

OPERATOR'S SAFETY AND SERVICE MANUAL



F36/4 F46/4

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

F36/4	3630001
F46/4	4630001



WALK-BEHIND TROWELS

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SAFETY INFORMATION

Introduction

! 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

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 A 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 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 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.

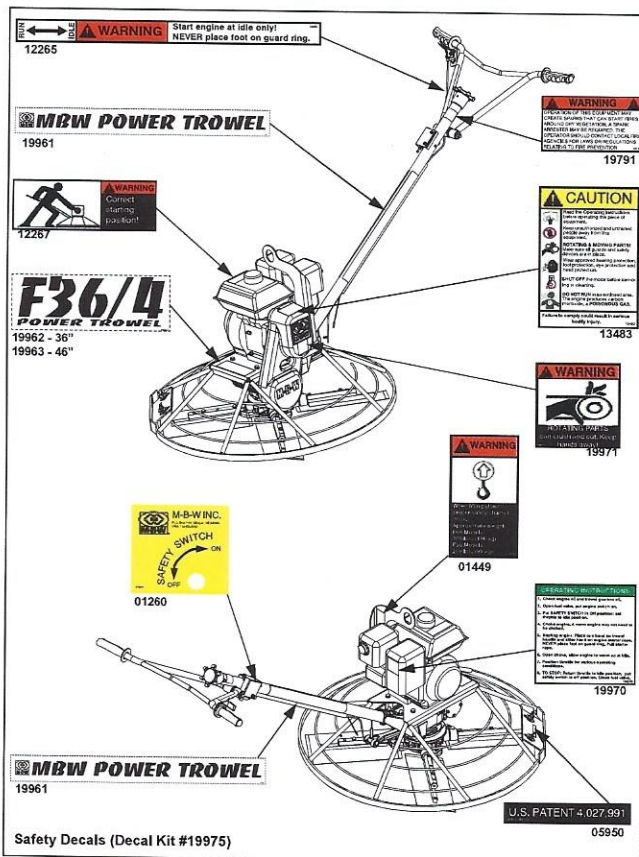
DUST PROTECTION: Wear OSHA specified dust mask or respirator.

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

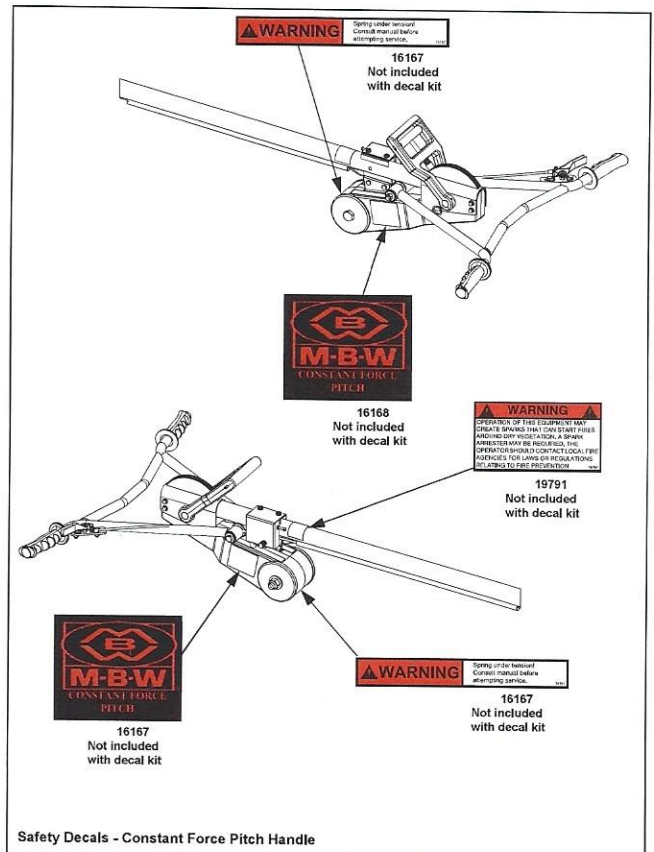
REFERENCES: For details on safety rules and regulations in the United States, contact your local Occupational Safety and Health Administration (OSHA) office. Equipment operated in other countries must be operated and serviced in accordance and compliance with any and all safety requirements of that country. 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 near MBW equipment. If you are operating MBW 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).

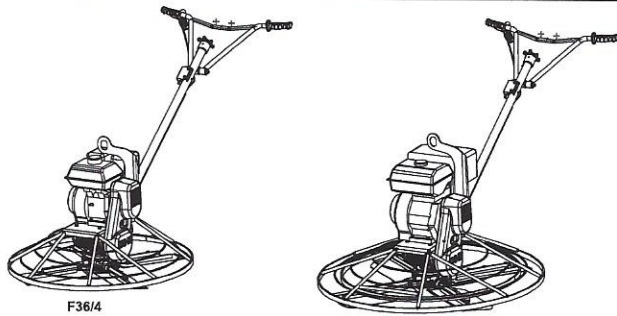


Safety Decals (Decal Kit #19975)



Safety Decals - Constant Force Pitch Handle

SPECIFICATIONS



	F36/4	F46/4	F46/4HD
Ring Operating Diameter (Outside Diameter)	37-1/2 in (95 cm)	46 in (117 cm)	46 in (117 cm)
Gas Engines	GX160 Honda (9.9 in ³ /163cc) GX270 Honda (16.5 in ³ /270cc) EX17 Robin (10.3 in ³ /169cc) EX21 Robin (12.9 in ³ /211cc)	GX270 Honda (16.5 in ³ /270cc) GX390 Honda (23.7 in ³ /389cc) EX21 Robin (12.9 in ³ /211cc) EX27 Robin (16.2 in ³ /265cc)	GX390 Honda (23.7 in ³ /389cc)
Engine Speed	3400 rpm	3400 rpm	3400 rpm
Trowel Speed	70 - 135 rpm	70 - 135 rpm	70 - 135 rpm
Weight	174 lbs (79 kg) [GX160] 200 lbs (91 kg) [GX270] 174 lbs (79 kg) [EX17] 176 lbs (80 kg) [EX21]	243 lbs (110 kg) [GX270] 257 lbs (117 kg) [GX390] 224 lbs (102 kg) [EX21] 230 lbs (104 kg) [EX27]	293 lbs (129 kg)
Noise Level ¹	85 - 105 dBA	85 - 105 dBA	85 - 105 dBA

Specifications subject to change without notice
1. Noise levels are based on operating conditions and will vary with background noise

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OPERATION

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

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.

NEW TROWELS - After assembling the handle, inspect the throttle connections and confirm the remote throttle is actuating the engine throttle properly and all controls function properly.

FUEL SUPPLY - The engines on MBW Power Trowels require a good grade of unleaded automotive gasoline. See the engine owner's manual for specific details. Engines are NOT approved to run E85 fuel.

ENGINE OIL - Check the oil level in the engine. Refer to the Lubrication section of the engine owner's manual.

GEARBOX OIL - Check the oil level in the trowel gearbox. Refer to the Maintenance section of this manual.

AIR CLEANER - Check to make sure the element is in good condition and properly installed. Clean or replace filter element if clogged or damaged.

Starting Engine

1. Open fuel valve.
2. Turn engine switch to "ON".
3. Turn trowel safety switch to "ON".
4. Set throttle to idle.
5. Choke engine if necessary (you may not need to choke a warm engine).
6. Place one hand on the trowel handle and the other on the starter rope. Pull starter rope repeatedly until engine starts.

WARNING
NEVER place foot inside the guard ring when starting.

7. Move choke lever to open position and allow engine to warm up for one or two minutes.

Operating

1. Increase throttle to engage the clutch.
2. Set throttle to desired position to achieve the appropriate trowel blade speed.
3. To move forward, push down on the right handle grip and pull up on the left handle grip.
4. To move backward, pull up on the right handle grip and push down on the left handle grip.
5. To move left, pull up on both handle grips.
6. To move right, push down on both handle grips.

Blade Pitch Adjustment (Standard)

1. To increase the pitch, rotate the tilt knob clockwise.
2. To decrease the pitch, rotate the tilt knob counterclockwise.

Blade Pitch Adjustment (Constant Force)

1. To increase the pitch, squeeze the trigger and pull the lever towards you.
2. To decrease the pitch, squeeze the trigger and push the lever away from you.

Handle Bar Adjustment

1. Loosen bolt securing the handle bar to trowel handle.
2. Move handle bar to desired position.
3. Tighten bolt to lock handle.

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#05700. The oil should be to the bottom of the fill hole when sitting level.

Lifting

The trowel should be lifted by the lifting bracket attached to the engine. As an alternative, it may be lifted by two people on opposite sides of the guard ring.

Storage

The trowel should be stored with blocks supporting the outer guard ring. Refer to the engine owner's manual for information regarding storage of the engine.

Changing Trowel Blades

WARNING

Trowel blade edges may be sharp when they are worn. Wear protective gloves when handling the blades.

1. Set the trowel on a level surface.
2. Remove the bolts securing the blade to the tilt arm.
3. Lift up on the ring guard and slide the blade out from under the tilt arm.
4. Slide the new blade under the tilt arm.
5. Reinstall the bolts and tighten.
6. Check that the carriage bolts are set properly. If they require adjustment refer to the "Setting Tilt Arm Carriage Bolt Height" section.

Setting Tilt Arm Carriage Bolt Height

1. Remove ALL the tilt arms from the spider.
2. Remove the blades from all the arms. Wear protective gloves when removing the blades, the edges may be sharp.
3. Inspect the bottom side of the arms (blade mounting surface). Remove any ricks, cement, etc... THIS SURFACE MUST BE FLAT.
4. Loosen the jam nut and run the carriage bolt in as far as possible.
5. Mount the arm to gage #07277 as shown in figure 4.

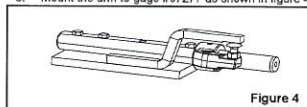


Figure 4

6. Place a .030 feeler gage between the carriage bolt and the underside of the gage arm, and run the carriage bolt up to just contacting the feeler gage. There should be a slight drag felt when the feeler gage is moved between the two surfaces.
7. Place a 3/8" open end wrench on the square shoulder of the carriage bolt and tighten the jam nut. DO NOT allow the carriage bolt to turn.
8. Recheck clearance with feeler gage and readjust if necessary.
9. Repeat items 5 through 8 for ALL remaining tilt arms.
10. Lubricate the tilt arm prior to fitting it in spider.

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