

CRITICAL WIND VELOCITY FOR DRAGGING ANCHOR - BALLAST CONDITION (DRAFT=7.00M)

Depth	10 meters						20 meters						30 meters						40 meters								
	sand			mud			sand			mud			sand			mud			sand			mud					
length of chain (shots), to the water	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8
critical wind velocity (m/sec)	13.9	14.5	15.0	16.8	17.8	18.3	13.6	14.0	14.5	16.3	17.2	17.8	13.2	13.9	14.4	15.6	16.7	17.4	13.0	13.7	14.3	15.3	16.5	17.1			

windage area=1050 m²

CRITICAL WIND VELOCITY FOR DRAGGING ANCHOR - LADEN CONDITION (DRAFT=12.00M)

Depth	10 meters						20 meters						30 meters						40 meters								
	sand			mud			sand			mud			sand			mud			sand			mud					
length of chain (shots), to the water	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8	4	6	8
critical wind velocity (m/sec)							14.8	15.5	16.3	17.8	18.6	19.5	14.3	15.2	16.0	17.3	18.2	19.0	14.1	14.9	15.6	16.9	17.8	18.6			

windage area=900 m²

Anchor type = HHP / High Holding Type, Stockless bow anchor
 WT. of anchor = 7.425 tons
 Size of chain = dia. 78mm/560m: 330 stbd, 330 port / 12 shots / 1 shot = 27.5m
 WT. of chain = .130 ton/mtr

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Section 4 - On-Board Emergencies

Standard Methods of Recovery

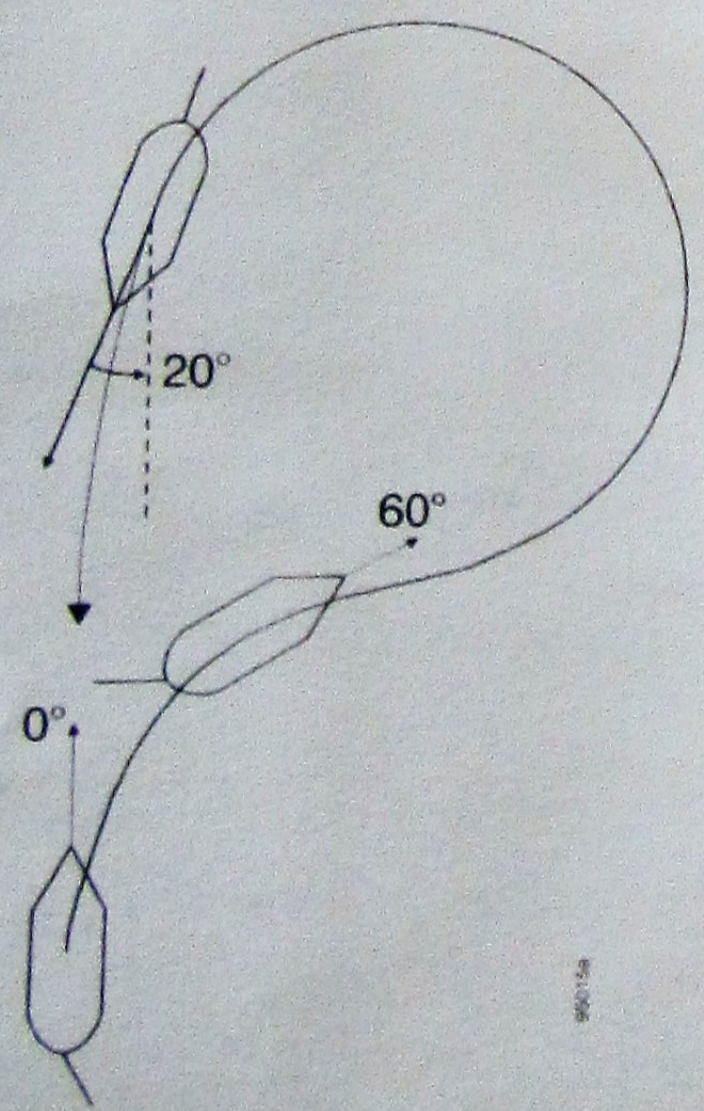
- Williamson turn
 - makes good original track line
 - good in reduced visibility
 - simple
 - takes the ship farther away from the scene of the incident
 - slow procedure

Williamson turn

Rudder hard over (in an "immediate action" situation, only to the side of the casualty).

After deviation from the original course by 60°, rudder hard over to the opposite side.

When heading 20° short of opposite course, rudder to midship position and ship to be turned to opposite course.

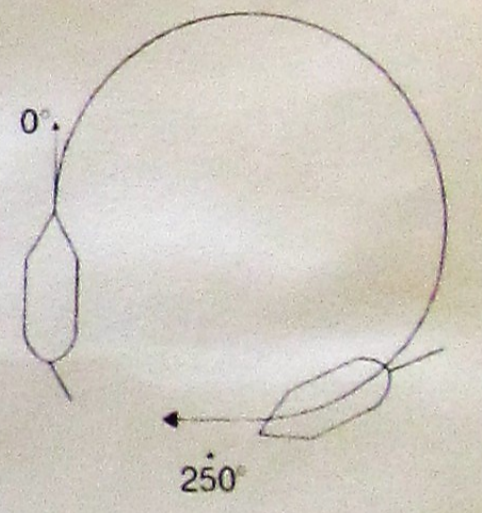


Section 4 - On-Board Emergencies

Single turn (270° manoeuvre)

Rudder hard over (in an "immediate action" situation, only to the side of the casualty).

After deviation from the original course by 250°, rudder to midship position and stopping manoeuvre to be initiated.



Scharnov turn

- will take vessel back into her wake
- less distance is covered, saving time
- cannot be carried out effectively unless the time elapsed between occurrence of the incident and the commencement of the manoeuvre is known

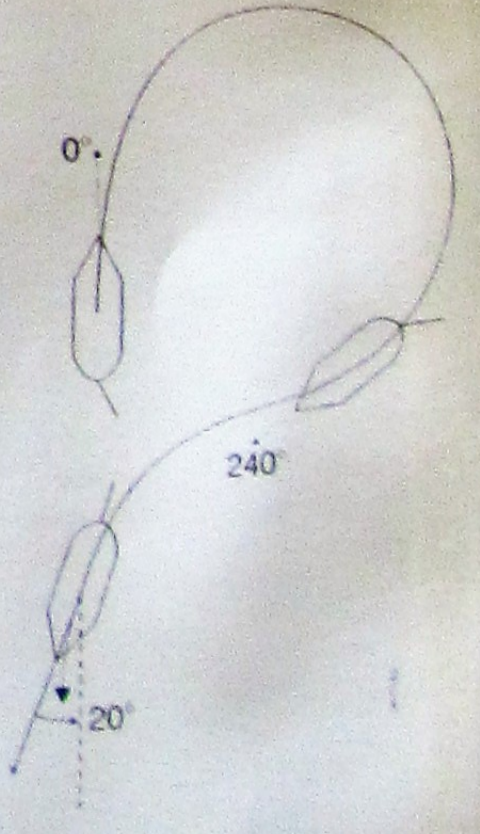
Scharnov turn

(Not to be used in an "immediate action" situation.)

Rudder hard over.

After deviation from the original course by 240°, rudder hard over to the opposite side.

When heading 20° short of opposite course, rudder to midship position so that ship will turn to opposite course.



One turn ("Single turn, Anderson turn")

- fastest recovery method
- good for ships with tight turning characteristics
- used most by ships with considerable power
- very difficult for a single-screw vessel
- difficult because approach to person is not straight

Ship Emergencies at Sea

- Some emergencies at sea consist of:

Shipboard Fire

- sound fire alarm
- report location of fire

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