## **Operating Instructions**

# Hydraulic Jacks JH G-plus Series

JH 5 G-plus	JH 10 G-plus	JH 15 G-plus	JH 20 G-plus	
L x W x H mm 311x233x280	L x W x H mm 330x247x310	L x W x H mm 415x300x310	L x W x H mm 435x330x340	
Weight kg 22	Weight kg 28	Weight kg 44	Weight kg 58	
Capacity kg 5500	Capacity kg 10000	Capacity kg 15000	Capacity kg 20000	
Lifting height mm 150	Lifting height mm 160	Lifting height mm 180	Lifting height mm 190	
Workingpress. bar 520	Workingpress. bar 520	Workingpress. bar 520	Workingpress. bar 520	
= with slide shoe guiding				

## **Recommended Use**

#### These jacks are designed specifically for lifting heavy loads vertically.

- They should only be used on solid level ground. Do not use on a slope. The load must have a suitable strong pick-up point which will accept the full surface of the lifting toe.
- The centre of gravity must be in the under half of the load Do not exceed the maximum load recommended in this document and shown on the identification plate on the jack.
- Always lower the jack slowly and carefully. Otherwise the guide of the housing may be damaged due to high friction forces.
- Every other use than recommended must be avoid. The manufacturer or supplier is not liable for any damage resulting from improper use of the jack. Accidences resulting from improper use are the responsibility of the user.

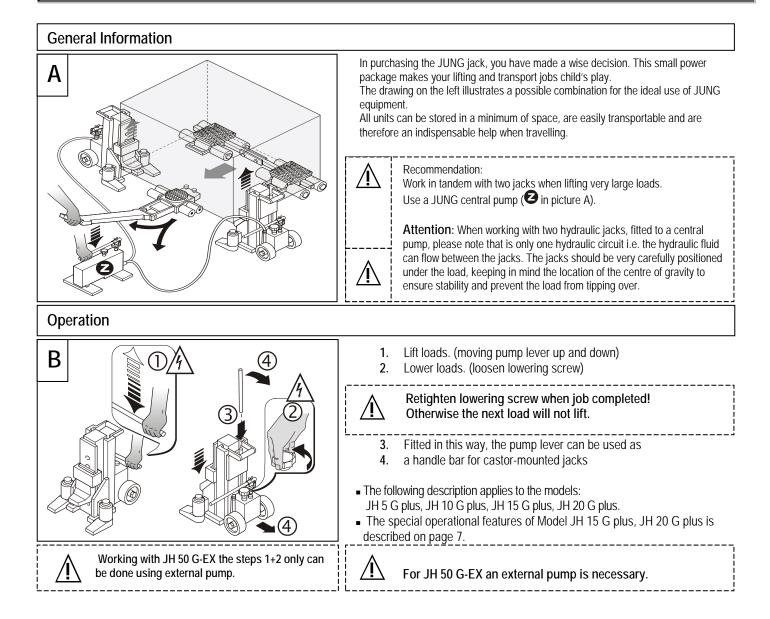
#### These products are not designed:

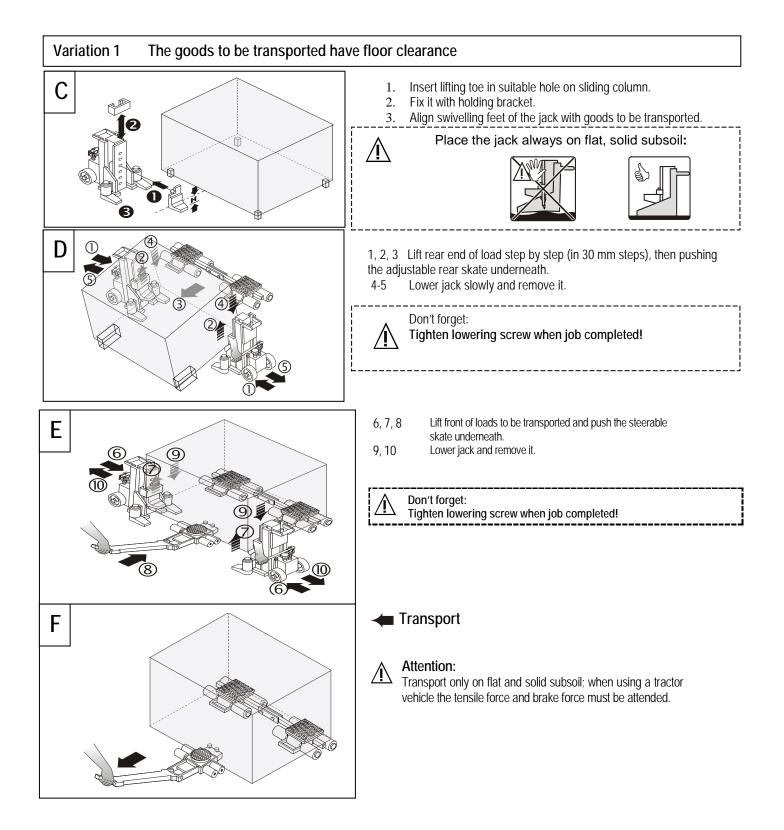
- For lifting and moving people or mobile devices.
- For use in extreme environment (i.e. under hazardous, explosive, flammable or corrosive conditions)
- Materials and lubricants used may not meet local food and agricultural industry regulations

The user should read these operating and service instructions carefully before attempting to use the jacks. Particular attention should be paid to the safety instructions on page 8.

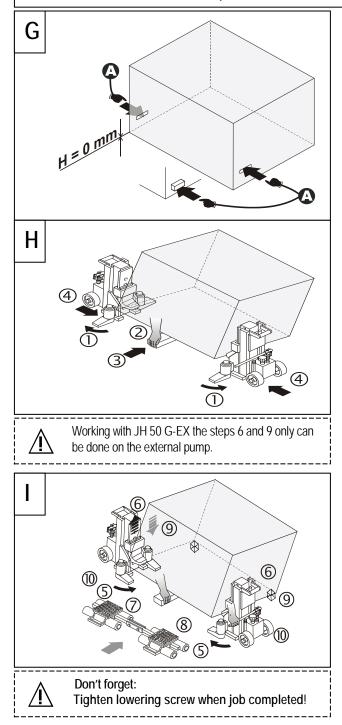


# **Operating instructions for all models**





## Variation 2 Goods to be transported have no floor clearance.



- Place the lifting toe of your jack under a suitable place of the loads to be transported. (e.g. Picture G)
- 1 Swivel feet of the jack to the side
- 2, 3 Lift loads to be transported slightly and insert a strong packing piece underneath (e.g. steel, hardwood).
- 4, 5 Now you can place the lifting toe under the loads to be transported and swivel the feet of the jack underneath the load.
- 6, 7, 8 Lift loads more, remove the packing and drive the steerable carriage underneath the load.
- 9, 10 Lower jack and remove it.

# Operating Instructions for JH 15 G-plus / JH 20 G-plus

Load lifting	auick liftina	The jacks JH <b>15 G plus</b> und <b>JH 20 G plus</b> lift heavy loads through an inbuilt hydraulic pump unit.		
	Due to the power ratio the lifting piston raises the load slowly.			
		A fast stroke is provided to bring the toe to the underside of the load to be lifted.		
		Fast stroke: big piston surface => for fast toe positioning without load		
		Load lifting: small piston surface => for lifting under load		
OPERATION				
	3	1. Quick lifting:	Raise quick-lifting toe until it touches the bottom of the load.	
		2. Lift the load:	Insert pump lever into the other pump rod assembly for load lifting.	
		3. Lower the load:	Loosen lowering screw slowly and carefully.	
		Tighte	en lowering screw	
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## Additional Notes, Safety Instructions

### SAFETY WORKING INSTRUCTIONS

#### 1. Read instructions

Before the jack is used, these instructions must be read in their entirety by all operating staff (i.e. all personnel who have received instructions to carry out the lifting and transport operations).

#### 2. Communication and organisation

The communication between all operating stuff must be guaranteed, especially when the visibility between each other is interrupted. One non-operating person has to be responsible for control and clear advice to all operating personnel.

#### 3. Danger Zone

The operator must ensure that other persons should remain at a safe distance of 1.5 times the height of the load (i.e. clear of the danger zone). No unauthorised person or anyone not familiar with its operation should attempt to use the jack.

#### 4. Load and Centre of gravity

The complete net weight and the position of the centre of gravity of the load have to be found out before any operation.

Use of jacks and hydraulic pumps without knowing these facts is dangerous and can be lead to damaged equipment and/or damage to the load and operating personnel.

The choice of an adequate jack can be done with this formula:

Minimum jack capacity = (Load weight in kg) x 1. 25 (security factor)

(I.e. load weight 4000 kg x 1.25 = 5000kg; the jack must have a minimum capacity of 5000 kg.)

While using more than one jack with one load it is important that the jacks are placed under the load in positions where it is guaranteed that all of them will have to lift the part of the weight. Therefore the part of the load plus security factor must not exceed the capacity of the single jack. In order to place the jacks correctly as requested it is absolutely necessary to know where the position of the centre of gravity is located.

Lowering the jacks without a central pump the lowering speed has to be slow and absolutely synchronised on all jacks deployed. For security purpose use of Jacks with different capacities isn't allowed.

#### 5. Recommended use

These jacks are designed specifically for lifting heavy loads vertically. They should be used on solid level ground only. Do not use on a slope or slippery ground.

The load must be stable enough for lifting on a single point and must not be tip over while lifted. The surface where the jack will be attached must be suitable for lifting referring size, stability and non-slippery. Size means that there must be enough room to lift up with the full surface of the lifting toe or top plate, only partial connection between the lifting surface of jack and load is not enough. For working with 2 or more jacks we recommend the use of a central pump when the weight of the load:

- 1. exceeds the capacity of one jack for more then 1.5 x or
- the height of the load exceeds the length of the side of the load which is to be lifted.

While working with more than one jack the knowledge of the centre of gravity determines the position of the jacks. (See 4 above "load and centre of gravity"). **Important:** If the height of the load exceeds the length of the side being lifted and/or the centre of gravity is located in the upper half of the load appropriate precautions must be taken to prevent the load from tipping.

#### 6. Lifting and lowering:

After preparing the a.m. steps the initial lifting should be done slowly and carefully. Examine the load carefully after the first few mm of lift to ensure there is no exceptional slipping or bending in the load. If this safety check is done, the lifting operation can be continued.

When the jack is in the raised position under the load:

- No-one should attempt to work on or in the close vicinity of the load or handle under the load.
- The jack should not be left unattended when supported on the raised jack.
- No unauthorised person or anyone not familiar with its operation should attempt to use the jack.

#### 7. Lifting height:

For security reasons the load has to be lifted and lowered step by step. Steps causing more than 30 mms of height difference on one side have to be avoided. Use suitable pads, i.e. hard wood or steel to secure the load when changing the side. For your own safety do this when lifting tall loads with a high centre of gravity.

## PROTECTIVE EQUIPMENT

All members of operating personnel must wear safety footwear with steel toecaps.

### SAFETY MECHANISM

Each jack is fitted with a safety valve which restricts the permissible operating pressure of its internal pump to 520 bar, thus limiting the maximum load to the weight permissible for the device in question.

### WARNINGS

When working with 2 or more hydraulic jacks and 2 or more hydraulic pumps on one load there is a danger that individual jacks could become overload and damaged if lowering is performed unevenly. This could result in the load being dropped suddenly or tipped over, creating considerable risk of personal injury to the operator as well as risking damage to the load and anything else in within the danger zone.

It is of the utmost importance when working with a jack and while lowering the load, that no part of the jack other than the lowering screw is touched. When using single or multiple jacks neither the operator nor anyone else should allow any body part to enter the area beneath the load, beneath the lifting toe or close to the jack body and sliding column. When lowering the load, the toe and sliding column move in relation to the body of the jack and the floor, clothing and operator's body parts could be trapped and personal injury result if proper caution is not exercised.

## **GENERAL SAFETY INSTRUCTIONS**

For safe working it is necessary to know the local general safety regulations of your country. Furthermore you have to pay attention to the regulations depending to your branch of industry, operational area and operation purpose. Jung-Equipment is designed for use under usual atmospherically conditions and temperatures between -5° and 45° C.

All operational personnel working with the JUNG equipment must be instructed regularly in safe working conditions by a security instructor or a safety expert. This must be done personally as training, delivery of written regulations or manuals and/or announcement on signs is not enough.

Before each use of the jack you must check that it is in good working condition and a valid inspection badge is on the jack.

If there is no badge or the jack seems obviously defective, i.e. deformations or cracks in the main housing, wear or oil leaks on moving parts, the jacks should be inspected before use and a valid control badge has to be put on.