

E-CARTONIE

PROFESSIONAL CAMERA SUPPORT

P20



USER'S MANUAL
& Maintenance



Thank you for choosing the **P20 PEDESTAL** manufactured by **CARTONI S.p.A.**

The **P20** is designed and built using state-of-the-art technologies and procedures in order to guarantee maximum reliability over time, as well as total safety for its users.



! In order to properly and safely use the **P20** Pedestal read this manual very carefully and follow the instructions.

! All back-up material, and this manual in particular, should be stored in a safe place for future reference.

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! **CARTONI** holds the right to revise or change this publication without any prior advice to any person or organization.

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1. INTRODUCTION

The correct and safe use of this Pedestal is only guaranteed if it is used in accordance with the following manual and other documentation that accompanies the **P20** Pedestal. It is therefore essential to read all the documentation carefully and to keep it in a safe place.

Although the equipment features safety devices not all the risks inherent its improper use can be avoided.

It is necessary to always make sure that all operators have completely read and understood the instructions. **CARTONI** accepts no responsibility for damage to persons and/or property consequent to the improper use of the Pedestal.

Do not remove or deface any label, indication and warning affixed to the Pedestal.

CARTONI declines all responsibility for the failure to observe the standards of safety and prevention detailed in the various sections of this manual and for injuries due to improper use.

Any modification to the Pedestal must have prior authorization by **CARTONI**.

All the standard maintenance operations (maintenance, repairs, cleaning and adjustments) should be carried out by competent personnel as prescribed in the manual.

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1.1 PROPER USE

The Pedestal has been designed and built for the support and movement of a Head with Camera/lenses & accessories mounted on its horizontal and vertical axis.

In particular this manual refers to the machine specifications in section 2.



- ! It is strictly forbidden to use the Pedestal in any other way other than indicated.
- ! The components used must conform to the indications in section 2.
- ! Do not remove or deface any label, indication or warning affixed to the machine.
- ! Any modification to the Pedestal and/or its structure and/or accessories must have prior authorization by **CARTONI**.
- ! Before using this Pedestal the manual should be read carefully. Whoever uses the machine must be well informed on the operative capacity and limits outlined in the manual.

The **P20** Pedestal is covered by a warranty against manufacturing defects for 5 years from the date of shipment (three years basic warranty + two years upon online registration to www.cartoni.com).

The warranty covers replacement of any defective part and the labour required excluding transport/duty costs.

In the case of replacement of single parts, these can be supplied free of charge by **CARTONI**, but the owner will bear the cost of transport/duty charges for the parts.

The warranty is only valid if the Pedestal has been used properly as outlined in the manufacturer's instructions and has not been exposed to any mishandling. The warranty will be immediately invalid if modifications and/or repairs are carried out by unauthorized persons otherwise authorized by **CARTONI**.

Components subject to wear and tear are not covered by the warranty.

The warranty is also invalidated by one of the following events:

- Failure to comply with payment conditions;
- Failure to carry out appropriate maintenance;
- Removal or mistreatment of marks and/or labels containing data and technical specification.

CARTONI accepts no responsibility for damage to the Pedestal caused by improper use or the malfunction of other equipment connected to the Camera support.

In any case, the warranty only covers Pedestal damage and/or malfunctions and does not entitle the purchaser/owner to claim any damages for loss of production time due to assumed or proven damage caused by and/or connected to the Pedestal itself.

1.3 AUTHORIZED PERSONNEL

Extraordinary maintenance and repairs to the machine can only be carried out by competent persons who are either employed, trained or authorized by **CARTONI** in writing.

Any information regarding repair/maintenance service stations can be obtained from **CARTONI**.

1.4 REGULATORY INFORMATION

The design and construction of the Pedestal by **CARTONI** complies with the regulations listed below:

- UNI EN ISO 12100 (2010) Safety of machinery - General principles for design – Risk assessment and risk reduction;
- Directive 2006/42/CE Covering the harmonization of member States' laws on machinery;
- Presidential Decree 17/2010 of 27/01/2010: Regulation implementing EU directive 2006/42/CE and subsequent amendments.

Additional technical standards relating to specific safety measures as the UNI EN ISO 13857:2015 concerning safety distance and the UNI EN ISO 13850:2015 concerning the emergency machine stop have been considered.



CERTIFICATO N. 19714/09/S
CERTIFICATE No.

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI
 IT IS HEREBY CERTIFIED THAT THE QUALITY MANAGEMENT SYSTEM OF

CARTONI S.P.A.

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 PER LA CINEMATOGRAFIA E LA TELEVISIONE PROFESSIONALE

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La validità del presente certificato è subordinata a sorveglianza periodica annuale / semestrale ed al riesame completo del sistema di gestione con periodicità triennale

The validity of this certificate is dependent on an annual / six monthly audit and on a complete review, every three years, of the management system
 L'uso e la validità del presente certificato sono soggetti al rispetto del documento RINA: Regolamento per la Certificazione di Sistemi di Gestione per la Qualità
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Prima emissione First Issue	12.06.2009	Data decisione di rinnovo Renewal decision date	24.05.2018
Data scadenza Expiry Date	02.06.2021	Data revisione Revision date	24.05.2018

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Per i requisiti della norma non
 applicabili al campo di applicazione
 del sistema di gestione
 dell'organizzazione, riferirsi alle
 informazioni documentate relative.

Reference is to be made to the
 relevant documented information
 for the requirements of the
 standard that cannot be applied to
 the Organization's management
 system scope

IAF:17
 IAF:29



www.cisq.com

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This manual is supplied with the Pedestal along with the warranty card and both must be saved for any further consultation or use.

The present manual can be downloaded from www.cartoni.com website.

In case of sale or transferring ownership of the Pedestal, the manual and warranty card must be handed over to the new operator or owner.

The Pedestal designed and built by **CARTONI** has passed the final test performed at the factory to verify functional features, dimensional characteristics and durability.

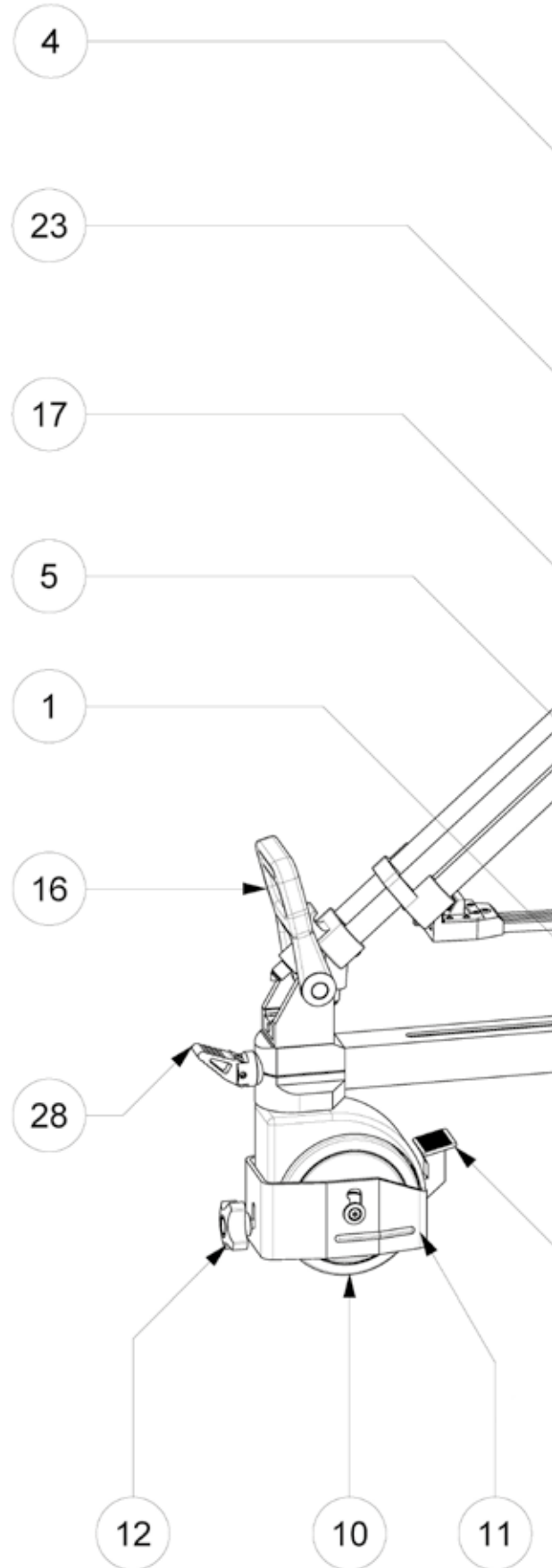
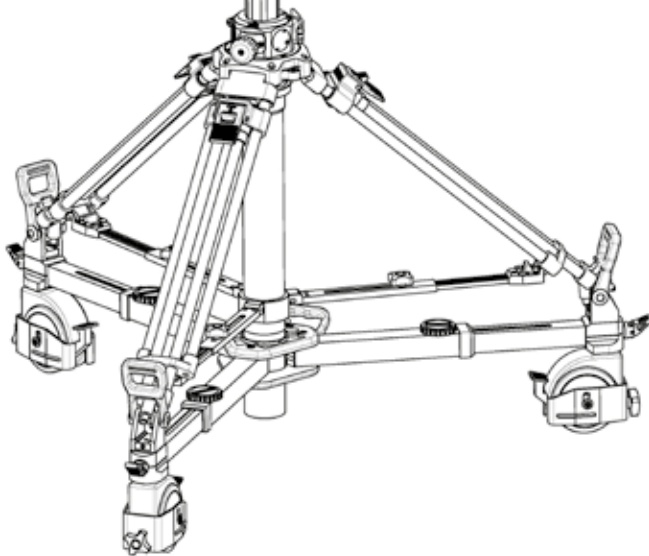
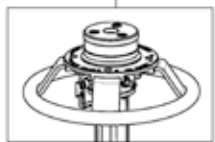
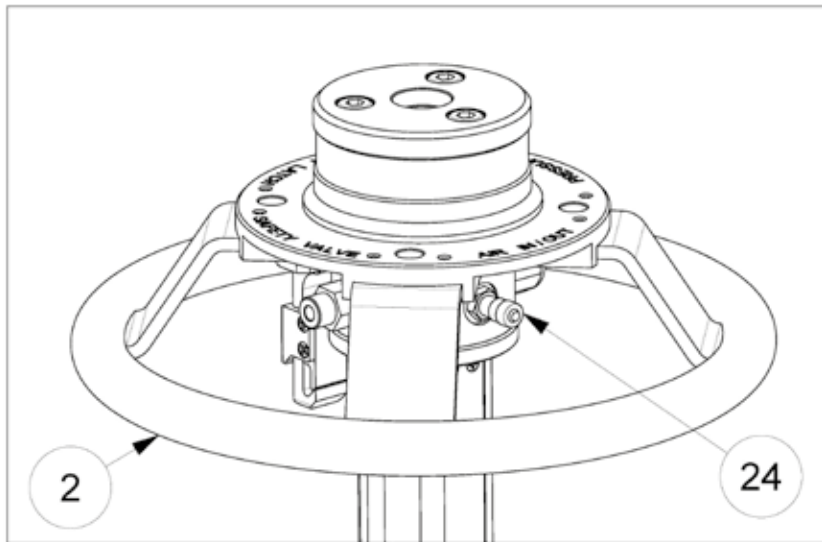
Test results are saved by internal records and relate to:

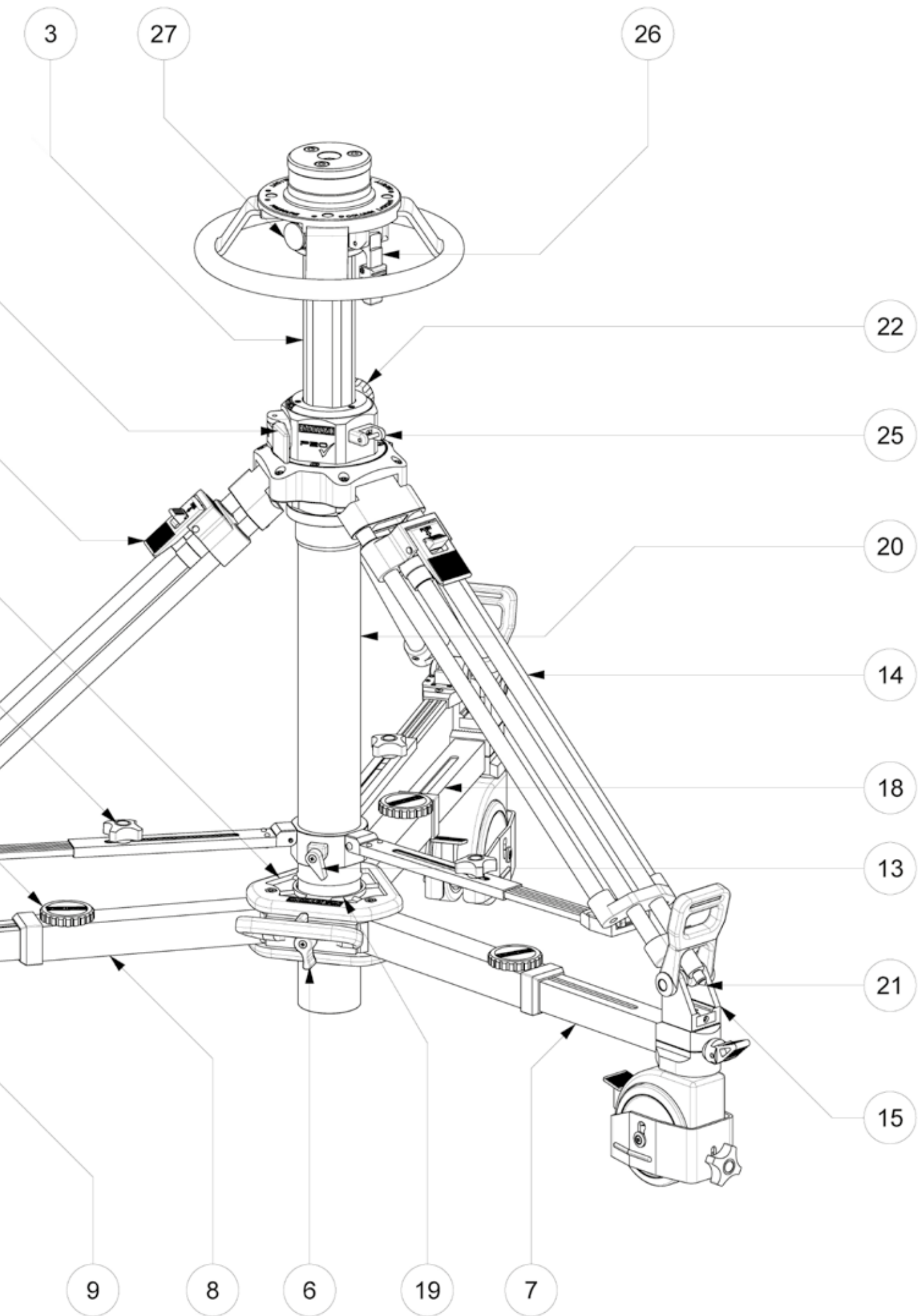
- Serial number and date of the test;
- List of compliance data to standard;
- Notes, attachments, specifications, etc.



! The Pedestal cannot be used unless it has been positively tested and operators fully trained.

2. OPERATING ELEMENTS





- | | | |
|--------------------------------------|--|-------------------------------------|
| 1 Skid arm knob | 11 Cable guard | 21 Tripod foot |
| 2 Steering wheel | 12 Cable guard knob | 22 Drag control knob |
| 3 Extendable pneumatic column | 13 Spreader central locking lever | 23 Leg tripod lever |
| 4 Stroke lock | 14 Tripod leg | 24 Intake valve |
| 5 Spreader circular knob | 15 Foot inserting seat | 25 Safety hooking Bar |
| 6 Skid arms locking lever | 16 Rubber hook | 26 Safety latch |
| 7 Left Skid leg | 17 Skid base | 27 Gauge G1/8 - 20 Bar |
| 8 Right Skid leg | 18 Central Skid leg | 28 Wheel position lock lever |
| 9 Wheel lock | 19 Coupling hole (column/Skid) | |
| 10 Wheel Ø100 mm | 20 Fixed column | |

2.1 SPECIFICATIONS

Payload (up to)	25 Kg	55.1 lbs
Column weight	9 Kg	19.8 lbs
Skid weight	5 Kg	11.0 lbs
Total weight	14 Kg	30.9 lbs
Minimum height	740 mm	29.1 in.
Maximum height	1610 mm	63.4 in.
On-shot stroke	400 mm	15.7 in.
Minimum height from ground	30 mm	1.2 in.
Doorway tracking width (Max)	970 mm	38.1 in.
Doorway tracking width (Min)	670 mm	26.4 in.
Wheel diameter	100 mm	3.9 in.
Steering wheel diameter	260 mm	10.2 in.
Max working pressure	15 Bar	220.4 Psi
Operational temperature	-20 / +60 °C	-4 / +140 °F

2.2 COMPATIBLE EQUIPMENT

The equipment used with the **P20** Pedestal should comply with the following characteristics:

- Optimal weight (Camera/lens/accessories & fluid Head): <20 kg;
- Maximum weight (Camera/lens/accessories & fluid Head): 25 kg;
- Weight distribution must take in consideration that the center of gravity (CG) of the mounted elements stays well inside the rim of the wheelbase.



! The Pedestal should be only used to support the horizontal and vertical Camera movements of Cameras within the weights indicated above.

! **CARTONI** accepts no responsibility for malfunctions or damage to persons or equipment, gear, materials, etc. when used with equipment other than those indicated in the manual.

! **DANGER:** It is strictly forbidden to climb on the Pedestal to transport people.

Optional accessories for tilt Head mounting



AH869



AH845

Details can be found on www.catoni.com

2.3 USAGE

The Pedestal has been designed to work in a clean, dry environment. The Pedestal must not be used in areas with fine dust or corrosive gases.



! The Pedestal is not designed to work in areas subject to atmospheric explosives, the presence of fine dust, corrosive gases, acids, corrosive agents or salt or sea salt; furthermore it is not suitable for use in presence of ionized radiation or non ionized radiation (x-rays, laser, micro-waves, ultra violet rays).

The working conditions are:

- Temperature range: -20 / + 60 °C (- 4 /+140 °F);
- Humidity: 30 – 95 % (without condensation).

If the environmental conditions are critical we advise to install an adequate air conditioning in the area to balance the humidity and temperature to acceptable levels.

The Pedestal needs no particular requirements for storage, but should be stored in a dry dust free closed place; these conditions should be ensured even during transportation.

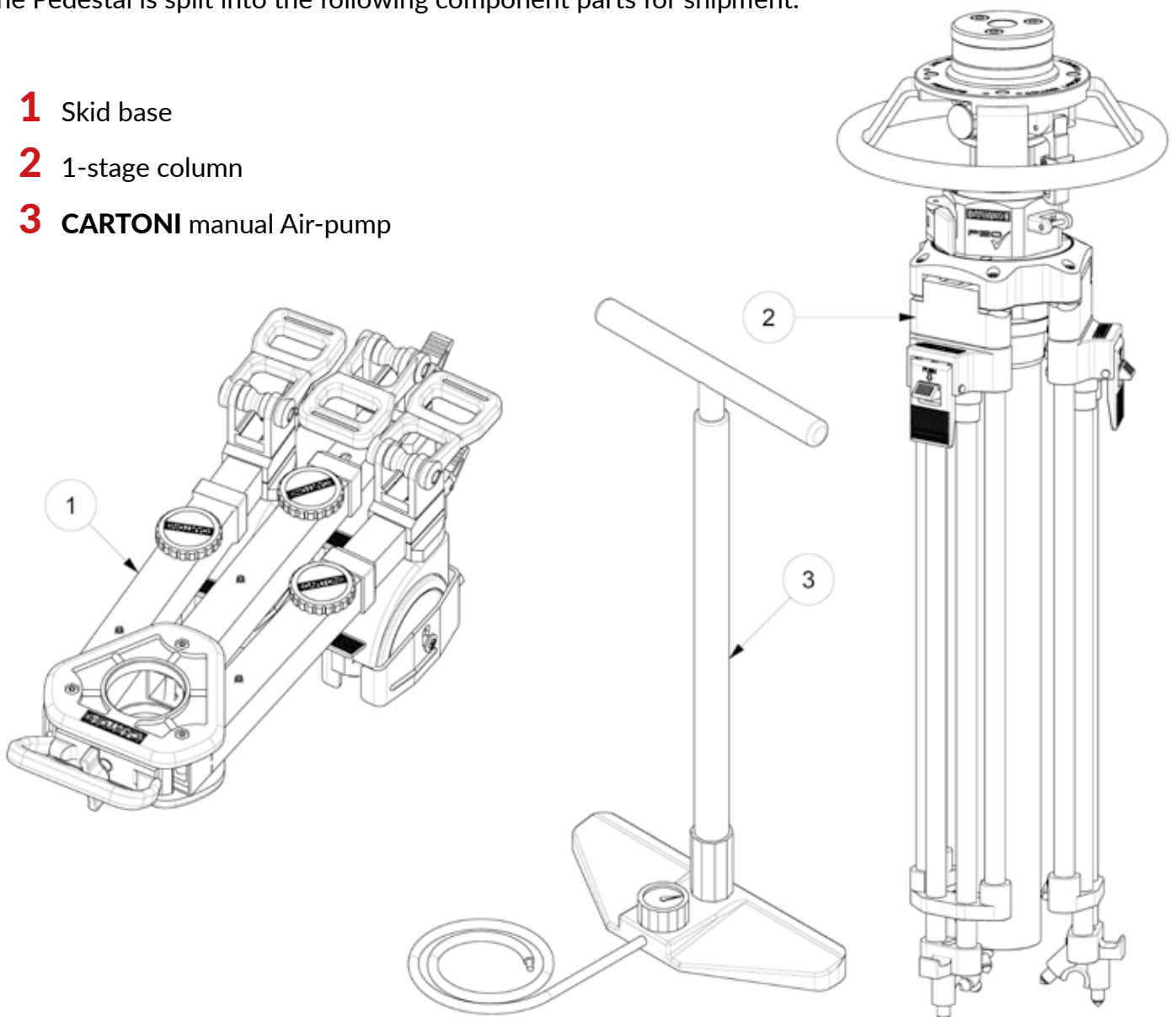
If the storage area is dusty we advise to cover the Pedestal with a protective cover.

The Pedestal produces a very low level noise; anyway, the weighted equivalent acoustic pressure emitted by the Pedestal is below 70 dB (A).

3 INSTALLATION AND SETTINGS

The Pedestal is split into the following component parts for shipment:

- 1 Skid base
- 2 1-stage column
- 3 **CARTONI** manual Air-pump



Prior to installation, please check the state of package for integrity on arrival, and also make sure that none of the components shows signs of impact. If any such damage occurs **CARTONI** should be informed immediately.

If the product is to be forwarded elsewhere, it should be carefully packed and the greatest care should be taken not to damage any of the components.

The machine contains the following labeling and inscriptions:

- CE mark
- Model
- Type
- Serial number.



! It is strongly advised not to remove the labels found on the Pedestal; the labels must remain well fixed, maintained and readable.

! The information found on the Pedestal labels should be given whenever assistance or changes are needed.

! The installation must be carried out by qualified personnel.

! The product must be used on smooth horizontal flooring, able to hold the product weight and guarantee its stability.

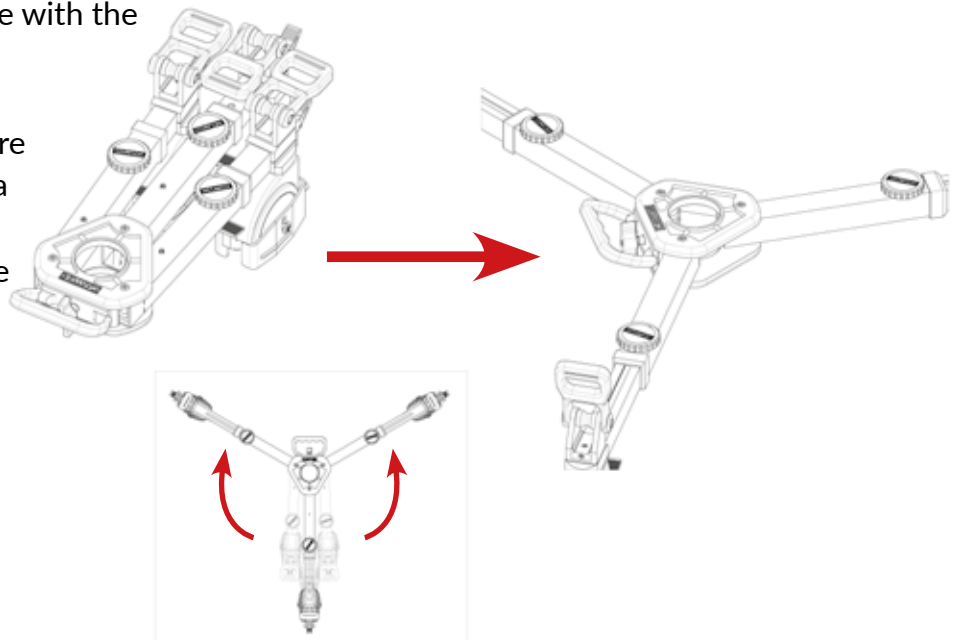
! The flooring should be such as to guarantee the stability of the Pedestal, both in movement and at rest.

3.1 SETTING THE PEDESTAL

Please assemble the Pedestal as follows:

Release the Skid arms locking lever (6) to free the Skid arms and rotate the two arms in completely opened position; then lock in place with the Skid arms locking lever (6).

Check the Skid extendable arms are locked at minimum length; lock via knobs (1). Open the tripod legs on the column assembly to access the spreader; lock the spreader arms at minimum length via knobs (5).

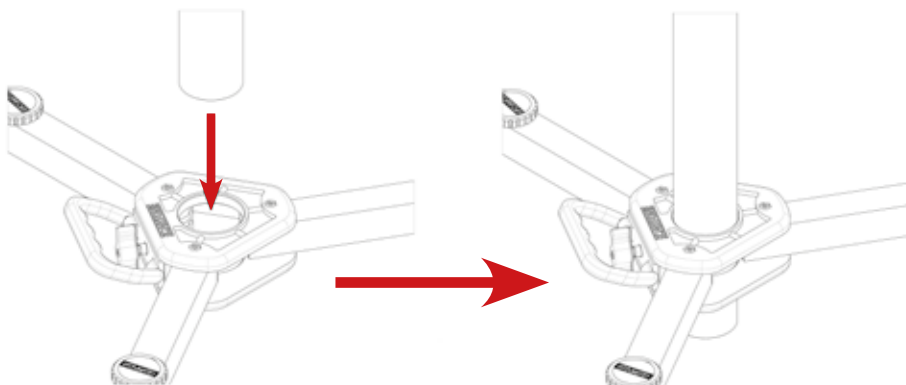


Lock the wheels by pushing down the lock lever (9) on each wheel.

Install the column in the Skid as follows:

Loosen the spreader central locking lever (13), keep the column assembly in vertical position, open towards external direction the tripod legs (14) and insert the lower part of the column on the central hole of the Skid (19).

Couple the tripod foot (21) with the foot inserting seats (15) on the Skid arms and fix the tripod legs to the Skid with the rubber hooks (16).

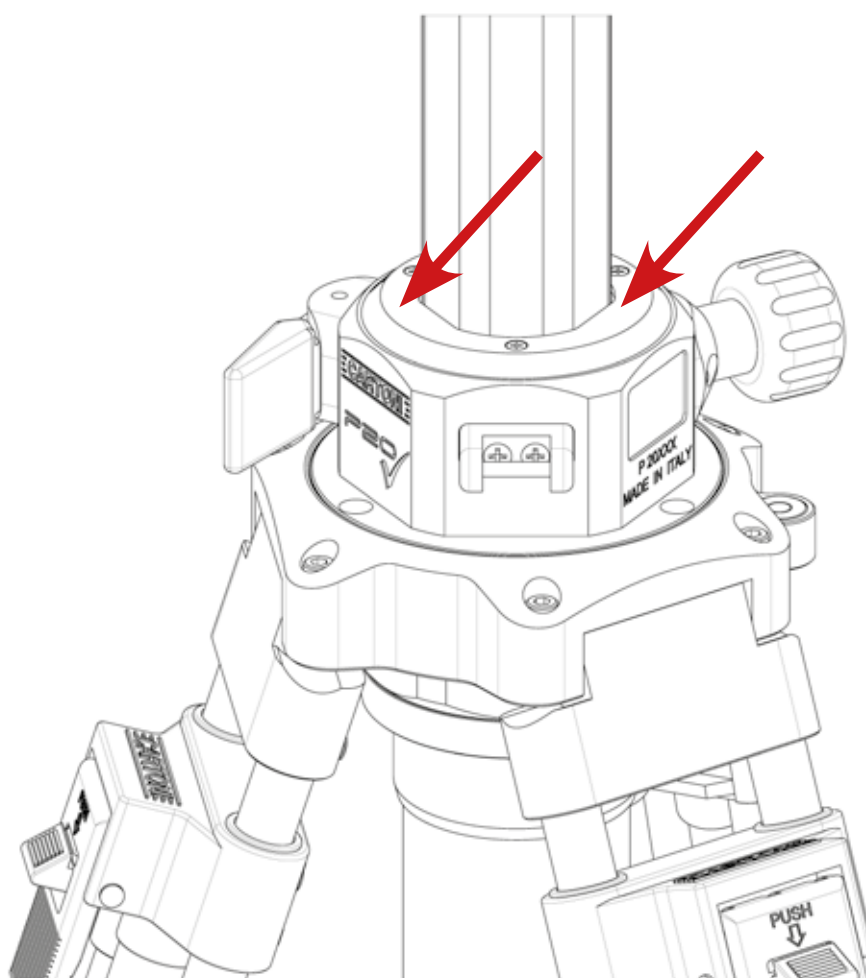


Lock the spreader locking lever (13).



! When coupling the column to the Skid be careful not to put a foot under the central hole of the Skid, otherwise your foot might be crushed if you lower the column too far.

! There is a potential risk of fingers being trapped between the upper and lower sections of the Pedestal. When the Camera is being lowered and particularly when pressurized air is released; do not insert fingers into this area at such time.



3.2 MOUNTING THE CAMERA

Lock the wheels by pushing the lock lever (9) on each wheel.

Lower the column pushing it down and lock the safety latch (26) to the safety hooking bar (25).

Fix the pan and tilt Head on the top of the Pedestal using one of the accessories (see 2.2 Compatible equipment – Optional accessories).

Place the Camera on the pan and tilt Head and add all required additional equipment (lens, prompter, viewfinder, pan bars, etc).

Release the safety latch (26).

3.3 PRESSURIZING THE PEDESTAL AND BALANCING THE LOAD

The compressed air provided to the Pedestal must be dry, without oil and dust.

The pneumatic power should be provided through the intake valve (24) using the manual pump which is included or by means an Air-compressor.

The column should be filled with clean pressurized air or nitrogen until it compensates the weight of the Camera configuration.

To pressurize the Pedestal connect either the manual Air-pump provided with the system or the Air-compressor to the intake valve (24), by screwing in the pump connection.

Inflate the system until the column rises and reaches and maintains the top upper position.

Remove the air intake connection.

Bleed the air excess, pushing the pin in the intake valve (24) until the Camera moves freely up and down through the entire range of the column stroke.

The Skid is set in minimum doorway tracking width. To increase stability, extend the Skid arms at maximum width operating knobs (1). Additionally adjust the spreader arms at the matching extension via knobs (5).

4 USING THE PEDESTAL

4.1 HEIGHT ADJUSTMENT

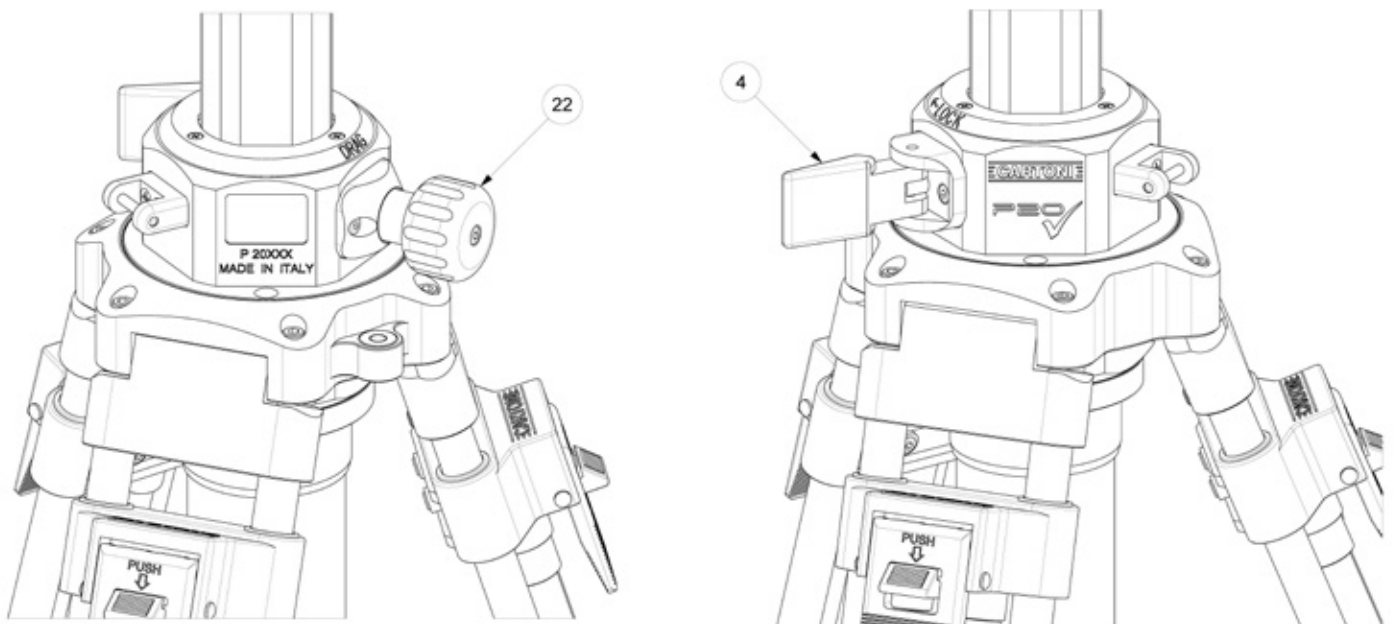
The total Pedestal height can be regulated by extending the tripod legs (operate the leg tripod levers (23)) and adjust each leg at the same height.

When correctly balanced, the column can be used without any resistance throughout the stroke capability.

In case one should need some resistance to the stroke, regulate the column damping by rotating the drag knob (22).

The drag control knob (22) is not a lock or a brake!

Whenever needed, lock the height of the column operating the stroke lock lever (4).



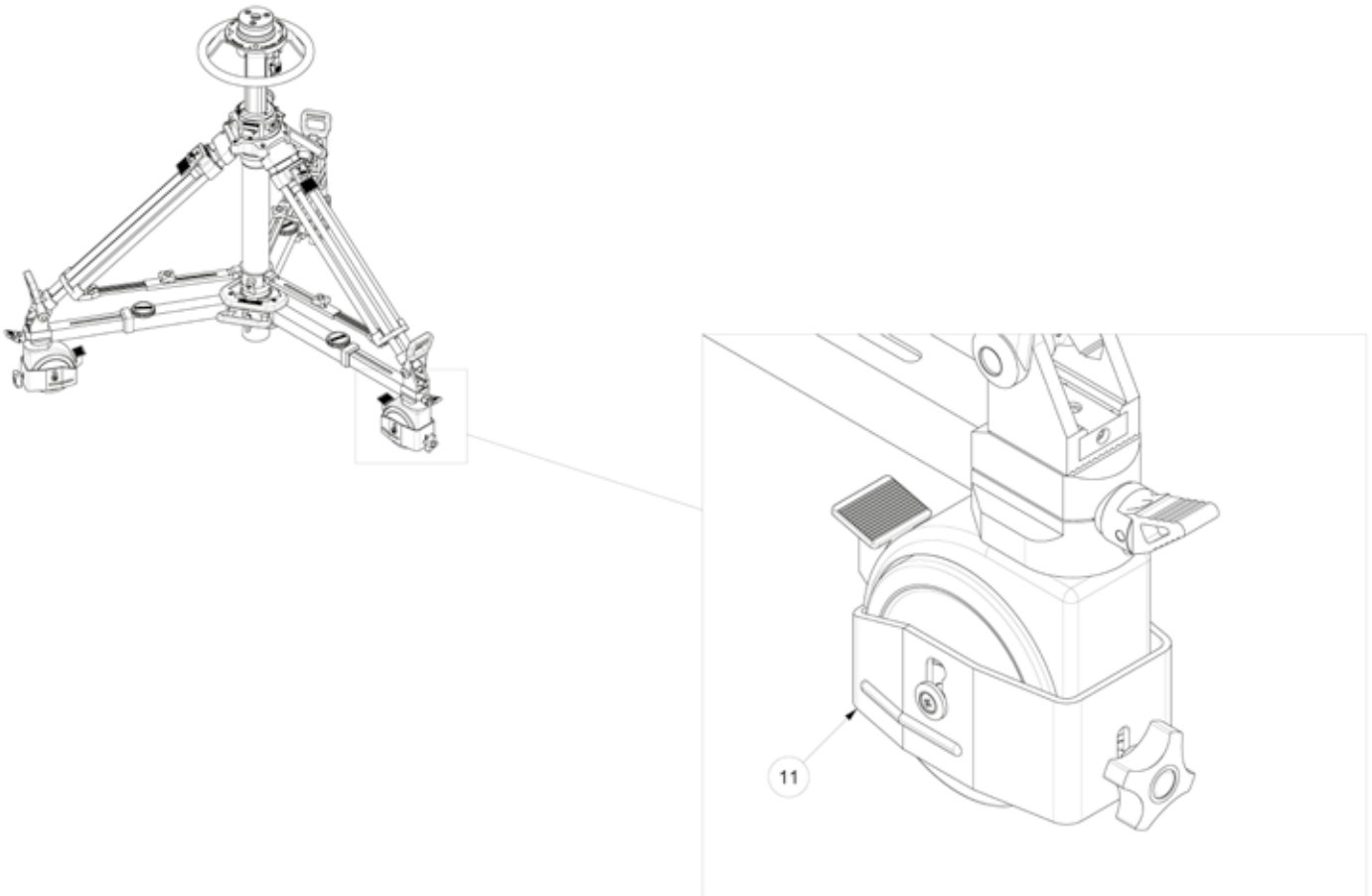
4.2 TRAVELLING OPTIONS

The Pedestal can be moved around the Studio in different ways, according to the setting of the wheel groups. Each wheel assembly can be positioned in six different settings: the position lock lever (28) locks chosen position when lowered. When:

- All the three levers (28) are up: all the three wheel groups are free to rotate;
- One lever (28) is down and two levers (28) are up: the Pedestal can travel in circular way around the locked wheel group;
- Three levers (28) are down with wheel groups aligned in parallel position: the Pedestal can travel straight in one direction without the aid of tracks.

4.3 CABLE GUARDS

If there is the risk of interference with cables or other obstacles under the Pedestal rubber wheels, a cable guard (11) has been installed around each wheel to minimize this risk of interference.



For height regulation from the floor loosen the cable guard knob, lift or lower the cable guard, then tighten the cable guard knob again. This system allows a variable height of protection from the floor 0 mm to 12 mm. (The zone of interference is equal to 70 mm, complying to prospect 1 of standard UNI EN ISO 13857:2008).



! Be careful to avoid hitting objects and persons when moving the Pedestal. Also take care that the wheels do not catch into obstacles (e.g. steps) which might compromise to the stability of the Pedestal.

4.4 SAFETY PRECAUTIONS

The Pedestal is equipped with safety systems designed to eliminate the risk of injury to the operators or other surrounding people.



! The Pedestal has been designed to respect ergonomic principles to allow operators to use it without any physical exertion. This includes working conditions with minimum strain, movements, frequency of routines to avoid any physical and psychological discomfort.

! The presence of safety systems does not exonerate Pedestal operators from taking the utmost care to avoid any action that might endanger themselves or their machine. In particular, the operator must never come in contact with the Pedestal moving parts.

! It is absolutely forbidden to modify or remove any of the Pedestal safety systems.

All pneumatic components have been designed for high working precision and will last as long as the Pedestal itself. The pneumatic assembly is located in the internal part of the column and therefore protected from intentional and accidental damages.



! It is absolutely forbidden to modify all the pressure valves in any way whatsoever. Incorrect pressure valve settings could cause malfunctions or breakdowns in the Pedestal components and could also seriously endanger its operators.

The column is fitted with a maximum pressure valve, which prevents air pressure rising above maximum level in order to protect the machine from malfunctions or breakdowns.

The maximum pressure valve is set at 15 bar and all column component dimensions have been selected to tolerate an operating pressure up to that level.

In order to prevent the column to rebound when the column lock is improperly released, the column itself is equipped with a system which releases air in a controlled, gradual way to avoid sudden rising.



! The Pedestal must be used according to the instructions indicated in this manual.

The operators must take care to avoid creating potential dangerous situations for both the operator and others.

Anyone who operates the Pedestal must be thoroughly trained in the correct methods of use and its safety features.

Furthermore they must be informed of the present documentation relevant to their work.

During any maintenance to the Pedestal, we recommend to follow the indications in the current section.

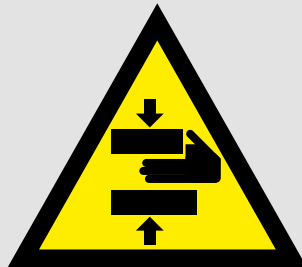


! All maintenance on the Pedestal must be carried out by competent and instructed personnel on the operative and safety methods of the Pedestal.

! Do not carry out any maintenance when the Pedestal is moving, and always check that the pressure valve gauge indicates minimum pressure inside the column.

! Items whose center of gravity (CG) is too close to the rim of the casted base (teleprompters) could cause the Pedestal to tip over eventually while moving the Pedestal.

! There is a potential risk of trapping your hands between the moving section of the column and the column itself.



5 DISASSEMBLING AND STORAGE

The Pedestal can be disassembled for transport and storage.

Proceed as follows:

Lock the three wheels with the wheel locks (9).

Depressurize the Pedestal till to 1.5/2.0 Bar (total bleeding is not compulsory).

Open the safety latch (26) and push down the column to engage the safety latch (26) to the safety hooking Bar (25).

Unlock the spreader locking lever (13).

Unlock/remove the rubber hooks (16) and detach the tripod legs (14) from the Skid.

Vertically lift the column and extract it from the Skid.

Release the Skid arms locking knobs (32), push the arms in completely closed position; then lock in place with the Skid arms locking knobs (32).

Release the butterfly lever (6) and fold the Skid arms in storage position, lock the butterfly lever (6) to secure.

The Pedestal has been designed and built in a way to reduce as much as possible any maintenance, and to ensure problem-free efficiency over time.

After any maintenance operation, the Pedestal must be tested to ensure that it is working properly.



! Before starting any maintenance operation the Pedestal must be detached from any air supply line and the column completely depressurized as indicated in section 5.

6.1 ROUTINE MAINTENANCE

The pneumatic system does not require particular maintenance.

It is advisable to check the conditions of the inflating connection and of the in/out valve (24).

Use a damp cloth and no harsh cleaning product to remove dust, grease or other substances. It is particularly important to keep the wheels clean so that they can rotate freely.

Pedestal components should be carefully periodically inspected and any damaged part immediately replaced to prevent failures that might compromise the safety of the pedestal.

6.2 EXTRA MAINTENANCE AND SPARE PARTS

Whatever extra maintenance requires to be carried out by **CARTONI**'s own technical servicing staff or an authorized service station appointed by **CARTONI**.

Information on authorized service station staff can be obtained by contacting **CARTONI** or www.cartoni.com.

For fast, effective problem solving **CARTONI** should be informed of the Pedestal model, the serial number and the nature of the defect or its visible symptoms when the problem arises.

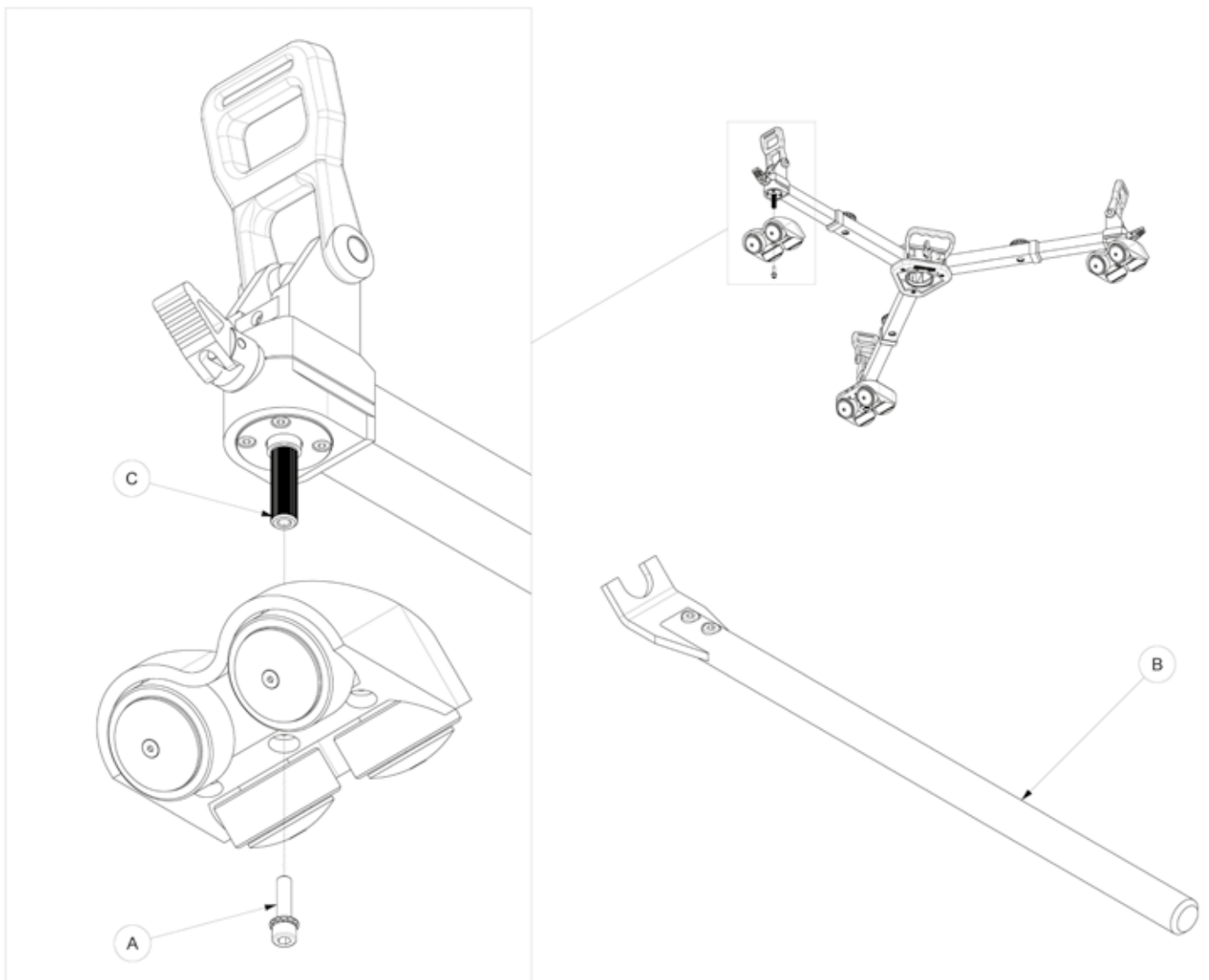


! All warranty conditions are invalidated should any repair operation be attempted by anyone not authorized by **CARTONI**.

All spare parts should be ordered from **CARTONI** which will either supply them directly or indicate where they may be obtained.

Remember that repairs should only be carried out by persons employed or authorized by **CARTONI**. All warranty conditions are invalidated should any parts be different from those originally mounted on the Pedestal.

6.3 TRACK WHEEL ASSEMBLY



Special track wheels are available to allow the use on standard tracks. Replace the wheels as follows:

- Remove the column from the Skid and turn the Skid upside down;
- Unscrew and remove the Allen screw 6 x 25 mm (A);
- Remove the three 100 mm wheel groups using the (B) tool (wheel extraction fork);
- Assemble the track wheel groups inserting the shafts (C) and tightening the Allen screw 6 x 25 mm (A).

6.4 DECOMMISSIONING

In case the Pedestal becomes beyond repair it should be placed of service or at least clearly labeled as “out of order”.



Since the Pedestal is largely made of steel and aluminum, most of its material can be recycled.

Once a Pedestal is decommissioned, it is advisable to separate its various materials for differentiated utilization or disposal.

Since none of the materials used on the Pedestal are toxic or may cause a risk to the health of its operators, they can be handled without the need for any special precautions.



! The dismantling of the Pedestal at the end of its life must be carried out by competent and trained personnel.



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PROFESSIONAL CAMERA SUPPORT

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