

1 Introduction

1.1 General Information

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1.1.1 How to use this manual

This operator's manual is primarily intended for the machine operator and provides information on the use, adjustment and operation of the machine.

Provided all instructions regarding proper maintenance and operation of your machine are followed, you can count on many years of reliable service.

Please have your authorised CLAAS dealer carry out regular inspections. Failure to perform maintenance or incorrect operation lead to a reduction in performance and a loss of time.

If you use the latest expertise and experience that went into this machine, it will render you consistently excellent service.

There is a separate operator's manual for front attachments and hitched devices.

Texts and figures

Pictures and graphics are neutral. Differences are pointed out by notes beneath the figure.

Texts are short and not machine-specific as far as possible. Differences are pointed out by intermediate headings.

Different types of texts can easily be distinguished from one another by their formats. The following formats are distinguished:

Text type	Description
Description	Further information on the subject.
– Instructions	Operations which must be carried out one after the other.
Result	Consequence of operations carried out.

Document structure based on subassemblies

As far as the contents permit, the chapters of this manual are structured according to subassemblies. The structure of these subassemblies is the same in all chapters.

Different product groups have different document structures based on subassemblies. CLAAS always takes care to keep these document structures based on subassemblies identical in any documents.

All of the requirements and obligations listed in these documents are to be observed. In particular, the instructions for indicating road vehicles with a wide load are to be observed. (Two red and white striped warning plates each in the front and at the rear, two yellow, flashing warning lights).

Certificates of exception and exception permits are issued in each state of Germany according to different regulations. In general, information regarding this is provided by your nearest road traffic licensing department.

Additional weights

When driving on public streets, rear steering self-propelled work machines fitted with front attachments that have received CLAAS approval must be equipped with additional weights that act on the steering axle.

This is required in order to maintain steering of the machine and to prevent it from lifting off at the rear when braking and on slopes.

The required additional weights can be made up of implements, rear axle weights and liquid filling in the rear axle wheels.

The rear of self-propelled work machines is to be ballasted in accordance with the type of front attachment and the equipment on the machine.

Detailed information on this matter can be obtained from CLAAS.

Changes on the machine

If any parts of the machine are subsequently modified whose condition is prescribed or the operation of which (after being modified) could represent a hazard to other road users, then the vehicle type approval registration shall no longer be valid and application must be made for a new vehicle type approval registration. In this case the machine must be presented to the motor vehicle safety inspection authority responsible (TÜV) in order to obtain an expert opinion certificate (§ 19 section 2 StVZO).

If you are in any doubt as to whether this situation applies in your case, please contact us as manufacturers.

Towing a trailer

A trailer for front attachments may be towed in accordance with the permissible traile load.

If a trailer is towed behind the machine, then the cable for the entire lighting system must be connected and the good condition of the lighting system assured.

In addition, particular care should be taken to properly latch the trailer hitch.

1.2 Identification plates and identification numbers

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1.2.1 Spare parts and technical questions

Please specify the respective identification nos. when ordering spare parts and making technical inquiries:

- Machine
- Front attachment
- Engine
- Subassembly
- and/or
- Software version / versions

This is necessary as otherwise, incorrect spare part deliveries may result.

The identification no. can be found on the respective type plate.

The identification no. / nos. of the software can be found in the respective menu.

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1.2.2 Machine identification plate

The identification plate is affixed to the right-hand side of the machine on the operator's platform.

	Designation
1	Type
2	Identification no. (machine number)
3	Type of diesel engine
4	Year of manufacture



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- Never leave the machine unattended when the engine is still running.
- Before leaving the machine, lower the front attachment completely.

2.1.12 Front attachment

- Only carry out work under raised front attachments if they are supported safely.
- Front attachments and feeder units, such as conveyors, rollers, chains, augers, reels and similar cannot be fully secured using integral design features due to their function. Therefore, during operation, keep a sufficient safety distance from the moving parts. The sense of these instructions applies to all other ancillary attachments.

2.1.13 Grain delivery

- The augers located inside the grain tank cannot be shielded completely against accidental contact due to their function.
- Before mounting or entering the grain tank, make sure that no other person can restart the engine.
- Enter the grain tank only through the opening provided for this purpose.

2.1.14 Adjustment and maintenance work

The drives on the machine will not be automatically secured from moving after the engine has been switched off.

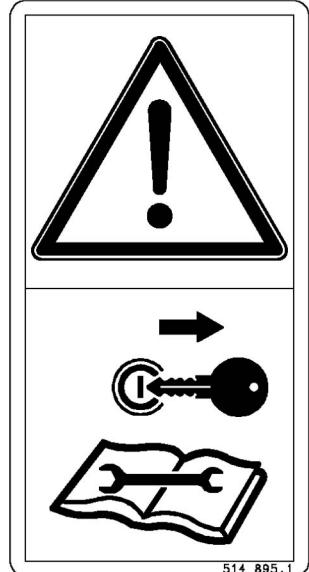
Moreover, when it comes to adjustments, it may be necessary to turn the drives.

For these reasons the following precautions should be observed:

- Before adjustment, cleaning and maintenance operations and before correcting malfunctions:
 - Switch off the threshing mechanism.
 - Disengage the front attachment.
 - Switch off the grain tank unloading mechanism.
 - Stop the engine.
- Before adjustment, cleaning and maintenance operations and before correcting malfunctions at the hydraulic system, lower the front attachment and/or feeder unit all the way.
- As a rule, always disconnect the cable from the battery when working on the electrical system.
- Once the threshing unit has been switched off, the drives will continue turning for a short period of time. You must wait until all the drives have stopped before carrying out any work.
- Please ensure that it is not possible for anyone to accidentally start the machine or turn any of the drives whilst work is being carried out.

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Shut off engine and remove key before performing maintenance or repair work.

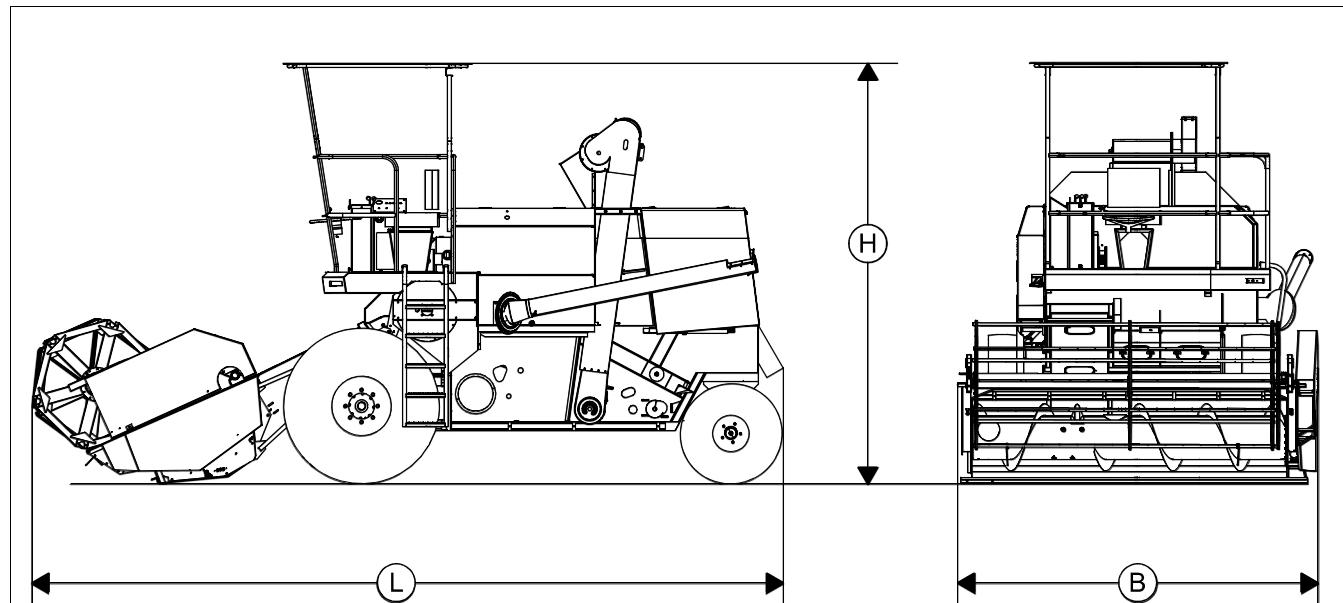
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Do not ride on platform or ladder.

4.1.17 Attachment parts / machine body dimensions



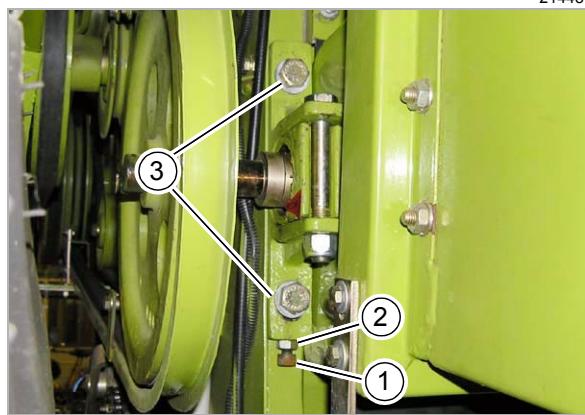
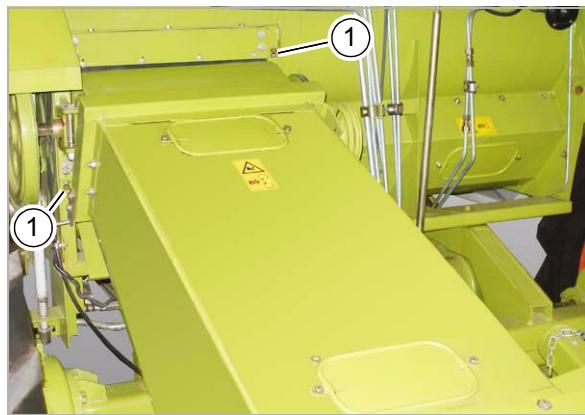
		Transport position	Working position
B	Width of right side of front attachment to the unloading tube rotating gear	3100 mm	* 3100 mm
	* When crop dividers are installed, the displayed measurement for the outer deflector must be added.		
H1	Height of bottom edge of the grain tank unloading tube	–	approx. 2100 mm
H2	Height of top edge of grain tank	2250 mm	2250 mm
H3	Height of top edge of grain elevator	2980 mm	2980 mm
H4	Height of top edge of roof	3550 mm	3350 mm
L1	Length of basic machine without front attachment	3720 mm	–
L2	Length of basic machine with front attachment without crop divider	5750 mm	–
L3	Length of basic machine with front attachment with crop dividers	6850 mm	6810 mm

7.2 Front attachment

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7.2.1 Aligning the front attachment

- Note the general warnings at the beginning of the chapter "Prior to initial operation".
- Making sure that the air pressure of all tyres corresponds to the details in the section Technical specifications.
- Drive the machine on level ground.
- Lower the front attachment until a skid touches the ground.
- Check whether the front attachment is aligned parallel to the ground.
- If necessary, align the front attachment.
 - Loosen the nut (2) on each side of the feeder unit.
 - Loosen the bolts (3) on both sides of the feeder unit.
 - Align the front attachment on both sides of the feeder unit using the bolt (1).
 - Tighten the bolts (3) and the nuts (2) on both sides of the feeder unit.



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9.3 Chassis

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9.3.1 Adjusting the ground speed

The lever (1) is used to change the ground speed of the selected gear of the machine.

The ground speed can be set both for forward motion and for reversing.

Reducing the ground speed

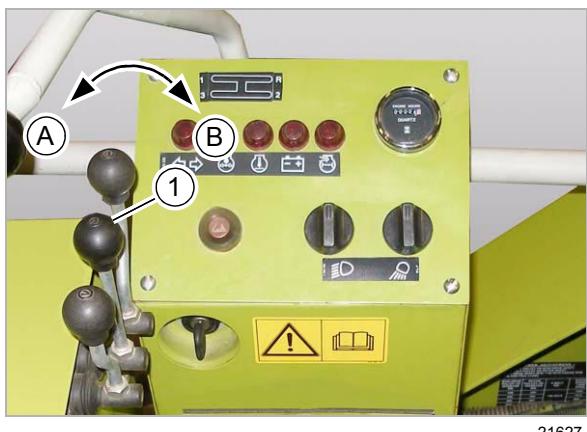
The farther the lever (1) is pressed in direction (A), the slower the ground speed.

The machine cannot be braked to a standstill.

Increasing the ground speed

The farther the lever (1) is pressed in direction (B), the greater the ground speed.

The machine can be accelerated up to the maximum ground speed.



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9.3.2 Shifting gears



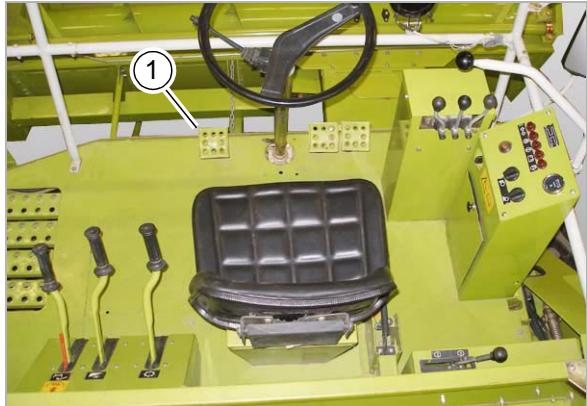
Danger!

Machine starts to move unexpectedly.

Death or serious injury.

- Never shift gears while driving!
- Never shift gears while driving on slopes.
- Do not let the machine roll.

- Stop the machine.
- Press and hold the clutch pedal (1) up to the stop.



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10.2.4 Dismounting the front attachment

To convert the threshing concave the front attachment must be removed and reattached.

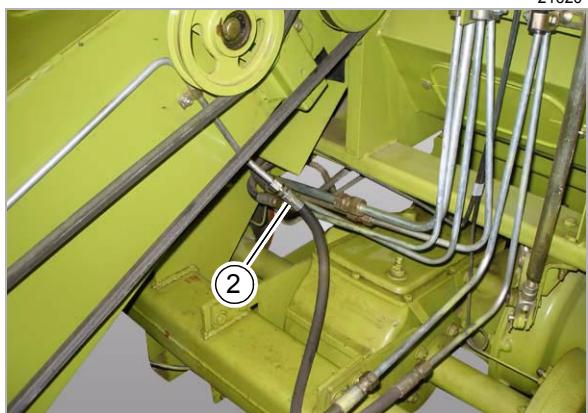
– Observe the general warnings at the beginning of the "Fieldwork settings" chapter.

– Lower the front attachment down to the ground.

Hold the lever (1) several seconds longer in the lowered position, so that the residual pressure in the hydraulic lines can be released.



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Environment!

Lubricants and fuels end up in the environment.

Environmental pollution.

– Lubricants and fuels must be collected and stored in suitable containers and disposed of in a way that is harmless to the environment and in accordance with existing anti-pollution regulations.

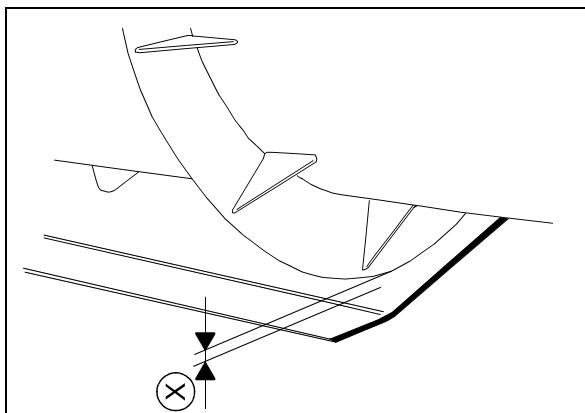
– Unscrew the hydraulic line (2).

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11.3.4 Adjusting the position of the intake auger

Clearance (X) should be about 15 mm for the entire length of the intake auger.

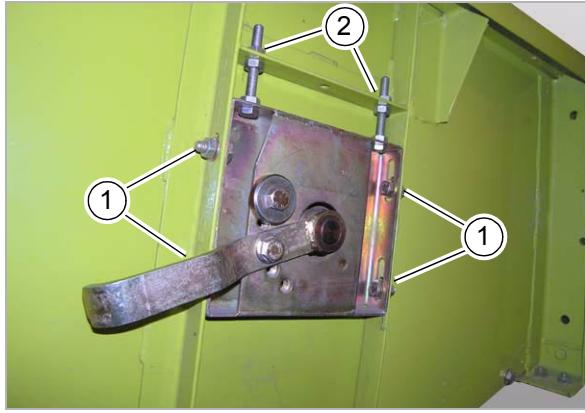
When dense windrows are taken up, and for bulky and brittle threshing material, set the intake auger higher.



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- Raise the feed rake conveyor.
- Raise the reel.
- Stop the diesel engine.
- Observe the general warnings at the beginning of the "Fieldwork" chapter.



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Danger!

Sharp edges or sharp-edged machine parts.

Death or serious injury.

- Attach the protective guard to avoid danger.

- Slacken off bolts (1).
- Adjust intake auger by means of bolt (2).
- Make the same adjustments on both sides of the machine.
- Screw down bolts (1).



Caution!

Incorrectly adjusted stripper profiles.

Damage to intake auger.

- The stripper profiles must not touch the flighting or fingers of the intake auger.
- Make this adjustment any time you change the position of the intake auger.
- Adjust the intake auger fingers.
- Adjust the stripper profiles.

Type 035		Threshing drum speed rpm	Threshing concave distance Position of lever	Fan blast reduction kit 0 = open 1 = closed	Fan speed Standard frogmouth sieves rpm	Upper sieve opening Standard frogmouth sieves mm	Upper sieve opening Returns screening Standard frogmouth sieves mm	Lower sieve opening Standard frogmouth sieves mm
Crop								
Wheat	1013/1282	5	0	1505	13	13	13	6
Winter barley	1282/1013	5	0	1505	13	13	13	6
Spring barley	1282/1013	5	0	1505	13	13	13	6
Rice	803/1013	10	0	1505	13	13	13	8
Peas	500	9	0	1505	15	15	15	10
Soya beans	500/630	6	0	1505	15	15	15	8
Sunflowers	500/630	9	0	1505	15	15	15	8
Grain maize	630/500	8	0	1505	18	18	18	12
Rape / Bird rape	803/1013	5	0	1343	10	10	10	4
Millet	803	5	0	1505	10	10	10	5
Durra / sorghum	803	5	0	1505	10	10	10	5
Grass seed	803/1013	5	1	1343	14	14	14	8
Flax	500/630	5	1	1343	8	8	8	4
Mustard	803/1013	5	1	1343	10	10	10	4
Lentils	630/803	11	0	1505	13	13	13	6
Buckwheat	630	6	0	1505	13	13	13	6

- = usage not possible

These details are guide values only and can deviate with different harvest conditions.

13.2 General Information

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13.2.1 Front attachment



Danger!

Front attachment, reel and feeder unit may drop in an uncontrolled way.

Death or serious injury.

- Fit the safety locks.
- Keep a safe distance from the hazard area.

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13.2.2 Cleaning the engine compartment and hazard areas

- Thoroughly clean the engine area and the exhaust system in particular as well as the surrounding areas including the brakes, gearbox and similar components, in order to prevent a fire hazard.
- When the crop is very dry and there is a lot of dust, frequently check these mentioned areas for accumulated dirt and clean when necessary.

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13.2.3 Belts

- All belts must always be kept well tensioned.
- Belts smeared in oil can be cleaned using washing lye. Do not use petrol or similar products.
- When new belts are fitted, check the tension after the first 2 to 3 operating hours adjust the tension if necessary.

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13.2.4 Variable-speed drives

- Whenever the variable-speed pulleys have been greased, operate the pulleys a few times to ensure even spreading of grease on sliding parts.
- Remove any accumulations of dust from between the variable speed pulley halves to make sure the pulleys can be run through their full speed range.

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13.2.5 Bolts

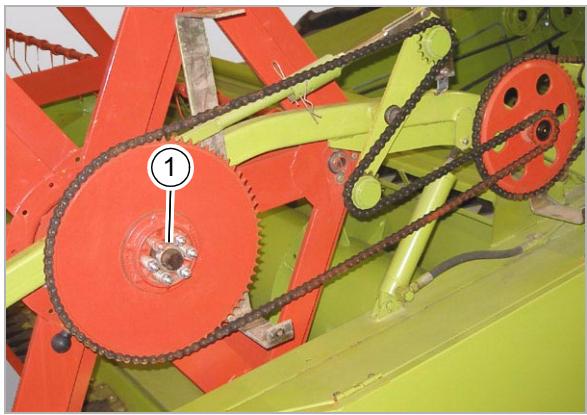
- Check all bolts for firm seating and tighten if necessary (particularly the nuts on the chassis and on the steering).

13.5.2 Setting the reel slip torque

- Observe the general warnings at the beginning of the "Maintenance" chapter.

The reel is protected by a slip clutch (1) against overloading.

- To avoid damage to the feeder unit, have slip torque of clutch (1) checked by a specialist workshop according to the maintenance interval.



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Improperly performed work on the machine or the front attachment can lead to malfunctioning.

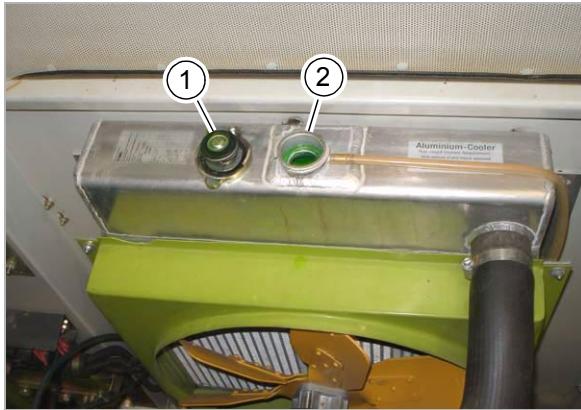
Risk of machine damage

- Have adjustment and repairs performed only by an authorised specialist workshop.
- Never tighten the bolts to such an extent that the slip clutch becomes locked and thereby fails to function as a safety device.
- Adjust the slip torque when the slip clutch is cold.

Slip torque = 430 Nm ± 40 Nm

13.6.13 Checking the radiator coolant level

- Observe the general warnings at the beginning of the "Maintenance" chapter.
- Let diesel engine cool down.
- Ensure that the cooling system drain tap is closed.



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**Warning!**

Contact with hot liquids or machine parts.

Danger of burns

- Wear suitable protective clothing.
- Let liquids or machine parts cool down.
- Comply with instructions.

- Unscrew cover (1).

**Caution!**

Temperature difference between coolant and diesel engine.

Machine damage

- Let diesel engine cool down.
- Do not fill cold coolant into the engine when at operating temperature.

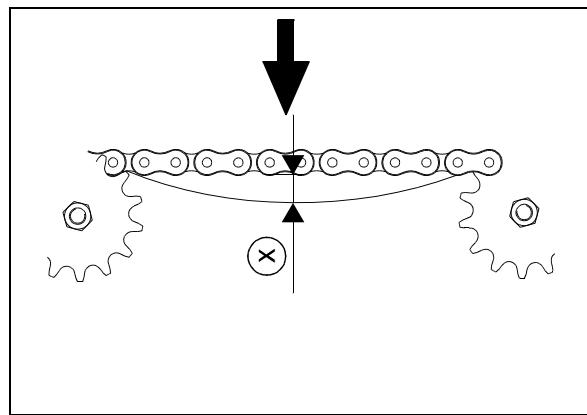
- Check the level of the coolant in the connecting piece (2).

The container is filled sufficiently when the cooling fins are covered with coolant.

- Bolt on cover (1).
- Start the diesel engine and let it run at slow idle speed.
- Observe the general warnings at the beginning of the "Maintenance" chapter.
- Stop the diesel engine.
- Let diesel engine cool down.
- Check the coolant level again top up if necessary.

13.9.13 Tensioning intake auger drive chain

- Observe the general warnings at the beginning of the "Maintenance" chapter.



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Warning!

Pinch points during assembly work.

Bruises of limbs.

- Keep limbs out of the hazard area.
- Use suitable tools.

- Check the chain tension with thumb pressure in the middle of the slack span.

The dimension (X) must be 2 % of the distance between sprocket axles, under reduced loading of the tight span.

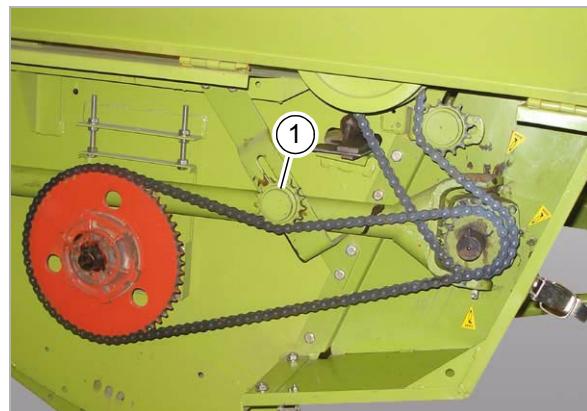
Example:

measured distance between axles 200 mm

$$200 \text{ mm: } 100 \text{ (%) } \times 2 \text{ (%) } = 4 \text{ mm}$$

Dimension (X) = 4 mm

- Loosen the chain tension wheel (1).
- Tension and tighten the chain using the chain tension wheel (1).



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