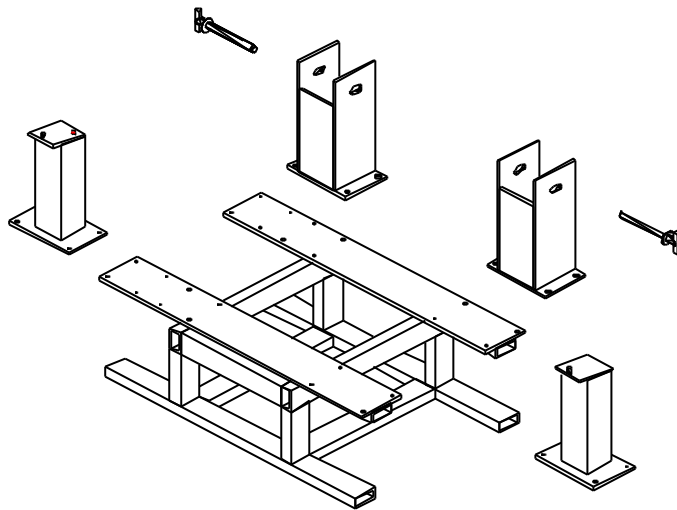


H TECHNICAL BULLETIN

HT SERIES TRAILER AIR SUSPENSION HT AXLE LOCATING FIXTURE

No: TRAILER AUS-002
Subject: *Utilisation Guide*
Date: May 1996 Revision: A



Description And Operation

The proper positioning of the suspension components, relative to one another as well as to other trailer components is crucial to extended component life. Failure to correctly position the components can lead to: Trailer lean; Improper tracking; premature tyre wear and; shortened suspension life.

To assist our OEM customers to produce the highest quality trailer possible, Hendrickson has designed a fixture which aids in the correct positioning of the suspension onto the axle. Using the Hendrickson fixture will minimise the risk of error.

The following instructions are intended as a guide to the installation, set-up and use of the "HT" series fixture. The fixture and this guide are a supplement to the HT Series Installation Instruction number L-50A (dated 13/7/92). If you are encountering any difficulties with your "HT" fixture contact the Hendrickson Engineering Department on (03) 9767 3400.

WARNING - HENDRICKSON REMINDS USERS TO ADHERE TO THE PUBLISHED CAPACITY RATINGS FOR SUSPENSIONS. DO NOT MODIFY PARTS OTHER THAN OUTLINED IN THIS PUBLICATION.

USE OF A MODIFIED OR SUBSTITUTE PART IS NOT RECOMMENDED BECAUSE THE PART MAY NOT MEET HENDRICKSON'S SPECIFICATIONS, WHICH COULD LEAD TO FAILURE OF THE PART, LOSS OF VEHICLE CONTROL AND PERSONAL INJURY.

Procedure

First conduct a completeness check of the supplied fixture, the following components make up your HT assembly fixture (beam tower supplied depends on application):

1. Main Fixture Base assembly (Refer Figure 1)

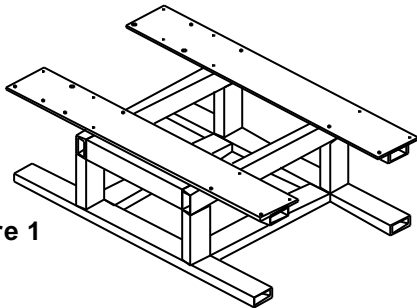


Figure 1

2. Pivot Tower
 - a. Pin type tower (Refer figure 2)
 - b. Pivot tower

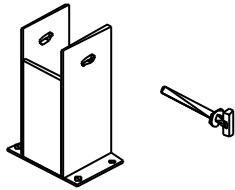


Figure 2

3. Beam Tower
 - a. HT190/230/300 Beam Tower (refer Figure 3)
 - b. HT250U Beam Tower
 - c. HT250T Beam Stand

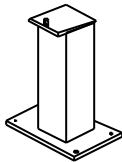


Figure 3

The Main Fixture Base assembly is pre drilled to suit 889 mm (35") and 1041.5 mm (41") beam centres. You will notice on one end of the stand only one set of holes have been drilled while the other has two sets. These hole patterns allow the variation between beam centres. The inner giving 889 mm (35") and the outer 1041.5 mm (41"). The inner set of holes has a stud instead of one bolt. The stud is there because it would otherwise be impossible to bolt in this location because of the subframe.

Installing Pivot/Beam Tower

1. Each pivot tower is stamped with an F which indicates the front on the base of the tower. Position pivot of 4 bolt holes on main stand. The pivot should be positioned with F - front facing the opposite end of the stand. Proceed to bolt the pivot tower into position. If you require a 889 mm (35") beam centre follow instructions as above bolting the tower to the inner set of holes (see Figure 4). If you require 1041.5 mm (41") beam centres use the outer holes (see Figure 5).

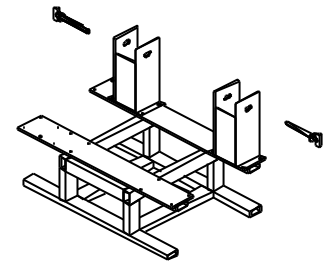


Figure 4

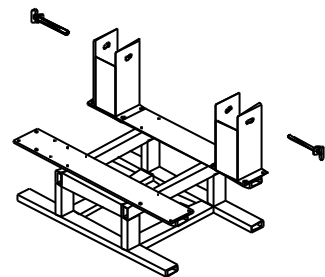


Figure 5

2. To assemble beam towers follow above instructions and ensure the mounting face slopes down towards the main fixture base.
3. Insert locator studs into threaded section of beam towers.

Using the "HT" Fixture

The fixture has been designed to allow the axle attachment to take place with the beam and frame bracket pre-assembled or with the beams on their own. The procedure is as follows:

1. Lift and position one frame bracket and/or suspension beam over the top of both the axle stand and pivot stand.

**a. BEAM AND FRAME BRACKET
PRE-ASSEMBLED
(NON "TA" VARIANTS ONLY)**

Lower the frame bracket and beam assembly onto both pivot and beam stands. The frame bracket will slip down into the pivot stand and be supported by the alignment collars (see Figure 6). The beam stand will both locate and support the trailing end of the suspension beam. Repeat steps 1. & 1.a. on the remaining frame bracket and beam assembly.

CAUTION: The beam & frame bracket must not be used on Quik-Align variants. All four alignment collars must be resting on the pivot stand. Failure to correctly position the alignment collars can result in trailer lean.

**b. SUSPENSION BEAMS
WITHOUT FRAME BRACKETS**

Lower beams into pivot stands and onto the top of the beam stands. The beam stand will both locate and support the trailing end of the suspension beam. Align the pivot stand slots with the inner metal bushing hole, insert pin (Refer figure 7). Repeat steps 1. & 1.b. on the remaining beam.

2. Place axle on top of the beam axle seats with brakes oriented as shown on the suspension assembly drawing. The axle paint must be removed in the areas to be welded.

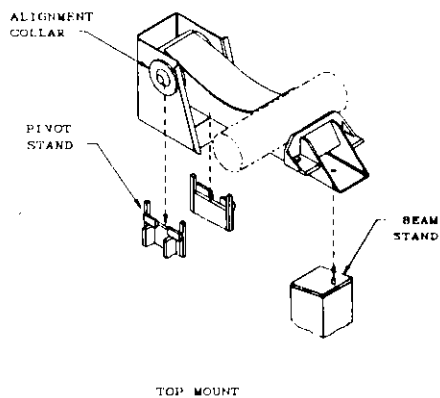


Figure 6

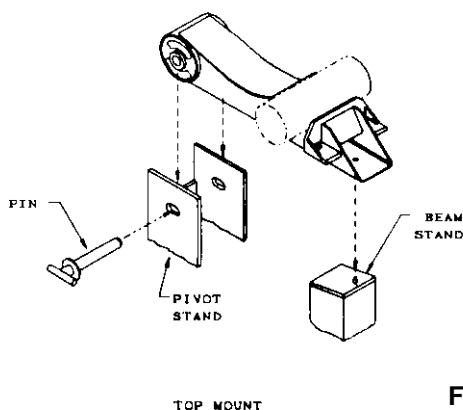
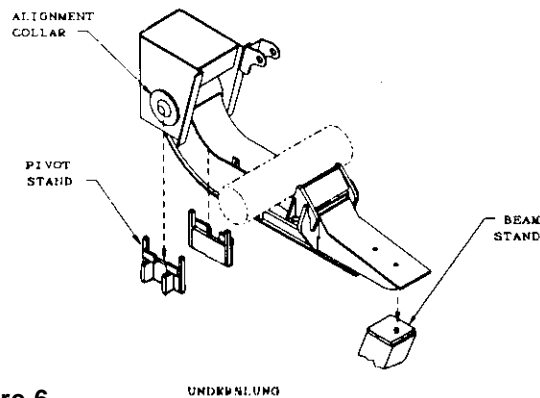
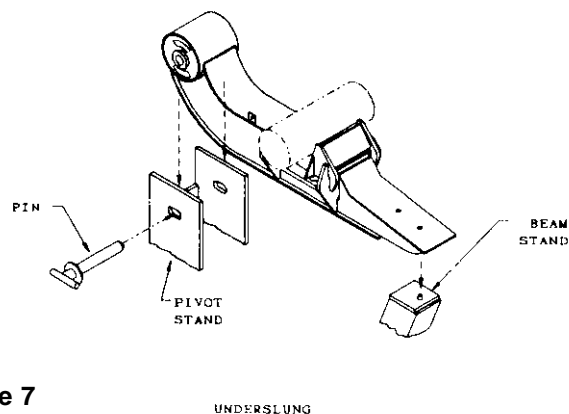


Figure 7



3. Position the S-Cam according to the dimension shown on the suspension assembly drawing. (The drawing assumes an axle S-Cam location of zero degrees. Review specifications of the axle being used and adjust accordingly.)
4. Centre the axle by measuring the left and right spaces between the positioned beams and the hub assembly, position the axle until both spaces are equal.
5. At least one side plate radius per beam must be seated on the axle. Gaps between the non-seated side plate radius and the axle may be up to 1/8" (as is the case with cambered axles)
6. Using a large clamping device(s) secure the centred axle onto the positioned beams and tack weld in place as shown Figure 8. U bolts are installed after the axle seat and beam assembly have been welded complete and allowed to cool.
7. Remove the clamping device(s). Complete the welding of axle to the positioned beams, as described in the HT Series Welding Instructions, Literature No. L064.
8. Once the axle welds have cooled, install the supplied U-bolts and torque to the specified value.

(2) TACK WELDS 1" LONG
CENTER OF THE AXLE CONNECTION(S)

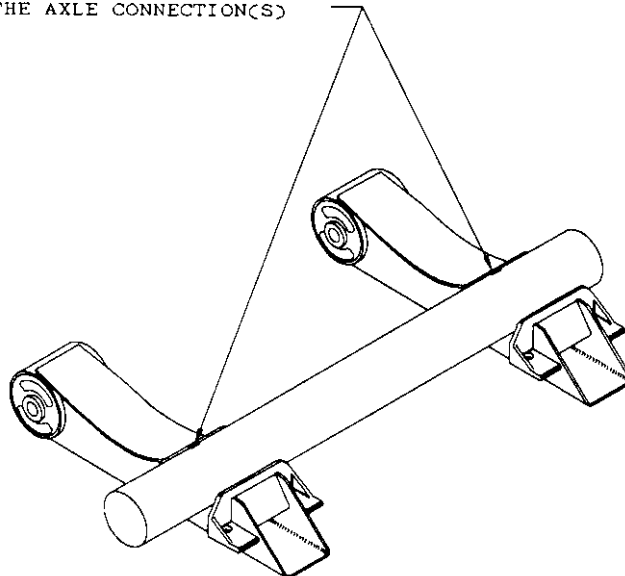


Figure 8