

## CONNECTED. INTEGRATED. INNOVATION.


### STOLL ProfiLine+ ISOBUSconnected.




Ramp Function



pLimit  
Pressure  
Regulation




Load independent  
Lowering Speed



Bucket Shake



Weighing



Working  
Window



MEM  
Return  
To Position



Electric Hydraulic  
Parallel Leveling



Vibration  
Damping



End Position  
Damping



Teach In



Electric  
Flow Sharing

Product Preview

**DISCLAIMER:** This is a product preview.  
Design, functions and technical data may differ in the series version.

# ISOBUS Connected.

Tractor and front loader - one unit.

The new STOLL ProfiLine+ ISOBUSconnected offers the full integration of the frontloader into the tractor system. The new system setting new comfort and safety standards.

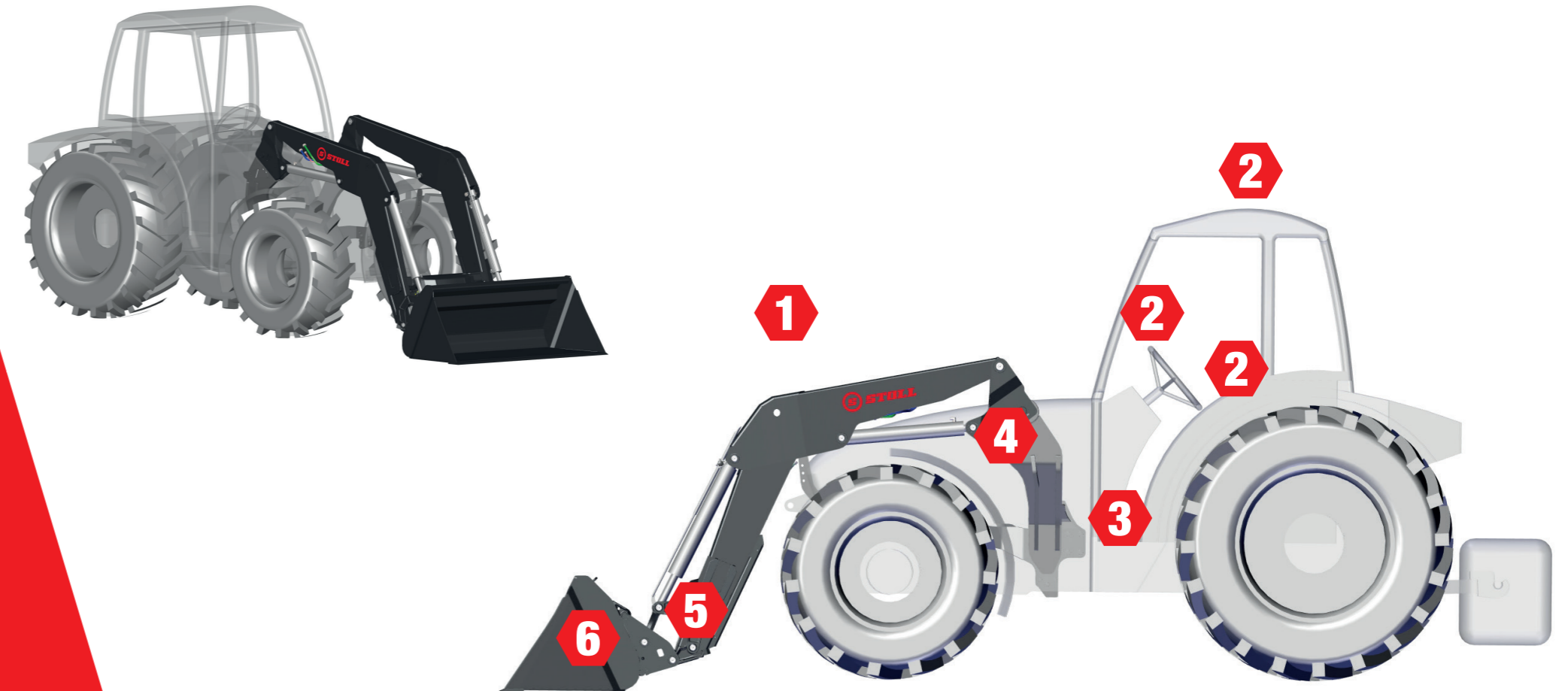
In addition to the electro-hydraulic parallel leveling on the FS+, the new STOLL ProfiLine+ ISOBUSconnected system also offers professional functions that turn the tractor with the Stoll front loader into a true professional machine.

The ISOBUS standard ensures that you can use your front loader to the tractor via the ISOBUS connector. Your tractor now communicates with the front loader via the ISOBUS.

With the STOLL ProfiLine+ ISOBUSconnected, the front loader can be connected to the tractor control unit and operated by the tractor joystick and terminal.

Conclusion: No additional modules necessary, everything with existing devices! Integrated! Connected!

## Product Preview

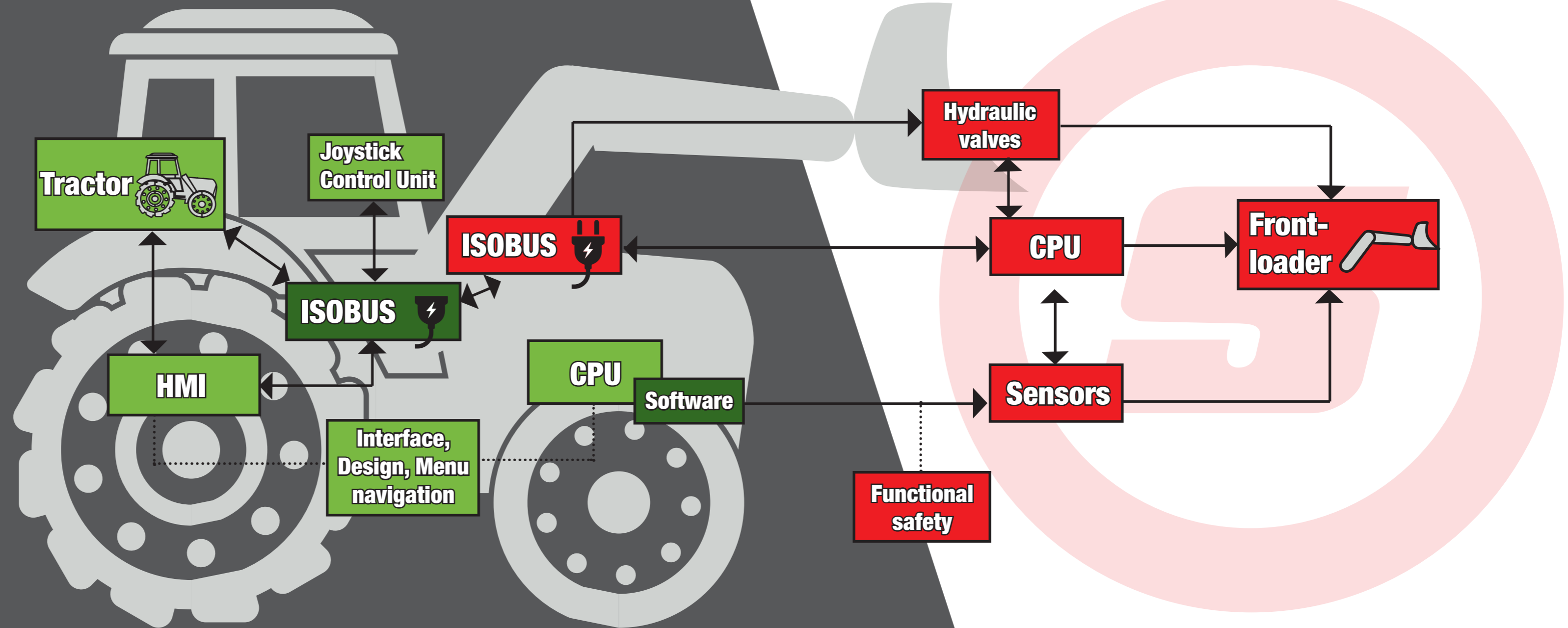


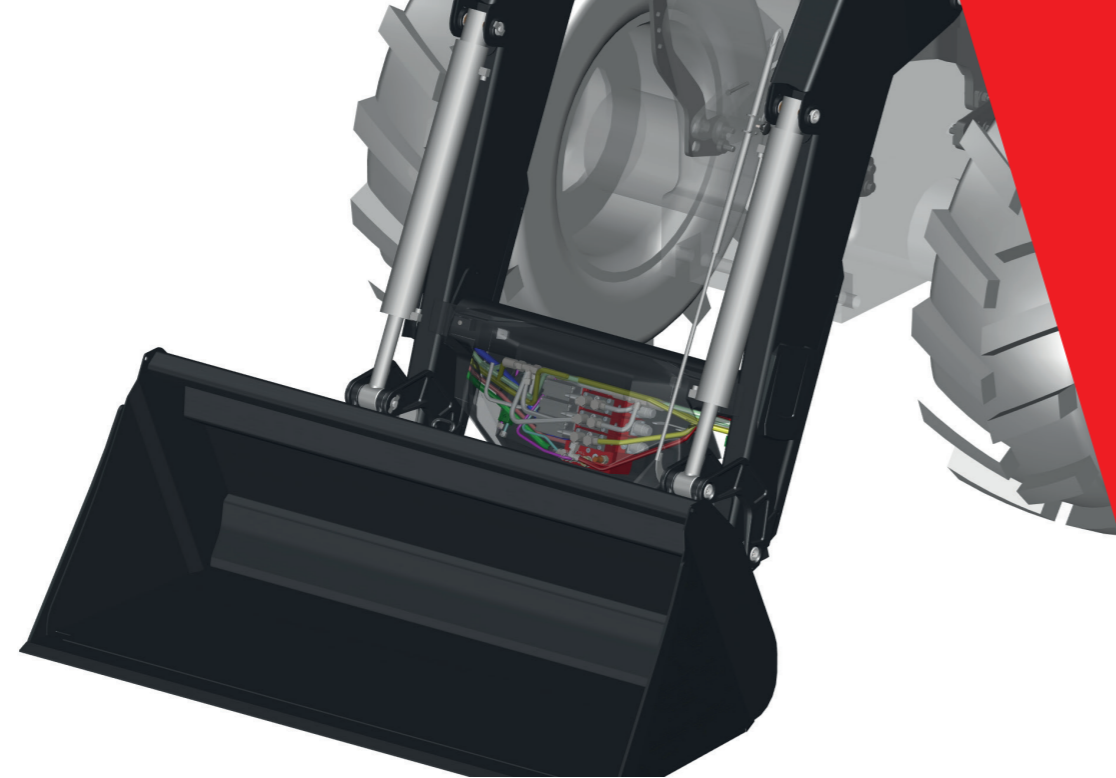
### Components

- 1 STOLL ProfiLine+ ISOBUSconnected
- 2 Tractor with CPU, display/HMI and joystick
- 3 ISOBUS connector
- 4 Hydraulic connection
- 5 Sensors and electrical system
- 6 Attachment/implement

# STOLL ProfiLine+ ISOBUSconnected.

The system.



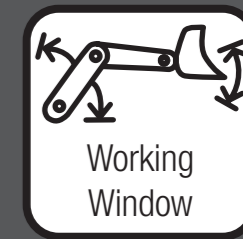
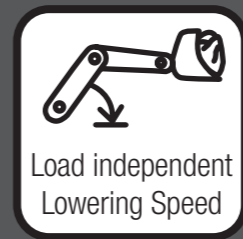
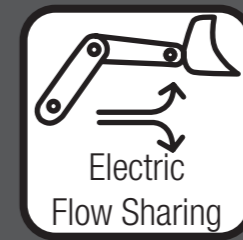
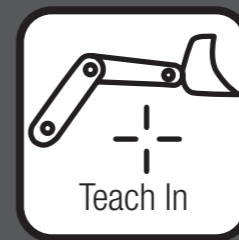
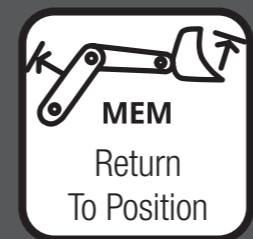


- Basic functions.
- + Lifting and lowering
  - + Shaking and shovelling
  - + 3rd and 4th control circuit

## The functions.

- STOLL-ISOBUS-functions.
- + Ramp Function
  - + Load Independent Lowering Speed
  - + Weighing
  - + Pressure Regulation
  - + Bucket Shake
  - + Working Window
  - + End Position damping
  - + Electric Flow Sharing
  - + Teach In
  - + Vibration Damping
  - + Return To Position
  - + Electric Hydraulic Parallel Leveling (Attention only for FS+ )

## Profiline+ ISOBUS Connected. The functions.



**EXPERIENCE. QUALITY. INNOVATION.**  
**OUR HEART BEATS FOR AGRICULTURE**



## Function: Pressure Regulation

- Pressure regulation
- Overload protection tool
- Machine overload protection

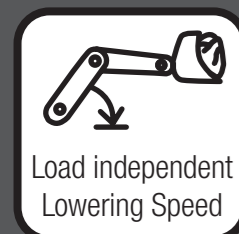
### Pressure regulation:

#### Pressure limitation in the bale grab application

This function enables convenient and safe use of a bale grab, as the clamping force can be individually limited by pressure limitation. The control unit regulates the pressure in the 3rd function via the valve to a previously defined value.

#### Pressure relief function, e.g. for a motorised drive

This function prevents overloading, e.g. due to jamming, of a hydraulic actuator. If the pressure exceeds a previously defined value, the valve is regulated back so that the defined pressure range is maintained



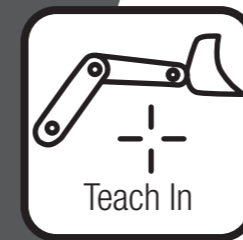
## Function: Load independent Lowering Speed

- Controlled lowering
- Load-independent
- Maximum comfort

### Load-independent lowering:

The same lowering and lifting speed regardless of the load.

The **lowering speed is reduced by throttling** at the return side. Due to the rigid design, the return throttling is too high without load and unnecessary power loss occurs; with load it is too low and the lowering speed is too high. The automatic adjustment of the return oil adapts to the weight of the tool and the speed remains stable regardless of the load. The speed corresponds to the preselection by the joystick deflection. (Up-down same speed, on/off function)



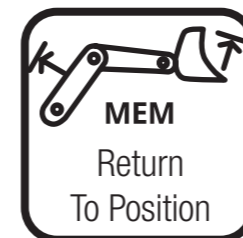
## Function: Teach-In

- Defined movement sequence
- Simple operation
- More power

### Teach-In (Track planning):

When the teach-in function is switched on, a movement sequence is saved. A complete movement cycle can be saved by running through it. When activated, the liftarm and the tool are controlled accordingly. This movement cycle for the liftarm and mould is repeated accordingly when activated.

Settings:  
Define, save and call up the movement cycle.



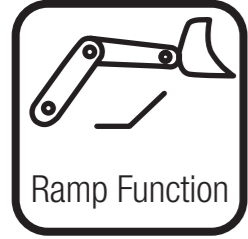
## Function: Return to Position

- Faster work
- Precise, recurring position
- Stress-free working

### Return to position:

The operator defines a position to be approached. The position is approached by moving the boom and tool. The set position is saved and is approached automatically. In order to simplify recurring processes, a position is approached with a simple signal (pressing a button and moving the joystick). Readjustment using the joystick is not necessary. In independent mode, the saved position of the liftarm and mould can be approached separately. In linked mode - the saved position of both the liftarm and tool will be approached. The return to position is an on/off function.





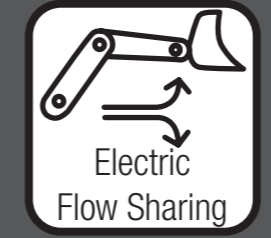
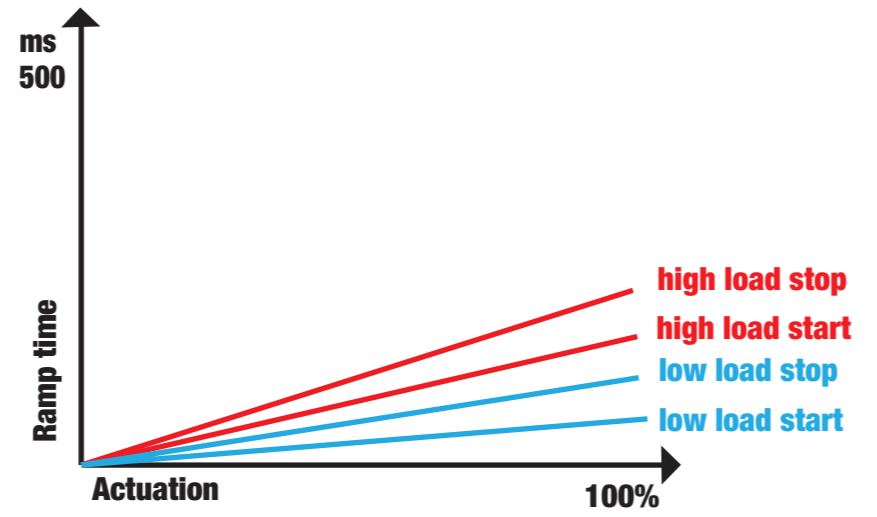
## Function: Ramp Funktion

- Load-independent
- Adjustable ramp time
- High power

### Track planning:

The aim is to increase comfort and enable material-friendly working.  
The ramp times can be defined independently and flexibly in order to optimally meet the needs of the operator.  
The ramp time defines the time from the joystick deflection to the full deflection of the control piston.

The start ramp and the stop ramp are different;  
Consumers A and B start ramp, consumers A and B stop ramp.  
The ramps can also be defined as a function of the load.  
The ramp time is thus optimally adapted to the current work situation.  
Settings: Ramp times, without weight dependency (four parameters)



## Function: Electronic Flow Sharing

- Priority control
- Adjustable
- Smooth switching

### Electronic volume splitting:

The maximum possible pump volume is determined by the speed and displacement of the pump.  
If the desired volume flow is higher via the control of the valve segments, the volume of the controlled consumers is controlled consumers is reduced proportionally so that the inflow volume and the pump volume are equal.

### Priority functions possible

It can be defined that the volume flow is not reduced for defined functions.  
A disproportionate volume flow reduction is also possible (on/off function).



## Function: End Position Damping

- Load-dependent
- Protection of the machine
- Improved comfort

### End position cushioning:

The aim of end position damping is to avoid a hard impact in the end position of the cylinder.  
A reference delay is calculated depending on the speed of the consumer. With this function, the approach to the end position is gentle yet dynamic.  
Sharp braking when reaching the end positions can be prevented.  
The hard impact on the driver and the load on the structure is avoided by calculating the kinetic energy and determining the required deceleration distance.  
Protection of the structure and improved driving comfort are guaranteed with this on/off function.



## Function: Bucket Shake

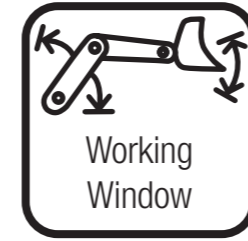
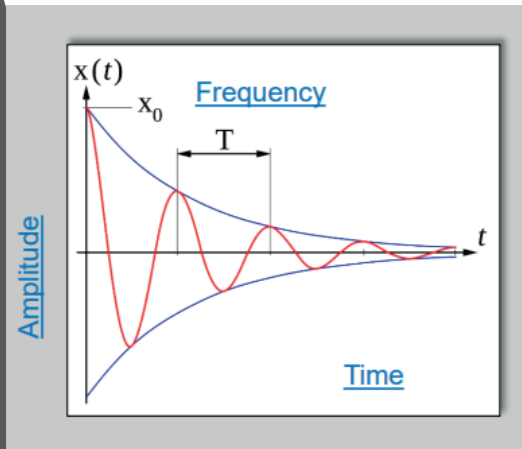
- Adjustable frequency
- Clean emptying
- More power

### Shaking function:

#### Complete emptying.

If material gets stuck in the bucket, the shaking function can be activated. The bucket is moved back and forth quickly and the material falls out. The duration can be adjusted. The amplitude is determined by the deflection of the joystick. The vibration function can also be provided with a decaying amplitude.

The bucket moves horizontally or to a defined position. Then the blade moves up and down with smaller amplitudes. The setting of the frequency depends on the load of the material properties. The amplitude correlates with the deflection of the joystick of this on/off function.



## Function: Working Window

- Defined working area
- Reduced risk of accidents
- Improved manoeuvrability

### Working area:

The aim is to adjust the end strokes electronically in order to avoid collisions or facilitate manoeuvrability. The permissible movement range of the front loader is determined by the electrical upper and lower end stroke. It is possible to teach;

- Upper position,
- Lower position,
- Both together

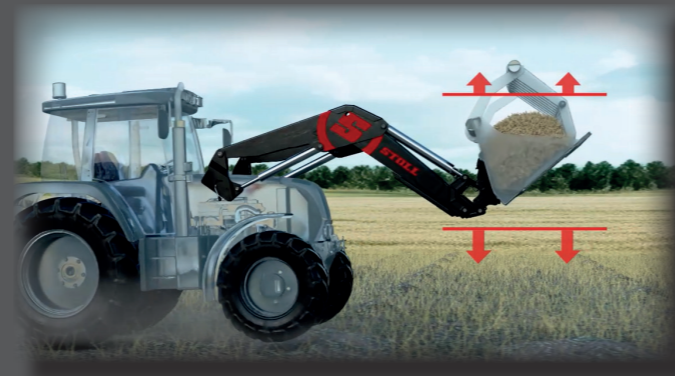
The possible movement range of the front loader is now limited within the defined range (on/off function).





## Function: Vibration Damping

- Load-independent
- Adjustable
- Switchable



### Vibration damping:

Reduces the movement of the vehicle on uneven road surfaces. The tool is used as a mass absorber by means of a switchable accumulator. The switchable accumulator dampens the vibrations of the vehicle body accordingly.

### Isolation

Reduces the movement of the tool when it is excited by the road and transferred to the tool by the chassis. The bucket can be isolated from the body and the vibrations of the bucket are reduced.

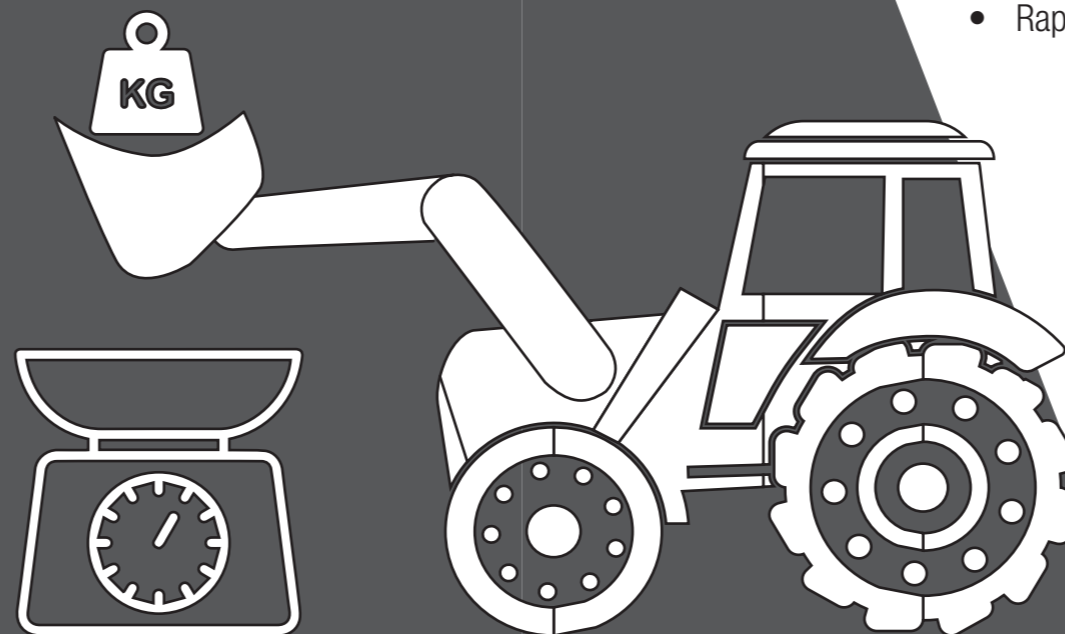
The damping of the system can be adjusted.

The amount of oil flow depends on the valve opening and is adjusted via the regulator.



## Function: Weighing

- Flexible position for weighing
- Travelling and weighing
- High accuracy



### Weighing:

Each tool is calibrated once and the corresponding data is saved.

The attached tool can be selected accordingly by the operator.

When the operator presses the button and the loader is in the measuring range (weighing range), the weighing process is started and the weight is calculated based on the pressure and geometry data.

The result is shown on the display. The accuracy is  $\pm 1\%$  (of the max. weight).

If several weighing processes are carried out, the weighing results can be added together automatically (total weight).

A total weight can be entered, which is automatically subtracted and the required „remaining weight“ is automatically calculated and displayed. The loader must be stopped, before the weighing process can be carried out.

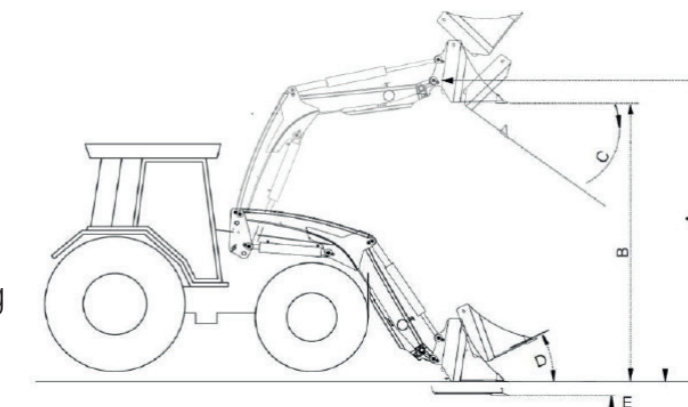


## Function: Electric Hydraulic Parallel Leveling (eHDP) (Function cannot be used for mech. parallel front loader FZ)

### Electric parallel guidance

With parallel guidance, the implement is automatically held in the defined position when the front loader is moved up and down. The angle to the ground is automatically corrected so that the position of the implement in relation to the ground remains the same. The movement of the boom cylinder is determined by the deflection of the joystick. The angle of the tool is calculated and adjusted accordingly with very high accuracy when the boom is raised or lowered. The function can be switched on and off.

- Fewer mechanical components
- Highest precision
- Rapid traverse function for quick emptying





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**Product Preview.**



Wilhelm STOLL Maschinenfabrik GmbH  
Bahnhofstraße 21 | 38268 Lengede  
Telefon: +49 (0) 53 44 / 20-222  
Fax: +49 (0) 53 44 / 20-49182

[www.stoll-germany.com](http://www.stoll-germany.com)

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