

## Replacing Coupling Heads / Towing Eyes

### PRIOR TO CARRYING OUT THESE TASKS PLEASE REFER TO PRECAUTIONS

Prior to proceeding it is essential to confirm the condition of the damper. Carry out a damper reaction test. Pull the handbrake lever on as far as possible. Push the ball coupling as far back into the overrunning hitch as it will go. This requires force to compress and should extend smoothly when released. If the draw tube is impossible to compress, compresses with just spring force and no damping resistance, or the extension is very rapid, the damper must be replaced (please refer to instructions accompanying damper).

**WARNING!** Proceed with extreme caution. The most efficient method is to remove the rear damper mounting bracket but depending upon the coupling there may still be tension in the damper.

- Place a lever against the rear damper in such a manner that once the mounting bracket bolts are removed the tension can be released slowly. Take the tension and remove the mounting bracket bolts, release the tension in the damper.
- Inspect the shaft for damage, dress burrs and clean any dirt as the new coupling will be a close fit on the shaft.
- If a new bellows is to be fitted cut the tie-wrap and discard the old one, fit the new and secure with a tie-wrap.
- Trial fit the new coupling, it should slide into place without any undue force. DO NOT hammer the coupling into place, this can damage the coupling itself or the over-run mechanism. If it proves to be tight remove it, and thoroughly clean the shaft, inspecting for burrs.
- Fit the bolts, washers and secure the NEW locking nuts. DO NOT re-use the old nuts as this is safety critical. Torque to the figure specified below. Fit the plastic nut covers. Where the damper has been removed ensure that the coupling head rear bolt passes through the hole in the damper body

**NOTE.** If you have any doubts about the condition of the damper a new one must be fitted.

Fig.A



- If the damper has been released the rear mounting bracket will need to be refitted. This means that the damper needs to be compressed such that the bolts can be located.

**WARNING!** Proceed with extreme caution. Compress the damper with the lever and secure the mounting bracket bolts, as shown in Fig. A.

- Re-fit the bellows with the coupling / eye horizontal taking care not to tear or damage the material.

Where the replacement coupling / eye is a different part to the original:

- Always ensure that the corresponding length bolts are used.
- Always ensure that the compatible bellows is used.
- Always ensure that the hole sizes in the coupling and draw-bar tube match and that the correct sized bolts are employed.

### Adjustment

It is not necessary to make any adjustments, simply rotate the coupling / eye to its limits to ensure that the natural position of the bellows is with the head horizontal.

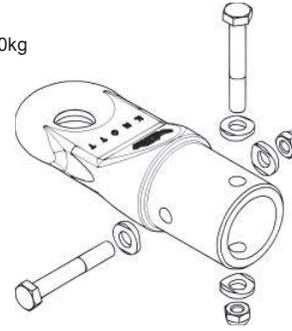
### Ø30 mm UK Eye

Max. Permissible total weight  
Trailer Gross Vehicle Weight MAX. = 3500kg  
Approval Mark:

ECE	EG
E <sub>11</sub> 55R-013660	e <sub>11</sub> 00-3660
Max. Nose Weight	Max. Nose Weight
(S) = 350kg	(S) = 350kg

- Drawtube Ø60
- Drawtube Ø50
- Drawtube Ø45

2xM12—10.9  
or 1xM12 / 1xM14—10.9  
or 2xM14—10.9



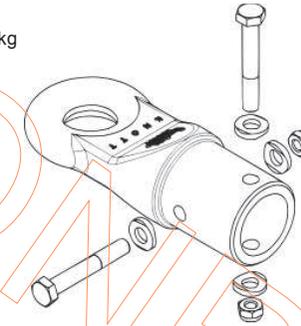
### Ø40 mm UK Eye

Max. Permissible total weight  
Trailer Gross Vehicle Weight MAX. = 3500kg  
Approval Mark:

ECE	EG
E <sub>11</sub> 55R-013661	e <sub>11</sub> 00-3661
Max. Nose Weight	Max. Nose Weight
(S) = 350kg	(S) = 350kg

- Drawtube Ø60
- Drawtube Ø50
- Drawtube Ø45

2xM12—10.9  
or 1xM12 / 1xM14—10.9  
or 2xM14—10.9



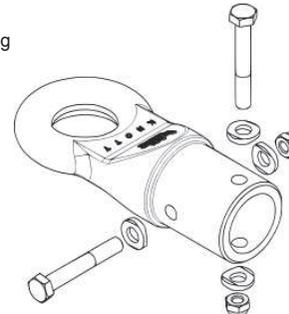
### Ø50 mm UK Eye

Max. Permissible total weight  
Trailer Gross Vehicle Weight MAX. = 3500kg  
Approval Mark:

ECE	EG
E <sub>11</sub> 55R-013662	e <sub>11</sub> 00-3662
Max. Nose Weight	Max. Nose Weight
(S) = 350kg	(S) = 350kg

- Drawtube Ø60
- Drawtube Ø50
- Drawtube Ø45

2xM12—10.9  
or 1xM12 / 1xM14—10.9  
or 2xM14—10.9



## Installation & Operating Instructions

### Operation of Knott Coupling Head & Eyes

#### PRECAUTIONS

The correct assembly and adjustment of all equipment is critical to the safe operation of the trailer. Therefore the procedures must only be carried out by competent persons. If you have any doubts about your ability to complete the procedure, we recommend this task is performed by your local service centre. You are advised to wear suitable protective equipment such as safety glasses, gloves and face mask. In addition be aware of hazards associated with handling workshop materials such as chemicals, oils and greases which maybe flammable and can prove to be irritants.

It is recommended that the opportunity is taken to inspect associated items for wear or damage and replace if necessary, they can be obtained through your local stockist.

All procedures should be carried out with the trailer on level ground with either the parking brake applied or wheel chocks front and rear. In addition the drawbar should be supported with the trailer horizontal. Where required consult your trailer handbook for the recommended jacking points and positions for stands.

The components are used in a wide variety of trailers and reference to the trailer manufacturer's manual must always be made for procedures and data relevant to the particular unit.

We have used "Plain English" descriptions throughout this text. If you are unsure of the meaning, if the procedure is unclear or you require any further information please use the following contact details:-

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Centrum 100  
Burton Upon Trent  
Staffordshire  
DE14 2WF  
T : +44 (0) 1283 531541

Spelter Site  
Caerau  
Maesteg  
Mid Glamorgan  
CF34 0AQ  
T : +44 (0) 1656 739111

✉ sales@knottuk.com

🌐 www.knottuk.com

The text includes guidance to assist in the safe execution of the procedures:

**WARNING!**  
**CAUTION!**  
**NOTE.**

Risk of Injury.  
Risk of damage to equipment.  
Safety requirement.

**If in doubt, ask**  
**Use only Knott original replacement parts**

[www.knott-trailer-shop.com](http://www.knott-trailer-shop.com)

Record key number and store in a safe place. This will be required to order spare or replacement keys.

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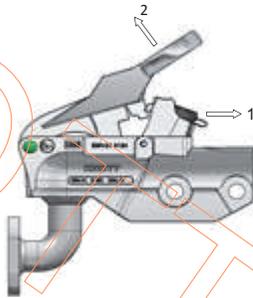
KF097A

## Knott-Avonride Cast Coupling Head

1. Ensure the key (if fitted) is in the unlock position.
2. Move the thumb catch (arrow 1) rearward and hold in place.
3. Pull the handle upward (arrow 2).
4. Lower the coupling head onto the towball.
5. Release the handle and thumb catch.

**NOTE.** Always ensure the coupling head and towball are engaged.

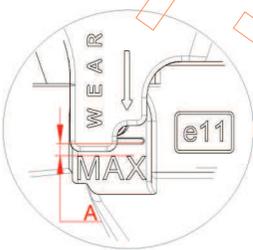
6. To remove, move the thumb catch (arrow 1) rearward and hold in place.
7. Pull the handle upward (arrow 2) and raise the coupling head clear of the ball.



### Knott-Avonride Cast Coupling Head Wear Indicator

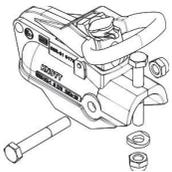
1. When the coupling head is fitted to the towball check and record dimension "A" indicated in the adjacent view. This dimension should always be greater when fitted to the towball.
2. Re-check dimension "A" at regular intervals. If the dimension is identical when not fitted and fitted to the towball then either the ball or head is worn or a combination of both. Action must be taken to replace either ball and/or head.

**WARNING!** Do not drive in this condition.



Max. Permissible total weight  
Ga = 2700—3000kg  
Approval Mark:

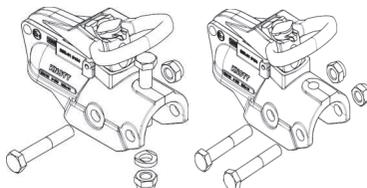
ECE  
E<sub>1</sub> 55R-010173 B50X  
Nose Weight  
(S) = 270 to 300kg



- Drawtube Ø50  
- Drawtube Ø45 (with adaptor plate)

Max. Permissible total weight  
Ga = 3500kg  
Approval Mark:

ECE  
E<sub>1</sub> 55R-010164 B50X  
Nose Weight  
(S) = 350kg



- Drawtube Ø60

#### Fasteners

Hex head bolts, DIN EN ISO 4014 (old DIN 931)  
Lock nut to ISO 7042 (old DIN 980)

2xM12—10.9  
or 1xM12 / 1xM14—10.9  
or 2xM14—10.9

2xM14—10.9

#### Torque Settings

M12 Gr.10.9 = 100Nm  
M14 Gr.10.9 = 125Nm

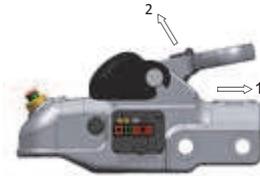
## Knott Group Cast Coupling Head

1. Ensure the key is in the unlock position.
2. Move the thumb catch (arrow 1) rearward and hold in place.
3. Pull the handle upward (arrow 2).
4. Lower the coupling head onto the towball.
5. Release the handle and thumb catch.

**NOTE.** Care should be taken to remove hands away from the handle, head will automatically engage. Always ensure the coupling head and towball are engaged. The engagement indicator (where fitted) will show green, if only red is seen then the ball and coupler are not engaged.

**WARNING!** Do not drive in this condition.

6. To remove, move the thumb catch (arrow 1) rearward and hold in place.
7. Pull the handle upward (arrow 2) and raise the coupling head clear of the ball.



### Knott Group Cast Coupling Head Wear Indicator

- Coupling head is open.  
**WARNING!** Do not drive in this condition.
- Coupling head is engaged and no wear is indicated.
- Incorrect engagement or worn towball or ball cup.  
**WARNING!** Do not drive in this condition.

The coupling is attached correctly.

The coupling is not attached correctly: the vehicle should not be towed.

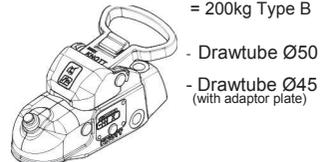


### AV30

Max. Permissible total weight  
Ga = 3000kg  
Approval Mark:

EG e1 00-1521 B50X  
Nose Weight (S) = 150kg

ECE E<sub>1</sub> 55R-011521 B50X  
Nose Weight (S) = 300kg Type A = 200kg Type B



- Drawtube Ø50  
- Drawtube Ø45 (with adaptor plate)

#### Fasteners

Hex head bolts, DIN EN ISO 4014 (old DIN 931)  
Lock nut to ISO 7042 (old DIN 980)

2xM12—10.9 (Type B)  
or 1xM12 / 1xM14—10.9 (Type A)

#### Torque Settings

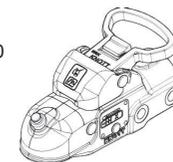
M12 Gr.10.9 = 115Nm  
M14 Gr.10.9 = 125Nm

### AV35

Max. Permissible total weight  
Ga = 3500kg  
Approval Mark:

EG e1 00-1520 B50X  
Nose Weight (S) = 150kg

ECE E<sub>1</sub> 55R-011521 B50X  
Nose Weight (S) = 350kg



- Drawtube Ø60

#### Fasteners

Hex head bolts, DIN EN ISO 4014 (old DIN 931)  
Lock nut to ISO 7042 (old DIN 980)

2xM14—10.9

#### Torque Settings

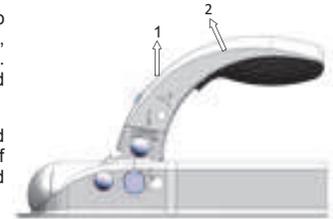
M12 Gr.10.9 = 115Nm  
M14 Gr.10.9 = 125Nm

## Knott Group Pressed Steel Coupling Head

1. Firstly, pull the handle upward (arrow 1) and then in the direction of arrow 2. The handle will now lock in the open position.
2. Lower the coupling head onto the towball.

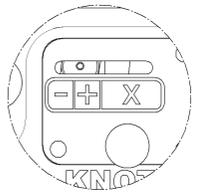
**NOTE.** Care should be taken to remove hands away from the handle, the head will automatically engage. Always ensure the coupling head and towball are engaged.

3. To remove, pull the handle upward (arrow 1) and then in the direction of arrow 2 then raise the coupling head clear of the ball.



### Knott Group Pressed Steel Coupling Head Wear Indicator

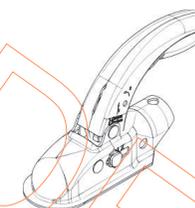
- Coupling head is open.  
**WARNING!** Do not drive in this condition.
- Coupling head is engaged and no wear is indicated.
- Incorrect engagement or worn towball or ball cup.  
**WARNING!** Do not drive in this condition.



Max. Permissible total weight  
Ga = 1400kg  
Approval Mark:

EG e1 00-0508 B50X  
Nose Weight (S) = 100kg

ECE E<sub>1</sub> 55R-015181 B50X  
Nose Weight (S) = 100kg



- Drawtube Ø45

Max. Permissible total weight  
Ga = 2000kg  
Approval Mark:

EG e1 00-0506 B50X  
Nose Weight (S) = 100kg

ECE E<sub>1</sub> 55R-012094 B50X  
Nose Weight (S) = 100kg



- Drawtube Ø45

#### Fasteners

Hex head bolts, DIN EN ISO 4014 (old DIN 931)  
Lock nut to ISO 7042 (old DIN 980)

2xM12—8.8

#### Torque Settings

M12 Gr.8.8 = 80Nm