

Tyre handling workshops

Storage and stacking of waste tyres



Photo courtesy of Kwik-Fit GB Ltd

The problem

It is common to store waste tyres in places where access is relatively difficult. Often someone else does the collection but staff need to put tyres away and may help with collections.

Waste tyre collection typically involves:

- a poor access route;
- poor access space;
- poor headroom;
- slip and trip issues.

These factors can mean workers twisting their bodies, bending down under low ceilings, and climbing while carrying. Sometimes the load is uneven (a heavy tyre and a light one). Lifting or throwing two tyres every 30-60 seconds is common. The ground underneath may be rough, wet or slippery with the possibility of tripping over. The lighting may be poor in the store and in the van.

Also, consider that when drivers call to your site to collect or deliver tyres it becomes a *shared workplace*. This means you have a *legal duty* to cooperate with the driver's employer, as far as is necessary, to allow them to meet their legal obligations for ensuring the driver's health and safety. So, you have to include the risks to them in your assessments and possibly work with the driver's employer to reduce them.

The solution

If these problems apply to your premises think about changing your arrangements for storing waste tyres. The ideal location is well lit and allows workers to stand upright and be close to the workshop and collection point to reduce carrying distances. One solution is to keep a roll cage in the workshop area, store waste tyres in it and, when it is full, push it to a storage area for collection. When waste tyres are collected, push the cages to the vehicle, to reduce carrying. This would:

- reduce handling;
- eliminate carrying;
- keep the body in a more natural posture.

There are problems with roll cages. Pushing them across an uneven floor and changes in level (eg door thresholds) may require a high level of force. Choosing a large diameter of wheel will reduce the force required. Remember to keep handling aids well maintained and sensibly loaded, so they work efficiently and safely.

Risk assessment

A risk assessment for carrying waste tyres between the storage area and a van using HSE's Manual Handling Assessment Chart is shown below.

Load weight/frequency A4	The load handled can be up to around 10-18 kg for a car/van/4x4 tyre. The frequency of handling varies according to the position of the collection vehicle in relation to the store point, with rates being faster when the two are closest together. Two tyres every 30 seconds to a minute is typical.
Hand distance from lower back A3	There is often some trunk twisting during the carry.
Asymmetrical trunk/load G0/A1	The trunk can be symmetrically loaded when carrying two similar tyres. When carrying one, and/or when negotiating obstacles, there can be trunk asymmetry.
Postural constraints A1/R3	There are usually some postural constraints, such as a narrow access route, or more severe restrictions on posture such as low headroom in waste tyre stores.
Grip on the load A1/R2	The grip on the tyres is usually reasonable but they may be damaged and wet.
Floor surface G0/A1	The footing can be good, but the ground can be uneven, have tyre debris on it, be wet, or even icy.
Other environmental factors G0/A1/R2	Hot in summer, cold in winter. There is little or no protection from the elements. Lighting inside the vehicle and the store can be dim.
Carry distance A1/R3	Carry distances are typically in excess of 4 m and can often exceed 10 m.
Obstacles en route A2	This operation is partly performed outside the building, the floor conditions at retail premises are usually good, but can be wet or even icy. There is repeated climbing in and out of the collection vehicle, and there may be a change of level (ramp or steps) on the route.
Overall score	10-19