



Amber & Black



Jaiden Drought headed south to test the Lucas Mixer wagon, and discovered they build them tough down there, even if they can't retain the Shield (ouch!)

So technically it isn't amber and black nor does it have any affiliation with rugby, although it does resemble those two colours which bring back memories of Taranaki's last visit to Southland. Oh yes, that reminds me. Did I mention we have the Shield?

So after 15 long years and people telling us our rugby team looks like a pack of bumble bees droning around the paddock (actually I just made that up), we finally have the old log o' wood. Apart from the two dumpings of snow in a month (not normal) I am expecting a mass pilgrimage to Taradise. Why? Well, it is practically like living at the beach, and there's the drawcard of a famous piece of rugby memorabilia being paraded around the province.

Back in Southland, one man is still chipper during the winter with this month's test machine – the Lucas G Qualimix 150plus paddle mixer. It's owned by Jerry Schuurmans who milks 400 cows at Wreys bush in Southland, located between Winton and Mossburn.

Jerry has had his 15m³ Lucas G mixer (supplied by Invercargill's Murray Implements) for just over two seasons. He's impressed with the low loading height as well as the visibility of the side discharge and the stability of the machine for feeding in the paddock.

Company background

Lucas G was created back in 1940 by Gustave Lucas in his craft iron workshop. Fast forward to 2001 and Lucas G redesigned its paddle mixer wagon concept where the chopping space is separate from the mixing space, giving operators the ability to add more delicate materials while harder more fibrous feeds are being chopped and incorporated. This design – dubbed the Qualimix mixer wagon – won the 2001 SIMA gold medal.

Today the company has two production sites (both in France) – one in La Verrie and the other in L'Emonnière. Together they have 25,500m² of covered production/assembly area, as well as a R&D centre and painting booth. Lucas G employs 150 people with an annual output of 1400 machines between the two factories.

Generally, there are three types of mixer wagons. Vertical mixers (which work like a corkscrew), horizontal mixers (which work like an auger) and paddle mixers which work like a



tumble drier.

Lucas G is the only manufacturer that offers a complete range of paddle mixers, vertical screws and straw blowers. Today we are looking at the paddle mixer design.

Key features: Paddle mixing

Lucas G creates the tumble drier effect in three parts. The first is the cutting auger on the top of the machine where the food is loaded. It

runs at 81rpm for optimum chopping action. The second function is the large, rotating mixer which has three paddles and runs at only five rpm for a gentle mix without bashing the feed around. The third part is the feeding (lower) auger which runs at 37rpm to provide a constant feed discharge.

Low loading height

Similar to the alloy bins on bulk trucks, they achieve their capacity by being stout with a wide base and square sides rather than a narrow base and a wide top. This not only makes the machine able to be loaded with smaller tractors that don't have long reach loaders, but are perfect in Jerry's case as he sources his feed from the paddock. And with any machine the more top-heavy they are, the more entertaining this scenario becomes.

Accumulated/adjustable drawbar

Although this of particular importance when loading and feeding on concrete, it was again very helpful for Jerry feeding in the paddock. The machine is more than six tonnes with a full load and with the single-axle design the accumulator takes the shocks out of the tractor. This means less wear and tear on both machines.

The ability to adjust the drawbar is good for navigating humps and hollows during the winter months when things get a bit spongy, but this also acts as a hydraulic stand for easy hitching.

Nutrient chute

Mounted on the front of the machine at the base of the mixing chamber, it's particularly useful if you are adding water or molasses to your mix. It's at an achievable height without having to



- Low loading height
- Side extension
- Good visibility of side discharge
- Accumulated drawbar
- Stable due to lower centre of gravity
- Gentle mixing action
- No knives in mixing chamber eliminates risk of pulping material
- Can be loaded from different sides depending on material
- Drive chain is submerged in oil bath



- Long grass silage can wrap around feed auger
- Power requirements and mixing time increase if you want to chop bales or load and feed with the same tractor, but new optional bale unroller attachment speeds up chopping time
- Wireless in-cab weight readout would assist in loading - new models have this as an option



There are currently over 25 mixer wagons for sale at www.farmtrader.co.nz, keyword 'Mixer'.



clamber to the top of the machine.

You could also add minerals such as lime flour or causmag via the chute although throwing it in the bucket and dumping in the mixer would be a faster solution for adding upwards of 25kg.

Paddle guide

Also located on the front of the machine is a blue diagram on the paddle shaft indicating what position the three paddles are in. Ideally the paddles should sit in a Y position so that when the machine is started it only has one paddle immersed in feed which makes it easier to drive. In Jerry's scenario he has a separate tractor for loading, allowing the machine to remain mixing constantly.

Side Adjuster

This design was a little out of the ordinary but worked very effectively. The mixer only requires two remotes (plus hydraulic drawbar if required) to operate the machine. One is for the side feed. The second allows you to open the machine's side to give you slightly lower loading access and the ability to place the feed straight onto the cutting auger.

If you are loading loose material such as maize silage and PKE where no chopping is required, loading from the other side will be just

as effective. Speaking of chopping bales, the Lucas G will chop half bales but not whole, so half marks there.

Some competitor machines require either a separate attachment or larger knives but a standard Lucas G will chop round bales that have been partly broken before entering the chopping auger.

One problem Jerry has found with feeding bales into the mixer is if the silage hasn't been chopped when baling, it will wrap around the feeding auger and jam, causing it to break shear bolts.

Admittedly the bales have to be long rank grass and that is what the shearbolt is designed

to do, so no other damage occurred.

Large rear door

The drive mechanism is located at the rear of the machine, and a large door allows easy access to these components. It seems strange that the drive mechanism is so far from the tractor. The easiest way to achieve the lowest power requirements is to keep the drive train at the front where the gearbox draws the power straight from the PTO shaft.

The Lucas G requires 90hp to drive the machine which seems about normal for this size machine, although Jerry had a 140hp tractor on the front which never had any trouble, so it was difficult to test the real

“Solid build
quality and
excellent
finish”

FARM TRADER

says

This is a very well thought-out and designed machine giving the operator the ability to load from one side if they want the material to be chopped or the other side if the material just needs to be gently incorporated.

Others in this class

Specifications KEENAN Mech-fiber™ 340

Height:	2936mm (115.5")
Width:	2646mm (104")
Payload:	6000kg
Min. Horse Power:	90

Specifications

LUCAS G Qualimix 150 plus

Height	2.84m
Width	2.55m
Length	6.53m
Weight	6100kg
Power requirements	90hp
Mixing volume	15cm
loading height	2.69m
Discharge side	Left

power requirements.

The upside of having the running gear at the back is you can work on it unobstructed without the drawbar, scales and hoses in the way. It also leaves the nutrient chute and paddle guide in easy view for the operator. The other nifty feature is the main drive chain is permanently bathed in oil which means constant lubrication and reduces the R&M costs significantly.

Worth a mention

Mudguards keep the machine tidy. Scales swivel to allow them to be visible during loading and swivelled back to keep an eye on the weight during unloading. This is particularly useful when split feeding, although a wireless in-cab weight reading feature should be standard.

Verdict

This is a very well thought-out and designed machine, giving the operator the ability to load from one side if they want the material to be chopped, or the other side if the material just needs to be gently incorporated.

Having two tractors is ideal as once the machine is fully loaded it can be left running on the way to the paddock and the blend is ready once you get there. But if you like having capital tied up in just one tractor Lucas G offers an Autonomous version with its own engine do you can achieve the perfect blend with just one tractor.

Low loading height combined with solid build and low maintenance should result in low running costs of the machine and if you are hell bent on buying a Vertical mixer because they can chop baleswell Lucas G make them too!

Did I mention we have the shield? ■