

## Trolley and Platform Truck Risk Assessment

There are four main areas to be considered when risk assessing platform trucks and trolleys, the equipment, the operator, the load and the environment in which the equipment is being used. We have tried to give an in-depth assessment of what you need to look for, but please use your common sense when implementing this assessment and tailor it to your own situation, also after this assessment has been implemented, re-visit it after a month to make it more relevant to your application.

If you feel that there is something that has been missed, please email your suggestions to [it@handle-it.com](mailto:it@handle-it.com) and we will add it to the assessment, we will continue to add handling risk assessments to the site so that together we build a comprehensive library for public use.

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### The Trolley or Platform Truck

#### **Capacity suits the load**

make sure that the capacity of the truck is greater than the load which you are carrying, as a general rule of thumb ensure that the load is around 75% of the capacity of the hand truck. Your trolley maybe designed to carry 500kg but using it to the total capacity all of the time will cause wear and unnecessary risk, moreover if you are using the equipment on slopes the capacity should be sensibly considered taking into account the adjustments of the load centres.

#### **Handles**

You should be checking that the handles are secure, this includes the welds around the handle structures, that any fixings that are used in order to secure the handle. Ensure that there are no signs of rusting around the welds and that there are no fractures in the welds themselves. If the handle is a folding handle, please check the mechanism and that there is little wear.

#### **Wheels & Castors**

Check that there is no feathering or ingress for foreign bodies around the bearing and shaft of the axle. Ensure that there are no fractures of the weld around the bearing hub, this is the small shaft protruding from the wheel hub that houses the bearing (this is a very common failure). Ensure if your hubs are plastic that there are no cracks on the hub itself and that there are no chips from the rim. If your wheels are steel centred ensure there is no rusting taking place on the hub and that the wheel nuts are secure and split pins or end caps are secure. If the wheel is held in place on a castor plate ensure that all bolts are secure. If the wheel is held with a bolt and captive nut, which is common if the wheels fit directly into a tube that the securing nuts is fastened well.



## **Tyres**

Tyres on your trolleys and platform trucks are as important as tyres on your car or van, there shouldn't be too much wear on the tyres; the tyre tread should be visible on the whole surface of the tyre. Check the tyre pressures (if pneumatic) and that they equate to the pressure indicated on the tyre wall. Check that the pressures are equal in all wheels, it is one of the main causes for accidents using trolleys which is caused by a "lop sided ride" where the trolley wants to go around in circles due to uneven tyre pressures. Ensure that the tyre valves are free from foreign bodies and retain their dust caps. If solid wheels are being used, check for cracks and chips in the wheel material. Always check the head or racer bearing on swivel castors, to ensure there is no play, and the bearings are secure in the head casing.

## **Platform or Base**

This is the part of the truck that holds the load it is most imperative that the Base is solid. There must be no bending of the base, no rusting of the plate, if the plate does bend DO NOT under any circumstances bend it back to the correct position and carry on using it. If the base is wooden then make sure that there is no fracturing, or serious splintering, ensure that it is not bowed through water ingress. Or if plastic, again show caution to splits or fractures.

## **Axles**

One of the main weight bearing areas of your trolleys and platform trucks and visual checks should be frequent. There should be no rusting, bending, or fracturing of welds on the axle structure, if the axle is a flanged axle then please ensure that the roll pins or split pins are intact and without foreign bodies.

## **Play in wheel**

Ensure there is no play in the wheels and that the bearings are greased and packed tightly with washers, the better the packing and the better the greasing then the longer your wheels and bearings will last, and the safer the truck becomes.

## **Shelves and Side Panels**

There are many shelves, side panel lids and locks available for trolleys, if you would like to call us we will write amendments for your particular ancillaries, but here are some standard indications for you to consider.

*Free downloadable daily check sheets available at [Handle-iT.com](http://Handle-iT.com)*

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## The Operator

### **Physical Capability**

Operating a Trolley or platform truck may seem as though it is a job that anyone can manage, however there are many restrictions that should be applied, or many restrictions to capability that can affect the way that the task should be fulfilled. The initial force needed to move the load. Quite simply the force that is exerted on the handle when pulling or pushing determines the load that can be forced horizontally on the bed. So take the physical strength of the operator, whether the operator has physical disablement that may impair the strength needed to move the load. The hours that the operator has worked, and whether they are lifting the heaviest weights at the start of the day when fresh, rather than at the end of the day when fatigued.



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## **Operator Training**

Every person within your business should be trained when using ANY piece of equipment, that goes for trolleys and platform trucks as well. You have one man moving sometimes over a ton in weight, would you expect them to do that job on a fork lift without any kind of instruction, no of course you wouldn't. Make sure that everyone who uses the trolley and platform truck has had a basic induction course on the safe use of the equipment. Make sure this covers many things that are encompassed in the risk assessment. One of the best ways to avoid risk is by making people aware of risk.

## **Correct PPE**

Again PPE is one of those things that is overlooked when using the trolley and platform truck which is not viewed as a highly dangerous piece of equipment. But good personal protection will also assist in making your operation more efficient. Example, operator is working flat out moving load after load, by the end of day one he has a blister, day 2 he will not work as efficiently as day 1. So, for a simple £3.00 pair of rigger gloves, you are making your business safer and more efficient. Hi-Vis jackets and steel toe caps. You should also consider additional ancillary items such as retention straps and ratchet straps, or Velcro blankets this will help secure the load to the trolley or platform truck.

## **Fatigue**

As indicated above in the physical capability section, fatigue is frequently overlooked when implementing risk assessments, a delivery driver's working day is one which is full of physical exertion. When route planning if you can help the driver by leaving the lighter load until the day's end, build in more drop time for the later day loads. Tests in America have shown that delivery drivers can be 1/3 as productive between the hours of 4-5pm than they are between the hours of 9-10am, so make sure that the dictated work speed does not inhibit the operators ability to fulfil his or her role safely. If a driver is delivering 5 boxes on a platform truck or trolley at 9 am only expect them to move 4 on the trolley or platform truck for the later hours in the day.

## **One or two man job**

there are certain loads that should always be handled in a two man drop, the financial choice in a very simple one, one man labour as a driver's mate vs 6 weeks off for sick pay for the driver that has attempted to move something that should have taken 2 people to achieve..... I think the math is self-explanatory.

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## The Load

### **Size of load**

There is no set guidance from the HSE with regards to the size of the carrying on the base of a trolley or platform truck in comparison to the size of the load, when we have asked in the past we are told to use our common sense. We would recommend that with an evenly distributed load there are some good basics that can be used to ensure stability. Make sure that the base of the trolley or platform truck is 2/3 of the width of the load that you are lifting and at least 2/3 of the overall length of the load. Be cautious not to make the plate too long as it will create a problem when trying to place the load on the base. Make sure that the load is secured on to the base of the trolley if this is required. it may take a couple of minutes longer, but will add security to the value of your product.



### ***Weight distributions is fundamental to the safe use of a trolley or platform truck***

If your load is boxes try to ensure an even weight to the stacks. In the event of the product having more weight on one side of the load. ensure when working on slopes that the adjustment in the centre of gravity will move, if your moving liquid, again remember that the centre of gravity will be constantly adjusting, and take this into account with regards to the capacity of the trolley and platform truck. i.e. you are moving half a ton of liquid, and you have to stop the trolley as an emergency. The load will carry on moving as soon as you have stopped the trolley and the load will all be at the front of the trolley, making it liable to tip.

### ***Obstructions of operators view***

any item that obstruct the operators view IS A TWO MAN OPERATION. It is impossible not to be able to see where you are driving and consider it a safe operation, try not to load the trolley or platform truck so that it inhibits the operators vision.

### ***Capacity suits the load***

make that the capacity of the trolley or platform truck is greater than the load which you are carrying, as a general rule of thumb ensure that the load is around 75% of the capacity of the platform truck or trolley. Your platform truck or trolley maybe designed to carry 500kg but using it to the total capacity all of the time will cause wear and unnecessary risk.

### ***Stability of stacked loads***

If you are handling differing sizes of boxes then the load must be secure, always try to load the next box on a surface that is flat even if that means on top of 2 boxes of the same height. If this is not possible then reduce the amount of boxes that you are trying to carry, it's not safe practice to operate a platform truck or trolley with one hand on the load and one the equipment. If you were to encounter an uneven surface or a wheel hit a pot hole while operating the truck with one hand, then the likelihood of damage to the operator and the load is very high, moreover stopping to pick up the boxes is a lot more time consuming than making an extra journey.

### ***The load does obstruct wheels/operating handle***

If you are handling loads which overhang the width of your platform truck or trolley, you must always use caution to ensure that it does not inhibit the wheels, or if fitted the braking systems on the wheels. In the past we seem to have replaced more wheels that have been caught up in the load than for any other reason (excluding misuse). A sudden stop to a load which has forward momentum always runs the risk of leaving the platform truck or trolley of the front of the base. This has implications for the operator and anyone else who is in the vicinity. Hand traps are one of the most common accidents with platform trucks and trolleys, generally fingers between the handle of the platform truck or trolley and the load. This happens all day every day, with small boxes and is very rarely an issue, but this bad practice will at some point result in injury when the loads increase in size and weight. Never load the platform truck or trolley so that the load is right against the handles.

### ***One or two man job***

there are certain loads that should always be handled in a two man drop, the financial choice in a very simple one, one man labour as a driver's mate vs 6 weeks off for sick pay for the driver that has attempted to move something that should have taken 2 people to achieve..... I think the maths are self-explanatory. Show additional caution when loading and unloading the trolley or platform truck



***Liquid loads are something that should always be handled with caution whenever moved***

whether you are using trolley, hand truck, fork lifts or lorries. Any sudden halt in forward momentum and the fluids inside the container will still be moving with the forward momentum, therefore, adjusting the centre of gravity of the load, thus making it unstable. When handling liquids, there are some simple rules to follow which will help with safe movement. Always make your movement is slower and more deliberate. Avoid any immediate stopping unless in an emergency. Always ensure over capacity of the carrier, for a sack truck with a 300kg capacity should only carry 150kg in weight and avoid sharp cornering at speed.

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## The Environment

### ***Ground condition***

the ground conditions where your platform truck or trolleys are used on, can have a dramatic effect on the speed of the operation, as well as the security of the load, but most importantly the safety of the operator. Solid wheels are brilliant for internal use in the warehouse or production, however for delivery purposes they are verging on pointless. If the driver turns up to a yard where there is a pot hole or loose concrete, or needs to traverse over mud or grass the control that they will maintain will be minimal. Pneumatic tyres will cope with the terrain that you need them to, but when we looked at the wheels and wheel maintenance in part 1, they create their own issues. Some hand truck companies are now supplying Platform trucks and trolleys on Polyurethane puncture proof wheels these are a solid air blown compound of foam that is remarkably durable as with a solid tyre, but ride like a pneumatic tyre. This will give you safety to the operator the load and the platform truck or trolley itself.

### ***Temperature***

Anyone who has ever been on a skiing holiday and has touched a metal object will understand how much it would hurt to touch. Cold store operators are aware of this and should use the same rules when using steel or aluminium platform trucks or trolleys, gloves should always be used.

### ***Pedestrians around you***

When operating in pedestrianised areas or on yours or your customer's premises, the other pedestrians don't always know that you are there, so again make your actions deliberate, try not to come to an immediate halt. When cornering, consider a bell or horn attached to the platform truck or trolley. But most importantly slow down.

### ***Slippery surfaces Rain water***

spills and ice make ground conditions treacherous enough, without trying to move a ton. Reduce the load, take more time, or try to rearrange the delivery for another day if the conditions are deemed dangerous.

### ***Entrances and doorways***

This is a difficult one, some will tell you that you should take one hand off your trolley to push the door open, others will tell you to push the door open using the loads on the trolley. I would disagree; the safest way for you and the pedestrians around you is to either reverse through the doorway using your bum to open the door, if the door is a push door. Alternatively carry a small door stop, if it is a pull door. Stop the platform truck or trolley, open the door leave the door move the platform truck or trolley through the doorway then close it afterwards, and remember it may be a fire door so always shut it afterwards.



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**Up or down slopes**

when using a platform truck or trolley on a slope try not to move across the slope always try to move up or down rather than across the slope. When moving up or down the slope, always have the load facing downward, therefore if the load is lost off the platform truck or trolley then it will not land on the operator. Reduce the capacity, bear in mind the centre of gravity will have changed on the load, therefore more of the weight will be on two of the wheels facing down the slope. This must be compensated for by reducing the weight on the platform truck or trolley, or increasing the equipment's capacity.

Working speed dictation pressures Health and safety should not be a barrier to making your company profitable, it should be part of your business that can help you increase your productivity, efficiency and profitability. Use tools that make the job quick, easy and safe. As we have mentioned a few times in this risk assessment, kerb ramp, puncture proof tyres, and ratchet straps amongst them. But one of the biggest dangers is making the pressure and speeds of work such that the jobs you are asking staff to do become dangerous because you are not giving them adequate time to do them safely.



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