

KNAP ON CRANE HAND-HYDRAULIC

ItemNo. 4300 | 4400 | 4500



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Table of contents

1.	Introduction	1
1.1.	Purpose	1
1.2.	Availability	1
1.3.	Knowledge	1
1.4.	Version	1
1.5.	Fabrikant	1
2.	Overview and Application	2
2.1.	General Description	2
2.2.	Machine Purpose and Intended Use	2
2.2.1.	Prohibited Use	2
3.	Safety and Residual Risks	2
3.1.	Safety Measures to Be Taken by the User	2
3.2.	Intended Use and Warnings of Hazardous Situations	2
3.3.	Risk of Motor Damage	3
4.	Before Use	3
5.	Operation	3
6.	Training	4
6.1.	Operators	4
7.	Technical Data	4
7.1.	Technical Specifications	4
7.1.1.	Remote Control	4
7.2.	Machine Designation	5
7.3.	Electrical Data	5
7.4.	Nameplate	5
7.5.	Noise	5
7.6.	Service Life	5
8.	Handling, Transport, and Installation	5
8.1.	Transport	5
8.2.	Assembly and Installation	5
8.3.	Maintenance	6
8.3.1.	Wire	6
8.3.2.	Base Shaft and Ball Bearings	6
8.3.3.	Cleaning	7
8.3.4.	Storage	7
9.	End of Use	7
9.1.	Disposal and Environmental Considerations	7
9.2.	Environment and Responsible Recycling	7
10.	Service	7
11.	Contact Information	8
12.	Disclaimer of Liability	8

1. Introduction

1.1. Purpose

The purpose of this operating manual is to ensure correct installation, use, handling, and maintenance of the Knap On Crane.

The crane is equipped with a manually operated hydraulic hand pump for the jib arm and is available in several versions, both with an electric wire hoist or a permanently mounted lifting chain.

The crane is designed for lifting machinery and tools and can be mounted in vans, flat-bed trucks, trailers, and many other types of vehicles and platforms.

This user manual covers products with item number 4300, 4400 and 4500.

1.2. Availability

The operating manual must be stored together with the crane and be easily accessible to operators and maintenance personnel.

1.3. Knowledge

The owner of the crane is obliged to ensure that all people who operate, service, maintain, or repair the equipment have read the operating manual; at a minimum, the sections relevant to their work.

Furthermore, all persons who operate, service, maintain, or repair the equipment are

required to seek information themselves in the operating manual.

1.4. Version

This operating manual is a translation of the original Danish operating manual, version 02.01.

1.5. Fabrikant

ASP Produktudvikling A/S is the manufacturer and producer of the Knap On Crane.

ASP Produktudvikling A/S

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2. Overview and Application

2.1. General Description

Never attempt to modify or adapt the product for any purpose other than that described in this operating manual.

In the event of modification or change of intended use, all warranties and manufacturer liability shall be void.

2.2. Machine Purpose and Intended Use

The Knap On Crane is designed for lifting materials and tools in and out of vans, flatbed trucks, and trailers.

It may also be used for lifting at other locations, provided that a suitable mounting solution supplied by ASP Produktudvikling A/S is used.

2.2.1. Prohibited Use

The Knap On Crane must NOT be used for lifting persons.

3. Safety and Residual Risks

This crane is manufactured in accordance with national and international standards and safety requirements.

Therefore, repairs may only be carried out by an authorized service technician, and only original spare parts must be used. Failure to do so may result in repairs that pose a danger to the user.

3.1. Safety Measures to Be Taken by the User

No people may be present within the working area of the equipment during lifting operations.

Always use the required personal protective equipment when handling the Knap On Crane. When operating the Knap On Crane, safety footwear is recommended.

3.2. Intended Use and Warnings of Hazardous Situations

The Knap On Crane must only be used with original accessories and spare parts and only when correctly installed.

Never use the product with components other than those supplied with the product or specifically designed for the purpose by ASP Produktudvikling A/S.

Never attempt to modify or adapt the product for any purpose other than that described in this operating manual.

In the event of modification or change of intended use, all warranties and manufacturer liability shall be void.

During operation, the operator must be attentive to any changes in functionality and ensure that any damage is repaired before the Knap On Crane is used again.

When lifting loads that exceed the crane's lifting capacity, the crane will automatically



stop. The hook can then only be lowered to relieve the load.

The crane must not be used for lifting persons.

No persons may be present within the crane's operating range during lifting operations.

3.3. Risk of Motor Damage

The product must NEVER be connected to 110 V or 220 V AC.

Doing so poses a risk of serious motor damage.

4. Before Use

It is the responsibility of the user to check that the Knap On Crane, including the hand pump, electric hoist, and wire, is not damaged before use. Ensure that the wire is correctly wound onto the drum.

The ball bearings on the base shaft must be inspected for cracks and excessive play.

If the operating manual specifies additional inspection points, it is likewise the responsibility of the user to carry out these checks.

The user must ensure that the crane is used correctly and not loaded beyond its specified capacity. When lifting loads, they must be properly secured and balanced.

If, during operation, the user feels uncertain or unsafe about the situation, the Knap On Crane must be stopped immediately by

disconnecting the power supply or stopping operation.

The function of the control unit must be checked. When activating the control lever, the crane must respond correctly.

5. Operation

1. The vehicle on which the crane is mounted must be positioned as level as possible, as inclination may affect the swing range of the crane jib.
2. Place the crane into the mounted base plate and lock it securely.
3. Connect the crane to the vehicle's 12 V battery if the model is equipped with an electric wire hoist or powered extension.
4. Pump the jib arm up to the desired position. Ensure that the electrical cable is not pinched.
5. When lowering the lifting hook, pull lightly on the hook to ensure correct unwinding of the wire rope and to check the crane's movement.
6. To extend the jib arm, the wire must be rolled out to at least the same length as the desired jib extension.
7. Once the load has been lifted into position, raise the lifting hook fully. Pull lightly on the hook during winding to ensure correct wire rope guiding.



8. After completing the work, retract the jib arm and fold the crane.
9. To lower the jib arm, turn the black handle at the base of the hand pump counter-clockwise.
10. Lock the crane to prevent rotation.
11. During transport, the crane must be secured in accordance with applicable legislation.
12. Knap On Crane model: 4300 and 4400
 - a. This model is equipped with a mechanical extension. By pulling out the bolt in the extension section, the extension can be pulled out to the required length. Reinsert the bolt through the extension and secure it with the locking pin.
13. Knap On Crane model: 4500
 - a. This model is operated via the remote control.

6. Training

6.1. Operators

Only operators or personnel who have read this operating manual are permitted to operate the crane.



7. Technical Data

7.1. Technical Specifications

The Knap On Crane is available with different control options.

Model 4300 is manually operated with a hand-hydraulic system and a permanently mounted lifting chain. The jib is operated using the hand pump, and the extension is manual.

Model 4400 is equipped with an electric wire hoist operated via remote control. The jib is operated using the hand pump, and the extension is manual.

Model 4500 is equipped with an electric wire hoist and an electric extension with actuator, which are operated via the remote control, see Figure 1.

7.1.1. Remote Control

Refer to the labels on the remote control for operating instructions.

The remote control is equipped with a 5-meter flexible cable.



The remote control for model 4500 is only equipped with control buttons for the electric hoist.

7.2. Machine Designation

The full machine designation is Knap On Crane Hand-Hydraulic.

7.3. Electrical Data

Knap On Cranes require 12 V and 35 A at 12 V.

7.4. Nameplate

The nameplate is located on the electrical box.

7.5. Noise

The equipment emits noise levels below 70 dB(A).

7.6. Service Life

> 10 years.

Regular service and maintenance extend the service life of the equipment. In addition, the legally required 12-month inspection must be observed and carried out by ASP Produktudvikling A/S or by an official service partner.

8. Handling, Transport, and Installation

8.1. Transport

During transport, the equipment must always be folded as much as possible.

The crane must always be locked securely into the base plate to prevent rotation.

During transport, the crane must be secured in accordance with applicable legislation.

8.2. Assembly and Installation

Mounting Requirements:

- The base plate must be bolted securely using a minimum of 4 × Ø12 mm bolts, grade 8.8.
- The base plate must be mounted to the vehicle's or trailer's load-bearing frame members so that forces are correctly distributed into the chassis.
- On vehicles with a weak floor structure, it is necessary to reinforce the area around the base plate.
- It is the responsibility of the installer to test the fastening and any possible deflection of the platform/floor under full crane load.

Two Types of Base Plates Depending on Mounting Method:

- Downward fastening: Used where fastening through the floor is possible, e.g.



wooden floors in trailers or flatbed trucks.

- Upward fastening: Used where penetration of the floor is not permitted, e.g. steel floors in vans or pick-ups.

Important:

- No later than one month after commissioning, all fastening bolts must be re-tightened.
- If the power supply cable is extended, the positive conductor (red) must be a minimum of 10 mm² to avoid voltage drop and reduced crane performance.
- The red (positive) and black (negative) cables must never be reversed, as this may disable the crane's safety functions.

8.3. Maintenance

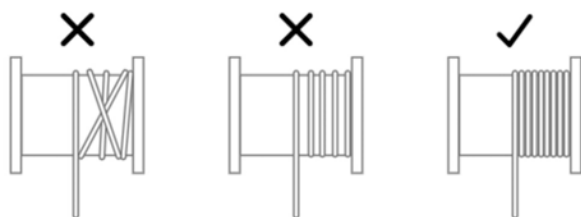
The electric hoist is largely maintenance-free and may advantageously be lubricated with wire oil.

For long and trouble-free operation, it is recommended that the following tasks are carried out at least every 6 months:

- Retighten wheel and bolt connections.
- Inspect the crane, cables, hook, and wire rope for damage and wear.
- Lubricate the extension, wire and ball bearings.

8.3.1. Wire

- The wire must be inspected regularly for breakage and wear and, as a general rule, replaced once per year or more frequently if required.
- Always use original wire rope.
- To extend service life, it is recommended to lubricate the wire regularly with wire oil.
- No more than 18 meters of wire may be wound onto the drum.
- Always ensure that a minimum of 3 full wire turns remain on the drum during operation.
- Protect the equipment from frost and low temperatures, which may affect function and safety.
- Before each use, check that the wire is correctly wound, that the hoist is correctly mounted, and that the control unit functions flawlessly.



8.3.2. Base Shaft and Ball Bearings

- The ball bearings on the base shaft must be inspected regularly for cracks and excessive play.

- To ensure optimal operation and service life, it is recommended to lubricate the bearings with ball bearing grease as required.

8.3.3. Cleaning

Clean using water with mild soap and a well-wrung cloth. Avoid cleaning with running water. Do not use solvents or cleaning agents containing abrasive particles.

Maintenance primarily consists of regular inspection of the wire rope, ensuring that bolt connections are tight, and checking individual components for damage and wear. Worn or damaged parts must be replaced before the crane is put back into operation.

8.3.4. Storage

If the Knap On Crane is not to be used for an extended period, it should be folded and covered, preferably using the dedicated protective cover.

The crane must be stored in a dry environment at room temperature to ensure optimal function and prolong its service life.

9. End of Use

9.1. Disposal and Environmental Considerations

Oil residues are the only part of the Knap On Crane considered to be environmentally

hazardous and must be disposed of in accordance with applicable regulations issued by the local environmental authorities.

All other components may be disposed of as metal and electronic waste.

9.2. Environment and Responsible Recycling

At ASP Produktudvikling, we take responsibility for the environment. Therefore, we offer to take back our products free of charge when a customer no longer has use for them. Cranes and equipment that are still functional are inspected, serviced, and refurbished to extend their service life. In this way, we conserve resources and reduce waste while allowing the products to remain in use for additional years.

We believe that quality and sustainability can go hand in hand.

10. Service

Service, spare parts, and the legally required annual inspection are carried out at the following address:

ASP Produktudvikling A/S

Tolstrup Byvej 7

9600 Aars

Or

By an official service partner



We perform the legally required 12-month service inspection on all our cranes and lifting equipment. Through regular inspections, you ensure that the equipment is safe, ready for operation, and compliant with applicable regulations.

11. Contact Information

ASP Produktudvikling A/S

Tolstrup Byvej 7

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CVR: 32 27 83 29

12. Disclaimer of Liability

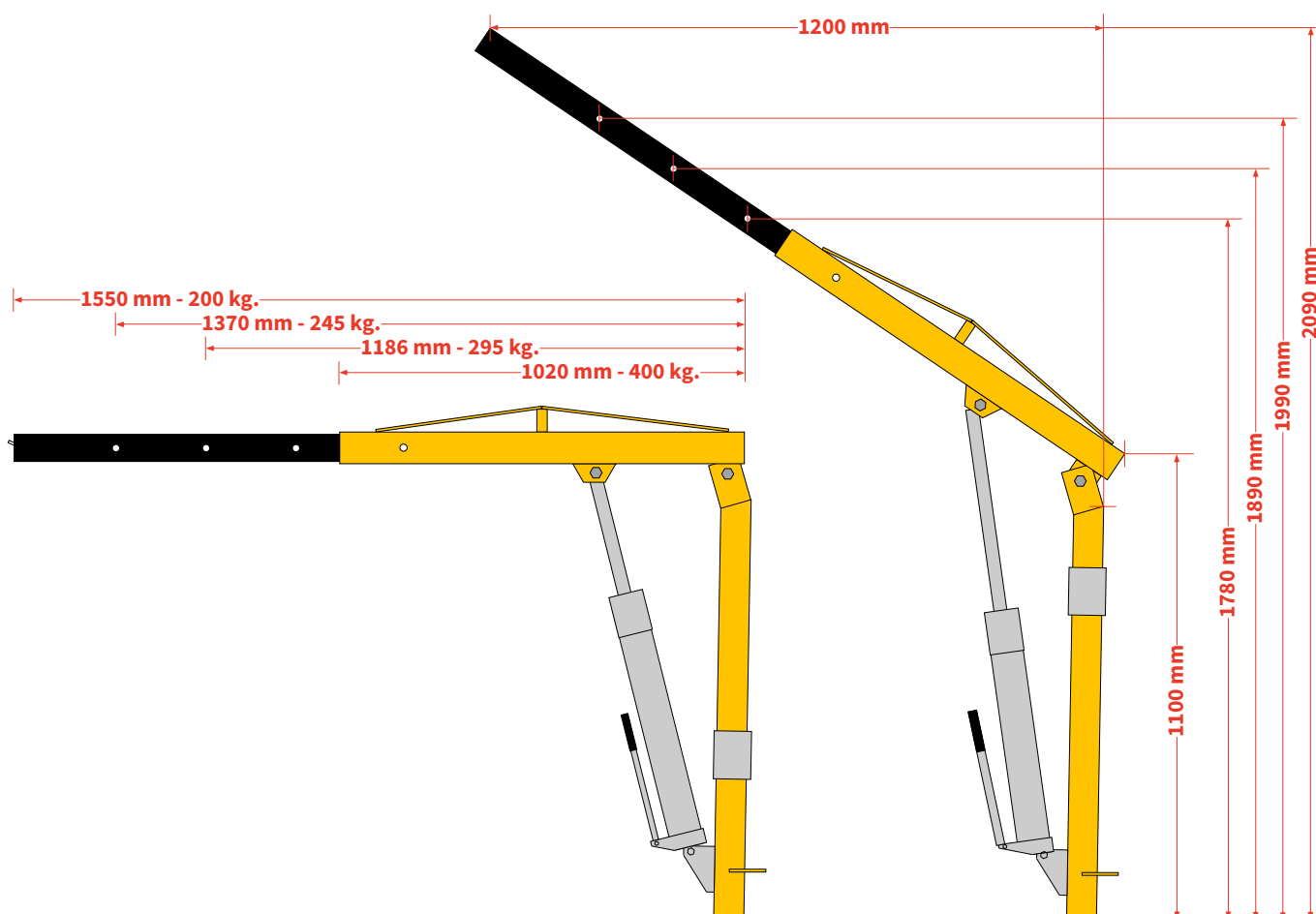
The user of the structure or object on which the crane is mounted is responsible for ensuring that the structure has sufficient strength to withstand daily loads as well as the additional load impact of 100 kg during a load test.

In the event of damage to the vehicle or trailer floor, suspension components, or similar parts during the load test or during operation of the Knap On Crane, ASP Produktudvikling A/S and its authorized dealers/installers disclaim all liability.



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Everything in Small Cranes and Vacuum Lifters



Knap On Crane Manual Hydraulic

Manual hydraulic crane with minimal footprint. The boom is manually pumped and equipped with a fixed chain and mechanical extension. The crane takes up very little space, allowing room for additional shelving.

Specifications

Item No.	4300
Width folded (mm)	510
Height folded (mm)	1140
Lift	Fixed chain
Extension	Manuel
Weight (kg)	40



Lifting capacity: 400 kg



Portable without the use of tools



Minimal footprint

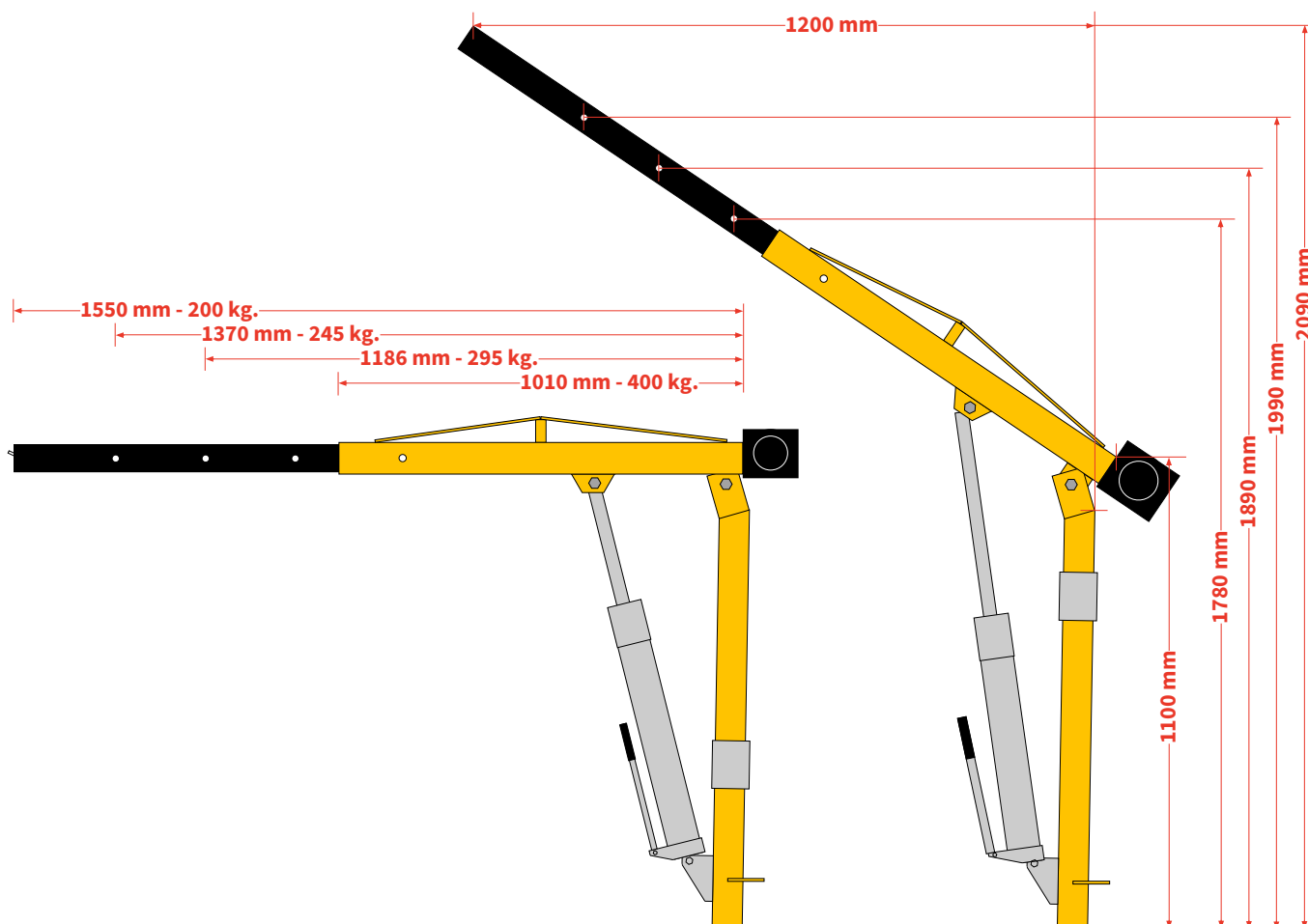


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Knap On Crane Manual Hydraulic

Manual hydraulic crane with wire hoist. The boom is manually pumped, and the crane is equipped with a mechanical extension and a wire hoist with 14 meters of cable. Connects to the vehicle's 12V battery and does not require engine idling during use.

Specifications

Item No.	4400
Width folded (mm)	510
Height folded (mm)	1095
Lift	Electric wirehoist
Extension	Manual
Voltage/Consumption	12V, max 57A
Weight (kg)	42



Lifting capacity: 350 kg



Portable without the use of tools



Connects to the vehicle's 12V battery

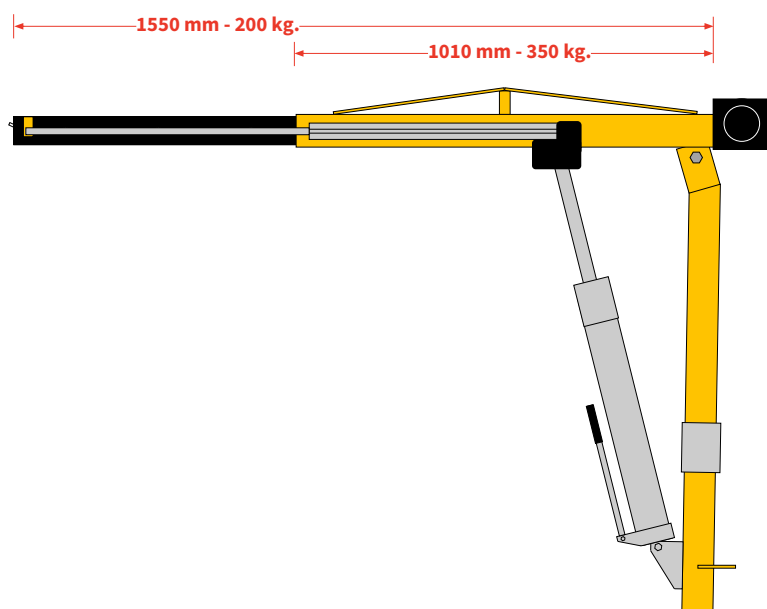


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Knap On Crane Manual Hydraulic

Manual hydraulic crane with 14 meter wire and electric boom extension. The boom is raised manually via hydraulic pump. Connects directly to the vehicle's 12V battery and does not require the engine to idle during operation.

Specifications

Item No.	4500
Width folded (mm)	510
Height folded (mm)	1095
Lift	Electric wirehoist
Extension	Manual
Voltage/Consumption	12V, max 57A
Weight (kg)	46



Lifting capacity: 350 kg



Portable without the use of tools



Connects to the vehicle's 12V battery



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