

## MATERIAL HANDLING

### Safe Working Practices:

#### SWP- 33 Removing / Changing a towbar and pump piston spring on a HPT

Before completing any type of work you must carry out an assessment of the task to be undertaken. This will include the equipment to be worked on, the task itself, Personal Protective Equipment (PPE) requirements, the work area and environment, plus the tools and equipment required to carry out the job safely. Consult your team leader if you are not satisfied the job can be carried out in a safe manner.

**In addition to service/repair manual guidelines, the following must always be applied:**

#### **GENERAL**

- 1.0 Select a safe working area (refer to SWP-01 Work Area).
- 1.2 Ensure appropriate PPE is worn at all times (refer to SWP-32 PPE). Eye protection must be worn when using a pin punch and holder. Protective gloves are available if required.
- 1.3 Because of the difficulty in specifying maximum loads that an individual may be expected to handle, the company has decided to provide general instructions on Manual Handling of Loads. (refer to SWP-13 Manual Handling).
- 1.4 Due to the complexity of repairing a Hand Pallet Truck (HPT), be aware of trapping points at all times.
- 1.5 When using the compression tool GB1PAL001682 to avoid damage to the threads on the tool ensure care is taken at all times when using it. The tool must be stored in its allocated area when in transit and not in use.

#### **PROCESS**

This process may vary, depending upon the manufacturer of the Hand Pallet Truck.

#### **Removing the Towbar**

- 2.0 Chock the steer wheel with TMH issued chock.
- 2.1 Ensure the frame is elevated to its highest position.
- 2.2 **For BT/Toyota HPT only** - With the handle down, position the spring clamp (Part No: V08-16599/1BT) provided to keep the spring compressed.
- 2.3 Knock the roll pins out from the handle pivots using a pin punch and holder.
- 2.4 Remove the chain and nut.
- 2.5 Lower the handle to remove the handle axles.
- 2.6 Remove the towbar.

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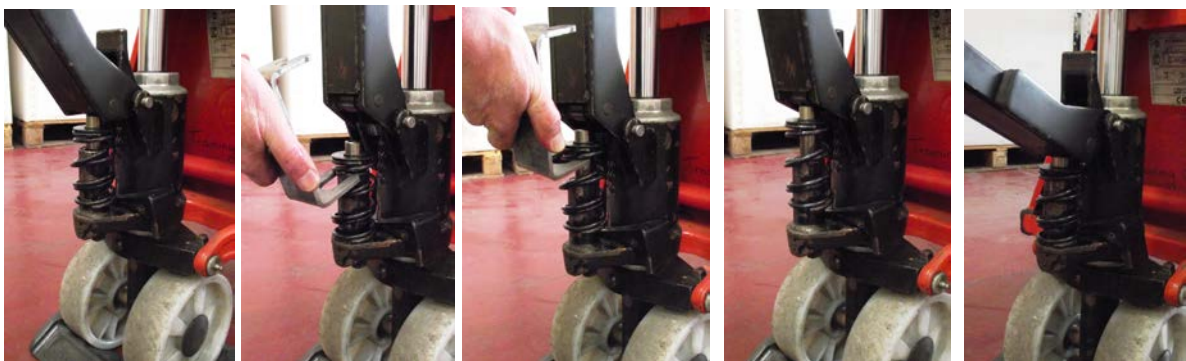
#### **Replacing the Piston spring - For BT/Toyota HPT only**

- 3.0 Follow the above instructions to remove the towbar.
- 3.1 Position the TMH issued spring depressor (Part No: GB1PAL001020) in to the shaft opening and compress the spring (suitable for all TMH models).
- 3.2 Remove the spring clamp and gradually release the spring depressor until the spring is fully extended and you are able to remove.
- 3.3 Replace the spring.



- 3.4 **Broken Spring** - Elevation of the frame will need to be carried out manually as the piston is not drawn out of the guide by the tension of the spring.

Whilst supporting the handle in an upright position, use the TMH issued spring clamp edge to lift the piston/spring and complete a pump stroke to lift the frame – this must be done up to 12 times to give full lift of the frame, ensuring at all times that you are clear from the spring on each stroke. See below:



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#### **Refitting the Towbar using the spring compression tool**

- 4.0 Chock the steer wheel with Toyota Material Handling (TMH) issued chock.
- 4.1 Ensure the frame is elevated to its highest position.
- 4.2 Position the spring clamp (Part No: GB1PAL001682 or V08-16599/1BT dependant on truck manufacturer) under the base of the pump and over the pump piston as per below



- 4.3 **Non BT/Toyota HPT's Only** - Compress the pump piston spring by tightening the clamp using a 17mm socket until sufficient clearance is achieved. It may be necessary to hold the top of the clamp in place when tightening.



- 4.4 Once compressed you should be able to refit the towbar without the requirement to compress the pump spring further by using pressure exerted by the towbar. Remember that you only need to compress the spring enough to fit the towbar.



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- 4.5      Fit the towbar's axle / axle's and secure with the roll pin / pins
- 4.6      Lower the handle to compress the spring further and remove the clamp

#### **Children and Young Persons**

- 5.0      See Safety & Environmental Manual procedure "Employment of Young Persons" for precise definitions on children and young persons.
- 5.1      "Children" may be allowed to observe such operations and work practices, but must take no active part, be kept at a safe distance and under the constant supervision of a competent person.
- 5.2      "Young Persons" may be allowed to work on equipment, providing they do so in accordance with the above and are under the constant supervision of a competent person.