

# Instruction Manual

## Hydraulic Jack



**Note:** The Owner/Operator must read carefully and understand all the information presented here before operation.

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THANK YOU VERY MUCH FOR CHOOSING OUR HYDRAULIC JACK. FOR YOUR SAFETY AND CORRECT OPERATION, PLEASE CAREFULLY READ THE MANUAL BEFORE USE.

**NOTE:** All of the information reported herein is based on data available at the time of printing. The factory reserves the right to modify its own products at any time without notice or incurring in any sanction. Please verify with the factory for possible updates.

## **1. WARNING IN ADVANCE**

- 1.1 This jack shall be operated only by those peoples of profession, with skills, and of educated.
- 1.2 The use of this jack should follow every important points described in this manual, otherwise the injure of operators or damage of articles during use of this jack might be happened because of negligence.
- 1.3 Before jack-operating, operator should check and confirm that the jack is in good state.
- 1.4 The original manufacturer has no responsibility to the change of jack' s mechanical property caused by maintaining of the third party without any written permission from manufacturer except repairing by the manufacturer or his agency.

## **2. DESCRIPTION**

This package includes one jack, one spare parts bag and one this manual.

<b>Model</b>	<b>HM50</b>	<b>HM100</b>
Loading (ton)	5ton	10ton
Lifting height (mm)	205	230
Min.height / tooth (mm)	25	30
Min. height / head (mm)	368	420
Load on the operating handle (N)	380	400
Net weight (kg)	25	35
Reduced speed	adjustable	adjustable
Temperature of use	-20C ° +50 C °	-20C ° +50 C °
Packing size (mm)	360x190x430	380x220x510

### **3. TRANSPORTING & STORING**

#### **3.1 Storing**

Keeping the folded jack in dry place.

#### **3.2 Transporting**

The operating handle (02) is just for operating the jack. When transporting the jack, it can not be dropped or be thrown because it may cause the piston of it damaged, and the pump of it might be spoiled. Therefore, the jack should be fixed before transporting to avoid it being shocked by other objects.

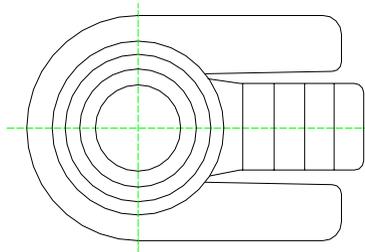
### **4. INSTALLMENT**

The installing of jack is very simple .The only thing you should follow is to insert the operating handle (02) to the socket (04) and screw it tightly in clockwise direction.

## 5. OPERATING

### 5.1 Scope of use

When use this jack it shall be put on the fixed and solid place, such as reinforced concrete floor to lift or to move weight articles vertically or horizontally. In order to lift articles in such limited area of jack, some auxiliary pad can be placed under the base of it. The tooth plate (43) of jack should be put on the base, so that it can be folded inside when compacting the jack.



### 5.2 Method of operating

#### 5.2.1 Lifting

Put a weight on the tooth plate of jack stable.

Attention: Can not use the front end of tooth plate to lift the weight.

Important point: When lifting the weight by the tooth plate, the weight should be closed to the head of jack to avoid the pillar (47) of jack being bent.

Please screw in the unload handle (16) tightly in clockwise direction before lifting.

Then press and lift the operating handle up and down repeatedly to pump the pressure to lift the weight. The lifting movement can be stopped immediately by stopping the lifting operation.

## 5.2.2 Reducing

Please screw out the unload handle slowly in anti-clockwise direction to reduce the weight step by step. But when screw up the round unload handle again, the reducing movement can be stopped instantly.

**Note:** When the jack is in unload condition, the head of it should be pressed to reduce its height.

Attention: If the jack is not in the state of maintaining, each part of it can not be dismantled except the operating handle.

## 5.3 Safety standard

5.3.1 The lifting of weight is dangerous operation, the appointed operators should be professional, be trained and be experienced.

5.3.2 Those extra weights can not be added on the lifted weight to avoid dropping accident happening.

5.3.3 Never exceed the recommended maximum limitation of lifting weight.

5.3.4 Please keep a safety distance with the lifted weight.

5.3.5 Never use the jack , or being changed or spoilt, or in bad condition itself.

5.3.6 When lifting the weight by tooth plate, please keep the weight closing to the head of jack to avoid the pillar of jack being bent. Please check the drawing again.

5.3.7 Please confirm that each support point of ground should be solid and stable including floor area and loading etc, then any type of operating should be handled on the plane surface only.

5.3.8 Please guarantee the lifted weight being stable during the whole lifting period to avoid it being turn over or being slipped. Each device shall be fixed before lifting.

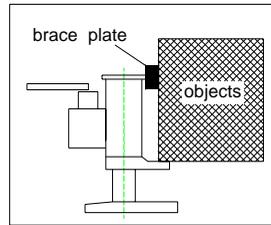
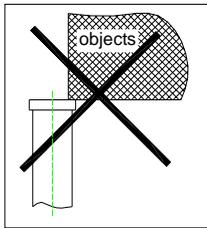
5.3.9 Never operating the jack when people standing on the lifting

weight.

5.3.10 Never use the front end of the tooth plate to lift weight. The tooth plate should be located in its base totally, the pushing point to the weight should close to the back end of tooth plate as far as possible.

5.3.11 Never screw the adjustable screw (18), under any circumstance, otherwise a typical accident of jack-dropping might be happened. These parts (10,11,18,19,20,21) are the device of overloading protection.

5.3.12 Never use the side of jack's head to lift weight. The weight should be contacted with the black shadow surface of the following pictures.



5.4.3 Operators should be very careful to use different jacks to lift a heavy-duty weight. It attention to the shifting of center of gravity during reducing or lifting the weight. The total lifting weight of all jacks should be larger than load of lifted weights.

5.4.4 The owner of jack should guarantee all of the stick labels concerning safety standards keeping on its relative locations, which should be replaced when they can not be read clearly.

5.4.5 This operation manual can not cover all situations, please follow each step of it cautiously.

## **6.MAINTAINING**

### **6.1 Routine inspecting**

6.1.1 Before each operating, please inspect and confirm that:

- (1) All of the stoppers and screws of jack have been screwed up tightly.
- (2) The jack' s pump without any oil-leaking.
- (3) The pump body, tooth plate and its base without any cracking or form deformation happening-changing.
- (4) The pump should be operated normally without loading.

6.1.2 Under the frequent use of the jack, the time of checking shall be shortened as well, and following checking points shall be emphasized:

- (1) All of the jack stoppers, screws, and nuts should be screwed up sufficiently and should be adjusted when it necessary.
- (2) When the jack is in loading state, please pump it totally until the release valve opening and without any oil-leaking (but the oil spot on the surface of pillar or valve stem is in normal).Please release the pressure of pump and check the pillar to confirm the pillar being flat and vertical without any shocking and scraping. If any damage of it being found the pillar should be changed in time.
- (3) When the jack is reducing, operator should check whether the reducing movement is stable or not and it should be wedged (but some slight vibration is in normal).
- (4) Please, carefully check all of the exterior parts of jack including,  
Pump body: no deformation, cracking and impacting on it;  
Operating handle of pump: no deformation no over space in each plug, otherwise the old plug shall be replaced by a new one;  
Tooth plate: no deformation & cracking;  
Base: no deformation &cracking.

## 7.ADD OIL

If the jack can not be pumped up to its rated high-test position, you may have to add hydraulic oil into the oil tank. The hydraulic fluid to be used must have a quality of ISO VG22 or equivalence. Mixing of difference fluids is prohibited!

## 8.TROBLE SHOOTING GUIDE

Items	Symptom	Possible cause	Aliments
1	Jack can not be pumped up properly.	The release valve is not closed.	1.Screw in the unload handle (16) tightly in clockwise direction. 2.Loose the screw (37) to release the air from the pump, then screw in it tightly.
2	Jack can not be released down at the top position	The release valve is not opened enough.	Screw out the unload handle (16) in counter - clockwise direction
3	Jack can not be pumped up to its rated high-test position	Oil is not enough.	Screw out the screw (10),add hydraulic oil.
4	The oil has leaked, around the plunger.	Seals are worn out.	Replace worn seals with new seals (8) and (9) (in the spare parts bag .

## 9 .LIST OF PARTS

NO	NAME	CODE OF		NUM	NO	NAME	CODE OF		NUM
		PART					PART		
		5t	10t				5t	10t	
1	Handle Grip	501	501	1	25	Ball	525	525	3
2	Handle	502	502	1	26	Spring	526	526	2
3	Snap Ring	503	503	6	27	Screw	527	527	2
4	Socket	504	504	1	28	Pump Body	528	528	1
5	Pin	505	505	2	29	O-Ring	529	529	2
6	Plunger	506	506	1	30	Y-Ring	530	530	1
7	Wiper	507	507	1	31	O-Ring	531	531	1
8	Back-Up Ring	508	508	2	32	Valve Stem Bush	532	532	1
9	O-Ring	509	509	2	33	Oil Pipe	533	533	1
10	Screw	510	510	1	34	Retaining Ring	534	534	1
11	Gasket	511	511	3	35	Filter	535	535	1
12	Ball	512	512	1	36	Flexible Bag	536	1036	1
13	O-Ring	513	513	1	37	Screw	537	537	1
14	Release Rod	514	514	1	38	Assemble Of Cylinder	538	1038	1
15	Snap Ring	515	515	1	39	Steel Wire	539	1039	1
16	Unload Handle	516	516	1	40	O-Ring	540	1040	1
17	Screw	517	517	1	41	Retaining Ring	541	1041	2
18	Adjusting Screw	518	518	1	42	Bush	542	1042	2
19	Spring	519	519	1	43	Forked Mounting	543	1043	1
20	Ball Seat	520	520	1	44	Y-Ring	544	1044	1
21	Ball	521	521	1	45	Snap Ring	545	1045	1
22	Linkage	522	522	1	46	Limit Block	546	1046	1
23	Screw	523	523	4	47	Pillar	547	1047	1
24	Pin	524	524	1					

# 10.CONSTRUCTIONAL DETAIL OF PARTY

