

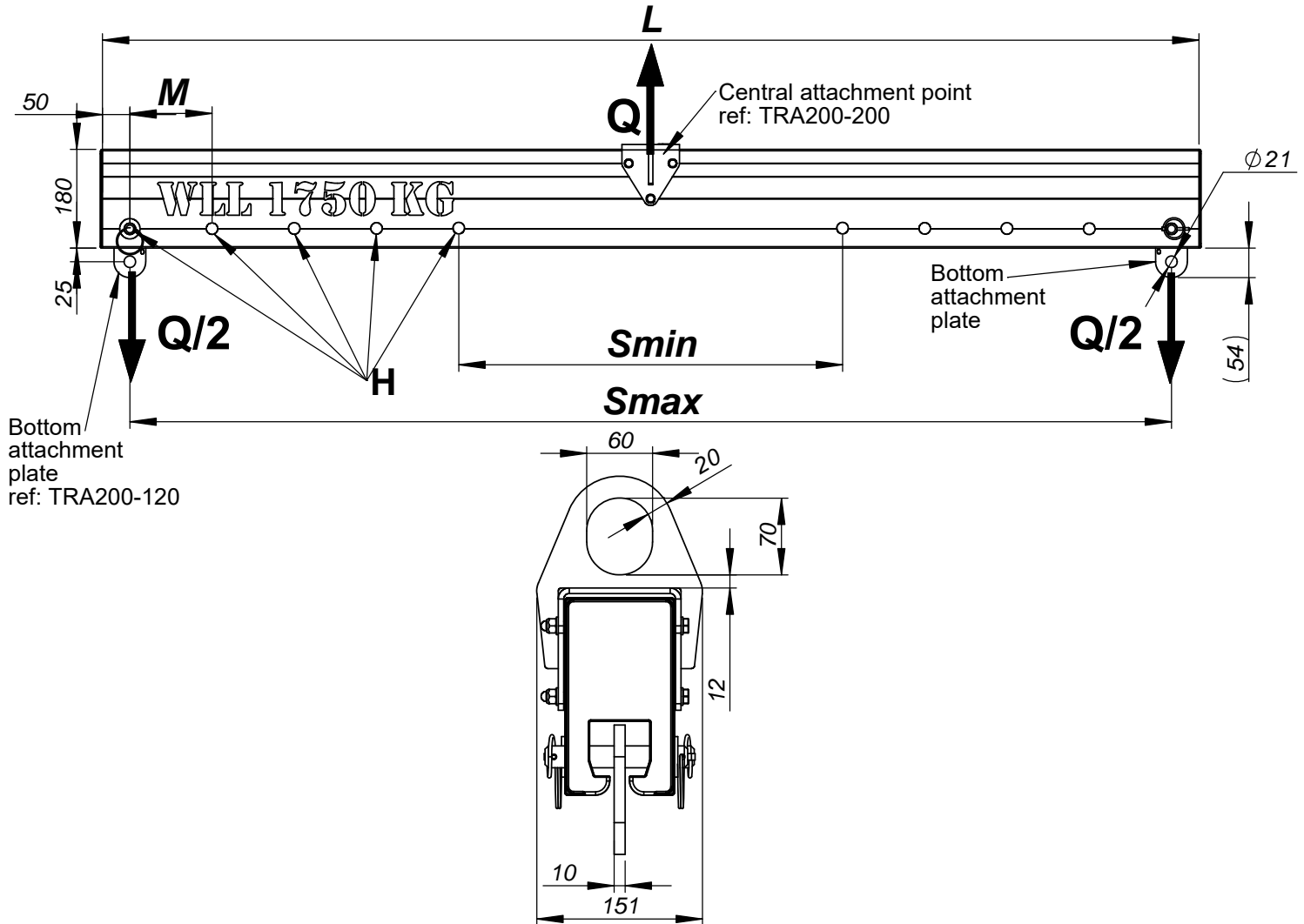
Reference number:

**TRAxXX-Hy-zzzz-wwww**

READ CAREFULLY BEFORE USE THE EQUIPMENT

**DESCRIPTION**

TRA series straight lifting beam is a lifting device designed to perform manipulation of the suspended long load with maximum weight "Q" [kg]. Maximum length of the beam is marked as "L" [m]. Lifting beam span "S" [m] can be changed between "Smax" and "Smin" with "M" [mm] increment of "H" [pcs] holes. Hooks and shackles are sold separately. TRA device consist of beam (made of anodized aluminium alloy), central attachment point (made of powder painted steel) and two bottom attachment plates for shackles and hooks connection (pins made of galvanized steel, plates made of powder painted aluminium alloy).



**REFERENCE NUMBER**

**TRA 200 - H5 - 150 - 1750**

Lifting beam type:  
TRA - Straight Lifting Beam

"L" Overall beam length [cm]  
MIN 050 - 0.5m  
100 - 1m  
150 - 1.5m  
...  
200 - 2m  
375 - 3.75m  
MAX500 - 5m  
INCREMENT: 0,05m

"M" Adjustable hole distance [mm]  
min 100mm  
INCREMENT: 50mm  
the same dimension for all holes

"H" Number of adjustable holes (one side of the beam)  
H5 - 5 holes one side

"Q" WLL (Working Load Limit) [kg]  
up to 1m - 2000kg  
up to 2m - 1750kg  
up to 2,5m - 1500kg  
up to 3m - 1250kg  
up to 4m - 750kg  
up to 5m - 500kg

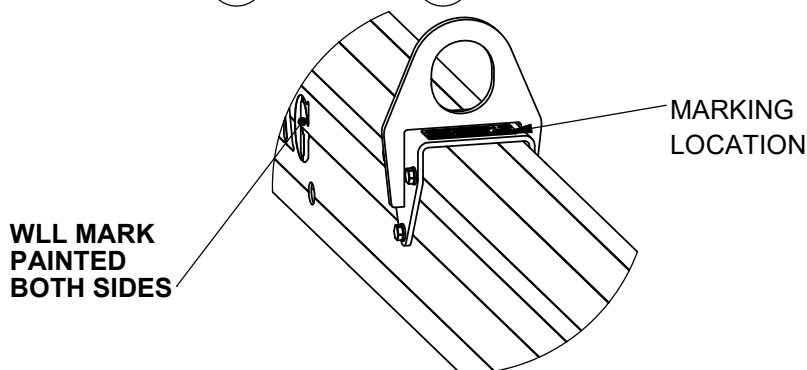
- WLL of the beam cannot be changed (up to 1m WLL=2000kg, up to 2m WLL=1750, etc.)
- "L" Beam length increment: 0,05m (min length 0,5m / max length 5,0m).
- "M" Adjustable hole spacing increment 50mm (min length 100mm).
- $S_{max}$  [m] =  $L$  [m] - 0,1m
- When number of holes "H"=1 then "Smax" = "Smin" ("M" parameter is not applicable).





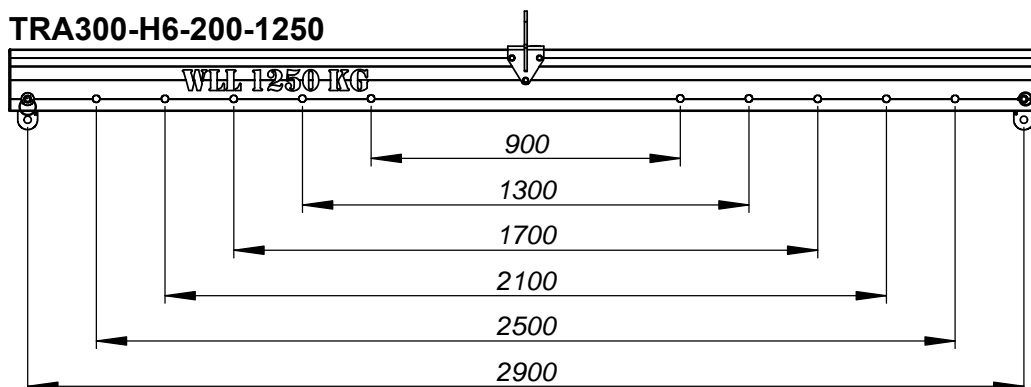
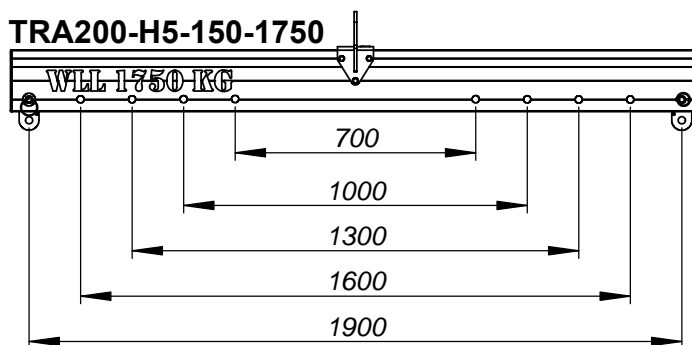
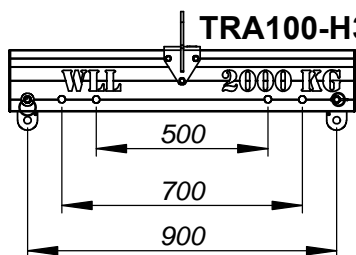
**IDENTITY LABEL CONTENT**

- a) device type
- b) model symbol
- c) Reference number
- d) Month and year of manufacture
- e) Serial number
- f) Caution - read the manual
- g) Marking of the manufacturer or distributor.
- h) Working Load Limit and beam length.
- i) CE mark.



**PARAMETERS FOR FULL-METER BEAMS**

FULL BEAM LENGTH	BEAM SPAN RANGE	WORKING LOAD LIMIT (WLL)	HOLE SPACING IN ADJUSTABLE BEAM	NUMBER OF ADJUSTABLE HOLES (ONE SIDE)	BEAM WEIGHT (without hooks and shackles)
L [m]	S [m]	Q [kg]	M [mm]	H [pcs]	[kg]
1m	0,9 / 0,7 / 0,5m	2000kg	100mm	3 pcs.	9,5kg
2m	1,9 / 1,6 / 1,3 / 1 / 0,7 m	1750kg	150mm	5 pcs.	16kg
3m	2,9 / 2,5 / 2,1 / 1,7 / 1,3 / 0,9 m	1250kg	200mm	6 pcs.	22,6kg
4m	3,9 / 3,4 / 2,9 / 2,4 / 1,9 / 1,4 / 0,9 m	750kg	250mm	7 pcs.	29,1kg
5m	4,9 / 4,3 / 3,7 / 3,1 / 2,5 / 1,9 / 1,3 m	500kg	300mm	7 pcs.	35,7kg



## **INSPECTION**

- Before first use examine all components of the device, in order to exclude damage caused by improper handling or storage.
- Before each use of the beam, carry out thorough inspection to check the beam condition and proper operation. Carefully check all elements of the beam, paying particular attention to any damage, wiping (loss 10% or more of the nominal value of part thickness), excessive wear, corrosion, abrasion, cuts and malfunction.
- Before each use check legibility of the marking.
- Inspect all additional connected parts (sling, shackles, hooks, etc.) to prevent accidental detachment of the load.

## **PERIODIC INSPECTION**

At least once a year, after 12 months of use the beam should be withdrawn from use for a detailed interim inspection. The inspection can be carried out by the person responsible in the workplace for the interim inspections of lifting equipment and trained for this purpose. Periodic inspections can also be carried out by the equipment manufacturer or a person or a company authorized by the manufacturer. When device is used in difficult working conditions mentioned period can be shortened.

## **WITHDRAWAL FROM USE**

The beam must be immediately withdrawn from use if there is any doubt about the condition of the device during inspection or its operation. The device may be readmitted for use only after a manufacturer's detailed inspection, and manufacturer's written consent for its use.

## **THE ESSENTIAL SAFETY RULES AND ESSENTIAL PRINCIPLES OF USE**

- Plan the lifting operation, establish the weight of the load and prepare the landing area ensuring that it will take the weight.
- Beam must be visually and mechanically inspected before use. Do not use beam if any defective material is detected.
- The operator must wear the obligatory security equipment during the whole operation (hard hat, safety shoes, safety gloves and hi-vis vest). If necessary use safety harnesses.
- Only qualified operators should use this device. The operator should be trained to use the device.
- In addition to this manual, follow the health and safety regulations in force during operation in the working area. Always use more restrictive rules and principles.
- Beam is used for lifting and lowering loads weighing up to WLL indicated on the beam.
- Never apply more force than the WLL marked on the beam.
- Do not overload beam with any dynamic action.
- The weight of the beam, together with attachments, must be added to the weight of the load when calculating the total load that will be imposed on the crane hook.
- Beam is not an emergency device for lifting people and it should not be used for this purpose.
- Do not use beam contrary to its intended use.
- Do not lift loads over an area occupied by people.
- Do not leave suspended load unattended.
- Do not change the beam design, repair or replaceable elements included in the kit.
- Any modifications / repairs should be made by qualified personnel.
- Before operation always check connection between all connected parts (shackles, slings, wires, hooks, etc).
- Check the stability of the load attached to the beam.
- The center of gravity of the load should be directly below the point of the hook device or exactly between the point of the hook.
- Maintain the horizontal of the suspension beam. Maximum inclination 6°.
- The use of the beam with other devices for lifting loads must be in accordance with the instruction for use of these devices.
- It is forbidden to use the kits in which the beam is included, in which the operation of any component disrupts the operation of other components.
- Avoid working where user may swing and hit an object or where lines may cross or tangle with that of another worker in the area.
- The auxiliary elements used with beam should be equipped with locking devices to avoid involuntary unlashng the load.
- Always pay attention to the position of the suspension beam.
- Watch carefully the suspension beam when elevated, both when loaded and when not.
- Avoid suddenly stops and jerks while using the beam.
- Always secure bottom attachment plate pins with cotter.
- Do not use the device in acidic and chemically aggressive environment.
- Use in temperature range from -20° to +100°.
- The beam should not be used in difficult weather conditions (ice, snow, fog, strong wind, storm).
- In case of any doubts as to the condition and usage of the beam, please contact the manufacturer of the device.

## **BEAM LOAD CARRYING CAPACITY (WLL)**

The load suspended under the beam should be always connected to two of the bottom attachment plates, which are connected to the beam with pins secured by cotter. Maximum operating load carrying capacity (WLL) is always indicated on the beam.

## **TRANSPORTATION**

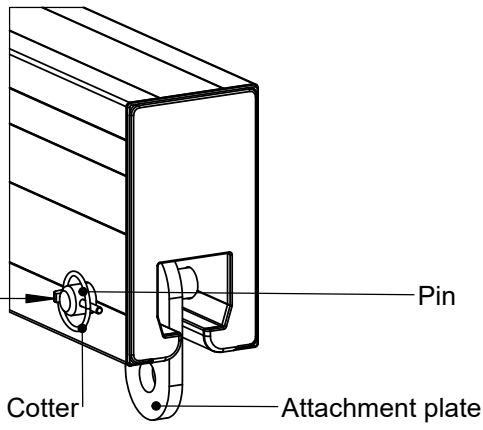
The beam should be transported in packaging protecting it from damage or getting wet, e.g. bags made of impregnated fabric or in steel / plastic / waterproof wooden cases or boxes.

## **MAINTENANCE AND STORAGE**

When using the beam, protect it against mechanical, chemical and thermal damage. Do not use a damaged or malfunctioning device. Clean a dirty device with a damp cloth. Store the beam indoors, away from moisture and sources of heat. Store the suspension beam in a horizontal position.

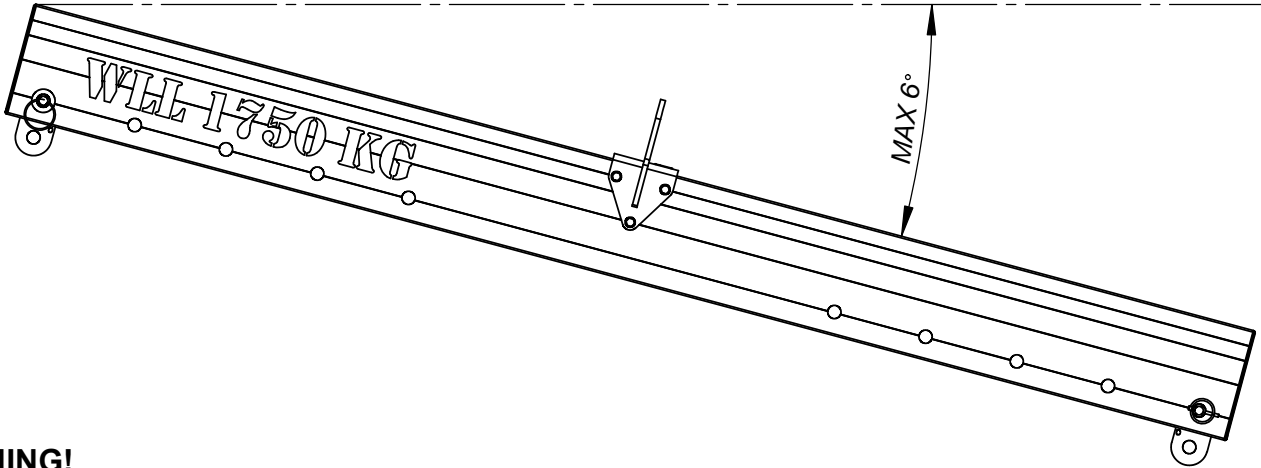
**WARNING!**

Always secure pin with cotter!



**WARNING!**

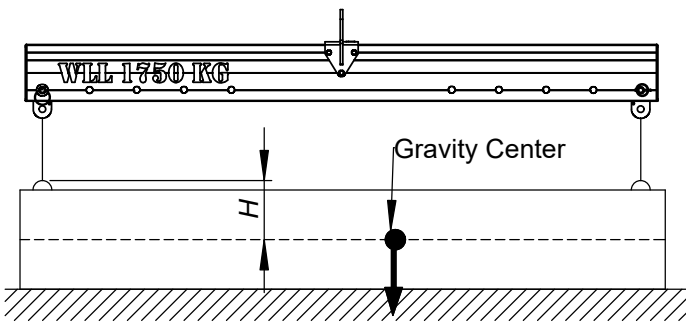
The beam cannot exceed 6° inclination with respect to the horizontal.



**WARNING!**

The center of gravity of the load should be directly below the point of the hook device or exactly between the points of the hook.

**CORRECT**



**WRONG**

