

SAFE HANDLING OF RE BAR



VESSEL DISCHARGE



ASSESS THE JOB

Before you start get a Plan together, Find your bearings in the hold

- Work height for height, keep it level
- **Don't dig into middle**
- Take your time removing Lashing
- Watch out for unstable cargo

Look out for each other

HANDLING TECHNIQUES 2 POINT LIFT

On thicker gauge rebar it is sometimes possible to one end cargo using a wire sling.

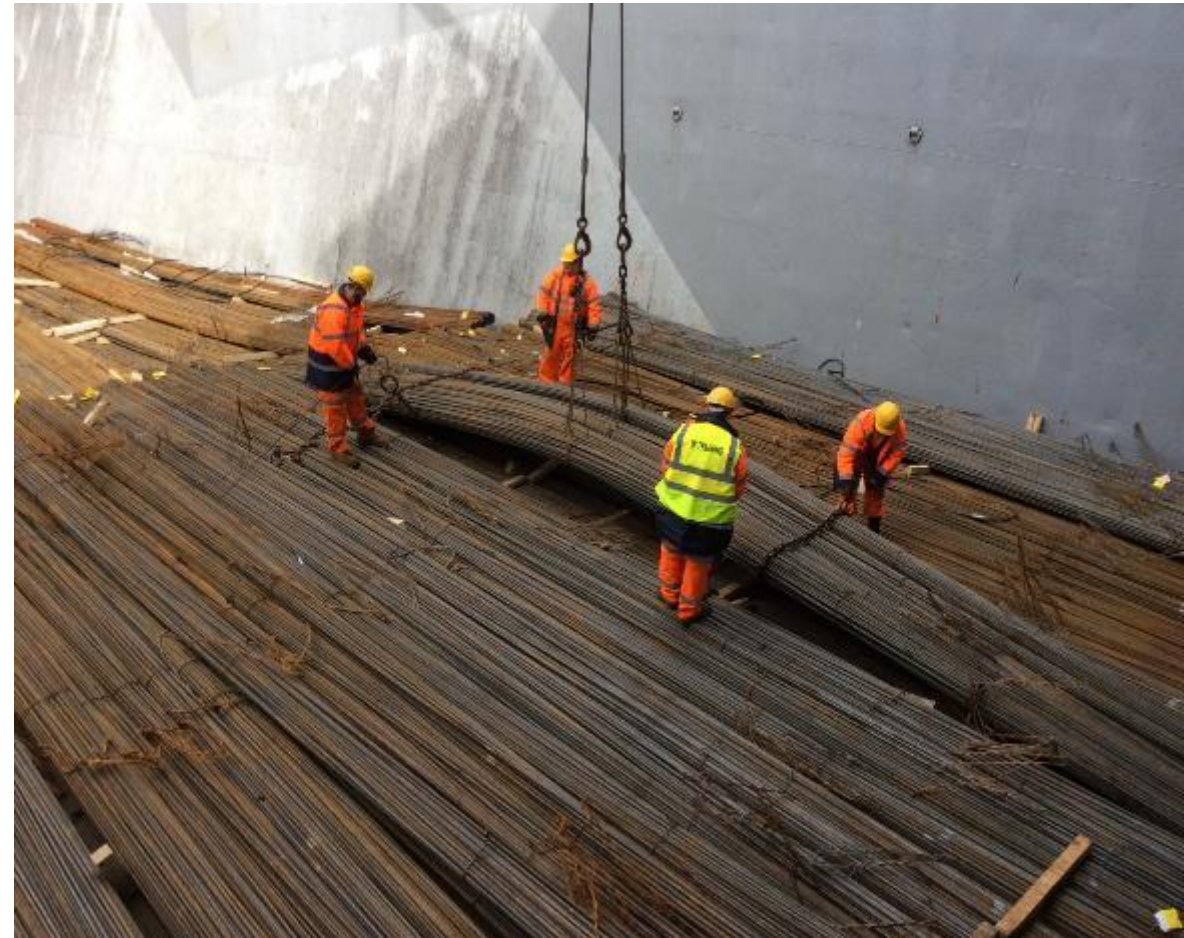
Lift Just high enough to wrap around lifting chains.

If cargo is timbered well, it is good working practice to discharge alternative lifts, so as to help in lift preparation

HANDLING TECHNIQUES 2 POINT LIFT

On thinner gauge re bar you can lift on the tying wires just enough to wrap lifting chains you can lift either end to end or in the middle

**NEVER PUT YOUR HANDS UNDER A
SUSPENDED LOAD
USE A PULL THROUGH**



HANDLING TECHNIQUES 2 POINT

Always wrap chains so lift cant slide out

Ensure chains are evenly spread

Make certain lift doesn't sag

Always do a test lift

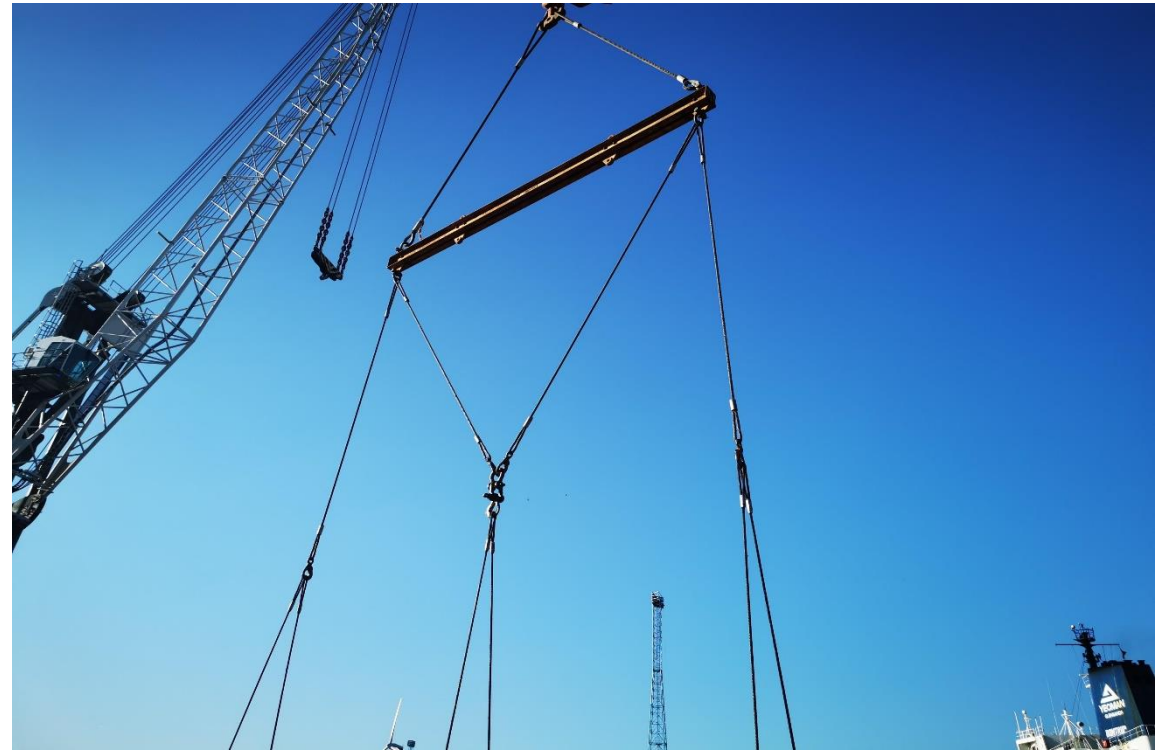
When in doubt don't send it out



THREE POINT LIFT

When using a beam with 3 lifting points it has many advantages it takes away the need of wrapping lifting chains.

lifts tend not to land interlocked, making it easier to land and handle using fork lift trucks



THREE POINT LIFT

The lifting beam must be centrally positioned over the lift.

If you need to upend re bar to place lifting wires under then lift in the centre of re bar

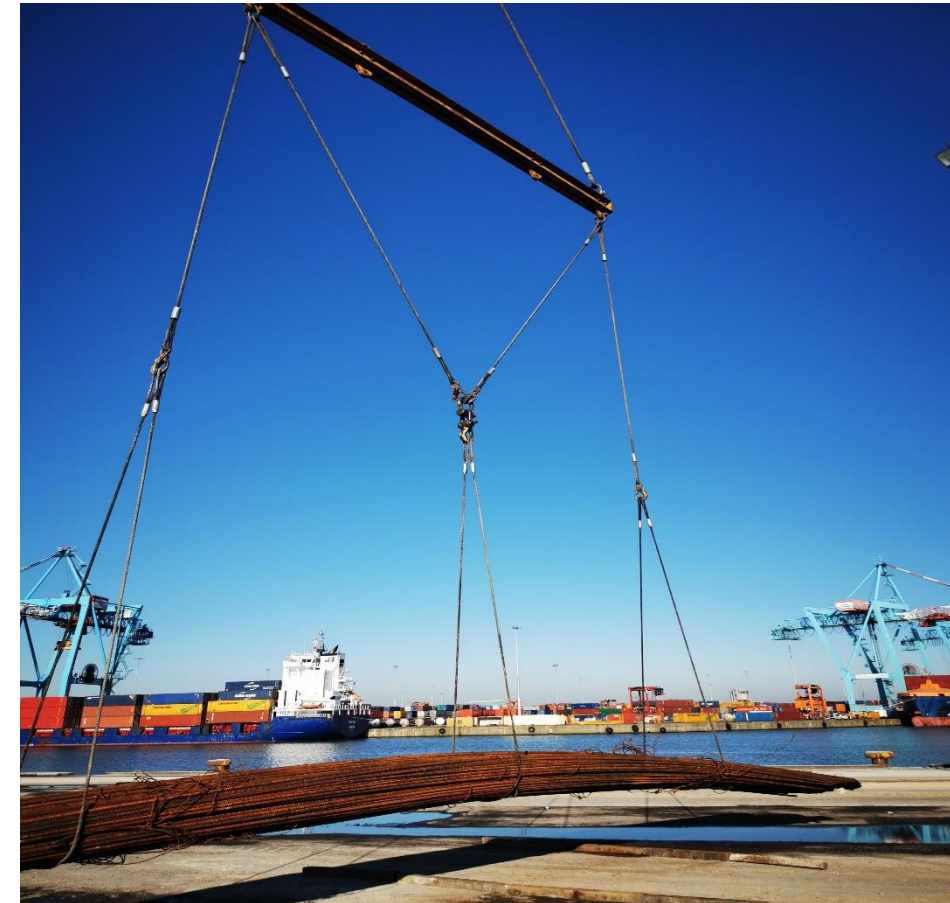
Using centre hook so beam does not dip.

Lift just enough to place a wire or chain under then

lower and reconnect centre hooks of beam lift

enough to place wires either end

Lower then connect all wires



THREE POINT LIFT

- Before lifting always perform a test lift
Make sure lift is level and its not snagged on anything.
- When lifting from hold everyone must be in safe place.

If in doubt don't send it out



HANDLING TECHNIQUES

If lifting from the bulk head
Connect to tying wires and lift
just high enough to enable you
to move cargo to a place where you can
safely sling

Stay clear until lift is lowered and the
weight is off the hooks



HANDLING TECHNIQUES

Always use a pull through

Never be tempted to put your hand
under a suspended lift to retrieve a
lifting chain



HANDLING TECHNIQUES

Some times the lifting chain can snag on the tying wires on the bundles below. Place some timber in between this will enable you to free up lifting chains

Don't try and hoist free as this may cause overload on the lifting gear and possibly send the lift out of control



LIFTING OUT OF THE HOLD

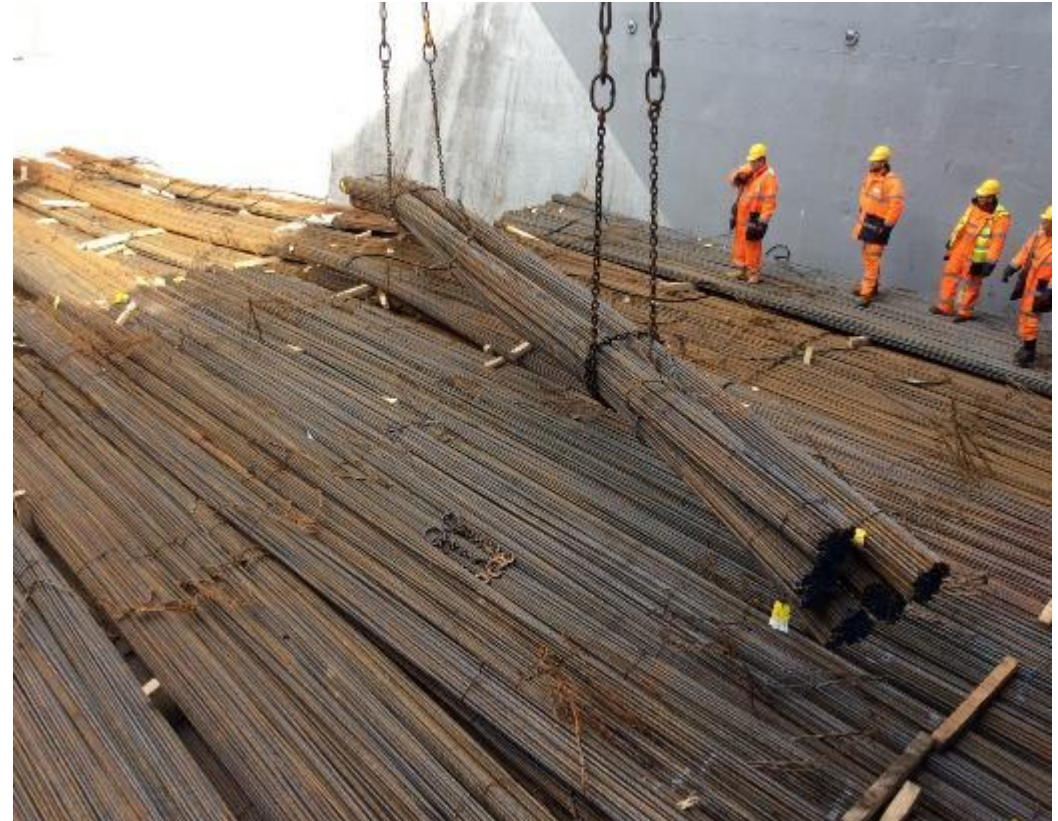
Always do a test lift

Ensure all personnel are standing in a safe place.

Crane operator to check with quayside that they are ready to receive lift.

Crane operator to hoist enough to clear cargo underneath then slew and luff away from personnel before lifting out of hatch.

NEVER WALK UNDER A SUSPENDED LOAD



KEEP IT SAFE KEEP IT CLEAN

Always maintain good housekeeping
in the hatch

Use the skips that are provided

Never discharge dunnage on top
of cargo



LANDING ON THE QUAY

Landing men to make certain the way is clear for crane

Be vigilant of any personnel or plant entering the slew path of the crane

Crane operators always be prepared to stop



PREPARE THE QUAY

Good housekeeping is essential
No one wants to trip under a
working crane

Keep timbers in position
for fork lift trucks

Don't land to near to quay edge



LANDING

Lower to approx. 1 metre off quay

Let crane operator correct any swing

Let the lift settle



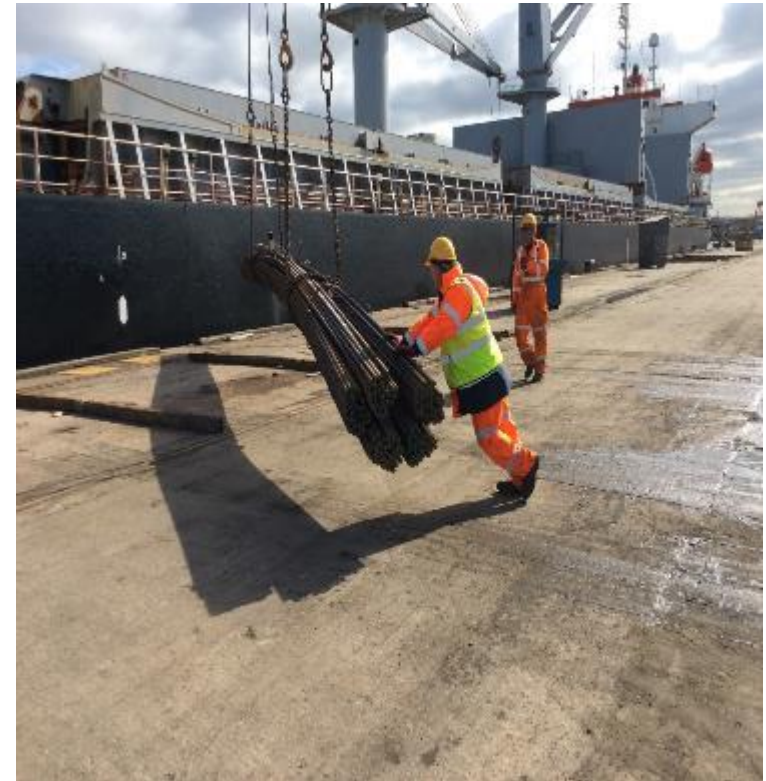
LANDING

Use a push stick or the palm of your hand to turn lift

Don't grab

Don't put limbs under lift

Push don't pull



WORK AS A TEAM

Work together

Don't over do it once the lift starts to move, step away

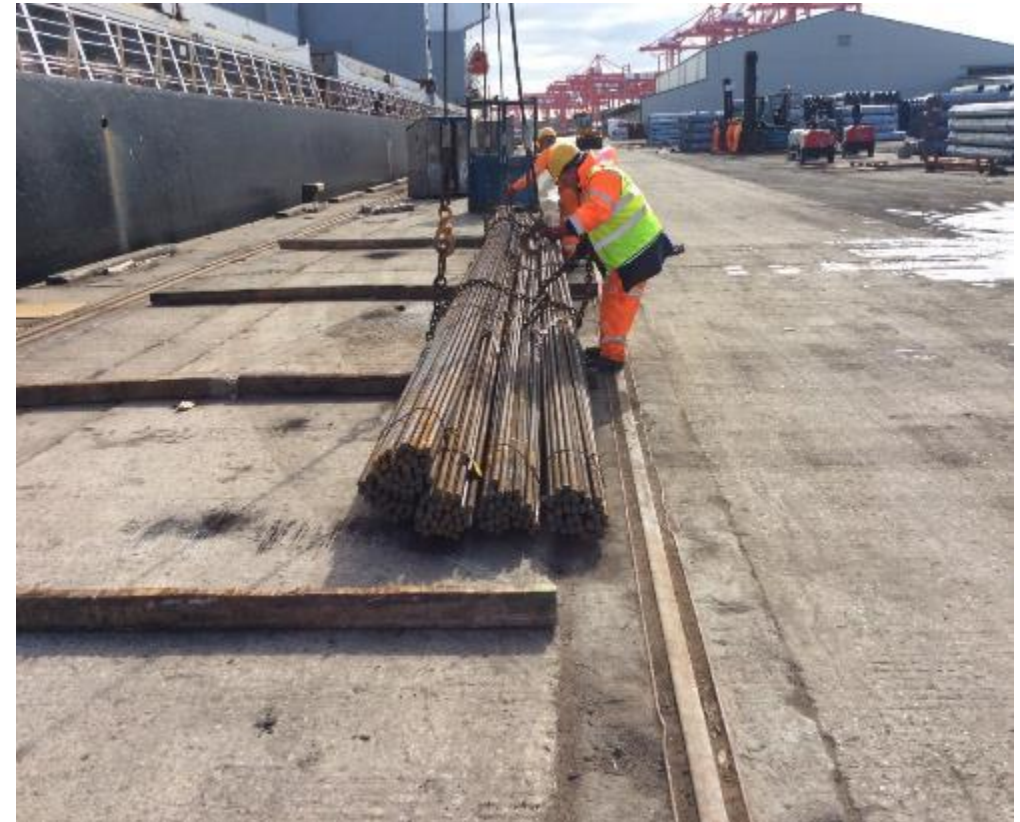


LANDING

keep clear when weight comes off lifting chains as bundles tend to roll.

Once you have disconnected lift put your free set of chains onto hooks

Instruct crane operator to lift clear



LANDING



LANDING

Once crane has lifted hooks clear
remove the lifting chains.

Be aware chains can become snagged

If need be use the aid of a forklift to assist
in freeing chains



THREE POINT LIFT

- When landing lift to quay be careful

As lift will unravel ensure you stand clear until lift settles.

Unhook three wires and manually pull clear before instructing crane operator to lift



LANDING

Don't overload cargo on the quay

If quay isn't clear keep the crane
in the hold



HANDLING WITH FORK LIFTS

Because of its length and its tendency to flex, re bar is usually handled using two FLT's (tandem lifting)



TANDEM LIFTING

Always be aware of the location of
all personnel involved in the operation
If you lose sight of someone then

STOP

The picture of the right shows the view
from the operator's seat on a FLT
entering a shed doorway at N3 Canada



BE SAFE BE SEEN

This is the view from the Shed

Never assume you have
been seen by operator

Never approach a FLT
until the operator gives
you the all clear.

When lifting in tandem get
Confirmation from **both**
operators.

Always wear the correct PPE



NEVER WALK BEHIND FORKLIFTS

Don't walk behind fork lifts

Watch out for anyone entering the loading area

Stop immediately if any one approaches a danger zone



KEEP IT LOW KEEP IT SLOW

Drive slow at all times once you are both
Happy with the load on your forks then reverse
In unison to the loading area.

Once in position lower to ground and await for
Trailer to be put into correct location for loading
Ensure pins are in far side and no one is in a
Danger zone.

await instruction from banksman.



TUGMASTER LOADING QUAY

Ensure trailer is ready for loading before

You pull up to loading area

Check bunks are in position

Side pins are in place on far side.

Wait until instructed to move to

Loading area

Watch out for cranes overhead

Approach slowly be prepared to stop



LOADING TRAILER

Fork lift operators

Travel to trailer keeping load as low as possible.

When instructed lift slowly to the correct height.

move forward slow and deliberately do not brake suddenly keep the lift moving at slow, steady pace.



FOLLOW YOUR BANKSMAN

Once you are in a position your banksman is happy with he will instruct you to lower. Be careful that mast does not contact trailer when tilting forward.

If bunks or timbers need to be repositioned so they don't catch forks then reverse the operation.

Do not let anyone approach a suspended load



MOVING AROUND THE BERTH

Stay in your cab during loading
Once instructed move off
Slowly to the checking area
When load is being checked
Dismount and put in your
Pins on the near side of
Trailer.

**Do not travel around berth
Without pins in both sides**



MOVING AROUND THE BERTH

Drive at a slow speed at all times
Be vigilant for any other operations
that may be going on

Keep to your designated route

Sound your horn at blind spots and
when passing shed doorways.



STOWING



STOWING

Ensure timbers used are fit for purpose
Any broken or unsuitable timbers should
be disposed of **keep it tidy**

All timbers should be uniform

timbers should be laid out before any
Lift commences



GOOD STOWING



GOOD STOWING



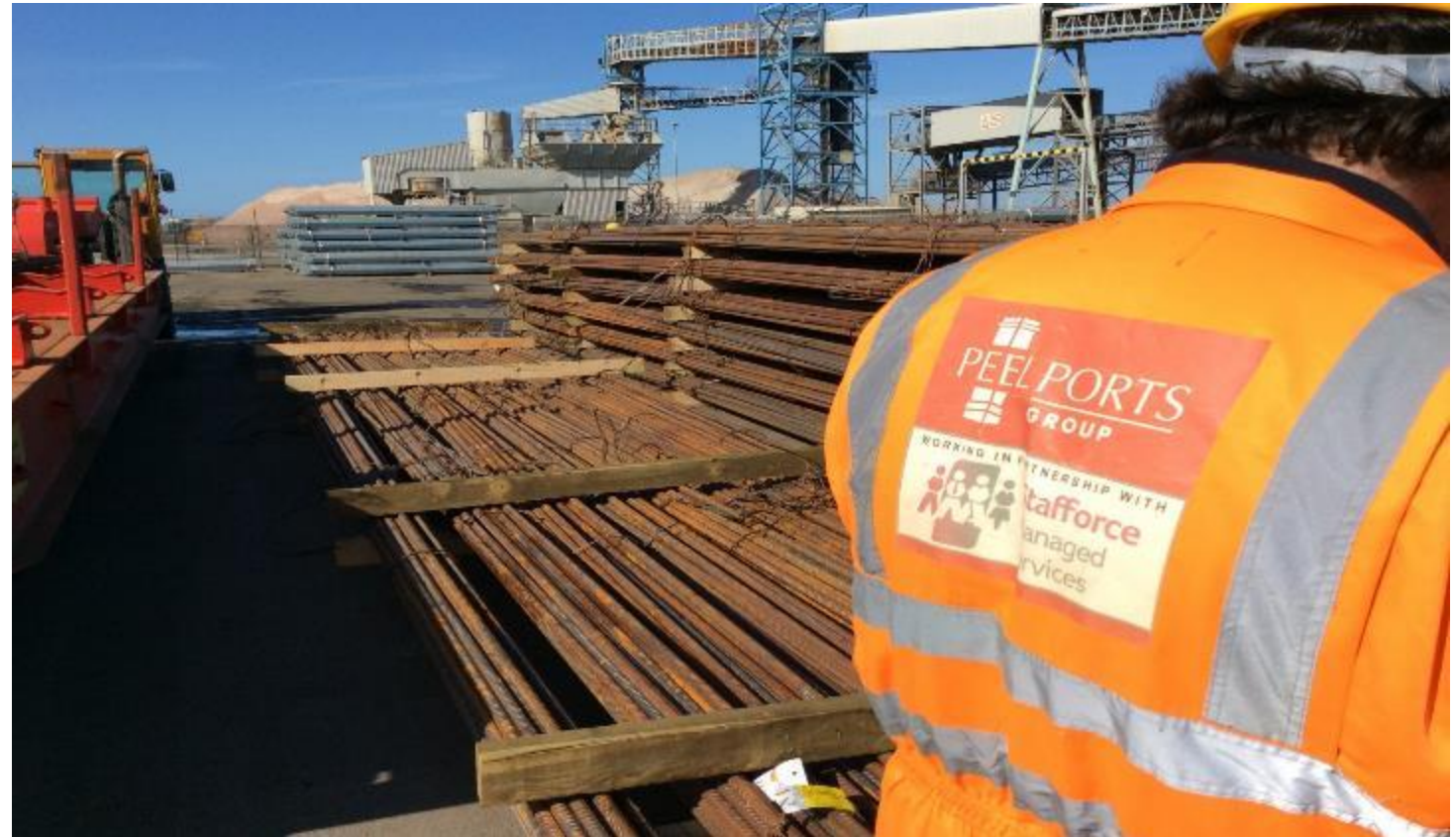
TIPPING TRAILER

Once tug is lined up the driver should
dismount and remove nearside pins.
Once removed get back in cab and wait
for instructions from banksman



STOWING

Once tug is in position
And timbers are in place
All personnel should move
To a safe area before f.l.t.s
Move into position



GET READY TO LIFT

Before lifting cargo from trailer,
do a final check that no one
is in a unsafe position

When ok lift in unison to clear trailer,
then reverse slowly .



STOWING

Once instructed tug driver
move away slowly.

Once clear fork lifts
lower to safe height

Await instructions from
Banks man



STOWING

Once tug is clear fork lift operators should
Get lift as low as possible.

follow instructions from banksman to
position load into place

Drive slowly at all times avoiding any
sudden movements



STOWING

Keep timbers in line with the previous height to prevent any bowing

Spread out the bottom layers to help with stability

Don't stow too high

Don't stow on poor ground



INCIDENTS

There have been numerous accidents involving rebar, including broken toes when bundle shifted in hold during one ending

Trips over bundles both on quay and in vessel.

people Hit by lifting equipment thrown under bundles

Tripped over bundle when moving in hold hurting chest

Broken leg when intertwined bundles shifted in hold.

Broken toe when lifting equipment was dropped on foot

BUNDLE FELL FROM FORKS

On the 28th May 2015 a bundle of rebar fell from forks whilst loading a vehicle.

The worker who was banking the wagon and forklifts was stood on the far side of loading operation .

The bundle weighing 1924 kg sprang off forks after it came into contact with HGV headboard.

It struck the worker running down his chest hitting his knee and foot.

It resulted in numerous operations eventual amputation of toes

He has never worked since.

BUNDLE FELL FROM FORKS



LIFTING BEAM INJURY

A worker was attempting to reconnect a lifting beam that had been landed poorly
The previous shift.

The beam shifted as he was connecting wire to crane it landed trapping his leg.

The beam was lifted from the worker using a fork lift truck.

Paramedics were in attendance .

He broke his leg, has had a couple of operations but has not worked since the
incident.





LIFTING BEAM INJURY





SLIP ON VESSEL

a worker slipped on a vessel narrowly avoiding
Serious injury.

Paramedics attended and he was man basketed
Off vessel and taken to hospital





ANY QUESTIONS?