

SUGAR CANE HARVESTER PARTS



THE MAALACAN CHOPPER DIFFERENCE

NOW YOU ARE IN CONTROL

Personally customise your chopper to suit your needs without compromising on quality.

Harvester maintenance, particularly the condition of basecutters and chopper blades, has a significant impact on harvester damage and sugar loss. Research has shown that losses can be tripled if blades are not correctly maintained.

CONFIGURATION

For maximum durability and performance, we recommend 95mm blades on a solid shaft. Our customers get approximately 7000 tonnes out of one set of blades by using this configuration.

Please select from the following options:

Number of Blades	Shaft	Blade Length
2	No Shaft	65mm
3	Hollow	95mm
4	Solid	
5		
6		

WHY CHOOSE MAALACAN CHOPPERS

ROBUST CONSTRUCTION

The design strength of the Maalacan chopper together with our unrivalled quality of machining means the life of your choppers drums are extended, unnecessary wear and tear is minimised and your blades will wear evenly and last longer.

CONFIGURATION

Choose from between 2-6 blades, 65mm or 95mm blade length and a hollow shaft, solid shaft or no shaft. For more information please visit the chopper drum page.

DRUM CLEARANCE

A 65mm drum clearance has been achieved to minimise squashing and juice loss while using less power and pressure to turn the choppers. Maximum clearance is only available with 95mm blades. However, we understand that 65mm blades are more economical, especially when working with stones. Both options are available but drum clearance will differ. The blade is secured in the clamp at a depth of 50mm, leaving 45mm of clear blade for chopping.

BOLTS RECESSED INTO BLADE CLAMP

The blade clamp bolts are recessed below the surface of the 40mm steel to allow for a thicker, stronger blade seat without protruding into your chopping clearance. All 20mm bolts are easily accessible.



EVEN BLADE WEAR

Even blade wear can only be achieved with superior machining. Our highly regarded ability to machine tight tolerances allows you to maximise the time between changing blades. As a result our customers can get approximately 7000 tonnes out of one set of blades with even wear in reasonable conditions (left).

LONGER BLADE LIFE

Sharpness of the chopper blade and correct overlap is essential for chopping green leaf and trash, and minimising recycling of billets. Sugar Research Australia recommends that blade overlap is kept to a minimum. This is justifiable in ideal conditions. However, the trade-off to the harvester operator is shorter blade life.

By increasing the blade overlap to the length of the bevel, Maalacan choppers have managed to considerably extend blade life while maintaining acceptable billet quality. Longer blade life, no sausages.

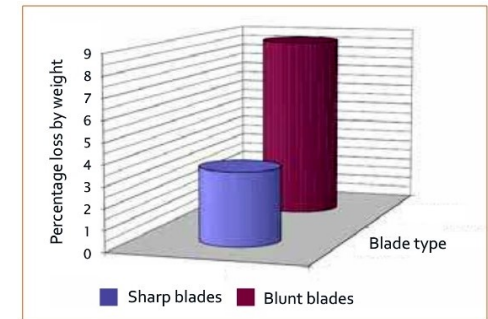


Figure 13: Effect of blunt chopper blades on cane and juice loss (Norris *et al.* 1999).



HARD FACING ALONG LENGTH OF CLAMP & SEAT

Hard facing along the length of the clamp and seat is necessary to prevent avoidable wear and tear due to friction between the steel and the impurities in the cane, such as dirt and trash. Longer clamp and seat life can be achieved through the application of hard facing as seen on the clamp to the left. The hard facing is recessed into the top of the clamp to maintain the maximum chopping clearance.

40MM THICK BLADE SEAT

The 40mm thick blade seat provides the necessary strength to hold the blade accurately and minimise deflection. It will not flex and is tapered at the top to keep the chopping clearance open. The extra rigidity extends the life of the chopper drum and reduces the number of gussets, opening up the chopping area. The knife will always be held rigid to maintain chopping efficiency.

GUSSETS

The use of multiple gussets with 40mm steel is unnecessary. However, two centre gussets have been added for your assurance that blade seat distortion will not occur at the midpoint of the chopper drum. Shorter stiffening gussets are also used but are enclosed by the thrower bars. This adds to the blade seat rigidity and prevents the build-up of dirt and cane fragments wedged between the gussets. Bolt head clearance is also improved.

POWERFUL ADVANTAGES, HIGHER PRODUCTIVITY.

SLEW CHAINS

By fitting the rollers with bearings, friction between the roller and pin is reduced, allowing the roller to always turn. This prevents the rollers from developing flat spots and wearing out the chain ring.

Chains are precision cut from 6mm plate.

Rollers are fitted with a sealed ball bearing and retained with a circlip. Rollers and links are held together with a 20mm machined shouldered pin. The pin precisely fits into the chain link and the bearing, and is also retained with a circlip.

The slew chain is supplied with 4 evenly spaced nylon **breaks** for adequate friction.

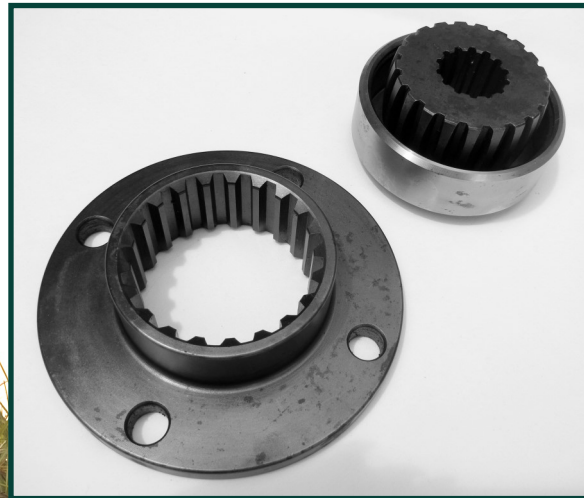
Hangers are fabricated from steel with fittings for the elevator lift cylinders and safety bars.

Suitable for Case IH Austoft 7000/7700/8000/8800 and Cameco 2500.

SEALED ROLLER DRIVE COUPLINGS

The male spline is fitted with a machined steel cap which houses a 5mm section o-ring. When the coupling is assembled, the o-ring comes in contact with the outer diameter of the female spline which prevents dirt from entering into the spline teeth. This prevents wear.

Suitable for all Case IH Austoft, John Deere and Cameco roller couplings and particularly useful for butt roller couplings.



TRACK ADJUSTERS

Made with 10mm thick cylinder wall and induction hardened chrome shaft for added durability.

Suitable for Case IH Austoft 7700/8800.



OPTIMIZED, EFFICIENT & RELIABLE.

ALF'S STORY

I put Maalacan choppers in the old harvester last year. We found the overlap on the knives is more than efficient and you get a lot better life out of them. Last year we got a bit over 7000 tonne out of one set of knives, which was really good. Access to change the knives is great with plenty of room to move and the rebated section saves the head of the bolts – you can keep your money in your pocket instead of putting it in the scrap bin.

I haven't seen it done before but the hard facing on the clamp bar is good. The drums copped a fair bit of impact last year, almost cut through 1½" steel without doing any damage. It was quite surprising nothing got dented. Well there is one little dint but that's going to happen in steel.

We bought a new harvester this year and after one season with the Maalacan choppers I decided to take them out of the old harvester and fit them into the new machine. I found these choppers have a decent gap, you're not just squashing all the juice out of the cane and making the billet lighter. It's good for the grower and it's good for me.

Alf Giaraffa, Two Rivers Harvesting



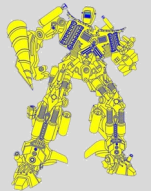
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Engineering can provide.**



Choppers Slew Chains Blade Savers



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maalacanengineering.com.au

Phone: [07] 4064 4176 | Fax: [07] 4064 4164

Email: info@maalacanengineering.com.au

225 Riera Road | PO Box 950

Innisfail 4860 | Queensland Australia