

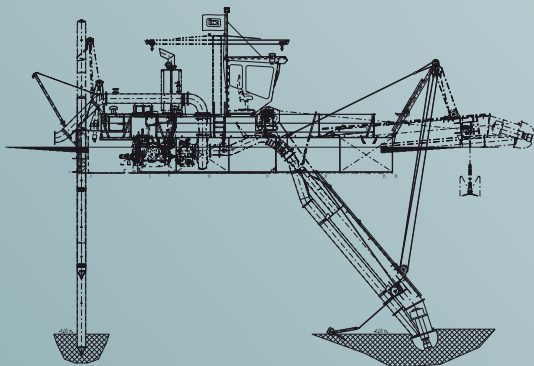


Rev A 110569929

Beaver[®] 40 cutter suction dredger

The Beaver[®] 40 is reliable, fuel efficient and has low maintenance costs. This robust and highly productive dredger is equipped with state-of-the-art technology, including the following key features:

- low maintenance and efficient power distribution with a single diesel engine
- a dredge pump with a large ball passage and excellent suction performance
- environmentally friendly solutions, such as LED lighting
- white iron-wear parts for the dredge pump
- first class ergonomics and diagnostics
- safe operation using PLC controls and interlocks
- easy to operate for a single person from the operator's seat
- control cabin placed on dampers to improve comfort and reduce noise.



Reliable and efficient

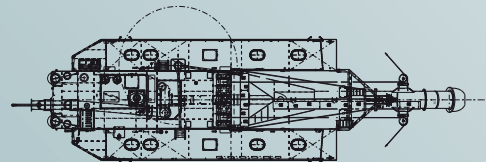
The Beaver[®] is well known for its robust construction, reliable operation and excellent performance. To date, Royal IHC has supplied more than 800 of these standard cutter suction dredgers worldwide.

Transportable and deliverable from stock

Beaver[®] dredgers can be dismantled for transport via road, rail or sea. A wide range of optional equipment is available, as well as complementary auxiliary equipment, such as work boats and discharge pipelines. These vessels are mostly delivered from stock.

Service and support

Royal IHC can provide a complete package of spare parts, maintenance support, equipment training programmes, dredging advisory services and dredge operators for hands-on instruction and commissioning.



Main parameters

Dredging depth	8.0m
Discharge diameter	390mm
Total power	483kW

Dimensions

Length overall (ladder raised), approx.	20.5m
Length over pontoons	13.41m
Breadth	5.72m
Depth	1.51m
Side pontoons	11.00 x 1.47 x 1.47m
Mean draught with full bunkers	1.10m
Maximum standard dredging depth	8.0m
Suction pipe diameter	390mm
Discharge pipe diameter	390mm
Total installed power	483kW

Swing width with 35° swing each side

At maximum dredging depth	18.0m
At minimum dredging depth	22.5m

Dredge pump

Type	IHC 900-175-350, single-walled
Engine type	Caterpillar C18 TA Acert
Heavy duty engine power	483kW @ 1,800rpm
Specific fuel consumption	212.9g/kWhr

Electrical installation

Voltage	24V DC
Battery capacity	220Ah

Cutter

Type	IHC Multi purpose 955-50
Power at shaft	55kW
Diameter	955mm
Maximum speed, approx.	35rpm

Ladder and Swing winches

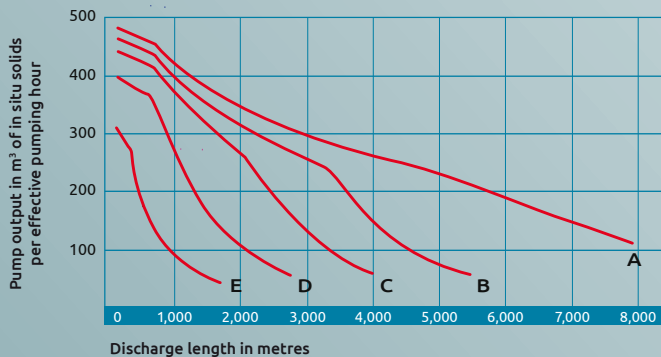
Line pull, first layer	40kN
Maximum line speed	20m/min
Wire diameter	16mm
Drum diameter	326mm
Swing wires length	100m
Anchor weight	240kg

Spuds

Length	11.0m
Diameter	368mm
Weight	1,369kg

Pump output

Discharge pipe diameter = 400mm
Dredging depth = 8.0m
Maximum volumetric concentration of in situ solids of 20%
Final elevation at end of discharge pipe = 4.0m



Spud hoisting cylinders

Force	60kN
Spud stroke (each time), approx.	3.1m

Deck crane

Lifting power	15kN
Outreach	2.80m

Other features

- standard design, allowing for short delivery times and competitive pricing
- spare parts available from stock
- durable heavy-duty marine engine compliant with IMO Tier II
- efficient fuel consumption
- fresh-water engine cooling system
- dredge pump driven through integrated bearing block, clutch and reduction gearbox
- cutter drive accepts temporary overload, resulting in high maximum cutter power
- reliable hydraulic system
- completely assembled and fully tested afloat before delivery
- dismountable and transportable by road, rail or sea
- ready for operation on arrival at site
- special tools are supplied for connecting and disconnecting pontoons and the cutter ladder, and for maintenance of the dredge pump and diesel engine
- wide range of services and auxiliary equipment available (including work boats, boosters and pipelines)
- access to operations monitoring module (3 years with option to extend).

Optional extras

- beaverkit
- spud-carriage installation
- anchor booms
- increased dredging depth
- swivel bend
- discharge valve and vacuum-relief valve
- life-cycle support packages (incl. training, technical support etc.)
- production measurement, automation and positioning system
- optional packages: comfort, HSE (health, safety and environment), nautical and inventory plus
- air conditioning
- harbor generator set.

Output calculated for:

Soil type	Decisive grain size	Situ density
A Fine sand	100µm	1,900kg/m ³
B Medium sand	235µm	1,950kg/m ³
C Coarse sand	440µm	2,000kg/m ³
D Coarse sand and gravel	1.3mm	2,100kg/m ³
E Gravel	7mm	2,200kg/m ³

Note

Calculated output curves only indicate pumping capacity, based on the average available power on the pump shaft and free-flowing material. In actual practice, properties may vary from free-flowing, easily excavated to compacted, hard-to-excavate material. When used for estimation actual outputs, the nature of the material to be dredged and local job conditions must be considered. Please consult IHC for dredging conditions outside these curves.