User Manual and Spare Parts Catalogue

TP 215-280 mobile

DESIGNED + MANUFACTURED DENMARK

RELIABLE CHIPPING

Linddana A/S . Ølholm Bygade 70 . DK-7160 Tørring . T +45 75 80 52 00 . tp@linddana.com . www.linddana.com

1 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 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 available with spare parts, advice and guidance.

Dealer stamp

Applies to Denmark (for all other countries contact the local TP dealer):
Linddana provides a knife sharpening service, so your knives can be sharpened and sent back on the same day as they are received (for more details tel.: +45 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.

2 EU DECLARATION OF CONFORMITY

Manufacturer:

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

Wood chipper:

_____

and accompanying extra equipment is in conformity with the requirements of the Machinery Directive (Directive 06/42/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, 13. December 2022

3 Contents

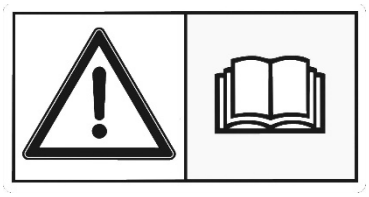
4 Use and safety

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.

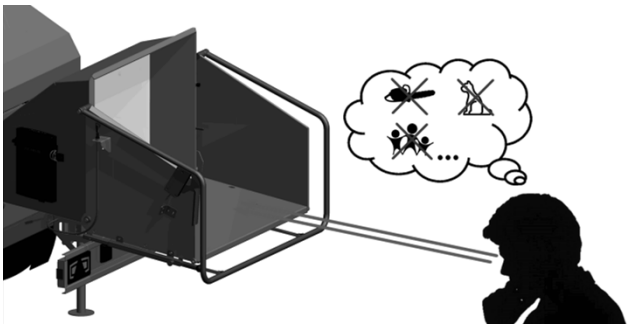
4.1 Mandatory Instructions and Warnings

4.1.1 Before use

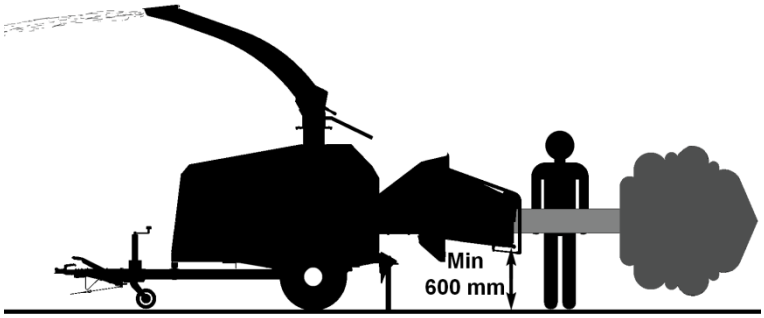
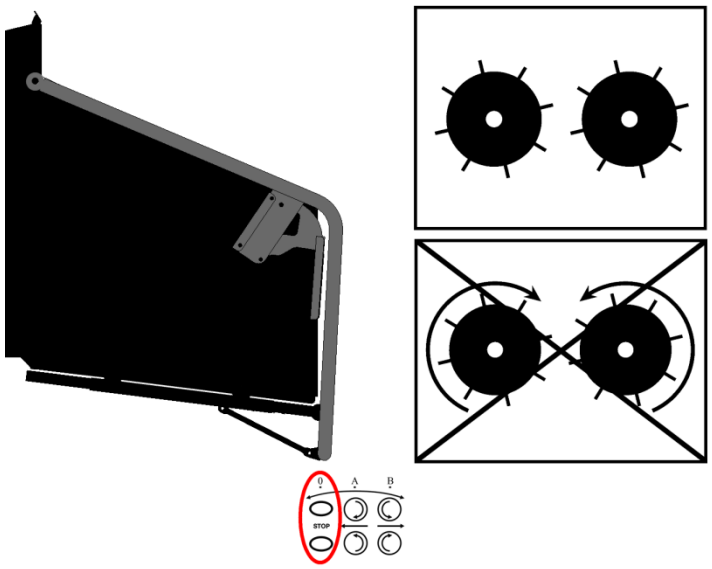


ALWAYSread the user manual before using the wood chipper.
Remember to store the user manual in the manual box.

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

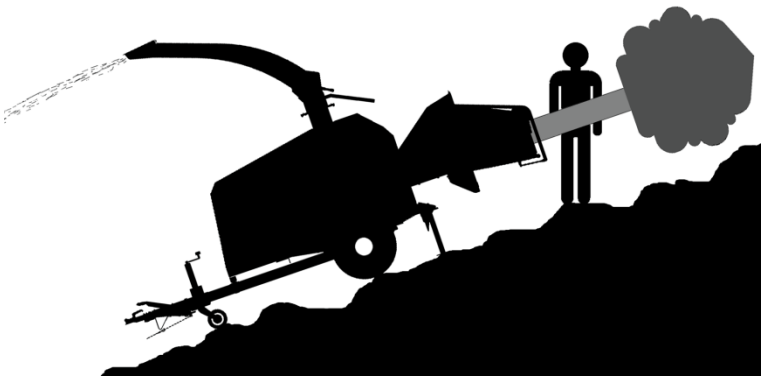


ALWAYS ensure that the funnel is free of people, animals and other foreign bodies before starting the wood chipper.

	ALWAYS ensure that all of the guards are securely closed/fitted before starting the wood chipper
	ALWAYS ensure that the wood chipper is safely parked before starting the wood chipper.
	 **ALWAYS** ensure 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.
	 **ALWAYS** ensure that all of the 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 is hazardous.

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.

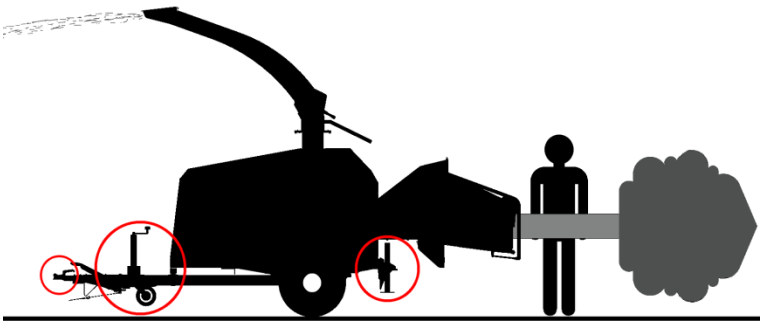


NEVER operate the wood chipper on uneven or inclined surfaces.

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 woodchip is ejected.



NEVER operate the wood chipper without support from the jack and support leg or from the vehicle's trailer hitch.

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

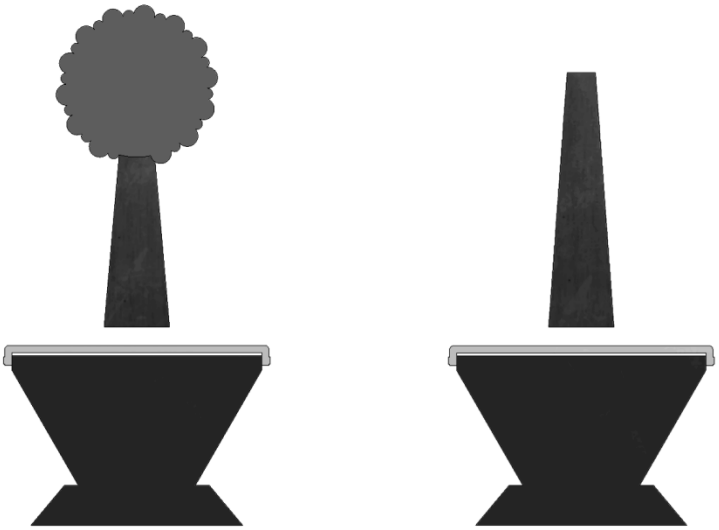
NEVER use the wood chipper to push trees, stumps, etc.

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

4.1.2 During operation

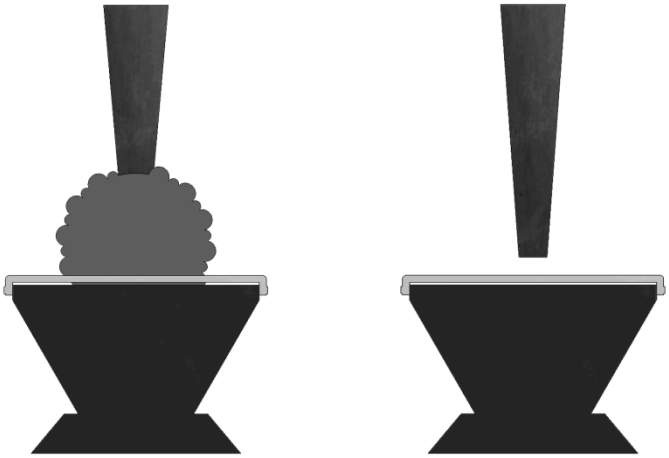
	ALWAYS push the safety bar into the STOP position if a dangerous situation arises (see chapter 8).
	ALWAYS keep body parts away from the funnel and wood chipper's other moving parts.
	 **ALWAYS** stand at the side of the funnel when the wood chipper is chipping trees that have branches.
	 **ALWAYS**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

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.

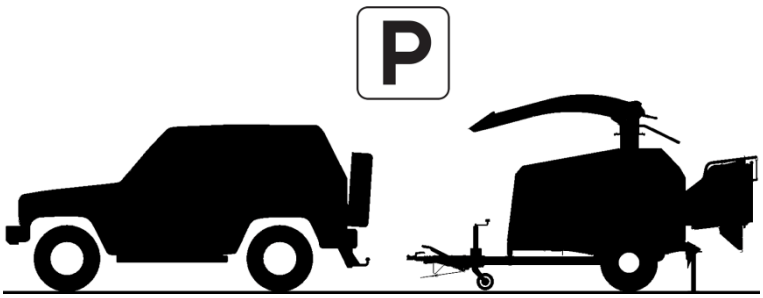
NEVER feed the wood chipper with the thin end of the log first.

NEVER attempt to remove any trapped material from between the feed rollers before the wood chipper has stopped, the key has been removed and the revolving roller has been opened as described in chapter 7.4.

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

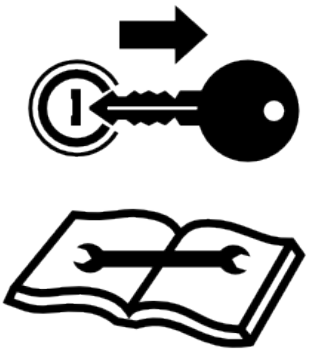
NEVER open or remove the guard while the wood chipper is operating.

4.1.3 Transport and parking

	ALWAYS comply with local public authority regulations when transporting the wood chipper on public roads.
	ALWAYS keep the ejector spout completely down in the bottom during transport. Remember to ensure that the transport lock is engaged.
	ALWAYS keep the ejector spout within the width of the machine during transport. Remember to ensure that the ejector spout is securely fastened.
	ALWAYS place the foldable funnel in the transport position during transport (the funnel must be folded up and locked with pin).
	ALWAYS ensure that all of the wood chipper lights work correctly before operating.
	 **ALWAYS** park the wood chipper on a level surface.

NEVER park the wood chipper on inclined or uneven surfaces.

4.1.4 Service and repairs

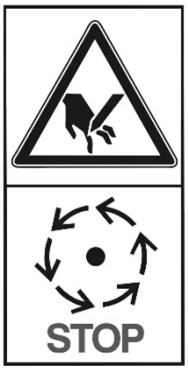


ALWAYS remove the key from the ignition and ensure the disc has stopped moving before carrying out service or repairs.

ALWAYS after service or repair, ensure 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 the key is in the ignition lock.



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

4.2 Pictograms used

<table>
<tr>
<td> 

Warning: Ejected Objects!

Warning: Safe distance of 20 m!</td>
<td> 

Warning: Rotating knives!

Warning: Wait for disc to stop!</td>
<td> 

Warning: Crushing hazard!

Warning: Rotating rollers!</td>
</tr>
<tr>
<td> 

Warning: Crushing hazard!

Warning: Rotating belts!

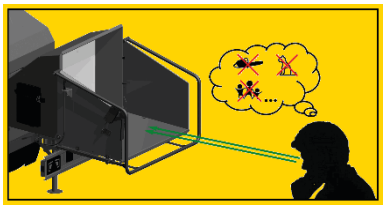
Warning: Hot surface!</td>
<td> 

Warning: Danger of severed limbs!
Warning: Crushing hazard!
Warning: Do not step on the funnel!
Warning: Do not touch the funnel!
Warning: Do not climb into the funnel!</td>
<td> 

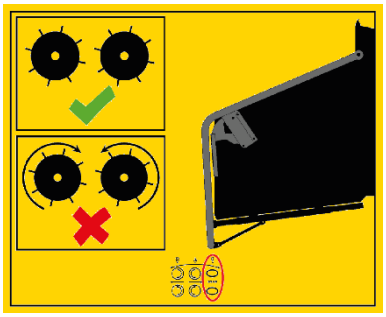
Warning: Read the instruction manual before use!

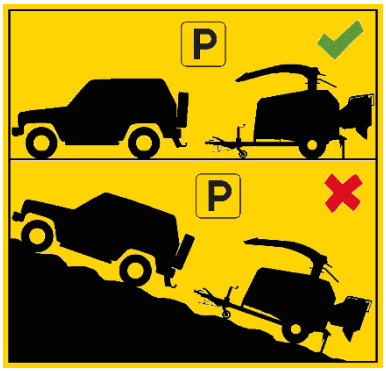
Warning: Remove the ignition key and read the user manual before service or repairs</td>
</tr>
</table>



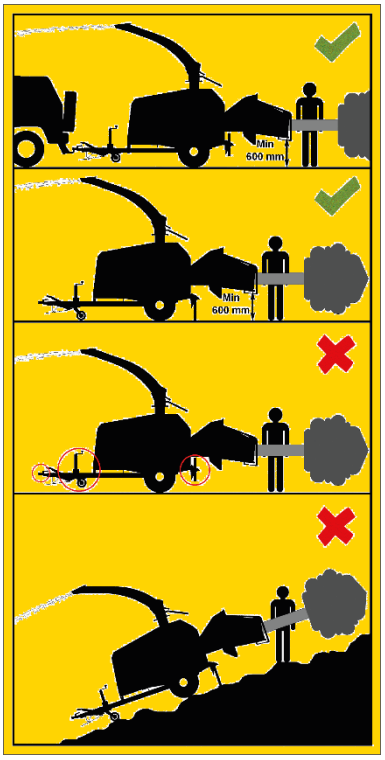
Warning: Ensure that the funnel is free of people, animals and other foreign bodies!



Warning: Ensure the safety bar works!



Warning: Do not park on uneven or inclined surfaces!



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!

Warning: Danger of scalding!

Ear and eye protection mandatory!

Lifting point for crane!

For safety information and pictograms on the engine, see engine manual.

5 Noise level

The sound output level and the sound pressure level for every wood chipper has been measured during use with the disc at nominal rpm, powered by the engine. For specific rpm values and engine types (see technical data wood chipper in chapter 15).

The measurements have been conducted in accordance with testing provisions
Directive 2000/14/EC, 3 July 2000
EN ISO 3744, 1995
ISO 11201, 1995
ISO 4871, 19 March 1997
EN 13525, 17 February 2005

The guaranteed sound output level which must be stated by the manufacturer in accordance with Directive 2000/14/EC is as follows:

TP 280 MOBILE:	**129 dB (A) relative to 1 pW**
TP 215 MOBILE:	**125 dB (A) relative to 1 pW**

The wood chipper's sound pressure level at the operator's position is measured in accordance with ISO 11201 and measured as:

TP 280 MOBILE:	**110 dB (A)**
TP 215 MOBILE:	**107 dB (A)**

The values stated above are subject to the common uncertainty of the measuring method and the estimated variation in a product series for the type of machine. Detailed information about the measurements and results and estimation of uncertainty are found in a detailed report which can be supplied on request.

As a result of the actual sound levels, the wearing of ear protectors is mandatory when using the wood chipper.

5.1 Environmental instructions

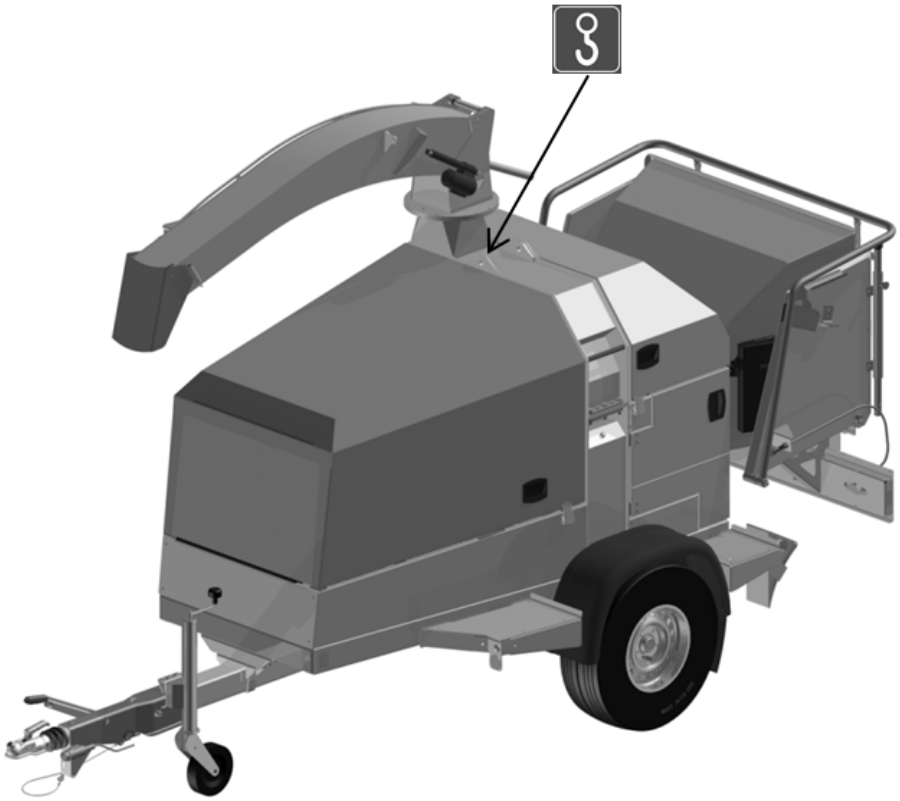
When changing hydraulic oil or engine oil, oil and used oil filters and air filters must be disposed of at an approved waste disposal station.

Oil spillage must be avoided as far as possible. Should oil spillage occur, the spilled oil must be cleaned up and disposed of at an approved waste disposal station.

Worn out parts must be disposed of for recycling.
When the wood chipper is worn out it must be disposed of responsibly. Hydraulic oil and engine oil must be drained and disposed of along with oil filters and air filters at an approved waste disposal station.
The rest of the wood chipper must be disposed of at an approved recycling centre.

6 Handling

Lifting point



The wood chipper is equipped with a lifting point, which must be used whenever it is lifted by a crane or other lifting gear (with hooks).

7 Before start-up

7.1 Check the wood chipper before start-up.

Chipping unit

1. Open the disc housing, as described later in this chapter.
2. Ensure that the wood chipper is free of any foreign bodies by turning the disc a few times by hand. Remove any foreign bodies.
3. Check that the knives run clear of the counter knives.
4. Ensure that the distance between the knives and counter knives is correct. The distance is stated in chapter 10.
5. Close the disc housing, as described later in this chapter.
6. Ensure that all of the bolts, nuts and screws are tightened securely.
7. NB: Lubricate all of the lubrication points (see maintenance schedule, chapter 10).

Engine

1. Check the engine's oil level.
2. Check the coolant's level.
3. Check the fuel level.

7.2 Opening and closing of disc housing

The wood chipper's key must be removed from the ignition when the disc housing is opened and may only be re-inserted after the disc housing has been closed again!

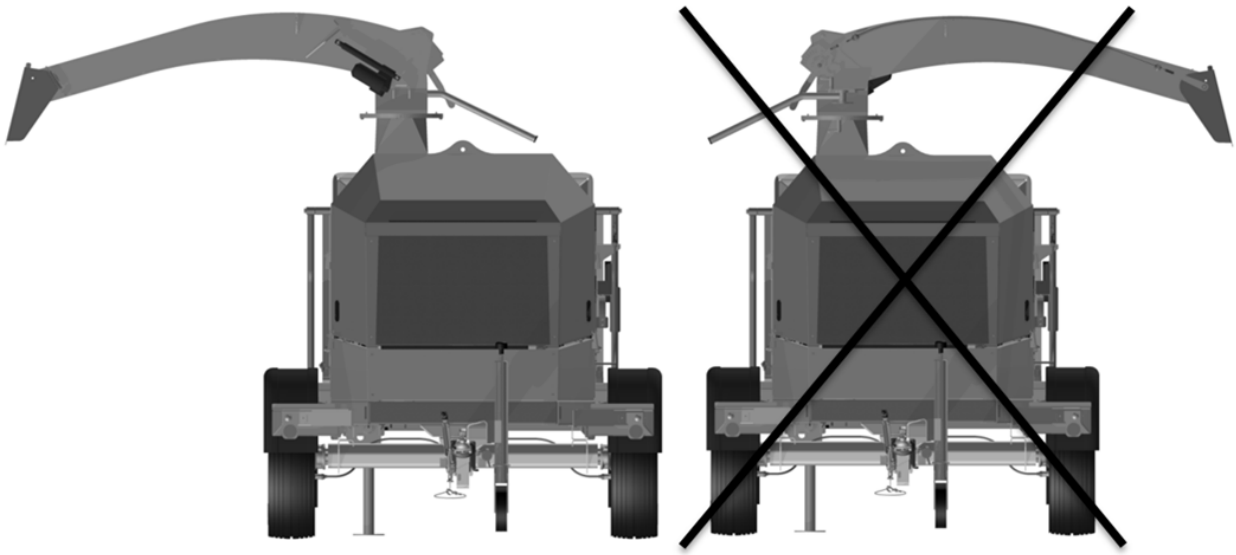
Opening the disc housing

1. Check that the wood chipper's key is removed from the ignition and the disc has stopped moving.

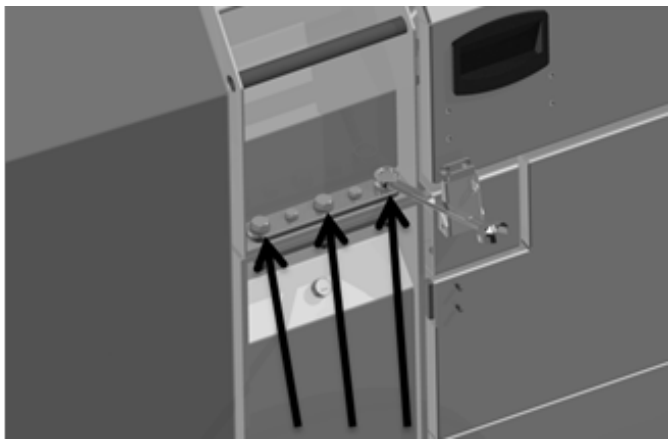
2. Lower the ejector spout all the way to the bottom. (If the model is equipped with TP VARIO SPOUT). (See Operating the wood chipper in chapter 8).

3. Turn the ejector spout so that it faces the opposite direction of the disc housing (see illustration below).

4. Open the bonnet. The bonnet is locked with an external catch on each side.

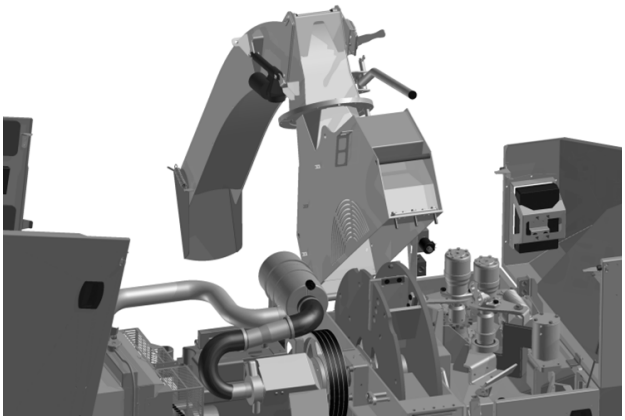


5. Loosen the three bolts that secure the disc housing top and bottom parts together (see the illustration below).



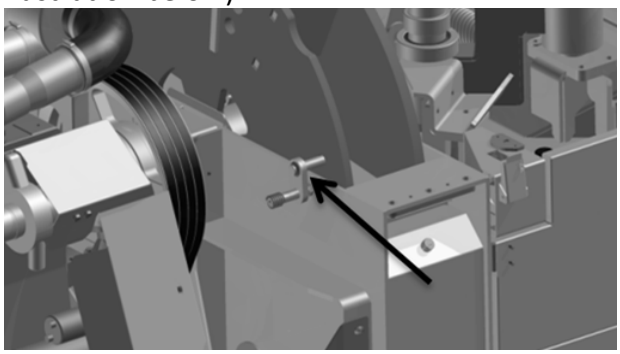
6. For easier access to the disc, open the cover over the in-feed. The cover is locked with an external catch on each side.

7. Open the top part of disc housing until it meets the stop (see illustration below).



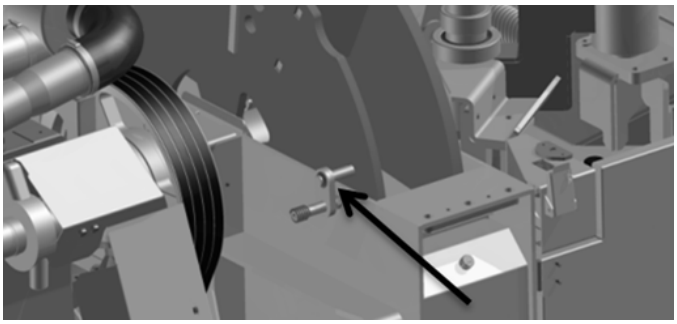
8. Turn the disc until the yellow disc lock can go into one of the holes on the disc. The disc is now locked. Keep fingers away from the knives when the disc is being turned.

   As far as possible, the disc must always be locked when the disc housing is open (see illustration below).

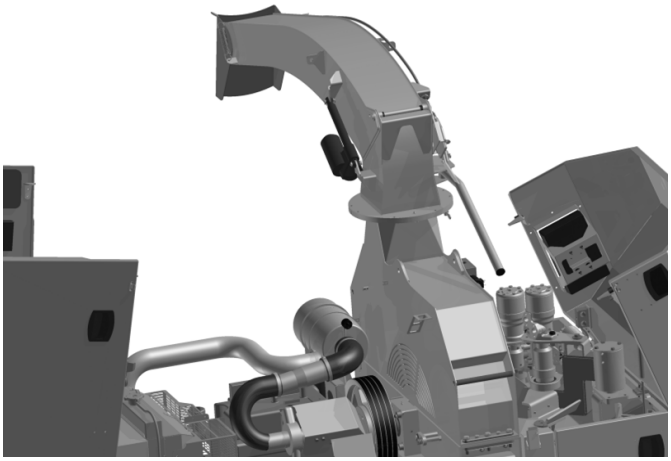


Closing the disc housing

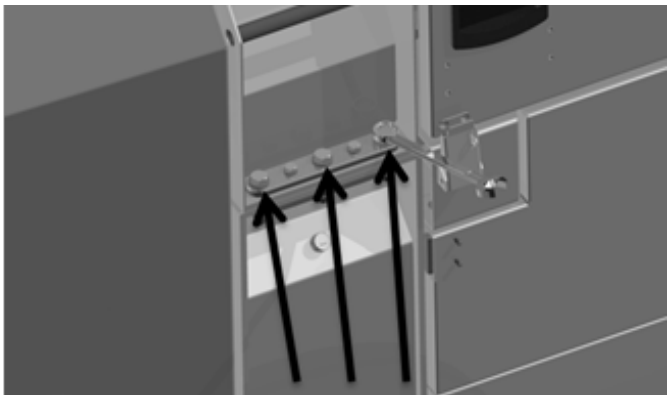
1. Free the yellow disc lock from the disc and turn the disc a few times to make sure that there are no objects in the disc housing. Exercise caution and keep fingers away from the knives when the disc turns (see illustration below).



2. Lock the top part of the disc housing (see illustration below).



3. Tighten the three bolts to secure together the top and bottom parts of the disc housing (see the illustration below).

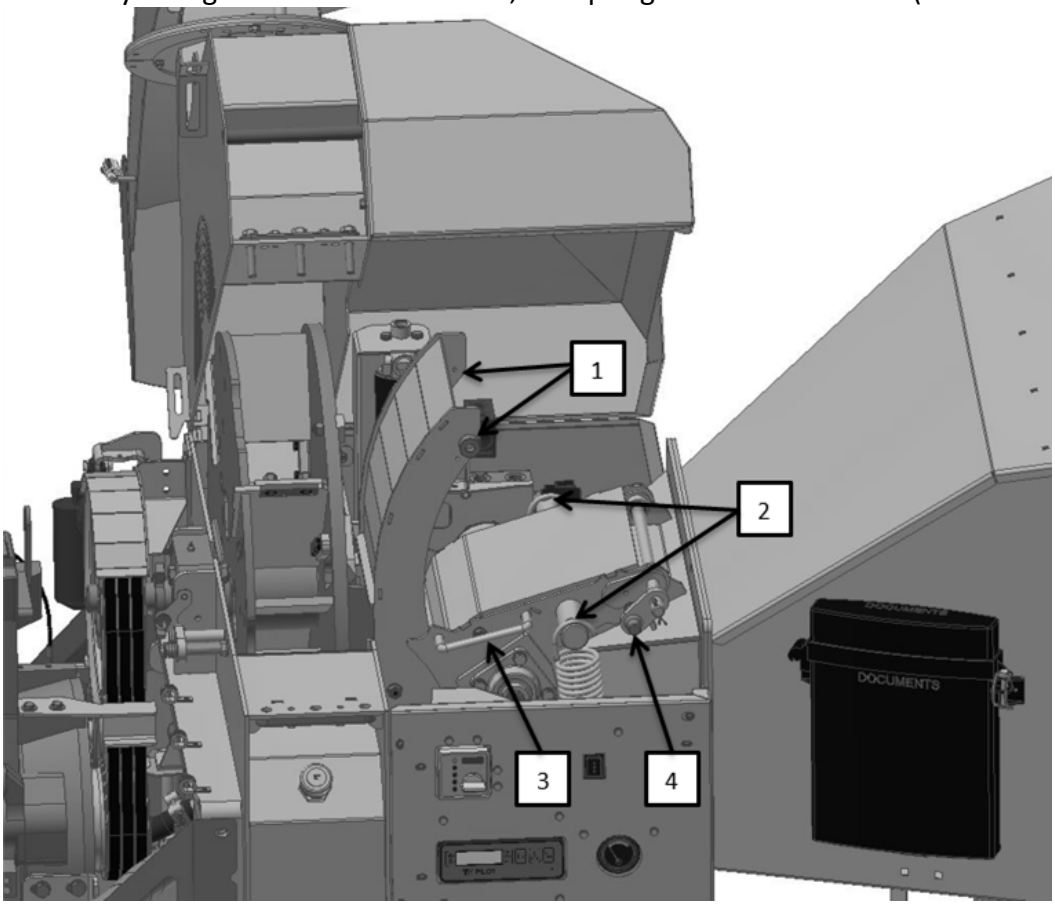


4. Close the bonnet and the cover above the in-feed section and lock them securely using the external catches. Turn the ejector spout into place and lock it. (See Operating the wood chipper in chapter 8).

7.3 Opening and closing the revolving roller.

Opening the roller console

The roller console's retention force is created by springs (one or two, depending on the model). When adjusting and replacing the counterknife, and if necessary, when opening the roller console to remove any foreign bodies in the in-feed, the springs must be removed (See illustration below).



1. Open the disc housing, as described earlier in this chapter.

2. Remove the stop bushing (1), which limits the roller console's movement range.

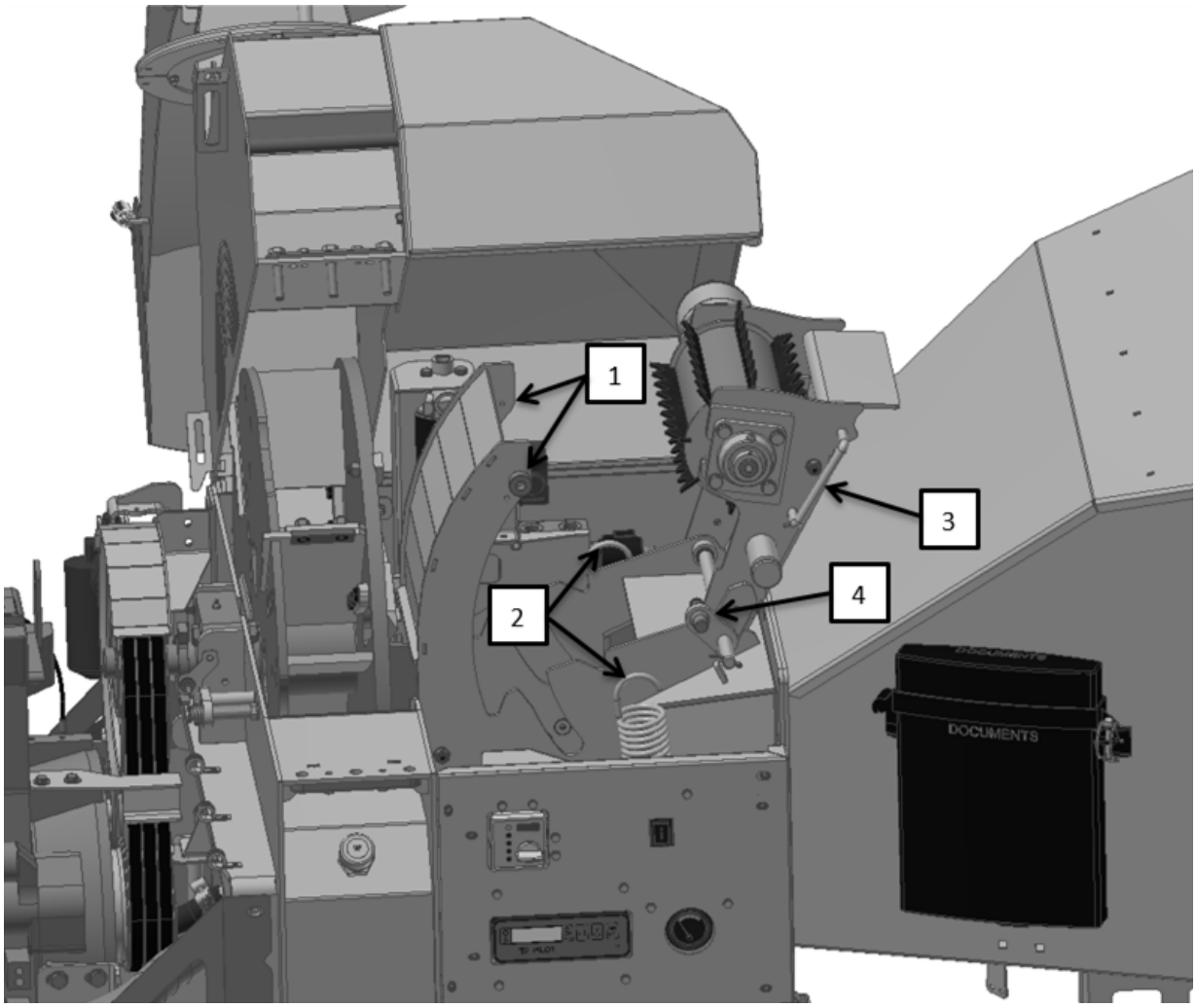
3. Using multigrip pliers or similar, lift the springs (2) from the roller console (Be careful to keep your fingers away from the spring when lifting it from the roller console).

4. Hold the handle (3) and lift the roller console up, until the roller console meets the top of the opening.

5. Push the locking pawl (4) into the lock on the side of the roller console.

   The roller console is now open and secured from falling down.

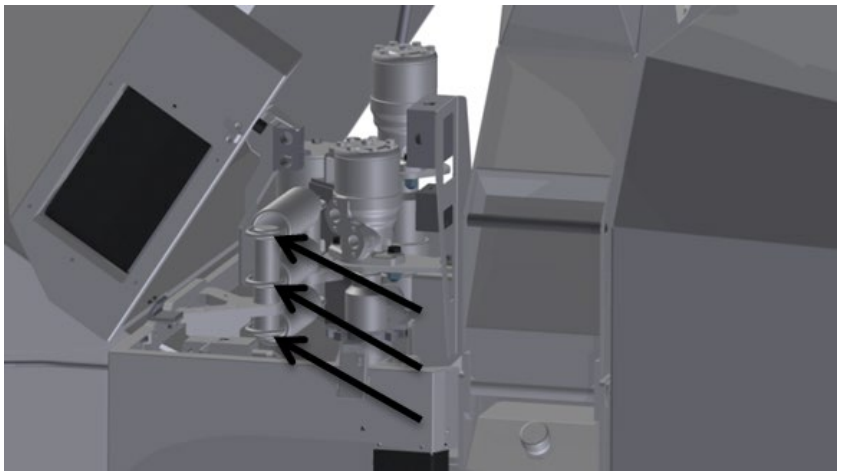
Closing the roller console



1. Hold the handle (3) and pull out the locking pawl (4).
2. Lower the roller console back into position.
3. Lift the springs (2) back onto the roller console using multigrip pliers or similar.
4. Mount the stop bushings (1).
5. Close the disc housing, as described earlier in this chapter.

Opening the revolving roller(280)

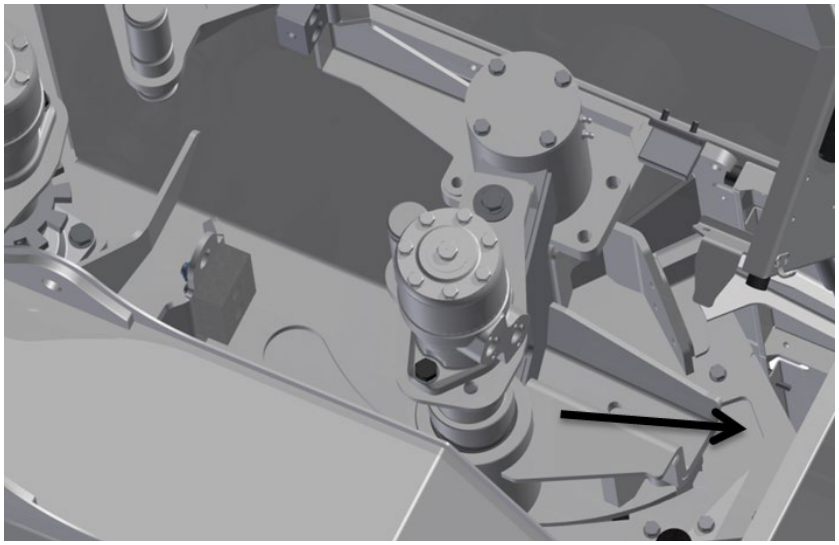
The revolving roller's retention force is created by springs. If the revolving roller needs to be opened so that foreign bodies can be removed from the in-feed, the springs must be removed (see illustration below).



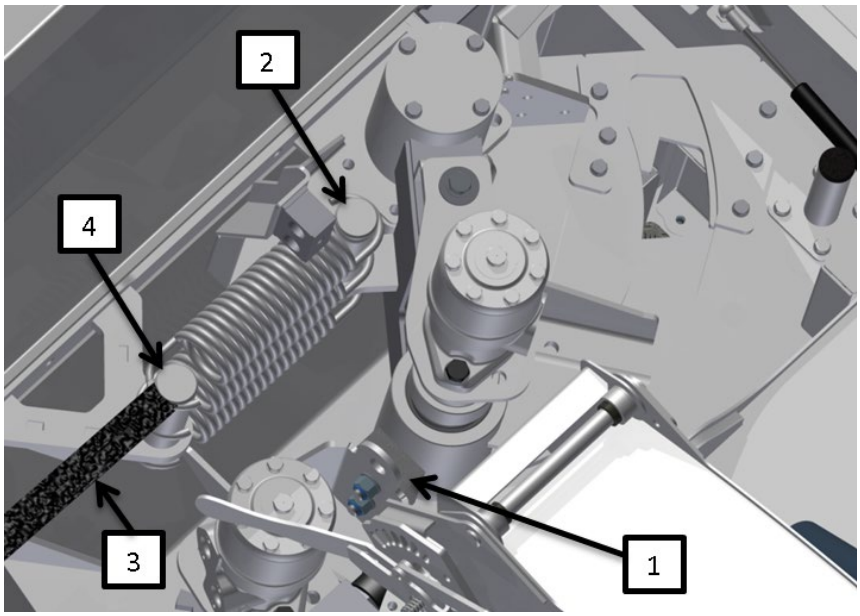
1. Open the cover over the in-feed. The cover is locked with an external catch on each side.

2. Using multigrip pliers or similar, lift the springs from the spring holder (exercise caution and keep fingers away from the springs when the spring holder is lifted).

3. The revolving roller is now free to open up against the secured opening stop (see illustration below).



Closing the revolving roller



1. Close the revolving roller against the inside closing stop (1).

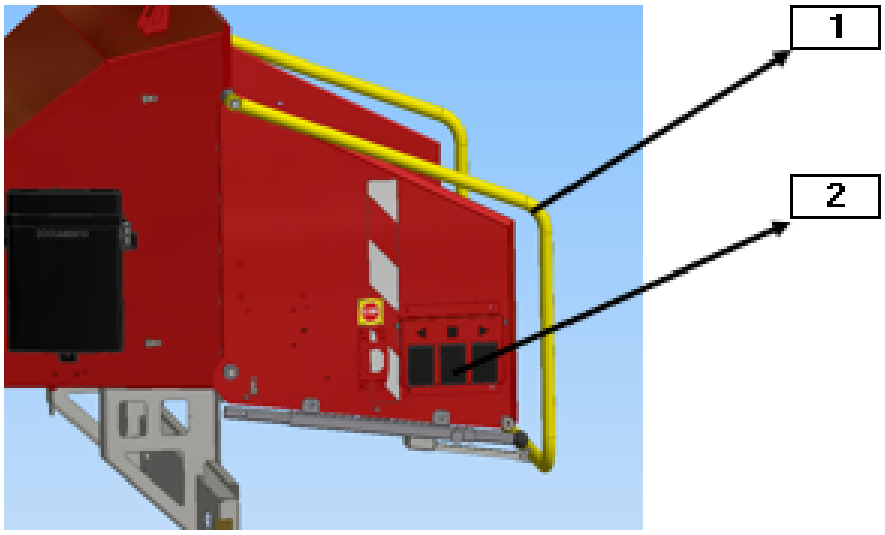
2. Fit the springs on the revolving roller's spring holder (2).

3. Using a flat fibre strap (3), pull the springs one after another, by placing the strap around the spring's eyes and pulling on both ends of the fibre strap (the strap is a part of the TP TOOLBOX). Once the spring has been pulled in across the spring holder on the in-feed (4), release one end of the fibre strap and then pull it out of the spring's eye by pulling the other end of the fibre strap. The springs can then slide into place in the spring guides.

4. Close the cover above the in-feed and lock securely using the external catches.

8 Operating the wood chipper

8.1 Safety bar



The wood chipper is equipped with two hydraulic rollers, which are controlled by a safety bar (1) On the manual version (2) will lock the safety bar

To reset emergency, stop the forward button is pressed once. Then the machine is ready and pressing the button once more will start the infeed rollers.

To reverse the infeed, press the reverse button as long the reversing is needed. When the button is released, the infeed rollers will stop.

The infeed can be stopped either by pressing the reverse button or engaging the safety bar

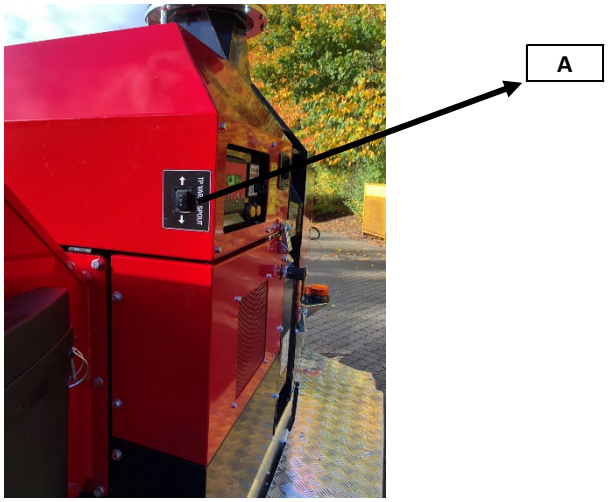
Position ⬅
The rollers rotate inwards and the material is drawn into the wood chipper.
Position ➡
The rollers rotate outwards and the material is pushed out of the wood chipper.
Position ■
The rollers stop, and is used as reset when the roller are stopped.

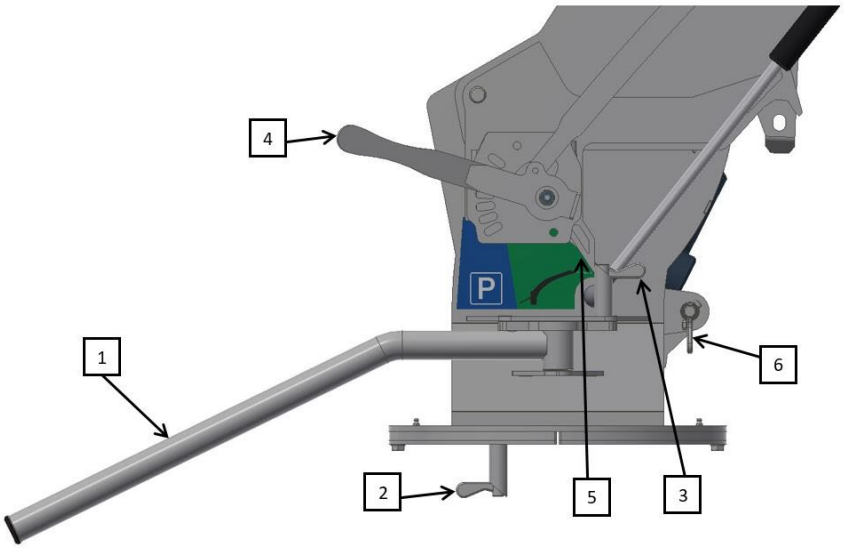
IN CASE OF POTENTIAL HAZARDS PUSH THE SAFETY BAR INTO THE STOP POSITION OR PRESS THE EMERGENCY STOP.

8.2 TP VARIO SPOUT

TP 280 MOBILE are equipped with TP VARIO SPOUT, which is a variable height-adjustable ejector spout, which is controlled via TP VARIO SPOUT. TP VARIO SPOUT's height is controlled via the black box at the side of the machine (A).

NB: When operating the TP VARIO SPOUT, there must not be any people inside the ejection area. At the same time, exercise caution when the TP VARIO SPOUT is lowered down into the transport position, because the end of the ejector spout reaches head height, and this is a potential hazard.





To turn the TP VARIO SPOUT use the handle (1), once the sliding bolt (2) is loosened. To re-secure the TP VARIO SPOUT, lock the sliding bolt (2) in the desired position. The handle (1) can be turned in the opposite direction for operating from the rear of the TP VARIO SPOUT. To do this, loosen the sliding bolt (3) and turn the handle (1) 180 degrees until the sliding bolt (3) one again can lock the handle (1).

The tilting spout is operated using the handle (4), which tilts away from the front position plate. Next, move the handle (4) to the desired position and again release, the handle (4) subsequently locks the tilting spout in the desired ejection position.

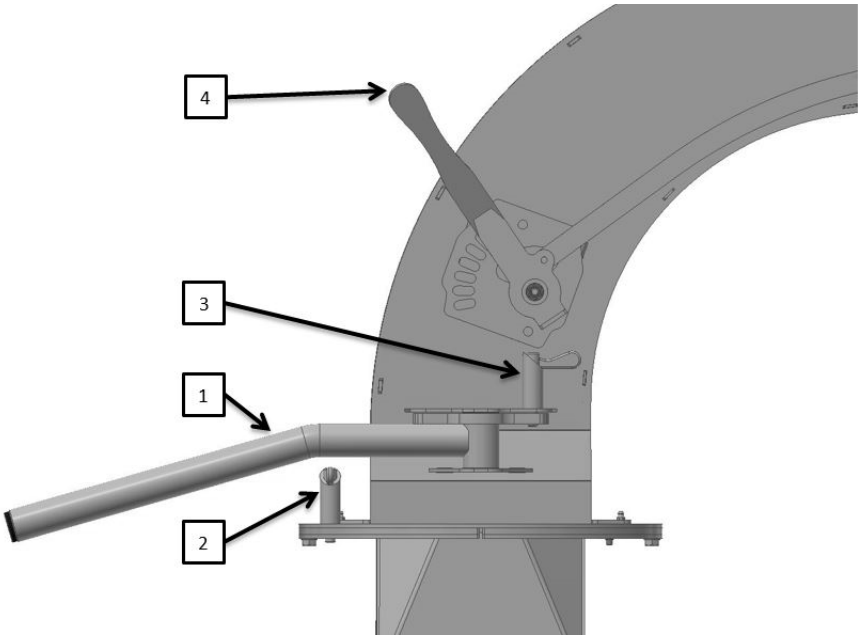
Before starting the wood chipper, the TP VARIO SPOUT must be raised to the operating height. Before raising the ejector spout to operating height using TP PILOT + the transport lock (6) must be triggered. The transport lock (6) is released and locked in disengaged position by pulling the sliding bolt on the transport lock (6) and then turn the sliding bolt 90 degrees counter clockwise. Then the ejector spout can be raised to operating height using TP PILOT +. Note that the transport lock (6) automatically locks the ejector spout in transport position when the ejector spout again is lowered to the transport position. The operating height is found by looking at the indicator (5) positioned on the side of the ejector spout.

Note the machine may only be operated when the indicator (5) is in the green area.

Once the wood chipper shall be parked or transported, lower the ejector spout all the way down so that the indicator (5) is at the rear in the blue P area. The transport lock on TP VARIO SPOUT is activated automatically when the ejector spout is lowered completely. Check before transport on public roads that the transport lock (6) is engaged. During transport, the TP VARIO SPOUT must always be within the machine's width and the sliding bolt (2) shall be locked.

8.3 fixed ejector spout 215/280 (dependent on the model)

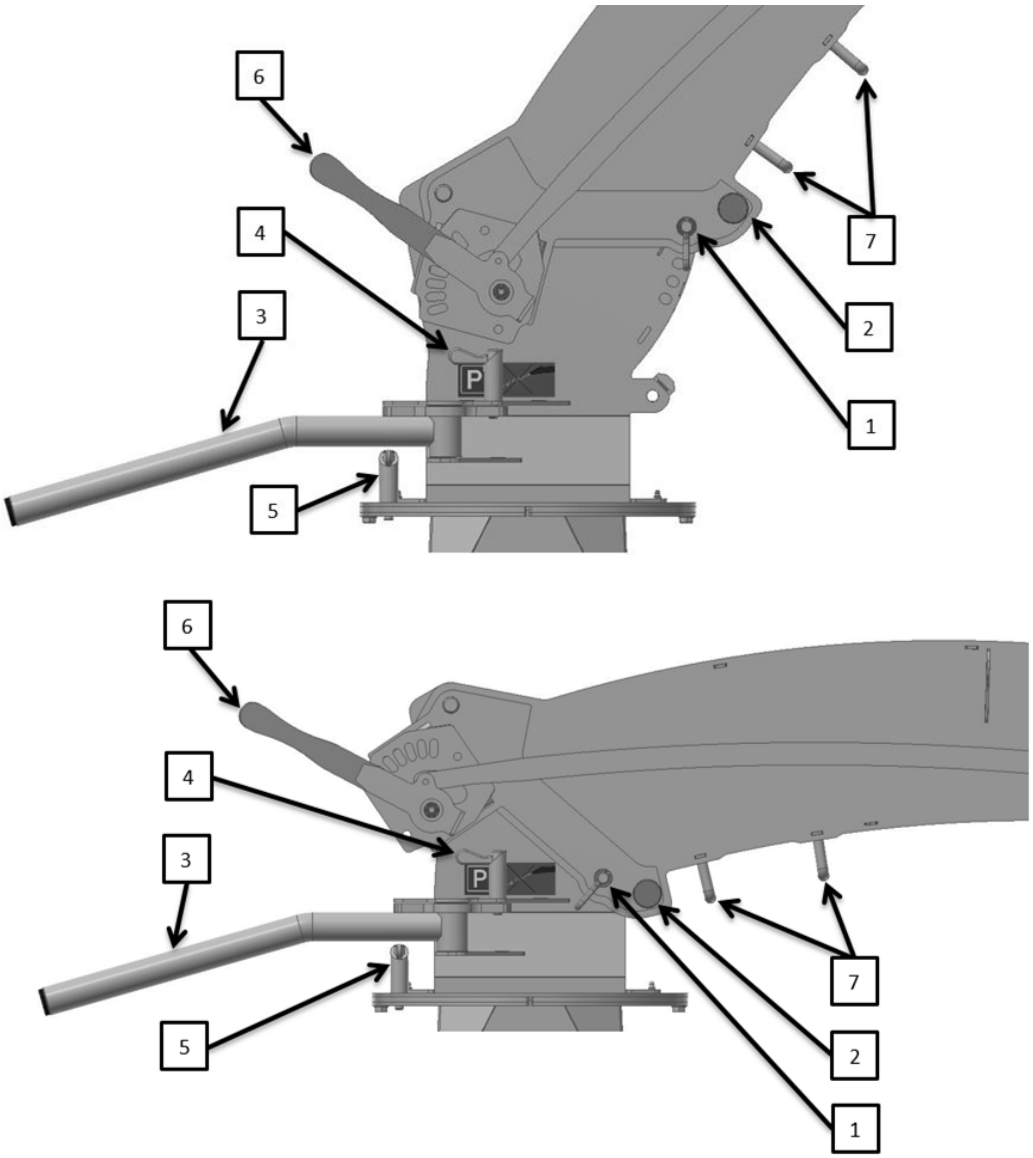
The wood chipper may be equipped with a fixed ejector spout. To turn the ejector spout, use the handle (1) once the sliding bolt (2) is loosened. To re-secure the ejector spout, lock the sliding bolt (2) in the desired position. The handle (1) can be turned in the opposite direction for operating from the front of the ejector spout. To do this, loosen the sliding bolt (3) and turn the handle 180 degrees until the sliding bolt (3) once again can lock the handle (See illustration below).
The tilting spout is operated using the handle (4), which tilts away from the front position plate. Next, move the handle to the desired position and again release, the handle subsequently locks the tilting spout in the desired ejection position.



NB: When operating the ejector spout, there must not be any people inside the ejection area. During transport, the ejector spout must always be within the machine's width and the sliding bolt (2) must be locked.

8.4 TP VARIO SPOUT 215 (dependent on the model)

The wood chipper can be equipped with TP VARIO SPOUT, which is a height-adjustable ejector spout, which has different operating positions (five or six, dependent on the model) and one transport position. To adjust the ejector spout height manually, use the handle (7), once the sliding bolt (1) and sliding bolt (2) are loosened. To re-secure the ejector spout in the desired position, lock the sliding bolt (1). The wood chipper may only be operated when the ejector spout is within the operating positions at the sliding bolt (1). (See illustration below).



NB: When operating the TP VARIO SPOUT, there must not be any people inside the ejection area. At the same time, exercise caution when the TP VARIO SPOUT is lowered down into the transport position, because the end of the ejector spout reaches head height and this is a potential hazard.

To turn the TP VARIO SPOUT use the handles (3) once the sliding bolt (5) is loosened. To re-secure the TP VARIO SPOUT, lock the sliding bolt (5) in the desired position. The handle (3) can be turned

in the opposite direction for operating from the front of the TP VARIO SPOUT. To do this, loosen the sliding bolt (4) and turn the handle 180 degrees until the sliding bolt (4) once again can lock the handle.
The tilting spout is operated using the handle (6), which tilts away from the front position plate. Next, move the handle to the desired position and again release, the handle subsequently locks the tilting spout in the desired ejection position.

When the wood chipper shall be parked or transported, completely lower the ejector spout manually using the handle (7) when the sliding bolt (1) is loosened. Check subsequently and before transportation on public roads, that the sliding bolt (2) is locked and the transport lock is engaged (see illustration above).
During transport, the TP VARIO SPOUT must always be within the machine's width and the sliding bolt (5) must be locked.

8.5 In-feed speed

The wood chipper's in-feed speed is controlled by a manual flow control.

The adjustment is placed on the right side of the machine (below the key starter)
The table shown below provides the actual rpm of the feed rollers with the entered woodchip length.

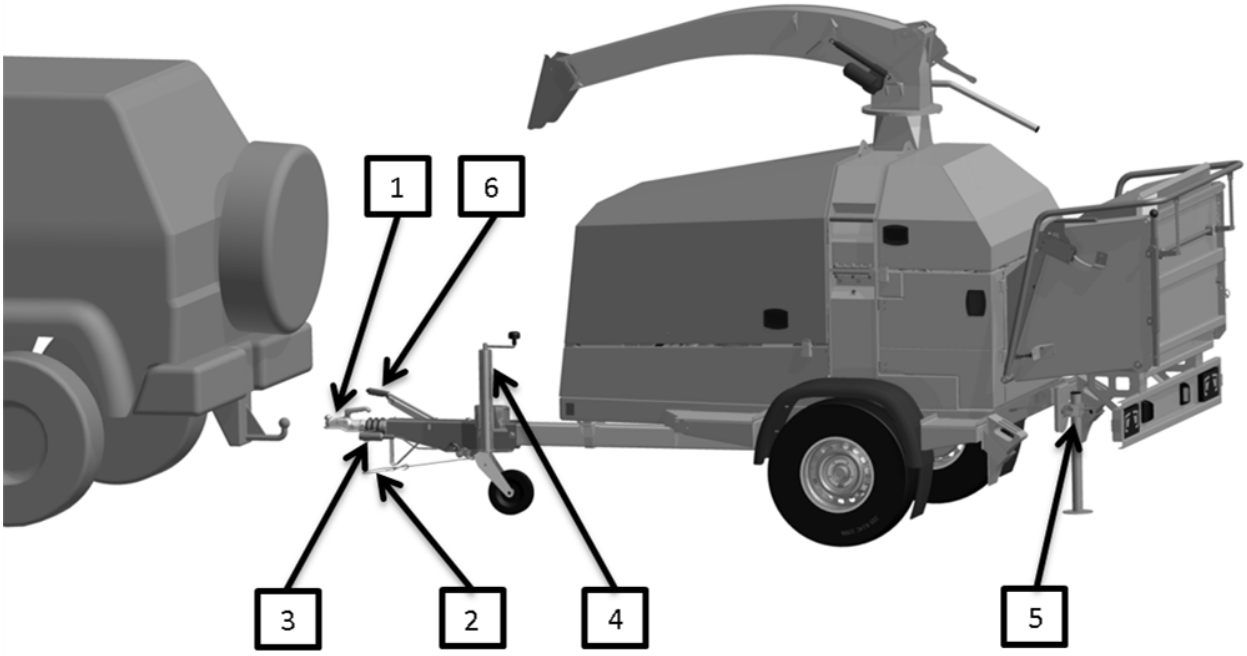
Woodchip length **Model**	**Disc** **rpm**	**6 mm** **rpm**	**8 mm** **rpm**	**10 mm** **rpm**	**12 mm** **rpm**	**14 mm** **rpm**	**16 mm** **rpm**
TP 280 MOBILE	1000	20	26	33	40	46	52
TP 215 MOBILE	1320	17	26	34	43	52	61

8.6 Connecting and disconnecting instructions

The wood chipper is a trailer hitched wood chipper and is designed to be fitted behind a vehicle with a trailer hitch, as a coupling without requiring inspection. The wood chipper with trailer and own engine is registered as a trailer tool.

REMEMBER: The wood chipper must always be coupled/uncoupled on a level surface!

Coupling with straight drawbar

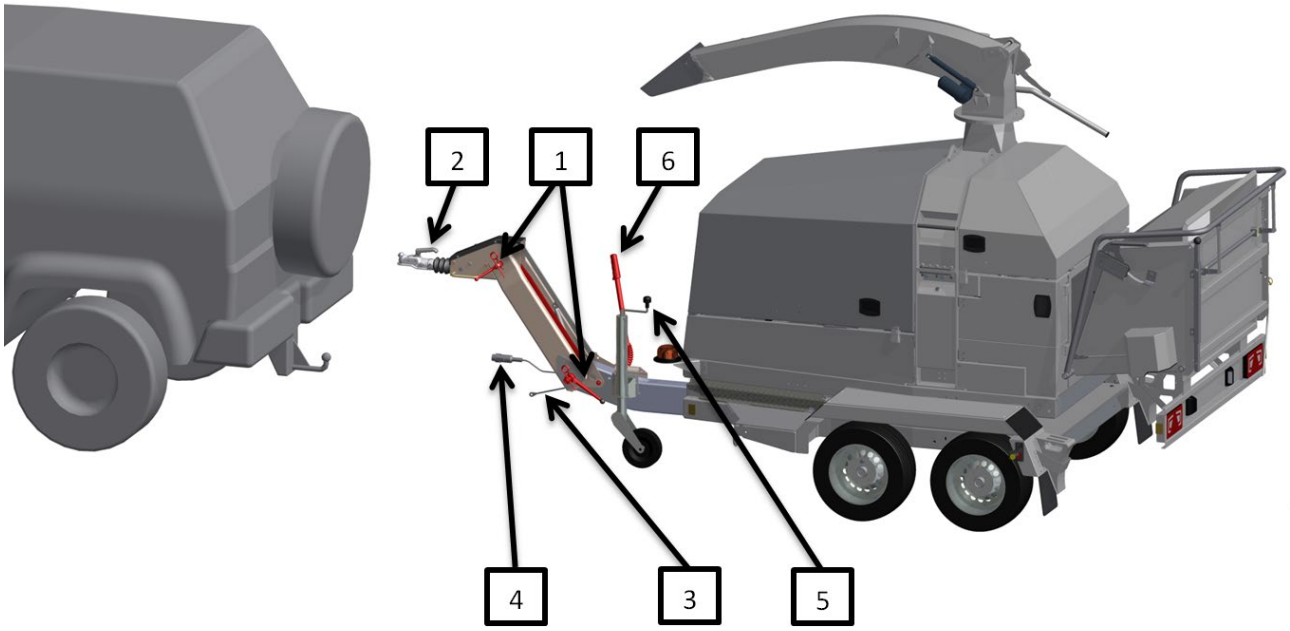


1. Connect the wood chipper to the vehicle by securing the wood chipper's socket coupling (1) onto the trailer hitch on the vehicle.
2. Fit the safety wire (2) to the trailer hitch.
3. Connect the 13-pin connector (3) to the vehicle.
4. Screw up the front jack (4).
5. Push down the rear support leg (5) and turn to the transport position.
6. Loosen the handbrake (6).

Uncoupling the wood chipper from the vehicle

To correctly uncouple the wood chipper, repeat the coupling procedure in reverse order.

Coupling with a height-adjustable drawbar



1. Adjust the height-adjustable drawbar using the two turn joints (1), so that the wood chipper is in a horizontal position when it is connected to the vehicle's trailer hitch.

2. Connect the wood chipper to the vehicle by securing the wood chipper's socket/eye coupling (2) onto the trailer hitch on the vehicle.

3. Fit the safety wire (3) to the trailer hitch.

4. Connect the 13-pin connector (4) to the vehicle.

5. Screw up the jack (5).

6. Loosen the handbrake (6).

Uncoupling the wood chipper from the vehicle

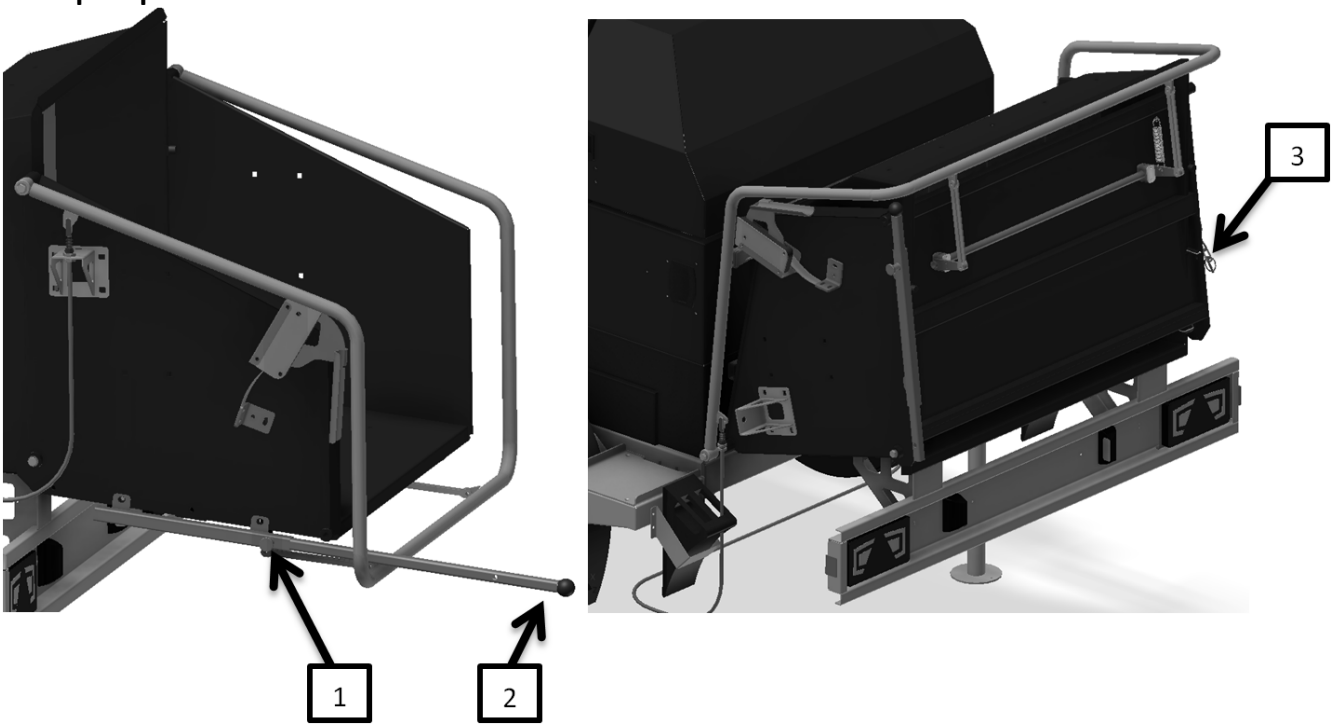
To correctly uncouple the wood chipper, repeat the coupling procedure in reverse order.

8.7 Foldable funnel

The aim of the foldable funnel is to minimise the total length of the mobile wood chipper during transport and when storing it.

The foldable funnel must always be in the transport position during transport on public roads.

Transport position



1. Pull the sliding bolt (1) out while pulling the lever (2) out.
2. Now fold up the funnel by lifting the lever (2) (use both hands).
3. Once the funnel is folded up, secure it using the ring pin (3) in the right side.
4. Pull the sliding bolt (1) out and push the lever (2) back into its starting position. The funnel is now in the transport position.

Operating position

To put the foldable funnel into the operating position, repeat the transport position procedure in reverse order.

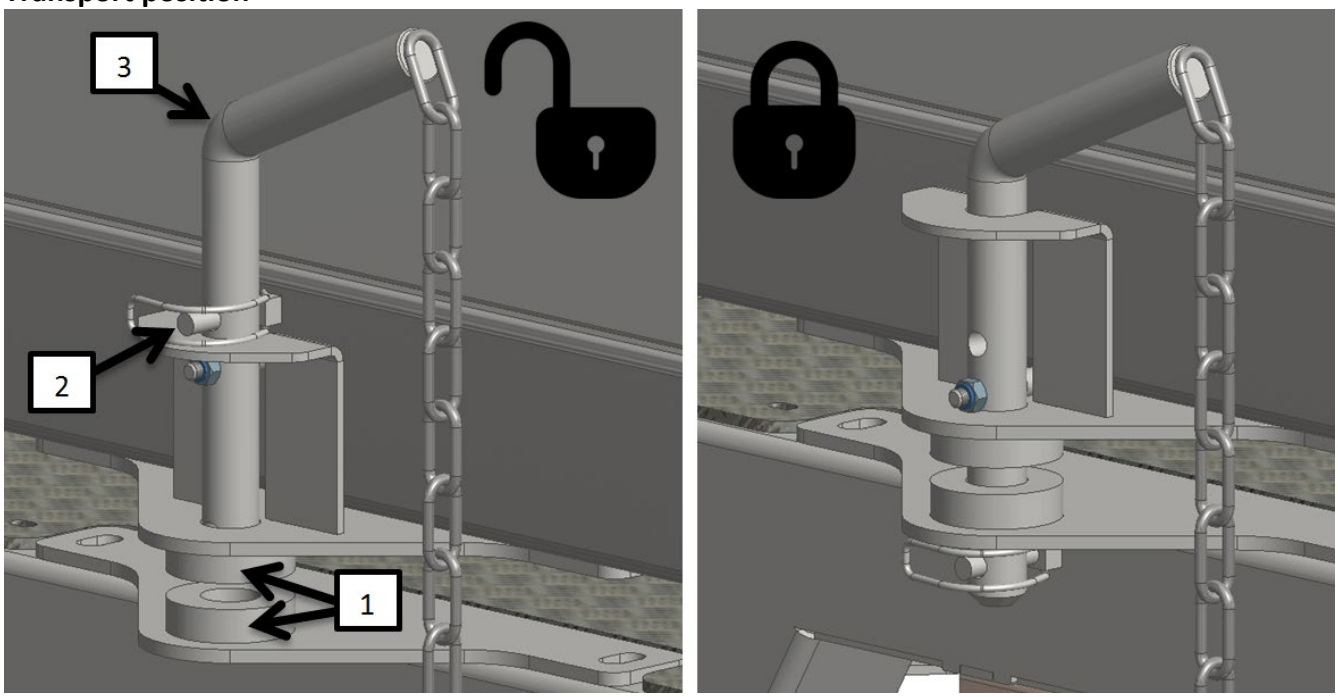
8.8 TP TURNTABLE

If the wood chipper is equipped with the TP TURNTABLE, the wood chipper can rotate independently of the trailer frame. This is an advantage where the operator wishes to feed the wood chipper from the side rather than from the rear.

8.8.1 Transport lock

The transport lock always be in the transport position during transport on public roads.

Transport position



1. Ensure the wood chipper is in position with the front at the ball and socket coupling and that the two locking eyes (1) are aligned.

2. Take the pin (2) out of the top hole in the locking ring (3).

3. Take hold of the locking ring (3) move it all the way to the bottom.

4. Put the pin (2) in the bottom hole in the locking ring (3). The turntable is now locked in the transport position.

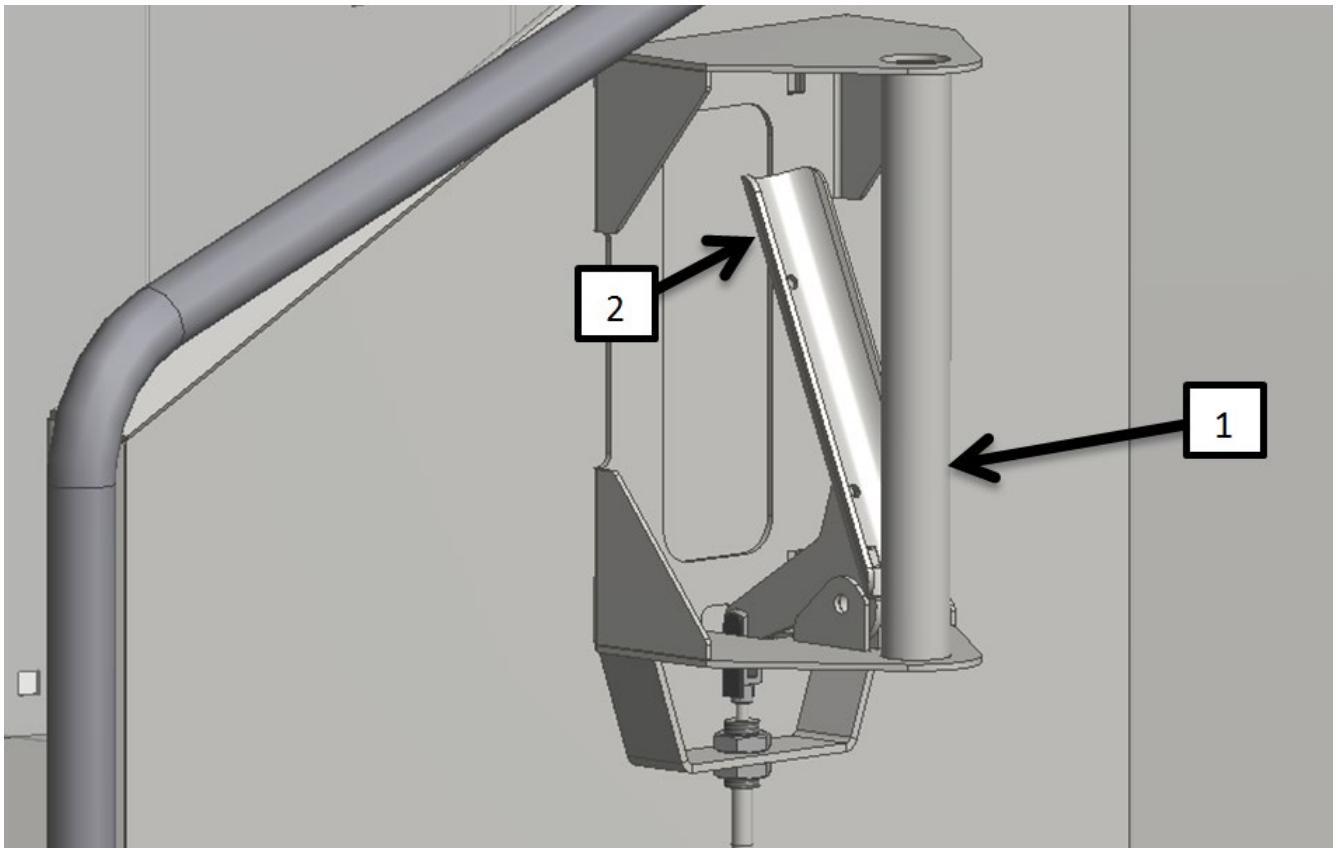
Operating position

To unlock the transport position, follow the transport position procedure in reverse order.

8.8.2 Use of the TP TURNTABLE

There is a handle positioned on the right side of the funnel, which is used to turn the funnel to the desired position.

Before using the TP TURNTABLE, ensure that the transport lock has been unlocked.



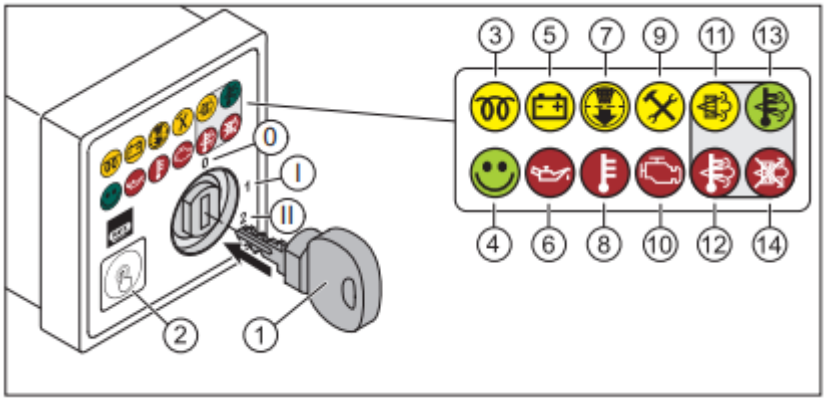
1. Take hold of the handle (1) press down the release (2) all the way to the bottom.

2. Next, turn the funnel to the desired position by either pushing or pulling on the handle (use both hands).

3. Once the funnel is in the desired position, let go of the release (2). Remember to ensure that the release is locked before the wood chipper starts to be used.

9 TP Pilot +

9.1 Start box



1 Starting key
2 Pushbutton
3 Pre-glow indicator
4 Operating indicator
5 Charge control
6 Oil pressure indicator
7 Air filter service indicator
8 Engine temperature indicator
9 Maintenance interval indicator
10 Engine fault
11 Regeneration of diesel particulate filter required (TICD model)
12 Warning of very hot engine exhaust gases (TICD model)
13 Regeneration of the diesel particulate filter has started (TICD model)
14 Regeneration of the diesel particulate filter was blocked (TICD model) Ignition lock 0 Off I

Operation II Starting
Start:

1. Check the engine oil, fuel level, coolant level and refill if necessary. (See maintenance in chapter 13).
2. The key is turned clockwise and the light for preheat lights up. When the light turns off the engine can be started by turning the key clockwise by one position.
3. NB: All warning lights must be turned off during operation.
4. If the engine does not start after 15 seconds then wait for one minute and try again.
5. If the engine does not start after two attempts, then start troubleshooting and use the troubleshooting table.

The start box is equipped with an ignition lock, so that if an attempt has been made to start the wood chipper, the key must be turned back to the off position, before another attempt at ignition can be made.
When the engine has started, it must run idle in order to heat up completely.

-20°C and less	approx. 2 minutes
-20°C to -10°C	approx. 1 minutes
-10°C to +5°C	approx. 30 seconds
over +5°C	approx. 15 seconds

Stop:

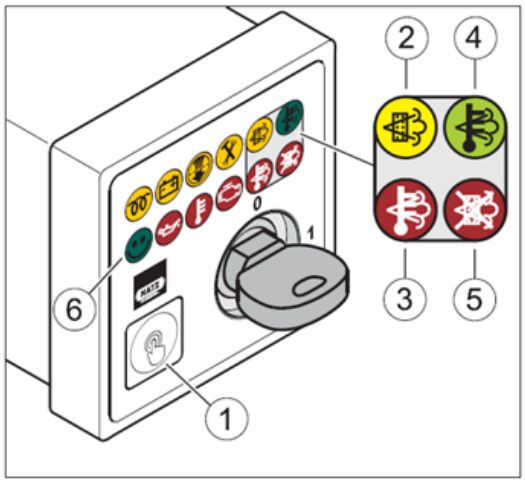
1. Let the engine run on idle for one minute before switching off the engine.
2. Turn the key anticlockwise, back to the off position.

The key functions as an emergency stop for the machine. If a dangerous situation arises, switch off using the key!

9.2 Resetting the maintenance interval indicator

Step	Activity
1	The starting key is at position "0". ▪ Press and hold down the button (2).
2	Turn the starting key from position "0" to position "I".
3	Release the button (2) after a wait time of at least 5 seconds but no longer than 10 seconds. The maintenance interval indicator is now reset.

9.3 Starting manual regenerating



1	Pushbutton
2	Regeneration of diesel particulate filter required
3	Warning of very hot engine exhaust gases
4	Regeneration of the diesel particulate filter has started
5	Regeneration of the diesel particulate filter was blocked
6	Operating indicator

Step	Activity
1	Secure the machine against rolling away or slipping.
2	Depending on the machine, engage the parking brake (if present) and set the transmission or the device to neutral or activate the safety switch. If either of the two above mentioned criteria is not fulfilled, the indicator (5) flashes and regeneration cannot be started. See also instructions in the documentation for the complete machine.
3	The regeneration block must be switched off.
4	Let the engine run and adjust it to a low engine speed.
5	Starting manual regeneration Press button (1) for at least 5 seconds. Indicator (2) flashes, indicator (4) lights up and operating indicator (6) goes out. The regeneration process has started and takes approx. 15 to 30 minutes.
6	After regeneration is finished (indicators (2) and (4) go out, operating indicator (6) lights up), the machine can be used again.

For further information, - please see the manual for Hatz engines.

10.0 TP Starter

See separate:
Technical guide
User guide

Starting the wood chipper:

Start the engine with the key (3) and let it run on idle for a few minutes.

Next, press the yellow bottom (Start), TP STARTER® will now automatically cut in the disc and at the same time the engine revolutions will increase to the max. engine rpm.

The wood chipper is now ready for operation.

Stop:

Stop putting material into the wood chipper and wait until nothing comes out of the ejector spout. Subsequently press the safety bar to position 0 or use the emergency stop.

Next, press the yellow button again (Start), TP STARTER® will now automatically uncouple the disc, and at the same time the engine revolutions are slowed to idle running.

Let the engine run on idle for one minute before switching off the engine.

Stop the engine by turning the key anticlockwise, back to the off position.

If the engine is switched off with the key before TP STARTER® has uncoupled completely, the motor cannot be started:

Turn the key so that there is power to the system, TP STARTER® automatically completely uncouples and the engine can subsequently be started again (dependent on the model). (Dependent on the model).

Or:

Turn the key so that the power is on and press the switch (2) (Stop). This will uncouple TP STARTER® and the engine can subsequently be started again. (Dependent on the model).

The fan at the hydraulic cooler will run for 30 seconds after the engines has stopp.

9.4 Overall operation

TP PILOT provides the option for monitoring the revolutions of the engine and feed rollers, and sounding an alarm when low or high limit values are exceeded. TP PILOT is pre-programmed for several types of machine.

10 Maintenance

10.1 Maintenance schedule for wood chipper

X = for each stated time interval
(X) = Only for the first time
* = or once a week

Interval=> hours	10* ⌛	50 ⌛	250 ⌛	1000 ⌛
Check safety bar's function[1]	X			
Check the knives and counterknives (and sliver breaker - extra equipment)	X			
Tighten all bolts and nuts	(X)	(X)		
Lubricate disc main bearings[2]	X			
Lubricate the fixed roller bearings[2]		X		
Lubricate the revolving roller bearings[3]		X		
Lubricate TP VARIO SPOUT[2]		X		
Lubricate safety switches[4]		X		
Replace the return filter for the hydraulic pump [7]		(X)		X
Lubricate the revolving roller foot[2]			X	
Lubricate the TP EASY SERVICE[2]			X	
Reverse/replace counterknife			X	
Reverse/replace triangle scrapers, square scrapers and scrapers			X	
Change hydraulic oil [5]				X
Replace facing plate in top disc housing (extra equipment)[6]				X
Check ejector wings for wear and tear				X
Check casing for wear and tear				X

10.1 Hydraulic oil table

Model type	Standard oil type	Bio-oil (optional)[8]	Quantity in l
TP 215 MOBILE	Hydraway HVXA 46	Hydraway SE 46 HP	25 l
TP 280 MOBILE	Hydraway HVXA 46	Hydraway SE 46 HP	28 l

[1] Always execute before use! Pay particular attention to ensuring that the rollers do not rotate when the safety bar is in the stop position.

[2] Lubricate two lubrication nipples with Uniway Li62 or equivalent lubricant.
In case of light use: Lubricate after 12 months.

[3] Lubricate lubrication nipples with Uniway Li62 or equivalent lubricant.
In case of light use: Lubricate after 12 months.

[4] Safety switch at the bonnet, fuel hatch, and at the cover above the infeed, must be lubricated with spray lube or chain lube.
If the safety switch is defective, it must be changed immediately.

[5] Drain the hydraulic oil and fill with new oil. See above for the hydraulic oil table for oil type and amount.

[6] If fitted, change the facing plate in the top disc housing as necessary.

[7] Replace after 12 months.
[8] The interval between changing oil can be extended by using biodegradable oil, which can be purchased as extra equipment.

10.2 Maintenance schedule for engine

For the correct execution of the maintenance of the engine, refer to the engine manual. The engine manual contains precise instructions for how the engine in your TP wood chipper is best serviced.

X = for each stated time interval
(X) = Only for the first time

Interval=> hours		**10**	**50**	**250**	**500**	**1000**	**1500**	**5000**
Check oil level		X						
Check the coolant condition		X						
Check/clean filter in front of the radiator and inter-radiator[1]		X						
Check/clean the air filter (external and internal)[1]		X						
Check/clean radiator and inter-radiator[1]				X				
Check alternator's belt tension [2]				X				
Check rubber hoses at air intake and radiator					X			
Check fuel hose					X			
Replace engine oil[3, 4]			(X)		X			
Replace oil filter[3, 4]			(X)		X			
Replace fuel filter[3, 4]					X			
Replace coolant[4]						X		
Replace the hose to the intake manifold (hose between the air filter and intake manifold)[4]								X
Replace radiator hoses[4]								X
Replace fuel hoses[4]								X
Alternator belt	Standard alternator belt (trapezium shape)[4, 5]				X			
	Poly-V belt (unclean working environment)[4]						X	
	Poly-V belt (clean working environment)[4]							X
Check the engine starter[4]								X
Check the alternator[4]								X
Replace external air filter[1]			After six checks where the filter was cleaned.					

[1] The length of time between a check of the filter elements may vary depending on the conditions the engine operates in. The air filter must be cleaned and replaced more frequently in very dusty conditions.

[2] Not Poly-V belt type.

[3] **The first oil change must be after 50 hours. Please see the Hatz manual for further information.**

[4] Always change oil after 500 hours or after 12 months. What ever comes first.

[5] In case of light use: Replace after 36 months.

10.3 Engine oil level

Model type	Engine type	Oil type:	Oil capacity (maximum level) *With oil filter*
TP 215 Mobile	Hatz 3H50	SAE 5W-30 ACEA E6	5,0 l
TP 280 MOBILE	Hatz 4H50	SAE 5W-30 ACEA E6	7,0 l

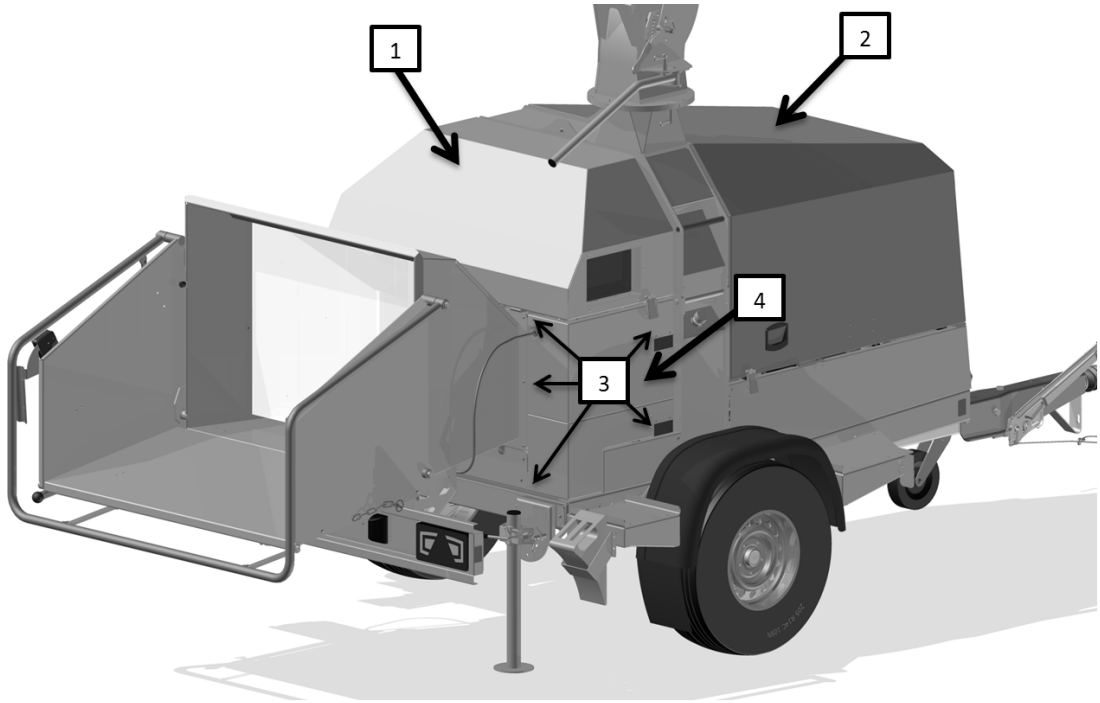
For cooler areas use SAE 0W/30 and for warmer areas use SEA 10W/40

10.4 Hydraulics

The wood chipper is filled at the factory with mineral hydraulic oil as standard (bio-oil may be purchased as extra equipment). See hydraulic oil table in chapter 10. When replacing the oil, use the same type of oil or an oil with equivalent specifications. Do not mix oils of different types/brands.

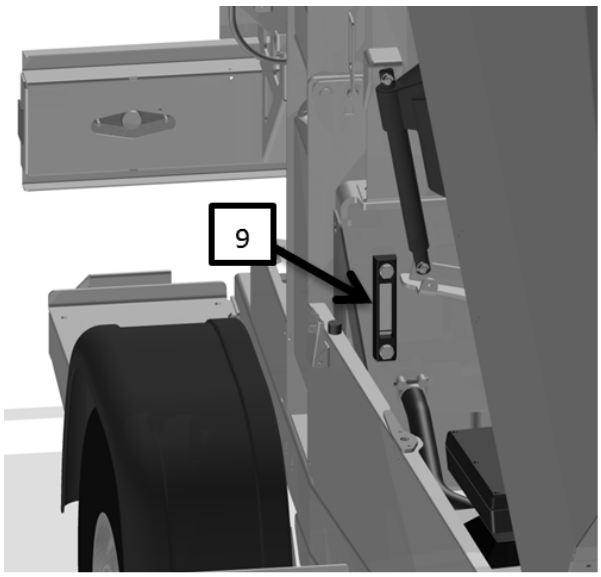
Old hydraulic oil must be handed in to the municipal receiving station.

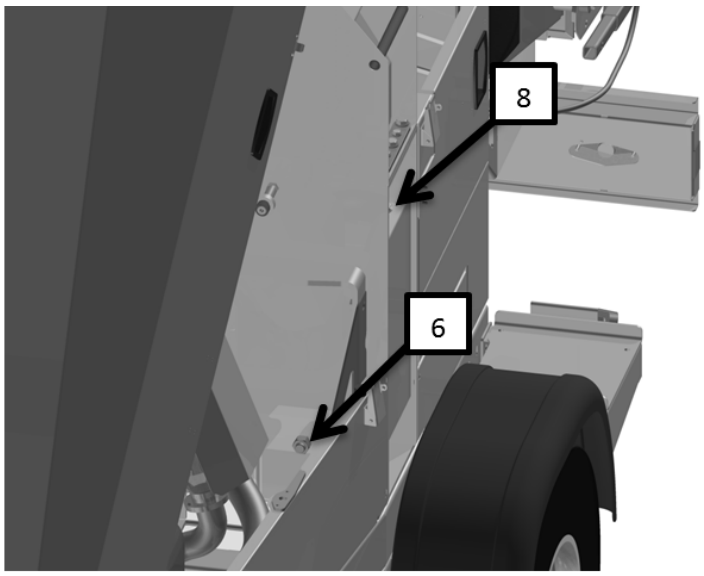
Replacing of hydraulic oil and return filter

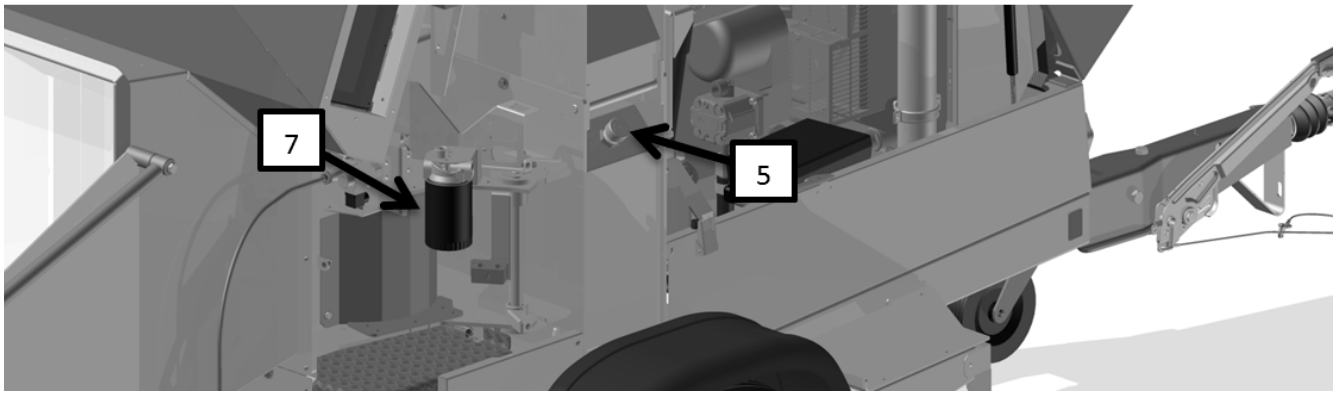


1. Open the cover above the in-feed (1) and the bonnet (2). The cover above the in-feed and bonnet is locked using an external catch on each side.

2. Loosen the five bolts (3) and remove the side cover (4), which opens up access to the return filter.







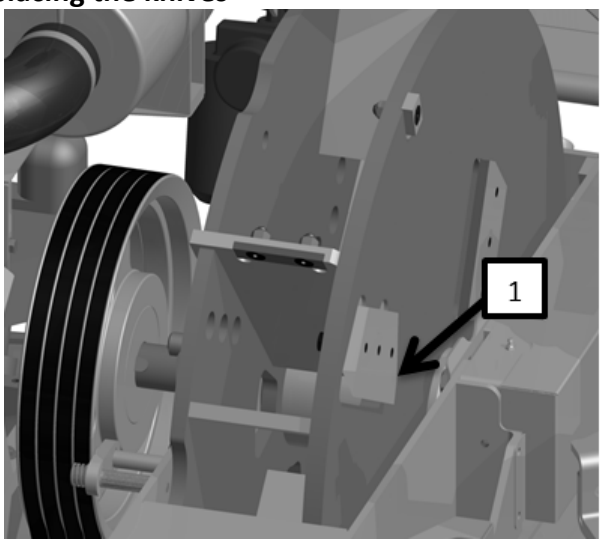
3. Remove the filler neck (5).
4. Unscrew the drain plug (6) and capture the oil in a container for suitable disposal.
5. When the tank is almost empty, suck the tank empty using an oil suction device.
6. Replace the return filter (7) with a new filter.
7. Screw the drain plug (6) back on.
8. Remove the breather plug (8) and slowly fill with new hydraulic oil. Fill the oil until the oil level is at the middle of the level glass (9).
9. Lastly, fit the filler neck (5), breather plug (8), side cover (4) re-using the five bolts (3).

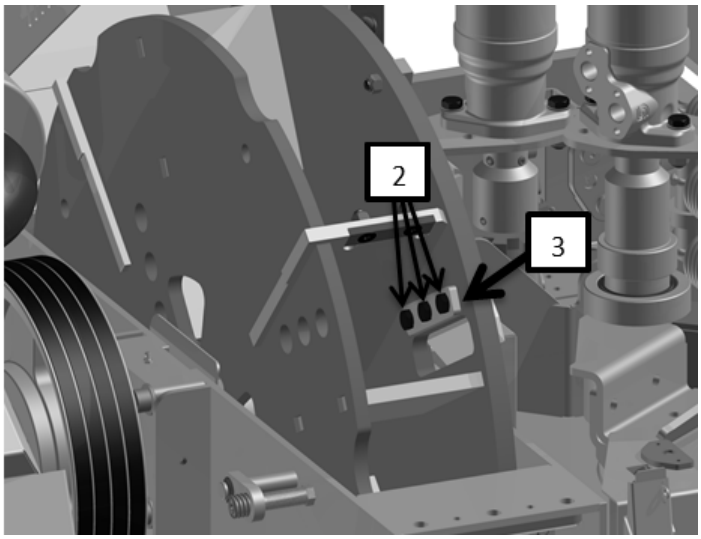
10.5 Knives

The wood chipper is fitted with four knives.

The knives must always be changed as a set. The knives belong together in sets, also when they are ground so that they are always of equal width. If the knives are not of equal width, the disc will be out of balance, which will lead to unnecessary strain on the bearings and vibrations in the whole wood chipper.

Replacing the knives





1. Open the disc housing as described in chapter 7.

2. Remove the bolts (2) that hold the knives and clamping plates (3)/sliver breaker securely to the disc.

3. Remove the knives and sharpen/replace.

4. Carefully clean the knives (1), clamping plates (3)/sliver breaker and contact faces.

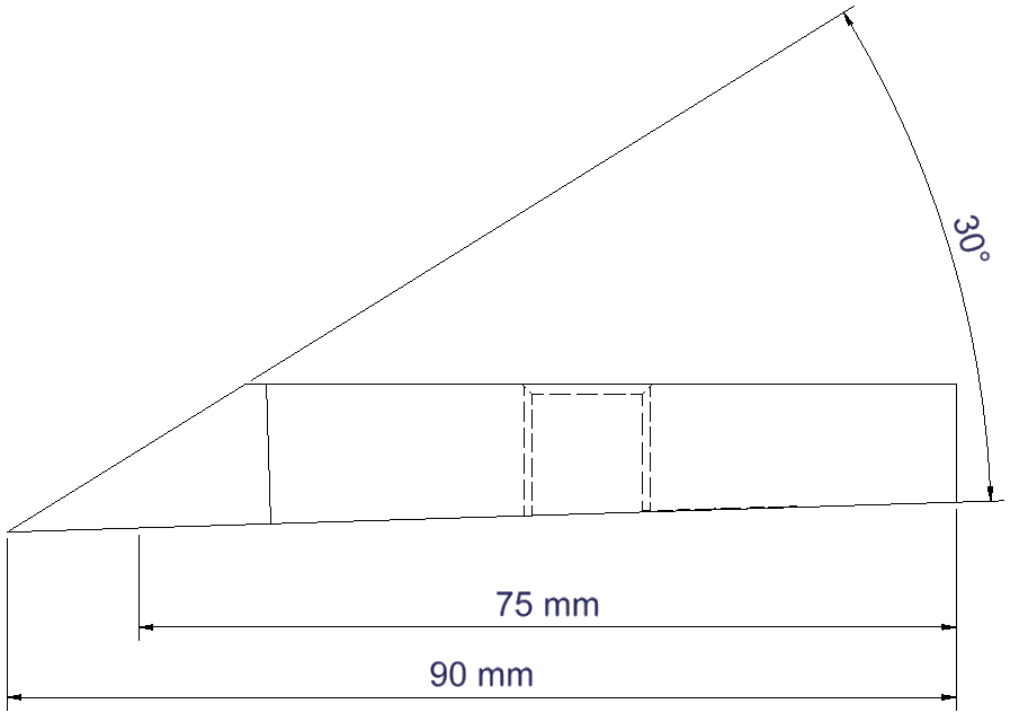
5. When fitting the knives (1), the bolts (2) must be lightly oiled (μ=0.125), i.e. light oil, WD 40 or an equivalent product. Do not use copper grease, MoS_2 or similar low friction grease.

6. Check that the distance between the knife edge and the counterknife is set correctly to **D** (see chapter 10). Check all of the knives.

7. Tighten the bolts (2) to **110 Nm / 11 KPm**. Use a torque spanner for this purpose (available as extra equipment).

8. Finally, close the disc housing as described in chapter 7.

Sharpening knives



It is very important for the quality of woodchip that the knives are sharp. They must be checked at least once a day. The grinding interval of the knives can be prolonged by grinding them regularly with a carborundum stone.

The grinding process must be wet grinding with a header. Never use an angle grinder or a similar tool for grinding the knives.

When grinding knives, ensure that the width of the knives in the set are uniform. Their widths must be the same to keep the disc in balance. This means that the knives must always to be ground in sets. The knives must not be ground down to a width of less than 75 mm. After that they must be discarded.

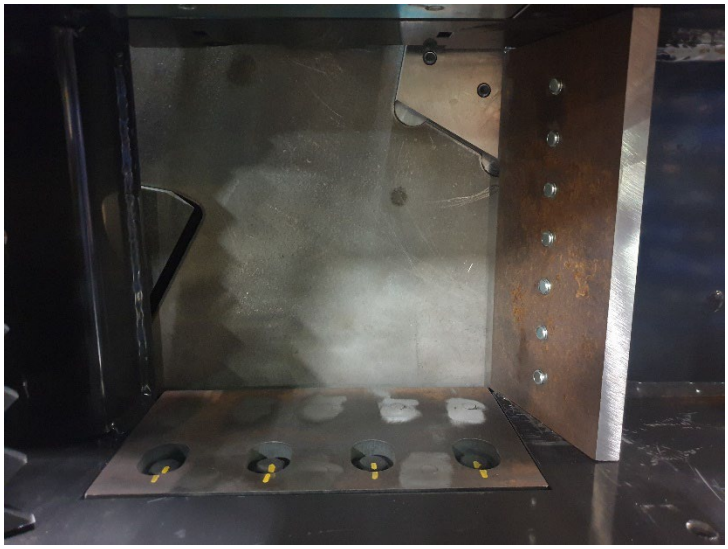
The edge of the knives must be ground at an angle of 30°

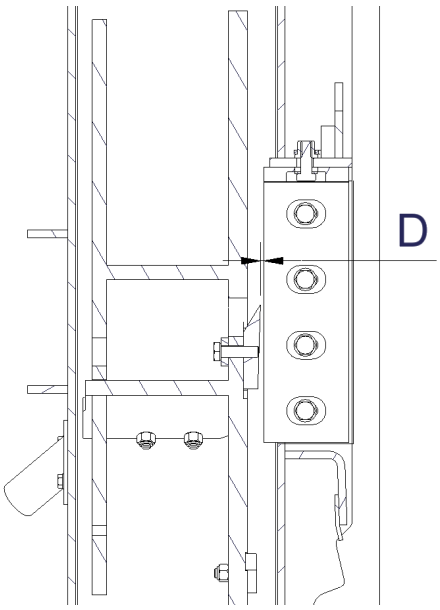
10.6 Counterknife

10.7 Counterknife TP 280

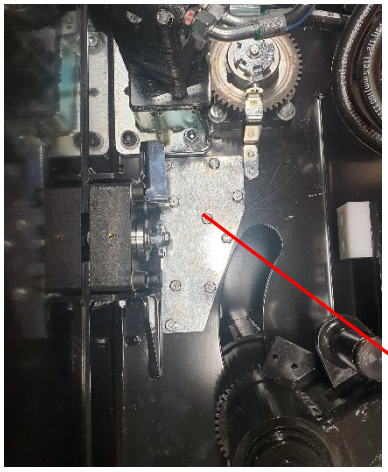
The counterknife in the wood chipper is used by the knife to cut the wood. The counterknife must have a sharp edge otherwise the wood will bend and the cutting face become frayed. The wood chipper is equipped with a vertical counterknife in one side of the in-feed and a horizontal counterknife in the base. The horizontal counterknife has two cutting edges and therefore can be reversed.

Changing the counterknife

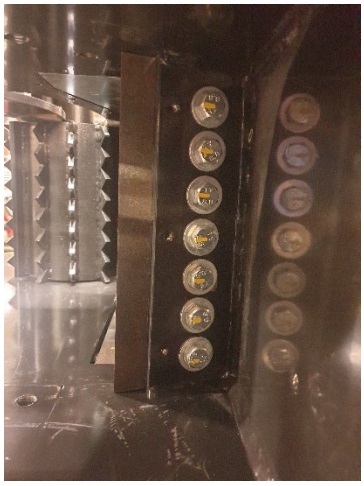




D = 1.5 mm



1. Open the disc housing as described in chapter 7.
2. Open the roller console as described in chapter 7.
3. Remove the 3 springs as described in chapter 7.
4. **Remove the top plate**



5. Remove the seven M10 countersunk bolts (4), which hold the vertical counterknife in place. Side plate must be open. See picture

6. Remove and replace the vertical counterknife

7. Remove the four M12 bolts, which hold the horizontal counterknife in place.
8. Remove the horizontal counterknife (2) and reverse or replace.

9. Carefully clean the counterknife and contact surface.

10. Re-fit the counterknives and adjust the distance between the knife edge and the counterknife to distance **D** using a precision feeler gauge (see illustration above).

11. The bolts in the horizontal counterknife (2) must be tightened to:
    110 Nm / 11 KPm.
    Use a torque spanner for this purpose (available as extra equipment).

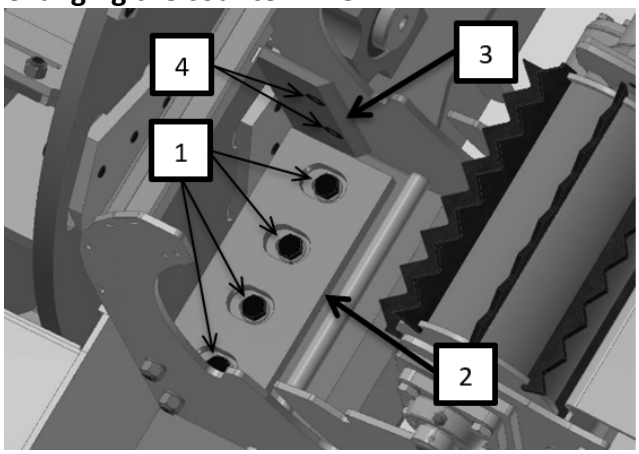
12. Once the counterknives have been reversed or replaced and all of the bolts have been tightened, close the roller console as described in chapter 7.

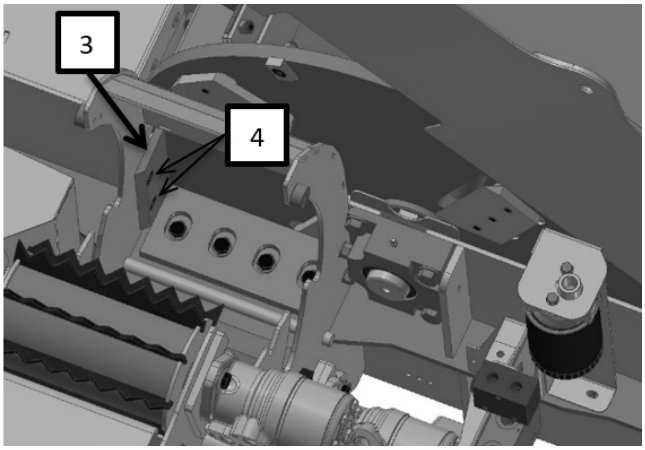
13. Finally, close the disc housing as described in chapter 7.

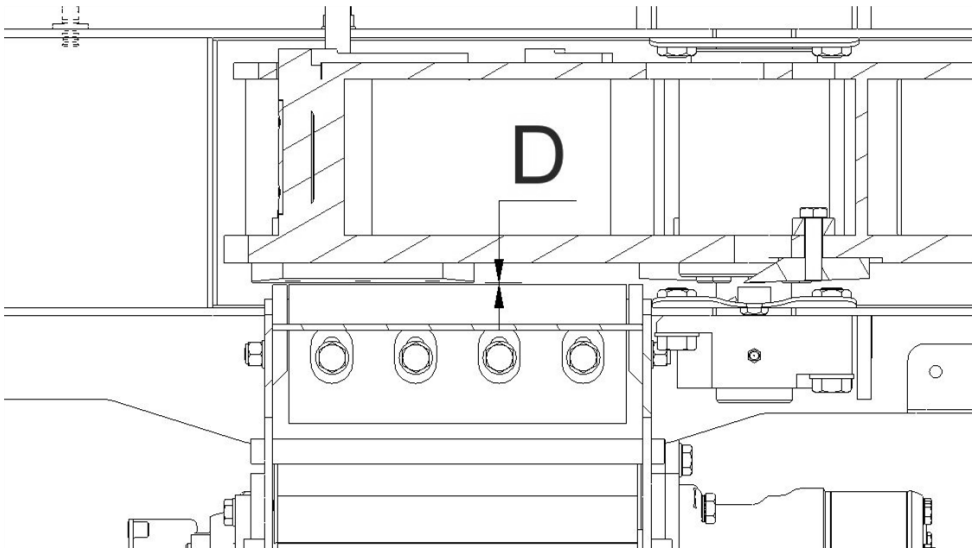
10.8 Counter knife TP 215

The counterknife in the wood chipper is used by the knife to cut the wood. The counterknife must have a sharp edge otherwise the wood will bend and the cutting face become frayed. The wood chipper is equipped with a vertical counterknife (one or two, dependent on the model) in the sides of the in-feed and a horizontal counterknife in the base. The horizontal counterknife has two cutting edges and therefore can be reversed.

Changing the counterknife







D = 1.5 mm

1. Open the disc housing as described in chapter 7.

2. Open the roller console as described in chapter 7.

3. Remove the M10 countersunk bolts (4), which hold the vertical counterknife in place (3) (one or two, dependent on the model).

4. Remove and replace the vertical counterknife (3) (one or two, dependent on the model).

5. Remove the M12 bolts (1) (three or four, dependent on the model), which hold the horizontal counterknife (2) in place.

6. Remove the horizontal counterknife (2) and reverse or replace.

7. Carefully clean the counterknife (2,3) and contact surface.

8. Re-fit the counterknives (2,3) and adjust the distance between the knife edge and the counterknife to distance **D** using a precision feeler gauge (see illustration above).

9. The bolts in the horizontal counterknife (2) must be tightened to:
   100 Nm / 10 KPm. (For TP 165, TP 175)
   110 Nm / 11 KPm. (For TP 215)
   Use a torque spanner for this purpose (available as extra equipment).

10. The bolts in the horizontal counterknife (3) must be tightened to **50 Nm / 5 KPm.** Use a torque wrench to do this. (Available as extra equipment).

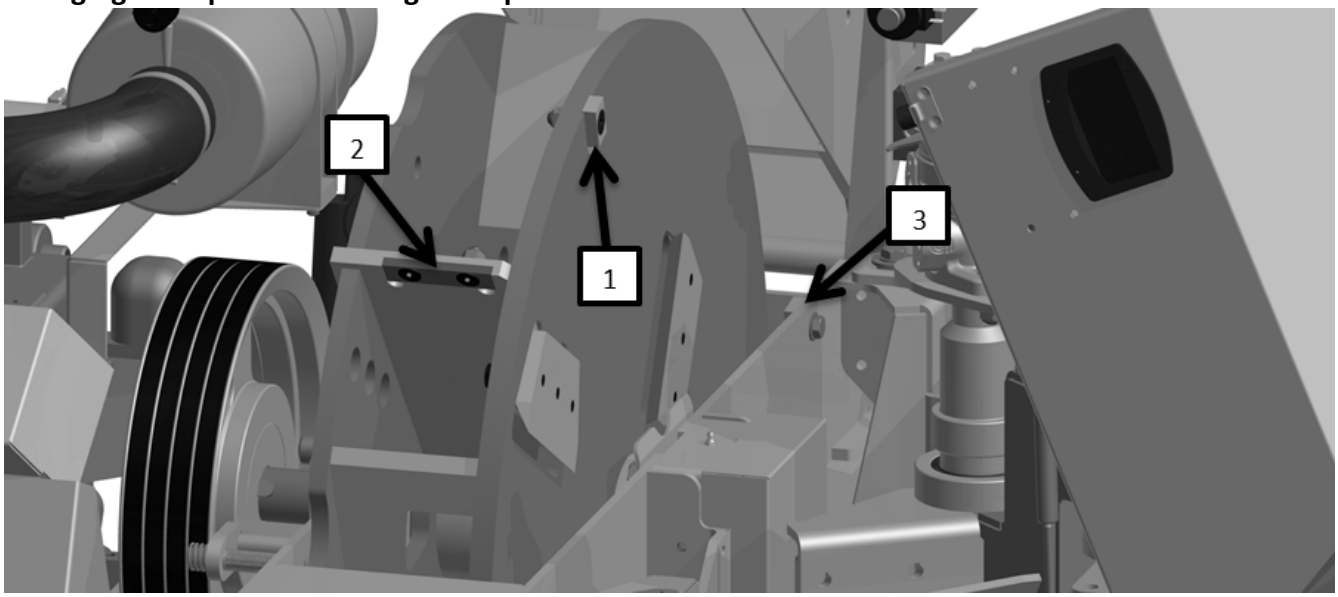
11. Once the counterknives (2) have been reversed or replaced (3) and all of the bolts (1,4) have been tightened, close the roller console as described in chapter 7.

12. Finally, close the disc housing as described in chapter 7.

10.9 Square and triangle scrapers and scrapers

The wood chipper is equipped with two square scrapers on the disc and a triangle scraper in the disc housing.
The purpose of the square and triangle scrapers is to remove material that can get stuck by the knives.
At the same time, the square scraper removes material which falls off in front of the disc.
This reduces fuel consumption and wear on the casing.
A square scraper can be reversed once, before being replaced, while the triangle scraper should always be replaced when it is worn. The square scrapers belong together as a set and must always be replaced in pairs.

Changing the square and triangle scrapers



1. Open the disc housing as described in chapter 7.

2. Remove the two square scrapers (1) and the four scrapers (2) and triangle scrapers (3).

3. Reverse the square scraper (1) 180 degrees around the bolt hole, so that the worn corners face in towards the disc's centre of rotation. If both corners or sides are worn, replace the scrapers.

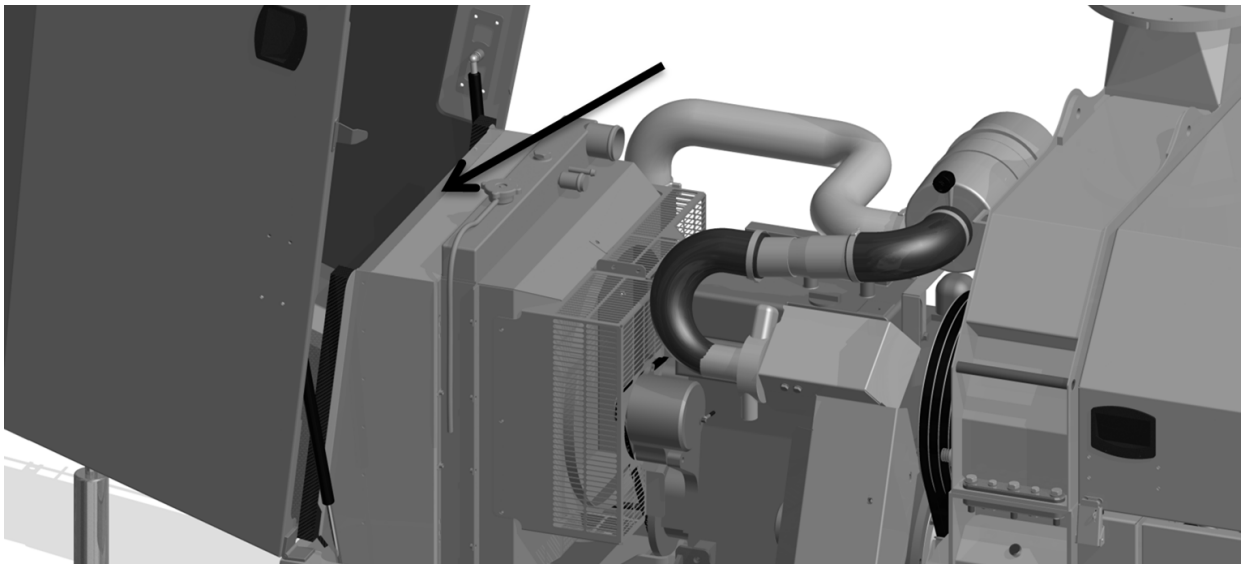
   Reverse the scraper (2) 180 degrees so that the worn side faces into the disc's centre of rotation. If both sides are worn, replace the scrapers.

   The triangle scraper (3) cannot be reversed and must always be replaced.

4. Clean the contact surfaces and the square and triangle scrapers (1, 3)/scrapers (2) and re-fit.

5. Finally, close the disc housing as described in chapter 7.

10.10 Cleaning the filter in front of the radiator



There is a fitted filter in front of the radiator that collects particles that are too big to pass through the actual radiator. The arrow on the illustration above indicates the positioning of the filter.
Cleaning procedure:

1. Stop the wood chipper and the engine. Open the bonnet and lift the filter out of the “track”.

2. Filter cleaning procedure:
    - Knock the dust off carefully by hitting the frame of the filter on the ground or on a piece of wood.
    - Clean using compressed air from the "cooling side".
    - Clean using a high-pressure cleaner. Only used for extreme clogging and must be dried before starting the wood chipper.

Generally you get fewer stoppages by ensuring the wind does not blow dust from the ejector spout directly into the cooler.

10.11 Related to battery

Welding

When welding on the wood chipper, the cable that is connected to the battery's negative pole must always be disconnected (look for the " - " symbol on the battery).

Charging the battery

If the battery is to be charged from another power source, the cable that is connected to the battery's negative pole must always be disconnected (look for the " - " symbol on the battery).

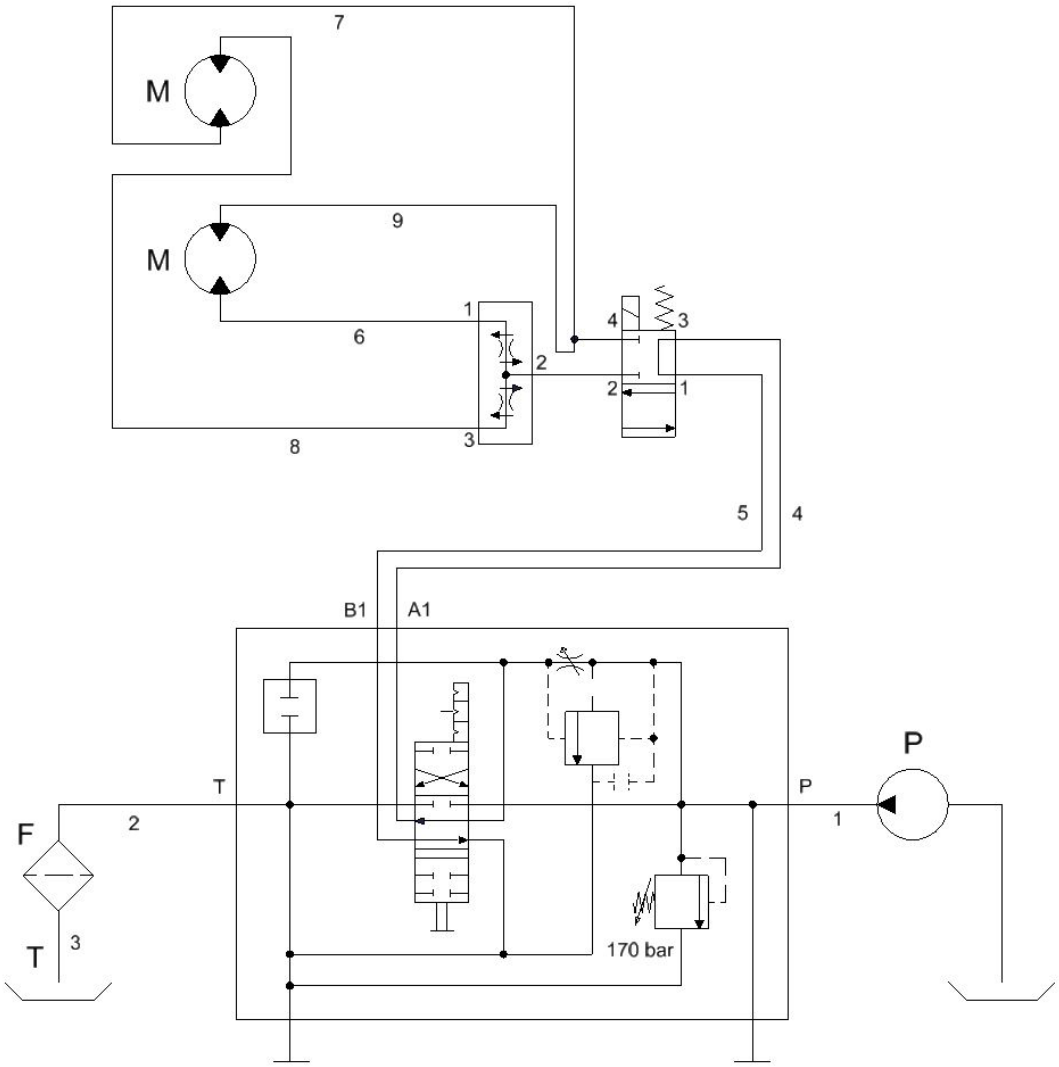
11 Hydraulics

11.1 Replacing hydraulic hoses

If a hydraulic hose bursts, it must be replaced. All TP hydraulic hoses are stamped with a product number in the hose's fitting. This product number is used to identify the hydraulic hoses.

When replacing hydraulic hoses, always use original TP hoses.

11.2 Hydraulics diagram (TP 215/280 MOBILE)



S1: 21-00937 Sugeslange
F1.1: 20042832 Indstik 1" BSP udv.
F1.2 : 20042831 Vinkelnippel 1" BSP med omløber
F1.3 20042830 Flangenippel 1" BSP, 4 bolt

F2.1: 20042833 Vinkelflange 1", ø35x4 bolt
F2.2: 20001202 Indskruning ø15L x 1/2" BSP
S2: 20020610 Slange 15x2660mm 2x90 270gr
F2.3 20001202 Indskruning ø15L x 1/2" BSP

F3.1: 20001201 Indskruning 15x3/4
S3: 20042899 Slange 15x1700mm 1x90
F3.2: 20042901 Brystnippel 1" x 1/2"
F3.3: 20042596 Stilbar vinkel 1 BSP Med kontramøtrik

Oil-cooler 20042447

F4.1: 20042596 Stilbar vinkel 1 BSP Med kontramøtrik
S4: 20042900 Slange 3/4" x 290
F4.2: 20042821 Indskruning ø22L x 3/4" BSP

Oil-filter

F5.1: 20042821 Indskruning ø22L x 3/4" BSP
S5: 20042898 3/4" slange x 1500
F5.2: 20042896 Omvendt samler - ø22L x ø15L
F5.3: 20042911 Samler ø22L

F6.1: 20001202 Indskruning ø15L x 1/2" BSP
S6: 20020608 Slange 15x1630mm
F6.2 20001209 Indskruning ø15Lx 3/8" BSP

S7: 20020609 Slange 15x1590mm
F7.2 20001202 Indskruning ø15L x 1/2" BSP

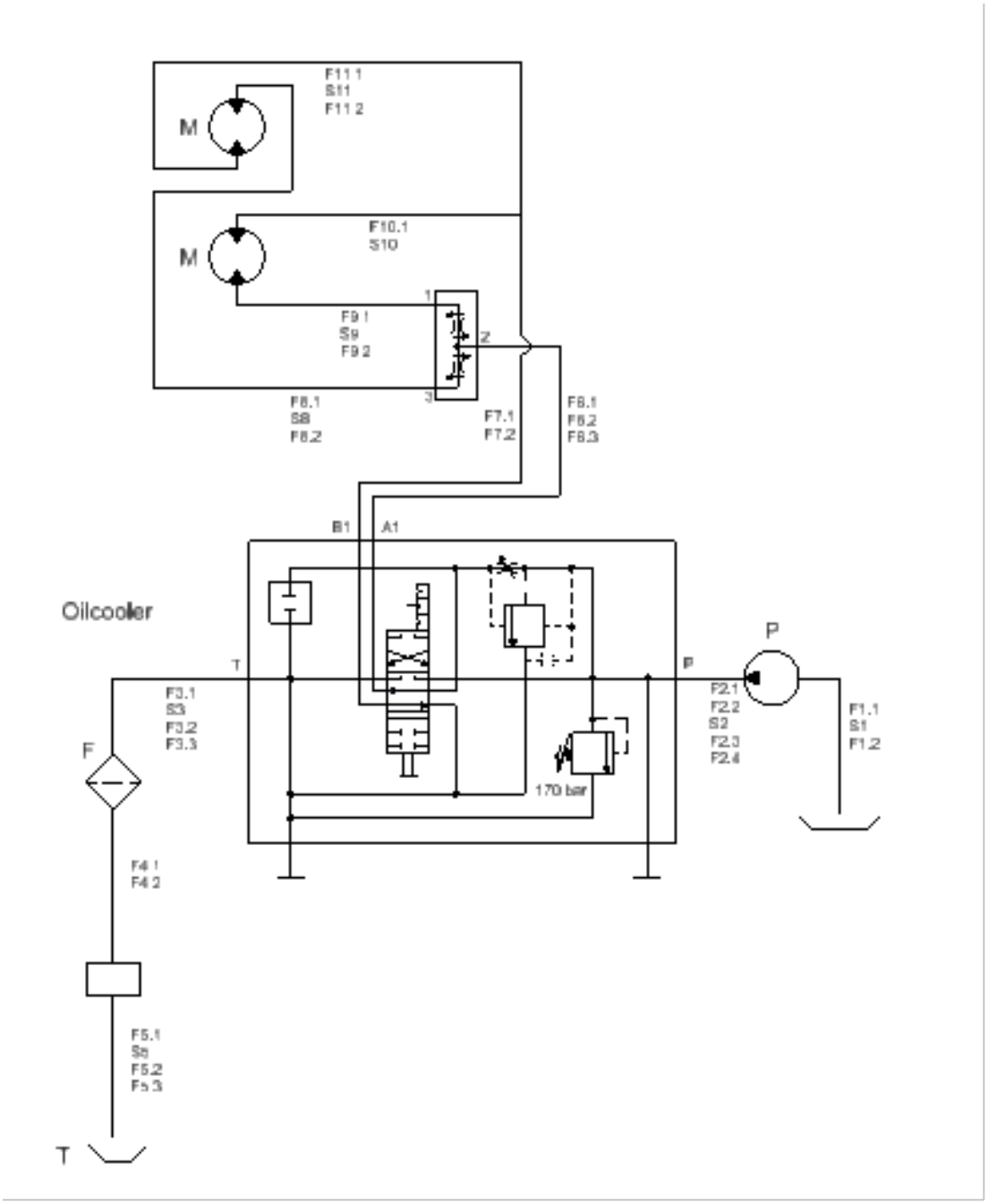
F8.1: 20001209 Indskruning ø15Lx 3/8" BSP
S8: 20020575 Slange 12x700mm 2x90 0gr
F8.2: 20001102 indskruning 12x1/2"

F9.1: 20001209 Indskruning ø15Lx 3/8" BSP
S9: 20020577 Slange 12x750mm 2x90 180gr
F9.2: 20001102 indskruning 12x1/2"

F10.1: 20001102 indskruning 12x1/2"
S10: 20020576 Slange 12x680mm 2x90 90gr

F11.1 20001102 indskruning 12x1/2"
S11: 20020578 Slange 12x550mm 2x90 270gr
F11.2 20020428 Tee 15mm med en omløber i top

11.3 Hydraulics diagram, TP 280 mobile



S1:	51005100	Sugeslange f.200 PH
F1.1:	20042832	Indstik 1" BSP udv.
F1.2 :	20042831	Vinkelnippel 1" BSP med omløber
F1.3	20042830	Flangenippel 1" BSP, 4 bolt
F2.1:	20042833	Vinkelflange 1", ø35x4 bolt
F2.2:	20001202	Indskruning ø15L x 1/2" BSP
S2:	20020621	Slange 15 x 600 1 x 45 1 x lige
F2.3	28-00371	Hydraulikrør, Ø15x1.5
F2.4:	20001202	Indskruning ø15L x 1/2" BSP
F3.1:	20042821	Indskruning ø22L x 3/4" BSP
S3:	20020622	Slange 22 x 500 2 x lige
F3.2:	28-00325	Hydraulikrør, ø22Lx2
F3.3:	20042877	Vinkel indskruning 90° stilbar - ø22L x 3/4" BSP

Oil-filter

F4.1:	20020142	Nippel 3/4x 1 cyl-cyl
F4.2:	20042596	Stilbar vinkel 1" BSP

Oil-cooler 20042447

F5.1:	20042596	Stilbar vinkel 1" BSP
F5.2:	20042820	Indskruning ø28L x 1" BSP
F5.3:	28-00324	Hydraulikrør, ø28
F5.4	20020615	Indstik 1" - M36x2 udv. 28L
S5:	28-00361	Sugeslange, ø34x25-290
F6.1:	20001202	Indskruning ø15L x 1/2" BSP
F6.2:	28-00328	Hydraulikrør, Ø15x1.5
F6.3	20001209	Indskruning ø15Lx 3/8" BSP
F7.1:	28-00359	Hydraulikrør, Ø15x1.5
F7.2	20001202	Indskruning ø15L x 1/2" BSP
F8.1:	20001209	Indskruning ø15Lx 3/8" BSP
S8:	20020616	Slange 15x360mm 1x90 1x45
F8.2:	20001202	Indskruning ø15L x 1/2" BSP"
F9.1:	20001209	Indskruning ø15Lx 3/8" BSP
S9:	20020576	Slange 15 x 1000 1x90 1 x lige
F9.2:	20001202	Indskruning ø15L x 1/2" BSP"
F10.1:	20001202	Indskruning ø15L x 1/2" BSP"
S10:	20020576	Slange 15 x 1000 1x90 1 x lige
F11.1	20001202	Indskruning ø15L x 1/2" BSP"
S11:	20020617	Slange 15x280 2x45
F11.2	20042611	T samler - ø15L

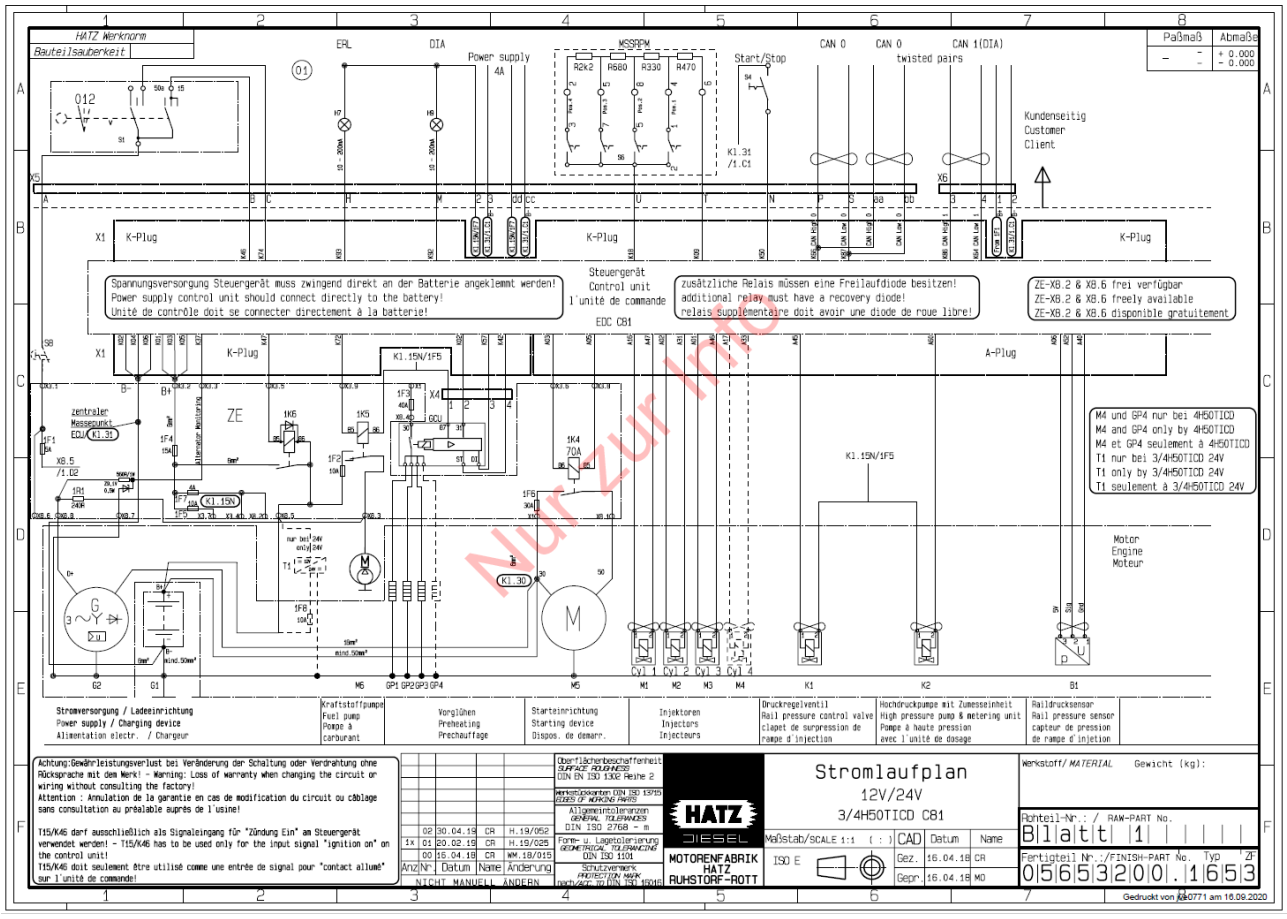
11.4 Electrical diagram TP 215/280

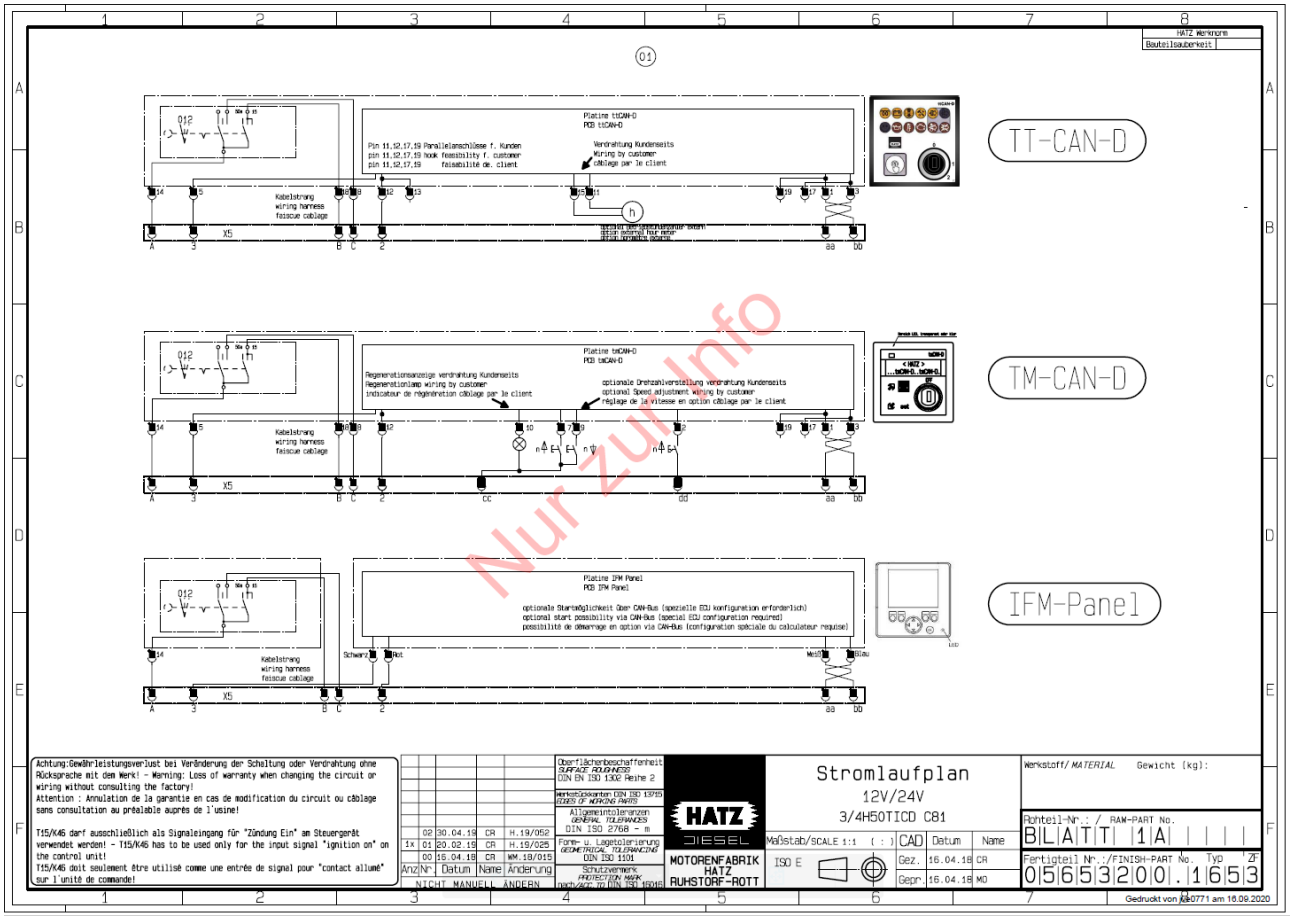
The electrical diagram for both the engine and TP PILOT + is shown here. For the engine both in diagram form and the full power line. TP PILOT + has the diagram and overview of the connections.

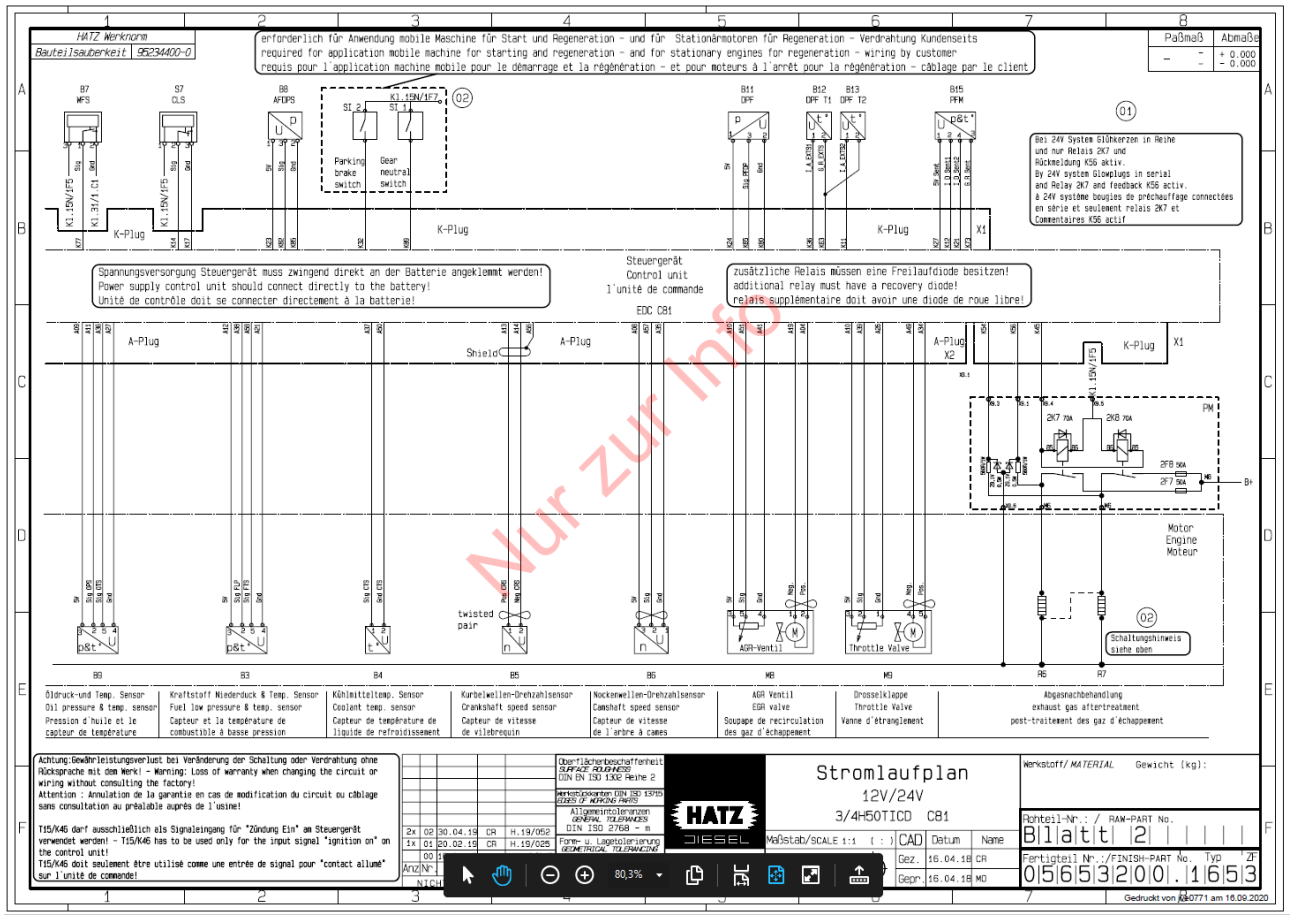
The diagrams and power line are so comprehensive that they are divided into several images, with interfaces where appropriate. NB: SEZ. A = Molex connector, connects the TP PILOT + and engine.

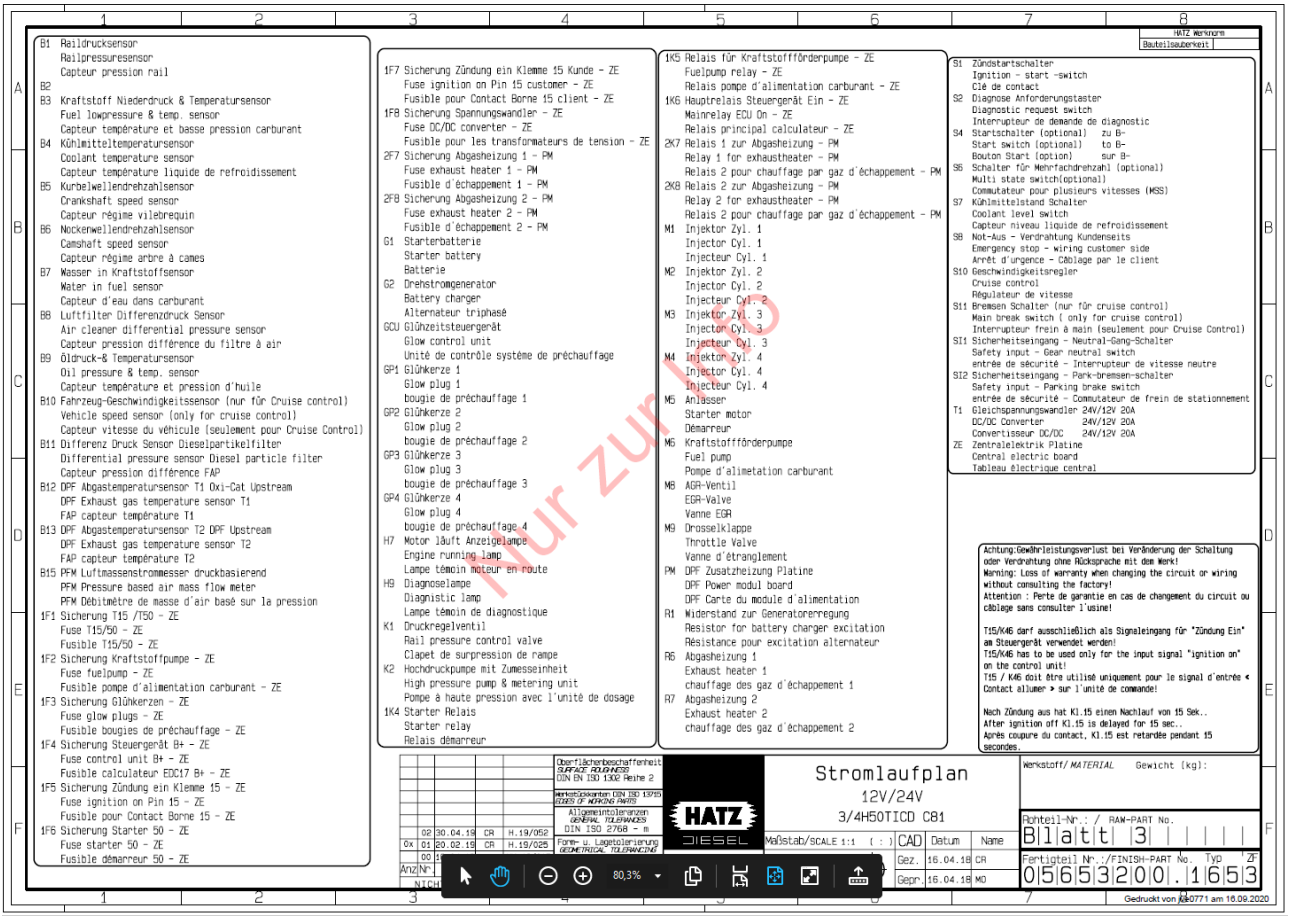
11.5 Diagram engine

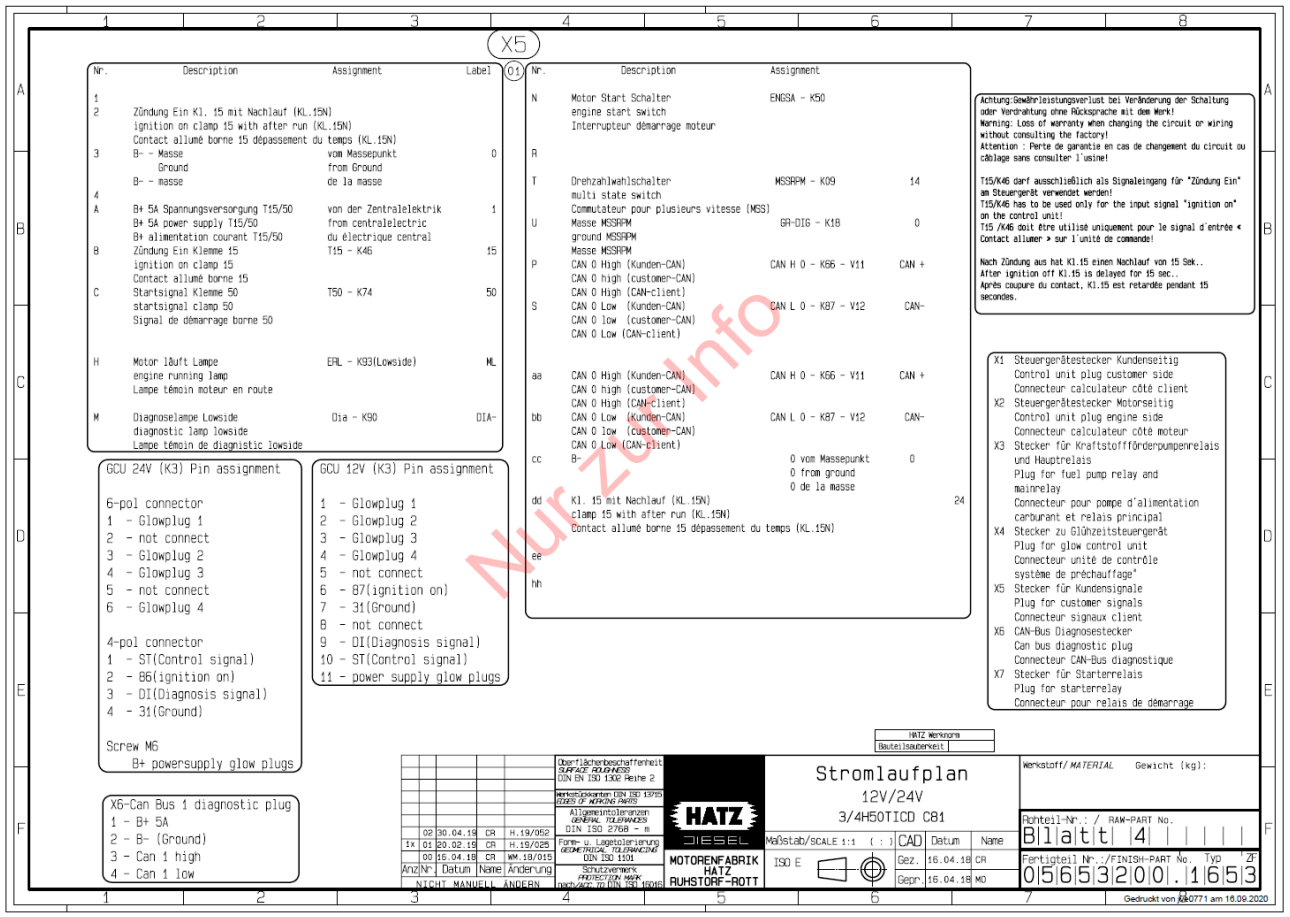
SEZ. A is divided into several illustrations. Part 1 is shown below.



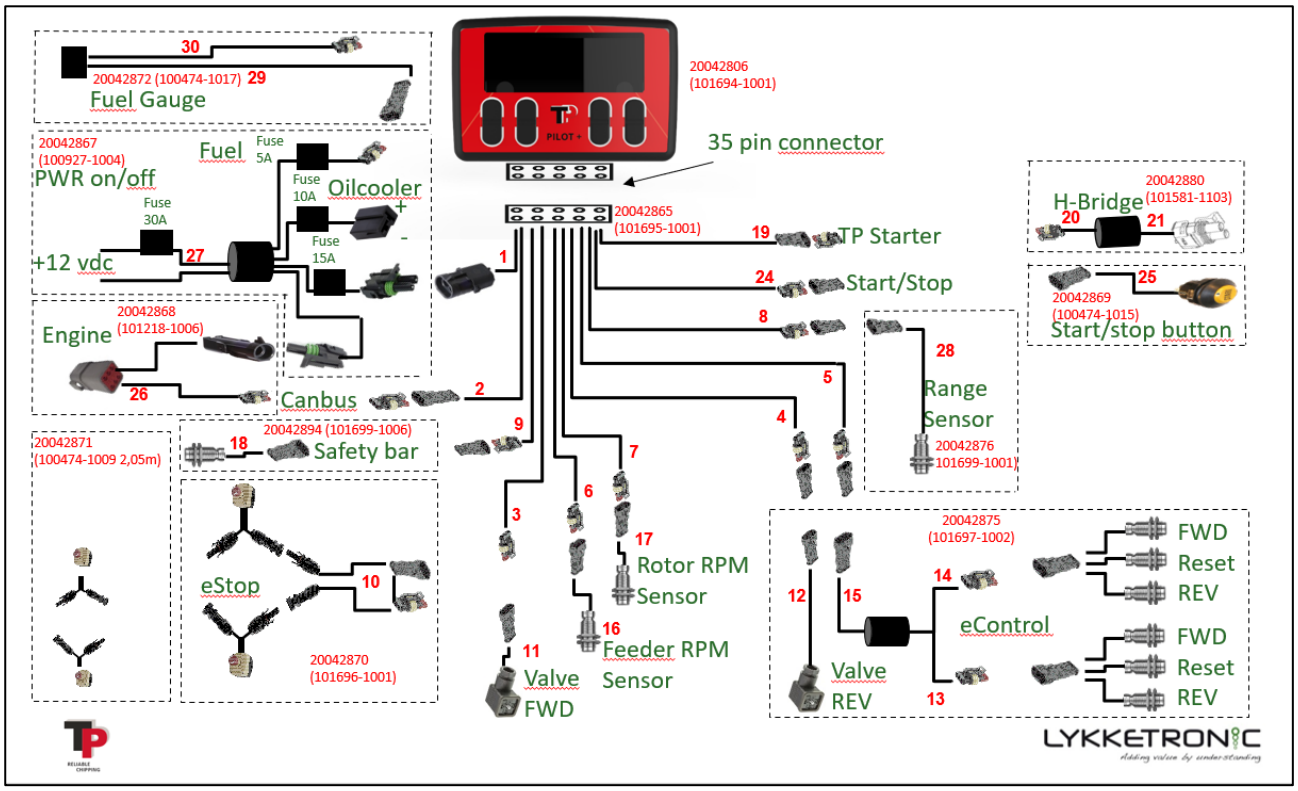

TT-CAN-D
TM-CAN-D
IFM-Panel
Stromlaufplan
12V/24V
3/4H50TICD C81
HATZ DIESEL
MOTORENFABRIK HATZ RUHSTORF-ROTT
Nur zur Info


Stromlaufplan
12V/24V
3/4H50TICD C81
HATZ DIESEL
MOTORENFABRIK HATZ RUHSTORF-ROTT
Nur zur Info



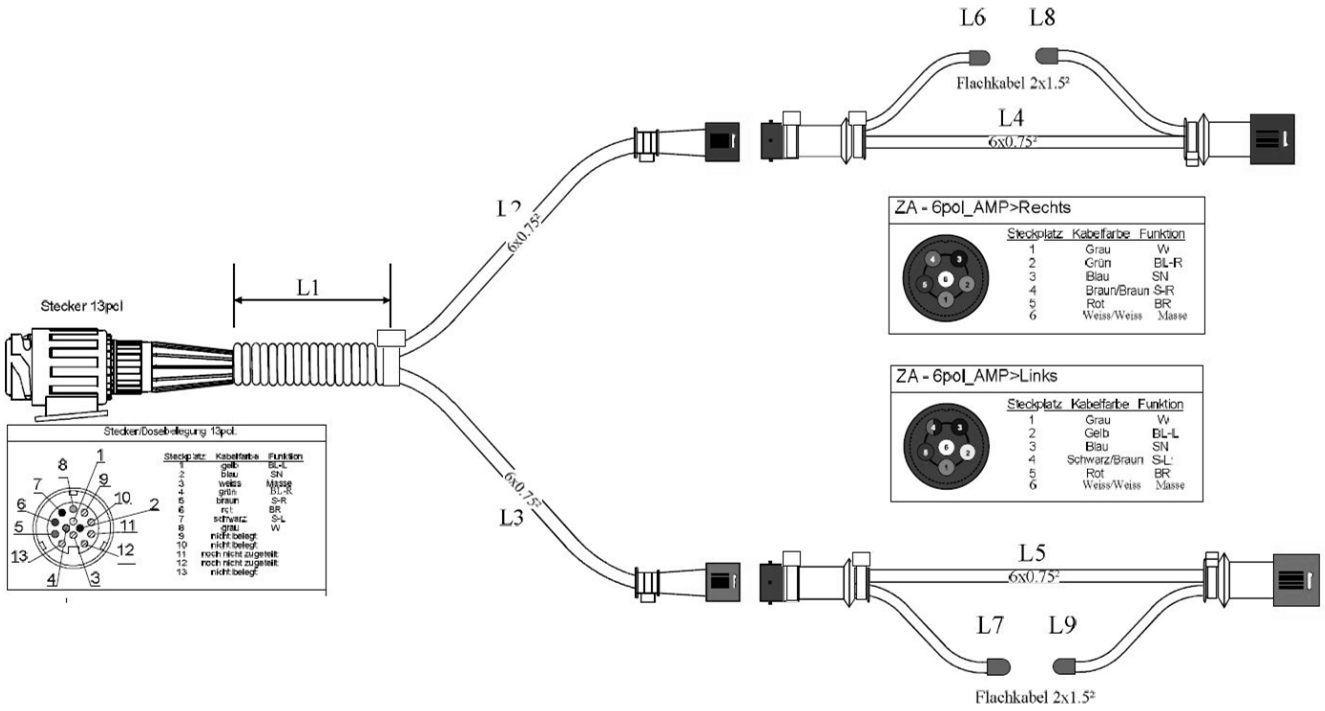


12 TP 215/280 electrical flow diagram

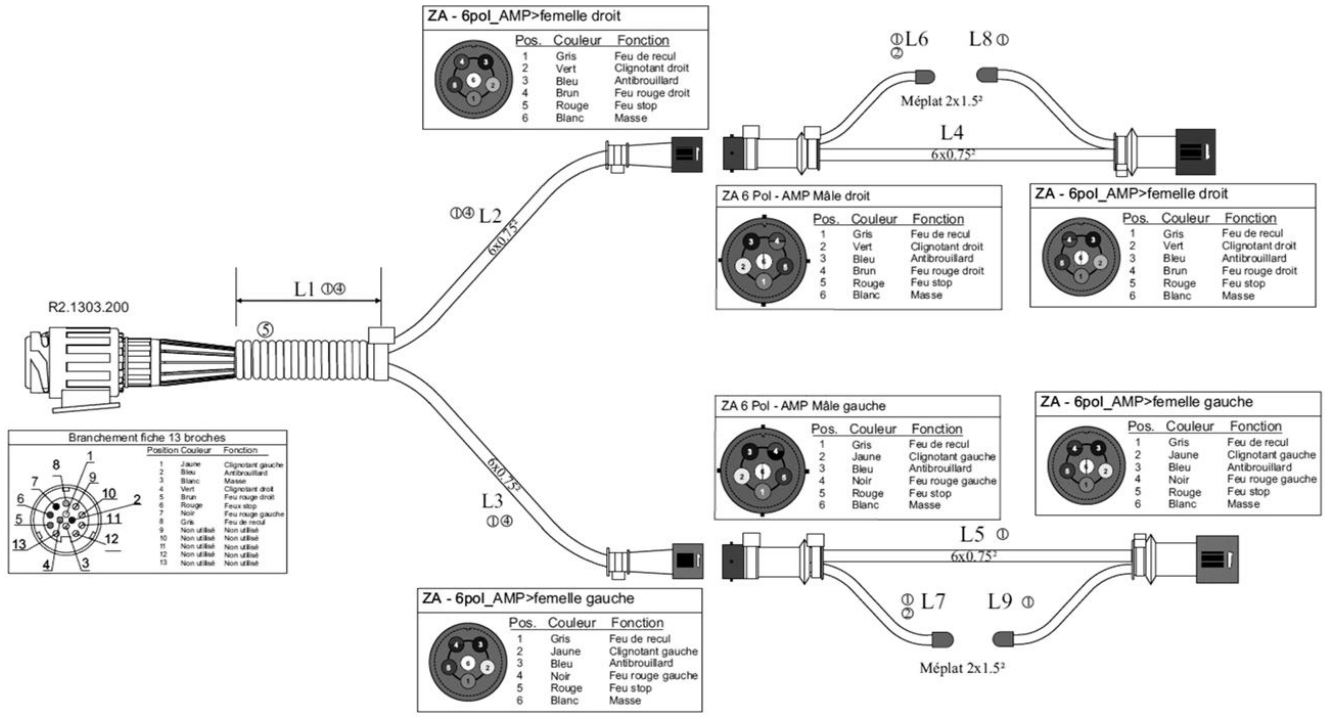


Electrical diagram trailer

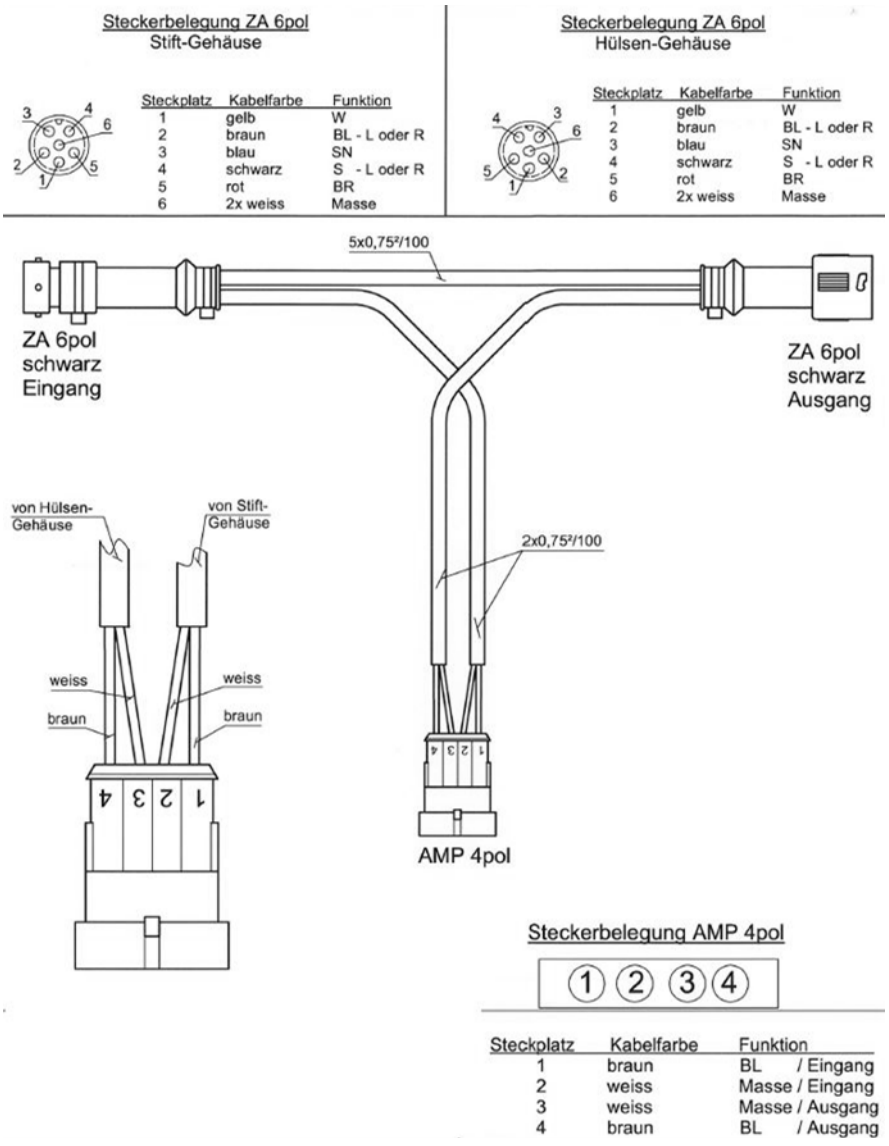
12.1.1 TP 215/280 MOBILE

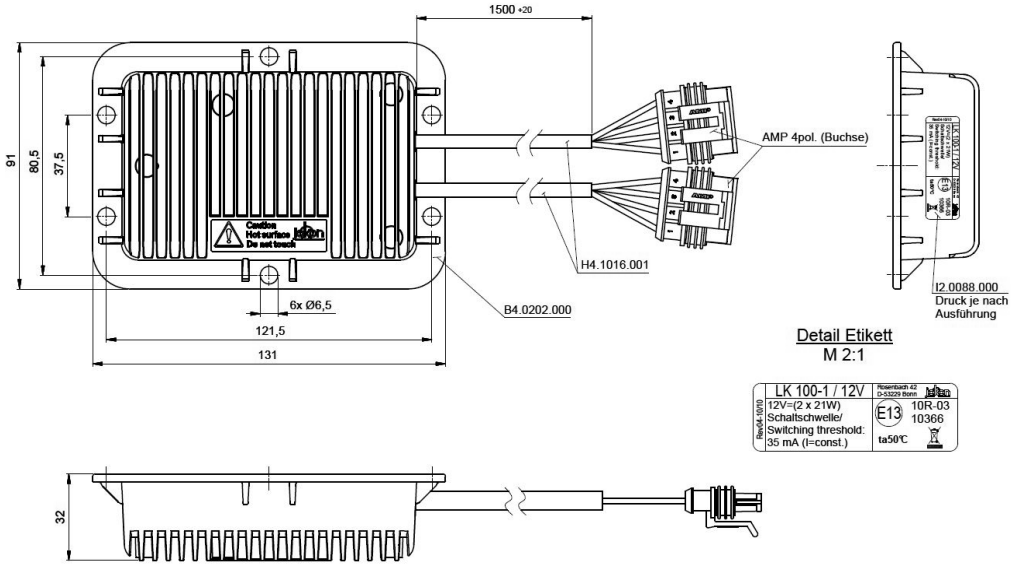


12.1.2 TP 215/280 T MOBILE



12.1.3 Indicator relay TP 215/280 MOBILE og TP 215/280 T MOBILE





13 Troubleshooting

Check possible causes before contacting the supplier.

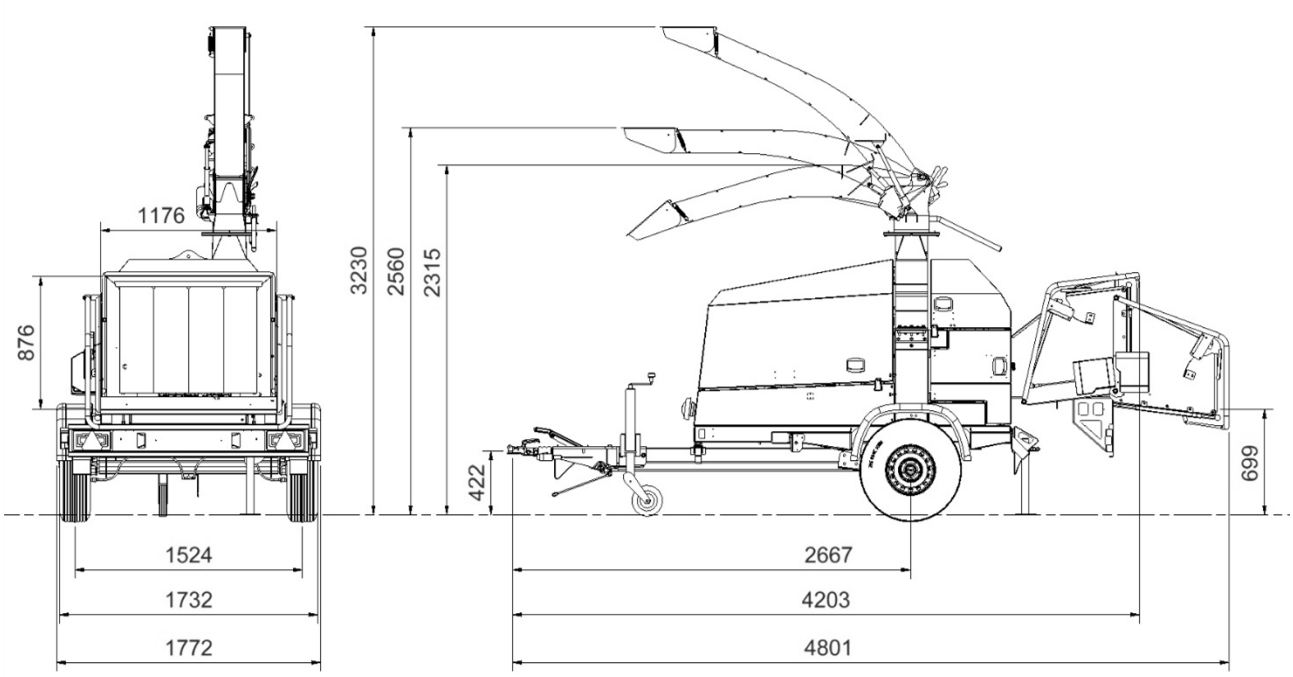
Problem/Possible cause	Solution
The rollers do not turn:	
The operation bar is in the 0 position.	Put the operation bar in the A position
The rollers are blocked.	Clean below and behind the blocked roller(s).
Bypass valve to rpm monitor is dirty.	Clean the bypass valve.
rpm monitor is not connected to the rollers.	Check rpm value on disc/engine.
Chip Size Controller valve coil defect.	Check for voltage on valve coil. (4–12 V)
The rollers rotate too slowly:	
Chip size set for two low a value.	Increase chip size in TP PILOT +.
Not enough oil in the hydraulics system.	Fill up with hydraulic oil.
Pulling power in the rollers is impaired:	
The hydraulic oil is becoming too hot.	Let the wood chipper cool down while checking why.
The hydraulic filter is blocked.	Replace the hydraulic filter.
The pressure control valve at the roller speed regulator is dirty.	Clean the pressure control valve.
Hydraulic oil is worn.	Change the hydraulic oil.
The oil pump is worn or damaged.	Replace the hydraulic pump.
The oil engine is worn or damaged.	Replace the oil engine.
Unsatisfactory woodchip quality:	
The knives are blunt.	Sharpen the knives.
The counterknife is worn.	Reverse/replace counterknife.
The knives are worn down too far.	Replace the knives.
The distance between knife and counterknife is too big.	Adjust the distance between the knives and counterknife.
Sliver breaker not mounted or worn.	Fit or replace the sliver breaker.
Facing plate is not fitted.	Fit facing plate.
Poor ejection of woodchip:	
Not enough driving power.	The engine does not provide sufficient power.
Square and triangle scrapers/scrapers are worn.	Replace the square and triangle scrapers/scrapers
The facing plate in the top part	Remove the facing plate from the top part

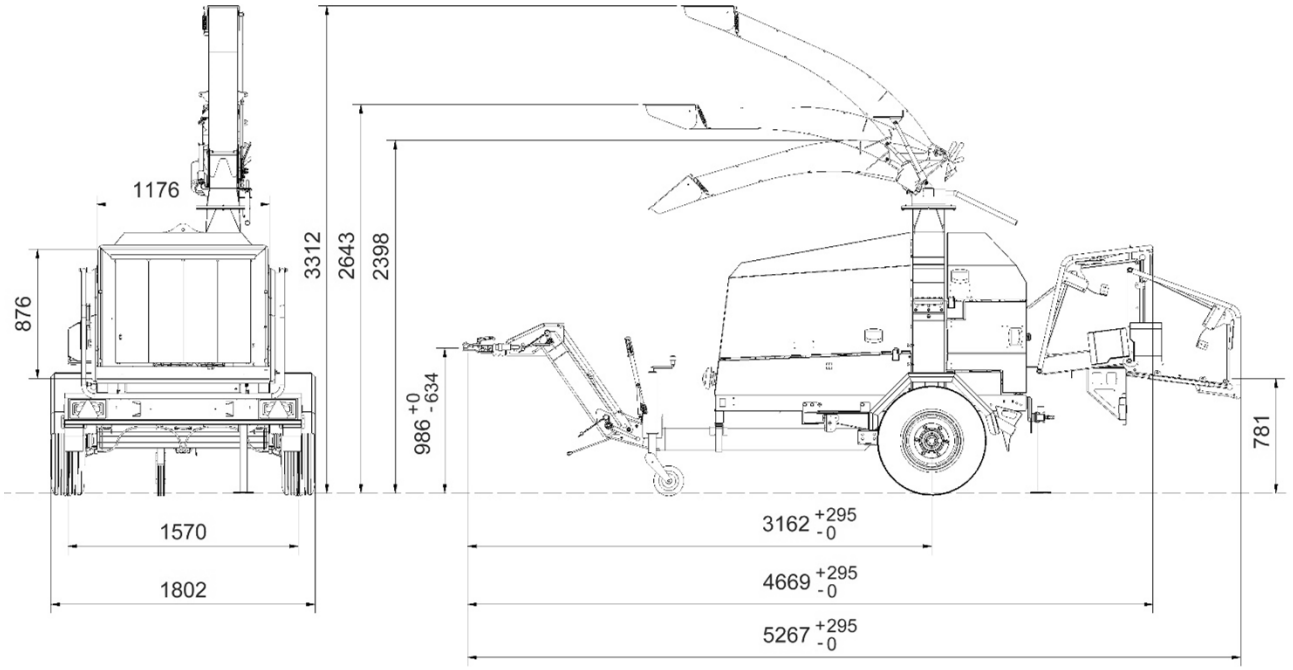
14 Warranty terms wood chipper

Refer to the delivered warranty certificate.

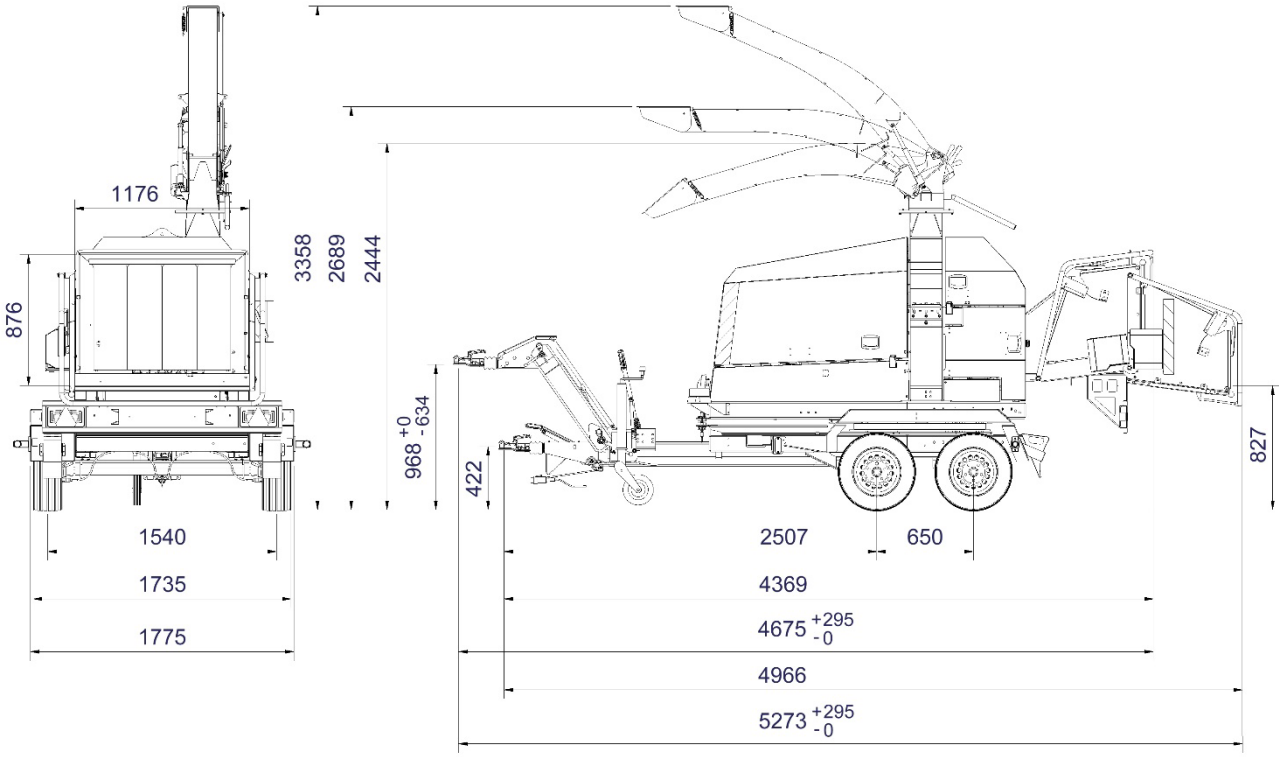
15 Technical drawings/dimensions

Dimensional drawing for TP 280 MOBILE





Dimensional drawing for TP 280 T MOBILE



16 Extra equipment

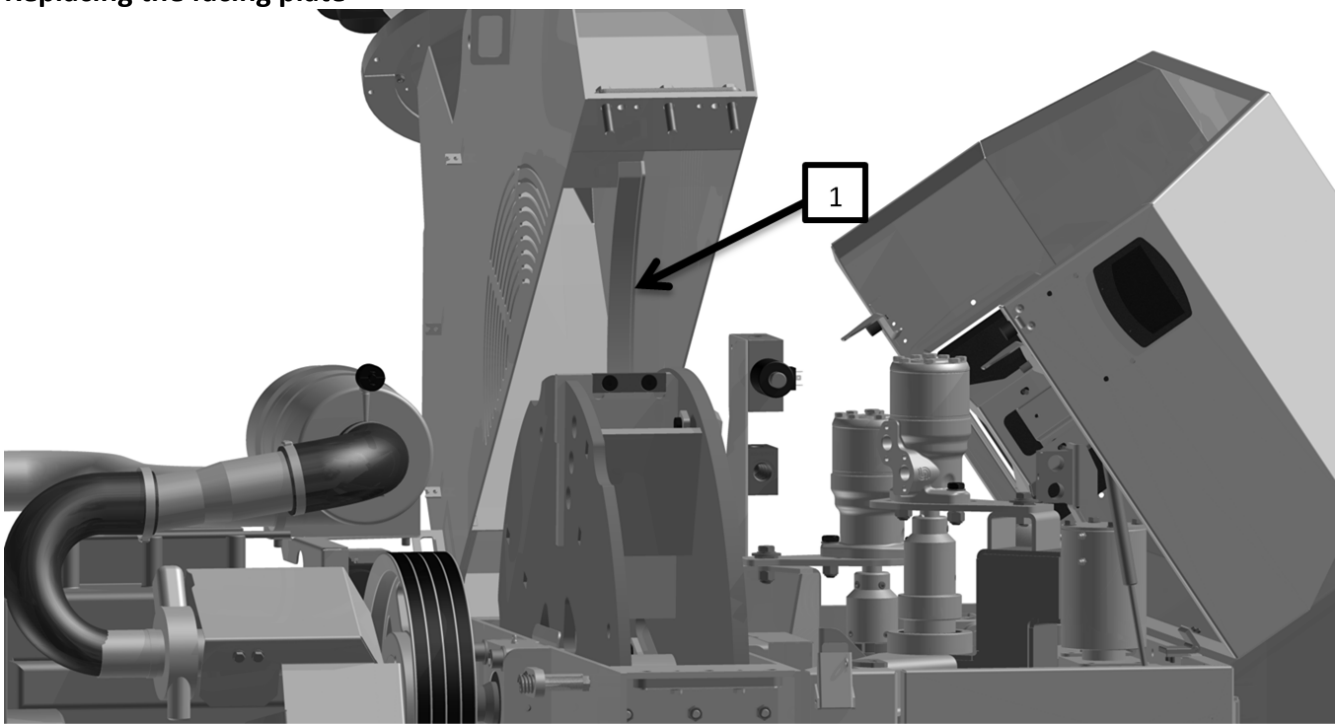
16.1 TP CHIP KIT

The TP CHIP KIT includes four sliver breakers which are fitted to the knife opening in the disc and a facing plate, which is fitted to the top in the disc housing.

The TP CHIP KIT provides significantly improved wood chip quality. If woodchip quality is not an important factor, it will be beneficial if the facing plate and the sliver breakers are removed. This will increase the capacity of the wood chipper and save fuel.

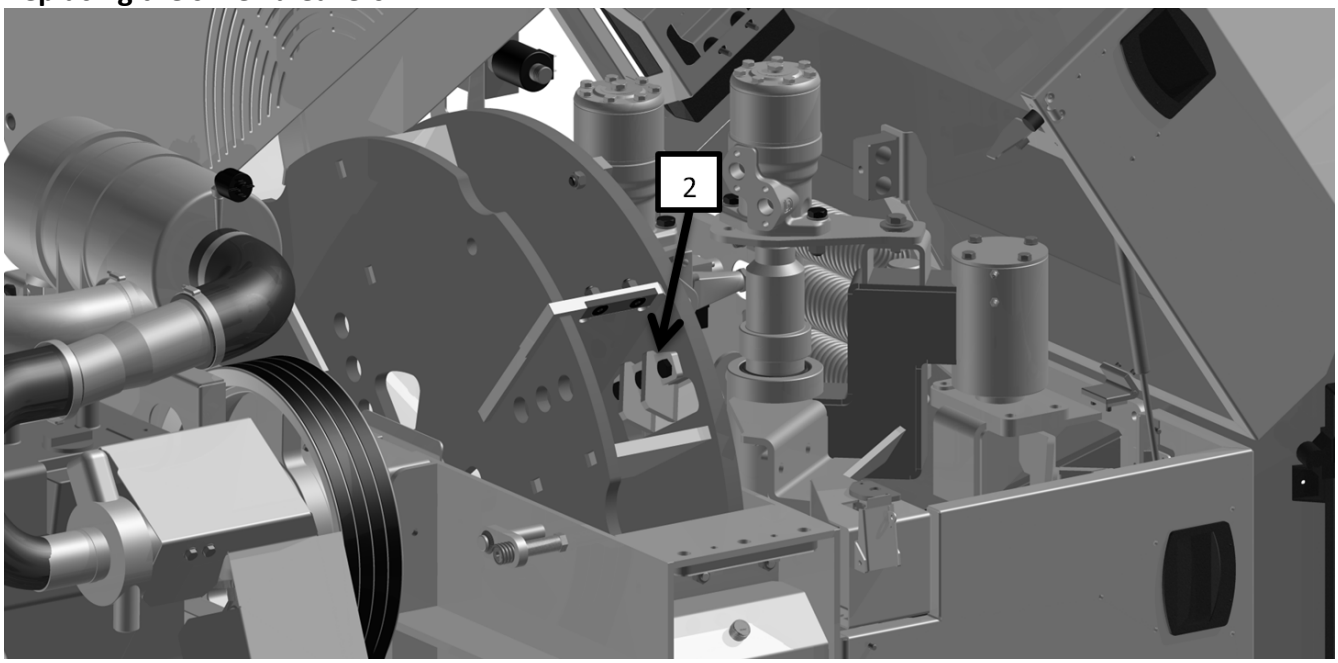
It is also recommended that the facing plate and the sliver breakers are removed when chipping wet wood with a lot of needles/leaves. This ensures good ejection.

Replacing the facing plate



1. Open the disc housing as described in chapter 7.
2. Remove the facing plate (1), which is fitted with three bolts in the side of the top disc housing.
3. Replace the facing plate (1) if it is worn.
4. Fit the new facing plate (1).
5. Finally, close the disc housing as described in chapter 7.

Replacing the sliver breakers



1. Open the disc housing as described in chapter 7.

2. Remove the bolts that secure the knife and clamping plate/sliver breaker (2) to the disc.

3. Replace the sliver breakers (2).

4. Carefully clean the knife, sliver breaker (2) and contact surface.

5. When fitting the sliver breaker, the bolts must be lightly oiled (μ=0.125), i.e. light oil, WD 40 or an equivalent product. Do not use copper grease, MoS_2 or similar low friction grease.

6. Check that the distance between the knife edge and the counterknife is set correctly to **D** (see point 10).

7. Tighten the bolts to **110 Nm / 11 KPm** Use a torque spanner for this purpose (available as extra equipment).

8. Finally, close the disc housing as described in chapter 7.

16.2 TP TOOLKIT

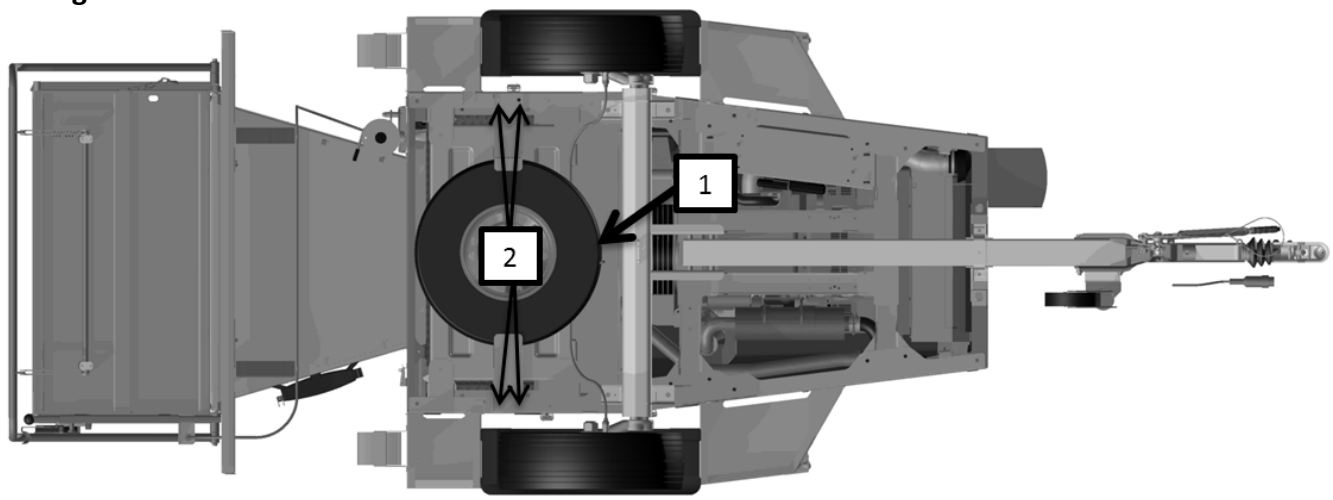
The TP TOOLKIT contains:

- Tool bag
- Combination wrench 13 mm
- Combination wrench 19 mm
- Grinding stone "Flexovit"
- Precision feeler gauge 1.5 x 150 mm
- Torque wrench 5-30 kPm
- WBW-VLL extender 1/2" - 250 mm
- WBM TOP 1/2" - 6 KT/19 mm
- Spring strap

16.3 TP SPARE WHEEL

TP SPARE WHEEL contains the spare wheel and fitting for fitting the wheel.

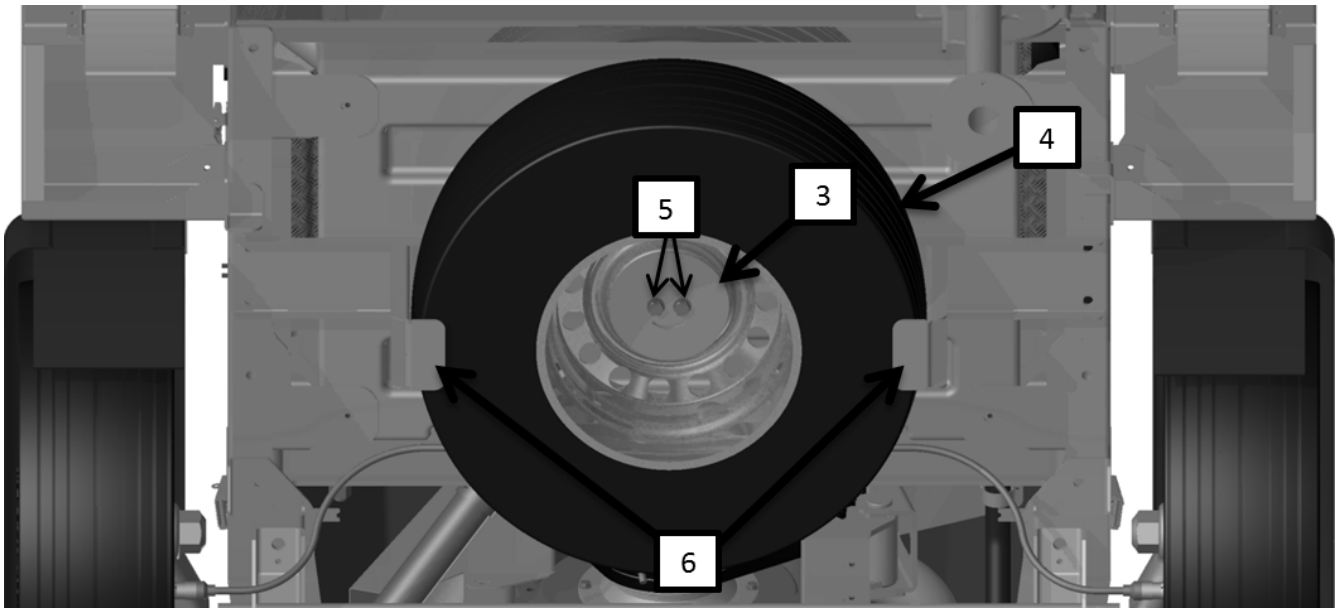
Fitting TP SPARE WHEEL



1. Ensure that the wood chipper is stabilised with the support leg and nose wheel set, so that it cannot tip over.

2. Fit the TP SPARE WHEEL(1) onto the wood chipper using four bolts (2).

Removing the spare wheel

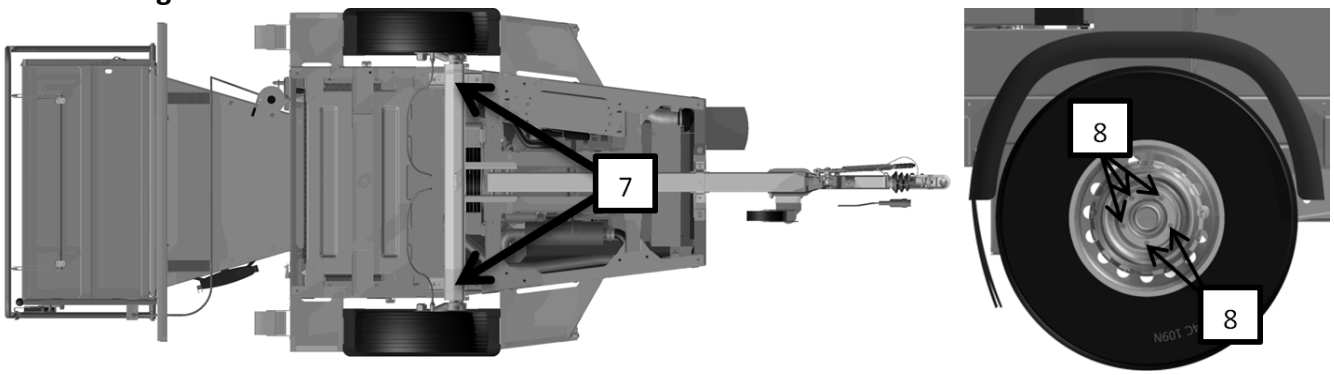


1. Ensure that the wood chipper is stabilised with the support leg and nose wheel set, so that it cannot tip over.

2. Remove the wheel holder (3) which holds the wheel (4) by removing the bolts (5). Now hold the wheel (4) up from the wheel carriage (6).

3. Pull the wheel (4) out of the wheel carriage (6) so that it lands on the ground. The wheel is now ready to replace the punctured or damaged wheel on the wood chipper.

Wheel change



1. Use the jack to lift wood chipper using one of the two lifting points (7) depending on which wheel is to be replaced. Always put blocks against the wheel until you change the wheel!

2. Remove the wheel bolts (8) that secure the wheel to the wheel axle.

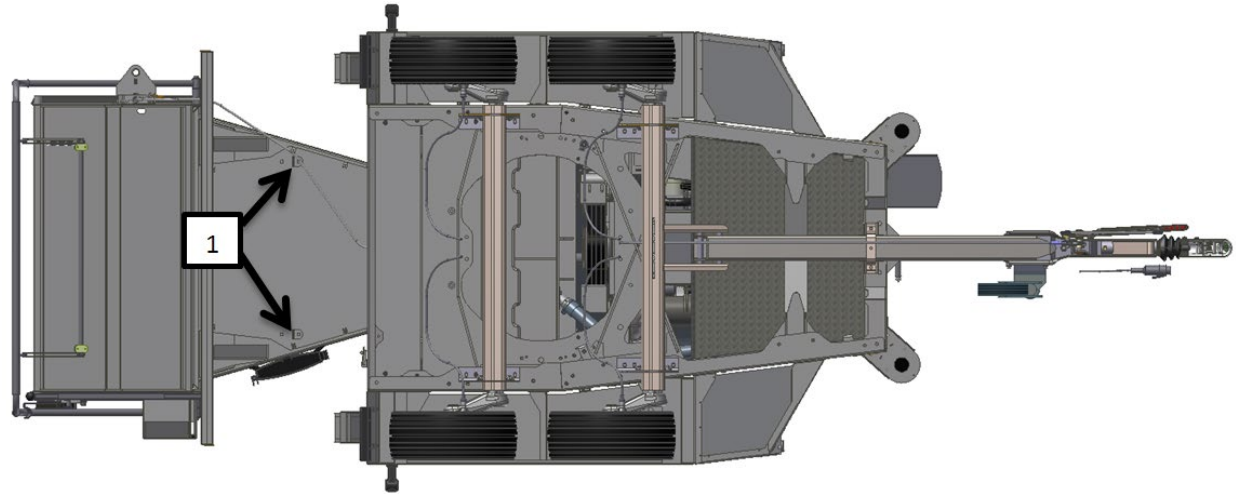
3. Now replace the wheel with the spare wheel and secure the spare wheel using the wheel bolts (8). Tighten the wheel bolts to 120 Nm.

4. Finally, fit the punctured/damaged wheel inside the spare wheel holder.

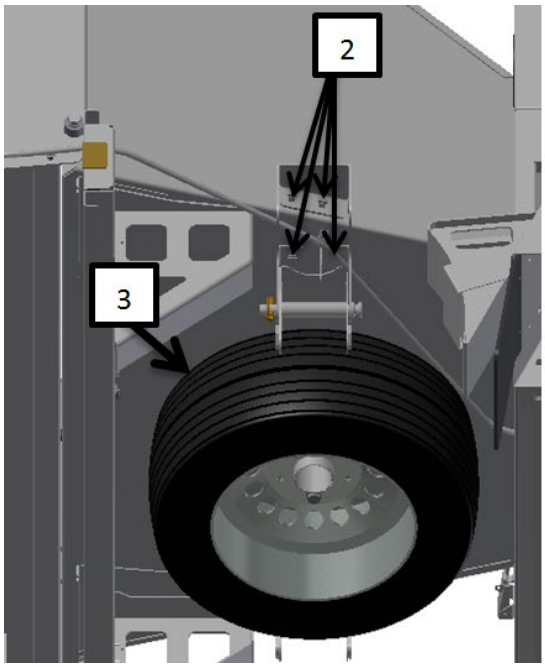
16.4 TP SPARE WHEEL (TP TURNTABLE)

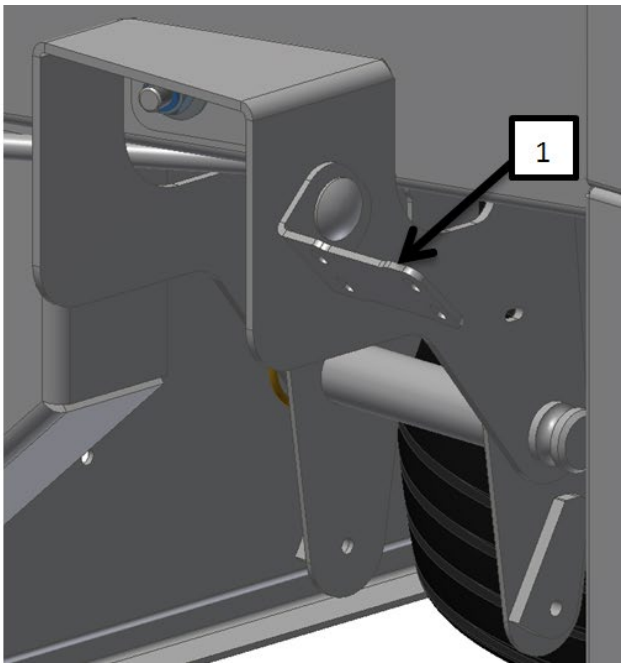
TP SPARE WHEEL contains the spare wheel and fitting for fitting the wheel.

Fitting TP SPARE WHEEL



1. Remove the two hydraulic hose supports (1) below the funnel.

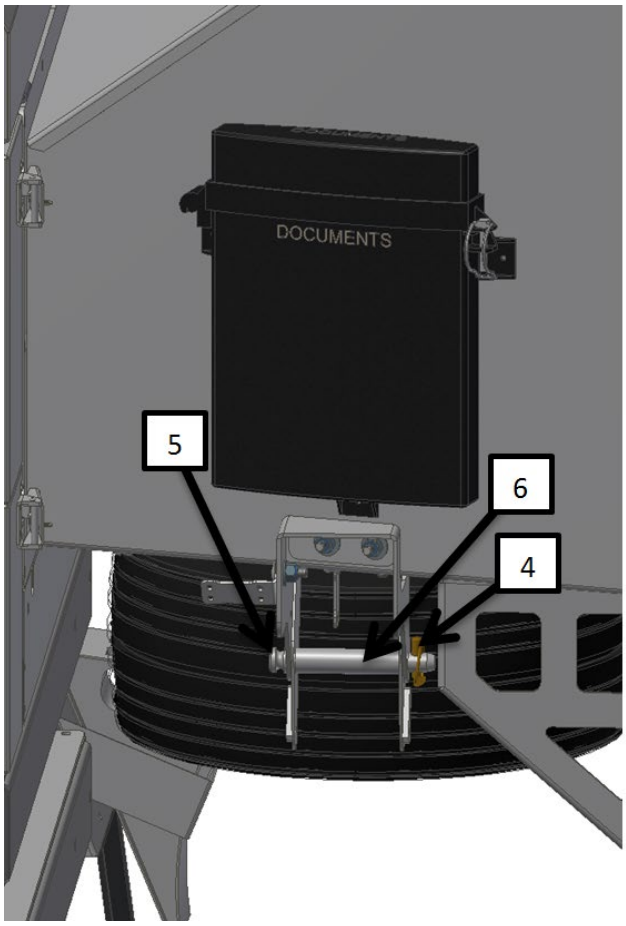


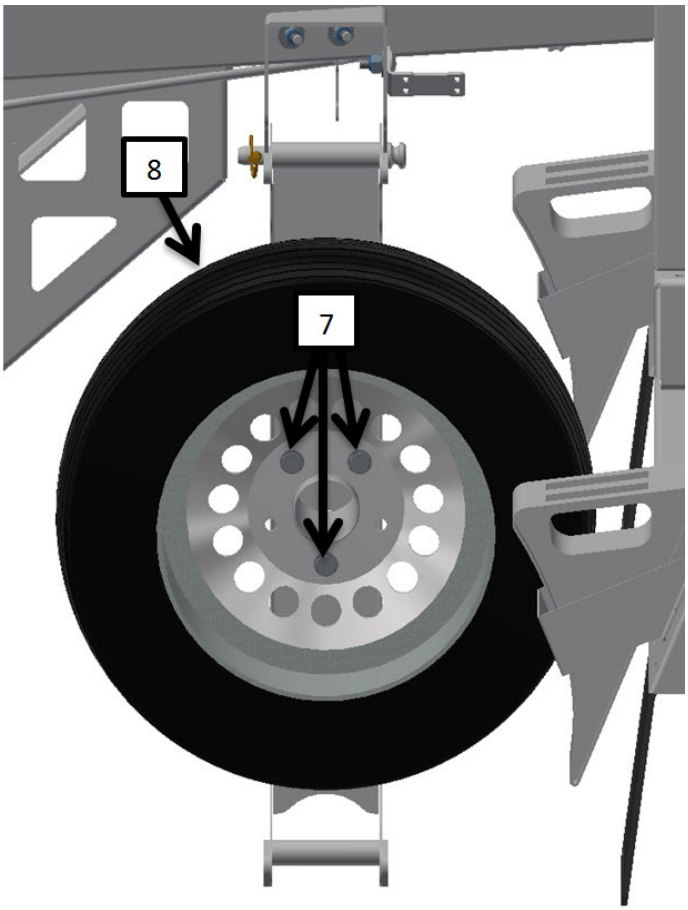


2. Fit the TP SPARE WHEEL(3) onto the underside of the wood chipper using four bolts (2) on each side.

3. Fit the last two hydraulic hose supports (1) as shown in the image. There must be a support on each side of the TP SPARE WHEEL(3).

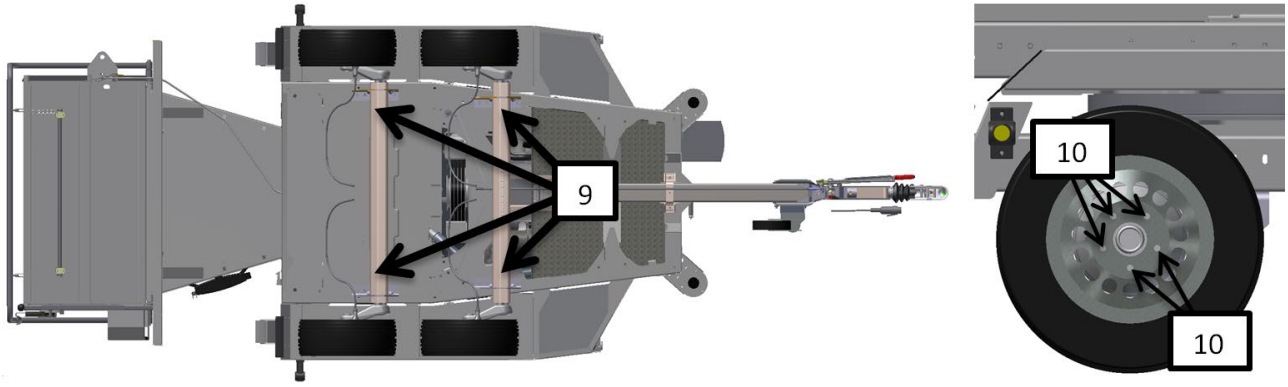
Removing the spare wheel





1. Stand on the left side of the funnel, which faces out to the road.
2. Remove the pin (4) in either end of the shaft (5) in the spare wheel support.
3. Next, pull the shaft (5) while holding the handle (6).
4. Lower the handle (6) by hand as slowly as possible, then let go.
5. Go to the opposite side of the funnel to remove the wheel.
6. Remove the three bolts (7) and pull out the wheel (8). The wheel (8) is now ready to replace the punctured or damaged wheel on the wood chipper.

Wheel change



1. Use the jack to lift wood chipper using one of the four lifting points (9) depending on which wheel is to be replaced. Always put blocks against the wheel until you change the wheel!

2. Remove the wheel bolts (10) that secure the wheel to the wheel axle.

3. Now replace the wheel with the spare wheel and secure the spare wheel using the wheel bolts (10). Tighten the wheel bolts to 120 Nm.

4. Finally, fit the punctured/damaged wheel inside the spare wheel holder.