



## HYDRA DRIVE SYSTEM

# Hydra Drive System (HDS)

**HydraSpecma's intelligent assisted drive axle for agriculture  
– available in two sizes: HDS 2550 and HDS 3000**

### **HDS 2550**

- » Variable hydraulic motor
- » Drum brakes with hydraulic actuator
- » Suitable for tyres from 1 meter to 1.5 meters
- » Overall width: 2550 mm
- » Max. static load: 15 MT
- » Max. dynamic load at 40 km/hr: 12 MT
- » Typically used for:  
forestry-, hook lift-, construction-  
and agricultural trailers

### **HDS 3000**

- » Variable hydraulic motor
- » Drum brakes  
with hydraulic or pneumatic actuator
- » Suitable for tyres from 1.5 meter to 2 meters
- » Overall width: 3000 mm
- » Max. static load: 22 MT
- » Max. dynamic load at 40 km/hr: 15 MT
- » Typically used for:  
large trailers and slurry tankers

**Hydra Drive System** is an intelligent and variable assisted drive system that uses the tractor's power beyond hydraulic connection and ISOBUS electrical system. It is a *Plug & Play* solution.

The system is delivered with a complete axle with an integral differential lock, drum brakes, hydraulic motor and electronic control system based on *Danfoss PLUS+1®* platform. The axle and the operating system are developed by **HydraSpecma** and is designed to withstand harsh working environments and with focus on user-friendliness.

- » Hydraulic connection directly to the tractors existing power beyond.
- » Flow requirements from 50 to 200 l/min.
- » Max. pressure: the tractor's hydraulic, normally 200 bar.
- » Fully variable system that can vary up to 10:1 which leads to:
  - Reduced oil consumption which makes it fit many tractor sizes.
  - Less fuel consumption .
  - Up to 25% less power requirement compared to other assisted drive systems.
- » Freewheeling up to 40-50 km/h.  
As default is the working area set to 0 to 15 km/h. However, it can be changed to higher or lower.
- » Mechanical differential lock

## Hydra Drive System operating system – two control options

The operating system is now available in two different variants – as control unit or as a touchscreen.



### CONTROL UNIT

- » User-friendly
- » Easy to handle with gloves
- » Intuitive
- » Displays the error code



### TOUCHSCREEN

- » Setup and diagnosis directly on the screen
- » Shows error with explaining text
- » LOG – see historic data
- » See the status in real time

The operation of the hydraulic assisted drive axle is managed via a simple **CAN-bus** control unit directly connected to the ISOBUS service socket in the tractor.

The system can run in either: **AUTO** or **MANUEL** mode.

Fully automatic operation requires an ISOBUS connection.

When the **AUTO** mode is activated, **HDS** automatically synchronises with the tractor's forward and revers movements, braking function, and working area.

When switching tractors, the **Hydra Drive System (HDS)** is easily calibrated to fully utilize the tractor's flow capacity.

In the software development process, we have prioritised **functional safety**.

This means that the software elements provided by *Danfoss* has undergone a safety assessment. The system comes with documentation that allows the assembler to integrate it into the machine's CE-marking.