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Adjustment of Neck Rotary Damper – Dressage Simulator

I. Introduction and Safety

This instruction covers the adjustment of a rotary neck damper on a dressage simulator.

Hazard: The area that will be worked within the front part of the bodyshell contains numerous moving mechanical parts and if the neck is moved these could cause a crushing hazard to fingers, hands etc. that are within the area; therefore, do not allow any part of the head or neck assembly to be moved whilst the work is being undertaken, except where instructed below.

Unplug the machine from the mains electricity supply and ensure that the power cannot be reapplied other than when required by the person undertaking the task.

2. Parts

New parts:

NA

Parts to be re-used:

NA

3. Preparation

Operate the simulator and determine whether the damping needs to be increased (neck will move more slowly/less) or reduced (neck will move more quickly/further).

Shutdown the simulator and remove the mains power source.

4. Procedure

a. Identify the location of the damper; the damper is located within the front of the simulator bodyshell. This can be accessed without the requirement to remove any of the protective covers (see Image 1 and Image 2).



Image 1: Damper located inside fibreglass bodyshell at the front of the simulator.



Image 2: Damper location (viewed from below).

- b. Make an adjustment to the damper rate by turning the silver knob clockwise (more damping) or anti-clock wise (less damping). As new the damper is set to ~14-15 (90-95%) on the scale. It will require fine tuning to get the desired allowable movement in the neck, the head and neck should not move excessively fast or 'wobble' when running in Collected Trot as this will cause damage.
- c. Once an adjustment has been made, ensure that the work area is clear and replace the mains power. Start the computer and simulator and test the new damper position.
- d. Repeat the above steps as necessary to attain the desired neck movement. It may require several iterations to obtain satisfactory results.

<u>NB</u>

If the damping is not affected when the knob is turned, then it may be the case that the damper has failed and requires replacement. There may or may not be evidence of a small oil leak in this case, dependant on the failure mode.

In the case that a replacement is required, please contact Racewood Servicing department to arrange for the supply of the part and for installation to take place.