

CROSS BAR FOR COIL LIFTING

PROJECT NO.: 1207017

CLIENT: ALSTOM

OPERATIONS AND MAINTENANCE MANUAL

Read these operating instructions carefully prior to installation and start-up of the operation.

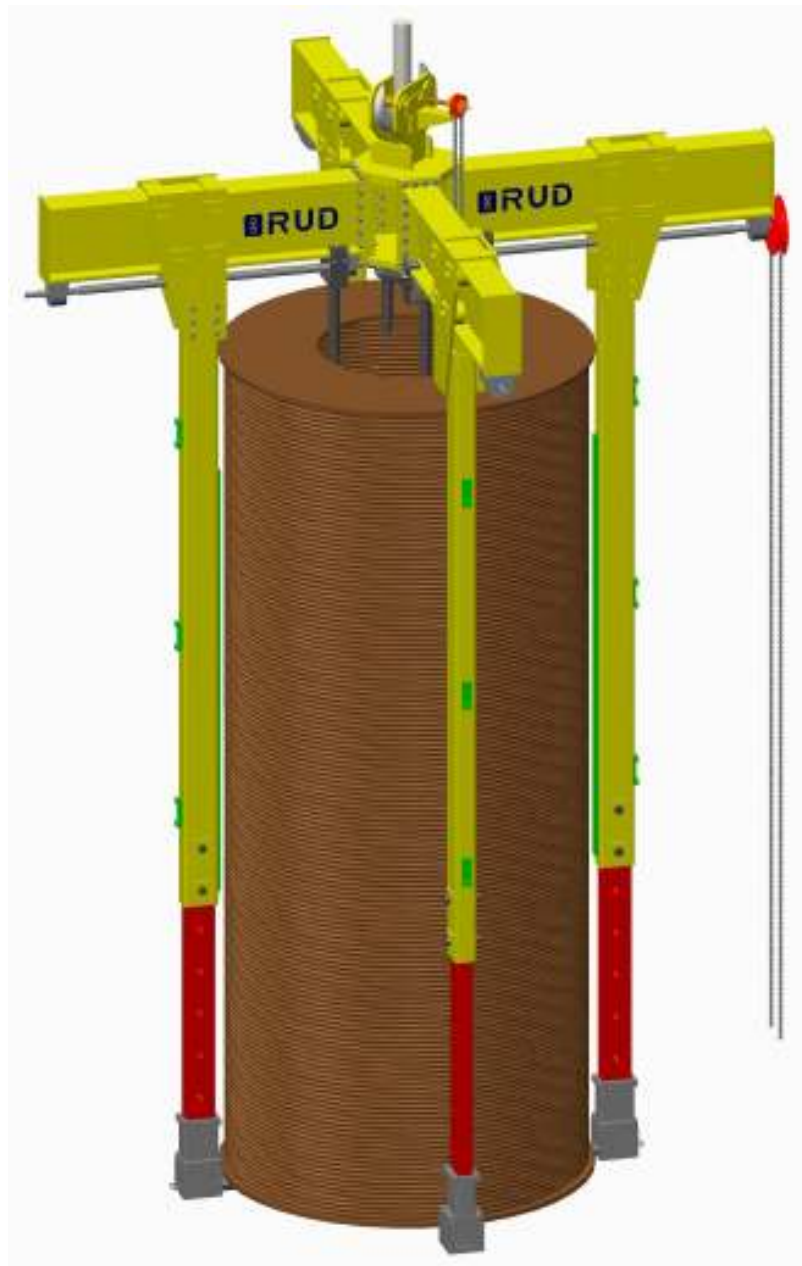


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DESCRIPTION

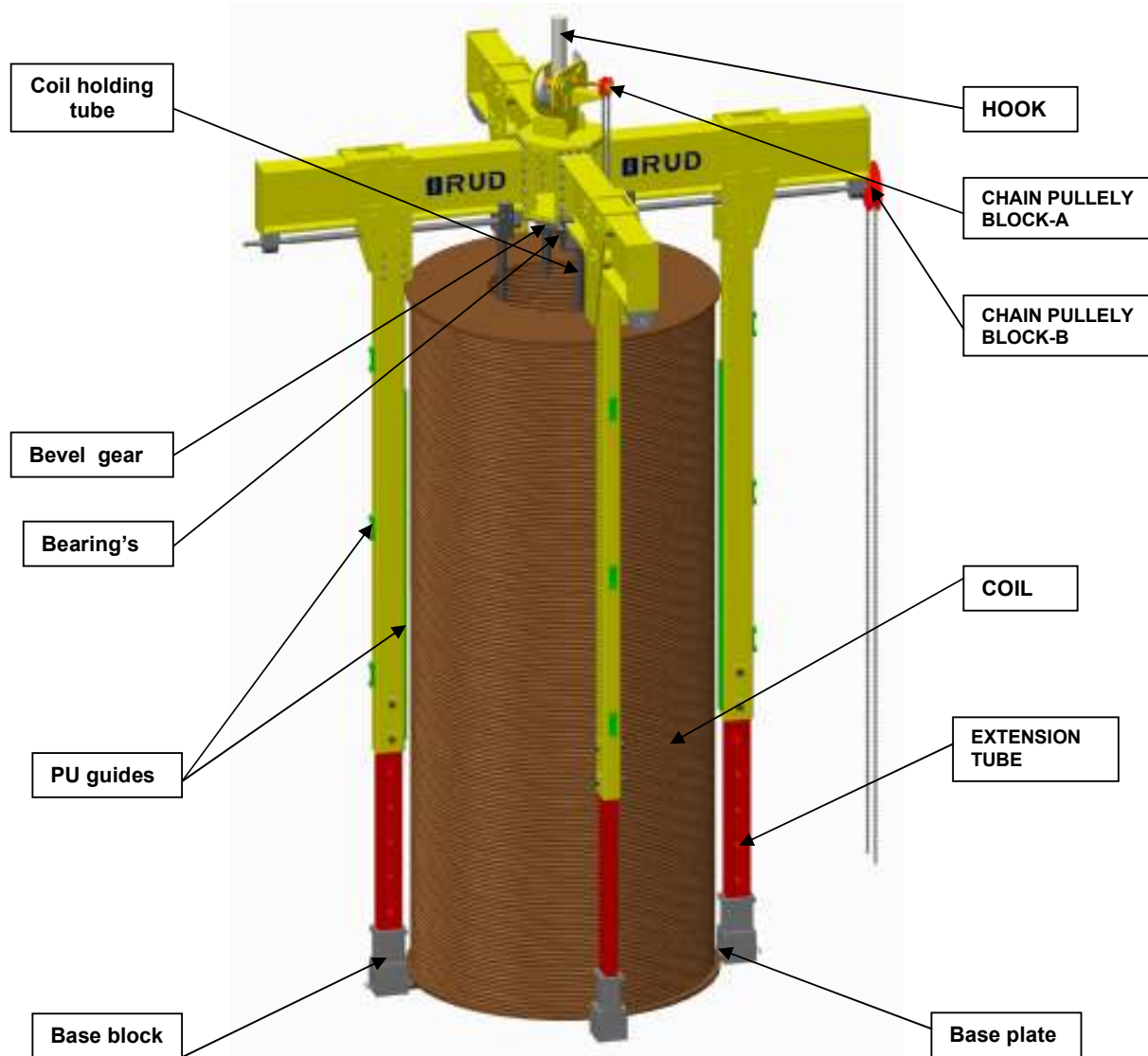
This device has been designed for lifting coils of generator. This device is capable of lifting coil weighing approx. 40 ton.



DATA SHEET

Title	Specification
Lifting object	Coil
Load capacity	40 Ton
Project no.	1207017
Year of manufacturing	3 / 2013
Self weight	Approx.- 5000Kg
Max. Height of device	6019mm
Min. Height of device	4769mm
Min. diameter of lifting object	Ø1000mm
Max. diameter of lifting object	Ø3200mm
Overall dimension of device	Approx. H max-6019mm, W max-4400mm.
Max. width of jaw	Approx.- 3200mm
Colour:	Structure Yellow (RAL1004)

PARTS OVERVIEW

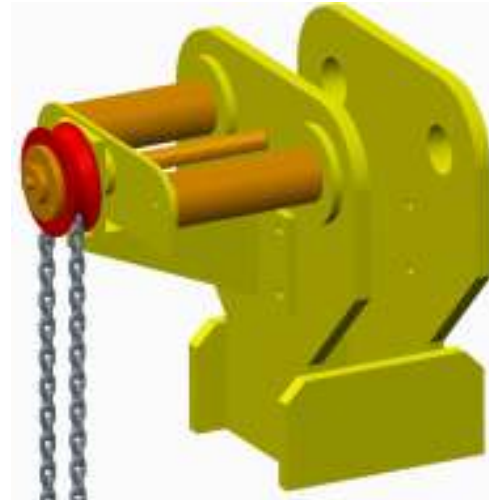
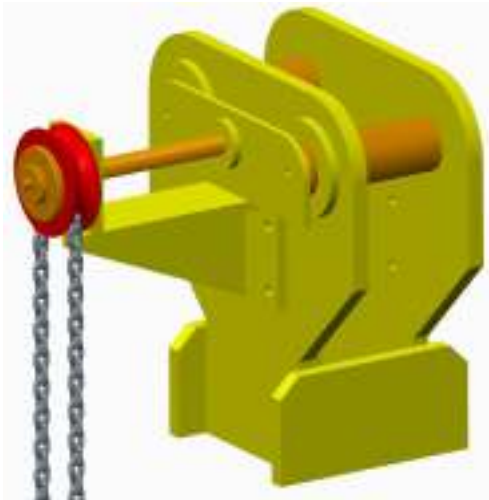


OPERATING INSTRUCTION (please go as per numerical order)

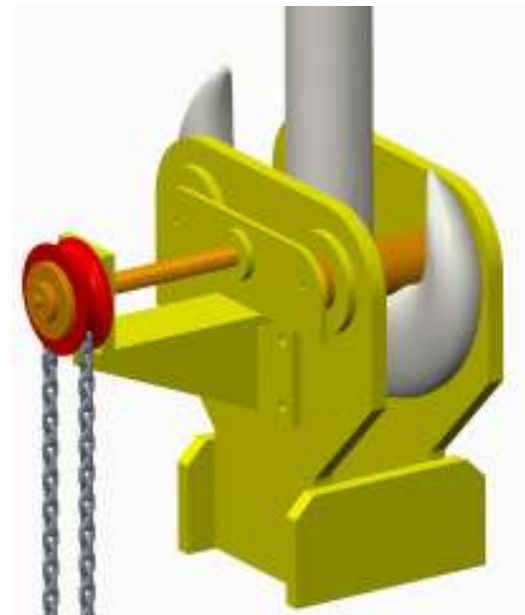
1) Read the whole operating instruction before starting the lifting device

2) Engaging the eye hook :

- i) Pull the chain pulley block-A of the lifting eye in order to pull backward the pins of the lifting eye.



- ii) Lower the hook and again pull the chain pulley block-A in reverse direction to engage and lock the hook.

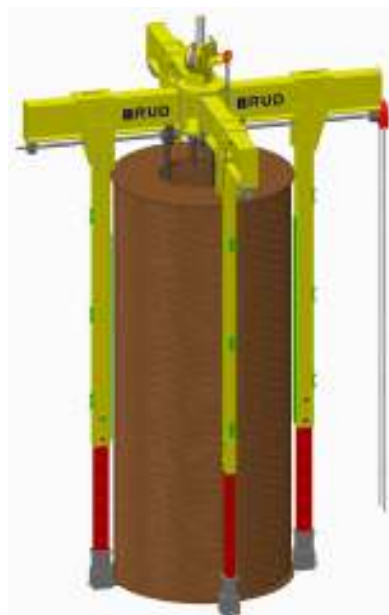


3) Engaging the coil:

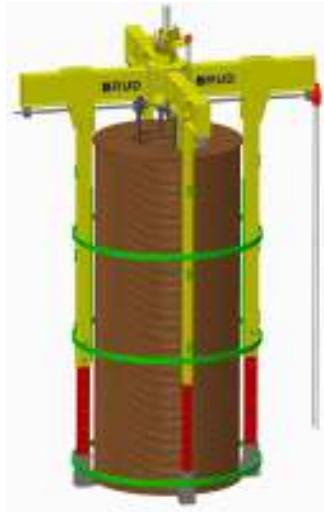
- i) Pull the chain pulley block-B of the device in order to lose the arms.
- ii) Lift the device and place it above the coil kindly note that the coil is at the exact centre of the device.



- iii) Continue to pull the chain pulley block-B until all the four arms touches the outer diameter of the coil.



- iv) Once the coil engages in the jaws of the device, proceed safety guideline -3 and move it to the preferred location.
- v) Place the coil on flat ground.



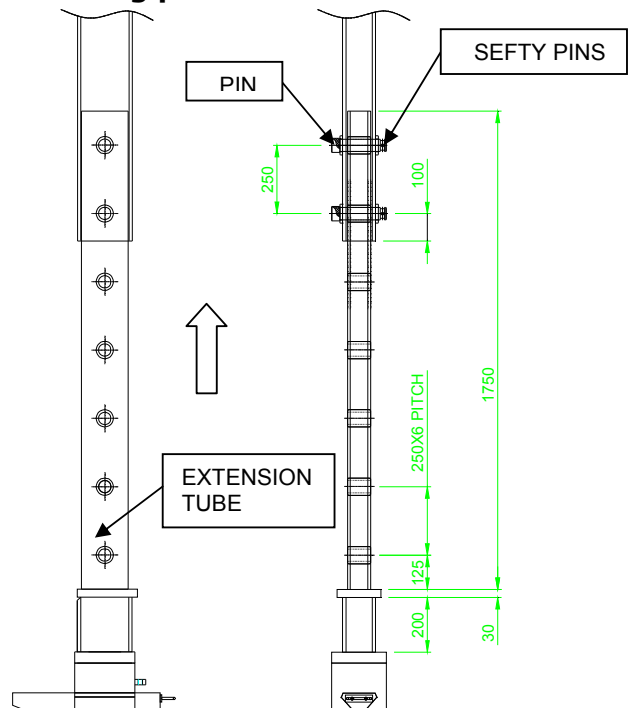
4) Movement and placement of the coil:

- i) Unwind the safety web sling and release the arm by pulling the chain pulley block-b in reverse direction.
- ii) Lift the device and move it to by stand location. Place the device on flat ground with the jaws of the arms opened till max width in order to avoid toggling of device.

NOTE: Depending on the height of the coil kindly adjust the extension tube height using safety pin arrangement on holding points.

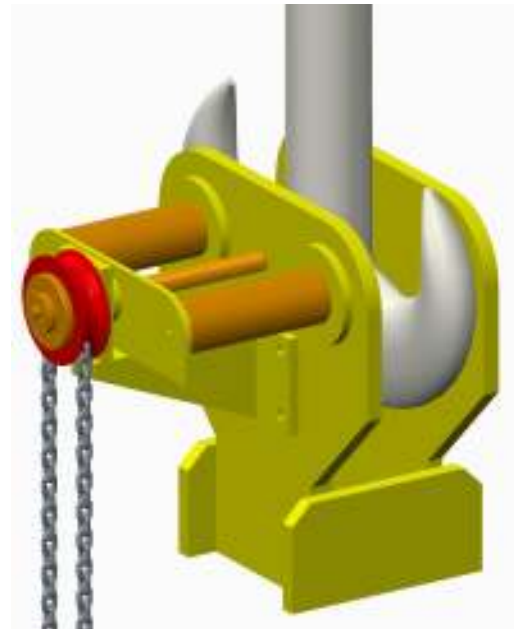
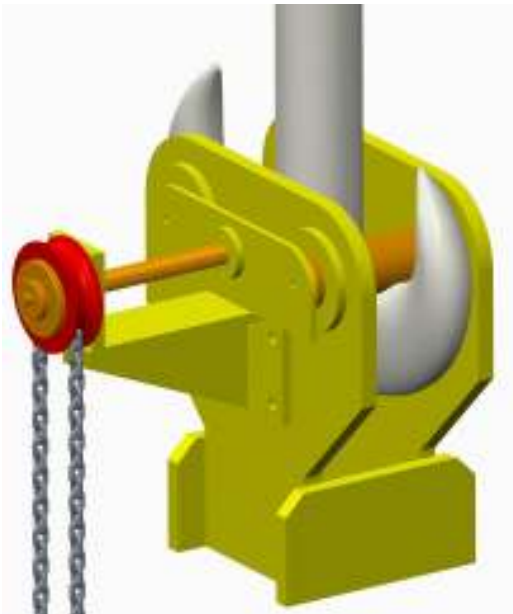


3d view of extension tube

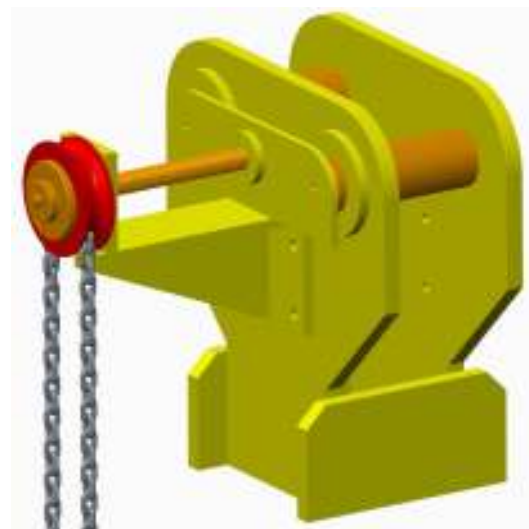


5) Disengaging the eye hook:

- i) First move the device to the by stand location.
- ii) Pull the chain pulley block of the lifting eye in order to pull backward the pins of the lifting eye.



- iii) Raise the hook and again pull the chain pulley block in reversed direction and lock the pins in lifting eye.



Safety precautions and guide lines

- 1) While locking the hook with the lifting eye reconfirm whether it is fully engaged and then proceed with lifting procedure
- 2) During the lifting of coil take measures to keep safe distance from the device.
- 3) When the arms of the device touch the outer diameter of the coil, tighten the arms using web slings using the PU guides in order to avoid slippages.
- 4) Before starting the lifting operation, reconfirm the all pins along with their safety pins are in place properly.
- 5) Idle condition, the device arms should be fully opened, this will increase the stability of the device.
- 6) Proceed with maintenance procedure at regular intervals

Maintenance instructions

Component	Period	Maintenance
CHAIN PULLEY BLOCK	ANNUALLY	Check functioning.
Welding seams	Annually	Welding inspection.
All bearings & screws	Every 3 months	Regrease with MoS ₂ long term grease if required.
Bevel gear	Every 3 months	Regrease with MoS ₂ long term grease if required. Check functioning.
Extension tubes & Holding tubes	Every 6 months	Anti-rusting
PU guides	Physical apperance	Change when wear out
Tightning of all bolts	Every week	Has to be be check manually.
Rollers	Every month	Regrease with MoS ₂ long term grease if required. Check functioning.

Declaration of manufacturers

RUD India Chain Pvt. Ltd.
Thane, Maharashtra

Confirms herewith that the product named hereafter was designed and manufactured with the latest known principles of technology,
The load capacity of this product is 40 ton.

Cross bar for coil lifting is equipped with a lifting process of heavy coil for one place to another.

Product:	<u>Cross bar for coil lifting</u>
Year of construction:	3/2013
Load capacity:	40 Ton
Object:	coil
No. of pcs:	1

The constructional steel used are composed of S355J2G3 and IS2062.
All welding work was carried out by qualified welders.

Note: For any alteration in the product, please consult the manufacturer.

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Authorised signatory
Date: