

INSTALLATION INSTRUCTIONS

INTERCHANGEABLE KING PIN 2"

TYPE: IOP - 90.17

GENERAL INSTRUCTIONS

- 1.- All the King Pins are built in forging steel 42 Cr Mo4 controled for 950 (±50) N/mm².
- 2.- The permissible loads (D = 180 kN) for the King Pin, have been calculated for D-value according to the following formula:

$$D = g * \frac{0.6 * T * R}{T + R - U} = \text{value in kN}$$

T = Permissible maximum mass of tractor (in tonnes)
R = Permissible maximum mass of semi-trailer (in tonnes)
U = Fifth wheel imposed vertical load (in tonnes)
g = 9.81 (m/s²)

- 3.- All the King Pins must be marked as follows:

- manufacturer mark
- type-approval certificate number
- version
- class of the type of coupling
- D-value
- batch or manufacturing date.

- 4.- The mounting plates dimensions, will be according to the standards, with a tolerance H9/d8 in the adjusting area of the biggest diameter of the King Pin.
- 5.- To satisfy interchangeability criteria, the King Pins must be mounted only in mounting plates type "skid plate" with mentioned adjustments and must ensure the heights shown in attached diagram according to Regulation 55.01 ECE (ISO337).

This operation will be made using different combinations of A thickness of the anti-wearing plates, also mentioned in attached diagram of this mounting instructions.

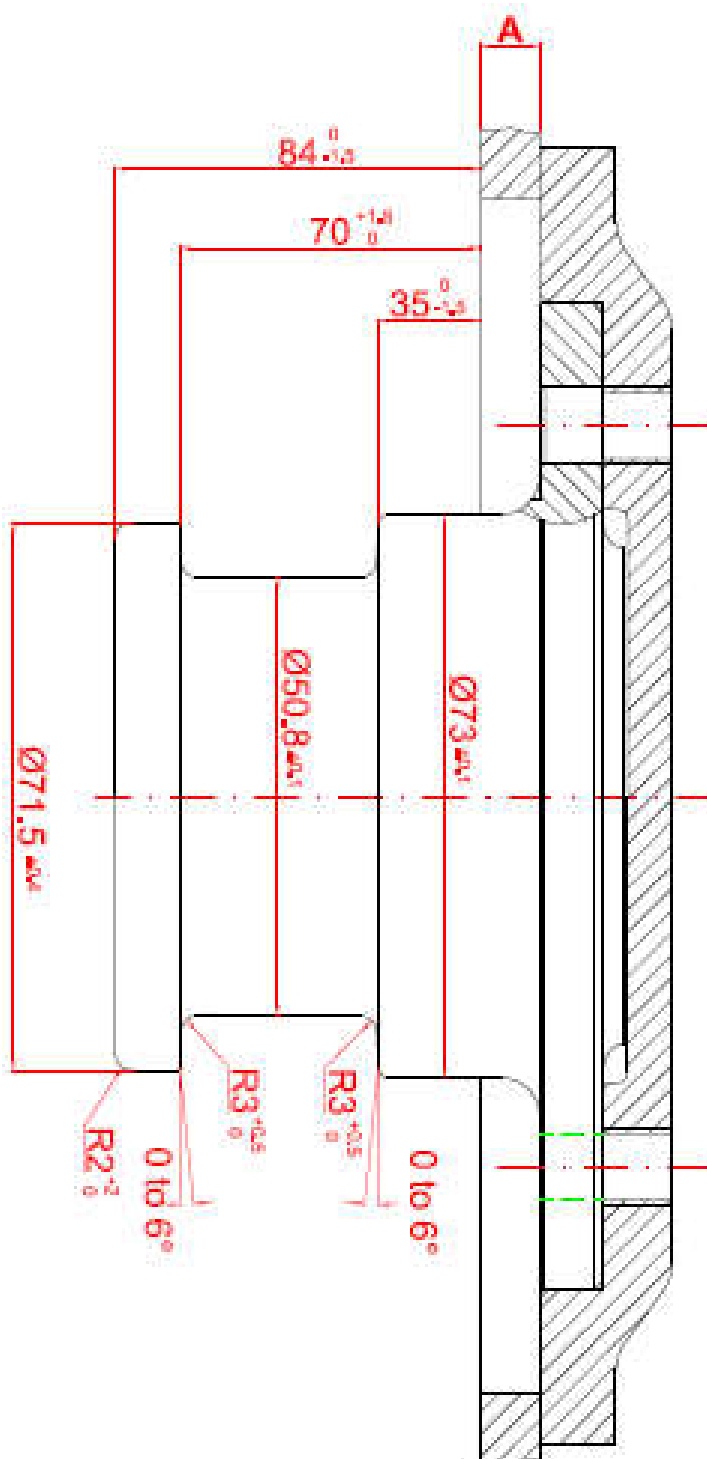
MOUNTING INSTRUCTIONS

- The plastic protection of the King Pin, mustn't be removed until the mounting moment, to avoid marks of possible blows.
- The mounting plate dimensions, will be according to the standards, with a tolerance H9/d8 in the adjusting area of the biggest diameter of the King Pin.
- To satisfy interchangeability criteria, the King Pins must be mounted only in mounting plate type "skid plate" with mentioned adjustments and must ensure the heights shown in attached diagram according to Regulation 55.01 ECE (ISO337).

This operation will be made using different combinations of A thickness of the anti-wearing plates, also mentioned in attached diagram of this mounting instructions.

- The mounting plates and devices for the mounting, must be carefully cleaned of elements which could damage a good adaptation of the King Pin, as well as in appropriate technical conditions of welding, mounting holes, etc...
- The King Pin must be assembled and disassembled by the lower part, without access to the upper part or skid plate.
- During the mounting a perfect alignment of the King Pins must be got, in their horizontal axes (mounting plate) and vertical (mounting axle) before having the definitive torque.
- The bolts for the coupling of the King Pin, will be minimum quality 12.9 and the standardized and recommended torques must be respected according to the type and dimensions of the bolts.
- The installation must be made by competent personnel. It is recommended to press the bolts in cross form.
- It is recommended, after the mounting of the King pin, lubricate it with high pressure grease. In addition, this grease, avoid the rust when the vehicle is uncoupled.
- It is recommended to make periodical checking, in each uncoupling of the vehicle, to verify the correct superficial condition, re-press of the bolts, blows or any significant detail, to assure the perfect using.
- In addition, it is necessary to follow the installation and operating instructions dispensed by the vehicle builder.

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A Thickness for plate	Dimensions	Attachment
5 mm, 7 mm, 8 mm, 10 mm, 12 mm, 16 mm.	According to standards DIN 74083 ISO 4086	8 Security bolts M14x35 Quality 12.9