

Boom Mowers

PRODUCT PRESENTATION

July 2024 (VER. 1.0)



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Overview – Boom Mowers

↔ m
3.3-4.3

↑ m
3.1-4.1

kg
1500-2200



Scorpion 4

↔ m
5.3-6.3

↑ m
5.1-6.1

kg
4000-5000



Scorpion 6

↔ m
7.3-8.3

↑ m
7.1-8.1

kg
7000-8000



Scorpion 8

↔ m
3.3-4.3

↑ m
3.1-4.1

kg
2250-3000



Scorpion 4 - Basic Front

↔ m
5.3-6.3

↑ m
5.1-6.1

kg
5000-6000



Scorpion 6 S - Basic Front

↔ m
5.2-8.2

↑ m
5.1-8.1

kg
5000-8000



Spider 6 & 8

Overview – Scorpion models



SCORPION MODELS	330-4 S	430-4 S	330-4 PLUS	430-4 PLUS	530-6 S	630-6 S	530-6 PLUS	630-6 PLUS	730-8 S	830-8 S	730-8 PLUS	830-8 PLUS
Horizontal reach (m)	3.3	4.3	3.3	4.3	5.3	6.3	5.3	6.3	7.3	8.3	7.3	8.3
Vertical reach (m)	3.1	4.1	3.1	4.1	5.1	6.1	5.1	6.1	7.1	8.1	7.1	8.1
Transport width (m)	1.8	2.2	1.8	2.2	2.2	2.2	2.2	2.2	2.4	2.5	2.4	2.5
Mounting	F/B/R	F/B/R	F/B/R	F/B/R	B	B	B	B	B	B	B	B
Pump	32 ccm gear pump				56 ccm gear pump		Danfoss 60 ccm piston pump		56 ccm gear pump		Danfoss 60 ccm piston pump	
Hydraulic system (l/min @ bar)	52 @ 210				115 @ 230		125 @ 315		115 @ 230		125 @ 315	
Minimum size of tractor (kg)	1,500	2,000	1,650	2,200	4,000	5,000	4,000	5,000	7,000	8,000	7,000	8,000
Weight (kg)	570	590	610	630	1,235	1,270	1,370	1,395	1,475	1,505	1,600	1,630
Hybrid Arm System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotor Flex, double pivot joint	✗	✗	✓	✓	+	+	✓	✓	+	+	✓	✓
Auto Flex, automatic vertical positioning	✗	✗	✓	✓	+	+	✓	✓	+	+	✓	✓
Auto Height Control (for verge mowing)	✗	✗	✗	✗	+	+	+	+	+	+	+	+
Quick release, hydraulic	+	+	+	+	+	+	+	+	+	+	+	+
Quick release, mechanical	+	+	+	+	+	+	+	+	+	+	+	+

Mounting: F = Front mounted, B = Rear mounted, R = Reverse mounted

Overview – Scorpion Basic Front models



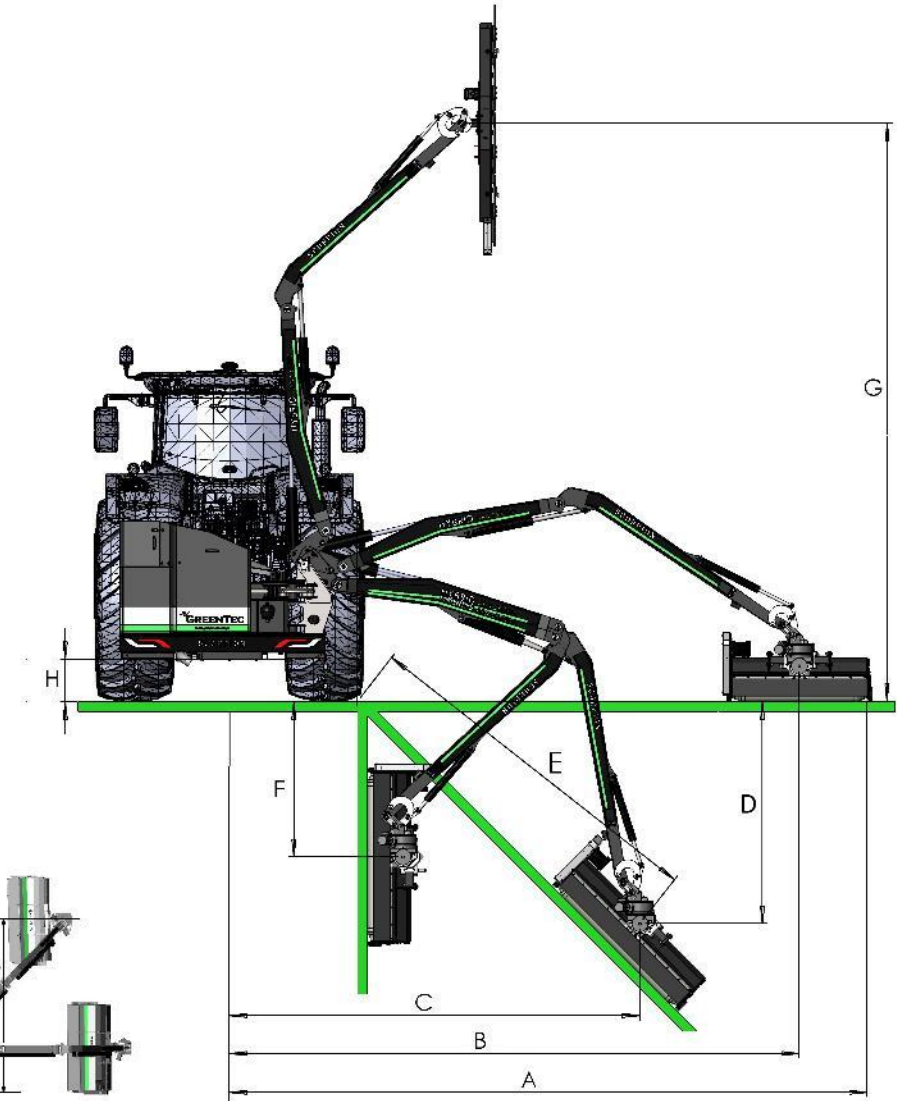
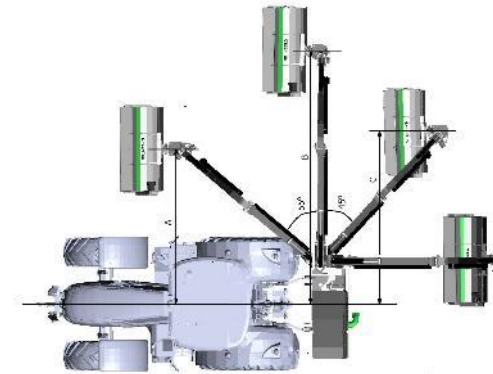
SCORPION BASIC FRONT MODELS	330-4 S	430-4 S	330-4 PLUS	430-4 PLUS	530-6 S	630-6 S
Horizontal reach (m)	3.3	4.3	3.3	4.3	5.3	6.3
Vertical reach (m)	3.1	4.1	3.1	4.1	5.1	6.1
Transport width (m)	1.8	2.2	1.8	2.2	2.2	2.2
Mounting	F	F	F	F	F	F
Pump	Oil supplied from vehicle				Oil supplied from vehicle	
Hydraulic system (l/min @ bar)	52 @ 210				115 @ 230	
Minimum size of vehicle (kg)	2,250	3,000	2,250	3,000	5,000	6,000
Weight (kg)	500	520	540	560	985	1,020
Hybrid Arm System	✓	✓	✓	✓	✓	✓
Rotor Flex, double pivot joint	✗	✗	✓	✓	+	+
Auto Flex, automatic vertical positioning	✗	✗	✓	✓	+	+
Auto Height Control (for verge mowing)	✗	✗	✗	✗	+	+
Quick release, hydraulic	+	+	+	+	+	+
Quick release, mechanical	+	+	+	+	+	+



Mounting: F = Front mounted, B = Rear mounted, R = Reverse mounted

Overview – Scorpion reaches

SCORPION MODELS	330	430	530	630	730	830
A (m)	3.3	4.3	5.3	6.3	7.3	8.3
B (m)	2.9	3.9	4.7	5.7	6.7	7.7
C (m)	1.9	2.6	3.4	4.1	4.8	5.6
D (m)	0.8	0.9	1.8	2.2	2.6	3.1
E (m)	1.9	2.6	3.0	3.7	4.4	5.0
F (m)	0.8	1.2	1.5	1.8	2.2	2.6
G (m)	3.1	4.1	5.1	6.1	7.1	8.1
H (m)	0.4	0.4	0.4	0.4	0.4	0.4



Overview – Spider models



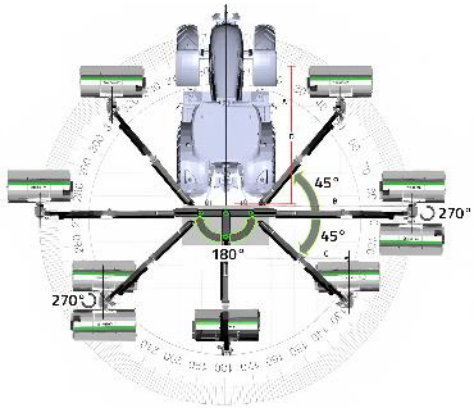
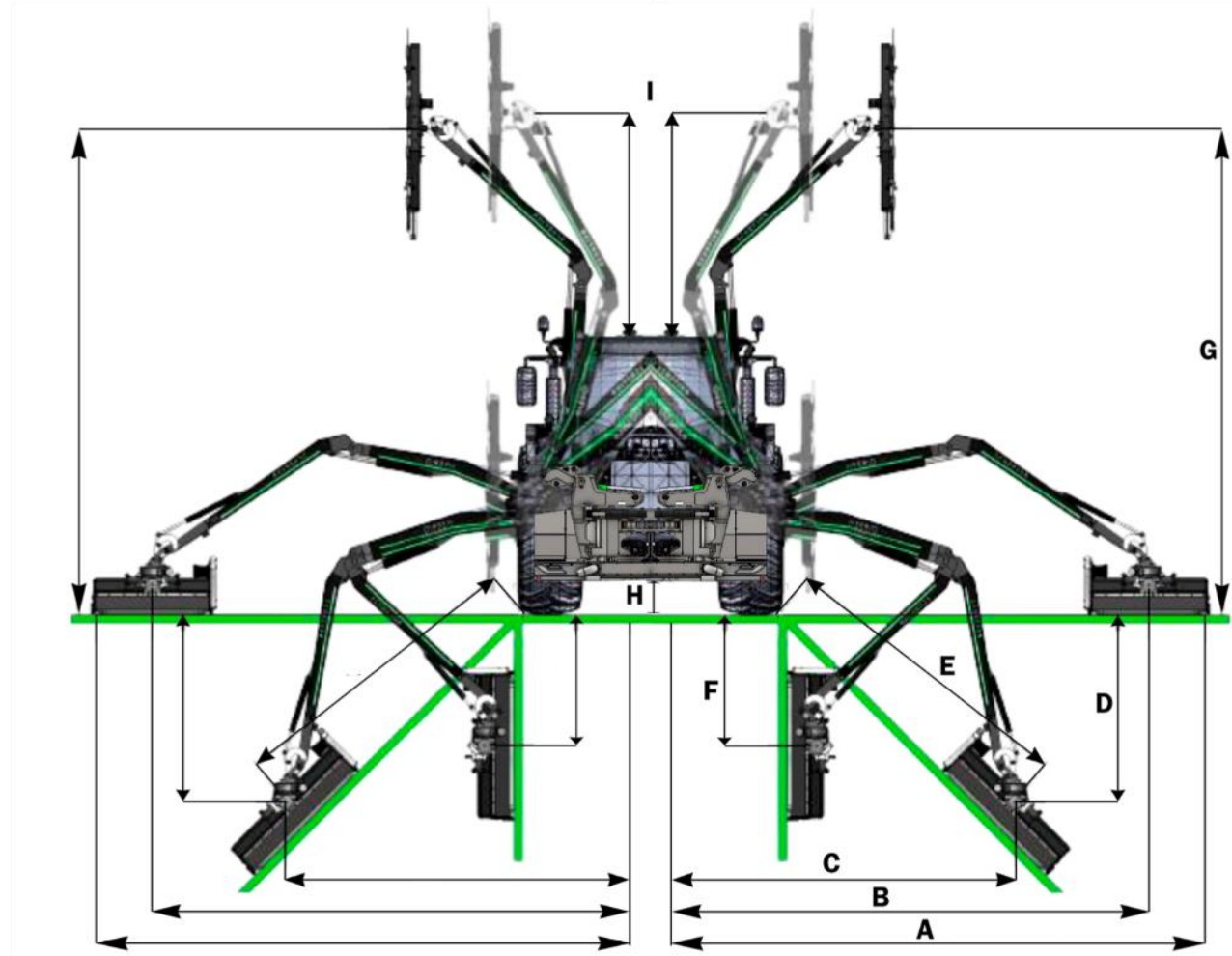
SPIDER MODELS	520-6 PLUS	620-6 PLUS	720-8 PLUS	820-8 PLUS
Horizontal reach (m)	5.2	6.2	7.2	8.2
Vertical reach (m)	5.1	6.1	7.1	8.1
Transport width (m)	2.2	2.2	2.4	2.4
Mounting	F/B/R	F/B/R	B/R	B/R
Pump	Danfoss 60 ccm piston pump		Danfoss 60 ccm piston pump	
Hydraulic system (l/min @ bar)	125 @ 315		125 @ 315	
Minimum size of tractor (kg)	5,000	6,000	7,000	8,000
Weight (kg)	2,170	2,195	2,355	2,385
Hybrid Arm System	✓	✓	✓	✓
Rotor Flex, double pivot joint	✓	✓	✓	✓
Auto Flex, automatic vertical positioning	✓	✓	✓	✓
Auto Height Control (for verge mowing)	+	+	+	+
Quick release, hydraulic	+	+	+	+
Quick release, mechanical	+	+	+	+

Mounting: F = Front mounted, B = Rear mounted, R = Reverse mounted



Overview – Spider reaches

SPIDER MODELS	520	620	720	820
A (m)	5.2	6.2	7.2	8.2
B (m)	4.7	5.7	6.7	7.7
C (m)	3.4	4.1	4.8	5.6
D (m)	1.8	2.2	2.6	3.1
E (m)	3.0	3.7	4.4	5.0
F (m)	1.5	1.8	2.2	2.6
G (m)	5.1	6.1	7.1	8.1
H (m)	0.4	0.4	0.4	0.4
I (m)	2.0	2.0	2.0	2.0





SCORPION 4 SERIES INTRODUCTION

Scorpion 4 series

13
Tools

← m →
3.3-4.3

↑ m ↓
3.1-4.1

kg
1500-2200

2
years
WARRANTY

Scorpion 4 series:

- Hybrid arm system provides greater capacity and higher flexibility
- Strenx steel for optimized weight and strength ratio
- 155° hydraulic turn of arm with Power Control
- Fast and easy mounting with the 4-point system



Scorpion 4 S

SCORPION	330 S	430 S
Horizontal reach (m)	3.3	4.3
Vertical reach (m)	3.1	4.1
Transport width (m)	1.8	2.2
Mounting	F/B/R	F/B/R
Pump	32 ccm gear pump	
Hydraulic system (l/min @ bar)	52 @ 210	
Minimum size of tractor (kg)	1,500	2,000
Weight (kg)	570	590
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	✗	✗
Auto Flex, automatic vertical positioning	✗	✗
Auto Height Control (for verge mowing)	✗	✗
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



Mounting: F = Front mounted, B = Rear mounted, R = Reverse mounted

Scorpion 4 PLUS

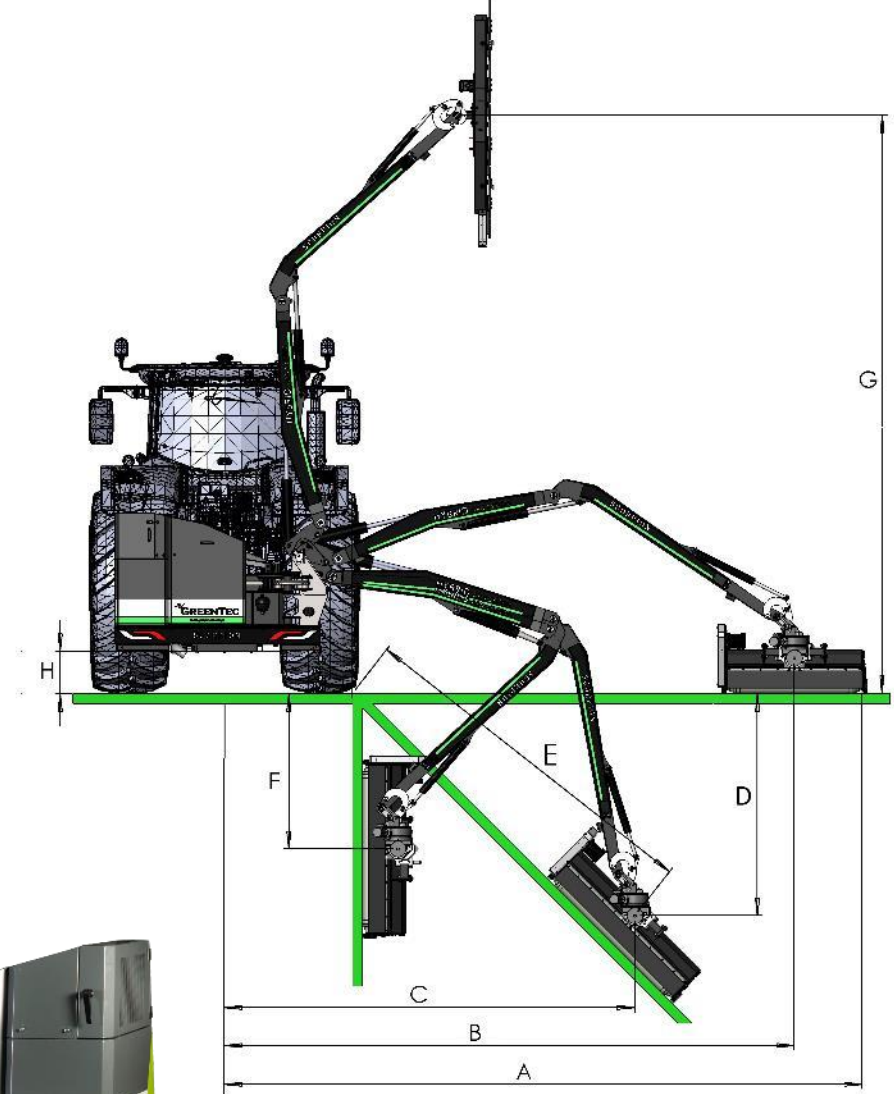
SCORPION	330 PLUS	430 PLUS
Horizontal reach (m)	3.3	4.3
Vertical reach (m)	3.1	4.1
Transport width (m)	1.8	2.2
Mounting	F/B/R	F/B/R
Pump	32 ccm gear pump	
Hydraulic system (l/min @ bar)	52 @ 210	
Minimum size of tractor (kg)	1,650	2,200
Weight (kg)	610	630
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	✓	✓
Auto Flex, automatic vertical positioning	✓	✓
Auto Height Control (for verge mowing)	✗	✗
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



Mounting: F = Front mounted, B = Rear mounted, R = Reverse mounted

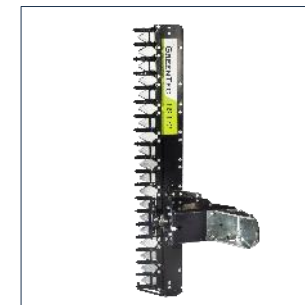
Scorpion 4 series

SCORPION MODELS	330	430
A (m)	3.3	4.3
B (m)	2.9	3.9
C (m)	1.9	2.6
D (m)	0.8	0.9
E (m)	1.9	2.6
F (m)	0.8	1.2
G (m)	3.1	4.1
H (m)	0.4	0.4



Scorpion 4 series

ATTACHMENT TOOLS	MINIMUM OIL FLOW
Flail Mower FR 92	40 l/min @ 210 bar
Flail Mower FR 112	40 l/min @ 210 bar
Quadsaw LRS 1402	25 l/min @ 190 bar
Quadsaw LRS 1602	40 l/min @ 190 bar
Rotary Hedge Cutter RC 102	25 l/min @ 190 bar
Rotary Hedge Cutter RC 132	40 l/min @ 190 bar
Cutterbar HL 152	25 l/min @ 190 bar
Cutterbar HL 182	40 l/min @ 190 bar
Cutterbar HL 212	40 l/min @ 190 bar
Cutterbar HL 242	40 l/min @ 190 bar
Cutterbar HS 172	40 l/min @ 190 bar
Grass Cutterbar S 165	40 l/min @ 180 bar
Grass Cutterbar S 190	40 l/min @ 180 bar



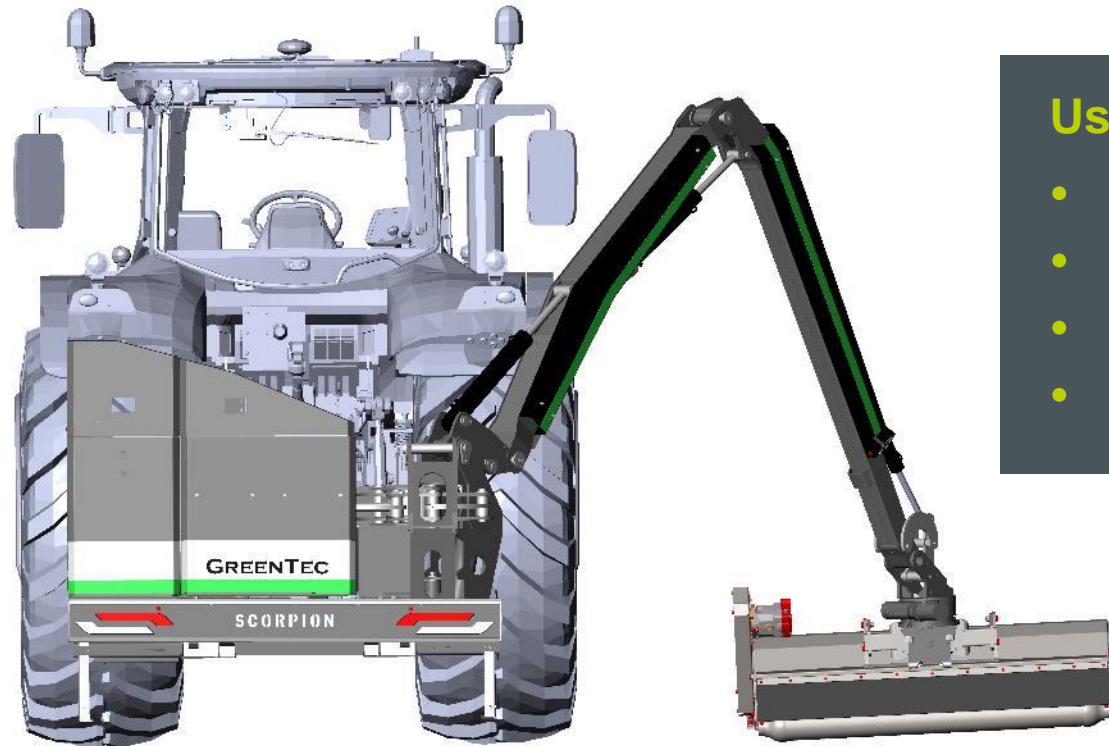


SCORPION 4 SERIES FEATURES, EQUIPMENT AND MOUNTING

Hybrid Arm System

Hybrid Arm System:

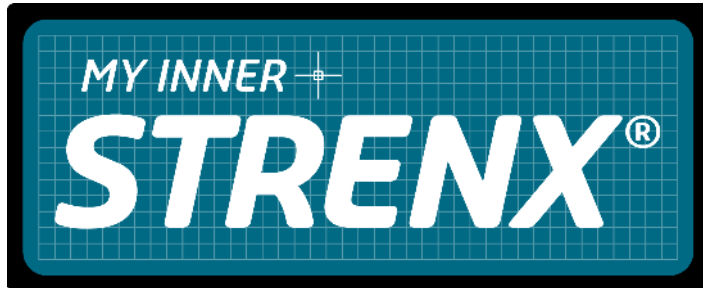
- Two options
 - Parallel
 - Non-parallel
- Increased flexibility
- Higher efficiency
- Telescope unnecessary
 - Fewer lubrication points
 - Lighter construction
 - Less wear
- Simple build



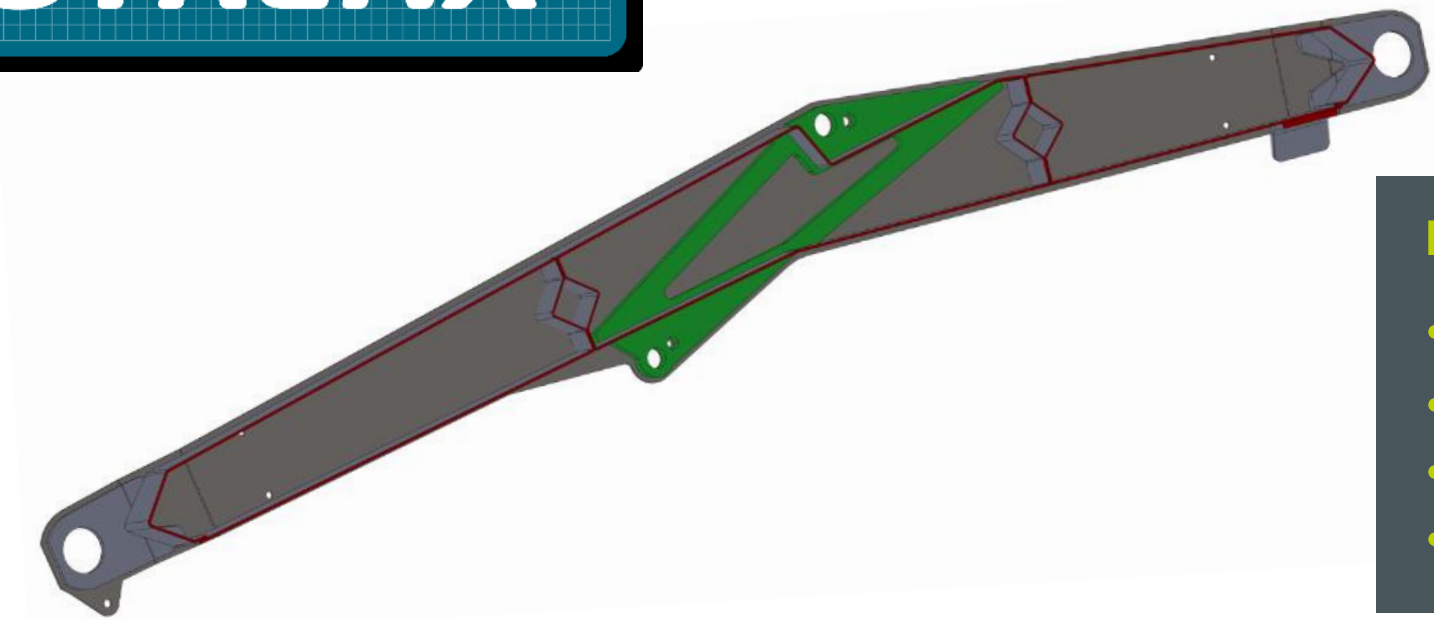
Useful applications:

- Forest areas
- Bicycle paths
- Deep ditches
- Narrow roads

Strenx steel

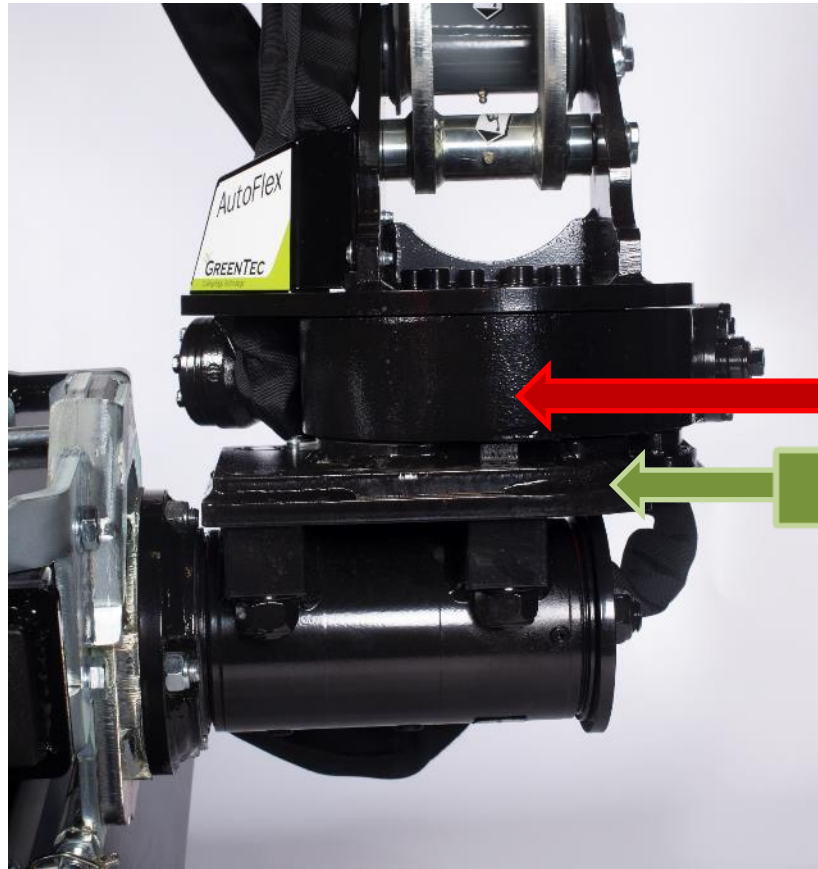


Design approved by
SSAB for usage of its
steel



- MY INNER STRENX:**
- World's strongest manufacturing steel
 - 25% weight reduction
 - 50% stronger construction
 - "My Inner Strenx"-Partner

Rotor Flex (Scorpion 4 PLUS)



221° Swivel head

180° Swivel joint



Rotor Flex (Scorpion 4 PLUS)

Rotor Flex:

- Advance the tool to the field of view when working
- Easier to cut around objects, e.g. lampposts
- The transport position is optimized. The tool is close to the machine = high visibility of lights



Auto Flex (Scorpion 4 PLUS)

Auto Flex:

- Automatic vertical positioning for hedge trimming
- Relieves the user
- Must be deactivated before the machine can be folded to transport position



4-point mounting



Rear (350-540 rpm)



Front (600-1000 rpm)



Reverse (350-540 rpm)

4-point mounting

DEKRA:

- Worldwide company that specializes in testing and certification in the automotive industry, energy sector, etc.
- German origin, present in 50 countries

GENERAL INFORMATION

Customer: Scharmüller
Test specimen: ball towing device 80
Type: 80-340100
Sample receipt: 19171 2020-03-23

TEST SYSTEM

Test cylinder: 160K HCM: 3
effect. length L: Tower: 1

TEST PARAMETER

Directive: regulation (EU) 2015/208
Type of test: one-component, swelling stress, tension
D 26 kN S 0 kg v>40 km/h

F _{max} [kN]	F _{min} [kN]	α Force [deg]	direction
26	1,3	0,0	tension
cycles	f [Hz]	test bench	controler
2.000.000	5	5	force



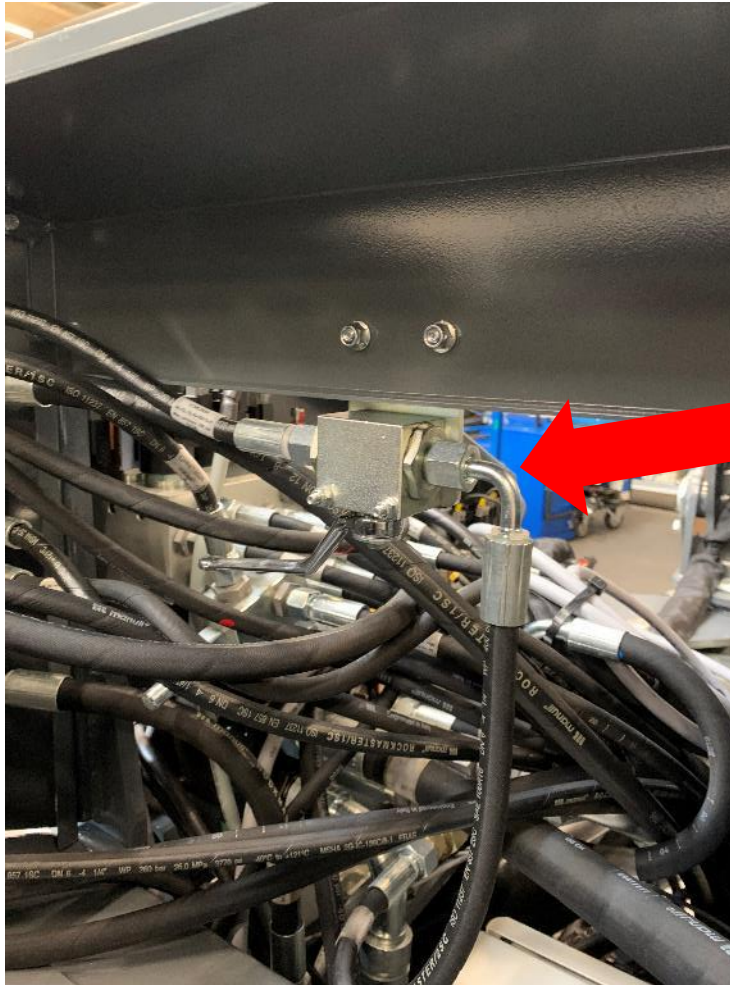
RESULT:

The test specimen completed the required fatigue test over 2 million load cycles without any visible damages. The crack detection test did not show signs.

Ball valves for transport safety



Pressure relief of tool socket



Pressure relief of tool:

- When the position is open, the oil goes to the tank instead of the tool
- Removes the pressure from quick couplings
- Safety when changing flails

LED lights and underrun bumper



LogiTec Safe control (Scorpion 4 S)

Joystick:

- Danfoss joystick
- Easy to operate
- 3 proportional functions
- Buttons for switch function



An acoustic warning will occur if the working pressure is too high or if the oil is too hot.



LogiTec Safe control (Scorpion 4 PLUS)

Joystick:

- Danfoss joystick
- Easy to operate
- 3 proportional functions
- Buttons for switch function



An acoustic warning will occur if the working pressure is too high or if the oil is too hot.

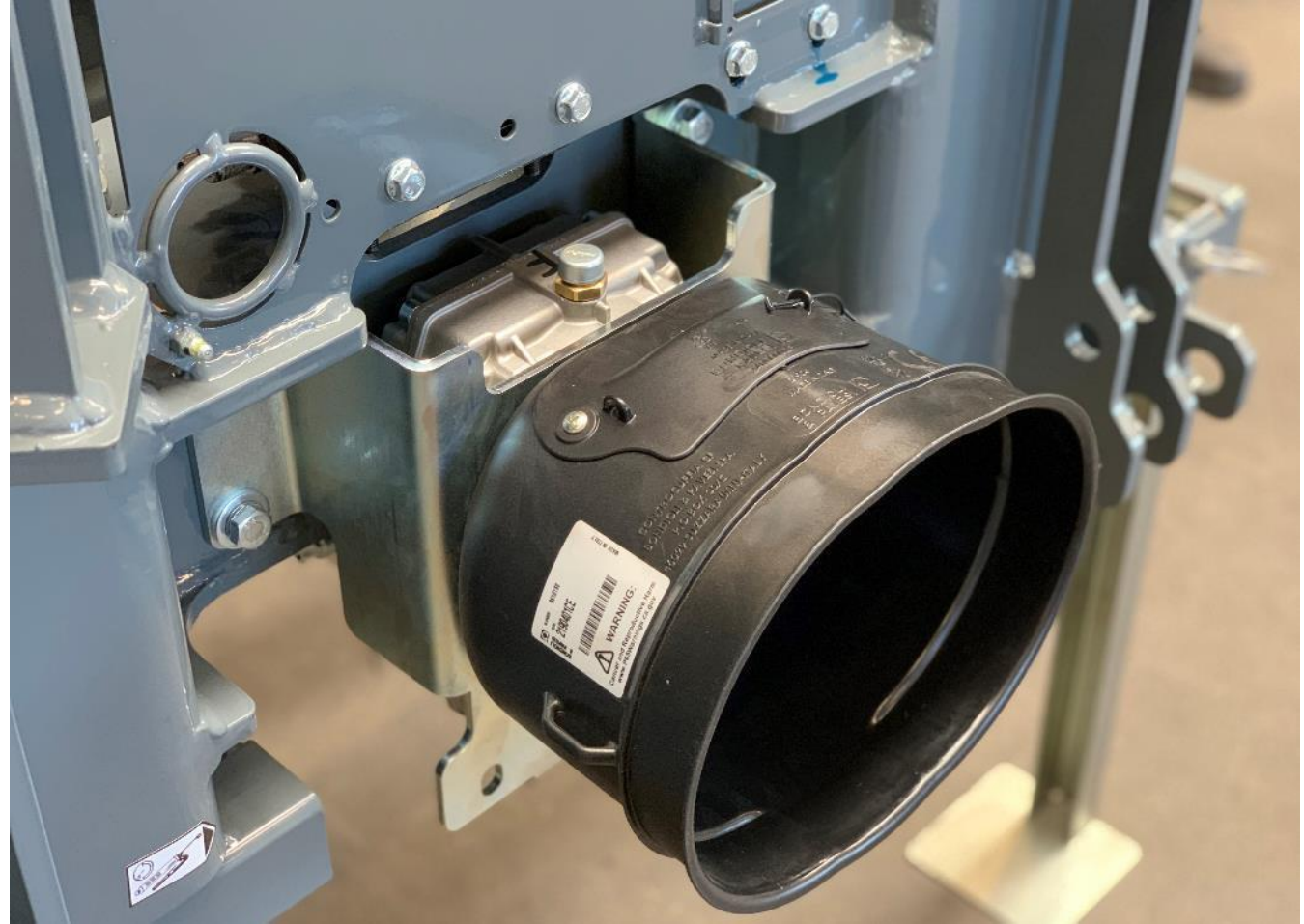


Bondioli gearbox



SCORPION 4

Hydraulic system (l/min @ bar)	52 @ 210
Gear pump (ccm)	32
Gearbox (size)	ML152
Tank capacity (oil)	80 liters



Different oil flows for tools

Electric change of oil flows:

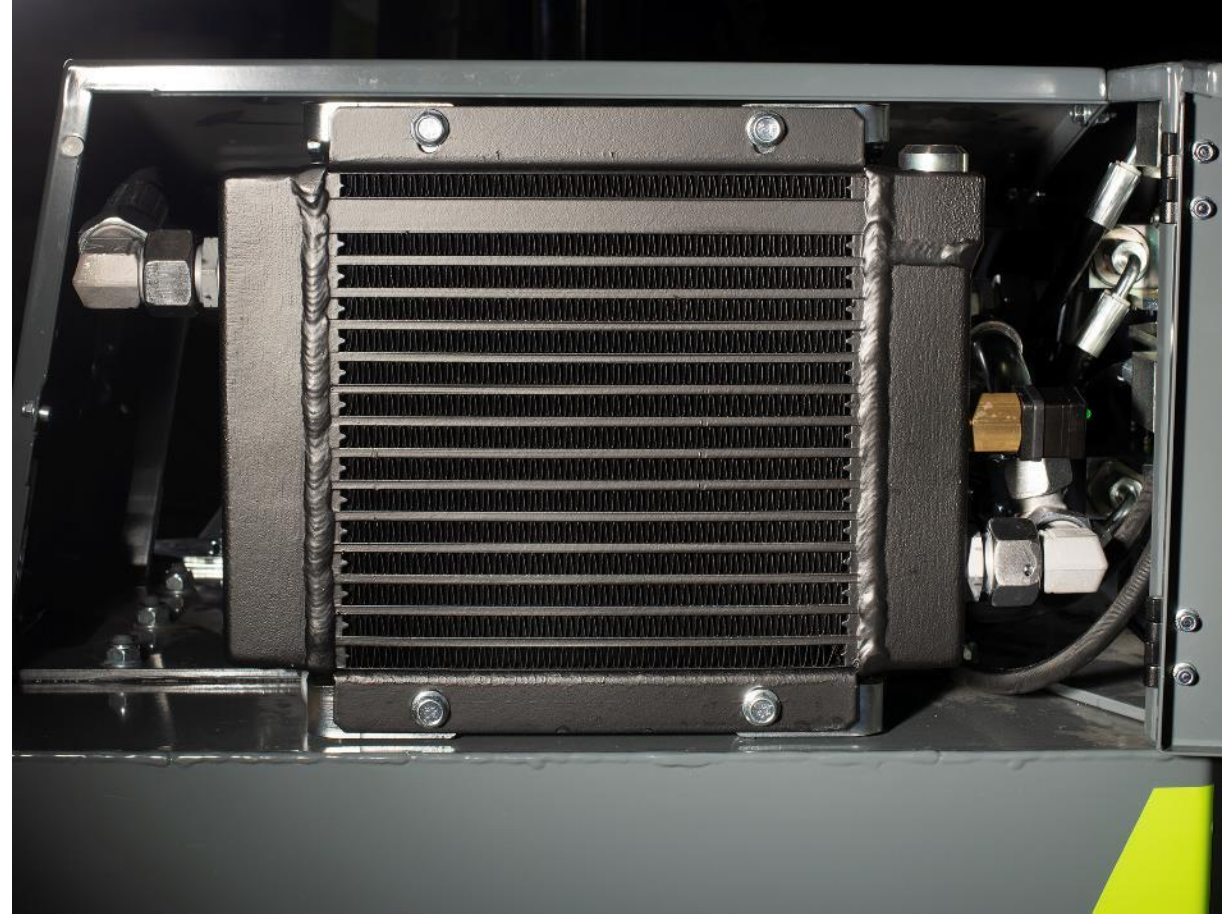
- Save time when switching between 25 and 40 l/min
- Easy access
- Avoid oil flow divider
- Reduce heat generation of the hydraulic oil and ensure long life



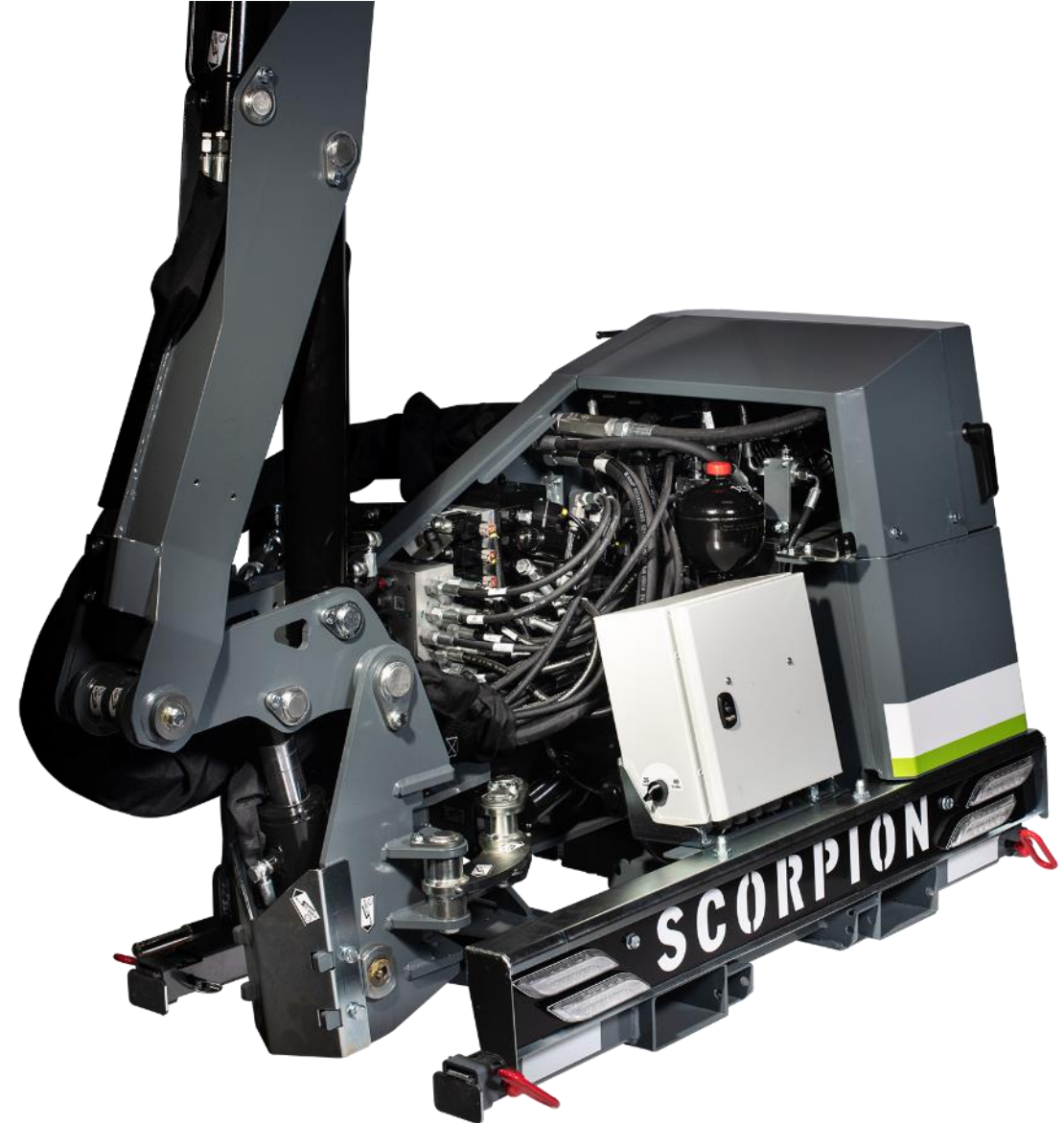
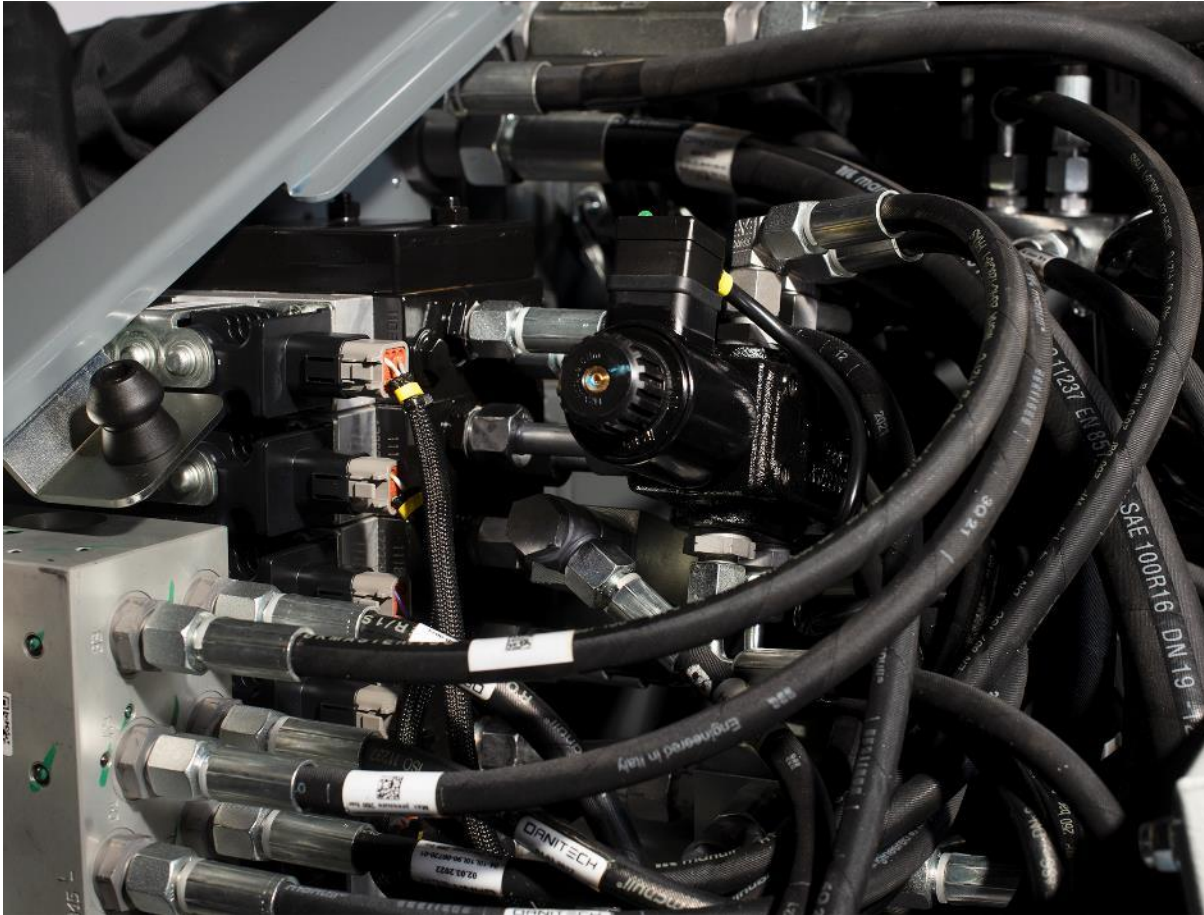
Oil cooler

Oil cooler:

- Extends oil life by maintaining optimal temperature
- Enhances performance and reliability
- Reduces risk of overheating and related damages
- Increases efficiency of machinery and engines



Easy overview of valve blocks

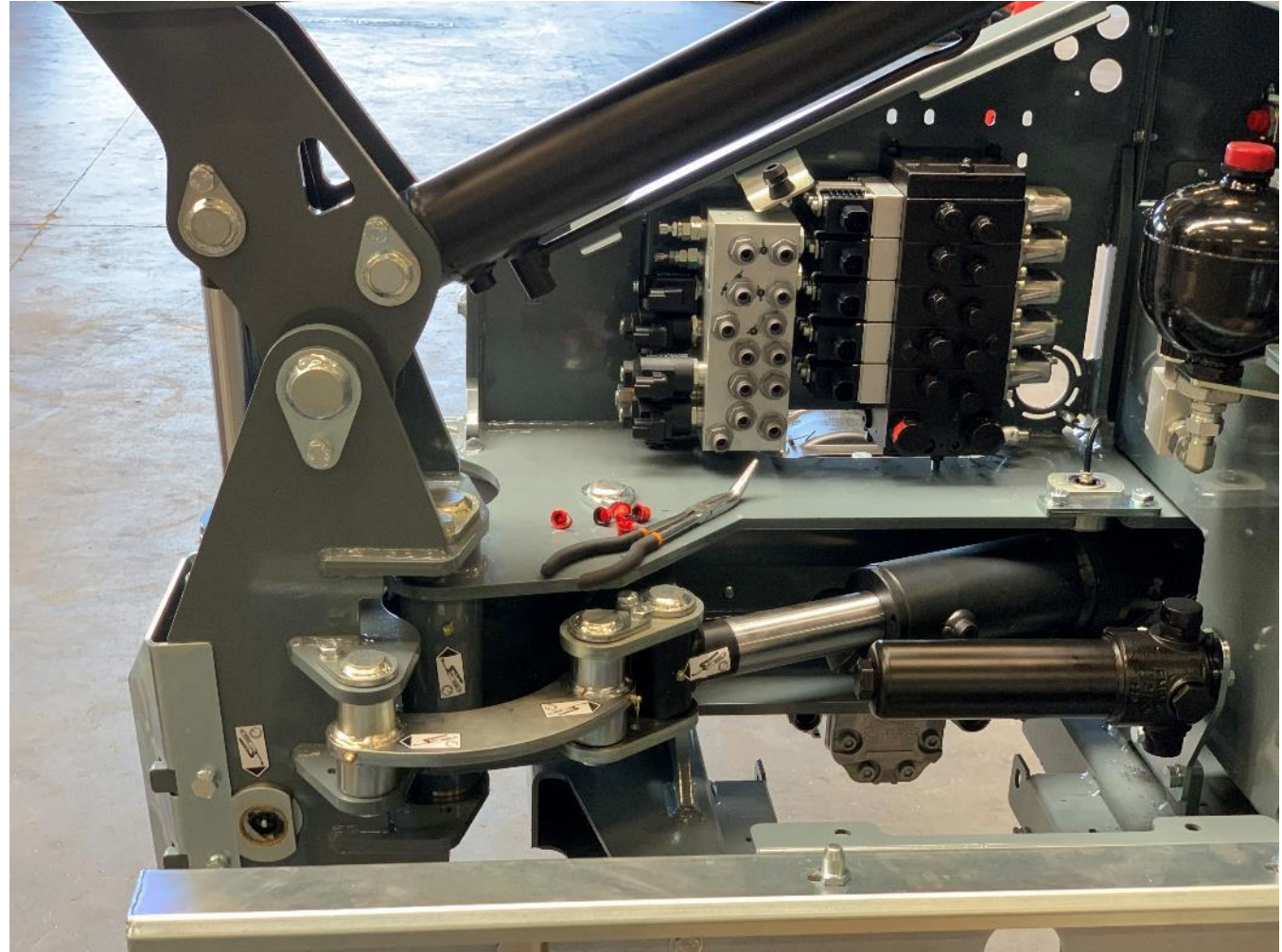


Swivel joint



Swivel joint:

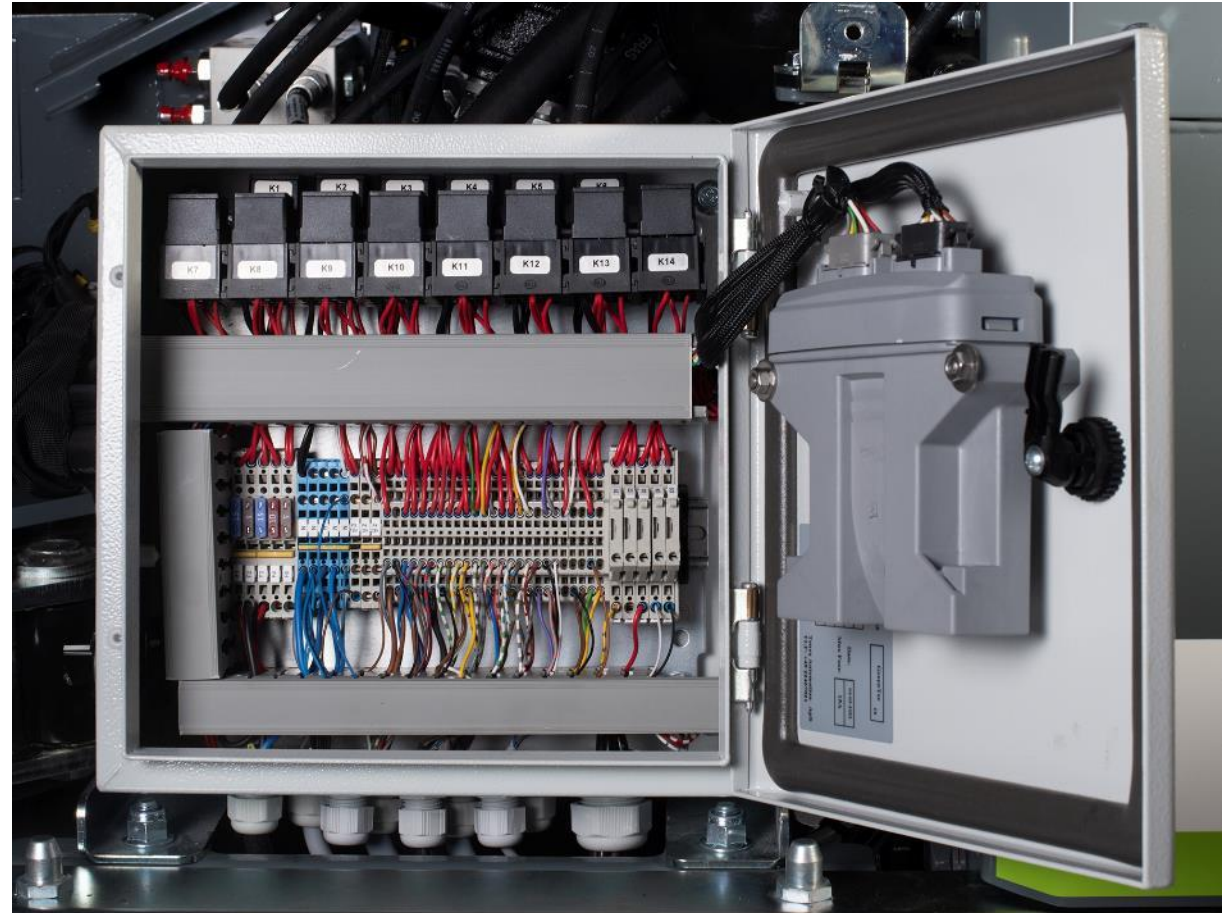
- Copper bushings for long life
- Bolts and bushings are dimensioned according to the load



Canbus wiring harness

Electrical cabinet:

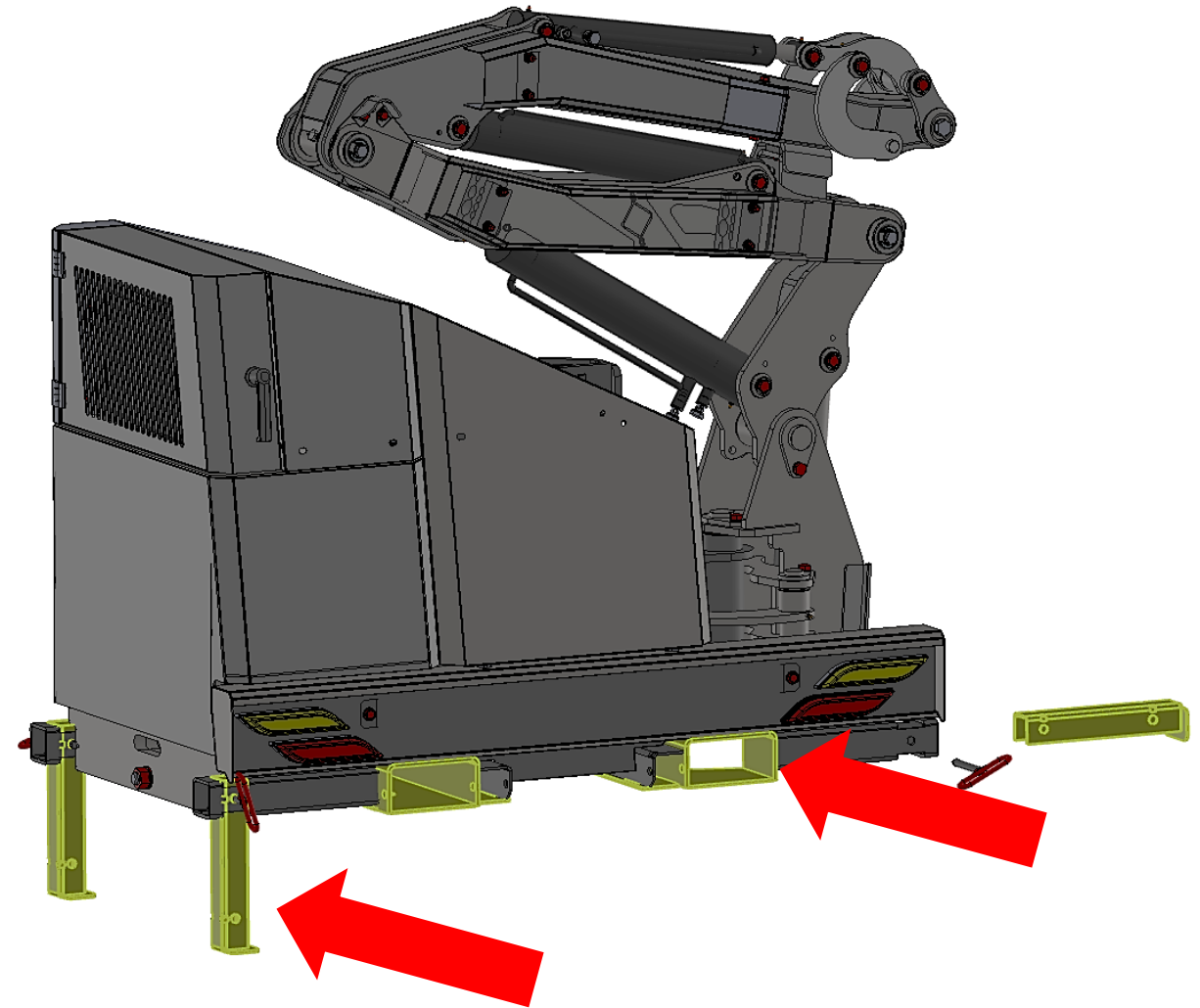
- Waterproof
- Good wiring – Easy overview for troubleshooting
- Danish programmed software



Fork pockets and support legs

Fork pockets and support legs:

- Closed fork pockets for safe handling during loading and unloading
- Solid support legs with large distance for increased stability



Bio oil (Optional)

Bio oil:

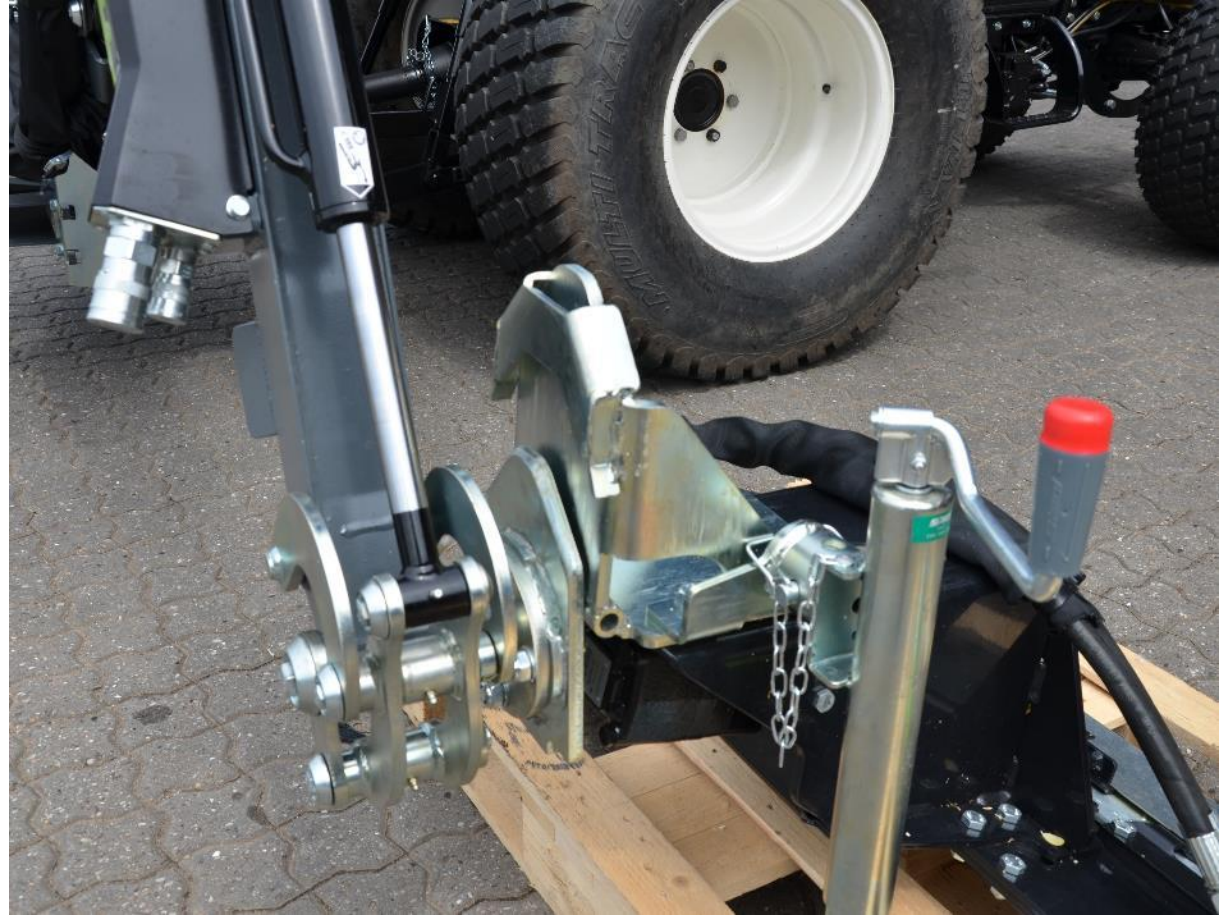
- SC 4, 80 L bio oil
- Used bio oil - Shell Naturelle HF-E 46
- Standard oil - Shell Tellus S2 VX 46



Mechanical quick release (Optional)

Mechanical quick release:

- Simple quick release system ensures easy change of tools
- Easy mounting and dismounting of tools in collaboration with Rotor Flex



Hydraulic quick release (Optional)

Hydraulic quick release:

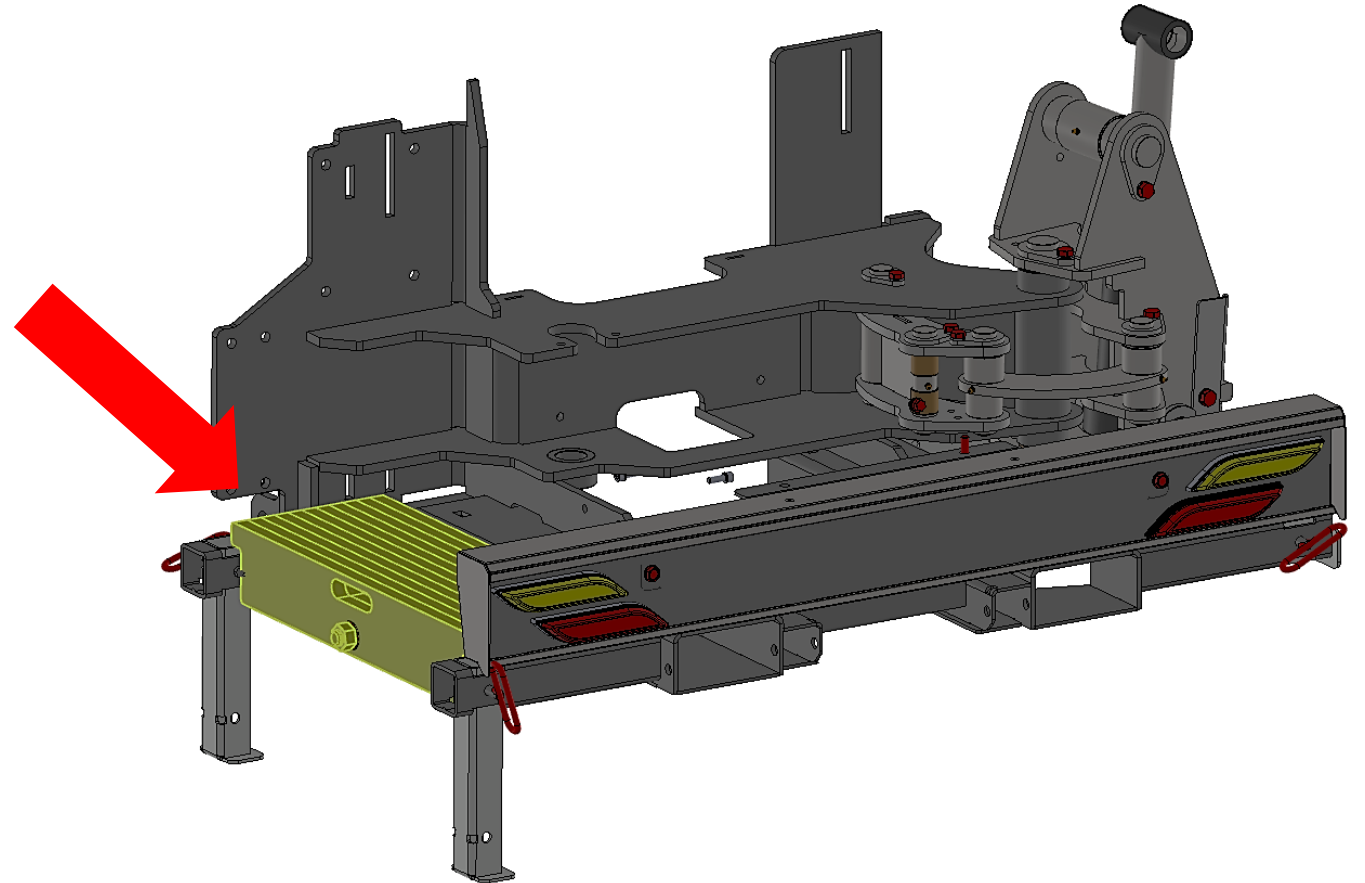
- Flat nose couplings allow high flow and pressure
- Easy to clean with a cloth when mounting
- Quick installation of hydraulics when changing tools



Counterweights (Optional)

Counterweights:

- Ensure stability in the machine
- Bottom position for low center of gravity
- Weight plates – a total of 90 kg





SCORPION 6 & 8 SERIES INTRODUCTION

Scorpion 6 series



Scorpion 6 series:

- Hybrid arm system provides greater capacity and higher flexibility
- Strenx steel for optimized weight and strength ratio
- 155° hydraulic turn of arm with Power Control
- Fast and easy mounting with the 4-point system
- AHC ensures that the cutting head floats above the terrain (optional)



Scorpion 6 S

SCORPION	530 S	630 S
Horizontal reach (m)	5.3	6.3
Vertical reach (m)	5.1	6.1
Transport width (m)	2.2	2.2
Mounting	Rear	Rear
Pump	56 ccm gear pump	
Hydraulic system (l/min @ bar)	115 @ 230	
Minimum size of tractor (kg)	4,000	5,000
Weight (kg)	1,235	1,270
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	+	+
Auto Flex, automatic vertical positioning	+	+
Auto Height Control (for verge mowing)	+	+
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



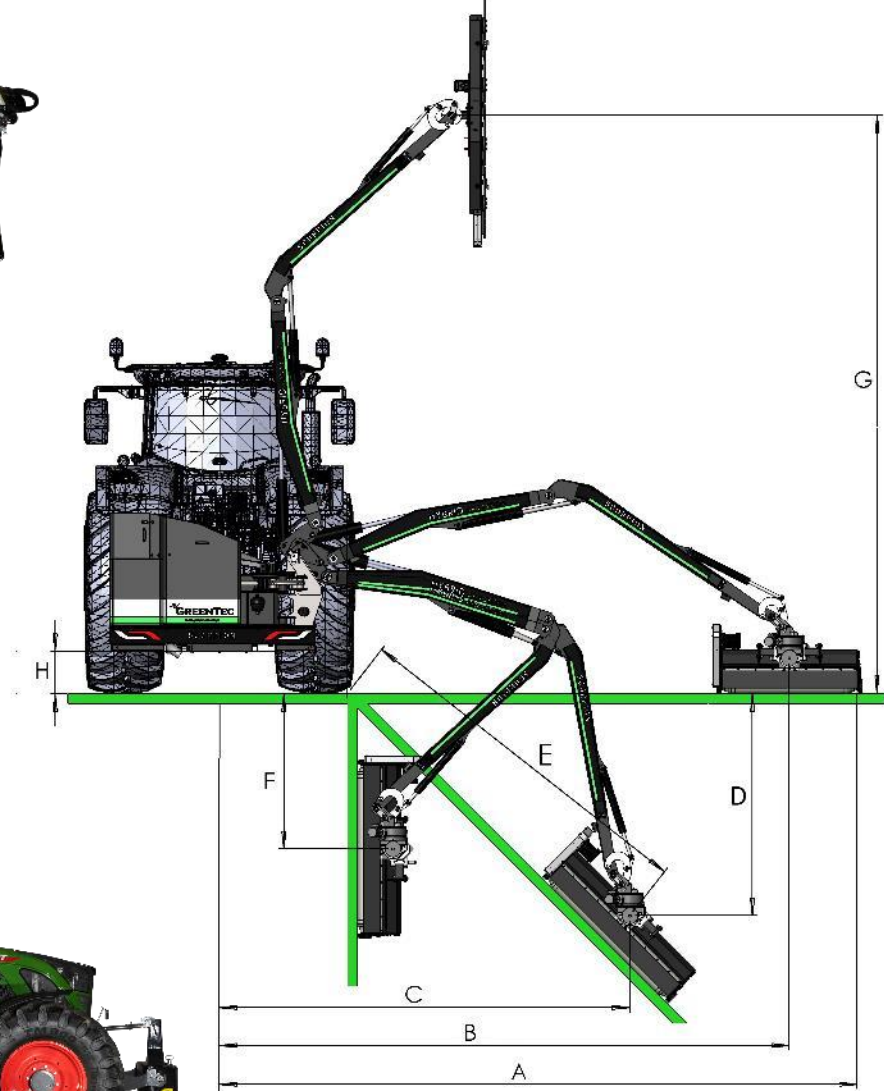
Scorpion 6 PLUS

SCORPION	530 PLUS	630 PLUS
Horizontal reach (m)	5.3	6.3
Vertical reach (m)	5.1	6.1
Transport width (m)	2.2	2.2
Mounting	Rear	Rear
Pump	Danfoss 60 ccm piston pump	
Hydraulic system (l/min @ bar)	125 @ 315	
Minimum size of tractor (kg)	4,000	5,000
Weight (kg)	1,370	1,395
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	✓	✓
Auto Flex, automatic vertical positioning	✓	✓
Auto Height Control (for verge mowing)	+	+
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



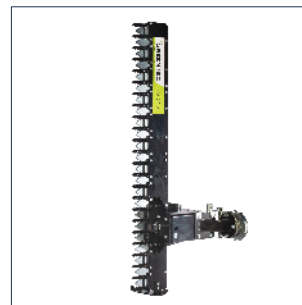
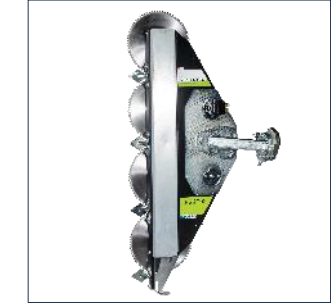
Scorpion 6 series

SCORPION MODELS	530	630
A (m)	5.3	6.3
B (m)	4.7	5.7
C (m)	3.4	4.1
D (m)	1.8	2.2
E (m)	3.0	3.7
F (m)	1.5	1.8
G (m)	5.1	6.1
H (m)	0.4	0.4



Scorpion 6 series

ATTACHMENT TOOLS	MINIMUM OIL FLOW
Flail Mower FR 122	85 l/min @ 230 bar (S) 85 l/min @ 315 bar (PLUS)
Flail Mower FR 122 VB	85 l/min @ 230 bar (S) 85 l/min @ 315 bar (PLUS)
Flail Mower FR 162	85 l/min @ 230 bar (S) 85 l/min @ 315 bar (PLUS)
Quadsaw LRS 2002	85 l/min @ 150 bar
Quadsaw LRS 2402	85 l/min @ 150 bar
Rotary Hedge Cutter RC 162	50 l/min @ 180 bar
Rotary Mulcher RM 232	50 l/min @ 180 bar
Cutterbar HX 170 - 270	50 l/min @ 190 bar
Cutterbar HS 212 & 242	50 l/min @ 190 bar
Rotary Crusher RX 133	85 l/min @ 315 bar
Grass Cutterbar S 165 - 240	50 l/min @ 180 bar
Weed Clearing Brush BR 90	50 l/min @ 190 bar
Rotary Ditch Cleaner GR 70	85 l/min @ 315 bar



Scorpion 8 series



Scorpion 8 series:

- Hybrid arm system provides greater capacity and higher flexibility
- Strenx steel for optimized weight and strength ratio
- 155° hydraulic turn of arm with Power Control
- Fast and easy mounting with the 4-point system
- AHC ensures that the cutting head floats above the terrain (optional)



Scorpion 8 S

SCORPION	730 S	830 S
Horizontal reach (m)	7.3	8.3
Vertical reach (m)	7.1	8.1
Transport width (m)	2.4	2.5
Mounting	Rear	Rear
Pump	56 ccm gear pump	
Hydraulic system (l/min @ bar)	115 @ 230	
Minimum size of tractor (kg)	7,000	8,000
Weight (kg)	1,475	1,505
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	+	+
Auto Flex, automatic vertical positioning	+	+
Auto Height Control (for verge mowing)	+	+
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



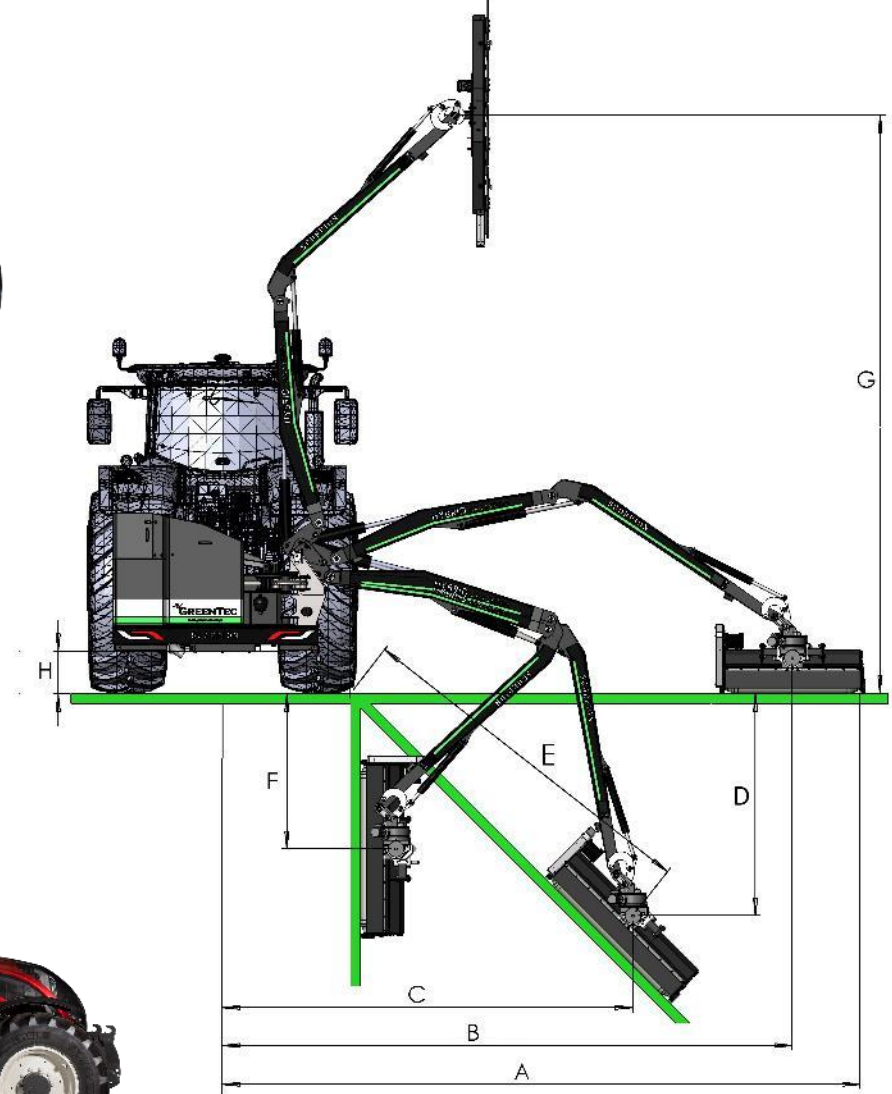
Scorpion 8 PLUS

SCORPION	730 PLUS	830 PLUS
Horizontal reach (m)	7.3	8.3
Vertical reach (m)	7.1	8.1
Transport width (m)	2.4	2.5
Mounting	Rear	Rear
Pump	Danfoss 60 ccm piston pump	
Hydraulic system (l/min @ bar)	125 @ 315	
Minimum size of tractor (kg)	7,000	8,000
Weight (kg)	1,600	1,630
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	✓	✓
Auto Flex, automatic vertical positioning	✓	✓
Auto Height Control (for verge mowing)	+	+
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



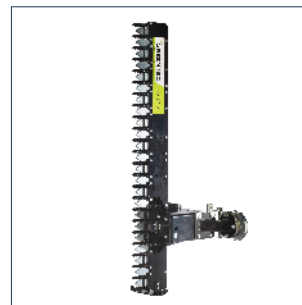
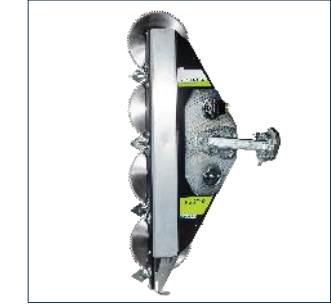
Scorpion 8 series

SCORPION MODELS	730	830
A (m)	7.3	8.3
B (m)	6.7	7.7
C (m)	4.8	5.6
D (m)	2.6	3.1
E (m)	4.4	5.0
F (m)	2.2	2.6
G (m)	7.1	8.1
H (m)	0.4	0.4



Scorpion 8 series

ATTACHMENT TOOLS	MINIMUM OIL FLOW
Flail Mower FR 122	85 l/min @ 230 bar (S) 85 l/min @ 315 bar (PLUS)
Flail Mower FR 122 VB	85 l/min @ 230 bar (S) 85 l/min @ 315 bar (PLUS)
Flail Mower FR 162	85 l/min @ 230 bar (S) 85 l/min @ 315 bar (PLUS)
Quadsaw LRS 2002	85 l/min @ 150 bar
Quadsaw LRS 2402	85 l/min @ 150 bar
Rotary Hedge Cutter RC 162	50 l/min @ 180 bar
Rotary Mulcher RM 232	50 l/min @ 180 bar
Cutterbar HX 170 - 270	50 l/min @ 190 bar
Cutterbar HS 212 & 242	50 l/min @ 190 bar
Rotary Crusher RX 133	85 l/min @ 315 bar
Grass Cutterbar S 165 - 240	50 l/min @ 180 bar
Weed Clearing Brush BR 90	50 l/min @ 190 bar
Rotary Ditch Cleaner GR 70	85 l/min @ 315 bar





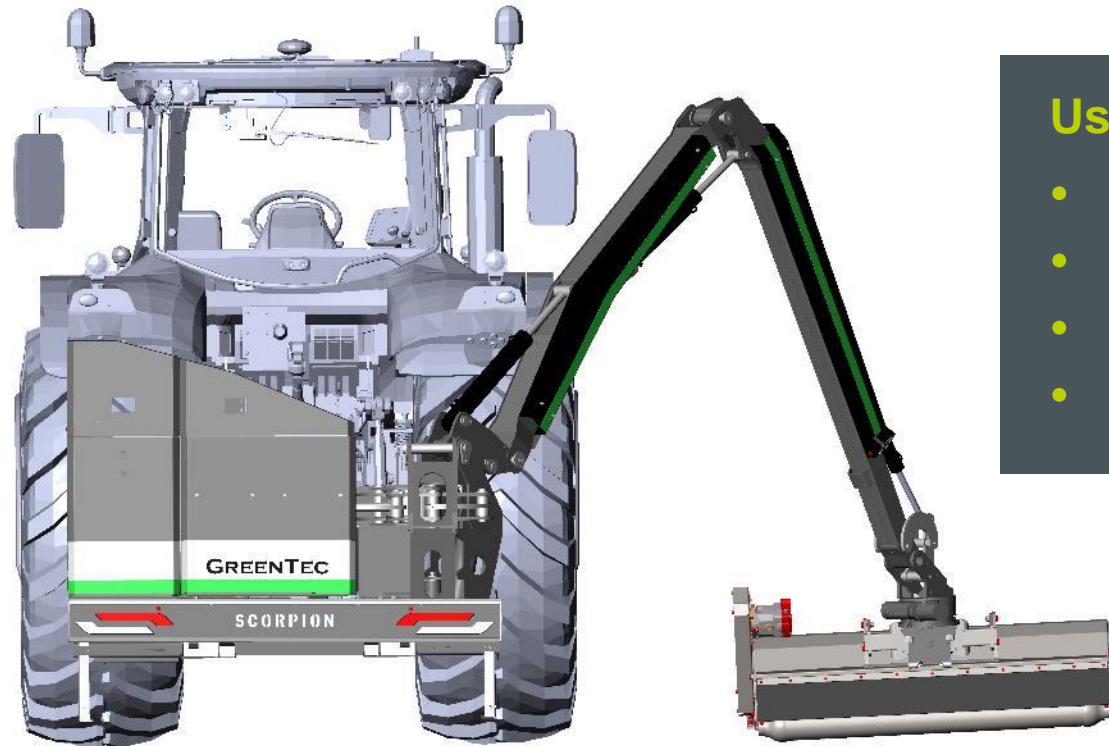
SCORPION 6 & 8 SERIES

FEATURES, EQUIPMENT AND MOUNTING

Hybrid Arm System

Hybrid Arm System:

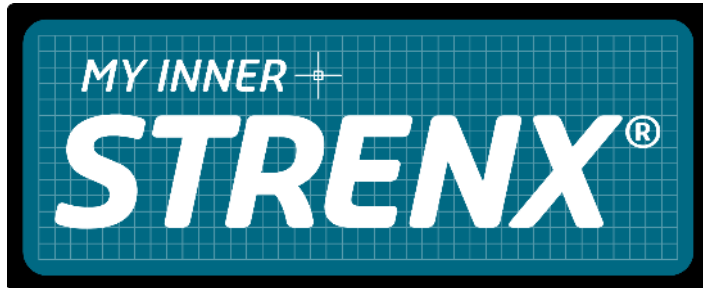
- Two options
 - Parallel
 - Non-parallel
- Increased flexibility
- Higher efficiency
- Telescope unnecessary
 - Fewer lubrication points
 - Lighter construction
 - Less wear
- Simple build



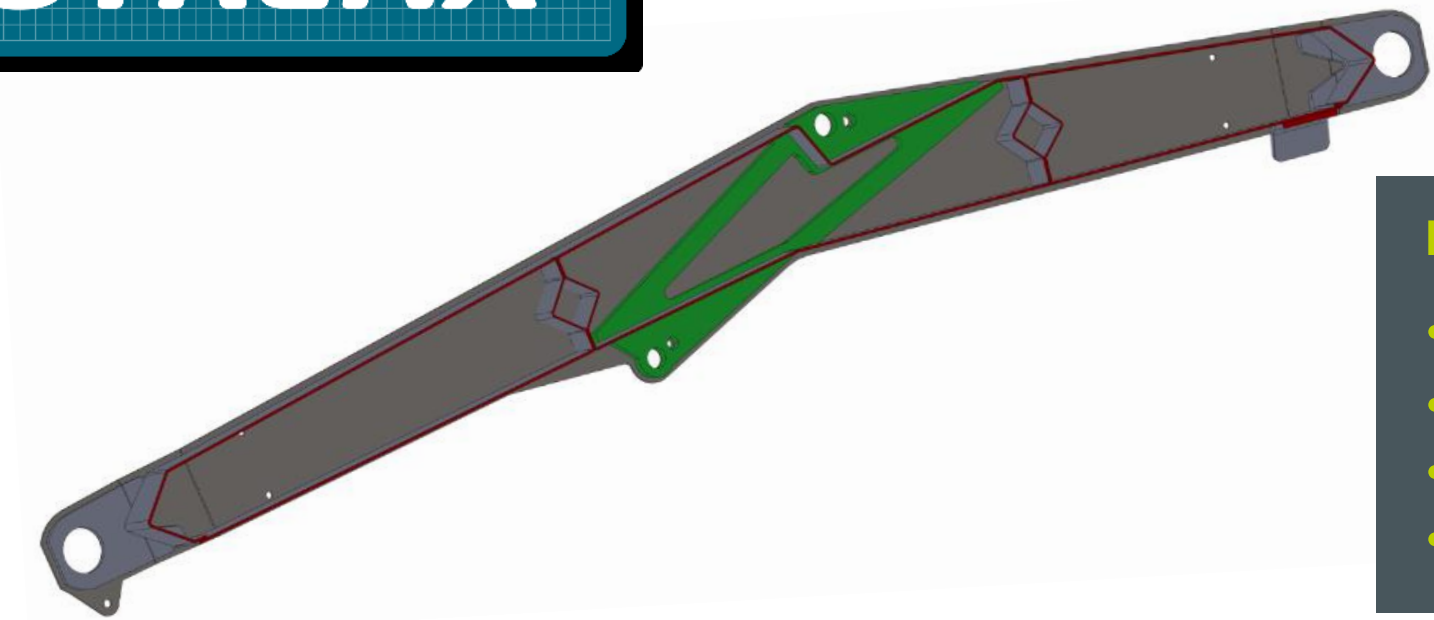
Useful applications:

- Forest areas
- Bicycle paths
- Deep ditches
- Narrow roads

Strenx steel

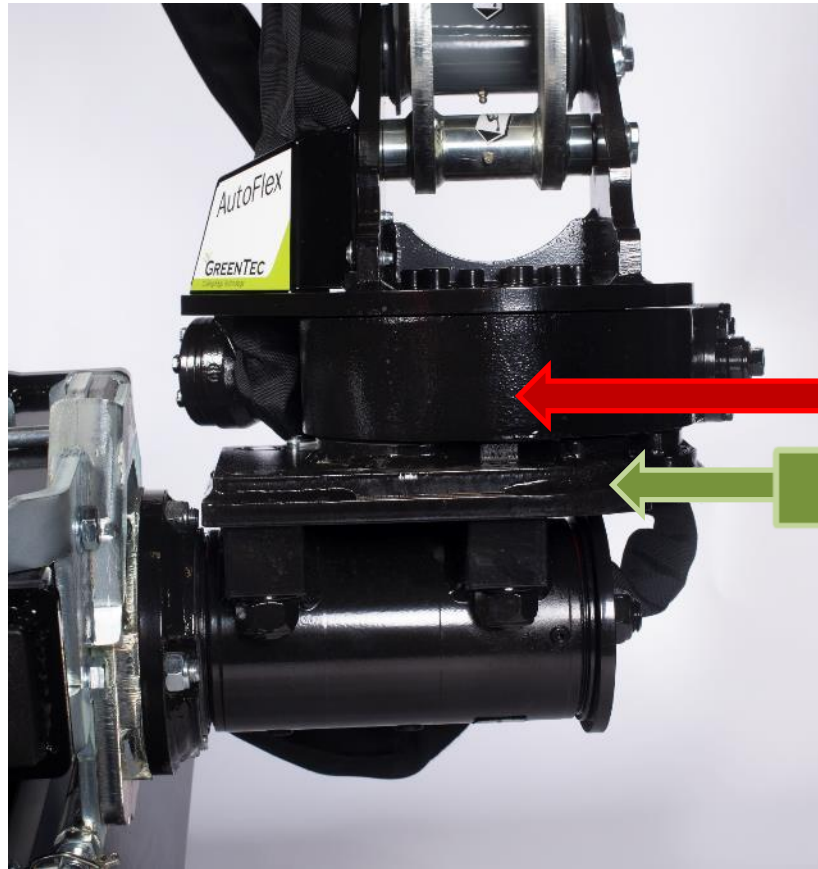


Design approved by
SSAB for usage of its
steel



- MY INNER STRENX:**
- World's strongest manufacturing steel
 - 25% weight reduction
 - 50% stronger construction
 - "My Inner Strenx"-Partner

Rotor Flex



270° Swivel head

180° Swivel joint



Rotor Flex

Rotor Flex:

- Optional for Scorpion 6 & 8 S
- Standard on Scorpion 6 & 8 PLUS
- Advance the tool to the field of view when working
- Easier to cut around objects, e.g. lampposts
- The transport position is optimized. The tool is close to the machine = high visibility of lights



Auto Flex

Auto Flex:

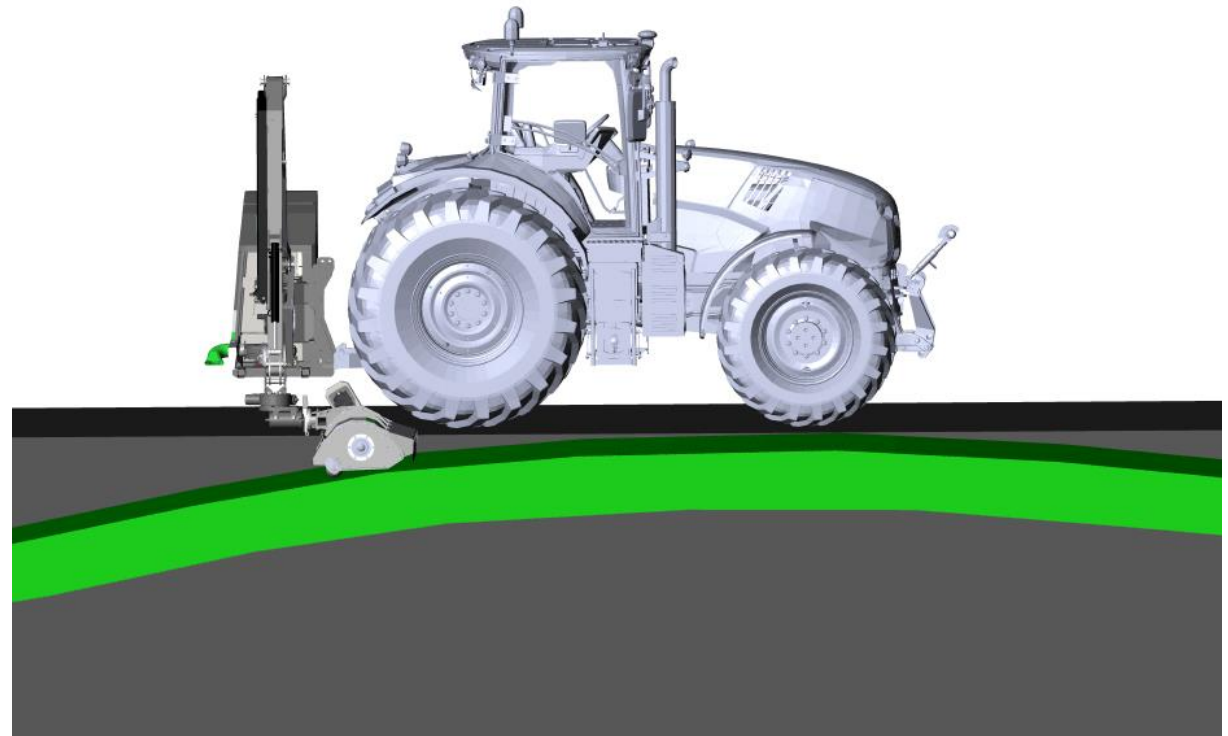
- Optional for Scorpion 6 & 8 S
- Standard on Scorpion 6 & 8 PLUS
- Automatic vertical positioning for hedge trimming
- Relieves the user
- Must be deactivated before the machine can be folded to transport position



Auto Height Control for verge mowing (AHC)

Auto Height Control:

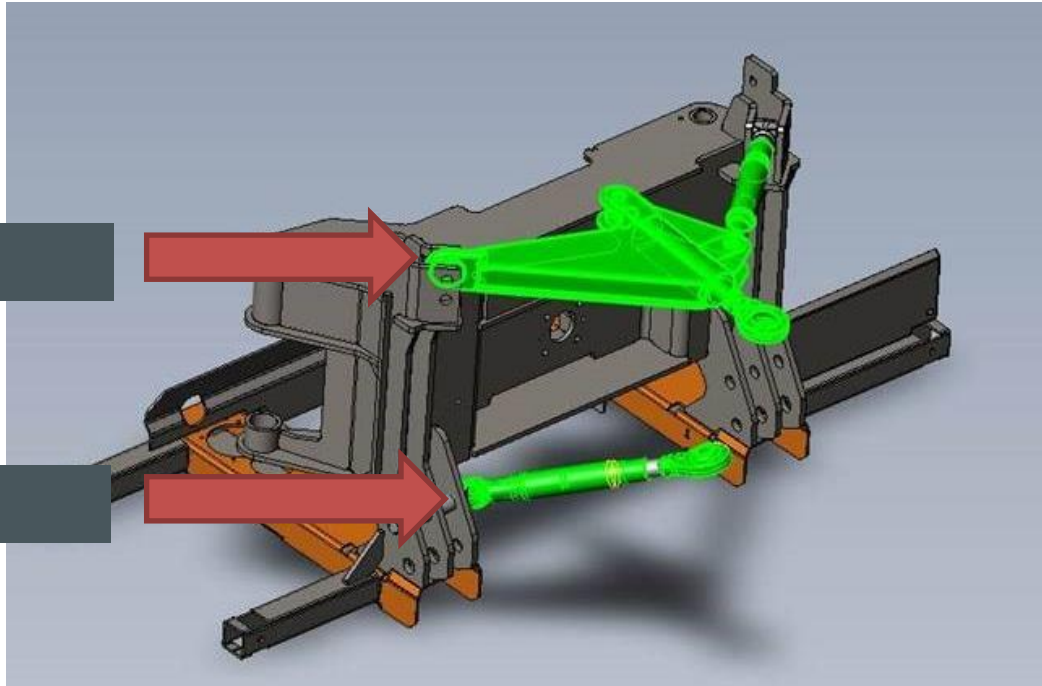
- Optional for Scorpion 6 & 8 S/PLUS
- Relieves the driver from manual adjusting to the contours of the terrain
- Auto Height Control is used for verge and ditch mowing. It ensures that the cutting head floats above the surface and does not mow into the ground by following the contours of the terrain. This is all done automatically. The driver does not need to maneuver the boom mower with the joystick



4-point mounting

Upper 4-point

Lower 4-point



4-point mounting

DEKRA:

- Worldwide company that specializes in testing and certification in the automotive industry, energy sector, etc.
- German origin, present in 50 countries

GENERAL INFORMATION

Customer: Scharmüller
Test specimen: ball towing device 80
Type: 80-340100
Sample receipt: 19171 2020-03-23

TEST SYSTEM

Test cylinder: 160K HCM: 3
effect. length L: Tower: 1

TEST PARAMETER

Directive: regulation (EU) 2015/208
Type of test: one-component, swelling stress, tension
D 26 kN S 0 kg v>40 km/h

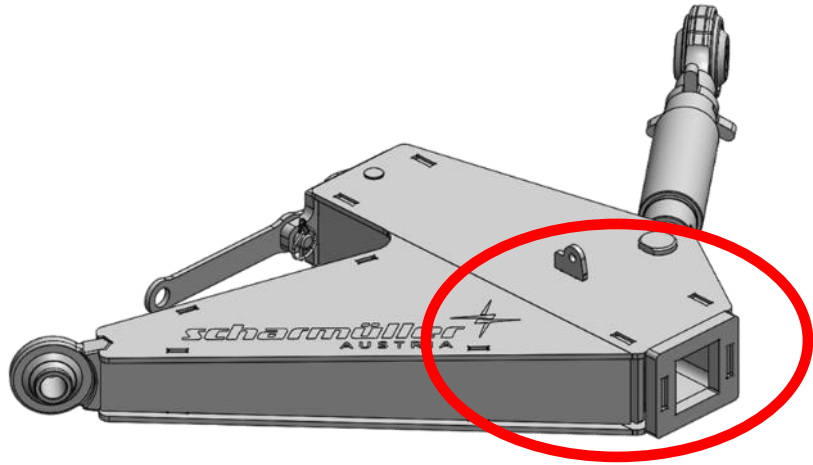
F _{max} [kN]	F _{min} [kN]	α Force [deg]	direction
26	1,3	0,0	tension
cycles	f [Hz]	test bench	controler
2.000.000	5	5	force



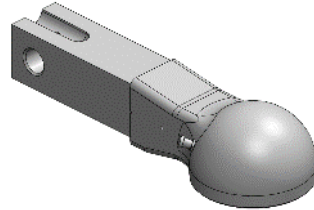
RESULT:

The test specimen completed the required fatigue test over 2 million load cycles without any visible damages. The crack detection test did not show signs.

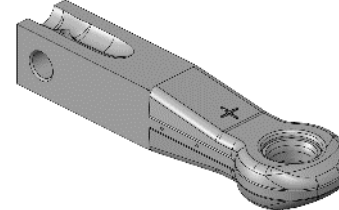
4-point mounting: Upper



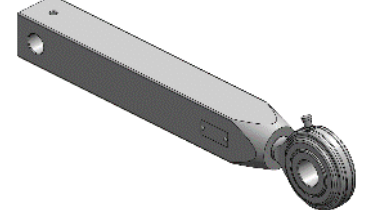
K80



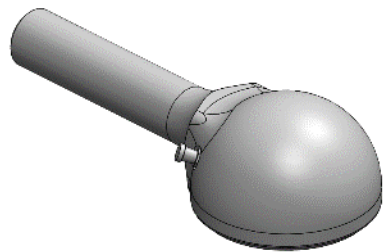
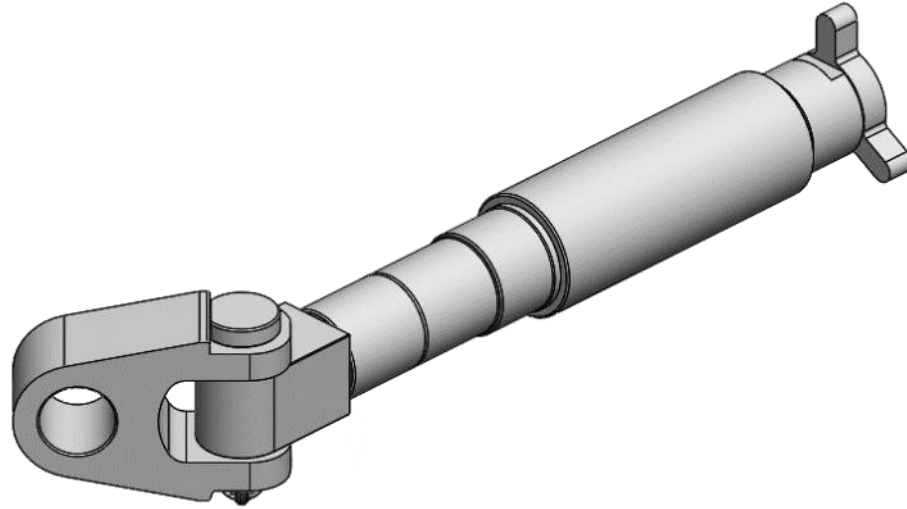
Pulling jaw



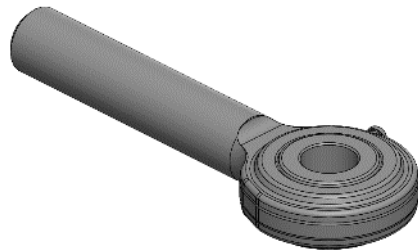
Top link



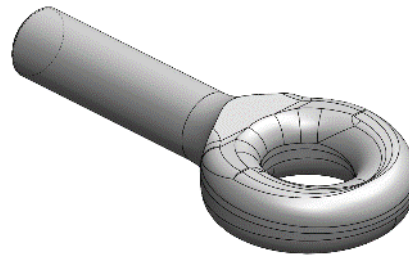
4-point mounting: Lower



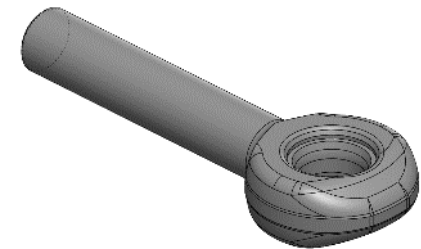
K80



Drawbar



Ø50

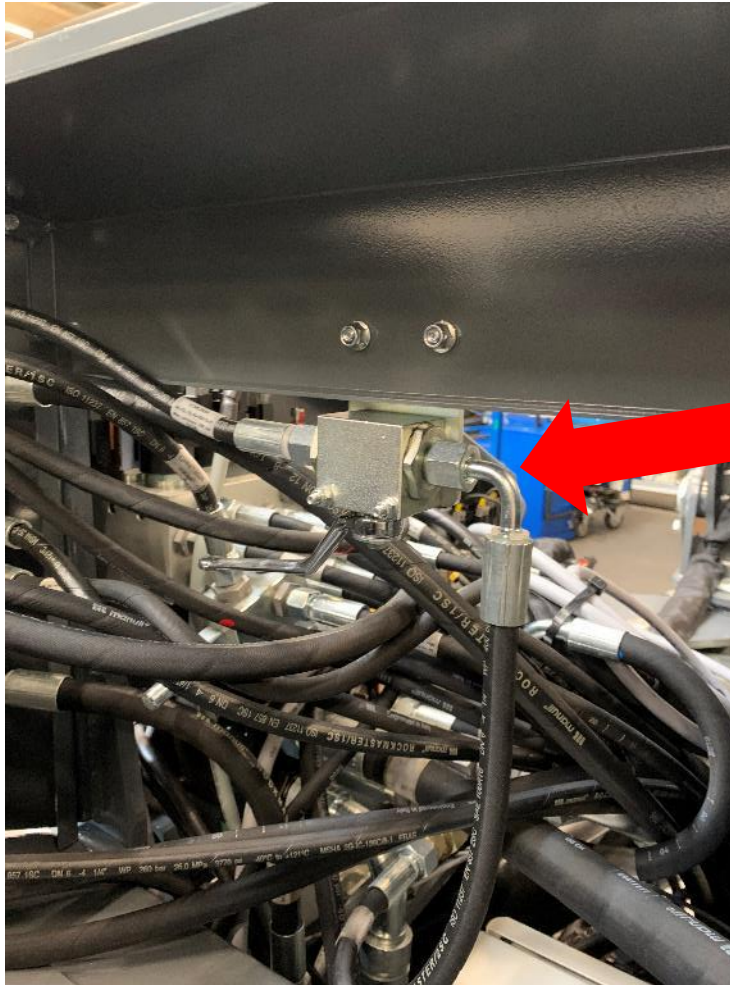


Pulling jaw

Ball valves for transport safety



Pressure relief of tool socket



Pressure relief of tool:

- When the position is open, the oil goes to the tank instead of the tool
- Removes the pressure from quick couplings
- Safety when changing flails

LED lights and underrun bumper



LogiTec Safe control

Joystick:

- Danfoss joystick
- Ergonomic design
- 4 proportional functions
- Buttons for switch function



An acoustic warning will occur if the working pressure is too high or if the oil is too hot.



Different oil flows for tools

Electric change of oil flows:

- Save time when switching between 50 and 85 l/min
- Easy access
- Avoid oil flow divider
- Reduce heat generation of the hydraulic oil and ensure long life



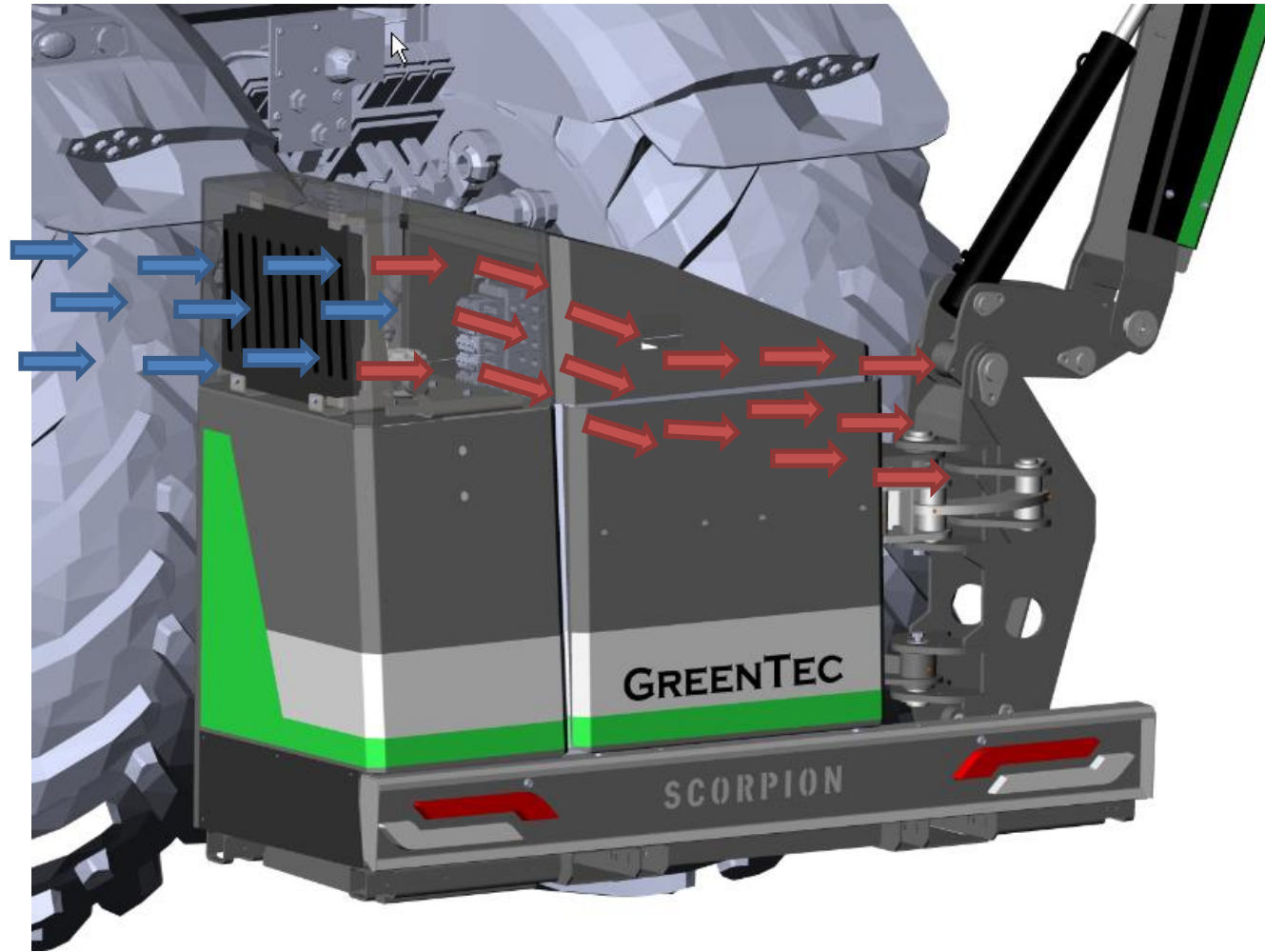
Oil cooler

Oil cooler:

- Extends oil life by maintaining optimal temperature
- Enhances performance and reliability
- Reduces risk of overheating and related damages
- Increases efficiency of machinery and engines



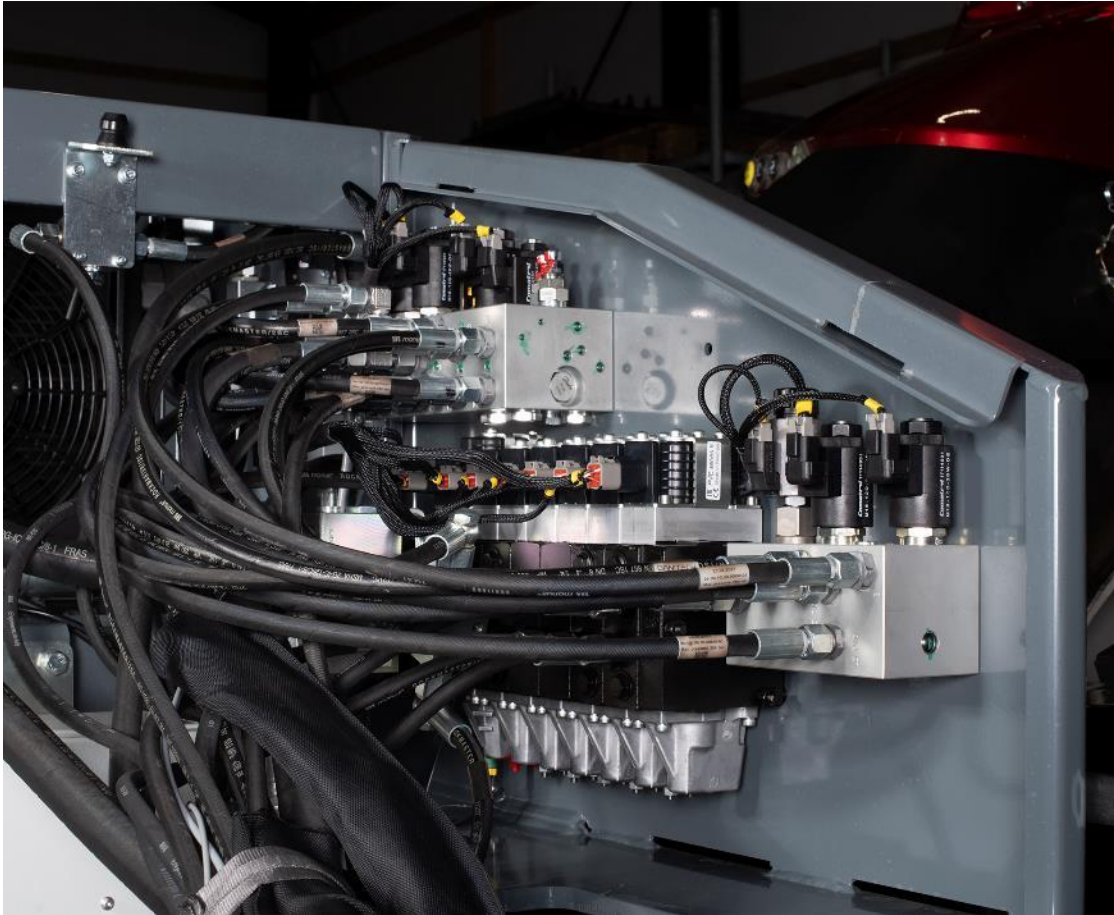
Air Stream Control



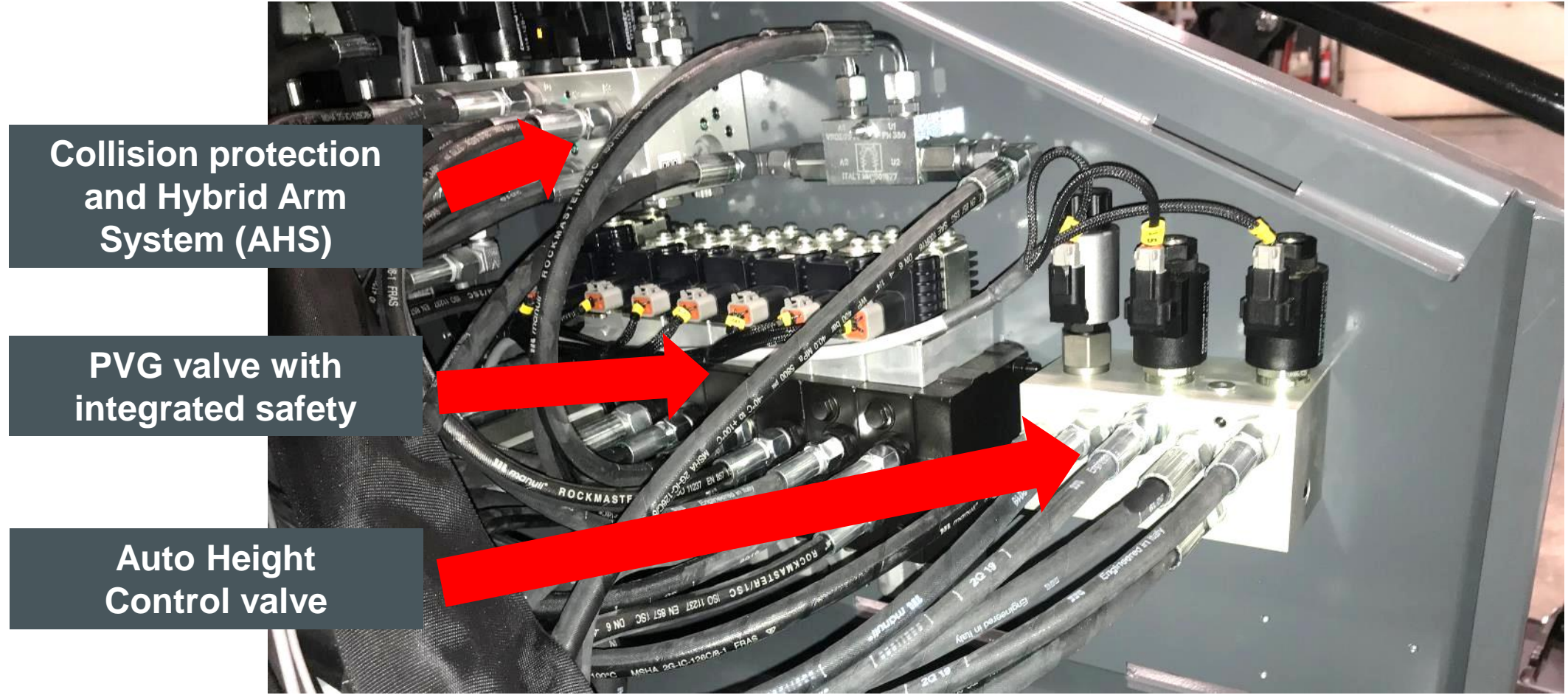
Cooling system:

- Keeps the oil cooled
- Inlet from left side – Away from the cut-off material
- Fan for cooler turns on and off automatically according to the oil temperature
- Easy access for cleaning

Easy overview of valve blocks



Easy overview of valve blocks



Collision protection and Hybrid Arm System (AHS)

PVG valve with integrated safety

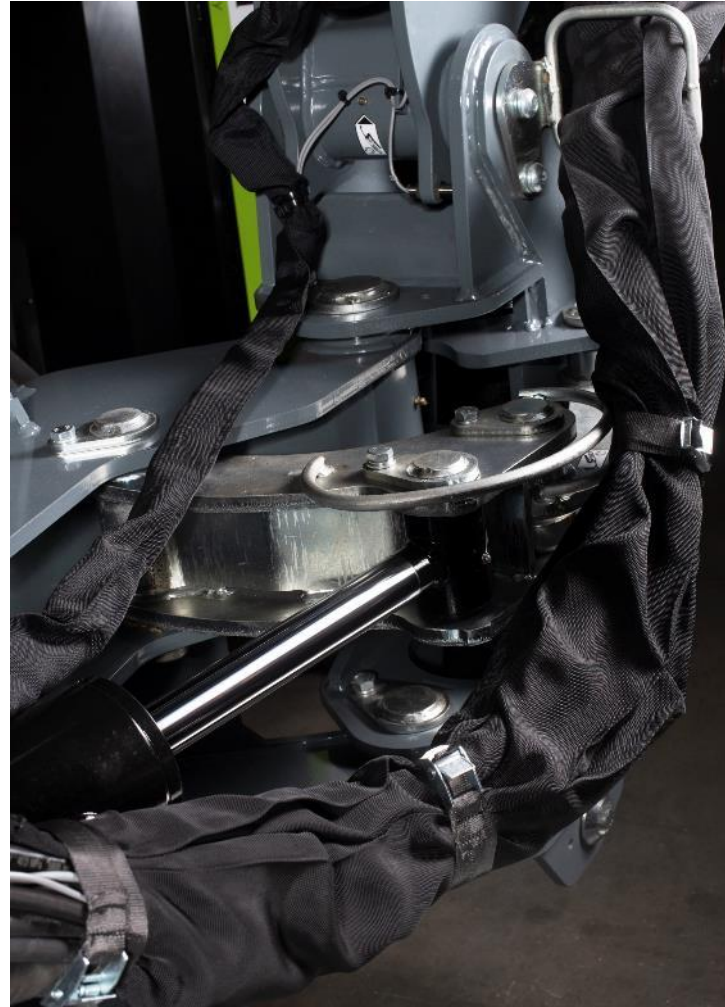
Auto Height Control valve

Swivel joint



Swivel joint:

- Copper bushings for long life
- No sharp edges, minimal wear on hydraulic hoses



Canbus wiring harness

Electrical cabinet:

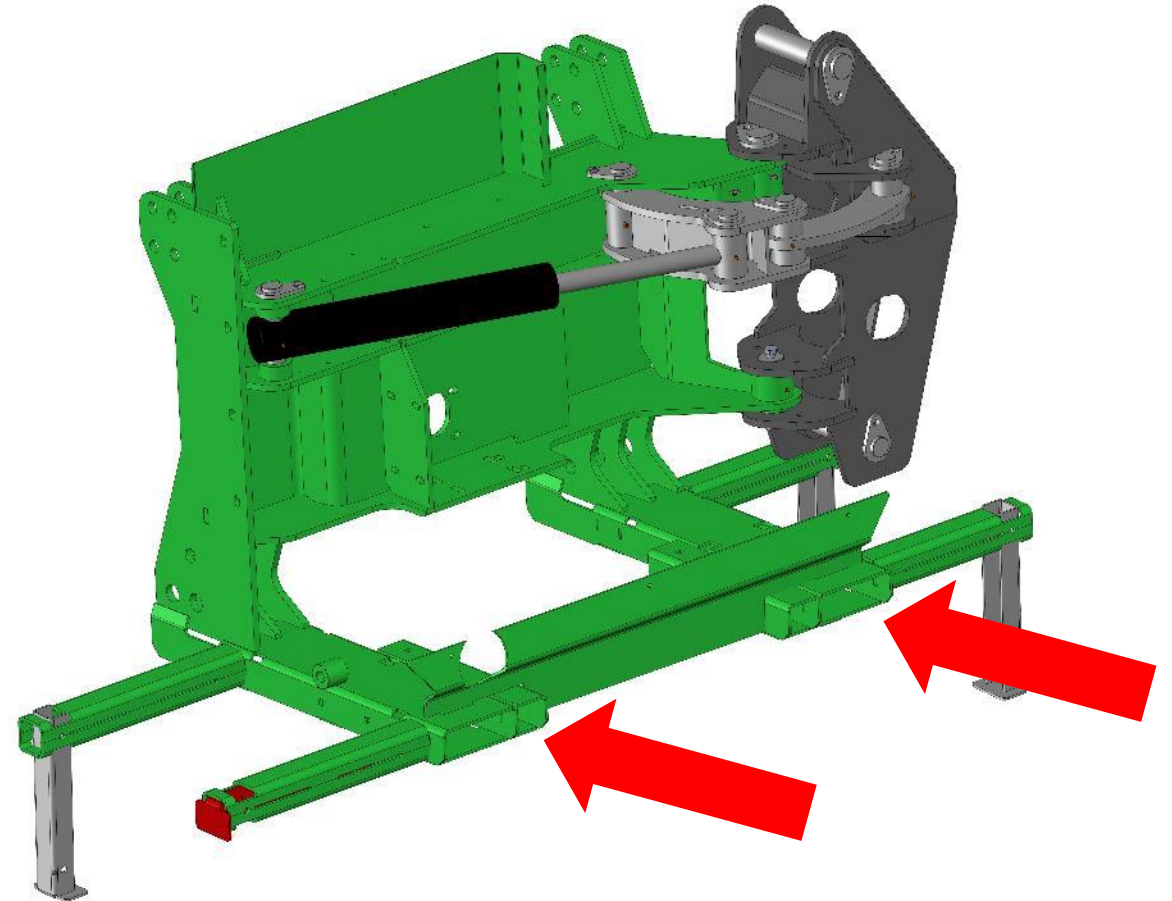
- Waterproof
- Good wiring – Easy overview for troubleshooting
- Danish programmed software



Fork pockets and support legs

Fork pockets and support legs:

- Closed fork pockets for safe handling during loading and unloading
- Solid support legs with large distance for increased stability



Bio oil (Optional)

Bio oil:

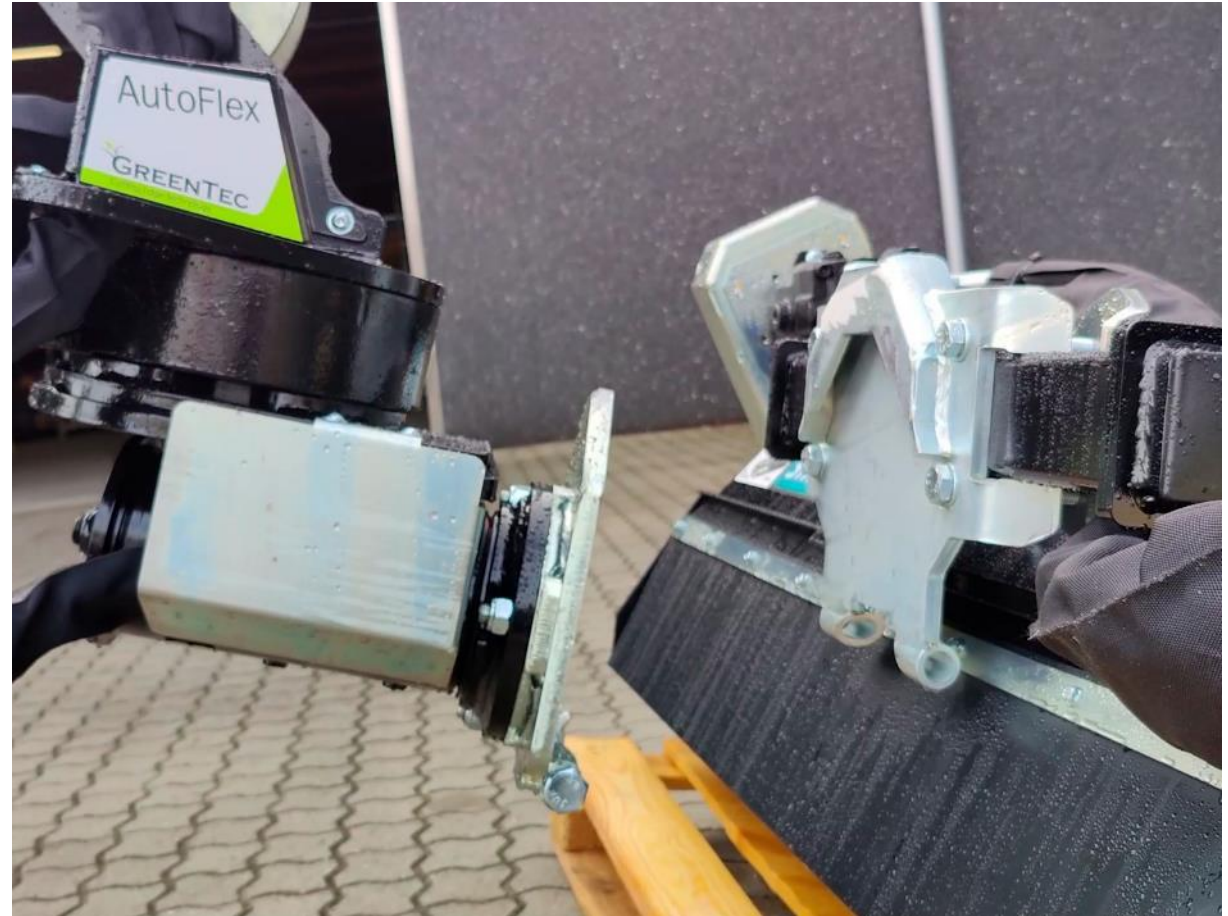
- SC 6 & 8, 220 L bio oil
- Used bio oil - Shell Naturelle HF-E 46
- Standard oil - Shell Tellus S2 VX 46



Mechanical quick release (Optional)

Mechanical quick release:

- Simple quick release system ensures easy change of tools
- Easy mounting and dismounting of tools in collaboration with Rotor Flex



Hydraulic quick release (Optional)

Hydraulic quick release:

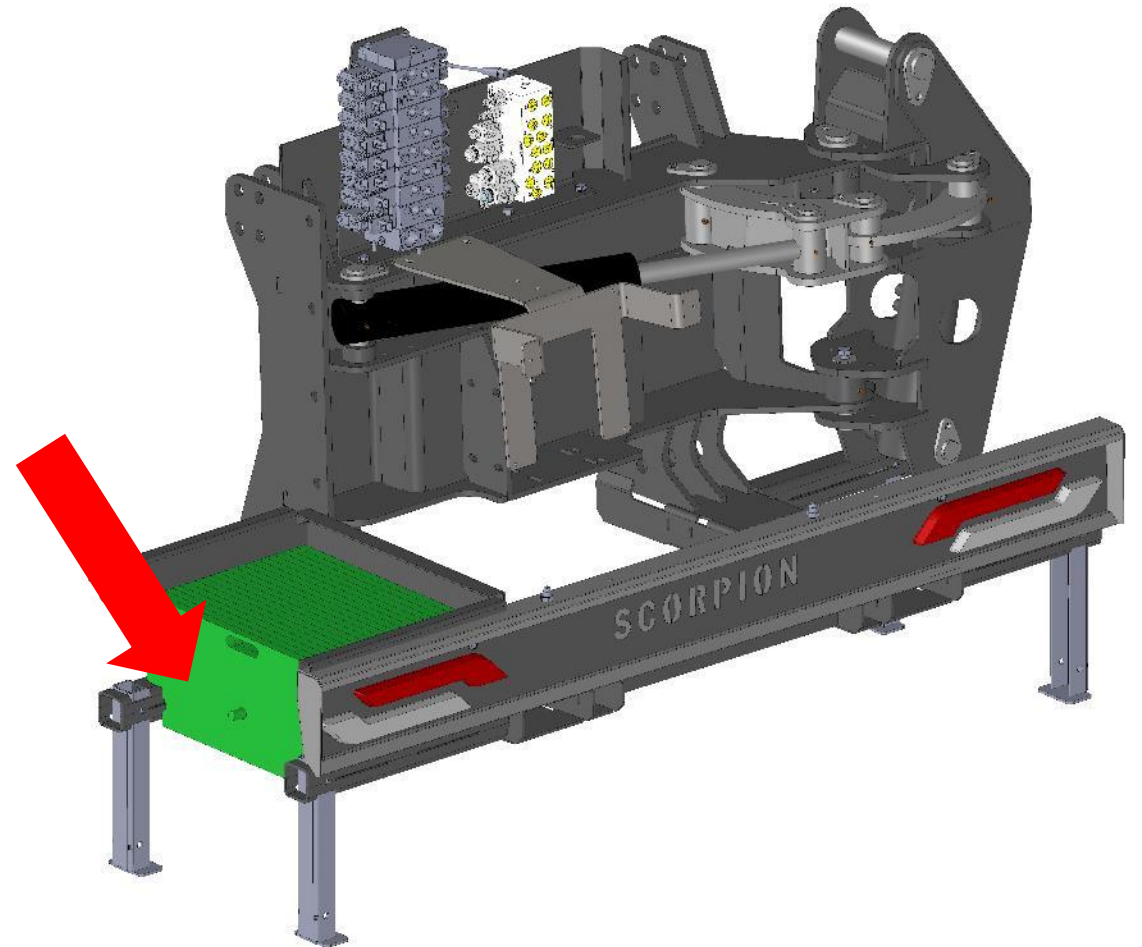
- Flat nose couplings allow high flow and pressure
- Easy to clean with a cloth when mounting
- Quick installation of hydraulics when changing tools



Counterweights (Optional)

Counterweights:

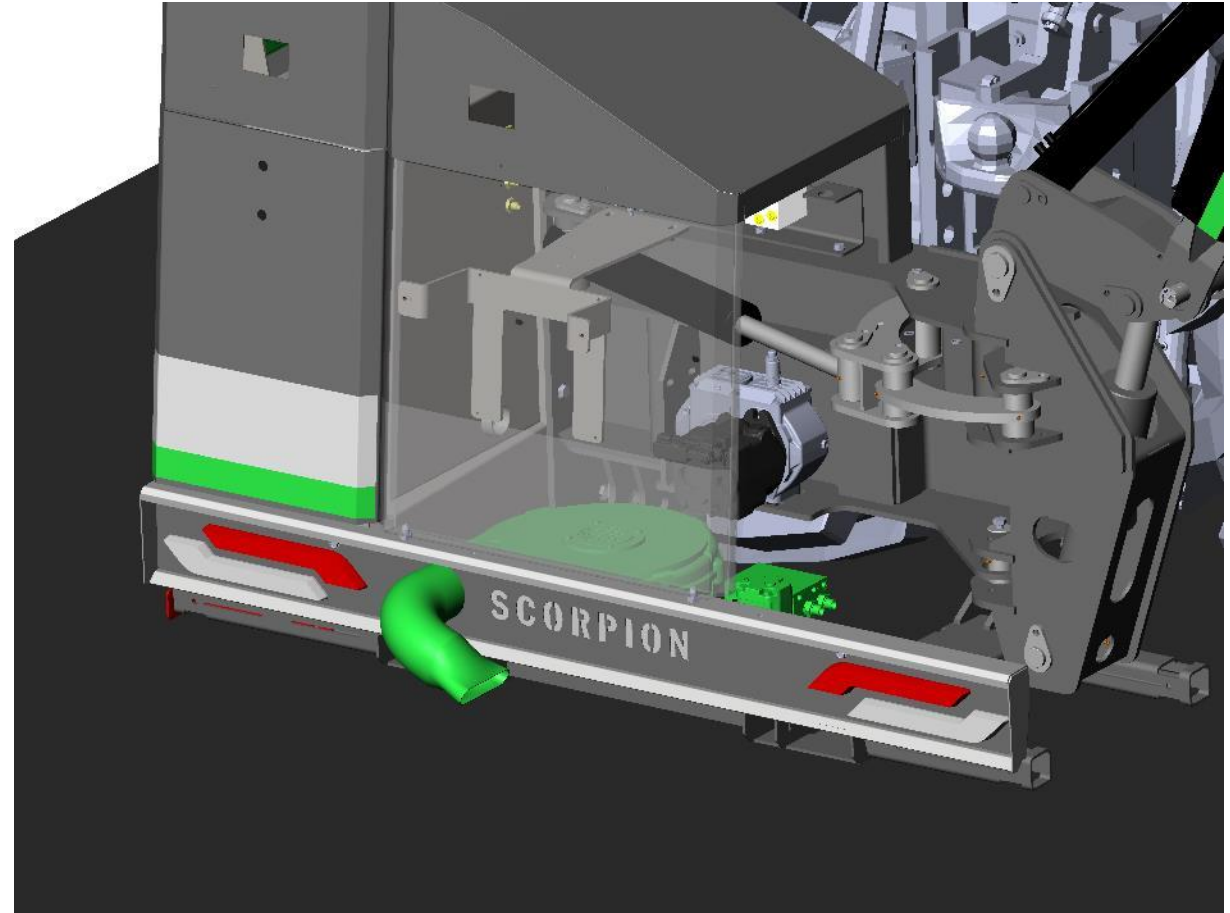
- Ensure stability in the machine
- Bottom position for low center of gravity
- Weight plates – a total of 430 kg



Leaf Blower LG

Leaf Blower LG:

- High-pressure blower made of aluminum
- Very high airflow
- Uses the hydraulics of the tractor 40 l/min
- External mounting or integrated with the Spider/Scorpion boom mowers





SCORPION 4 BASIC FRONT SERIES

INTRODUCTION

Scorpion 4 Basic Front series



Scorpion 4 Basic Front series:

- Hybrid arm system provides greater capacity and higher flexibility
- Strenx steel for optimized weight and strength ratio
- 155° hydraulic turn of arm with Power Control
- Fast and easy mounting with the 4-point system
- Oil supplied from vehicle



Scorpion 4 S - Basic Front

SCORPION BASIC FRONT	330 S	430 S
Horizontal reach (m)	3.3	4.3
Vertical reach (m)	3.1	4.1
Transport width (m)	1.8	2.2
Mounting	Front	Front
Pump	Oil supplied from vehicle	
Hydraulic system (l/min @ bar)	52 @ 210	
Minimum size of vehicle (kg)	2,250	3,000
Weight (kg)	500	520
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	✗	✗
Auto Flex, automatic vertical positioning	✗	✗
Auto Height Control (for verge mowing)	✗	✗
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



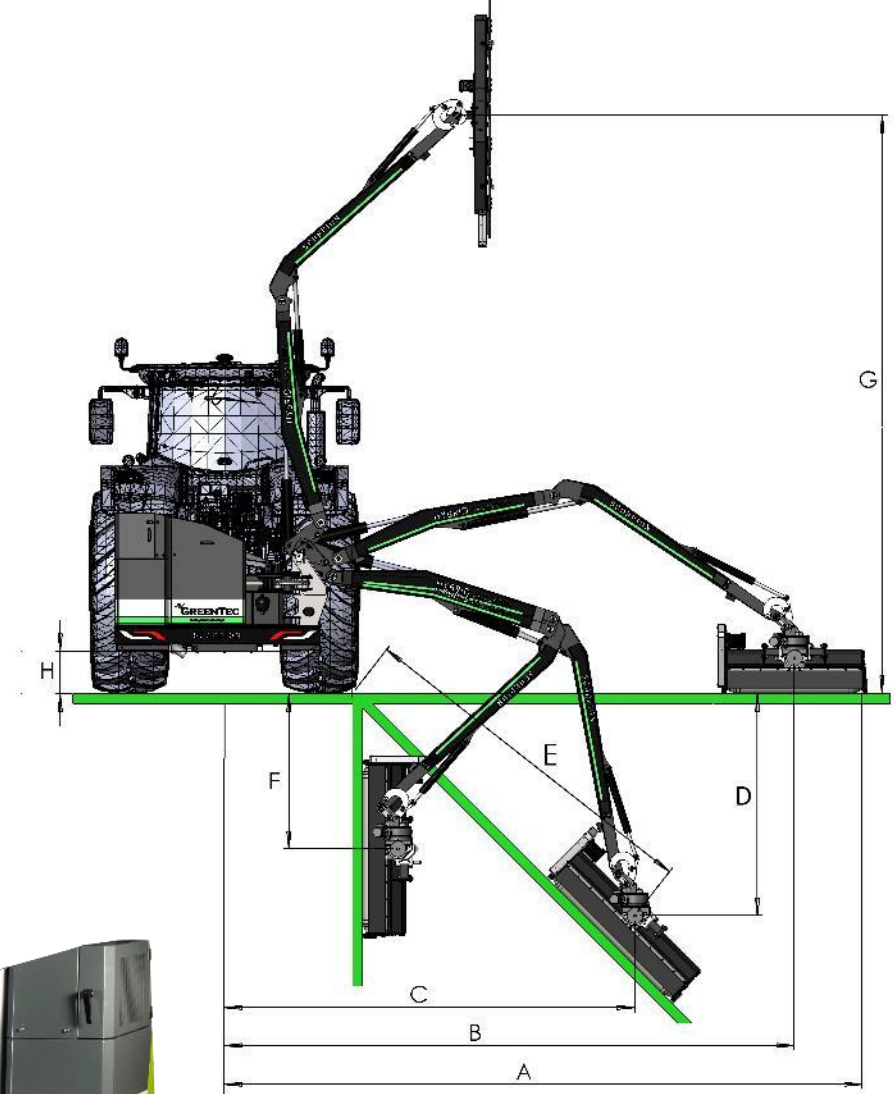
Scorpion 4 PLUS - Basic Front

SCORPION BASIC FRONT	330 PLUS	430 PLUS
Horizontal reach (m)	3.3	4.3
Vertical reach (m)	3.1	4.1
Transport width (m)	1.8	2.2
Mounting	Front	Front
Pump	Oil supplied from vehicle	
Hydraulic system (l/min @ bar)	52 @ 210	
Minimum size of vehicle (kg)	2,250	3,000
Weight (kg)	540	560
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	✓	✓
Auto Flex, automatic vertical positioning	✓	✓
Auto Height Control (for verge mowing)	✗	✗
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



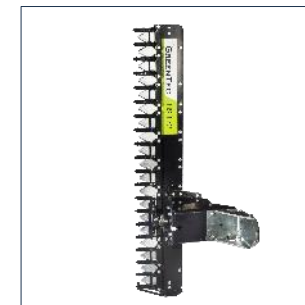
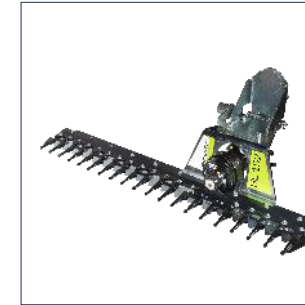
Scorpion 4 Basic Front series

SCORPION MODELS	330	430
A (m)	3.3	4.3
B (m)	2.9	3.9
C (m)	1.9	2.6
D (m)	0.8	0.9
E (m)	1.9	2.6
F (m)	0.8	1.2
G (m)	3.1	4.1
H (m)	0.4	0.4



Scorpion 4 Basic Front series

ATTACHMENT TOOLS	MINIMUM OIL FLOW
Flail Mower FR 92	40 l/min @ 210 bar
Flail Mower FR 112	40 l/min @ 210 bar
Quadsaw LRS 1402	25 l/min @ 190 bar
Quadsaw LRS 1602	40 l/min @ 190 bar
Rotary Hedge Cutter RC 102	25 l/min @ 190 bar
Rotary Hedge Cutter RC 132	40 l/min @ 190 bar
Cutterbar HL 152	25 l/min @ 190 bar
Cutterbar HL 182	40 l/min @ 190 bar
Cutterbar HL 212	40 l/min @ 190 bar
Cutterbar HL 242	40 l/min @ 190 bar
Cutterbar HS 172	40 l/min @ 190 bar
Grass Cutterbar S 165	40 l/min @ 180 bar
Grass Cutterbar S 190	40 l/min @ 180 bar



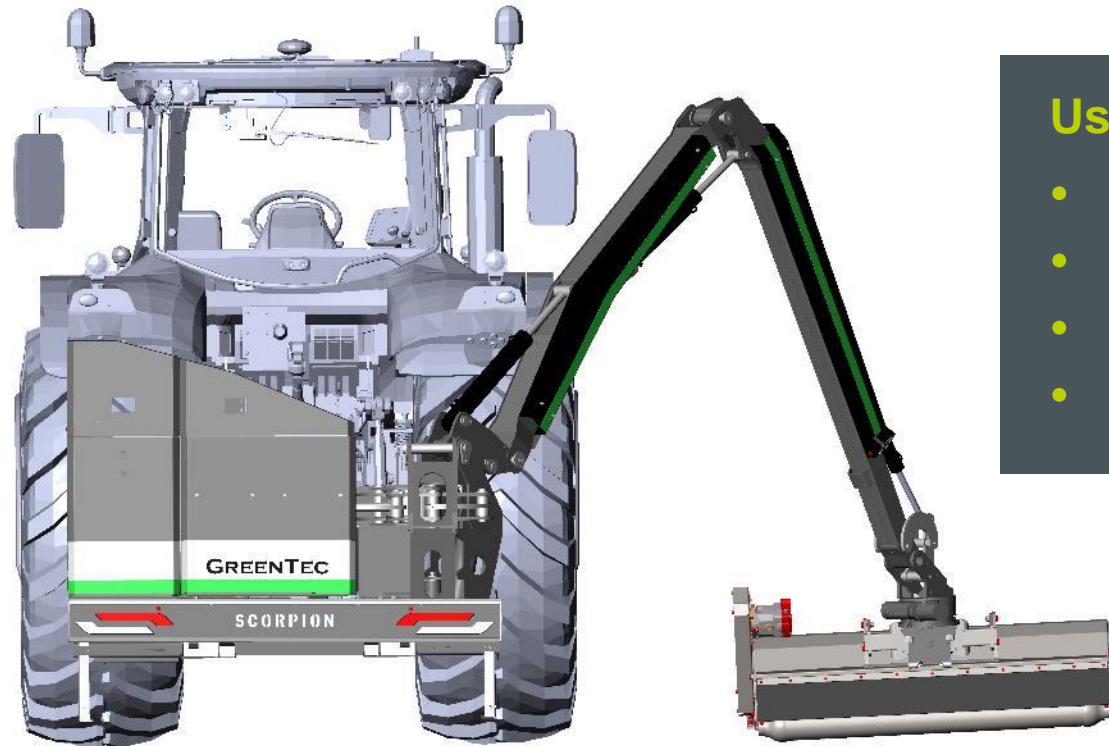


SCORPION 4 BASIC FRONT SERIES FEATURES, EQUIPMENT AND MOUNTING

Hybrid Arm System

Hybrid Arm System:

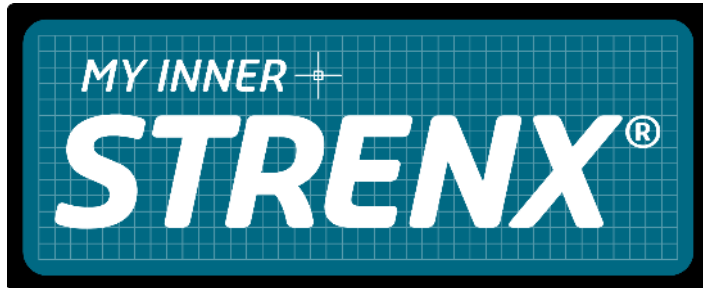
- Two options
 - Parallel
 - Non-parallel
- Increased flexibility
- Higher efficiency
- Telescope unnecessary
 - Fewer lubrication points
 - Lighter construction
 - Less wear
- Simple build



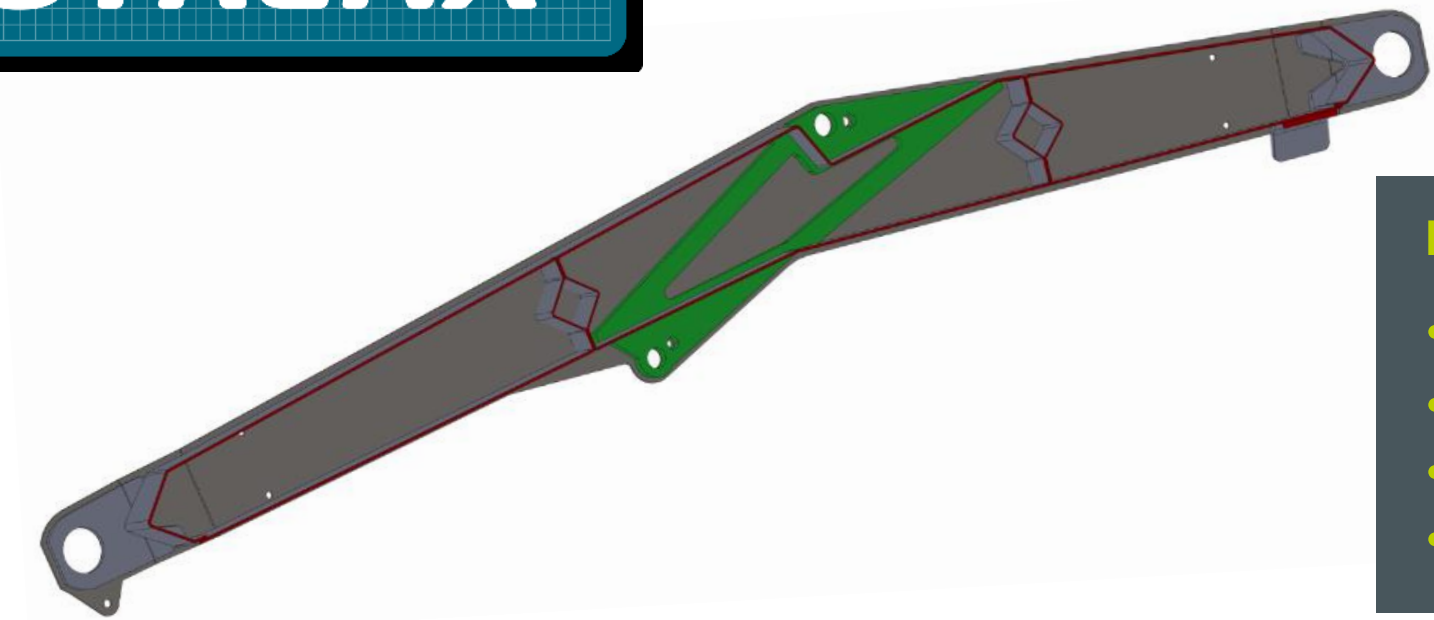
Useful applications:

- Forest areas
- Bicycle paths
- Deep ditches
- Narrow roads

Strenx steel

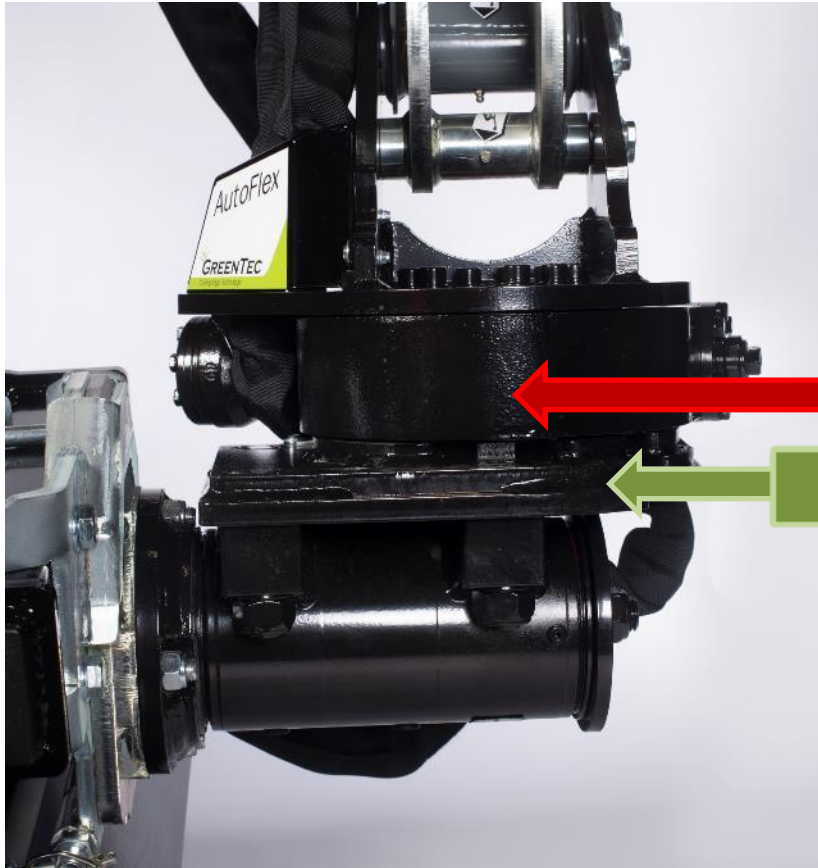


Design approved by
SSAB for usage of its
steel



- MY INNER STRENX:**
- World's strongest manufacturing steel
 - 25% weight reduction
 - 50% stronger construction
 - "My Inner Strenx"-Partner

Rotor Flex (Scorpion 4 PLUS)



221° Swivel head

180° Swivel joint



Auto Flex (Scorpion 4 PLUS)

Auto Flex:

- Automatic vertical positioning for hedge trimming
- Relieves the user
- Must be deactivated before the machine can be folded to transport position



4-point mounting



Cat. 1 or 2



Suspension for loaders or implement carriers

4-point mounting

DEKRA:

- Worldwide company that specializes in testing and certification in the automotive industry, energy sector, etc.
- German origin, present in 50 countries

GENERAL INFORMATION

Customer: Scharmüller
Test specimen: ball towing device 80
Type: 80-340100
Sample receipt: 19171 2020-03-23

TEST SYSTEM

Test cylinder: 160K HCM: 3
effect. length L: Tower: 1

TEST PARAMETER

Directive: regulation (EU) 2015/208
Type of test: one-component, swelling stress, tension
D 26 kN S 0 kg v>40 km/h

F _{max} [kN]	F _{min} [kN]	α Force [deg]	direction
26	1,3	0,0	tension
cycles	f [Hz]	test bench	controler
2.000.000	5	5	force



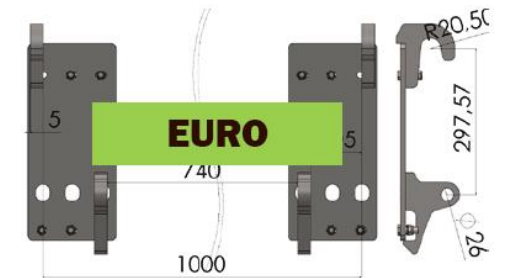
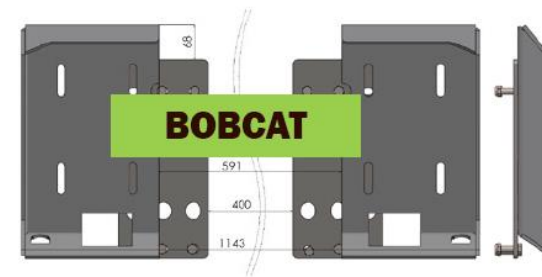
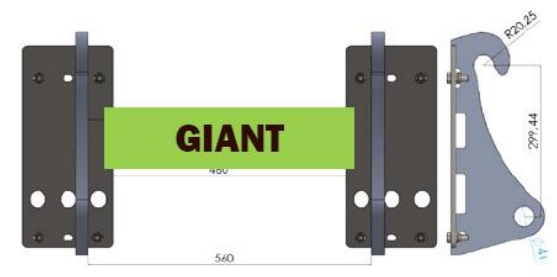
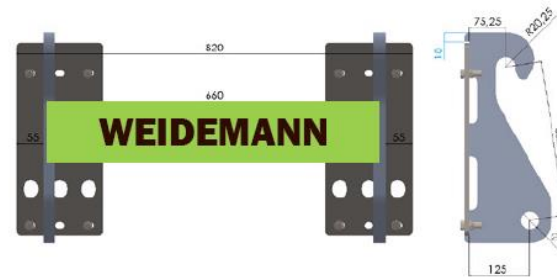
RESULT:

The test specimen completed the required fatigue test over 2 million load cycles without any visible damages. The crack detection test did not show signs.

Adapters

Adapters:

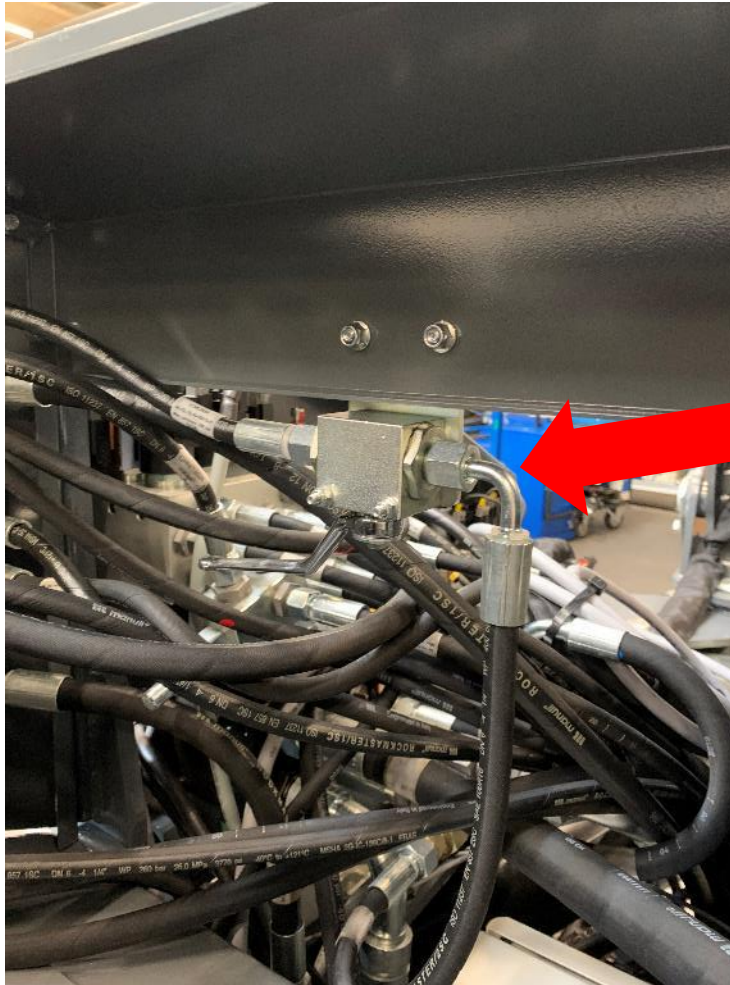
- Wide selection of adapters
- View adapters at product page or support page on website



Ball valves for transport safety



Pressure relief of tool socket



Pressure relief of tool:

- When the position is open, the oil goes to the tank instead of the tool
- Removes the pressure from quick couplings
- Safety when changing flails

LED lights and underrun bumper



LogiTec Safe control (Scorpion 4 S)

Joystick:

- Danfoss joystick
- Easy to operate
- 3 proportional functions
- Buttons for switch function



An acoustic warning will occur if the working pressure is too high or if the oil is too hot.



LogiTec Safe control (Scorpion 4 PLUS)

Joystick:

- Danfoss joystick
- Easy to operate
- 3 proportional functions
- Buttons for switch function



An acoustic warning will occur if the working pressure is too high or if the oil is too hot.



Different oil flows for tools

Electric change of oil flows:

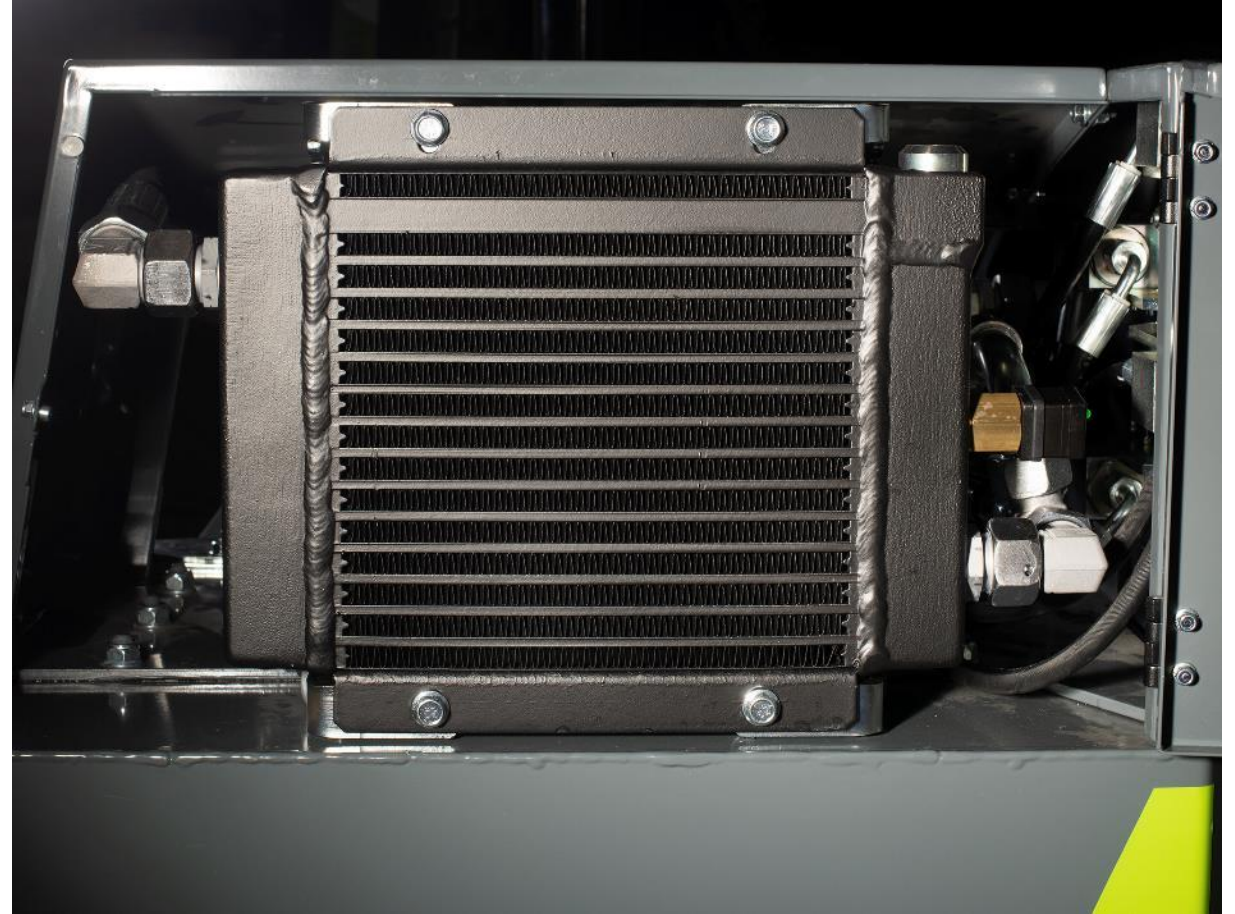
- Save time when switching between 25 and 40 l/min
- Easy access
- Avoid oil flow divider
- Reduce heat generation of the hydraulic oil and ensure long life



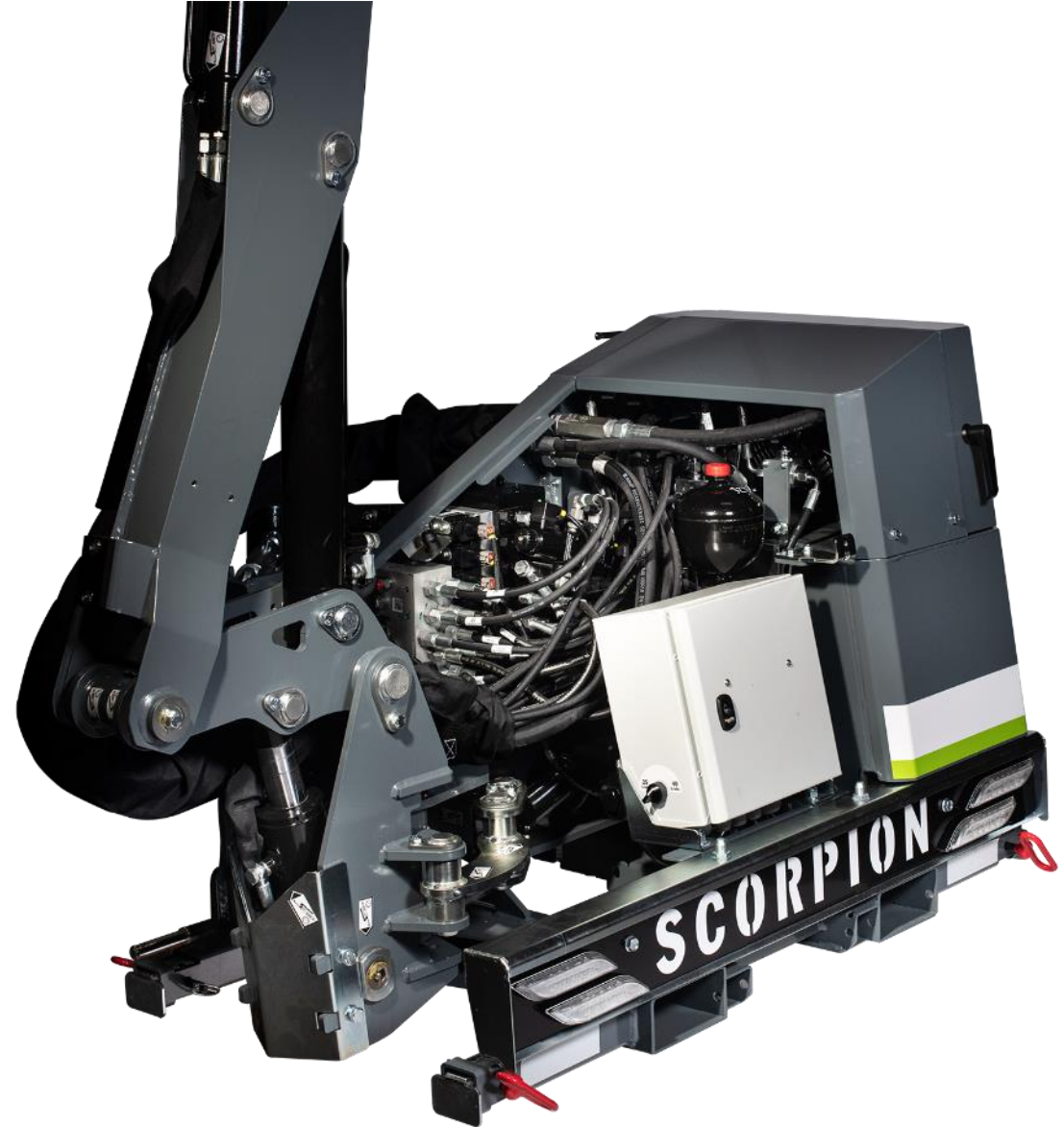
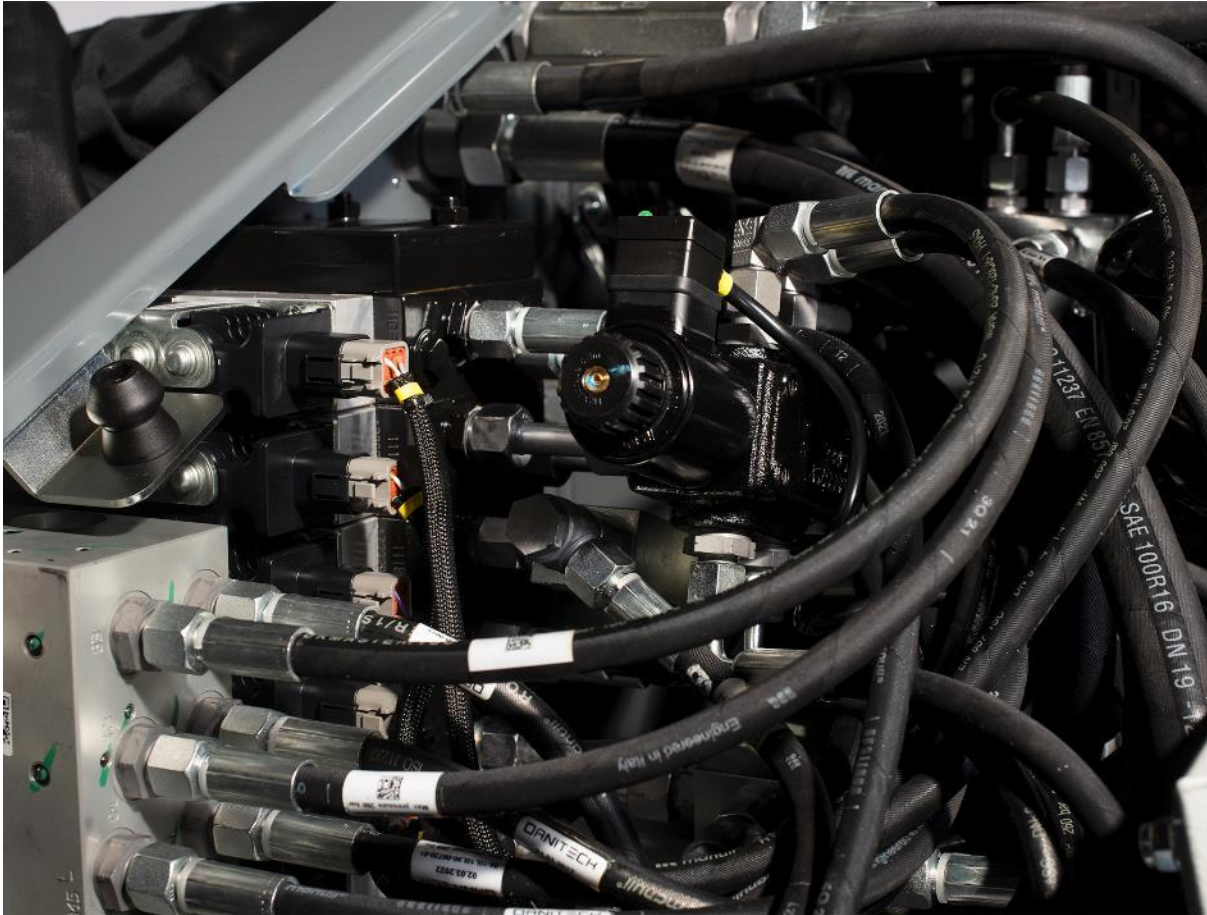
Oil cooler

Oil cooler:

- Extends oil life by maintaining optimal temperature
- Enhances performance and reliability
- Reduces risk of overheating and related damages
- Increases efficiency of machinery and engines



Easy overview of valve blocks

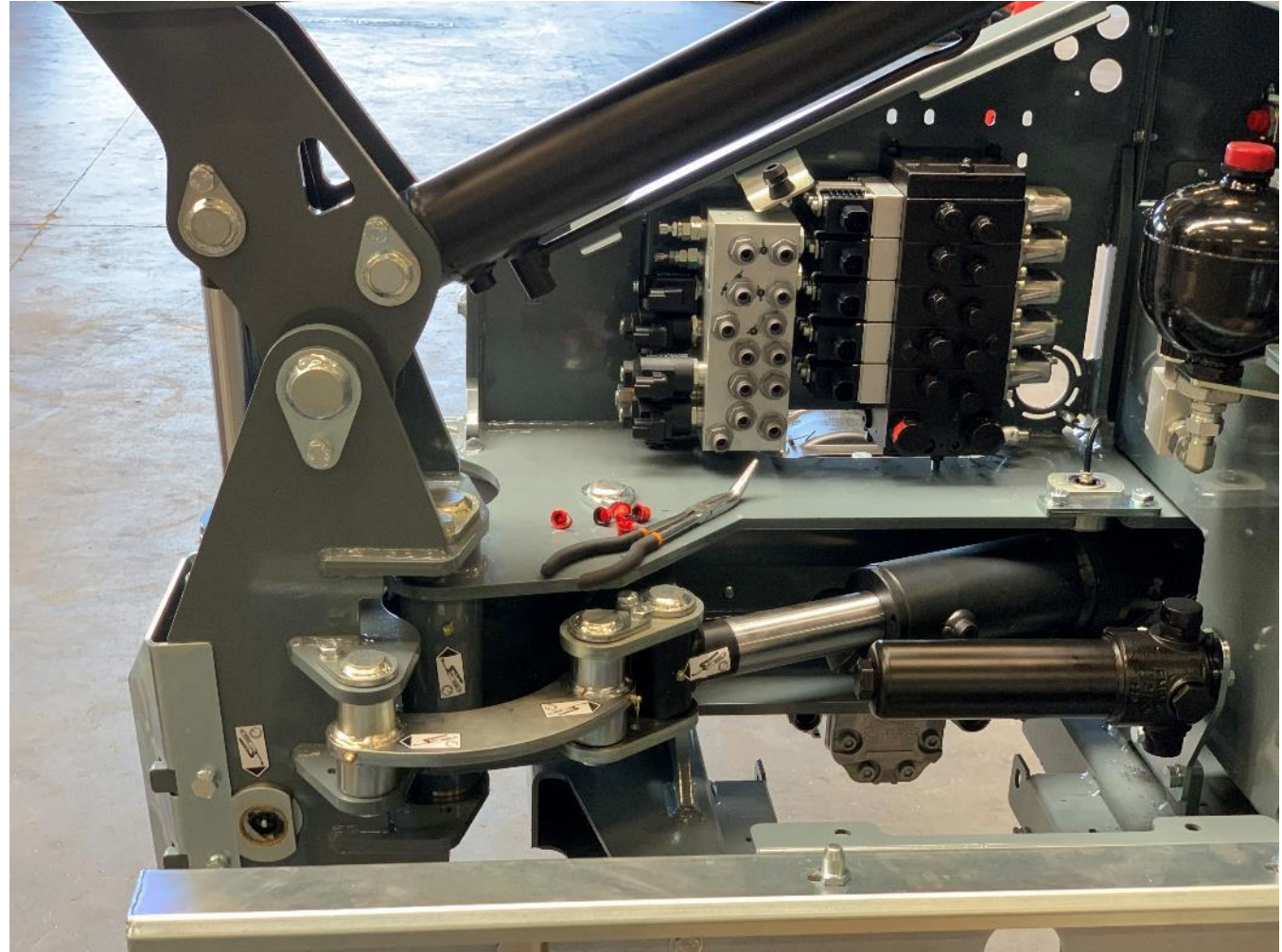


Swivel joint



Swivel joint:

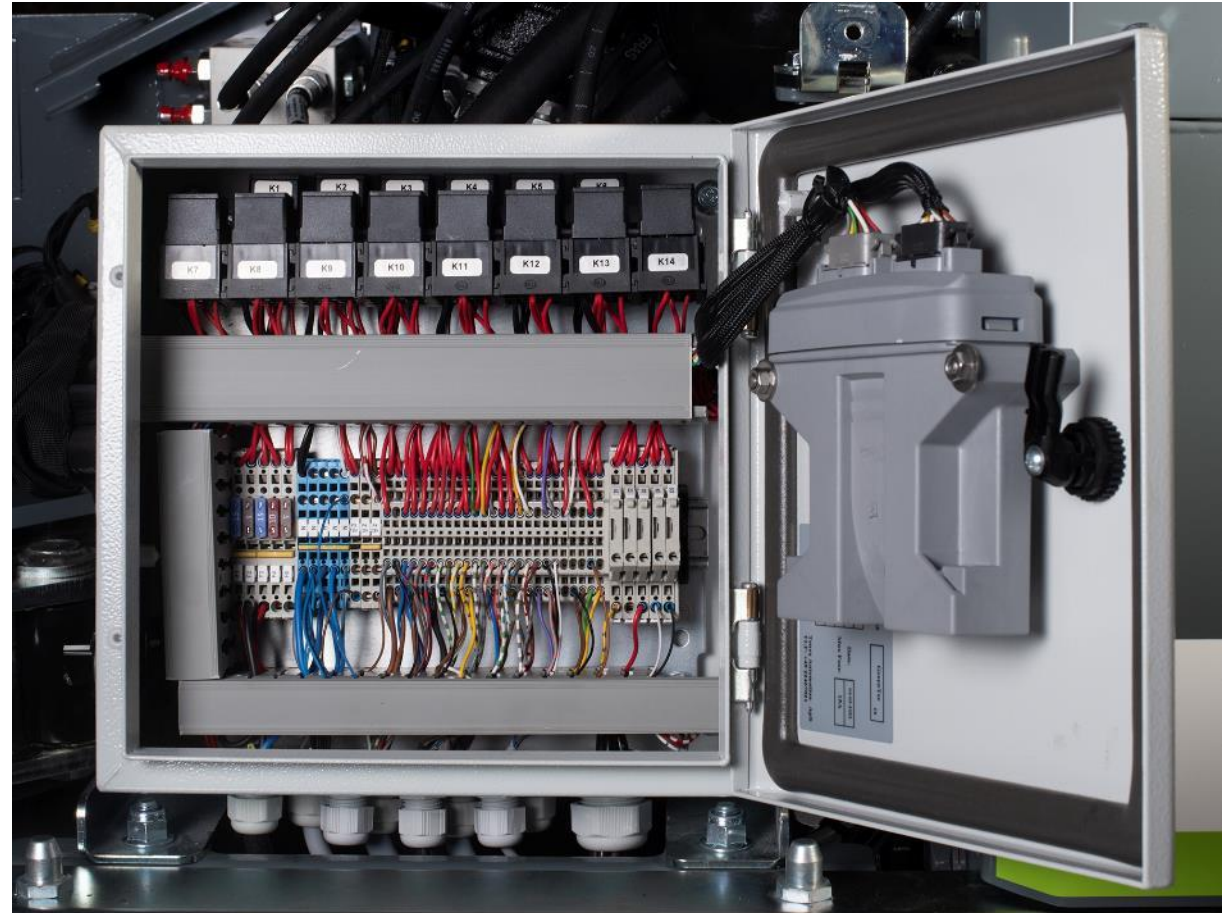
- Copper bushings for long life
- Bolts and bushings are dimensioned according to the load



Canbus wiring harness

Electrical cabinet:

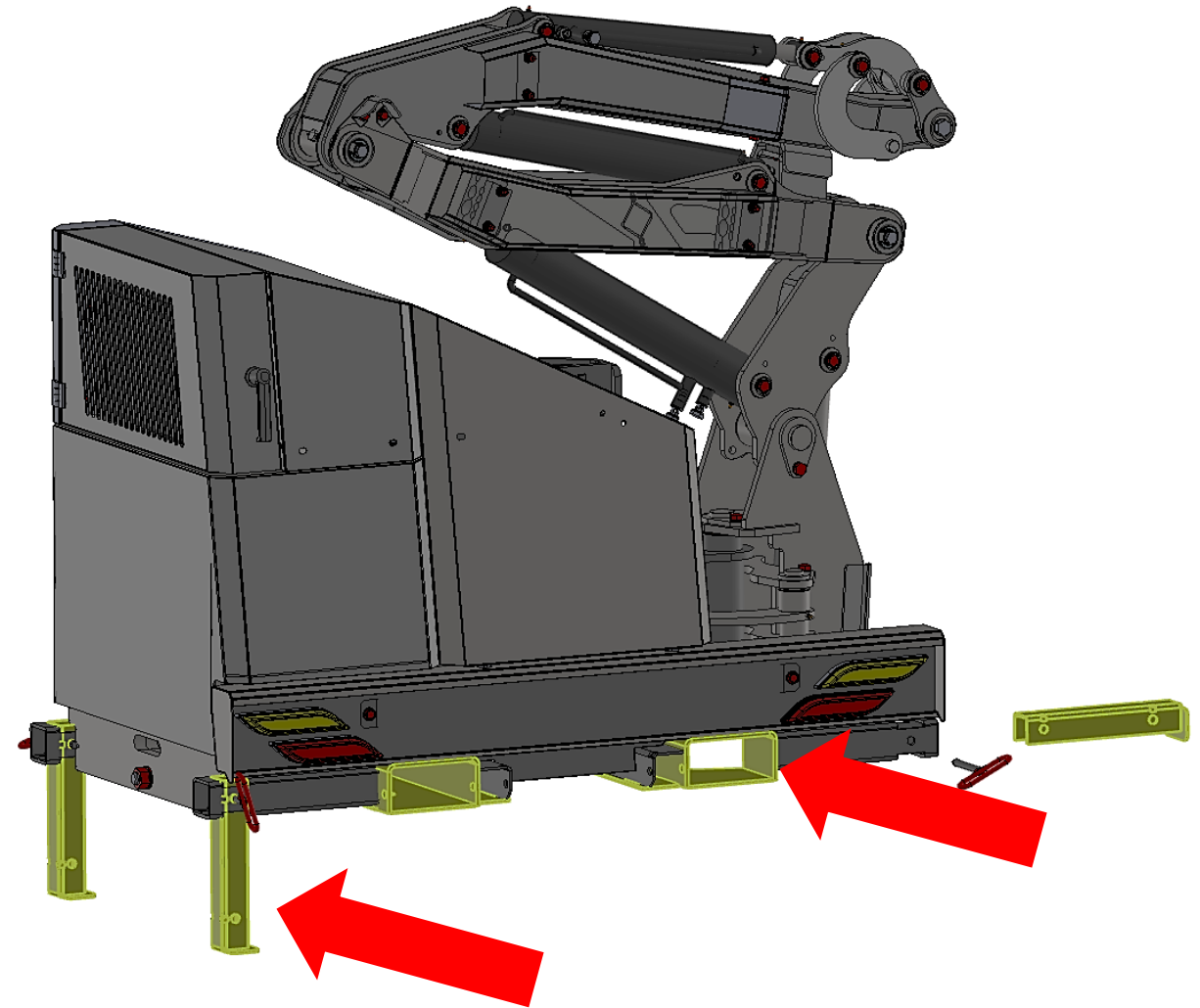
- Waterproof
- Good wiring – Easy overview for troubleshooting
- Danish programmed software



Fork pockets and support legs

Fork pockets and support legs:

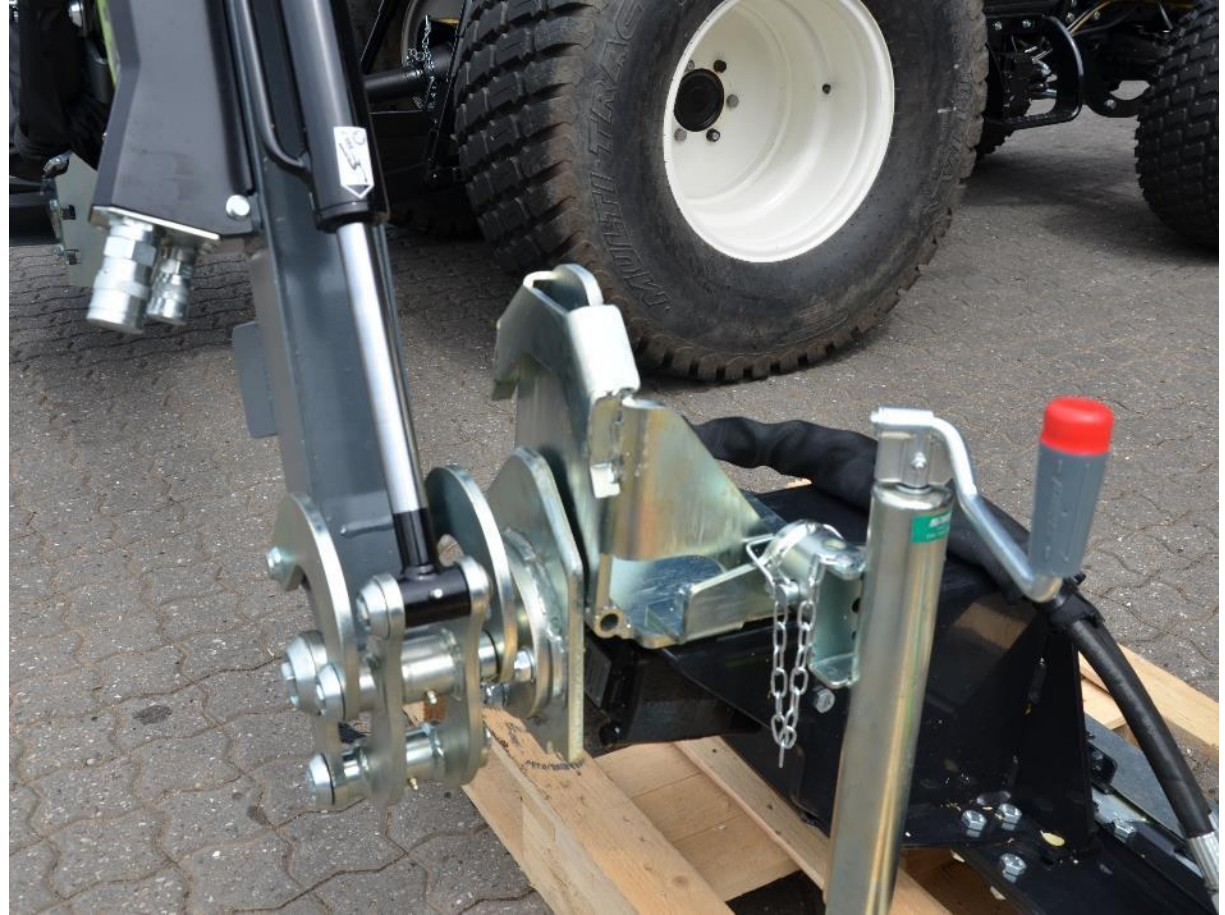
- Closed fork pockets for safe handling during loading and unloading
- Solid support legs with large distance for increased stability



Mechanical quick release (Optional)

Mechanical quick release:

- Simple quick release system ensures easy change of tools
- Easy mounting and dismounting of tools in collaboration with Rotor Flex



Hydraulic quick release (Optional)

Hydraulic quick release:

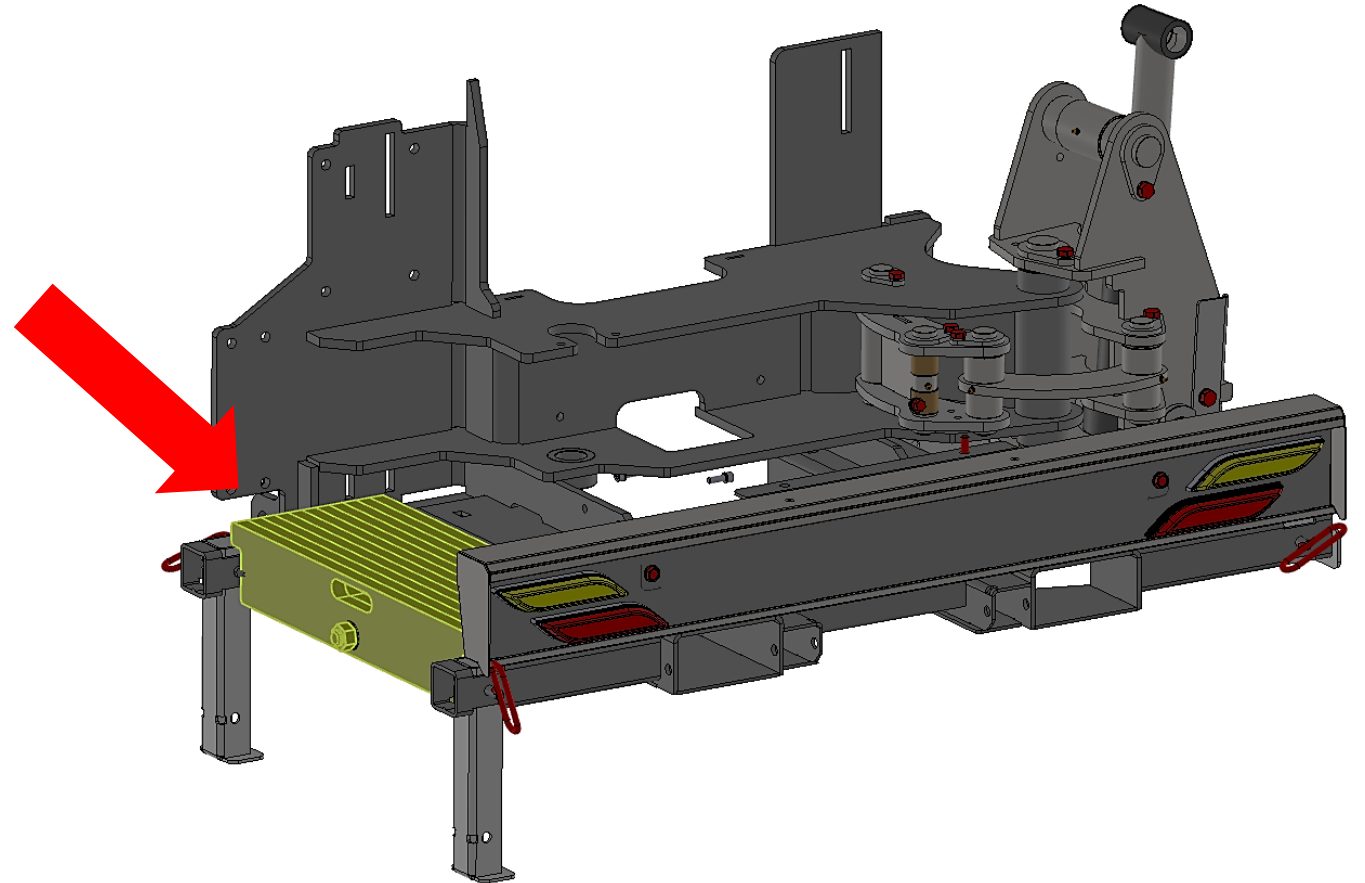
- Flat nose couplings allow high flow and pressure
- Easy to clean with a cloth when mounting
- Quick installation of hydraulics when changing tools



Counterweights (Optional)

Counterweights:

- Ensure stability in the machine
- Bottom position for low center of gravity
- Weight plates – a total of 90 kg





SCORPION 6 BASIC FRONT SERIES

INTRODUCTION

Scorpion 6 Basic Front series



Scorpion 6 Basic Front series:

- Hybrid arm system provides greater capacity and higher flexibility
- Strenx steel for optimized weight and strength ratio
- 155° hydraulic turn of arm with Power Control
- Fast and easy mounting with the 4-point system
- Oil supplied from vehicle



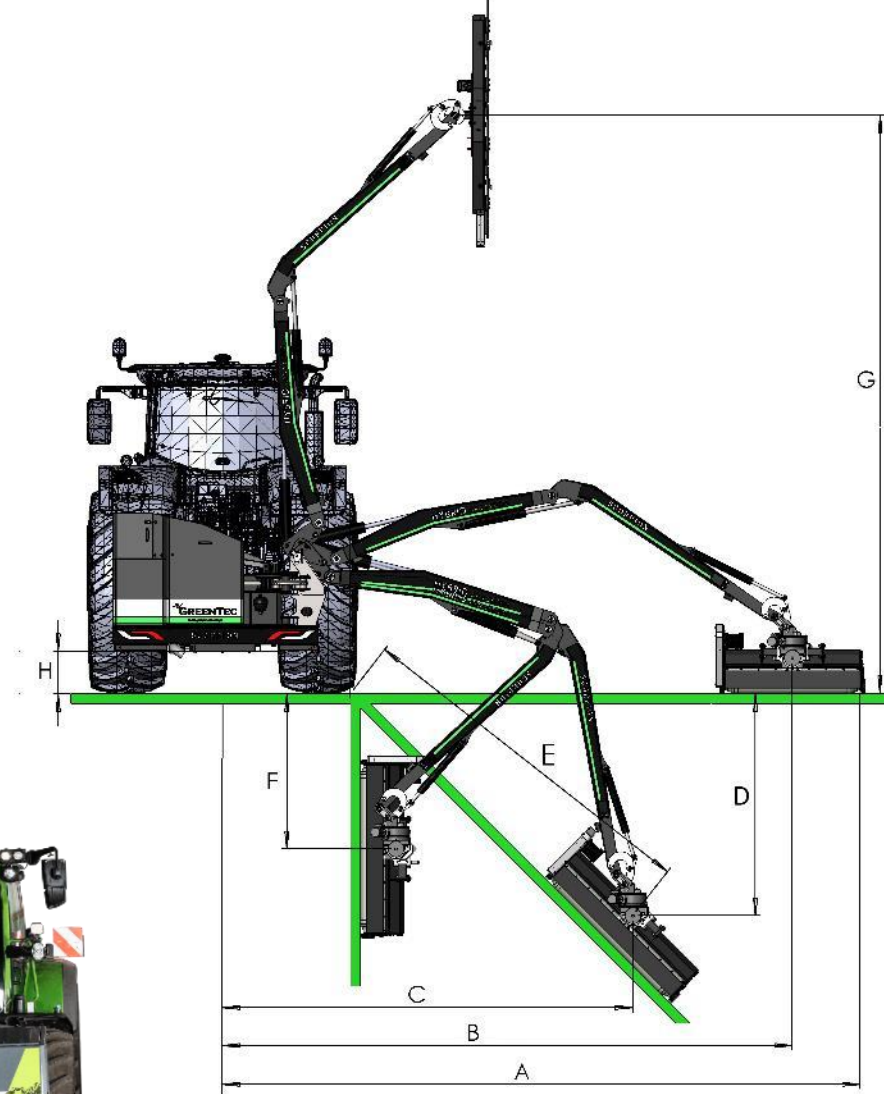
Scorpion 6 S - Basic Front

SCORPION	530 S	630 S
Horizontal reach (m)	5.3	6.3
Vertical reach (m)	5.1	6.1
Transport width (m)	2.2	2.2
Mounting	Front	Front
Pump	Oil supplied from vehicle	
Hydraulic system (l/min @ bar)	115 @ 230	
Minimum size of vehicle (kg)	5,000	6,000
Weight (kg)	985	1,020
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	+	+
Auto Flex, automatic vertical positioning	+	+
Auto Height Control (for verge mowing)	+	+
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



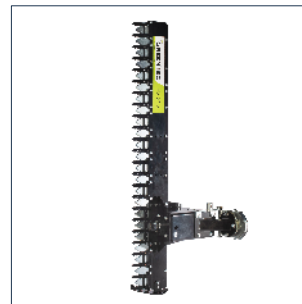
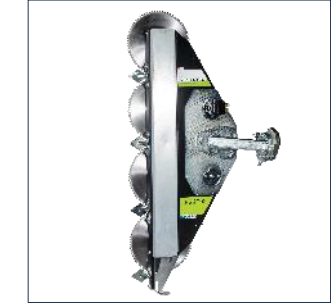
Scorpion 6 Basic Front series

SCORPION MODELS	530	630
A (m)	5.3	6.3
B (m)	4.7	5.7
C (m)	3.4	4.1
D (m)	1.8	2.2
E (m)	3.0	3.7
F (m)	1.5	1.8
G (m)	5.1	6.1
H (m)	0.4	0.4



Scorpion 6 Basic Front series

ATTACHMENT TOOLS	MINIMUM OIL FLOW
Flail Mower FR 122	85 l/min @ 230 bar
Flail Mower FR 122 VB	85 l/min @ 230 bar
Flail Mower FR 162	85 l/min @ 230 bar
Quadsaw LRS 2002	85 l/min @ 150 bar
Quadsaw LRS 2402	85 l/min @ 150 bar
Rotary Hedge Cutter RC 162	50 l/min @ 180 bar
Rotary Mulcher RM 232	50 l/min @ 180 bar
Cutterbar HX 170 - 270	50 l/min @ 190 bar
Cutterbar HS 212 & 242	50 l/min @ 190 bar
Rotary Crusher RX 133	85 l/min @ 315 bar
Grass Cutterbar S 165 - 240	50 l/min @ 180 bar
Weed Clearing Brush BR 90	50 l/min @ 190 bar
Rotary Ditch Cleaner GR 70	85 l/min @ 315 bar





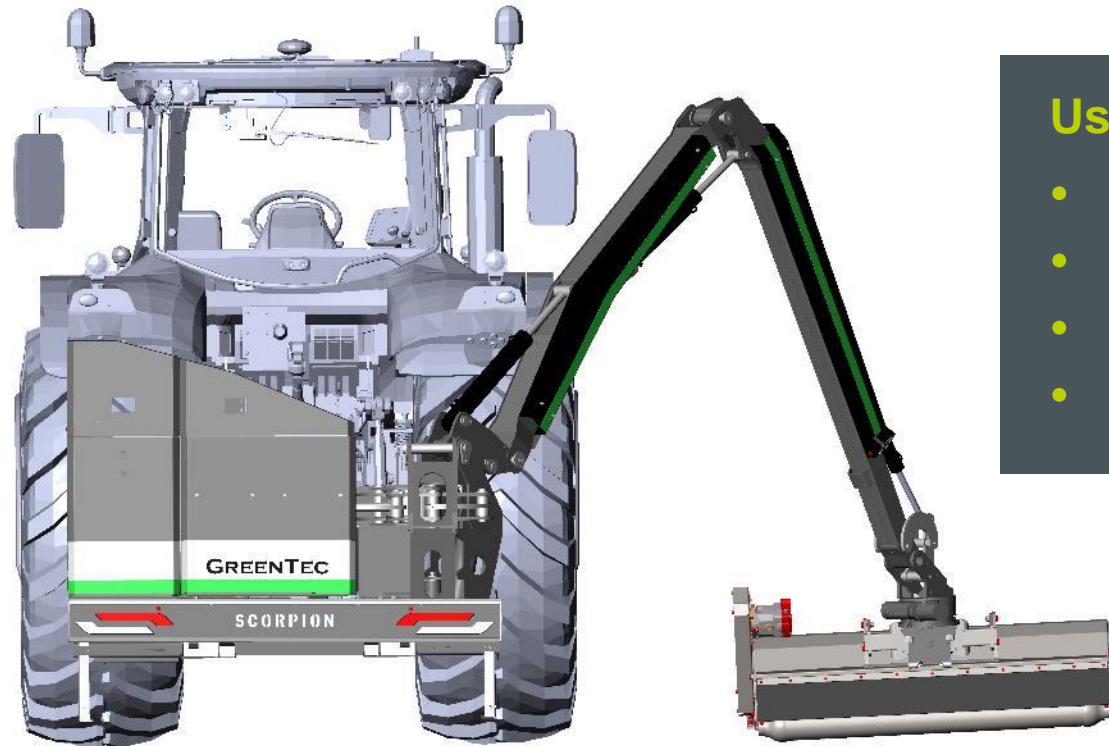
SCORPION 6 BASIC FRONT SERIES

FEATURES, EQUIPMENT AND MOUNTING

Hybrid Arm System

Hybrid Arm System:

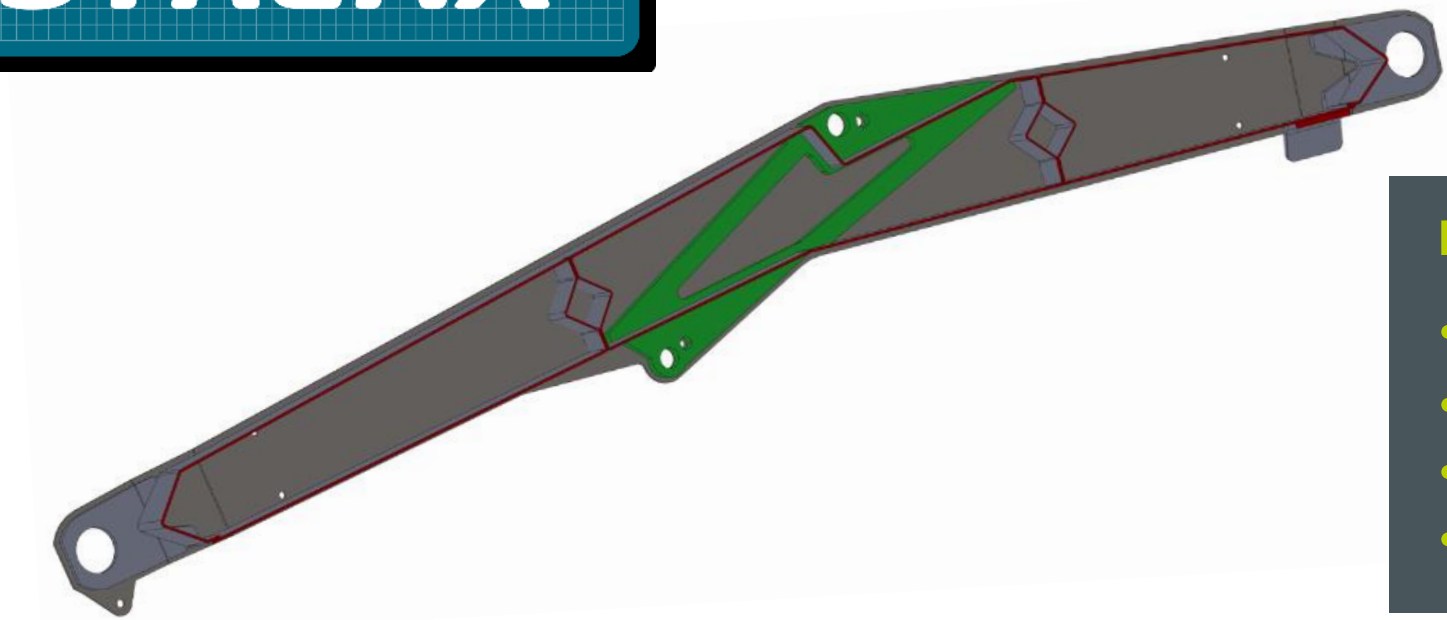
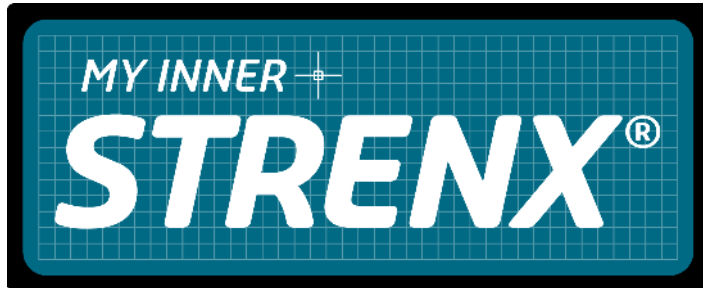
- Two options
 - Parallel
 - Non-parallel
- Increased flexibility
- Higher efficiency
- Telescope unnecessary
 - Fewer lubrication points
 - Lighter construction
 - Less wear
- Simple build



Useful applications:

- Forest areas
- Bicycle paths
- Deep ditches
- Narrow roads

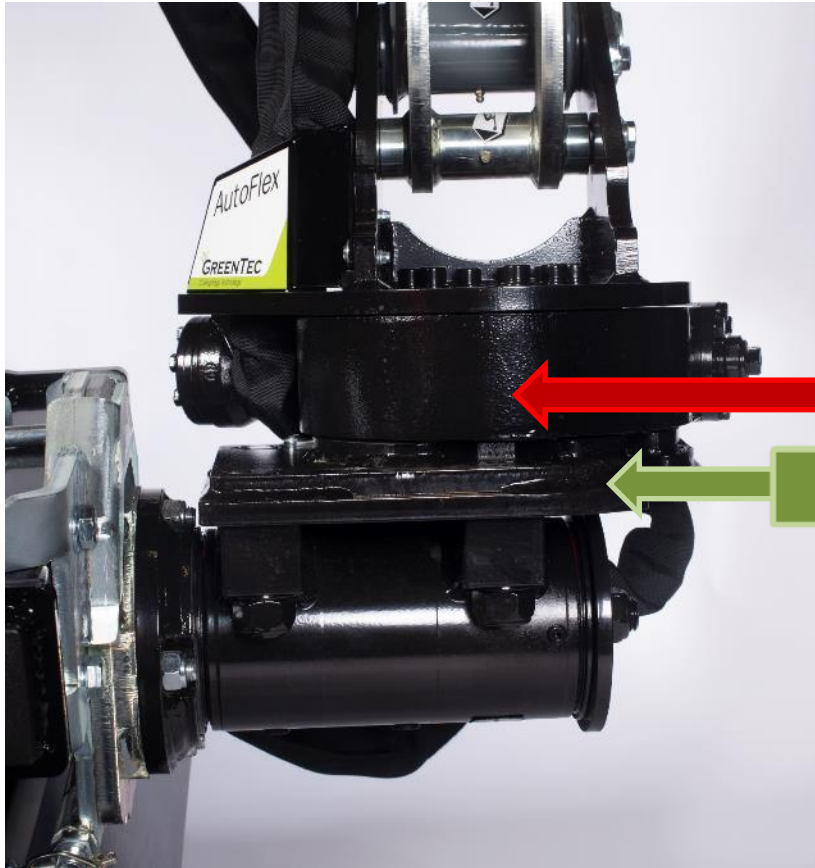
Strenx steel



Design approved by SSAB for usage of its steel

- MY INNER STRENX:**
- World's strongest manufacturing steel
 - 25% weight reduction
 - 50% stronger construction
 - "My Inner Strenx"-Partner

Rotor Flex (Optional)



270° Swivel head

180° Swivel joint



Auto Flex (Optional)

Auto Flex:

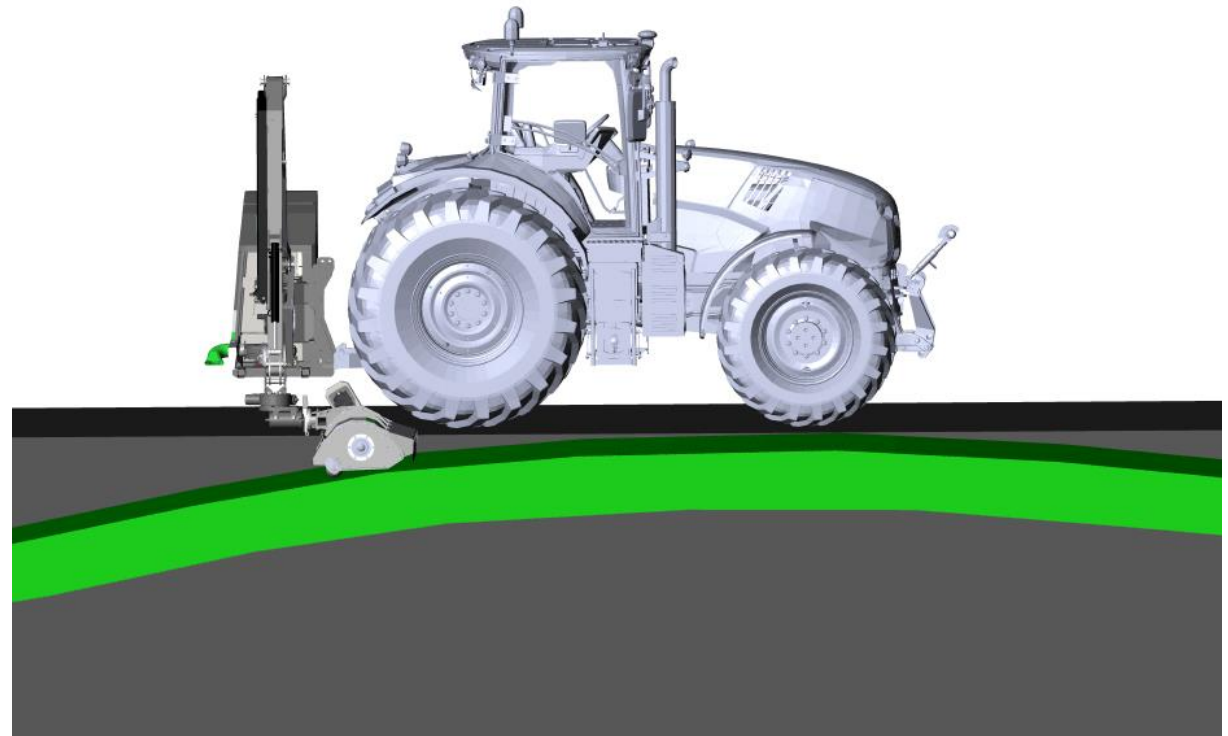
- Automatic vertical positioning for hedge trimming
- Relieves the user
- Must be deactivated before the machine can be folded to transport position



Auto Height Control for verge mowing (AHC)

Auto Height Control:

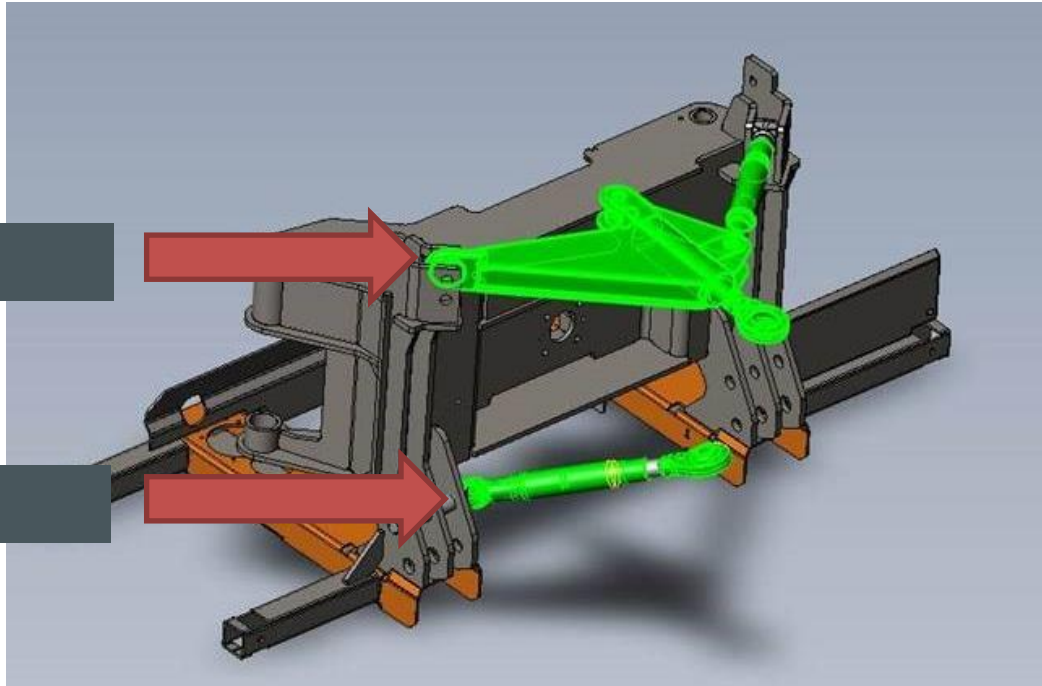
- Optional for Scorpion 6 & 8 S/PLUS
- Relieves the driver from manual adjusting to the contours of the terrain
- Auto Height Control is used for verge and ditch mowing. It ensures that the cutting head floats above the surface and does not mow into the ground by following the contours of the terrain. This is all done automatically. The driver does not need to maneuver the boom mower with the joystick



4-point mounting

Upper 4-point

Lower 4-point



4-point mounting

DEKRA:

- Worldwide company that specializes in testing and certification in the automotive industry, energy sector, etc.
- German origin, present in 50 countries

GENERAL INFORMATION

Customer: Scharmüller
Test specimen: ball towing device 80
Type: 80-340100
Sample receipt: 19171 2020-03-23

TEST SYSTEM

Test cylinder: 160K HCM: 3
effect. length L: Tower: 1

TEST PARAMETER

Directive: regulation (EU) 2015/208
Type of test: one-component, swelling stress, tension
D 26 kN S 0 kg v>40 km/h

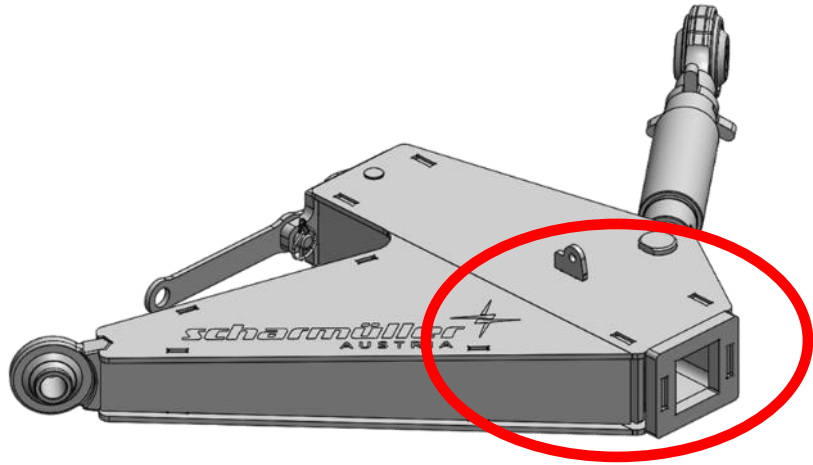
F _{max} [kN]	F _{min} [kN]	α Force [deg]	direction
26	1,3	0,0	tension
cycles	f [Hz]	test bench	controler
2.000.000	5	5	force



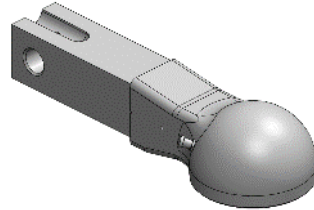
RESULT:

The test specimen completed the required fatigue test over 2 million load cycles without any visible damages. The crack detection test did not show signs.

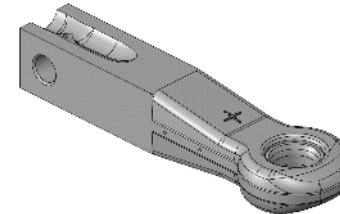
4-point mounting: Upper



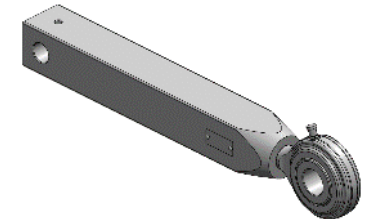
K80



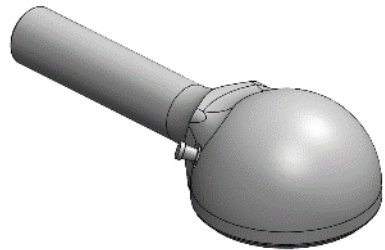
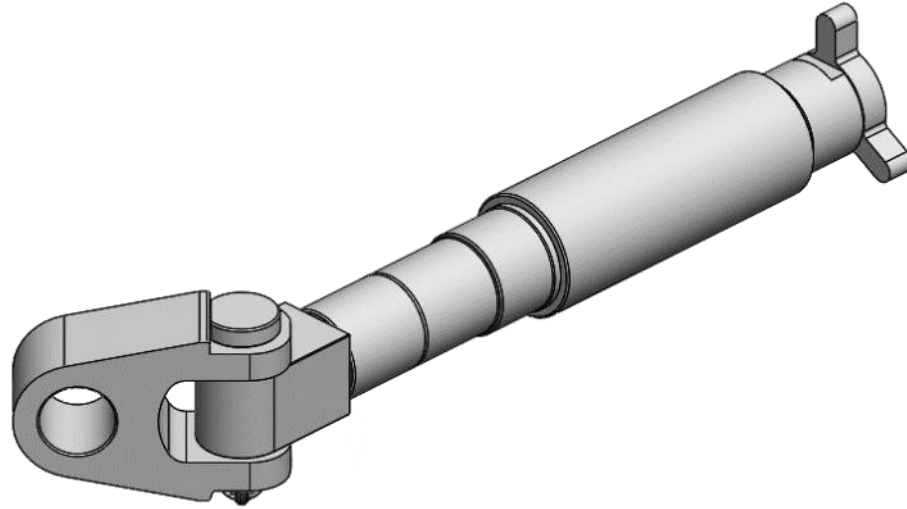
Pulling jaw



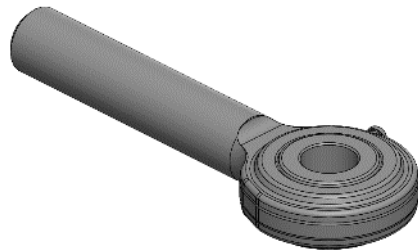
Top link



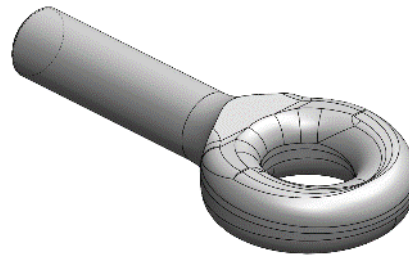
4-point mounting: Lower



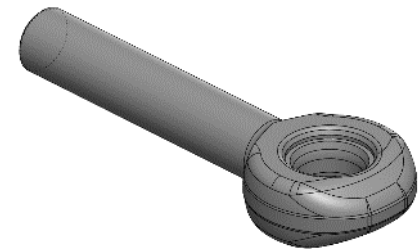
K80



Drawbar



Ø50



Pulling jaw

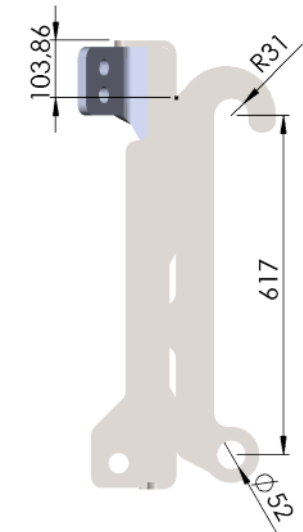
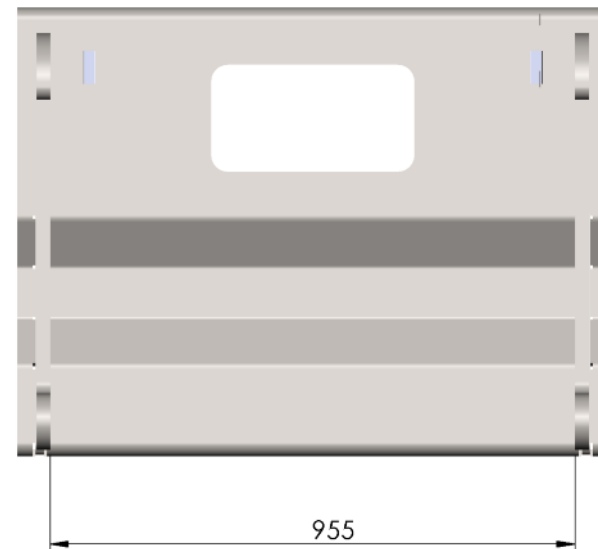
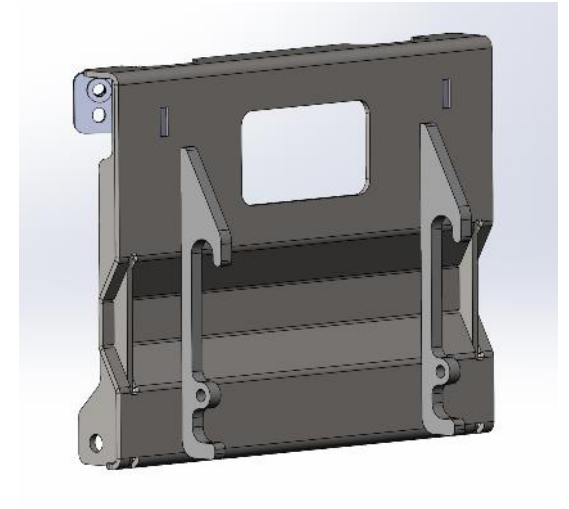
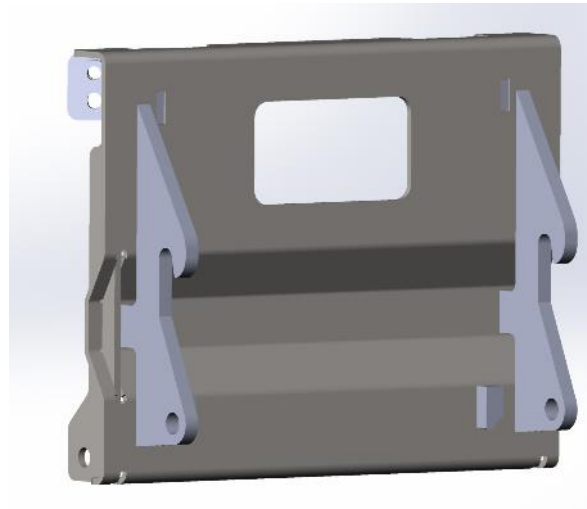
4-point mounting: Loaders and municipal plate (Optional)



Adapters

Adapters:

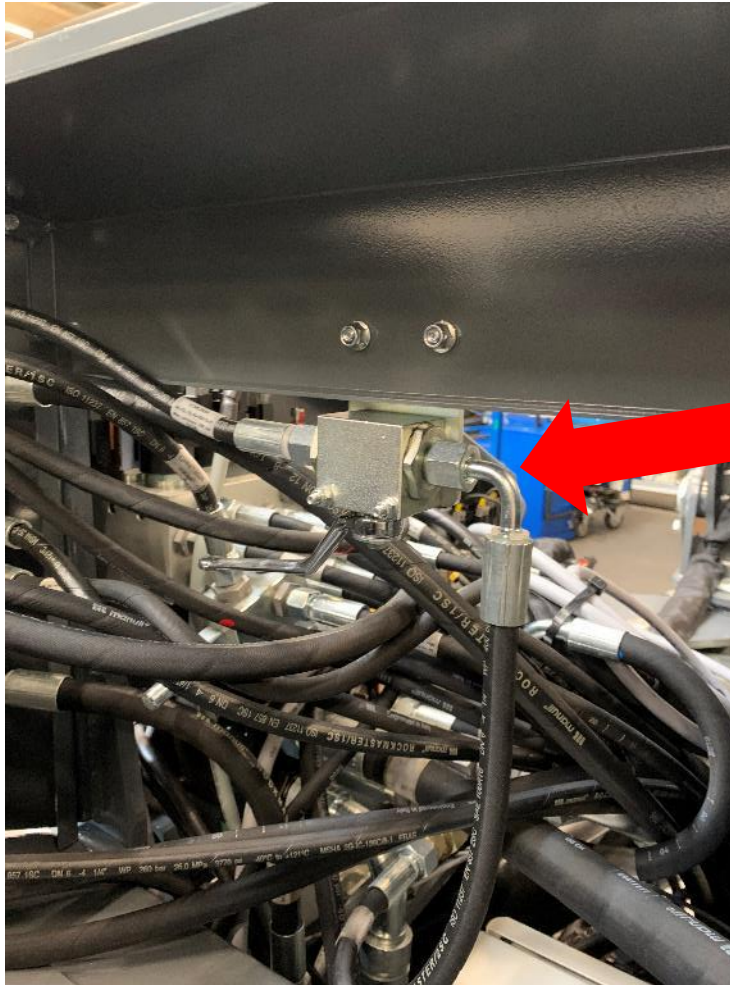
- Wide selection of adapters
- View adapters at product page or support page on website



Ball valves for transport safety



Pressure relief of tool socket



Pressure relief of tool:

- When the position is open, the oil goes to the tank instead of the tool
- Removes the pressure from quick couplings
- Safety when changing flails

LED lights and underrun bumper



LogiTec Safe control

Joystick:

- Danfoss joystick
- Ergonomic design
- 4 proportional functions
- Buttons for switch function



An acoustic warning will occur if the working pressure is too high or if the oil is too hot.



Different oil flows for tools

Electric change of oil flows:

- Save time when switching between 50 and 85 l/min
- Easy access
- Avoid oil flow divider
- Reduce heat generation of the hydraulic oil and ensure long life



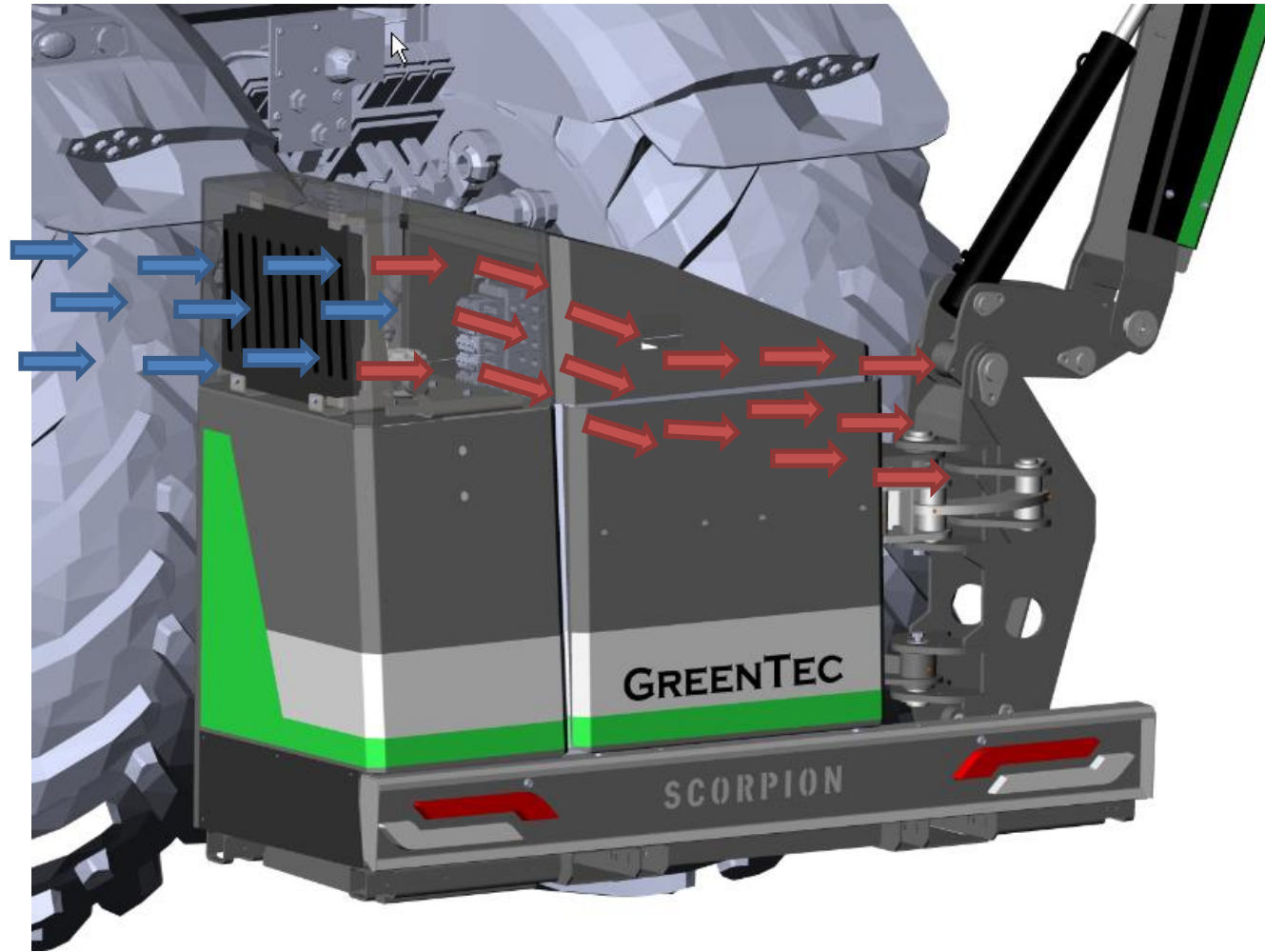
Oil cooler

Oil cooler:

- Extends oil life by maintaining optimal temperature
- Enhances performance and reliability
- Reduces risk of overheating and related damages
- Increases efficiency of machinery and engines



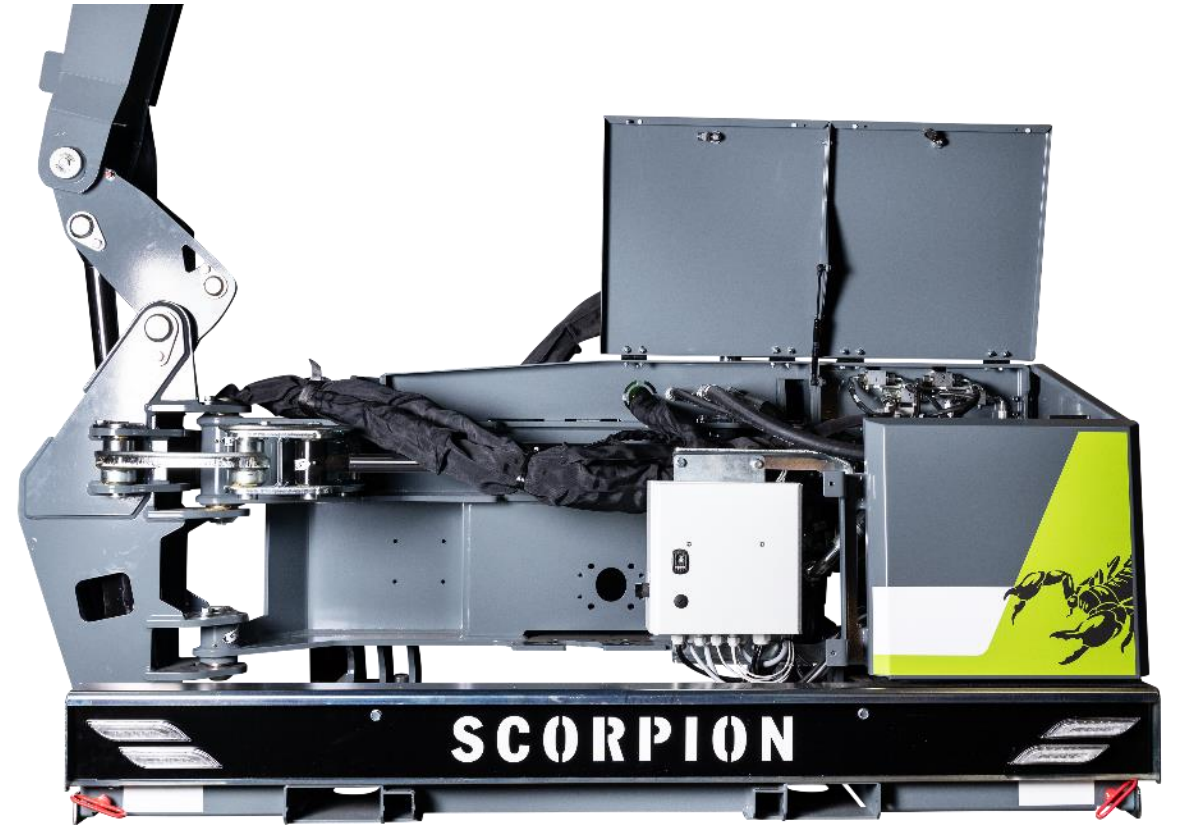
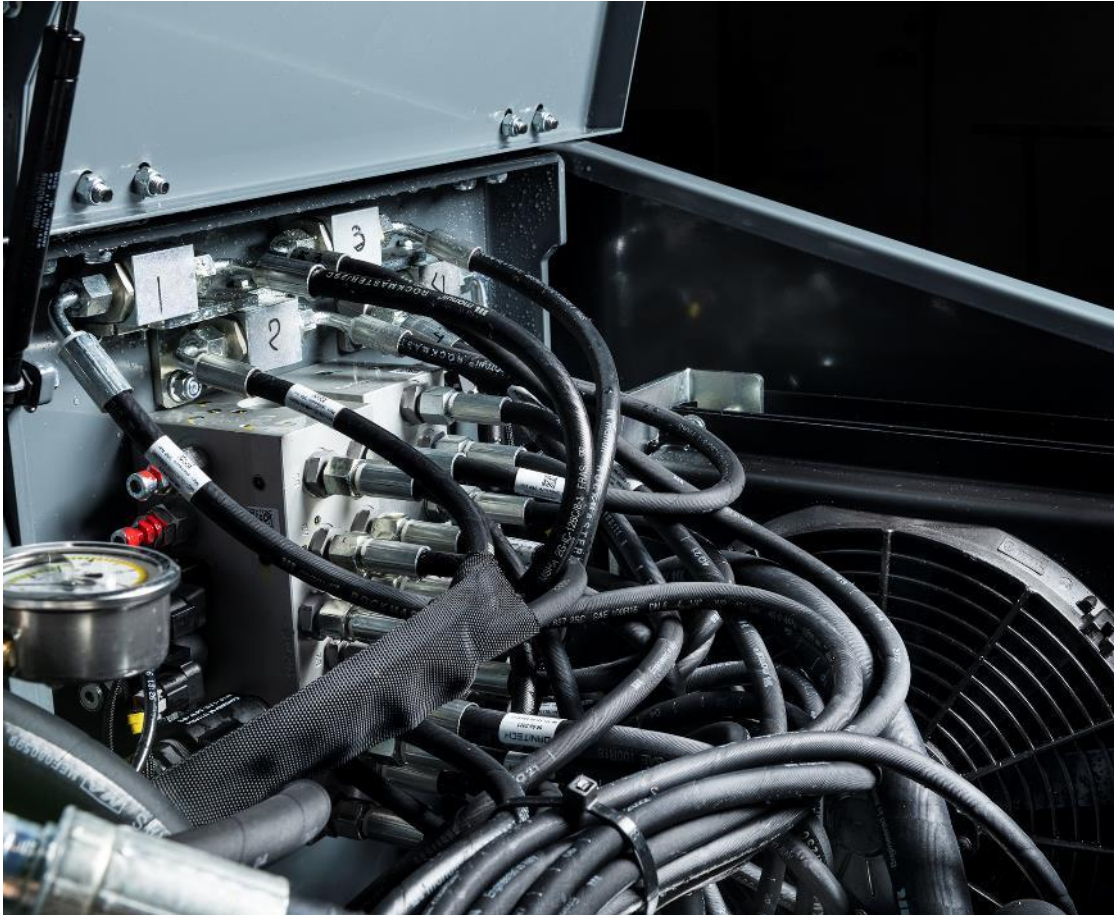
Air Stream Control



Cooling system:

- Keeps the oil cooled
- Inlet from left side – Away from the cut-off material
- Fan for cooler turns on and off automatically according to the oil temperature
- Easy access for cleaning

Easy overview of valve blocks

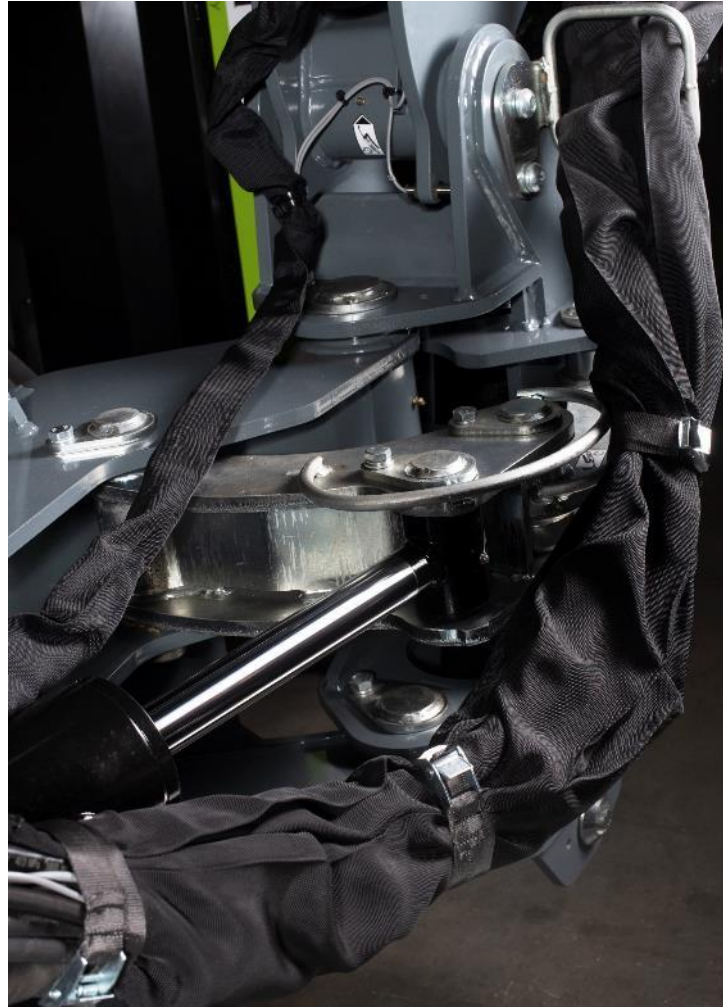


Swivel joint



Swivel joint:

- Copper bushings for long life
- No sharp edges, minimal wear on hydraulic hoses



Canbus wiring harness

Electrical cabinet:

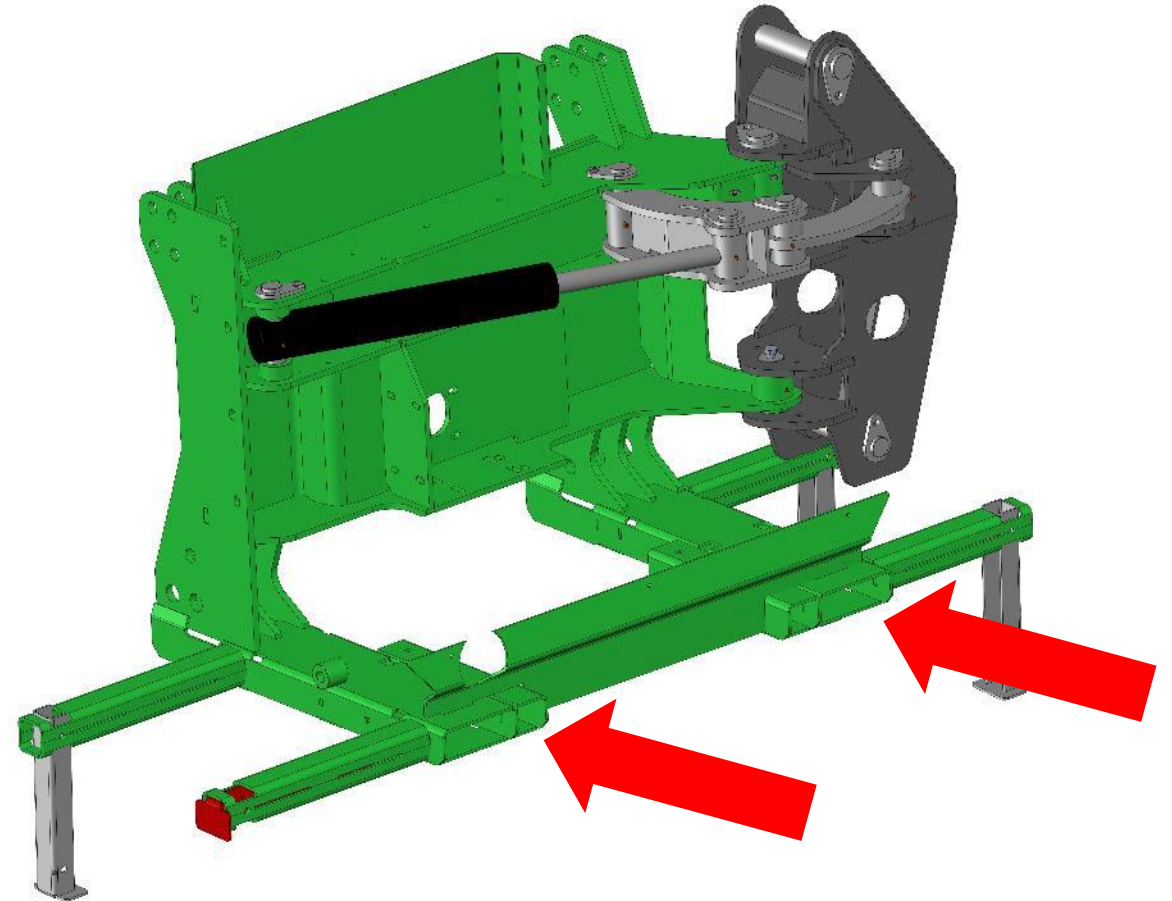
- Waterproof
- Good wiring – Easy overview for troubleshooting
- Danish programmed software



Fork pockets and support legs

Fork pockets and support legs:

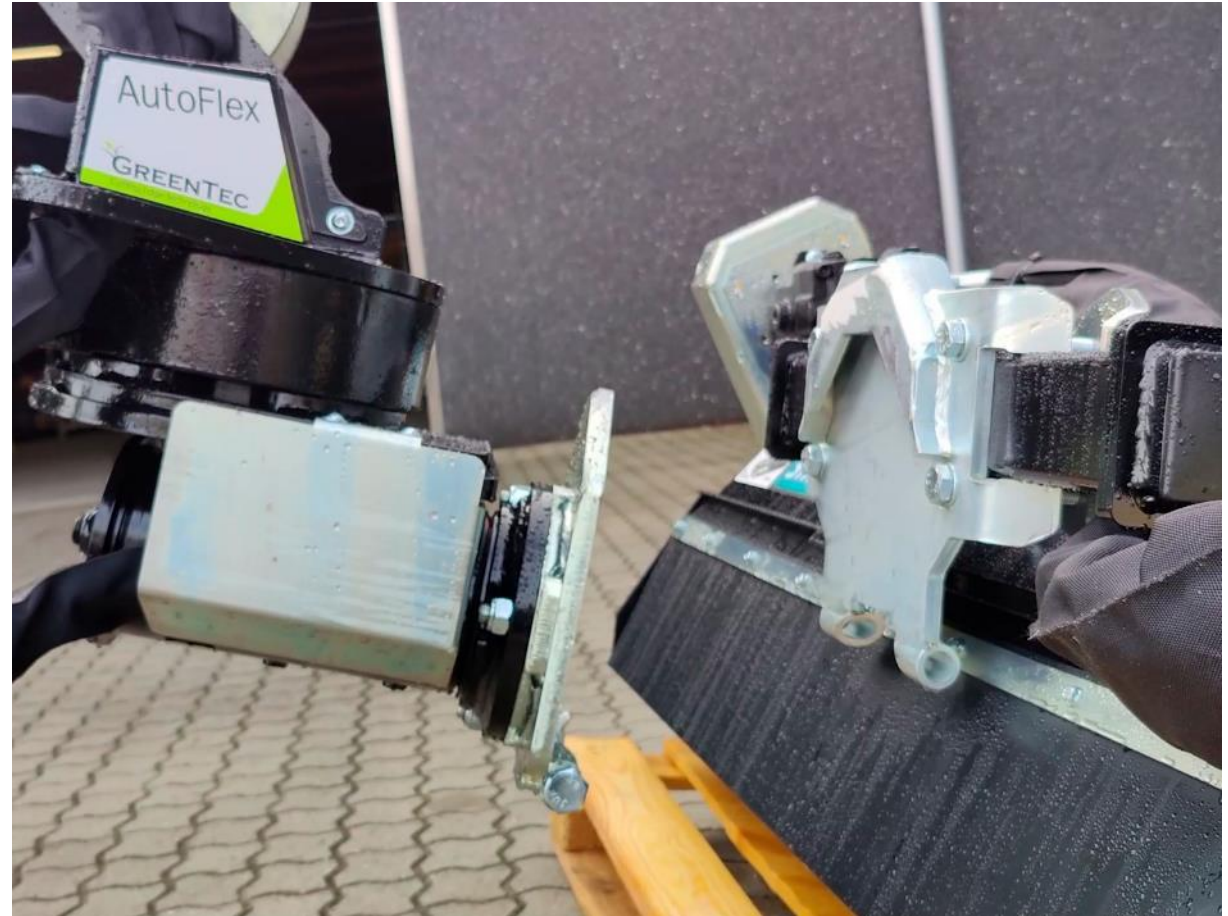
- Closed fork pockets for safe handling during loading and unloading
- Solid support legs with large distance for increased stability



Mechanical quick release (Optional)

Mechanical quick release:

- Simple quick release system ensures easy change of tools
- Easy mounting and dismounting of tools in collaboration with Rotor Flex



Hydraulic quick release (Optional)

Hydraulic quick release:

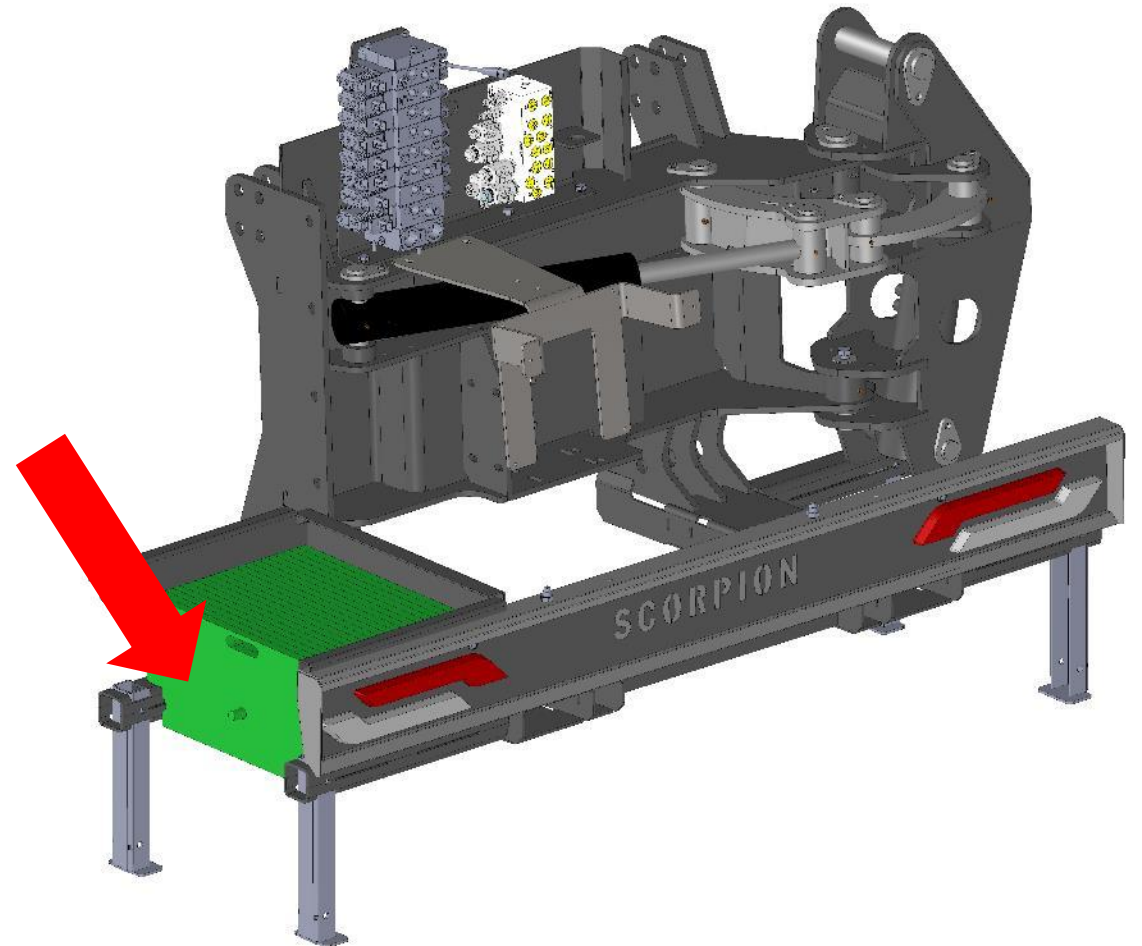
- Flat nose couplings allow high flow and pressure
- Easy to clean with a cloth when mounting
- Quick installation of hydraulics when changing tools



Counterweights (Optional)

Counterweights:

- Ensure stability in the machine
- Bottom position for low center of gravity
- Weight plates – 430 kg
 - Additional 212 kg available





SPIDER 6 & 8 SERIES INTRODUCTION

Spider 6 series

20 Tools
5.2-6.2 m
5.1-6.1 m
5000-6000 kg
2 years WARRANTY

Spider 6 series:

- Hybrid arm system provides greater capacity and higher flexibility
- Strenx steel for optimized weight and strength ratio
- 270° hydraulic turn of the arm with Power Control
- Fast and easy mounting with the 4-point system
- AHC ensures that the cutting head floats above the terrain (optional)



Spider 6 PLUS

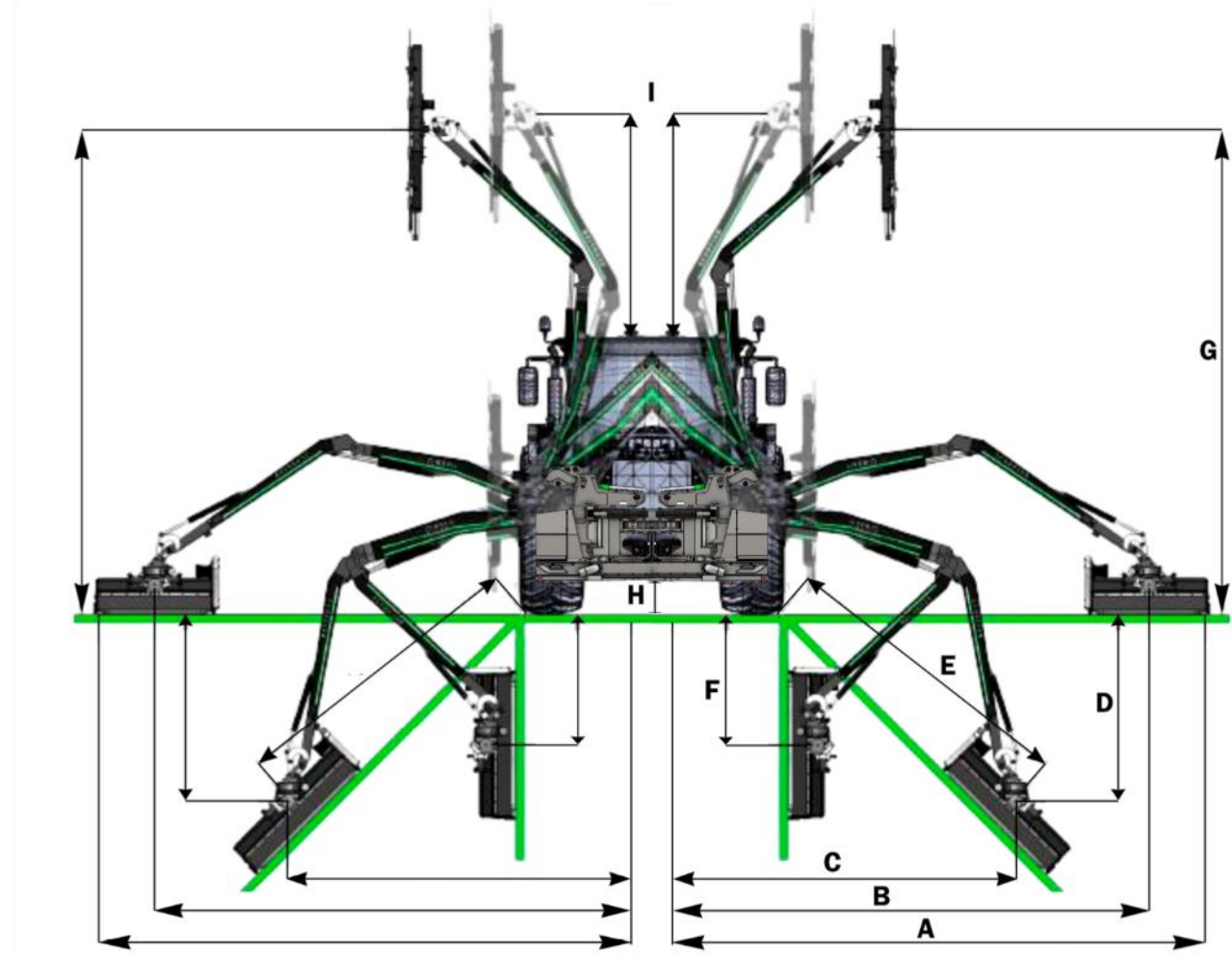
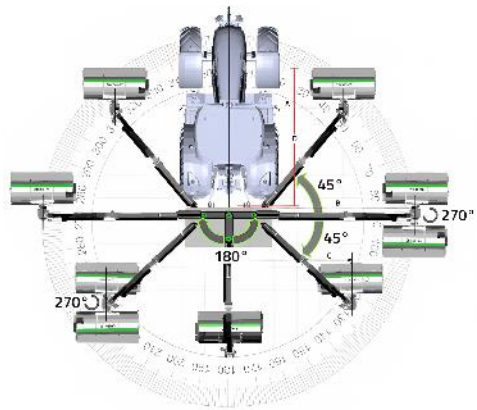
SPIDER	520 PLUS	620 PLUS
Horizontal reach (m)	5.2	6.2
Vertical reach (m)	5.1	6.1
Transport width (m)	2.2	2.2
Mounting	F/B/R	F/B/R
Pump	Danfoss 60 ccm piston pump	
Hydraulic system (l/min @ bar)	125 @ 315	
Minimum size of tractor (kg)	5,000	6,000
Weight (kg)	2,170	2,195
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	✓	✓
Auto Flex, automatic vertical positioning	✓	✓
Auto Height Control (for verge mowing)	+	+
Quick release, hydraulic	+	+
Quick release, mechanical	+	+

Mounting: F = Front mounted, B = Rear mounted, R = Reverse mounted



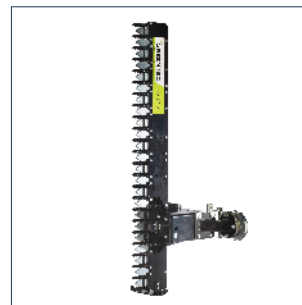
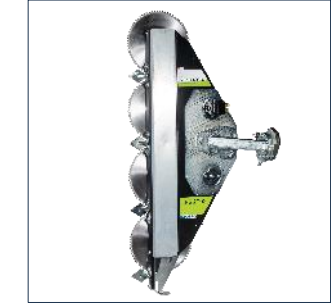
Spider 6 series

SPIDER MODELS	520	620
A (m)	5.2	6.2
B (m)	4.7	5.7
C (m)	3.4	4.1
D (m)	1.8	2.2
E (m)	3.0	3.7
F (m)	1.5	1.8
G (m)	5.1	6.1
H (m)	0.4	0.4
I (m)	2.0	2.0



Spider 6 series

ATTACHMENT TOOLS	MINIMUM OIL FLOW
Flail Mower FR 122	85 l/min @ 315 bar
Flail Mower FR 122 VB	85 l/min @ 315 bar
Flail Mower FR 162	85 l/min @ 315 bar
Quadsaw LRS 2002	85 l/min @ 150 bar
Quadsaw LRS 2402	85 l/min @ 150 bar
Rotary Hedge Cutter RC 162	50 l/min @ 180 bar
Rotary Mulcher RM 232	50 l/min @ 180 bar
Cutterbar HX 170 - 270	50 l/min @ 190 bar
Cutterbar HS 212 & 242	50 l/min @ 190 bar
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Grass Cutterbar S 165 - 240	50 l/min @ 180 bar
Weed Clearing Brush BR 90	50 l/min @ 190 bar
Rotary Ditch Cleaner GR 70	85 l/min @ 315 bar



Spider 8 series



Spider 8 series:

- Hybrid arm system provides greater capacity and higher flexibility
- Strenx steel for optimized weight and strength ratio
- 270° hydraulic turn of the arm with Power Control
- Fast and easy mounting with the 4-point system
- AHC ensures that the cutting head floats above the terrain (optional)



Spider 8 PLUS

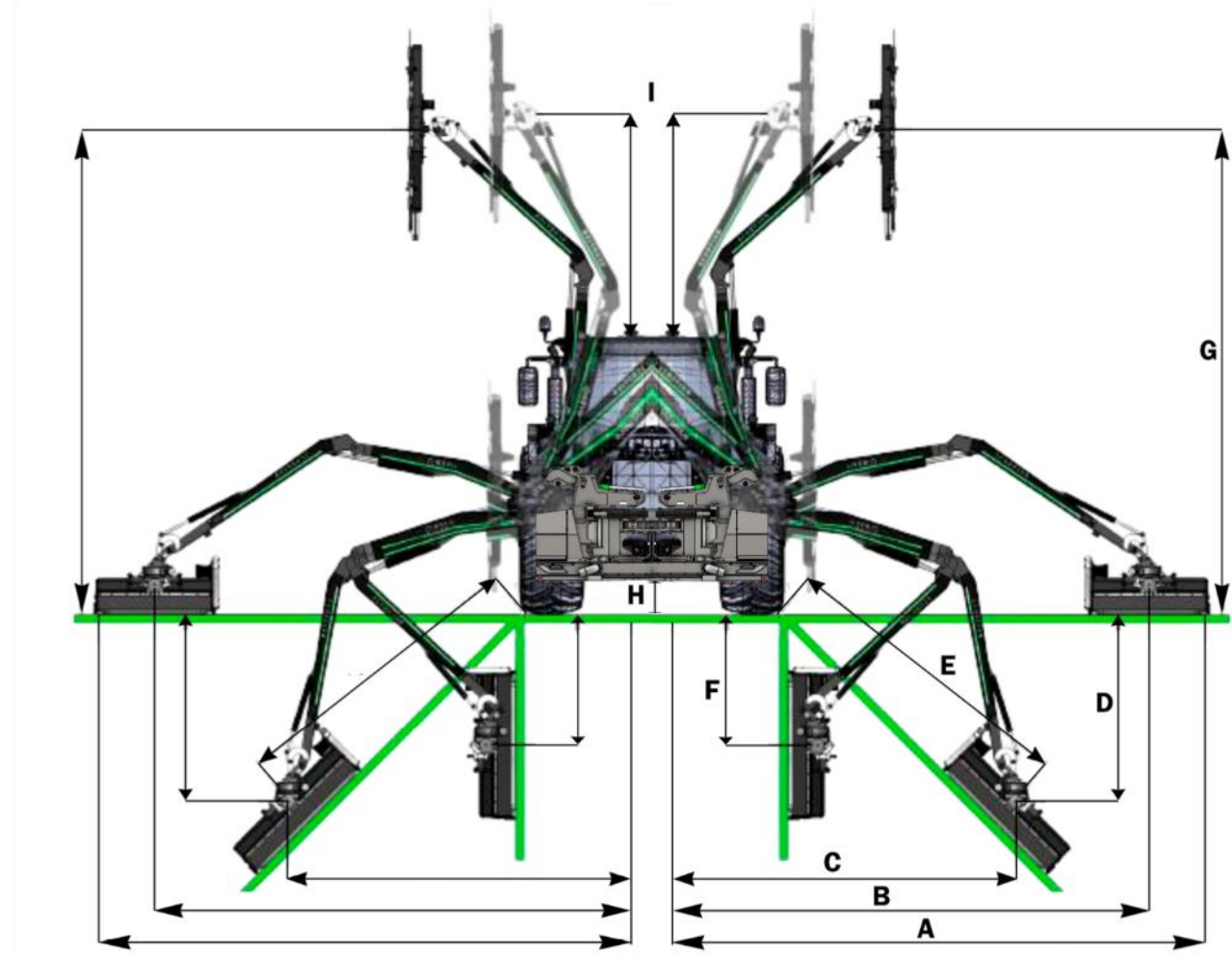
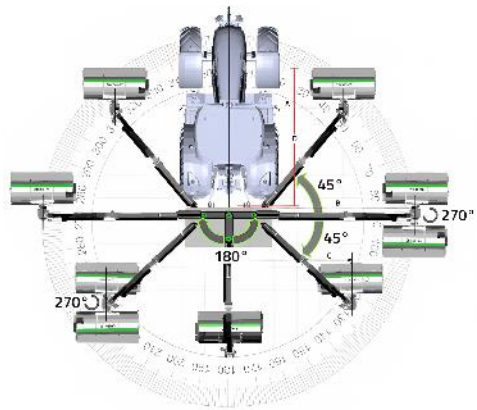
SPIDER	720 PLUS	820 PLUS
Horizontal reach (m)	7.2	8.2
Vertical reach (m)	7.1	8.1
Transport width (m)	2.4	2.4
Mounting	B/R	B/R
Pump	Danfoss 60 ccm piston pump	
Hydraulic system (l/min @ bar)	125 @ 315	
Minimum size of tractor (kg)	7,000	8,000
Weight (kg)	2,355	2,385
Hybrid Arm System	✓	✓
Rotor Flex, double pivot joint	✓	✓
Auto Flex, automatic vertical positioning	✓	✓
Auto Height Control (for verge mowing)	+	+
Quick release, hydraulic	+	+
Quick release, mechanical	+	+



Mounting: F = Front mounted, B = Rear mounted, R = Reverse mounted

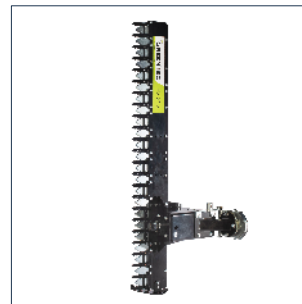
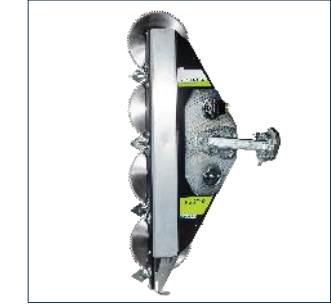
Spider 8 series

SPIDER MODELS	720	820
A (m)	7.2	8.2
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E (m)	4.4	5.0
F (m)	2.2	2.6
G (m)	7.1	8.1
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I (m)	2.0	2.0



Spider 8 series

ATTACHMENT TOOLS	MINIMUM OIL FLOW
Flail Mower FR 122	85 l/min @ 315 bar
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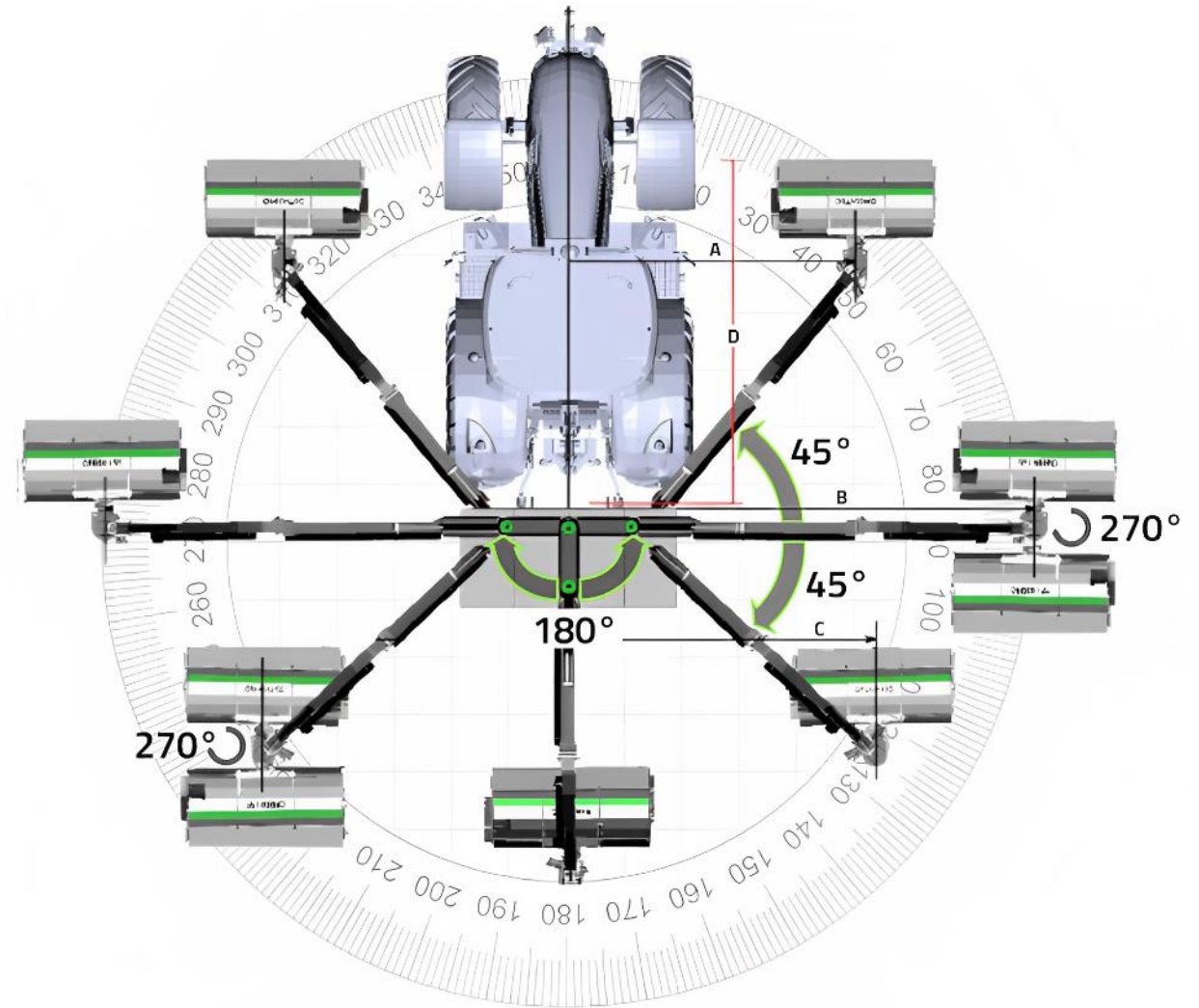
SPIDER 6 & 8 SERIES

FEATURES, EQUIPMENT AND MOUNTING

270° arm movement

270° arm movement:

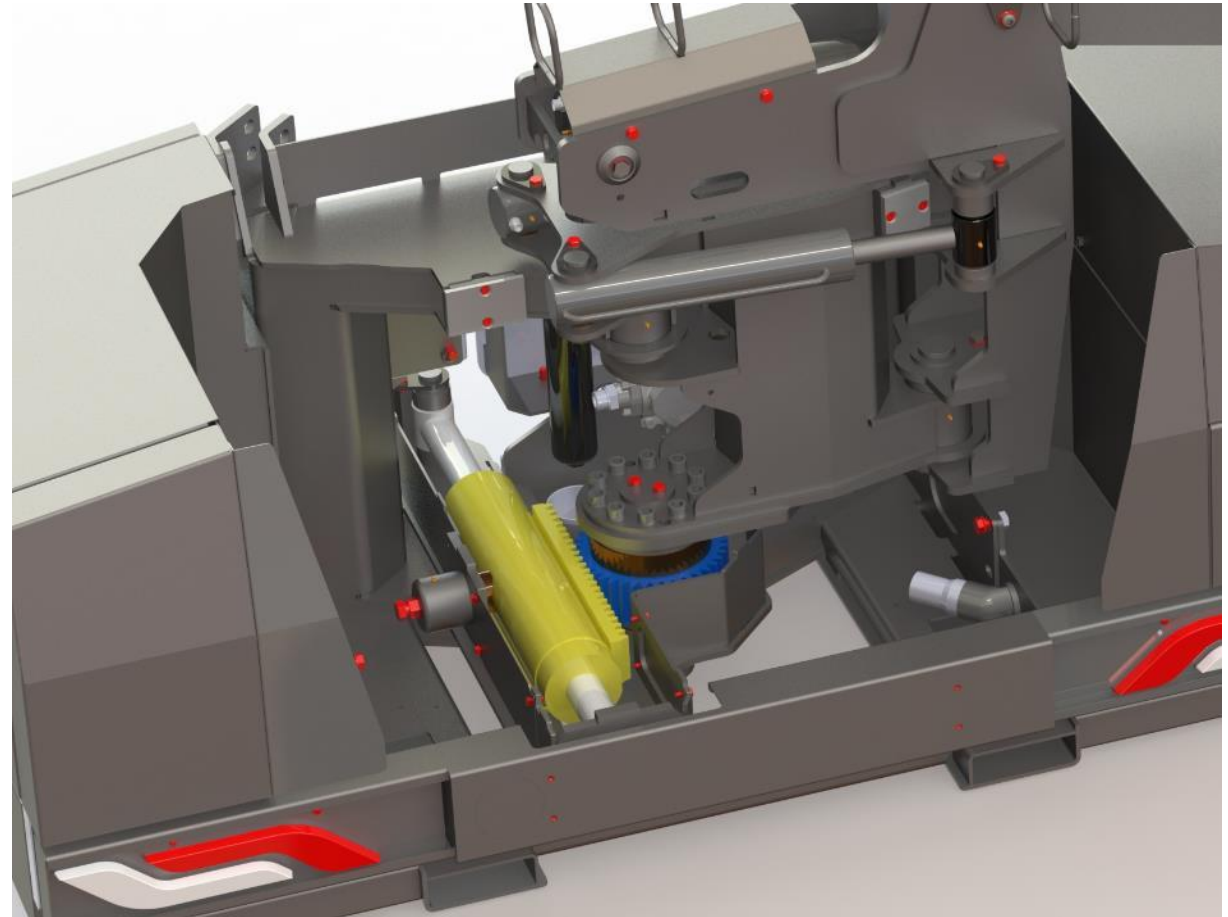
- Mow on both sides of the tractor
- The working range of both the arm and the cutting head is 270°. This results in unparalleled flexibility, which makes it possible to mow in any position - right, left, front or back



Side shift frame

Side shift frame:

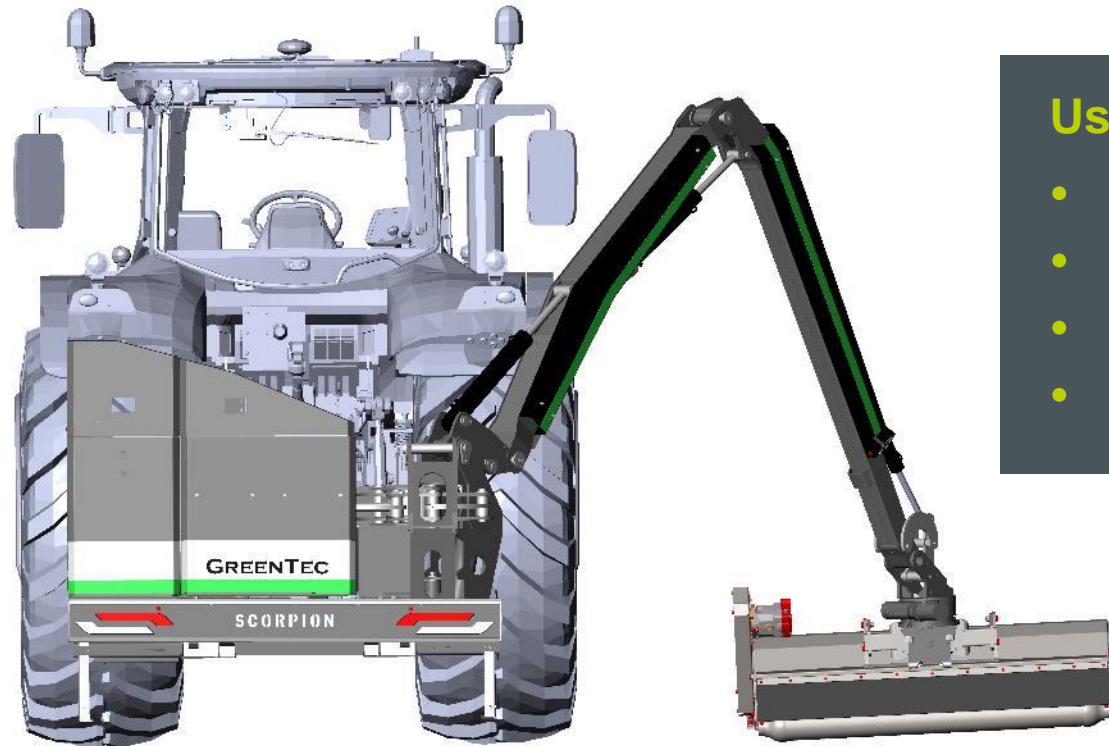
- A side shift frame is mounted in the middle of the machine. The frame is continuously rotated hydraulically 180°, from right to left and vice versa
- The arm itself is mounted at the far end of the frame. The arm can turn 45° forward and 45° back
- Both functions are equipped with double-acting collision protection = safety in the event of obstacles!



Hybrid Arm System

Hybrid Arm System:

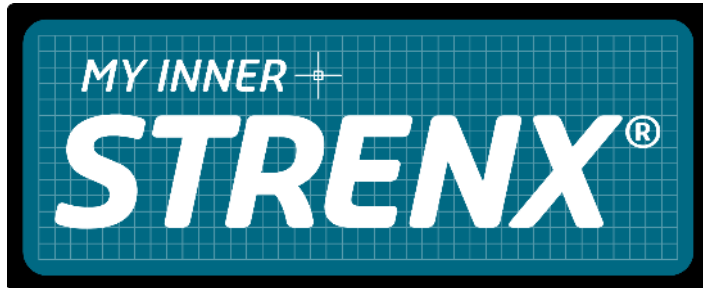
- Two options
 - Parallel
 - Non-parallel
- Increased flexibility
- Higher efficiency
- Telescope unnecessary
 - Fewer lubrication points
 - Lighter construction
 - Less wear
- Simple build



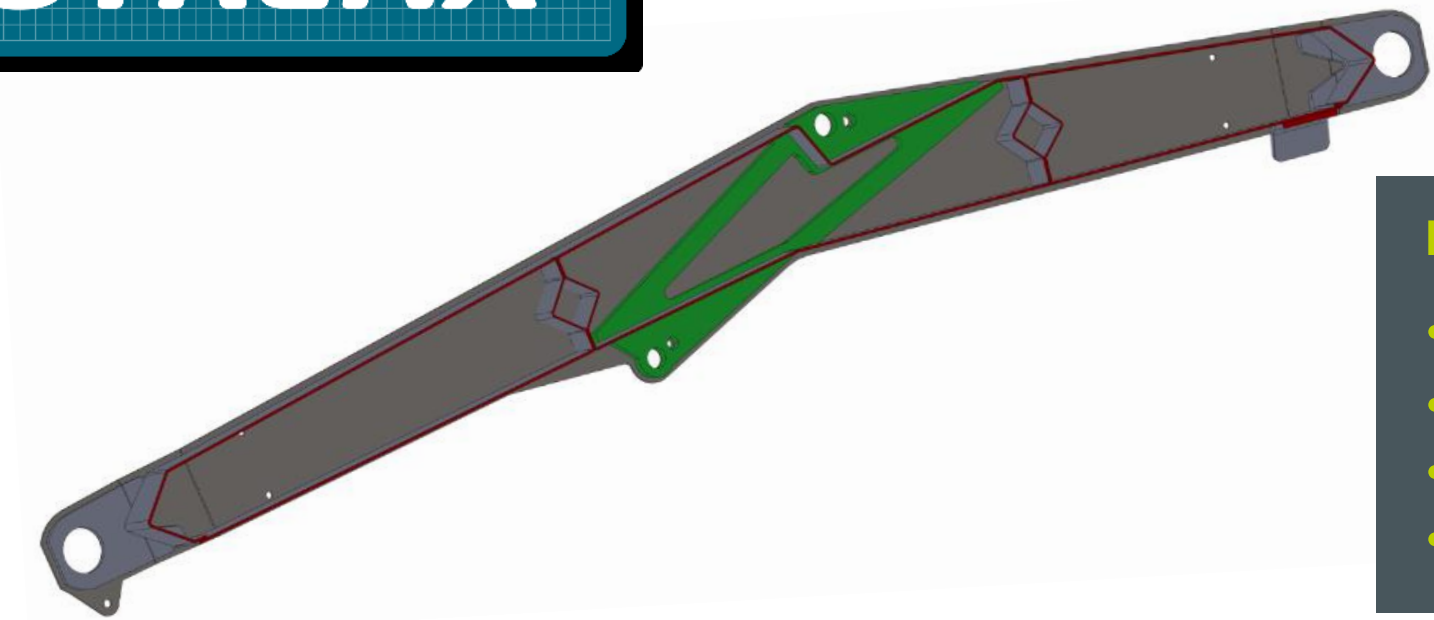
Useful applications:

- Forest areas
- Bicycle paths
- Deep ditches
- Narrow roads

Strenx steel

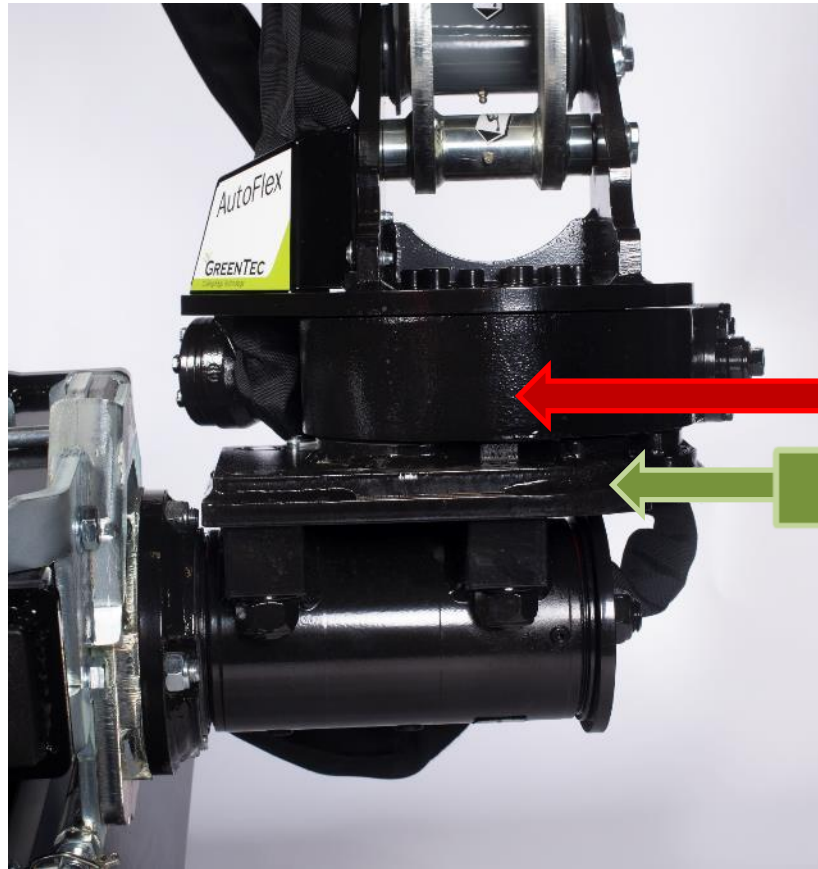


Design approved by
SSAB for usage of its
steel



- MY INNER STRENX:**
- World's strongest manufacturing steel
 - 25% weight reduction
 - 50% stronger construction
 - "My Inner Strenx"-Partner

Rotor Flex



270° Swivel head

180° Swivel joint



Rotor Flex

Rotor Flex:

- Advance the tool to the field of view when working
- Easier to cut around objects, e.g. lampposts
- The transport position is optimized. The tool is close to the machine = high visibility of lights



Auto Flex

Auto Flex:

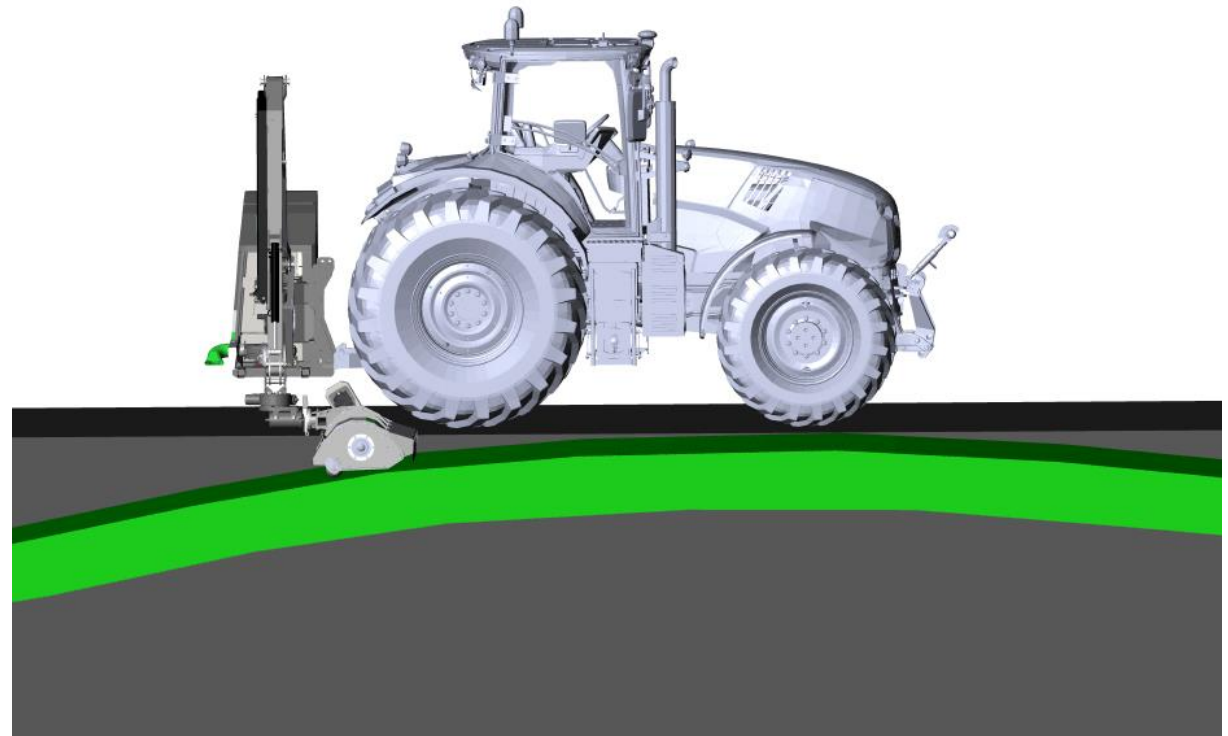
- Automatic vertical positioning for hedge trimming
- Relieves the user
- Must be deactivated before the machine can be folded to transport position



Auto Height Control for verge mowing (AHC)

Auto Height Control:

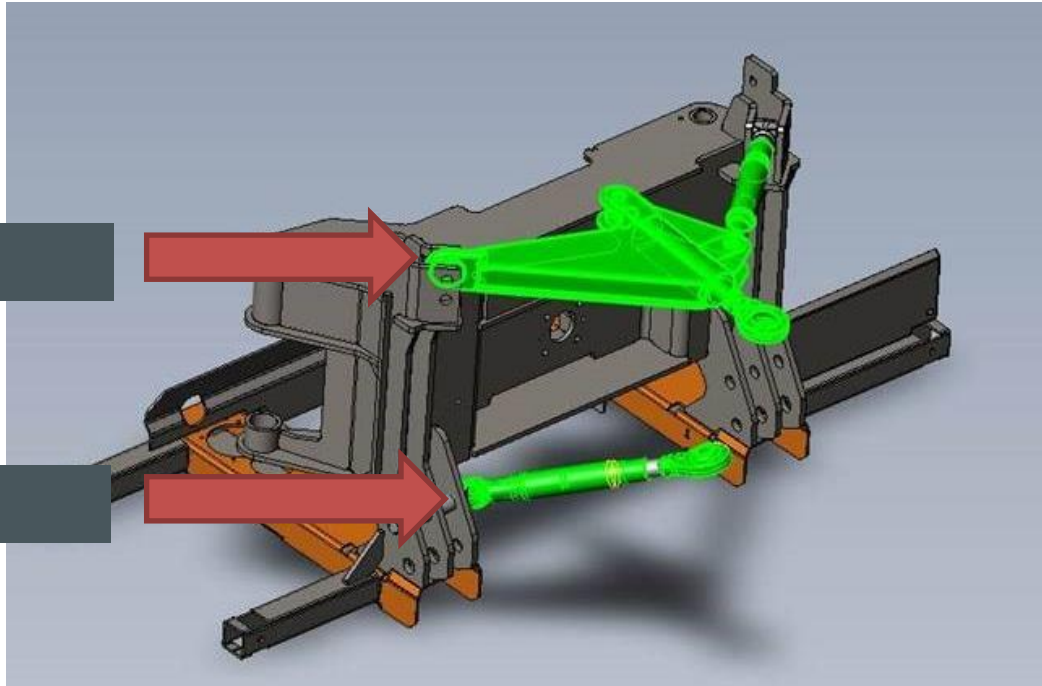
- Optional for Spider 6 & 8 PLUS
- Relieves the driver from manual adjusting to the contours of the terrain
- Auto Height Control is used for verge and ditch mowing. It ensures that the cutting head floats above the surface and does not mow into the ground by following the contours of the terrain. This is all done automatically. The driver does not need to maneuver the boom mower with the joystick



4-point mounting

Upper 4-point

Lower 4-point



4-point mounting

DEKRA:

- Worldwide company that specializes in testing and certification in the automotive industry, energy sector, etc.
- German origin, present in 50 countries

GENERAL INFORMATION

Customer: Scharmüller
Test specimen: ball towing device 80
Type: 80-340100
Sample receipt: 19171 2020-03-23

TEST SYSTEM

Test cylinder: 160K HCM: 3
effect. length L: Tower: 1

TEST PARAMETER

Directive: regulation (EU) 2015/208
Type of test: one-component, swelling stress, tension
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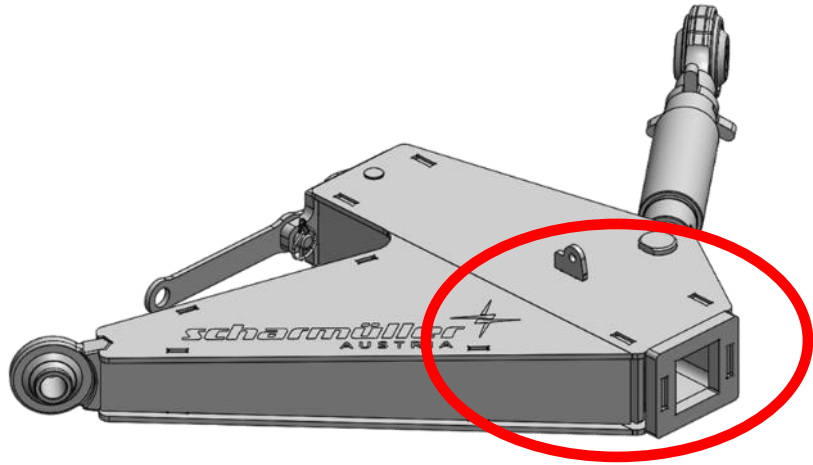
F _{max} [kN]	F _{min} [kN]	α Force [deg]	direction
26	1,3	0,0	tension
cycles	f [Hz]	test bench	controler
2.000.000	5	5	force



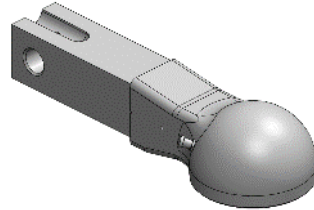
RESULT:

The test specimen completed the required fatigue test over 2 million load cycles without any visible damages. The crack detection test did not show signs.

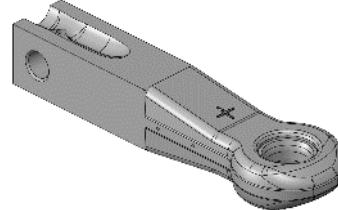
4-point mounting: Upper



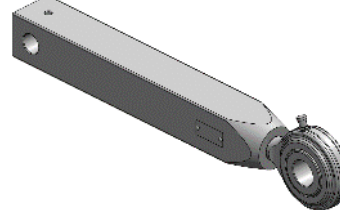
K80



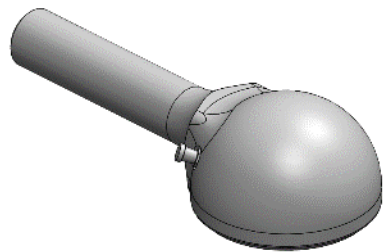
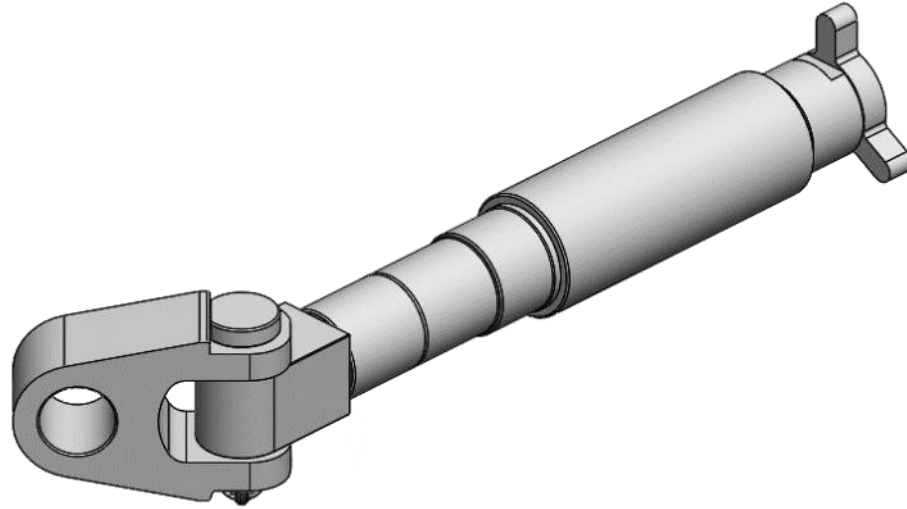
Pulling jaw



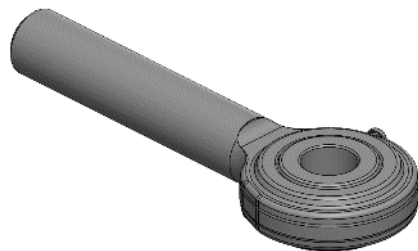
Top link



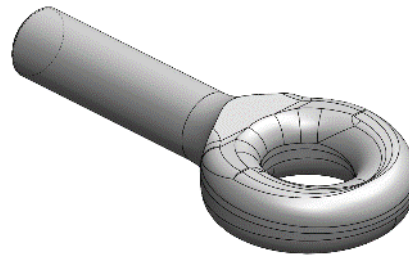
4-point mounting: Lower



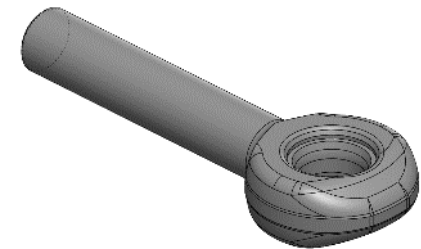
K80



Drawbar



Ø50

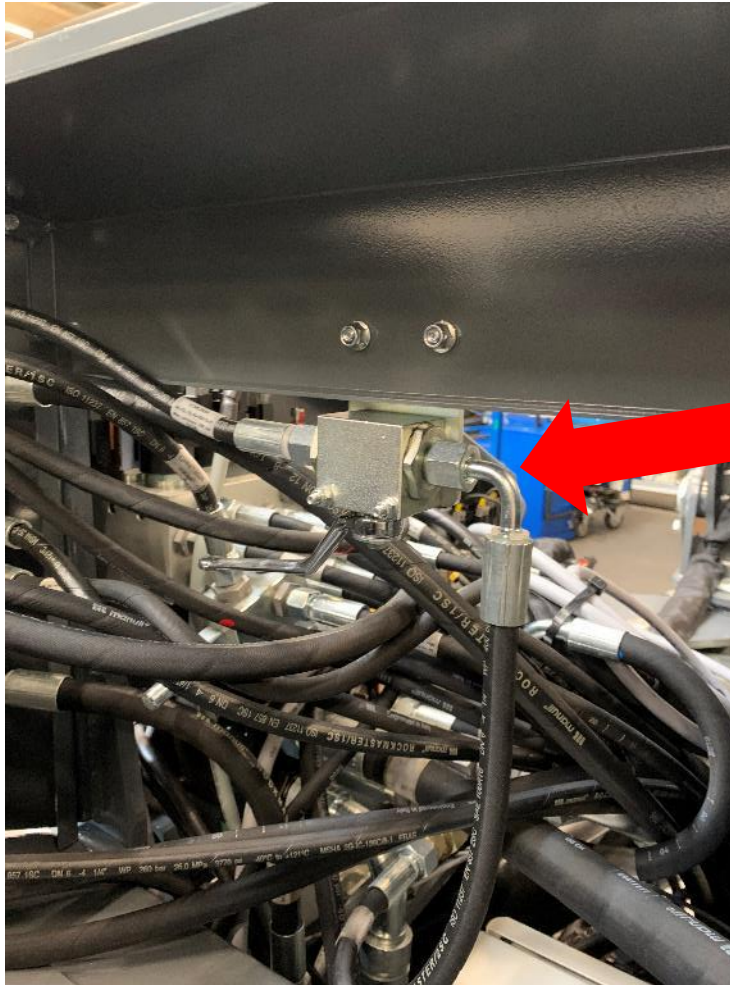


Pulling jaw

Ball valves for transport safety



Pressure relief of tool socket



Pressure relief of tool:

- When the position is open, the oil goes to the tank instead of the tool
- Removes the pressure from quick couplings
- Safety when changing flails

LED lights and underrun bumper



LogiTec Safe control

Joystick:

- Danfoss joystick
- Ergonomic design
- 4 proportional functions
- Buttons for switch function



An acoustic warning will occur if the working pressure is too high or if the oil is too hot.



Different oil flows for tools

Electric change of oil flows:

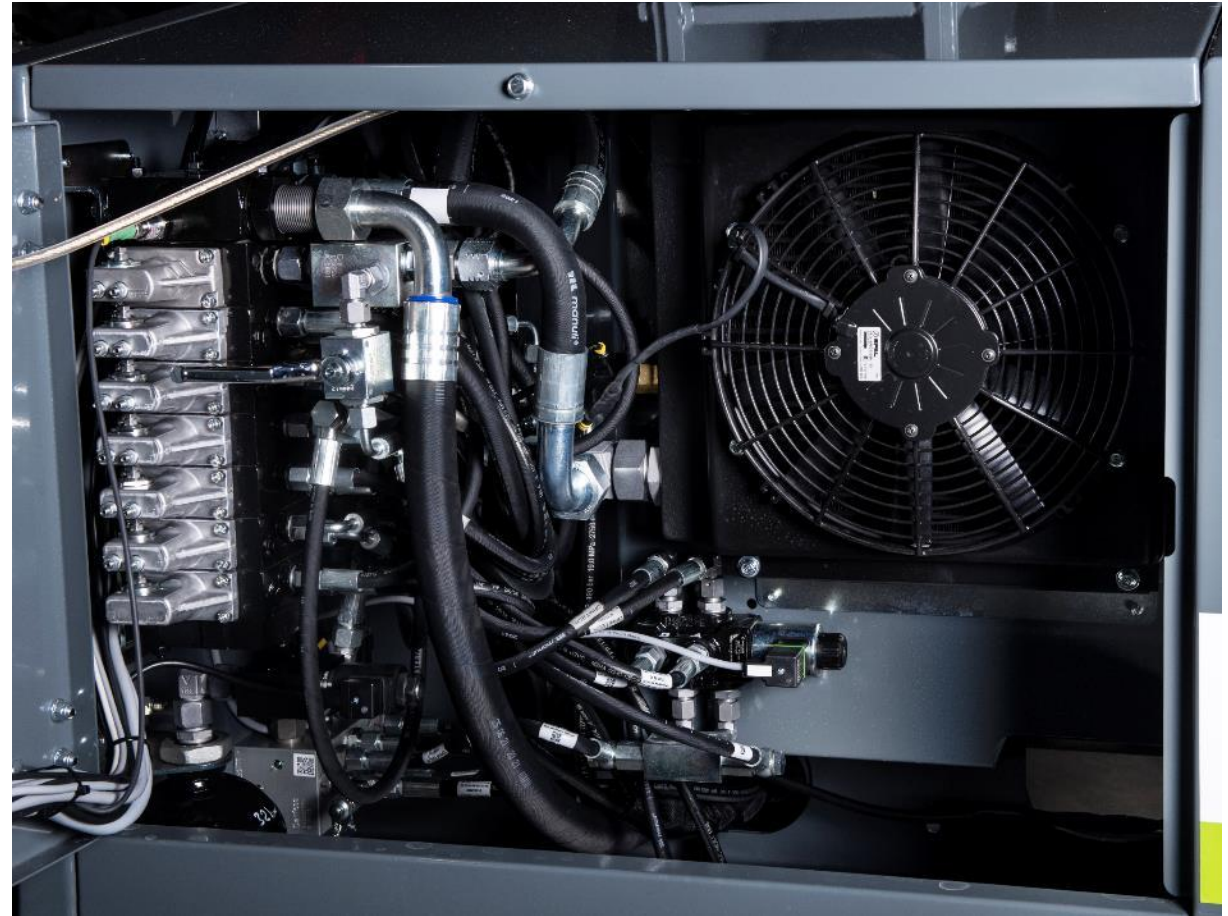
- Save time when switching between 50 and 85 l/min
- Easy access
- Avoid oil flow divider
- Reduce heat generation of the hydraulic oil and ensure long life



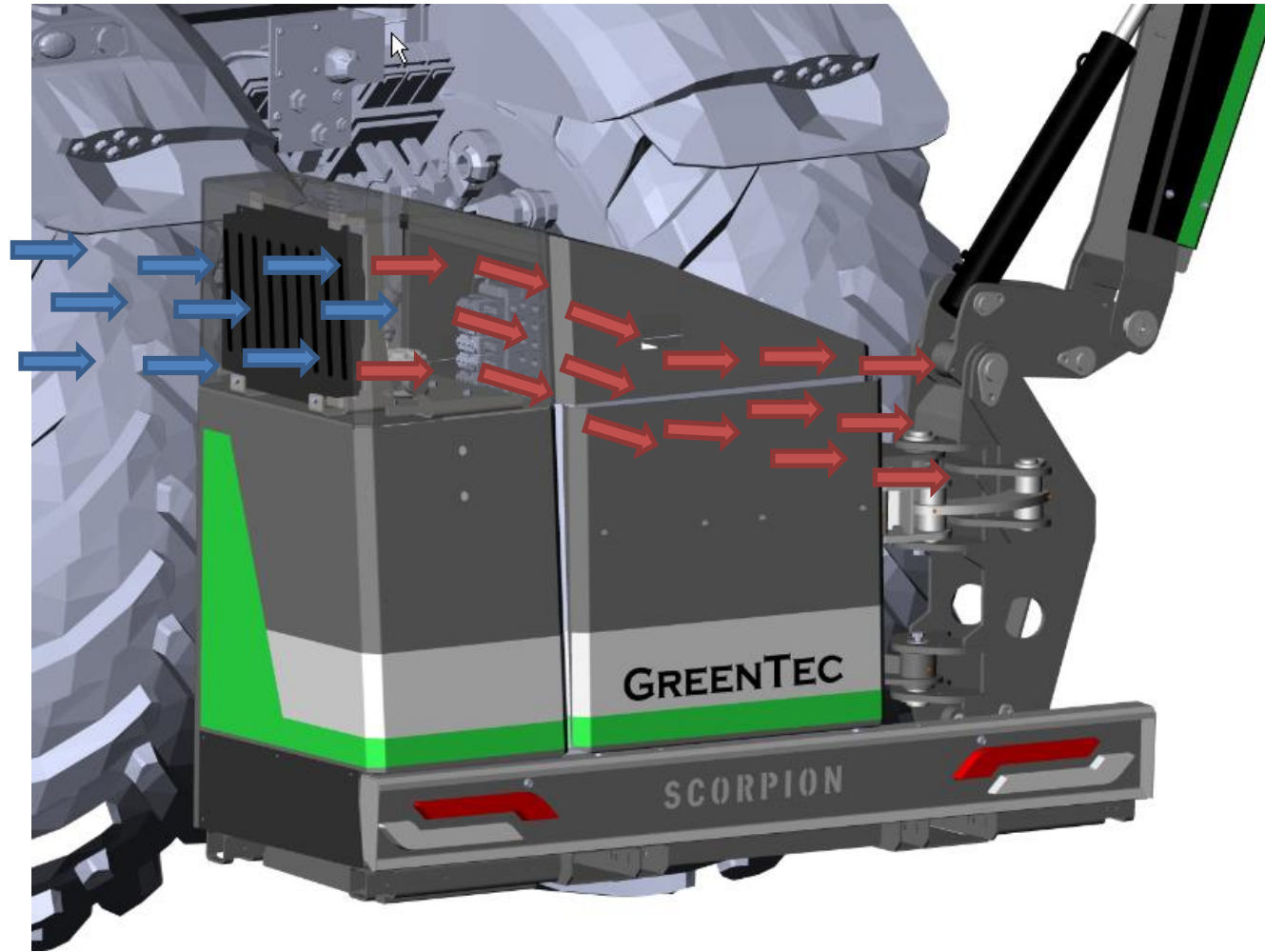
Oil cooler

Oil cooler:

- Extends oil life by maintaining optimal temperature
- Enhances performance and reliability
- Reduces risk of overheating and related damages
- Increases efficiency of machinery and engines



Air Stream Control



Cooling system:

- Keeps the oil cooled
- Inlet from left side – Away from the cut-off material
- Fan for cooler turns on and off automatically according to the oil temperature
- Easy access for cleaning

Easy overview of valve blocks



Swivel joint



Swivel joint:

- Copper bushings for long life
- No sharp edges, minimal wear on hydraulic hoses



Canbus wiring harness

Electrical cabinet:

- Waterproof
- Good wiring – Easy overview for troubleshooting
- Danish programmed software



Fork pockets and support legs

Fork pockets and support legs:

- Closed fork pockets for safe handling during loading and unloading
- Solid support legs with large distance for increased stability



Bio oil (Optional)

Bio oil:

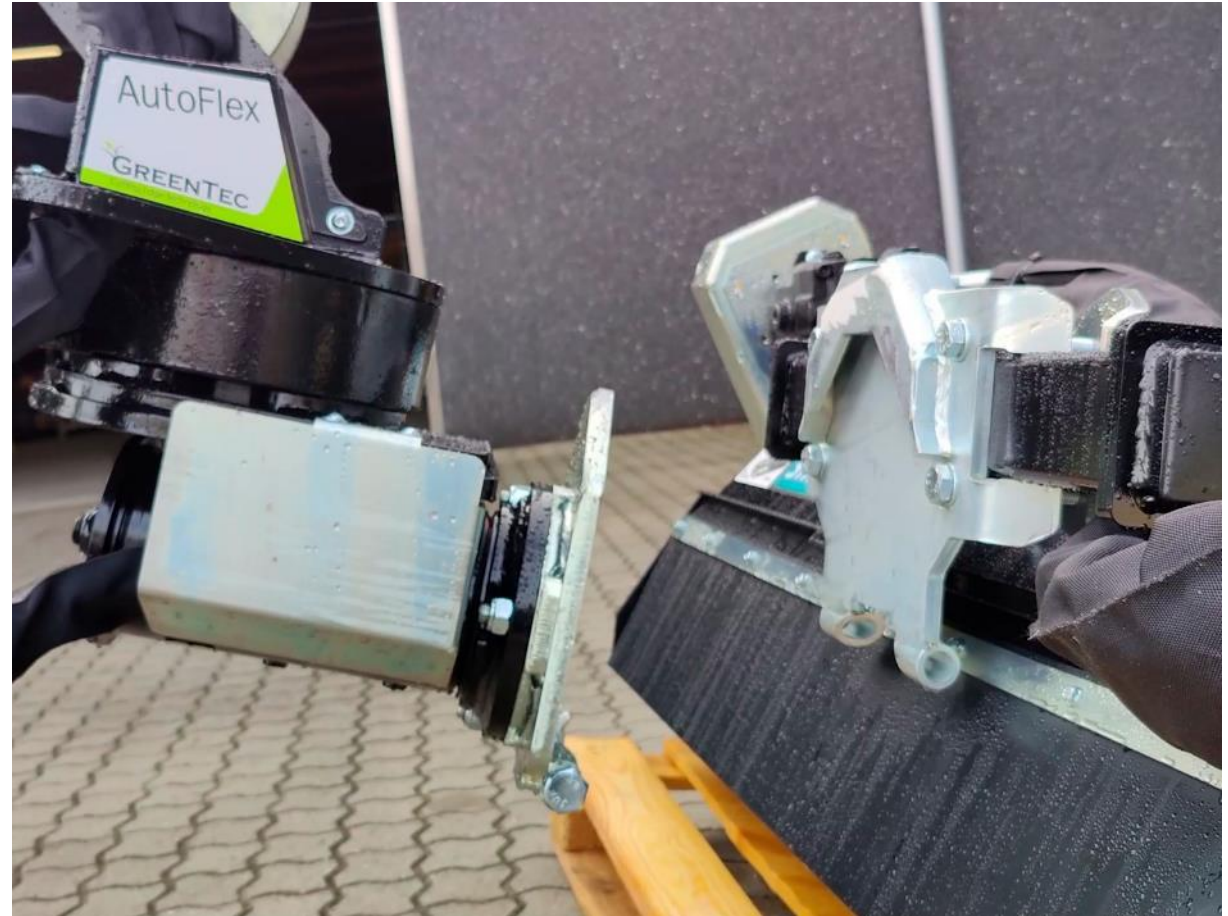
- SP 6 & 8, 220 L bio oil
- Used bio oil - Shell Naturelle HF-E 46
- Standard oil - Shell Tellus S2 VX 46



Mechanical quick release (Optional)

Mechanical quick release:

- Simple quick release system ensures easy change of tools
- Easy mounting and dismounting of tools in collaboration with Rotor Flex



Hydraulic quick release (Optional)

Hydraulic quick release:

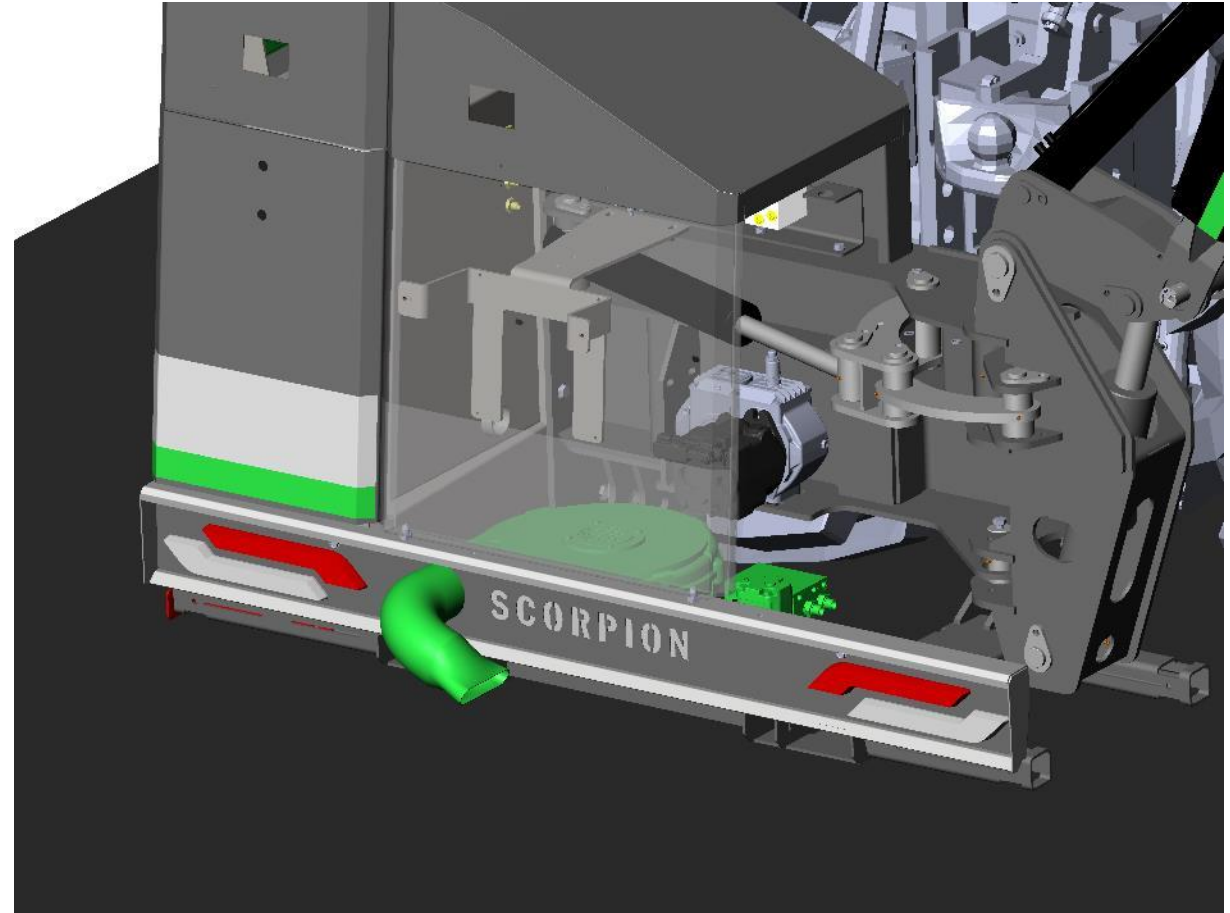
- Flat nose couplings allow high flow and pressure
- Easy to clean with a cloth when mounting
- Quick installation of hydraulics when changing tools



Leaf Blower LG

Leaf Blower LG:

- High-pressure blower made of aluminum
- Very high airflow
- Uses the hydraulics of the tractor 40 l/min
- External mounting or integrated with the Spider/Scorpion boom mowers





ATTACHMENT TOOLS SCORPION AND SPIDER

Attachment Tools: Grass Mowing

ATTACHMENT TOOLS	FR 92	FR 112	FR 122	FR 122 VB	FR 162	RX 133	RI 60	RI 82	S 165	S 190	S 210	S 240
Working width (m)	0.9	1.1	1.2	1.2	1.6	1.3	0.6	0.8	1.65	1.9	2.1	2.4
Weight (kg)	138	144	320	385	360	350	45	58	70	82	92	102
Max. branch thickness (cm)	Ø4	Ø4	Ø4	Ø4	Ø4	Ø7	-	-	Ø1	Ø1	Ø1	Ø1
Max. driving speed (km/h)	5-7	5-7	5-7	5-7	5-7	5	3	4	3	3	3	3
Min. oil flow (l/min @ bar)	40@210	40@210	85@230 85@315	85@230 85@315	85@230 85@315	85-110@ 210-315	40@190	40@190	34@180	34@180	34@180	34@180
Alt. oil flow (l/min @ bar)	-	-	-	-	-	-	25@190	25@190	-	-	-	-
MOUNTING OPTIONS												
FOX	-	-	-	-	-	-	FOX		-	-	-	-
PUMA	-	-	-	-	-	-	2303/2803		-	-	-	-
SCORPION/SPIDER	4		6/8				-	-	4/6/8		6/8	

Attachment Tools: Tree Trimming

ATTACHMENT TOOLS	LRS 1402	LRS 1602	LRS 2002	LRS 2402	Twinsaw LRS 1602	Twinsaw LRS 2002	Twinsaw LRS 2402	HX 170	HX 230	HX 270
Working width (m)	1.4	1.6	2.0	2.4	3.2	4.0	4.8	1.7	2.3	2.7
Weight (kg)	48	110	198	239	260	510	600	180	220	260
Max. branch thickness (cm)	Ø10	Ø12	Ø16	Ø21	Ø12	Ø16	Ø21	Ø11	Ø11	Ø11
Max. driving speed (km/h)	5	5	5	5	5	5	5	2	2	2
Min. oil flow (l/min @ bar)	25@190	40@190	50@180	50@180	2x40@180	2x50@180	2x50@180	50@190	50@190	50@190
Alt. oil flow (l/min @ bar)	-	-	85@150	85@150	1x80@180	1x100@180	1x100@180	-	-	-
MOUNTING OPTIONS										
FOX	-	-	-	-	-	-	-	-	-	-
PUMA	2303	2803	3303		-	-	-	3303		
SCORPION/SPIDER	4		6/8		-	-	-	6/8		

Attachment Tools: Hedge Trimming

ATTACHMENT TOOLS	RM 232	HL 152	HL 182	HL 212	HL 242	RC 102	RC 132	RC 162	HS 172	HS 212	HS 242
Working width (m)	2.3	1.5	1.8	2.1	2.4	1.0	1.3	1.6	1.7	2.1	2.4
Weight (kg)	310	60	64	68	72	100	150	200	120	132	145
Max. branch thickness (cm)	Ø4	Ø4	Ø4	Ø4	Ø4	Ø2	Ø3	Ø4	Ø6	Ø6	Ø6
Max. driving speed (km/h)	4	2	2	2	2	2.5	2.5	2.5	5	5	5
Min. oil flow (l/min @ bar)	50@180	20@190	25@190	25@190	25@190	25@190	40@190	50@180	40@190	50@190	50@190
Alt. oil flow (l/min @ bar)	-	32@190	40@190	40@190	40@190	-	-	-	-	-	-
MOUNTING OPTIONS											
FOX	-	-	-	-	-	-	-	-	-	-	-
PUMA	-	2303	2803		-	2303	2803	3303	2803	3303	
SCORPION/SPIDER	6/8	4					6/8	4	6/8		

Other Attachment Tools

ATTACHMENT TOOLS	GR 70	BR 70	BR 90
Working width (m)	0.65	0.7	0.9
Weight (kg)	220	55	230
Max. driving speed (km/h)	1	1	1
Min. oil flow (l/min @ bar)	85@315	25@190	50@190
Alt. oil flow (l/min @ bar)	-	-	-
MOUNTING OPTIONS			
FOX	-	-	-
PUMA	-	2303	-
SCORPION/SPIDER	6/8	-	6/8



