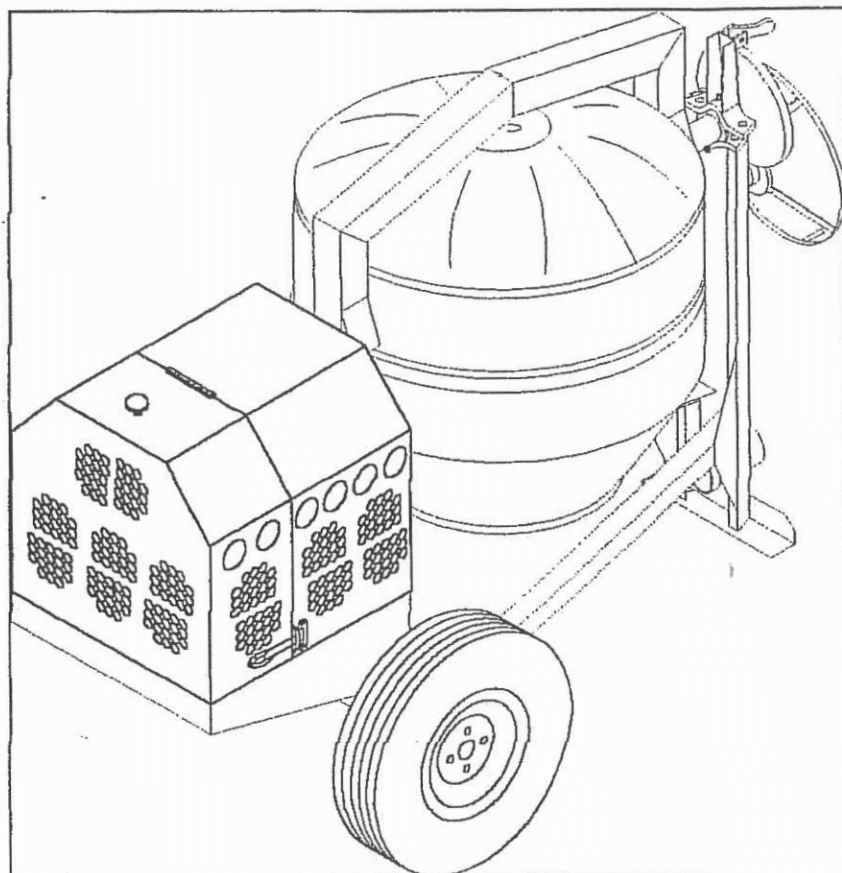


# Operator's Safety and Service Manual

## CONCRETE MIXER



**MC75**

**MC95**

**MC125**

**Morrison**  
BARTELL MORRISON

It is OWNER'S RESPONSIBILITY to communicate information on the SAFE USE and OPERATION of this machine to the operators!

# SERIAL NUMBER LOCATION

- 1.- The model/serial number decal is located on the front leg in the middle.
- 2.- The serial number is also stamped on the mixer frame on the bottom back part of the shroud ( left side ).

(Write model number in blank)

(Write serial number in blank)

The units year of Manufacture can be determined by the serial number. Contact your nearest Sales Branch or **Morrison** for this information

## BEFORE OPERATING

The Warranty is stated in this book on page 18. Failure to return Warranty Registration Card renders The Warranty null and void.

An "Owner's Manual" for the engine is also furnished. Engine parts may ordered from any authorized dealer. Refer to the engine " Owner's Manual" for exploded views and part identifications.

### PARTS ORDERING :

**Morrison** parts are available worldwide and may be ordered through your local distributor. If you can not locate a **Morrison** distributor in your area. refer to page 19 of this manual to locate the **Morrison**

### ALWAYS INCLUDE :

- 1.- Model and Serial Number of machine when ordering **Morrison** parts.
- 2.- Model and Serial Number of engine when ordering Engine Parts.
- 3.- Item Parts Number, Description, and Quantity.
- 4.- Company Name, Address, Zip Code, and Purchase Order Number.
- 5.- Preferred method of shipping.

**REMEMBER - you own the best. If repairs are needed use only **Morrison** parts purchased from Authorized **Morrison** distributor**

# **SAFETY PRECAUTIONS**

READ AND STUDY THE FOLLOWING SAFETY INFORMATION BEFORE ATTEMPTING TO OPERATE THIS EQUIPMENT. IN ADDITION, ENSURE THAT EVERY INDIVIDUAL WHO OPERATES OR WORKS WITH THIS EQUIPMENT IS FAMILIAR WITH THESE SAFETY PRECAUTIONS.

## **WARNING - LETHAL EXHAUST GAS!**

An internal combustion engine discharges carbon monoxide, poisonous, odorless invisible gas. Death or serious illness may result if inhaled. Operate only in an area with good ventilation, **NEVER IN A CONFINED AREA!**

## **WARNING - DANGEROUS FUELS!**

Use extreme caution when storing, handling and using fuels - they are highly volatile and explosive in vapor state. Do not add fuel while engine is running. Stop and cool the engine before adding fuel. **DO NOT SMOKE!**

## **SAFETY GUARDS**

It is the owner's responsibility to ensure **ALL GUARDS AND SHIELDS** are in place and in working order.

## **IGNITION SYSTEMS**

Breakerless, magneto and battery ignition systems **CAN CAUSE SEVERE ELECTRICAL SHOCKS**. Avoid contacting these units or their wiring.

## **SAFE DRESS**

**DO NOT WEAR** loose clothing, rings, wristwatches, etc., near machinery.

## **NOISE PROTECTION**

Wear O.S.H.A. specified hearing protection devices.

## **FOOT PROTECTION**

Wear O.S.H.A. specified steel tip safety shoes.

## **HEAD PROTECTION**

Wear O.S.H.A. specified safety helmets.

## **EYE PROTECTION**

Wear O.S.H.A. specified eyes shields, safety glasses, and sweat bands.

## **DUST PROTECTION**

Wear O.S.H.A. specified dust mask or respirator.

## **OPERATOR**

Keep children and bystanders off and away from the equipment.

## **OPERATOR**

For details on safety rules and regulations in the United States, contact your local Occupational Safety and Health Administration (O.S.H.A.) office. Equipment operated in other countries must be operated and serviced in accordance and compliance with any and all safety requirements of that country. The publication of these safety precautions is done for your information **Morrison** does not by the publication of these precautions, imply or in any way represent that these are the sum of all dangers present near **Morrison** equipment. If you are operating **Morrison** it is your responsibility to insure that such operation is in full accordance with all applicable safety requirements and codes. All requirements of the United State Federal Occupational Safety and Health Administration Act must be met when operated in areas that are under the jurisdiction of that United States Department.

# SAFETY NOTICE & DECALS

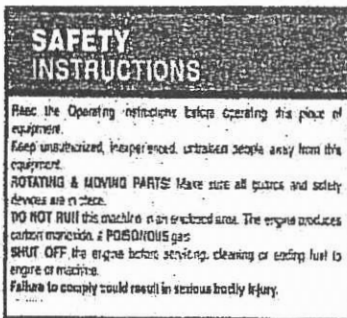
## ⚠ IMPORTANT NOTICE ⚠

The "SAFETY ALERT SYMBOL" is used to call attention to items or operations that may be dangerous to those operating or working with this equipment. These symbols can be found throughout the manual and on the unit itself. Please read these warnings and caution carefully.

## READ SAFETY DECALS CAREFULLY

Carefully read and follow all safety decals. Keep them in good condition. If become damaged, replace as required. If repainting, **REPLACE ALL** decals. Decals are available from authorized

**Morrison** Distributors. Decals are not shown to scale. Use decal set



Decal # 400 - Qty. 1

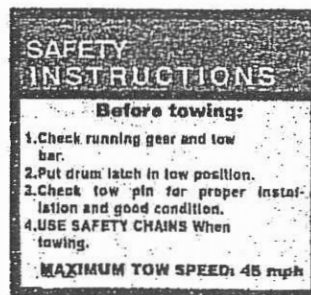


Decal # 401 - Qty. 1

**Morrison**  
BARTELL MORRISON



Decal # 403 - Qty. 1



Decal # 404 - Qty. 1



Decal # 405 - Qty. 1

# OPERATING INSTRUCTIONS

## INTRODUCTION

**Morrison** Mixers are intended for use in very severe applications. They are powered by four stroke engines or electric motors and are available in different sizes and selection of engines or motors.

This parts manual contains only standard parts. Variations of these parts as well as other special parts are not included. Contact your local **Morrison** Distributor for assistance in identifying parts not included in this manual.

## ASSEMBLY INSTRUCTIONS

1.- Remove the mixer and all components from the crate. You should have :

- ° Two rim and tire assemblies
- ° Axle assembly with idler spring, hubs, and lug nuts
- ° Hitch with pin and safety bolt

**NOTE : All installation hardware is inserted into its respective location on the mixer.**

2.- Lift the mixer up approximately 18" using appropriate lifting equipment.



**Warning : Failure to use proper lifting equipment could cause mixer to fall and cause serious injury.**

3.- Remove the front leg mounting hardware located on the front frame.

4.- Position the safety chains through the key slots in the front leg. Adjust the chains ends to equal lengths.

5.- Line up the holes between the leg and the mixer frame. Secure the leg to the frame using the bolt, washers and nut that were removed in step 3. Make sure a washer is located on both sides and the lock washer is against the nut. After all hardware is in place torque the bolts to 35 ft-lbs.

6.- Remove the axle-mounting hardware (six 1/2" bolts) from the rear of the mixer frame.

7.- Place the axle on the ground under the mixer and orient it with the spring mount to the left side of the mixer.

8.- Lift the axle up to the mixer frame and position it with the vertical mounting brackets to the inside of the mixer frame. Insert two 1/2 inch bolts with a washer through the frame and the vertical mounting bracket on the axle. Secure each bolt with a washer and locknut. Do not tighten at this time.

9.- Repeat step 8 for the other side.

- 10.- Secure the axle mount to the mixer frame using the remaining 1/2" bolts, washers, and locknuts. Make sure a washer is positioned against the axle mount and the frame.
- 11.- Torque all axle hardware to 80 ft-lbs.
- 12.- Remove the lug nuts and install the tire. Replace the lug nuts and torque to 105 ft-lbs.
- 13.- Lower the mixer to the ground.
- 14.- Remove the safety bolt and pin from the tow bar.
- 15.- Install the tow bar through the front leg.
- 16.- Insert the pin through the front leg and the front hole in the tow bar. Secure the pin with a hairpin cotter.
- 17.- Insert the 3/4" bolt through the rear hole and secure with a lock washer end nut. Tighten securely.
- 18.- Hook one end of the spring to the idler arm. Hook the other end of the spring to the spring plate on the axle. The spring should be hooked through the second hole from the top toward the middle of the mixer.

## **BEFORE OPERATING**

- **REMEMBER !** it is the owner's responsibility to communicate information on the safe use and proper operation of this unit to the operators
- Before operating, review **SAFETY PRECAUTIONS** listed on page 11 of this manual.
- Familiarize yourself with the operation of the unit and confirm that all controls function properly **BEFORE** starting engine.
- Know how to **STOP** the unit.
- Make sure hands, feet, and clothing are at a safe distance from any moveable parts prior to starting.
- Shrouds and grids are provided to protect the operator or structures in close proximity to rotating or hot engine parts. It is the **RESPONSIBILITY OF THE OPERATOR** to see that they are properly in place.
- **OIL LEVEL** - Check oil level in the engine. For more information see "Lubrication" under the engine "Owner's Manual" or the "Maintenance" section of this manual.
- **AIR CLEANER** - Check to ensure element is in good condition and properly installed.
- Review every decal once again with yourself and with **OPERATOR**.

# SAFETY DECAL LOCATION

**SAFETY INSTRUCTIONS**

Read the Operating instructions before operating this piece of equipment.

Keep unattended, inexperienced, untrained people away from this equipment.

**ROTATING & MOVING PARTS:** Make sure all guards and safety devices are in place.

**DO NOT RUN this machine in an enclosed area.** The engine produces carbon monoxide, a **POISONOUS** gas.

**SHUT OFF** the engine before servicing, cleaning or adding fuel to engine or machine.

Failure to comply could result in serious bodily injury.



**WARNING**

SHUT OFF ENGINE BEFORE PLACING HANDS IN MIXING DRUM.

PULL TO OPERATE

PUSH TO STOP

**CAUTION**

BAG SPLITTER HAS SHARP EDGES!

**IDLE**



**MIX**

**WARNING**

ROTATING PARTS Keep hands away!

**WARNING**

DUST CREATED BY DRY POWDERED MATERIALS IS A HAZARD IF INHALED

**SAFETY INSTRUCTIONS**

**Before towing:**

1. Check running gear and tow bar.
2. Put drum latch in low position.
3. Check tow pin for proper installation and good condition.
4. USE SAFETY CHAINS When towing.

**MAXIMUM TOW SPEED: 45 mph**

**MIXER OPERATING INSTRUCTIONS**

1. Check oil in engine chamber.
2. Make sure gear is CLOVED before starting and during operation.
3. Place engagement lever in "IDLE" position before starting engine.
4. Check fuel valve.
5. Check throttle on engine. A warm engine may not need to be "choked".
6. Operate throttle in "FAST" position.
7. Pull starter rope.
8. After starting, turn choke off. Let engine warm up at idly.
9. Open throttle to "FAST" position. CLOSE SLOWDOWN PLATE engagement lever to "IDLE" position. Change lever.
10. TO STOP, Place engagement lever in "IDLE" position, return throttle to idle, close fuel valve, gear into lather.
11. Before leaving, check that drum latch is placed in low position, and tow pin is properly secured and in good condition.

**MAXIMUM TOW SPEED: 45 MPH**

# SERVICE INSTRUCTIONS

- Never Attempt to service or lubricate unit with engine running.
- After Servicing unit, restore and fasten all guards, shields, and covers to their original
- Dispose of oil & other fluids correctly and in accordance with local and federal laws.

## ENGINE

See engine owner's manual maintenance schedule.

## DRUM

- 1.- Wash the drum after each days use.
- 2.- Pull the locking pin and tip the drum forward to drain excess water.
- 3.- Return drum to tow position and secure with locking pin before moving mixer.

## LUBRICATION

- 1.- Grease all fittings daily. All mixers have 9 grease fittings. two at each end of the drum on top of the pillow blocks and trunions. one at the front disengage lever, one on each wheel hub, and two under the engine shroud on top of the intermediate shaft pillow blocks.
- 2.- Apply a light coat of grease to the gear teeth a least once a week.
- 3.- Electric mixers only: Oil the drive chain once a week.



- **FUEL SUPPLY** - These engines on **Morrison** mixing equipment require an automotive grade of clean, fresh, unleaded or gasoline.
- **FUEL FILTER** - Check to ensure element is in good condition. Replace if it is clogged or damaged
- **LUBRICATION POINTS** - Make sure grease points have been greased.

## OPERATION

### STARTING ENGINE

Prior to starting engine, make sure mixer engagement lever is in the "IDLE" POSITION.  
**Gas engine**

- 1.- Open the fuel valve.
- 2.- Pull the stop switch on the engine shroud to its "Out" position.
- 3.- Move the engine throttle control to the "FAST" position.
- 4.- Choke the engine if necessary.(You may not need to choke a warm engine)
- 5.- Pull the starter rope.

### Electric motor

- 1.- Plug the motor into a suitable power source.
- 2.- Move the switch on the motor to the "on" position.

### OPERATING

- 1.- If using a gas engine, allow the engine to warm up then move the throttle to the fast position.
- 2.- Close the engine shroud



**DO NOT OPERATE THE MIXER WITH THE SHROUD OPEN!**

- 3.- Move the engagement lever to the "MIX"space position and charge the mixer.
- 4.- After discharging a batch of mortar, it is recommended to add water for the next batch.

## STARTING ENGINE

### Gas Engine

- 1.- Move the engagement lever to the "IDLER" position.
- 2.- Whenever possible it is recommended to let the engine idle before stopping
- 3.- Push in the engine stop switch on the engine shroud.
- 4.- Close the fuel valve.

### Electric motor

- 1.- Move the switch on the motor to the "off" position.



#### STOP THE ENGINE OR ELECTRIC MOTOR BEFORE :

- ° Adding fuel .
- ° Leaving equipment unattended for any amount of time
- ° Making any repairs or adjustments to the unit.
- ° Transporting

## TOWING

- 1.- Stop the engine or electric motor.
- 2.- Close and latch the engine shroud.
- 3.- Rotate the drum into the tow position and secure the locking pin.
- 4.- Secure the mixer hitch and safety chains to the vehicle.



#### BEFORE TOWING :

- ° Make sure the axle and tow bar hardware is tight.
- ° Check the condition of the pin on the tow bar and make sure it is secure.
- ° Remove any loose debris from the mixer.
- ° Use safety chains when towing.

**MAXIMUM TOW SPEED : 45 mph**

# MAINTENANCE SCHEDULE

	Maintenance	Each use	Every 20 Hours	Every 50 Hours	Every 100 Hours	Yearly
Engine	Refer to engine operator/owner manual	X				X
Bearings	Grease	X				X
V-Belts	Check for excessive wear		X			X
Roller Chain	Check for excessive wear		X			X
Hardware	Check and tighten 1,2		X	X		X
Tires	Check air pressure	X				

- 1.- Check all hardware after the first 5 hours of use, then follow the maintenance schedule.
- 2.- Retorque the front leg and axle hardware after the first 50 miles traveled, then follow the maintenance schedule.

## REPLACEMENT

### Parts

#### **Engine Components**

#### **V- Belts**

#### **Roller Chain**

#### **Gears**

#### **Hardware**

#### **Safety Decals**

### Tolerance or Replacement Cycle

*Refer to your engine manufacturer's Owner's Manual*

Replace if stretched to the point that the idler does not work properly. Replace the V-belts if they are cracked or torn.

Replace if there is excessive play between the links or the links are damaged.

Replace if the teeth are cracked or have become sharp.

Retorque all bolts after the first eight hours of operation and check every 25 hours . Replace any worn or damaged hardware as needed. Replacement hardware should be grade 5 and zinc plated.

Replace if they become damaged or cannot be easily read.

# TORQUE CHART

## APROXIMATE TIGHTENING TORQUE

<u>SIZE</u>	<u>GRADE 2</u>	<u>GRADE 5</u>	<u>GRADE 8</u>
# 10-24	21 in-lbs	32 in-lbs	45 in-lbs
# 10-32	23 in-lbs	36 in-lbs	51 in-lbs
1/4-20	49 in-lbs	76 in-lbs	9 in-lbs
1/4-28	56 in-lbs	87 in-lbs	10 in-lbs
5/16-18	8 in-lbs	13 in-lbs	18 in-lbs
5/16-24	9 in-lbs	14 in-lbs	20 in-lbs
3/8-16	15 in-lbs	23 in-lbs	33 in-lbs
3/8-24	17 in-lbs	26 in-lbs	37 in-lbs
7/16-14	24 in-lbs	37 in-lbs	52 in-lbs
7/16-20	27 in-lbs	41 in-lbs	58 in-lbs
1/2-13	37 in-lbs	57 in-lbs	80 in-lbs
1/2-20	41 in-lbs	64 in-lbs	90 in-lbs
9/16-12	53 in-lbs	82 in-lbs	115 in-lbs
9/16-18	59 in-lbs	82 in-lbs	129 in-lbs
5/8-11	73 in-lbs	112 in-lbs	159 in-lbs
5/8-18	83 in-lbs	112 in-lbs	180 in-lbs
3/4-10	129 in-lbs	223 in-lbs	282 in-lbs
3/4-16	144 in-lbs	200 in-lbs	315 in-lbs
7/8-9	125 in-lbs	322 in-lbs	454 in-lbs
7/8-14	138 in-lbs	355 in-lbs	501 in-lbs

## APROXIMATE TIGHTENING TORQUE

<u>SIZE</u>	<u>GRADE 2</u>	<u>GRADE 5</u>	<u>GRADE 8</u>
1-8	188 ft-lbs	483 ft-lbs	682 ft-lbs
1-12	205 ft-lbs	529 ft-lbs	746 ft-lbs
1-14	210 ft-lbs	541 ft-lbs	764 ft-lbs
1-1/8-7	266 ft-lbs	596 ft-lbs	966 ft-lbs
1-1/8-12	297 ft-lbs	668 ft-lbs	1083 ft-lbs
1-1/4-7	375 ft-lbs	840 ft-lbs	1363 ft-lbs
1-1/4-12	415 ft-lbs	930 ft-lbs	1509 ft-lbs
1-3/8-6	491 ft-lbs	1102 ft-lbs	1787 ft-lbs
1-3/8-12	559 ft-lbs	1254ft-lbs	2034 ft-lbs
1-1/2-6	652 ft-lbs	1462ft-lbs	2371 ft-lbs
1-1/2-12	734 ft-lbs	1645ft-lbs	2668 ft-lbs
M 6	3 ft-lbs	4 ft-lbs	7 ft-lbs
M 8	6 ft-lbs	10 ft-lbs	18 ft-lbs
M 10	10 ft-lbs	20 ft-lbs	30 ft-lbs

### CONVERSIONS

in - lbs x 0.083 = ft-lbs  
 ft - lbs x 12 = in-lbs  
 ft - lbs x 0.1383 = kg-m  
 ft - lbs x 1.3558 = N-m

## NOTES :

° CLOSE SHROUD WHILE USING

° REPLACE DECALS IF NEEDED (BUY FROM DEALER)

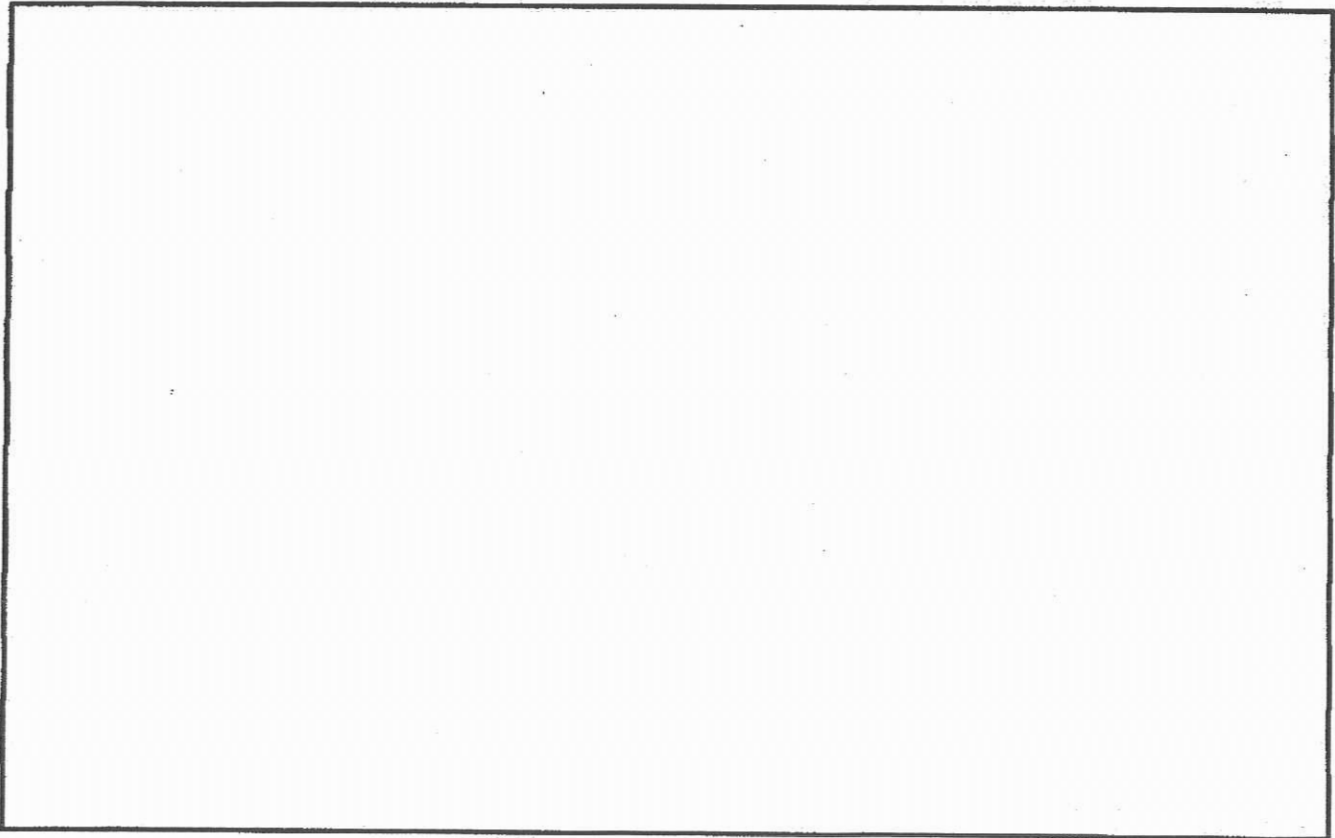
# WAREHOUSE LOCATIONS

## IS AT YOUR SERVICE

**Morrison** has established a network of reputable Distributors with trained mechanics and full facilities for maintenance and rebuilding, and to carry an adequate parts stock in all areas of the country. Their sales engineers are available for professional consultation. If you cannot locate and **Morrison** Distributor in your area, contact one of our Sales Branches or **Morrison**. The locations and phone numbers of the Sales Branches are listed below.

REMEMBER - you own the best. If repairs are needed use only **Morrison** parts purchases from Authorized **Morrison** Distributors.

Sales Branches:



# WARRANTY

## THIS IS YOUR WARRANTY - PLEASE READ AND SAVE

- 1.- **Morrison** warrants each new machine against defects in material and workmanship under normal use and service for a period of six (6) months. This warranty commences the first day the machine is sold, assigned to a rental fleet, or otherwise put to first use.
- 2.- The obligation under this warranty is limited to the replacement or repairs of parts and/or machine at **Morrison** factory branches or at authorized **Morrison** Distributors.
- 3.- Machines altered or modified without **Morrison** written consent voids this warranty. Misuse, negligence, accidents or the operation of machines in any way other than recommended by **Morrison** will void this warranty. This warranty shall not apply to machines repaired by other than **Morrison** factory branches or authorized **Morrison** Distributors.
- 4.- This Warranty includes labor on all **Morrison** products. Labor must be performed at an authorized **Morrison** Distributors.
- 5.- The cost of transportation and other expenses connected therewith are not covered by this warranty.
- 6.- Written authorization for the return of merchandise under warranty must be obtained by from **Morrison**
- 7.- **Morrison** reserved the right to inspect and render final decision on each warranty case.
- 8.- **Morrison** reserved the right to improve or make product changes without incurring any obligation to update, refit, or install the same on machines previously sold.
- 9.- **Morrison** is not responsible for any liability or damage or injury directly or indirectly from design, material or operation of its products.
- 10.- Warranty card must be returned to **Morrison** within 10 days after purchase, assignment to a rental fleet, or first use. Failure to return warranty card as specified renders the warranty null and void.
- 11.- Requests for warranty must be submitted in writing within 30 days after machine failure to **Morrison**
- 12.- THE FOREGOING WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE, AND OF ALL OTHER OBLIGATION OR LIABILITIES ON OUR PART, AND WE NEITHER ASSUME NOR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR US ANY OF OUR PRODUCTS. LIKEWISE, THIS WARRANTY SHALL NOT APPLY WITH RESPECT TO ENGINES, MOTORS AND COMPONENT.

**Morrison**  
BARTELL MORRISON



## CONCRETE MIXER ASSEMBLY

ITEM	PART No.	DESCRIPTION	CM9
1	100	Locking pin	1
2	101	Hex head cap screw 1/2-13 x 2-1/2	13
3	102	Nut hex 3/8	10
4	103	Pillow block	1
5	104	Hex head cap screw 5/8-16 x 1-1/2	4
6	105	Nut hex 5/8	4
7	106	Lockwasher 5/8	4
8	107	Gear	1
9	108	Hex head cap screw 1/2-13 x 1	3
10	109	Lockwasher 1/2	11
11	110	Cover plate	1
12	111	Handle tube	1
13	112	Handle block	1
14	113	Hex head cap screw 3/8-10 x 1	5
15	114	Locknut, 3/8-10	9
16	115	Lockwasher 3/8-10	9
17	116	Plainwasher 3/8	6
18	117	Hex head screw 3/8 x 1 1/4	2
19	118	Lockring	1
20	119	Hitch, pintle	1
	120	2" Ball hitch ( optional )	1
21	121	Pin, locking	1
22	122	Hex head screw 3/4 x 3-1/2	1
23	123	Lockwasher 3/4	1
24	124	Nut hex 3/4	1
25	125	Pillow block	2
26	126	Drive shaft	1
27	127	Main Frame	1
28	128	Pulley	1
29	129	Hub, asm, 4 bolt	2
30	130	Seal, grease	2
31	131	Bearing assembly	4
32	132	Plainwasher 1/8 x 3/4 x 1 1/4	2
33	133	Stud	8
34	134	Nut, castle 3/4	2
35	135	Pin, cotter 1/8 x 1-1/2	2
36	136	Cover, dust	2

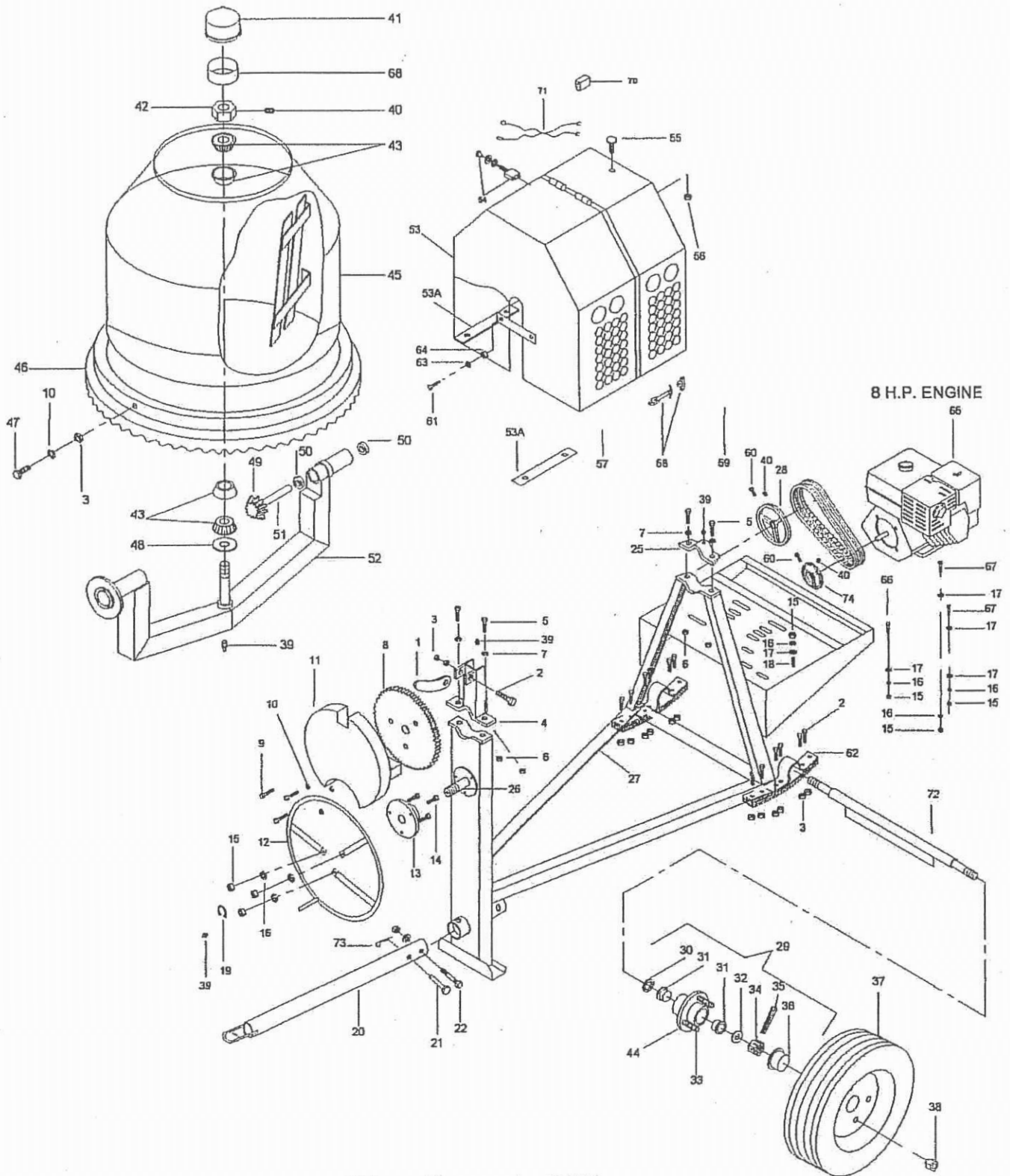


# **Morrison** CONCRETE MIXER ASSEMBLY

ITEM	PART No.	DESCRIPTION	CM9
37	137	Wheel and tire asm 165-80-R13	2
38	138	Nut,wheel 1/2-20	8
39	139	Fitting, grease	4
40	140	Allen screw 3/8 x 3/8	4
41	141	Cap	1
42	142	Nut hex 1 3/8-35	1
43	143	bearing	2
44	144	Hub only 4 lugs	2
45	145	Drum	1
46	146	Gear-33	1
47	147	Hex head screw 1/2-13 x 1 1/2	8
48	148	Plate	1
49	149	Pinion	1
51	151	Shaft pinion	1
52	152	Drum frame	1
53	153	Shroud assembly ( black )	1
54	154	Switch	1
55	155	Ruber screw	1
57	156	Nut hex 3/16	1
58	157	Hook assembly	2
59	158	Hex head screw 3/16 x 1/2	10
	159	Plainwasher 3/16	10
	160	Nut hex 3/16	10
60	161	Set screw 3/8 x 1-1/4	2
61	162	Hex head screw 5/16 x 1-1/4	2
62	163	Axle spring assembly	2
63	164	Lockwasher 5/16	2

**Morrison** CONCRETE MIXER ASSEMBLY

ITEM	PART No.	DESCRIPTION	CM9
64	165	Nut hex 5/16	2
65	166	Engine Honda 8.0 h.p.	1
66	167	Hex head screw 3/8 x 1 1/2	4
67	168	Hex head screw 3/8 x 2	4
68	169	Seal	1
69	170	Transmission belt CM9 for Honda 8.0 h.p.	2
70	171	Electric conector	1
71	172	Electric harness	1
72	172	Axle	1
73	173	Pin air	1
74	174	Pulley engine	1



**Mixer Concrete CM9**