

The New  
**On-Demand Drive System**



**Black  
Bruin**



No POWER like it.

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# On-Demand Drive System

## Drive through harsh conditions

The Black Bruin On-Demand Drive System is a complete transmission solution for tractor-driven trailers and working equipment. The system enables smooth operation of the equipment and is designed for agricultural, forestry and earth-moving applications which often require tractive power in harsh conditions and varying terrain.

The heart of the system is the Black Bruin hydraulic wheel motor which generates tractive power always when needed and for road speeds, can be freewheeled without active hydraulics.

Black Bruin On-Demand Drive System is suitable for various tractor/trailer configurations. A simple and reliable system with guaranteed component compatibility is an easy solution for an equipment manufacturer due to less time spent on system integration.

### Typical applications:

- ✓ Forestry trailers, wood chippers
- ✓ Earth-moving trailers, hooklift trailers, peat wagons
- ✓ Slurry tankers, trailed sprayers and fertilizers, silage wagons, grain carts, root crop harvesters, balers



**Valve**  
**2WD / 4WD**

**Radial piston**  
**hydraulic motor**

**Control device**

**Display**

## On-Demand Drive System **Typical operating situations**

Trailers with driven wheels offer many advantages for tractor operators. The additional traction makes it possible to extend the season or perform tasks in conditions that normally would halt work. It also prevents trailers from sinking into wet fields or forests, avoiding damage to arable land or tree roots. Trailers with driven axles even save fuel, as heavy loads can be pulled more easily. The biggest savings are generated by the fact that a smaller tractor can be used to pull the same load.

### Key benefits of the system:

Time is money - Get the job done when it needs to be done!

Less soil damage and compaction

Less tractor power required - Lower fuel consumption

No ploughing effect or hauling of dead weight

Improved steering ability



Driving up steep hills



Reversing on steep hills



Crossing obstacles



Driving on slippery or soft surfaces



## On-Demand Drive System Control system options

### CTR101 - Manual drive control

Whether you drive off-road or on-road, the CTR101 control system includes functions for various operating situations: Driving direction selection, tractive power adjustment, speed range control, freewheeling and assisting traction control (ATC).

The user controls the system functions and gains information on its operation via the display which has the same updated and user-friendly interface as on the CTR201.

Automated functions and self-diagnostics ensure the correct operation of the system. System includes also protection against connection failures.

### CTR201 - Smoother drive control

The CTR201 control system utilizes the tractor's ISOBUS, simplifying the operator's work significantly and offering unbeatable practicality. ISOBUS provides the system with all the data needed to control the trailer's wheel motors, such as the tractor's direction and speed.

The display makes it easy to select the desired drive power, after which the trailer automatically pulls in the same direction and at the same speed as the tractor.

When accelerating, the operator does not have to disengage drive, as the system automatically does so at high speeds. If required, the operator can also disengage the automatic system and control the trailer's drive manually.

# Specifications

## Control systems / Valves



Control system	CTR101	CTR201
Driving direction selection	Manual	Automatic
Tractive power (pressure level) adjustment	Manual (25/50/75/100 %)	Manual (25/50/75/100 %)
Speed range control (shifting to 1 or 2-speed)	Manual	Automatic
Freewheeling (disengaging the drive)	Automatic	Automatic
Engaging the drive	Manual	Automatic
Assisting traction control (ATC)	•	•
Control for external valve (AUX)	•	•

Valve model	CVM120 / 2WD	CVM120 / 4WD	CVU200 / 2WD
Max. pressure level [bar]	350	350	350
Max. flow rate [l/min]	120	120	200
Operating voltage	12 V DC	12 V DC	12 V DC
Compatible pump	Load-sensing (LS) or fixed displacement	Load-sensing (LS) or fixed displacement	Load-sensing (LS)
Functions	Driving direction selection, tractive power adjustment, speed range control, freewheeling and assisting traction control (ATC).		

Contact [sales@blackbruin.com](mailto:sales@blackbruin.com) for more information or visit [www.blackbruin.com](http://www.blackbruin.com)



**“With the aid of Black Bruin driven wheels,  
I'll get the job done  
when it needs to be done”**

No POWER like it.

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**HYDRAULIC MOTOR  
PRODUCTION IN FINLAND**