



Rhino-X

Half track system for AG tractors

The concept :

Rhino-X is a brand new solution for AG tractors in terms of tracks applications.

this rubber tracks conversion system transform the wheeled tractor in an H track machine (H track machine = HALF TRACK machine) , this mean that the tracks are applied only on machine rear axle and can match the original D.T.R (Drive Train Ratio) of the tractor keeping the front axle wheeled.

The Advantages :

the Rhino-X system represent a great advantages on AG technologies . this solution combines the versatility of a wheeled tractor with the performances of a tracked tractor, offer more flotation , no power loss and easy handling in filed as a standard ag tractor use to have.

as difference from OEM, H tracked tractors is a retro-fit solution which offer the possibility to pass from wheels to tracks everytime is needed to (the tracks are installed with Bolt-on solution so it s easy and quick to install and remove) , as well the same track system can be switched between several machines comes from different brand producers (only requirement to be in common is same gear ratio and similar horse power range) . also the Rhino-X can be installed on forage harvester machines , mid range combine harvesters and other AG machinery . this mean that the whole cost of the track system can be refund by the user in quick time due to the high versatility and usage of the system . an OEM H track solution mean that the user can have only a machine as H track without any possibility to switch the undercarriage system from a machine to another , also maintenances costs of the OEM machines results much more higher due a special made gearbox .

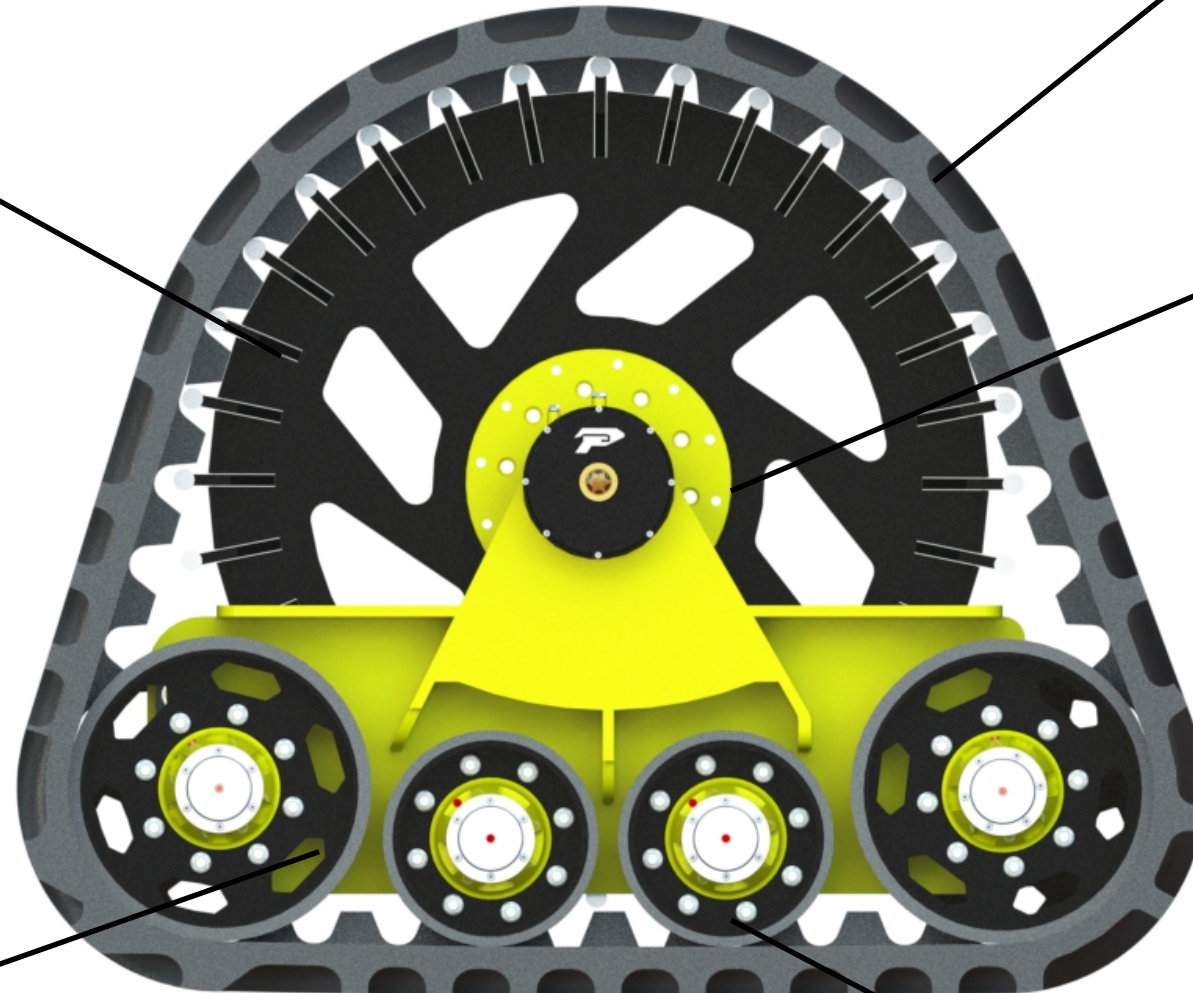


Rhino-X undercarriage overview :

big sprocket diameter :
to match original D.T.R with front axle on wheels , 13 drive lugs are always engaged to maximize the torque distribution , improves traction effort and reduces tracks wearing

Rubber Track :
use latest technology rubber tracks construction to improve resistance and traction effort

Bolt On system :
easy and quick installation/ removal of the undercarriage on the machine



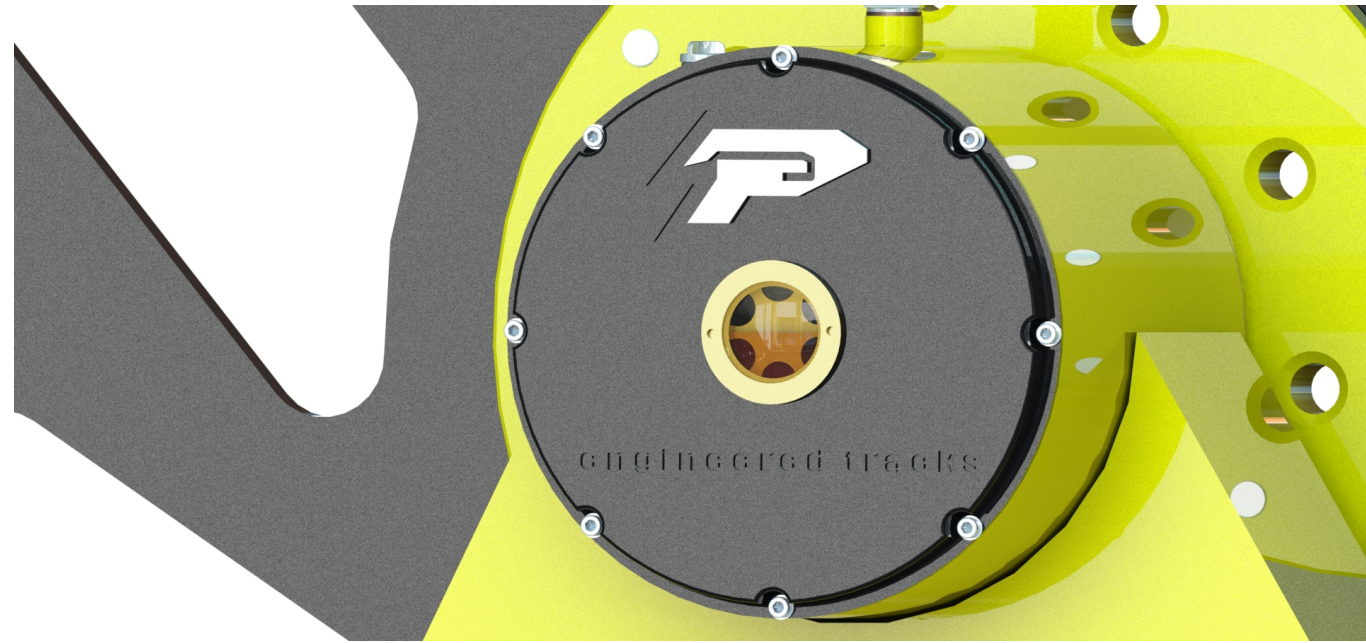
Tensioner :
grease piston with nitrogen shock absorber

Mid-rollers and idler wheels :
coated in polyurethane and also available in steel (ST version) . with big diameter reduces overheating



Oil Window :

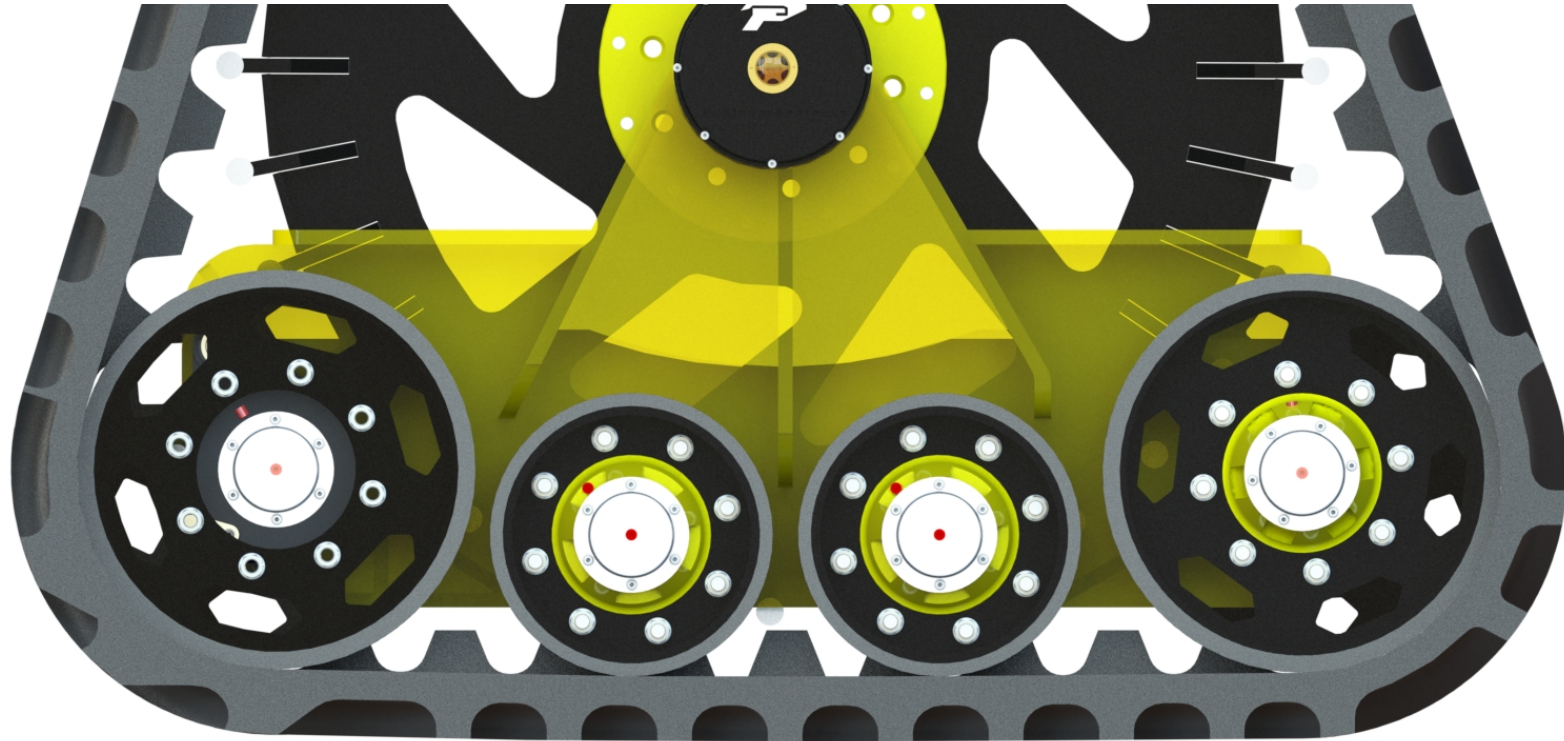
transparent oil window on main hub cover cap ,
easy and quick check for periodic maintenance ,
save time on daily operations .



Sprocket :

with a diameter of 1.535 mm and 13 drive lugs always engaged
is the key features of the RHINO-X undercarriage , thank's to this
is possible to match the original D.T.R with front wheels . the
high number of always engaged drive lugs ensure a longer life
time of the rubber tracks because the torque required by High
HP tractors for severe field application is equally distributed .





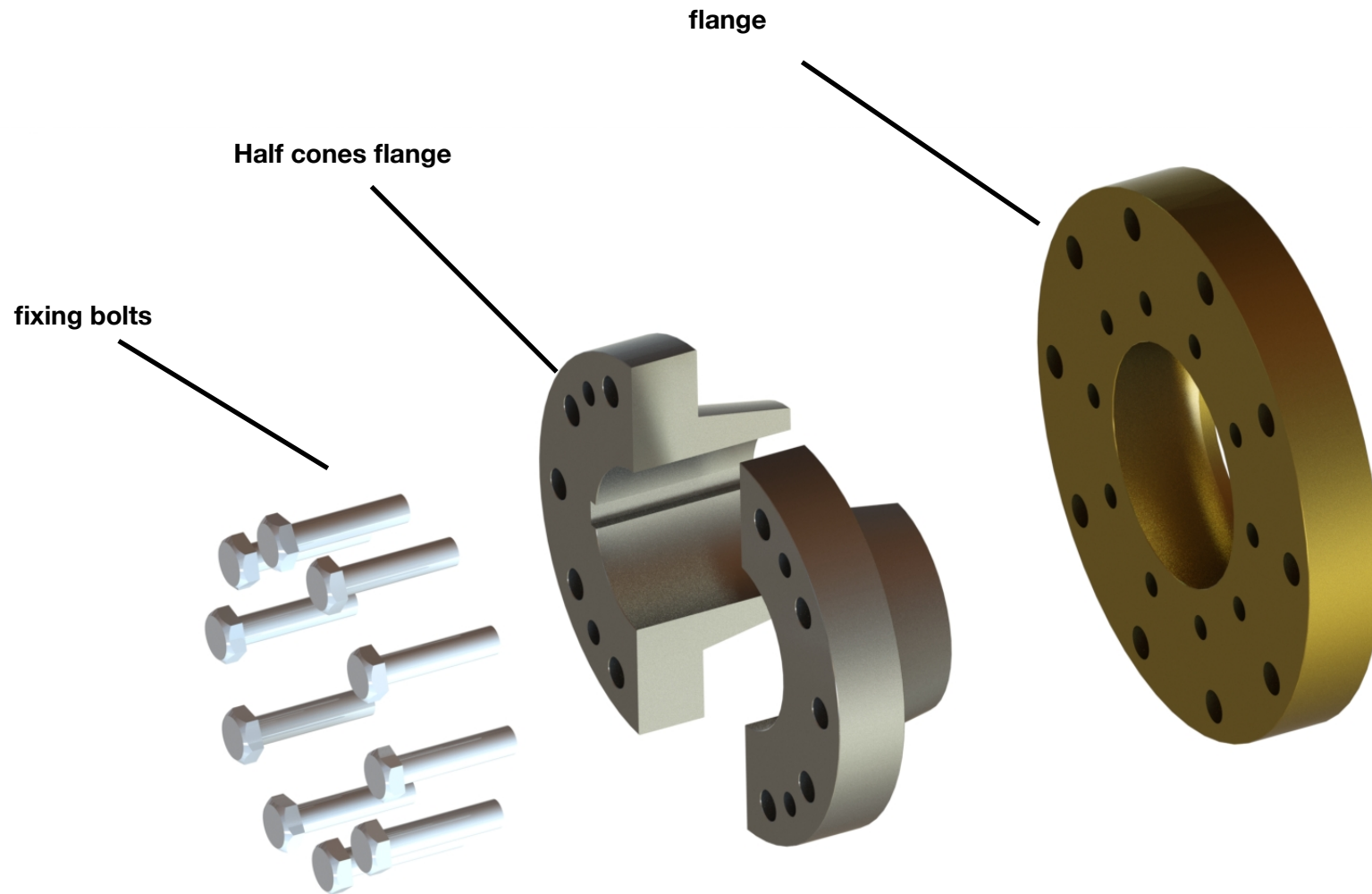
Undercarriage :

solid structure for undercarriage frame , includes 2 mid rollers on side mount , idler wheels , tensioner unit (grease piston with nitrogen absorber) and main traction node (hub) for the direct connection to machine rear axle. (adapters are needed) .

the cover caps of the mid rollers and idler wheels are made in aluminium with caps for easy and quick oil level check and drain. to maximize periodic maintenance intervals and so reduce the cost of the operations.

Adapter kit :

to install the RHINO-X undercarriages on tractors rear axle is necessary to use adapters .
the image here below show the complete mount for 1 undercarriage (installation on tractors with rear axle drawbar).



Front tires :

to be able to match the original machine D.T.R is necessary to replace original front tires with different sized ones, the sizes of front tires depend by : machine manufacturer / tractor model / machine model year / original D.T.R .

normally for tractors from 250 hp up to 400 hp the D.T.R is 1:3

in this case the suggested size for front tires is : 750/50-R26

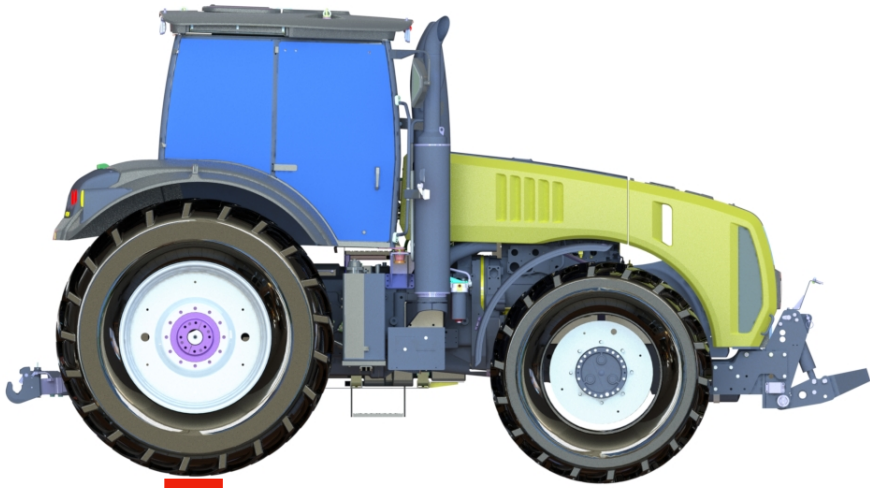
front tires and rims are not included in RHINO-X undercarriage system cost.

in this way the end user can choose between purchasing tires and rims from Poluzzi track system engineering or purchase front tires and rims from another supplier.



Rhino-X on Ag tractor :

here below a side overview of an AG tractor equipped with RHINO-X undercarriages on rear axle and front tires 750/50-R26 it's quite easy to recognize that the RHINO-X tracks can offer a bigger G.C.A if compared to standard AG tires .



low G.C.A and high soil compaction



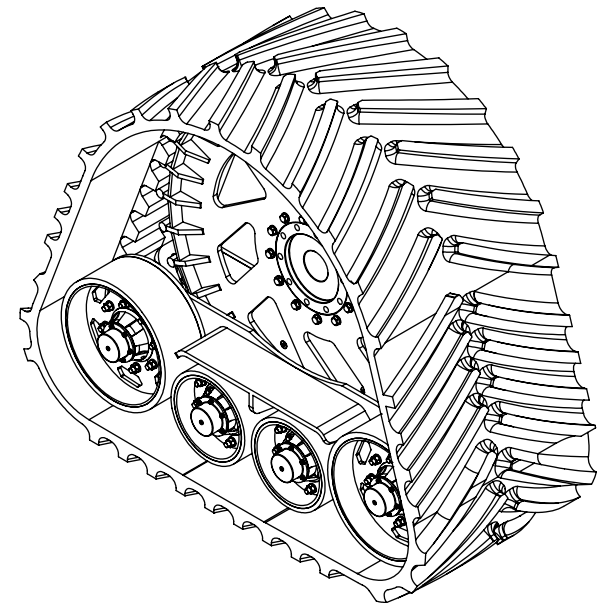
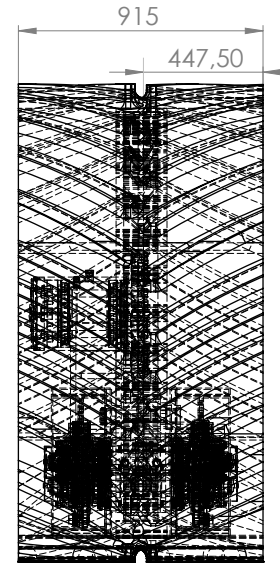
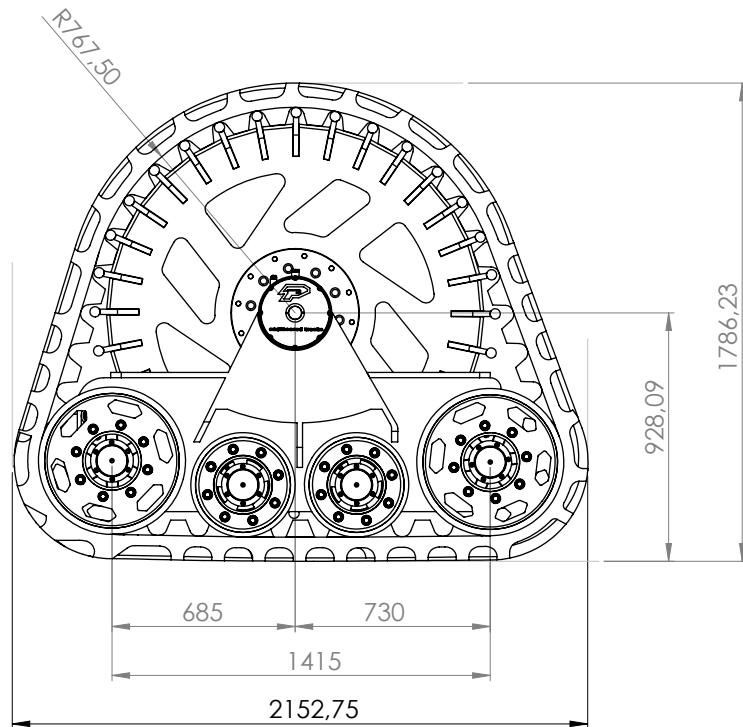
+300% G.C.A

significant reduction of soil compaction thanks to the big G.C.A offered by Rhino-X tracks

The Rhino-X undercarriages offers a G.C.A of : $12.735 \text{ cm}^2 \times 2 = 25.470 \text{ cm}^2$.
if compared with the same tractor with standard AG tires equipped (example size : 710/75R42 the RHINO-X system offer **+ 300% of G.C.A**).



RHINO36X rubber tracks



Model	Rhino36x
application	AG tractors
rubber track	915 mm width
G.C.A	12.947 cm ² (x2)
weight	1.750 Kgs
date	19.01.2018
design	poluzzi simone
copany	poluzzi tracks

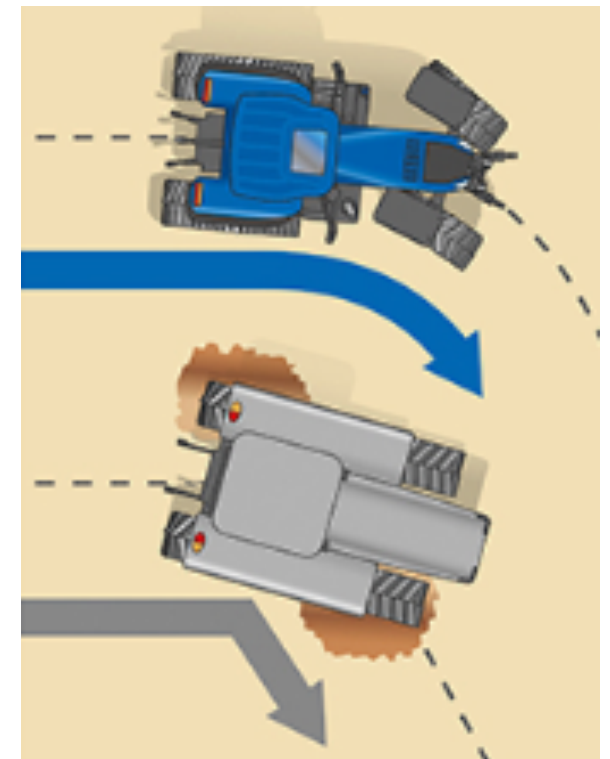
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RHINO36 ASSEMBLY

Performances and advantages in field :

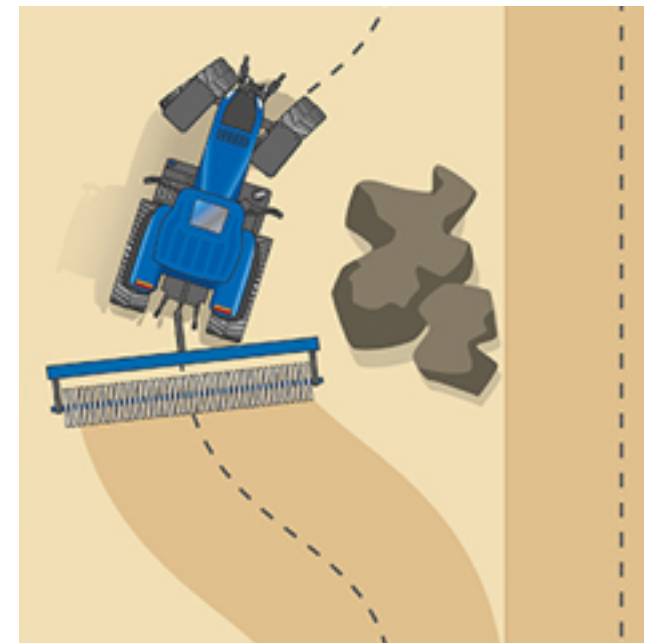
Smooth ride and smooth turning angle :

an AG tractor equipped with RHINO-X H track system compared to a full tracked tractor offers better handling performances, for example a smooth turning angle thanks to the use of front wheels, this means that the soil will not be damaged at the end of the field when narrow angle turning is required. see picture here on right .



Maximized traction effort :

at the end of the field or when turning around an obstacle with the tool still working on soil the Rhino-X system can offer the best traction performances, without any slippery issue or power loss, with the Rhino-X system the moving forward performance is not reduced by the steering issues. always offer best traction and top power capacity in field.





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