Pro-Tech TOOLS

Mobile hydraulic jack 3t



Instructions for use

Translation of the original instructions

GENERAL SAFETY RULES

• Read the operating instructions before starting work

• The device should be used by persons who have read the operating instructions

• Familiarise yourself with the possible risks that can occur when working with a hoist

• Use the device with due care

• The hoist can be loaded with the maximum weight indicated on the type plate

• The jack should be placed on a level and stable surface, remembering that when lifting, the jack pulled under the car.

• Before each use, check the lift pump for proper operation, leaks, or loose connections. Any irregularities found are grounds for not starting work

• Use only original spare parts

• Regularly carry out detailed checks of the hoist

• Keep the labels on the equipment clean and visible

• Use of the hoist contrary to the instructions may result in an accident or .

• The manufacturer is not liable for damages or accidents caused by improper use

• When lifting, do not use wooden blocks for support or directly on the saddle of the lifting device, this can in a serious accident!

• If there is a vehicle on the hoist, do not rock or move it, a stability check should be carried out after the vehicle has been placed on the designated supports.

• Once the lifting process is complete, support the vehicle with suitable stands.

• Do not get underneath a raised car unless it is supported by the correct mounting stands

• Secure the vehicle by locking the vehicle wheels with suitable chocks to prevent the vehicle from moving.

• Before lifting the car, centre the load on the jack saddle

• Positioning the vehicle off the centre of gravity can cause the vehicle to fall or damage the jack

• When starting up, make sure there are no persons or objects under the vehicle

• Slowly start the vehicle

IMPORTANT: The lowering speed is controlled by a safety valve; unscrewing it suddenly will cause the load to fall.

• Do not use the hoist as a support, e.g. on the bumper of a car, as it could slip and cause a serious accident

• Wear gloves and safety goggles when working

• Do not use the device if you feel tired or under the influence of alcohol or other drugs, including some painkillers

• Do not lift the vehicle if there are still passengers inside!

• Read the vehicle owner's manual before starting the lifting device - the lifting instructions contain the exact body support points provided by the manufacturer.

• Use only factory lifting points to lift the vehicle.

• Before lifting the vehicle, inspect the factory lifting points for signs of corrosion or peeling paint. If any corrosion spots are found, extra caution should be taken as this may mean weakening of the structure, making it impossible to lift the vehicle.

• When lifting a vehicle that shows signs of corrosion at locations specified by the manufacturer, constantly observe the behaviour the vehicle's structure, if any deflection is noticed or a characteristic crunching sound is heard, the lifting should be stopped.

WORKPLACE

• The work area with the hoist should be level and dry

IMPORTANT: Remember that the nature of the hoist operation means that when the load is , the hoist towards it.

This is why the surface on which the lift operates is so important - lifting loads on seemingly flat paving stones, for example, will result in the rear steering wheels breaking off if they are blocked by the 'joint' of the paving stones.

• There should be order in the workplace

Workplace clutter is the most common cause of accidents.

• There should be no third parties on site, especially persons who are not familiar with these guidelines, children, or animals pose a threat.

• Only a person trained in hoist operation and local health and safety regulations should have access to the equipment.

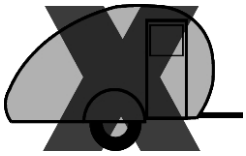
• Do not work during bad weather conditions.

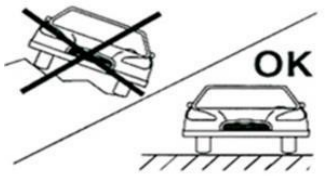
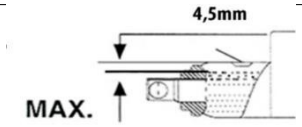
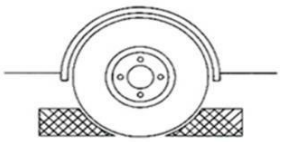
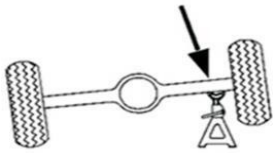
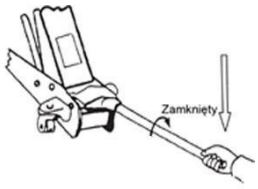
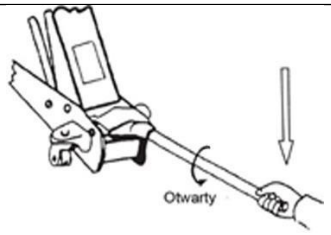
• The hoist is designed for use inside rooms, halls or garages.

• The workplace must provide freedom of movement, remembering that the jack must be positioned under the vehicle and the handle must be able to be moved. The distance to the nearest wall or other vehicle should not be less than 2 m from the vehicle being lifted.

Technical data:
Maximum lift: 3 t
Lifting range: 75 - 500 mm
Weight: 34.5 kg

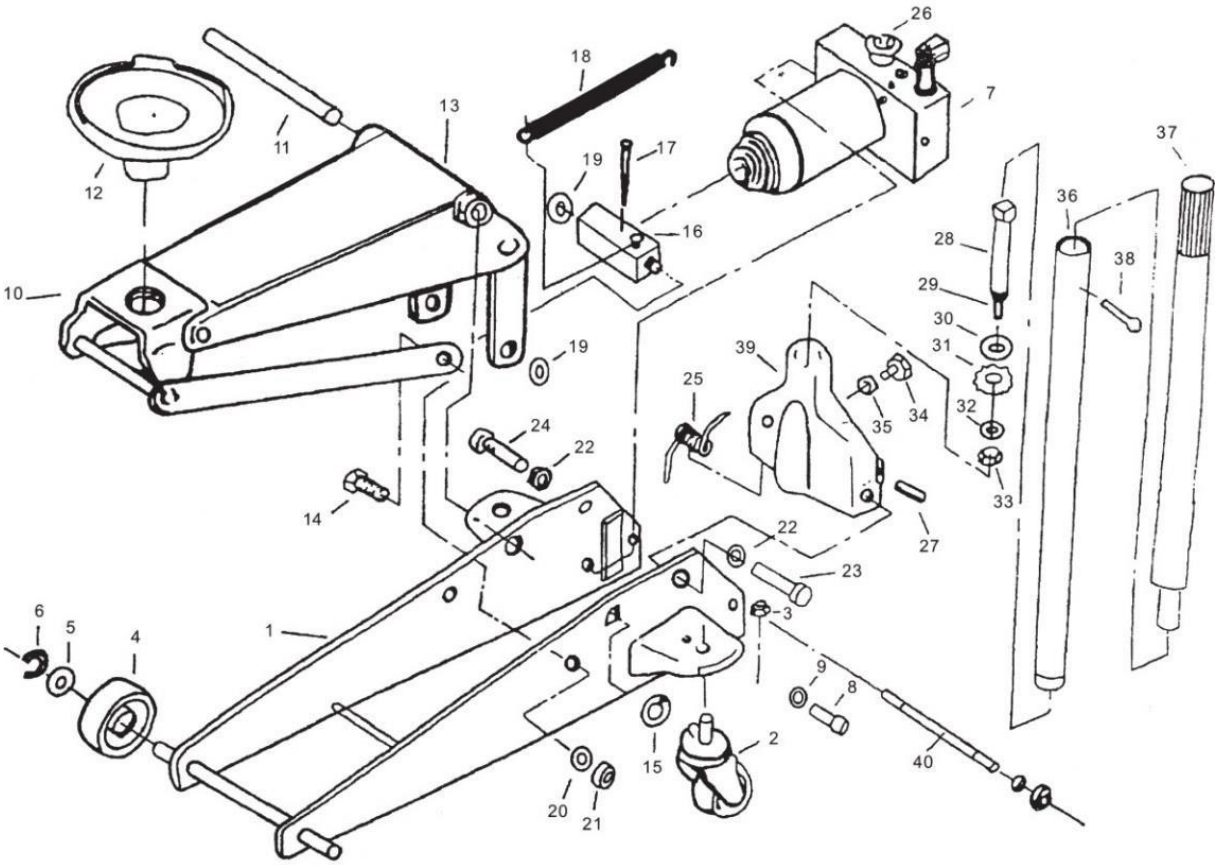
NOTICES

	Never stay under an elevated vehicle
	Never use a hoist to lift, stabilize caravans or other building structures

	Lifting the vehicle on slopes uneven, unpaved surfaces is strictly forbidden! The vehicle may only be lifted on a level and paved surface.
	Too low an oil level leads to a restricted operating range of the hoist and to aeration.
	The wheels of the axle not being lifted must be in place before lifting can commence blocked to the vehicle from lifting.
	Once the load is lifted, secure the vehicle using the workshop jacks and select the support point provided by the vehicle manufacturer.
	Before lifting it is necessary blocking of the pressure relief valve, no need to tighten it "by force", the oil channel is sealed with a rubber O-ring, forcible tightening leads to its crushing
	The relief valve must be released to release the load. NOTE: Degree of valve unscrewing determines the rate of load drop. Release the valve minimally while monitoring the rate of descent.

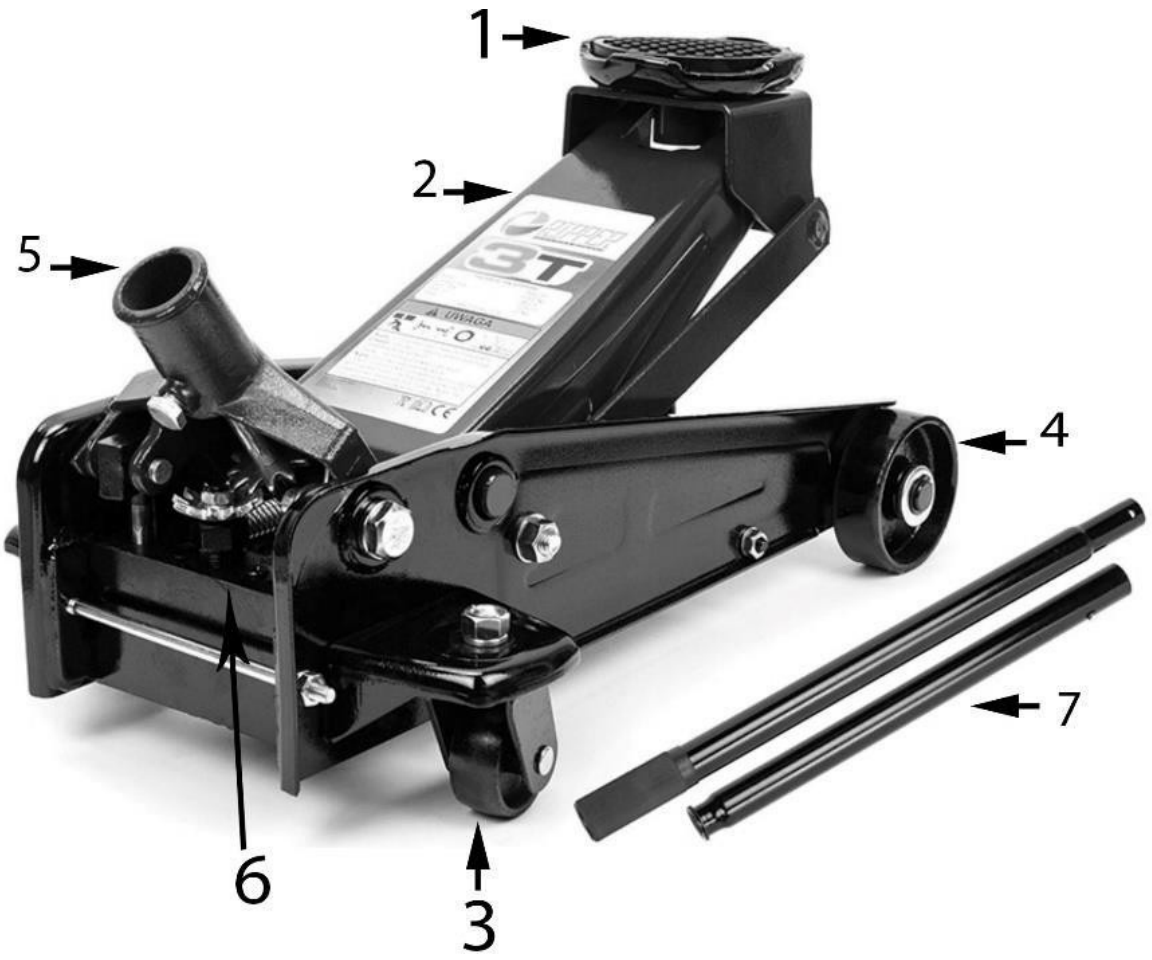
PRINCIPLE OF OPERATION

When the pump moves with the relief closed, oil is pumped from the reservoir into the piston chamber. The increasing pressure pushes the hydraulic piston, lifting the load, and the relief valve keeps the hydraulic oil in the piston cylinder. Unscrewing the relief valve allows the oil to flow back into the reservoir and as a result the load can drop.



1	Frame	17	Drive protection
2	Swivel wheel	18	Spring
3	Swivel wheel nut	19	Pad
4	Fixed front wheel	20	Pad
5	Pad	21	Mother
6	Security	22	Pad
7	Actuator	23	Screw
8	Screw	24	Screw
9	Pad	25	Spring
10	Mounting the saddle	26	Valve
11	Pin	27	Pin
12	Saddle	28	Valve screw
13	Lifting arm	29	Valve stem
14	Clamping screw	30	Pad
15	Pad	31	Transmission
16	Jokel	32	Mother

Description of the functional elements of the hoist



1	SEDLO
2	LIFTING ARM
3	ROTATING WHEEL
4	FRONT WHEEL
5	SPACE FOR HANDLE
6	RELIEF VALVE GEARBOX
7	HANDLE

FIRST USE

• Familiarize yourself with the equipment and check the overall condition of the equipment.

• Place the handle in the holder.

• Tighten the drain valve ().

• Start inflating (without load) to the maximum position.

• Unscrew the drain valve, the jack will drop to the lowest position, if all is , you can start to lift the car.

• If the stroke does not reach the maximum height, it may be necessary to top up the hydraulic oil (maintenance section).

• If the jack moves up after the pump has been moved and then comes down, the system must be vented (Maintenance chapter).

WORKING WITH A HOIST

IMPORTANT: Lifting may only be carried out if the following conditions are met

1. The user has read and understood the contents of this manual.

2. The user is aware of the dangers associated with working with the hoist.

3. The user has read the vehicle's owner's manual, in particular the information on lifting the vehicle.

4. The user has inspected the anchorages specified for the type of vehicle and raises no objection.

5. The user has inspected the hoist in its .

6. Before removing the wheel, it is recommended to practice lowering the vehicle to "feel" the action of the drain valve, the degree of unscrewing determines the rate of descent!

7. The vehicle is secured against unintentional movement, the parking brake is activated and the gearbox is locked, position P for automatic gearboxes and 1st gear for manual gearboxes.

8. The lifting point meets the floor load capacity requirements, the weight of the cab is transferred at the small contact points of the hoist wheels with the ground, the vehicle is lifted by force. Garage tiles that are not designed for such loads can cause cracking.

9. The user shall use appropriate personal protective equipment such as gloves and face protection

During lifting, a large force is generated on a small surface, for example, if the cover of a breaks, the fragments can be ejected at high speed.

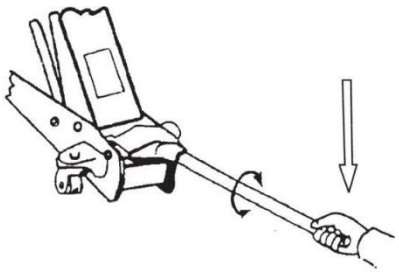
Lifting the vehicle

• Slide the jack under the car.

• that the lifting saddle is correctly positioned under the vehicle, i.. the vehicle is lifted using the factory designed points.

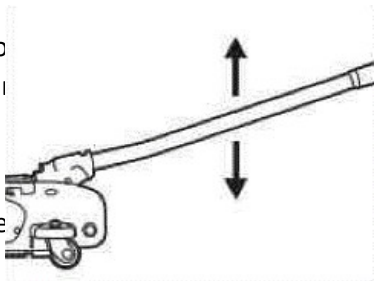
IMPORTANT: The load must be positioned in the centre of the lifting device saddle, if the load is not positioned in the centre the load may slide or the lifting device saddle may break, which may lead to frame damage!

• Close the safety valve.



IMPORTANT: It is not necessary to tighten it forcefully, this procedure crushes the rubber seal, accelerates its wear and makes it difficult to slowly lower the load, the valve unscrews with resistance when loaded, it is necessary to apply a large force to loosen it leads to sudden unscrewing.

• Using the pump, start lifting with up and down movements



IMPORTANT: When pumping, it is good practice to avoid extreme pump positio
Violent jerking will lead to wear of the restrictors over an extended period of ti
which will lead to accelerated wear of the seals
hydraulic pump.

• Once the vehicle has been raised to the desired height, place the stands unde

NOTE: When working under a car, remember that there is no such thing as "too much protection"!

While the car is supported on the jack stands, you should additionally place the wheel being dismantled under the car and leave the jack in place to provide additional protection, rest the saddle on the lifting point, but do not increase the pressure in the system to allow the workshop jack stand to support the weight of the car.

IMPORTANT: The operating characteristics of the hydraulic jack make it impossible to hold the load! It is normal for the load left on the hoist to slowly sink.

That's why it's so that the vehicle is supported on stands!

Starting the vehicle

IMPORTANT: You can start the vehicle if the following conditions are met.

• The wheels of the vehicle are properly secured and lowering the vehicle will not damage it.

• No third persons, especially children and animals, are in the work area

• There are no obstructions in the stroke axis, remember that lowering the load involves reversing the stroke. If the lifting wheel hits an obstacle, a dangerous situation can occur.

• Lift the vehicle slightly using the jack to remove the stands

• Remove the pads

• Turn the handle to the left to gently release the pressure in the system.

IMPORTANT: Extra caution is advised, remember that unscrewing the valve too suddenly will cause the car to crash. During a sudden descent, closing the valve in a panic can overload the jack. Remember that a falling vehicle has a greater weight than a static load.

IMPORTANT: Do not unscrew the valve more than necessary, usually 1 turn maximum, unscrewing it more than this may cause it to unscrew completely, which may result in leakage and damage to the gasket.

EQUIPMENT MAINTENANCE

Proper maintenance of the hoist is essential for long, trouble-free and, above all, safe operation of the hoist. However, do not forget that the rubber elements used in the manufacturing process of the hoist determine its maximum service life of 5 years. After this period, the jack must be rebuilt disposed of in accordance with local management regulations.

Maintenance can be carried out if the following conditions are met.

1. The user shall use appropriate personal protective equipment, gloves and face protection.

2. The user has read the local occupational health and safety regulations and the contents of this manual.

3. The user is aware of the dangers arising from the maintenance of the hoist

4. All maintenance work can only be carried out on the workbench and the hoist cannot be loaded.

Cleaning the hoist

You can use a soft cloth and compressed air to clean the jack. If you do not have access to compressed , apply a small amount of soapy water to the cloth and use it to clean the jack.

Pay attention to the area around the actuator piston and pump piston, their perfect cleanliness is necessary to prolong the life of the jack. Dirt on the actuator piston when lowering will be drawn into the actuator or lead to scratches, which will then lead to system leakage.

The jack saddle must be free from oil contamination, insufficient support or the load slipping on the saddle can lead to a dangerous situation and damage the jack frame.

Lubrication

All moving parts of the hoist require lubrication, penetrating and lubricating sprays can be used for this purpose. Another advantage of such agents is their hydrophobicity, which protects the moving parts from the damaging effects of moisture. Be sure to degrease the handle and any jack handle and seat after lubrication. The hydraulic pump and hydraulic piston do not require lubrication, applying lubricant to the actuator or pump piston will lead to the accumulation of dirt in these areas which will have a negative effect on the life of these components.

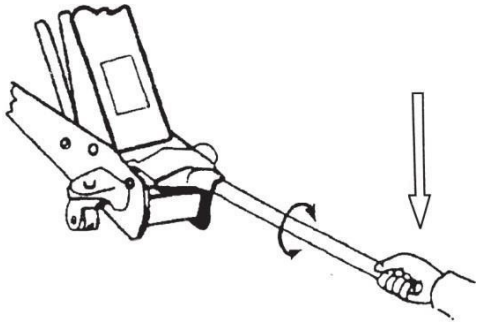
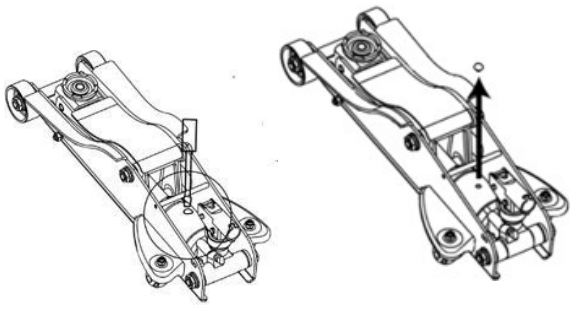
HYDRAULIC SYSTEM MAINTENANCE

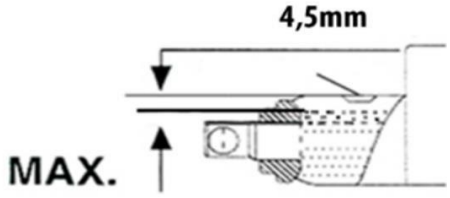
IMPORTANT: Before topping up the oil make sure the jack has no significant leaks, the oil level may drop due to the driver sweating, this is normal. However, we can't talk about leaks or drops around
of the actuator, such a defect needs to be removed, and refilling the oil for a while will bring the desired effect. During maintenance, the lifter should be placed in a plastic container or on a sheet to catch any fluid leakage.

Before refilling the oil, prepare suitable personal protective equipment such as rubber gloves and face protection and read the technical data sheet of the oil used to be aware of the dangers of contact with hydraulic oil. If you are in doubt and your competence extends beyond such work, contact
a service inspection at an authorised service centre.

Replenishment of the hydraulic system

Hydraulic oil is an essential fluid to ensure the system is functional, low levels will result in restriction of the operating range of the hoist and contamination of the air. If the hoist is unable to lift to
maximum height and the arm returns to its previous after the last pump movement, means there is no oil in the tank. It needs to be topped up.

1		Release the relief valve, the lifting arm must be in the lowest position which will result in oil backflow from the piston into the reservoir. This will allow its current level to be detected. With the bleeder valve released, perform several pump strokes to purge any air bubbles in the pump. Leave the handle in the down position, allowing you to remove the cover .
2		Using a blunt tool (nylon spatula), remove the rubber cap of the filling opening. Be not to tear or cut it. TIP: Well suited to the task a screwdriver with a flat blade, but secure the end of the screwdriver with insulating tape so that it is not sharp!

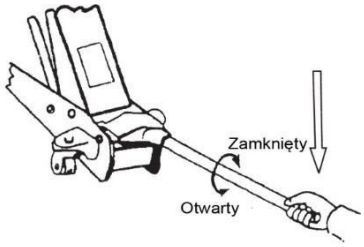
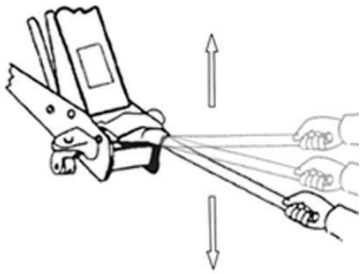
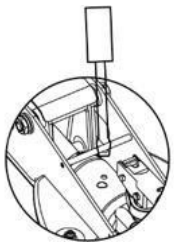
3		Top up the oil level to approximately 4.5 mm from the top of the reservoir. Then close the drain valve and start stroke to maximum height. When this is reached, lower the jack and check the oil level again, top up if necessary, insert the fill plug and fit the cover. The hoist is now ready for use.

Venting the hydraulic system

Air in the system is manifested by the phenomenon of system softness. The lifter behaves like . The movement of the pump leads to a lifting of the charge, which shifts back by an increased value in the coin. This condition is caused by air in the system, which is susceptible to compression and dampens the pressure in the system.

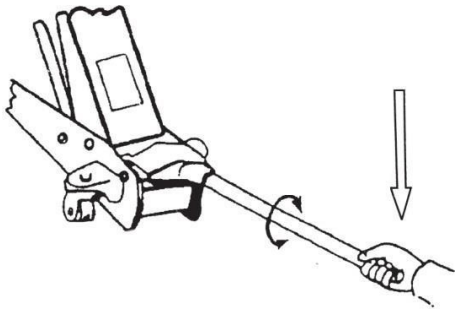
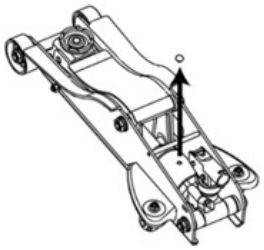
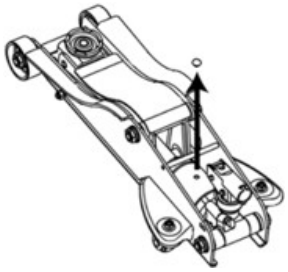
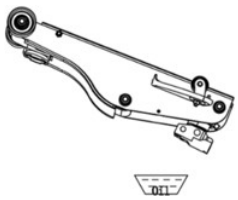
Venting is only possible when the system is completely tight, .e. the hoist shows no signs of leakage.

When bleeding the system, a small amount of hydraulic may leak through the open bleeder plug, cover the area around the plug with a paper towel or cloth.

1		Release the relief valve, the lifting arm must be in the lowest position which will result in oil backflow from the piston into the reservoir. With the relief valve released, make several movements of the pump, this will result in the expulsion of any air bubbles present in the pump.
2		Close the release valve, then lift hoist to the maximum height. Lower the hoist to the minimum height. This will push the air bubbles into the hopper. Then close the valve.
3		Using a blunt tool (nylon spatula), remove the rubber cap of the filling hole. Be not to tear or cut it. TIP: A flat-bladed screwdriver is suitable for this task, but secure the end with an insulating tape to keep it sharp! Tightening the cap will release the air in the reservoir.
After bleeding the air, check the correct operation of the hoist, it may be necessary to perform this operation several times repeat to remove all air bubbles from the system. When the desired result is achieved, fit the cover plate. And thoroughly clean the jack of any remaining traces of oil.		

Hydraulic oil change

Hydraulic oil is hygroscopic, i.e. it absorbs water from the air and surroundings. It can also be contaminated by dirt on the drive arm and pump that enters the system. For this reason, it is recommended to change the hydraulic oil when the efficiency of the lift decreases or every 2 years.

1		Release the release valve and then lower the jack to the minimum position. This will lead to a backflow of oil into the reservoir.
2		Clean around the dust cover to prevent dirt from entering the hydraulic system after it has dried. You can use a cloth soaked in soapy water for this purpose.
3		Using a blunt tool (nylon spatula), remove the rubber cap of the filling opening. Be not to tear or cut it. TIP: A screwdriver is well suited for this task, but secure the end with masking tape to keep it sharp!
4		Drain the old hydraulic oil from the cylinder, which requires turning the jack upside down. Wait until all the oil has been drained.
5	After draining the oil from the system, follow the steps outlined in the oil top-up section and bleed the system as instructed in this manual.	

STORAGE

Select a location for storing the hoist that is as cool as possible, free of moisture and inaccessible to unauthorized persons.

• Perform maintenance, cleaning and lubrication before storage.

• Store the hoist in the maximum lowered position to protect the drive piston from possible corrosion or damage.

• The drain valve should be loosened so as not to scratch the seals unnecessarily

• The hydraulic pump piston in the lower , like the drive piston, will protect it from danger.

• The jack should be stored in its original box to protect it from dust and other adverse conditions.

SHIPPING

If the jack needs to be transported, it should be transported in its original box in the boot of the vehicle only. The jack must be transported in a horizontal position. It can be transported in a vertical position with the front wheels up. The specific position is critical to prevent air from entering the pump during transport. Secure the jack with transport straps to prevent movement during transport.

PROBLEMS AND SOLUTIONS

THE HOIST CANNOT LIFT THE LOAD	THE HOIST CANNOT CARRY THE LOAD	THE JACK DOES NOT WANT RELEASE	SOURCE DOES NOT COMPLETELY	THE HOIST DOES NOT LIFT INTO POINT OF RETURN	**REASONS AND ADVICE**
●	●		●		THE SAFETY VALVE IS NOT FULLY CLOSED
●					DOWNLOAD
●			●		THE SYSTEM NEEDS TO BE VENTED
●	●		●	●	OIL LEVEL TOO LOW
		●			OIL LEVEL TOO HIGH
		●			THE PRESENCE OF AN OBJECT BLOCKING THE HOIST