



# RAMMERS



QUALITY ENGINEERED. QUALITY BUILT. QUALITY SURVIVES.

[WWW.MBW.COM](http://WWW.MBW.COM)

# GROUND POUNDER® DIVISION

## HIGH PERFORMANCE PERCUSSION RAMMERS



MBW approaches rammer development aggressively. We attack high maintenance issues usually associated with this product type. The MBW delivery system is the lowest friction, heat, and maintenance percussion unit in the industry. Less friction, heat, and wear in the delivery system translates into lower continuous horsepower demands to keep the rammer running. That means fewer engine problems and longer engine life. Bellows failures are reduced by as much as 90% with MBW's 4-ply, steel reinforced, vulcanized rubber bellows.

MBW addresses maintenance issues on throttle systems, tamping shoes, fuel tanks, gearboxes, shock mounts, proper engine rpm, and we answer the question as to when your service staff should perform routine maintenance.

While **MBW RAMMERS** are decidedly high performance, the thing that truly separates our rammers from the competition is an unrelenting, aggressive attack on rammer problems.

## RAMMER FEATURES

### THE SECRET TO OUR SUCCESS...

MBW achieves unmatched durability by using patented UHMW polyethylene slide bearings and spring separators on all rammers. These components last up to 6 times longer than their metal counterparts, create less friction and heat, preserve lubricant integrity, and produce less internal load for the engine to overcome. Compression springs made of stress relieved, chrome-silicon alloy steel and a percussion housing of lightweight, durable aluminum alloy provide the strength for all MBW rammers.

### HAND/ARM VIBRATION

MBW is committed to reducing hand/arm vibration on its entire range of rammers. We have made significant progress without cutting back on rammer compaction performance. Hand/arm vibration levels have decreased between 25 & 60% across the range.



### SMART RAMMER

The integral tachometer/hour meter ensures that the rammer is operating at maximum capacity. It also informs service personnel of proper maintenance intervals. Optional on the R422 and R442, standard on the R482.

## RAMMER SPECIFICATIONS

*MBW urges interested parties to see "Beware of Compactor Specifications" at [WWW.MBW.COM](http://WWW.MBW.COM)*

- Published lift capacity reflects ideal conditions (clean sand, optimum moisture). Good compaction practice restricts lift depth to a maximum of 12 inches for granular soils, 6 to 9 inches for cohesive soils.
- Published travel speeds generally indicate operation under ideal conditions.
- Area of compaction calculations factor in lift and travel expectations that may not be realistic for all conditions of compaction.
- There is no universally accepted formula or method for determining rammer "compaction force". Manufacturers employ their own formulas/methods to develop "compaction force" specifications thereby rendering comparison between rammers an exercise in futility.



# GROUND POUNDER® DIVISION

## R422 & R442 SERIES



The R422 & R442 RAMMERS are ideally suited for the compaction of granular, mixed and cohesive soils in confined areas. The R422 & R442 offer highly productive percussion rammers at 145 up to 154 lbs. The contoured fuel tank provides the largest fuel capacity in its class and baffles engine noise. Power is supplied by Honda engines. Model R442 delivers approximately 25% more compaction force and is recommended for heavy clay soils.

Models R422 and R442 with the Honda GXR120 engine are recommended for altitude above 4000 ft.

- Elevated bellows placement for trench applications
- Patented UHMW polyethylene slide bearings provide minimal internal wear
- 11" ductile cast iron tamping shoe
- 4" and 6" trench shoes available for the R422

Available with choice of two engines

- Honda GX100
- Honda GX100 w/oversized air filter
- Honda GXR120

*US & International Patents*



AIR FILTER OPTION



OPTIONAL SHOE

## R482 SERIES



The R482 RAMMER is equipped with integral tachometers and hour meters that indicate when maximum operational performance is being reached and when maintenance intervals are needed. The result is higher productivity and increased service life. Weighs between 158–165 lbs. Model R482 with the Honda GXR120 engine is recommended for altitude above 4000 ft.

Available with a choice of two engines which provide sure starts and long-term low maintenance.

- Honda GX100
- Honda GXR120

*US & International Patents*



TACHOMETER

MODEL	R422	R442	R482 - 11" SHOE	R482 - 13" SHOE
Shoe Size	11 x 13 in (28 x 33 cm)		11 x 13 in (28 x 33 cm)	13 x 15 in (33 x 38 cm)
Engine Options & Operating Weight	Honda GX100 145 lb (66 kg) Honda GX100 with Oversized Air Filter 149 lb (68 kg) Honda GXR120 145 lb (66 kg)	Honda GX100 150 lb (68 kg) Honda GX100 with Oversized Air Filter 154 lb (70 kg) Honda GXR120 150 lb (68 kg)	Honda GX100 158 lb (72 kg) Honda GXR120 158 lb (72 kg)	Honda GX100 165 lb (75 kg) Honda GXR120 165 lb (75 kg)
Percussion Rate	Up to 720 blows/min		Up to 650 blows/min	
Compaction Area	3025 ft <sup>2</sup> /hr (281 m <sup>2</sup> /hr)	3025 ft <sup>2</sup> /hr (281 m <sup>2</sup> /hr)	3300 ft <sup>2</sup> /hr (307 m <sup>2</sup> /hr)	3900 ft <sup>2</sup> /hr(362 m <sup>2</sup> /hr)
Travel Speed	Up to 55 ft/min (16 m/min)		Up to 60 ft/min (18.3 m/min)	
Compaction Depth*	Up to 18 in (45 cm)		Up to 24 in (61 cm)	

\* Clean sand, optimum moisture. MBW recommends that lifts not exceed 12" of granular soil, 9" of cohesive soil. Fuel capacity of 1.1 gal (4.2 L); Engine 3600 rpm ( ) Metric Measurements

### POLYETHYLENE

dual layer EPA crosslinked fuel tank to resist punctures and abrasions and UV resistant has largest capacity in the industry

### NON-METALLIC SPRING SEPARATOR

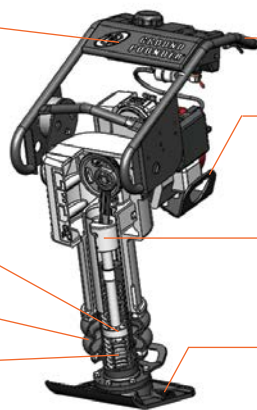
to further reduce friction

### 4 PLY VULCANIZED RUBBER BELLOWS

reinforced with stranded steel cable

### COMPRESSION SPRINGS

manufactured of highest quality, stress relieved alloy steel. Springs do not bottom out or require rubber stoppers like competitive models



### PRECISION BALANCED HANDLE

with contoured fuel tank

### IMPACT RESISTANT ENGINE GUARD

protects against damage

### HIGH DENSITY NON-METALLIC SLIDE BEARINGS

reduce internal friction to the lowest levels in the industry

### DUCTILE CAST IRON

MBW shoes do not absorb impact like competitive models but transfer all force to soil.

# AIRAMMER



The AIRAMMER® is a pneumatically powered rammer. It eliminates a long list of engine related problems. There are no fuel or fuel mixing issues, no carburetor, no spark plug, no rewind starter, no flooding problems, no air or fuel filters that can be plugged and no rpm issues, all of which affect performance.

The Airammer also offers the following advantages:

- No need to handle flammable gas or oil
- Lower maintenance cost \$\$
- Motor is closer to the gearbox for better balance
- Can be transported or stored in any position
- No exhaust fumes, safe for indoor use
- Easier to run and maneuver

- No frustration of trying to start an engine
- No stopping to refuel
- Less time spent on pre-run check over, i.e. check oil, clean air filter, fuel up, etc.
- Less down time for routine maintenance



4" & 6" NARROW SHOE WITH 12" EXTENSION

### US & International Patents

	AR56 - 11" SHOE	AR57 - 13" SHOE
Shoe Size	Iron 11 x 13 in (28 x 33 cm)	Alum 13 x 15 in (33 x 38 cm)
Operating Weight	124 lb (56 kg)	126 lb (57 kg)
Percussion Rate	650 blows/min	650 blows/min
Compaction Area	3300 ft <sup>2</sup> /hr (307 m <sup>2</sup> /hr)	3900 ft <sup>2</sup> /hr(362 m <sup>2</sup> /hr)
Travel Speed	Up to 60 ft/min (18.3 m/min)	Up to 60 ft/min (18.3 m/min)
Compaction Depth*	Up to 24 in (61 cm)	Up to 24 in (61 cm)
Air Required	75 cfm 100 psi	75 cfm 100 psi
RPM	4500	4500

\* Clean sand, optimum moisture. MBW recommends that lifts not exceed 12" of granular soil, 9" of cohesive soil.  
( ) Metric Measurements. Specifications subject to change without notice.



## 5 YEARS ON BELLOWS & PERCUSSION SYSTEM BEARINGS

MBW continuously works to lower maintenance and extend life expectations of its rammers. MBW rammers feature the industry's only percussion system completely free of high friction/heat/wear metal-on-metal reciprocating wear surfaces. The patented design features c-shaped, non metallic, slide bearings between spring separator and spring box, ram shaft and spring box, and spring box and guide tube. Wear characteristics of the MBW bearings are several times better than traditional steel-on-cast iron designs. Lower operating friction/heat provide positive implications for engine, lubricant and bellows life. Unlike stiff plastic bellows, the MBW vulcanized rubber bellows with stranded steel enforcement

reduce jobsite punctures and is far more resilient to UV degradation.

In the event percussion system lubricant is lost, MBW percussion systems are designed to fail a single slide bearing, locking up the system and preventing damage to other bearing surfaces, as well as bearings and seals in the rammer's gearbox. Because MBW percussion systems generate less internal friction, rammers operate more efficiently, consume less fuel, and deliver more compaction force for the purpose intended. When replacement is eventually called for, MBW slide bearings are replaced at low cost, returning percussion systems to original specification.

Endurance testing of the new design exceeded even MBW's expectations. As a result, MBW gas powered rammers now provide a 5 year warranty on percussion system slide bearings and bellows.



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