AMPHIBIOUS SOFT TERRAIN BACKHOE

APPLICATION & ATTACHMENT

Amazing Mobility on Soft Terrains and Swamps with the Special Undercarriage

Model Code: MA200-g
Engine Rated Power: 108 kW (147 HP)
Operating Weight: 21 400 kg
Backhoe Bucket: SAE, PCSA Heaped: 0.46 - 0.69 m³
CECE Heaped: 0.4 - 0.6 m³

Note: Illustrations in this brochure may include optional equipment.
Swing Device
Axial piston motor with planetary-reduction gear is bathed in oil. Swing circle is single-row, shear type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-relieved disc type. Swing speed ........................................... 13.3 min⁻¹ (rpm)

Operator’s Cab
Independent rocky cab, 1,005 mm wide by 1,675 mm high, conforming to EEC Standards. Reinforced glass windows on 4 sides for visibility. Operable front windows upper and lower. Adjustable reclining seat with armrests; movable with or without control levers.

UNDERCARRIAGE
The special undercarriage, fitted with square hollow steel shoes and floating seal rollers, gives exceptional mobility on wetland and swamps. It boosts buoyancy and ruggedness too. The machine can be easily knicked down for quick transport to the next job site, as the upperstructure is bolted to the undercarriage through the support beam, and hydraulic piping employs quick couplers.

Numbers of Shoes and Float Capacity on Each Side
Box type shoes ............... 55 : 49 (without wiper) + 6 (with wiper)
Float capacity ............... 29.0 m³

Travel Device
Each track driven by axial piston motor through spur wheel double reduction gear for counterrotation of the tracks. Parking brake is spring-set/hydraulic-relieved disc type. Travel shockless relief valve built in travel motor absorbs shocks when stopping travel. Travel speeds ............... 0 to 4.0 km/h

Maximum traction force ..... 183 kN (18,700 kgf)
Gradeability ............... 58 % (30 degree) continuous

WEIGHTS AND GROUND PRESSURE

<table>
<thead>
<tr>
<th>Shoe type</th>
<th>Shoe width</th>
<th>Operating weight</th>
<th>Ground pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box type</td>
<td>1,620 mm</td>
<td>21,400 kg</td>
<td>11.4 kPa (0.12 kgf/cm²)</td>
</tr>
</tbody>
</table>

FUEL TANK CAPACITIES

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Width</th>
<th>No. of teeth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAE, PCSA heaped</td>
<td>0.46 m</td>
<td>390 mm</td>
<td>835 mm</td>
</tr>
<tr>
<td>CECE heaped</td>
<td>0.6 m</td>
<td>390 mm</td>
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</tr>
</tbody>
</table>

BACKHOE ATTACHMENTS

Boom and arms are of welded, box-section design. 6,500 m boom, 3,42 m arm is available. Bucket is of welded steel structure. Side clearance adjust mechanism provided on the bucket joint bracket.

Buckets

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TRANSPORTATION

Avoid operating with machine floating on water. Never attempt to work with the machine floating on water. Failure to do so may result in overturning of the machine.

Notes

- The MA200-G is not a ship. It is not fitted with equipment for cruising or working on water.
- The MA200-G is designed for working on soft ground. Working or travelling on hard and rough ground is prohibited.
- Avoid operating with machine floating on water.
STANDARD EQUIPMENT

**ENGINE**
- H/P mode control
- E mode control
- 50 A alternator
- Cartridge-type engine oil filter
- Cartridge-type fuel filter
- Air cleaner double filters
- Radiator and oil cooler with dust protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system
- Auto acceleration system

**HYDRAULIC SYSTEM**
- Work mode selector
- Engine speed sensing system
- E-P control system
- Power boost
- Auto power lift
- Quick warm-up system for pilot circuit
- Shockless valve in pilot circuit
- Boom-arm anti-drift valve
- Control valve with main relief valve
- Extra port for control valve
- Suction filter
- Full-flow filter
- Pilot filter

**CAB**
- CRES (Center pillar Reinforced Structure) cab
- OPG top guard fitted level 1 (ISO) compliant cab.
- All-weather sound-suppressed steel cab
- Tinted (bronze color) glass windows
- 4 fluid-filled elastic mounts
- Openable front windows-upper, and lower and left side windows
- Intermittent windshield retractable wipers
- Front window washer
- Adjustable reclining seat with adjustable armrests
- Footrest
- Electric double horn
- AM - FM radio with digital clock
- Auto-idle / acceleration selector
- Seat belt
- Drink holder
- Cigar lighter
- Ashtray
- Storage box
- Glove compartment
- Floor mat
- Heater
- Pilot control shut-off lever
- Engine stop knob
- Auto control air conditioner

**MONITOR SYSTEM**
- Meters:
  - Hourmeter and trip-meter, engine coolant temperature gauge and fuel gauge.
  - Warning lamps:
    - Alternator charge, engine oil pressure, engine overhear, air filter restriction and minimum fuel level.
    - Pilot lamps:
      - Engine preheat, work light, auto-idle, auto-acceleration, digging mode and attachment mode
    - Alarm buzzers:
      - Engine oil pressure and engine overhear

**LIGHTS**
- 2 working lights

**UPPERSTRUCTURE**
- Undercover
- 650 kg counterweight
- Fuel level float
- Hydraulic oil level gauge
- Tool box
- Utility space
- Rear view mirror (right & left side)
- Swing parking brake
- Electric fuel refilling pump with auto-stop

**UNDERCARRIAGE**
- Travel parking brake
- Bolt-on sprocket
- 1 620 mm box type shoe

**FRONT ATTACHMENTS**
- HN bushing
- Reinforced resin thrust plate
- Flanged pin
- Casted bucket link A
- Centralized lubrication system
- Dirt seal on all bucket pins
- 3.42 m arm
- 0.46 m$^3$ (SAE, PCSA heaped)
  bucket

**MISCELLANEOUS**
- Standard tool kit
- Lockable machine covers
- Lockable fuel refilling cap
- Skid-resistant tapes, plates and handrails

OPTIONAL EQUIPMENT

- Suspension seat
- Additional pump
- Transparent roof
- Pre-cleaner
- Fuel double filters
- Tropical cover
- Rear light
- Front glass lower guard
- Front glass upper guard

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

These specifications are subject to change without notice. Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features. Before use, read and understand the Operator’s Manual for proper operation.