

CLAAS



SCORPION

7045 (403-03)

7040 (402-03)

7030 (401-03)

6030 (400-01)

Operator's Manual

SERVICE & PARTS

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1 Introduction

1.1 Important information on this Operator's Manual

This Operator's Manual contains important information on how to work safely, correctly and economically with your telehandler. Therefore, it aims not only at new operators, but it also serves as a reference for experienced ones. It helps to avoid dangerous situations and reduce repair costs and downtimes. Furthermore, the reliability and the service life of the machine will be increased by following the instructions in the Operator's Manual. This is why the **Operator's Manual must always be kept at hand in proper condition in the machine.**

Your own safety, as well as the safety of others, depends to a great extent on how the machine is moved and operated. Therefore, carefully read and understand this Operator's Manual prior to the first drive. The Operator's Manual will help to familiarise yourself more easily with the machine, thereby enabling you to use it more safely and efficiently.

(see also [Selection and qualification of staff, basic responsibilities](#) on page 2-5)

Prior to the first drive, carefully read chapter **"Safety Instructions"** as well, in order to be prepared for possible dangerous situations, as it will be too late for it during operation. As a rule, keep the following in mind:

Careful and prudent working is the best way to avoid accidents!

Operational safety and readiness of the machine do not only depend on your skill, but also on maintenance and servicing of the machine. This is why regular maintenance and service work is absolutely necessary. Extensive maintenance and repair work must always be carried out by an expert with appropriate training. Insist on using original spare parts when carrying out maintenance and repair work. This ensures operational safety and readiness of your machine, and maintains its value.

If you require more information on your machine or the Operator's Manual, please contact your CLAAS dealer.

The Operator's Manual is stored in the storage compartment on the backrest of the seat.

Abbreviations/symbols

- This symbol stands for a list
 - Subdivision within lists or an activity. Follow the steps in the recommended sequence
 -  This symbol requires you to carry out the activity described
 -  Description of the effects or results of an activity
 - n. s. = not shown
 - "Option" = optional equipment
- Stated whenever controls or other components of the machine are installed as an option.



This symbol shows the driving direction – for better orientation in figures and graphics.

1.2 Machine overview

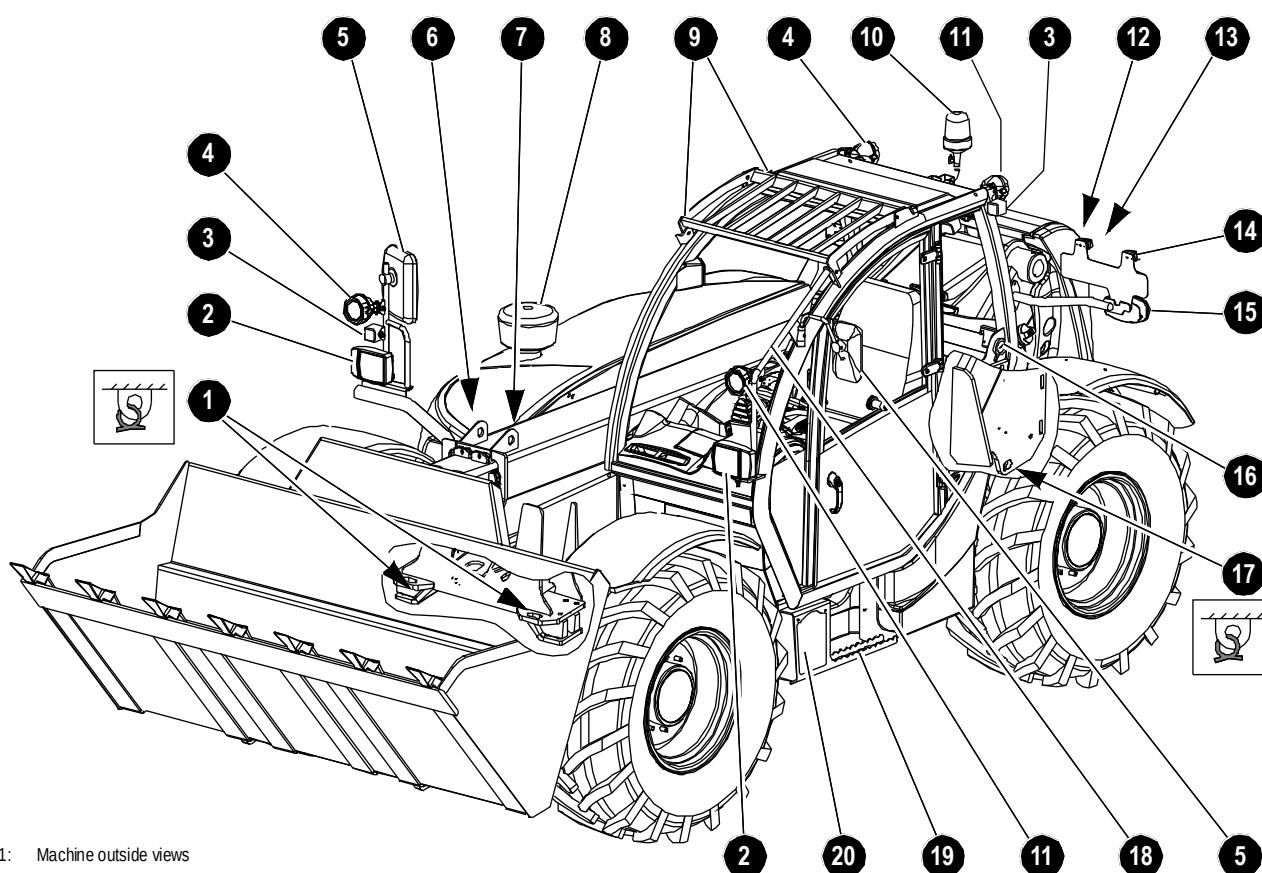


Fig. 1: Machine outside views

1	Front eye hook for towing/strapping down the machine
2	Lights with turn indicators
3	Rear clearance light
4	Working lights (front/rear right, option)
5	Left/right rearview mirrors
6	Working light for telescopic boom (option)
7	Hydraulic connections (telescopic boom additional control circuit option)
8	Air filter (preliminary separator option)
9	Eye hook ¹ for installing/removing the cab
10	Rotating beacon (option)
11	Working light on left (standard)

12	Hydraulic connections (additional control circuit, option)
13	Trailer coupling (option)
14	Numberplate fixture (option)
15	Brake, rear and turn indicator lights
16	Door arrester
17	Rear eye hook for loading/strapping down the machine
18	Handle
19	Cab access
20	Battery (battery master switch option)

1. Eye hooks are for removing the cab only, and may not be used for crane-lifting the machine

1.3 Model designation – trade names

Telehandler	CLAAS model designation	Trade name
400-01	K01	6030
401-03	K02	7030
402-03	K03	7040
403-03	K04	7045

1.4 Brief description of telehandler

According to German traffic regulations, the telehandler is a self-propelled work machine and tractor.

Get informed on and follow the legal regulations of your country.

This machine is a versatile and powerful helper on construction sites, in agriculture and for recycling applications. The wide range of attachments accounts for the numerous applications of the machine: as a snow plough, a construction machine, a fork lift for applications with palletised goods, or as a tractor for transport applications in agriculture.

Other applications – see *Fields of application* on page 1-4.

The main components of the machine are:

- Sturdy steel sheet frame; rubber-mounted engine
- ROPS/FOPS tested cab (roll-over/falling object protection)
- Water-cooled Deutz four-cylinder turbocharged in-line engine, exhaust emissions according to EC standard 97/68 EC
- Automotive drive, infinitely variable hydrostatic axial-piston gearbox; maximum speed 20 kph (30/40 kph options)
- Hydraulic power steering with emergency steering features (front wheel/four wheel/diagonal steering)
- Front and rear planetary steering axles, rear axle with oscillation
- Service brake (multidisc brake)
- Parking brake and auxiliary brake (spring-loaded brake effect on multidisc brake)
- Telescopic boom

Hydrostatic drive

The diesel engine permanently drives a hydraulic pump (variable displacement pump), whose oil flow is sent to a hydraulic motor flanged on the gearbox. The hydraulic motor transmits its power to the front and rear axles (via the transfer gearbox and the cardan shaft) for permanent 4 wheel drive.

Work hydraulics and 4 wheel steering

The diesel engine drives a gear or axial piston pump for the work hydraulics and the steering system, and a gear pump both for the fan (water/hydraulic oil radiator) and the boost pressure of the variable displacement pump (drive).

When the machine is in operation, the diesel engine output can be transmitted to the work hydraulics and the steering system to a large extent. This is made possible by a so-called inching valve which responds as soon as the service brake is used, reducing or cutting off power input of the drive. Therefore, engine output is fully available for the telescopic boom by pressing the accelerator pedal and the brake pedal at the same time.

Cooling system

A combined water/hydraulic oil cooler (for the diesel engine and the hydraulic oil) is located in the engine compartment. The fan drive (water/hydraulic oil cooler) is hydraulically driven by a gear pump located at the diesel engine's power take-off (optional charge-air cooler).

The telltales on the instrument panel of the machine ensure constant monitoring of the engine and hydraulic oil temperature (telltales), as well as of the coolant temperature and level.

1.5 Fields of application

The attachments will decide in the first place how the telehandler is used.



Caution!

In order to avoid damage to the machine, only the attachments listed below have been certified for installation on the machine.

🔗 – see Use: attachment on page 1-4

Note that not all the indicated attachments comply with local traffic regulations. The attachments complying with local traffic regulations and the applicable provisions are listed in the **machine documentation!**

The legislation of your country may require specific permits, certifications, registrations etc. for the use of attachments not authorised or listed in the machine documentation!

Get informed on and follow the legal regulations of your country.

1.6 Attachments

Get informed on the legal regulations of your country for further information on mounting attachments

Attachment	Attachment type no.	Telehandler model	Dimensions	Struck/heaped	Use
Standard bucket – normal material ¹	1000150361 1000150491	400-01, 401-03, 402-03, 403-03	2400 mm (with teeth) 2400 mm (without teeth)	1.0/1.2 m ³	Loosening, picking up, transporting and loading loose or solid material (material density ≤ p = 1.8 t/m ³)
	1000151088 1000151089	402-03, 403-03	2400 mm (with teeth) 2400 mm (without teeth)	1.3/1.6 m ³	

Attachment	Attachment type no.	Telehandler model	Dimensions	Struck/heaped	Use	
Standard bucket – light-weight material ^{1, 2}	1000150793 1000158730 ³	400-01, 401-03, 402-03, 403-03	2500 mm	1.5/1.8 m ³	Picking up, transporting and loading lightweight material (material density ≤ p = 1.3 t/m ³)	
	1000150794 1000176645 ³	400-01, 401-03, 402-03, 403-03		2.0/2.5 m ³	Picking up, transporting and loading very lightweight material (material density ≤ p = 0.9 t/m ³)	
Standard bucket – superlightweight material ^{1, 2}	1000148278 1000171728 ³	402-03, 403-03	2500 mm	2.5/3.0 m ³	Picking up, transporting and loading grain (material density ≤ p = 0.7 t/m ³)	
Silage bucket with hydraulic clamp ^{1, 4}	1000174575	400-01, 401-03, 402-03, 403-03	2500 mm	1.45 m ³	Picking up and transporting silage or recycling material (material density ≤ p = 1.1 t/m ³)	
Heavy duty bucket with hydraulic clamp ^{1, 4, 6}	1000174577	402-03, 403-03	2400 mm	1.3 m ³	Picking up, transporting and loading lightweight material (material density ≤ p = 1.3 t/m ³)	
	1000174578	402-03, 403-03		1.6 m ³	Picking up, transporting and loading lightweight material (material density ≤ p = 0.9 t/m ³)	
Pallet forks ^{1, 4, 5, 6}	1000171857	400-01, 401-03, 402-03, 403-03	1200 mm	See load diagram	Picking up and transporting pallets	
	1000165368		2000 mm			
Floating pallet forks (floating fork arms) ^{1, 4, 5, 6}	1000171735	400-01, 401-03, 402-03, 403-03	1200 mm			
Floating pallet forks (floating fork arms with hydraulic side shift) ^{1, 4, 5, 6}	1000171736	400-01, 401-03, 402-03, 403-03	1200 mm	See load diagram	Picking up, transporting and side-shifting pallets	
Pallet forks (fork arms with hydraulic side shift) ^{1, 4, 5, 6}	1000174576					
	1000174581		1600 mm			
Crane jib ^{1, 4, 5}	1000157237	400-01, 401-03, 402-03, 403-03	1300 mm	See load diagram	Picking up and transporting loads with lifting gear (cables, chains, belts)	
Adapter frame EURO quickhitch ^{1, 2, 5}	1000157243	400-01, 401-03, 402-03, 403-03	–	–	Picking up attachments	
Rotary broom ⁶	1000174580	400-01, 401-03, 402-03, 403-03	–		Street cleaning	
Snow plough ⁶	1000174579	400-01, 401-03, 402-03, 403-03	–		Winter service	

1. Bear in mind the safe load indicator when working with this attachment
2. When using this bucket on public roads, mount the right and left-hand side headlights in a higher position and readjust them – see “Adjusting the headlights” on page 5-35
3. With screwed-on bucket blade
4. Only with load diagram for telehandler
5. Not authorised for use on public roads
6. See the Operator’s Manual of the attachment for taking the attachment into service and using it

1.7 Regulations

Driving licence

Self-propelled work machines (telehandlers) may be driven on public roads only if the driver has a driving licence for the machine, as defined by national traffic regulations. German traffic regulations require the following driving licences for driving the machine:

Version (20 kph) :	Driving licence category 5 (old) Driving licence category L (new, European Union)
Version (up to 40 kph) :	Driving licence category C (new, European Union) Driving licence category CE (new, European Union), with trailer (gross weight rating over 750 kg) Driving licence category T (new, European Union) only for agriculture and forestry.

Get informed on and follow the legal regulations of your country.

Licence

The legal regulations of your country may require you to fit a numberplate and to affix your name and address on your machine.

Get informed on and follow the legal regulations of your country.

Equipment

German traffic regulations require to equip the machine with:

- 1 warning triangle with design certification
- 1 warning light with design certification
- 1 first-aid kit in accordance with the legal regulations of your country

Get informed on and follow the legal regulations of your country.

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