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RACK AND PINION JACK OPERATING MANUAL

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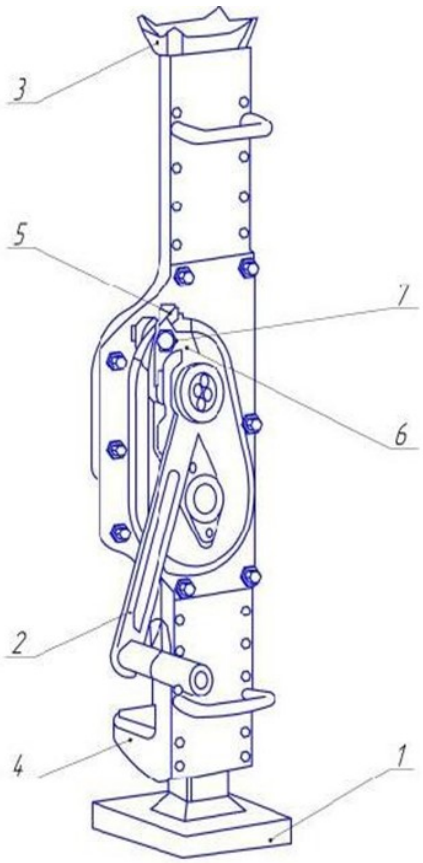
WARNING! All information in this manual is based on data available at the time of printing. The manufacturer reserves the right to make changes to the product design without prior notice, provided that these changes do not impair the consumer properties and quality of the product.

1. Description of the Product

1.1 Product purpose

MECHANICAL JACK is a kind of hand-operated lifting tool, it is widely used for lifting up and down the subject. It is good to increase work efficiency and decrease the amount of human labor. The traits of the products are of reasonable design, easy for operation and flexibility. Jacks are widely used in the factories, warehouse, dock, railway and construction operation, especially to install kinds of equipment on movement, repair the locomotive and lift subjects, etc.

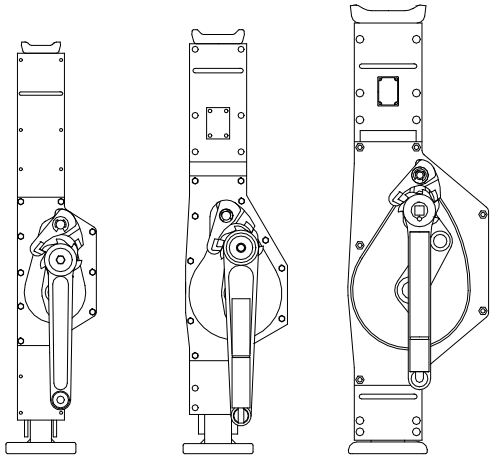
1.2 Main characteristics

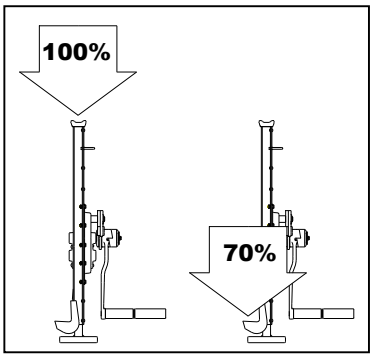


Jack design

1. Base (platform)
2. Lever with handle
3. Upper support (working) platform
4. Lower support (working) platform (foot)
5. Upper stopper (dog)
6. Lower stopper (dog)
7. Locking ring

Rack and pinion jack DR and DRN





Technical characteristics

Model	Item No.	Load capacity, t	Handle force, N	Grip height, mm	Rack stroke, mm	Paw pick-up height, mm	Dimensions in package, mm	Weight, kg
TOR ДР 1500	10615	1,5	170	600	300	60	220x200x750	13,5
TOR ДР 3000	1063	3,0	196	720	370	70	220x200x750	19,9
TOR ДР 5000	1065	5,0	235	737	350	87	240x226x745	31,6
TOR ДР 10000	10610	10,0	431	794	380	100	302x271x815	52,6
TOR ДР 16000	10616	16,0	580	830	300	115	310x310x835	64,5
TOR ДР 20000	10620	20,0	650	880	300	115	324x310x880	72,0
TOR ДР 25000	10625	25,0	750	950	410	110	420x360x965	91,0
TOR ДРН 5000	1005986	3,0	196	720	370	30	240x226x745	23,0
TOR ДРН 5000	10652	5,0	235	735	350	30	240x226x745	32,0
TOR ДРН 10000	106102	10,0	431	805	380	30	302x271x815	53,0

SJ-A with adjustable foot

Technical characteristics

Model	Item No.	Load capacity, t	Handle force, N	Grip height, mm	Rack stroke, mm	Maximum lifting height, mm	Tine pick-up height, mm	Rapa pitch, mm	Dimensions in package, mm	Weight, kg
SJ5-A 5T	1004100	5,0	400	670	350	1020	65	100	240x226 x745	35,6

2. Operation

2.1 Intended use

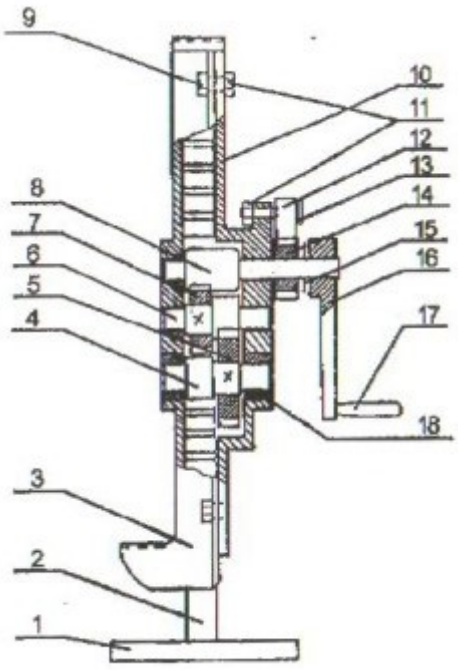
1. Select the placement of top according to the Weight center of gravity, so that when lift the heavy load, jack won't be overturned.

2.The all feet of mechanical jack must touch the heavy load when lifting and lowering, in order to ensure that there is sufficient strength to prevent the heavy load drop.

3.The ground should be solid, if the ground is soft, should add pads to the base, and put the top of mechanical jack to the center of the pads.

4.Shake the machanical jack before using, from low to high, to check if it is stuck or abnormal, when all is normal, then can use it.

2.2 Structure Diagram



1. Soleplate
2. Rack
3. Left crust
4. Three No. axis
5. Five No. gear
6. Two No. axis
7. Four No. gear
8. One No.axis
9. Bolt
10. Right crust
11. Nut
12. Pallet
13. Bolt
14. Ratchet wheel
15. Cotter pin
16. Hand lever
17. Handle
18. Shaft housing

2.3 Working principle

Mechanical Jack is decelerated through toothed gearing by hand force, to drive machine up and down. When unload the cargos or go down, left pallet leads to hand lever turn around, then control speed by hand.

3. Maintenance and Protection

1. Should keep brake parts clean and often filling-up lubricating oil to pallet axle, make sure pallet could move smoothly.

2. If often using Mechanical Jack, should open cover of it at most 2-3month, after clean with kerosene to filling-up lubricant grease in it.

3. After using Mechanical Jack, do not put it in place with high temperature, to avoid lubricating oil be liquidfied.

Attentions

1. Should know the weight of cargoes and usage Scope of mechanical jack before use, don`t overload to avoid an accident due to machine damage.

2. If weight of cargoes exceed Rated capacity, you need use several mechanical jack work together, to keep several mechanical jack Uniform loading, to make sure lift up and down with one speed stably.

3. After lifting cargoes, if could not discharge cargoes in short time, then must put the auxiliary filling block as an underprop, the height of auxiliary filling block should be equal to the distance between ground and cargoes.

4. WARRANTY

The warranty period is 12 months from the date of sale to the end customer.

LIMITATION OF LIABILITY:

- Seller will not be liable for product failures caused by use and normal wear and tear.
- The Seller is not responsible for product malfunctions caused by non-observance of operating rules or use of the Product under unacceptable environmental conditions.
- The warranty will be voided if the Product is not regularly serviced and if it is improperly stored.
- This warranty will not be extended to any Product that has been subject to misuse, neglect or accident or which will have been altered or repaired by elements other than Seller's in such a manner as to adversely affect its performance, stability or reability.
- The warranty does not cover the Product that has suffered any mechanical damage.
- The warranty does not apply to a Product that has been altered in any way.

In order to determine the causes of failure, a technical check is carried out for a period of 10 working days from the date of receipt of the Product for diagnosis.

Claims filing:

- Claims concerning found defects can be issued by the Buyer to the Seller within the guarantee period. The Buyer may request a claim form and instructions for filing a claim from the Seller.
- All risks associated with delivery of the Product to the dealer or service center are borne by the owner of the Product.
- Claims related to incompleteness and appearance of the Product will not be accepted after it has been put into operation.

The information in this paragraph is current at the time of printing of this manual. Up-to-date information on warranty service rules is published on the official website of the group of companies TOR INDUSTRIES **www.tor-**industries.pro ("Service" section).

PRODUCT PASSPORT

Product Information:

Model	
Serial No.	
Sale Date	/ /
Warranty Period	

Seller Information:

Company	
Address	
Phone	

SERVICE MARKS

Place for Stamp	**All control operations and tests have been carried out. The product is fully equipped, serviceable and ready for use.**
Dated:	

Maintenance and repair

Type of Maintenance						
Type of Maintenance						
Type of Maintenance						
Type of Maintenance						
Warranty Repair						
Repair						
Date of Maintenance						
Contractor						

The customer confirms that he has familiarized himself with the rules of use of the product. The customer received the manual in English. The customer has no claims to the serviceability, appearance and completeness of the product.

Customer Signature _____ **Place for Stamp**

List of periodic inspection and repair

Date	Data on product inspection or repair	Signature of the responsible person