

SEAPRO Standard Operating Procedure



SOP #	SOP Vessel Ops Deck-Capstans
Revision #	
Implementation Date	4/16/2021
SOP Owner	SEAPRO Operations
Approved By	
Diagram or Manual Reference	

Purpose

Describe the purpose of this SOP is to give an operational overview of the OSRV's deck Capstans which are located Port & Starboard on the bow and back deck of the OSRV.

Scope

This SOP is applicable to all;

- OSRV Captains and Responders who are assigned to work on SEAPRO's Oil Spill Response Vessels.
- Maintenance Technicians who perform preventative or corrective maintenance on OSRV capstans.

Prerequisites

Prior to operating the crane, personnel shall receive training on;

- OSRV Operations
- OSRV Capstans

Responsibilities

Development and maintenance (updates) to this SOP are the responsibility of SEAPRO's Operations Manager. Contact via e-mail at; ops@seapro.org.

Tools

- Level "D" Personal Protective Equipment

Step-by-Step Procedure

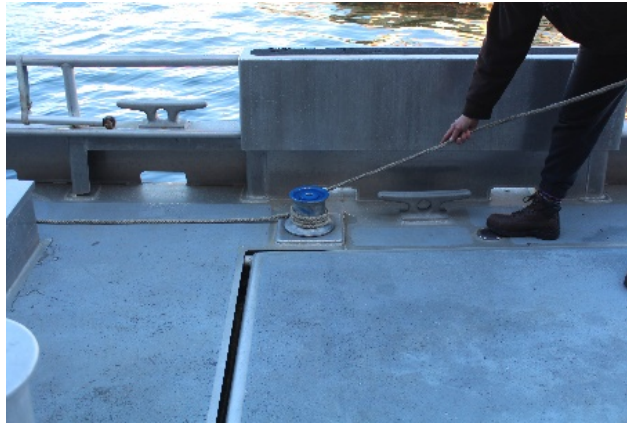
- Engage hydraulics ("Port Hyd. Clutch" & "Stbd Hyd. Clutch") on the dash panel
- Engage Capstans Breaker on Dash Panel



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- Use foot switch on deck adjacent to capstan to operate



- Engage foot switch to determine rotation direction



Controls

- Personnel shall wear proper Personal Protective Equipment (PPE) for the tasks they shall be performing.
- Hydraulic systems shall be Secured (De-energized) when not needed/in use.
- Personnel shall work under the direction of the Vessel Master/Operator
- Personnel shall use the “Buddy System” while working on the deck of a SEAPRO vessel.

Field Level Risk Assessment

Working on the deck of a boat can be dangerous. Sea State and weather must be taken into consideration before work begins. The Vessel Captain is responsible for the safety of everyone aboard his/her vessel. Safety of personnel shall always take precedence over response activities.

Checklist

- Engage hydraulics (“Port Hyd. Clutch” & “Stbd Hyd. Clutch”) on the dash panel
- Engage Capstan Breaker on Dash Panel
- Use foot switch on deck adjacent to capstan to operate

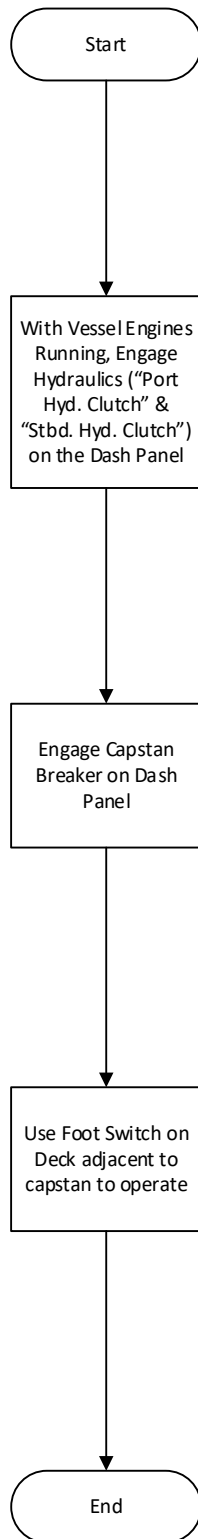
References to JSA Analysis

JSA No. 1620208920-1

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Process Flow Diagram



Job Hazard/Safety Analysis (JH/SA)

Work Category: Spill Operations

Work Location: Vessel

Date: 2021-05-05

Task Description: Deck Capstan Operation

JSA No.: 1620208920-1

	Sequence of Job Steps	Identified Hazards and Critical Behaviors	Recommended Procedures
1	Vessel boarding	Dock, pier, ramp slip/trip hazards	Be aware and use caution when navigating ramps, dock, float and vessel. Avoid stepping over lines, trip hazards, staged equipment and be mindful that walk surfaces/decks may be wet, icy or slimy from microbial growth. Use handrails wherever provided and always apply the three-point contact rule when boarding or exiting the vessel.
2	Wheelhouse entry/exit	Low head clearance, watertight door elevated lower threshold trip hazard	Lower head when entering the wheelhouse and avoid tripping hazard by high stepping over the elevated lower threshold. Use handrail when ascending/descending steps.
3	Engage hydraulics ("Port Hyd. Clutch" & "Stbd Hyd. Clutch") on the dash panel	High pressure lines (deck-above/below), electric shock	Ensure breakers are fully engaged. Deck personnel working near high pressure hoses must wear proper PPE.
4	Engage Capstans Breaker on Dash Panel	High pressure lines (deck-above/below), electric shock	Ensure breakers are fully engaged. Deck personnel working near high pressure hoses must wear proper PPE.
5	Use foot switch on deck adjacent to capstan to operate	Pinch point, parting line	<ul style="list-style-type: none"> Inspect the device prior to engagement for damage or missing parts. Engage the foot switch to check capstan rotation prior to wrapping line. Keep hands, feet, clothing, and other deck items clear of lines and capstan.

			<ul style="list-style-type: none"> • Gloves should be worn when handling line. Avoid standing directly in line with the line under tension. • Never put yourself between the line and affixed objects or obstacles. • Never add or remove turns of rope while under load.
6	Deck general	Rocking, moving, pitching	Be aware of wakes, sea condition and outside influences on the vessel's general stability during all phases of fueling operations. Passing vessel traffic, stormy sea conditions and float/dock motion can cause imbalance resulting in falls and bodily impact with equipment, deck, safety rails and gunwales.

Capstan Operation Safety Risk Map

ID	Element	Risk Level
1	Environment/People	3b
2	People	3b
3	Technical/People	1b
4	Technical/People	1b
5	People/Technical	2b
6	People/Technical	3a

Impact	High (1)	1a	1b	1c
	Medium (2)	2a	2b	2c
	Low (3)	3a	3b	3c
		Remote (a)	Possible (b)	Probable (c)
Likelihood				

Other Safety Factors

The following restrictions during lifting operations shall be observed:

- Only trained, qualified and approved personnel may perform operational procedures unassisted.
- Lines under tension pose a risk and proper line sizing for anticipated loads must be observed.
- 4 wraps of rope = 1:44 ratio. That is, 1 lb. pull on pull line develops 44 lb. on load line. Therefore, 20 lb. of pull develops 880 lb. of lift/force.
- PFD must be worn when on-deck or within three (3) meters of the water.

Personal Protective Equipment Required for this Task:

Level D	Hard Hat, Gloves, Safety Glasses, Steel Toe/Shank Boots, Coveralls
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Safety Equipment Required to do this Job:

- | | | | |
|---|--|--|-------------------------------------|
| <input checked="" type="checkbox"/> Fire Extinguisher | <input checked="" type="checkbox"/> PFD | <input type="checkbox"/> Chemical Protective Clothing | <input type="checkbox"/> Cork Boots |
| <input type="checkbox"/> Confined Space Permit | <input type="checkbox"/> Hot Work Permit | <input checked="" type="checkbox"/> Hearing Protection | |