



## **TAWs Guidelines for Equine draught harness for developing countries**

### **Introduction**

Throughout the developing world, harness is made to local designs and with locally available materials but all too often these are inappropriate in one or both respects; for example, the use on equines of a yoke designed for oxen. We are all familiar with the fact that these things can lead to adverse effects on the efficiency and/or welfare of the animal.

Ill-fitting harness or harness in poor repair can also give rise to damage but more commonly the latter is a consequence of uninformed design. Furthermore, there is sometimes little understanding or thought given to the optimum method of attachment of the animal to the vehicle or agricultural implement.

Attempts to ameliorate the situation with “improved” designs are often unsuccessful. This is especially so when expensive or locally unavailable materials are employed. Help and advice are needed and indeed are offered more widely now than ever before but the advice must be sound and guided by certain essential principles. Conflicting advice is very destructive!

Recognising this but also the legitimacy of local design, TAWs offers to advisors and instructors and/or harness makers themselves, the following list which it considers are the irreducible essentials of good harnessing which must always be adhered to.

### **Availability**

All harness items recommended for use in developing countries should be affordable by local owners. They should be made from materials available in-country so that they can be easily repaired or replaced.

### **Materials**

Natural products such as leather, cotton or hessian may be ideal. However, for practical as well as economic reasons selected man-made materials (synthetics) can also be used satisfactorily for parts of the harness provided precautions are taken. Since many synthetics become abrasive, padding must always be used at pressure points and there should be lining next to the skin elsewhere. Furthermore, because they can cause an unacceptable local temperature increase, rubber or plastic sheeting should never be used directly on the skin. This is especially contra-indicated in tropical regions.

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## **Sustainability**

The design should be simple and effective, allowing freedom of natural movement and with minimum risk of injury. The harness should be comfortable for the working animal and in addition, easily cleanable. Appropriate methods of harnessing should be sustainable and harness makers trained, not just in the relevant construction techniques but also in the correct fitting of harness and the principles which apply.

## **Breast and neck collars**

A collar, either of a breast or neck type, is required for the draught animal to push against to draw the load forward. This is the primary piece of harness, although for pack or ridden animals the saddle would be of first importance. The breast collar is most commonly used, especially on donkeys and is effective with two or four wheeled vehicles for light haulage on relatively flat surfaces or for cultivation. Sometimes a double neck strap is adopted to hold it in position. A breast collar should be used in conjunction with long traces and a swingletree to avoid shoulder injuries.

Neck collars, also with long traces and a swingletree, provide a frame against which the animal pushes with its neck and shoulders and can be more effective with heavy loads but they must be a good fit. Adequate, well placed padding is essential. Full neck collars are labour intensive to produce properly and if used inappropriately, can be harmful.

## **Breeching**

The breeching, complete with its breeching straps or other form of attachments, plays an essential role in providing braking for a cart, carriage or wagon with shafts. It also facilitates backing a vehicle, adds extra manoeuvrability and assists in keeping the saddle in position. A crupper, which is an auxiliary part of some breechings, may prove to be an added complication but in certain situations, with pack animals in particular, it is considered essential to stabilise the saddle when a breeching as such is not used. The tendency to attach the crupper too tightly must be resisted or tail wounds result and furthermore, if it is not kept clean and soft, dried dung and sweat can also cause injury.

## **Draught Saddles**

A saddle is required to take the weight of the shafts on a shafted vehicle whether or not a load is being carried. There will usually be greater weight on the saddle if the cart is two wheeled but this can be kept to a minimum with good balance. The saddle can be a simple design but should be solidly constructed, well padded to avoid pressure on the spine and held in place by a girth. The latter is quite different from a belly band, the purpose of which is to stop the shafts from rising upwards if the cart starts to tip down at the back. The belly band is therefore an essential harness component for two wheeled carts. It should be made from a broad strap rather than a thin rope.

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## **Swingletree**

The use of a swingletree should be encouraged because long traces not only improve work output but also reduce neck and shoulder injuries. However, they must be of an appropriate width. A balancer may be necessary when two animals with swingletrees are working abreast.

## **Efficiency and Welfare**

The full potential of a draught animal with a good set of harness will only be realised when there is proper attachment to the vehicle or cultivator; this is of most importance for the operation of two wheeled carts, when the balance of the cart and load are paramount. When an animal can work efficiently it can normally do so without being physiologically stressed. It therefore retains an acceptable level of health and well-being.

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