



General safety rules

In addition to the fact that the working place must comply with the Law in force related to working environments, and the employer must ensure that personnel work in safe conditions, we give a short list of duties to be observed during the cylinder installation and the dumper test.



IMPORTANT NOTE!

The person in charge of telescopic cylinder assembly and final machine tests is to be considered as the 'user'.

With respect to this, the user must know and respect all prescriptions in the user's manual provided by Di Natale–Bertelli when the cylinder is delivered. The user's manual must be also enclosed to the vehicle manual.



4.6 For installers, service men and repairers



MAKING AWARE!

Remember that while operating machines, danger is still there!



MAKING AWARE!

Remember that the telescopic cylinder fitted in a dumper CANNOT be used as a stabilizer, but it works only as a 'lifting' device.

- The person in charge of installation must know the machine, the partly completed machines and their parts. The installer must fit this equipment properly, ensure that it works well and finally test it.
- Only authorised personnel is allowed to handle and work the machine.
- During the machine installation in the vehicle, disconnect electric connections to the batteries to avoid damages.



PROHIBITION!

It is forbidden to weld on the vehicle and machine structures.

- It is compulsory to know this manual and the user's manual well before carrying out any service.
- The replacement of parts must be carried out only with original parts. On the contrary, the guarantee does not apply and the manufacturer disclaims any responsibility.
- Maintenance must be carried out provided that the system has been turned off (disengaged power take-off), the truck has been stopped and the keys have been removed and kept in a safe place and out of personnel reach. The 'machine under maintenance' notice must be put in a visible place.



PRESCRIPTION!

The vehicle handles and footboards must be kept clean (no grease or dirt) at any time in order to avoid falling and slipping.



PROHIBITIONS!

It is forbidden to climb on the machine. Use approved climbing devices.



It is forbidden to use free flames and smoke.



It is forbidden to carry out maintenance when the equipment is moving and the hydraulic system is working (engaged power take-off).



It is forbidden to stop under the lifted body. First of all, use the safety support delivered with the dumper or similar supports to prevent the body from descending accidentally and crushing the operator.



It is forbidden to work near electric lines.
(KEEP MIN 5m SAFETY DISTANCE)



it is forbidden to leave the vehicle unattended when the body is lifted and the power take-off works.



PRESCRIPTIONS!

Before disassembling connections or pipes, release residual pressure in the system by operating the controls up to the end of stroke for a couple of times with disengaged power take-off.

On the contrary, there may be danger of fluid jets and, as a consequence, damages to people health.



Do not allow third parties to access the machine working area (10 m min. safety distance from machine working range).

- It is recommended to use the union with parachute valve, which allows to block the dumper in case of oil pipe damage or failure.

4.7 Prescriptions that must be included in the final machine manual delivered to the final user



MAKING AWARE!

If it is difficult to introduce this information in the dumper manual **it is compulsory** to enclose the user instruction sheet to the manual provided along with every cylinder sold by Di Natale-Bertelli.



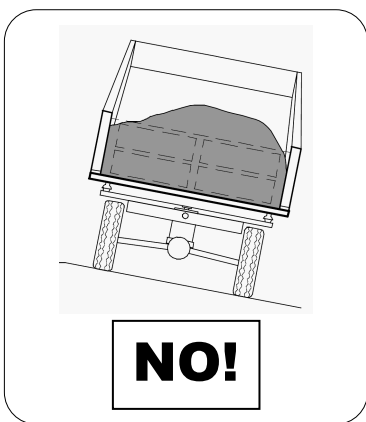
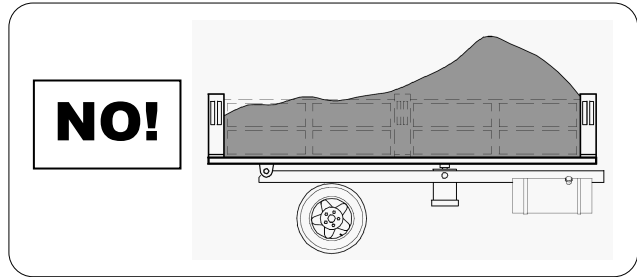
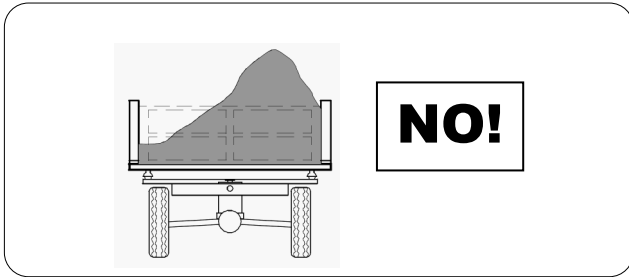
PRESCRIPTION!

Before operating the machine, check the environmental conditions (wind, temperature, risks of electrocution) in order to work in safe conditions.

- **Users are reminded that when a vehicle with dumping device capsizes, the damages to the lifting cylinder are the consequence and not the cause of the vehicle capsizing.**
- Users are reminded that one of the main causes for a vehicle with dumping device to capsize is the handling of muddy materials which tend to adhere to the body sheet metal.
- **It is forbidden to put parts of the body under the lifted body without using the safety support.**
- Do not allow third parties to access the machine working range (10 m. min. safe distance from machine).



- Do not tamper the valve set by the dumper manufacturer to increase max. working pressure.
- Load must be within max. load capacity limits.
- It is forbidden to leave the vehicle unattended when the body is lifted and the power take-off works.
- Arrange the load evenly, and before tilting check that material has not piled awkwardly inside the body during travel.



- Carry out tilting only on flat and stable ground.

- Always tilt when the vehicle is stopped and the brake is engaged.
- Always tilt in areas free from people and obstacles.
- Align tractor and trailer before tilting.



PROHIBITION!

It is forbidden to work near electric lines.
(5 m. MIN. SAFETY DISTANCE)

- Do not reach max. stroke with full load. If necessary, slow down and wait until complete unloading.
- In case the body lifts unevenly, descend it immediately and check for causes.
- Do not move the vehicle to help with material unloading.
- Set out again only when the body is horizontal and ready for travelling.
- Never work under the dumper except in specially equipped areas and by observing the safety standards.
- Never try to stop leakage manually and never work with the system under pressure.
- Do not tamper the max. pressure valve or the end of stroke device settings.
- In case of low temperatures make the oil flow idle for at least 15 minutes before starting tilting.
- Users are advised to use the union with parachute valve, if not installed by the manufacturer, which allows to block the body in case of oil pipe damage or failure.
- Always check inflation pressure of tyres.

4.7.1 Prescriptions for dumping tankers

- Before unloading, stabilizers MUST be fixed on the ground.
- Lift the tanker and reach the max tilting angle of about 25°.
- Wait until half of the material has been unloaded before lifting the tanker completely.



RESPONSIBILITY DISCLAIMERS!

The non-observance of these rules causes the cylinder guarantee not to apply.

Procedures for correct cylinder installation

4.8 Dimensions of the counterframe cross members

The dumper is a machine and as such, the manufacturer machine design must comply with the dumper regulations set by the Traffic Control Authority.

The dumper design must provide the dimensions of the cross members on which the supports, where the cylinder works (or the cylinder seat in case of three-side tilting machine), are installed.



PRESCRIPTION!

For the correct dumper manufacture, the builder must also comply with the following:

- UNI 10691- 10692 – 10693 – 10694 and 10695 standards concerning dumpers;
- EN ISO 12100/1 and 12100/2 standards.
- The vehicle manufacturer Equipment Guidelines.
- The Papers, issued by Traffic Control Authority, concerning dumpers.
- The telescopic cylinder manufacturer guidelines and those of the other machine components manufacturers.



RESPONSIBILITY DISCLAIMERS!

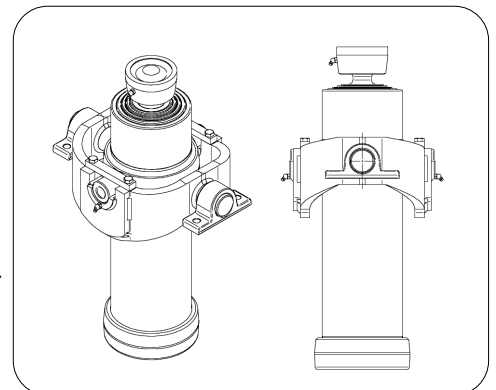
Di Natale-Bertelli s.p.a. disclaims any civil and penal responsibility for damages to people, things, animals and environment due to failing counterframe cross members supporting the lifting cylinder.

4.9 Prescriptions for correct cylinder installation

- For correct cylinder installation it is recommended to use a cardan cradle and its supports.



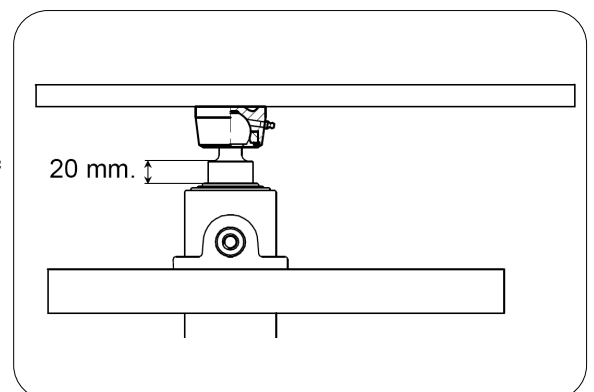
It is recommended to use supports equipped with grease nipple.



PROHIBITION!

During welding IT IS FORBIDDEN to put the earthing on the cylinder.

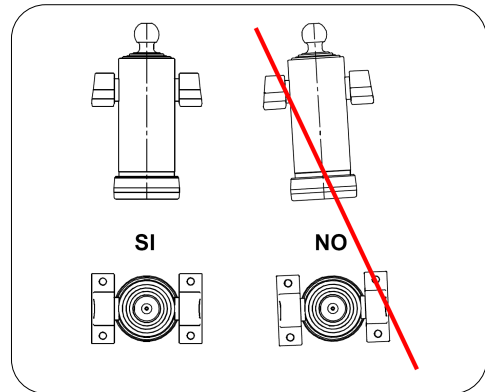
- When the body does not work, it must not rest on the cylinder. There must be always a clearance of at least 20 mm.





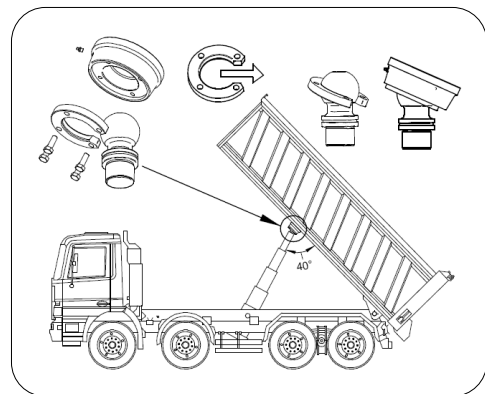
- During the cylinder assembly, protect the extensions against welding and paint drops and dirt.

- Ensure that the cylinder couplings are perfectly aligned to prevent from axial strain which may endanger correct translation.



- Make sure that the ball Ø45 – Ø55 – Ø65 seat angle does not exceed 30°.

- For tilting up to 40° the Ø 73 and Ø 92 balls must be welded with backwards ring cut. We suggest to fix the bolts M12 with **Loctite-243**.

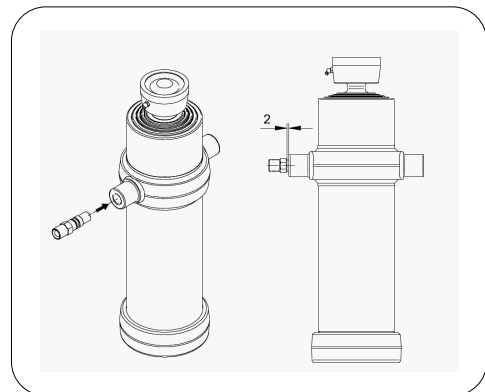


- Make sure that during rotation the cylinder must not get in touch with other vehicle parts (with both loaded or unloaded vehicle), especially with the counterframe cross members and the differential gear.
- **Except for series Kompakt cylinders, all the other cylinders delivered by Di Natale-Bertelli s.p.a. can work until the 'end of stroke' thus making the machine safer. However, according to UNI 10694 standard it is necessary to install an end of stroke device thus allowing at least 150/200 mm clearance in the cylinder stroke.**
- Be careful during painting. Use adhesive tape to protect the extension upper part against paint, diluents or degreasing detergents which may get into the extensions and cause damage to extension seals.
- **Use a max. pressure valve set at 200 bars in the oleodynamic circuit so as not to exceed max. pressure as prescribed by the manufacturer (UNI 10693 standard point 4.2.3).**
- Use a device which can stop the cylinder closing in case of system failure. Example: parachute valve (UNI 10693 standard point 4.4.5).

- Fit the union in the threaded pin, screw and leave 2 mm clear so as to allow the pin to rotate regularly during tilting.



The union is equipped with double O-Ring to allow the cylinder rotation during tilting. Therefore, do not fasten the union by means of spanner but screw it by letting the last thread turn lose.



4.9.1 Choosing the hydraulic system pipes

The pipe section must be chosen according to the union thread in the pin through which the oil flows into the cylinder.



MAKING AWARE!

It is recommended to use pipes with bursting pressure which must be at least twice as much as working pressure.

HIGH PRESSURE flexible pipes cannot be equipped with reusable terminal unions.

4.9.2 Pipe assembly

Check pipe bending radius so as to avoid excessive capacity loss and dangerous stress.

In case of too short pipe due to miscalculation, replace it with a pipe of suitable length. Keep to a min. tolerance of 10% or more for pipe length calculation.

Do not use pipe with a bending radius lower than 200 mm.

4.9.3 Recommended mineral hydraulic oil

Use **mineral hydraulic oils** and lubricants with a viscosity of 10 to 46 centistokes at 50°. For only one viscosity we suggest a mineral hydraulic oil high index ISO32, Mobil – Shell – Valvoline – Bechem.

- ISO 22 for cold climate temperatures
- ISO 32 for average climate temperatures
- ISO 46 for warm climate temperatures

4.9.4 System bleeder line

As soon as the system has been operated bleed the system by loosening the cylinder oil inlet and outlet fittings.

4.9.5 Inspections after assembly has been completed

In addition to a general inspection, it is necessary to check that what specified at paragraphs 6.1.1 and 6.1.2 (subparagraphs included) has been fulfilled and respected.

In addition, ensure that:

- Bolts securing the cylinder and the cradle are fastened properly.
- The power take-off and dumper control works properly.
- There is no oil leaking out of unions and pipes in the power circuit.
- The side boards open, close and block correctly.
- The end of stroke works properly with a clearance of min. 150/200 mm.
- There are the CE documents certifying the CE marking of the final machine where Di Natale-Bertelli telescopic cylinder has been installed.



5 Di Natale-Bertelli s.p.a. cylinder maintenance

5.1 Premise

What follows underneath is a list of services that the telescopic cylinder machine manufacturer has to fulfil:

- **Routine maintenance** that could be carried out by the user (we use the conditional because we know that every-three-month maintenance is hardly ever fulfilled by the customers).
- **Extraordinary maintenance** by means of which worn parts are replaced thus avoiding the machine stopping working.
- **Repairs.**


5.2 'Taking care of your customers' to the advantage of your image

It has probably happened to you to listen to people saying "...look! It's been him to advise me that a year has already passed... As soon as I made the appointment he asked me to go straight to his workshop. He fulfilled his work with the utmost care and before I left his office... he also offered me a coffee..."

We all have to become aware that today more than ever we live in a society which mainly provides 'services'; therefore, the yearly maintenance of your customers machines is a 'great service', that is to say a very important service that can save someone life. **Hence, make a list of customers who bought dumpers from you and EVERY YEAR send them a letter to remind them that it is time for maintenance.**

Probably not all of them will call you back but you will see that, year after year, an increasing number of companies will do it... even in our country users become increasingly aware of the importance of maintenance with respect to the considerable number of fatal accidents occurring daily in the building sites and working places.

5.3 Safety rules for service men

 General safety rules can be found at chapter 6.

5.4 Prescriptions to be introduced in the final machine manual and delivered to the final user



MAKING AWARE!

If it is difficult to introduce this information in the dumper manual **it is compulsory** to enclose the instruction papers to the manual provided along with every cylinder sold by Di Natale-Bertelli.

You can find underneath a list of simple suggestions in order to obtain the maximum returns from your cylinder.

- ✓ To reduce damage resulting from atmospheric agents (extension oxidation) avoid leaving the dump body lifted unnecessarily. Just lift it for the time needed to unload the material.
- ✓ Do not use diluents or similar products to clean or degrease cylinders, especially their upper parts, to prevent damage to their seals.
- ✓ Be careful when painting, and protect the extension upper parts by means of adhesive tape. This is to prevent paint from getting into the extensions and damaging their seals.
- ✓ Have tanks and pipes cleaned regularly (every two years). If necessary, change the oil filter if provided in the system.
- ✓ Avoid cleaning cylinders with high pressure flush.
- ✓ Check regularly (every three months) the hydraulic circuit for any losses and/or state of wear.
- ✓ Check every three months (when there are no losses) the oil level and add hydraulic oils and mineral lubricants with viscosity ranging between 2 and 6 Engler at 50°. Replace oil with the same type as the one previously used.
- ✓ Grease regularly (every three months) connecting parts.
- ✓ Grease regularly (every three months) ball seats.

- ✓ Grease regularly (every three months) supporting pins.
- ✓ In case the pin state of wear exceeds 2 mm replace the cylinder and/or the accessories.
- ✓ Check regularly (every three months) the screw fastening of cradles, supports and ball seats if provided with bolts.
- ✓ Have cylinders disassembled by installers or any authorised service centres.

5.5 Cylinder cleaning

5.5.1 Cleaning



MAKING AWARE!

Avoid cleaning cylinders with high-pressure flush.



ENVIRONMENT!

Do not use diluents, solvents, benzene, hydrocarbons or anything that may cause damage to health and environment.

5.5.2 Drying



PRESCRIPTIONS!

It is recommended to dry cylinders before carrying out maintenance.

Do not use air jets to dry cylinders.

Avoid leaving the dump body lifted after cleaning. This is to prevent damage to extensions due to atmospheric agents.

5.6 Maintenance operations

5.6.1 General visual inspection

5.6.1.1 Inspection of protective coating

The machine washing is a necessary operation during which it is possible to inspect the machine thoroughly and verify the state of preservation of its protective coating.

- ① In case of slight abrasion or scratch it is sufficient to touch them up using products which must comply with the ones originally used by the manufacturer.



PRESCRIPTION!

Be careful when painting, and protect the extension upper parts by means of adhesive tape. This is to prevent paint from getting into the extensions and damaging their seals.

5.6.1.2 Visual inspection of cracks and fissures

During the general visual inspection it is advisable to check that there are no cracks or fissures on cylinders. In fact, as time passes, if the machine is not kept in good condition, there may occur welding failures, or even worse, cracks and fissures.



ATTENTION! VERY IMPORTANT!

In case of cracks or fissures **INFORM IMMEDIATELY THE OWNER THAT THE MACHINE CANNOT BE USED.**



PRESCRIPTIONS!

The cylinder replacement must be carried out with original spare parts provided by Di Natale-Bertelli.

5.6.1.3 Inspection of pin and cradle state or preservation

During visual inspection it is advisable to check the state of preservation of pins and moving cradle.



ATTENTION! VERY IMPORTANT!

If the state of wear exceeds **2 mm** **INFORM IMMEDIATELY THE OWNER THAT THE MACHINE CANNOT BE USED** until the cylinder and the cradle have been replaced.

5.6.2 Tightening of cylinder securing screws

The tightening of the screws fastening the cylinder and cradle supports is a necessary operation to prevent the machine parts from loosening, being ejected, hitting and causing damage to people.

Bolts and nuts tightening must be carried out in compliance with the torque wrench setting table.

SCREW SIZE	BOLTS AND NUTS CLASSES						
	Wrench opening mm	8,8 (8G)		10,9 (10K)		12,9 (12K)	
		PV	MA	PV	MA	PV	MA
Screw thread		N	Nm	N	Nm	N	Nm
M 12	18 19 20	37658	87,28	52956	122,58	63547	147,10
M 14	21 22 23	51681	138,27	72668	194,17	87280	235,36

MAINTENANCE SCHEDULE
EVERY THREE MONTHS

5.6.3 Oil filter cartridge cleaning and replacing

Keeping oil clean is fundamental to preserve telescopic cylinders over the time. However, not all dumper installers use oil filters.

If the oil filter is installed it is extremely important to service it.

MAINTENANCE SCHEDULE		
When starting the dumper	Routine maintenance	Extraordinary maintenance
By cleaning after 20/30 working hours.	By cleaning every three months	Replacement of filter every year relying on manufacturer or authorised service centre

5.6.4 Hydraulic oil replacement

MAINTENANCE SCHEDULE
<ul style="list-style-type: none"> - EVERY THREE YEARS IN CASE OF ROUTINE DUTY - EVERY YEAR IN CASE OF HEAVY DUTY



PRESCRIPTION!

Oil must be replaced when IT IS COLD.
On the contrary, it may cause scalds, or even worse, burns.

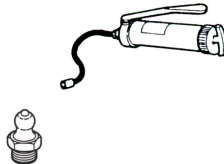
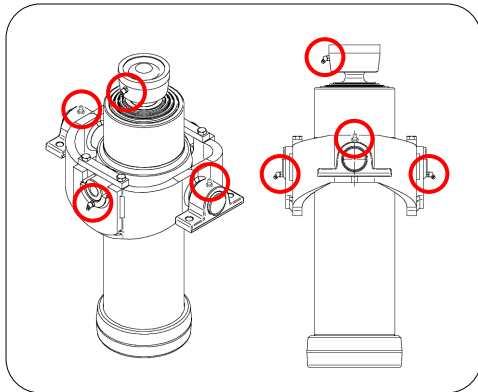
- Put the dump body in rest position so that oil can flows out of the tank.
- Use a pipe and a funnel to pour oil into a suitable container.
- Unscrew the oil drain cap under the tank.
- Unscrew the filling cap and drain oil into a container.
- Clean the tank with suitable and non-toxic detergent.

- Screw the oil drain cap again.
- Fill the tank up to max. level using the same oil (or with the same specs) as the prescribed one.
- After filling secure the drain and filling caps and check that oil is at max. level.

5.6.5 Flexible pipe inspection and replacement

It is useless to outline the importance of the state of preservation of flexible pipes installed in a dumper. During servicing, check that pipes do not show steel cloth, if so, replace them. Replace also pipes that show signs of wear.

5.6.6 Greasing



Check that there are grease nipples on cylinders (articulated head) and on cylinder and cradle supports (if supports provided with grease nipples have been used) .

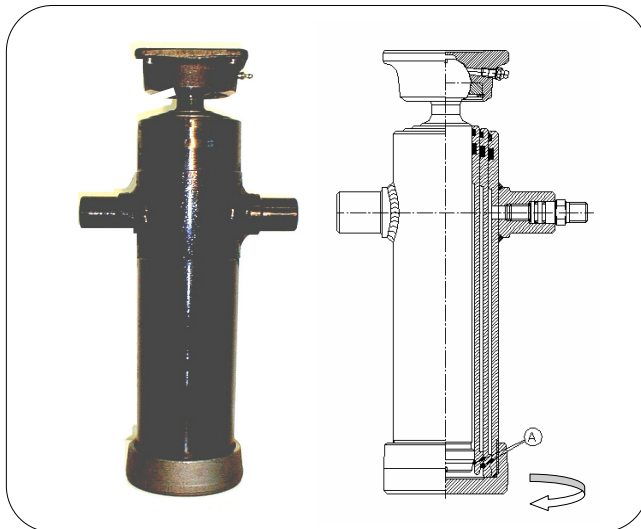
PRODUCT TO BE USED

Lithium-based grease.

5.7 Repairs

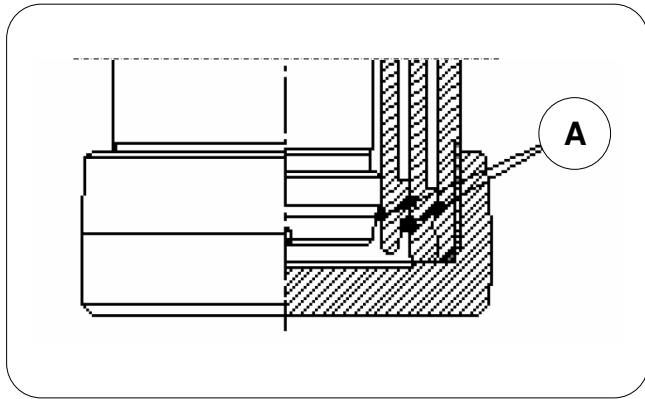
5.7.1 Cylinder disassembly and seal replacement

① This simulation is carried out using a telescopic cylinder type 2036S



To disassemble the cylinder it is necessary to unscrew the 'lower cap' ring nut counterclockwise by means of suitable spanners or a chain pipe wrench.

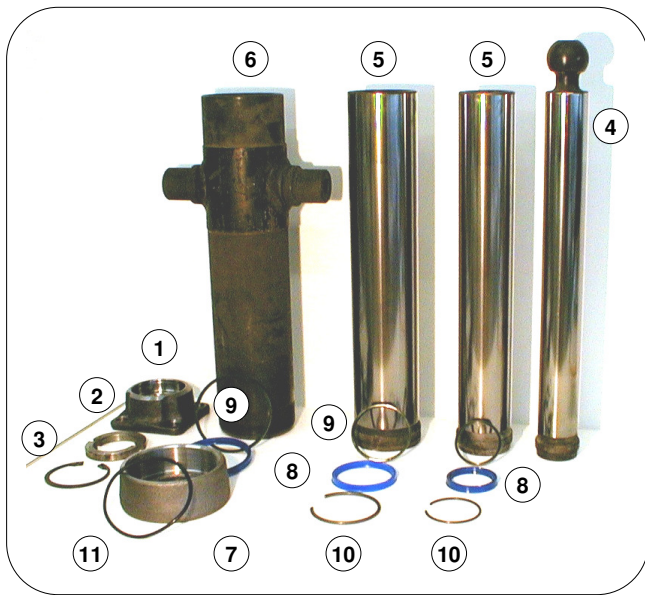
It is not advisable as it proves to be dangerous to put the cylinder on a spindle, by fitting the pipe into the hub, and make the outer body spin.



When the ring nut has been removed it is necessary to remove the flexible rings (point A in the section).

Remove the flexible rings by means of a screwdriver.

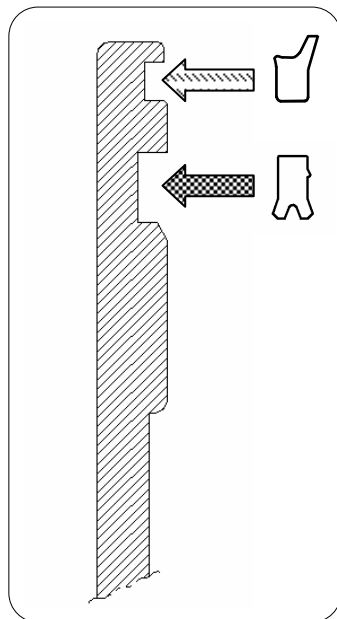
Now remove the telescopic extensions carefully to avoid scratching the outer surfaces, then disassemble the cylinder completely.



DISASSEMBLED CYLINDER PARTS

- 1. ball seat where the ball of extension no. 4 works
- 2. ball seat half-rings
- 3. seeger fastening ball seat rings
- 4. rod
- 5. cylinder extensions
- 6. cylinder outer body
- 7. ring nut
- 8. seals
- 9. scrapers
- 10. flexible rings
- 11. O-Ring (retaining rings)

5.7.1.1 Seal assembly



ATTENTION!

Before fitting the seals clean them properly by means of air jets. Inspect visually the seals state of preservation (presence of cuts).



The SCRAPER must be fitted with LIP UPWARDS

The SEAL must be fitted with LIP DOWNWARDS

Fit the seals as shown in the figure.

Our scrapers are completely made in polyurethane type Dupont with an outer water sealing profile. T° ranging between -40° and +110° C

Our seals are completely made in polyurethane type Dupont with an oil sealing double lip.

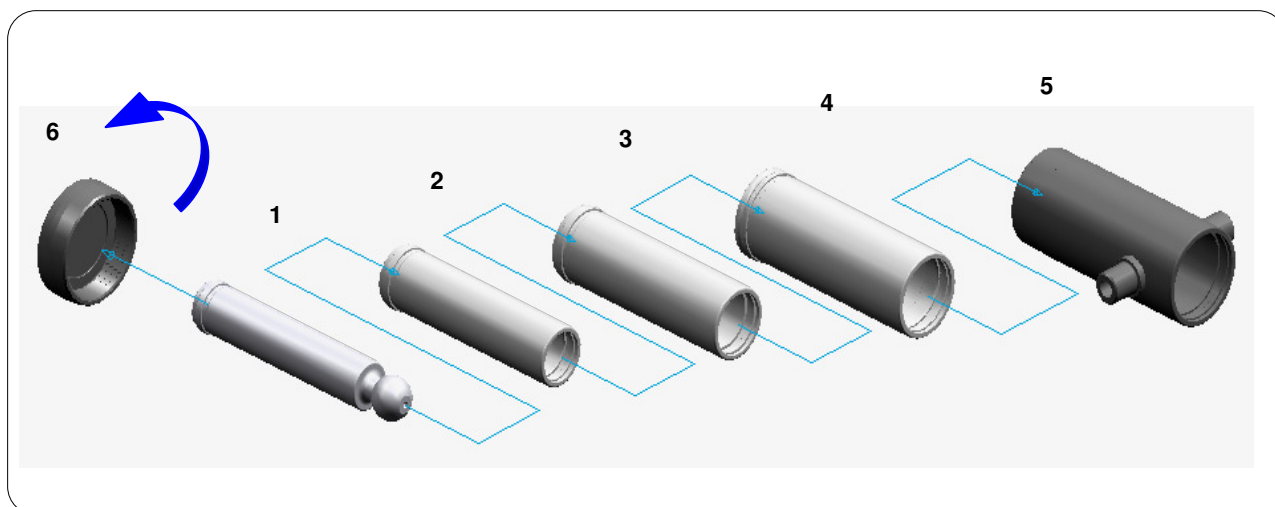
T° ranging between -40° and +110° C Speed 0.5 m/s Pressure 400 Bars



PRESCRIPTION!

After fitting seals and scrapers it is necessary to grease the extension upper guides.

5.7.1.2 Cylinder assembly order



PRESCRIPTION!

After fitting seals and scrapers it is necessary to grease the extension upper guides.

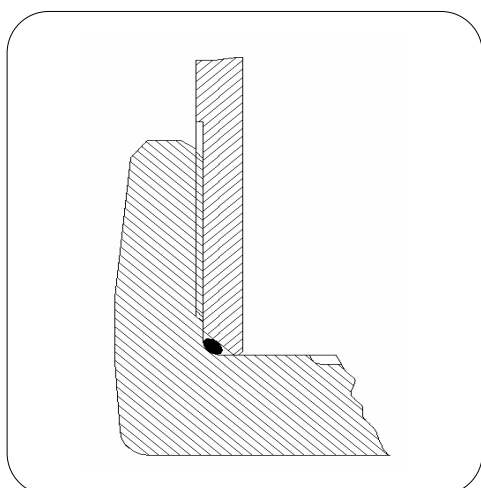
PAY CLOSE ATTENTION TO the rod and/or extension edge which may damage or turn over the seal. As a matter of fact, this operation should make the fitting easier.

5.7.1.3 Ring nut assembly

- Before screwing the ring nut, grease also the outer body thread.
- Clean the ring nut with air jets
- There is a standard O-Ring on the ring nut.



- Put O-RINGS in the ring nut so that it can stick to the side.



O-Ring must stick to the ring nut side.

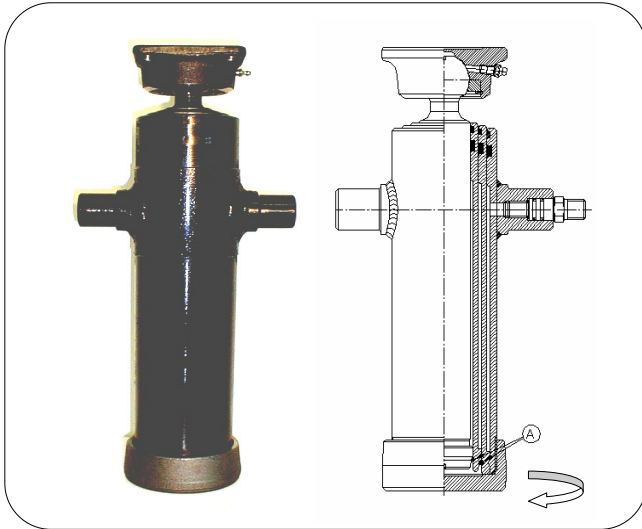
Screw the ring nut clockwise by means of suitable wrench.

The first phase of this operation must be easy to carry out. On the contrary, it means that the thread does not adhere properly. Repeat operation to avoid damage.



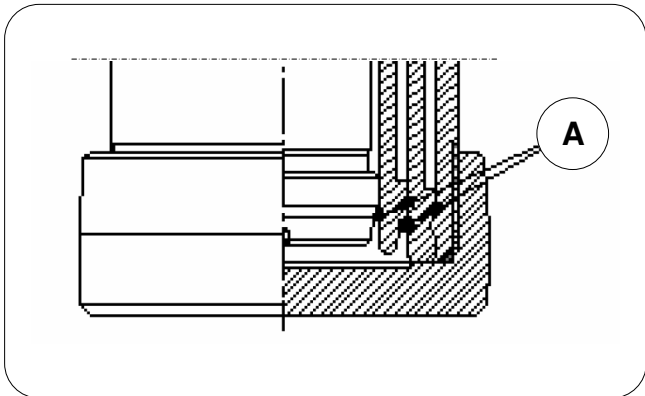
5.7.2 Cylinder disassembly and extension replacement

i This simulation is carried out using a telescopic cylinder type 2036S



To disassemble the cylinder it is necessary to unscrew the 'lower cap' ring nut counterclockwise by means of suitable spanners or a chain pipe wrench.

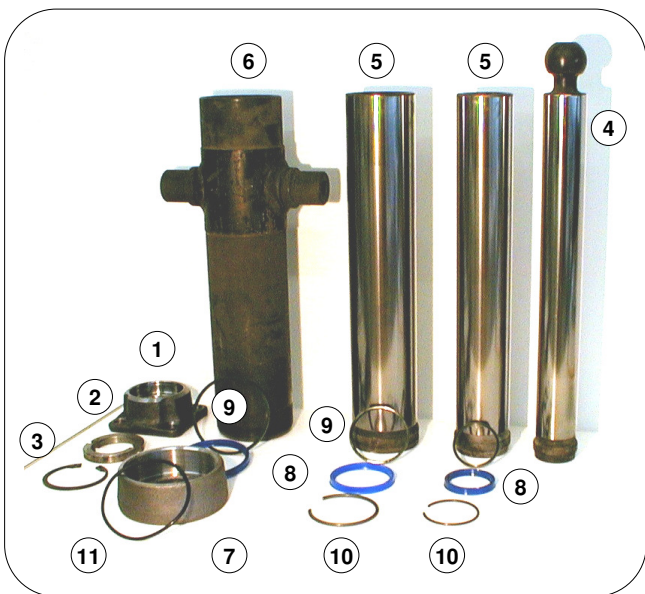
It is not advisable as it proves to be dangerous to put the cylinder on a spindle, by fitting the pipe into the hub, and make the outer body spin.



When the ring nut has been removed it is necessary to remove the flexible rings (point A in the section).

Remove the flexible rings by means of a screwdriver.

Now remove the telescopic extensions carefully to avoid scratching the outer surfaces, then disassemble the cylinder completely.



DISASSEMBLED CYLINDER PARTS

1. ball seat where the ball of extension no. 4 works
2. ball seat half-rings
3. seeger fastening ball seat rings
4. rod
5. cylinder extensions
6. cylinder outer body
7. ring nut
8. seals
9. scrapers
10. flexible rings
11. O-Ring (retaining rings)

5.7.2.1 Seal assembly



ATTENTION!

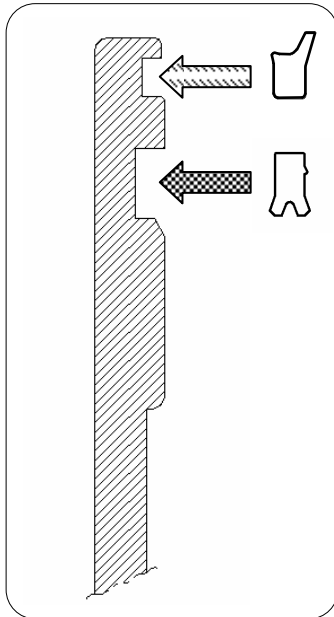
Before fitting the seals clean them properly by means of air jets.
Inspect visually the seals state of preservation (presence of cuts).



The **SCRAPER** must be fitted with LIP UPWARDS



The **SEAL** must be fitted with LIP DOWNWARDS



Fit the seals as shown in the figure.

Our scrapers are completely made in polyurethane type Dupont with an outer water sealing profile. T° ranging between -40° and +110° C

Our seals are completely made in polyurethane type Dupont with an oil sealing double lip.

T° ranging between -40° and +110° C

Speed 0.5 m/s

Pressure 400 Bars

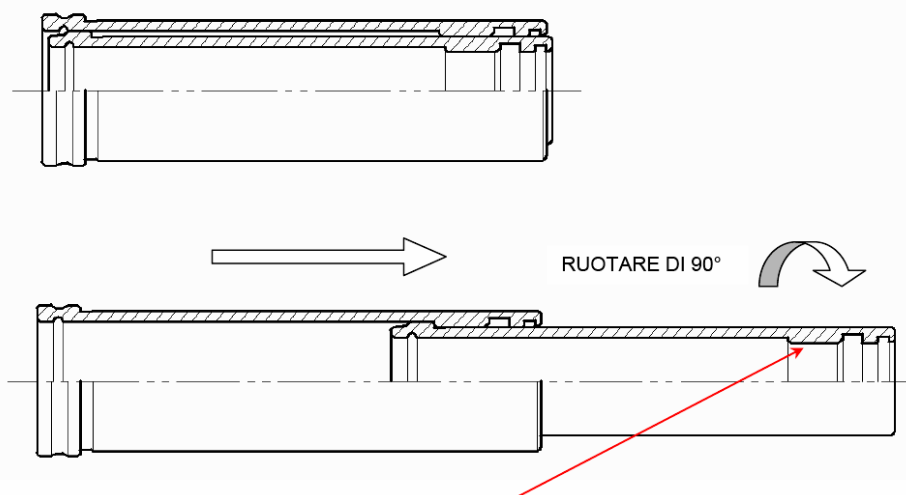


PRESCRIPTION!

After fitting seals and scrapers it is necessary to grease the extension upper guides.

5.7.2.2 Extension replacement

Before seal fitting it is necessary to test the extensions by putting one into the other until they reach the end of stroke.



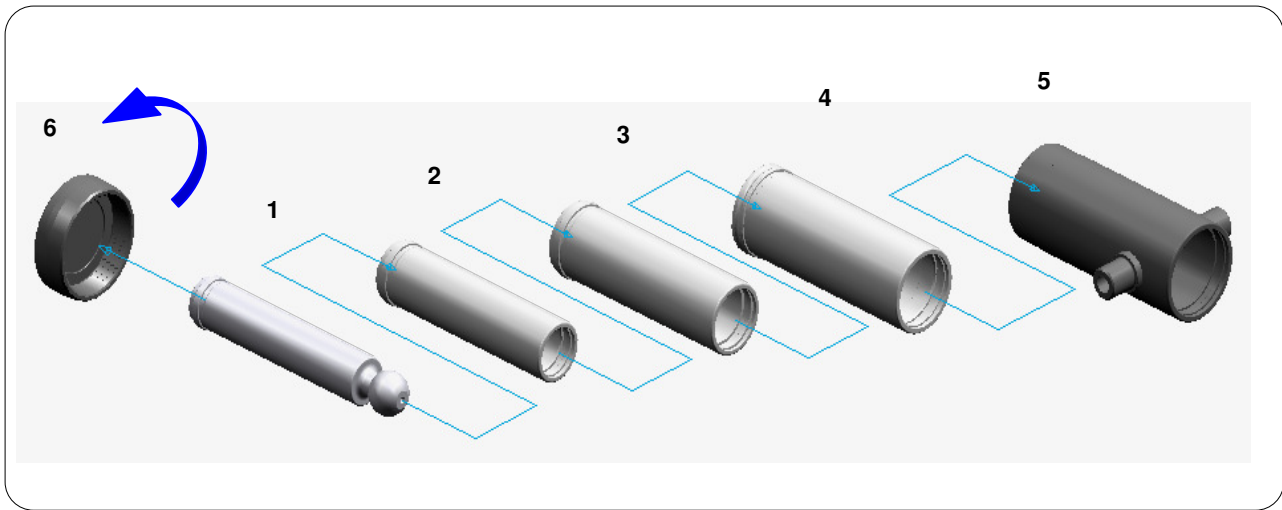
ROTATE BY 90° SLIDE AS FAR AS THE UPPER GUIDE AND ROTATE BY 90°, THEN REPEAT



Sometimes this operation may be difficult, so clean and polish the end of stroke, if necessary.



5.7.2.3 Cylinder assembly order



PRESCRIPTION!

After fitting seals and scrapers it is necessary to grease the extension upper guides.

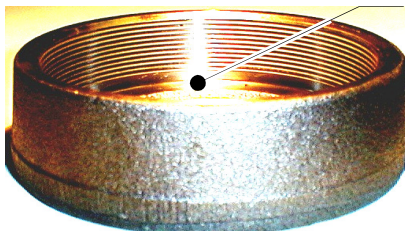


ATTENTION!

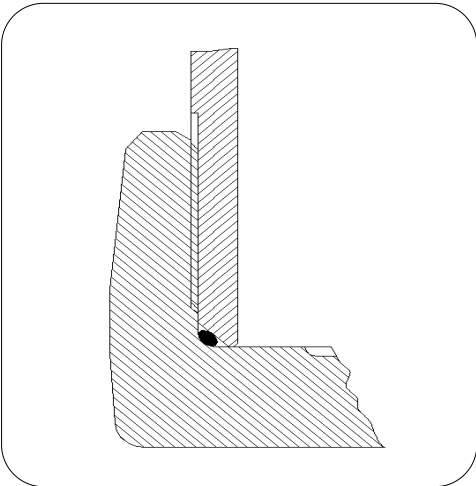
PAY CLOSE ATTENTION TO the rod and/or extension edge which may damage or turn over the seal. As a matter of fact, this operation should make the fitting easier.

5.7.2.4 Ring nut assembly

- Before screwing the ring nut, grease also the outer body thread.
- Clean the ring nut with air jets
- There is a standard O-Ring on the ring nut.



- Put O-RINGS in the ring nut so that it can stick to the side.



O-Ring must stick to the ring nut side.

Screw the ring nut clockwise by means of suitable wrench.

The first phase of this operation must be easy to carry out. On the contrary, it means that the thread does not adhere properly. Repeat operation to avoid damage.

5.8 Guidelines to spot failures

This table can be used to spot system failures causing the cylinder to work badly.

This table features:

- **PROBLEM**, short description of the situation which may occur;
- **CAUSE (or possible cause)**, one or more causes are considered for each problem;
- **SOLUTION (or possible solution)**, for each cause a solution is provided to solve the problem.

FAILURE	CAUSE (or possible cause)	SOLUTION (or possible solution)
Dumper feeding unit works but the cylinder does not move. (Oil and its level checked)	<ul style="list-style-type: none"> • Quick couplings between tractor and the machine are not connected in case of cylinder installed in the semi-trailer. • Quick couplings do not work properly • Break of coupling between power take-off and pump. • Break of power take-off or pump shaft. • Oil cock closed. • Distributor cursor blocked or broken and oil keeps on draining. 	<ul style="list-style-type: none"> • Connect systems. • Replace quick couplings. • Replace couplings. • Replace damaged part. • Open tank cock. • Unblock or replace cursor.
Cylinder and hydraulic system vibrations	<ul style="list-style-type: none"> • Oil low level. • Obstructed pipes. • Pump cavitation and too much air in the system or exhausted pump. 	<ul style="list-style-type: none"> • Refill oil in the tank. • Remove obstruction or replace pipe. • Bleed the system. • Check pump pressure and displacement. If necessary, replace pump.
Low oil level in tank	<ul style="list-style-type: none"> • Oil leaks from parts. • Worn piston seals. 	<ul style="list-style-type: none"> • Inspect carefully and remove leakage. • Replace seals.
Dirty tank (dark oil).	<ul style="list-style-type: none"> • Drain oil. • Piston extensions with loosened parts where dirt fits in. • Wrong oil supply. 	<ul style="list-style-type: none"> • Replace hydraulic oil. • Replace piston. • Replace hydraulic oil.
Pistons lift unevenly.	<ul style="list-style-type: none"> • Air in the hydraulic system. • Low oil level. 	<ul style="list-style-type: none"> • Bleed the system. • Refill with suitable oil.
Difficulty in load lifting.	<ul style="list-style-type: none"> • Exceeding load in the body. • Pump works badly. 	<ul style="list-style-type: none"> • Weigh and reduce load, if necessary. • Rely on the manufacturer for checks and parts replacement.