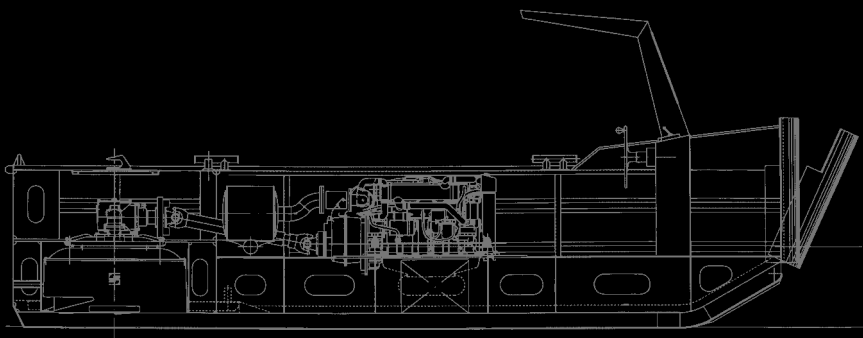


# MB 3

## Bridge Erection Boat Type MB 3



Improving the Combat Efficiency  
of Army Engineers



# The Bridge Erection Boat Type MB 3 – one of many successful military applications of the proven SCHOTTEL Pump-Jet



The superiority of the bridge erection boat type MB 3 is attributable to its extensive operational capabilities and design features:

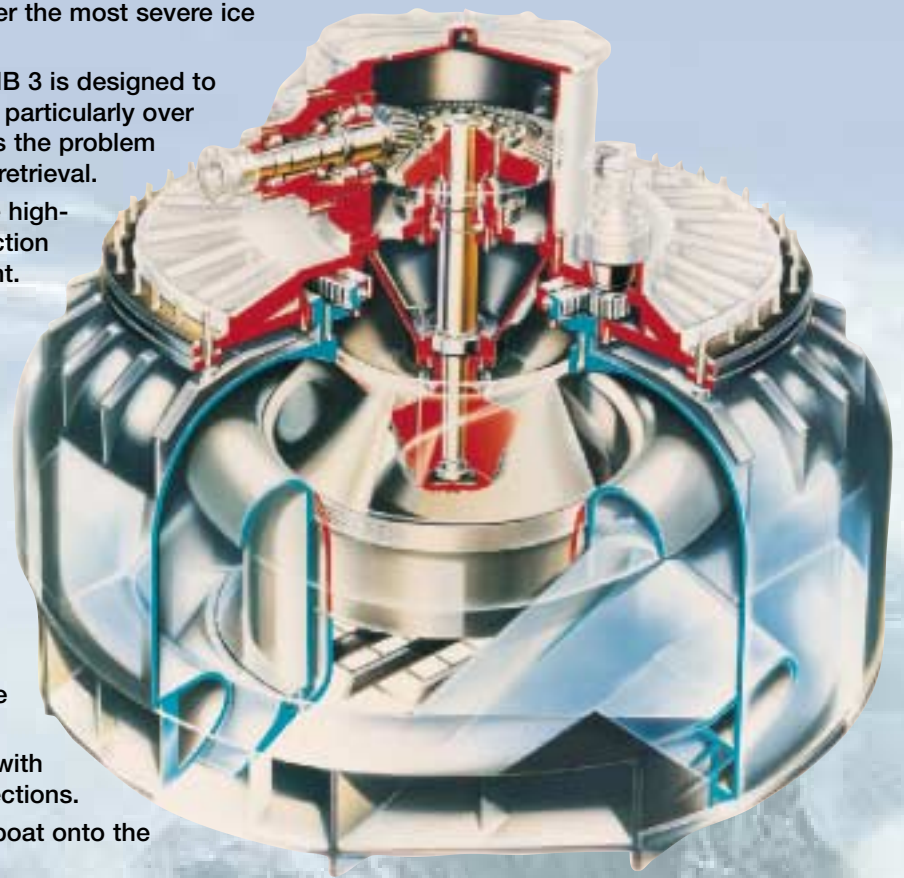
- The shallowest draught ever designed for a bridge erection boat (only 45 cm including protection skegs with completely filled fuel tank, fully equipped and 2 crew members) giving incomparable shallow water capabilities.
- The SCHOTTEL Pump-Jet propulsion system is based on a centrifugal pump, therefore it is extremely robust. The unit is highly resistant to dirt and sand, and cannot be damaged by any foreign bodies passing through.
- Full protection of the SCHOTTEL Pump-Jet due to its being totally incorporated in the hull. This means that grounding or collision with the transom stern will not damage the propulsion system.
- Permanent operational readiness, even under the most severe ice conditions.
- The SCHOTTEL bridge erection boat type MB 3 is designed to allow launch and retrieval by truck or trailer, particularly over rough ground on river banks. This eliminates the problem of awkward manoeuvres during launch and retrieval.
- SCHOTTEL Pump-Jet driven boats have the highest thrust of their type, therefore bridge erection is possible even in the strongest river current.
- Due to the low suction effect of the Pump-Jet divers can work below the running unit without being exposed to danger.
- The complete hull and Pump-Jets are manufactured of aluminium.

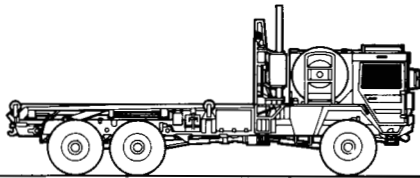
SCHOTTEL's bridge erection boat type MB 3 is superior on account of its capability to reduce bridge erection time to the shortest ever achieved. This capability results from the following features:

- The boat has been designed to comply fully with the requirements of all types of foldable floating bridge.
- The boat can be transported and launched with the same truck/trailer used for the bridge sections.
- The period for launching and retrieving the boat onto the carrier has been minimized to seconds.
- The aircooled engines can be started onshore allowing immediate and full operation upon launching.

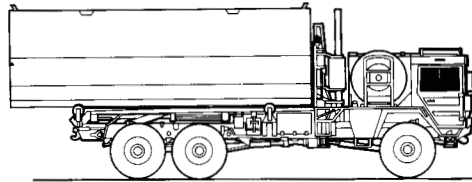
The ease of handling and safe operation contribute to the superiority of the SCHOTTEL bridge erection boat type MB 3 because:

- The operator can easily learn how to manoeuvre the boat. Operation is as simple as driving a car.
- The special quick stop device behaves like a brake.
- Only one handwheel and one lever have to be operated to carry out any necessary manoeuvre.
- The unlimited thrust rotation through 360° in both directions assures the fastest, simplest and safest positioning of bridge sections.
- The hydraulic tensioning device enables the boat and the bridge section to be handled by two men only.
- The aircooled engines are freeze-proof and there is no risk of a water filter becoming clogged with sand.

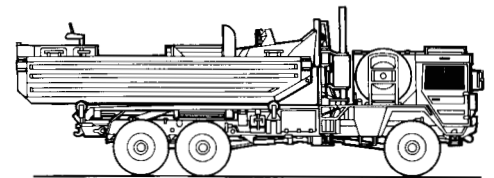




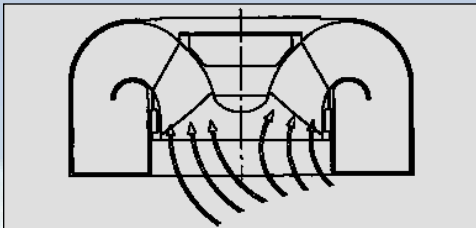
Truck (7t) for transport of bridges and boats



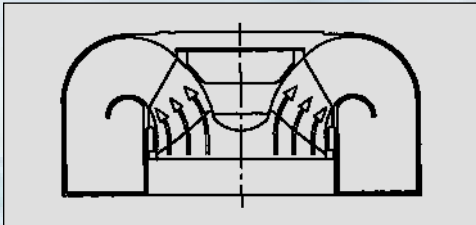
Truck with folding bridge bay



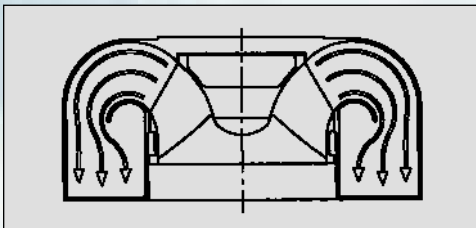
Truck with bridge erection boat type MB 3



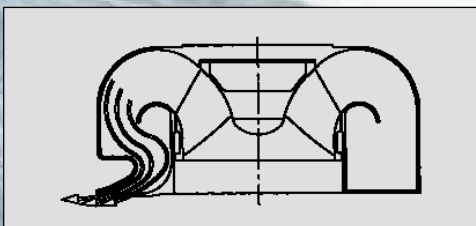
An impeller sucks in water through the intake funnel, a protective grid in the bottom plate preventing foreign bodies from entering the Pump-Jet.



The impeller forces the energized water into a diffuser, as a result of which kinetic energy is converted into pressure energy.



This energy transformation process is continued in the diffuser, and the water is collected in the pressure casing.



The water is finally expelled through the outlet nozzles at an angle of 15°, and thrust is generated which can be steered through 360°.



**Subassemblies**

- 1 Loading device
- 2 Electrical system
- 3 Steering system
- 4 Rope stretching device
- 5 Pump-Jet
- 6 Diesel engine
- 7 Clutch / power transmission shaft
- 8 Fuel system

**Main specifications**

Length overall:	7.00 m
Beam:	3.26 m
Depth:	1.40 m
Draught (fully equipped):	0.45 m
Weight (hull lightweight welded aluminium construction):	5.00 t

The easily removable covers enable all the necessary maintenance work on the propulsion units to be carried out from above.

The optimally dimensioned and ergonomically favourable superstructure and deck equipment allow safe and easy operation even in night and winter service.



<b>Power:</b>	2 x KHD Diesel engines (aircooled with exhaust turbocharger and charge-air cooler) type BF 6 L 913 C (131 kW/178 h.p. each)
<b>SCHOTTEL Pump-Jet:</b>	Type SPJ 55 M
<b>Steering:</b>	Electrohydraulic SCHOTTEL steering system SST 622 with quick stop device
<b>Speed:</b>	above 30 km/h
<b>Thrust:</b>	22,000 N
<b>Sound level max.:</b>	85 dbA at control position
<b>Designers:</b>	SCHOTTEL



Thanks to its extremely shallow draught, the MB 3 has optimum potential for operation in shallow waters and close to river banks.



The MB 3 can be handled either with the bridge transporting truck or with a special trailer.



MB 3 boats keeping a floating bridge in position.



The outstanding manoeuvrability and excellent steering response of the boat allow it to operate in awkward areas next to river banks and in difficult current conditions.



The handling of military ferries has been considerably improved by the MB 3.

Our product information provides you with explanations and data for planning plants incorporating units from our current programme. On account of the modifications associated with upgrading, the contents of a specific edition will remain valid for a limited time only. Binding for the application concerned are the data given in our tender specification.

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*Innovators in steerable propulsion*

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