

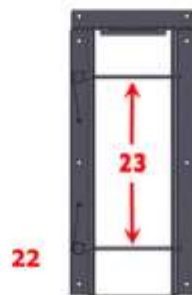
7F - Series 7 Swivel Davit - Flat Mount Setup CLASS

1. 10" winch handle
2. Winch – 20 or 35 ST
3. Lift line brake assembly
4. Winch plate
5. Brake safety plates
6. Brake Roller
7. Brake safety pin
8. Tension line – 6mm
9. Davit boom arm gate
10. Tension line adjustment buttons
11. Tension line boom pin & cotter pin
12. Lift line w stopper ball - 11mm
13. Snap hook – 1,798lbs. / 8kN rated
14. Boom
 - a. Bitt Mount – 6'-8" standard
 - b. Flat Mount – 4'-3" standard
15. Boom sheave
16. Boom connection to rescue davit & port
17. Safety pin for davit boom arm gate
18. Base channel (red)
19. Vertical spindle tube with top & bottom blocks
20. Worm gear side handle
21. Spindle gear



Flat Mount Installation

22. Davit flat mount receiver
23. Tethered stainless steel pins



7F - Series 7 Swivel Davit - Flat Mount Setup CLASS – Continued

One Time for the Vessel

Supplied: Winch handle, lift line with stopper ball and snap hook, boom, tension line & connecting hardware. Flat mount frame with (2) two tethered pins.

Tools & Supplies Needed: 3/4" box wrench, Allen wrenches: 5/32" & 5/16", (8) eight 3/8" stainless steel bolts, or stainless steel U-bolts (handrail installation), pliers, NEVER•SEEZ® (Regular Grade or Mariner's Choice), LOCTITE® and a small diameter line for tethering to prevent davit from going overboard.

Installation Of The Flat Mount

1. Determine the best location for the Flat Mount Rescue Davit, considering that if needs to be strong enough to support the loads, your company engineer, or boat architect **must** be involved and approve the mounting location and procedure.
2. Attach mount with (8) eight 3/8" bolts or with U-Bolts if mounting to a handrail or railing what will adequately handle the load. Stainless steel bolts are required to comply with up to a 350lb. MWL. Bolts are not supplied.
3. Additionally, the thread connection strength can be increased by using a Heli coil when blind threading. See **Image K2** below.
4. If your vessel manufacturer or company engineer cannot assist with mounting questions you may have, call C-Hero®.
5. The mounting should take into consideration the Flat Mount's standard 4'-3" long davit boom. Mount as high as possible, approximately shoulder height, and close to the vessel's edge.
6. A 6'-8" long davit boom is available but only if the mounting to the vessel will support it.
7. There should be room for the davit to swing clear and the winch handle to be operated. The standard Harken 35:1 winch operates in both directions.
8. Ensure that there's enough room for the PIW that is being rescued to be swung, by the davit boom, to the edge of the vessel.
9. The worm drive side handle, that articulates the boom left and right, can be fit to the opposite side. Call C-Hero® at 415-891-8353 if you need help.



Image K1 7 Series – Swivel in the clear anodized flat mount frame



Image K2 Heli coil example

Davit Boom Assembly

1. Boom Installation

- Stand the base unit up against the bulkhead.
- The side handle is used to move the boom left and right. Use this handle (**Image 3**) to bring the davit boom to the center of the unit. The bottom connection point will be pointing straight away from the davit body.
- Take the nut and bolt off of the davit connection point.
- Lay the davit boom on the deck with the slot for the tension line facing up (towards the



Image K3 Side handle



Image K4 Boom connected to davit base

unit). Tighten with a 5/16" Allen wrench and a 3/4" wrench using Never-Seez (Regular Grade or Mariner's Choice).

2. Boom Red Tension Line Installation

- Take the pin out of the end of the davit boom.
- Prop up the davit boom then grab the red tension line from under the winch plate.
- Place the eye of the red tension line in the slot and then pin it. Bend the cotter pin to secure it shown in **Image K5** below.



Image K5 Tension line around the pin inside of the boom. Cotter pin has been inserted and bent to secure in place.

Flat Mount – Setup *continued*

Lift Line

3. Lift Line Installation

- Thread the lift line with stopper ball and into the sheave at the end of the davit boom. As shown in **Image K5** on the previous page.
- Check the lift line to make sure that it is not crossed with the tension line.
- Lead the lift line into front of the rope brake, under the bronze roller.
- Pull the safety pin, open the brake arm, and the rubber will move out of the way.
- Use a rolling motion to get the line through the brake.
- The winch gets loaded clockwise, 4 wraps, over the chrome tailing arm and into the tailing jaws.
- There should be about 1' of line from the winch. Roll the rubber to line up with the holes, then pin it.
- Tie an overhand knot on the end of the lift line, to prevent it from running out.
- Winch handle (**Image K9**) goes into the top of the winch, use thumb lock.
- Snap the line brake closed. Best practice is to store the winch handle in the winch.
- To Stow the Davit Boom:** Fold davit boom up against the winch plate and pin.

NOTE: The winch and rope brake should always be set before each use, check to ensure the tethered pin is in place with the rubber. The rope brake, when closed, allows the line to be pulled, but not let out.



Image K6 Line brake open



Image K7 Line brake closed, line wrapped, in the winch jaws. Tailed off the chrome tailing arm and ready to lift.



Image K8 Line released with hand on brake



Image K9 Winch handle with thumb lock

Flat Mount – Setup *continued*

Flat Mount & Boom Height Adjustment

4. **Installation of the Rescue Davit into the mount**
 - a. Tether the Rescue Davit if mounted over the water.
 - b. Tip the top of the Rescue Davit into the mount and under the top lip. Once engaged at the top, push the bottom of the Rescue Davit into the mount so that it fully seats flush.
 - c. Pin the Rescue Davit into the mount with both of the tethered through pins.
 - d. Hold the red tension line and release the pins while slowly lowering the davit boom.
 - e. Lower the davit boom slowly to its full extension.

NOTE: The red boom tension line is a fixed piece of line that is always connected and depending on the angle of the bitt, may need to be adjusted. This will help ensure the lift line will clear the tires and fenders.

5. **Davit boom height adjustment while in flat mount**
 - a. Deploy the davit boom and lift line, and see where the snap hook hangs, it should clear the outboard rubber. ***In most cases a 45-degree angle on the davit boom is optimum.***
 - b. The davit boom can be lifted by the red tension line, and slack taken out of it under the winch on the adjusting buttons, as shown in **Image K11**, and the video below.



Image K11 Boom height adjustment, with davit securely installed in the mount. Holding the red tension line, lift the boom to approximately to a 45-degree angle and wrap the red tension line around the tension line adjusting buttons found underneath the winch plate.

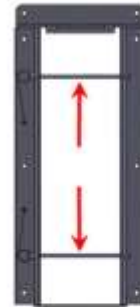


Image K10 - Mount showing top lip and tethered stainless steel pins



Flat Mount & Boom Height Adjustment *continued*

6. Use a figure "8" or round turns around the buttons as shown in **Images K12 & K13.**
7. It may take a couple of times to get the desired angle.
8. Once the boom angle is set, check to make sure the wraps are tight and properly seated. Twist the tension line on one of the buttons to help seat the wraps from not coming off.



Image K12 Beginning wrap to adjust boom height angle



Image K13 Wraps on tension buttons with a half hitch finish

9. The red tension line will get lead through the eye strap under the winch plate. This keeps the tension line centered and always at the ready. This should be completed on deck to avoid losing the bolt.
10. Remove the bolt from the eye strap holding the tension line, found on the end of the underside of the winch plate.
Use a 5/32" Allen wrench. See **Image K14** below.
11. Loosen the second bolt just enough to be able to swing the eye strap towards the davit boom cradle.
12. Slip the red tension line through the eye strap. Secure the eye strap with the removed bolt and add a drop of Never- Seez® (Regular Grade or Mariner's Choice). Then tighten the remaining bolt. It should look like **Image K15** below.



Image K14 Eye strap, one end unfastened and opened with tension line running through it



Image K15 Eye strap refastened with the tension line running through it



Flat Mount – Setup *continued*

13. Tethers & Examples



Image K16 Tether Line (shown in green) not included

Note: C-Hero® strongly recommends connecting a tether (not included) to the hole under the winch plate or around the winch plate. See **Image K16**.



Image K17 Flat Mount rescue davit, on a crew boat, secured with stainless steel U bolts on a sturdy railing



Image K18 Flat Mount rescue davit on a passenger ferry boat

14. The Flat Mount Rescue Davit One Time Adjustments Are Now Complete

- The Rescue Davit location and location of the davit mount should be visibly posted.
- Moving a Davit from one boat to another? Refer to the manual for setup.
- The best practice is to store the handle in the winch.