



The Laforge DynaTrac active side-shift platform is versatile. Here we tried the system for strip till slurry application using a Kuhn Striger.

Laforge DynaTrac side-shift linkages:

Follow the row, not the tractor

Laforge has developed a number of DynaTrac side-shift implement mount systems designed to keep attachments running 'in the row' to prevent running out of line in precision applications. Here we look at one of the models on offer to outline what is available.

The wide adoption of precision guidance will have a growing impact on techniques to include mechanical weed control. With its DynaTrac systems, French manufacturer Laforge enables exiting kit to be easily adapted to active row following.

At present, there are five DynaTrac linkage systems on offer:

● **Classic.** This weighs 190kg and attaches to a tractor's lower link arms. It offers lateral travel of up to 500mm.

● **Compact.** Suitable for pto powered equipment weighing up to 1,500kg. Unit weighs 410kg and offers a side-shift range of up to 300mm.

● **Premium.** Suitable for non-powered attachments weighing up to 4,000kg, the linkage weighs 690kg and offers up to 500mm of lateral movement.

● **Premium+.** Suitable for pto powered attachments weighing up to 5,000kg with a shift range of up to 300mm. Weighs 790kg. This is the unit we look at here.

● **Ultima.** Weighing in at 1,500kg, this linkage can be used with pto powered attachments weighing in at 7,500kg and offers a side shift range of 500mm.

This broad model offering reflects the demand for accurate row following across a range of applications. In this case, we hitched up a Premium+ unit to the rear of a slurry

KEEPING IT BRIEF

DynaTrac offers an active side-shift either manually, via a row sensor, ultrasound, camera or RTK-GPS guidance.

Full raise and lower functions.

Test unit extended mounting point by 500mm to the rear.

Finish on test unit could be improved.

DRIVING IMPRESSION

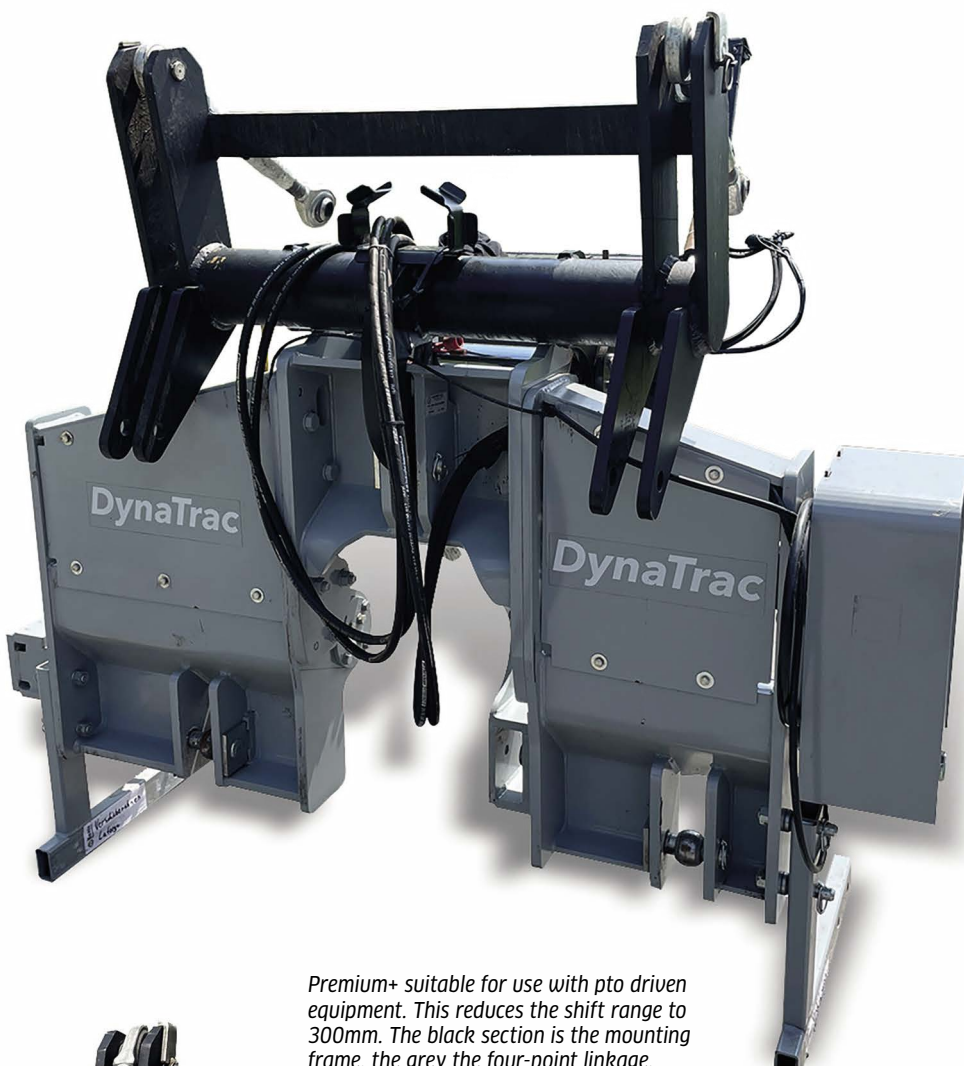
tanker running a Kuhn Striger applicator. Applying slurry in bands, the aim was to ensure applied material ran consistently between the rows of strip till drilled maize, with no deviation in curves etc.

Weighing in at around 3,500kg, the Striger applicator is a hefty bit of kit, but Laforge had no problems matching its Premium+ four-point linkage and the attachment to the triple-axle tanker we used for this appraisal.

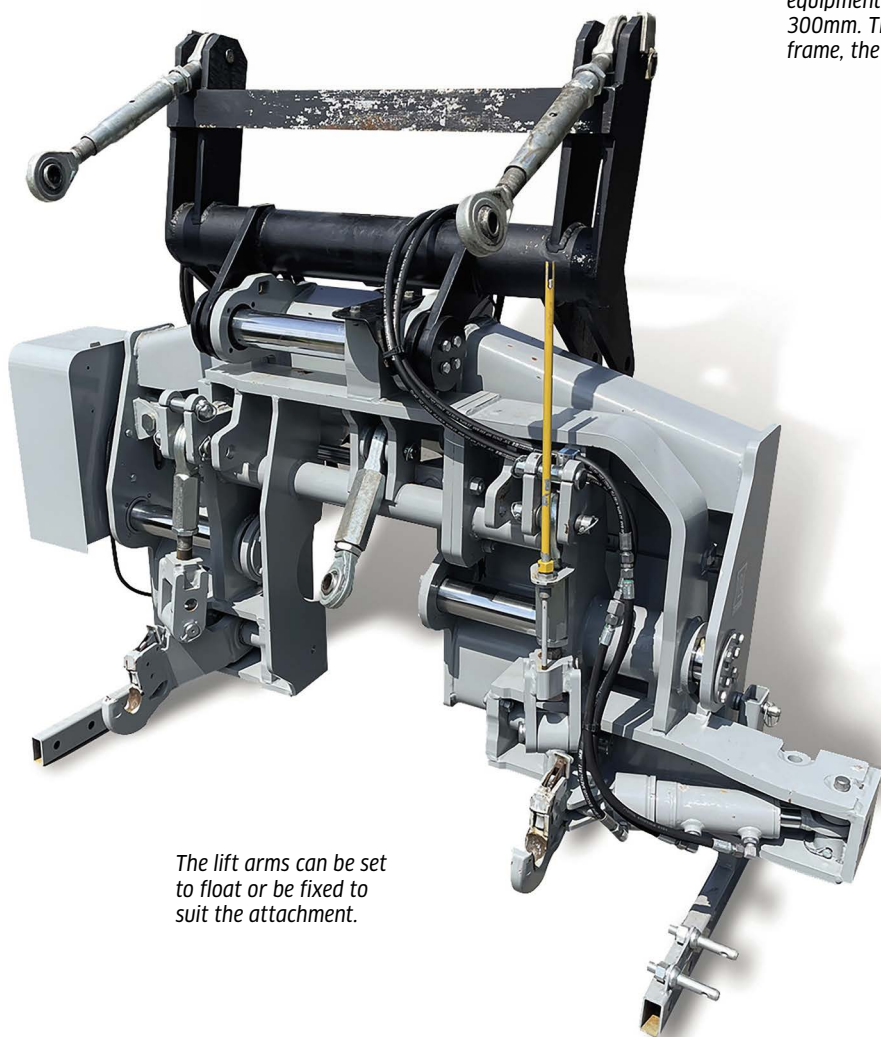
Just like a three-point linkage

The Dyna-Trac system employs flexible lower links, with Walterscheid ball hook connectors and hydraulic stabilisers. The lift rods are rigid as standard, with free float alternatives as an option; side-shift ability is matched to 'conventional' three-point linkage functionality in other words.

The side-shift runs on maintenance-free bushes that track over chrome-plated guide tubes. These allow a lateral shift of up to 500mm. This is altered via a hydraulic ram. The various models clearly have design differences, but all are based around this same basic layout.



Premium+ suitable for use with pto driven equipment. This reduces the shift range to 300mm. The black section is the mounting frame, the grey the four-point linkage.



The lift arms can be set to float or be fixed to suit the attachment.

As to working the lateral control, our test unit with hitched up to a John Deere 7R330, with the side-shift connected to a double-acting spool on the tractor that in turn was patched into a guidance system. The latter can be operated via a range of auto guidance signals to include those from ultrasonic sensors or cameras operating in a clearly defined crop to control a weeder or inter-row cultivator. For our test, we used RTK GPS control, with the aim of applying slurry in tightly controlled bands between sown maize. This required a second satellite receiver on the implement itself, as would also be applicable if working between a tall stand of crop or for inter-row weeding. In our case, the tractor's auto guidance saw it follow the tracks recorded during drilling. This is where the second GPS receiver came into play, picking up any deviation between the tractor line and the implement line, actively correcting the latter via the side-shift of the DynaTrac mount. In straight, level going, the system did not have much to do. On sidling land or following a curve, the system was kept busy adjusting the applicator, so it stayed between the sown rows.



Our test John Deere control unit displayed tracking errors and target position of the side-shift platform. The latter was worked via one of the tractor spools.



The guide tubes are chrome-plated and have maintenance-free bushes. The paintwork on out test frame was poor.

Practical benefits

A side-shift system can have a noticeable impact on how accurately an implement is controlled. The DynaTrac system at the rear of the tanker ensured the bands of slurry were applied more precisely between the rows of strip till drilled seed. This is not to suggest this is a system that you can just plug in and expect to do the job. During our drive, we made a few set-up errors to include initially activating a 'follow mode' in the guidance system. This saw the DynaTrac automatically move the applicator into its central position when raised, only for it then to need to correct itself when lowered. We found leaving the guidance system active helped ensure applicator was correctly aligned when returning to work on the

headland. A small detail but it did prove just how well the system worked.

A further point to note is the impact the DynaTrac linkage has on overhang, this shifting the centre of gravity of the implement 500mm to the rear. With a light inter-row weeder this will not be a problem and with the heavy eight-row Striger there was little impact when running a full tanker. When it was empty, the load on the hitch noticeably shifted to the negative

And the cost?

The entry level Compact linkage has a list price of £8,900, the Premium+ we sampled retailing for £13,610 excluding a control system. A manual controller is £1,250, with a row sensor control box available for £1,070. If you want a Laforge professional camera set up, then this will add around £14,110. Note any GPS systems will add further cost. We used a second John Deere Starfire

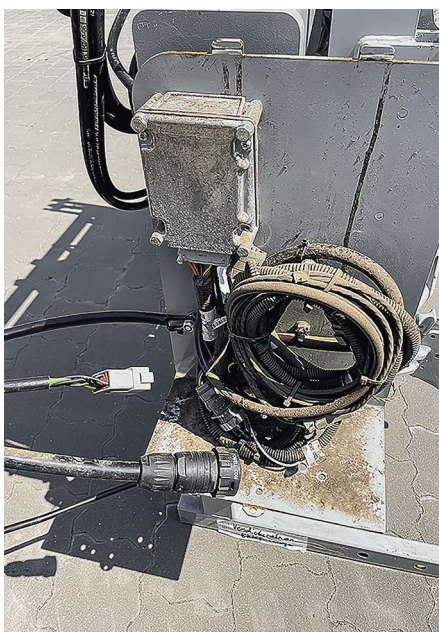
receiver linked to a controller positioned on the back of the side shift platform, with connection to the tractor via Isobus. Active implement control via RTK GPS will add a further £2,500 plus.

Summary

There is no doubt that Laforge have come up with a clever approach to improving accuracy with its DynaTrac active side-shift system. The key to its uptake will be balancing the benefit of the accuracy on offer to the cost of investing in a complete package. Where the system may have its biggest in initial impact is in mechanical weed control where accuracy is vital.

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The main controller is mounted on the rear of the frame and is hooked up to the tractor's ISOBus system. A StarFire connector is also fitted to process guidance signals.



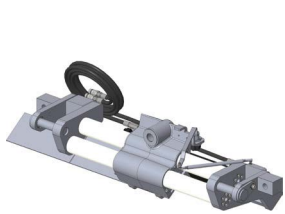
A John Deere position sensor monitors the side-shift position with the latter showing up on the tractor's in-cab display.

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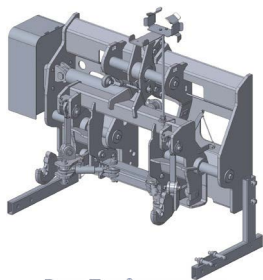


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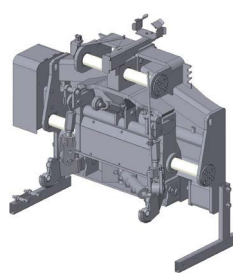
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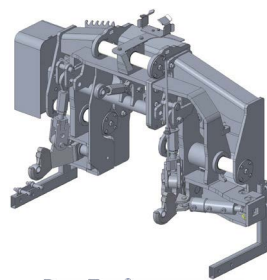
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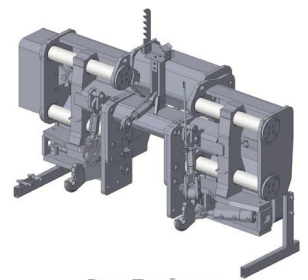
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Benefits of the interface

- Higher yields
- Improved productivity
- Operational savings
- Reduced operator fatigue
- Reduced inputs by eliminating overlap of fertilizer, seed, chemical and tillage operations

