

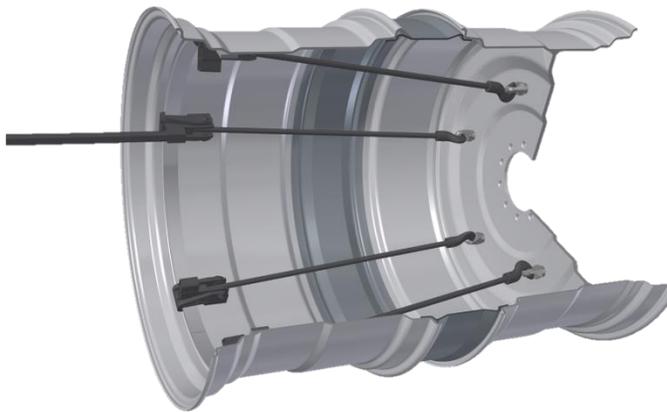
# Dual Mounting Systems

Used when there is the need of increasing the torque on the ground and reducing the soil compaction, Trelleborg offers two systems for dual tractor tyres: the **DUO500** and the **TWINNING** (totally developed in house)

## DUO500

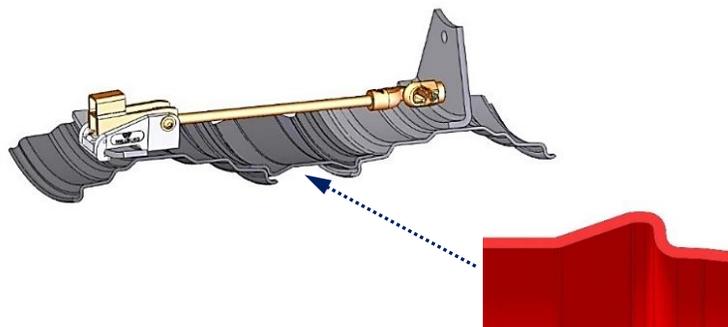
This solution uses an external bare rim and a central drum, mounted on the original tractor wheel.

Rim and drum are attached together, and this allows easy handling and mounting-dismounting operations.

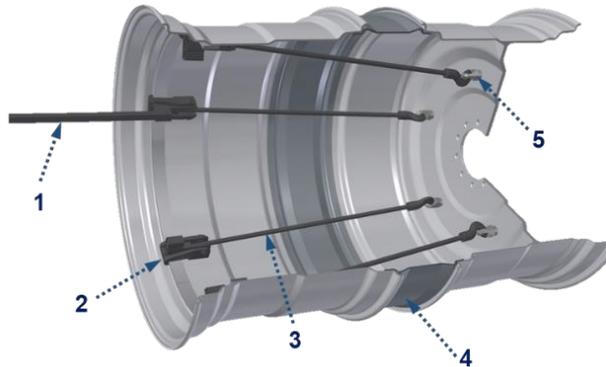


- Customized solution for central drum, number of clamps and bar length
- Used for tractors up to 500hp

Thanks to the special design of the drum, it is suitable to be mounted with most rim brands, avoiding getting stuck in the tractor wheel.



# DUO500 - Main components & Technical details



- 1. Clamping Tool
- 2. Clamp
- 3. Hook Bar
- 4. Distance Drum
- 5. Ring Nuts

## 1. Clamping Tool

Needed to fasten the clamps and block the whole system



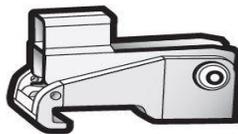
### Available Length

450 mm

600 mm

## 2. Big Clamps

Needed to block the internal hook bars. They have standard dimension. Number of clamps depends on the tractor power.



### Tractor HP      Clamps

Up to 250 HP      4

Up to 500 HP      6

## 3. Hook Bar

On the outer side, it's fastened in the big clamp, internally it's blocked to the wheel disc thanks to the ring nuts.



### Available Length

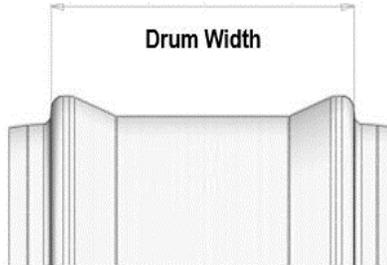
1000 mm

1300 mm

#### 4. Distance Drum

Attached to the rim, it's needed to connect the original tractor wheel and the external rim.

Different drum widths are available depending on the wheel size



| Wheel Diameter | Drum Width [mm] |     |     |
|----------------|-----------------|-----|-----|
| 28"            | 190             | 230 |     |
| 30"            | 190             | 230 |     |
| 34"            | 190             | 230 |     |
| 38"            | 170             | 230 | 280 |
| 42"            | 230             | 280 |     |

Trelleborg also provides distance drums with different diameters on both sides (**Left: attached to the rim** – **Right: inserted in the tractor wheel**).

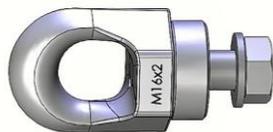
This allows to use an external rim smaller than the original tractor wheel.



| LS Diameter | RS Diameter |
|-------------|-------------|
| 28"         | 30"         |
| 30"         | 34"         |
| 38"         | 42"         |

#### 5. Ring Nuts

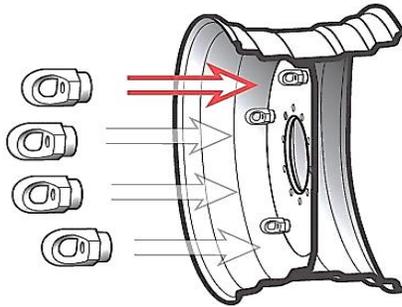
Screwed in the tractor wheel disc, they are needed to fix the hook bar.



| Available nut size |
|--------------------|
| M16x1.5            |
| M16x2.0            |
| M18x1.5            |
| M22x70             |

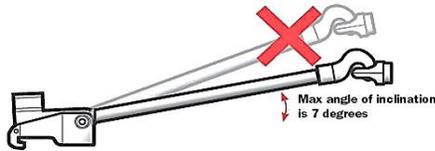
# DUO500 – Mounting Instructions

## 1. Fasten the ring nuts on the tractor disc



- Make sure you are using the correct tightening torque
- Fasten the ring nuts as close to the rim as possible.

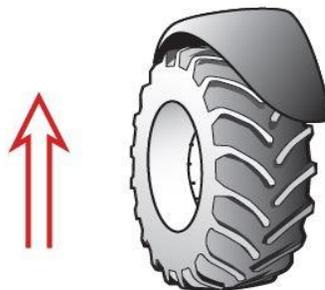
**Max Angle of inclination is 7°!**



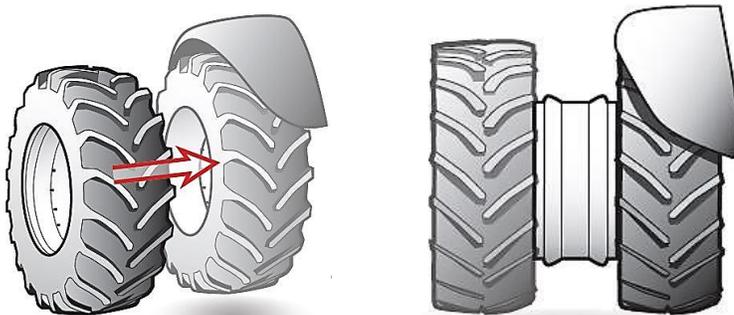
## 2. Fasten the dual hook bar with the big clamp, and then fasten the M20 nut at the end of the dual hook bar



## 3. Make sure the tractor wheel is slightly lifted



## 4. Mount the dual wheel on the tractor wheel

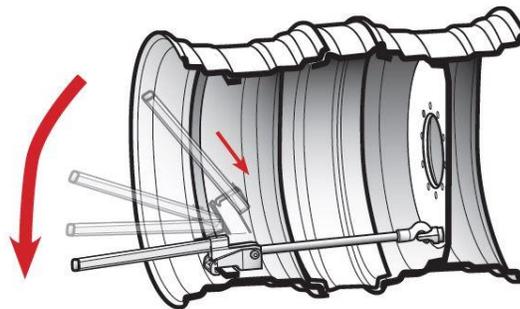




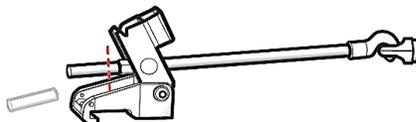
**Make sure the drum is in the correct position, in level with tractor rim**



5. Put the hook in the ring nut and the big clamp on the clamping ring. Adjust the M20 nut to correct position when the big clamp is open.
6. Use enclosed clamping tool to lock the big clamp
7. Make sure all dual hook bars are firmly tightened.



8. When the big clamp is open, cut off excessive length of the dual hook bar 20mm from the M20 nut



9. Mount the locking pins on all big clamps



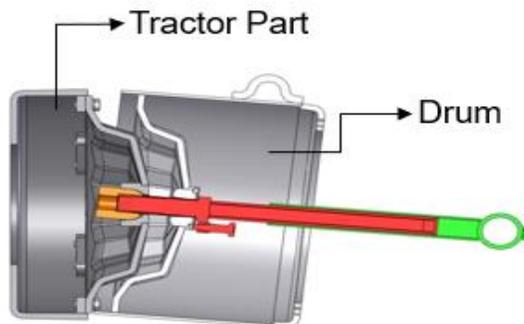
# TWINNING

This system, totally developed by Trelleborg, allows to have a dual system for the tractor, always using wheels with disc. Since it's mounted directly on the machine hub, so no increased tension and stress are transferred to the original tractor wheel.

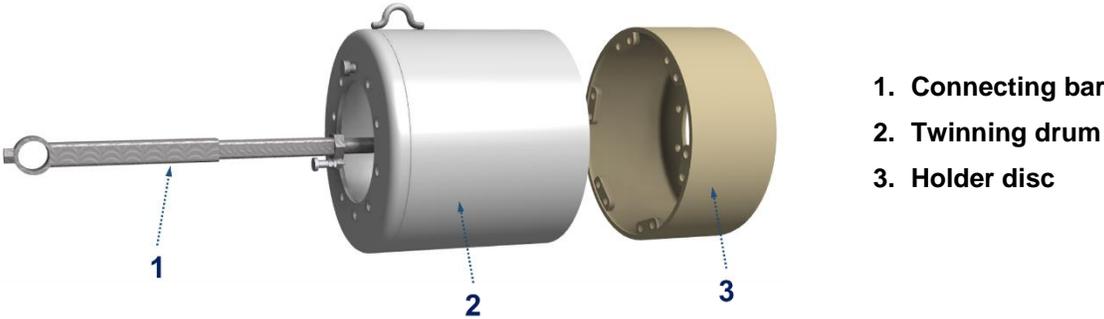


- **No tension or stress on the internal tractor wheel**
- **Customized distance between tires**
- **Easy to adapt to tractors up to 400HP**

Thanks to its innovative flexible joint guide system, Twinning works even if the wheels are not perfectly aligned.



# TWINNING - Main components & Technical details

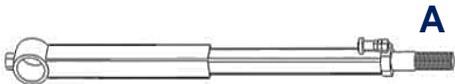


- 1. Connecting bar
- 2. Twinning drum
- 3. Holder disc

## 1. Connecting bar

It's needed to connect and screw together the tractor part and the twinning drum.

Length of the bar is fixed (750mm) while two dimensions of the threaded part (A) exist

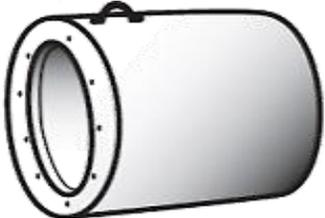


| Length | Thread Size |
|--------|-------------|
| 750 mm | M36x120     |
| 750 mm | M36x140     |

## 2. Twinning Drum

It connects the tractor wheel and the external dual wheel.

Can be chosen in different lengths.



| Available Length |
|------------------|
| 271 mm           |
| 321 mm           |
| 371 mm           |
| 421 mm           |
| 471 mm           |
| 521 mm           |
| 571 mm           |
| 621 mm           |
| 671 mm           |
| 721 mm           |

#### 4. Holder Disc

This is the part bolted to the tractor wheel disc. Four models exist with different total width (B)



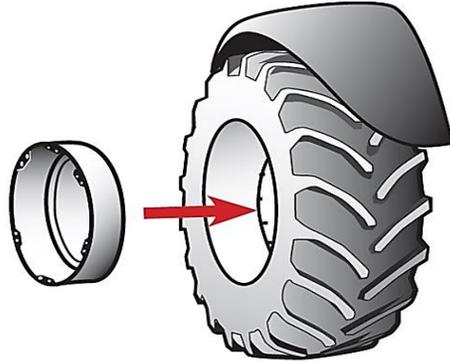
| HD Type    | Diam A | Width B |
|------------|--------|---------|
| HD 470x150 | 470mm  | 150mm   |
| HD 470x200 | 470mm  | 200mm   |
| HD 470x250 | 470mm  | 250mm   |
| HD 470x300 | 470mm  | 300mm   |

When the drive disc and the holder disc are bolted together, they create a component called **Tractor Part**.

It allows the twinning system to be physically mounted on the tractor.

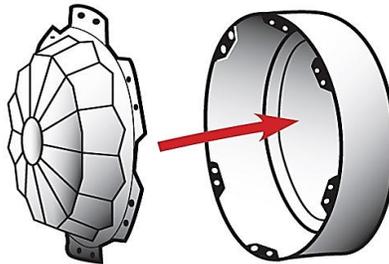
# TWINNING – Mounting Instructions

1. Clean the disc surface on the tractor wheel. Mount the holder disc on the outside of the wheel disc.

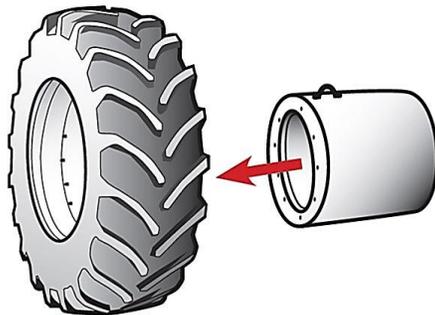


Make sure the bolt length is correct. After a maximum of 40 hours driving, check all bolts and fasteners are tight!

2. Align the drive disc with the assembled holder disc. Fasten the drive disc with the 12 enclosed bolts and washers. Tight to 365 Nm.



3. Mount the drum onto the disc of the outer wheel. Tighten to the recommended torque.



After a maximum of 40 hours driving, check all bolts and fasteners are tight!

4. Cut the connecting bar about 50mm at the inside of the tyre side. Mount the supplied plastic plugs

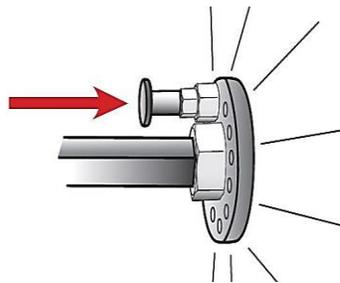


5. Roll, lift and align the outer wheel system close to the tractor. Make sure the tractor wheel is a little higher than the outer wheel.

Mount and faster the turn tool on the connecting bar, tightening to 1200 Nm torque.



6. Activate the locking pin.



After a maximum of 8 hours use make sure the connecting bar is still correctly tightened