

NAVADAN TOOL CARRIER

Product number: 2009040

User manual

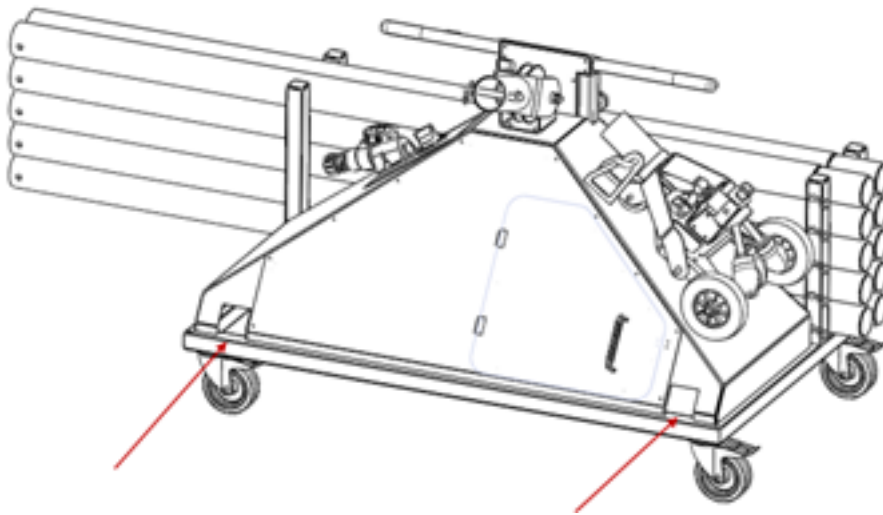


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**Read this manual carefully before operation of Navadan Tool Carrier.
It is the responsibility of the employer to ensure this manual is read by the operator.
Please preserve this manual.**

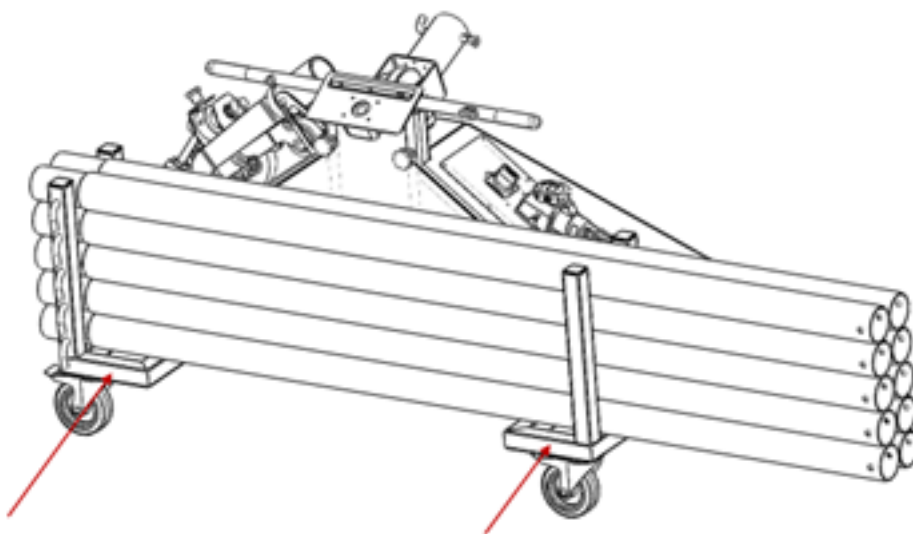
1. Lifting the unit

While assembling the rigging system on the topside/deck side, the assembly of the pole, high-pressure head, and base unit can be done on the tank top. Being doing so, both assemblies will be done at the same time. This will save time and the system will be operational faster.



Attach sling set to lifting points (4 Pcs) and hoist unit into the cargo hold.

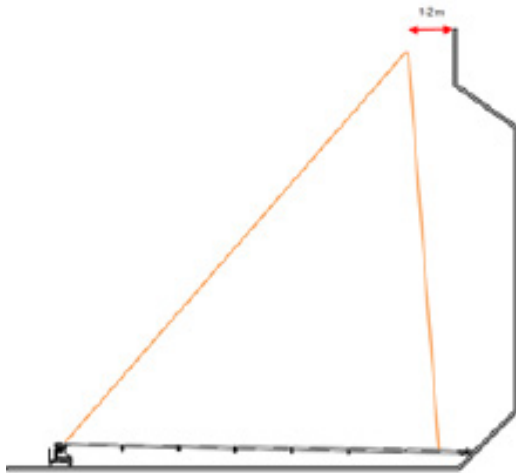
THE TOPSIDE BOX STAYS ONDECK.



2. Rigging

Rigging System (like the gantry system) – Topside

IT IS IMPORTANT THAT YOU GO THROUGH THE MANUAL TO ENSURE THAT IT IS SET UP CORRECTLY.



Blue/Orange webbing spanning cargo hold to be placed 1-2 m from the top wall (this is the one which will be going from one side of the cargo hold to another). See the picture below.

This is not the triangle, as that is the wire. This is just to show that the rope should be 1-2mtr from the hatch coaming.

Below is to show how it should be correctly fitted onboard:





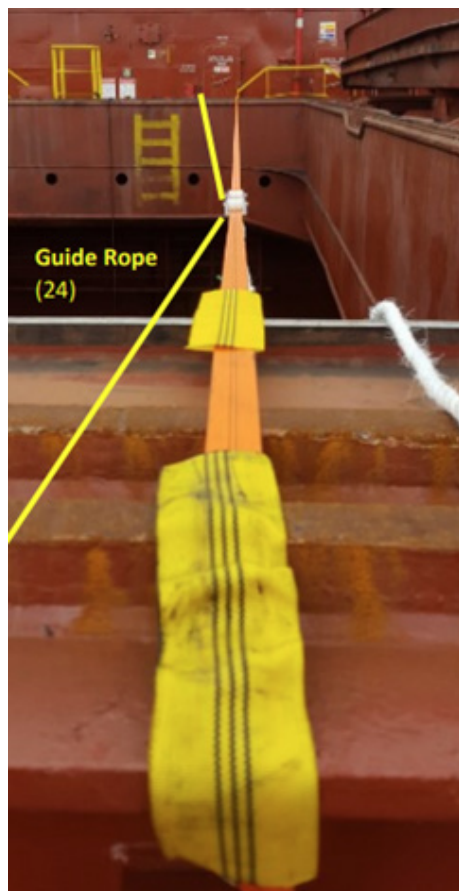
Fixed end of line.
Blue/orange webbing used to make anchor point on ship.
Find two horizontal secure poles that are parallel to each other on opposite sides of the cargo hold to attach the webbing (15/16) to. Loop the webbing around a pipe or coaming bracket as shown below.



Undo the D-shackle (18) then feed through the end loop and around the webbing to create a loop like so.



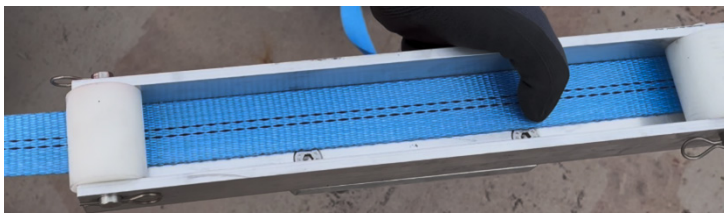
Screw the bolt back onto the D-shackle (18) and pull the webbing (15/16) to make the loop tight.



GUARD AGAINST WEAR from sharp edges using the Webbing Protector sleeves (17) where appropriate



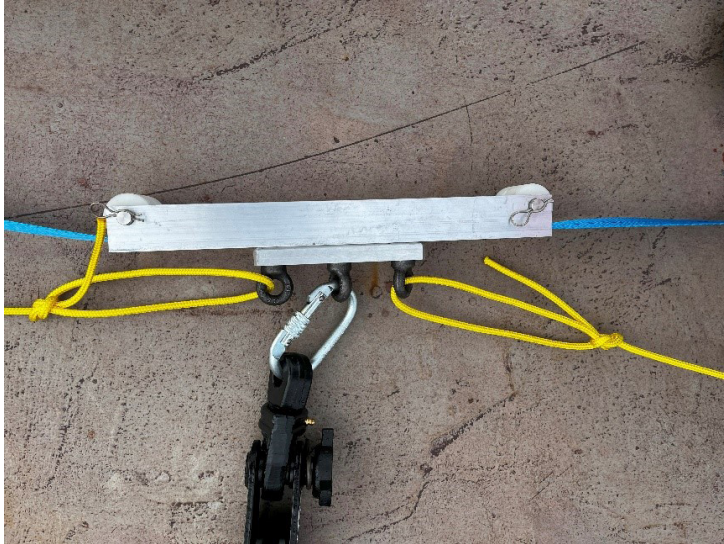
Loop the shorter of the 2 webbing supplied on the opposite side of the coaming and secure as shown previously. The ratchet is used to tension the webbing (15/16) to provide lateral traverse across the cargo hold or coaming



Make sure the carriage is in a secure place where it will not fall . Feed the webbing (15/16) through the carriage so that the eye bolts will be facing down.



Snatch block should be attached to the aluminium carriage like this.



The two guide ropes (6mm yellow or white lines) attached to either side as they are for lateral movement of the aluminium carriage on the webbing. These two guide ropes are to be placed over the hatch coaming on deck in order to move and secure the carriage.



Await steel wire from the cargo hold to be put through the snatch block.

(use the loose end of Ø11 and Ø5 lines to lift the wire from the hold).



Close the snatch block and lower the wire down to the tool carrier. Adjust Ø5 lines to snatch block. It is located over the tool carrier.

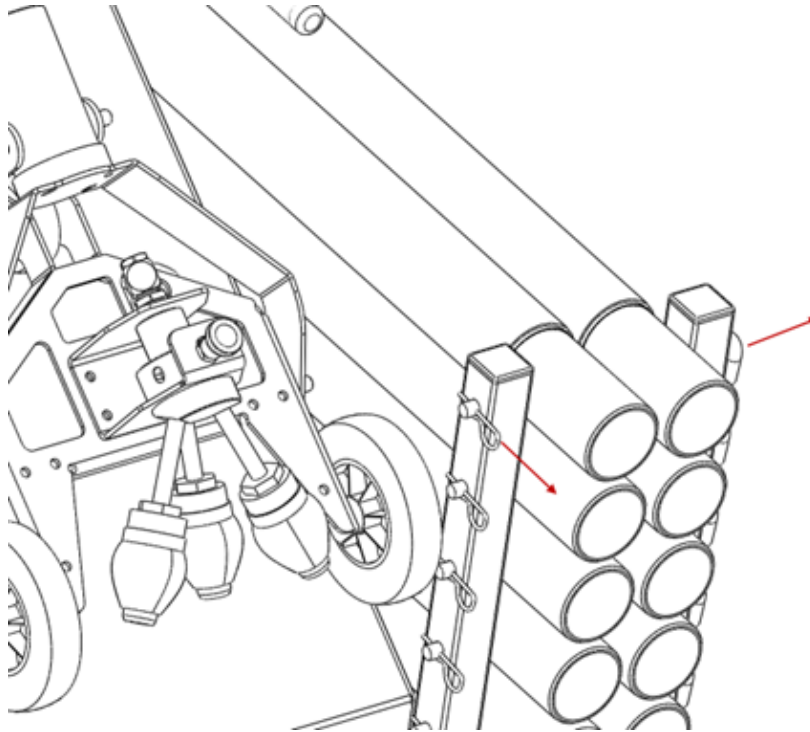
Rig electric cable and high-pressure hose to be lowered into cargo hold on same wall as cleaning.

Make a strain relief that ensures cable and hose are not pulled down into cargo hold.

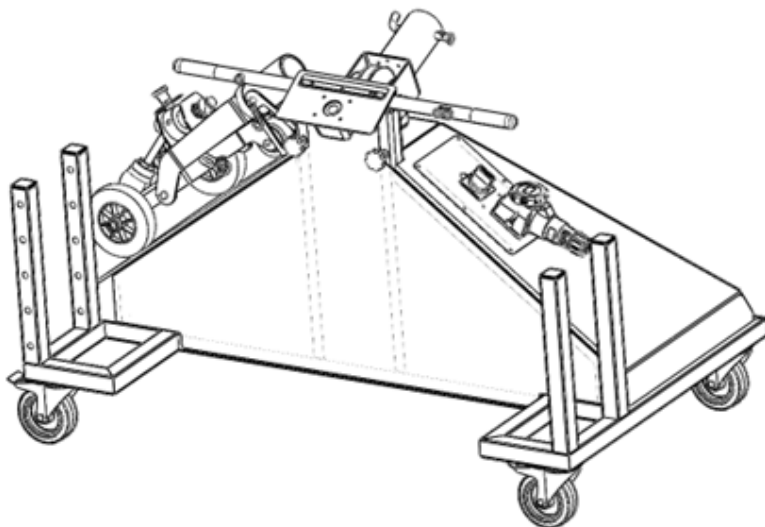
Place high-pressure gun (trigger gun) for high pressure cleaner close to the place where the yellow lines for the lateral movement is secured.

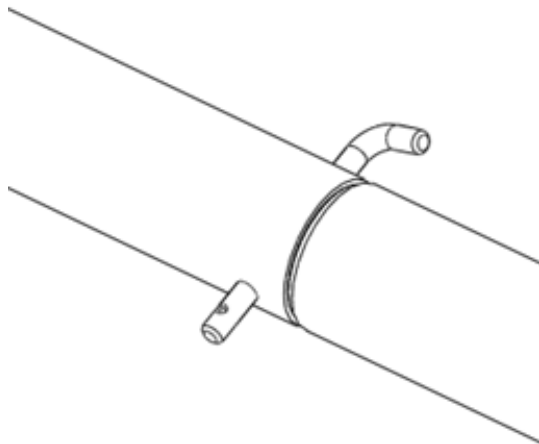
3. Base unit and pole system assembly

Base unit – Cargo hold:



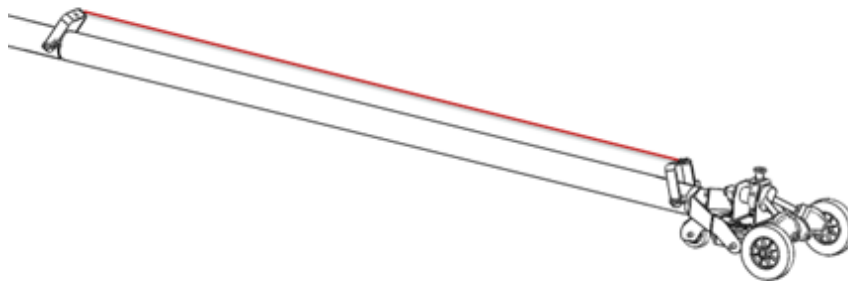
Unload all Tubes by
removing lock pin





Mount tubes for cleaning height + minimum 2m.
Mount short pin for locking tubes – do NOT mount split.* Pins are located in the compartment of the base unit.

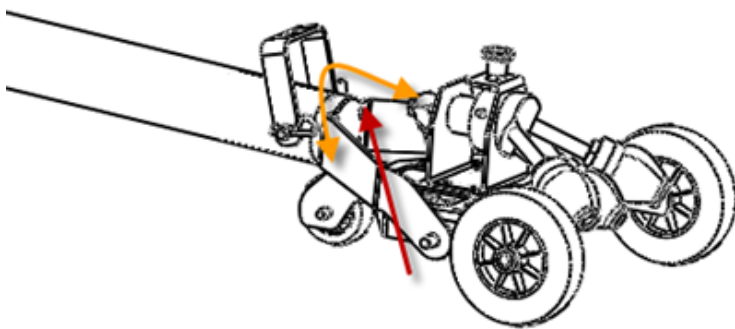
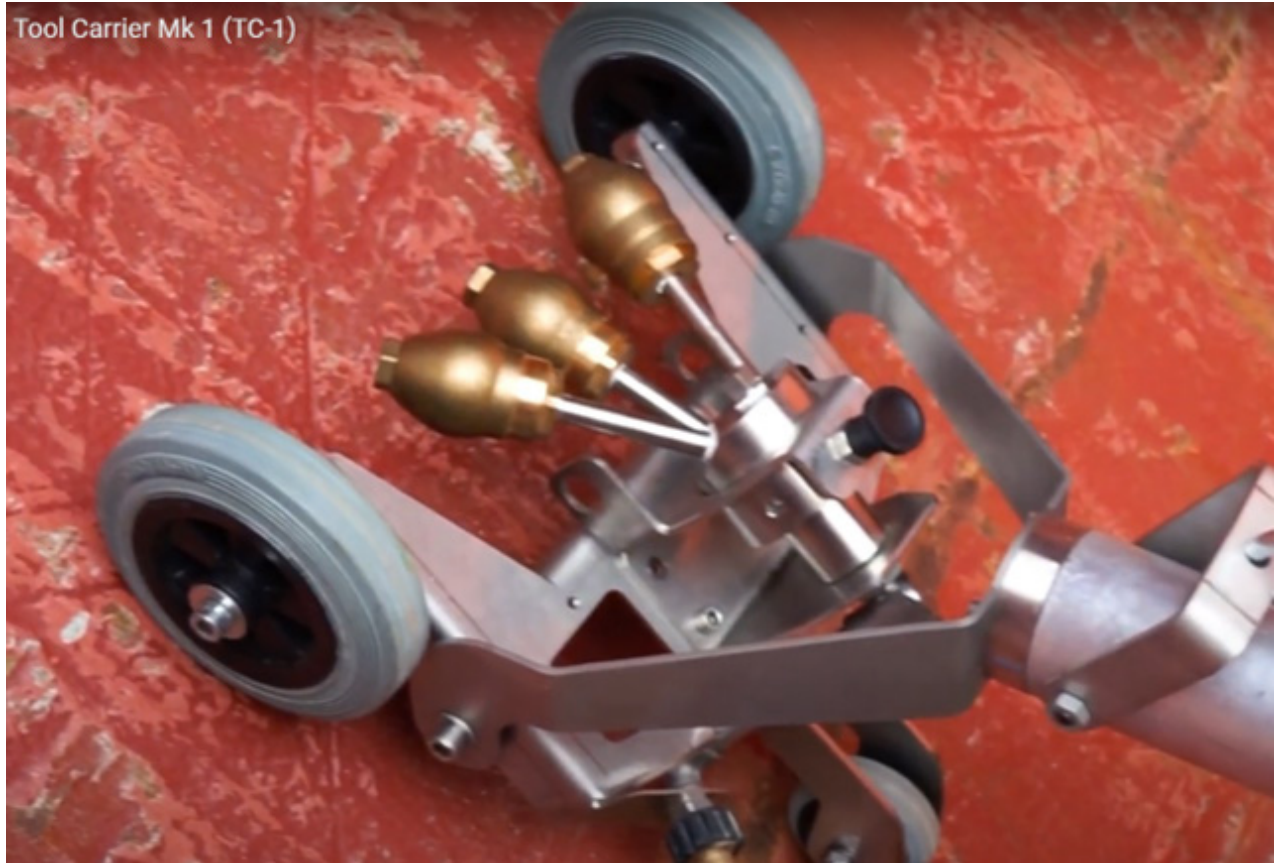
***until rubber strap for electrical cable is mounted**



Mount tool carrier at end of the tube (see picture on next page)

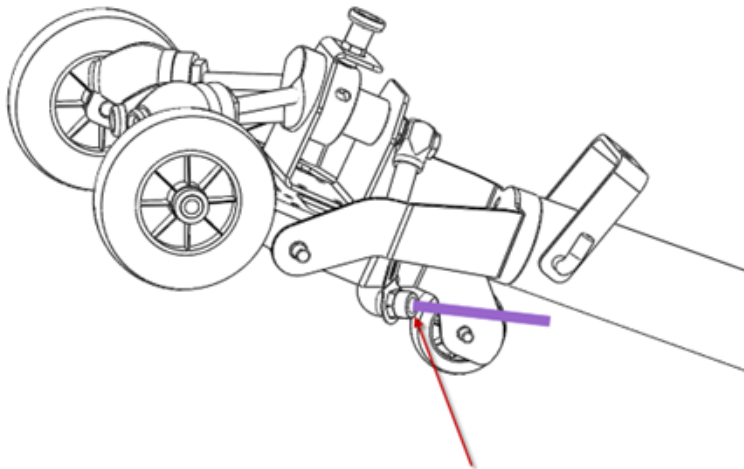
Mount wire bracket at last 2 pins before tool carrier. (To reach under a large overhang, move the wire bracket to pin 2 and 3 from the tool carrier instead of 1 and 2).

Mount purple sling between the 2 wire brackets with carabiner. All are located in the compartment of the base unit. Please, only use the purple sling, as extending it further will make the system work incorrectly.



If needed, adjust the tilt of tool carrier (both front wheels to touch the surface) with 4X Unbraco screws.

NB if more adjustment is needed then the slot allows move screw to the next hole in all 4 positions. Unbraco tool is located in the compartment of the base unit.



Mount high pressure hose

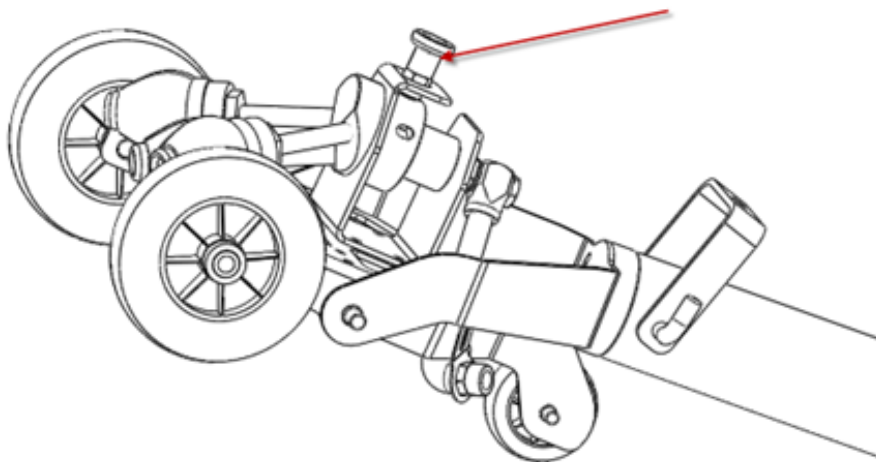


From the high pressure cleaner, connect one of the blue extension hoses (using the female M22). Thereafter connect the male M22 to the trigger gun.

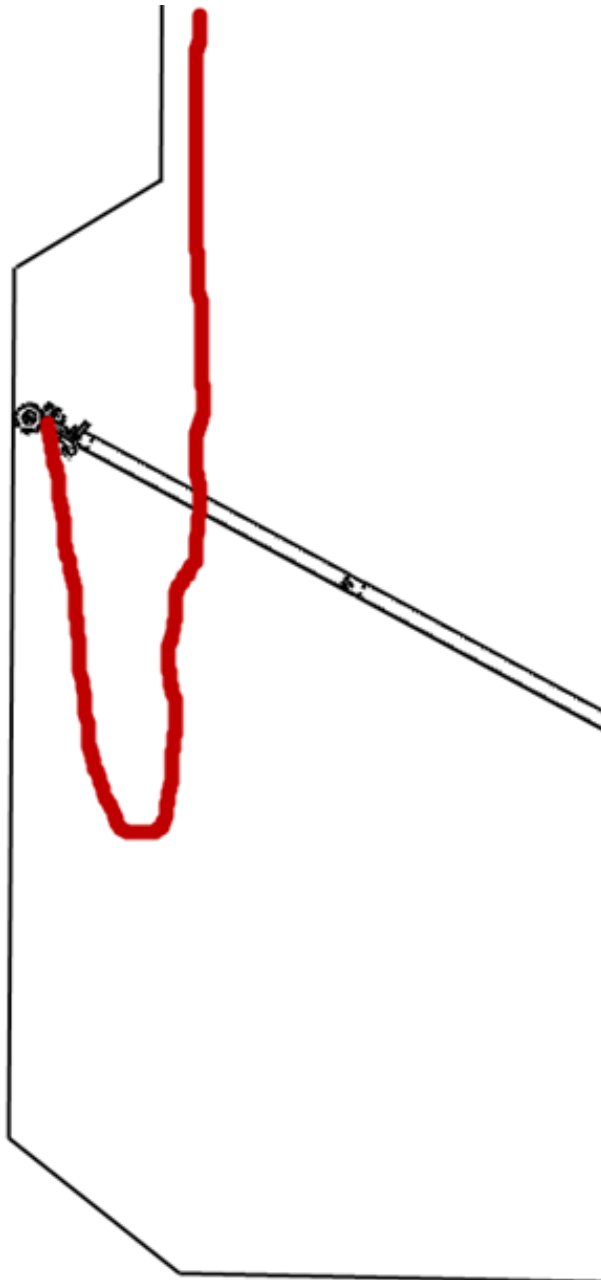


From the trigger gun, connect one more blue extension hose, with the male M22 and either extend same with one more hose, or connect this directly to the Navadan Tool Carrier Head as shown above.

When cleaning on for instance corrugated bulkhead, it can be necessary to clean sideways. This can be done by tilting the high-pressure head. See below.



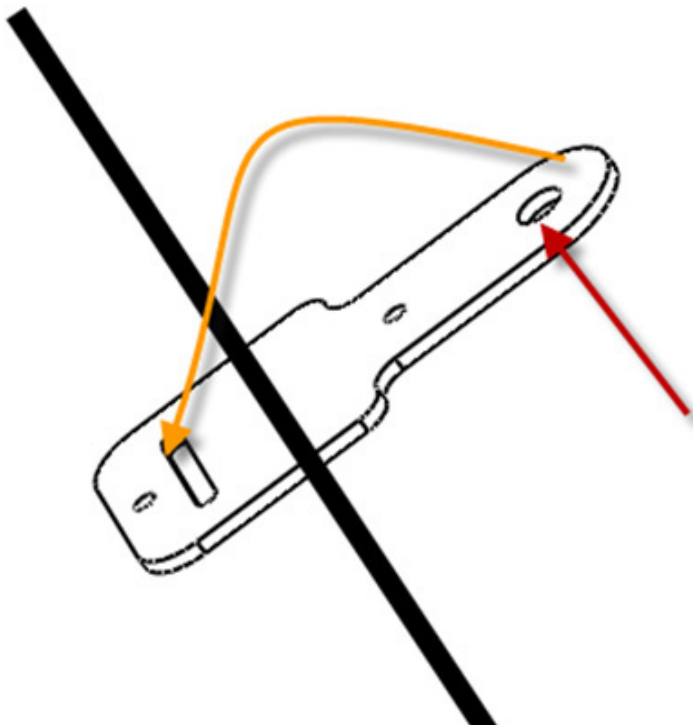
Adjustment for flat surface or frame cleaning by tilting nozzles.



High-pressure hose and electric cable hung from the topside with just enough length to reach the bottom of the tank. Remember to move the hose when changing position sideways.

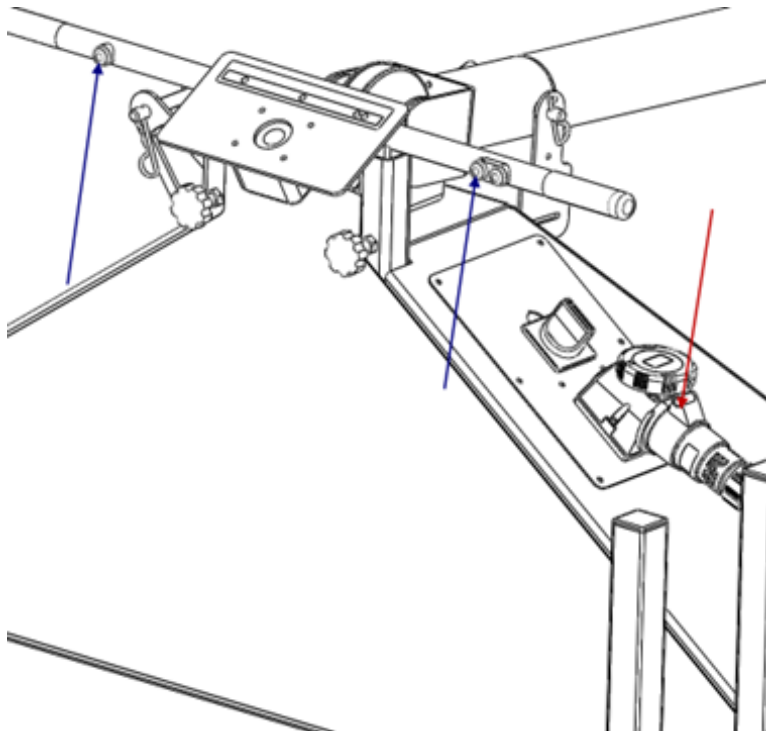
Electric cable attachment:

- Mount electric cable from topside to unit – fixed to pole with cord fixation
- In the compartment of the base unit there are rubber straps for which you should attach the cable to the aluminum pole, to make sure that it is not laying on the tank top.

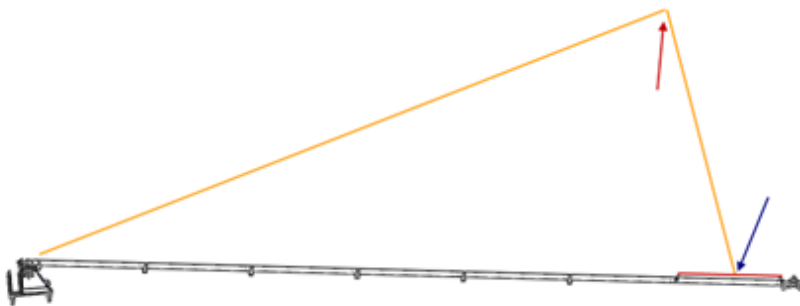


Wrap rubber straps
around the electric cable.

Connecting power to the base unit and connecting to snatchblock:

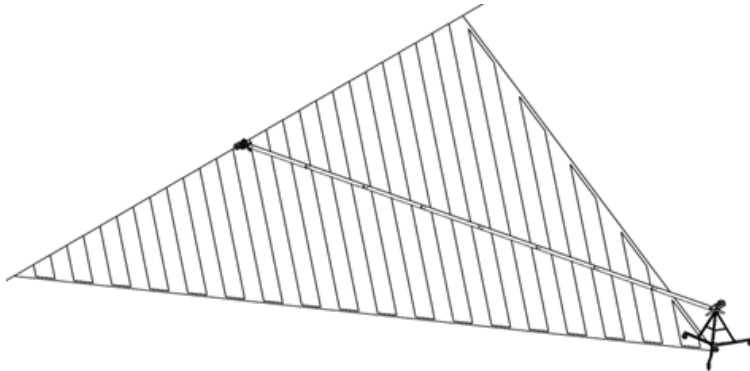


Connect the electric cable to a connector on base unit (Red arrow)
Press 2 buttons marked with a blue arrow to unwind the wire.
Unwind enough cable to reach the top anchor and then front 20 - 30 m.

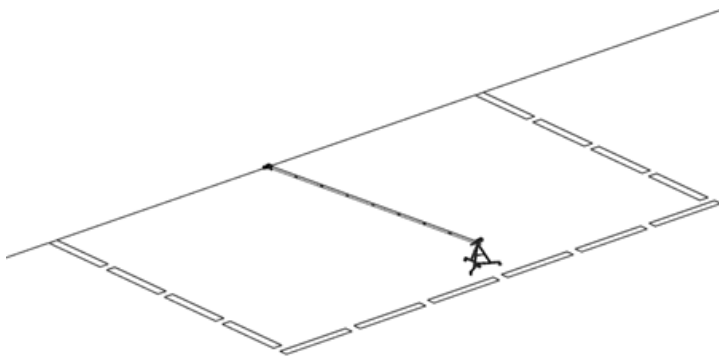


Run the wire through snatchblock on the top rope, and connect it to the purple sling with a carabiner.

4. Safety & work zone:



The safety zone for the operation is designated as a 60° triangle with a top point at the center of the tripod. This area must be clear of personnel while the product hanging in the wires.



Work zone:

Defined as: Floor area under the wall section to be cleaned at a distance from the wall equal to: Tube length + 2m.

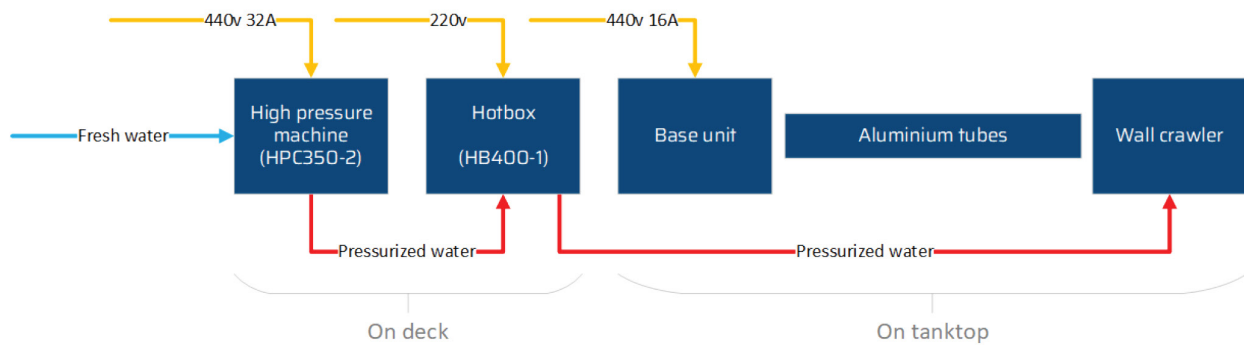
This area should be clean of all goods and debris which might cause the Wheels of the Tripod to get stuck or the user might trip over during the process.

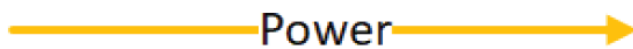
5. Operating the HP Cleaner with the Navadan Tool Carrier

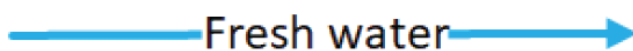
After the connection has been done as mentioned in the manual above, you will have the high-pressure gun connected to the high-pressure head on Navadan Tool Carrier.

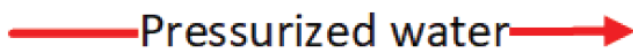
To start the high-pressure head, simply use the high-pressure gun from the machine and let it build up pressure before going vertical.

It is very important to make sure that the high-pressure head is started in a horizontal position, due to the ceramic parts in the turbo nozzles, which will be damaged/worn faster if starting the turbo nozzles in a vertical position. Therefore, we always recommend starting the high-pressure head at the tank top before going vertical.



 Power

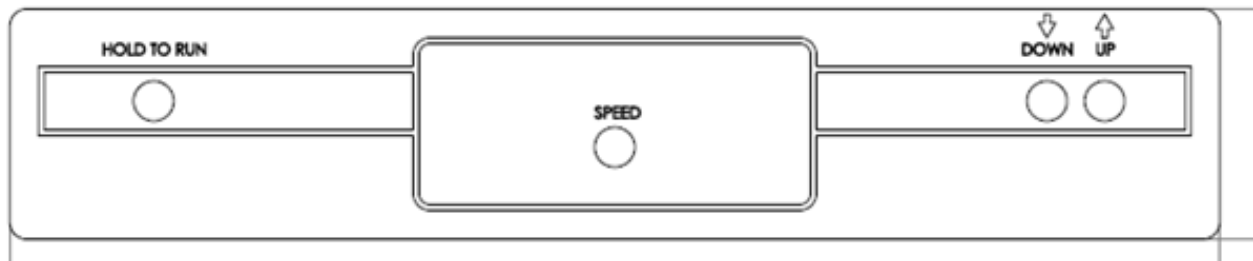
 Fresh water

 Pressurized water

6. Operating the Navadan Tool Carrier

Buttons located on the steering handle of the unit; these are the functions of same.

- So, the left button is a “deadman switch” like you have on the bridge.
- The two buttons on the right are up/down, meaning the function which makes the winch, which is inside the unit, roll in or out.
- The middle dial is for the speed, as you can control how fast or slow the wire goes in or out. Thereby controlling the speed of the cleaning.



Changing to another side of the cargo hold:

When you are to clean on another side of the cargo hold, the entire rigging system must be changed, so that the same right is above the base unit. The above setup is to be repeated for the top side, but the cargo hold setup should remain the same.

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