

# MOC MULTI-TOOL

## 10m Amphibious Multipurpose Dredger



# MOC MULTI-TOOL

## 10m Amphibious Multipurpose Dredger

**MOC MULTI-TOOL** is the ideal machine for civil engineering, construction and dredging companies, as well as municipalities and governments who have projects in shallow waters. The MOC amphibious multipurpose dredger is a very cost effective machine capable of dredging, clearing and piling on dry land, muddy & swamp conditions in water depth up to 6.57m. The compact equipment provides an excellent alternative against various other machines capable to perform single tasks only. Easily transported by truck and is able to load and unload itself from transportation truck on its own.

The MOC amphibious multipurpose dredger concept is an Australian Marine Technology design and is an obvious choice when it comes to all environmental shallow water projects globally.

### **APPLICATIONS**

- ✓ Inland and coastal water ways maintenance.
- ✓ Land reclamation, heritage and environmental improvements.
- ✓ Clean urban, industrial, mining canals and ponds.
- ✓ Aid to construction (piling etc.)

# MOC MULTI-TOOL

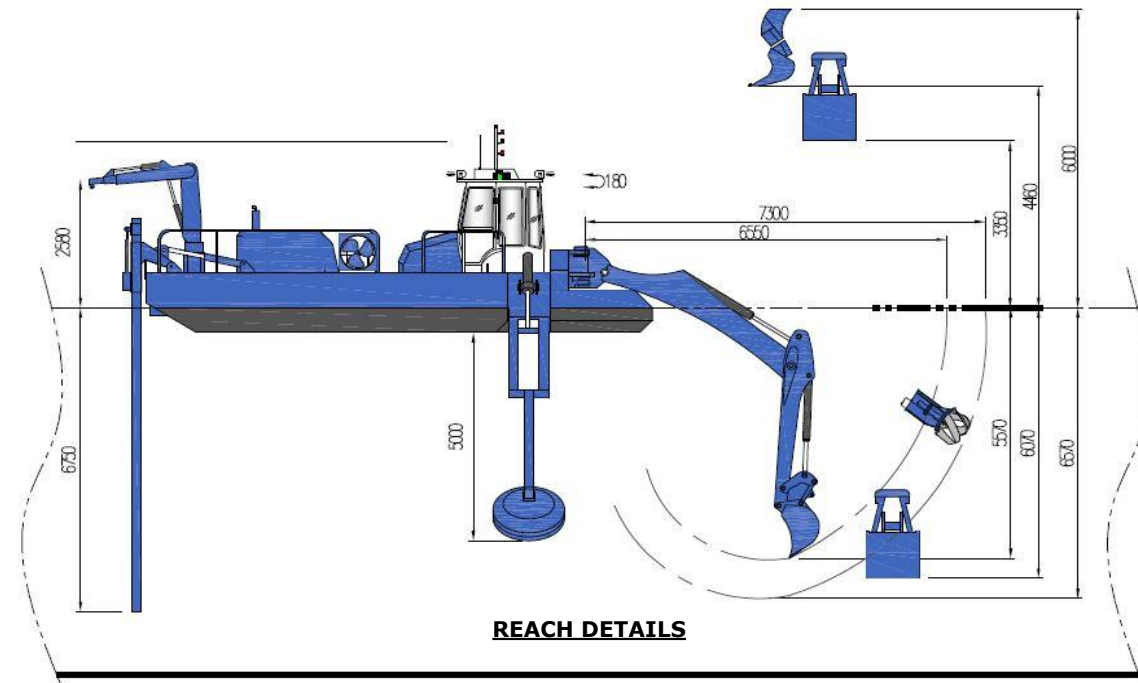
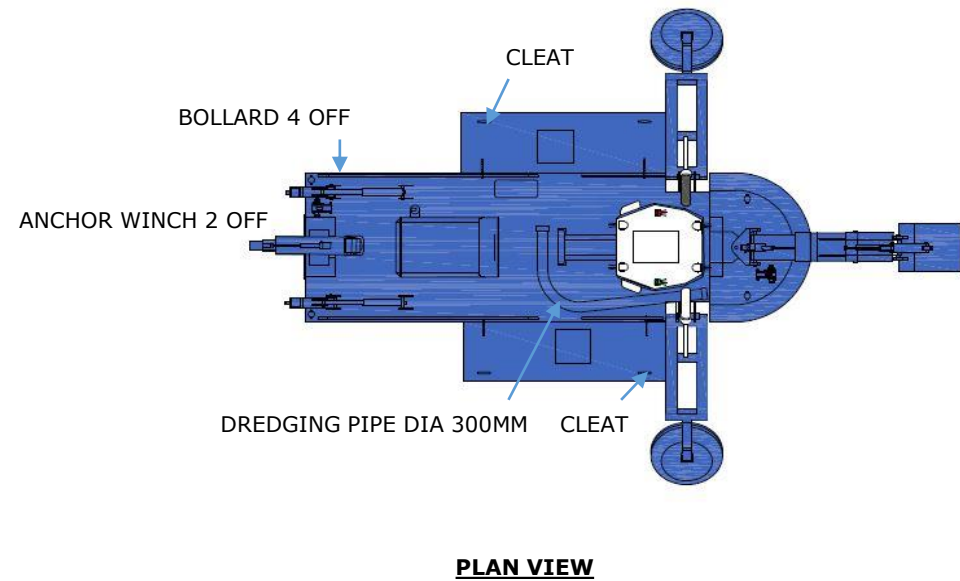
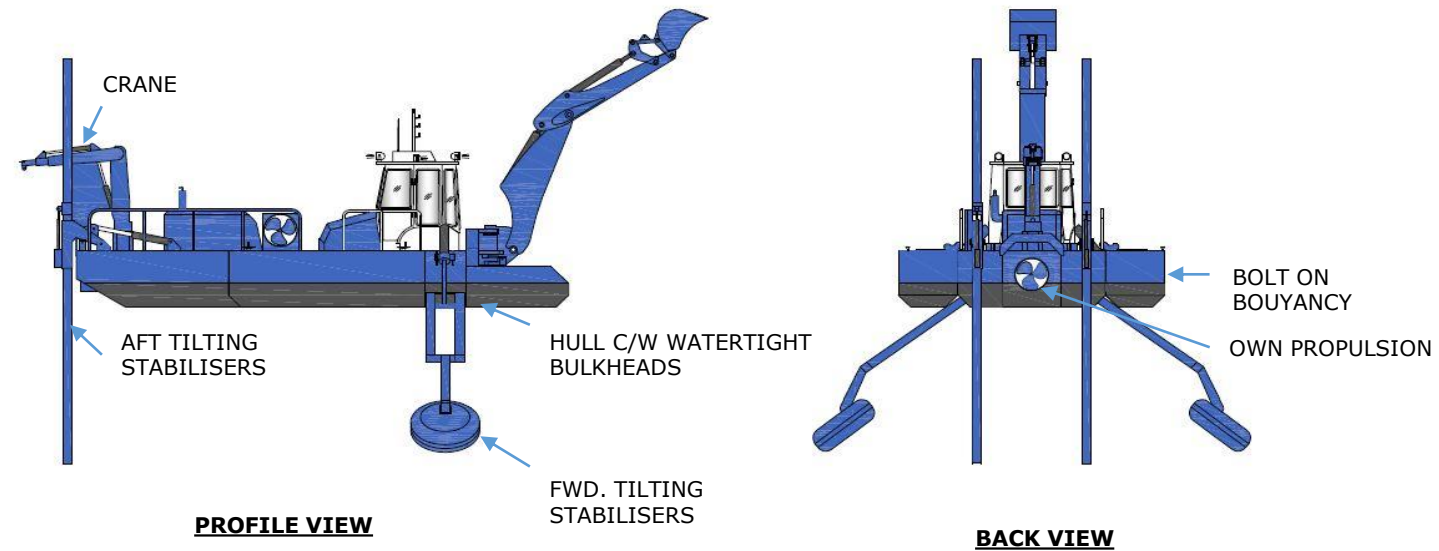
## 10m Amphibious Multipurpose Dredger

Design: Australian Marine Technology P/L

Builder: MOC Shipyards Pvt Ltd

Classification: BV

Flag: TBA



# TECHNICAL SPECIFICATIONS

## DIMENSIONS

**Length:** 10.0 m

**Beam with tank:** 5.40 m

**Beam without tank:** 3.0 m

**Draft:** Design draft 0.80 m, 0.50 m lightship, 3.30 m air draft

**Light ship displacement:** 20.7 tonne

**Fuel capacity:** 1200 litres

**Transport length (with boom):** 15.0 m

**Transport length (without boom):** 10.0 m

**Transport beam:** 3.0 m

**Transport height:** 2.65 m

## MACHINERY

**Main engine:** 1 x 270 HP, Caterpillar C7.1

**Hydraulics:** 450 litre hydraulic tank with cooler, 240//pm @ 5000 psi

**Cooling system:** Radiator air cooling

**Exhausts:** Dry muffler c/w spark arrestors

**Tools:** Frontline tools, equipment and testing tools for preventative maintenance and on-board breakdowns

## PERFORMANCE

**Dredging:** 900 cum/hr. pipe dia – 300 mm

**Maximum speed:** 4.5 knots

**Fuel consumption:** 45 litres/hour at economic speed

: 57 litres/hour at full dredging power

**Turning circle:** 360 degrees within own length

# TECHNICAL SPECIFICATIONS

## TECHNICAL ASPECTS

**Crane:** An integrated Crane of 0.50 tonne for loading and unloading of detachable pontoons

**Excavator:** The Excavator boom has reach of 7.3m with depth covering up to 6.57m, while its arm can rotate 180 degrees. Providing 83 kN breakout force from Bucket Cylinder, 47kN Digging force from Arm Cylinder & 24.5kN lifting capacity at max. Reach.

**Hull:** Hull is secured with 6 watertight compartments, and painted with 2 pack epoxy and antifoul below waterline.

**Cabin:** Air Conditioned, noise Resistant with excellent visibility and comfortable cabin provided, ROPS certified

**Stability:** Two front stabilizers, with maximum depth of 5m and two rear stabilizers with maximum depth of 6.75m along with two detachable pontoons, one on each side of the dredger provides high level stability.

**Anchor:** 1 x fwd., and 1 x aft

**Bilge pump:** electric

**Electrical:** 24v / 12v, shore power connection, wiper and DC distribution panel

**Lighting:** Deck lights, navigation lights and search light

**Batteries:** 2 sets 24v with isolator

**Safety equipment:** To match Flag State requirements

**Bollards:** 4 sets

**Cleats:** 2 sets

**Lifting lugs:** 4 off

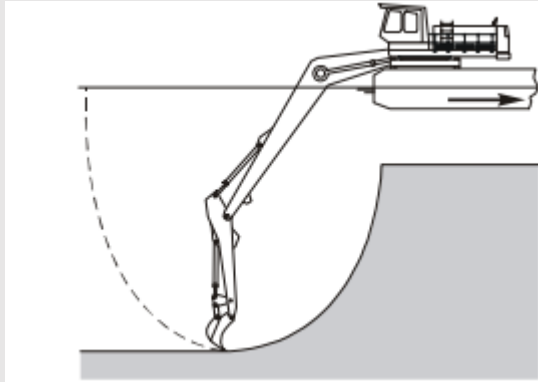
**Electronics:** VHF radio, sounder, GPS and dredging depth monitoring

# APPLICATIONS AND CAPABILITY

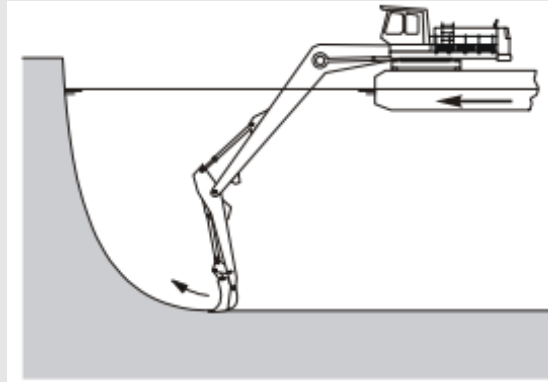
**Suction Dredging:** The MOC multi-tool rotating cutter head has been engineered to operate in very shallow depths. The dredged material is capable of being pumped ashore by utilisation of the on-board pumping arrangements and a floating 300mm pipeline.

Alternatively the spoil and dredging material can be simply loaded ashore or into a barge.

**Backhoe and dipper dredging:** The MOC amphibious multipurpose dredger can operate a 600 litre clamshell bucket, a standard backhoe bucket of up to 700 litres and rakes of various sizes dependent on requirements. Having the versatility of being able to rotate the buckets and rakes the MOC amphibious multipurpose dredger can operate in either backhoe or dipper dredge mode, this feature is ideal for sediment removal near structures.



Backhoe dredging (typical)



Dipper dredging (typical)



Rotating cutter head



Clamshell bucket



Backhoe bucket



Vegetation rake

# APPLICATIONS AND CAPABILITY

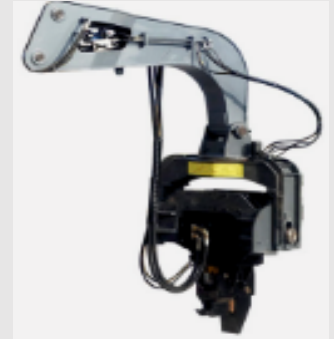
**Aid to construction:** The versatility of the MOC multi-tool in construction is limitless, from the use of the various buckets, augers and rakes right through to pile driving and rock breaking.

**Hydraulic piling hammer:** By utilising high frequency vibration to vibrate the pile body this passes the vertical vibration to the pile which leads to changes in the soil structure around the pile, thus reducing the strength of the surrounding substrate.

The combination of excavator down force, vibrating pile hammer and pile body weight, allows the pile to be driven in a seemingly effortless way. This applies to both timber and steel piles to a maximum of 200 mm diameter.

**Rock Breaker:** Rock breakers are widely used in construction, mining and environmental practices, MOC saw the advantage in adding the rock breaker attachment to the range of implements available for the amphibious multipurpose dredger. Powered by the hydraulic system a powerful percussion hammer can be fitted for demolishing concrete structures or rocks.

**Hydraulic Augers:** Are available in a range of sizes up to 500mm, these augers are primarily used in construction and environmental refurbishment applications.



Piling hammer

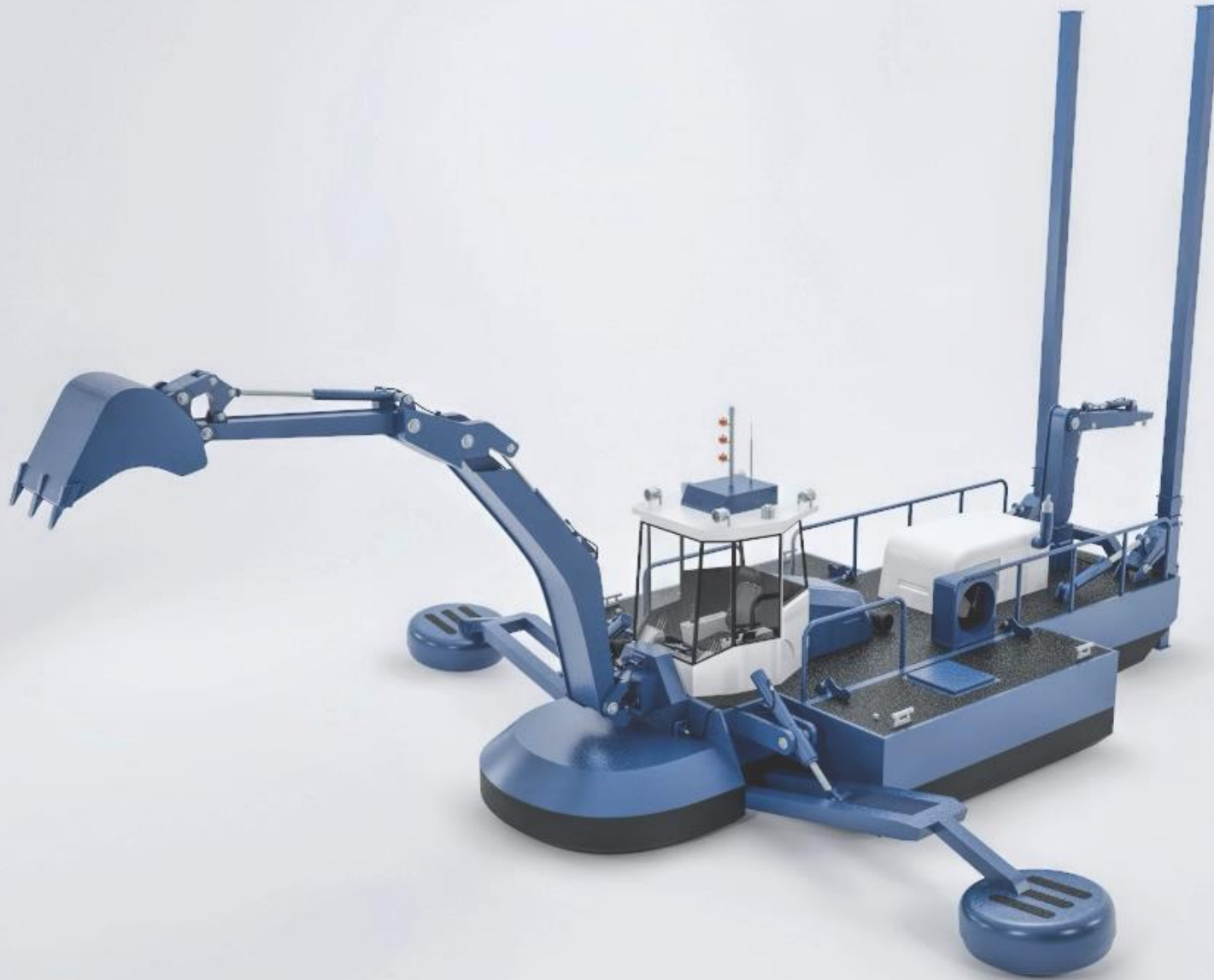


Rock Breaker



Auger

# MOC SHIPYARDS



**Australian Marine Technology Pty Ltd**  
PO Box 655, Tugan 4224 Queensland, Australia  
Email: [info@mocshipyard.com](mailto:info@mocshipyard.com) Web: [www.mocshipyard.com](http://www.mocshipyard.com)