

STOLL



STOLL
ProfiLine FZ 43-34

**NEXT
GENERATION
OF PROFILINE**

**STRAIGHTFORWARD. POWERFUL. RELIABLE.
THE NEXT GENERATION OF HEROES.
BECAUSE AGRICULTURE IS PASSION.**

Please make sure to observe the correct allocation of the lifting arm to the console installed on the tractor; information in the installation instructions under number (...)



HOME

OF QUALITY





**FULL
POWER
FROM
THE
START**

TOP CLASS. MADE IN GERMANY.

German engineering is known all around the world for its high quality, performance and reliability. That is why we develop all STOLL front loaders with precisely these values in Germany. They combine state-of-the-art technology with innovative solutions – and this is exactly what we expect from high-quality German products.

Experience the full power of the STOLL ProfiLine Next Generation. The amazing best values in all areas ensure the highest quality in lifting capacity and lifting height, stability and loading speed. In addition to this, the individually selectable accessories from the ProfiLine Next Generation fit in perfectly with your needs as a farmer or contractor. True professionals for professionals.

FULL POWER – MAXIMUM STABLE CONSTRUCTION.

- ✓ The ProfiLine FZ front loaders are made of fine grain steel – Advantage: Highest stability with maximum torsional rigidity at the same time.
- ✓ The lifting arm boom is bent from a single piece of steel – The control rods are installed inside the beam. All the hydraulic lines are well protected but can be freely accessed under the beam.
- ✓ Kinematics of the entire lift arm body adapted to modern tractors. This results in optimum positioning of the lift arm to relieve the front axle and the best possible clearance for steering angle and axle swing path.
- ✓ In order to avoid the need to regularly replace the hose lines by the lifting arms in accordance with DIN 20066, we use wear-free steel hydraulic pipes instead.

Our intelligent designs provide you with a variety of comfort features exclusively from STOLL.



STOLL ATTACHMENT COMPONENTS – LESS LOAD ON THE TRACTOR AND A GREATER ACCURATE FIT.

- ✓ The attachment components can be installed perfectly on all common tractors – that is why the designers at STOLL individually adapt every tractor model.
- ✓ Reduced load on the front axle thanks to the optimal positioning of the attachment components close to the driver's cab. This shifts the centre of gravity of the entire front loader to the centre of gravity of the tractor.
- ✓ Often the windscreen can only be opened together with a STOLL attachment component.
- ✓ The attachment components fit perfectly as they are individually adapted to each tractor.

Z-KINEMATICS – BEST VIEW AND HIGH PERFORMANCE.

- ✓ The rods of the mechanical parallel guide are located in the lifting arm booms – the basis of the Z-kinematics.
- ✓ This frees up the view for the driver. No parts above the lifting arms obstruct or are in the way. Another benefit: The front loader can also be mounted closer to the driver's cab – result: Reducing the load on the tractor by optimally positioning the attachment components.
- ✓ Front loaders with Z-kinematics have even greater lift capacities and breakout forces. There is no loss of lifting power.

1 Wide sleeved bearings on the moving parts with lubrication points that can be easily accessed from the outside.

ONLY AT STOLL. MORE IS NOT POSSIBLE.

- ✓ 40 mm pin diameter from the largest to the smallest loader.
- ✓ 45 mm pin diameter at the upper pivot point of the Z-kinematics.
- ✓ 50 mm pin diameter at the rear lift arm pivot point.

2 Quick to mount and dismount in just two minutes thanks to the proven STOLL drive-in system.

3 All the hydraulic lines are under the beam rail, to ensure they are well protected and the driver has a clear view.

4 Double-acting lifting cylinders for a particularly high lifting capacity.

5 The Z-kinematics frees the view of the implement and ensures even greater lifting power.

6 The cross bar is optimally positioned for the best view and to protect the hydraulic lines at the front.

7 Safe and reliable parking stands that are easy to use – completely without implements.

8 Euro quick release frame for attaching the implement in seconds with semi-automatic or electro-hydraulic locking mechanism.



THE MEASURE OF ALL FRONT LOADERS.

Best performance in terms of lifting power and height. Top values in stability and loading speed. Comfortable to operate: the ProfiLine Next Generation was specifically developed to fulfil all the needs of true professionals.

High end on your farm: Big tractors are on the rise. Of course, at STOLL we also offer the front loaders to go with them. Our ProfiLine Next Generation reliably surpasses the most gruelling tests. Its versatile usability is legendary. It is our pride and joy.

CONVINCING BENEFITS FOR YOU.

- ✓ The various front loader models fit perfectly on tractors from 50 to over 300 hp.
- ✓ Best quality fine-grained steel for a front loader with high torsional rigidity and stability.
- ✓ The extremely high values for the lifting capacity and height are impressive.
- ✓ Z-kinematics and the optimally positioned cross tube provide the driver with the best view of the implement.
- ✓ For maintenance work, all you need is a commercially available spanner to get to the lines.
- ✓ Best equipment for optional features so you can work with even greater efficiency:
Return-to-level, rapid emptying and re-scooping.
- ✓ Re-scooping series.
- ✓ Depending on the loader model, quick release frames are available for other coupling systems –
STOLL offers full flexibility.

BAM! JOB DONE.

The STOLL front loader can be attached and detached in just a few simple steps. This is facilitated by the tool-free parking stands and the hydraulic connection that can be coupled under pressure.

**A MARVEL OF
GENERATIONS.
DRIVE-IN SYSTEM.**

For more than three decades, customers have been able to attach STOLL front loaders to their tractors with ease. Thanks to the drive-in function. The STOLL drive-in system has constantly been further developed for you and functionally optimised. The good news: Despite all the improvements, one thing has remained consistently the same for 30 years: the drive-in principle.

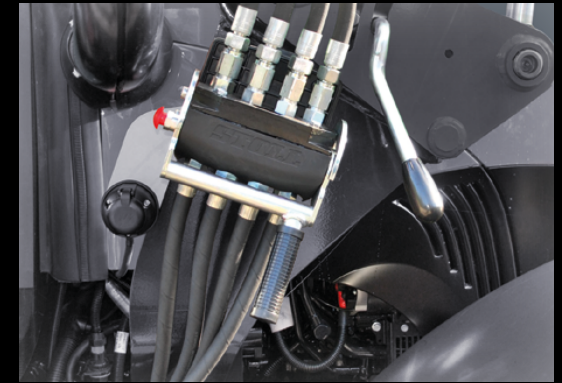
Because we believe it works to your advantage. That's how your new front loader fits perfectly with our proven console. This system is now part of the basic equipment of all front loaders.

Reliable and used over 1/4 million times! And by the way, it was invented by STOLL. The original from STOLL. Loyal to all generations.

READY TO USE IN UNDER TWO MINUTES.



1 When driving in, the front loader slides along the attachment until the locking pin meets the upper end of the connection support.



2 With the Hydro-Fix all hydraulic lines can be connected to the tractor at the same time. The front loader is lifted slightly to hold the locking pin in position in the catch hook of the connection support.



3 The locking lever is pressed downwards and the front loader securely held in position on the attachment. Then the front loader is raised higher.



4 The parking stands can be folded in and out without implements.





OPTIMISED KINEMATICS. UNOBSTRUC- TED VIEW.

MODERN DESIGN AND HIGHEST POSSIBLE QUALITY.

Get in and drive off with a clear view! You can see the entire field or over the roofs of the cars. The fine-grain steel construction results in a particularly modern design. Furthermore, all the lines and pipes in the STOLL front loader are positioned so that they do not obstruct the driver's field of vision: Thanks to the Z-kinematics, the rods of the mechanical parallel linkage are integrated in the lifting arms, while the hydraulic accumulator of the Comfort Drive is built in the optimally positioned cross tube.

There are some real advantages to the driver having a completely clear view:

They can see everything that happens around the tractor. They can work with greater precision and ease. Precision through safety.

The modern design of our lifting arm is really impressive thanks to the superior fine grain steel. The real perks: Highest quality and an optimal view from the best position.



Clear view!

STRENGTHENS YOUR BACK.

SMOOTH DRIVING EVEN ON BUMPY TERRAIN – THANKS TO OUR COMFORT DRIVE DAMPING SYSTEM.

- ✔ Whether on roads or fields: Wherever the ground is uneven, Comfort Drive smoothly absorbs the bumps.
- ✔ This accessory feature reduces the impact of the loader and implement – a plus point: the vehicle is protected. The driver's back is also very grateful.
- ✔ Good to know: Because the hydraulic accumulator used, is installed in the cross tube of the lift arm, the external parts do not cause any obstructions. A free view for you.
- ✔ Conclusion: Comfort Drive is a high-level solution from STOLL.

THIS IS HOW COMFORT DRIVE WORKS.

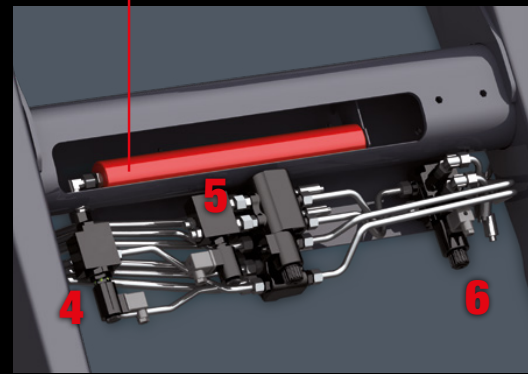
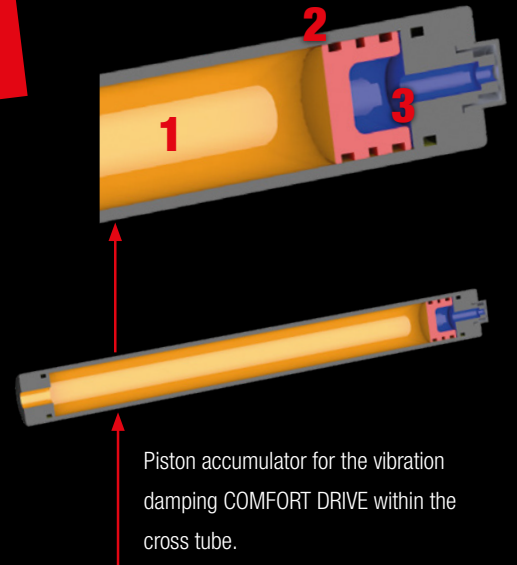
A piston accumulator is installed in the front loader's cross tube – directly above the central hydraulic block. This is filled both with oil and nitrogen. Vibrations that occur while driving are cushioned here by compressing the nitrogen through the oil pressure.

ADVANTAGES.

- ✔ Comfort Drive is particularly stable and effective for everyday use.
- ✔ The new positioning of the switch lever (new: left side of the lift arm) saves walking distance and time.

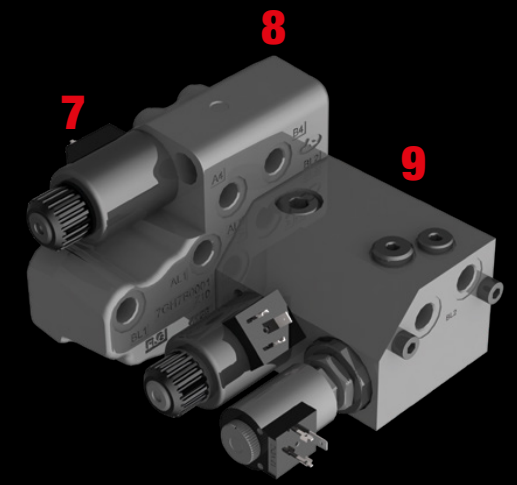


The accessory function Comfort Drive reduces the impact between the loader and the implement – Result: Both man and machine suffer less wear and tear! Thanks to technology!



NEW:
Switch lever
on the left side
of the lift arm.

- 1** Oil
- 2** Lator is at the stop
- 3** Nitrogen
- 4** Electro-hydr. cut-off valve for COMFORT DRIVE
- 5** electro-hydr. implement locking mechanism
- 6** 4th hydraulic circuit
- 7** 3rd hydraulic circuit
- 8** central hydraulic block
- 9** Extension block
- 10** Mech. cut-off valve for COMFORT DRIVE



INTEL LIGENT

OPERATION



Manual or automated. Our technology works for people, with people. Full control is always where it belongs: in your hands.



FUTURE. FEATURES.

RETURN TO DIG

PARALLEL MOTION CONTROL

WORK AREA RESTRICTION

RETURN TO PARALLEL

PAYLOAD WEIGHING

ELECTRONIC CUSHIONING

(automatic speed-dependent)

EVERYTHING UNDER CONTROL.

Ergonomically shaped and easy to handle – everything is under control with the STOLL control units. Customers have lots of requests when it comes to the controls: Some drivers want to work manually and be in control of everything, while other drivers prefer to have an automated control system. Our practical STOLL models offer tailor-made features for every need. Find the right candidate for you.



BASE CONTROL.

- ✓ Greater operating comfort safely guiding the loader with precision.
- ✓ Integrated push-button switch for additional functions.
- ✓ Five basic functions: Lifting, lowering, scooping, dumping, float position.
- ✓ Locking function when driving on the road.

PRO CONTROL.

- ✓ The loader operation is purely electrical making it particularly light and comfortable.
- ✓ Six basic functions: Lifting, lowering, scooping, dumping, float position, float position for implements.
- ✓ Membrane keys for additional functions (rapid emptying, 3rd/4th pilot circuit, lock function for driving on the road, implement locking mechanism, Comfort Drive and halved speed).

TRAC CONTROL.

- ✓ The front loader is operated with the tractor's own proportional single-lever control units.
- ✓ The ergonomic Trac Control replaces the original tractor joystick without push-buttons for the electric functions.
- ✓ Five basic functions: Lifting, lowering, scooping, dumping, float position.

REAL³.

THE REAL 3RD PILOT CIRCUIT.

- ✓ Now that the "REAL³" hydraulic valve is available in addition to the STOLL hydraulic valve (EWMS), the customer can use the feature to simultaneously operate the 2nd control circuit (scooping/dumping of the implement) and the 3rd control circuit (opening/closing of the top grapple).
- ✓ This additional feature facilitates a more comfortable and "fluid" operation of the front loader, which also saves time.
- ✓ This "real, 3rd function" (REAL³) is operated using the two buttons on the front loader's joystick or operating lever.
- ✓ The "REAL³" function can be installed on all common hydraulic systems (Open-Center, Load Sensing) as well as mechanical and electrohydraulic control systems.
- ✓ Depressurises independently making it easier to connect the hose lines.
- ✓ Can also be mounted on the tractor separately for greater flexibility.
- ✓ Pipelines specially adapted to suit the ProfiLine Next Generation series.



Pipe laying for REAL3rd



EHS + REAL3rd incl. 4 Hydro-Fix



REAL3rd with standard hydraulics incl. 4 Hydro-Fix

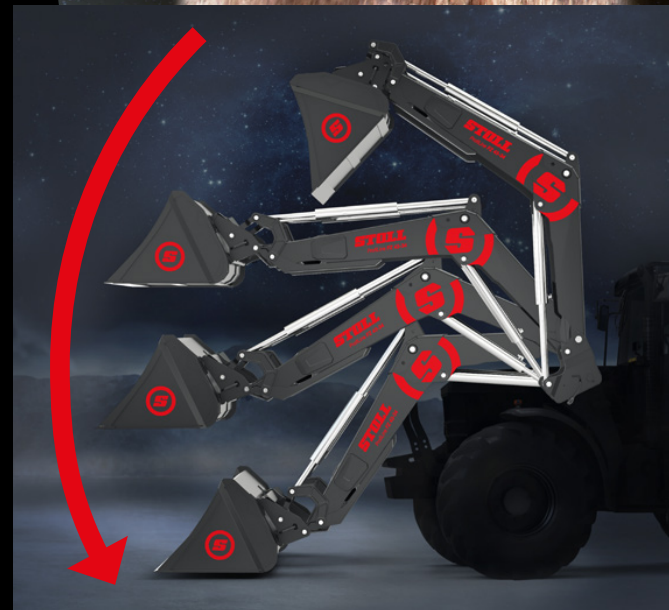


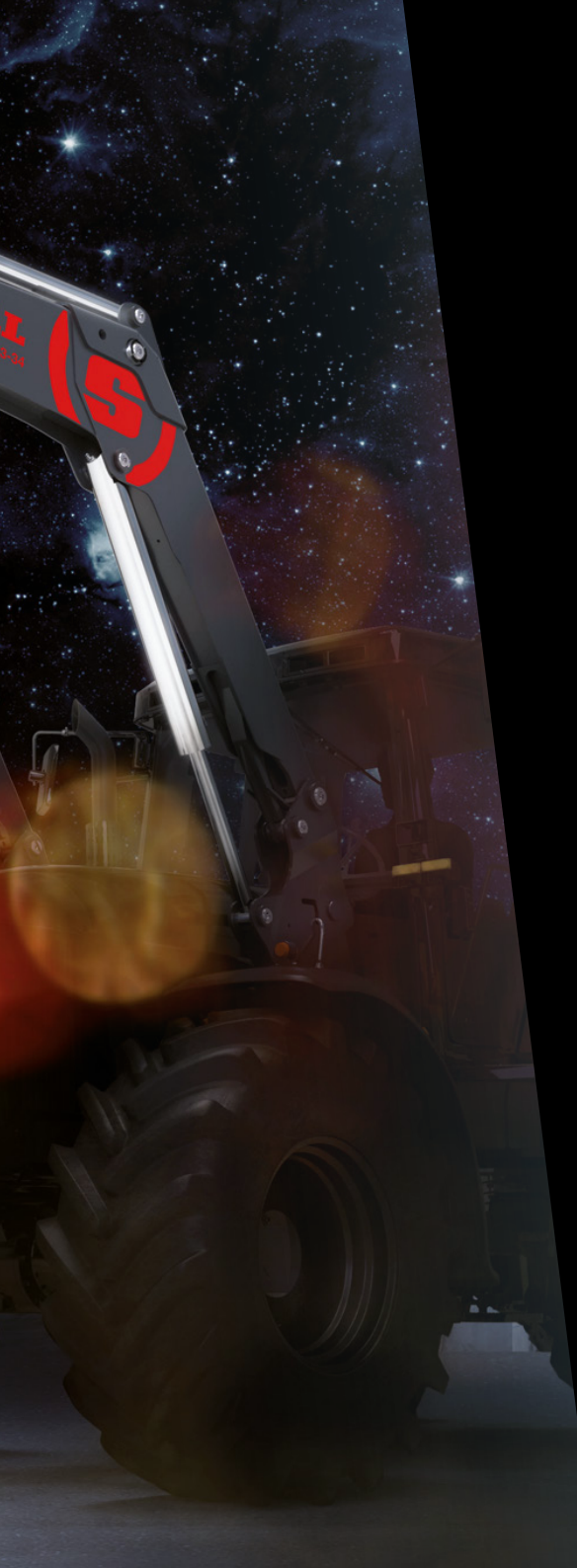
REAL3rd via tractor's own valves

RTL. RETURN- TO-LEVEL.

OPTIMUM POSITIONING OF THE IMPLEMENT AT THE PUSH OF A BUTTON – THANKS TO RETURN-TO-LEVEL.

- ✔ There is now an end to finding the right position for the implement. Can't see the setting for the implement in the lowest position? No problem! The implement automatically repositions itself back to the preset position at the touch of a button.
- ✔ All it takes is the push of a button – and once the implement is set, it will return to the same position again and again with the selectable level control: This saves on time and patience.
- ✔ It is extremely easy to use and works off a mechanical basis: Loosen, adjust and tighten the lever.
- ✔ The highlight: Because the return-to-level is integrated into the lifting arms, the driver can always access this function, even if they have mounted the front loader onto another tractor.
- ✔ The electric selectable rapid emptying feature is available as standard with the Return-to-Level.
- ✔ Clear advantage: Thanks to the automatic levelling and rapid emptying, it is faster and more efficient to load.





HYDRO-FIX – THE FAST HYDRAULIC CONNECTION.

- ✓ All the hydraulic lines can be quickly connected and disconnected – with just one hand.
- ✓ The STOLL Hydro-Fix (rectangular, 4-way coupling) can be coupled or uncoupled under high pressure as a standard feature.
- ✓ STOLL provides further Hydro-Fixes for common makes of tractors.
- ✓ The cover mechanism installed as standard protects the system from large dirt particles. The system must always be kept clean to ensure it works properly.



ALL THE SWITCHES IN THE RIGHT PLACE – THANKS TO THE VALVE.

- ✓ The new valve block is characterised by its compact design – this saves on space and weight and makes it easier for the workshop to install. It was specially designed for front loader operation and can be easily installed directly below the Hydro-Fix.
 - ✓ In conjunction with the Pro Control joystick, the switches for the additional functions of the front loader are positioned directly on the joystick.
 - ✓ The valve block is available for both the Pro Control as well as for the Base Control control system.
- See control units on page 18.

This is what it looks like in action: A full bucket remains full even when it is being lifted, thanks to the rescooping function. The result: No trickle losses, high loading capacity. The system is as simple as it is ingenious. After the bucket has been lifted, it can be tilted 24° again while the loader is lifting. This keeps the load in the bucket.



FROM THE FULL POTENTIAL.

IMPLEMENT FILLED TO THE BRIM – THANKS TO THE LARGEST POSSIBLE TILT ANGLE AND THE RESCOOPING FUNCTION.

- ✓ Nothing falls out: There are no trickle losses.
- ✓ Maximum tilt angle: Between 40° and 46° on the ground – up to 63° by rescooping when lifting.
- ✓ The rescooping function is an exclusive STOLL feature! The bucket is always full, no trickle losses.
- ✓ When loading, more fits into the implement – and it stays where it is supposed to. Result: The loading performance increases noticeably.

Attaching implements is child's play. Full speed ahead!

ATTACHING THE IMPLEMENT – JUST A QUICK PIT STOP.



1 Drive in and hook into the front loader.



2 Tilt the implement – the locking mechanism automatically slots into place.



3 Plugging in the hydraulic connection.

EVERY IMPLEMENT FITS – EVEN THOSE FROM OTHER MANUFACTURERS.

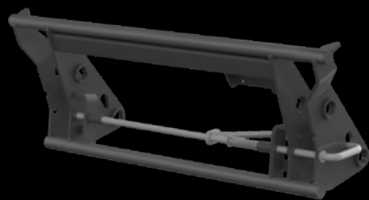
- ✓ The customer can attach all implements to a STOLL front loader with Euro-frame.
- ✓ Coupling systems from other manufacturers also fit on a STOLL front loader – with our combi-change frame.



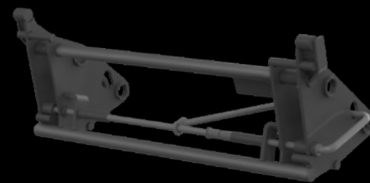
Skid Steer



Tenias adapter



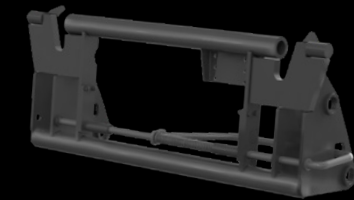
Euro



Euro + Alö



Euro + MX - FR adapter



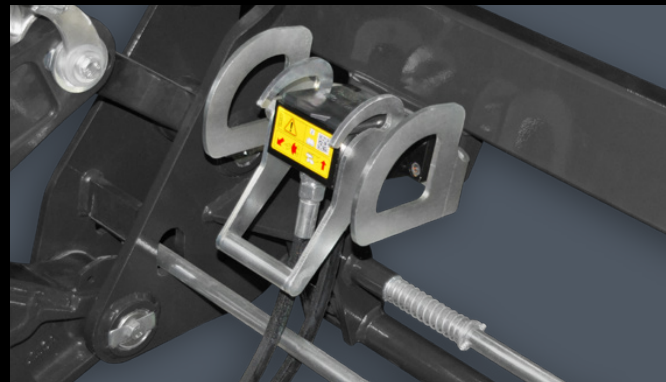
Euro + SMS

FROM INNOVATION COMES FUNCTION.

When we develop our innovations, we keep one very important thing at the forefront of our minds: How it will help you in your everyday jobs. We are only satisfied when we know that you can get the best out of yourself and your machines out on the field or in the stables.



3RD AND 4TH PILOT CIRCUIT. (here as a plug-in coupling)
For the easy operation of hydraulic implements such as silage tongs, bale grabbers or bale stackers.



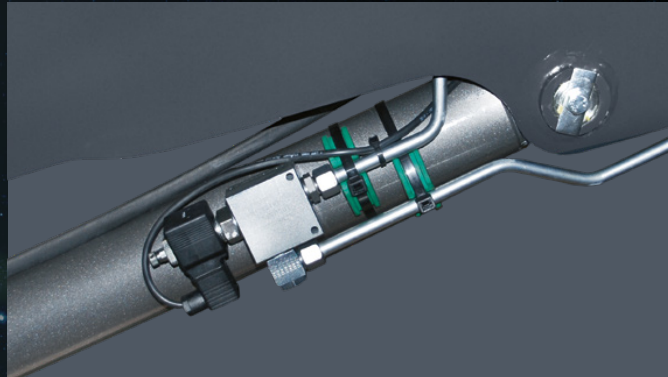
TOOL FIX.
1-way coupling for the 3rd pilot circuit.



HYDRO-LOCK.
Implement locking mechanism at the touch of a button, making it even more convenient to change the implement without having to get out of the cab.

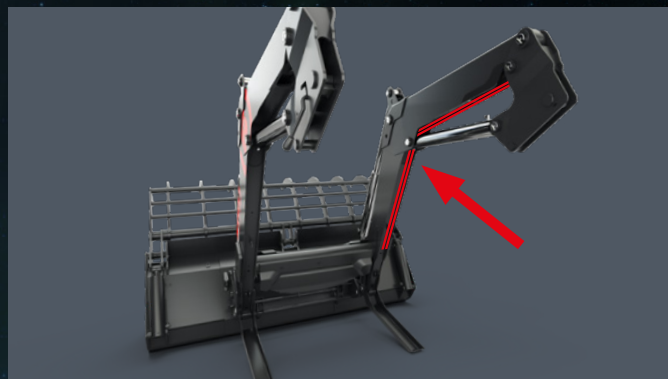


TOOL FIX.
2-way coupling for the 3rd and 4th pilot circuit.
To connect the hydraulic lines even more quickly, Hydro-Fix is also available for mounting the implements.



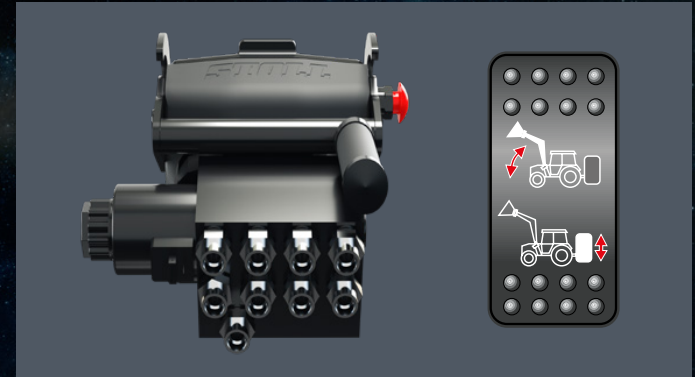
ANTI-LOWERING GUARD.

- ✓ Protection against unintended lowering of the front loader.
- ✓ Complies with the requirements of EN 12525/A1.
- ⚠ **Does not meet the legal requirements with regard to work baskets.**



THE REAL THIRD PILOT CIRCUIT: REAL³.

- ✓ Third pilot circuit for controlling the implements independently of the front loader control.
- ✓ The implement is supplied directly by the tractor's hydraulic pump.
- ✓ Optimum use of the implement through the simultaneous execution of its functions.



COMFORT HYDRAULICS.

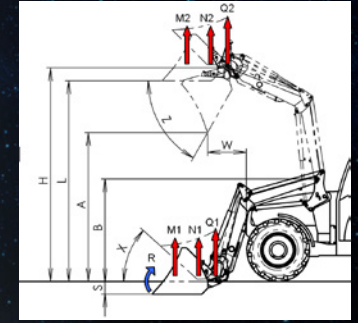
- ✓ Pre-selection switch for activating the front loader or rear hydraulics; it is not possible to trigger them both at the same time.
- ⚠ **The possibility of the system being activated externally must be eliminated by a correct installation.**



FOR A GREAT VIEW: CAMERA SYSTEM AND WORK LIGHTS.

- ✓ Targeted and precise work – the driver can see better thanks to the camera system and the work lights.
- ✓ Greater comfort and improved efficiency when working with the implement.

OBSESSED WITH TECHNOLOGY? HERE'S AN OVERVIEW OF ALL THE DATA!



PROFILINE NEXT GENERATION				SIZE 1			SIZE 2				SIZE 3				SIZE 4				SIZE 5			SIZE 6				
mech. parallel linkage				FZ 36-20	FZ 36-24		FZ 39-23	FZ 39-27		FZ 39-31		FZ 41-25	FZ 41-29	FZ 41-33		FZ 43-27	FZ 43-30	FZ 43-34		FZ 46-26	FZ 46-29	FZ 46-33	FZ 48-33	FZ 48-37	FZ 48-42	
without parallel linkage					FS 36-24				FS 39-27				FS 41-33				FS 43-34									
Suitable for tractors with kW/hp			kW hp	40-75 50-100	50-75 70-100		45-95 60-130	60-95 80-130		65-95 90-130		60-120 80-160	75-120 100-160	80-120 110-160		75-130 100-180	85-130 110-180	95-130 130-180		95-190 130-260	105-190 140-260	120-190 160-260	140-220 190-300	150-220 200-300	155-220 210-300	
Lifting force in the implement's pivot point	below above	Q1 Q2	daN	2.020 1.490	2.370 1.750		2.300 1.550	2.670 1.800		3.070 2.060		2.510 1.680	2.880 1.930	3.280 2.200		2.660 1.890	3.060 2.120	3.420 2.430		2.580 2.020	2.940 2.280	3.320 2.590	3.320 2.230	3.730 2.500	4.150 2.790	
Lifting force (blade) 300 mm before the pivot point	below above	N1 N2	daN	2.020 1.490	2.370 1.750	2.020 1.470	2.300 1.550	2.670 1.800	2.300 1.500	3.070 2.060	2.640 1.730	2.510 1.680	2.880 1.930	3.280 2.200	2.840 1.870	2.660 1.890	3.060 2.120	3.420 2.430	30	2.580 2.020	2.940 2.280	3.320 2.590	3.320 2.230	3.730 2.500	4.150 2.790	
Lifting force (pallet) 800 mm before the pivot point	below above	M1 M2	daN	2.020 1.490	2.370 1.750	1.620 1.150	2.300 1.550	2.670 1.800	1.860 1.180	3.070 2.060	2.130 1.360	2.510 1.680	2.880 1.930	3.280 2.200	2.320 1.490	2.660 1.890	3.060 2.120	3.420 2.430	2.480 1.640	2.580 2.020	2.940 2.280	3.320 2.590	3.320 2.230	3.730 2.500	4.150 2.790	
Breakout force 800 mm before the pivot point	below	R	daN	2.620	2.890		2.910	3.550	3.080	3.550	3.080	2.900	3.540	3.850		3.540	4.580			3.840	4.560		4.140	4.900		
Maximum lift height in the implement's pivot point		H	mm	3.550			3.850				4.100				4.320				4.550			4.800				
Overloading height (H-210)		L	mm	3.340			3.640				3.890				4.110				4.340			4.590				
Dump height		A	mm	2.470			2.810				3.060				3.290				3.490			3.750				
Dump width		W	mm	710			700				790				780				800			880				
Digging depth		S	mm	210			210				210				210				210			210				
Pivot point of lifting arms		B	mm	1.680			1.800				1.945				1.945				2.045			2.180				
Tilt angle	below	X	° degree	41°			44°				44°				44°				44°			45°				
	rescooped	X1	° degree	55°	-	61°		-	61°	-	61°		-	61°		-	61°		-	63°		62°				
Dump angle	above	Z	° degree	62°			57°				57°				56°				58°			58°				
Pump output rate			l/min	60			75				90				100			120								
Stroke time			sec.	3,9	4,2		3,4	3,9		4,5		3,3	3,8	4,3		3,8	4,3	4,8		3,6	4,3	4,7	3,8	4,2	4,7	
Tilting time, implement			sec.	0,5	0,7	0,7	0,6	0,7	0,6	0,7	0,6	0,5	0,6	0,6	0,6	0,6	0,7	0,7	0,7	0,7	0,6	0,7	0,7	0,5	0,6	0,6
Dumping time, implement			sec.	1,3	1,6	2,4	1,3	1,6	2,2	1,6	2,2	1,1	1,3	1,4	2,1	1,3	1,7	1,7	2,3	1,3	1,6	1,6	1,2	1,4	1,4	
Weight, lifting arms without implement			kg	555	562	480	604	610	528	612	530	650	657	665	580	767	770	775	675	852	860	864	886	890	898	

The values given are averages. Depending on the type of tractor, these values may deviate up or down.
Calculated at 195 bar hydraulic pressure!



FZ lifting arms with mechanical parallel linkage:
Powerful solutions for professionals by professionals.



FS lifting arms without parallel linkage:
For tough jobs with the best price-performance ratio.

STANDARD EQUIPMENT PROFILINE NEXT GENERATION	FZ-LOADER	FZ-LOADER / RETURN-TO-LEVEL	FS-LOADER
Front loader lifting arms made from fine grain steel	•	•	•
Z-kinematics, internal control rod	•	•	–
Concealed hydraulic pipes with service access	•	•	•
Dual-action hydraulic cylinders	•	•	•
Implement cylinder, synchronisation	•	•	–
Visual display	•	•	•
DX bushings for all loader pivot points	•	•	•
Automatic mech. implement locking mechanism	•	•	•
OPTIONAL EQUIPMENT PROFILINE NEXT GENERATION			
Electric hydr. implement locking mechanism	•	•	•
HYDRO-FIX: Quick hydraulic connection	•	•	•
3rd and 4th pilot circuit	•	•	•
Single-lever control, Bowden cable	•	•	•
Proportional elec. single-lever control unit	•	•	•
ECO-Pro proportional control	•	•	•
Comfort Drive (also elec. switchable)	•	•	•
Re-scooping function	•	•	–
Implement rapid-emptying	–	•	–
Simultaneous raising of the lifting arm and emptying of the implement	–	•	–
Rapid emptying	–	–	•
Return-to-level (level automatic)	–	•	–

Subject to change without notice. Illustrations shown partly with special equipment. Front loaders must always be stored on the ground with a suitable implement. For the purposes of presentation, some illustrations have been omitted. The STOLL accessories and the components offered are intended exclusively for the purpose of the normal use with STOLL front loaders.

**Heroes need heroic equipment so that they can give their all.
You will find the concentrated power of our ProfiLine Next Generation in facts and figures on these pages.**



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

www.stoll-germany.com