OPERATOR'S SAFETY AND SERVICE MANUAL



BMS74, BMS75 & BMS95

This manual covers the following serial numbers and higher for each model listed:

BMS74 0740	010
BMS75 1040	000
BMS95	000





CONCRETE SPRAYERS: FOR WATER BASE MATERIALS ONLY

MBW, Inc.

250 Hartford Rd • PO Box 440 Slinger, WI 53086-0440 Phone: (262) 644-5234 Fax: (262) 644-5169 Email: mbw@mbw.com Website: www.mbw.com

MBW (UK) Ltd.

Units 2 & 3 Cochrane Street Bolton BL3 6BN, England Phone: 01204 387784 Fax: 01204 387797 **MBW FRANCE S.A.R.L.** Phone: +33 (0) 3 44 07 15 96 Fax: +33 (0) 3 44 07 41 28

> L18345 / 08.15.M ©MBW, Inc. 2015 Printed in the USA

TABLE OF CONTENTS

Safety Information1	
Introduction	
Safety Precautions	
Safety Decals 1	
Specifications3	S
Operation4	
Introduction	
Before Starting & Operating 4	_
Starting Engine 4	R
Operating	
Stopping Engine 4	
Maintenance 5	
Maintenance Schedule	
Fluid Levels	V

1	Engine Maintenance	. 5
1	Engine Speed	. 5
1	Cleaning	. 5
1	Winterizing	. 5
3	Service	. 6
_	Torque Chart	. 6
4	BMS 74 & 75	. 6
4	BMS 95	. 6
4 4	Replacement Parts	.8
4	BMS74 & BMS75	10
4	BMS 95	12
_	Drum Cart	14
5	Optional Spray Equipment:	16
5	Warranty	18

WARNING



CALIFORNIA PROPOSITION 65 WARNING

Engine exhaust and some of its constituents are known in the state of California to cause cancer, birth defects, and other reproductive harm.

Introduction

A

A

This Safety Alert Symbol is used to call attention to items or operations which may be dangerous to those operating or working with this equipment. The symbol can be found throughout this manual and on the unit. Please read these warnings and cautions, along with all decals, carefully before attempting to operate the unit. Make sure every individual who operates or works with this equipment is familiar with all safety precautions.



WARNING

A

GENERAL WARNING. Indicates information important to the proper operation of the equipment. Failure to observe may result in damage to the equipment and/or severe bodily injury or death.

CAUTION

GENERAL CAUTION. Indicates information important to the proper operation of the equipment. Failure to observe may result in damage to the equipment.

Safety Precautions



LETHAL EXHAUST GAS: An internal combustion engine discharges carbon monoxide, a poisonous, odorless, invisible gas. Death or serious illness may result if inhaled. Operate only in an area with proper ventilation. NEVER OPERATE IN Α CONFINED AREA!



DANGEROUS FUELS: Use extreme caution when storing, handling and using fuels, as 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 that all quards 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 OSHA specified hearing protection devices.

EYE PROTECTION: Wear OSHA specified eye shields, safety glasses, and sweat bands.



FOOT PROTECTION: Wear OSHA specified steel-tipped safety shoes.

HEAD PROTECTION: Wear OSHA specified safety helmets.



DUST PROTECTION: Wear OSHA specified dust mask or respirator.



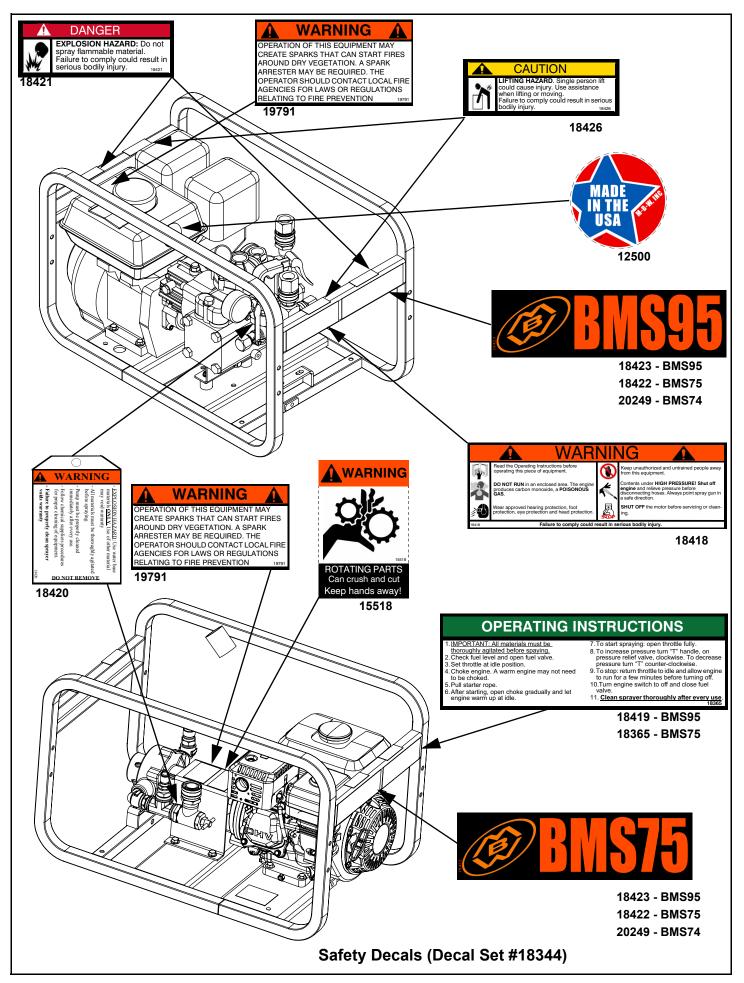
OPERATOR: Keep children and bystanders off and away from the equipment.

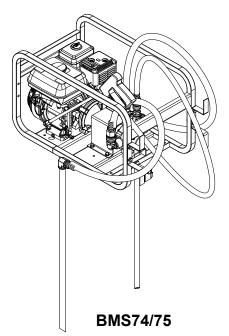
EXPLOSION HAZARD: Use water based material only. Do Not use flammable material.

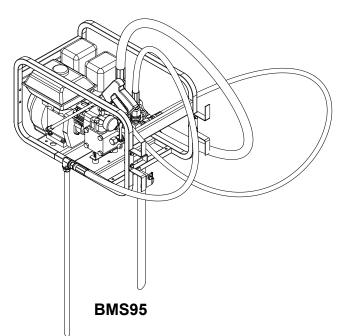
REFERENCES: For details on safety rules and regulations in the United States, contact your local Occupational Safety and Health Administration (OSHA) office. Equipment operated in other countries must be operated and serviced in accordance and compliance with any and all safety requirements of that country. The publication of these safety precautions is done for your information. MBW does not by the publication of these precautions, imply or in any way represent that these are the sum of all dangers present If you are operating MBW near MBW equipment. equipment, 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 States 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 Decals

Carefully read and follow all safety decals. Keep them in good condition. If decals become damaged, replace as required. If repainting the unit, replace all decals. Decals are available from authorized MBW distributors. Order the decal set listed on the following page(s).







		-	
	BMS74 (W/ 25' HOSE & WAND)	BMS75	BMS95
	(W/ 23 HOSE & WAND)	(W/ 23 HOSE & WAND)	(W/ 25 HOSE & WAND)
Pump	Roller 7560C-R	Roller 7560XL-R	Diaphragm
Solids Content	(Water Based Materials Only)	(Water Based Materials Only)	(Water Based Materials Only)
(high efficiency / max.rating)	25% / 30%	25% / 30%	35%
Maximum Flow	7.5 gpm (28.3 lpm)	7.5 gpm (28.3 lpm)	9.5 gpm (36 lpm)
Maximum Pressure	300 psi (20.7 bar)	300 psi (20.7 bar)	550 psi (38 bar)
Adjustable Pressure Settings	Yes	Yes	Yes
Standard Operating Pressure	100 psi (6.8 bar)	100 psi (6.8 bar)	100 psi (6.8 bar)
Weight	95 lbs (43 kg)	95 lbs (43 kg)	115 lbs (52 kg)
Dimensions (L x W x H)		27 x 15.5 x 17in. (69 x 39 x 43cm)	
	HONDA GX120	HONDA GX120	HONDA GX160
Engine	7.2 cu. in. (118 cm ³)	7.2 cu. in. (118 cm ³)	9.9 cu. in. (163 cm ³)
Max Engine RPM	3600 rpm	3600 rpm	3600rpm
Quick Disconnect Fittings	Yes	Yes	Yes

Specifications subject to change without notice

Introduction

MBW equipment is intended for use in very severe applications. They are powered by four cycle engines and are available in different sizes and a selection of engines.

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

Before Starting & Operating

- <u>Use water based material only</u>. Do not use flammable material. Failure to comply could result in serious bodily and or equipment damage and void warranty.
- Thoroughly agitate materials to be sprayed. High solid content from bottom of container can cause pump failure, voiding warranty.
- REMEMBER! It is the owner's responsibility to communicate information on the safe use and proper operation of this unit to the operators.
- Review ALL of the Safety Precautions listed on page 1 of this manual.
- Familiarize yourself with the operation of the machine and confirm that all controls function properly.
- Know how to STOP the machine in case of an emergency.
- Make sure hands, feet, and clothing are at a safe distance from any moving parts.
- OIL LEVEL Check the oil level in the engine, gear reducer and pump. For more information see "Lubrication" under the respective engine's/pump's Owners Manual.
- AIR CLEANER Check to ensure element is in good condition and properly installed.
- FUEL SUPPLY The engines on MBW equipment require an automotive grade of clean, fresh, unleaded gasoline.
- FUEL FILTER If clogged or damaged, replace.
- Inspect unit for loose or missing hardware or guards and cracked or damaged hoses. Tighten or replace any loose or missing hardware. <u>DO NOT OPERATE SPRAYER</u> with damaged hoses or missing guards. Replace damaged hoses or missing guards before operating unit.
- SPRAY GUN Check spray gun nozzle and all hoses & fittings to ensure they are free of all debris or blockage.

Starting Engine

- 1. Check fuel level and open fuel valve.
- 2. Set throttle at idle position.
- 3. Choke engine and pull starter rope. A warm engine may not need to be choked
- 4. After starting, open choke gradually and let engine warm up at idle.

Operating

- All materials to be sprayed MUST be thoroughly agitated. Failure to properly mix product before spaying can result in damage to pump <u>voiding</u> <u>warranty</u>.
- 2. To start spraying, open throttle fully & squeeze trigger.
- 3. Follow all manufactures specifications for product application, cure time and clean-up for all materials applied with this equipment.
- 4. Do not allow pump to run dry. Stop engine before the pump runs out of fluid.

Stopping Engine

- 1. Return throttle to idle and allow engine to run for a few minutes before turning off.
- 2. Turn engine switch to off and close fuel valve.
- 3. **Clean pump after each use.** Refer to Cleaning, page 5 for proper cleaning procedure.



Failure to clean pump after each use could result in damage to the pump and personal injury.

A



Freezing fluids can cause damage to the pump. If unit is likely to be stored in freezing temperatures, always exercise the winterizing procedure.

CAUTION

WARNING

Always stop the engine before: Adding fuel.

Leaving the equipment unattended for any amount of time.

Before making any repairs or adjustments to the machine.

A

WARNING

Always exercise the stopping procedure before servicing or lubricating the unit.

After servicing the unit, replace and fasten all guards, shields, and covers to their original positions before resuming operation.

Maintenance Schedule

A





Always verify fluid levels and check for leaks after changing fluids.

Do not drain oil onto ground, into open streams, or down sewage drains.

SYSTEM	MAINTENANCE	EACH USE	WEEKLY	EVERY 100 HOURS	YEARLY
Engine	Refer to engine operator/owner manual	Х			
Oil	Check oil levels in engine gear reducer and pump if applicable		X		
Pump	Clean and flush pump	Х			
Pump	Replace diaphragms ¹				Х
Hardware	Check and tighten hardware as needed ²				X

1. Applies to BMS95 only.

2. Check all hardware after the first 5 hours of use, then follow the maintenance schedule.

Fluid Levels

SYSTEM	ENGINE/GEAR REDUCER	PUMP	RECOMMENDED OIL
BMS74 & BMS75	Engine/Gear reducer refer to operator/owner manual	N/A	See manual
BMS95	Refer to engine/pump operator/ owner manual	Refer to pump operator/owner manual	Hypro formulated pump oil

Engine Maintenance

Refer to the engine owner's manual for maintenance intervals and procedures.

Engine Speed

The engine speed is factory preset according to the specifications section of this manual. Do not tamper with the governor settings. The governor establishes safe operating limits which must not be exceeded.

Cleaning

1. Cleaning of pump and equipment, refer to manufacture's literature of each chemical being

sprayed for proper cleaning instructions and cleaning agent. Do not allow spraying solution to dry in the pump. Failure to properly clean sprayer will void warranty.

Winterizing

Winterize your sprayer when temperatures may drop below freezing.

- 1. Drain and thoroughly clean pump.
- 2. Fill pump with a 50/50 water and antifreeze mixture.

SERVICE

Assembly and disassembly should be performed by a service technician who has been factory trained on MBW equipment. The unit should be clean and free of debris. Pressure washing before disassembly is recommended.

- Prior to assembly, wash all parts in a suitable cleaner or solvent.
- Check moving parts for wear and failure. Refer to the Replacement section in this manual for tolerance and replacement cycles.
- All shafts and housings should be oiled prior to pressing bearings. Also, ensure that the bearings are pressed square and are seated properly.
- All gaskets and seals should be replaced after any disassembly.

SIZE	GRADE 2	GRADE 5	GRADE 8		
1/4-20	49 in•lbs	76 in•lbs	9 ft•lbs		
1/4-28	56 in•lbs	87 in•lbs	10 ft•lbs		
5/16-18	8 ft•lbs	13 ft•lbs	18 ft•lbs		
5/16-24	9 ft•lbs	14 ft•lbs	20 ft•lbs		
3/8-16	15 ft•lbs	23 ft•lbs	33 ft•lbs		
3/8-24	17 ft•lbs	26 ft•lbs	37 ft•lbs		
7/16-14	24 ft•lbs	37 ft•lbs	52 ft•lbs		
7/16-20	27 ft•lbs	41 ft•lbs	58 ft•lbs		
1/2-13	37 ft•lbs	57 ft•lbs	80 ft•lbs		
1/2-20	41 ft•lbs	64 ft•lbs	90 ft•lbs		
9/16-12	53 ft•lbs	82 ft•lbs	115 ft•lbs		
5/8-11	73 ft•lbs	112 ft•lbs	159 ft•lbs		
5/8-18	83 ft•lbs	112 ft•lbs	180 ft•lbs		
	CONVE	RSIONS			
	in•lbs x 0.083 = ft•lbs				
	ft•lbs x 12 = in•lbs				
	ft•lbs x 0.1383 = kg•m				
	ft•lbs x 1.3	558 = N•m			

Torque Chart

BMS 74 & 75

Disassembly

Refer to BMS74 & BMS75, page 10.

- 1. Detach all hoses.
- 2. Remove coupler guard (# 2)
- 3. Remove engine mounting bolts and slide engine out to disengage coupler.
- 4. Inspect coupler spider (# 13) for wear. Replace if necessary.

- 5. Remove pump (# 7).
- 6. Remove fittings. Use care not to damage the soft brass threads.

Assembly

Refer to BMS74 & BMS75, page 10.

- 1. Assemble couplers (# 11, # 12) on to Engine and Pump. End of shafts should be flush with front of coupler. Use antisieze on shafts to insure easy maintenance in the future. Apply medium strength Loctite to coupler set screws to prevent screws from becoming loose.
- 2. Assemble fittings to pump as shown in diagram. Use a thread sealing compound on threads to prevent leaks.
- 3. Loosely assemble pump to frame.
- 4. Insert coupler spider into pump coupler.
- 5. Loosely assemble engine to frame. Take care to align coupler halves to avoid damage to the spider.
- 6. Tighten engine and pump mounting bolts.
- 7. Check for any excessive binding in the coupler by rotating shafts. If found, correct the problem before use.
- 8. Reinstall the coupler guard.
- 9. When first using pump after assembly, check and correct any leaks that occur.

BMS 95

Disassembly

Refer to BMS 95, page 12.

- 1. Detach all hoses
- 2. Remove hardware that hold engine and pump to the frame and remove engine and pump as a unit.
- 3. To separate pump from engine, remove the (4) socket head cap screws from the pumps mounting flange and slide the pump of the engine shaft.
- 4. If removing any fittings, use care not to damage soft brass threads.

Assembly

Refer to BMS 95, page 12.

- 1. Press key into engine shaft and apply an antiseize compound.
- 2. Slide the engine and pump together after aligning the keyways.

- 3. Using a medium strength thread locker on the threads of the bolts, fasten the pump to the engine.
- 4. Use a thread sealant when reinstalling any removed fittings.
- 5. Fasten engine and pump subassembly into frame.
- 6. Reinstall hoses.

Pump Components	Refer to your pump manufacturer's Owner's Manual.
Engine Components	Refer to your engine manufacturer's Owner's Manual.
Hardware	Replace any worn or damaged hardware as needed. Replacement hardware should be grade 5 and zinc plated unless otherwise specified.
Safety Decals	Replace if they become damaged or illegible.
Seals & Gaskets	Replace if a leak is detected and at every overhaul or tear down.

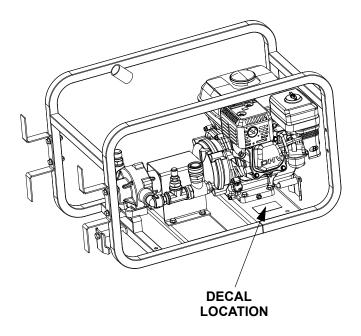
Parts Replacement Cycles and Tolerances

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

MBW has established a network of reputable distributors/ dealers 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 an MBW distributor in your area, contact MBW or one of our Sales Branches listed below.

When ordering replacement parts, be sure to have the following information available:

- Model and Serial Number of machine when ordering MBW parts
- Model and Serial Number of engine when ordering engine parts
- Part Number, Description, and Quantity
- Company Name, Address, Zip Code, and Purchase
 Order Number
- Preferred method of shipping
- REMEMBER You own the best! If repairs are needed, use only MBW parts purchased from authorized MBW distributors.



The unit's serial number can be found in the following locations:

• The model/serial number decal is located on the top side of the engine plate on the frame.

Write Model Number here

Write Serial Number here

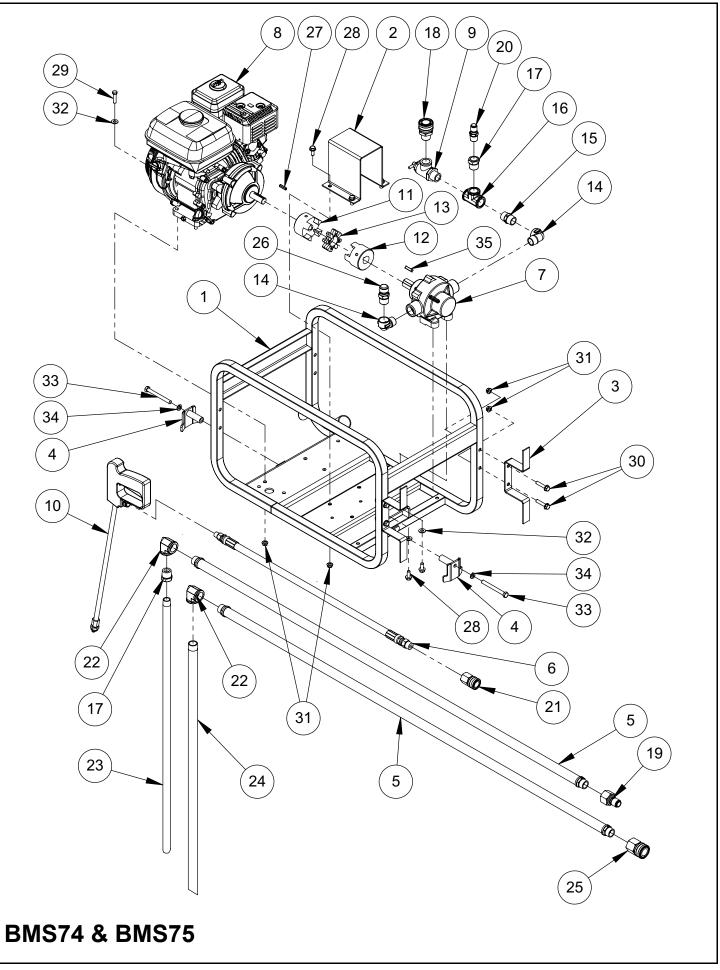
Contact Information

MBW, Inc.

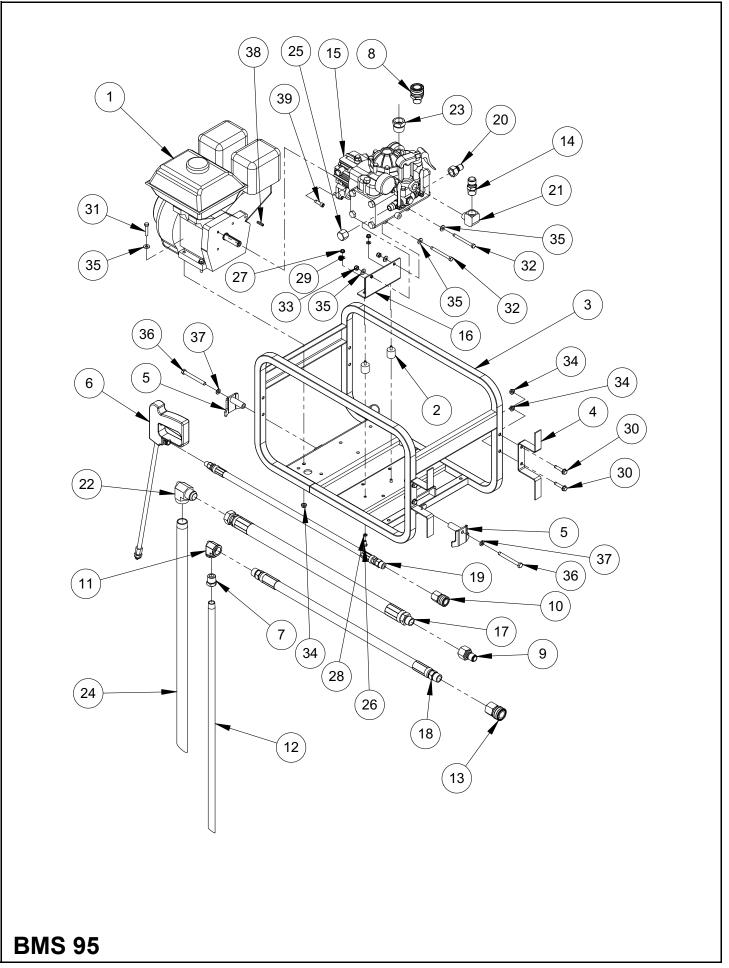
250 Hartford Rd • PO Box 440 Slinger, WI 53086-0440 Phone: (262) 644-5234 Fax: (262) 644-5169 Email: mbw@mbw.com Website: www.mbw.com

MBW (UK) Ltd.

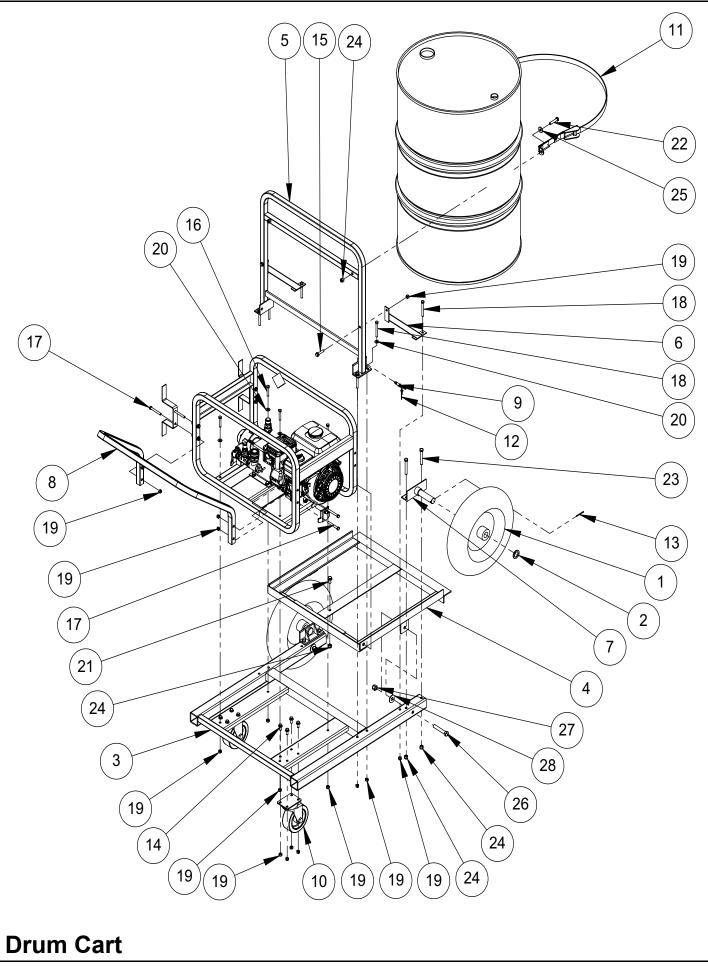
Units 2 & 3 Cochrane Street Bolton BL3 6BN, England Phone: 01204 387784 Fax: 01204 387797 **MBW FRANCE S.A.R.L.** Phone: +33 (0) 3 44 07 15 96 Fax: +33 (0) 3 44 07 41 28 This page intentionally left blank.



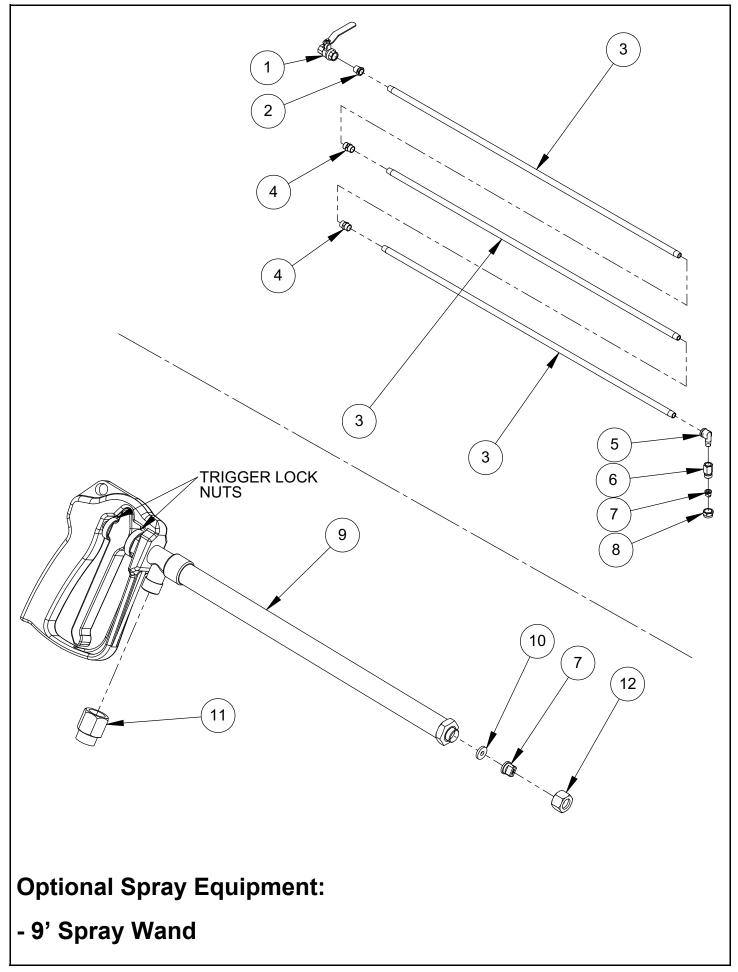
ITEM	PART NO.	DESCRIPTION	BMS74	BMS75
1.	18300	FRAME, COATED, SPRAYER	1	1
2.	18309	SHAFT GUARD, COATED, SPRAYER	1	1
3.	18311	HOSE REEL, COATED, SPRAYER	2	2
4.	18313	BARREL MOUNT, COATED, SPRAYER	2	2
5.	18317	HOSE, SUCTION-RETURN, SPRAYER	2	2
6.	18320	25' HOSE, SPRAY GUN, SPRAYER (INCLUDES ITEM #21)	1	1
	19141	50' HOSE, SPRAY GUN, SPRAYER (INCLUDES ITEM #21)	1	1
	18503	100' HOSE, SPRAY GUN, SPRAYER (INCLUDES ITEM #21)	1	1
	18433	KIT, 25' EXTENSION HOSE	1	1
	18435	KIT, 50' EXTENSION HOSE	1	1
	18437	KIT, 100' EXTENSION HOSE	1	1
7.	18324	PUMP, HYPRO #7560XL-R		1
	20246	PUMP, HYPRO #7560C-R	1	
8.	18325	ENGINE, HONDA, GX120K1HX2	1	1
9.	18326	PRESSURE RELIEF VALVE	1	1
9. 10.	18327	SPRAY GUN, HYPRO 3381-0017	1	1
11.	18328	COUPLING, ENGINE HALF, SPRAYER	1	1
12.	18329	COUPLING, PUMP HALF, SPRAYER	1	1
12.	18330	COUPLING, POMP HALF, SPRATER	1	1
13. 14.	18331	FITTING, STREET ELBOW, 3/4 NPT	2	2
14.	18332	FITTING, HEX PIPE NIPPLE	1	1
15. 16.			1	1
	18333		1	1
17.	18334	FITTING, THREAD REDUCER	2	2
18.	18335	QUICK COUPLING, FEMALE, BST-6M	1	1
19.	18336	QUICK COUPLING, MALE, BST-N6	1	1
20.	18337	QUICK COUPLING, MALE, BST-N4M	1	1
21.	18338	QUICK COUPLING, FEMALE, BST-4 (Included with item #6)	1	1
22.	18339	FITTING, FEMALE ELBOW	2	2
23.	18340	RETURN DROPE TUBE, SPRAYER	1	1
24.	18342	SUCTION DROP TUBE, SPRAYER	1	1
25.	18361	QUICK COUPLING, FEMALE, BST-6	1	1
26.	18362	QUICK COUPLING, MALE, BST-N6M	1	1
27.	00032	KEY STOCK 3/16 SQ. X 1-5/8 LG.	1	1
28.	F051806FWS	FWLS, 5/16-18 X 3/4 ZP	6	6
29.	F051810HCS	HHCS, 5/16-19 X 1-1/4 GR5 ZP	4	4
30.	F051812FWS	FWLS, 5/16-18 X 1-1/2 ZP	4	4
31.	F0518FN	NUT, FLANGE WHIZ-LOCK 5/16-18 ZP	12	12
32.	F05SW	WASHER, 5/16 X 3/4 X 15GA ZP	6	6
33.	F061628HCS	HHCS, 3/8-16 X 3-1/2 GR5 ZP	2	2
34.	F06LW	LOCKWASHER, 3/8 ZP	2	2
35.	01161	KEY STOCK, 1/4 SQ. X 1.5 LG.	1	1
		SERVICE PARTS		
	18452	ROLLER KIT, REBUILD	1	1
			-	-
	18453	BEARING, ROLLER PUMP (2 REQIRED)	2	2
	18914	ROTOR & SHAFT ASSEMBLY BMS75 ONLY		1
	20248	KUTUK & SHAFT ASSEMBLY BMS/4 UNLY	1	
	20248	ROTOR & SHAFT ASSEMBLY BMS74 ONLY		1



ITEM	PART NO.	DESCRIPTION	QTY
1.	01444	ENGINE, HONDA GX160KQX	1
2.	17643	SHOCKMOUNT, 1" OD X 1" LONG	2
3.	18300	FRAME, COATED, SPRAYER	1
4.	18311	HOSE REEL, COATED, SPRAYER	2
5.	18313	BARREL MOUNT, COATED, SPRAYER	2
6.	18327	SPRAY GUN, HYPRO 3381-0017	1
7.	18334	FITTING, THREAD REDUCER	1
8.	18335	QUICK COUPLING, FEMALE, BST-6M	1
9.	18336	QUICK COUPLING, MALE, BST-N6	1
10.	18338	QUICK COUPLING, FEMALE, BST-4 (Included with item #19)	1
11.	18339	FITTING, FEMALE ELBOW	1
12.	18340	RETURN DROP TUBE, SPRAYER	1
13.	18361	QUICK COUPLING, FEMALE, BST-6	1
14.	18362	QUICK COUPLING, MALE, BST-N6M	
15.	18366	PUMP, HYPRO. 9910-D30DGRGI	1
16.	18367	PUMP MOUNT BRACKET, COATED	1
10.	18369	HOSE. HYDRAULIC SUCTION SPRAYER	1
17. 18.	18370	HOSE, HYDRAULIC RETURN SPRAYER	1
18.	18320		
19.	19141	25' HOSE, HYDRAULIC, SPRAY GUN (Includes item #10) 50' HOSE, HYDRAULIC, SPRAY GUN (includes item #10)	1
			1
	18503	100' HOSE, HYDRAULIC, SPRAY GUN (Includes item #10)	
	18433	KIT, 25' EXTENSION HOSE	1
	18435	KIT, 50' EXTENSION HOSE	1
	18437	KIT, 100' EXTENSION HOSE	1
20.	18372	QUICK COUPLING, MALE, BST-N4	1
21.	18373	FITTING, STR. ELBOW, 3/4 X 1/2 NPTG-F	1
22.	18374	FITTING, ELBOW, #16 DTX-G-F	1
23.	18375	FITTING, THRD REDUCER, 1 X 3/4 NPT	1
24.	18376	SUCTION DROP TUBE, SPRAYER	1
25.	18378	FITTING, HEX PIPE CAP, 1/2 NPT	1
26.	F042004HCS	HHCS, 1/4-20 X 1/2 GR5 ZP	2
27.	F0420FN	FLANGE WHIZ-LOCK NUT, 1/4-20	2
28.	F04LW	LOCKWASHER, 1/4 ZP	2
29.	F04SW	WASHER, TYPE A 1/4 X 9/16 x.054	2
30.	F051812FWS	FWLS, 5/16-18 X 1-1/2 ZP	4
31.	F051812HCS	HHCS, 5/16-18 X 1-1/2 GR5 ZP	4
32.	F051826HCS	HHSC, 5/16-18 X 3-1/4 GR5 ZP	2
33.	F0518ELN	LOCKNUT, 5/16-18 NYLOC ZP	2
34.	F0518FN	NUT, FLANGE WHIZ-LOCK 1/16-18 ZP	8
35.	F05SW	WASHER, 5/16 X 3/4 X 15 ga ZP	8
36.	F061628HCS	HHCS, 3/8-16 X 3-1/2 GR5 ZP	2
37.	F06LW	LOCKWASHER, 3/8 ZP	2
38.	00032	ENGINE KEY 3/16 SQ. X 1-5/8 LG.	1
39.	F052408SCS	SCS, 5/16-24 X 1"	4
~ = -			'
		SERVICE PARTS	
	18454	KIT, DIAPHRAGM REPLACEMENT, SET OF (3)	1
	18455	KIT, VALVE, SET OF (4), WITH O-RINGS	1
	18456	KIT, VALVE, SET OF (4), WITH O-RINGS	1
	18457	DAMPNER DIAPHRAGM ONLY	1
			1
	18458	PUMP OIL, HYPRO, QUART	
	18463		1
	18755	PRESSURE RELIEF VALVE SEAT (VITON)	1
	18756	PRESSURE RELIEF VALVE SEAT (URETHANE))	1
	20978	ACCUMULATOR MANIFOLD	1
	20979	D30 AND D50 CONTROL ARM	1



ITEM	PART NO.	DESCRIPTION	QTY
1.	07019	WHEEL	2
2.	08324	BUSHING, MACHINERY 1"	2
3.	18387	CART FRAME, WELDMENT DRUM CART	1
4.	18392	DRUM FRAME, DRUM CART	1
5.	18397	DRUM SUPPORT FRAME, DRUM CART	1
6.	18401	SIDE FRAME, WELDMENT DRUM CART	2
7.	18404	AXLE WELDMENT, DRUM CART	2
8.	18408	HANDLE, DRUM CART, COATED	1
9.	18410	RING PIN, LOCKING, #97320A366	1
10.	18411	CASTER, 5.0" SWIVEL PLATE	2
11.	18412	TIE DOWN STRAP, DRUM CART	1
12.	18413	LANYARD, LOOP ENDS, WIRE ROPE	1
13.	F0212CP	PIN, COTTER 1/8 X 1-1/2	2
14.	F051806FWS	FWLS, 5/16-18 X 3/4 ZP	8
15.	F051812FWS	FWLS, 5/16-18 X 1-1/2 ZP	2
16.	F051814HCS	HHCS, 5/16-18 X 1-3/4 GR5 ZP	4
17.	F051820HCS	HHCS, 5/16-18 X 2-1/2 GR5 ZP	4
18.	F051822HCS	HHCS, 5/16-18 X 2-3/4 GR5 ZP	6
19.	F0518ELN	LOCKNUT, 5/16-18 NYLOC ZP	20
20.	F05SW	WASHER, 5/16 X 3/4 X 15GA ZP	5
21.	F061606FWS	FWLS, 3/8-16 X 3/4 ZP	1
22.	F061614HCS	HHCS, 3/8-16 X 1-3/4 GR5 ZP	2
23.	F061622HCS	HHCS, 3/8-16 X 2-3/4 GR5 ZP	4
24.	F0616ELN	LOCKNUT, 3/8-16 NYLOC ZP	7
25.	F06SW	WASHER, 25/64 X 1 X 1/8 ZP	2
26.	F081324HCS	HHCS, 1/2-13 X 3 GR5 ZP	2
27.	F0813ELN	LOCKNUT, 1/2-13 NYLOC ZP	2
28.	F08SW	WASHER, 9/16 X 1-3/8 X 12GA ZP	2



ITEM	PART NO.	DESCRIPTION	QTY
1.	18440	VALVE, BALL, BRASS 3/8 NPT	1
2.	18441	FITTING, THREAD REDUCER, 3/8 NPT TO 1/4 NPT	1
3.	18443	PIPE, ALUMINUM, 1/4 X 36" LG., 1/4 NPT BOTH ENDS	3
4.	18444	FITTING, PIPE COUPLER, 1/4 NPT, BRASS	2
5.	18445	STREET ELBOW, 1/4 NPT, BRASS	1
6.	18446	FITTING, NOZZLE BODY, BRASS	1
7.	18450	NOZZLE, MEDIUM	1
	18448	KIT, NOZZLE, (2) FINE, (2) MEDIUM, (2) LARGE SPRAY NOZZLES	1
8.	18447	FITTING, NOZZLE CAP, BRASS	1
9.	18644	SPRAY GUN (OPTIONAL) INCLUDES ITEMS #7 & #10	1
10.	18647	GASKET, NOZZLE SEAL	1
11.	18645	FITTING, THREAD ADAPTER, BRASS	1
12.	19823	FITTING, NOZZLE NUT, BRASS	1
		<u>KITS</u>	
	18442	9' SPRAY WAND, INCLUDES ITEMS #1 THRU #8	
	18915	OPTIONAL SPRAY GUN, INCLUDES ITEMS #7, #9, #10, #11 & #12	

WARRANTY

WHAT DOES THIS WARRANTY COVER? MBW, Incorporated (MBW) warrants each New Machine against defects in material and workmanship for a period of twelve (12) months. "New Machine" means a machine shipped directly from MBW or authorized MBW dealer to the end user. This warranty commences on the first day the machine is sold, assigned to a rental fleet, or otherwise put to first use.

MBW warrants each Demonstration Machine against defects in material and workmanship for a period of six (6) months. "Demonstration Machine" means a machine used by MBW or its agents for promotional purposes. This warranty commences on the first day the machine is sold, assigned to a rental fleet, or otherwise put to first use.

This warranty covers the labor cost for replacement or repair of parts, components, or equipment on New Machines or Demonstration Machines, and MBW shall pay labor costs at MBW's prevailing rate to affect the warranted repair or replacement. MBW reserves the right to adjust labor claims on a claim-by-claim basis.

This warranty covers the shipping cost of replacement parts, components, or equipment via common ground carriers from MBW to an authorized MBW dealer. Air freight is considered only in cases where ground transportation is not practical.

MAY THIS WARRANTY BE TRANSFERRED? This warranty is nontransferable and only applies to the original end user of a new machine or demonstration machine.

WHAT DOES THIS WARRANTY NOT COVER?

1. This warranty does not cover any Used Equipment. "Used Equipment" means any MBW machine or equipment that is not a New Machine or a Demonstration Machine. All Used Equipment is sold **AS IS/WHERE IS WITH ALL FAULTS.**

2. This warranty does not cover any New Machine, Demonstration Machine, or their equipment, parts, or components altered or modified in any way without MBW's prior written consent. This warranty does not cover the use of parts not specifically approved by MBW for use on MBW products. This warranty does not cover misuse, neglect, shipping damage, accidents, acts of God, the operation of any New Machine or Demonstration Machine in any way other than recommended by MBW in accordance with its specifications, or any other circumstances beyond MBW's control. This warranty does not cover any New Machine or Demonstration Machine repaired by anyone other than MBW factory branches or authorized MBW distributors.

3. This warranty does not cover, and MBW affirmatively disclaims, liability for any damage or injury resulting directly or indirectly from design, materials, or operation of a New Machine or Demonstration Machine or any other MBW product. MBW's liability with respect to any breach of warranty shall be limited to the provisions of this document and in no event shall exceed an amount equal to the purchase price of the New Machine or Demonstration Machine or Demonstration Machine purchased from MBW.

4. This warranty does not cover engines, motors, and other assemblies or components produced by other manufacturers and used on a New Machine or Demonstration Machine, as said engines, motors, and other assemblies or components may have warranties provided by the manufacturer thereof. This warranty does not apply to consumable items, such as v-belts, filters, trowel and screed blades, seals, shock mounts, batteries, and the like, all of which are sold AS IS/WHERE IS WITH ALL FAULTS.

5. This warranty does not cover the cost of transportation and other expenses which may be connected with warranty service but not specifically mentioned herein.

6. This warranty does not cover any updates to any New Machine, Demonstration Machine, or any other MBW product. MBW reserves the right to improve or make product changes without incurring any obligation to update, refit, or install the same on New Machines or Demonstration Machines previously sold.

WHAT MUST YOU DO TO OBTAIN WARRANTY COVERAGE? Each New Machine or Demonstration Machine is accompanied by a Warranty Registration Card. You must sign, date, and return the Warranty Registration Card to the place of origin of the New Machine or Demonstration Machine, either to MBW, Inc. at P.O. Box 440, Slinger, Wisconsin 53086, MBW (UK), Ltd. at Units 2 & 3 Cochrane Street, Bolton BL3 6BN, United Kingdom or MBW FRANCE SARL at ZA D'Outreville, 5 Rue Jean Baptiste Neron, Bornel 60540 France, within ten (10) days after purchase, assignment to a rental fleet, or first use. This signed warranty card is the buyer's affirmation that he has read, understood, and accepted the warranty at the time of purchase. Failure to return the warranty card as specified herein renders the warranty null and void. In order to receive warranty coverage consideration, warranty claims must be submitted within thirty (30) days after the New Machine or Demonstration Machine fails. Warranty claims must be submitted to MBW, Inc., MBW (UK), Ltd. or MBW FRANCE SARL, and written authorization for the return of merchandise or parts under the warranty must be obtained before shipment to MBW.

WHAT WILL MBW DO? MBW's obligation under this warranty is limited to the replacement or repair of parts for a New Machine or Demonstration Machine at MBW factory branches or at authorized MBW distributors, and such replacement or repair is the exclusive remedy provided hereunder. Labor must be performed at an authorized MBW distributor. MBW reserves the right to inspect and render a final decision on each warranty case, and MBW's repair or replacement is solely within the discretion of MBW.

IT IS EXPRESSLY AGREED THAT THIS SHALL BE THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. UNDER NO CIRCUMSTANCES SHALL MBW BE LIABLE FOR ANY COSTS, LOSS, EXPENSE, DAMAGES, SPECIAL DAMAGES, INCIDENTAL DAMAGES, OR PUNITIVE DAMAGES ARISING DIRECTLY OR INDIRECTLY FROM THE USE OF THE NEW MACHINE OR DEMONSTRATION MACHINE WHETHER BASED UPON WARRANTY, CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR ANY OTHER LEGAL THEORY.

THE FOREGOING WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR USE, AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER OBLIGATIONS OR LIABILITY ON MBW'S PART. MBW NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME ON BEHALF OF MBW ANY OTHER LIABILITY OR WARRANTY IN CONNECTION WITH THE SALE OR SERVICE OF ANY NEW MACHINE, DEMONSTRATION MACHINE, OR ANY OTHER MBW PRODUCT.

EXTENDED RAMMER WARRANTY - MODELS R422, R442, R482 & R483.

This extended warranty commences on the last day of MBW's standard, one year, "limited warranty" and runs for an additional four years (48 months). This extended warranty is limited to part replacement and shipping costs of rammer **bellows and non-metallic slide bearings only.** This extended warranty does not cover labor, down time, or any other cost beyond that of component replacement and freight. This extended warranty is subject to all limitations set fourth in MBW's "limited warranty", above.