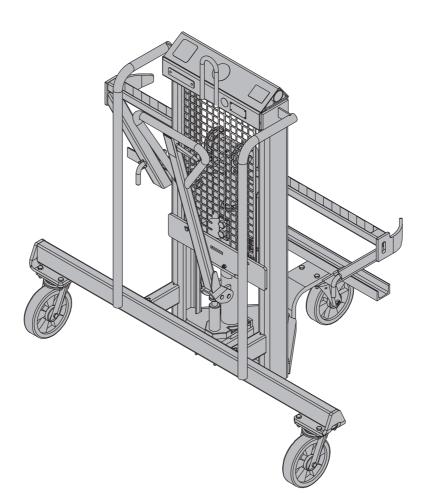
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## **Original Operating Instructions**

Please retain for future reference



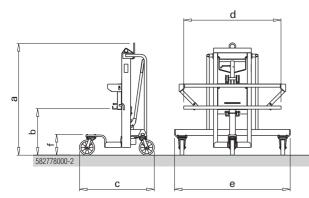
# 2003 models onward





### **Basic drawings of product**

The Shifting carriage TG comes with 3 swivel casters (ø20.0 cm), 2 of which have an integral parking brake.



- a ... 1480 mm
- b ... 190 mm to 950 mm
- c ... 984 mm
- d ... 1280 mm e ... 1520 mm
- f ... 270 mm
- 1 ... 270 mm

## Data on rating plate

Doka Industrie Gmbh, A-3300 Amstetten Designation: Shifting carriage TG Max. load: 1000 kg Dead weight: 168.0 kg Art.n°: 582778000 Year of manufacture: see rating plate

CE

# Use for the designated purpose only:

The Shifting carriage TG is a lifting appliance. It may only be used for erecting, striking, and horizontal travelling of Doka load-bearing towers Aluxo, Staxo and d2.

Max. capacity: 1000 kg per carriage

- It is forbidden to use the product for anything but its intended purpose!
  - Doka accepts no liability for products that have been altered!
  - Repairs may only be carried out by the manufacturer!
  - Store lifting accessories in a dry and well ventilated place, protected from the weather and from all corrosive substances.
  - Load-carrying equipment must be inspected once a year by an expert.

### **Before every use**

- Check for any signs of damage or visible deformation.
  - Any deformed and damaged parts must be immediately replaced by an expert. For safety reasons, only genuine OEM spares may be used.
    - Crack-free and notch-free welds
    - No deformation
    - Rating plate must be in place and clearly legible

# After taking delivery of the Shifting carriage TG

#### Damage in transit

The Shifting carriage TG is given thorough inspection and testing before being dispatched from the manufacturer's factory. In order to make sure that no damage has occurred in transit, the Shifting carriage TG should be inspected thoroughly as soon as it is delivered. Any damage must be reported to the sender in writing. Until this notice of defect has been dealt with, the Shifting carriage TG may not be put into service.

#### Warranty conditions

The warranty shall lapse in the event of overloading or other improper use of the equipment.

## Familiarising personnel with the Operating Instructions and the required guidelines

#### **Operator authorisation**

The only persons allowed to operate the equipment are those who have been given sufficient instruction in how to use it, and who are familiar with all applicable operating manuals and regulations.

The client must obtain suitable evidence of the personnel's ability to operate and handle this vehicle.

Please also observe the VDMA guidelines on proper use of industrial trucks for their designated purpose.

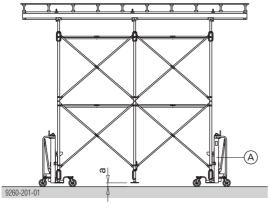


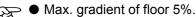
## Positioning the Shifting carriage TG

## When a load-bearing tower needs to be lifted, two Shifting carriages TG are required.

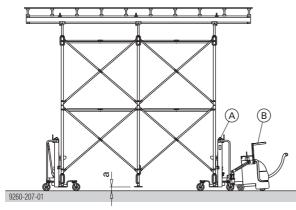
- > Take the load off the load-bearing tower.
- Push the Shifting carriages TG up against the end faces of the load-bearing towers.
- Lower the Shifting carriages TG
- Unlock both safety bolts (C) by turning them and pulling them out.
- The slot-in lifting profile reaches under the bottom cross-bar (E) of the tower frame.
- The slot-in lifting profile reaches under the bottom cross-bar of the tower frame.
- Push both safety bolts (C) back in and turn them to lock them.
- Turn all the swivel casters to point in the direction in which you want to wheel the load-bearing tower.
- Push the feet into the frames and secure them to prevent them dropping out.
- Using both Shifting carriages TG, evenly lower the load-bearing tower to the desired height.

# Travelling the tower without an Attachable drive unit DF





# Travelling the tower with an Attachable drive unit DF

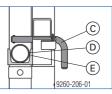


a ... max. 50 mm

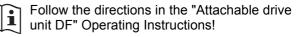


• Max. gradient of floor 3%.

When travelling the tower with an Attachable drive unit DF, both safety bolts must be pushed in and locked in place.



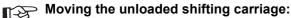
- A Shifting carriage TG
- B Attachable drive unit DF
- C Safety bolt
- D Bottom cross-bar (load-bearing tower)
- E Slot-in lifting profile



#### Important points to remember when wheeling load-bearing towers:

- Only use with Doka Aluxo, Staxo and d2 load-bearing towers.
- Ground clearance of the frame feet max. 50 mm.
- It is forbidden to use any other mechanical assistance for the travelling operation!
  Exception: Attachable drive unit DF
- Max. speed 4 km/h (walking pace)
- The floor must be stable, firm and sufficiently smooth (e.g. concrete).
- Max. configuration that can be transported using two Shifting carriages TG: Tables with 3 cross-frames per section and a max. height of 5.0 m.
- The conveyance of persons is forbidden follow the danger notice.
- Particular care is needed with:
  - Height offsets
  - Steps
  - Break-throughs
  - Strong wind
- Either bridge any openings in the floor with sufficiently strong planking/boards secured so that they cannot slip away to either side, or close off openings with sufficiently strong side railings!
- Keep the travel route clean and free of any obstacles.
- It is forbidden for any other persons to stand in the immediate danger zone (e.g. near the frame feet).
- When hoisting the Shifting carriage TG by crane, only use the lifting-bracket provided.
- For longer breaks between operations, or when the Shifting carriages TG are permanently parked, they must NOT be carrying a load-bearing tower.
- After wheeling the Shifting carriage TG to its new position, fix it with its parking brakes so that it cannot be moved accidentally.

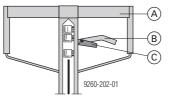




Be particularly careful when wheeling the unloaded shifting carriage backwards - it can easily topple over!

# Lifting and lowering (with/without load)

Der Hubwagen TG ist mit einer von Hand bedienbaren Hydraulikpumpe ausgestattet.

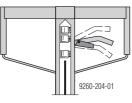


#### A Drawbar handle

- B Trigger handle
- C Safety catch

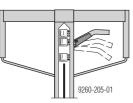
## Stellungen des Zuggriffs

#### **Normal lift**



To shift the pump into the high-pressure position, lift the trigger handle until the safety catch engages. In this position, the rapid-action pump piston is disengaged. With every stroke of the pump, the slot-in lifting profile is raised 17 mm. Loads of up to 1000 kg can be raised in this position.

#### Lowering



To lower the load, slowly pull up the trigger handle. Slowly lower both Shifting carriages TG simultaneously. When this is done and you let go of the trigger handle, this is automatically returned to the middle position.

## Hydraulic system - general notes

#### Venting

To vent the lifting cylinder, pump the slot-in lifting profile all the way to the top and then rapidly lower it again.

#### **Safety precautions**

The overpressure valve is set in such a way that the max. capacity of the Shifting carriage TG is 1000 kg. It is forbidden to tamper with the setting screw on the overpressure valve.

#### Maintenance

Change the hydraulic oil

- after every 1000 operating hours
- at least 1x a year

The hydraulic system is filled with a special low-temperature oil that has a viscosity in accordance with ISO VG 10 (e.g. Aero Shell Fluid 4). The oil is additivised with: **Wynn's Hydraulic System Concentrate**.

This concentrate is added in a mixing ratio of 2.5:100. The concentrate lessens friction and wear-and-tear, and gives protection against corrosion. A ready-to-use hydraulic-oil / additive mixture is available from your dealer.

Filling-quantity of hydraulic oil: 0.75 l. If the slot-in lifting profile can be raised to the highest position, then there is sufficient oil in the system.



- $\Delta$  Hydraulic oil is harmful to the environment!
  - For this reason, always properly seal any leaks immediately!
  - Intercept any leaking hydraulic oil and dispose of it in accordance with the applicable regulations!

## Maintenance (general remarks)

#### **Cleaning & maintenance**

Clean the Shifting carriage TG whenever it has been made dirty. Pay particular attention to the hydraulic system, the moving parts of the guide mechanisms, the bearing surfaces of the supporting frame, and the swivel casters.

#### Before starting up at a new site

- Lubricate with grease via the lubricating nipples provided.
- Lubricate the load chain and the deflection pulleys with lubricating grease.

Once a year, when lubricating the chain, inspect it carefully for any signs of alteration and damage.

## Troubleshooting

# The load is not being lifted, even though you have made several attempts to "pump"

#### Possible causes:

- Load too heavy (> 1000 kg)
- Not enough hydraulic oil
- Hydraulic tubing is leaking
- Air trapped in the hydraulic system
- Valve control system not working (low-pressure valve core)
- Faulty over-pressure valve (integrated in the lowpressure valve core)
- The valve-face does not shut tightly (high-pressure valve core)

# The load is not being raised to the maximum height

#### Possible causes:

• Not enough hydraulic oil

# The load can only be "pumped upwards" with great difficulty

#### Possible causes:

- The releasing pin is stuck in the control valve (in the rubber knob or in the valve housing)
- The valve control system is faulty (low-pressurevalve core)

#### The load is being lowered of its own accord

#### Possible causes:

- Hydraulic tubing is leaking
- The valve control system is faulty (low-pressurevalve core)
- The valve-face does not shut tightly (high-pressure valve core)

#### The load cannot be lowered

#### Possible causes:

- The setting of the lowering mechanism has been misadjusted
- The releasing pin is stuck in the control valve (in the rubber knob or in the valve housing)
- The valve control system is faulty (low-pressurevalve core)

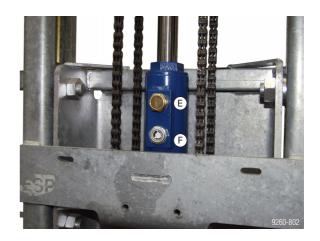
# The load is being lifted jerkily and/or "bounces"

#### Possible causes:

- Air trapped in the hydraulic system
- Lowering mechanism is not optimally adjusted

## **Component overview**

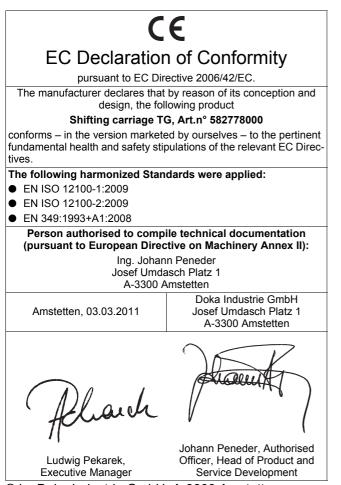






- A Safety catch
- B Trigger handle
- C Filling opening
- D Bleeder screw
- E Pump piston
- F Valve block
- G High-pressure valve core
- H Low-pressure valve core





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