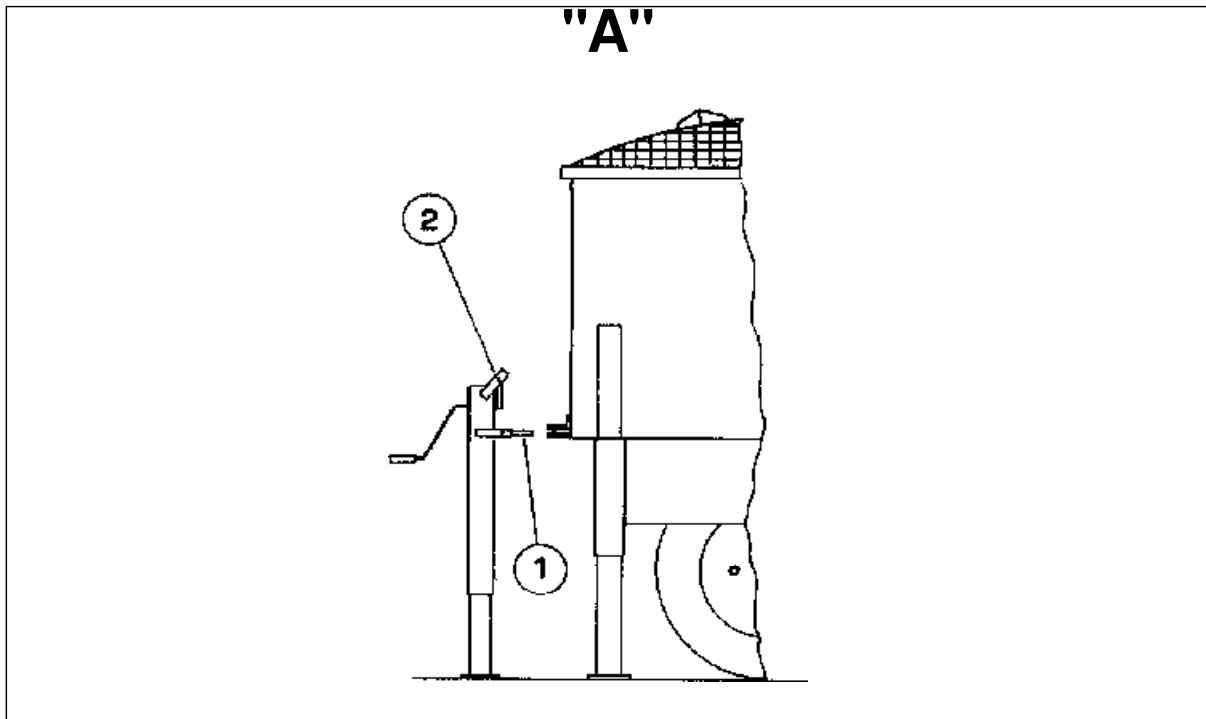
**NOTE: State law may also require a tail light assembly.**



## 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.

**REMEMBER .....do 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!

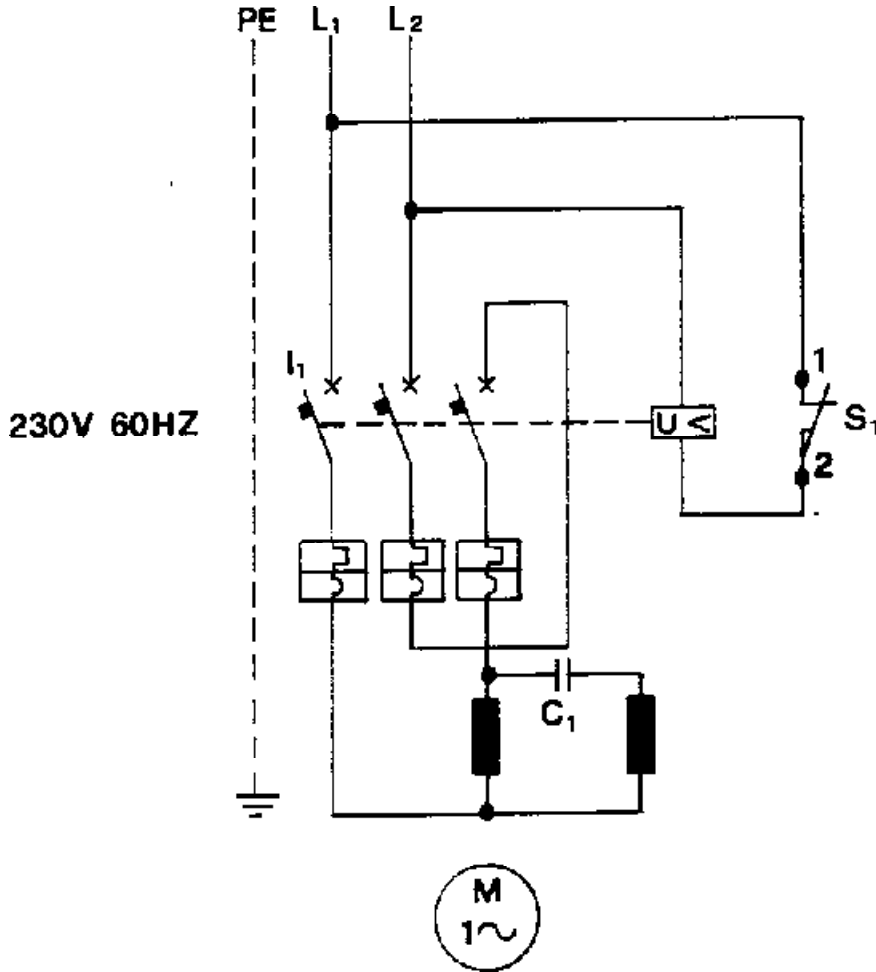
## **TECHNICAL SPECIFICATION** **MORTARMAN 360 MORTAR MIXER**

		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



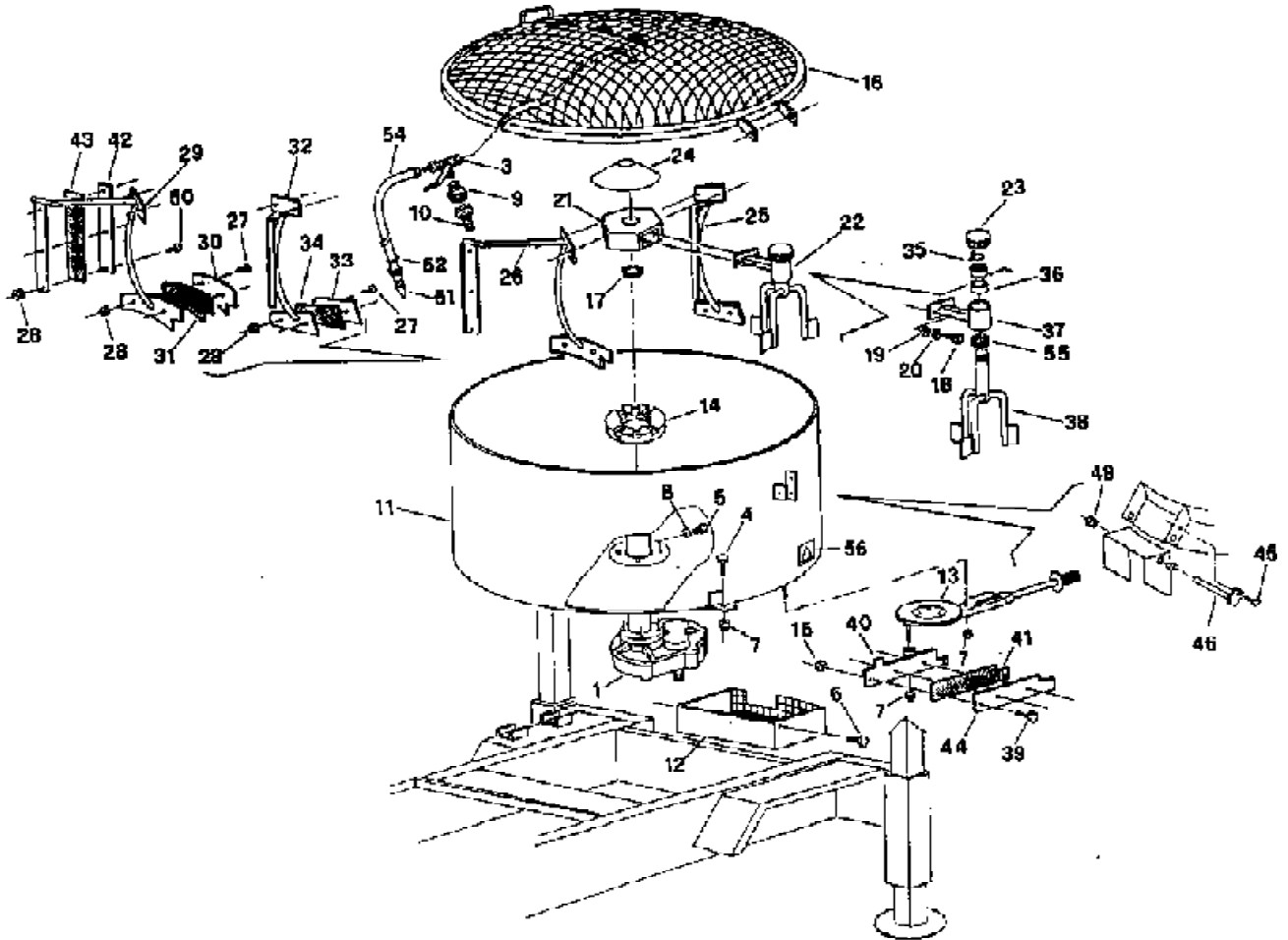
- I1 SWITCH 16 - 25A + BOB.
- S1 SAFETY SWITCH
- U< LOW VOLTAGE PROTECTION
- C1 CONDENSOR



**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

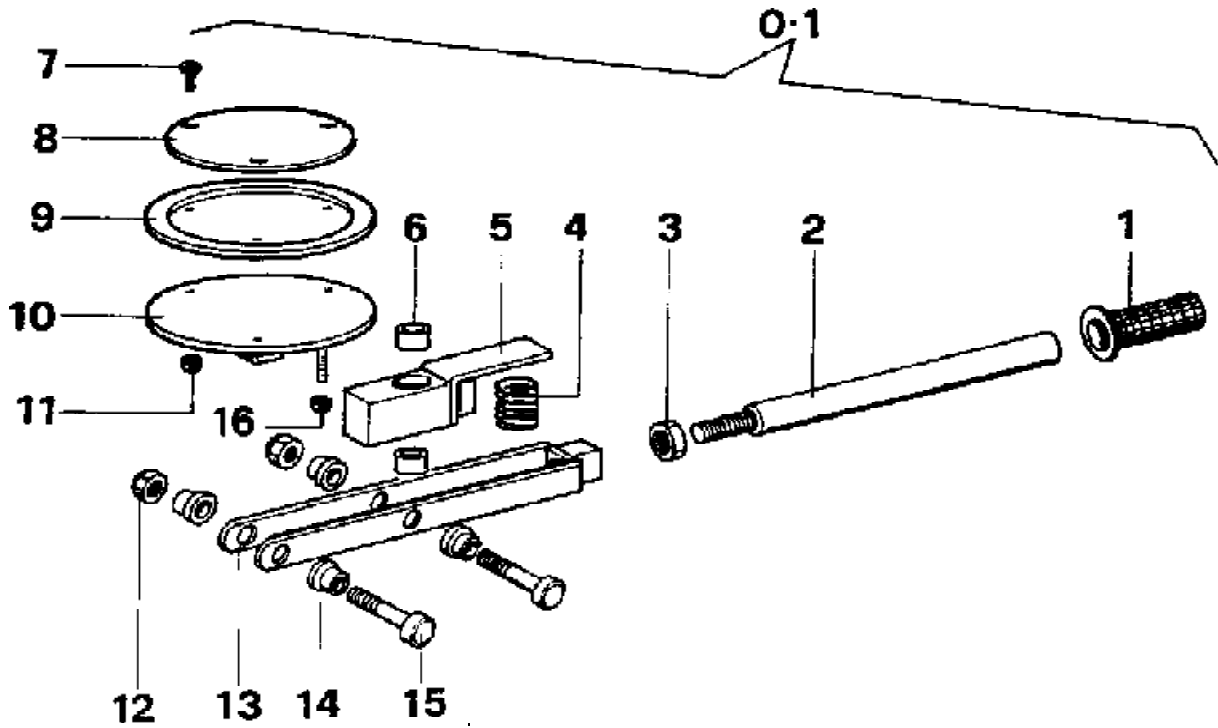






TABLE 3 Wheel and suspension assembly			
Ref.	P.n.	Description	NOTES
1	3208128	AXLE	
2	3210607	BOLT	
3	3201789	WHEEL COMPLETE	
4	2222142	BOLT	5737 M12X100 Z
5	3207392	NUT	METALBLOC M12
6	2224380	WASHER	6593 D.12X25 Z

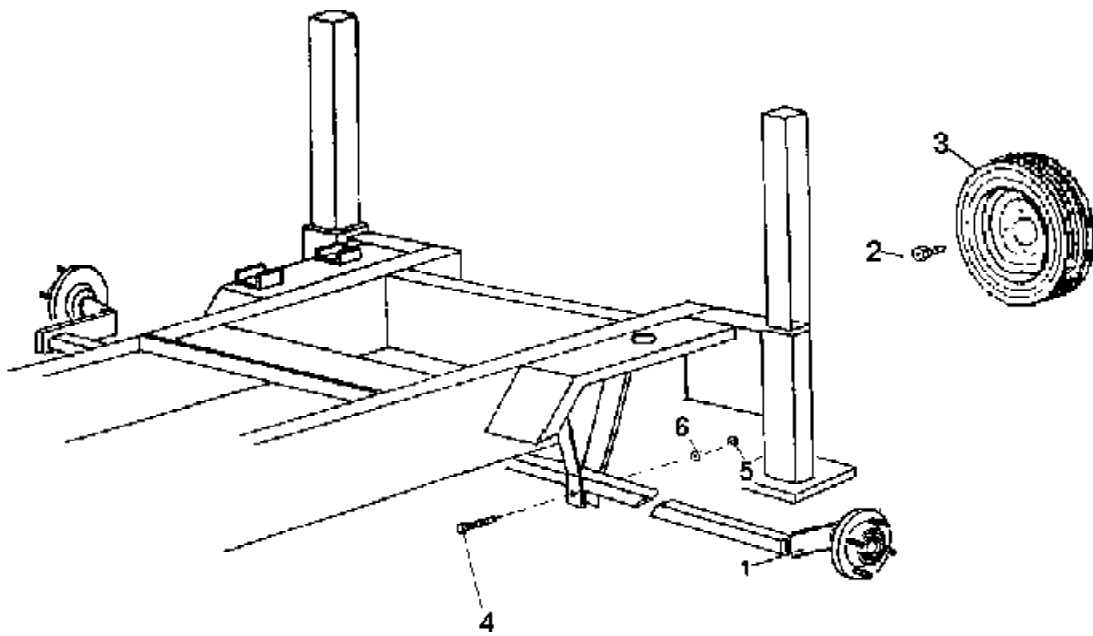
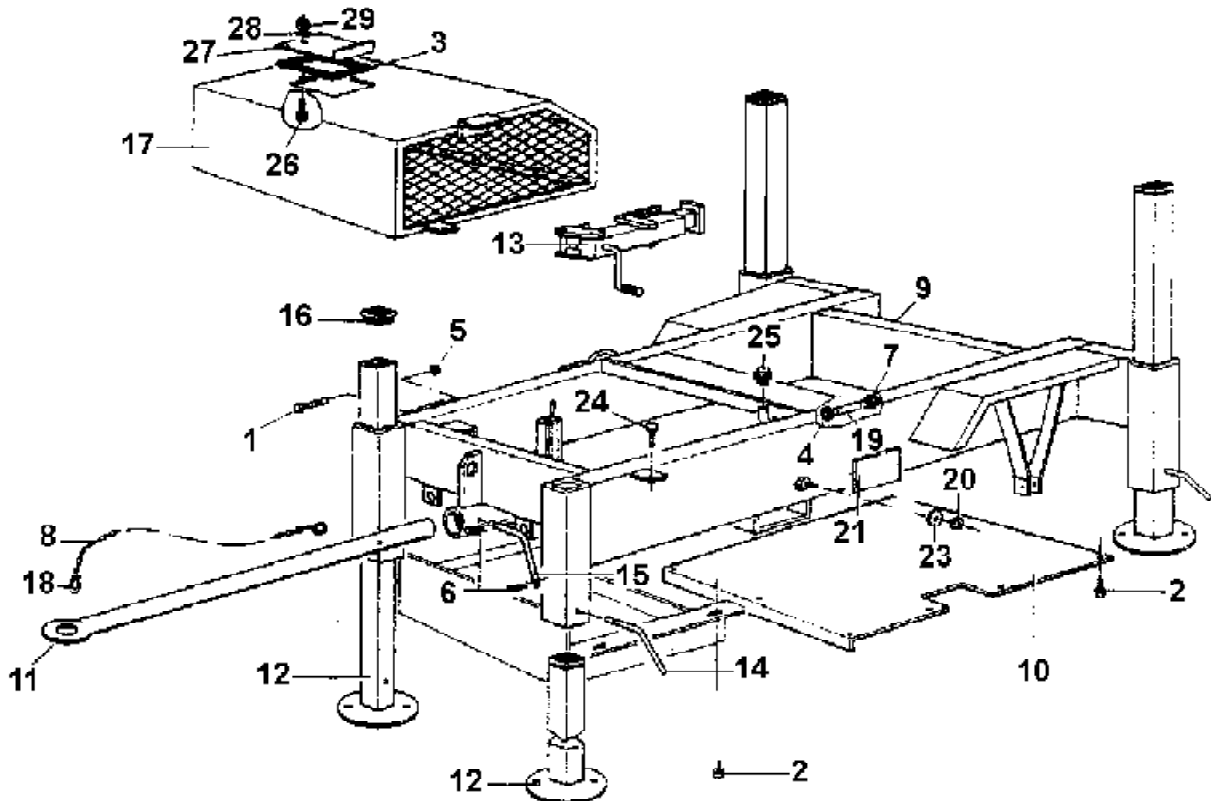




TABLE 4 Frame

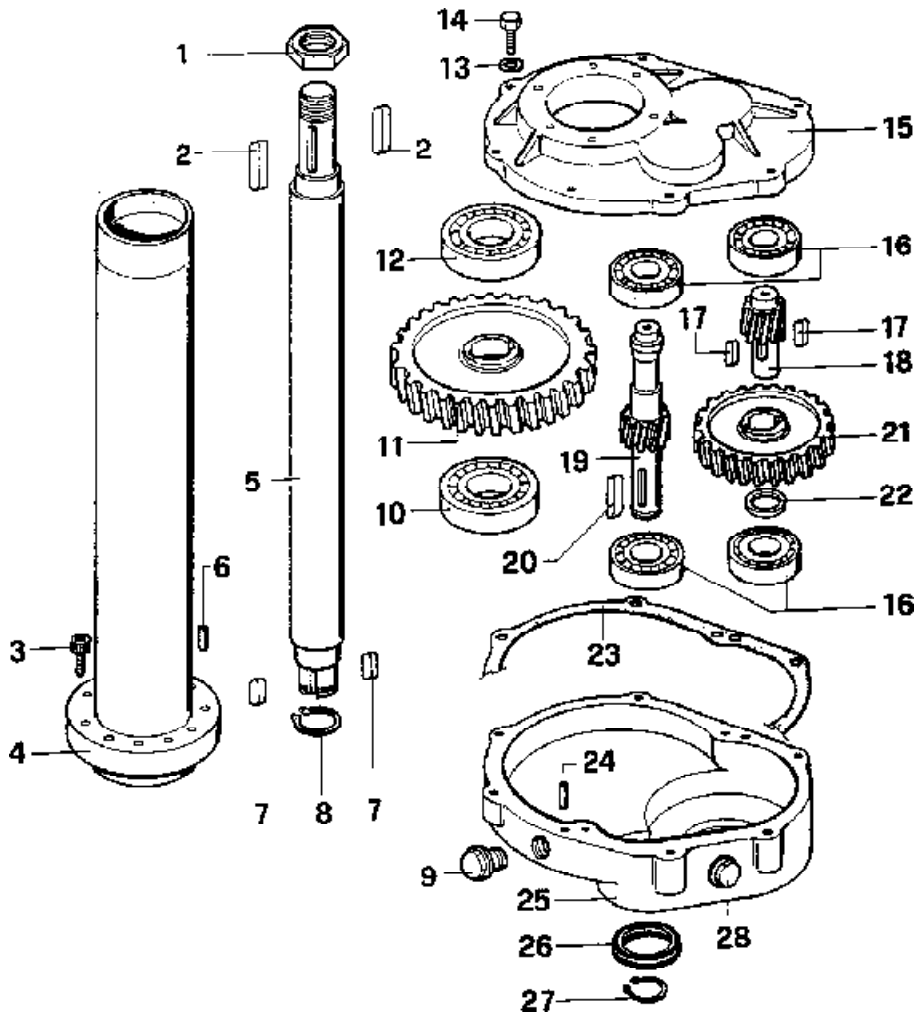
Ref.	P.n.	Description	NOTES
1	2222566	BOLT	5931 M12x80
2	2222016	BOLT	6950 M6x20
3	2216277	GASKET	
4	2225745	CAP	Ø 32 - 52
5	2222421	NUT	M12
6	2226700	SLIP PIN	
7	3211268	THREADED INSERT	
8	2234861	TOW CHAIN	
9	3210977	MAIN FRAME	
10	3201044	BASE PLATE	
11	2255211	TOW BAR	
12	2256128	TELESCOPIC FOOT	
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





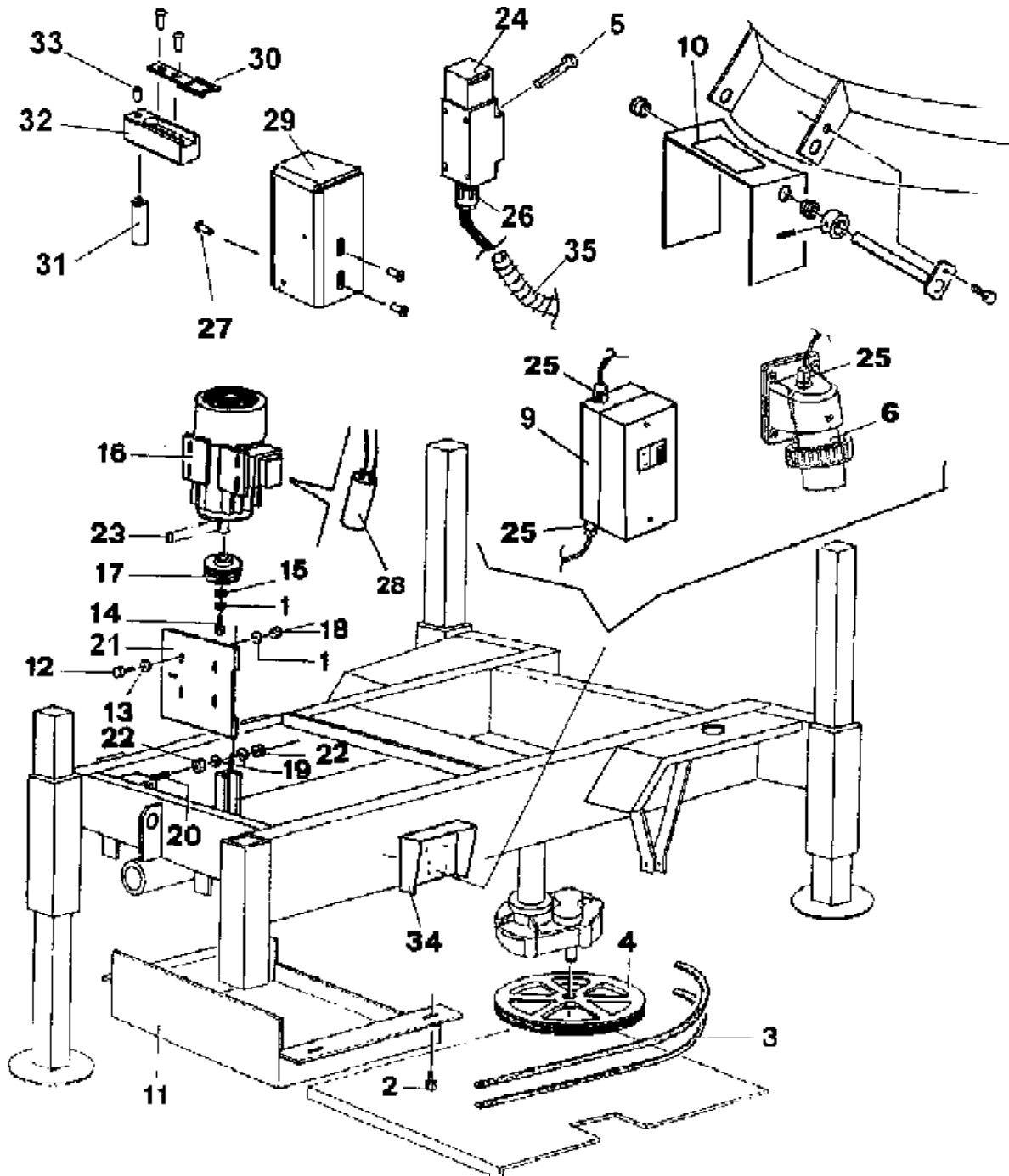
**TABLE 5 Gearbox**

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)**



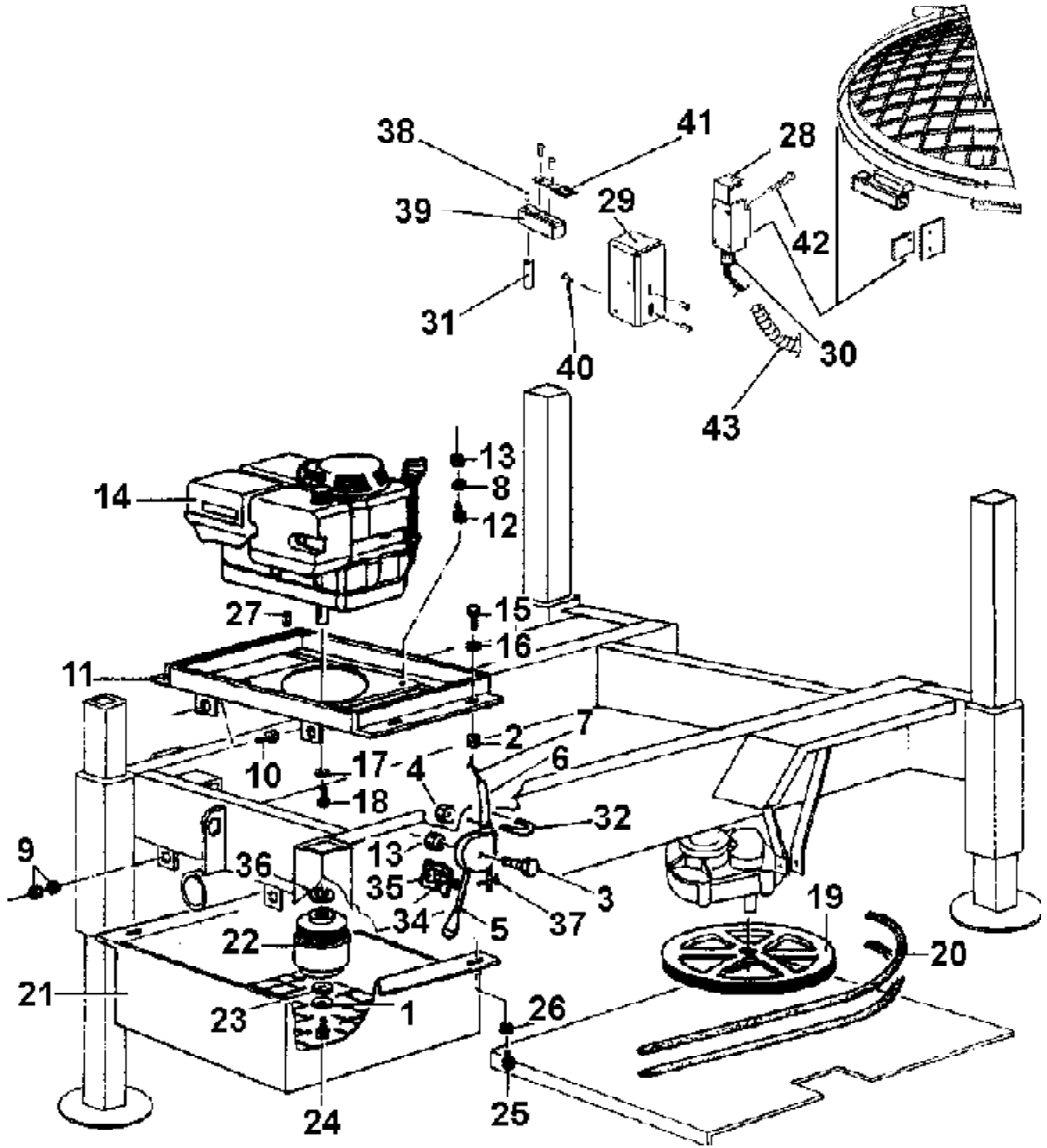


**TABLE 7 ASSEMBLY OF MOTOR 400V 60Hz**

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	MOTORMOUNTING PLATE	
22	2223700	NUT	5588 M12Z
23	2223340	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)



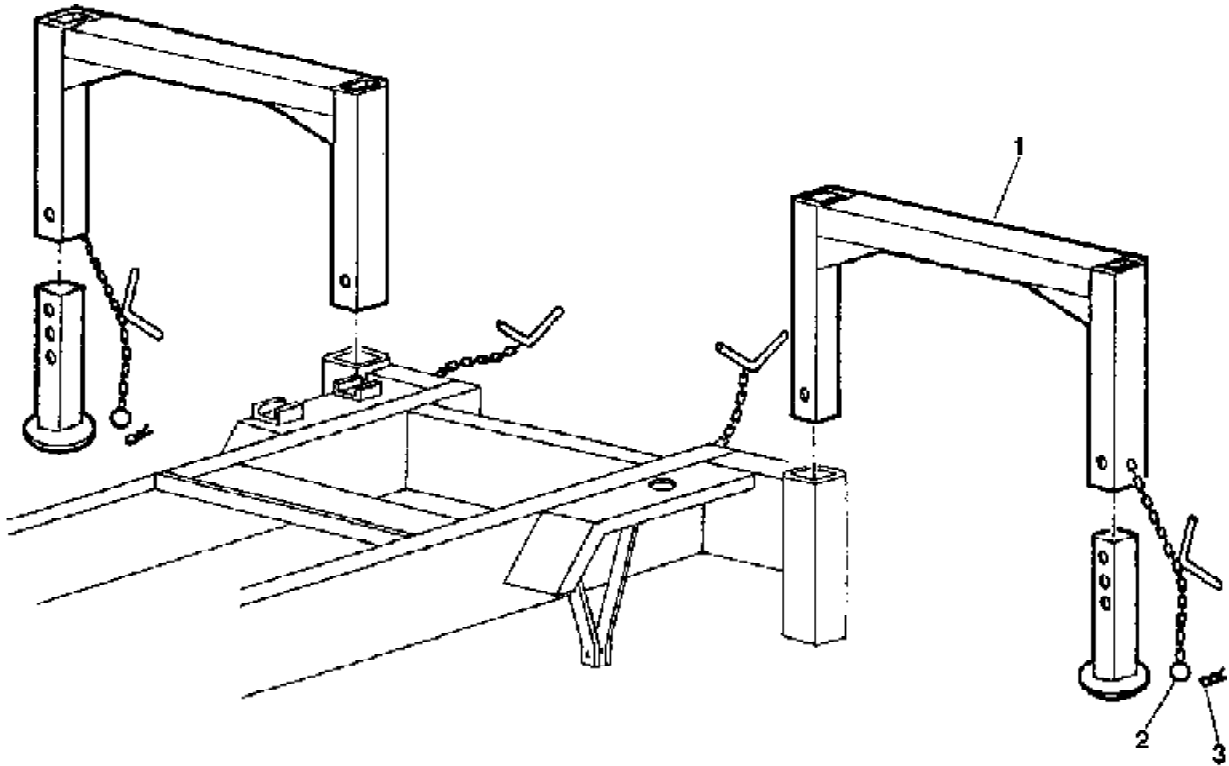


<b>TABLE 8 Drive train Honda (1194580)</b>			
<b>Ref.</b>	<b>P.n.</b>	<b>Description</b>	<b>NOTES</b>
01	2224910	WASHER	Dev.C72 Ø10Z
02	2223920	NUT	Autobl. M10
03	2222587	SCREW	5933 M8x20
04	2223500	NUT	5588 M4Z
05	2284805	THROTTLE CONTROL	
06	2284398	THROTTLE CABLE SHEATH	
07	2212120	INNER CABLE	
08	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"

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**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 o delivery. (The terms off our Guarantee are given on the back off 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

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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

**[www.imerusa.com](http://www.imerusa.com)**

**800-275-5463**



## MORTARMAN 360"A" Mortar Mixer

Thank you for purchasing a Mortarman 360 from an IMER U.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 suspension .....standard 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 Maintenance ....no 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 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°**

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# IMPORTANT MIXING INSTRUCTIONS

**AGGREGATE BIGGER THAN 1/8" WILL DAMAGE MIXER**

**SAND**  
**LIME**  
**CEMENT**

- Set up mixer
- Start mixer
- Do not add water
1. Add 1/2 sand
  2. Add lime
  3. Add cement
  4. Mix materials dry
  5. Add 3/4 of water
  6. Add rest of sand
  7. Add rest of water
  8. Mix up thoroughly

**PRE - MIX 60 lb**  
**SPEC - MIX 80 lb**

- Set up mixer
- Start mixer
- Do not add water
1. Check bag weight
  2. Determinate max load
  3. Add 1/2 of max load
  4. Add 3/4 of water
  5. Add rest of bags
  6. Mix up thoroughly

**SILO**

- Set up mixer
- Start mixer
- Do not add water
1. Add 1/2 of max load
  2. Add 3/4 of water
  3. Add rest of material
  4. Add rest of water
  5. 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.***

<b>ASSEMBLY .....</b>	<b>4</b>
<b>SET UP PROCEDURES .....</b>	<b>5</b>
<b>IMPORTANT NOTES AND ADVICE .....</b>	<b>7</b>
<b>OPERATING INSTRUCTIONS.....</b>	<b>9</b>
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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.

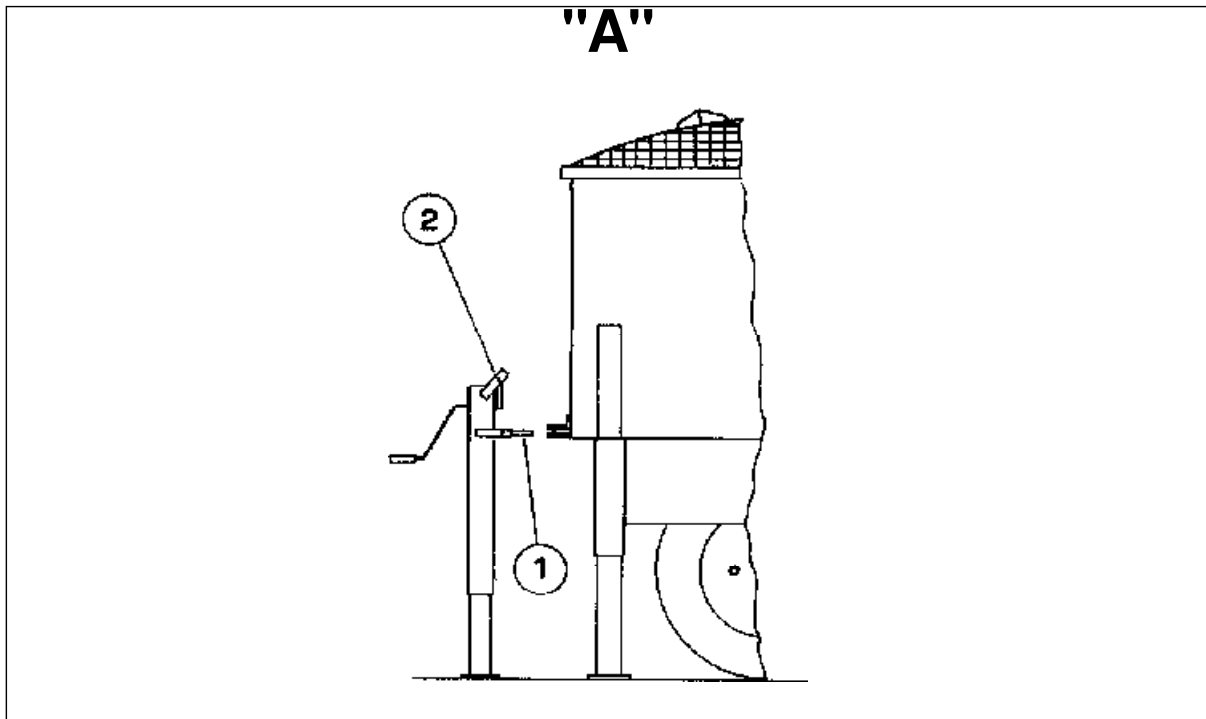
**NOTE: State law may also require a tail light assembly.**



## **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.

**REMEMBER .....do 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**

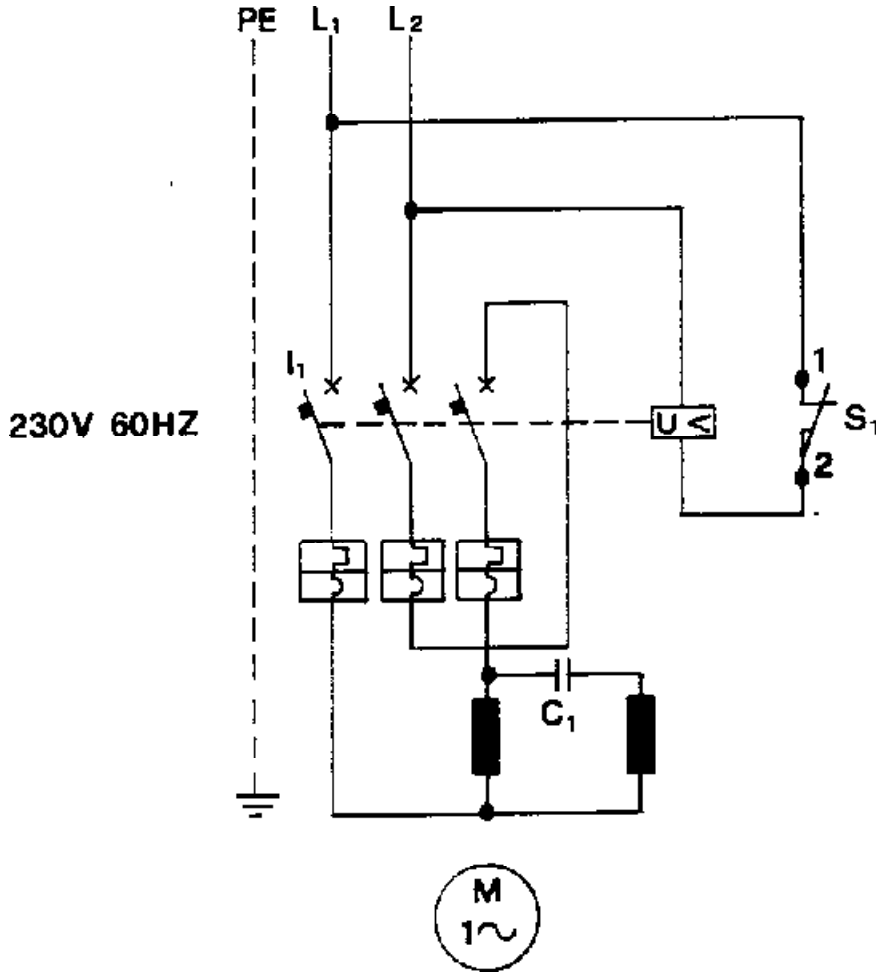
		1 - PHASE	GASOL MOTOR
DRUM CAPACITY	l/Cu.ft	360/13	360/13
BATCH OUTPUT	l/Cu.ft	200/7	200/7 3 bags
DICHARGE GATE	mm/inc	900(35")	900(35")
DIMENSION OF DRAW POS.	MIN.1680(66")x1155(46")x1080(43") MAX.2710(106")x1155(46")x1710(67")		
WEIGHT	Kg/Pounds	360/794	360/794
WHEELS	inc	4.50/10"	4.50/10"
MOTOR POWER	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



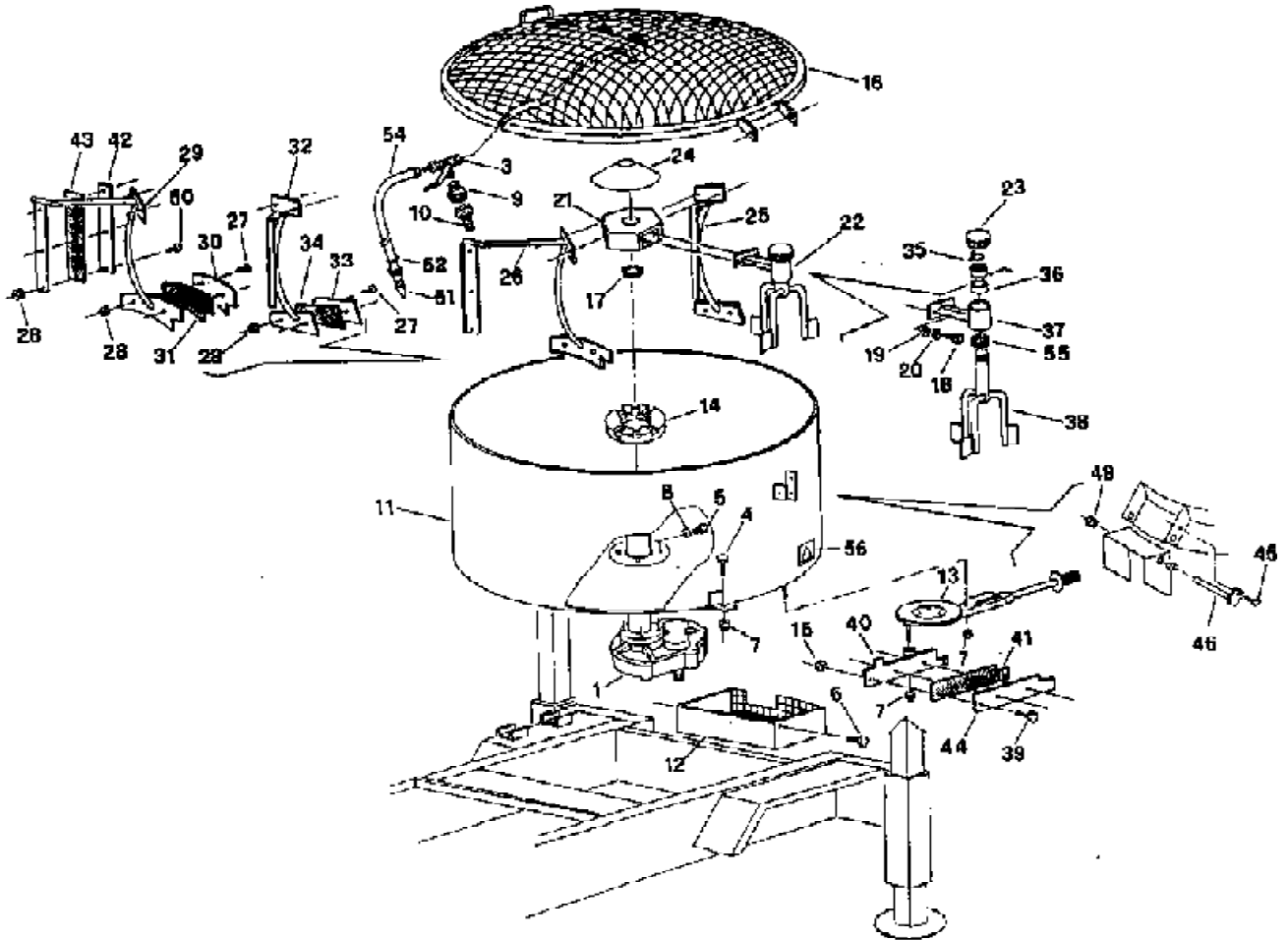
- I1 SWITCH 16 - 25A + BOB.
- S1 SAFETY SWITCH
- U< LOW VOLTAGE PROTECTION
- C1 CONDENSOR



**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

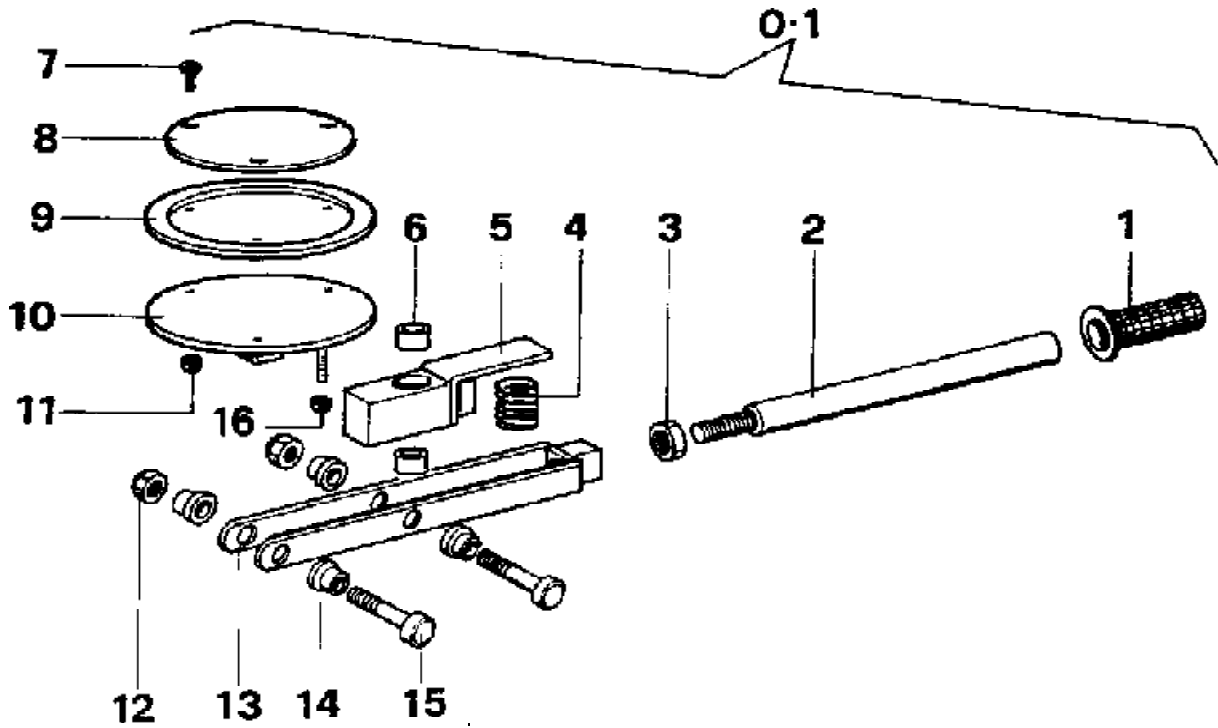
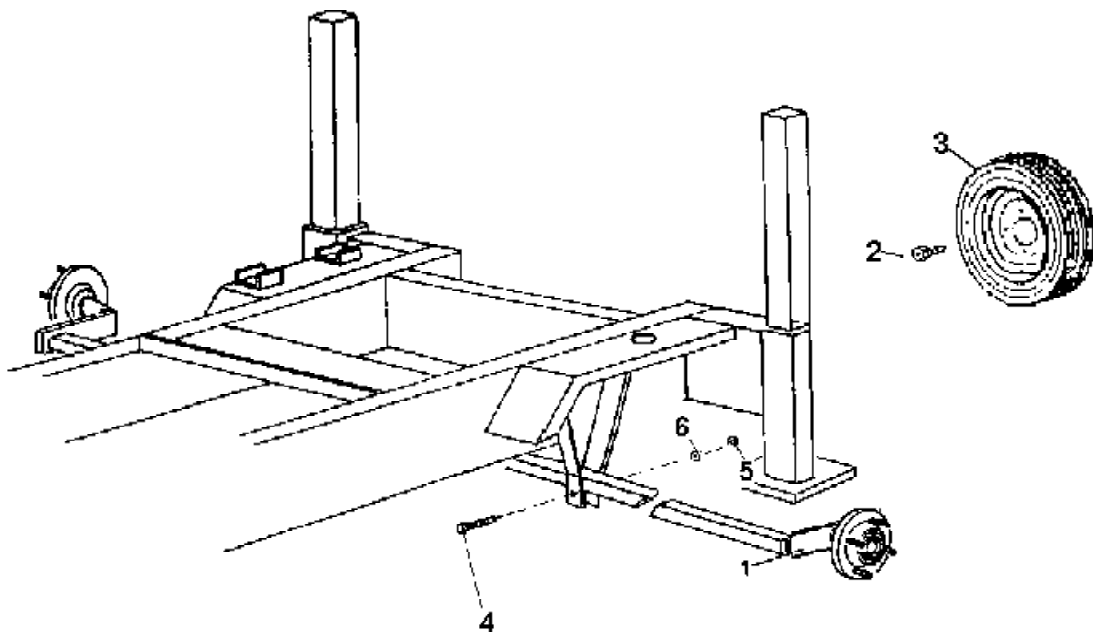




TABLE 3 Wheel and suspension assembly			
Ref.	P.n.	Description	NOTES
1	3208128	AXLE	
2	3210607	BOLT	
3	3201789	WHEEL COMPLETE	
4	2222142	BOLT	5737 M12X100 Z
5	3207392	NUT	METALBLOC M12
6	2224380	WASHER	6593 D.12X25 Z





**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

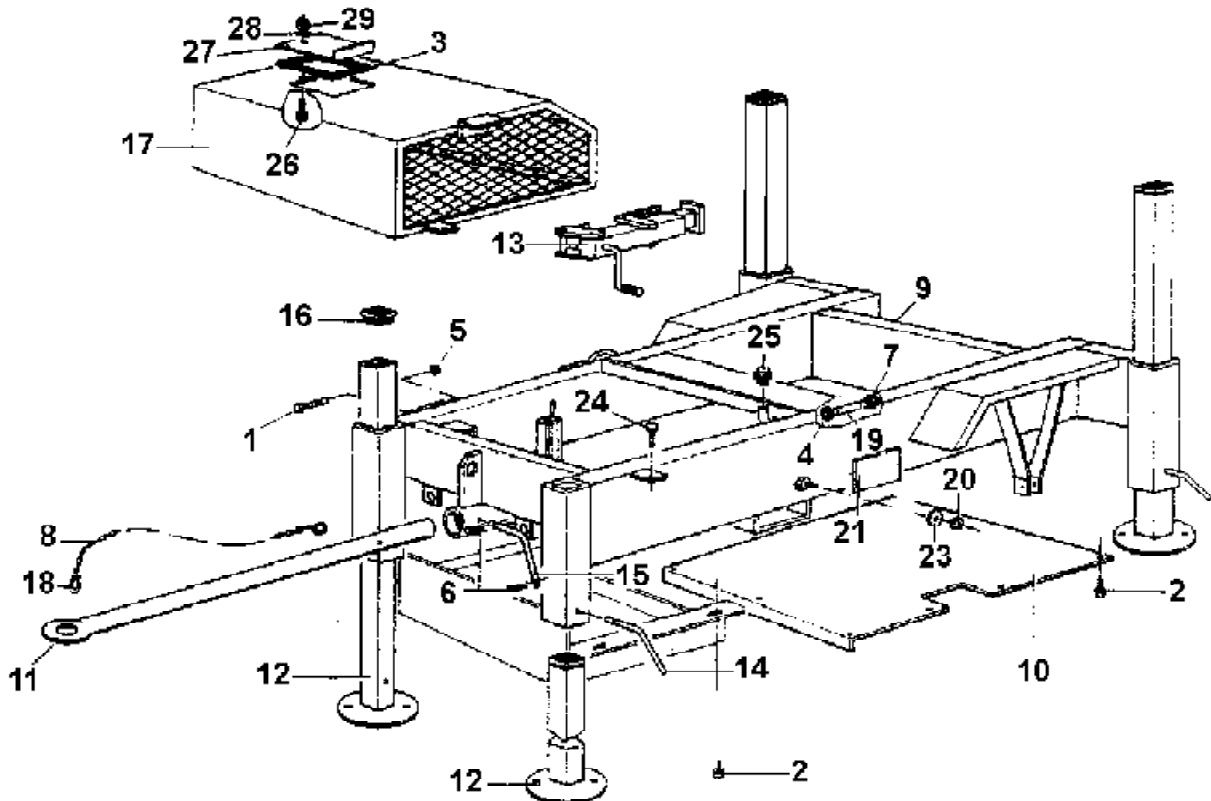
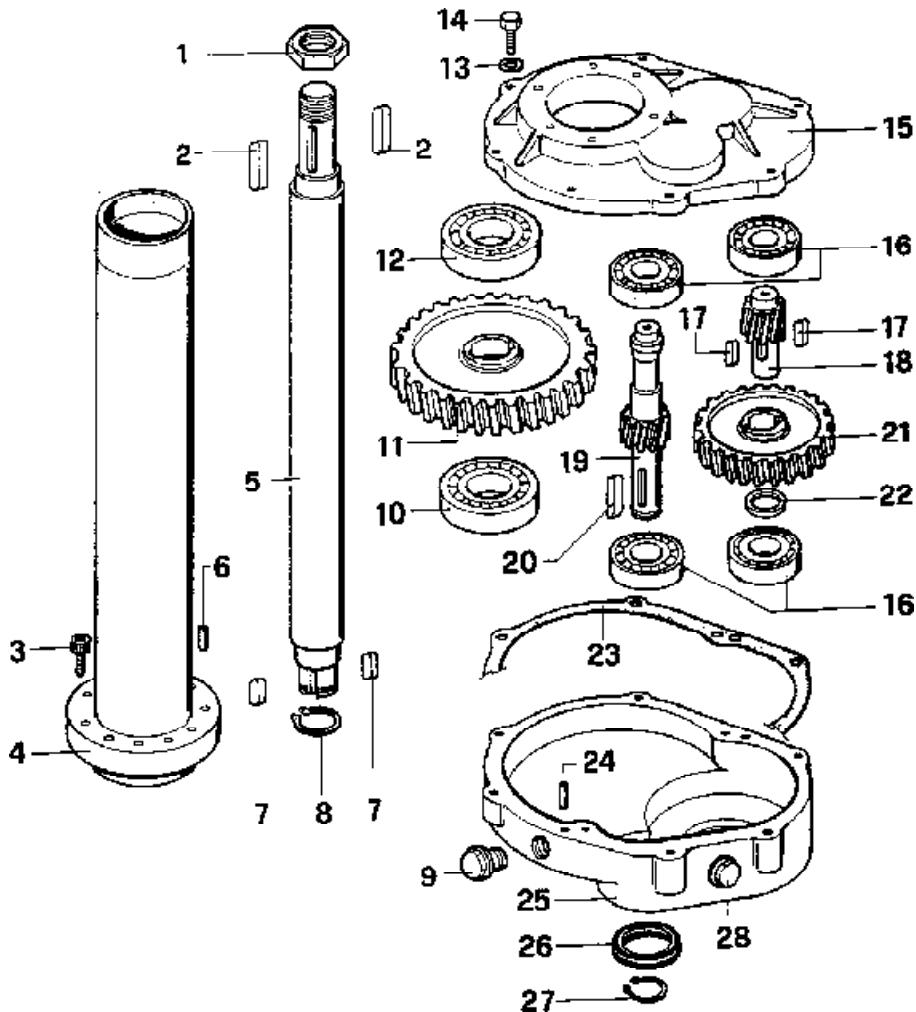




TABLE 5 Gearbox

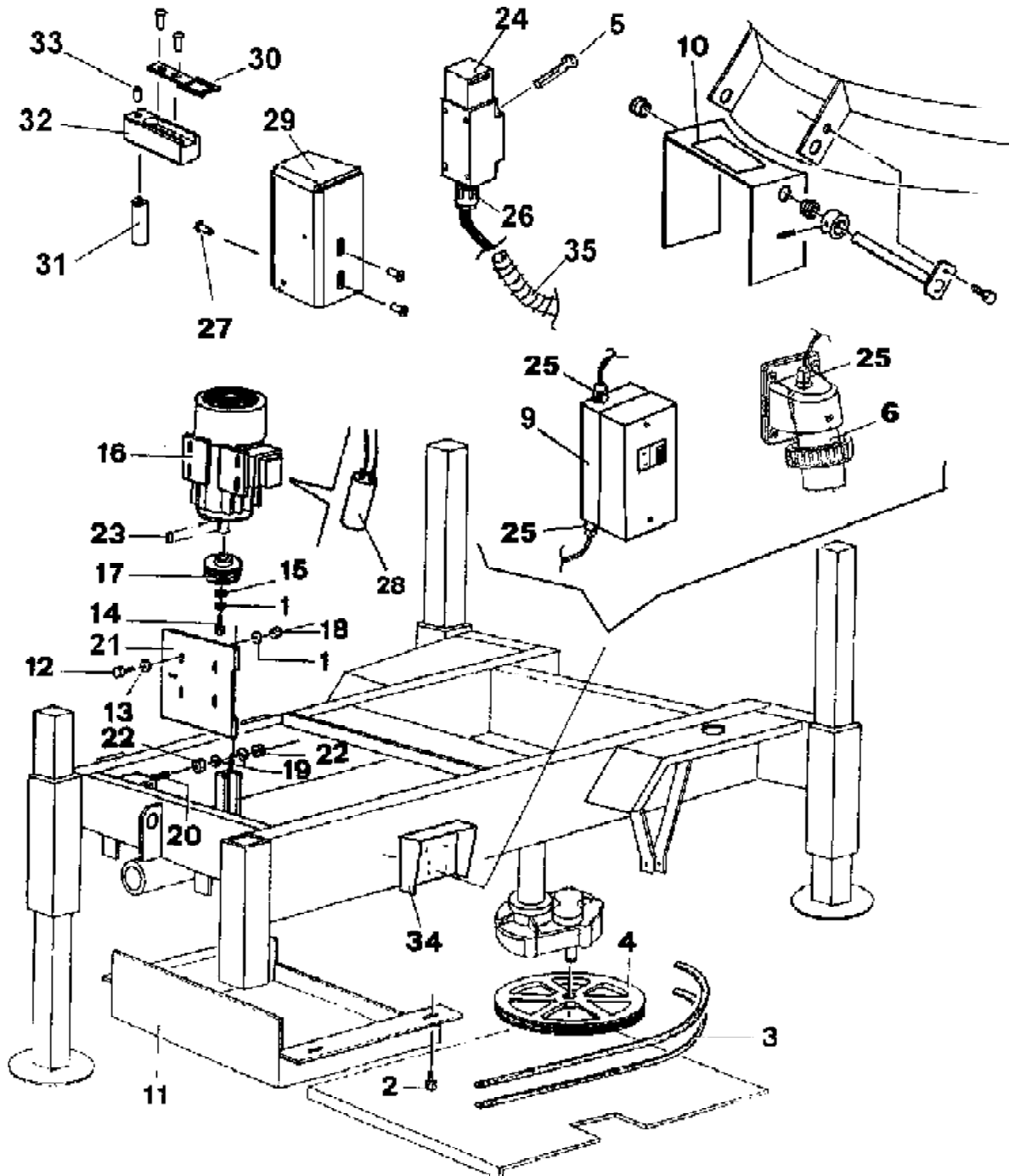
Ref.	P.n.	Description	NOTES
1	2223840	NUT	5589 - MB 42
2	2229602	KEY	10x8x50
3	2222530	ALLEN BOLT	TCEI593 18x35 Z
4	2258007	DRIVE SHAFT HOUSING	
5	2201161	DRIVE SHAFT	
6	2228740	LOCATING PIN	
7	2229549	KEY	10x8x30
8	2227260	CIRCLIP	3653 E/34
9	2235420	OIL LEVEL WINDOW	
10	2204509	BEARING	
11	2202517	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)**



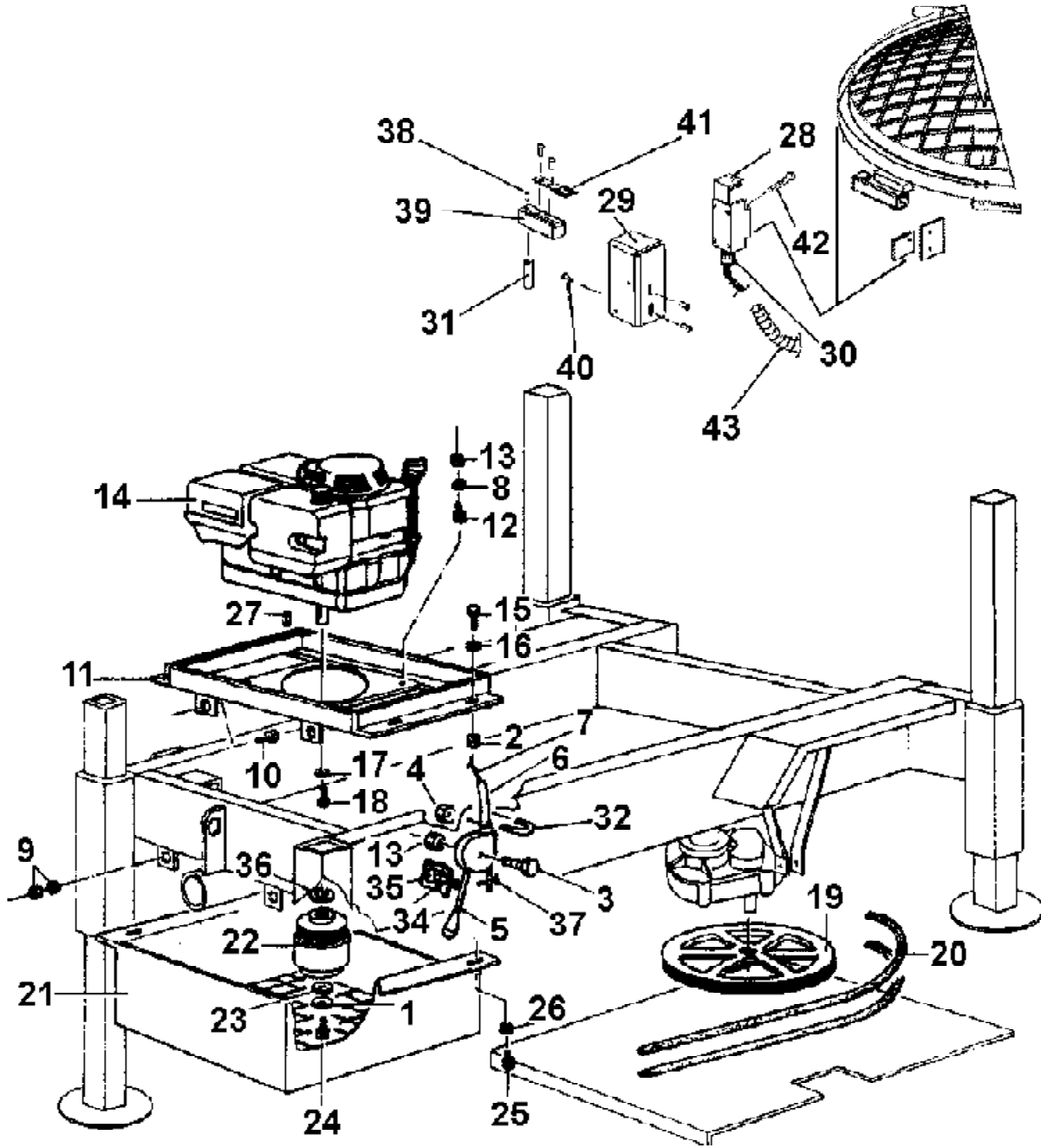


**TABLE 7 ASSEMBLY OF MOTOR 400V 60Hz**

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	MOTORMOUNTING PLATE	
22	2223700	NUT	5588 M12Z
23	2223340	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)



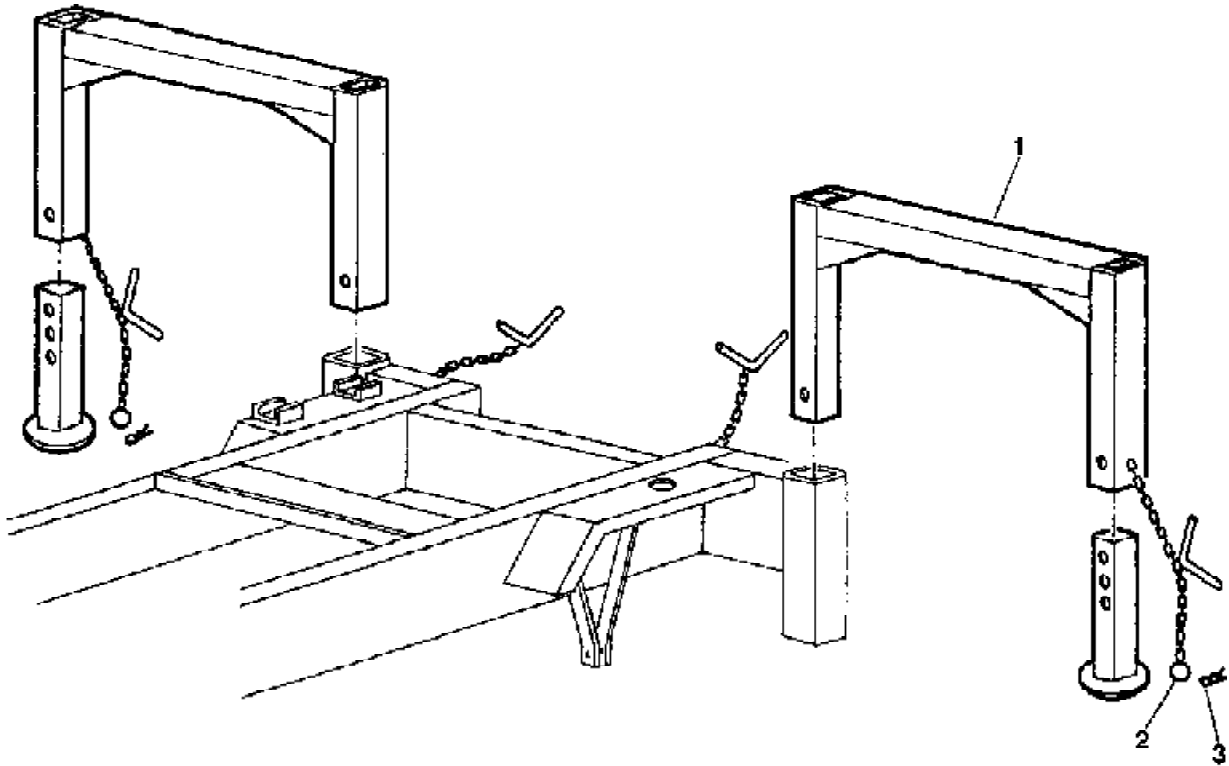


<b>TABLE 8 Drive train Honda (1194580)</b>			
<b>Ref.</b>	<b>P.n.</b>	<b>Description</b>	<b>NOTES</b>
01	2224910	WASHER	Dev.C72 Ø10Z
02	2223920	NUT	Autobl. M10
03	2222587	SCREW	5933 M8x20
04	2223500	NUT	5588 M4Z
05	2284805	THROTTLE CONTROL	
06	2284398	THROTTLE CABLE SHEATH	
07	2212120	INNER CABLE	
08	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"

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**IMER U.S.A. INC.**

**EQUIPMENT WARRANTY**

**IMER U.S.A. INC.**

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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.

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**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.

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MORTARMAN 360"A"

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Do you have other IMER USA Inc products?

Yes  No

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Do you wish FACTORY RECOMMENDATIONS for this type of material? \_\_\_\_\_

Yes  No

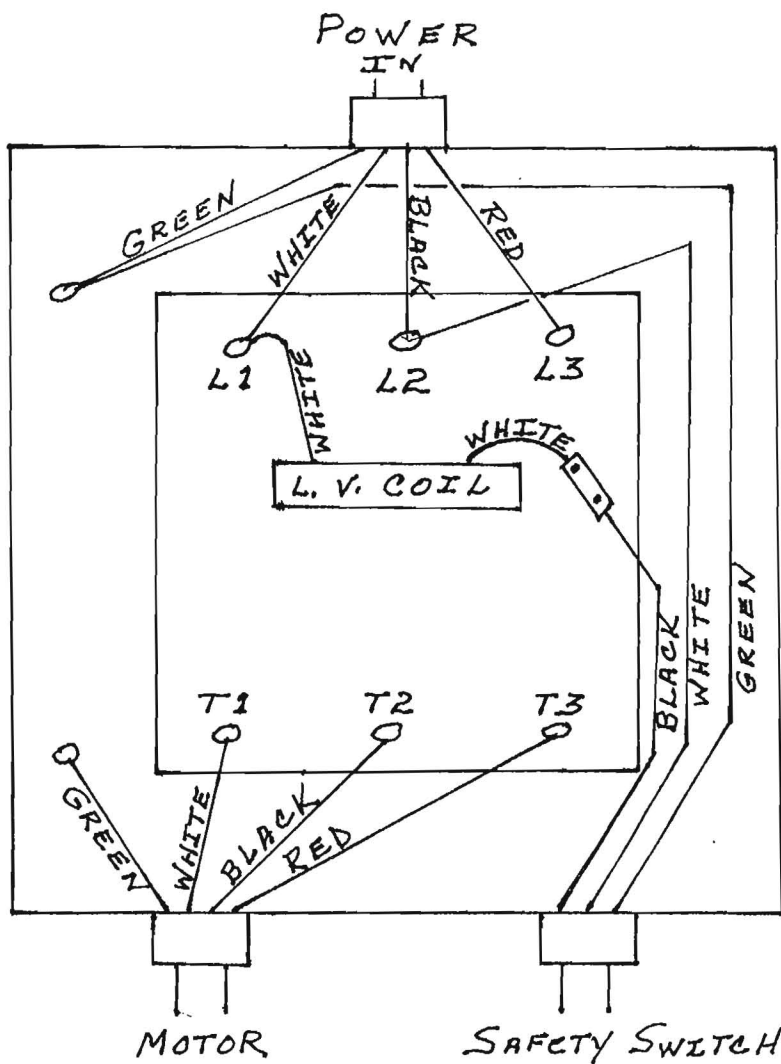
Thank you for the opportunity to be of service.

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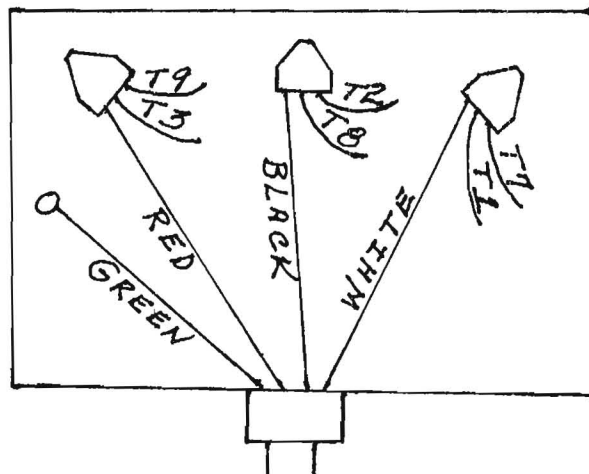


# MORTARMAN 360 220 VOLT 3 PHASE



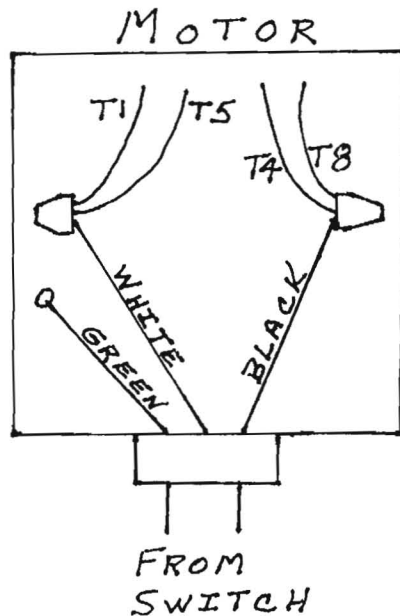
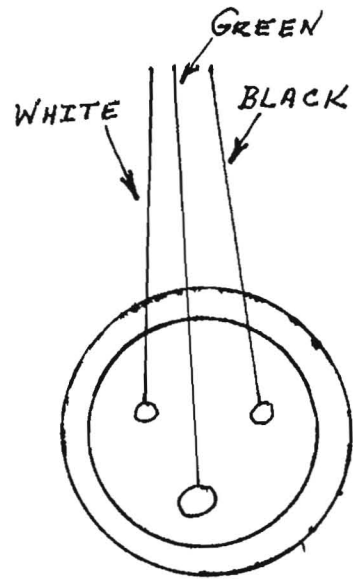
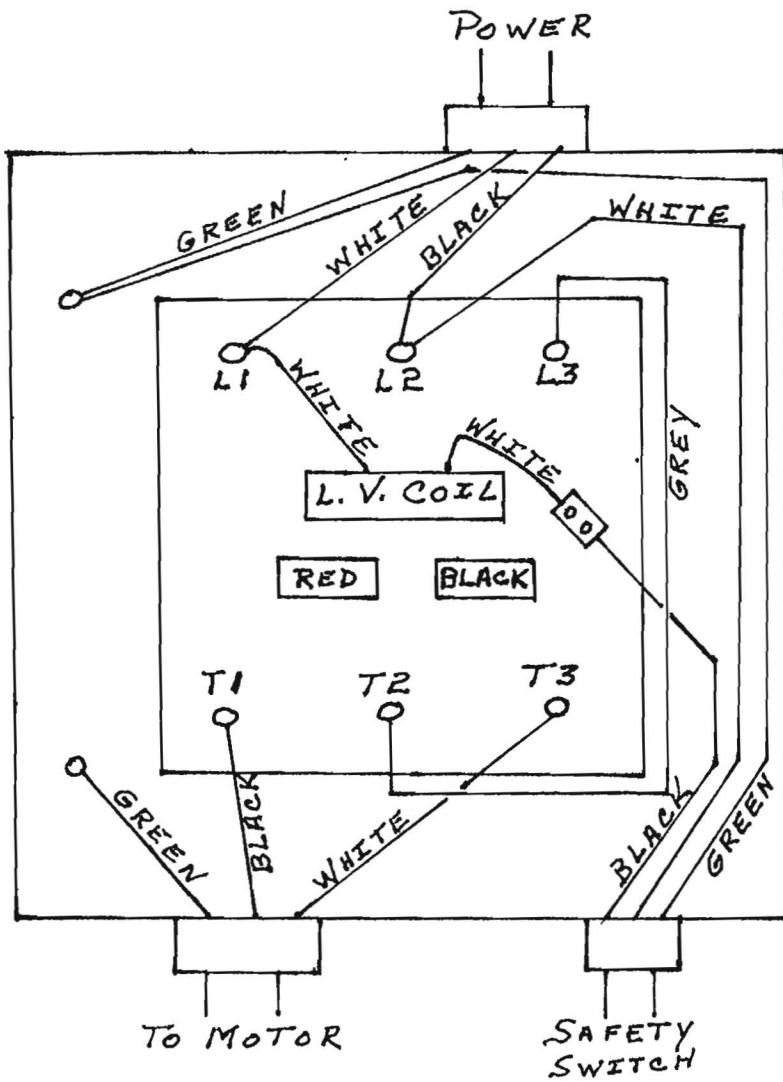
SWITCH

MOTOR



12/1/09  
OK

MORTARMAN 360 220V 1 PHASE 1194585



3/4/10  
AN



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