



OCS owned and fabricated A-frames are mainly used for jetting operation but the A-frame can still be used for other activities (eg; stinger deployment).

OCS owns several A-Frames but 2 of the main ones on our UB01 are as below;

1. Port or starboard side deployment (Portable A-frame)
2. UB-01 stern deployment (Fixed A-frame)

Port or starboard side deployment (Portable A-frame)

The specifications for the portable A-Frame is as below

PORTABLE A-FRAME	
Lifting capacity	25MT
Listing radius/ distance	5,188mm from bottom hinge location
Dimensions	12,000 x 6,000 x 10,000mm
Weight	A Frame 5 tons , Base frame 6 tons
No of units	1

The main part of the whole A-frame spread can be separated into 3 parts. There are the A-frame, base frame and also hydraulic jack. During operation, the A-frame will be attached to the side of the barge either port side or starboard side depends on the barge's deck space.

The A-frame basically uses to hold the jet sled in a fix position for the jetting operation. The A-frame has a weight of 5MT and it has a lifting capacity of 25MT. The maximum lifting radius/distance of the A-frame is 5.188m which is 60° from the bottom hinge location. The A-frame has a height of 11.56m and a length of 4.584m.

The hydraulic jack of the A-frame is used to control the lifting radius or distance of the A-frame. It has a maximum working pressure of 3000 psi. The maximum push force of the hydraulic jack is 51 ton @ 3000 psi while the maximum pull force is 13.5 ton @ 3000 psi. OCS has a total of 2 hydraulic jack installed to the A-frame.

The base frame works as a main support of the A-frame with a total weight of 6 MT. It has a dimension of 6.87m in length and 4.854 in width.

UB-01 stern deployment (Fixed A-frame)

OCS Utility Barge 01 is equipped with a 12.4m wide 60MT capacity A-frame on the stern. The A-frame forms integral component of the post trenching equipment spreads and can be used for smaller harbour lifts up to 60 MT.

The main operational scope for the stern A-frame will be used for lifting and lowering of the Articulated Jet sled and launching & recovery of the Shallow water AHT (Anchor handling & Towing ship).

The A frame is 12.371m wide and the arms are 6m long. It can be operated for the luffing angles in the range of (+) 30 deg to (-) 30 deg wrt vertical.

A lifting pad-eye of 60 MT is also provided for lifting operations.

The Stern A-frame is designed to operate in two ways;

- a) Luffing using hydraulic jack and*
- b) Lifting using Tie-down slings*

The specifications for the Stern A-Frame is as below

UB01 STERN A-FRAME	
Load Carrying Capacity Fixed over stern @ 60 Degree from Horizontal	60 MT (fixed)
Load Carrying Capacity Luffing using 125 MT Jacks	35 MT
Length of A-Frame arms	16 m
A-Frame width	12.371 m
Maximum Luffing angle	(+)/(-) 30 Deg from vertical
Hydraulic jack requirement Capacity	120 MT (Tension)
Hydraulic jack requirement Stroke	5.134 m
A-Frame Arm	Boxed W30x132 beam with 20mm and 38mm side stiffener plates
No of units	1

OCS has Equipment Work Order forms for individual equipment which serves as a checklist for operator to check the equipment conditions before and during operation. It is also important to regularly review the list of critical spare parts of the equipment before each project.

Where failures occur during operations Equipment bulletins will be issued to document the problem and the remediation solutions applied. The equipment bulletin will be circulated to all field engineers to be informed about the possible failure that can occur during the operation and thereby avoid future failure.

This equipment file remains a live document and will be constantly updated by the equipment department.