OX SPREADER BEAM V2
WITH
DOUBLE TRUNNION MULTI LUG
DTML

USE AND MAINTENANCE MANUAL

DOCUMENT	**USE AND MAINTENANCE MANUAL**
VERSION	0 – Initial version
DATE	10/04/2025
ISSUED BY	D.P.A.
VALIDATED	C.S.M.

TABLE OF CONTENTS

ANNEXES

TECHNICAL SPECIFICATION SHEET FOR ALL MODELS SUPPLIED

IMPORTANT INFORMATION

The aim of this manual is to provide the information necessary to use and maintain the device correctly and safely. **See definitions** (Page 4).

This Use and Maintenance Manual is part of the equipment supplied and must be kept in perfect conditions during the whole period of use of the equipment. It must be kept in an accessible and protected place, close to the place of use of the equipment, being always available for a possible consultation. In case of deterioration of the manual, the user must ask for a new one. The manufacturer will supply a new manual in the shortest period of time.

In case of sale or assignment to a third party, it is suggested that the user delivers this manual and communicates to the manufacturer the new owner's name.

This Use and Maintenance Manual is addressed and intended to production managers, maintenance staff, repair department, occupational safety technician workers and in general to all the operators who are going to manipulate the device. It is mandatory to read carefully this manual before using the device and match strictly all the described instructions. The information contained in this manual describes the correct and safe use of the device.

The manufacturer declines any responsibility for damages caused to people or other equipment in the following cases:

- Incorrect use or negligence.
- Use by staff not trained in the use of the equipment.
- All use contrary and in disagree to the current safety regulations.
- Shortcomings in the electric supply.
- Serious errors in the expected maintenance.
- Modifications not authorized in writing.
- Intervention of non-authorized staff.
- Use of replacement pieces and components that are not originals.
- Failure to comply totally or partially with the described instructions in this manual.
- Not performing the required maintenance operations following this manual and registering them in the "intervention sheet" attached.
- Events, natural disasters, exceptional occurrences and accidents not attributable to the normal operating of the machine.

Although the main features of the unit do not change in this manual, OX & RUD keeps the right to modify, without previous notice, the features of its components and spare parts that may improve its performance.

DEFINITIONS

MANUFACTURER:

Responsible for the design and construction of the device according to current regulations, as well as for certifying the characteristics of the device and determining the conditions of use expressed in this manual.

USER:

It is the organization that uses the equipment, whether owned, assigned or rented, and that is responsible for its correct use in accordance with what is specified in this manual, as well as the regulations in force in relation to risk prevention and safety in the work environment in the place and at the time in which they are carried out. To do this, it will designate a person in charge trained in that function.

RESPONSIBLE:

Designated by the user, he/she must ensure that this manual is available to the operators of the Spreader Beam and that they have read and fully followed the instructions in this manual. They must also facilitate training for the correct use of the equipment and carry out the training evaluation for each type of operation that will be carried out, both use, assembly, maintenance, repairs, etc.

OPERATOR:

Responsible for carrying out the assembly and use tasks of the device, as well as the maintenance, cleaning, repair, and transportation of the equipment. In order for them to be developed effectively and safely. His training will be evaluated by the Responsible Person designated by the User who will be ultimately responsible for any incident.

LIFTING CONFIGURATION (ASSEMBLY):

Set of parameters that determine the specific characteristics of a given lifting process. On the one hand, the maximum capacity is determined by the OX Spreader Beam model. On the other hand, there is a reduction in capacity depending on the length between the lower hooks, as well as the angle formed by the top slings. See **Product Technical Data Sheet** (Annex I).

GENERAL CONCEPTS OF LIFTING LOADS

In order to correctly lift loads using lifting elements such as lifting beams, spreader beams (and others), and complementary accessories, a series of basic concepts must be taken into consideration, which must be understood and respected in order to ensure that the lifting of loads is carried out safely.

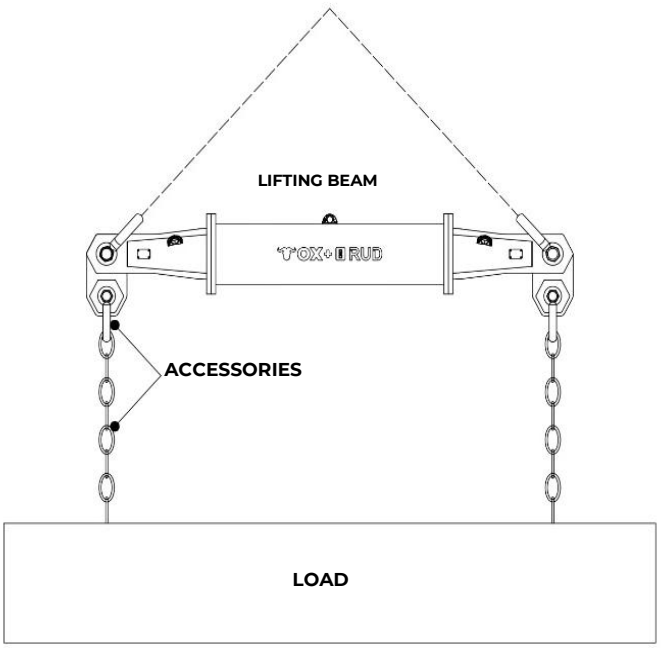
WORKING LOAD LIMIT (W.L.L.):

The W.L.L. (Working Load Limit) is the maximum working load for which the lifting beam is designed for normal use. Never exceed this limit.

WEIGHT OF LOAD TO BE LIFTED:

Before lifting a load, take into account not only the weight of the load, but also the weight of the accessories involved in lifting the load (lifting beam and accessories). And always consider the capacity of each part as independent, considering the load below each part. Example: on the image below, there are 2 top slings, they need to be calculated for all the items below them. The top shackles, same thing, all the items below + the load, need to be calculated.

Thus, for a lifting configuration using a lifting beam together with accessories, it must be observed that the maximum weight of the load to be lifted must always be less than or equal to the total capacity of the lifting beam (W.L.L.) minus the weight of the lifting beam and lifting accessories.



$$\text{Weight}_{\text{LOAD}} \leq (\text{WLL}_{\text{LIFTING BEAM}} - \text{Weight}_{\text{LIFTING BEAM}} - \text{Weight}_{\text{ACCESSORIES}})$$

IMPORTANT NOTES

- NOTE 1: the load capacity of the lifting beam must be reduced by the tare weight of the complete lifting assembly, considering the weight of all the accessories, including the weight of the lifting beam itself.

- NOTE 2: the maximum weight of the load to be lifted by the lifting assembly must always be less than or equal to the W.L.L. of the lifting beam, deducting also the weight of the lifting beam itself and the weight of the lifting accessories.

- NOTE 3: There can be a reduction in the total capacity due to the own weight of the spreader and the rigging used during the lift (shackles, grommet slings, round sling, etc.), needs to be calculated by the customer for every different lifting configuration.

- NOTE 4: For all the accessories on top of a lifting beam, spreader beam... the maximum capacity of those accessories must be evaluated for each specific lifting configuration (since the longer the beam, the greater its weight).

GENERAL FEATURES

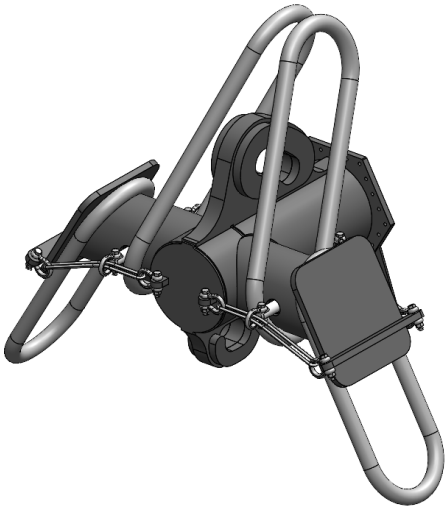
DESCRIPTION:

The DTML Trunnion End Unit is an end unit that can be assembled to the sections of the standard models of the OX-SB range, to form a modular spreader beam for lifting loads from the Spreader Beam OX & RUD modular spreader range. It can lift different length configurations and angles of the top branches. Never exceed the maximum load or use in an unintended lifting configuration. **See Product Data Sheet** (Annex I).

The spreader beam assembly is made up of different elements that can be assembled by means of bolts to form a specific length, finished at the ends by the OX-DTML Trunnion End Unit, and with the intermediate sections assembled in the central part.

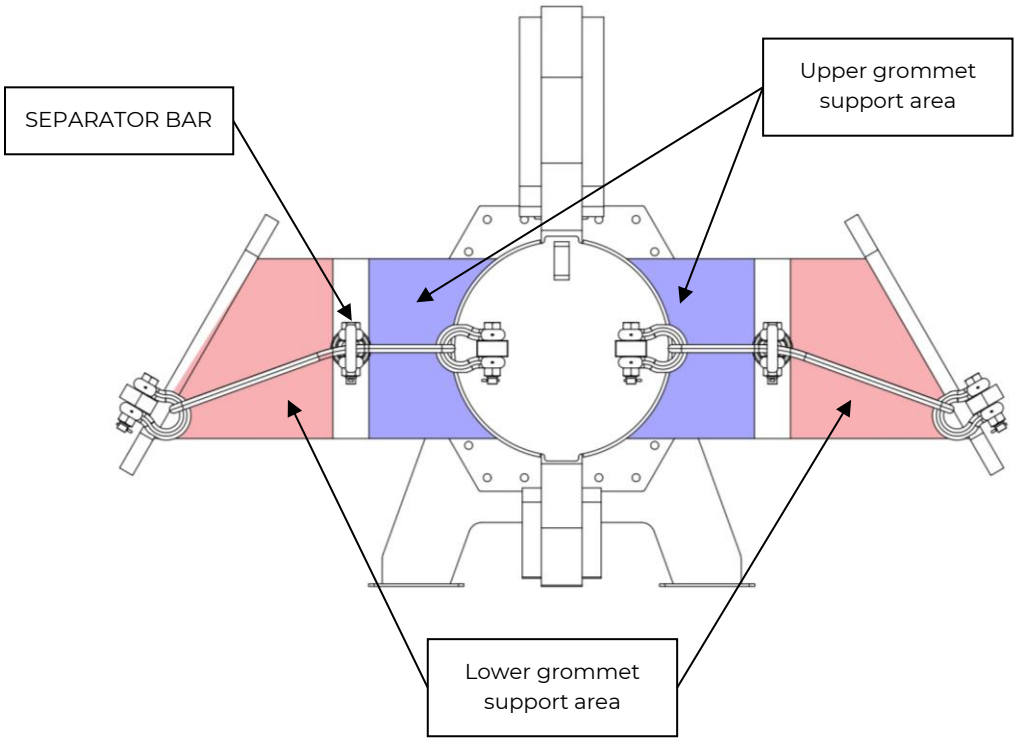
The Trunnion End Units DTML is a bi-modal attachment system, i.e., it can be used both with shackles and with lifting slings or grommets, both in the upper and in the lower attachment.

Lifting by means of Trunnion End Unit DTML can be carried out in the following ways:

SHACKLE AT THE TOP & AND SHACKLE AT THE BOTTOM	SHACKLE AT THE TOP & AND GROMMETS AT THE BOTTOM
	
GROMMETS AT THE TOP & AND SHACKLE AT THE BOTTOM	**GROMMETS AT THE TOP & AND GROMMETS AT THE BOTTOM**
	

SPECIFIC DESCRIPTION:

The DTML Trunnion End Unit has a transversal TRUNNION TUBE where the grommets are placed to lift the assembly. On each side of the TRUNNION BAR, there is a SEPARATOR BAR that limits the working position of the grommets and separates the support areas of the upper grommet from the support area of the lower grommet. This prevents the slipping of the grommets and the overlapping of one over the other.

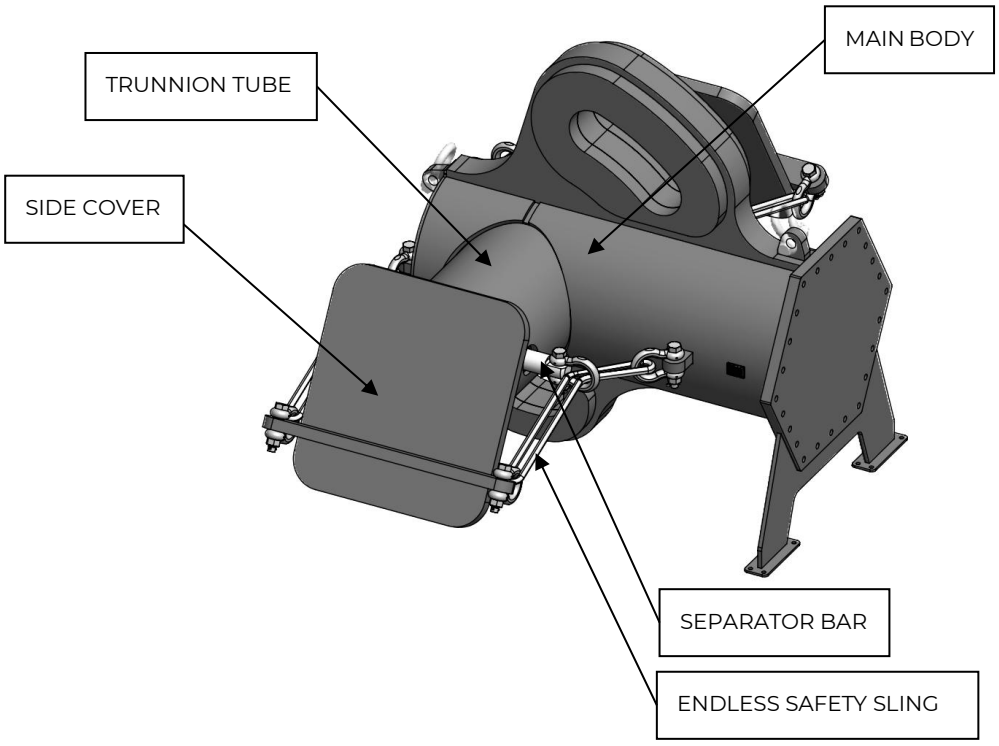


IMPORTANT NOTE: IF THE LIFTING PROCESS IS CARRIED OUT THROUGH THE USE OF GROMMETS, IT IS ESSENTIAL THAT, IN THE GROMMETS' PRE-TENSIONING PROCESS, THE GROMMETS MUST BE PLACED AGAINST THE STOP POSITION, WHETHER THAT STOP POSITION IS THE SEPARATOR BAR OR THE SIDE COVER OR THE CENTRAL BODY OF THE TRUNNION END UNIT DTML.

IMPORTANT NOTE: BEFORE LIFTING, A PRE-TENSIONING PROCESS MUST BE MADE (RAISING THE ASSEMBLY ONLY A FEW CENTIMETRES OFF THE GROUND) SO THAT THE ACCESSORIES CAN BE CORRECTLY ALIGNED BEFORE THE LOAD IS LIFTED.

In addition, an ENDLESS SAFETY SLING is incorporated (accessories supplied separately), attached to the SEPARATOR BAR, the MAIN BODY and the SIDE COVER by means of shackles (accessories supplied separately), on both sides of the TRUNNION TUBE, i.e. four equal sets of SAFETY SLINGS. This element prevents the grommet from accidentally slipping out of the TRUNNION TUBE, performing the function of a safety latch on a lifting hook.

IMPORTANT NOTE: ALWAYS USE THE SEPARATOR BAR TOGETHER WITH THE SHACKLES AND ENDLESS SAFETY SLING. ALWAYS MAKE SURE BEFORE EACH LIFT THAT THE SHACKLES OF THE SAFETY SYSTEM ARE CORRECTLY TIGHTENED AND THAT THE SAFETY SLINGS ARE CORRECTLY POSITIONED.



IMPORTANT NOTE: IT IS RECOMMENDED TO USE THE SAME TYPE OF MATERIAL FOR LIFTING GROMMETS AND ENDLESS SAFETY SLINGS. FOR EXAMPLE, IF THE LIFTING GROMMETS ARE MADE OF STEEL, THE SAFETY ENDLESS SLINGS ARE ALSO MADE OF STEEL. IF THE LIFTING GROMMETS ARE TEXTILE SLINGS, THE ENDLESS SAFETY SLINGS ARE ALSO TEXTILE.

MATERIAL & FINISHING:

The device is made of welded structural steel, sandblasted and painted according to ISO 12944 category C2 in grey RAL 9007.

IDENTIFICATION

Each of the individual elements that make up an OX spreader beam has an identification plate describing the Spreader Beam model, the Logo and the OX brand, as well as a characteristics plate specifying model, serial number, the working load limit*, tare and year of manufacture.

*The plate indicates **SEE MANUAL** in the W.L.L. section. (Working Load Limit) since the maximum capacity is restricted depending on the load configuration applied, that is, the maximum capacity of the Spreader varies depending on the length of the Spreader and the working angle of the slings. For more details see **Product Technical Data Sheet (Annex I).**

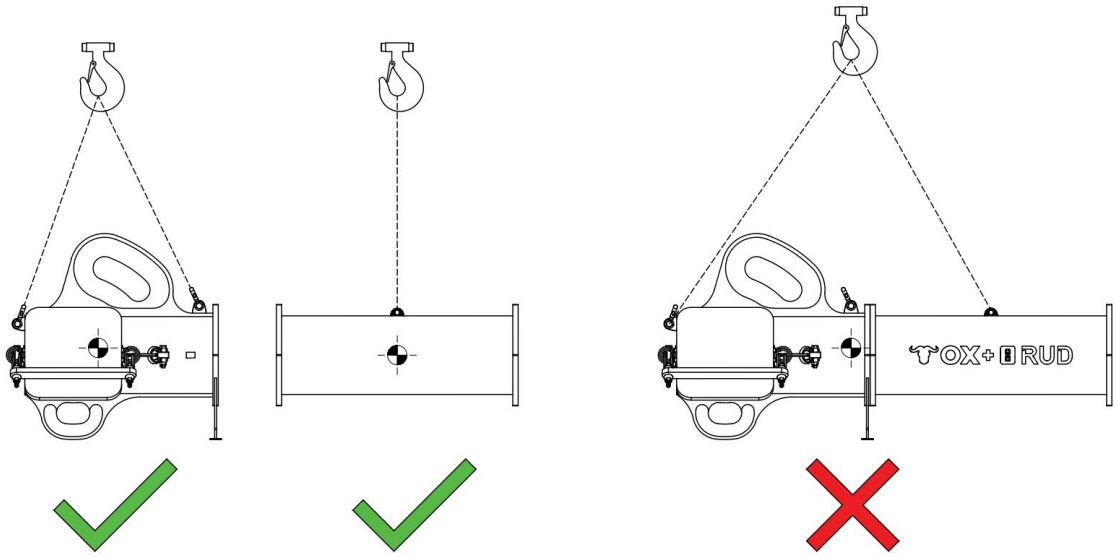
In addition, adhesive vinyl stickers (DTML Trunnion End Unit and Sections) (usually in black, other colours on request) identify the model, brand and OX-RUD logo, as well as CE marking.

TRANSPORTING AND STORAGE

When leaving the factory, the device is usually supplied disassembled (unless otherwise expressly indicated) in a stable position and duly packaged and protected in units that can be handled by crane and, preferably, it must be transported in vehicles or containers with removable roofs and unloaded by crane.

The Trunnion DTML End Unit has integrated support legs which are designed only to facilitate assembly, not to support the loads of lashing and transport. A specific transport cradle must be used to transport the Trunnion DTML End Unit.

NOTE: LIFTING POINTS ARE ONLY FOR HANDLING, NEVER FOR LOADING. THE ATTACHMENTS OF THE TRUNNIONS AND SECTIONS ARE FOR INDIVIDUAL HANDLING OF EACH OF THE PARTS, NEVER FOR LIFTING AS AN ASSEMBLED UNIT.



The DTML Trunnion End Unit and OX-SB Spreader Beams Sections must be lifted correctly in compliance with all safety regulations and in such a way that the centre of gravity of the DTML Trunnion End Unit is centred with the crane hook. In addition, the load must be completely horizontal: the maximum permissible angle of inclination is 6° to the horizontal after the load has been lifted. If the angle is greater than this, the lifting configuration must be changed.

SAFETY

The device has been designed to be used in safe conditions to prevent or minimize possible risks, through correct use and regular maintenance.

The device must be used and maintained only by qualified personnel by the Person Responsible designated by the company that uses the product.

The operating space around and especially under the device and the load to be handled must be free of obstacles and properly illuminated, as well as the entire perimeter of access to said area delimited for people.

If the safety conditions are not met, the operation must be interrupted immediately, the load safely placed on the ground as soon as possible and the pertinent corrections made, or the manoeuvre cancelled if it is not available.

Mandatory use of safety helmet.

Fall from a height of loose parts such as crane screws, accessories, tools or even the load itself or its packaging.

Mandatory use of safety footwear.

Entrapment of feet or falling loose parts.

Mandatory use of safety gloves.

Possibility of cuts or abrasions when handling parts and accessories

Obligation to read manual before handling equipment.

Possibility of putting oneself in danger due to lack of knowledge of the equipment.

Danger suspended load.

Never stand under the load or around the operation.

Danger of entrapment with mechanical elements.

Do not get between moving or adjustable elements.

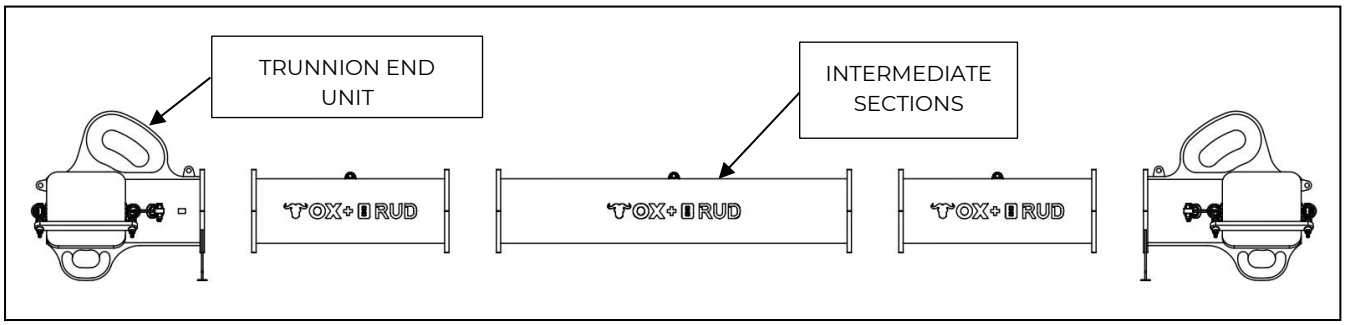
Crushing hazard.

Do not get between the load or tools and the floor, ceiling or sides.

Undetermined danger.

Pay special attention to the indications preceded by this symbol in this manual

ASSEMBLY



1) Determine that the required lifting configuration is compatible with the OX Spreader Beam model and determine the combination of elements necessary to make the composition.

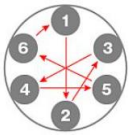
2) Validate the availability of the elements to form the necessary length.

The length of the Spreader must be such that the bottom slings do not deviate from the vertical by more than 6°. If necessary, the bottom accessories (slings) must be lengthened to meet this requirement.
The lengths of the top slings must be equal to or greater than the calculation length to guarantee the working angles.

3) Inspect each element separately: Welds, deformations, and general condition of the element.

4) Place the horizontal and aligned elements in the relative position that they will occupy in the configuration on the ground or on stands and join the elements with the appropriate screws, first with a small tightening and then applying the tightening torque applied in star mode.
IMPORTANT NOTE: The longest sections must be placed in the centre of the set.

Check the OX-SB Product Technical Sheet (Annex I) for the measurements, quality, tightening torque of the screws and the wrench necessary to carry out the procedure. Follow all instructions and recommendations specified in the document.
(Detail image of typical star tightening for 6 screws).



5) Assembly of top lifting accessories, the procedure depends on the configuration required for lifting by means of Trunnion End Unit:

a. SHACKLE AT THE TOP

i. Fit the top slings to the top shackles (those with the largest capacity).

ii. Place the top shackle (with the sling, grommet or chain mounted) by matching the pin's hole with the slotted hole in the DTML Trunnion End Unit and fit the threaded pin, nut and locking pin to prevent the nut from loosening.

iii. Repeat the above procedures for the other end of the assembly.

b. GROMMET AT THE TOP

i. Remove the Safety Slings from the Trunnion End Unit.

ii. Remove the Trunnion Separation Bars.

iii. Insert the upper grommets through the Trunnion Tube until they are positioned in the upper grommet support area.

iv. Re-insert the Separator Bars.

v. Repeat the above processes for the other end of the assembly.

6) Assembly of the lower lifting accessories, the procedure depends on the configuration required for lifting by means of Trunnion End Units:

a. SHACKLE AT THE BOTTOM

i. Fit the lower slings to the lower shackles (the ones with the lowest capacity).

ii. Place the bottom shackle (with the sling, grommet or chain mounted) by matching the pin's hole with the slotted hole in the DTML Trunnion End Unit and fit the threaded pin, nut and locking pin to prevent the nut from loosening.

iii. Repeat the above procedures for the other end of the assembly.

b. GROMMET AT THE BOTTOM

i. Remove the Safety Slings from the Trunnion End Unit.

ii. Insert the lower grommets through the Trunnion Tube until they are positioned in the lower grommet support area.

iii. Repeat the above processes for the other end of the assembly.

7) Place the free ends of the upper slings/grommets to the crane hook that will lift the assembly.

8) Place the free ends of the lower slings/grommets with the load to be lift.

VERY IMPORTANT: BEFORE STARTING THE LIFTING MANOEUVRE, IF SHACKLES ARE USED, MAKE SURE THAT THE SHACKLE PINS ARE CORRECTLY SECURED. WHEN USING GROMMETS ON THE TRUNNION TUBE, MAKE SURE THAT THE SAFETY SLINGS ARE CORRECTLY SECURED.

RESPONSIBLE STAFF

The device may only be used by qualified operators. Maintenance and responsibility must be entrusted only to qualified personnel or personnel with responsible functions.

The purchaser of the device is obliged to provide the training and information necessary for the correct use of the equipment to the personnel who are to be qualified to be in connection with the machine, either as users or involved in repair and maintenance operations, so that each person has read and fully understood the instructions in this manual.

USAGE

PREVIOUS TASK

Before performing any manoeuvre, the following must be checked

- The device: Following the checklist in the “Maintenance” section of this manual.
- The load to be handled: Check the good condition and correct dimensioning of the load attachment points, paying attention to the search for cracks, fissures, deformations, or damage. You should not lift or transport a load that does not have the appropriate attachment points provided and in good condition.
- Lifting accessories: Check all the accessories that will be involved in the manoeuvre (crane hook, slings, shackles, etc.) to verify that they are correctly sized and in proper condition for use.

CARGO HANDLING

TEMPERATURE:

The entire range of OX Spreader Beams can be used in the range of capacities determined in the **OX-SB Product Data Sheet (Annex I)** in a **temperature range between -20°C to 80°C**, since it has been sized and validated within this range.

Consult our sales team for use in an extended temperature range, both above and below. On express request we can issue a certificate for a different temperature range with the capacity adjusted to the new conditions.

ACCESSORIES:

The Spreader Beam assembly must be lifted with the lifting accessories (slings, grommets, chains, etc.) with the length determined by the chosen load configuration, with the accessories of the capacity and type that also adjust to the measurements, shapes and direction of work of the crane hook, whether single or double or other, always with safety latches, without twisting or bending of the accessories, nor overlapping of elements or tensions of any kind between them.

If this is not possible, they should consider the incorporation of an intermediate element or modify the coupling configuration or the type of accessory until these conditions are met, as well as other conditions indicated in the instructions of the manufacturers of such accessories or in the regulations applicable in each case.

Consult our sales team for the supply of accessories suitable for your specific needs.
You can also consult our sales team about the cost of advice and preparation of a personalized Rigging Plan.

GENERAL CONSIDERATIONS:

The load must be lifted correctly in compliance with all safety regulations and in such a way that the centre of gravity of the load is centred with the crane hook. In addition, the load must be completely horizontal. If this is not the case, the load must be repositioned.

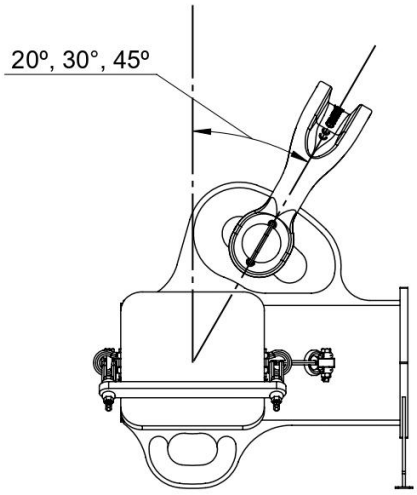
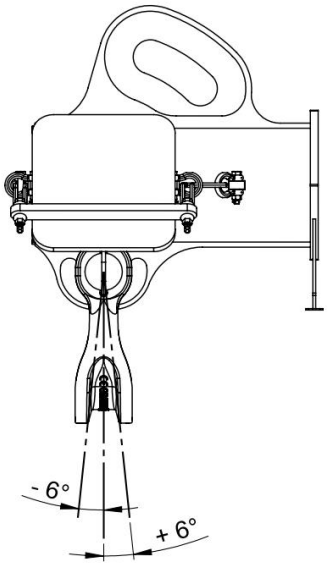
Under no circumstances should the equipment be used for lifting people, dragging loads, or transporting loads of greater tonnage than it is approved for.

IMPORTANT CONSIDERATIONS:

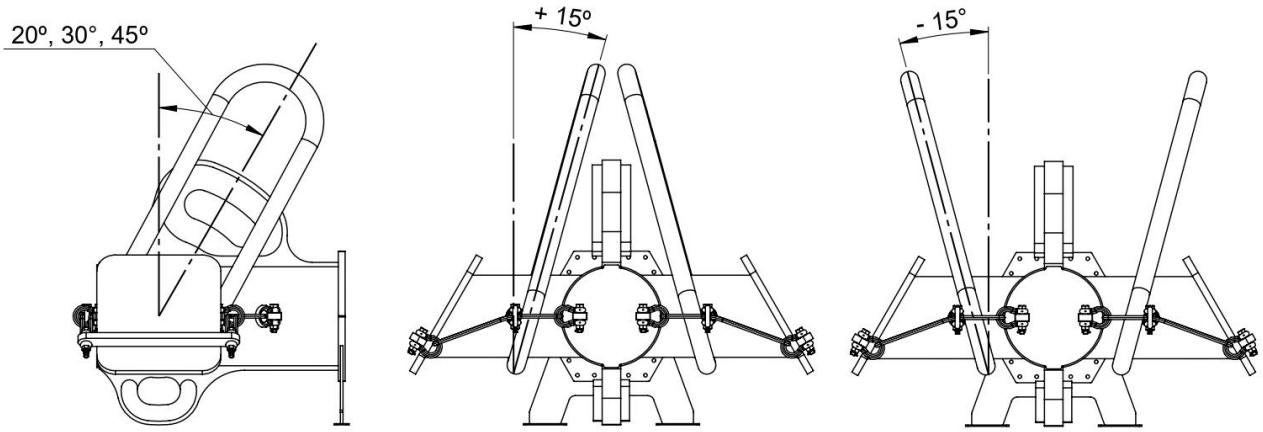
- Before lifting, a pre-tensioning (raising the assembly only a few centimetres off the ground) must be carried out so that the accessories are correctly aligned before the load is lifted.
- In the case of lifting using the top shackle, the slotted hole where the top shackle will be installed must be greased to allow the shackle to be positioned correctly in the pre-tensioning process.
- In the case of lifting using the bottom shackle, the slotted hole where the bottom shackle will be installed must be greased to allow the shackle to be positioned correctly in the pre-tensioning process.
- If steel lifting slings are used (for both upper and lower steel slings), the area of the grommet that will be in direct contact with the TRUNNION TUBE must be greased.
- When using textile lifting slings (for both upper and lower textile slings), the area of the TRUNNION TUBE that will be in direct contact with the textile sling must be cleaned to remove any grease and dirt that may be present.

LIFTING CONFIGURATION:

The maximum capacity of the Spreader Beam depends on the length of the assembly and the working angle of the slings, check the **OX-SB Product Technical Sheet (Annex I)** to verify the capacities of a specific model. The top slings can work from 0 to 45°. We provide formulas for determining the dimensions for typical configurations of 20°, 30° and 45° to the vertical. Under no circumstances is it permitted to work at an angle greater than 45° to the vertical.

SHACKLE AT THE TOP

If a shackle is used at the top of the OX-DTML, the upper sling-leg can work at an angle of 20°, 30° or 45°.
SHACKLE AT THE BOTTOM

If a shackle is used at the bottom of the OX-DTML, the lower sling-leg may not be offset by more than +/- 6° from the vertical.

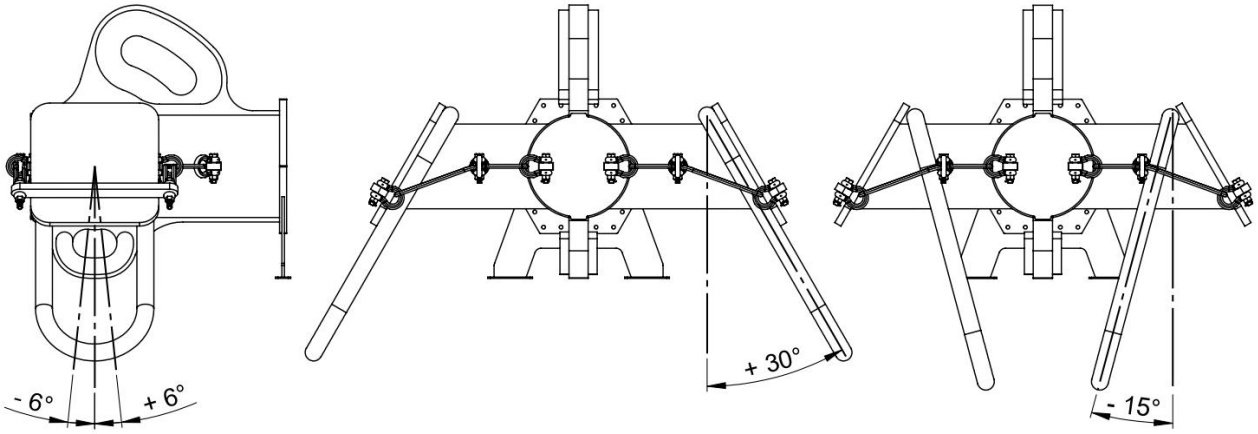
GROMMETS AT THE TOP



If the top grommet is used on the OX-DTML Trunnion Tube:

- In the longitudinal axis the grommet can work at an angle of 20°, 30° or 45°.
- In the transverse axis, the grommet may not be offset by more than +/- 15° from the vertical.

GROMMETS AT THE BOTTOM



If a bottom grommet is used on the OX-DTML Trunnion Tube:

- In the longitudinal axis, the grommet may not be offset by more than +/-6° from the vertical.
- In the transverse axis, the grommet may not be deviated by more than +30°/- 15° from the vertical.

IMPORTANT NOTES:

1. There is a table to determine the maximum capacity at a certain length and at a working angle of **20, 30 or 45°**. In no case is it allowed to work with angles greater than 45° with respect to the vertical.

2. The **bottom slings** may not deviate +/- 6° from the vertical or what is equivalent to 96°/84° with respect to the axis of the spreader.

3. The centre of mass or centre of gravity of the load must be aligned with respect to the crane hook, being able to lift loads horizontally.

4. In the case of handling loads with an offset centre of gravity, the **spreader is used asymmetrically**, i.e. the terminals on both sides receive different loads. In this case, the described working angles may not be exceeded, and the spreader may not be used with the maximum rated load. The load on the individual terminals must be calculated according to the lever law*: Length right side x Load right = Length left side x Load left*, whereby the total load is the sum of both sides. The result of the highest load must not exceed half the rated load of the model in any case, or the angle of the lifting configuration or even the section model must be changed.

5. It is very important to **maintain a clearance between the sling and the End Unit**, as well as to leave space between the modular lifting beam and the load, since under load they can suffer elastic deformation and reach and rub against each other, crush or even collapse.

TABLE - MAXIMUM AUTHORIZED LOAD, other loads and lengths check the data sheet of each model.

	Working Angle	Maximum Authorized Load	Spreader Beam Length	More information
OX-SB-250	20°	250,000 kg	24 m	See Product Sheet OX-SB-250 & OX-DTML-250
	30°	250,000 kg	20 m	
	45°	250,000 kg	15 m	
OX-SB-400	20°	400,000 kg	28 m	See Product Sheet OX-SB-400 & OX-DTML-400
	30°	400,000 kg	23 m	
	45°	400,000 kg	18 m	
OX-SB-600	20°	600,000 kg	26 m	See Product Sheet OX-SB-600 & OX-DTML-600
	30°	600,000 kg	21 m	
	45°	560,000 kg	17 m	
OX-SB-800	20°	800,000 kg	28 m	See Product Sheet OX-SB-800 & OX-DTML-800
	30°	800,000 kg	24 m	
	45°	700,000 kg	19 m	
OX-SB-1350	20°	1,350,000 kg	29 m	Product Sheet OX-SB-1350 & OX-DTML-1350
	30°	1,350,000 kg	23 m	
	45°	1,120,000 kg	18 m	

MAINTENANCE

Qualified personnel must check the condition of the components and bolted joints, as well as the lifting accessories. The inspection status of the crane must also be checked, as well as that the entire lifting procedure is carried out in accordance with the Health and Safety Protection Regulations in the place where the manoeuvre is to be performed.

	CHECKLIST	**Before each use**	**Monthly**	**Annual**	**Other**
CRANE	1.0. VALIDATE THE CAPACITY AND CONFIGURATION OF THE CRANE TO LIFT THE LOAD PLUS THE TARE OF THE LIFTING SET WITH THE REQUIRED RADIUS ACCORDING TO THE LIFTING PLAN.	X			
	1.1. TO VALIDATE THE INSPECTION STATUS OF THE CRANE IN GENERAL AND THE LOAD LIMITER IN PARTICULAR.			X	
	1.2. VISUALLY VALIDATE THE CONDITION OF THE CRANE HOOK, ITS SWIVELLING AND TILTING CAPACITY AND ITS SAFETY LATCH.	X			
SPREADER BEAM	2.0. VISUALLY CHECK THAT THE WELDED JOINTS ARE FREE OF CRACKS* AND THE ELEMENTS ARE FREE OF DEFORMATIONS.	X			
	2.1. CHECK THAT THE END UNITS AND DROP LINKS ARE FREE OF DEFORMATION* WITH BURRS, AND THAT THEY SWING FREELY WITHIN THE WORKING RANGE ONCE THE SHACKLES ARE ASSEMBLED.	X			
	2.2. EACH TIME A SECTION IS ASSEMBLED, CHECK THE TIGHTENING TORQUE OF ALL BOLTS AS THEY ARE ASSEMBLED, WE RECOMMEND A TORQUE WRENCH TRIP, CALIBRATE IT TO THE REQUIRED TORQUE AND THE TRIP CHECKS THE TORQUE.				EVERY TIME AN ELEMENT IS MOUNTED
	2.3. IF IT IS STORED ASSEMBLED. AT EACH OPERATION CHECK THE TIGHTENING TORQUE WITH A TORQUE WRENCH OF A DIFFERENT BOLT IN EACH SECTION, IF ANY OF THEM IS FOUND TO BE LOOSE, CHECK ALL OF THEM.	X			
ACCESSORIES	4.0. CHECK THAT THE SHACKLES ARE OF THE SIZE INDICATED IN THE COMPATIBILITY TABLE ACCORDING TO MODEL AND ARE WITHIN THE REQUIRED CAPACITY IN THE CASE OF USING A DIMENSIONALLY COMPATIBLE MODEL, BUT OF DIFFERENT CAPACITY.	X			
	4.1. CHECK THAT THE CAPACITY AND LENGTHS OF THE LIFTING ACCESSORIES ARE WITHIN THE REQUIREMENTS OF THE LOAD CONFIGURATION TO BE PERFORMED.	X			
	4.2. REVISION OF THE ACCESSORIES ACCORDING TO THE STANDARD: - SHACKLES ACCORDING TO EN 13889**. - TEXTILE SLINGS IN 1492***. - WIRE ROPE SLINGS 13414** - CHAIN SLINGS IN 818 (G6) IN 1667 (G8)**. - CHAIN ACCESSORIES ISO 8539 ** ISO 8539 ISO 8539 ** ISO 8539 ** ISO 8539 ** ISO 8539 ** CHAIN ACCESSORIES			X	

**If cracks appear, perform weld inspection to determine the extent. Block use until repair and favourable re-inspection.*

***If red or white rust appears on the metal fittings, they should be replaced with new ones.*

****If cuts or deformations appear on lifting accessories, they must be immobilized and replaced.*

CLEANING

Keep the equipment and its accessories clean of excess grease, oil, and dirt in general to be able to properly evaluate the conditions of use of the lifting equipment and accessories.

WARRANTY

This OX & RUD product has a 12-month warranty from the date of delivery, subject to separate written notifications or agreements. The warranty covers material or manufacturing defects, once it has been verified that work has not been carried out under abnormal circumstances.

For warranty claims, it is the customer's responsibility to prepare a technical report specifying the lifting configuration performed in the manoeuvre (a Rigging Plan is necessary). The lifting configuration must be described, documenting the lifting with pictures with date of each lift, to ensure that the lifting was done correctly or not.

We guarantee the replacement of spare parts or the repair of elements by our assistance service in our workshops. The customer must send the parts to be repaired, postage paid to OX & RUD Sant Boi - Barcelona and once repaired, OX & RUD will also send them, if they are within the warranty, free of charge nationwide (Spain).

We do not guarantee compensation for possible damages, direct or indirect, to tools, machinery or people, caused by said unit. We have civil liability insurance.

EXCLUDED FROM THIS WARRANTY

- Breakdowns caused by improper use.
- Breakdowns caused by modifications and spare parts not indicated by OX & RUD.
- Damage caused by lack of maintenance (see maintenance book).
- Improper installation and start-up.
- Damage caused in transportation.
- Use in corrosive environments, acids, steam, etc.
- Use of equipment / items manufactured by other companies (for example: the use of another manufacturer)

EXPIRATION OF WARRANTY

The unit will be exempt from the particularities of the warranty in the following cases:

- In case of late payment or breach of contract.
- In case of repairs or modifications without express authorization from OX & RUD.
- When there is damage caused by incorrect use.
- For reasons that do not derive from a normal work operation.
- All disputes will be settled in the courts of Barcelona (Spain).

INSPECTIONS

Periodic inspections should be carried out with the frequency and intensity indicated by the national regulations applicable in the country where the equipment is to be used, but they should all indicate the measures necessary to ensure that work equipment subjected to influences that may cause deterioration that could lead to hazardous situations is subject to periodic checks and, where appropriate, tests, in order to ensure compliance with the safety and health provisions and to remedy such deterioration in good time. Likewise, additional checks must be carried out on such equipment whenever exceptional events occur, such as transformations, accidents, natural phenomena or prolonged lack of use, which could have detrimental consequences for safety. They should also indicate that such checks should be carried out **by competent personnel** and that the results of the checks should be documented, made **available to the labour authority** in each country and retained for the useful life of the equipment.

When the goods leave the manufacturer's or distributor's warehouse, a first label is affixed to the equipment, stating that the equipment has been inspected in a specific month and year as the date of commissioning of the equipment. See example of a label in case the equipment has been overhauled and shipped in February 2025:

Once the equipment is at the customer's home, the customer will be responsible for having it checked by competent personnel and for keeping a record of these checks, carried out according to the regulations of the place where the equipment is used and according to the periods established in the Maintenance Sheet of this OPERATION AND MAINTENANCE MANUAL.

Ask our sales team or distributor network about the existence of a Service Centre in your region to service this equipment as well as the lifting accessories.

INSPECTION FORMAT

SHEET N. °_____ of _____

DATE PUT INTO SERVICE:		REVISION DATE:	

	CHECKLIST	WHEN	RESULT OK / NOT OK or n/a	OBSERVATIONS:
CRANE	1.0. VALIDATE THE CAPACITY AND CONFIGURATION OF THE CRANE TO LIFT THE LOAD PLUS THE TARE OF THE LIFTING SET WITH THE REQUIRED RADIUS ACCORDING TO THE LIFTING PLAN.	**Before each use**		
	1.1. TO VALIDATE THE INSPECTION STATUS OF THE CRANE IN GENERAL AND THE LOAD LIMITER IN PARTICULAR.	**Annual**		
	1.2. VISUALLY VALIDATE THE CONDITION OF THE CRANE HOOK, ITS SWIVELLING AND TILTING CAPACITY AND ITS SAFETY LATCH.	**Before each use**		
SPREADER BEAM	2.0. VISUALLY CHECK THAT THE WELDED JOINTS ARE FREE OF CRACKS* AND THE ELEMENTS ARE FREE OF DEFORMATIONS.	**Before each use**		
	2.1. CHECK THAT THE END UNITS AND DROP LINKS ARE FREE OF DEFORMATION* WITH BURRS, AND THAT THEY SWING FREELY WITHIN THE WORKING RANGE ONCE THE SHACKLES ARE ASSEMBLED.	**Before each use**		
	2.2. EACH TIME A SECTION IS ASSEMBLED, CHECK THE TIGHTENING TORQUE OF ALL BOLTS AS THEY ARE ASSEMBLED, WE RECOMMEND A TORQUE WRENCH TRIP, CALIBRATE IT TO THE REQUIRED TORQUE AND THE TRIP CHECKS THE TORQUE.	**Every time any element is assembled**		
	2.3. IF IT IS STORED ASSEMBLED. AT EACH OPERATION CHECK THE TIGHTENING TORQUE WITH A TORQUE WRENCH OF A DIFFERENT BOLT IN EACH SECTION, IF ANY OF THEM IS FOUND TO BE LOOSE, CHECK ALL OF THEM.	**Before each use**		
ACCESSORIES	4.0. CHECK THAT THE SHACKLES ARE OF THE SIZE INDICATED IN THE COMPATIBILITY TABLE ACCORDING TO MODEL AND ARE WITHIN THE REQUIRED CAPACITY IN THE CASE OF USING A DIMENSIONALLY COMPATIBLE MODEL, BUT OF DIFFERENT CAPACITY.	**Before each use**		
	4.1. CHECK THAT THE CAPACITY AND LENGTHS OF THE LIFTING ACCESSORIES ARE WITHIN THE REQUIREMENTS OF THE LOAD CONFIGURATION TO BE PERFORMED.	**Before each use**		
	4.2. REVISION OF THE ACCESSORIES ACCORDING TO THE STANDARD: - SHACKLES ACCORDING TO EN 13889**. - TEXTILE SLINGS IN 1492***. - WIRE ROPE SLINGS 13414** - CHAIN SLINGS IN 818 (G6) IN 1667 (G8)**. - CHAIN ACCESSORIES ISO 8539 ** ISO 8539 ISO 8539 ** ISO 8539 ** ISO 8539 ** ISO 8539 ** CHAIN ACCESSORIES	**Annual**		
OVERALL RESULT OF THE INSPECTION: **NAME:** **COMPANY:**				SIGNATURE: DATE:

**If cracks appear, perform weld inspection to determine the extent. Block use until repair and favourable re-inspection.*

***If red or white rust appears on the metal fittings, they should be replaced with new ones.*

****If cuts or deformations appear on lifting accessories, they must be immobilized and replaced.*

YOU MAY COPY THIS PAGE FOR ADDITIONAL REVISION SHEETS.

INSPECTION RECORD FORMAT

SHEET N. °

SALES DATE	

INSPECTION DATE	
COMPANY	
OPERATION	

INSPECTION DATE	
COMPANY	
OPERATION	

INSPECTION DATE	
COMPANY	
OPERATION	

INSPECTION DATE	
COMPANY	
OPERATION	

INSPECTION DATE	
COMPANY	
OPERATION	

YOU MAY COPY THIS PAGE FOR ADDITIONAL REVISION RECORD SHEETS.

INSPECTION RECORD FORMAT

SHEET N. °

SALES DATE	

INSPECTION DATE	
COMPANY	
OPERATION	

INSPECTION DATE	
COMPANY	
OPERATION	

INSPECTION DATE	
COMPANY	
OPERATION	

INSPECTION DATE	
COMPANY	
OPERATION	

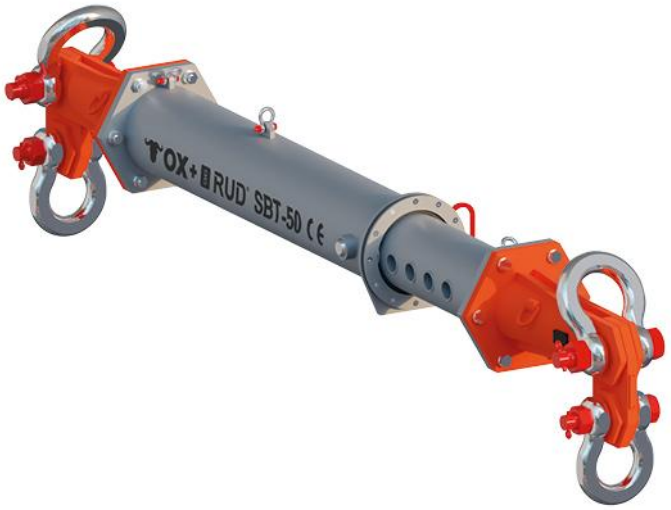
INSPECTION DATE	
COMPANY	
OPERATION	

YOU MAY COPY THIS PAGE FOR ADDITIONAL REVISION RECORD SHEETS.

NOTES

HEAVY LIFTING EQUIPMENT

PATENT PENDING
NEW
PATENT PENDING



YOUR TRUSTED PARTNER FOR HEAVY LIFTING SOLUTIONS

OX+ RUD®
LIFTING SOLUTIONS

Mare de Déu de Núria, 4
08830 Sant Boi de Llobregat
Barcelona · Spain

Tel. +34 931 358 928
info@ox-rud.com
ox-rud.com