



Aquatic
ENGINEERING

Mudbug MB7/20

(Silt Settlement Tanks)



Operation and Maintenance Manual



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1 Confidentiality and Copyright

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2 Reference Documents

Date	Revision	Description	Author
13/11/23	4	MB7 Lifting & Structural Certificate C31473CS	LeBLANC
13/11/23	4	MB20 Lifting & Structural Certificate C31472CS	LeBLANC
14/2/24	1	MB7 + Davit Stability Check D10222CS	LeBLANC
14/2/24	1	MB20 + Davit Stability Check D10222CS	LeBLANC
14/2/24	Downloaded	Backsaver Crane Catalogue Mark II with extendable boom (300kg & 500kg)	Material Handling

3 Introduction



Read this manual before installing, operating or servicing this equipment

Our MudBug range of tanks are designed for primary storage and staging of non-compliant water on construction sites often used stand alone or to manage first stage storage as part of a temporary WTP

- 2 high Stackable Design (empty)
- Engineered Lift points from Top or Bottom assist WHS and site requirements.
- Engineered Davit Mount for optional SWL 300kg davit mechanical winch MB7 or 500kg davit on the MB20.
- Fitted with multiple inlet fittings to suit standard submersibles and/or flex drives
- Tanks can be used for storage containing water from multiple feed locations
- Can be cost effective when managing vac truck load cycles on construction projects

3.1 Specification

Please refer to tech data sheet available on our website:

[MudBug MB7 | Industrial Water & Wastewater Treatment | Aquatic Engineering](#)

[MudBug MB20 | Industrial Water & Wastewater Treatment | Aquatic Engineering](#)

4 General Health & Safety

4.1 General

- Do not operate the plant without the proper instructions given inside this manual. This manual contains important information concerning the safe installation and use of this product. Read the manual carefully before installation and use, paying attention to all safety warnings.
- Always wear the correct personal protective equipment/clothing.



- Do not undertake any work without completing a risk assessment and preparing Safe Work Method Statements (SWMS).
- Do not enter the tank without proper planning, risk assessment, training, procedures and authorization.
- **MAKE IT SAFE FIRST** by flushing out any residues sludge / debris and isolating the equipment upstream.
- When in doubt **ASK**. Consult this manual, a trained operator or Aquatic Engineering Australia Pty Limited. Users of this product are responsible for the safe and correct use of this product

- Any changes to this product, which have been done without consulting the manufacturer, will invalidate all warranties and guarantees.
- The manufacturer & supplier will not be responsible for any accidents or damage caused by incorrect installation or use of this product.
- The components must not be altered or tampered with due to potential risks to personnel.
- It is the responsibility of the end user / customer to ensure appropriate PPE, health and safety measures, and safe work practices are employed in conjunction with the use of this product.
- End user must check hoses and fittings prior to use.

4.2 Use of Mechanical Davit Winch (Optional Extra)



Picture 1

- As standard, the AEA rental fleet has **single** davit mounting plates fitted to all our MB20 and MB7 Mudbug tanks to enable the engineered fitment of an optional davit crane.
- For engineering sales orders (for use as fish tanks for example) Mudbugs can be manufactured to order with dual davit plates and have been engineered for this option.
- Standard Rental Davit Crane (mechanical) options are as follows:
 - MB7 – 1 x Davit Crane 300kg - supplied with 7.5m fibre rope
 - MB20 – 1 x Davit Crane 500kg - supplied with 7.5m fibre rope
- The Davit crane when in use needs a suitable platform to safely access and operate. Do not climb on the tanks to operate. Suitable access must be assessed and in place by the end user prior to operation.
- The davit crane is primarily used for the installation/removal & maintenance of small submersible pumps located in the primary and secondary chamber ONLY.
- Refer Manufacturers Manual for safe operating & installation Instructions.

5 Transport & Storage

- Tanks are engineered stackable for storage 2 high when empty of water, ensure ground is level and suitable compaction.
 - Ensure all stacking locators are aligned



Pic 2

- When not in use all drains, discharge valves & camlock caps are left OPEN to prevent the tanks from filling with water.
 - Check tanks stored long term are empty prior to handling. This is to prevent being overweight /shifting loads when handled by fork or truck.
- It is recommended that drivers CLOSE valves during transport to prevent any residual water/sludge run off onto road or other vehicles when in transit.
 - Long haul or interstate transport should monitor during rain events that tanks are not filling and drain rainwater off if excessive rain or long overlay times occur while loaded.
- Refer to the Machine ID plate for weights & dimensions, located in the top left corner (ladder end), specification also available on the website.

- **Tanks MUST be emptied & cleaned prior to collection.** Failure to do so will attract environmental cleaning & vac truck sludge disposal fee at the cost of the end user.
- **LIFT & TRANSPORT EMPTY – NEVER TRANSPORT WITH LIQUID/SLUDGE INSIDE.**
 - It is considered a serious Chain of Responsibility (CoR) incident if transported with additional weight & will be reported and investigated.
- Ensure removable camlock drain valves wider than the truck deck are removed & secured to load. (if applicable)
- It is recommended to use available tie down points. Tanks are often also secured with straps over the top of tanks in addition to tie down locations. See pic 3.



Picture 3

- Loading and off-loading must be carried out using only professional equipment, such as crane or Hiab utilize suitably rated lifting slings from the top 4 lift points. Or forklift utilizing fork-tyne pockets.

6 Installation Instructions

These instructions should be read in their entirety before commencing installation.

- A concrete/bitumen solid base is recommended for installation. If this is not possible the tank should be installed directly on a level base. Minimum 45mm in thickness and extending 300mm on all sides.
- Setting tanks up level is important for maximum storage capacity.
- Fit the removable drain valves to the camlock drains and close for operation, fit pumps, hoses as required.
- If the tank is being used as storage and to maximize tank capacity the inlet Bauer will need to be blanked (optional extra Male Bauer blank required)
- Ensure lids and grates are closed to prevent accidental/unauthorized access to tank, do not walk on the top.





7 Care & Maintenance

- Keep all equipment in good working condition.
- A daily check should be carried out on the visual condition and sludge capacity of the tank. The end user will need to arrange for vac truck to remove/dispose of sludge during and after operation.
- Protect against unauthorised access.

7.1 Daily Checks

Operator checks should be made at regular intervals during the day covering the following:

Tanks
Visually inspect for damage or leaks
Check sludge levels, vac truck, drain & dispose as required.