# Model: TB-H Single Post Lift (Hydraulic in-ground type) Operators manual

The machine is used for general maintenance work and vehicle cleaning



TPM (1980) Co.,Ltd. Tel: 02-157-1250 Mobile: 085-151-0182 Web: www.tpm1980.com

# Statement

This manual is designed for the use of single post hydraulic lifters machine manufactured by TPM (1980) company, if be used to guide other equipment operation lead to all sorts of consequences, the company does not undertake any responsibility.

For individual users or a third party accident, abuse, misuse the equipment, change without permission, repair the equipment, or fails to the company's operating cause damage the equipment and produce costs and expenses, the company does not undertake any responsibility.

For the use of other accessories or not TPM (1980) company, products cause damage the equipment, the company assumes no responsibility.

This equipment only for the professional technical or maintenance staff use.

We reserve the right to make changes to this document without notice at Any time.

# Note

- This manual is a necessary part of the product, please read carefully.
- Please save the manual, ready for the overhaul.
- According to this manual operation use only manufacturers recommend accessories.
- This machine is used only for the purpose of the design, do not move other uses.
- The machine must be use by a specialized training and qualified person to operate, any changes to the machine parts and use range may be caused the equipment directly or indirectly damage.
- Don't make lifting machine in extreme temperature environment.
- When equipment in working, please do not approach the work space except operator.
- Daily inspection on lifting machine, don't use in a fault or spare parts damaged,

repair and replacement parts should be used the original equipment parts.

- It is prohibited to overload.
- When someone in vehicles, please don't rise lifting machine.
- Keep lifting area no obstacle, oil, garbage and other impurities.
- Lifting machine, make sure the support point in directly contact with vehicles, lift machine rises to the appropriate height.
- The dismantling of vehicle parts (or installation) will cause the excursion of the center of gravity, and lead to vehicle not stable. Need other support to keep the balance of the vehicle.
- When vehicle leave the area, please reset lift arm and support parts, in order to avoid vehicle was damaged.
- Use right equipment and tools for safety protection, such as working clothes, shoes, safety glasses, etc.
- Use hydraulic oil of N46 or N32, please use in safety range.

# **1. OVERVIEW**

#### 1.1 Model

Model	Introductions	
TB-H	3.5T/single post lift (in-ground)	

#### **1.2 Uses**

The machine is suitable for total weight less than 3.5T all kinds of small and medium-sized vehicles, used for vehicle lifting, maintenance and water cleaning.

### **1.3 Function and characteristics**

- Design according to international standard, safe and reliable, energy conservation and environmental protection.
- Pneumatic hydraulic drive, do not need to connect the power supply can be used in the outdoor space.
- Hydraulic-buffer insurance, vehicles up and down stable, avoid suddenly falling safety accidents.
- Do not take up the up-ground space, and luxurious style.
- Pneumatic control up and down, no electronic component fault, no motor noise.
- A pneumatic control switch, manual control, safety operation and convenient.
- Lifting machine bracket can adjust length and angle.
- Lifting bracket can rotate. 360°.

#### **1.4 Technology parameters**

model	Air	Maximum	Lifting	Rise	Down	Equipment net
	requirements	load	height	time	time	weight
TB-H	≤10bar	3,500 kg	1,800 mm	60s	55s	650kg

### NOISE:

Rise stage: 0db

Down stage:  $\leq$ 70db (Relief valves install muffler)

#### **1.5 Environmental requirements**

Working temperature:  $-20 \degree C - +50 \degree C$ 

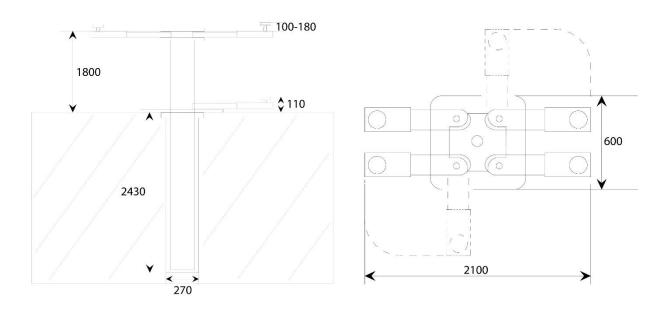
#### **1.6 Packaging**

Be packed in wooden and plastic film.

### 1.7 Color

Host use black, bracket uses hot-dip zinc. According to user requirements can spray other colors

### 1.8 Arm size



# 2. INSTALLATION

### **2.1 Foundation requirements**

Foundation drawings refer to the Foundation guidance.

Note: The machine need not to do foundation water-proof treatment.

## 2.2 Installation steps

- 2.2.1. According to the instructions of the packing list, check the spare parts and accessories. Before installation check pit meets the requirements.
- 2.2.2. Use forklifts lift the upper fixed ring, put host slowly into the pit.
- 2.2.3. Adjust the air pipe installation position (You can turn host in the pit), and adjust the host height, top plane and the ground in the same height. Then backfilling some soil in the host bottom.
- 2.2.4. Backfilling part soil about 1/2 position, make the host keep vertical state, then remove the forklift.
- 2.2.5. Use PPR pipe or galvanizated pipe connect to the air control valves, and check air tightness. Must be not leak.
- 2.2.6. Remove the hydraulic cylinder center hole screw and the little exhaust screw, inject about 150 liters hydraulic oil., Note the maximum amount of oil reach the mouth of the air pipe in the host (from the oil center hole can see).
- 2.2.7. Lock the center hole screw and the little exhaust screw, open air valve will hydraulic cylinder rises 1000 mm.
- 2.2.8. Use level feet adjust hydraulic cylinder vertical.
- 2.2.9. Check again air tightness and vertical degree.
- 2.2.10. Fill soil into the pit to the ground under 300 mm, when backfilling soil can inject water in the same time.
- 2.2.11. Ensure the two sides fixed ring in casting cement, note the hardening layer surface not higher than the host upper end.
- 2.2.12. Before using, confirm surface hardening layer has reached sclerosis requirements, and mounting up bracket.

No-load, and lift the hydraulic cylinder up and down, check whether normal work. Fixed the air control valves, can use.

# **3. OPERATING INSTRUCTIONS**

### 3.1 Note

- The gravity center of the different vehicle have different locations, After a car into the lifting position, to make the gravity center near the pillar vertical plane, Adjust the stents, make strong point in the support position of car.
- Carefully read warning sign.
- It is strictly prohibited to disassemble, otherwise all the consequences be responsible by the users themselves.
- Specifications of the parameters of the change without notice.

### **3.2 Before operation**

- Check air pressure is normal or not.
- Check all the connecting bolts is firm.

### 3.3 Rise vehicles

- Remove sundry out of the lifting machine surrounding area.
- The hydraulic cylinder down to lowest position.
- Drive vehicles into the machine station, try to make stents in the center of the vehicles position
- Push the two sides stents arms at the bottom of the vehicle
- Open the air inlet switch, lift vehicles, ensure that the load balance, lift to the appropriate height, and then turn off the switch.
- Then begin maintenance work.

# Note:

- When lift vehicles, must use all the bracket arm.
- Stents in the highest position, just not rotating, In the process of rising or falling, pushed by external force can cause rotating.
- When there is a flat or oil leak, please do not use lifting machine. By professionals solve problems before use.
- After rising vehicles, add or remove the main weight, with a jack to ensure the balance of the car.

• The hydraulic cylinder not vertical, it is strictly prohibited to use.

## **3.4 Fall vehicles**

- Remove sundry of the surrounding area under the machine.
- Open gas switch, vehicle begin to slowly down and delay about 2-3 second.
- Fall lifting machine to the ground, loosen the switch.
- The bracket arm reset, vehicles leave.

## **3.5 Fault solution**

Fault	Fault reason	Solution		
Can't lift	<ul> <li>◆The inlet pressure is too small</li> <li>◆Oil leak</li> <li>◆Air leak</li> </ul>	Check the air compressor, sealing ring, connector		
Down slow	<ul><li>Check gas switch</li><li>Sealing ring damage</li></ul>	Cleaning or change the sealing ring		
Don't fall	<ul><li>Hydraulic cylinder</li><li>Weight not enough</li></ul>	Rotating hydraulic cylinder Increases load weight		
Shaking	<ul><li>◆Foundation</li><li>◆Support arms</li></ul>	Check the foundation and stent		

# 4. Maintenance

### Keep clean

- Equipment working environment should keep clean.
- Protect the hydraulic cylinder, it is strictly prohibited to use hard thing to blow, brush, and otherwise disrupt its anti-corrosion and sealing.
- Always check bracket parts bolts.
- Often wash surface dust with water at the bottom of the hydraulic cylinder, avoid impurities into the sealing ring internal.

### Seal

- Checks daily control switch air tightness.
- Checks daily oil leak.

### Note:

Used in vehicle cleaning, must wash the bottom of the hydraulic cylinder with water before down, so avoid small sediment were brought into seal ring, shorten the life time of the seal ring.

### Every 6 months:

- Check the hydraulic cylinder surface
- Check the supporting frame
- Check the cylinder vertical degree
- Check the pipeline
- Check the moving parts

### Warranty terms

This clause applies the user or dealers only through the normal business program to buy TPM (1980) product.

From the date of delivery 12 months, TPM (1980) company warranty for material and process defect, for abuse, change without permission, not according to the provisions of the manual way is not within the scope of this warranty.

Because this equipment defects and cause car damage is limited to repair or replacement the equipment, the company does not undertake any indirect or accidental loss.

## Customer service Equipment operation have any problems, please call:

Tel: 095-119-0033 Id Line: 095-119-0033