The Syn Trac from Austria can dock and decouple all attachments with a push of a button and without leaving the cab

BY ROBIN BOOKER

HANNOVER, Germany—A tractor platform being developed by Austria startup Syn Trac automatically unhooks and hooks up to attachments without having to wrestle with hydraulic lines, wires or the power take-off.

"On the front and back of the unit there's an automatic docking system, which connects everything including the driveshaft, six hydraulic functions, and CAN bus electronic," said Simon Altmann of Syn Trac during last fall's Agritechnica show.

All attachments can be docked and decoupled with a push of a button and without leaving the cab.

The platform was designed with the docking system in mind, which Altmann said is the heart of the machine.

When an operator begins to drive into an attachment the stabilizer feet on the attachment will automatically begin to lift, and the attachment will slide up the front or rear attachment housing into place, and then automatically connect to the tractor.

The entire connection process takes less than one minute.

Altmann said the docking system was built to have one millimetre of tolerance, which gives it the ability to automatically connect to attachments.

The quick attach adapter is installed and left on any attachment that will be used with the Syn Trac, and there is also a three-point-hitch adapter so the tractor can use three-point hitch based attachments.

"From our perspective the best solution is to have our adapter mounted directly on the attachment, but it can have a three-point hitch in the middle," Altmann said.

The Syn Trac is powered by a 420 horsepower Caterpillar engine, which is located at the centre of the machine, along with the hydromechanical power split transmission.

This gives the Syn Trac good visibility because there is no hood to look over.

Lowrange has a travel speed up to 60 km-h, while the machine can travel as fast as 80 km-h in high range.

The axles have independent hydro-pneumatic suspension with all-wheel drive and all-wheel



With a 420-horsepower Caterpillar engine, the Syn Trac is capable of handling heavy work loads. During Agritechnica last November it was displayed with a wood chipper. | ROBIN BOOKER PHOTOS



The docking adapter is installed on attachments so that operators can automatically hook up to it without getting out of the cab. Hydraulic lines, the power take-off and electrical components all connect by the push of a button.

steering, crab steering or just front steering, giving the Syn Trac steering flexibility and a turning radius



The engine and hydro-mechanical power split transmission are located in the centre of the machine, underneath the cab.

of 4.5 metres.

There is a 1,000 p.t.o. for both the front and the rear, and the standard

hydraulic pump delivers 180 litres per minute while the optional hydraulic pump can deliver up to 360 litres per minute.

The Syn Trac uses a Wabco ABS air-braking system, with a two-wire air braking system for trailers.

The air brake connection for trailers is only available in the reardocking station.

"In Austria in the municipalities business in the winter time they have to clean the roads, and in summer time they have to clean the roads with a mower. In this case they sometimes use a snowplow or blower in the winter and in the summer a separate machine. We can combine this and do it in one unit," Altmann said.

He said snow blowing is a gooduse case for machines because of the high power requirement.

The list price for the Syn Trac is slightly more than \$470,000.

Altmann said the company is hoping to expand into the North American market in a couple years.

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