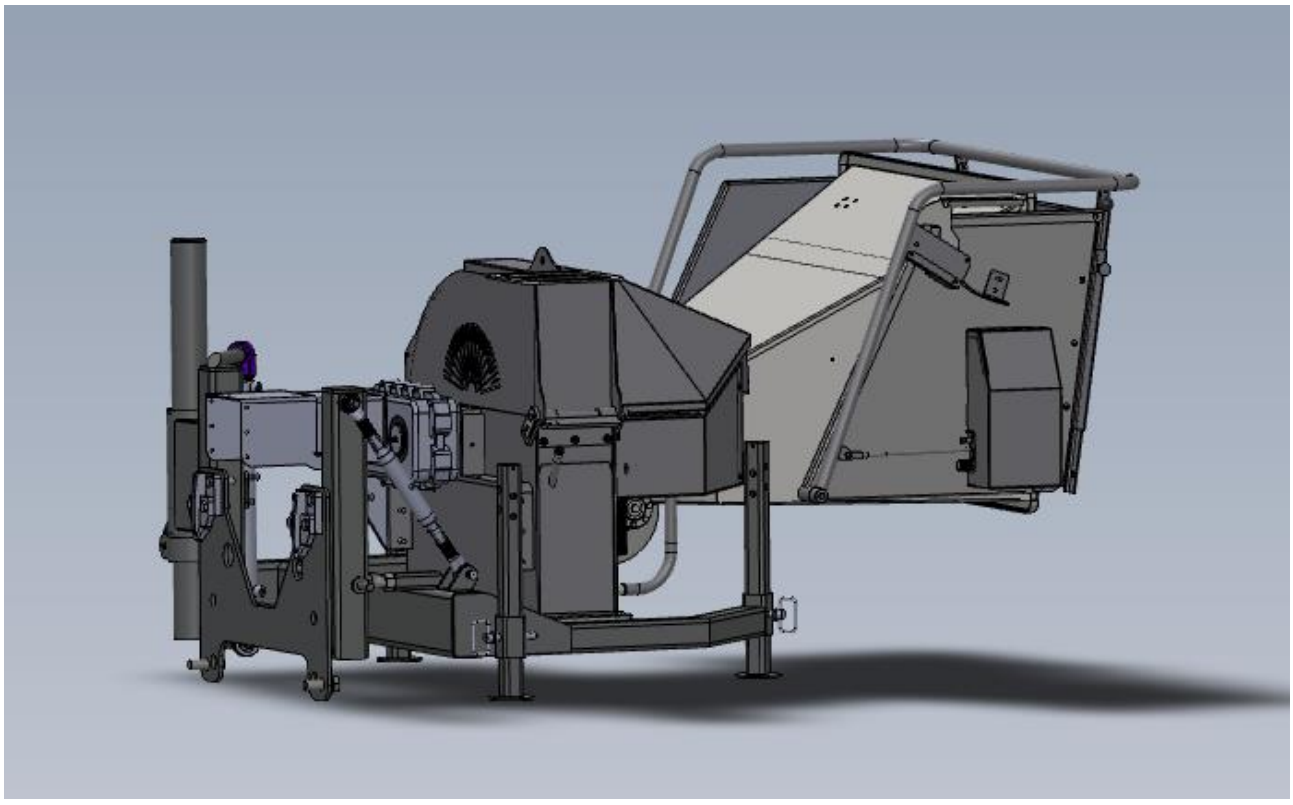
Installation instructions
&
Spare Parts Catalogue
for TP 200 installation kit for Unimog



Linddana A/S . Ølholm Bygade 70 . 7160 Tørring, Denmark . Tel.: +45 75 80 52 00 . tp@linddana.com .
www.linddana.com

Introduction

Congratulations on your new TP wood chipper.

Linddana produces TP wood chippers of the finest quality by using the most modern production technologies, such as laser cutting, CNC technology and robot technology in bright and open production facilities.

For safety reasons and in order to get the maximum benefit from your wood chipper,
it is important that you read the user manual before use.

Originally written in Danish, the user manual provides an explanation of safety, use and maintenance, to ensure working with the wood chipper will be safe and profitable.

Linddana A/S



Hans Anker Holm, CEO

Your local dealer is always at the ready to provide spare parts, advice and guidance.

Dealer stamp

Applies to Denmark (for all other countries, contact the local TP dealer):
Linddana provides a blade sharpening service, so your blades can be sharpened and sent back on the same day as they are received (for more details tel.: 76904045)

To keep your wood chipper in top condition and prolong its lifetime, Linddana offers a service contract, under which the wood chipper will be checked once a year by our technician, ideally in collaboration with the user. In addition to a technical check, the user will be given advice on the use and maintenance of the wood chipper.

1 EU DECLARATION OF CONFORMITY

Manufacturer:

LINDDANA A/S, Ølholm Bygade 70, Ølholm, 7160 Tørring, Denmark
hereby declares that

Wood chipper:

_____

and accompanying extra equipment is in conformity with the requirements of the Machinery Directive (Directive 2006/42/EC) and with the national legislation which translates this directive;

furthermore, is in conformity with the following EC Directives:
2000/14/EC

Furthermore, it is stated that
EN 13525 (harmonised standard) has been applied.

Title: CEO
Name: Hans Anker Holm



Ølholm, 23. February 2021

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Indhold

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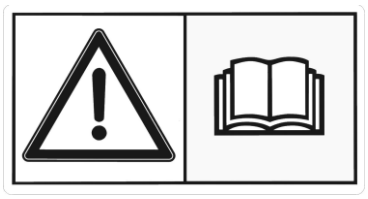
2 Use and safety

This TP wood chipper is specially designed as a **stationary** wood chipper, which chips wood in the form of branches, bushes and waste wood from windbreaks, parks, roadside trees, etc.

Any modification to the design of the machine is strictly prohibited. In the event that modifications are made, Linddana A/S disclaims all liability.

2.1 Mandatory Instructions and Warnings

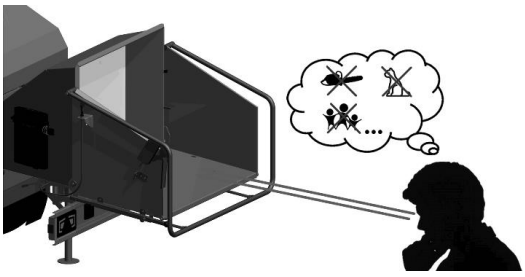
2.1.1 Before use



ALWAYS read the user manual before using the wood chipper.
Remember to store the user manual in the manual box.

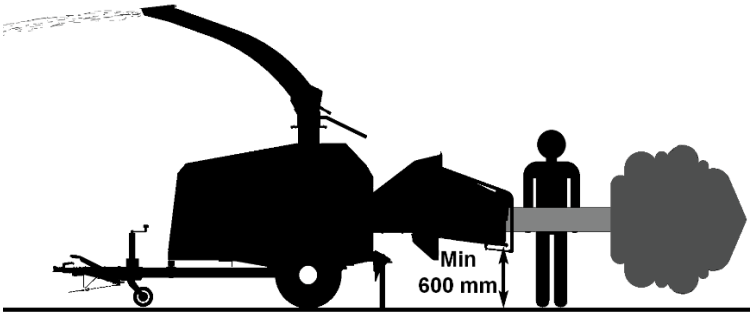


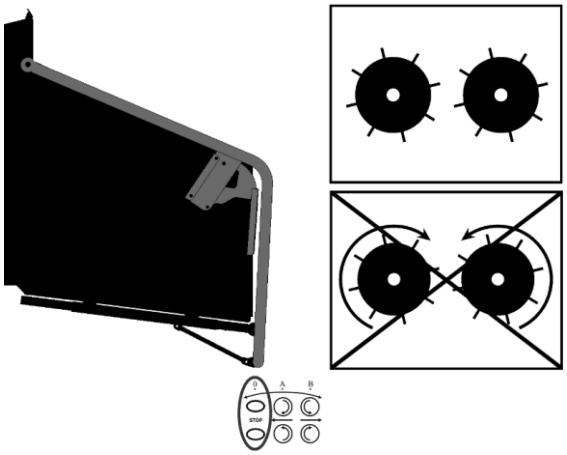
ALWAYS wear ear protectors, safety goggles, close fitting safety clothing and safety shoes.



ALWAYS ensure that the funnel is free of people, animals and other foreign bodies before starting the wood chipper.

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	ALWAYS ensure that all of the guards are securely closed/fitted before starting the wood chipper.
	ALWAYS ensure that the tractor which drives the wood chipper is safely parked before starting the wood chipper. (Applies to the PTO model). **ALWAYS** ensure that the wood chipper is safely parked before starting the wood chipper. (Applies to the MOBILE model).
	  **ALWAYS** ensure that there is more than 600 mm of clearance between the ground and the wood chipper's lowest funnel edge and that it stands on a level surface. (Applies to both PTO and MOBILE models). **ALWAYS** ensure that the wood chipper is fitted to the tractor's three-point suspension. (Applies to the PTO model).

	 **ALWAYS** ensure that all safety devices function correctly before starting the wood chipper. This applies in particular to the safety bar's STOP function.
	ALWAYS observe the ground conditions around the wood chipper. Falling down in the vicinity of the wood chipper can be hazardous.
	ALWAYS ensure the length of the PTO shaft is suitable for the tractor in accordance with the recommendations from the supplier of the PTO shaft. (Applies to the PTO model).
	ALWAYS ensure that the PTO shaft's tube guard and cover is intact and that the safety chains on the transmission shaft are safely fitted. (Applies to the PTO model).

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NEVER allow anyone under 18 years of age to operate the wood chipper (however, anyone who is 16 years old and over may do so under the supervision of an adult).



NEVER operate the wood chipper if under the influence of alcohol or narcotic substances.





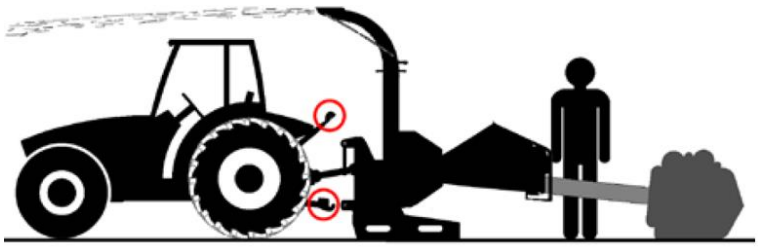
NEVER operate the wood chipper on uneven or inclined surfaces.

NEVER start the wood chipper without the ejector spout fitted.

NEVER use the wood chipper in enclosed or poorly ventilated spaces, because of the danger of carbon monoxide poisoning.

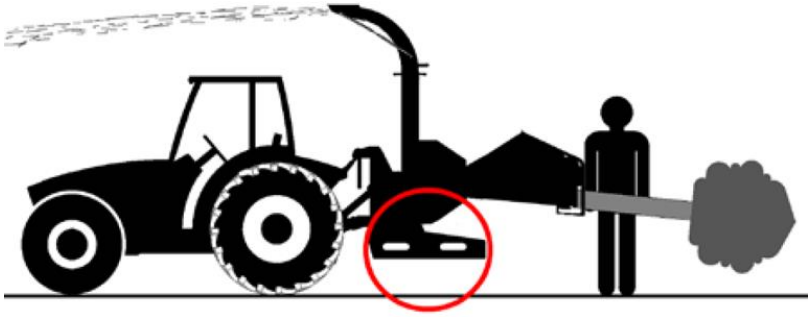


NEVER point the ejector spout in the same direction as people or at an area that people move around in.
A safe distance of 20 m must be maintained in the direction of where the woodchips are ejected.

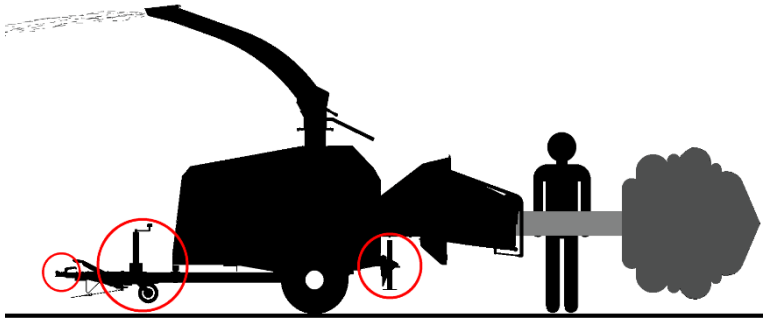


NEVER start or operate the wood chipper before it has been fitted to the tractor's three-point-suspension. (Applies to the PTO model).

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NEVER start or operate the wood chipper if it does not stand on the ground. (Applies to the PTO model).



NEVER operate or park the wood chipper without support from the jack and support
leg or from the vehicle's trailer hitch. (Applies to the MOBILE model).

NEVER use the wood chipper with material that is not wood.

NEVER use the wood chipper to push trees, stumps, etc.

NEVER transport equipment inside the funnel, such as forest chains, axes, chainsaws, etc.

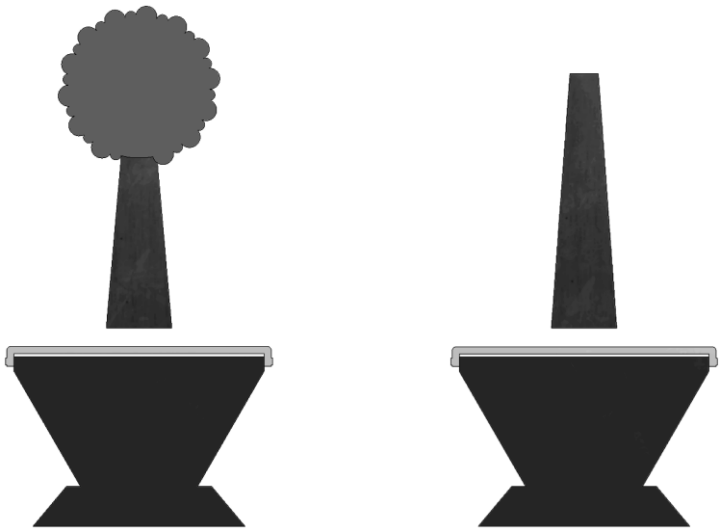
2.1.2 During operation

	ALWAYS push the safety bar into the STOP position if a dangerous situation arises (see chapter 8)
	ALWAYS keep body parts away from the funnel and the wood chipper's other moving parts.
	  **ALWAYS** stand at the side of the funnel when the wood chipper is chipping trees with side branches.
	 **ALWAYS** push logs in from the rear of the log.

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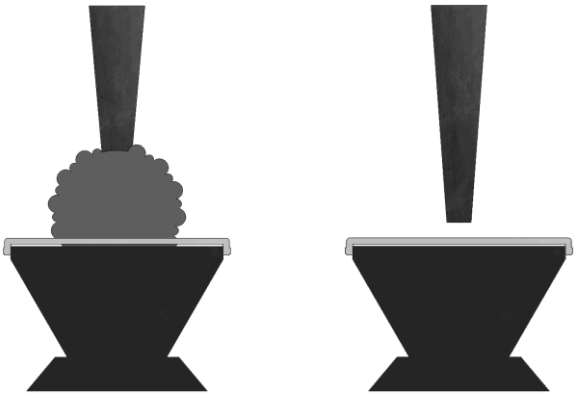


ALWAYS use a rod to push short pieces of tree into the rollers.



ALWAYS feed the wood chipper with the thick end of the log first.

ALWAYS feed the wood chipper so that the tree crown points away from the funnel.



NEVER feed the tree crown into the wood chipper first.

NEVER feed the wood chipper with the thin end of the log first.

NEVER exceed the wood chipper's nominal rpm (see chapter 18) (Applies to the PTO model).

NEVER attempt to remove any trapped material from between the feed rollers before the wood chipper has stopped and the roller console has been opened, as described in chapter 9.3.

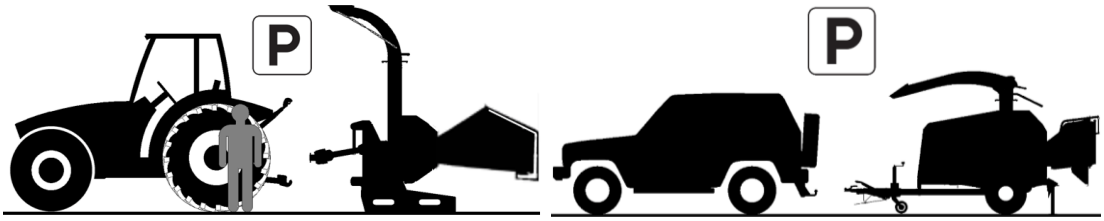


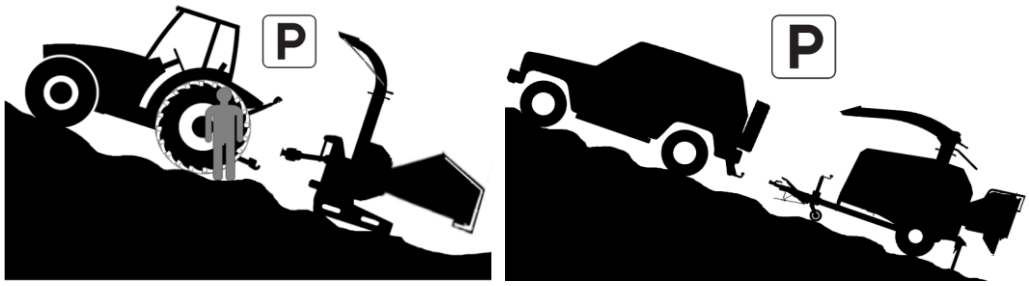
NEVER reach into the funnel to push wood into the rollers.

NEVER open or remove the guard while the wood chipper is operating.

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2.1.3 Transport and parking

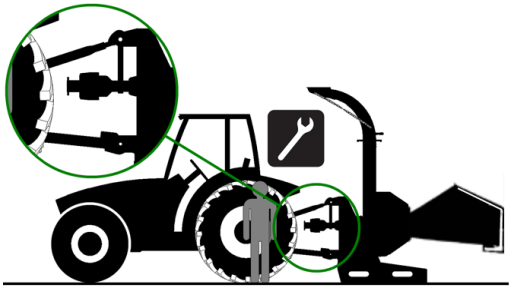
	 **ALWAYS** park the wood chipper on a level surface.
	ALWAYS keep the ejector spout within the width of the machine during transport. Remember to ensure that the ejector spout is securely fastened.
	ALWAYS keep the PTO shaft in the carrier shackle when removed. (Applies to the PTO model).
	ALWAYS place the foldable funnel in the transport position during transport (the funnel must be folded up and locked using the pin).
	ALWAYS ensure that all of the wood chipper lights work correctly before transporting the wood chipper. (Applies to the MOBILE model).
	ALWAYS comply with local public authority regulations when transporting the wood chipper on public roads.



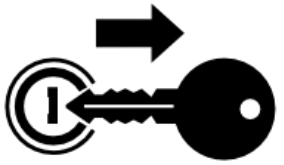
NEVER park the wood chipper on inclined or uneven surfaces.

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2.1.4 Service and repairs



ALWAYS disconnect the wood chipper from the tractor and ensure the disc has stopped moving before carrying out service or repairs. (Applies to the PTO model).



ALWAYS remove the key from the ignition and ensure that the disc has stopped moving before carrying out service or repairs. (Applies to the MOBILE model).

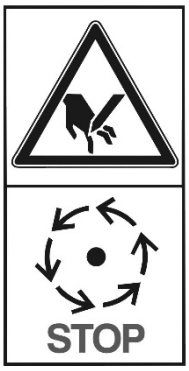
ALWAYS ensure, after service or repair, that all of wood chipper bolts are fitted and tightened securely and that all of the safety devices are fitted and function properly.

ALWAYS ensure that the knives, counterknives and rollers are kept sharp. This results in smoother in-feed, higher woodchip quality and less fuel consumption.



NEVER carry out service or repairs on the wood chipper while it is connected to the tractor. (Applies to the PTO model).

NEVER carry out service or repairs on the wood chipper while the key is in the ignition lock. (Applies to the MOBILE model).



NEVER remove or open the guards before the disc has stopped moving and the PTO shaft has been removed. (Applies to the PTO model).

NEVER remove or open the guards before the disc has stopped moving.

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3 Pictograms used



Warning: Ejected objects!

Warning: Safety distance 20m!



Warning: Rotating blades!

Warning: Wait for disc to stop



Warning: Risk of being pulled in!

Warning: Rotating rollers



Warning: Risk of being pulled in!

Warning: Rotating belts



Warning: Hot surface
(Fitted on the MOBILE model)



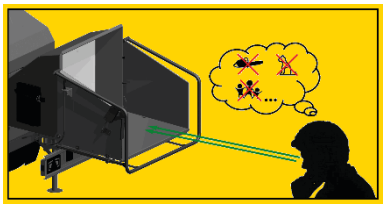
Warning: Risk of limb amputation!
Warning: Risk of being pulled in!
Warning: Do not step on the funnel
Warning: Do not touch the funnel!
Warning: Do not crawl into the funnel!



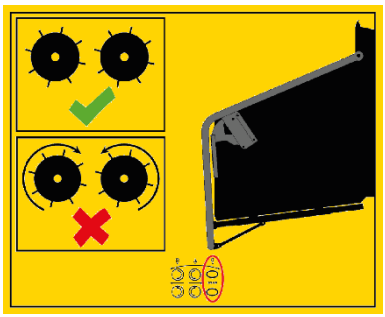
Warning: Read the instruction manual before use



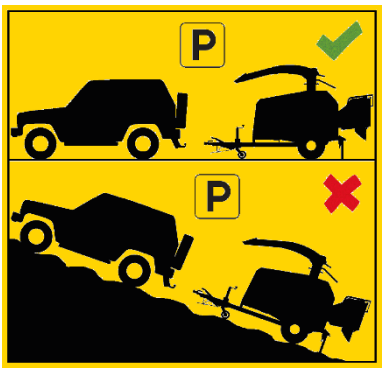
Warning: Remove the ignition key and read the user manual before service or repairs.
(Fitted on the MOBILE model)



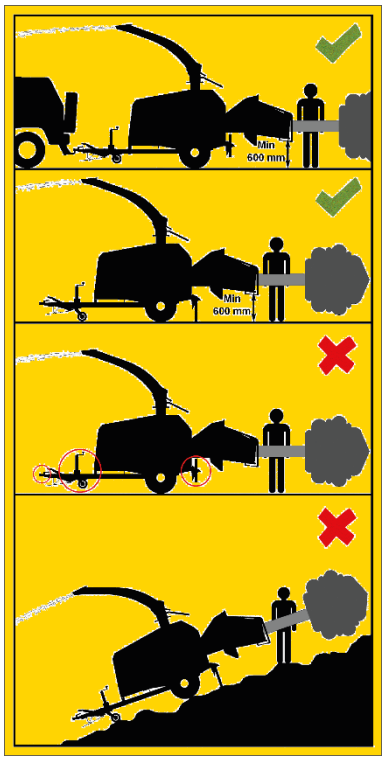
Warning: Ensure that the funnel is free of people, animals and other foreign bodies.



Warning: Ensure that the safety bar works.



Warning: Do not park on uneven or inclined surfaces. (Fitted on the MOBILE model)



Warning: Do not operate the wood chipper without support from the jack and support leg or from the vehicle's trailer hitch.

Warning: Do not operate the wood chipper on uneven or inclined surfaces.
(Fitted on the MOBILE model)

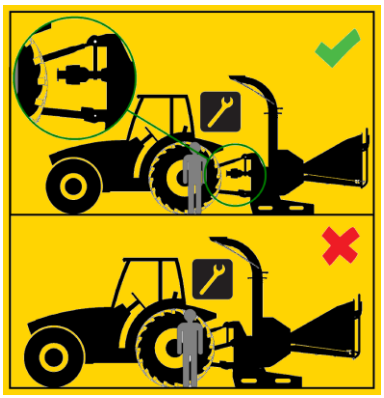
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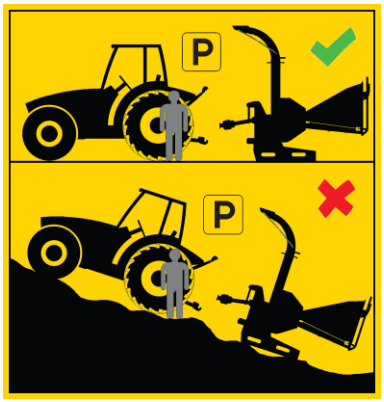
Warning: Max 1000 rpm, anti-clockwise direction of rotation! (Fitted on the PTO model)



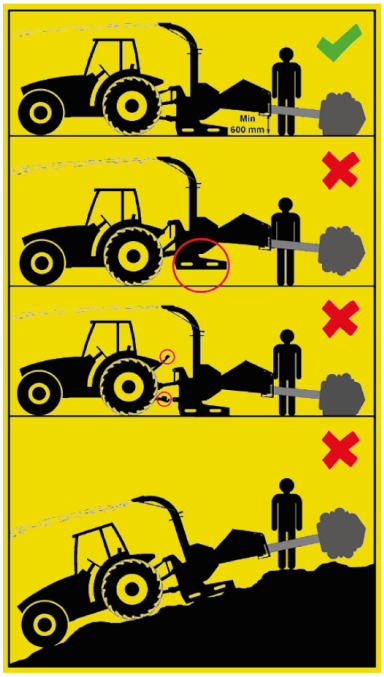
Warning: Max. 540 rpm, anti-clockwise direction of rotation! (Fitted to PTO model with speed-up gear fitted)



Warning: Never carry out service or repairs on the wood chipper while it is connected to the tractor's PTO! (Fitted on the PTO model)



Warning: Do not park on uneven surfaces! (Fitted on the PTO model)



Warning: Do not operate the wood chipper if it is raised!

Warning: Do not operate the wood chipper if it is not fitted to the tractor' three-point-suspension!

Warning: Do not operate the wood chipper on uneven or inclined surfaces. (Fitted on the PTO model)



Lifting point for forklift truck! (Fitted on the PTO model)



Ear and eye protection mandatory.



Lifting point for crane.

For safety information and pictograms relating to the engine, see the engine manual.

4 Fitting instructions

4.1 This manual covers the following

This manual covers mounting panels and support leg block. For wood chipper use instructions, please refer to the TP200 manual.

The support leg and mounting panel are intended for use when mounting a TP200 wood chipper to a Unimog lorry.

4.2 Installation to Unimog

The wood chipper TP 200 is intended for front mounting to municipal vehicles with stable front attachment plate size 3.



The standing surface of the machine must be secured, horizontal and even.



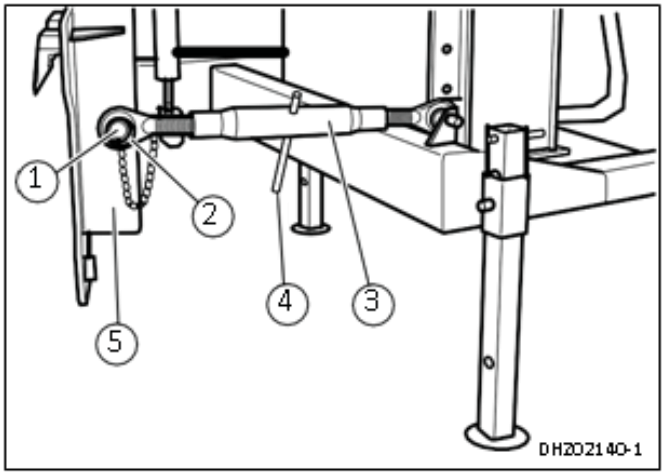
Attach ballast weight to the main vehicle at respective points before mounting wood splitter in accordance with the respective instructions.

When taking into initial use and every time vehicle is changed, the constant velocity joint must be aligned.

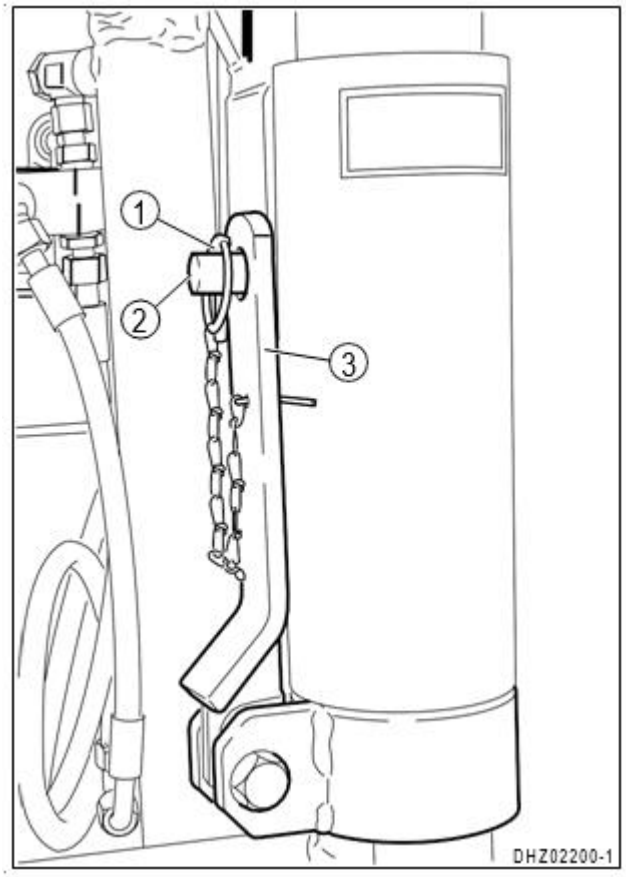
4.2.1 What to do

- Slightly turn apart the upper handle (3) with the lever (4).
- Take upper handle (3) out of transport position.
- Pull mounting frame (5) forward.
- Push upper handle (3) onto bolt (1) and secure with linch pin (2).
- Turn apart the upper handle (3) with lever (4).

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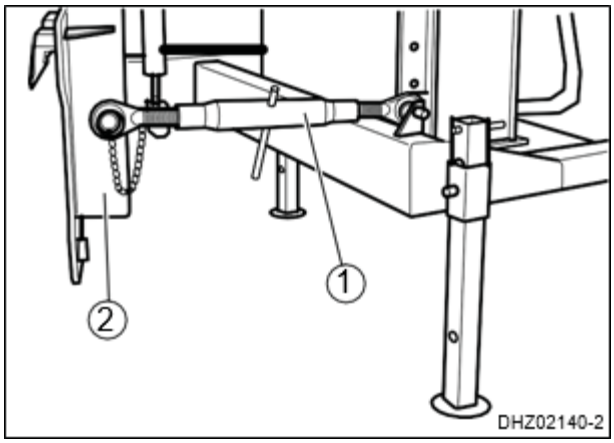


- Dismount safety bar (3) from bolt (2).
- Dismount linch pin (1) and pull off safety bar (3) from bolt (2).
- Drive main vehicle near to the mounting frame.

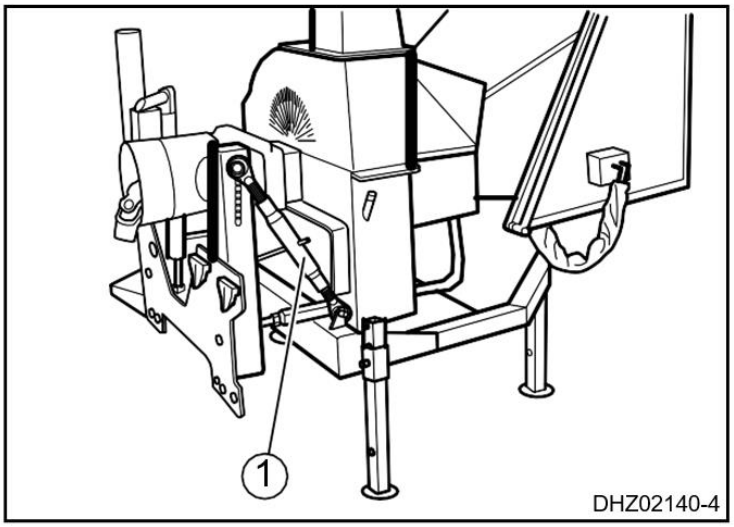


Danger of injury!
Only work on the hydraulic unit when not under pressure.

- Connect hydraulic hoses to the respective hydraulic points of the main vehicle in accordance with hydraulic switch plan.
- Lift mounting frame by means of vehicle hydraulic.
- Drive vehicle until it touches the mounting frame.
- Lower mounting frame and suspend the loops into the vehicle mounting plate.
- Secure the mounting frame to the mounting plate in accordance with the instructions of the vehicle manufacturer.
- Lift up wood chipper by means of the vehicle hydraulic.

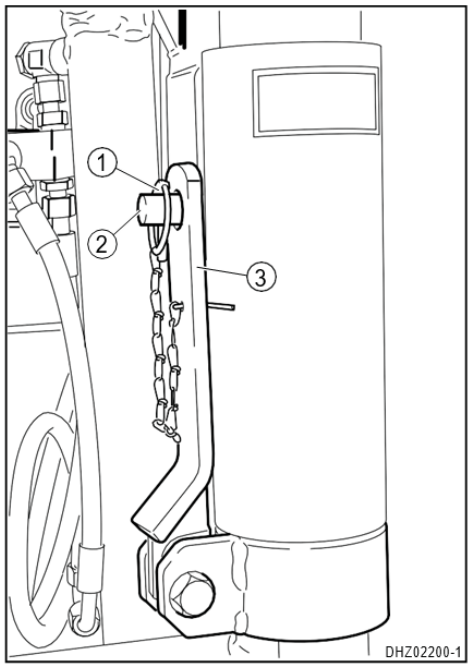


- Pull on the mounting frame (2) with the help of the upper handle (1) and push the constant velocity joint onto the power take- off shaft.



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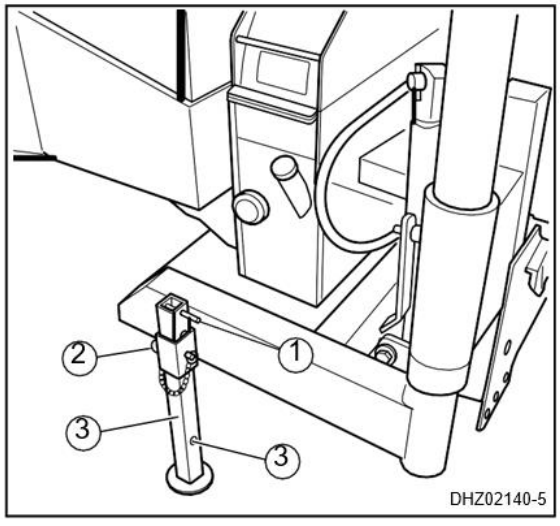
- Put the upper handle (1) into transport position and secure it.



- Assemble the safety bar (3) onto the bolt.
- Push the safety bar (3) onto the bolt (2) and secure with linch pin (1).

Put supports into transport position.

- Dismount linch pin (2) from bolt (1).
- Dismount bolt (1).
- Push supports (3) upwards.
- Put bolt (1) into respective position hole (4) for transport and secure with linch pin (2).



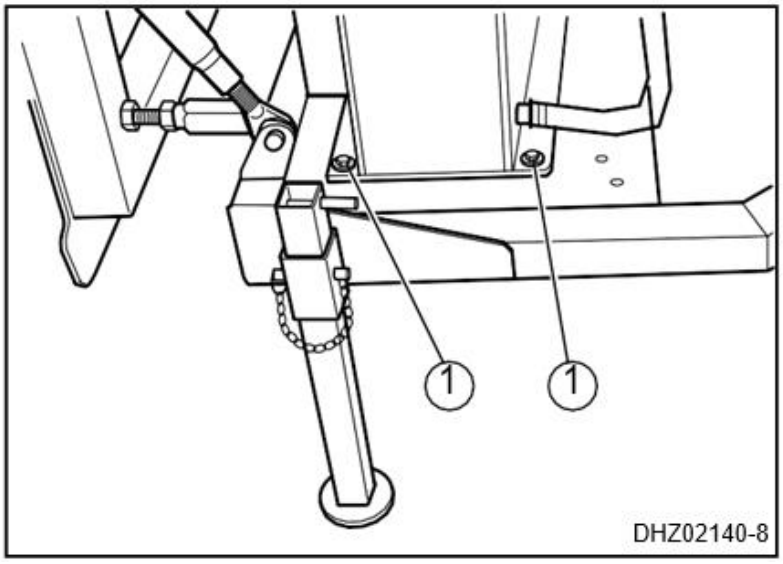
4.2.2 Initial use

Align constant velocity joint to power take-off shaft.

Lengthwise:
The wood splitter drive shaft must be in alignment to the power take-off shaft of the main vehicle in lengthwise direction, no offset is allowed.

Alignment of the wood splitter drive:

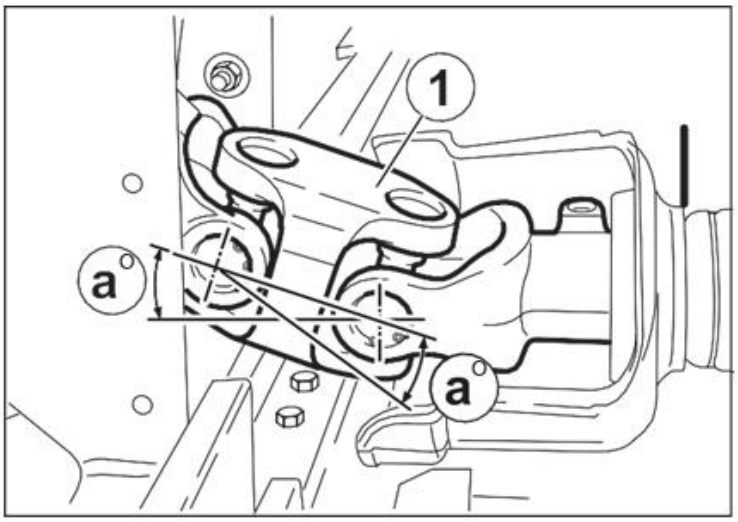
- Loosen screws (1) on the right and left side of the machine.
- Align wood splitter drive, the constant velocity joint should show no angle and be absolutely align in lengthwise direction.
- Tighten the screws (1) with the respective torque.



Height adjustment:

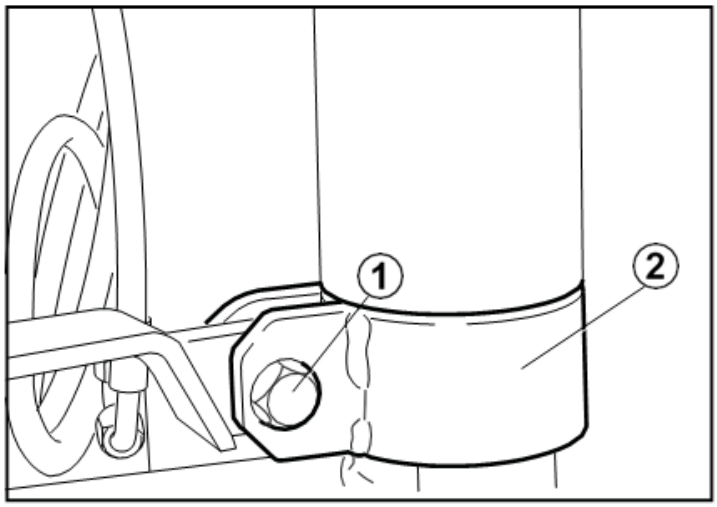
The vertical angle of the constant velocity joint
(1) must be absolutely the same for both angles (a). It should not exceed 20°, as otherwise the constant velocity joint will be ruined.

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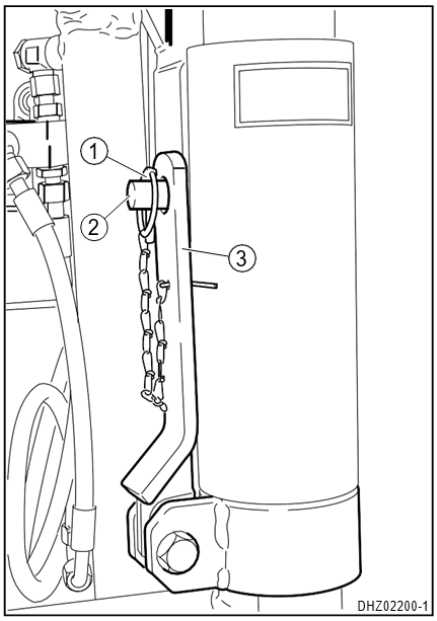


The machine should only be moved by means of the lifting cylinder for mounting and dismounting.

- Loosen screw (1).
- Either lift or lower wood splitter by means of the hydraulic cylinder, until the height of the wood splitter is up to the requirements.
- Push stopper (2) against the pipe.
- Tighten screw (1)



- Push on the safety bar (3) to the bolt (2) and secure with the linch pin.



4.3 Front dismounting TP 200

Dismounting:
The standing surface of the machine must be secured, horizontal and even.

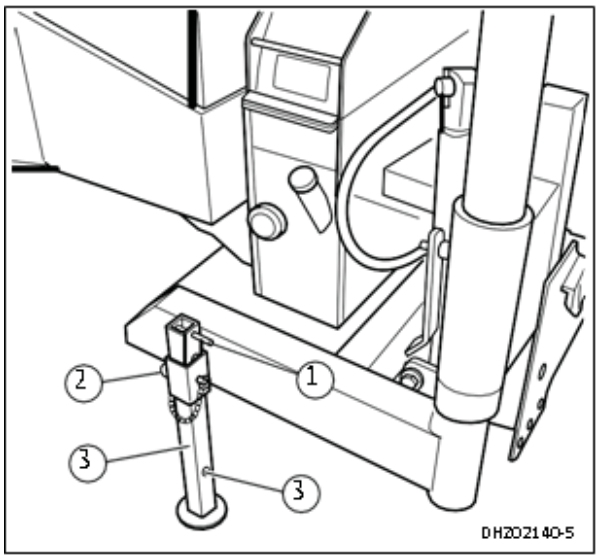
Dismounting should only be effected when the cutting discs have come to a complete standstill. Pay attention to follow-on time.

When working on machine, pay attention that the motor is switched off and hydraulic unit is not under pressure. Pull out ignition key. Secure carrying vehicle against sudden use and also against rolling away!

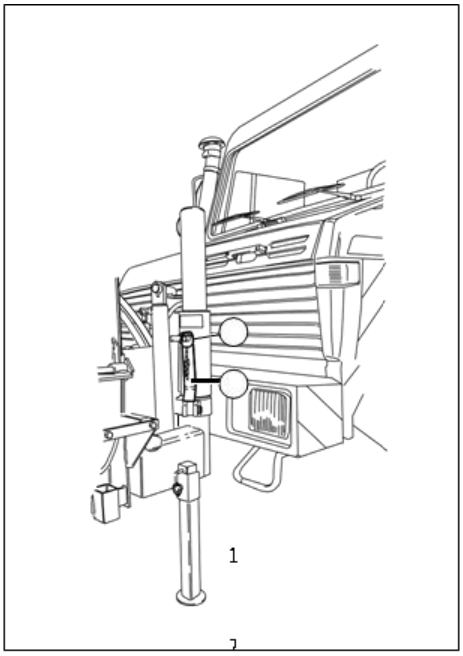
4.3.1 Drawing out supports

- Dismount linch pin (2) from bolt (1).
- Pull bolt (1) out of drill hole (2).
- Push out support (3).
- Put bolt (1) into respective drill hole and secure with linch pin (2).
-

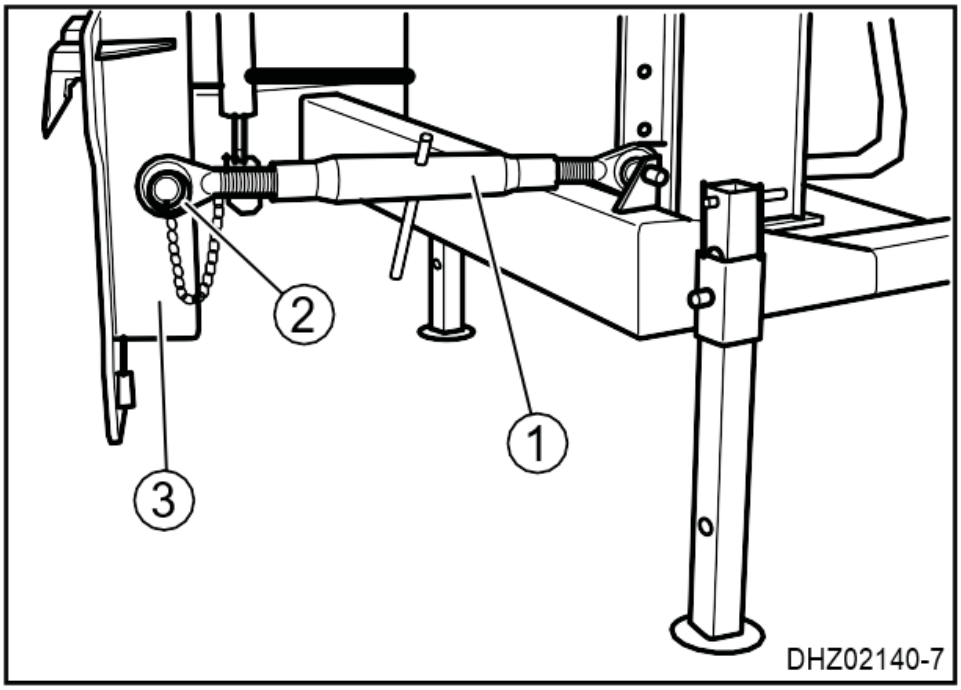
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- Remove transport safety bar (2) from bolt (1).

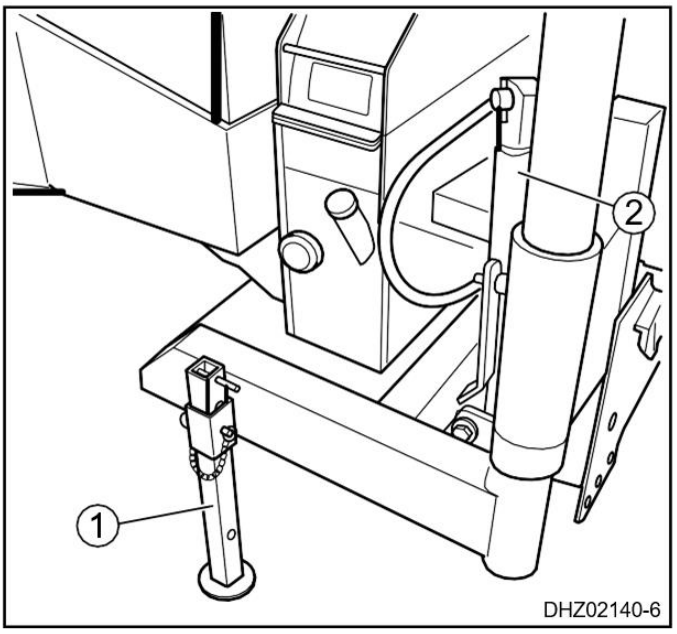


- Dismount upper handle (1) out of transport position and push away mounting frame. Dismount constant velocity joint from power take-off shaft.



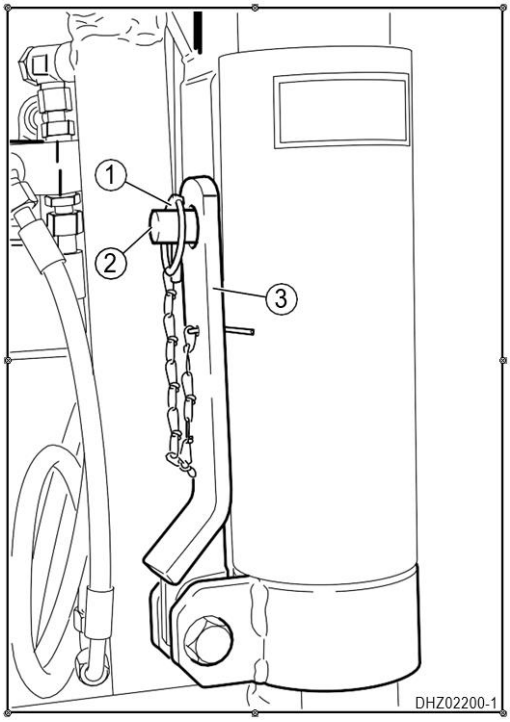
- Suspend upper handle (1) into dismounting position and secure with linch pin (2).
- Dismount fixing screw from the mounting plate (3).

- Lower wood splitter by means of the hydraulic cylinder (2) until the supports (1) have ground contact and remove the mounting frame from the hooks of the support plate. Drive the vehicle back a little.



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- Lower mounting frame and transport safety unit (3) onto the bolt (2) again and secure with the linch pin (1).





Only work on the hydraulic unit when there is no pressure.

5 Technical data

The following values should be used when calculating axle load and vertical centre of gravity.

Full machine weight	866 kg
Distance of horizontal centre of gravity from mounting panel	1.117 mm
Distance of vertical centre of gravity from mounting panel	185 mm

5.1 Unimog axle load chart

Axle loads Unimog with TP200																
Unimog type	Model	Wheelbase	Equipment	Fa	Ra	GVW	minimum rear axle load	Dimension A	gravity point	Distance front wheel to gravity	weight Unimog TP200	weight reduktion axle	weight on rear axle	weight rear axle	counter weight
U216/U218 (4-cylinder engine)	405.090	2800	A1W B76 B2Z B5B C7H CP5 D6N DB5 DF3 E33 E40 E42 E87 F3W F6B F8L G20 G34 HN8 J2B L3C L47 L66 N05 N08 N16 P60 PB6 Q36 Q95 Y96	3570	2620	6190	1950	1145	1117	2262	866	700	1920	30
U318 (4-cylinder engine)	405.104	3000	A1W B76 B5B C7H CA3 CP3 DB5 DF3 DH3 E33 E37 E40 E44 E45 E87 F3W F8L G20 G31 H43 HN2 J2B K7Q L3C L47 L66 M54 M74 N18 P60 PB6 Q94 Y96	3610	2640	6250	2200	1145	1117	2262	866	653	1987	213
U423 (4-cylinder engine) 385/65R22.5	405.105	3000	A1W B5B C50 C7H CA3 CA6 CP5 D6F DB1 DF1 DG1 DH3 E33 E40 E42 E87 E89 EM3 F3W F8L FF1 G21 G34 H43 H55 H58 H59 HE1 HL5 HN8 IB1 J1R J1T J2B J48 KC0 L3C L47 L51 M1K M5Z N05 N08 P60 PB6 Q33 Q96 R30 S8A SC4 TN6 V003 WQ7 X4H Y31 Y96 ZSY ZV1	3800	2970	6770	2350	1142	1117	2259	866	652	2318	32
U423 (4-cylinder engine) 365/80 R20	405.105	3000	A30 A1W B76 B5B C7H CA3 CD6 CP5 D6N DB3 DF3 E33 E37 E40 E42 E44 E45 E87 ED6 F3W F6B FF1 G21 G48 G50 A30 A1W B5B C50 C7H CA3 CD2 CP5 D6N DB6 DF1 E33 E40 E87 E6Z F12 F3W F6B F8L FF1 FS7 G21 G48 G50 H43 HN8 H55 J2B J9H JV2 L3C L47 L51 L60 M55 N05 N08 N16 P87 Q94	3960	3240	7200	2350	1142	1117	2259	866	652	2588	-238
U427/U430 (6-cylinder engine) 365/85 R20	405.110	3150	GF2 H43 HN8 J48 J1R J2B L3C L47 L51 L60 M55 N05 N08 A30 A1W B5B C50 C7H CA3 CD2 CP5 D6N DB6 DF1 E33 E40 E87 E6Z F12 F3W F6B F8L FF1 FS7 G21 G48 G50 H43	4150	3050	7200	2350	1142	1117	2259	866	621	2429	-79
U423 (4-cylinder engine) 365/85 R20	405.125	3600	A1W B5B C7H CP5 DB1 DF1 F3W G21 G34 G48 G50 GF2 HN8 H55 J2B J9H JV2 L3C L47 L51 L60 M55 N05 N08 N16 P87 Q94	4260	2850	7110	2350	1142	1117	2259	866	543	2307	43
U527/U530 (6-cylinder engine) 365/85 R20	405.202	3550	H43 J48 J2A L47 L51 N05 N08 N18 P60 PB7 Q94 A30 A31 A1W B76 B2Z B5B C50 C7H CA3 CP5 D6N DB3 DF3 E33 E37 E40 E44 E87 F3W F6B F8L FF1 G21 G34 G48	4080	3150	7230	2350	1142	1117	2259	866	551	2599	-249
U527/U530 (6-cylinder engine) 365/85 R20	405.222	3900	G50 H43 H58 H59 HN8 H55 J2B JV2 KC0 L3C L51 L60 M54	4510	3400	7910	2350	1142	1117	2259	866	502	2898	-548

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5.2 Unimog vertical centre of gravity chart

Vehicle model	Code	Tyre size	Rim size	Static radius [mm]	Wheel offset ET [mm]	Track width s [mm]	Max. CoG height hs max [mm]	Chassis CoG height ha (over wheel centre) Vehicle with suspension compressed	Chassis CoG height ha (over ground) Vehicle with suspension compressed	GVW	TP200 weight	TP200 gravity center over top of mounting plate	mounting plate height	TP200 gravity center over ground	Total CoG
U300	R24	405/70R20	11x20	498	100	1768	1263	400	898	7500	866	185	930	1115	920
	R24	375/75R20		480					880	7500	866	185	930	1115	904
	R24	365/80R20		502					902	7500	866	185	930	1115	924
	R24	14.5R20		503					903	7500	866	185	930	1115	925
	R24	335/80R20		483					883	7500	866	185	930	1115	907
	R24	12.5R20		480					880	7500	866	185	930	1115	904
	R60	405/70R20	11x20 super	498	95	1778	1270		898	7500	866	185	930	1115	920
	R60	365/80R20		502					902	7500	866	185	930	1115	924
	R60	14.5R20		503					903	7500	866	185	930	1115	925
	R60	335/80R20		483					883	7500	866	185	930	1115	907
	R60	12.5R20		480					880	7500	866	185	930	1115	904
	R60	425/75R20	14x20	523	62	1844	1317		923	7500	866	185	930	1115	943
U400	R16	10.00R20	8,0-20	498	241	1574	1124	390	888	11900	866	185	930	1115	903
	R18	275/90R22,5	22,5x8,25	491	241	1574	1124		881	11900	866	185	930	1115	897
	R30	405/70R20		498					888	11900	866	185	930	1115	903
	R31	365/80R20	11x20 SDC	502	165	1726	1233		892	11900	866	185	930	1115	907
	R32	14.5R20		503					893	11900	866	185	930	1115	908
	R33	335/80R20		483					873	11900	866	185	930	1115	889
	R32	365/85R20	10.00V-20	522	161	1734	1239		912	11900	866	185	930	1115	926
	R40	315/80R22,5	22,5x9.00	506					896	11900	866	185	930	1115	911
	R40	305/70R22,5		465					855	11900	866	185	930	1115	873
	R41	385/65R22,5	13.0x24	495	128	1816	1297		885	11900	866	185	930	1115	901
	R42	445/65R22,5	22,5x14.00	537	154	1788	1277		927	11900	866	185	930	1115	940
	R58	405/70R24	13.0x24	546	128	1800	1286		936	11900	866	185	930	1115	948
	R61	445/70R24	13.0x24	568					958	11900	866	185	930	1115	969
U500	R30	365/80R20	11x20 SDC	502	165	1820	1300	380	882	15000	866	185	930	1115	895
		14.5R20		503					883	15000	866	185	930	1115	896
	R32	365/85R20	10,00V-20	522	161	1828	1306		902	15000	866	185	930	1115	914
	R34	395/85R20		543					923	15000	866	185	930	1115	933
	R40	315/80R22.5	22.5x9,00	506					886	15000	866	185	930	1115	898
	R41	385/65R22.5	22.5x11,75	495	120	1910	1364		875	15000	866	185	930	1115	888
	R42	445/65R22.5	22.5x14,00	537	154	1842	1316		917	15000	866	185	930	1115	928
	R50	385/65R22.5	22.5x11,75	495	120	1830	1307		875	15000	866	185	930	1115	888
	R58	405/70R24		546					926	15000	866	185	930	1115	936
	R59	455/70R24	13,0x24	576	154	1842	1316		956	15000	866	185	930	1115	965
	R61	445/70R24		568					948	15000	866	185	930	1115	957