

Safe Use of Roll Cages and Donation Chair Bespoke Trolleys

Module 3



Updated January 18

Equipment Required:

- 7.5 tonne Team Vehicle
- Roll cage/s and Donation Chair Trolleys
- Copies of SSW DAT2059 to hand out
- Presenter Slide Folder A3 and Notes A4 (from MH Resource pack *) or PP Projector
- Flip Chart and pens
- DVD (optional) (V2 from January 09)
- Staff require their PPE for the practical.

Course Aims

Aim: To be safe and competent at moving and handling roll cages and donation chair trolleys

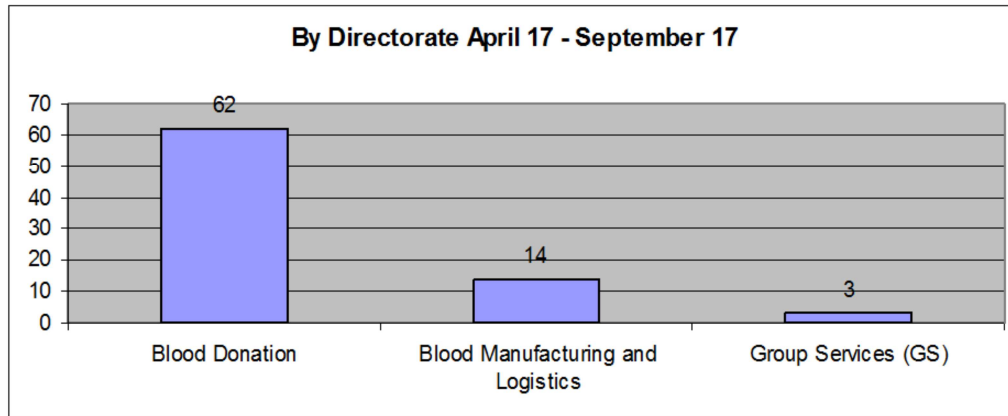
Learning Outcomes:

- Identify the hazards and causes of accidents relating to the use of roll cages/ trolleys
- Understand the ways to reduce the risks involved with moving and handling roll cages/ trolleys
- Able to demonstrate manoeuvre roll cages/ trolleys in line with the Safe Systems of Work (SSW)

Display and talk through Learning Outcomes of the course.

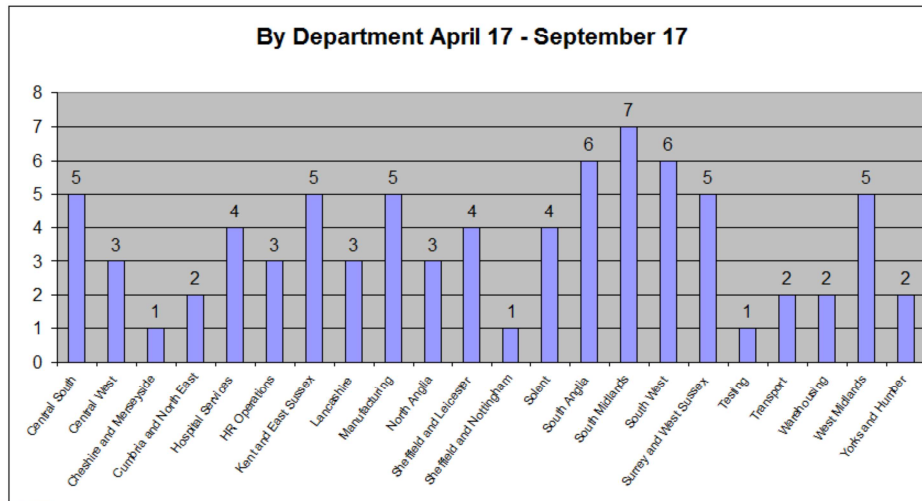
Explain to the group that the Donation Chair Trolleys were designed with the same base as our Roll cages i.e. brakes on all 4 castors – brake bar, larger wheels made of the same material, so work in that same way.

Roll Cage/ Trolley Incidents



Display graphs showing numbers of accidents over the past 5 months in the whole NHSBT in relation to roll cages.

Roll Cage/ Trolley Incidents



Display graphs showing numbers of accidents over the past 5 months in the whole NHSBT in relation to roll cages.

Exercise

NHS
Blood and Transplant



Split group into pairs and ask them to come up with hazards, what could potentially harm them in relation to roll cages and also when during the load/ unload these might occur?

List answers to flipchart. Then show next slide.

List roll cage/ trolley hazards

When might these occur during load/ unload ?

Toppling from tail-lift

Pulling injuries/Pushing injuries – strains/contact injuries

Twisting

Overload – strain injuries

Incorrectly loaded/ overturning

Cuts and abrasions when damaged

Trapping – hands and feet

Rushing

Reducing Accidents

- Improve stability by placing **heavy items at the bottom** of the cage
- Reduce chances of articles falling by having **no loose items on top**
- Eliminate tilting and tipping the cage or trolley over uneven surfaces by **using ramps**
- Always have **2 People similar size and stature per cage** – more for slopes
- Always ensure **effective communication** between staff prior to moving cages or adjusting cage position.
- Always apply **proper restraint** as appropriate i.e. brakes and lanyards
- **Use the handles** to steer the cage to reduce forces required when turning
- All cages are **labelled** with what they should contain – check and change if necessary
- Make sure trolleys are **stacked correctly** and components are **strapped** in prior to moving
- All cages and trolleys are subject to **regular inspections** and maintenance so report any and all defects
- Everyone receives **training** and should **follow it**
- **Active supervision** of the unload to ensure SSW is followed
- **Manual Handling Risk assessments** for challenging venues
- **Look out for each other** and help each other where possible.
- Staff should be **wearing correct PPE**

2 people to move cage

Look out for each other and intervene if you feel people are at risk

To push or pull?

Pushing

- Manufacturers and HSE advise pushing
- Slips: roll cage is moving away
- Lower risk of catching feet and ankles
- Better posture
- Less likely to tip



Pulling

- Heels and ankles easily caught
- Twisting to see route

Posture - feet well spaced and hands high for pushing

Posture: feet close together and hands low for pulling

Donation Chair trolleys must be pushed from the rounded handle end. Upper and Lower Frame Trolleys only 1 person required unless difficult venue. Moulded seat trolley, may need a second person to help guide through doorways etc.

Adapt to the situation

As a general guideline cages should be pushed, although if easier in some instances then they may be pulled.

Pushing

Roll cage manufacturers generally advise that roll cages be pushed rather than pulled. Pushing the roll cage has a number of safety advantages for staff:

- If the member of staff stumbles or slips then the roll cage is moving away from them and the risk of injury by impact from the cage is reduced;
- The risk of accidents involving staff pulling the cage onto their own feet or ankles would be significantly lower. These commonly occur when the person stops but the cage does not;
- Pushing provides a better posture for the person who does not need to twist in order to see where he or she is going;
- The cage is less likely to tip if the fixed castors are leading.

Both hands should be used to equalise the load on the person's body and to provide good directional control. The disadvantage of pushing is that the person cannot see the area immediately in front of the roll cage. This risk can be minimised if the roll cage is only filled to the height that the person can see over.

Pulling

Pulling facing forward means that the person has a full view in front of the roll cage, but it is virtually impossible to keep both hands on the cage and increases the risk of losing control. Heels and ankles may also be caught very easily unless a pulling handle is used, which again results in a loss of control.

The one advantage of pulling rather than pushing would be to reduce the risk of impact on others in the path of the roll cage. Realistically, someone walking backwards pulling a roll cage is also going to be the cause of accidents.

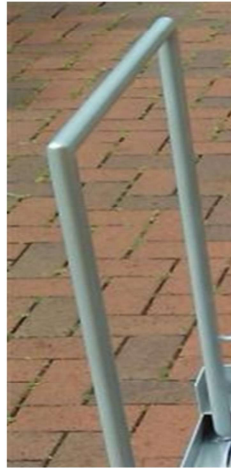
Stress that posture is important. Pushing allows spine to remain in the neutral S shape.

Optional: At this point if necessary, before the practical exercises, play the Roll Cage DVD as a recap.

Trolleys

NHS
Blood and Transplant

Guide with
square
handle end



Push from
curved
handle end



This is covered in **DAT2059**

Explain same base used on trolleys as existing roll cages, so they move in a similar way and have 4 brakes. The brake bar is on the fixed wheels and individual brakes on the swivel wheels.

Explain that the trolleys should be pushed from the rounded handle end and guided from the square handle end.

Loading/Unloading the Trolleys - *Blood and Transplant*

Lower Frame



Demonstrate how the lower frame would be carried on its own without a trolley (esp. relevant during the first few weeks when teams only have one chair)– 2 person lift to avoid awkward postures. (see photo in user manual)

Avoid leaning in to the frames to collect items from beneath

Demonstrate the following:

BRAKE - Ensure that the brakes are applied

STACK - Ensure that all lower frames are loaded the same way (labels and fixings for table all at the same end)

2 people to take either end and stack together. This may seem unnecessary as the lower frame is light. The reason for this is to avoid you adopting awkward postures and to keep you fit and healthy. This will also help to ensure that chairs are stacked evenly and squarely.

CLIP – Secure with a clip – adjust to tighten as necessary.

PUSH - In order to push this trolley the preferred hand position is from the top frame as indicated

Let everyone have a chance to stack the trolley in 2's

Maximum of lower frames on trolley – 8

Loading/Unloading the Trolleys – *Blood and Transplant*

Upper Frame



Demonstrate how the upper frame is carried without a trolley. 1 person lift (see photo in user manual)

Demonstrate the following:

BRAKE - Ensure that the brakes are applied

STACK - Ensure that all Upper frames are loaded the same way – Labels to the small square ended handle. The first frame must be set in the right position within the guides in the base of the trolley. If this is not done correctly, the frames will not stack properly.

Although 1 person carries this upper frame **a second person will assist in hooking the stacking bars around each other. The second person is there to prevent the person carrying the upper frame from adopting a stooped posture as they try to hook around the stacking bar.** This makes this operation more straight forward for staff and more efficient.

CLIP – Secure with a clip – adjust to tighten as necessary.

Let everyone have a go. Ensure that a second person is positioned at the trolleys to assist with the stacking bar.

Maximum number of Upper frames on trolley – 10

Stored Items

The centre of the upper and lower frame trolleys can be used to store items. It is important that when items are retrieved that the correct number of lower/ upper frames are removed first so that items can be comfortably removed without the need to lean over frames.

Case Study

The injured person was standing by the Donation Chair base trolley with a colleague. The colleague couldn't reach the clip-boards that were stored in the base of the trolley. The IP offered to reach into the trolley to retrieve the clip-boards. As the IP is 5'11 she felt it would be easier for her to reach in and get them out. The IP leaned into the trolley from the front, there were still 3 bases loaded on the trolley which is a height of 40 inches (1 metre) from the ground and a depth of 32 inches (81cm) inside the trolley from the top of the stored bases to the ground and the bottom of the trolley where the clipboards were kept. The IP said that she couldn't quite reach the clipboard so she leaned in a little bit more overstretching to try to reach the clipboards. As she overbalanced forward all of her weight was transferred to her ribcage as her feet came off the floor. The IP then felt 'something give on her left hand side and was in great pain. The IP fractured a rib.

Was this incident avoidable?

What could have been done differently?

What do you think caused the incident (immediate and root cause)

Immediate cause – The IP reaching into the trolley and overstretching to reach the clipboards. Believing that “it won't happen to me”

Root – clipboards being placed in the bottom of the trolley rather than a place where they would be easily accessible. There was no clear place identified to put the clipboards at the time of this incident (pre SUPD)

Loading/Unloading the Trolleys – *Blood and Transplant*

Seat

- Vertical
- Horizontal
- Moving from vertical to horizontal demonstration

Explain and demonstrate the following using a volunteer to help.

In order to move the trolley from the horizontal position to vertical position:

1 person moves to the side of the trolley and pulls the pin in a downward direction. At the same time another member of staff pushes down on the pushing bar (round handled). This takes the weight of the seats off the pin and makes the pin easy to release. Once the pin is released the person holding the push bar, gently lets it raise upwards until it locks into the vertical position.

To move the trolley from vertical to horizontal position – 1 person pulls down the pin and another person pushes down the handle until it locks into the horizontal position.

It is very important that only head/ foot rests are ever carried in the storage area on the seat trolley. This is to ensure that the seat trolley remains stable, esp. when in the vertical position.

Let everyone have a go at pulling down the bar and releasing the pin.

Hands on – Trolleys

Time to practice removing
chairs from the trolley and
setting up..

This process must include taking all the chairs off a trolley correctly, setting chairs up and then once everyone is happy with this and all done then the dismantling and stacking. Make sure everyone gets a go. Do this more than once if necessary.

Trolleys on Tail-lifts



Seat Trolley ONLY

The seat trolley should be in the horizontal position on the tail-lift as this improves the stability. There is no need to use a lanyard for this.

To do this attach the lanyard to the rounded bars on the trolley as shown to the tail lift platform, adjust to tighten. The front wheels must be against the roll-stop and the brakes applied.

Two trolley's will fit on the tail-lift together, or one trolley and one roll cage.

Upper and Lower Frame Trolleys

These both have a low centre of gravity and therefore are not at risk from toppling so do not require a lanyard to be used. You need to use a lanyard on the roll cages the same as you usually would.

Demonstration and Practical Exercise

Practical session. First hand out copies of SSW and recap on SSW step by step. Check understanding. Ensure everyone has their PPE.

Ensure that you Lay out cones 3 metres out around tail lift, slide bars in place etc as per SSW. Stress again that active supervision is crucial and that no one is allowed to enter this area whilst the tail lift is in operation.

Demonstrate how to:

1. move the cage (small controlled movements, keep yourself square on to cage, avoid twisting)
2. move cage on tail lift and apply brake etc as per SSW. **Note - Ensure that the cage is moved directly onto the tail lift and not at an angle. Tell them this as you are demonstrating this action.**
3. apply lanyard as per SSW (Cages only)

Once all learners happy with this, each to take a turn at demonstrating points 1-3 above

Observe closely – correct as necessary.

Ensure all participants demonstrate good handling technique.

Note – if is not possible to use a vehicle etc, the tail lift can be marked out with tape on the floor for the practical session.

Course Aims

Aim: To be safe and competent at moving and handling roll cages and donation chair trolleys

Learning Outcomes:

- Identify the hazards and causes of accidents relating to the use of roll cages/ trolleys
- Understand the ways to reduce the risks involved with moving and handling roll cages/ trolleys
- Able to demonstrate manoeuvre roll cages/ trolleys in line with the Safe Systems of Work (SSW)

Display and talk through Learning Outcomes of the course.

Explain to the group that the Donation Chair Trolleys were designed with the same base as our Roll cages i.e. brakes on all 4 castors – brake bar, larger wheels made of the same material, so work in that same way.