WALTERSCHEID

ICVD®

Enjoy the effective transmission!

WALTERSCHEID
POWERTRAIN GROUP

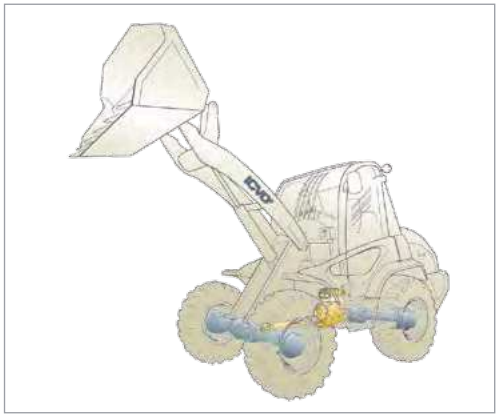
www.icvd.walterscheid.com

CLEAR DEMANDS

For certain applications, self-propelled agricultural and construction machinery, such as wheeled and telescopic loaders, forestry machines, combine harvesters and also choppers, not only need to generate high tractive forces, but also have to be capable of covering fairly long distances at the highest possible speed..

Up to now, both of these functions have been realised by hydrostatic drives with manual gearboxes. This concept has proven to be less than optimum in practice, since the machine usually has to be at a standstill to switch between gears, making the procedure both inconvenient and time-consuming.

Continuous variability is what is called for here in practice – with a variable drive concept and substantially greater operating convenience for the driver.



OUR SOLUTION

Walterscheid offers a continuously variable hydrostatic travel drive for self-propelled agricultural and construction machinery that makes it possible to drive continuously through the entire speed range without interrupting the tractive force.

The ICVD® is thus a symbiosis of previously successful drive concepts, combining their advantages, but without having to accept the drawbacks of the old solutions.

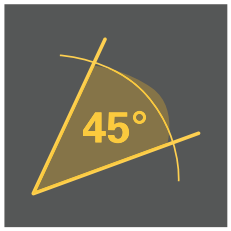
The ICVD® is a continuously variable hydrostatic travel drive, comprising gearbox, hydraulic motor and control unit.

The ICVD® offers a large, continuously variable conversion range from "0" to the maximum transport speed, automatic adaptation of the power requirement, and simple reversal of direction of travel and torque.

BENEFITS

Continuously variable hydrostatic travel drive

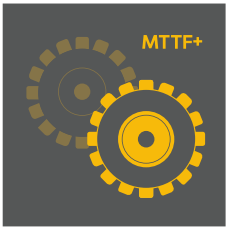
Optimised efficiency due to integrated hydrostatic motor with large-angle technology



Wider conversion range with large-angle technology

Low noise

Reduced fuel consumption



Reduced tyre wear

The ICVD® possesses a number of design features that add up to a totally new travel drive.

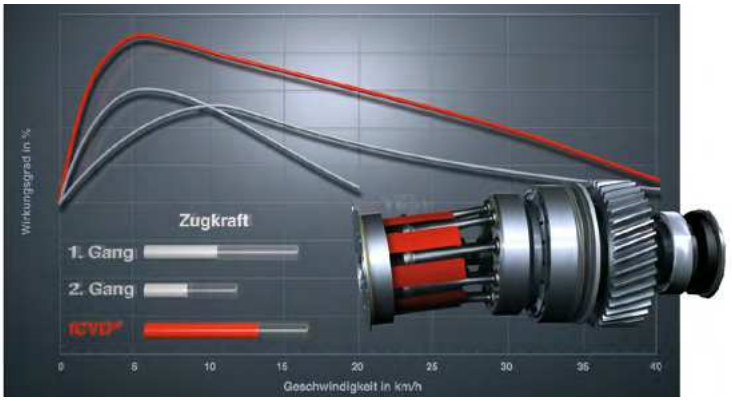
At the heart of the ICVD® concept is the use of a hydraulic motor featuring „large-angle technology“. This permits pivoting of the motor up to an angle of 45°, instead of the usual maximum of 32°.

Both the hydrostatic conversion range and the efficiency are substantially improved, making this technology a real alternative to the previous concepts.

As a result, a number of advantages can be achieved:

- Large, continuously variable conversion range
- Automatic adaptation of the power requirement
- Tractive power generation independently of the rpm speed
- Simple reversal of direction of travel and torque
- Flexible arrangement of the drive elements

The ICVD® can be used to realise very quiet drive concepts in practice. And the optimised efficiency also cuts the vehicle‘s fuel consumption



Reduced fuel consumption due to optimised efficiency

DESIGN & CONCEPT

ICVD® GT-S1N-233V
Max. volume = 233 ccm
Max. operating pressure (Δ p) = 480 bar
Max. torque = 2.560 Nm
Max. speed of drive shaft = 4.470/min
Transmission ratio = 0,94 – 1,6 : 1
Conversion range = 8 : 1

ICVD® GT-S1A-233V/...
Max. volumen = 233 ccm + 60 ccm
Max. operating pressure (Δ p) = 480 bar
Max. torque = 3.200 Nm
Max. speed of drive shaft = 4.470/min
Transmission ratio = 0,94 – 1,6 : 1
Conversion range = 10 : 1

ICVD® GT-S1 A 233V-K*
Max. volume = 233 ccm + 60 ccm
Max. operating pressure (Δ p) = 480 bar
Max. torque = 3.200 Nm
Max. speed of drive shaft = 4.470/min
Transmission ratio = 0,94 – 1,6 : 1
Conversion range = 10 : 1
* Optionally with axle disconnection*

ICVD® GT-S1N-370V
Max. volume = 370 ccm
Max. operating pressure (Δ p) = 480 bar
Max. torque = 4.250 Nm
Max. speed of drive shaft = 3.872/min
Transmission ratio = 0,96 – 1,67 : 1
Conversion range = 8 : 1

ICVD® GT-S1N-370V-K*
Max. volume = 370 ccm
Max. operating pressure (Δ p) = 480 bar
Max. torque = 4.250 Nm
Max. speed of drive shaft = 3.872/min
Transmission ratio = 0,96 – 1,67 : 1
Conversion range = 8 : 1
* Optionally with axle disconnection*

The design of the ICVD® meets two essential requirements: compact and modular. This makes it possible to realise highly flexible and inexpensive drive solutions in practice.

The ICVD® consists of a control unit, the gearbox (mechanical drive) and a hydraulic motor. This compact assembly is universally adaptable in the vehicle, directly on the axle or on the vehicle frame.

The ICVD® is currently available in 5 output classes with different torques, allowing manufacturers to equip their entire machine portfolio. The performance parameters specified for tractive power, engine power and speed are decisive for selection of the version, which is then custom-designed by engineers on the basis of the vehicle-specific parameters. The entire product line is of modular design, meaning not only that it is possible to realise individualised customer solutions, but also that common parts standardised according to the modular-design principle are available. These parts include core elements, such as the control unit, the swivel bracket and the drive, as well as blanks for the internal components.

Many machine manufacturers use the ICVD® travel drive in series production.

For instance, well-known manufacturers of mobile machines have been using the ICVD® travel drive in their telescopic and wheeled loaders for years. Customer-specific drive solution optimisation and competent support facilitate trouble-free introduction in our customers' series production operations.

Ask us!

Walterscheid GmbH
Hauptstraße 150
D-53797 Lohmar
Phone: +49 22 46 12 - 0

Walterscheid Getriebe GmbH
Alte Bautzener Straße 1-3
D-02689 Sohland / Spree
Phone: +49 35936 3660

For further information please visit us at www.icvd.walterscheid.com or email us at icvd@walterscheid.com.

WALTERSCHEID INSIDE –

Our driveline, hitch and attachment systems provide for higher efficiencies of agricultural and construction machinery.

Innovations and technologies from Walterscheid such as the continuously variable hydrostatic travel drive increase the efficiency of agricultural and constructional machinery. In addition, our systems improve comfort and safety, thus making lasting contributions to increasing productivity.

- AWARE OF THE **FUTURE**.
- DEVELOPING **IDEAS**.
- LIVING **TECHNOLOGY**.
- MASTERING **CHALLENGES**.

Walterscheid
– the original

WALTERSCHEID
POWERTRAIN GROUP

www.icvd.walterscheid.com