

Fig 14.

## Installation

Install new bearings **18** during the installation procedure.  
 ⇒ [Fig 14.](#) (□ [B-8](#)).

- 1 Grease the face of the bottom end-cap **5**. Put the bottom end-cap on the rear chassis bearing-housing and secure with the bolt **23** and washer **24**. Tighten the bolt to the specified torque. ⇒ [Table 1. Torque Settings](#) (□ [B-10](#)).
  - 2 Fill the bottom bearing with grease and install into the end-cap.
- Note:** Make sure that the bottom bearing is completely filled with the grease.
- 3 Put the dummy-boss **A** into the bottom bearing. ⇒ [Fig 15.](#) (□ [B-9](#)).
  - 4 Put the top bearing on top of the dummy-boss **A**. Hold the top bearing, then turn the dummy-boss three or four times to install the rollers.
  - 5 Put the bearing locator **B** into the top bearing.

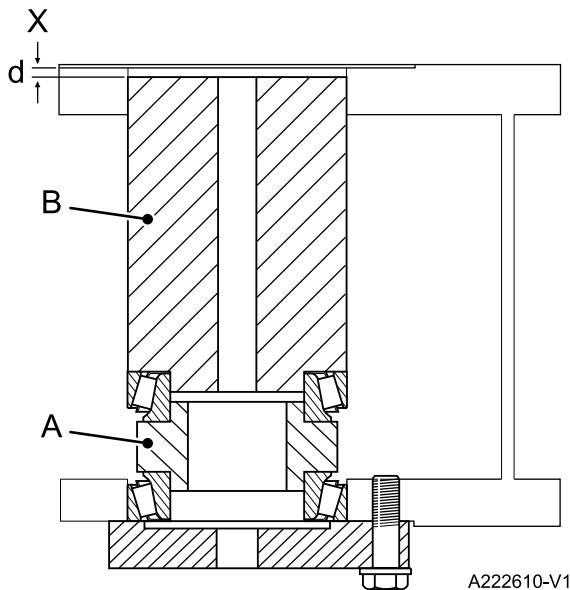


Fig 15.

- 6 Measure the clearance **d** between the top of the bearing-locator **B** and the face **X**. ⇒ [Table 3. Dimensions](#) (□ [B-10](#)).

- 7 Add the dimension **d** to the dimension **t** which is stamped on the front module. This dimension (**d + t**) gives the correct clearance.

**Note:** If no dimension **t** is stamped, read the dimension **t** as **zero**

- 8 Assemble the shims to give a dimension that is equal to the dimension (**d + t**) and put them below the bearing-locator **B**. ⇒ [Table 2. Shims](#) (□ [B-10](#)).
- 9 Part of the bearing-locator **B** must be above the face **X** by an amount equivalent to the dimension  $t \pm 0.025$  mm.
- 10 Remove the bearing-locator **B**, shim-pack, top bearing and dummy-boss **A**.
- 11 Install new lip-seals **7** on the large diameter piece of the front chassis pivot-boss, or alternatively rolled inside out to give protection to the seal-lips during the mating of the chassis.

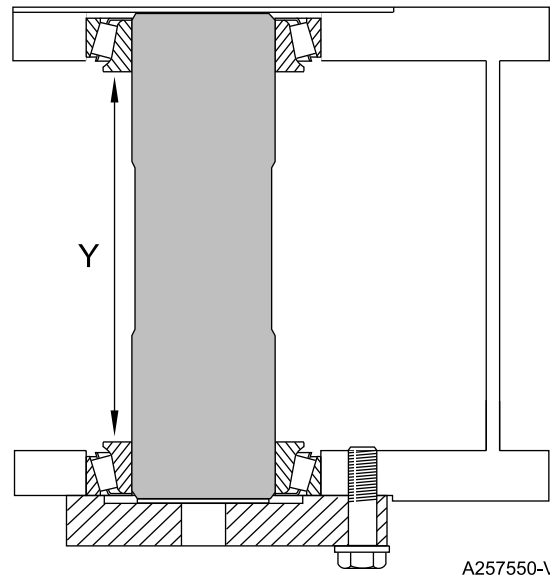


Fig 16.

- 12 Put the top bearing-cone on the pivot-pin **1** to the dimension **Y** (178 mm) as shown. ⇒ [Fig 16.](#) (□ [B-9](#)).
- 13 Apply the locking-fluid to the the bottom part of the rear chassis bearing-housing.

- 14** Remove the bottom end-cap **5**, install the washer **26** and the bottom end-cap. Tighten the bolt **23** to the specified torque.
- 15** Carefully engage the front and rear chassis.
- 16** Assemble the lower pivot-pin **2**, shims **30**, bearing **20** and new the seals **6**. Attach the components in position with the spacer **31**, washer **4** and screw **3**. Tighten the screw **3** to the specified torque.
- 17** Apply locking-fluid to the top part of the pivot-pin **1**, then assemble the components through the rear chassis bearing-housing and front chassis pivot-boss.
- 18** Fill the top bearing with grease, then install the bearing-cup.

**Note:** Make sure that the top bearing is filled with grease.

- 19** Install the shim-pack and washer **26**.
- 20** Grease the face of the top end cap **5**, then secure in position with the washers **24** and bolt **23**.
- 21** Install the bolt **17**, washers **28** and castellated-nut **21**. Tighten the bolt to the specified torque, then install the new split-pin **22**.

**Note:** If necessary, tighten the castellated-nut until the next castellation aligns with the split-pin drilling in the bolt.

- 22** Put the lip-seals **7** into position.
- 23** Apply grease through each of the nipples until it comes through the lip-seals.

The remaining part of the procedure is the reverse of the removal procedure.

**Table 1. Torque Settings**

Item	Nm	kgf m	lbf ft
<b>3</b>	244	24.9	180
<b>21</b>	68	6.9	50
<b>23</b>	98	10.0	72

**Table 2. Shims**

Shim	Part No.	Nominal Thickness mm (in)	
<b>A</b>	819/00029	1.0	(0.039)
<b>B</b>	819/00030	0.25	(0.010)
<b>C</b>	819/00031	0.15	(0.006)
<b>D</b>	819/00035	0.6	(0.024)
<b>E</b>	819/00037	0.9	(0.035)
<b>F</b>	819/00036	0.7	(0.028)

**Table 3. Dimensions**

Dimension (d + t) mm (in)	Shims
0.83 - 0.87 (0.033 - 0.034)	D + B
0.88 - 0.92 (0.035 - 0.036)	E
0.93 - 0.97 (0.037 - 0.038)	F + B
0.98 - 1.02 (0.039 - 0.040)	A
1.03 - 1.07 (0.040 - 0.042)	E + C
1.08 - 1.12 (0.042 - 0.044)	D + 2 x B
1.13 - 1.17 (0.044 - 0.046)	A + C
1.18 - 1.22 (0.046 - 0.048)	2 x D
1.23 - 1.27 (0.048 - 0.050)	A + B
1.28 - 1.32 (0.050 - 0.052)	D + F



## Section B - Body and Framework Centre Pivot

Removal and Installation

Dimension (d + t)	Shims
mm (in)	
1.33 - 1.37 (0.052 - 0.054)	2 x D + C
1.38 - 1.42 (0.054 - 0.056)	2 x F
1.43 - 1.47 (0.056 - 0.058)	F + D + C
1.48 - 1.52 (0.058 - 0.060)	D + E
1.53 - 1.57 (0.060 - 0.062)	2 x F + C
1.58 - 1.62 (0.062 - 0.064)	A + D
1.63 - 1.67 (0.064 - 0.066)	D + E + C
1.68 - 1.72 (0.066 - 0.068)	A + F
1.73 - 1.77 (0.068 - 0.070)	E + F + C
1.78 - 1.82 (0.070 - 0.072)	2 x E
1.83 - 1.87 (0.072 - 0.074)	B + E + F
1.88 - 1.92 (0.074 - 0.076)	A + E
1.93 - 1.97 (0.076 - 0.078)	A + B + F
1.98 - 2.02 (0.078 - 0.079)	2 x A
2.03 - 2.07 (0.080 - 0.081)	A + C + E
2.08 - 2.12 (0.082 - 0.083)	2 x D + E
2.13 - 2.17 (0.084 - 0.085)	2 x A + C
2.18 - 2.22 (0.086 - 0.087)	D + E + F
2.23 - 2.27 (0.088 - 0.089)	2 x A + B
2.28 - 2.32 (0.090 - 0.091)	2 x F + E



## Section B - Body and Framework Centre Pivot

Removal and Installation

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# Service Procedures

## Rivet Nuts

TB-001\_2

A 'Rivet Nut' is a one piece fastener installed 'blind' from one side of the machine body/framework. The rivet nut 17-A is compressed so that a section of its shank forms an 'upset' against the machine body/framework, leaving a durable thread 17-B.

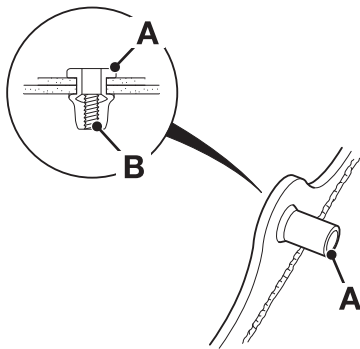


Fig 17.

Rivet nuts are fitted to various parts of the machine body and framework. They are used in a number of applications, for instance, hose clamp and hydraulic valve retention etc.

Various sized rivet nuts are available. → [Table 4. Specifications \(□ B-13\)](#) to determine the size of rivet nut to be used for particular applications.

If for any reason a new rivet nut requires fitting, then the correct installation procedure must be followed. → [Fitting Procedure \(□ B-14\)](#).

**Note:** In an emergency, and if no installation tool is available, it is possible to fit a rivet nut by using a nut and bolt the same thread diameter as the rivet nut being installed. However, this is not the recommended method.

Table 4. Specifications

Rivet Nut Thread Diameter	Rivet Nut Outside Diameter	Material Thickness	Rivet Length (Total)	Drill Hole Dia.
M5	7	0.25 - 3.00	14.00	7.10
		3.00 - 5.50	17.00	
M6	9	0.50 - 3.00	16.00	9.10
		3.00 - 5.50	19.00	
M8	11	0.50 - 3.00	18.00	11.10
		3.00 - 5.50	21.00	
M10	13	1.00 - 3.50	23.00	13.10
		3.50 - 6.00	26.00	

**Note:** All dimensions in mm