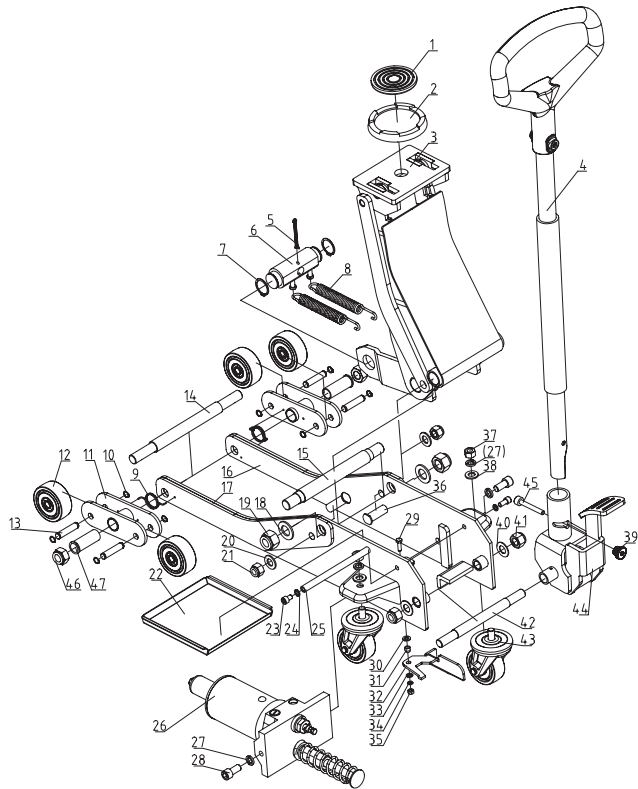


PART LIST

No.	Description	QTY	No.	Description	QTY	No.	Description	QTY
1	saddle cover	1	17	left plate	1	33	Flat pad 6	1
2	saddle	1	18	washer 20	2	34	Spring pad 6	1
3	lifting arm	1	19	nut 20	2	35	nut 6	1
4	upper handle	1	20	washer 14	2	36	shaft pin	2
5	Cotter pin 4X50	1	21	nut 14	2	37	nut 12	2
6	Connecting block	1	22	Disk tools	1	38	Flat pad 12	2
7	washer 30	2	23	Screw 8X16	2	39	Knurled nut	1
8	return spring	2	24	Spring pad 8	2	40	Flat pad 16	2
9	Torsion spring	2	25	Hand gear lever	1	41	nut 16	2
10	washer 11	8	26	power unit	1	42	handle socket pin	1
11	Wheel frame	2	27	Spring pad 12	4	43	back wheel	2
12	Wheel	4	28	Screw 12X25	2	44	shaft	1
13	front wheel pin	4	29	bolt 6X20	1	45	handle socket pin	1
14	front wheel pin	1	30	pad 10	1	46	nut 18	2
15	support shaft	1	31	pushing plate	1	47	Wheel bracket bush	2
16	right plate	1	32	valve	1			

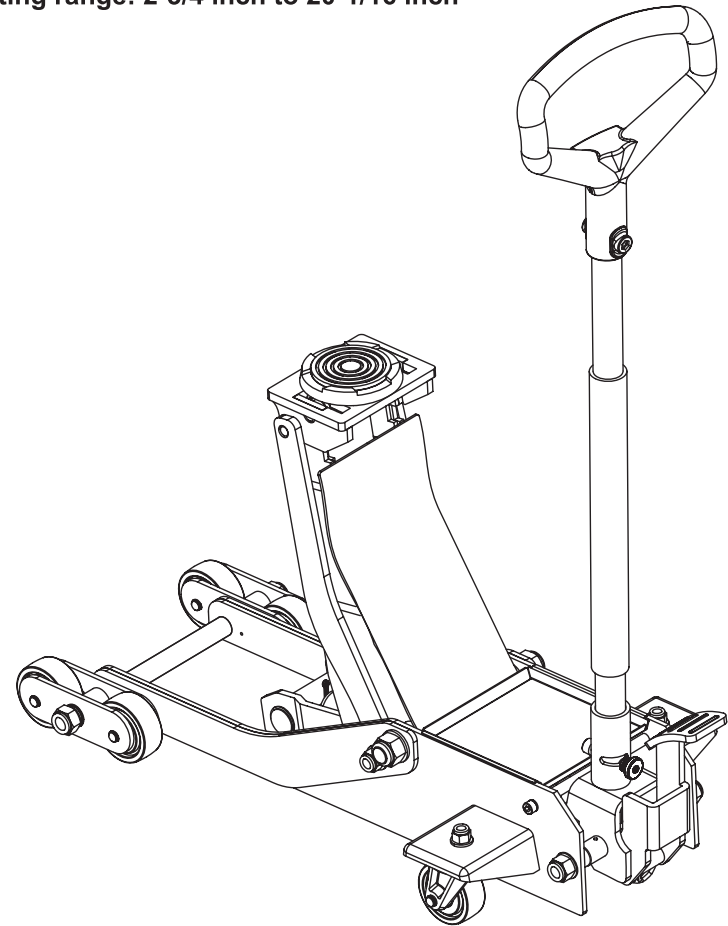


Torin®
BIG RED JACKS

Models:
T820031DS

Operator's Manual 2-TON LONG FLOOR JACK

Lifting range: 2-3/4 inch to 20-1/16 inch



WARNING : Before using this appliance, read this Operator's Manual and follow all its Safety Rules and Operating Instructions.

Made in China

EXTREMELY IMPORTANT

Read these safety instructions carefully in addition to the instruction for using, operating and maintenance. Keep this instructions sheet in an easy to find place as you may need to use it again.

This jack had been designed for using in the elevation for cars and Lorries.

Any other application beyond the conditions established for use of this jack will be considered inappropriate.

Handle the jack correctly and ensure that all parts are in good condition prior to its use.

Only authorized persons should operate the jack having read carefully and understood the contents of this manual

Do not modify the jack in any way.

Non-compliance with these rules may result in injury or damage to the user, the jack or the vehicle to be lifted.

SAFETY INSTRUCTIONS

Read-Study and understand all warning and operating instructions prior to use. DO NOT OVERLOAD this jack beyond its rated capacity. This jack is designed for use on hard level surfaces only. This is lifting device only. The load must be supported immediately by other appropriate means. DO NOT move or dolly the vehicle while on the jack. Lift only on areas of the vehicle as specified by the vehicle manufacturer. No alterations to the jack shall be made. Failure to heed these warnings may result in damage to jack and/or failure resulting in personal injury or property damage. Inspect before each use.

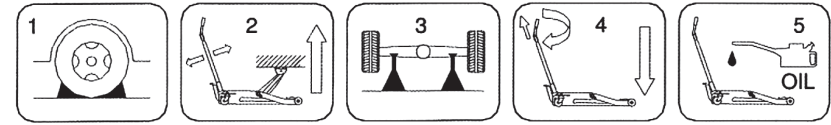
USE AND OPERATION

- Prior to operating the jack, remove any accumulated air from the system as follows:
 - Insert the handle into the socket and fix it with the screw provided.
 - Pull the handle and turn it clockwise and whilst held in this position, pump the jack several times to ensure internal lubrication and bleed the accumulated air from the system.
- Release the handle and it will automatically return back to the initial position("dead man principle:). The jack is now ready to be used.
Important: prior to lifting the load, ensure that all of the aforementioned safety instructions are followed.
- The wheel of the jacks should always rotated freely.
- these jacks are fitted with a foot pedal that gives a faster approach to the load.
- For lifting, move the handle up and down using the full stroke range of the piston for greater speed(2). Secure the lifted load as an essential safety measure with an appropriate axle stand(3).
- Before lowering, lift the vehicle to remove the axle stands, ensuring that there are no persons or obstacles under the vehicle to be lowered. Pull the handle and turn it clockwise(4).
- Our jacks are fitted with 2 safety device LCS that functions automatically and offers smooth and uniform lowering.
- Once the vehicle has been lowered release the handle and it will automatically return back to the initial position.

MAINTENANCE

Important: Both the maintenance and repair of the jack may only be performed by qualified persons, who have sufficient knowledge of the hydraulic system used in these devices as a result of their training and experience.

- Keep the jack clean and lubricated all moving parts at regular intervals(5), which must be clean and protected from aggressive conditions at all times
- Only original spare parts should be used.
- Prior to each use, check for bent, broken, cracked or loose parts and solve the problem, if appropriate. If it is suspected that the jack has been subjected to abnormal loads or has suffered any knocks, withdraw it from service until the problem has been rectified.
- If the oil level needs to be checked or refilled, with the piston fully retracted, remove the filler plug and drain its contents into a container. The parts table alongside shows the volume of oil required. Make sure that no dirt enters wit the new oil. Following a period of prolonged intensive use, it is recommendable to change the oil in order to extend the useful life of the jack.
Important: an excess of oil to the volume required may render the jack inoperative.
- Only use hydraulic oil, type HL or HM.with an ISO grade of cinematic viscosity of 30 cST at 40 degree, or an Engler viscosity of 3 at 50 degree.
Extremely Important: never use brake fluid.
- When the jack is not in use, make sure the lifting arm is fully retracted to avoid corrosion.
- Keep the jack in a clean, dry place and out of children reach.
- At the end of the useful life of the jack, drain off the oil and hand it over to an authorized agent and dispose of thejack in accordance with local regulations
- Both the repair kit, which exclusively contains the o-rings and seals of the jack, and the spare parts sets must be ordered using the reference assigned in the table.



PREVENTIVE MAINTENANCE

IMPORTANT: The greatest single cause of failure in hydraulic units is dirt. Keep the service jack clean and well lubricated to prevent foreign matter from entering the system. If the jack has been exposed o rain, snow, sand or grit. It must be cleaned before I used.

- Store the jack in a well-protected area where it will not be exposed to corrosive vapors, abrasive dust, or any other harmful elements
- regular lubricate the moving parts in the wheels, arms, handle and pump roller pin.
- Replace the hydraulic fluid in the reservoir at least once per year. To check the hydraulic fluid level, lower the lifting arm completely. Remove the rubber filler plug from the power unit. The hydraulic fluid level should be at the bottom of the filler plug. If necessary, add hydraulic fluid, and install the filler plug. **IMPORTANT: The use of alcohol of hydraulic brake fluid could damage the seals and result in jack failure.**
- Inspect the jack before each use. Take corrective action if any of the following problems are found:
 - cracked, damaged, other damage
 - excessive wear, bending, other damage
 - leaking hydraulic fluid
 - scored, damaged piston rod
 - loose hardware
 - modified equipment
- Keep warning labels and instructional decals clean and readable. Use a mild soap solution to wash external surfaces of the jack.

PREVENTIVE MAINTENANCE

Troubleshooting Guide

Repair procedure must be performed in a dirt-free environment by qualified personnel who are familiar with this equipment.

CAUTION: To prevent personal injury, all inspection, maintenance, and repair procedures must be performed when the jack is free of a load (not in use).

Trouble	Cause	Solution
Jack does not lift	1. Release valve is open 2. Low/no hydraulic fluid in reservoir 3. Air-locked system 4. Load is above capacity of jack 5. Delivery valve and/or bypass valve Not working correctly 6. Packing worn out or defective	1. Verify the release valve is closed by position of handle. Releasing valve may need cleaning 2. Fill with approved hydraulic fluid and bleed system 3. Bleed system. 4. Use correct equipment 5. Clean to remove dirt or foreign matter. Replace hydraulic fluid. 6. Replace packing
Jack lifts only partially	1. Too much or not enough hydraulic fluid	1.Check hydraulic fluid level.
Jack advance slowly	1. Pump not working correctly 2. Leaking seals	1. Rework pump 2. Replace seals
Jack lifts load, But doesn't hold	1. Cylinder packing is leaking 2. Valve not working correctly(suction, Delivery, release, or bypass) 3. Air-locked system	1. Replace packing 2. Inspect valves. Replace if necessary 3. Bleed system
Jack leads hydraulic fluid	1. Worn or damaged seals	1.Replace seals
Jack will not retract	1. Release valve is closed	1. Open the release valve by pulling on and turning the handle clockwise(CW). May be necessary to clean release valve.
Jack retracts slowly	1. Cylinder damaged internally 2. Return springs(s) is damaged 3. Link section is binding	1. Snd jack to authorized service center 2. Rplace return spring(s) 3.Lubricate link sections.