

COMMISSIONING



WARNING ! Before putting the device into service, check that the items supplied are intact and that all the safety precautions listed in the manual have been complied with. Connect the device to suitable linkages, in accordance with the relevant standards. These standards provide tables of the permitted linkage - towing eye combinations, which must always be complied with to ensure correct operation of the device (see table on right, for example).

When there are no relevant regulations, the prerequisites stated in point h of the “Safety regulations” section always apply.

Never connect towing eyes which swivel around their longitudinal axis to linkages which swivel around the same axis (see right).

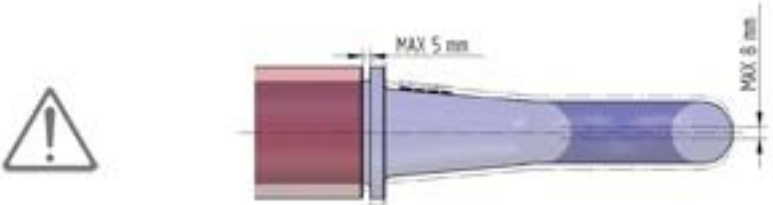
LINKAGE - TOWING EYE COMBINATIONS		
MARKINGS	LINKAGES (CUNA NC 338-02)	TOWING EYES (CUNA NC 338-02)
3t V0.25	A1	E1
6t V0	A	E
6t V0.5	B	E2
6t V1.5	C	E3
12t V0	D	F
14t V2	D2	F2
20t V0	D1	F1
20t V2.5	D3	F3



MAINTENANCE

The moving parts of the device are subject to normal operational wear and tear. The degree of wear will depend on the device's conditions of use and maintenance. At least once a month, check that:

- **towing eyes for welded installation:** the welds which connect the bush to the drawbar of the trailer are free from breakages, cracks or other defects;
- **flanged towing eyes:** the metal fasteners are free from damage and firmly tightened;
- the body of the device is not worn and/or misshapen to a point which may impair its operation, use or mechanical strenght;
- the axial clearances between the bush of flange and the body of the device are within the limits stated below:



In the event that these checks reveal that components are worn by **more than 20%** of their original dimensions, replace the entire device immediately.

STORAGE

For storage of the device, comply with the following recommendations:

- do not leave it exposed to the weather and do not enclose it in plastic bags to prevent the formation of humidity, leading to rust;
- place it in a stable, safe position.

SCRAPPING

When scrapping the device users must comply with the relevant waste disposal legislation. When the device is no longer usable, dispose it following any local recycling procedures.

WARRANTY

The product carries a legal warranty against failure to comply with the stated characteristics provided that:

- it has only been used as described in this manual;
- it has not been tampered with in any way
- it has been maintained correctly.

Naturally, the warranty does not cover problems due to normal wear and tear.

Warranty cover is only granted on exhibition of proof of purchase.

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OPERATOR'S MANUAL TOWING EYES



Thank you for choosing our product, which will be referred to below as the “device”



WARNING ! Before using the device, read the safety regulations and instructions for use provided here thoroughly, and apply them with care.

MISUSE OF THE DEVICE MAY CAUSE SERIOUS DAMAGE

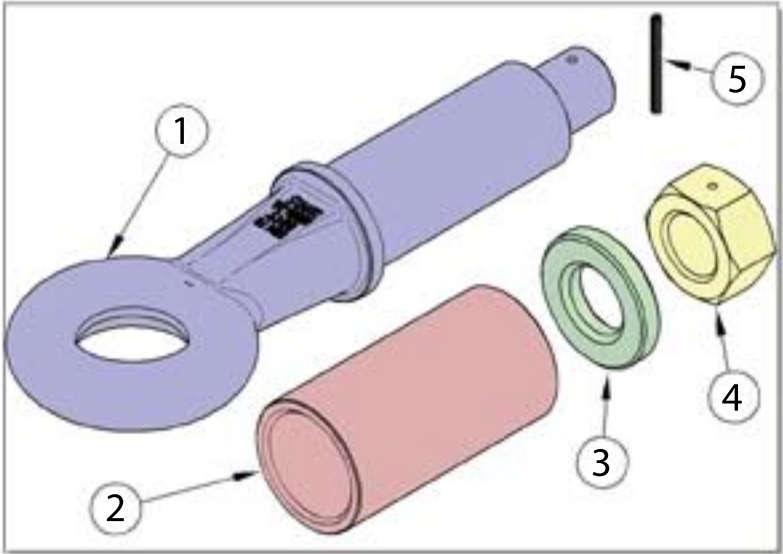
Take good care of this manual and always keep it to hand to allow easy consultation if required.



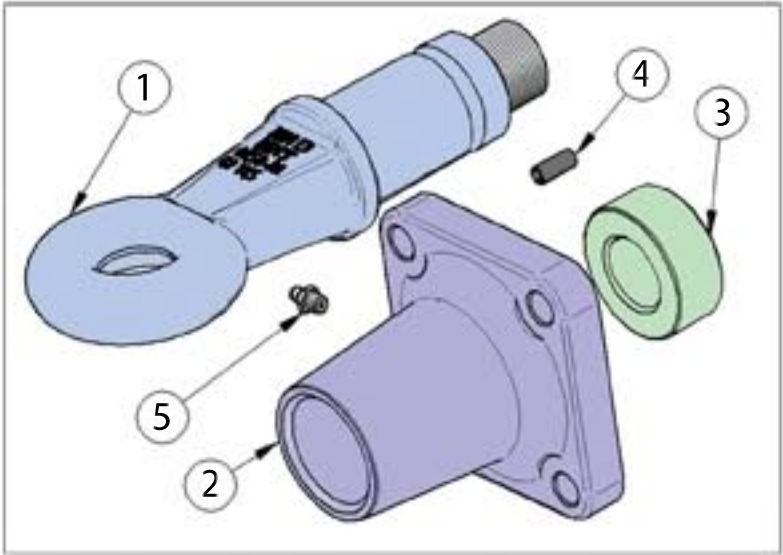
WARNING ! The device is only suitable for towing agricultural trailers, as stated in the “Characteristics” section. Any use other than that stated in this manual may cause damage to the device and constitute a hazard for the operator.

DESCRIPTION OF THE DEVICE

Towing eyes, with flange or for welded installation, may consist of a single fixed body or various assembled components. In the latter cases the component parts are:



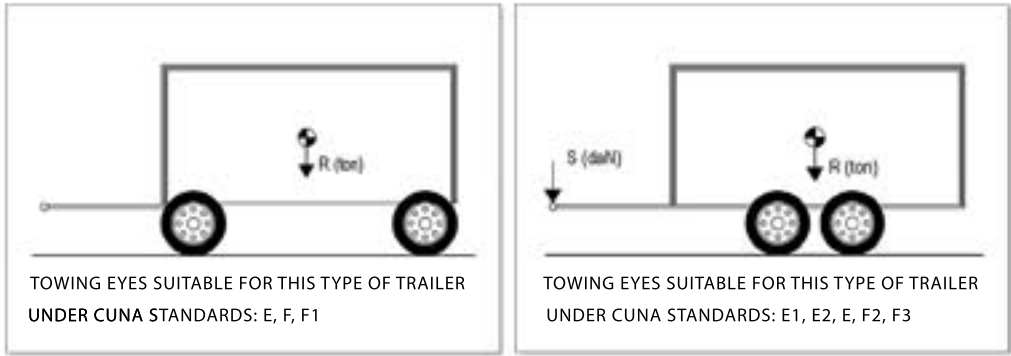
1) Towing eye body; 2) Welding bush; 3) Washer; 4) Nut; 5) Spring pin.



1) Towing eye body; 2) Flange; 3) Threaded ring-nut; 4) Shear pin; 5) Grease nipple.

CHARACTERISTICS

The device you have purchased is made from materials of certified quality, which will ensure good service over a long working life. The device is only suitable for towing agricultural trailers, both those with steer axle without vertical load (left) and those with central axle, for which the vertical load **S** is required in addition to the payload (right).



WARNING ! Dismantling the device’s component parts is absolutely forbidden; they are preassembled in the factory using specific procedures and special assembly and tightening tools.

MARKING

The marking embossed on the towing eye body provides its rated data and identification details:

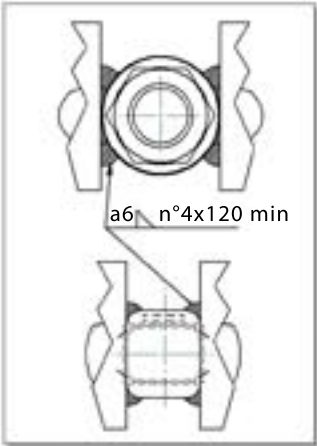
- manufacturer’s name;
- category* (if homologated under CUNA standards);
- homologation number (if homologated);
- maximum permissible loads (towable weight, vertical load);
- production lot number (year - letter, in rising order).

* for the category of reference see table below:

CATEGORY (CUNA NC438-029)	TOTAL WEIGHT OF TRAILER (R)	MAXIMUM STATIC VERTICAL LOAD (S)	MARKING
E1	3 t	250 daN	3t V0,25
E	6 t	0	6t V0
E2	6 t	500 daN	6t V0,5
E3	6 t	1500 daN	6t V1,5
F	12 t	0	12t V0
F2	14 t	2000 daN	14t V2
F1	20 t	0	20t V0
F3	20 t	2500 daN	20t V2,5

SAFETY REGULATIONS

- a) Use of the device is only permitted for towing agricultural trailers with maximum weight and vertical load below or equal to those stated in the marking;
- b) tampering with, dismantling or reassembling the device’s components is forbidden;
- c) use of the device by anyone who has not read the contents of this manual, is not properly trained and skilled or not in good health is forbidden;
- d) wear the personal protection equipment specified for the working environment at all times;
- e) **TOWING EYE FOR WELDED INSTALLATION:** fix the device by means of MAG electric arc welding with cross-section of at least **a6 x 120 mm** (UNI EN 22553 standard) as shown in the diagram on the right. Welds must be made by staff qualified by an organisation accredited by a Welding Institute, who must prepare the welding edges in accordance with the UNI EN 10001 standard and follow the correct criteria with regards to preheating temperature, wire material and the subsequent distressing as appropriate to the materials to be joined together;
- f) **FLANGED TOWING EYE:** fix the device to the trailer drawbar using bolts of suitable strenght and resistance class, tightening them to the torque stated in the table below:



BOLT TYPE	HOLE IN FLANGE	RESISTANCE CLASS	TORQUE (Nm)
M16	Ø 17 mm	12.9	340
M20	Ø 21 mm	12.9	670
M22	Ø 23 mm	12.9	900
LOCKING SYSTEMS MUST ALWAYS BE USED (GROWER WASHERS / LOCKNUTS)			

- g) the device must only be used by the procedures and for the purposes stated by the manual;
- h) the standards applied for the construction of the towing eye specify that the maximum dip which can be traversed must be such that the angle between the tractor and trailer does not exceed $\pm 20^\circ$ with maximum steering angle of $\pm 60^\circ$ (see diagrams right and below). Exceeding this limit may cause the failure of the device and serious injury to the driver and damage to the vehicle: **therefore the stated limits apply at all times, even in the absence of specific applicable regulations.**

