



# SERVICE/PARTS MANUAL

## MODEL: HM1290



### HYDRAULIC MIXER

#### Plaster / Mortar / Fireproofing

A 100% employee-owned American manufacturer



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HM1290

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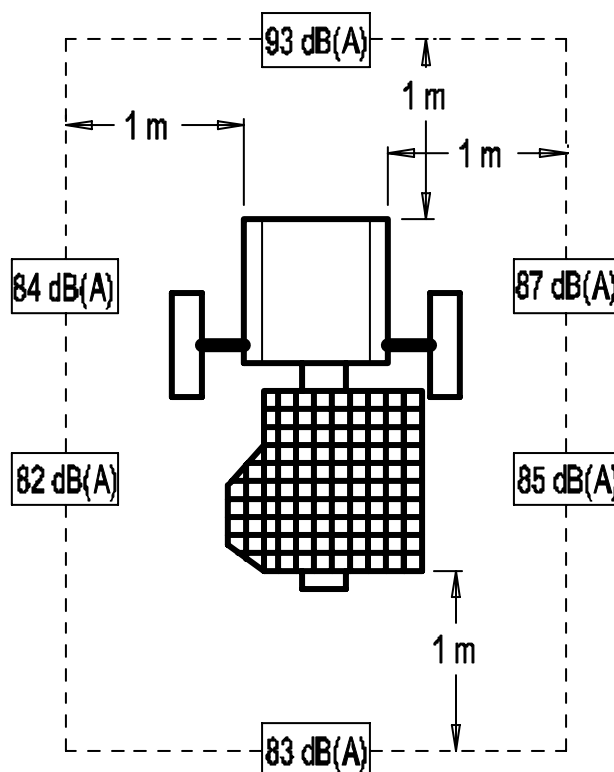
# Technical Data

## Specifications HM1290

<b><u>Dimensions</u></b>		
Operating Wt.	(Gas)	1375 lbs. / 625 Kg
	(Electric)	1398 lbs / 635 Kg
Batch Capacity (Bags)		3-4 bags
Batch Capacity (cu. ft.)		12 cu. ft. / 0.34 cu m
Total Volume		14.8 cu. ft. / 0.42 cu m
L x W x H		85" x 58.5" x 55" / 2159 mm x 1486 mm x 1397 mm
<b><u>Operating System</u></b>		
Engine - Honda		13 hp / 9.69 kW
Motor - Baldor		5 hp / 3.73 kW
Hydraulic Oil		Mobil 424 or Equivalent
Tank Capacity		16 gal / 60 l
Heat Exchange Surface		16.1 sq.ft. / 1.5 sq m
Oil Tank Vent		Pressurized
Oil Filter		10 micron/bypass
Oil Line Fittings		O-Ring Face Seal
<b><u>Drum</u></b>		
Drum Wrap		1/4" / 6 mm
Drum End - Tow End		1/4" / 6 mm
Drum End - Engine End		5/16" / 8 mm
Pour Lip		7 ga (3/16) (.180)
Drum Lock		Hydraulic
Charge Height		50" / 1.270 mm
Dump Height		22" / 559 mm
<b><u>Paddles:</u></b>		
Number		6
Mixing Action		Triple figure 8 speed blend
Mixing Speed		45-52 rpm / 0.75-0.87 Hz
Paddle Shaft		2" square
Blades		Rubber
<b><u>Frame/Axle:</u></b>		
Tow Pole		Pintle, pin or 1-7/8 to 2" ball hitch
OD		2.875" / 73 mm
ID		2.469" / 63 mm
Axle - Spring		56" / 1,422 mm Double "U"
Tires		B78 x 13 (25" dia.) (high speed)
<b><u>Cowl:</u></b>		14 & 11 Ga, diamond shaped expanded steel vent. panels
<b><u>Options:</u></b>		Optional blades recommended for plaster or fire proofing. Curved ends of main blades minimize splashing, and speed mixing action to insure easy cleanups. May be used with or without rubber blades. (plated or non-plated)

# Technical Data

## Machine Sound Level



Sound Pressure measurements were taken with Simpson model 886-2 type 2 meter, calibrated 1/31/98 on the 13HP Honda

Test measurements were taken with Quest Tech model VI-100 meter, 1/31/98

Ambient Temperature: 30°F/-1°C

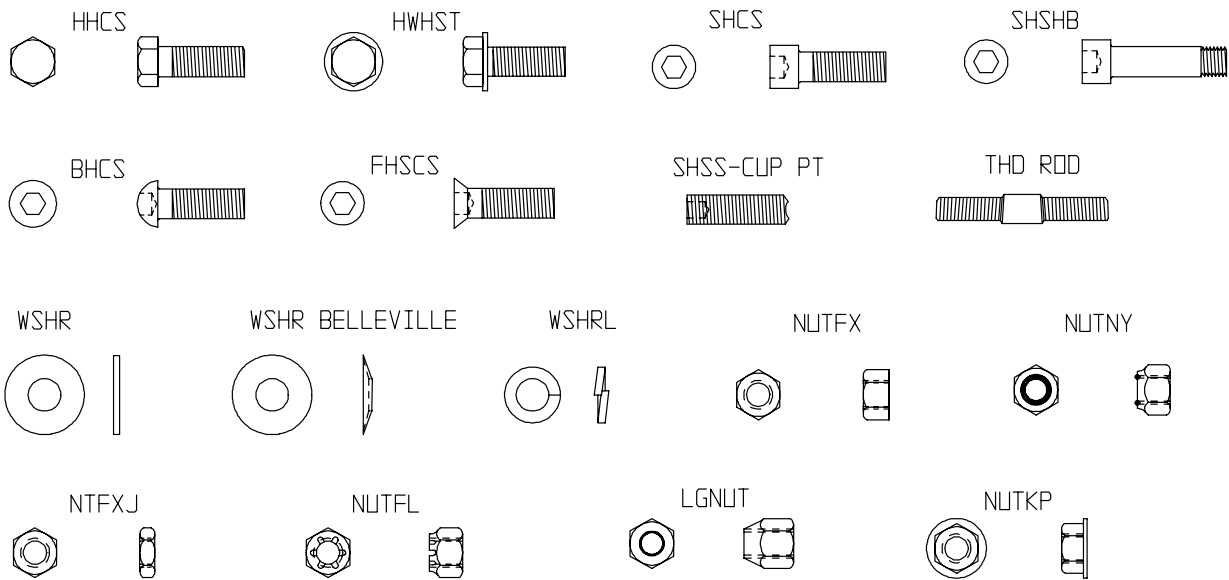
Engine Speed: 56.7 Hz

Test Site: Honeoye, NY USA

Sound Level Meter Setting: dB(a) slow

# Technical Data

## Hardware Identification



VR005A

**ZN = ZINC PLATED**  
**BLK = BLACK OXIDE FINISH**

# Health and Safety

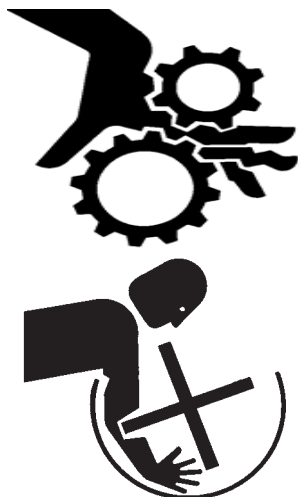
## Safety Precautions



- Before using this equipment, study the entire owner's manual to become familiar with its operation. Do not allow untrained or unauthorized personnel, especially children, to operate this equipment. Use only factory authorized parts for service.
- When warning decals are destroyed or missing, contact the Manufacturer immediately at 1-800-888-9926 for replacement. For the safety of yourself and others, it is imperative that the following rules are observed. Failure to do so may result in serious injury or death.
- This notation appears before warnings in this manual. It means that the following steps must be carried out to avoid the possibility of personal injury or death. These warnings are intended to help the technician avoid potential hazards encountered in normal service procedures. We strongly recommend the reader take advantage of the information provided to prevent personal injury or injury to others.

### Warning - Loose Hardware

- With power off, daily check for loose hardware. Immediately inform your supervisor to have it corrected--Do Not Run the Mixer.



### Warning-Handling Fuel

- Transport and handle fuel only when contained in approved safety containers.
- Do not smoke when refueling the mixer or during any other fuel handling operation.
- Do not refuel the mixer with the unit running or while hot.
- If fuel is spilled during refueling, wipe it off from the engine immediately and discard the rag in a safe place.
- Do not operate the equipment if fuel or oil leaks exist – repair immediately.
- Never operate this equipment in an explosive atmosphere.

### Warning-Operating

- Never perform any work on the mixer while it is running.
- Before working on the mixer, stop the engine and disconnect the spark plug wire(s) to prevent accidental starting. If electric, unplug motor.
- Keep cowl closed during operation.
- Keep hands, clothing and jewelry away from all moving parts.
- Keep all guards in place, including drum guards.
- Never stick your hands or any solid object into the drum while it is in operation.

# Health and Safety

## Safety Precautions



### Warning-Hot Surfaces

- Avoid contact with hot exhaust system and engines.
- Allow engine to cool before performing any repairs or service.



### Warning-Ventilation

- Never operate any gas powered mixer in a poorly ventilated or enclosed area.
- Avoid prolonged breathing of exhaust gases.



### Warning-Hydraulic Fluids

- Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury.
- Hydraulic fluid escaping under pressure from a very small hole can be almost invisible . Use a piece of cardboard or wood to search for possible leaks.
- Never use your hands to detect pressure leaks.
- Hydraulic tank temperature can reach 180 degrees F.



### Warning-Eye Protection

- Always wear splash goggles when operating mixer.



### Warning-Towing

- Warning: Do not tow the mixer with the drum in the dump position. Mixer may become unstable and tip over when hitting a curb, pothole, or other obstruction.



- Warning: Always properly attach safety chains before mixer is towed. Maximum towing speed 65 m.p.h. (105 km/hr). Reduce speed according to highway conditions.

### IMPORTANT

***THE PERSON ATTEMPTING ANY OF THE FOLLOWING MAINTENANCE TASKS, MUST BE AUTHORIZED TO DO SO AND HAVE READ AND UNDERSTOOD ALL SECTIONS WITHIN THIS MANUAL***

# Maintenance

## Hydraulic System

The main beam of the mixer was designed as a hydraulic reservoir. A baffle lengthwise in the tank forces the hydraulic fluid to flow the length of the tank and back before it is reused. This design, along with ample surface area, makes for excellent oil cooling without the use of other heat exchangers or cooling fans.

**CAUTION**--Breather cap is under pressure. Remove breather cap only when cool enough to touch with bare hands. Slowly loosen cap to relieve pressure before removing completely.

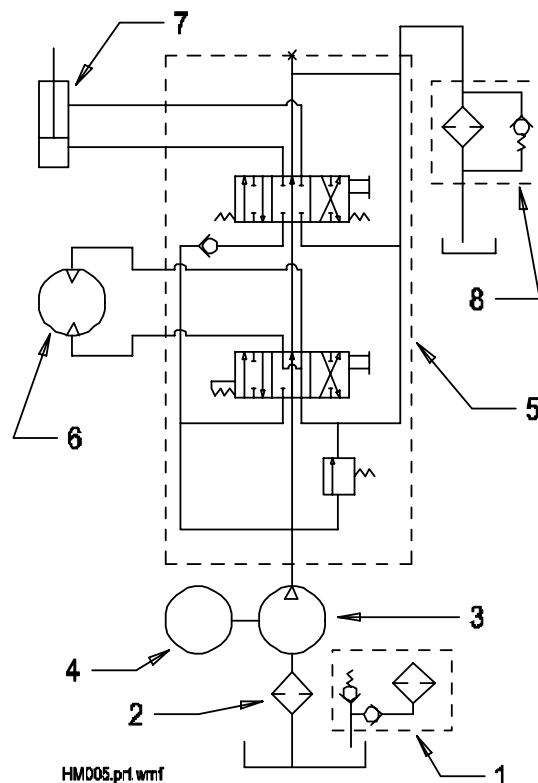
The reservoir is equipped with a pressurized breather filter (1) that reduces the out and inflow of air due to the thermal expansion and contraction of the hydraulic fluid. This substantially reduces the amount of contaminants that can enter the reservoir.

To remove breather cap--use a wrench on the hexagonal portion of the cap assembly which is located underneath the main body of the cap.

The hydraulic fluid enters the system via an oil strainer (2) in the reservoir.

The pump (3) that is directly coupled to the engine (4) directs the hydraulic fluid to a double-spool directional control valve assembly (5). This valve assembly, with an internal pressure relief, set at 2100 psi (14.47 MPa) controls both the paddle shaft motor (6) and the mix dumping cylinder (7). The mix dumping control valve is a 4-way, 3-position valve that is self-centering, springs return the spool to the center neutral position. The paddle shaft motor control valve is also a 4-way, 3-position valve that has a spool shaft detented at both ends. This allows the paddles to rotate in a clockwise direction (mixing direction) or reversed without having to maintain a hand on the control lever. The hydraulic fluid returns to the reservoir via a conveniently located (for service) oil filter (8) with a 25 psi (0.17 MPa) bypass.

1. Pressurized Breather Filter
2. Oil Strainer
3. Gear Pump
4. Engine
5. Directional Control Valve assembly with 2100 psi (14.47 MPa) pressure relief
6. Paddle Shaft Motor
7. Mix Dumping Cylinder
8. Spin-on Filter with 25 psi (0.17 MPa) bypass



# Maintenance

## Torque Chart

Monthly, inspect all hardware on the mixer and engine/motor. Loose hardware can contribute to early component failure and poor performance. Use the torque chart below as a general guideline and keep all hardware tight.

Note: Some hardware is used to retain parts that have to move freely for correct operation of this unit. These items include the guard lifter and drum guard. The hardware for these items should be snug enough to prevent excessive play, yet loose enough to allow the parts to pivot freely.

### SAE GRADE 5 Coarse Thread

SIZE	PLATED	
1/4 – 20 (.250)	6 ft. lbs.	8 Nm
5/16 – 18 (.3125)	13 ft. lbs.	18 Nm
3/8 – 16 (.375)	23 ft. lbs.	31 Nm
7/16 – 14 (.4375)	37 ft. lbs.	50 Nm
1/2 – 13 (.500)	57 ft. lbs.	77 Nm
9/16 – 12 (.5625)	82 ft. lbs.	111 Nm
5/8 – 11 (.625)	112 ft. lbs.	152 Nm
3/4 – 10 (.750)	200 ft. lbs.	271 Nm
7/8 – 9 (.875)	322 ft. lbs.	436.5 Nm
1 – 8 (1.000)	483 ft. lbs.	655 Nm

### SAE GRADE 8 Coarse Thread

SIZE	PLATED	
1/4 – 20 (.250)	9 ft. lbs.	12 Nm
5/16 – 18 (.3125)	18 ft. lbs.	24 Nm
3/8 – 16 (.375)	33 ft. lbs.	45 Nm
7/16 – 14 (.4375)	52 ft. lbs.	70 Nm
1/2 – 13 (.500)	80 ft. lbs.	108 Nm
9/16 – 12 (.5625)	115 ft. lbs.	156 Nm
5/8 – 11 (.625)	159 ft. lbs.	215 Nm
3/4 – 10 (.750)	282 ft. lbs.	382 Nm
7/8 – 9 (.875)	454 ft. lbs.	615 Nm
1 – 8 (1.000)	682 ft. lbs.	925 Nm

### SAE GRADE 5 Fine Thread

SIZE	PLATED	
1/4 – 28 (.250)	7 ft. lbs.	10Nm
5/16 – 24 (.3125)	14 ft. lbs.	19 Nm
3/8 – 24 (.375)	26 ft. lbs.	35 Nm
7/16 – 20 (.4375)	41 ft. lbs.	56 Nm
1/2 – 20 (.500)	64 ft. lbs.	87 Nm
9/16 – 18 (.5625)	91 ft. lbs.	123 Nm
5/8 – 18 (.625)	128 ft. lbs.	173 Nm
3/4 – 16 (.750)	223 ft. lbs.	302 Nm
7/8 – 14 (.875)	355 ft. lbs.	481 Nm
1 – 12 (1.000)	529 ft. lbs.	717 Nm
1 – 14 (1.000)	541 ft. lbs.	733 Nm

### SAE GRADE 8 Fine Thread

SIZE	PLATED	
1/4 – 28 (.250)	10 ft. lbs.	14Nm
5/16 – 24 (.3125)	20 ft. lbs.	27 Nm
3/8 – 24 (.375)	37 ft. lbs.	50 Nm
7/16 – 20 (.4375)	58 ft. lbs.	79 Nm
1/2 – 20 (.500)	90 ft. lbs.	122 Nm
9/16 – 18 (.5625)	129 ft. lbs.	175 Nm
5/8 – 18 (.625)	180 ft. lbs.	244 Nm
3/4 – 16 (.750)	315 ft. lbs.	427 Nm
7/8 – 9 (.875)	501 ft. lbs.	679 Nm
1 – 12 (1.000)	746 ft. lbs.	1011 Nm
1 – 14 (1.000)	764 ft. lbs.	1036 Nm

# Maintenance

## Paddle Shaft, Seal, Bearing Replacements



**Caution** - Always stop engine before performing work on the machine.

**Caution** - Never disconnect any hydraulic oil line while the drum is in the partially or discharged position.

When replacing the paddle shaft, seals or bearings, the end bolts must be installed with Loctite 262 Permanent Threadlocker. THE FOLLOWING INSTRUCTIONS MUST BE FOLLOWED EXACTLY OR THE LOCTITE WILL NOT BE EFFECTIVE:

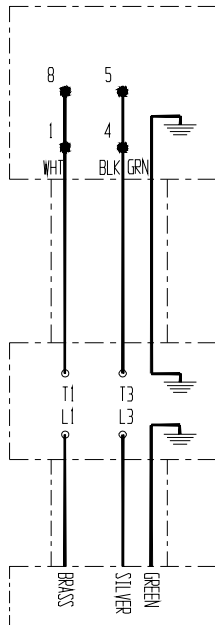
1. Blow out the tapped holes in both ends of the paddle shaft with compressed air.
2. Using Locquic Primer T and cotton swabs or small brush, remove all traces of grease, oil, and dirt.
3. Clean the hex head cap screws, to be installed with Locquic Primer T removing all traces of grease, oil, and dirt.
4. Place 2 to 3 drops of Loctite 262 on the first few threads of the tapped hole and on the first few threads of the cap screw.
5. Assemble the parts and cap screws and torque the cap screws to 50 FT-LB.
6. Let the mixer set for a minimum of 6 hours in a 65-degree to 70 degrees Fahrenheit to allow the loctite to cure before testing or operating.

NOTE: future disassembly will probably require the application of heat and the use of impact tools.

# Maintenance

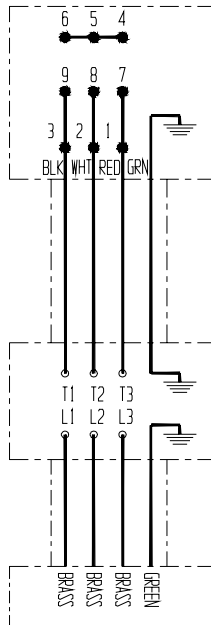
## Wiring Maintenance

5HP ELECTRIC WIRING / 1 PHASE  
208-230 VOLT 14.8-14 AMP.  
(1 HEATER - P/N 48539)



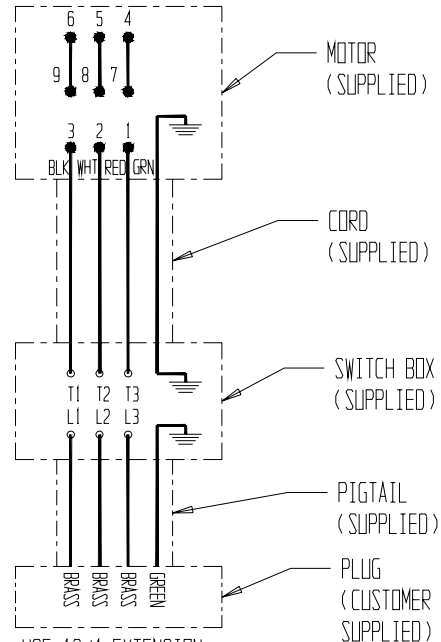
USE 12/3 EXTENSION  
CORD OR BETTER FOR  
POWER SUPPLY

5HP ELECTRIC WIRING / 3 PHASE  
208-230 VOLT 14.8-14 AMP.  
(3 HEATERS - P/N 48541)



USE 12/4 EXTENSION  
CORD OR BETTER FOR  
POWER SUPPLY

5HP ELECTRIC WIRING / 3 PHASE  
460 VOLT 7 AMP.  
(3 HEATERS - P/N 48543)



USE 12/4 EXTENSION  
CORD OR BETTER FOR  
POWER SUPPLY

ORIGINAL INSTALLATION OR FIELD REPLACEMENT  
OF THIS MOTOR OR PLUG REQUIRES THE SHAFT  
ROTATION TO BE COUNTERCLOCKWISE (CCW).

P# 30099 MOTOR 5HP 230V 1PH  
MOTOR MFG: BALDOR  
SPEC NO.: 36E813-2385

P# 30098 MOTOR 5HP 230V/460V 3PH  
MOTOR MFG: BALDOR  
SPEC NO.: 36E812Y46

### PROCEDURE FOR CHECKING ROTATION

BEFORE PROCEEDING: STARTER SWITCH  
SHOULD BE IN THE "OFF" POSITION.

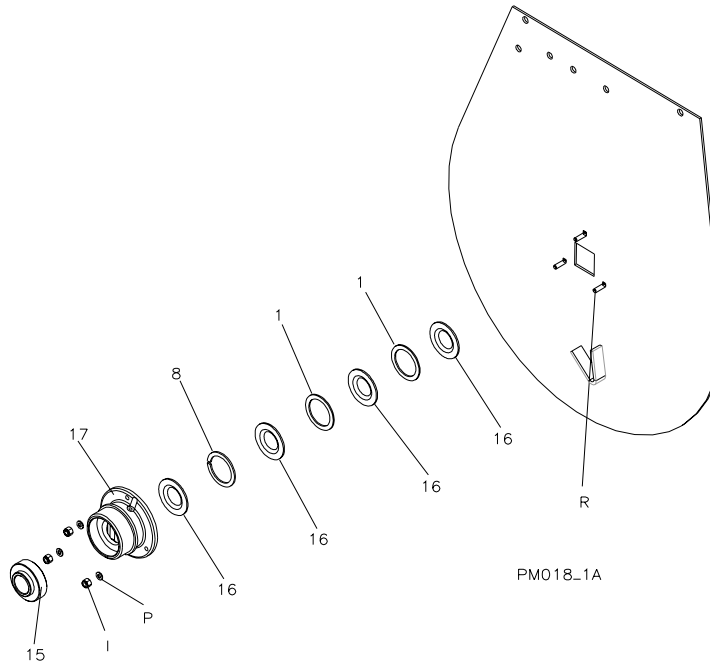
1. DISCONNECT PUMP FROM THE MOTOR/PUMP ADAPTOR. DO NOT DISCONNECT HOSES.
2. REMOVE COUPLING INSERT LOCATED INSIDE THE MOTOR/PUMP ADAPTOR.
3. TURN STARTER SWITCH "ON"
4. CHECK ROTATION, RELATIVE TO FACING END OF SHAFT THROUGH ADAPTOR OPENING (CCW).
5. TURN STARTER SWITCH "OFF".
6. IF (CCW) THEN REPEAT STEPS 1 AND 2 IN REVERSE ORDER IF THE SHAFT ROTATES CLOCKWISE (CW), WIRE TAPS MUST BE CHANGED TO ACHIEVE CCW ROTATION.
7. UNPLUG STARTER FROM POWER SUPPLY
8. OPEN THE FRONT COVER TO STARTER BOX
9. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
10. CLOSE STARTER BOX AND REPEATS STEPS 1 & 2 IN REVERSE ORDER.

HM100B

# Maintenance

## Bearing and Seal Installation

**Instructions for Seal & Bearing Assembly Kits**  
**P/N 23432**  
**STONE® Mortar Mixers**  
**1050PM, 1265PM, 1285PM, 1650PM & HM1290**



ITEM	P/N	DESCRIPTION	QUANTITY
1	24017	Washer	2
8	25881	Washer Split	1
15	32003	Bearing	1
16	32324	Seal Drum Yellow	4

1. Disassemble drum from frame and remove. Unscrew end bolts from paddle shaft and remove spacers and bull gear.
2. Attach a three-jaw puller to ring on housing, center puller on paddle shaft and remove housing and bearing.
3. Remove worn components and clean shaft and housing as needed.
4. Assemble seals and spacers over paddle shaft, flush with drum end using soapy water mixture as lubricant.
5. Make sure seals are assembled tight up to drum end; inner lip of seals curve inwards towards drum end as illustrated.
6. Insert bearing into housing and slide over shaft and seals as illustrated.
7. Tighten housing evenly to drum end so as not to pinch seals.

# Maintenance

## To Lubricate the Mixer

### Daily--

1. Check the oil levels in the engine. If required, add a good grade of 10W30 oil. The engine warranty is VOID if run without oil.
2. Check Oil level in hydraulic tank. Oil should be visible in the sight gauge. If required, add Mobil 424 or equivalent. *Do not overfill.*

### Weekly--

1. Grease the drum shaft seals, centrally located on outside of each drum end (2 places) using any Grade #1 lithium base grease.

### Monthly--

1. Grease trunnions (sockets in which the drum pivots) in two places using any Grade #1 lithium base grease.

### Yearly--

1. Have service/maintenance repack (4)-tapered roller bearings in wheel hubs and replace wheel seals. Install washer and nut. Torque to 20 ft.lbs. back off one turn, torque to 7 ft.lbs, back off to first slot in nut and insert cotter key.

First 20 Hours	Change engine oil	
Every 20 Hours	Clean air filter	Grease front and rear trunnions Grease drum bearings and seal
Every 100 Hours	Change engine oil Clean sediment cups Clean-readjust spark plug Clean spark arrester	Check tire pressure
Every 300 Hours	Replace paper air filter element Replace spark plug Check/adjust Idle speed * Check/adjust valve clearance * Clean fuel tank and strainer *	Lightly oil coupler chain between paddle shaft and hydraulic motor
Every 600 Hours	Check/replace fuel line	
Every 1200 Hours		Replace hydraulic oil Repack (grease) wheelbearings ^
* Refer to Honda Shop Manual for service procedures		
^ When reassembling wheel, torque spindle nut to 20 ft. lbs., back off one turn, torque to 7 ft. lbs, back off to first slot in nut and insert cotter key.		

# Maintenance

## Cleaning the Mixer

**Cleaning the Mixer** - For consistent performance, long life and continued high quality mixing of plaster or mortar, thoroughly clean the mixer inside and out at the end of each day's operation. To prevent lumps of dried plaster from forming and contaminating further batches of plaster or mortar, do not allow build up materials to form on drum guards, around paddles or anywhere inside the drum.

- Before cleaning, shut the engine off and disconnect the spark plug wire/power to electric motor to prevent accidental starting.
- Keep drum guard closed
- Always keep guard lifter connected
- Keep drum in upright, mixing position
- Spray mixer with water before mix dries to remove accumulation
- Rotate drum to dump position to remove debris
- DO NOT beat on the drum with a shovel, hammer or other device to break up accumulations of dried mix, as this will dent and damage the drum and void the warranty.

## WARNING

**FAILURE TO FOLLOW CLEANING INSTRUCTIONS AND/OR ROTATION OF DRUM WITHOUT GUARD LIFTER CONNECTED CAN RESULT IN SERIOUS INJURY.**

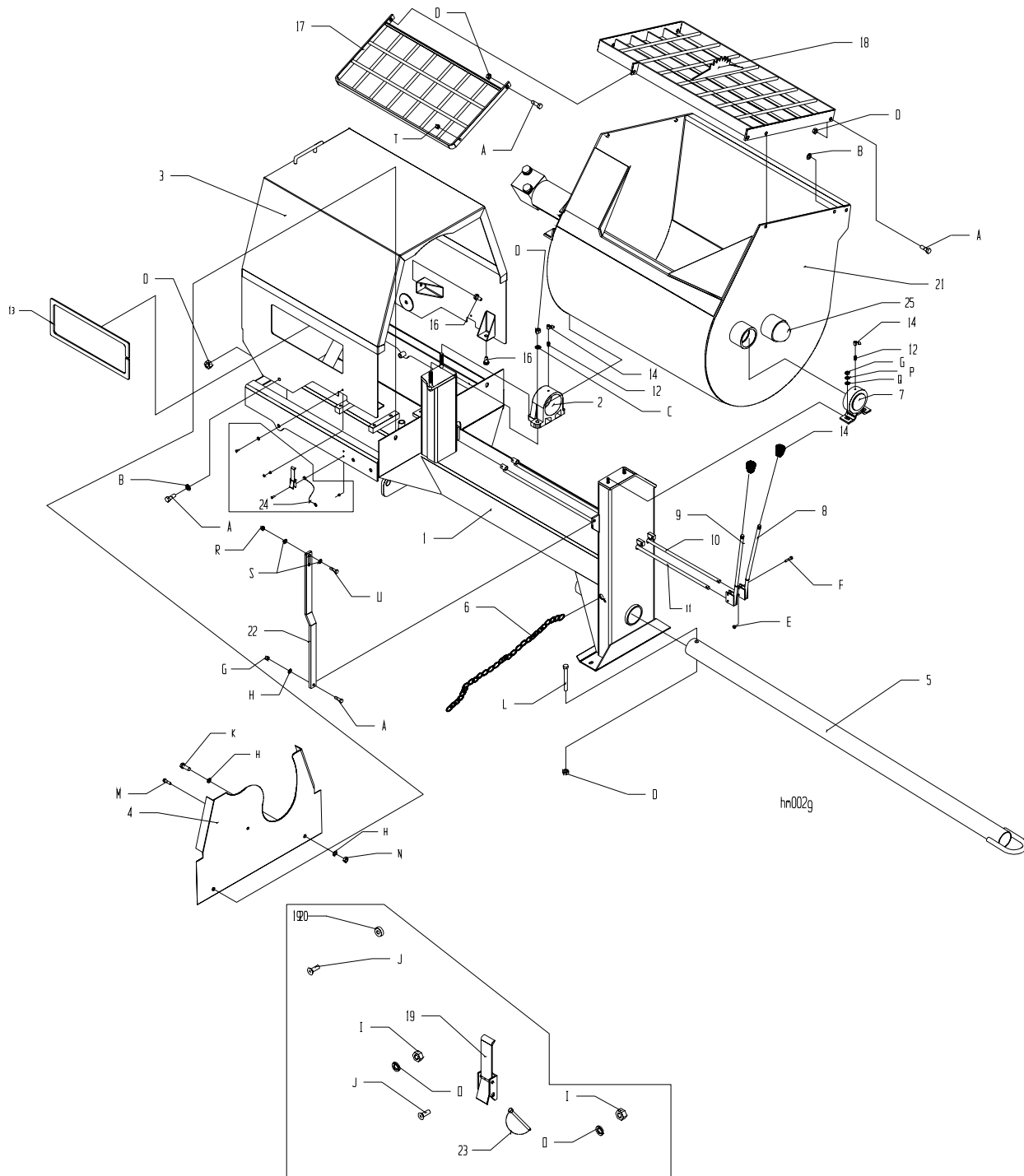
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# PARTS LIST

## Frame Assembly



# PARTS LIST

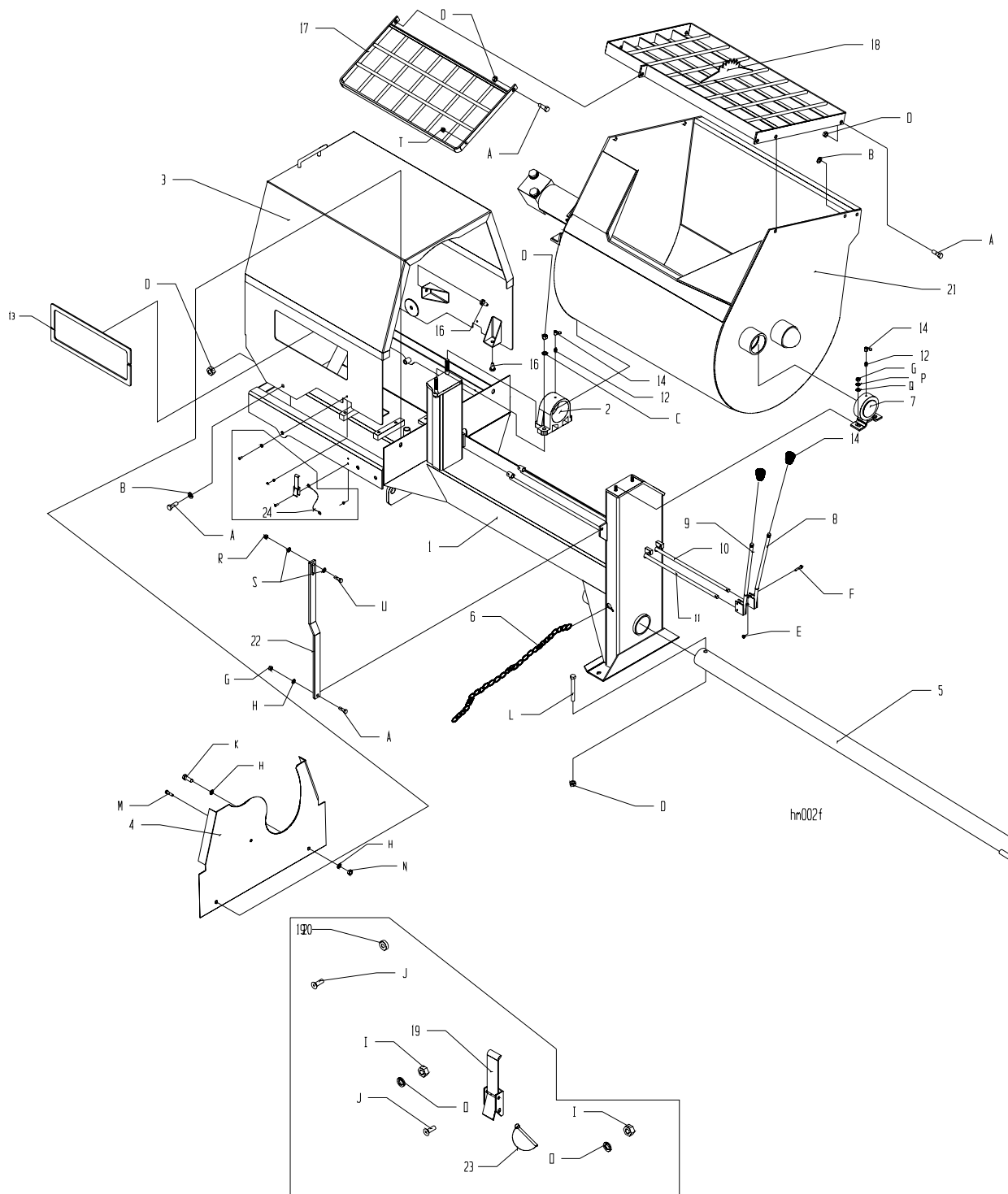
## Frame Assembly

Item	Part No.	Description	Qty.
1	44250	Weld Frame HM1290	1
2	44340	Trunnion Rear	1
3	44269	Cowl Weld	1
4	44278	Cowl Back Plate	1
5	44280	Towpole Weld	1
6	44283	Kit Safety Chain	1
7	36574-2	Weldment Trunnion Capped TPE	1
8	44303	Weld Handle Right	1
9	44304	Weld Handle Left	1
10	37522	Weld Control Arm Rt	1
11	37523	Weld Control Arm Lt	1
12	46042	Fitting Grease	2
13	47294	Lid Trim	3.8FT
14	47001	Caplug Blue, GC-5	2
15	47298	Knob	2
16	47406	Bumper Cowl	4
17	23242	Kit Guard Weld Mvbl LgPM	1
18	22023	Guard Weld Stry 1265-1650	1
19	38610	Latch Draw Lok 60 Series	2
20	38622	Keeper Latch 60 Series	2
21	25886	Weld Drum Hm1290	1
22	44279	Lifter Guard	1
23	80962	Pin Snap Safety	1
24	39818	Lanyard	1
25	50250	Cap 3-3/4 in 2-1/2 Vinyl Blk	1

Remarks:

# PARTS LIST

## Frame Assembly



# PARTS LIST

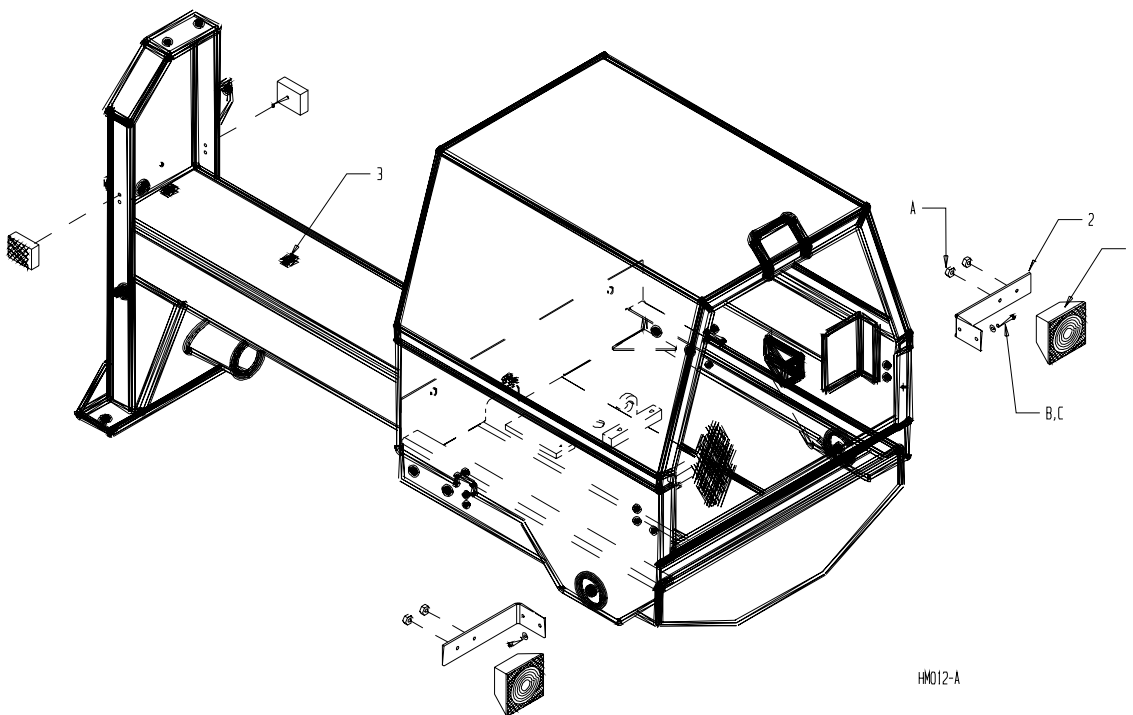
## Frame Assembly

Item	Part No.	Description	Qty.
A	80075	HHCS 1/2-13X1-1/2 GR2 ZN	8
B	80343	WSHR 1/2 SAE ZN	6
C	80117	WSHRL 1/2 MED SPLIT ZN	4
D	80051	NUTNY 1/2-13 21NE813 ZN	13
E	80676	NUTNY 1/4-20 SS	4
F	80154	HHCS 1/4-20 X 1-1/4 GR5 ZN	4
G	80325	NUTFL 3/8-16	2
H	80342	WSHR 3/8 SAE ZN PL	2
I	80693	NUTNY 10-24 ZN	6
J	80527	PPHMS 10-24X5/8 ZN	6
K	80145	HHCS 3/8-16 X 1-1/4 ZN	1
L	81065	HHCS 1/2-13 X 4-1/2 ZN	1
M	80588	HHTB 5/16-18X1-1/4 ZN	1
N	80614	HHCS 1/2-13X7/8 ZN	2
O	80065	WSHRL #10 MED SPLIT ZN	6
P	26325	WSHR .375 ID x 1.00 OD x .187 ZN	2
Q	80119	WSHRLT 3/8 Int/Ext ZN	2
R	80042	NUTFX 3/8-16 ZN	1
S	80043	WSHR 3/8 Wrot ZN PL	2
T	80056	NUTNY 3/8-16 zZN	1
U	80178	HHCS 3/8-16 x 2 Gr 5 ZN	1

Remarks:

# PARTS LIST

## Trailer Light Assembly Option



# PARTS LIST

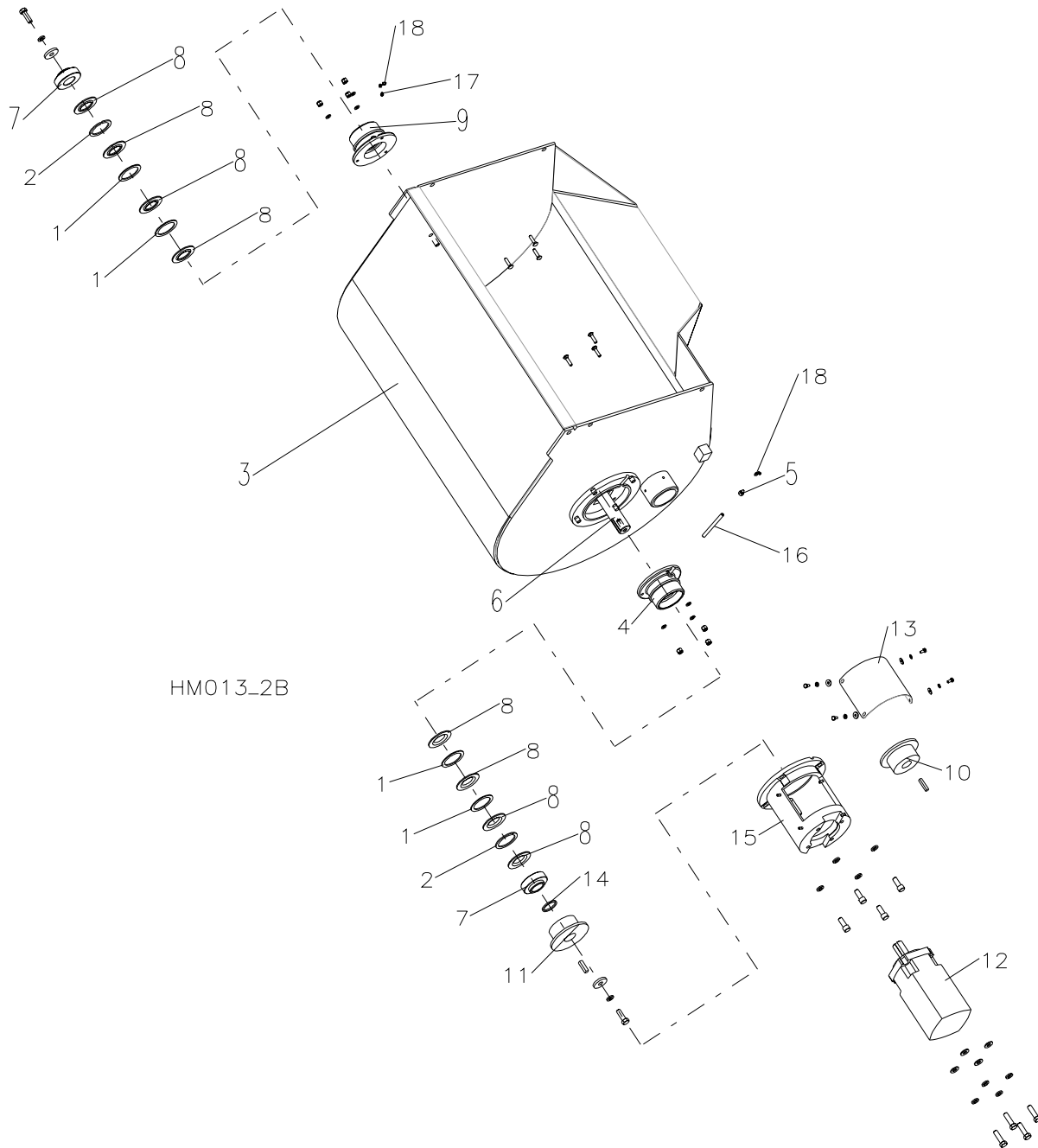
## Trailer Light Assembly Option

Item	Part No.	Description	Qty.
1	36002	Trailer Lights	1
2	36003	Bracket Trailer Lights	2
3	48329	Tie Holder	0
4^	32087	Bushing Nylon 5/16 ID x 3/8 OD	1
5^	47303	Tie Tyton 4 inch Black	10
6^	48278	Term Fem .25 F-insul 14-16 gage	4
7^	48285	Term Male .25 F-insul 14-16 gage	4
8^	36001	Kit Trailer Lights (Includes 1,2,3,4,5,6,7,8,A,B,C)	1
A	80236	NUTKP 1/4 - 20 ZN	10
B	80347	WSHR 1/4 WROT ZN PL	4
C	80354	HHCS 1/4-20 x 1.00 ZN	4

Remarks: ^ Not Shown

# PARTS LIST

## Drum Assembly



HM013\_2B

# PARTS LIST

## Drum Assembly

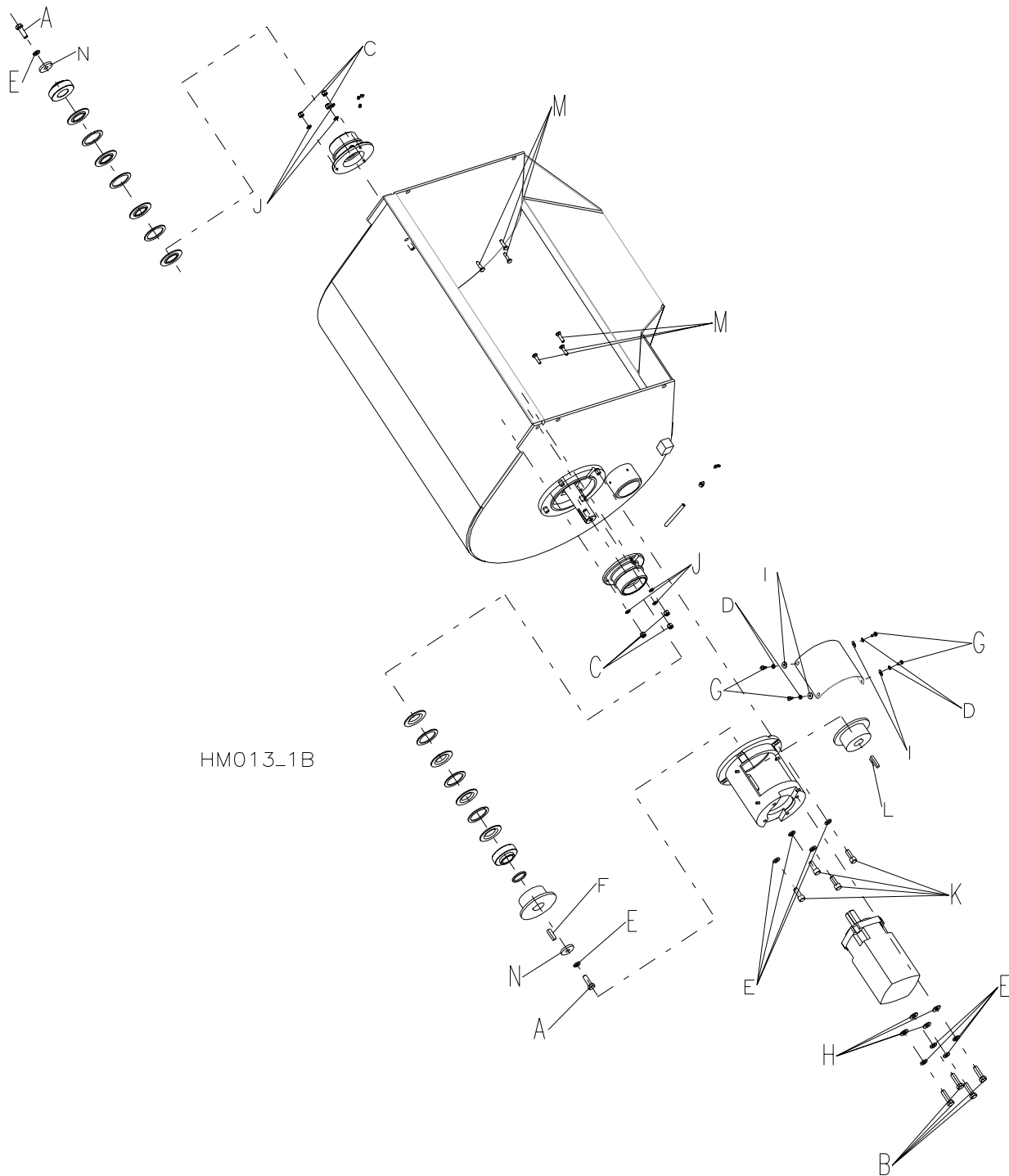
Item	Part No.	Description	Qty.
1	24017	WSHR 2-1/4 ID X 2-15/16 OD	4
2	25881	Washer Split 2.875 OD x 2.250 ID	2
3	25886	Weld Drum HM1290	1
4	25890	Housing Bearing Machined	1
5	46823	Fitting Grease 1/8 Npt Female	1
6	25893	Shaft Drum HM1290	1
7	32003	Bearing Ball	2
8	32324	Seals Drum Yellow	8
9	32326	Housing Bearing Machined	1
10	39642	Chain Coupling 6018 x 1-1/4	1
11	39643	Chain Coupling 6018 x 1-1/2	1
12	39647	Motor Hydraulic	1
13	44268	Cover Motor Mount	1
14	44284	Spacer Drum Shaft	1
15	45011	Mount Motor Machining	1
16	46822	Nipple 1/8 Npt X 4	1
17	46042	Fitting Grease	1
18	47001	Caplug Blue GC-5	1
19^	39644	Coupling Chain (includes item 20)	1
20^	39654	Connecting Link No. 60-2 (Included with item 19)	1
21^	23253	Kit Drum Assembly	1

Remarks:

Note: ^ Not Shown

# PARTS LIST

## Drum Assembly



HM013\_1B

# PARTS LIST

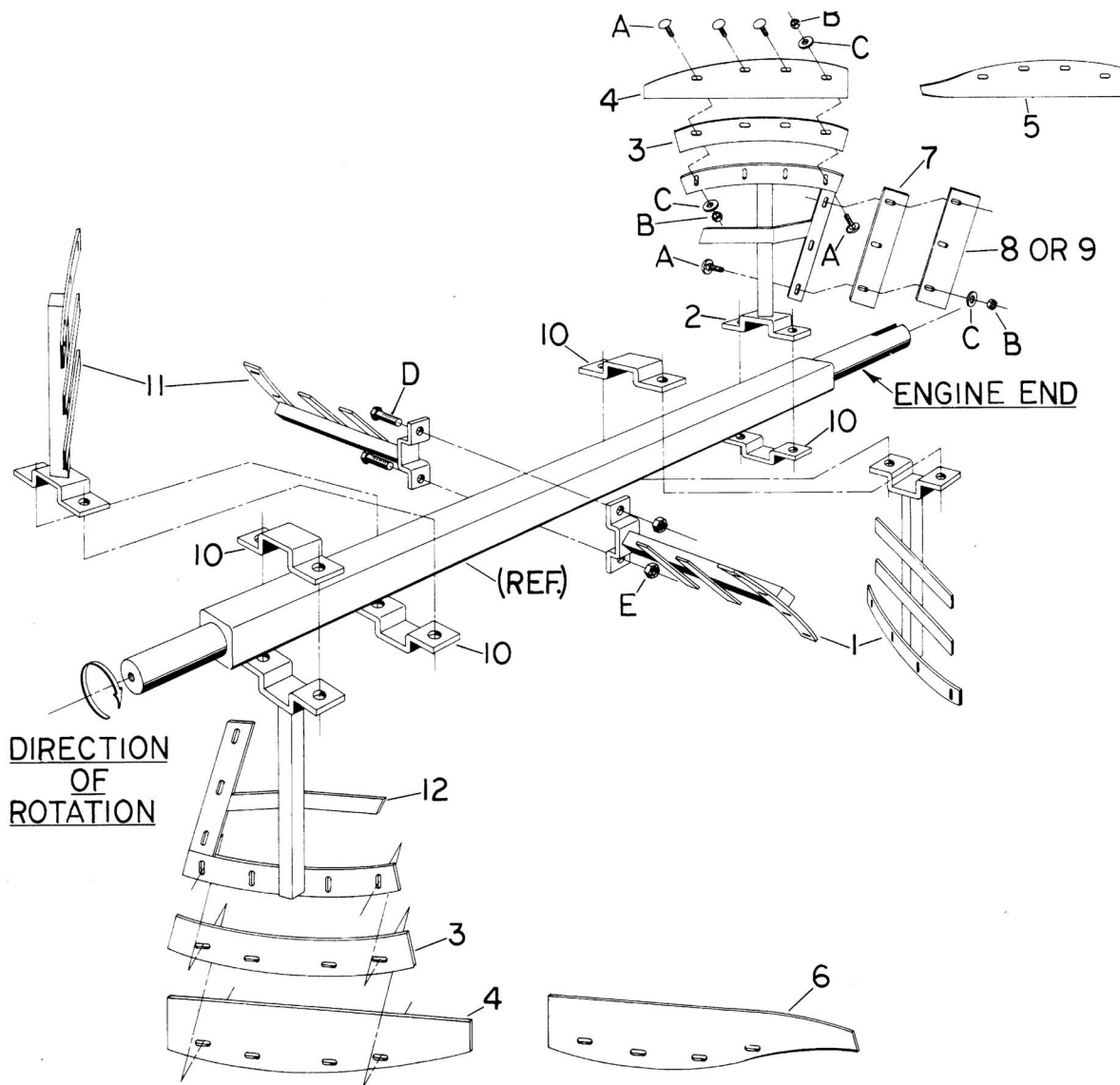
## Drum Assembly

Item	Part No.	Description	Qty.
A	80075	HHCS 1/2-13 x 1-1/2 GR5 ZN	2
B	80089	HHCS 1/2-13 x 1-3/4 GR5 ZN	4
C	80114	NUTNY 5/16-18 ZN	6
D	80116	WSHRL 1/4 Med Split ZN	4
E	80117	WSHRL 1/2 Med Split ZN	10
F	80121	Key Square 3/8 x 1.50 Hard Pln	1
G	80152	HHCS 1/4-20 x 1/2 GR5 ZN	4
H	80343	WSHR SAE 1/2 ZN	4
I	80347	WSHR WROT 1/4 ZN	4
J	80495	WSHR SAE 5/16 ZN	6
K	80530	SHCS 1/2-13 x 1-1/4 BLK	4
L	80951	Key Square 5/16 x 1-5/8 Pln	1
M	81064	CRBLT 5/16-18 x 1.25	6
N	26326	WSHR 9/16 x 1-3/4 x 1/4	2

Remarks:

# PARTS LIST

## Power Blend Paddle Assembly



# PARTS LIST

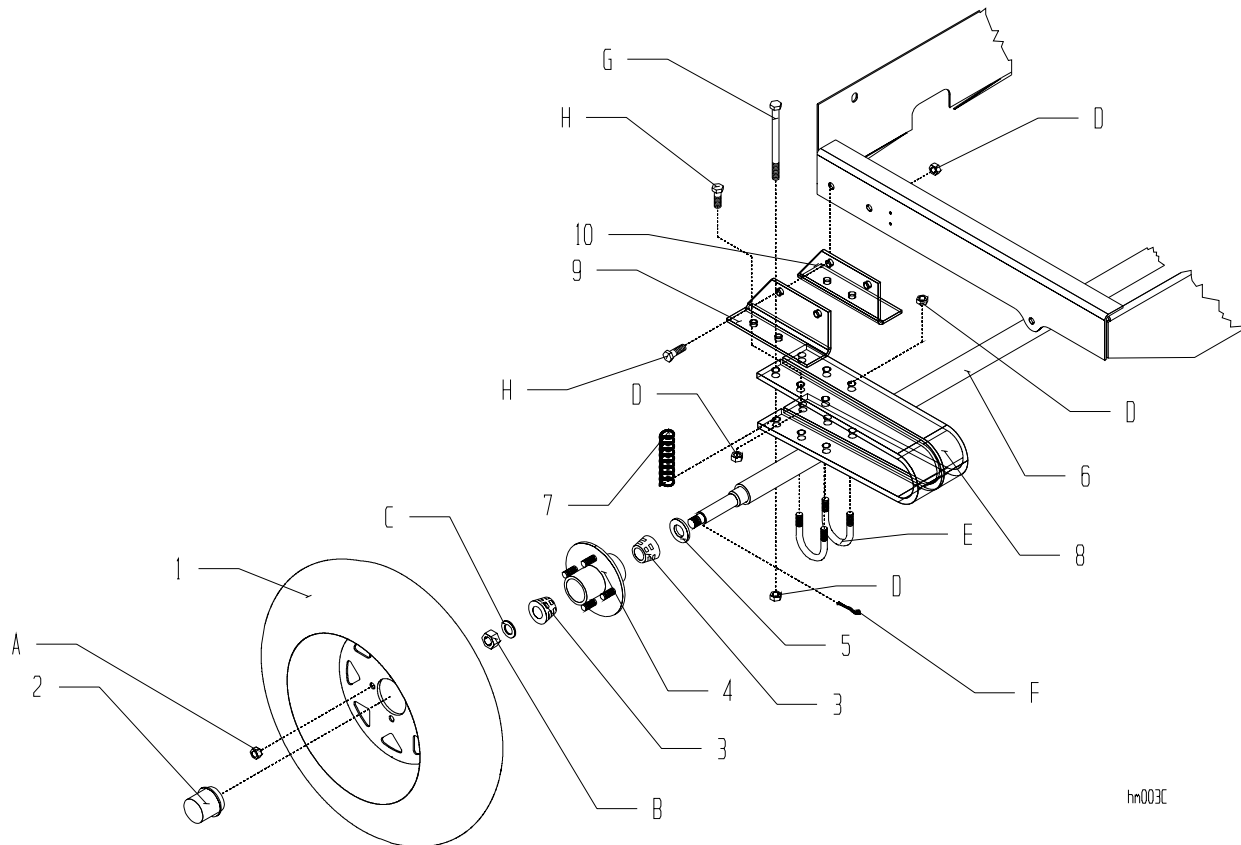
## Power Blend Paddle Assembly

Item	Part No.	Description	Qty.
1	22092-2	Paddle EEC	2
2	22093-2	Paddle EE	1
3	24106	Blade Rubber Long	6
4	28137-2	Backer Bar Long	6
5*	28197	Plaster Blade Curved Plated (option)	3
6*	28198	Plaster Blade Curved Plated TPE (option)	3
7	24105	Blade Rubber Short	2
7a	24108-2	Blade Steel Short (option)	2
8	24103-2	Back Bar Short (not required for steel blade option)	2
9*	28194	Plaster Blade Curved End (option)	2
10	26882-2	Paddle Clamp	4
11	22091-2	Paddle TEC	2
12	22090-2	Paddle TE	1
13^	22127	Blade Steel Set	1
14^	22101	Blade Plaster Curved Set	1
15^	22133	Rubber Blade Set	1
16^	22098	Paddle Assembly	1
A	80041	CRBLT 3/8-16 X 1-1/4 ZN	30
B	80042	NUTFX 3/8-16 ZN	30
C	80348	WSHR 5/16 WROT ZN	30
D	80084	HHCS 5/8-11 X 2-1/2 ZN	10
E	80082	NUTNY 5/8-11 ZN	10

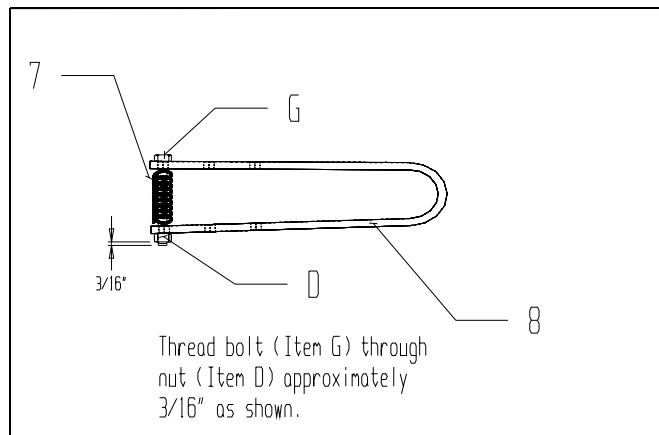
Remarks: ^Not shown  
 \*Optional blades recommended for mixing  
 plaster or fire proofing.

# PARTS LIST

## Spring Axle Assembly



hn003C



# PARTS LIST

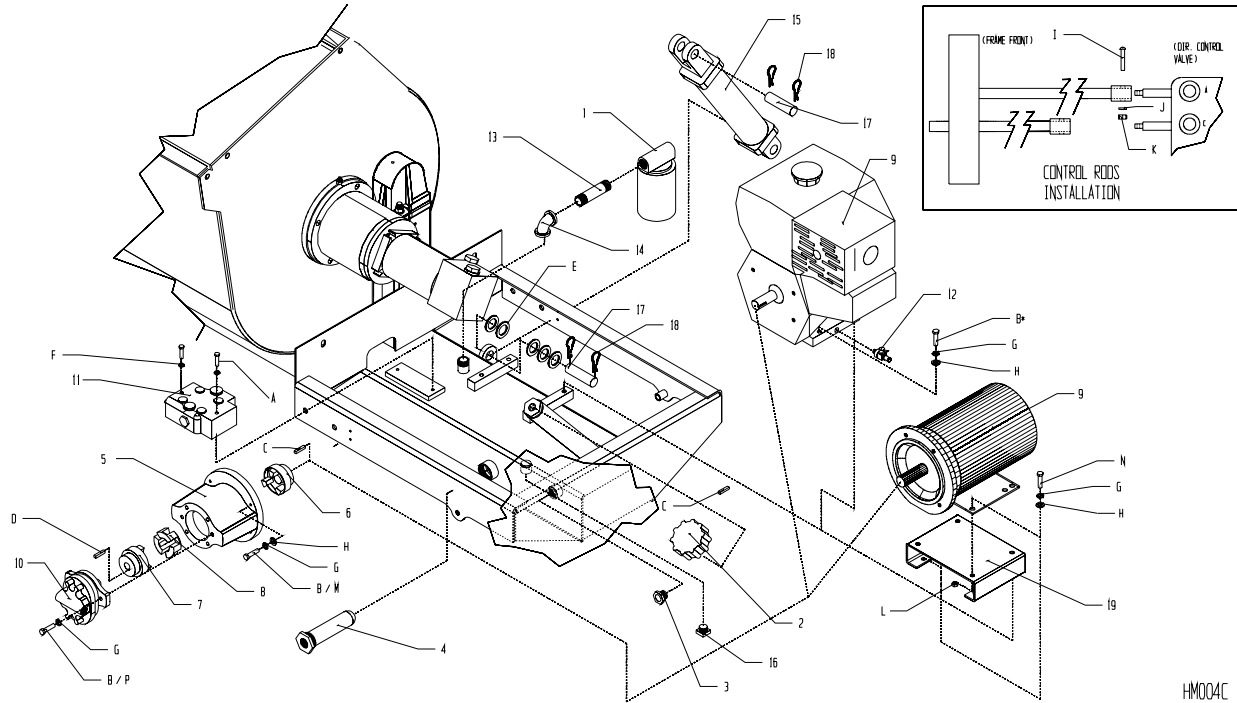
## Spring Axle Assembly

Item	Part No.	Description	Qty.
1	32307	Tire/Rim Assy B78x13	2
2	34573	Dust Cap	2
3	32223	Bearing Rlr Tpr 1.000	4
4	34501	Hub/Cap & Nuts	2
5	32052	Seal Wheel Hub	2
6	21460	Axle 56" SPG	1
7	34972	Coil Spring	4
8	26971	Spring	4
9	44293	Brkt Axle LH	2
10	44294	Brkt Axle RH	2
A	80045	LGNUT 1/2-20	8
B	80054	NTSFX 3/4-16 SLTD	2
C	80344	WSHR 3/4 SAE ZN	2
D	80051	NUTNY 1/2-13 21NE813 ZN	24
E	26195	U-BOLT	4
F	80316	PINCT 1/8 X 1-1/2	2
G	80052	HHCS 1/2-13X6-1/2	2
H	80075	HHCS 1/2-13X1-1/2	4

Remarks:

# PARTS LIST

## Power Pack Assembly



# PARTS LIST

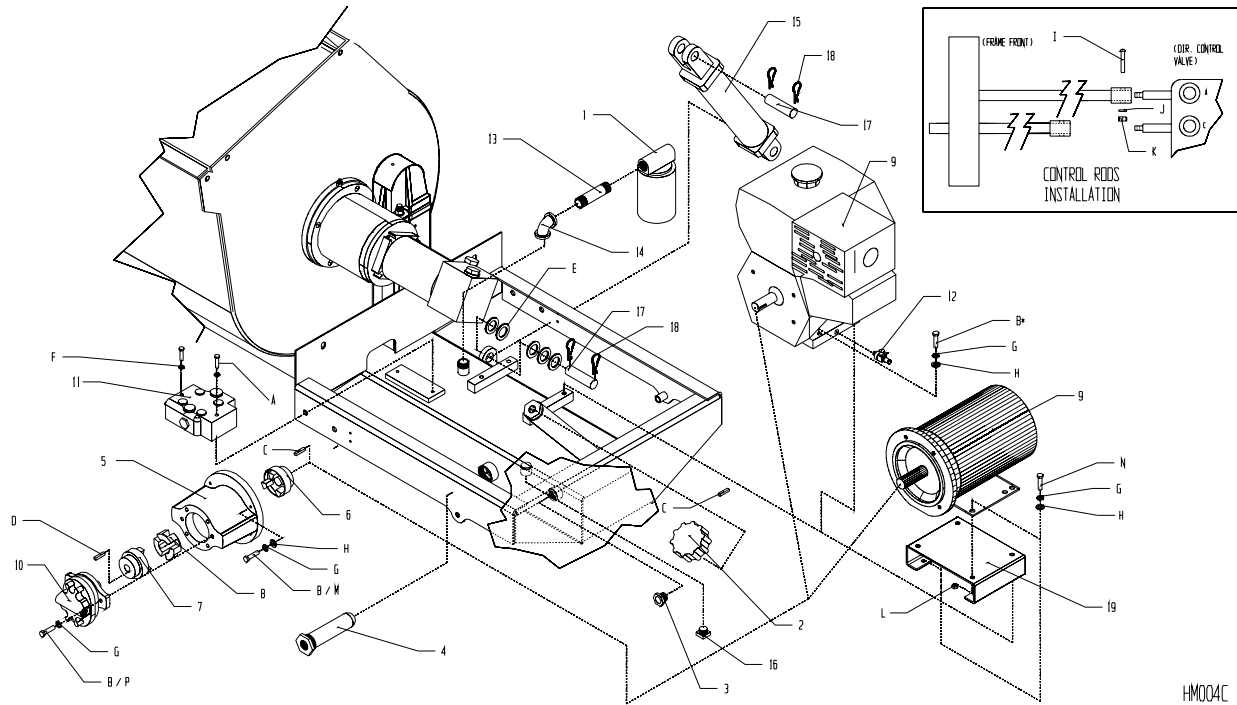
## Power Pack Assembly

Item	Part No.	Description	Qty.
1	35444	Filter Hydraulic Assy	1
2	38521	Breather/Filler	1
3	38534	Sight Glass	1
4	39088	Strainer 10 GPM	1
5	39093	Adaptor Pump/Motor - Gas	1
5a	39668	Adaptor Pump/Motor - Elec	1
6	39094	Hub Cplg 1 x 1/4 - Gas	1
6a	39670	Hub Cplg 1-1/8 x 1/4 - Elec	1
7	39646	Hub Cplg 3/4 x 3/16	1
8	39096	Insert CPLG	1
9	39131	Engine 13 HP Honda Cyclone	1
9a	23220	Motor Elec 5HP 3 Ph-230/460V	1
9b	23219	Motor Elec 5HP 1 Ph-230V	1
10	39663	Pump .44 CIR HM1290 - Gas	1
10a	39669	Pump .84 CIR HM1290 - Elec	1
11	41047	Valve Hyd Directional	1
12	44310	Valve Engine Oil Drain	1
13	41058	Fitting Pipe Nipple 3/4in x 2-1/2in	1
14	46825	Elbow 3/4 NPT x 90	1
15	46824	Cylinder Tie Rod 2.5 x 10	1
16	46774	Plug 3/4 NPT Magnetic Sq Hd.	1
17	44203	Clevis Pin 1"	2
18	44204	Rue Ring 1"	2
19	44333	Base Motor Electric	1
20^	48536	Starter Manual Nema 1 5hp 230v 1Ph	1
20a^	48537	Starter Manual Nema 1 5hp 230v 3Ph	1
20b^	48538	Starter Manual Nema 1 5hp 460v 3Ph	1
21^	48539	Heater Element M1P (230V, 1 Ph)	1
21a^	48541	Heater Element FH46 (230 V, 3 Ph)	3
21b^	48543	Heater Element FH37 (460V, 3 Ph)	3
22^	36081	Pigtail 1 Ph - 230V	1
22a^	36082	Pigtail 3 Ph -230V/460V	1
23^	48016	Cord 1 Ph - 230V	4 ft.
23a^	48041	Cord 3 Ph - 230V/460V	4 ft.
24^	50112-2	Weldment Starter Bracket	1

Remarks: ^ Not Shown

# PARTS LIST

## Power Pack Assembly



HMODAC

# PARTS LIST

## Power Pack Assembly

Item	Part No.	Description	Qty.
A	80607	SHCS 5/16-18X2 GR5	2
B*	80176	HHCS 3/8-16X1-1/2 GR5	10
C	80100	KEY SQ 1/4X1 CLASS 1 PLN	1
D	80653	KEY SQ 3/16X1/2 PLN	1
E	24622	WSHR 1-1/32 ID X 1-1/2 OD X 1/8	5
F	80086	WSHRL 5/16 MED SPLIT ZN	2
G	80058	WSHRL 3/8 SPLIT ZN	10
H	80043	WSHR 3/8 SAE	8
I	80163	HHCS 5/16-18 x 1-1/2 Gr 5 ZN	2
J	80086	WSHRL 5/16 MED SPLIT ZN1	2
K	80245	NUTFX 5/16-18 ZN	2
L	80042	NUTFX 3/8-16 ZN	4
M	80471	HHCS 7/16-14x1-1/2 GR5 (Elec)	4
N	80174	HHCS 3/8-16x1 GR8 (Elec)	8
P	80176	HHCS 3/8-16x1-1/2 GR5 (Elec)	2
Q^	80153	NUTKP 1/4-20x3/4 ZN (Elec)	3
R^	80174	HHCS 3/8-16x1 GR8 (Elec)	2
S^	80042	NUTFX 3/8-16 ZN (Elec)	2
T^	80058	WSHRL 3/8 Med Split ZN (Elec)	2
U^	80236	NUTKP 1/4-20 ZN (Elec)	3

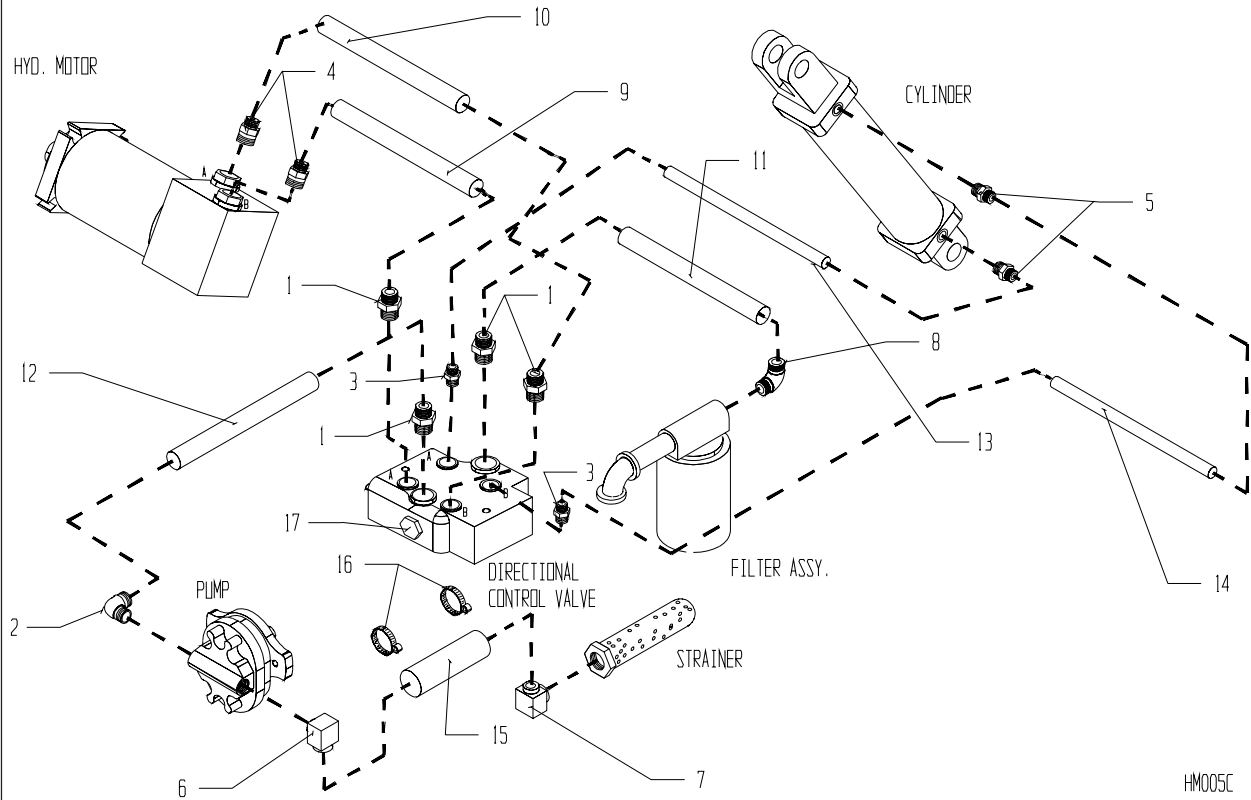
**Remarks:**

^ Not Shown

\* Loctite required

# PARTS LIST

## Hydraulic Components Assembly



# PARTS LIST

## Hydraulic Components Assembly

Item	Part No.	Description	Qty.
1	41049	FTG Hyd S 8 JIC 8 OR	4
2	46676	FTG Hyd 45 8 ORFS 10 OR (Gas)	1
2a	41048	FTG Hyd 90 8 ORFS 10 OR (Elec)	1
3	41050	FTG Hyd S 4 JIC 8 OR	2
4	46673	Fitting - 8-12-F5OLO-S	2
5	46679	Fitting - 6-6-F5OLO-S	2
6	46830	Fitting - 4601-16-16-NWO	1
7	46829	Fitting - 4501-16-12	1
8	46828	Fitting - 8-12-CLO-S	1
9	41052	Hose Hyd 8 Str EL 31in 3000 PSI	1
10	41053	Hose Hyd 8 Str EL 26.25in 3000 PSI	1
11	41054	Hose Hyd 8 EL EL 15.50in 3000 PSI	1
12	41055	Hose Hyd 8 EL Str 14.25in 3000 PSI	1
13	41056	Hose Hyd 4 Str EL 29in 3000 PSI	1
14	41057	Hose Hyd 4 Str EL 21.5in 3000 PSI	1
15	46836	Hyd. Hose Pump Low to Tank 8"	1
	46839	Hyd. Hose Pump Low to Tank 10"	1
16	46595	Hose Clamp - 88HC-16	2
17	41051	FTG Hyd P 10 OR	2
18*	23143	Kit Hose and Fitting - Gas	1
	23167	Kit Hose and Fitting - Elec	1

**Remarks:** Note: \*Item 18 contains all hoses and fittings required for the HM1290 hydraulic system.

## Schematic Hydraulic Gas/Electric



# PARTS LIST

## Schematic Hydraulic Gas/Electric

Item	Part No.	Description	Qty.
1	39663	Pump .44 CIR HM1290 (Gas)	1
1a	39669	Pump .84 CIR HM1290 (Electric)	1
2	39094	Hub Cplg 1 x 1/4 (Gas)	1
2a	39670	Hub Cplg 1-1/8 x 1/4 (Electric)	1
3	39646	Hub Cplg 3/4 x 3/16	1
4	39096	Insert Cplg	1
5	39093	Adaptor Pump/Motor (Gas)	1
5a	39668	Adaptor Pump/Motor (Electric)	1
6	41047	Valve Hyd Directional 2100 PSI 2.5 GPM	1
7	39647	Motor Hydraulic	1
8	46824	Cylinder Tie Rod 2.5 x 10	1
9	35444	Filter Hydraulic	1
10	38521	Breather	1
11	39088	Strainer 10 CPM	1

Remarks:

# PARTS LIST

## Decal Identification

**GREASE  
WEEKLY**

55007



### **WARNING**

Retract cylinder before disconnecting it or any hydraulic line. Failure to do so may result in serious injury.

55003

### **WARNING**



55384

Tow mixer with drum in the upright position. Failure to do so may cause mixer to become unstable at high speed and result in serious injury.

55384

## SAFETY INSTRUCTION

**CAUTION:** READ OWNER'S SERVICE MANUAL BEFORE OPERATING OR SERVICING THIS MACHINE.

**CAUTION:** ALWAYS KEEP UNAUTHORIZED, INEXPERIENCED, UNTRAINED PEOPLE AWAY FROM THIS MACHINE.

**CAUTION:** ROTATING AND MOVING PARTS WILL CAUSE INJURY IF CONTACTED. MAKE SURE GUARDS AND SAFETY DEVICES ARE IN PLACE BEFORE THIS MACHINE IS OPERATED. MAKE SURE ENGINE IS SHUT DOWN AND SPARK PLUG WIRE DISCONNECTED BEFORE SERVICING THE MACHINE OR APPROACHING THE MOVING PARTS-IF ELECTRIC MOTOR, DISCONNECT PLUG.

**CAUTION:** NEVER LEAVE MACHINE UNATTENDED WHEN OPERATING. ALWAYS STOP ENGINE OR MOTOR BEFORE ADDING FUEL OR OIL.

55046



**PUSH FOR  
REVERSE  
ROTATION**

**STOP**

**PULL  
FOR MIXING  
ROTATION**

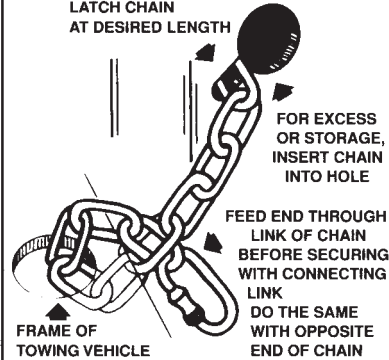
P/N 55496

## SAFETY CHAIN

"PATENT #4180281"

CROSS CHAIN UNDER TOW POLE WITH 4" - 5" VERTICAL SLACK

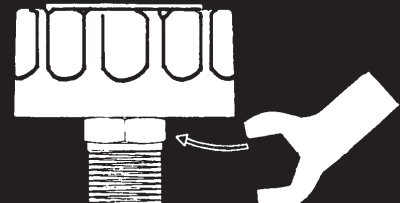
LATCH CHAIN AT DESIRED LENGTH



### CAUTION

READ OPERATING INSTRUCTIONS BEFORE RUNNING MIXER

55121



## NOTE

MIXER BLADES ARE  
PRE-SET AT THE FACTORY.  
SOME FIELD ADJUSTMENT  
MAY BE REQUIRED TO MEET  
LOCAL PREFERENCES.

FORM 55129

# PARTS LIST

## Decal Identification

Item	Part No.	Description	Qty.
1	23271	Kit Decal Warning	1
	Includes:		
	55007	Decal Grease Weekly Blue	1
	55121	Decal Safety Chain Blue	1
	55129	Decal Tag Blade Adjustment	1
	55383	Decal Warning Retract Cylinder	1
	55384	Decal Warning Mixer Towing	1
	55388	Kit Decal PM & CM Safety (kit shown next page)	1
	55498	Decal Control Lever	1
2	55416	Decal Hydraulic Breather Removal	1

Remarks:

# PARTS LIST

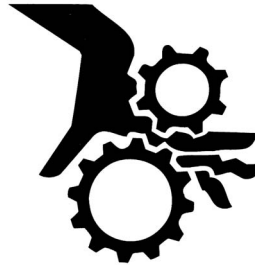
## Decal Identification



### ⚠ WARNING

**Shut off machine to service or clean.**

55010



### ⚠ WARNING

**Do not run machine with cover open.**

55011

### ⚠ CAUTION



#### FOR YOUR SAFETY

- Read owner's service manual before operating or servicing this machine.
- Always keep unauthorized, inexperienced, untrained people away from this machine.
- Rotating and moving parts will cause injury if contacted. Make sure guards and safety devices are in place before this machine is operated.
- Make sure engine is shut down and spark plug wire disconnected before servicing the machine or approaching the moving parts-if electric motor, disconnect plug.
- Never leave machine unattended when operating. Always stop engine or motor before adding fuel or oil.

### ⚠ WARNING

**Always stop engine when cleaning or adjusting machine. If electric motor pull plug.**

55127



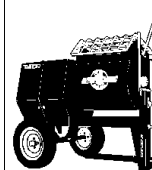
### ⚠ DANGER

**GASOLINE**  
Stop engine and extinguish all flames and smoking materials before refueling. Use a safety can.

#### NOTICE

CONTACT THE MANUFACTURER IMMEDIATELY AT 1-800-888-9926 IF SAFETY OR HAZARD DECALS OR OWNER'S MANUAL ARE MISSING FROM THIS EQUIPMENT. P/N 55156

### CLEANING INSTRUCTION



1. Keep drum guard closed.
2. Always keep guard lifter connected.
3. Keep drum in upright, mixing position.
4. Spray mixer with water before mix dries to remove accumulation.
5. Rotate drum to dump position to remove debris.

**⚠ WARNING:** Failure to follow this instruction and/or rotation of drum without guard lifter connected can result in serious injury. 55496

# PARTS LIST

## Decal Identification

Item	Part No.	Description	Qty.
3	55388	Kit Decal Safety	1
	Includes:		
	55010	Decal Warning Shut Off	1
	55011	Decal Warning Cover Open	1
	55046	Decal Safety Instructions	1
	55127	Decal Warning Stop Engine	1
	55128	Decal Danger Gasoline	1
	55156	Decal Notice	1
	55496	Decal Cleaning Instruction	1

Remarks: