

# PROFILINE

FRONT LOADER  
FULL POWER FOR  
PROFESSIONALS!



**STOLL**  
The Loader Specialist.





## EXCELLENCE

Assemble, get started and experience the full power: The STOLL ProfiLine wows with top marks in all areas. No matter whether it is lifting capacity or height, stability or loading speed:

» **The ProfiLine plays in the champions league. No other front loader is stronger or stands higher than the largest STOLL – the ProfiLine FZ 100.** «

The renowned high quality and individually selectable accessories of the entire ProfiLine range are a perfect match for the needs of farmers and machinery contractors. These loaders are true professionals for professionals.

Powerful, dynamic and pioneering: with the enormous power of the STOLL ProfiLine you can really pack a punch.





# THE POWER OF GERMAN ENGINEERING

Automotive and aerospace engineering, mechanical engineering and electrical engineering: German engineering is known worldwide for its high quality and efficiency: to be relied upon. All STOLL front loaders are developed in Germany with the best of our technical know-how. They combine the latest technology with innovative solutions and meet the demands of a German quality product in full.

When in use, not only are the STOLL front loaders extremely robust, reliable and powerful... working with them is just as straightforward and convenient. Easy to assemble and low material wear are typical characteristics of all STOLL products.



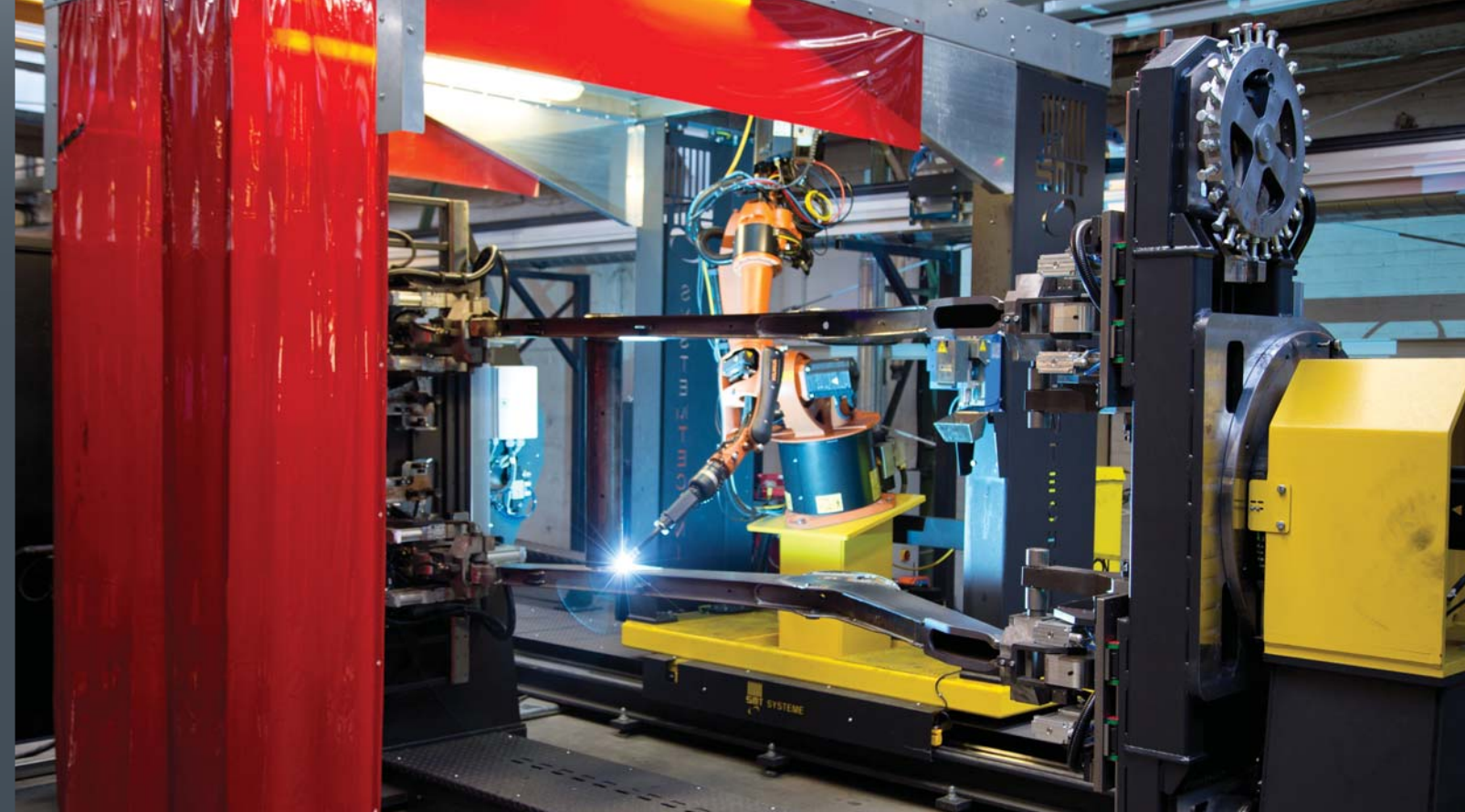
The attachment components are close to the driver's cab – which reduces the workload on the tractor's front axle.

## Full power – slim design

- The front loaders of the ProfiLine FZ are made of fine-grained steel - Advantage: High stability and torsional rigidity as well as a slim and lightweight design.
- The loader arm is made from one piece (it contains the control rod, below this are the hydraulic lines).
- Although the front loader does not weigh as much, it is enormously powerful. The lighter weight reduces the stress on the tractor – meaning that even the tractor will last longer.



Cross section of a loader arm – the control rod is in the cavity, below are the hydraulic lines.



## STOLL attachment components – less stress on the tractor and a precision fit

- Attachments are perfectly designed for installing on all standard tractors – each tractor model is measured by the engineers at STOLL.
- Due to the optimum positioning of attachments close to the driver's cab, the stress on the front axle is low.
- No retrofitting required – because of the individual adaptation to each tractor, attachments fit perfectly.

## Z-kinematics – the best view and high performance

- The mechanical parallel guide bar is in the loader arm - basis of the Z-kinematics.
- This means that none of the parts above the loader arm disturb the driver's view and the front loader can be mounted closer to the driver's cab, which is crucial in optimally positioning attachments and reducing the stress placed on the tractor.
- There is no loss of lifting power - on the contrary, front loaders with Z-kinematics have even greater lifting and tearing power.







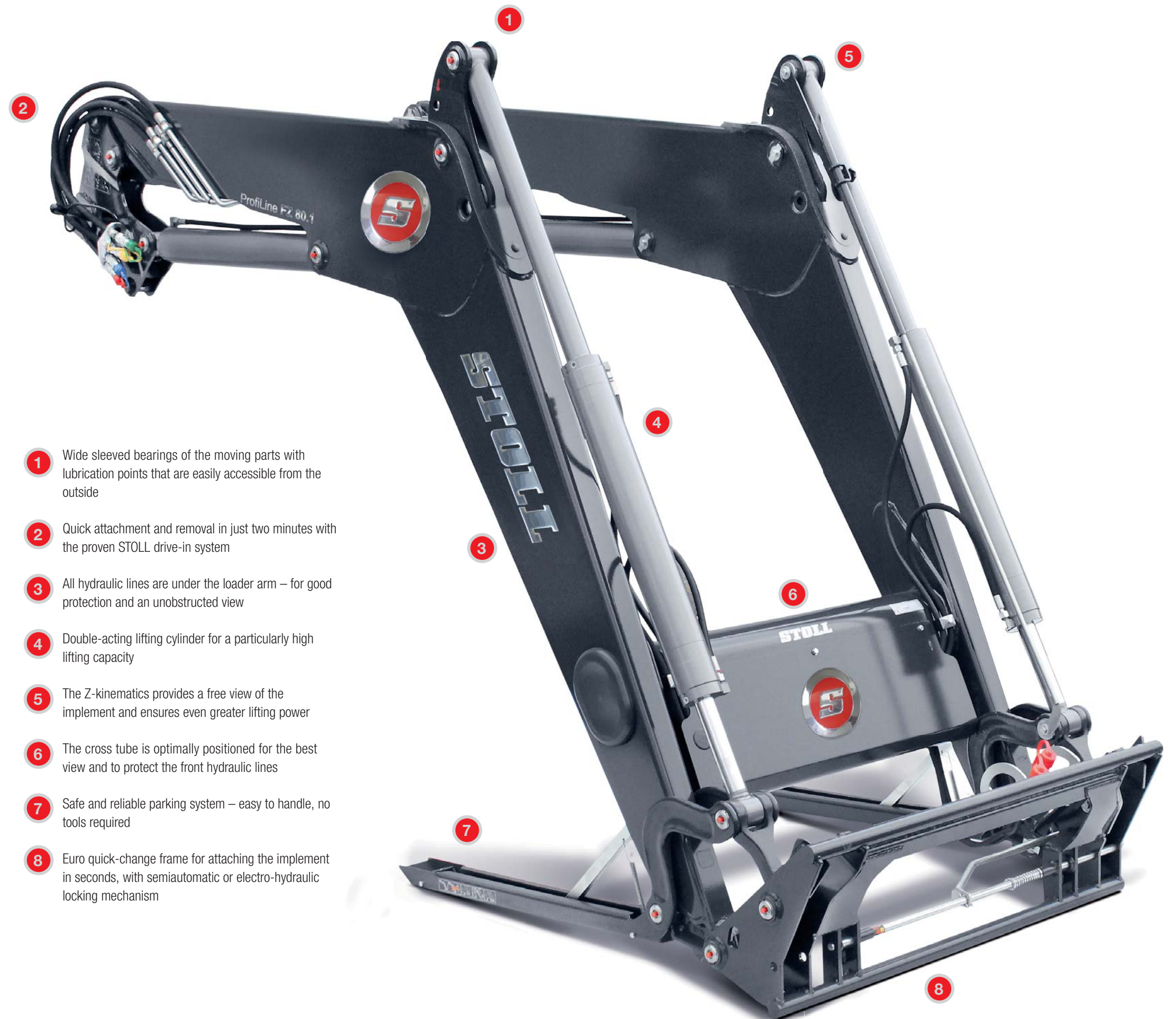
## THE MEASURE OF ALL FRONT LOADERS

High-end on the farm: Large tractors are on the rise. Meanwhile, almost one in every five newly approved tractors is designed with more than 200 HP. STOLL always has just the right front loader for the job.

» **Top performance in terms of lifting capacity and height. Top results in stability and loading speed. Comfortable to operate. The ProfiLine was specially developed to suit all professional needs.** «

Lots of advantages for you: The ProfiLine works particularly reliably, it is versatile and also withstands the toughest of tests.

- The various front loader models fit perfectly on tractors from 50 HP to over 300 HP
- Best quality made from fine-grained steel for a slim front loader with high torsional rigidity and stability
- The high results attained in its lifting capacity and height are truly impressive
- Z-kinematics and the optimum positioning of the cross tube offer the best view of the implement
- For maintenance purposes, a standard wrench is all that is required to get to the lines
- Best equipment on optional features for even more efficient work: Return-to-Level, quick emptying or rescooping function
- Depending on the model of the loader, quick exchangeable frames are available for other coupling systems – STOLL offers complete flexibility



- 1 Wide sleeved bearings of the moving parts with lubrication points that are easily accessible from the outside
- 2 Quick attachment and removal in just two minutes with the proven STOLL drive-in system
- 3 All hydraulic lines are under the loader arm – for good protection and an unobstructed view
- 4 Double-acting lifting cylinder for a particularly high lifting capacity
- 5 The Z-kinematics provides a free view of the implement and ensures even greater lifting power
- 6 The cross tube is optimally positioned for the best view and to protect the front hydraulic lines
- 7 Safe and reliable parking system – easy to handle, no tools required
- 8 Euro quick-change frame for attaching the implement in seconds, with semiautomatic or electro-hydraulic locking mechanism





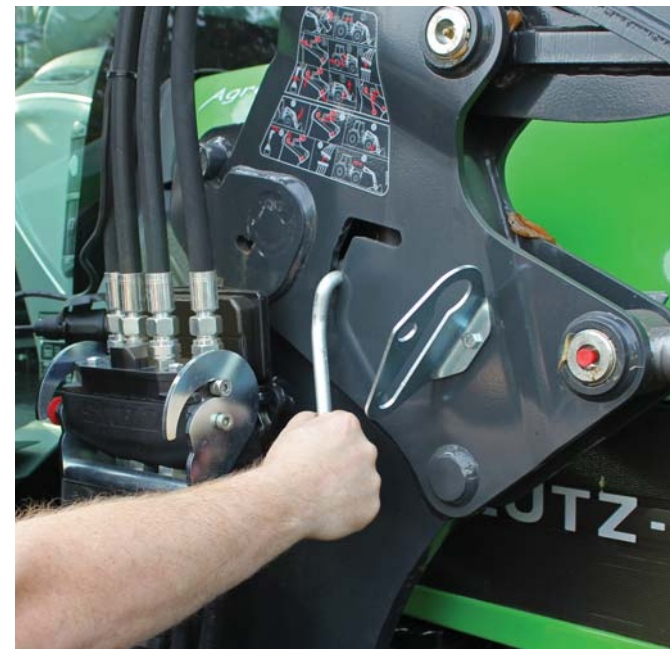
## GEARED TO THE FUTURE FOR 30 YEARS – THE STOLL DRIVE-IN SYSTEM



Never change a winning team! For three decades, the driver has been able to easily mount his STOLL front loader on his tractor by means of the drive-in function. During this time, the drive-in system has not changed. The advantage: a new front loader fits to a 30-year-old bracket.

The 100.000-fold proven system – invented by STOLL – is now one of the basic pieces of a front loader. It has become indispensable in daily use.

Ready to use in under two minutes:



**1** As the tractor drives into the frame, the front loader slides on to attachment until the locking pin touches the top of the slide rail.

**2** With the Hydro-Fix, all the hydraulic lines can be connected to the tractor at the same time. The front loader is raised slightly in order to fix the locking pin in to arresting hook of the slide rail.

**3** The locking lever is pressed down and the front loader is securely fixed to the attachment. Then the loader can lift a little.

**4** The parking supports can be folded in and out without tools. They automatically snap into the right position.

» Done in a flash: Along with the parking supports operated without tools and the hydraulic connection through a Hydro-Fix, it only takes a few quick steps to fit or remove the STOLL front loader on the tractor. «





## UNOBSTRUCTED VIEW FOR AN UNOBSTRUCTED DRIVER



### Slim design thanks to Z-kinematics and fine-grained steel

Get in, set off and see everything: The whole field or far away over the roofs of the cars - nothing gets in the way of your view.

With STOLL front loaders, all the lines and tubes are positioned in such a way that they do not restrict the driver's field of vision. Thanks to the Z-kinematics, the mechanical parallel guide rod is inside the loader arm; the hydraulic accumulator of the Comfort Drive is in the optimally positioned cross tube.

Because the loader is made from high strength steel, it can accommodate a particularly slim design. The view from the cab is optimal.

This unobstructed visibility for the driver is naturally very advantageous. It means they can see everything that happens all around the tractor. This in turn means safety. And it can even mean working with greater accuracy and ease - precision farming, here we come!



» Because the loader is made from high strength steel, it can accommodate a particularly slim design. The view from the cab is optimal. «





IT FITS!

### The implement is filled to the brim – with a greater tilting angle and the rescooping function

- Nothing falls out: No trickle losses.
- Maximum tilting angle: On the ground between 40° and 46° - raised to 69°.
- STOLL's rescooping function is something very special! None of the load is dropped - easy to use, so many advantages.
- More fits into the implement when loading - and it stays where it is supposed to. Result: The loading performance improves noticeably.



This is how it looks in practice: A full bucket is still a full bucket even as it is lifted, thanks to the rescooping function. The result: No trickle losses, high loading capacity. The system is as simple as it is ingenious. After lifting the loading bucket, the bucket can be tilted again by 24° while the loader is raised. Result: the load remains in the bucket.

### Attaching the implement – just a quick pit stop



1 Drive forward and hook on the front loader



2 Tilt the implement – the locking mechanism locks in place automatically



3 Plug in the hydraulic connection

### Every implement fits – even those from other manufacturers

- Customers can attach all kinds of implements to a STOLL front loader with the Euro-support.
- Even coupling systems from other manufacturers fit on a STOLL front loader - with our combined change frame.



Euro



Euro + Alö



Euro - Fr



Euro + SMS





## BUMPY LANES – SOFT IN THE SADDLE WITH COMFORT-DRIVE



### A smooth drive even over bumpy terrain – thanks to the Comfort-Drive damping system

- Not matter whether you are driving on the roads or across fields, the Comfort Drive can be used wherever the ground is uneven.
- This feature reduces the shocks of loader and implement – less stress for the vehicle. Even the back of the driver says thank you.
- Good to know: Because the hydraulic accumulator used for this function is built into the lifting arm, there is no obstruction from external parts.
- Conclusion: Comfort Drive is a high-level solution from STOLL.

### How does Comfort-Drive work?

A piston accumulator is built into the cross tube of the front loader, directly above the central hydraulic block. This is filled with both oil, and nitrogen. Vibrations that arise during the journey are mitigated here as the nitrogen spreads out and pushes the oil back. **The advantage: Comfort Drive is particularly stable and effective in everyday use.**

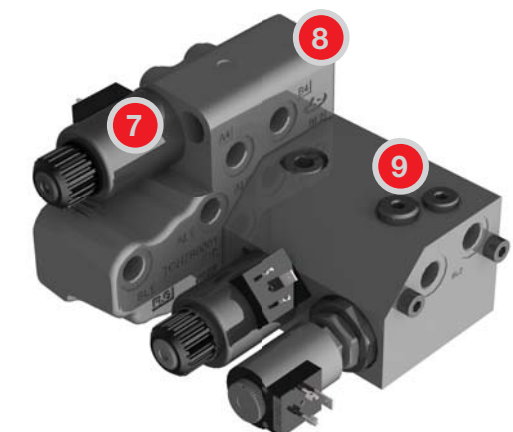
### Switching on and off automatically – to suit the driving speed

- Comfort Drive makes driving on the road comfortable, and work with the loader is much more efficient without it.
- A speed-sensitive automatic unit always ensures it is at the ideal operating setting: ON while driving, OFF while working.
- A new electronic module receives the current travelling speed through the tractor's own signal socket.
- Depending on the intended use, the driver can choose from four speed levels – he may even leave the Comfort Drive permanently activated.

» This feature reduces the shocks of loader and implement – less stress for the vehicle. Even the back of the driver says thank you. «



- 1 Oil
- 2 Piston accumulator is on the stop
- 3 Nitrogen
- 4 Mech. or electro-hydraulic shut-off valve for COMFORT-DRIVE
- 5 Electric hydr. implement-locking
- 6 4th hydraulic circuit
- 7 3rd hydraulic circuit
- 8 Central hydraulic block
- 9 Expansion block







## EVERYTHING UNDER CONTROL



Ergonomically designed and easy to use – everything is under control with the STOLL ECUs. Demands made on a control system are numerous and varied. Some drivers want to work more manually, other drivers prefer to steer with more automation. The various models from STOLL provide just the right features for all these different preferences.

» Some drivers want to work more manually, other drivers prefer to steer with more automation. «



### Base Control

- Easy to operate with precise and safe loader guidance
- Integrated pushbutton switches for additional functions
- Five basic functions: lifting, lowering, dumping, pouring, and floating position
- Lock function for when travelling on the road



### Pro Control

- The loader is operated purely electrically – making it particularly light and comfortable
- Six basic functions: lifting, lowering, scooping, dumping, floating position, and the floating position for implements
- Four additional functions: quick emptying, 3rd/4th control circuit, locking function for when travelling on the road, implement locking mechanism



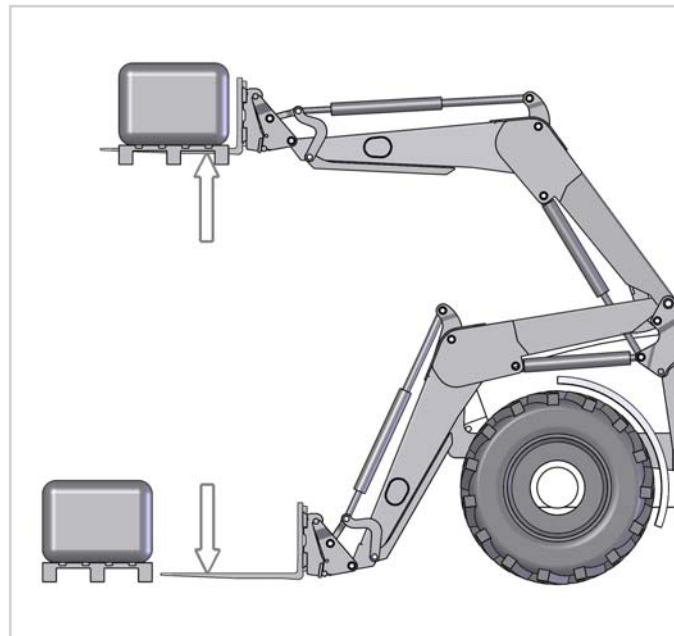
### Trac Control

- 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 a pushbutton for the electrical functions
- Five basic functions: lifting, lowering, scooping, dumping, and floating position





## WORKING IN COMFORT – HIGH LEVEL TECHNOLOGY FROM STOLL



### Work faster without having to readjust – with the Boom Kick Out

- The end position of the front loader can be freely programmed up and down
- One off setting of the lift height with automatic stop
- Saves time and reduces workload with repetitive loading operations that are the same
- Can be combined with the automatic levelling feature "Return to Level"



### Optimum positioning of the implement at the press of a button – thanks to Return-to-Level

- One touch of a button is enough. The implement is set just once and then it always returns to the same position through the switchable automatic level control: This saves time and nerves.
- It is very easy to use and works mechanically: Loosen, set and tighten the knob.
- The key: Because the Return-to-Level is integrated in the lifting arm, the driver can always use this function, even if he installs the front loader onto another tractor.
- The electrically switchable quick emptying feature is available as standard with the Return-to-Level.
- Clear advantages: Loading is quicker and more efficient, thanks to the Return-to-Level and quick emptying features.



### HYDRO-FIX – the quick hydraulic connection

- All the hydraulic lines are quickly connected and released – with just one hand.
- The STOLL Hydro-Fix (rectangular, 4-way coupling) can be coupled or uncoupled under high pressure as a standard procedure.
- Other Hydro-Fixes are available at STOLL for major tractor brands.



### All the switches in the right place – thanks to the valve

- The new valve block is characterized by a compact design – this saves space and weight and facilitates the mounting in the workshop. It was designed specifically for front loader operation and allows easy mounting directly underneath the Hydro-Fix.
- In conjunction with the Pro Control joystick, the switches for the additional functions of the front loader are positioned directly to the joystick.
- The valve block is available for both the Pro Control and the Base Control system.





# FROM INNOVATION COMES FUNCTION



3rd and 4th control circuit (here as a plug-in coupling)  
For easy handling of hydraulic implements like the bucket with grapple, grip fork or bale lifting fork.



Tool Fix  
2-way coupling for the 3rd and 4th control circuit.



Anti-lowering guard  
• Prevention of sudden lowering of the front loader.  
• Meets the requirements of EN 12525/A1.



Comfort Hydraulics  
• Selector switch for the activation of front loader or rear hydraulics; a simultaneous double occupancy is excluded.



Implement locking at the press of a button, even more convenient to change implements without leaving the cab - with HYDRO-LOCK.



For an even faster way to connect the hydraulic lines, there is also the Hydro-Fix for attaching the implement.



The real third control circuit: REAL<sup>3</sup>  
• Third control circuit for controlling the implements independently of the front loader's control system  
• The implement is powered directly from the hydraulic pump of the tractor  
• Optimum use of implements through the simultaneous performance of their functions



For an even better view: The camera system  
• The ability to work on specific areas and with greater accuracy – the driver can see even better with the camera system  
• A high level of comfort and improved efficiency when working with an implement





LOVE TECHNOLOGY?  
ALL DATA AT A GLANCE!



FZ loader with mechanical parallel guide: Strong solutions for professionals by professionals

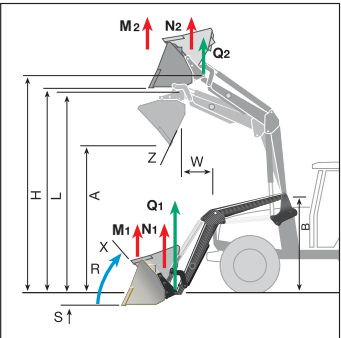
FS loader without parallel guide: For tough jobs with a top price/performance ratio

FS / FZ ProfiLine				8		10		20		30		40	45	50	60	80.1	100
				8.1		10.1		20.1		30.1		40.1	45.1	50.1	60.1		
Typ				FZ	FS	FZ	FS	FZ	FS	FZ	FS	FS	FZ	FZ	FZ	FZ	FZ
Suitable for tractors with kW/HP performance			kW PS	35-65 50-90		50-75 70-100		50-80 70-110		65-90 90-120		65-105 90-140		90-130 120-180	110-170 150-230	130-200 180-270	> 184 > 250
Lifting force in the tool pivot point	bottom top	Q1 Q2	daN daN	1.960 1.510		2.020 1.510		2.490 1.860		2.260 1.730	2.590 1.990	2.616 2.010	2.750 2.240	2.880 2.470	3.020 2.590	3.500 3.000	
Lifting force (bucket) 300mm in front of pivot	bottom top	N1 N2	daN daN	1.960 1.510	1.650 1.250	2.020 1.510	1.720 1.260	2.490 1.860	2.130 1.560	2.260 1.730	1.950 1.470	2.240 1.690	2.590 1.990	2.750 2.240	2.880 2.470	3.020 2.590	3.500 3.000
Lifting force (pallet) 900 mm in front of pivot	bottom top	M1 M2	daN daN	1.960 1.510	1.250 930	2.020 1.510	1.330 960	2.490 1.860	1.640 1.180	2.260 1.730	1.540 1.130	1.770 1.300	2.590 1.990	2.750 2.240	2.880 2.470	3.020 2.590	3.500 3.000
Breakout force 900 mm in front of pivot		R	daN	1.850	1.650	2.550	1.680	2.550	2.130	2.550	2.340	2.340	2.828	3.330	3.310	3.580	4.600
Maximum lift height in the tool pivot point		H	mm	3.450		3.740				4.070				4.260	4.460	4.760	5.020
Overhead loading height (H-210)		L	mm	3.240		3.530				3.860				4.050	4.250	4.550	4.810
Emptying height		A	mm	2.380		2.690				3.010				3.210	3.410	3.700	3.970
Emptying width		W	mm	670		700				785				785	800	840	880
Digging depth		S	mm	210		210				210				210			210
Lifting arm pivot		B	mm	1.660		1.780				1.930				1.930	2.030	2.170	2.430
Tilting angle (crowd)	bottom	X	°degree	40		46				46				46			42
	Rescooped	X1	°degree	51	-	65	-	65	-	68	-	-	68	68	69	69	69
Tipping angle (dump)	bottom	V	°degree	94	158	93	154	93	154	103	154	154	103	103	150	154	146
	top	Z	°degree	61		59				59				59			54
Pump capacity			l/min.			50				60				70			80
Lifting time			sec.	4,4		4,8		5,9		4,9		5,7		5,5	6,2	7	8
Tilting time, tool			sec.	0,6	0,5	1,3	0,6	1,3	0,8	1,1	0,7	0,7	1,2	1,3	1,3	1,4	1,0
Tipping time, tool			sec.	1,7	1,6	2,2	2,2	2,2	2,6	1,9	2,5	2,5	2,1	2,1	2,1	2,3	2,0
Weight, loader arm without implement			kg	406	356	465	420	475	425	540	470	480	580	680	790	850	1.250

The values listed are averages. Depending on the type of tractor there may be deviations upwards or downwards.  
\*Due to the risk of a tractor tipping, the front loader operations are only permitted in conjunction with a suitable rear weight.

Beam Type	Beam width
8/10/20/30/40/45/50/60	Standard lifting arm (916 mm beam width)
8.1/10.1/20.1/30.1/40.1/45.1/50.1/60.1/80.1	Wide lifting arm (1100 mm beam width)
100	Wide lifting arm (1460 mm beam width)

Standard equipment FZ / FS ProfiLine	FZ-Loader	FZ- Loader/Plus Function	FZ- Loader Automatic Level	FS-Loader
Front loader made from fine-grained steel	•	•	•	•
Z-kinematics, built-in control rod	•	•	•	—
Concealed hydraulic tubes accessible for servicing	•	•	•	•
Double-acting hydraulic cylinder	•	•	•	•
Tool cylinder, synchronous operation	•	•	•	—
Visual display	•	•	•	•
DX- bearing bushes for all loader pivot points	•	•	•	•
Automatic mech. tool locking	•	•	•	•
Optional equipment FZ / FS ProfiLine				
Elec. hydr. tool locking	•	•	•	•
HYDRO-FIX: Quick hydraulic connection	•	•	•	•
3rd and 4th hydr. control circuit	•	•	•	•
Single-lever control unit, Bowden	•	•	•	•
Proportional elec. 1-lever control unit	•	•	•	•
ECO-PRO Proportional control	•	•	•	•
COMFORT-DRIVE (also elec. switchable)	•	•	•	•
Rescooping function	—	•	—	—
Quick emptying tool	—	•	•	—
Simultaneously raise loader and empty tool	—	•	•	—
Quick emptying	—	—	—	•
Return-to-level (automatic level)	—	—	•	—



Subject to modifications. Some illustrations show optional equipment. Front loaders must always be parked using an appropriate implement. This has not been shown on some images for illustrative purposes. The STOLL accessories and components offered are provided solely for the purpose of the intended operation with STOLL front loaders.





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