

HANSA C13/C21 PTO

Operation, maintenance and safety manual

Original Instructions



All operators must fully read and understand this operator's manual before using the chipper. Keep this manual for future reference.



3 YEAR | GLOBAL WARRANTY

Register your Hansa chipper to qualify
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What can my Hansa chipper process?

Intended uses of the chipper

The Hansa C13/C21 PTO chipper is built to process organic material including wooden branches not exceeding 90 mm / 130 mm in diameter respectively. It is designed to be used on a regular basis to maintain large gardens, lifestyle blocks, acreages, along with used by semi commercial garden maintenance contractors. **Do NOT** use the chipper for any other purpose.

Organic wastes include:

- ✓ Prunings, stalks, roots, vegetable matter, hay, grass, bark
- ✓ Dry manure
- ✓ Branches
- ✓ Palm fronds
- ✓ Dead and hard timbers (Note: these will dull the knives faster)
- ✓ Paper or cardboard

Do NOT process:

- ✗ Flax, root balls
- ✗ Soil, bones, sand, grit, stones, metal



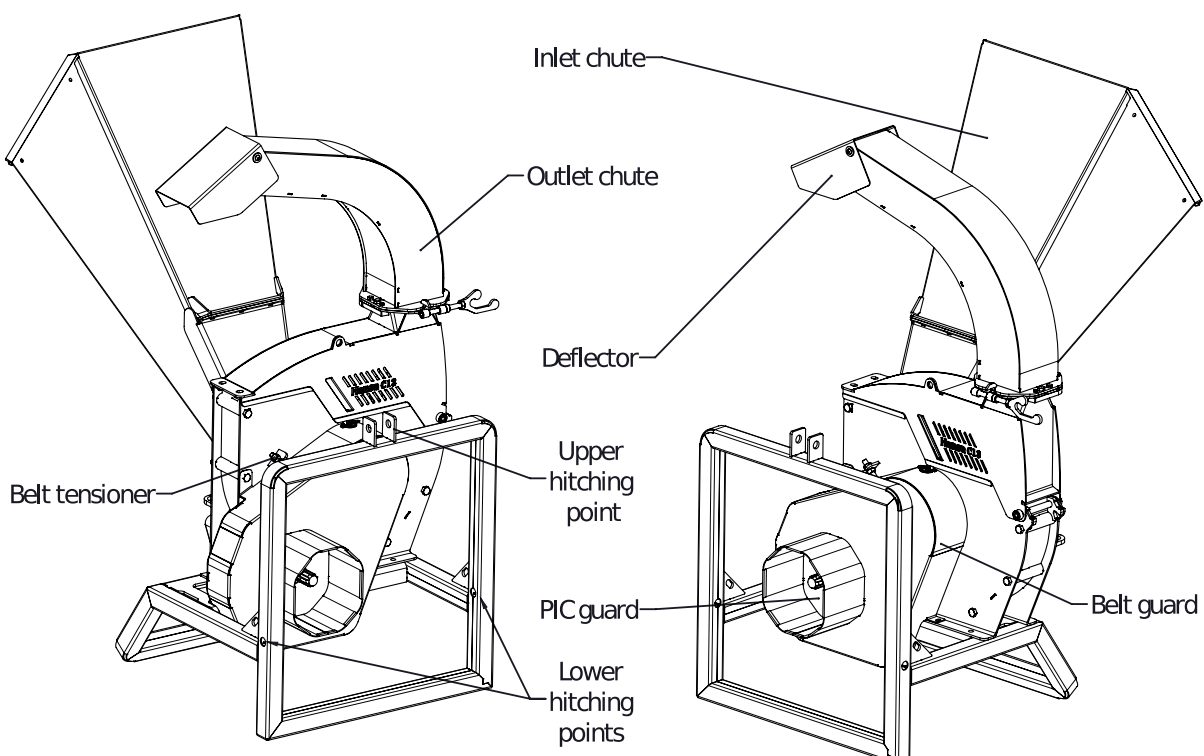
If you have any questions, contact your authorised dealer.



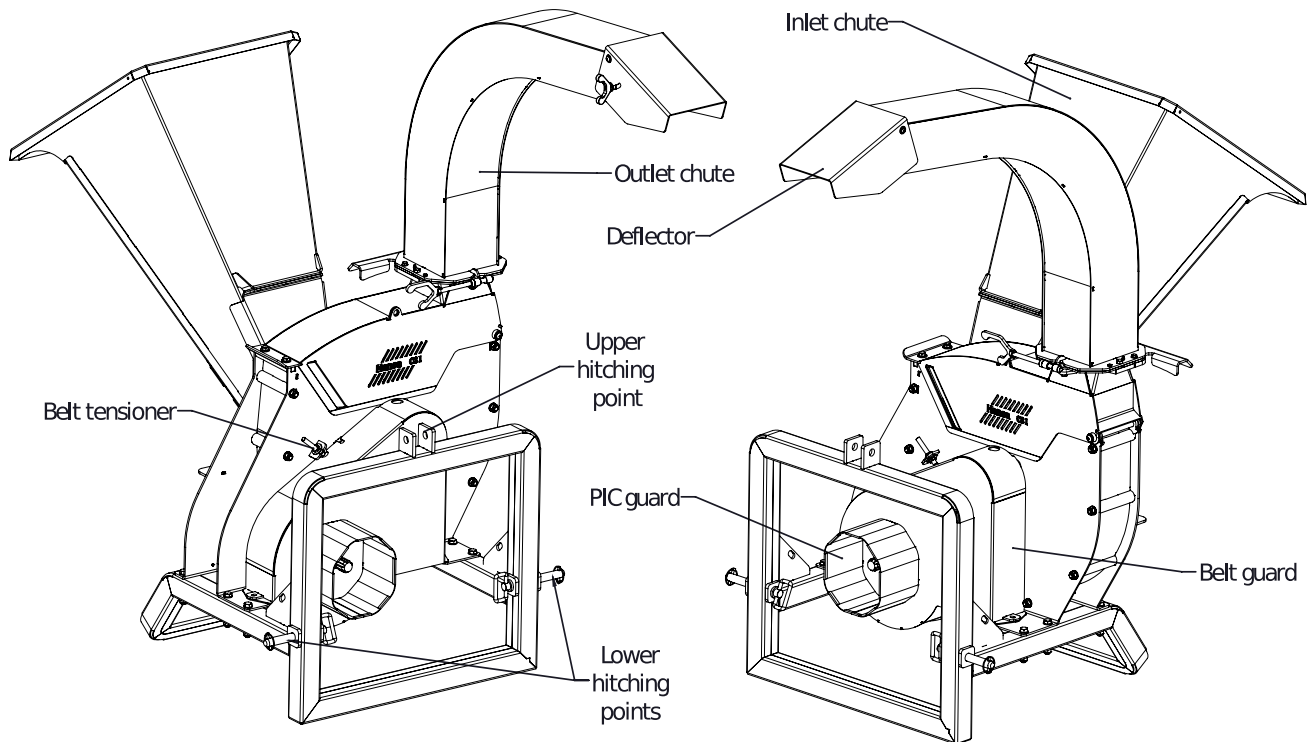
Do NOT exceed 90 mm (C13 PTO) / 130 mm (C21 PTO) branch diameter

Receiving your Hansa chipper

Chipper components (C13 PTO)



Chipper components (C21 PTO)



Tools required for assembly (not supplied):

- 16 mm spanner - to fit the inlet and outlet chute
- 17 mm spanner - to fit the inlet and outlet chute

Parts supplied for assembly



All **fasteners** included to fix inlet chute and outlet chute onto chipper



Inlet chute



Outlet chute



Chipper body (C13 PTO body shown in the image)

Assembling the chipper

When you receive your Hansa brush chipper, the inlet and outlet chute may not be assembled on the chipper.

All the fasteners (bolts, nuts and washers) are attached to their respective components.

Fit the outlet chute

1



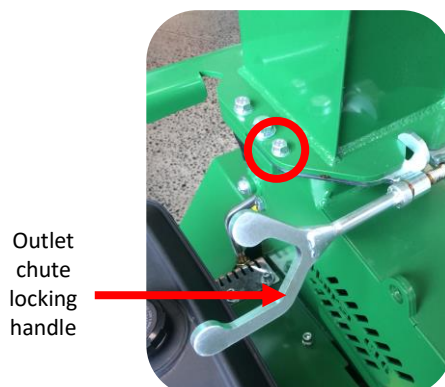
Lightly grease the flange on the chipper body.

2



Slide the outlet chute onto the greased flange of the chipper body, ensuring that the locking hinge is open.

3



Close the locking hinge and fasten the two m6 bolts, spring washers, and washers to the locking pin on each side of the outlet using a 10 mm spanner. Ensure the spring washer is between the bolt head and washer.

Tighten the outlet chute locking handle to secure the outlet chute to the chipper body.

Note: The outlet chute locking handle will be in the documentation package.

Fit the inlet chute

3



Fix the inlet chute - place the inlet chute onto the chipper body with the black rubber flap sandwiched in between and ensure all three holes line up. Tighten the nuts, washers, and bolts using a 16 mm and 17 mm spanner. Ensure that the washer is touching the bolt head.

4



Line up holes and insert the bolts, washers and nuts, ensuring the big washer is touching the bolt head.

Prepare PTO drive shaft

When attaching the PTO model to a tractor for the first time, it may be necessary to shorten the length of the supplied PTO drive shaft. To shorten the shaft, proceed as follows:

1

Attach the chipper to the tractor via the three-point linkage and calculate the required shaft length.

2

Separate the two halves of the shaft and remove equal lengths of both the shaft and the outer sleeve to achieve the required length. Ensure that the length of the shaft protruding from the sleeve remains the same as it was on the uncut shaft.

3

Remove burrs from the shaft ends, grease and reassemble.

Note: Follow the PTO drive shaft manufacturer's instructions for installation and use.

Safety

Preventing accidents is the responsibility of every equipment operator. The operator is responsible for any accidents or hazards occurring to people or their property. Ensure every operator is familiar with the safe operation procedures and controls of the machine, how to identify hazards, and the steps required to avoid injury while handling and operating the chipper. Relevant information is contained in this manual.

- ✗ **Do NOT** modify the design of the chipper.

Operator competency

- ✔ Ensure that every person operating the chipper understands and follows the safe operating and maintenance procedures as detailed in this manual.
- ✗ **Do NOT** allow persons below the age of 16 to operate the chipper. Additionally, local regulations may restrict the age of the operator.
- ✗ **Do NOT** allow persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge to operate the machine.

Identifying hazards and risks

Identify hazards and risks, and take preventative steps to avoid accidents and minimise risk. Possible hazards include, but are not limited to, moving parts, thrown objects, weight of chipper and components, and the operating environment.

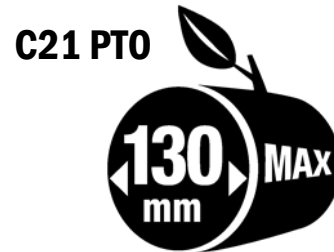
Below is a list of hazards and actions required to prevent injury.

 Hazard	Risk	Corrective action
 Dust	Injury or irritation of the eyes Respiratory irritation	Wear safety glasses Process freshly cut materials and/or wear a dust mask
 Belt Drive	Skin pinching and/or abrasions	Ensure that the belt guard is in place, and keep away from the belt
 Cutting rotor and knives	Pinching, crushing, cutting, severing	Keep hands and other body parts out of the inlet chute ✔ Use a stick to push materials into the inlet chute ✗ Do NOT push the stick beyond the guard flap
 Sound	Damage to hearing	Always wear ear protection when operating the machinery
 Discharge material	Eye injury, minor cuts	Always wear safety glasses when operating the machinery ✗ Do NOT stand in front of the outlet chute ✗ Do NOT face the machinery in a place where the outlet chute is directed on a hard surface
 Feeding material	Cuts and scrapes	Wear safety gloves Wear tight fitting long sleeves and pants to cover bare skin when operating the machinery
 Weight of the chipper	Straining, crushing	Place the machinery on level ground while operating and while the chipper is being mounted to the three-point linkage.

Operation

The chipper is self-feeding and has a large inlet opening. It can process:

- Prunings, stalks, vines, leaves, roots and vegetable matter, paper and cardboard
- Freshly cut material is better to process than dry
- Maximum branch diameter capacity for the C13 PTO and C21 PTO is 90mm and 130mm respectively



It is helpful, (but not required) to keep a wooden stick handy, approx. 80 mm diameter x 600 mm long for:

- Pushing in short, brushy and very leafy materials
- Keeping the inlet chute clear

Safe setup procedure

Before you start:

- ✓ Ensure the chipper is positioned in an open area and firm on level ground
- ✓ Ensure that the outlet chute is discharged onto soft ground (e.g. grass)
 - ✗ **Do NOT** allow the outlet chute to discharge chip onto hard surfaces (such as a paved or gravel surface)
 - ⇒ Ejected material can rebound and cause injury
- ✓ Keep children, pets and spectators clear of the work area at all times
 - ✗ **Do NOT** operate the chipper where there is a hazard to onlookers
 - ✗ **Do NOT** allow any person under the age of 18 to operate the chipper
- ✓ Check:
 - ✓ That all screws, nuts, bolts, and other fasteners are properly secured
 - ⇒ Check details on general chipper maintenance in this manual
 - ✓ That all chipper components are in place and in good condition
 - ⇒ If any parts are worn or damaged, contact Hansa for replacements
 - ✓ That the inlet chute and housing are clear of any leftover material
 - ✓ That the drive shaft is securely attached to the splined shafts on the chipper and the tractor, and that the safety chains are attached.
 - ✓ That all labels are in good condition and easily legible
 - ⇒ Replace damaged or unreadable labels
 - ⇒ View photos of labels in the 'Decals' section

Safe operating procedure



DO:

- ✓ **Wear safety equipment:** Safety glasses, hearing protection and protective gloves must be worn at all times. - ensure that the gloves fit tightly.
- ✓ Tie long hair up
 - ⇒ Long hair could be pulled into chipper
- ✓ Wear clothes that sit tightly
 - ⇒ Avoid scarves and any items that can get caught in the chipper
- ✓ Keep your face and body away from the inlet chute
- ✓ Stand clear of the discharge zone, even when no material is being fed into the machine
- ✓ Before starting the chipper, ensure that the inlet chute and housing are clear of any leftover material



- ✔ Place the chipper on even ground and direct outlet chute on soft ground
- ✔ Ensure the tractor exhaust is pointing away from the working area and downwind from the operator and onlookers
- ✔ Keep proper balance and footing at all times and stand at the same level as the chipper
 - ✘ **Do NOT** over reach
 - ✘ **Do NOT** run near the machine
- ✔ Operate the chipper with a PTO speed of 540 RPM
- ✔ Feed only freshly cut material into the chipper
 - ✘ **Do NOT** feed in materials covered in gravel, stones and dirt as this can rebound, injure the operator and damage the machinery
- ✔ Prune to a size that suits the chipper's capabilities
- ✔ Pre-cut side branches
 - ⇒ The branch will 'self-feed' more efficiently
- ✔ Feed limbs and branches through butt end first, leaving the bushy head on
 - ⇒ This helps guide the limb down the inlet chute
 - ⇒ It reduces spinning and the occurrence of ejection of small pieces back up the inlet chute
- ✔ Hold larger branches back and feed the chipper with care until you are familiar with its capacity
 - ⇒ The engine will slow down or stall if the branch is too large
- ✔ Feed longer pieces together with short stubby pieces
- ✔ Feed soft materials intermittently with branches
 - ⇒ The wood chips tend to clean out any soft residue left in the chipper
 - ⇒ The chipper can clog up with soft, wet or fibrous materials
- ✔ Keep the outlet free of blockage
 - ⇒ If blockage occurs, turn the engine off, wait for rotor to stop spinning, then disconnect the PTO drive shaft. Open the outlet chute and remove material until the outlet chute is clear
- ✔ As the discharge material piles up
 - ⇒ Move the chipper to direct the outlet chute away from the pile, or move the processed material to avoid blocking
- ✔ Turn off the tractor engine whenever you leave the work area

DO NOT:

- ✘ Run the chipper in an enclosed area
 - ⚠ Exhaust fumes contain carbon monoxide which is poisonous, colourless, odourless, and tasteless
- ✘ Operate the chipper wearing loose clothing and untied long hair
- ✘ Stand at a higher level than the base of the chipper when feeding material into it
- ✘ Process old materials such as dried wooden branches
 - ⇒ They get very hard and springy when dried out
 - ⇒ They are more awkward to handle
 - ⇒ The knives dull much quicker
- ✘ Feed short, stubby pieces of wood into the chipper
 - ⇒ They bounce and spin in the inlet chute
 - ✔ Feed short stubby pieces together with longer pieces
- ✘ Feed branches that are too large
 - ⇒ The chipper can easily stall
- ✘ Put soil, sand, grit, stones, glass, pieces of metal or other foreign objects into the chipper
 - ⇒ This will damage the sharp edge of the cutting knives and can rebound and injure the operator
- ✘ Put root balls and dead wood into the chipper
 - ⇒ This dulls the knives quickly
- ✘ Overload the chipper
 - ⇒ If the cutting rotor is slowing down, feed the material in slower
- ✘ Allow processed material to build up in the discharge area as this can
 - ⇒ Prevent proper discharge
 - ⇒ Result in kickback of material through the feed opening
- ✘ Transport the chipper while the tractor PTO drive shaft is running
- ✘ Operate the chipper with a PTO output speed greater than 650 RPM
 - ⚠ Exceeding 650 rpm will cause chipper damage which could lead to injury
- ✘ Operate the chipper with blunt knives
 - ⇒ This causes excessive vibration which may result in damage to the chipper
- ✘ Remove any guards on the chipper unless the engine is turned off, the PTO drive shaft is disconnected, and the cutting

rotor has come to a complete standstill

- ✗ Touch any guards or stick hands between guards while the machine is on or connected to a power supply
- ✗ Put hands or any other part of the body or clothing:
 - ⇒ Inside the feed chute past the rubber flap
 - ⇒ Inside or near the opening of the discharge chute

Starting procedure

Before proceeding, ensure the 'safe setup procedure' has been followed on page 6 of this manual.



Ensure the chipper is securely attached via the three-point linkage to the tractor. Ensure the drive shaft is attached to the splined shafts on the chipper and the tractor, and ensure that the guard chains are attached.

- 2** With the chipper placed firmly on the ground, parking brakes applied and the tractor idling; slowly engage the PTO drive.

- 3** Increase the engine revs gradually to achieve a PTO speed of 540 rpm.



WARNING! Do NOT exceed PTO speed of 650 rpm. Exceeding 650 rpm will cause chipper damage which could lead to injury. Ensure the chipper is firmly on the ground during operation.

Shutdown procedure

- 1** Return the tractors throttle to the idle position.

- 2** Disengage the PTO.

Storage

- ✓ Store the chipper out of the reach of children
- ✓ Store the chipper out of the rain
 - ⇒ Water can rust the steel body of the chipper

Troubleshooting



What to do if:

- ❓ The chipper slows down and stalls
 - The chipper is clogged up
 - ✔ Turn the engine off, disconnect the PTO drive shaft, ensure rotor has completely stopped, remove debris, then close and lock the outlet chute
 - The chipper can't process the amount of material fed into it
 - ✔ Feed the material in slower
 - ✔ Reduce material volume
- ❓ Discharge slows down
 - The chipper is clogged up
 - ✔ Turn the engine off, disconnect the PTO drive shaft, ensure rotor has completely stopped, remove debris, then close and lock the outlet chute
- ❓ The chipper will not self-feed
 - The knives and/or anvil might be blunt
 - ✔ Inspect and sharpen or replace knives and/or anvil as required. Ensure correct clearances between knives and anvil
- ❓ The material is ejected in long strips
 - The knives and/or anvil might be blunt
 - ✔ Inspect and sharpen or replace knives and/or anvil as required. Ensure correct clearances between knives and anvil
- ❓ The chipper is clogged
 - ✔ Turn the engine off, disconnect the PTO drive shaft, ensure rotor has completely stopped, remove debris, then close and lock the outlet chute
- ❓ The chipper starts making unusual noise, the cutting rotor strikes a foreign object or the chipper starts to vibrate
 - ✔ Turn the engine off, disconnect the PTO drive shaft, and ensure rotor has completely stopped, then inspect for damage
 - ✔ Replace or repair any damaged parts
 - ✔ Check for and tighten any loose parts
 - ✖ **Do NOT** attempt to repair the chipper unless you are competent to do so



WARNING! Do NOT open the housing unless the engine and cutting rotor have completely stopped.

Maintenance

Maintain the chipper with care and keep it clean at all times.

To service or inspect the equipment, or to change an accessory, you must:

- ✓ Switch the tractor engine off
- ✓ Wait until the cutting rotor and engine are at a complete standstill before opening the cutting rotor housing
- ✓ Disconnect the PTO drive shaft from the tractor

Initially after 2 working hours:

- ✓ Check for any loose nuts and bolts
- ✓ Check belt tension (refer to belt tension section)
 - ⇒ The belts will stretch when they are new
- ✓ Grease the two rotor bearings and the two PTO input shaft bearings
 - ⇒ One or two pumps are sufficient
 - ⇒ Be careful not to over grease
 - ⇒ The bearings are already greased when the equipment is new
 - ⇒ Grease with bearing grease or all-purpose grease

Every 20 working hours:

- ✓ Check for any loose nuts and bolts
- ✓ Check belt tension (refer to belt tension section)
- ✓ Grease two bearings as above, be careful not to over grease
- ✓ Check sharpness of knives
- ✓ Check condition of guarding (belt guard, shaft guards, PIC guard and outlet chute)
 - ⇒ A damaged guard must be replaced by an identical or equivalent guard immediately
 - ⇒ It is recommended to contact Hansa for a replacement guard.



WARNING! Prior to starting any maintenance tasks on the PTO driven chipper, ensure the tractor is parked on a flat, level surface with the park brakes applied, engine stopped, chipper placed firmly on the ground, and the PTO drive shaft removed.

Knife re-sharpening and knife replacement

How do I know that the knives need re-sharpening?

- ⇒ Chipper loses its self-feeding action with blunt knives
- ⇒ Material has to be pushed in
- ⇒ Material comes out in long strips



WARNING! Do NOT operate your chipper with blunt knives.

- ⇒ Blunt knives will cause excessive vibration
- ⇒ Blunt knives result in damage to the chipper

How to re-sharpen the knives:

If you don't have a surface grinder or are unsure how to re-sharpen the knives, contact a professional saw doctor or Hansa to arrange re-sharpening.



WARNING! Be careful when working around the sharp knives. Be aware that even though the power source is unplugged, the cutting means can still move.

Tools and materials required for re-sharpening (approx. 40 mins):

- 13 mm ring spanner (17mm for the C21 PTO)
- A stick magnet (optional)
- Surface grinder
- Coolant

Remove the knives for sharpening



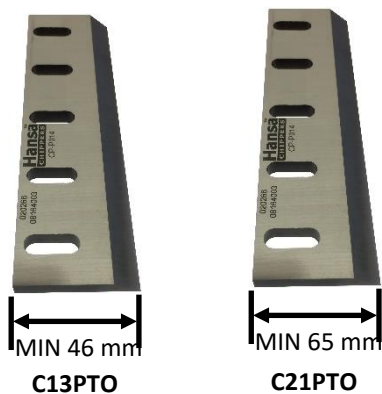
Open the outlet chute, rotate the cutting rotor to gain access to the knives, then engage the belt drive to stop the cutting rotor from rotating.



Use a 13 mm (or 17mm for C21 PTO) ring spanner to remove the knives from the rotor. There are five bolts that you must remove to do so.

- ⇒ Be careful not to drop the nuts, bolts or knives into the chipper
- ⇒ A stick magnet can be used to retrieve them if this does occur

3

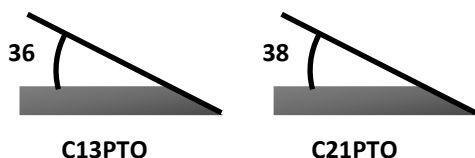


Measure the width of the knife and check that it will be at least 46 mm for C13PTO and 65 mm for C21PTO after sharpening.

If the knives will be shorter than minimum width, then the knives should be replaced. Please contact your nearest Hansa dealer.

Sharpen the knives

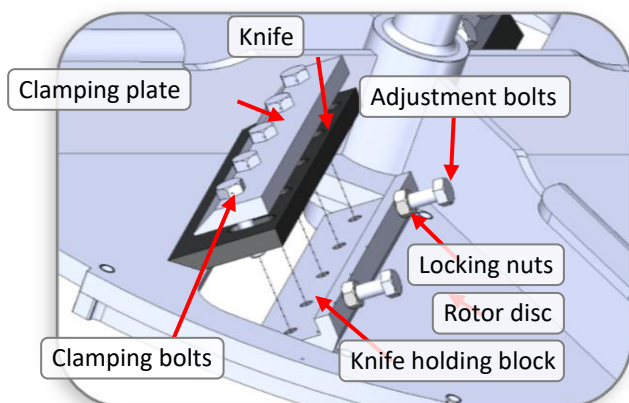
4



Sharpen the knives on a surface grinder. A cutting angle of 36 ° for C13PTO and 38 ° for C21PTO is critical for the performance of the chipper. Make sure plenty of coolant is used when grinding to avoid softening of the steel knives.

Reinstall the knives

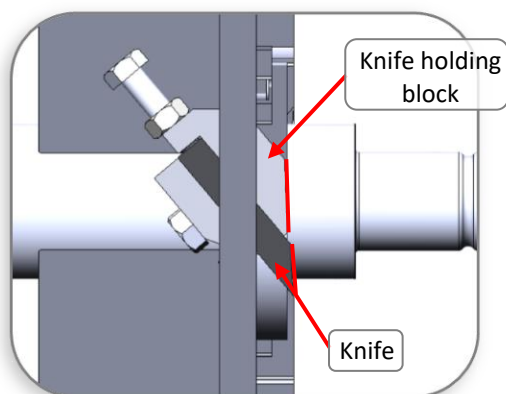
5



Clean all mounting surfaces and remount the knives in the reverse procedure.

Note: Be sure to replace the knives the correct way around (as shown in the diagram). Only tighten the clamping bolts enough to hold the knives in place during adjustment. Do not tighten them fully until step 7.

6



Side view: Cutting rotor

Adjust the knives initially using the adjustment bolts to protrude the edge of the knife just past the edge of the knife holding block.

7

After sharpening, the width of the knives will have been reduced, therefore the gap between the knives and anvil may require adjustment. This gap is tapered out slightly to allow for a small

amount of movement in the rotor as it bites into the wood.

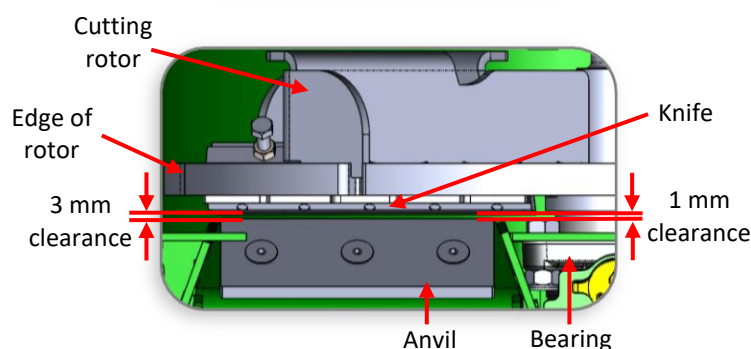
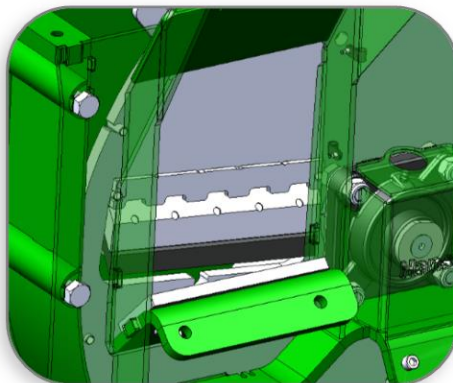
If there is not enough clearance, the knife edge may touch the anvil through deflection when cutting heavy branches and damage the sharp edge. Too much clearance will allow small twigs and fibrous materials to be dragged through without being cut.

Adjust the knife in or out using the two adjustment bolts to achieve the correct clearance between the knife and anvil. The clearance between the knife and anvil should be approximately 1 mm on the inside closest to the bearing and 3 mm on the outside closest to the edge of the cutting rotor (refer to diagram for more detail).

After the correct clearance is set, fully tighten the clamping bolts using a torque wrench to 35 N.m. and tighten the locking nuts on the adjustment bolts.

Note: Before adjusting the knives, ensure the gap between the holding block and the anvil is 4 - 5 mm. If not, then the anvil can be adjusted through the mounting slots. Once the position has been set, tighten the three M10 countersunk anvil bolts and torque to 50 Nm, then make further adjustments with the knives as described above.

Turn the rotor slowly by hand to check that it turns freely.



Top view: knife and anvil set-up

8

Close and secure the outlet chute.



WARNING! Every time the knife clamping bolts are torqued up to 35 Nm and loosened off again, the life of the bolts is reduced. The knife clamping bolts must be replaced at most after every six sharpens. Contact Hansa for replacement bolts (m8x35 bolts of grade 8.8 or higher). Use only genuine Hansa bolts.

Anvil adjustment

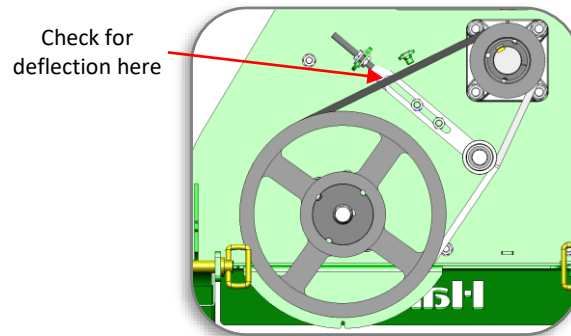
The anvil is reversible. When the edge is dull, it can be reversed. The anvil typically lasts for several hundred hours of operation.

When both edges are worn, the anvil can be sharpened or replaced. To access the anvil the inlet chute needs to be removed. With the knives removed or set right back, the gap between the knife holding block and anvil should be 4 - 5 mm. The anvil can be adjusted through the mounting slots. When this has been set, tighten the three M10 countersunk anvil bolts using a torque wrench to 50 Nm and then make further adjustments with the knives as described above.

Turn the cutting rotor slowly by hand to check that it turns freely.

Belt tension

Correct belt tension is crucial for minimising belt wear and maximising machine efficiency. To check the belt tension, the belt guard must first be removed (see step 1 below). After the belt guard is removed, fully engage the belt. There should be approximately 10 mm deflection in the belt when pressing firmly on the belt (as per the image below). If required, adjust belt tension.



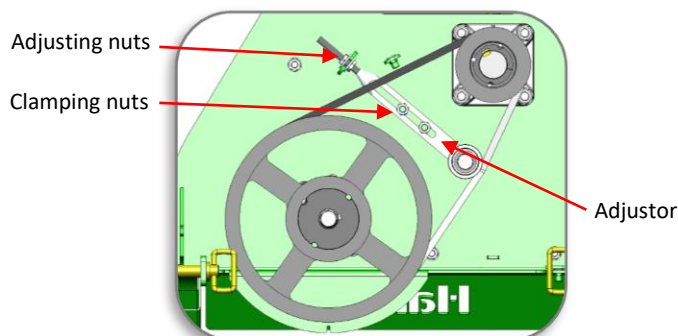
Adjusting belt tension

1

Remove the PTO drive shaft from the chipper and remove the belt guard (the three M8 cap screws require a size 6 Allen key to remove)

2

Loosen the clamping and adjusting nuts (refer to diagram below) using a 17mm spanner. Check the condition of the belts. If they are in poor condition they will need to be replaced (see the 'Belt replacement' section on the following page).



3

Adjust the position of the idler using the adjusting nuts to achieve 10 mm of deflection when the belts are pushed with the fingers. Tighten both nuts to lock the idler in position.

4

Tighten the clamping nuts to secure the adjustor.

5

Refit the belt guard and PTO drive shaft.

Belt replacement

If the belts in your chipper look similar to any of the following images or are clearly broken, then they need to be replaced.



Cracked underside of belt



Split belt cover



Soft, swollen belt



Worn cover on back of belt



Sidewall belt wear

The C13 PTO requires two B55 vee belts and the C21 PTO requires three B60 vee belts. If the belts require replacement, follow the 'adjusting belt tension' procedure. After replacing the belts, check the tension after two hours of operation. The tension of a new belt will quickly change as the belt initially wears into the pulley system.

Bolt Torque

Bolt size	Spanner size	Relative Strength Bolt Marking			
		4.6		8.8	
		Recommended Tightening Torque		Recommended Tightening Torque	
		lb ft	Nm	lb ft	Nm
M8	13 mm	6	8.5	16	22
M10	16 mm	12.5	17	32	44
M12	18 mm	22	30	57	77
M16	24 mm	54	73	140	190
M20	30 mm	105	143	274	372

Specifications

		C13 PTO	C21 PTO
General	Length	1175 mm	1395
	Width	820 mm	990
	Height	1535 mm	1945
	Weight	191 kg	295 kg
Power supply	Horsepower range	17-45 HP tractor	20-55 HP tractor
Cutting System	Disc speed	1530 RPM	1530 RPM
	Disc dimensions	560 x 12 mm	650 x 20 mm
	Shaft diameter	31.75 mm	50 mm
	Knives	2	2
Feed System	Chipping capacity	90 mm	130 mm
	Feed type	Gravity fed, self-feeding	Gravity fed, self-feeding
	Inlet chute opening	170 x 220 mm	200 x 285 mm
Discharge System	Discharge height	1450 mm	1945 mm
	Outlet chute type	270° swivel	270° swivel

Safety Label Locations

The diagram illustrates the safety features of the HANSA 540 RPM shredder. It shows two perspectives of the machine, with lines connecting specific safety labels to their corresponding locations on the equipment. The labels include:

- Top Left:** A 2x2 grid of yellow warning labels. The top row shows a falling object and a rotation symbol. The bottom row shows a falling object and a 'STOP' label with a key symbol.
- Top Center:** A 2x2 grid of yellow warning labels. The top row shows a falling object and a general warning symbol. The bottom row shows a person being struck and a machine with a lock symbol.
- Top Right:** A 3x2 grid of yellow warning labels. The top row shows a falling object, a general warning symbol, and a person being struck. The middle row shows a person being struck, a machine with a lock symbol, and a person being struck. The bottom row shows a general warning symbol, a machine with a lock symbol, and a person wearing ear protection.
- Bottom Left:** A yellow warning label with a falling object symbol and a '540 RPM' label with a gear symbol.
- Bottom Center:** A yellow warning label with a falling object symbol and a rotation symbol.
- Bottom Right:** A yellow warning label with a falling object symbol and a rotation symbol.
- Bottom Far Right:** A yellow warning label with a falling object symbol and a rotation symbol.
- Bottom Far Right (Noise Label):** A white label with a speaker icon, the text 'LWA', and '109 dB'.

The diagram illustrates the safety features of the HANSA wood chipper. It shows two perspectives of the machine, with lines connecting specific safety labels to their corresponding locations on the equipment. The labels include:

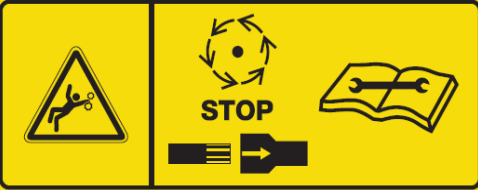
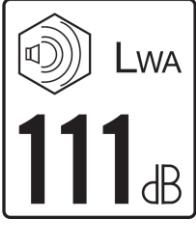
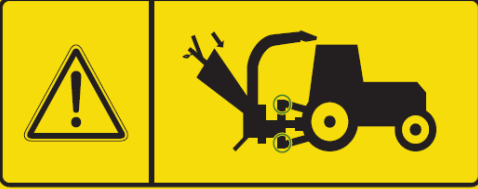
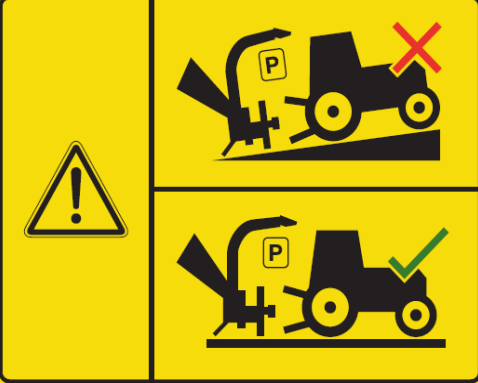
- Top Left:** A 2x4 grid of yellow warning labels. The first two columns contain symbols for falling objects and rotation. The third column has a 'STOP' label with a key symbol. The fourth column contains symbols for noise and eye protection.
- Top Center:** A 2x2 grid of yellow warning labels. The first column shows symbols for falling objects and a person being struck. The second column shows symbols for a rotating blade and a person being struck.
- Top Right:** A 3x4 grid of yellow warning labels. The first two columns contain symbols for falling objects, rotation, and specific machine hazards. The third column contains symbols for noise and eye protection. The fourth column contains symbols for hand protection and eye protection.
- Bottom Left:** A blue circular label with a white arrow pointing up and a white 'S' symbol, indicating a safety instruction.
- Bottom Center:** A yellow warning label with a symbol for a falling object and a symbol for a rotating blade.
- Bottom Right:** A yellow warning label with a symbol for a falling object and a symbol for a rotating blade.
- Bottom Far Right:** A yellow warning label with a symbol for a falling object and a symbol for a rotating blade.
- Bottom Far Right (Noise Label):** A white label with a speaker icon, 'LWA', and '111 dB', indicating the noise level.

Safety Label Explanations

				
Instructions manual must be read.	Ear protection must be worn.	Tight and heavy-duty gloves must be worn.	Eye protection must be worn.	Lifting Point

					
Use only wooden stick to clear blockage.	Operate only on stable level ground.	Do not operate with loose clothing or long hair.	Do not extend hands down inlet chute past rubber flap.	Stay clear of outlet chute discharge area. Keep bystanders away.	Lock outlet rotation while machine is running.
		C13 PTO: Max 90mm branch capacity. C21 PTO: Max 130mm branch capacity.			

 	 	 	 				
Do not open while machine is running.	Do not touch moving components.	Take care while working with sharp blades.	Fasten outlet before starting machine.	Keep clear while machine is running.	Nominal rotation 540 rpm anticlockwise.	Keep clear while machine is running.	Keep clear while machine is running.

	Wait until all machine components have completely stopped before touching them. Disconnect PTO drive shaft. Read instructions manual before servicing.	  C13 PTO Noise level: 109dB C21 PTO Noise level: 111dB
	Ensure chipper is secured to the 3-point linkage during operation.	
	Ensure chipper is on level surface before detaching from 3-point linkage.	

HANSA global industrial limited warranty

For the purposes of this warranty document, “HANSA” means HANSA Products Limited and any of its international subsidiary companies. Refer to contact details below for further information.

HANSA warrants each new HANSA chipper (“HANSA product”) free from defects in materials and workmanship under normal use and routine servicing, for the warranty periods and subject to the limitations and exclusions detailed below.

HANSA offers a special extended warranty period (“Extended Warranty”) to new HANSA products purchased from an authorised HANSA dealer. The Extended Warranty period is set out below. In order to take advantage of the Extended Warranty you must:

1. Register your HANSA product through the HANSA warranty registration process and identify your HANSA product by its machine serial number. **Registration must be completed with ten (10) days from the date of purchase.** Your warranty registration confirmation email is your identification for warranty service; and
2. Have your registered HANSA product maintained in accordance with the schedule contained in the relevant owner’s manual supplied with the product by an authorised HANSA dealer for the applicable territory. In order to ensure the safe operation of your HANSA product, we strongly recommend that you only use an authorised HANSA dealer for servicing. The cost of routine or required maintenance and services is the responsibility of the purchaser. You must keep a record of all service and maintenance history as proof of servicing history. HANSA may request such servicing history when assessing any future warranty claim.

When making a claim for warrantable repairs under the Extended Warranty, your warranty registration must accompany the HANSA product. If the warranty registration is lost or destroyed, proof of purchase documentation clearly recognising the machine serial number shall be accepted for warranty purposes. Where neither is available and HANSA does not have any record of the purchaser’s details the warranty period shall be calculated from the appropriate dealer wholesale sale date. Any claim under the applicable Warranty must be made within the relevant warranty period specified below.

The Extended Warranty may be subject to cancellation if the above requirements are not satisfied.

The Extended Warranty is available to domestic (non-commercial) and commercial customers (excluding commercial customers in the business of plant/equipment hire).

All HANSA products that have not complied with the Extended Warranty registration and maintenance requirements are entitled to the “Non-Registered” warranty period set out below.

Any authorised HANSA dealer is further authorised to repair or replace any part which proves defective within the limits of the Extended Warranty or Non-Registered Warranty (the “Warranties”) at no charge to the owner, covering parts and labour. Consumable items such as but not limited to oils, grease, blades and belts shall be the responsibility of the owner. All defective parts replaced under the Warranties become the property of HANSA.

You (as owner) are responsible for all shipping and transportation costs (including insurance) to and from an authorised HANSA dealer for the product subject to a warranty claim.

Exclusions

The warranties shall NOT APPLY TO:

- Any damage which results from neglect of periodic maintenance specified by HANSA.
- Any damage which results from repair or maintenance operations by methods other than specified by HANSA.
- Any damage which results from misuse or use beyond the limitations of the intended use specified by HANSA in the operation, maintenance and safety manual, such as overloading, including foreign objects such as stones, pieces of steel, glass etc. being dropped into the running machine or use under abnormal conditions (in HANSA’s sole judgement).
- Any damage which results from use of non-genuine parts, lubricant or fluid not approved by HANSA.
- Any damage resulting from modification or installation in other products in a way not approved by HANSA which has any influence on the function and/or performance of the products.
- Any damage which results from operation other than specified in the Owner’s Manual either intentionally or by error.
- Fading of painted surfaces, deterioration of plated surfaces, deterioration of rubber and plastics, including rusting due to the passage of time.
- Normal phenomena such as noise, vibration or oil seepage which are considered by HANSA as not affecting the quality, function or performance of the product.
- Any damage due to improper storage or transport.
- Consumable replacement items: Belts, cutting blades, anvil, serviceable bearings.
- Periodical maintenance items such as cleaning, inspection and adjustments.
- Any repair and/or adjustment performed by persons other than an authorised dealer, or damage resulting therefrom.
- Any repair and/or adjustment to correct improper or poor quality work previously performed.

- Incidental expenses incurred in the warranty claim. For example: additional expenses such as those for towing, communications, hotel and meals, incurred due to breakdown of the product at a remote location. Any expense related to personal injury and/or property damage, (exclusive of the product itself). Compensation for loss of time, commercial losses or rental costs of a substitute product during the period of adjustment.
- Any damage which results from unavoidable natural disasters, fire, collision, theft, etc.
- Any normal wear or deterioration, such as that of sliding or rotating parts caused under normal operating conditions. For example: Normal wear pivot points, rod ends and bearings.
- Any damage resulting from exposure of the product to soot and smoke, medicines and chemical agents, sea water, sea breeze, salt or other environmental phenomena.

Limitations

- HANSA reserves the right to modify, alter and improve any product without incurring any obligation to replace any product previously sold with such modification.
- In no event shall HANSA's liability exceed the purchase price of the product.
- Equipment and accessories not of HANSA's manufacture (such as engine, battery and tires) are warranted only to the extent of the original manufacturer's warranty and subject to their allowance to HANSA only if found to be defective by such manufacturer.
- HANSA reserves the right to supply remanufactured parts as it deems appropriate.

HANSA Product Warranty Period

HANSA CHIPPERS	DOMESTIC	COMMERCIAL (EXCLUDING HIRE)	COMMERCIAL (HIRE)
Non-Registered	12 months	12 months	3 months
Extended Warranty	36 months (Conditional)*	36 months (Conditional)*	N/A

Each of the warranty periods stated above commence from the date on which you purchased your HANSA product.

*Conditional Warranty:

This is a HANSA extended warranty period for products that are:

- Purchased from an authorised HANSA Dealer.
- Registered at the time of sale through the Hansa Chippers website: www.hansaproducts.com/registration
- Serviced by a HANSA Dealer in accordance with the Hansa service schedule using genuine HANSA parts.
- Extended Warranty is limited to 36 months or 1000 hours, whichever occurs first
- Meeting all other warranty requirements.

Warranty periods vary depending on whether the purchaser is: (i) a domestic (i.e. non-commercial) customer; (ii) commercial customer (excluding plant/equipment hire businesses); or (iii) a commercial customer in the business of plant/equipment hire.

General

1. Your rights:
 - a. HANSA will recognise any implied rights and remedies that are available to you at law in the applicable territory and that cannot be excluded by HANSA.
 - b. In New Zealand, Hansa Products Ltd will recognise your statutory rights under the Consumers Guarantee Act 1993 (provided that you are a consumer for the purposes of that Act).
 - c. In Australia, this warranty is given by Hansa Products Pty Ltd. This warranty is provided in addition to other rights and remedies you have under law - our HANSA products come with guarantees that cannot be excluded under the Australian Consumer Laws.
2. If any provision of this warranty document is held by any competent authority to be invalid or unenforceable in whole or in part, the validity of the other provisions of this warranty document and the remainder of the provisions in question will not be affected.
3. The English language version of this warranty document prevails over any translated version/s of its terms.
4. This warranty document is governed by the laws of New Zealand. The parties submit to the exclusive jurisdiction of the New Zealand Courts.

Contact Details

New Zealand:

Hansa Products Limited
PO Box 10323, Te Rapa
Hamilton

Rest of World:

Please refer to www.hansaproducts.com
for a current list of our authorised dealers
and contact details relevant to your territory.

Commissioning checklist and registration



It is the retailers' responsibility to ensure that this chipper is correctly commissioned for use, and that the purchase is registered with Hansa Chippers so as to provide the owner with the full benefit of the warranty policy.

Product registration must be completed online:

www.hansaproducts.com/registration

For registration you will require the chipper serial number and customer details.

It is the retailers' responsibility to check the following:

Final Assembly Check all bolts for tightness including knives

Operation Instruct the owner/operator on operating procedures and techniques

Safety Instruct owner/operator on safety procedures

Maintenance Explain the maintenance requirements and the importance of following the maintenance schedule to the owner/operator

Manual Emphasise the importance of reading and understanding the manual in full before initial operation of the chipper

Sound output information (C13 PTO)

The sound output level and the sound pressure level from the Hansa C13 PTO have been measured in accordance with the testing provisions:

Directive 2000/14/EC
EN ISO 3744:2010
ISO 11201:2010
ISO 4871:1996
EN 13683:2004
EN 13525:2005

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

Hansa C13 PTO: 108 dB (A) relative to 1pW.

The wood chipper's sound pressure level at the operator's position is measured in accordance with Directive 2000/14/EC is as follows:

Hansa C13 PTO: 92 dB(A) relative to 20μPa

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.

Sound output information (C21 PTO)

The sound output level and the sound pressure level from the Hansa C21 PTO have been measured in accordance with the testing provisions:

Directive 2000/14/EC
ISO 3744:2010
ISO 11201:2010
ISO 4871:1996
EN 13683:2004
EN 13525:2005

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

Hansa C21 PTO: 111 dB (A) relative to 1pW.

The wood chipper's sound pressure level at the operator's position is measured in accordance with Directive 2000/14/EC is as follows:

Hansa C21 PTO: 95 dB (A) relative to 20μPa.

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.

EC Declaration of Conformity (C13 PTO)

**Manufacturer:**

Hansa Products Ltd
PO Box 10323
Te Rapa
Hamilton 3241
New Zealand

Name of the person authorized to compile the technical file on behalf of the manufacturer:

Hansa Products Europe GmbH
Unterer Graben 9
85354
Freising
Germany

This declaration of conformity is issued under the sole responsibility of the manufacture.

Product designation: Brush chipper

Product description: PTO powered shredder/chipper

Product model: C13 PTO

Serial number: Serial Manufacture

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Machinery Directive; 2006/42/EC
Noise emissions Directive; 2000/14/EC

Furthermore, it is stated that the following has also been applied where applicable:

ISO 7010:2011
ISO 11684:1995
ISO 13857:2008
EN 13683:2004
EN 13525:2005
EN 50581:2012

Signed for and on behalf of:

Hansa Products Ltd

A handwritten signature in black ink, appearing to read 'M. Vogel'.

Martin Vogel, Managing Director

Hamilton, New Zealand
September 10th 2017

EC Declaration of Conformity (C21 PTO)

**Manufacturer:**

Hansa Products Ltd
PO Box 10323
Te Rapa
Hamilton 3241
New Zealand

Name of the person authorized to compile the technical file on behalf of the manufacturer:

Hansa Products Europe GmbH
Unterer Graben 9
85354
Freising
Germany

This declaration of conformity is issued under the sole responsibility of the manufacture.

Product designation: Brush chipper

Product description: PTO powered shredder/chipper

Product model: C21 PTO

Serial number: Serial Manufacture

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Machinery Directive; 2006/42/EC
Noise emissions Directive; 2000/14/EC

Furthermore, it is stated that the following has also been applied where applicable:

ISO 7010:2011
ISO 11684:1995
ISO 13857:2008
EN 13683:2004
EN 13525:2005
EN 50581:2012

Signed for and on behalf of:

Hansa Products Ltd

A handwritten signature in black ink, appearing to read 'M. Vogel', is written over a horizontal line.

Martin Vogel, Managing Director

Hamilton, New Zealand
September 10th 2017