

## **Hydraulic Jack**

pursuant to Legislative Decree 17/2010

	INDEX				
1	INTRODUCTION				
1.1	Premise				
1.2	General information				
1.3	Purpose of the manual				
1.4	Updating of the manual				
1.5	Cooperation with the user				
1.6	Regulatory references				
1.7	EC and UKCA declarations of conformity				
1.8	CE and UKCA label and identification plate				
1.9	Warnings and cautions				
1.10	Guarantee				
2	DESCRIPTION				
2.1	General description of the machine				
2.2	Intended use, unforeseen and/or improper and/or incorrect uses				
2.3	Operating environmental conditions				
3	SAFETY				
3.1	General safety information				
3.2	Skills of the operators				
3.3	Characteristics of guards and protection devices				
4	TRANSPORT				
4.1	Transport, Lifting, Moving				
4.2	Reception of the machine				
5	COMMISSIONING				
5.1	Instructions for positioning and lifting				
6	MANTEINANCE AND CONTROL				
6.1	Ordinary maintenance activities				
6.2	Extraordinary maintenance				
7	SPARE PARTS				
8	DISPOSAL AND SCRAPPING				

Rev.: 02



pursuant to Legislative Decree 17/2010

### 1. INTRODUCTION

### 1.1 Premise

The HYDRAULIC JACK machine object of this manual was designed at the headquarters of the company CORAM EUROPE S.r.l. located in Via Chiari, 36 - 25033 Cologne (BS), Italy and was built at the headquarters of the company CORAM Asia Co., Ltd. located in 1, Gong-Ye South 3rd Road, 54066 Nantou City, Taiwan (R.O.C.). Both companies are part of the CORAM Group.

This manual is an integral part of the machine called **HYDRAULIC JACK** and must therefore be kept in a known place, easily accessible, in good condition, throughout the life of the machine. Its purpose is the transmission of the information necessary for the competent and safe use of the machine.

The information deemed necessary to use the hydraulic jack are:

- The jack model (code)
- The maximum load expressed in tons
- Year of construction
- The production batch number

The topics covered are exclusively intended for users who are trained in the correct operation of the machine and able to interact with the equipment in a safe condition for people, the machine, the truck to be lifted and the environment.

The user will also be able to interpret an elementary diagnostic of faults and abnormal operating conditions, in full compliance with the requirements of the following pages and the current Health and Safety Regulations.

Prima di ogni utilizzo, leggere con la massima attenzione e accertarsi di avere ben compreso il contenuto della presente pubblicazione.

Maintenance will always be carried out by authorized personnel with specific technical skills.

The Manufacturer is exempted from any liability for damages of any nature, caused by incorrect use, negligence, superficial interpretations or failure to respect the safety concepts, reported in this manual and more generally by the Regulations in force.

All rights of this publication are reserved to the Company CORAM EUROPE S.r.l., reproductions or partial disclosure, not expressly authorized, are absolutely prohibited.

This manual for use and maintenance consists of chapters divided into paragraphs, both are identified by a progressive numbering at the beginning of each topic.

The General Index provides for the dislocation of chapters and paragraphs facilitating their search.

The following symbols are used in this manual to distinguish and highlight particularly important and important parts of text:



### **DANGER - ATTENTION**

It indicates situations of serious danger that if neglected can seriously endanger the safety and health of people.

Rev.: 02



pursuant to Legislative Decree 17/2010



### **WARNING - CAUTION**

It indicates risk situations for the machine and/or components.



### **PRECAUTIONS**

It indicates the news and/or requirements to ensure safety during the ongoing operation

### **NOTE**

It provides particularly useful or important information.

### 1.2 General information

This publication, called "manual", contains all the information for the installation, use and maintenance of the machine **HYDRAULIC JACK**.

The subjects to which this publication is addressed are generally defined as "users" and are all those who, for the part of their competence, have the need and/ or the obligation to use and provide instructions or to intervene operationally on the machine.

### 1.3 Purpose of the manual

The purpose of the manual is to allow users to know the machine and to use it for its safe and lasting use, taking all measures and preparing all human and material means as necessary.

The publication is drafted in accordance with Legislative Decree No. 17/2010 "Implementation of Directive 2006/42/EC". The text also refers to laws, directives, etc. that the user is required to know and consult in order to achieve the aims of the manual.

### 1.4 Updating of the manual

The manual reflects the state of the art at the time of placing on the market of the machine **HYDRAULIC JACK** of which is an integral part and complies with all laws, directives, standards in force at that time; It cannot be considered inadequate simply because it is subsequently updated according to new requirements.

Any changes, adjustments, etc. that would have made on the subsequently marketed machine, it does not require the manufacturer to intervene in the machinery supplied or to consider the machinery and its manual to be deficient and inadequate.

Any additions to the manual, which the manufacturer may wish to send to users, should be retained together with the manual of which they will form an integral part.

### 1.5 Cooperation with the user

The manufacturer is at the disposal of its customers to provide further information and to consider proposals for improvement in order to make this manual more responsive to the needs for which it has been prepared. Regarding this, to communicate the needs please enter the site <a href="https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/">https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/</a>

In case of cession of the HYDRAULIC JACK machine, it must always be accompanied by this manual.

Rev.: 02



pursuant to Legislative Decree 17/2010

### 1.6 Regulatory references

Directive 2014/29/EC	"To harmonize the laws of the Member States relating to the making available on the market of simple pressure vessels". Transposed nationally by D.lgs. 82/2016.	
Law (D.Lgs.) n. 17 of the 27th january 2010	"Implementation of Directive 2006/42/EC on machinery and amending Directive 95/16/EC on lifts"	
Law (D.Lgs.) n. 81 of the 9th April 2008	"Single Text on Health and Safety at Work" and Annex V Part I "General requirements applicable to all work equipment" and Part II "Additional requirements applicable to specific work equipment"	
British supply of machinery (Safety) Regulations		

In addition, the following list of titles of harmonized standards and corresponding specific technical standards have been used for the correct implementation of the essential health and safety requirements.

Norm	Description
• UNI EN ISO 12100::	2010 "Safety of machinery - General design principles - Risk assessment and risk reduction"
■ UNI EN ISO 13857::	"Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs"
■ UNI EN ISO 4413:20	" Hydraulic fluid power — General rules and safety requirements for systems and their components"
■ EN 1494:2000+A1::	2008 "Mobile or movable jacks and associated lifting equipment"
■ UNI EN 1494:2009	"Mobile or movable jacks and associated lifting equipment"
■ ISO 11530:1993	"Road vehicles hydraulic jacks specifications"
■ EN ISO 14120:2015	" Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards"
■ EN ISO 13854:2020	" Safety of machinery - Minimum gaps to avoid crushing of parts of the human body"
■ CNR UNI 10022:198	"Cold formed profiles: instructions for use in construction"
• CNR UNI 10029:198	87 "High strength steel construction - instructions for calculation, execution, testing and maintenance"

Rev.: 02



pursuant to Legislative Decree 17/2010

### 1.7 EC and UKCA declarations of conformity

The EC declaration of conformity must contain the following elements:

- the name and full address of the manufacturer
- description and identification of the machine, with generic name, serial number;
- an indication that the machinery complies with all relevant provisions of Directive 2006/42/EC and the British Supply of Machinery (Safety) Regulations 2008; list of directives and harmonized standards applied and with which the machine complies;
- reference to other standards and technical specifications applied;
- the place and date of issue of the declaration
- signature of the legal representative of the manufacturer.

With the declaration of conformity the manufacturer certifies the full conformity of the machine to the directive "Machinery Directive". In particular, compliance concerns the essential health and safety requirements defined by the Directive and its subsequent amendments.



### **DANGER – ATTENTION**

The declaration of conformity is a document of the utmost importance and must be kept with extreme care.



### **Hydraulic Jack**

pursuant to Legislative Decree 17/2010





### DECLARATION OF CONFORMITY - Dual Document - CE & UKCA

THE MANUFACTURER:

CORAM ASIA CO., LTD.

ADDRESS:

NO 1, GONG-YE SOUTH 3RD ROAD, 54066 NANTOU CITY, TAIWAN

### **DECLARES:**

that the product HYDRAULIC JACK manually operated for vehicle lifting as designated below (by MODEL TYPE):

500327464

500327450

500327452

41042522

500327449

500327451

41042523

98426569

500327455

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation.

Is in conformity with the essential safety and health requirements related to the design and manufacturing of the machinery and safety components in accordance with:

European – the Annex II – Machinery Directive 2006/42/EC British – Supply of Machinery (Safety) Regulations 2008

This declaration of conformity is only issued under the responsibility of the manufacturer.

THE FOLLOWING ARMONIZED NORMS HAVE BEEN USED FOR THE CORRECT IMPLEMENTATION OF THE ESSENTIAL SAFETY AND HEALTH REQUIREMENTS OF THE ANNEX II OF THE MACHINERY DIRECTIVE 2006/42/EC

Applicable Directive /Regulations / Standard	Norm	Description
ISO -	ISO 11530:1993	"Road Vehicles - Hydraulic Jacks Specifications"
	EN ISO 12100:2010 UNI EN ISO 12100:2010	"Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100-2010)"
	EN ISO 13857:2020 UNI EN ISO 13857:2020	"Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2019)"
	EN ISO 4413:2012 UNI EN ISO 4413:2010	"Hydraulic fluid power - General rules and safety requirements for systems and their components (ISO 4413:2010)"
CE	EN 1494:2000+A1:2008 UNI EN 1494:2009	"Mobile or movable jacks and associated lifting equipment"
	EN ISO 14120:2015 UNI EN ISO 14120:2015	"Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards (ISO 14120:2015)"
	EN ISO 13854:2020 UNI EN ISO 13854:2020	"Safety of machinery. Minimum gaps to avoid crushing of parts of the human body".
UKCA	BS EN1494:2000 + A1:2008	"Mobile or movable jacks and associated lifting equipment"

THE FOLLOWING LAWS, NORMS AND NATIONAL TECHNICAL SPECIFICATIONS HAVE BEEN USED

**EUROPEAN DIRECTIVES** 

ITALIAN LAWS

ITALIAN TECHNICAL NORMS

2006/42/EC (Machinery Directive)

D.Lgs.17/2010 (Direttiva Macchine)

CNR-UNI 10029/87

BRITISH DIRECTIVES

Supply of Machinery (Safety) Regulations 2008

Authorized person to prepare the Technical Construction File

First and Last Name: Mr. Russ Tsai Company: Coram Asia Co., Ltd. Address: No.1, Gong-Ye South 3<sup>rd</sup> Road

Place: Nantou (Taiwan)

Mr. Russ Tsai (Legal Representative) 13th SEP 2022



pursuant to Legislative Decree 17/2010

### 1.8 CE and UKCA label and identification plate

On the machinery must be an identification plate showing the following information:

The **HYDRAULIC JACK** is equipped with a **Label (F)** that shows the information shown for the safe use of the jack itself:

- manufacturer's name and address;
- maximum working load;
- CE and UKCA labels indicate the conformity of the jack to safety requirements;
- warning it is necessary to read the instructions of the operating and maintenance manual of the truck before using the jack;
- Do not lift the truck on non-horizontal road;
- before lifting the truck it is necessary to lock (front and rear) one of the wheels remaining in contact with the ground with the appropriate wheel locking devices fitted to the truck;
- to lift the truck it is necessary to be on a solid road surface, compact and horizontal, have the exhaust valve closed (check the closure by rotating the valve with the appropriate lever supplied, clockwise), unscrew the upper adjusting screw, in case the jack is equipped with it, so as to approach the lifting point of the truck, then operate the jack, moving the lever up and down, or for the horizontal pump jacks, right and left;
- no person can go under the truck raised by the jack with body parts;
- To get the truck off the ground, it is necessary to turn the exhaust valve counter-clockwise with the special lever provided, making sure in advance that no person is with body parts under the truck. Once the truck is on the ground, pull out the jack and bring back the plungers completely, helping with the weight of the body, through the feet, leaving the drain valve open;
- oil level control the type of oil used for the jack is the "Vonox Super Hyrando HV 22", and the level must touch the bottom edge of the hole, covered by a removable rubber cap;
- the jack reference number for yours truck manufacturer.

On the opposite side of the colored label is visible a Marking (G) that indicates:

- the name of the manufacturer;
- the model number of the product;
- the maximum working load in tons;
- the year of construction;
- the batch number.

### **WARNING - ATTENTION**

The data obtained in the identification plate are of extreme importance for a correct use of the machine. Especially, the product model number and the year/lot number identify the machine and its equipment, allowing it to operate in total safety.



pursuant to Legislative Decree 17/2010

### NOTE

In the event of a request for spare parts or complaints, please indicate the marking data for which the spare parts are requested, via the website <a href="https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/">https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/</a>



### **WARNING - CAUTION**

The identification plate must always be kept clean and readable.

### 1.9 Warnings and cautions

The **HYDRAULIC JACK** machine has been designed and built in accordance with current technological standards and generally known safety requirements. However, there is a risk of damage to persons and property if the general safety instructions and warnings in this manual are not followed.

- It is therefore recommended to carefully read this manual in all its parts before using the machine HYDRAULIC JACK. Keep this instruction manual in a place easily accessible by all operators at any time and protected.
- If the jack will be sold, please also hand over this instruction manual.
- In case of loss or damage of the documentation, you can request additional copies to the company via the website <a href="https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/">https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/</a>



### **WARNING - CAUTION**

The HYDRAULIC JACK machine must be used exclusively by those who have read and understood this instruction manual and by those who have been trained on the operation and use of the machine.



### **WARNING - CAUTION**

The lift must be used only by trained/trained personnel. Please note that personal use by persons not aware of the procedures specified in this manual may cause dangers.



### **DANGER - ATTENTION**

To ensure the safety of the operator and any passers-by, the use of the HYDRAULIC JACK is therefore limited only to qualified operators, who know and understand the full content of this manual.



pursuant to Legislative Decree 17/2010



### **DANGER - ATTENTION**

The manufacturer CORAM declines all responsibility for accidents and/ or damage caused by failure to observe the precautions provided in this manual.

### **PRECAUTIONS**



For any doubt regarding the assembly, commissioning, use and maintenance of the jack contact via <a href="https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/">https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/</a>

### 1.10 Guarantee

The full terms of the guarantee are set out in the sales contract. The guarantee lapses in the case of:

- Use for different purposes than those specified in this manual;
- Use incorrect or not in accordance with the requirements of this manual;
- Improper or inadequate maintenance by the user;
- Conditions of use not complying with the environmental specifications in this manual;
- Unauthorized tampering and modification;
- Attainment of a time limit of 2 years from the date of manufacture.



### **DANGER - ATTENTION**

The manufacturer declines any responsibility for any physical injury or material damage resulting from the improper use of the machine



### **PRECAUTIONS**

The non-compliance, even partially, with the instructions given in this manual may result in malfunctions, damage to the machine or truck and the consequent forfeiture of the warranty.

### **WARNING - CAUTION**



In case of complaints, contact the website https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/



## **Hydraulic Jack**

pursuant to Legislative Decree 17/2010

### **WARNING – CAUTION**



The initial warranty period is not modified or affected by the performance of maintenance, repair or improvement or replacement of defective parts

### 2. DESCRIPTION

### 2.1 General description of the machine

### **HYDRAULIC JACKS**



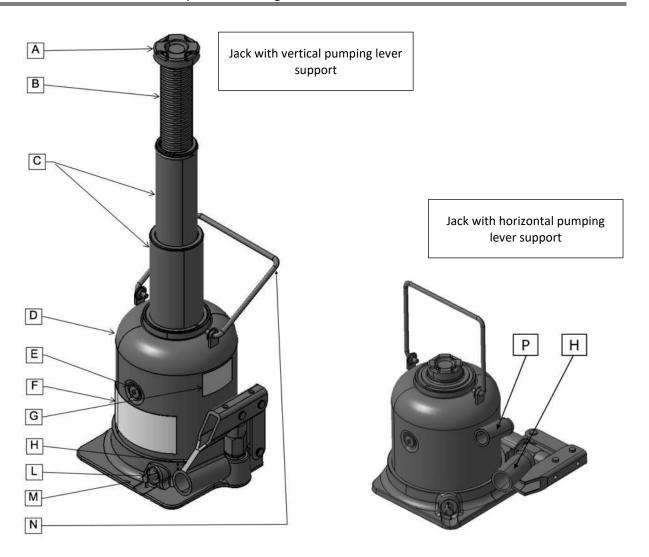
The hydraulic jacks are designed and developed with great regard for the safety of users. They are formed by:

- A Thrusting head
- B Upper adjusting screw (if provided)
- C Hydraulic lifting unit (consisting of 1 or more cylinders)
- D Reservoir containing mineral hydraulic oil
- E Mineral hydraulic oil refill cap
- Label with illustrated information F
- G Marking engraved on the tank (model, load, year of manufacture and production batch)
- H Support for manual pumping lever
- Exhaust valve L
- M Support base
- N Carrying handle
- Second housing tube for contrast lever (for horizontal pump)

Rev.: 02



pursuant to Legislative Decree 17/2010



### 2.2 Intended uses, unforeseen and/or improper and/or incorrect uses

### **Intended use**

HYDRAULIC JACK is a tool designed to be used as an aid for lifting/lowering a part of the truck equipped with a minimum of two axles, exclusively for wheel replacement and/or chain assembly operations. The jack is capable of lifting the truck partially, using the lifting points of the truck provided by the manufacturer. For this purpose, lifting points are provided under each truck, which are indicated in the owner's manual of the truck. The load to be lifted shall not exceed the rated load capacity of the lift indicated on the manufacturer's identification plate.

### **DANGER - ATTENTION**



It is strictly forbidden to use the jack as an easel.

it is forbidden to use the jack to support loads of any size, it must be used exclusively for lifting operations of the truck equipped with a minimum of two axles.



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### Unforeseen and/or improper and/or incorrect uses

#### **DANGER - ATTENTION**



The HYDRAULIC JACK tool is used in a non-compliant way if:

- It is used outside the scope of application described in this instruction manual
- ✓ It is used in operating conditions that differ from those described in this instruction manual

### **DANGER - ATTENTION**



Any other use of the HYDRAULIC JACK tool must be previously authorized in writing by the manufacturer. In the absence of such written authorization the use is to be considered "IMPROPER USE".

The Manufacturer declines all the responsibilities in relation to any damage caused to things or people and deems any warranty on the machine lapsed.

Below, a series of operations, related to the improper use of the machine, which are not allowed in any case. The list is not exhaustive, but only indicative of some reasonable foreseeable situations:

# **!**

### **DANGER - ATTENTION**

### IT IS FORBIDDEN TO LIFT:

- vehicles weighing more than the lifting capacity,
- vehicles without lifting points specifically designed under the truck,
- people and/or animals,
- vehicles with persons and/or animals on board,
- motorcycles and similar vehicles,
- three-wheeled vehicles in general,
- special vehicles such as forklifts, agricultural machinery and tractors, earthmoving machinery (shovels, excavators, bulldozers, etc.),
- caravans, and trailers,
- vehicles with potentially hazardous material on board (flammable, explosive, corrosive, etc.),
- vehicles with unstable loads or whose instability may be caused by lifting;
- machines and/or materials in general.



### **DANGER – ATTENTION**

### USE OF THE LIFT IS PROHIBITED IN THE FOLLOWING CASES:

- inside of freezers,
- in the presence of strong magnetic fields,
- in environments where potentially explosive atmospheres may develop,
- in mine,
- in the presence of wind, dangerous load fluctuations may occur,
- on board ships, dangerous load fluctuations may occur,

Rev.: 02



pursuant to Legislative Decree 17/2010

• near food, any oil leakage of the lifter could contaminate them. For the same reason, direct contact of the lift with food shall be avoided.

### 2.3 Operating environmental conditions

### Work environment

The HYDRAULIC JACK must be used by supporting its widest base on the ground, solid, compact and horizontal able to support the weight of the truck raised.

### **WARNING - CAUTION**



A yielding terrain may not provide sufficient lifting reaction, and thus may sink into the ground itself, not allowing the truck to be lifted. A non-horizontal ground may not guarantee the stability of the jack, by tipping over.

### **PRECAUTIONS**



If you are on a land that is not compact or not horizontal you will need to reach a more appropriate area, or call the breakdown service. If you are in a ground covered by snow or ice, remove them beforehand or call a breakdown service.

The HYDRAULIC JACK is designed and built to operate under the following environmental conditions:

temperature must be between -40 °C and + 55 °C.

### NOTE

In temperature conditions not included in this range, it is suggested to call the breakdown service.

### **DANGER - ATTENTION**

Do not expose the HYDRAULIC JACK to rain, weather and under direct sunlight.

### Lighting

The environment must also be sufficiently lit to ensure maximum safety, recommended at least 50 lux.



### DANGER – ATTENTION

Do not use the HYDRAULIC JACK in insufficiently lit environment.

Rev.: 02



## **Hydraulic Jack**

pursuant to Legislative Decree 17/2010

### 3. SAFETY

### 3.1 General safety information

The purpose of this chapter is to inform users of any particularly important risks and hazards and of general and specific precautions, in order to eliminate or limit them.

This chapter contains information and instructions about:

- danger situations that may occur while using the machine,
- safety devices to be adopted and their proper use;
- residual risks and behaviour (general and specific precautions in order to eliminate or limit them).



### **DANGER - ATTENTION**

To ensure the safety of the operator, the use of the HYDRAULIC JACK is therefore limited only to qualified operators, duly trained, who know and understand the full content of this manual.

The instructions and safety warnings in this manual are written taking into account that lifting a truck from the ground is a dangerous operation, which must be carried out with the utmost caution and the requirements attached to it must be known and applied.



### **DANGER - ATTENTION**

When using the jack, accidental fall may result in crushing or injury to the upper and/or lower limbs. Pay close attention when transporting the jack is wearing personal protective equipment (gloves and shoes).



### **DANGER - ATTENTION**

To protect the operator from potential hazards, please observe the safety rules listed below:

- Before starting work, check the integrity of the shaft jack, that there are no damaged or broken elements and that the operating lever has been correctly inserted in its seat (C). In case of accidental fall of the HYDRULIC JACK, check its integrity. Any damaged or broken parts must be repaired or replaced by competent and authorized personnel. Repair, or have repaired by personnel not authorized by the Manufacturer, means lose the warranty and also operate with unsafe and potentially dangerous equipment.
- When using the HYDRAULIC JACK, do not insert hands or feet between the lifting thrust head and the load to be lifted.
- It is absolutely forbidden to let children and strangers, inexperienced or not in good health touch or use the HYDRAULIC JACK.
- Check the suitability of the soil, which must be solid, compact and horizontal, free of ice and snow;

Rev.: 02

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- If you have not used or maintained the jack for more than six months, you must perform a climb-down operation to lubricate the parts (see chapter 6.1). Visually check that there is no oil leakage, in which case you do not have to use it and resort to the breakdown service.
- Use the HYDRAULIC JACK on flat, compact surfaces, able to bear the weight of the HYDRAULIC JACK and the load itself and taking care to do so at the appropriate lifting points under the truck.

### **DANGER – ATTENTION**



Before lifting a truck it is absolutely mandatory to insert the parking brake and lock the wheels that will remain on the ground, with the appropriate devices (wedges) supplied to the truck. Moreover, read carefully the instructions of the truck that you are preparing to lift with particular attention to the lifting points provided by the manufacturer under the truck.

- In case of accidental fall of the hydraulic jack, check its integrity.
- Do not expose the HYDRAULIC JACK to rain or bad weather, and do not use it in humid or wet environments.
- When using the HYDRAULIC JACK, avoid the presence of children, strangers or animals around the work area.
- At the end of the work, carefully clean the HYDRAULIC JACK and put it in the appropriate housing on the truck in a dry and out of reach of children
- Operate only with good lighting, in a safe and unhindered position.

### **DANGER – ATTENTION**



In case of accidental contact with the mineral hydraulic oil, contained in the jack, with the skin or eyes, wash with plenty of water and if necessary consult a doctor; if accidentally swallowed, immediately consult a doctor. The data sheet is available on <a href="https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/">https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/</a>

### DANGER – ATTENTION



Repairs must be carried out by personnel authorized by the manufacturer. If necessary contact the manufacturer via the website <a href="https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/">https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/</a>

### DANGER – ATTENTION

IF YOU ARE UNSURE ABOUT THE SAFETY OF THE HYDRAULIC JACK, DO NOT USE IT AND CALL THE ROADSIDE ASSISTANCE.



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### 3.2 Skills of the operator

The operator is not exposed to risks if he complies with:

- the intended use of the machinery,
- working areas;
- the procedures described in the manual;
- the tasks and responsibilities assigned and specified below.



### **DANGER - ATTENTION**

The HYDRAULIC JACK must be used only by authorized personnel.



### **DANGER - ATTENTION**

the operator must ensure that no personnel are present in the danger zone before lifting/lowering the jack.



### **WARNING - CAUTION**

Please note that any use by persons who are not aware of the procedures specified in this manual may cause hazards.



### **PRECAUTIONS**

The operator must be familiar with:

- the machinery's features;
- this manual and how to check it out;
- have received adequate training.



### **DANGER - ATTENTION**

If these requirements are not respected, the manufacturer declines all the responsibility. Also unauthorized tampering/replacement of one or more parts of the machine, the use of accessories, tools and consumables items different than those recommended by the manufacturer, may present a risk of accident and release the manufacturer from civil and criminal liability.

### 3.3 Characteristics of guards and protective devices

The HYDRAULIC JACK has been designed and built in accordance with ISO 11530 with mechanical protections and safety devices to protect the operator from possible physical damage. From a technical point of view, protective devices have

Rev.: 02



pursuant to Legislative Decree 17/2010

been set up, from a procedural point of view, it must be verified that the operator has received adequate information about the use of the machine.

The main safety device on the machine is the load limiter consisting of a safety valve, not accessible from the outside, which does not allow the lifting of loads greater than the maximum use, indicated on the colored label. This valve ensures that the pressure inside the hydraulic circuit cannot exceed the set calibration value in function of the maximum nominal flow.

# **\!**

### **DANGER – ATTENTION**

In no case shall the adjustment of the safety valve of maximum pressure be changed by the operator. Operation that is not possible without disassembling, and therefore tampering, the machine.

### Other safety devices are:

- the thrust head (A) on the extreme part of the upper adjusting screw or, where not present, on the hydraulic lifting assembly, which has been designed and manufactured in accordance with the manufacturer of the truck, which has provided under the truck special lifting points, indicated in the truck's manual for the use and maintenance, in order that the friction and the "grip" with the load will be optimal;
- the carrying handle (N) on the body of the jack, for the grip, the displacement and the transport is present only if the weight of the jack is greater than 10 Kg;
- the upper adjusting screw (B), if present, and the hydraulic lifting group (C) have a mechanical end-of-stroke system that prevents their removal from the jack;
- The exhaust valve (L) has been designed and constructed so that it can be rotated to adjust or stop the truck's
  descent after lifting and also has a mechanical end-of-stroke device to prevent it from being removed from the jack.
   The actuation of this valve is carried out exclusively through the insertion in its end of the pump lever that has two
  slots suitably shaped to attach to the valve pins;
- Manual Pumping Lever Mount (H) is designed and built to impart sufficient manual force to lift the truck, without excessive strain, by operating the lever from top to bottom. The actuation of this device is carried out exclusively by inserting in the appropriate seat of the lever supplied to the truck, which has two slots suitably shaped to lock in a special dent, that allows locking the lever in its seat, in order to ensure the safe movement of the jack under the truck;
- If the manual pumping lever support provides a lever actuation on the horizontal plane, a second contrast lever tube is provided on the cylinder tank, also in endowment to the truck, to be held with the other hand to counteract the pumping force, avoiding to rotate the jack.



### **DANGER - ATTENTION**

Never put yourself under suspended loads with any part of your body. If necessary, make sure that the load is resting on a support.

During the lifting drives, keep your hands away from moving parts, like the lever holder, pins and gearboxes of the pumping device.

During the re-entry phase of the hydraulic stems keep hands away from the surfaces of the moving parts.

Rev.: 02



## **Hydraulic Jack**

pursuant to Legislative Decree 17/2010

### 4. TRASPORT

### 4.1 Trasport, Lifting, Moving

The HYDRAULIC JACK is delivered with suitable packaging and the lever is supplied separately. The transport of the packed hydraulic jack does not require special tools or equipment for handling.

The weight of the jack varies with the model, for the exact determination of the weight; the jacks that exceed 10 kg of weight have a handle for the transport.

The lifting of the HYDRAULIC JACK, for the transport, can be done manually, by a person, following the low weight of the machine, that allows it to be handled manually safely and without danger of causing injury to the operator. The operator during the lifting and moving, must grab it with both hands, possibly using the handle.



### **DANGER - ATTENTION**

Risk of the jack falling (see previous point).

### 4.2 Reception of the machine

Upon delivery, verify the perfect integrity of the jack. Any disputes must be reported immediately to the supplier.

The hydraulic jack, already complete with its oil, is supplied in suitable packaging for transport and storage.

It is recommended, in case of storage, not to overlay weights or other boxes over it.

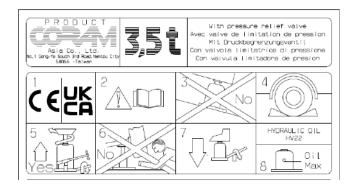
Upon delivery, check that the jacks have not been damaged during transport and that there are instruction manuals for each jack. In case of uncertainty, do not use the jack and contact the manufacturer.



### **DANGER - ATTENTION**

Upon delivery of the machine, check that it has not been damaged during transport. In case of doubts contact the manufacturer.

Check the presence on the hydraulic jack of the label (F) as shown below.



### **WARNING – CAUTIONS**



The absence of warning and use label, involves a violation of the European Safety Standards

Rev.: 02



pursuant to Legislative Decree 17/2010

Dispose of packaging material by separating waste.

### 5. COMMISSIONING



### **DANGER - ATTENTION**

Before using the hydraulic jack, read all the instructions of the truck for wheel replacement operations.

Identify where the lifting points under the truck are located, the wheel locking devices and the manual pump lever that the truck has.

Before proceeding you must read the following instructions.

- Park the truck in a safe area from the surrounding traffic, having a flat and compact ground, free of snow or ice.
- Pull the hand brake and stop one of the wheels, that will remain in contact with the ground, with the wedges provided to the truck.
- Take the jack and the pump lever out of the pump housing of the truck and position in a safe place to check the state of integrity and the lack of any anomalies, near the wheel to replace

If you have not used the jack for more than six months, it is necessary to make a climb-down maneuver without load to lubricate the hydraulic parts, according to the following instructions:

- Turn the drain valve tap (L) clockwise via the supplied lever.
- Insert the lever in the special seat of the manual pump lever support (H) and use it with alternating movements by raising the hydraulic lifting unit (C) until the end of the stroke (the lever hardens).
- Turn the drain valve faucet (L) counterclockwise via the lever, completely retracting the hydraulic lifting unit (B), helping yourself with the foot and weight of your body.

### 5.1 Instruction for positioning and liftining

The lifting/ lowering operations of the truck are very dangerous and must be carried out with the utmost caution: therefore, push unauthorized persons away; clean and demarcate, if possible, the operating area by checking that the road surface is solid, compact and horizontal.



### **DANGER - ATTENTION**

The failure to perform the following indications relating to the truck lifting may cause damage and accidents, which will not be charged to the manufacturer and may cause the warranty to lapse.

The jack you are using is supplied to the truck and has been specially designed and built for it, and must be used exclusively for its lifting from the ground, at a sufficient height for the replacement of one of the wheels or for the mounting of snow chains, keeping the other wheels on the ground.

After inserting the ruck handbrake and locking one of the wheels (front and back) that will remain in contact with the ground, with the appropriate locking wedges supplied with the vehicle, identify the lifting point under the truck, closer to the wheel to be replaced, consulting the Truck Operation and Maintenance Manual.

Rev.: 02



## **Hydraulic Jack**

pursuant to Legislative Decree 17/2010

- Turn the drain valve (L) clockwise after inserting the appropriate lever, supplied with the vehicle.
- Insert the pumping lever into the pump lever holder (H) making sure that the hook is gripped by the lever, turning it clockwise.
- Then position the jack at the truck lifting point, bringing the push head (A) closer to the hydraulic lifting group end (C), as close as possible to the truck lifting point.

### **WARINING – CAUTIONS**



The entire jack base (M) must be supported on a solid, compact and horizontal road surface, able to support the specific load applied. The push head (A) of the jack must be fully in contact with the lifting point below the truck.

### **THE LIFTING**

- Hand grab the end of the manual pumping lever, and staying with the body and limbs as far away as possible from the truck and jack, start pumping operation with alternating hand movement from top to bottom (or from right to left in case of horizontal pump, taking care in this case to use the second contrast lever equipped to the truck).
- After a series of light pumps, is necessary to increase the force to activate the lever and after that, the vehicle begins to lift form the ground.
- Continue pumping until the wheel (to be replaced or on which the snow chain is to be mounted) is sufficiently raised from the ground. By interrupting the pumping movement, the truck remains lifted off the ground.
- The jack has been designed and built to keep the truck off the ground, but in no case is the access with body parts under the truck allowed.
- when there is a danger due to the failure of the cylinder or lifting point of the truck or to the sudden displacement of the load, move immediately away from the danger by putting yourself in a safe zone, and, if necessary, request assistance from the breakdown service.
- Continue with the wheel replacement or the chain assembly, according to the truck's use & care manual.

### **WARNING - CAUTIONS**



During this operation, always be careful, staying at a safe distance from the truck for the possible falls of it.

### **DANGER – ATTENTION**

Never put yourself under the truck lifted with any part of your body and keep other people away.

### THE LOWERING

Before lowering the truck to the ground remove any object that might interpose between the raised wheel and the ground.

Rev.: 02



## **Hydraulic Jack**

pursuant to Legislative Decree 17/2010

### **WARNING - CAUTIONS**



During this operation, always be careful, staying at a safe distance from the truck for the possible falls of it.

- Remove the lever from the support manual pumping lever (H) taking care to rotate it slightly counter-clockwise, to disengage it from the dent.
- Turn the drain valve tap (L) counterclockwise via the supplied lever. The speed of the truck's descent depends on the angle of rotation of the valve, so slowly unscrew the exhaust valve. The descent can be stopped by closing (turning clockwise) the exhaust valve (L).
- When the wheel is properly in contact with the ground, pull out the jack by using the supplied lever, after hanging it up in the appropriate seat of the support manual pumping lever (H) making sure that the dent is in grip with the lever, turning it clockwise. If you cannot remove the jack from under the vehicle, grasp the plungers of the hydraulic lifting unit (B) with your 2 hands, pushing it down, until it is free from the constraint under the truck. or rotate the upper adjusting screw clockwise (B).
- Completely retract the hydraulic lifting unit (B), helping yourself with the foot and weight of your body.
- Leave the exhaust valve (L) open.
- Screw back the upper adjusting screw (B) and return the jack to the truck housing.

### 6. Maintenance and control

### 6.1 Ordinary maintenance activities

The jack does not need special maintenance, however it is good to keep in mind that a clean and tidy equipment will always give the maximum result.

Most of the time, the jack remains unused in the appropriate housing of the truck, often even in horizontal position, exposed to seasonal temperature changes, which can generate some oil leaks and air bubbles inside the hydraulic circuit, reducing the efficiency of the machine. In both cases follow the maintenance instructions below.

### **WARNING – CAUTIONS**



In case of major oil losses, contact the manufacturer via <a href="https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/">https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/</a>

Using appropriate tools (e.g. absorbent towels), collect the spilled oil and dispose of it according to the regulations in force in the country of use: do not waste it in the environment!



### **WARNING - CAUTIONS**

The temperature changes can produce the expansion of the air contained in the tank of the jack, with a consequent push towards the outside of the pistons that compone

Rev.: 02



pursuant to Legislative Decree 17/2010

the hydraulic thrust unit (C). In this case, it is necessary to vent the air from the tank by simply removing the filling cap mineral oil (E).



### **DANGER - ATTENITION**

Is really important to check the jack regulary every 6 months.

### **EVERY SIX MONTHS:**

- Check the jack oil level of the by removing the mineral oil top-up cap made of rubber (E), using the flat tip of a screwdriver, taking care not to damage or puncture it. In this way also any air bubbles come out. Check that the oil touches the bottom edge of the hole, holding the jack on its support base (M) to the ground. Any topping up must be done with oil Vonox Super Hyrando HV 22or Oil in alternative Total Equivis HVG 22 I.
- then close the hole with the mineral hydraulic oil top-up ca (E).
- Turn the drain valve tap (L) clockwise via the supplied lever.
- Insert the lever in the special place of the support manual pump lever (H) and activate it with alternating movements by raising the hydraulic lifting unit (C) until the end of the stroke (the lever hardens).
- Then unscrew the upper adjusting screw (B) (if present), turning counterclockwise, to the maximum extent.
- Check that there are no visible rust spots, or traces of oil leaks, in case you need to remove with a clean rag.
- Turn the drain valve tap (L) counterclockwise via the lever, completely retracting the hydraulic lifting unit (C), helping yourself with the foot and weight of your body.
- Leave the exhaust valve (L) open.
- Put the jack in the truck.
- If you see rifling on the plungers or abundant oil leaks, contact the manufacturer via https://www.coramgroup.com/en/hydraulic-jacks-manufacturers/

### 6.2 Extraordinary maintenance

The extraordinary maintenance regards interventions on components that, following unquantifiable wear or accidental breakage, they must be replaced.

The extraordinary maintenance can be carried out exclusively by the manufacturer to avoid the tampering of the product and the consequent forfeiture of the warranty.

Therefore for any event contact the manufacturer via <a href="https://www.coramgroup.com/en/hydraulic-jacks-">https://www.coramgroup.com/en/hydraulic-jacks-</a> manufacturers/

Rev.: 02

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## **Hydraulic Jack**

pursuant to Legislative Decree 17/2010

### **DANGER - ATTENTION**

Extraordinary maintenance must be carried out by the manufacturer's technicians, otherwise the warranty will be forfeited.

### 7. SPARE PARTS

Given the type of machine it is not necessary to provide individual spare parts. However, the manufacturer may carry out maintenance and overhaul if necessary.



### **WARNING - CAUTIONS**

It is not recommended the use of non-original spare parts and if this happens, you lose the conditions of WARRANTY (if still in place) and MANUFACTURER's RESPONSIBILITY in the use of the machine and any damage resulting to people and/or things. It is not recommended to keep spare parts that the Customer cannot replace independently.

### 8. DISPOSAL AND SCRAPPING

It is the user's responsibility to follow the correct procedure and rules in force in their country for the disposal of oils and material waste (waste substances produced).

The plastic elements that make up the production waste can be recycled and reused in the production process or collected in pressed blocks.

The substances produced during maintenance and/or demolition of the machine are:

- spent lubricants
- plastic materials, rubber,... (seals, guides, etc.)
- ferrous materials (Jack body, thrust assembly, valves, etc.)

The polluting products must be provisionally stored and/or disposed, in accordance with laws of the country where the machine is used.

If the machines are intended for scrapping, separate the spent, toxic, non-biodegradable materials from the others, taking care to comply with the legal provisions and safety rules concerning operators and the environment in force.

Dispose teh different parts appointing, if possible, specialized and authorized companies and in any case in compliance with the requirements of the law on the disposal of industrial solid waste. Regarding the metal parts, the division between the steel parts and those in alloys or other metals is sufficient for a proper fusion recycling.



### **WARNING - CAUTIONS**

Carefully observe all the stages of demolition and safety warnings in this manual.

Rev.: 02



pursuant to Legislative Decree 17/2010

### Follow this process:

- Disassemble the machine by grouping the components according to their chemical nature.
- Scrapping in compliance with current laws.

Disposal of oils and greases, as required by the Regulations in force in the country of the user, the inspection procedure of the Body responsible and the subsequent verbalization of demolition



### **DANGER - ATTENTION**

The demolition of the machine must be carried out by specialized and technical personnel, avoiding creating problems and risks to the environment.

### **DOCUMENT MANAGEMENT**

	FIRST AND FAMILY NAME	POSITION
ISSUE	Luca Rago	Quality Manager
VERIFICATION	Gian Pietro Fedrigoni	Design Manager
APPROVAL	Angelo Piantoni	CEO

### **REVISION MANAGEMENT**

Revision	Date	Modification description
00	11-05-2017	First issue
01	13-09-2022	Revision following UKCA compliance agreement
02	05-07-2023	Review of Regulatory References 1.6

Rev.: 02