



## SPX-460 PIPELAYER

Maximum lifting capacity	45,995 kg / 101,400 lbs
Operating weight	32,000 kg / 70,550 lbs
Net flywheel power	184 kW / 250 HP



Our main focus on the SPX-460 is safety. From industry-standard features –such as the Roll Over Protective Structure (ROPS)– to more unique ones –such as anti-tipping system and wireless anti-two block– there is a wealth of safety features that make this machine the safest pipelayer on the market, bar none.

At the heart of the SPX hydraulic system is a single joystick controller. It features an eight-way control scheme which allows the operator to easily

control both the boom and load with a single movement of the joystick. In addition to the hydraulic system, the SPX-Series improves upon existing designs by adding a hydrostatic system. this state-of-the-art system is controlled by twin levers and allows the operator to execute small and precise movements not possible with a final drive.

The engine, a Tier 4 Caterpillar C7 ACERT, provides plenty of power even on the most difficult terrains.



Fig. 1: Hydrostatic system controllers



Fig. 2: Single joystick controller (bottom)



Fig. 3: Control panel: from here the operator monitors speed, travel, pitch, load and other critical information

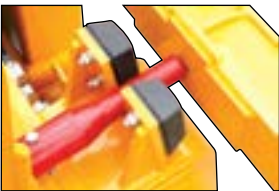


Fig. 4: The boom-kick out system limits vertical travel in order to prevent the boom from bending.

PERFORMANCE

Tier 4 engine

The SPX-460 is available with a choice of Caterpillar C7 ACERT or C7.1 ACERT Tier 4 engine.

Hydrostatic system

State-of-the-art hydrostatic system (*fig. 1*) ensures safety and reliability and is especially efficient when working on steep grades, allowing the operator to make precise, pin-point maneuvers to couple the pipes.

CONVENIENCE

Hydraulic system

A single joystick (*fig. 2*) is used to control the system hydraulically. With a single move the operator can lower or raise the boom and load.

Control panel

The control panel (*fig. 3*) displays all the relevant –and critical– information in an easy-to-read GUI. All the machine’s safety features are controlled from this panel.

Counterweight rack

New design which makes the counterweight system easy to assemble and disassemble. The leaves are interchangeable with standard Caterpillar leaves.

SAFETY

Anti-tipping<sup>1</sup>

It prevents the machine from tipping over by calculating the maximum load that can be lifted at the current boom angle.

Free-fall system

When the button is engaged, the load free-falls and immediately stops when the button is released.<sup>2</sup> This is a safety redundancy feature which also prevents the tipping of the machine.

Wireless anti-two block

It sets the minimum distance between the top and bottom blocks, thus preventing collision between the two. Also, wireless means there's no cable dangling alongside the boom.

Boom kick-out system

The boom kick-out system (*fig. 4*) works by preventing the boom from excessive upward movement. By taking human error out of the equation, this ensures that the operator doesn’t bend the boom.

ROPS/FOPS

The Roll Over Protective Structure is d signed in such a way to allow the operator a clear view of the top of the boom and the load. An enclosed climatized (A/C and heater) cabin is also available.

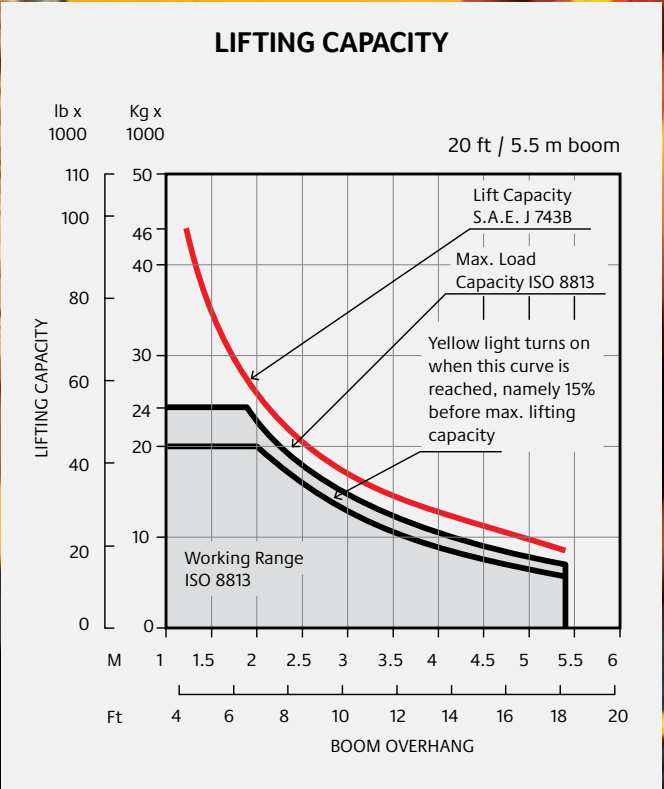
FEATURE	SUPERIOR	MIDWESTERN®	CATERPILLAR®
Single lever control	✓	✗	✗
Free-fall system	✓	✓	✓
Vertical boom kick-out	✓	✓	✓
Wireless anti-two block	✓	✗	✗
Anti-tipping system	✓	✗	✗
CE compliance	✓	✗	✓

<sup>1</sup> Improper use of this feature may cause damage to the winch. Read all documentation before use.  
<sup>2</sup> Available only in electronic over hydraulic configuration.



WINCH

GENERAL SPECIFICATIONS



ENGINE

Type	Caterpillar
Model	C7 ACERT
Net flywheel power (DIN 6270-SAEJ 1349)	250 HP - 184 kW
Governed speed	2,200 rpm
Displacement	7.2 liters - 442 cu in

HYDRAULIC SYSTEM

Main pumps	(Bosch-Rexroth) 3 independent variable pumps
Maximum capacity	2 x 220 lt/min / 2 x 58.1 U.S. gal/min 1 x 273 l/min / 1 x 72.1 U.S. gal/min
Maximum operating pressure	2 x 420 bar / 2 x 6,090 p.s.i. 1 x 320 bar / 1 x 4,640 p.s.i.
Service pumps	1 tandem gear type
Maximum capacity	50 lt/min / 13 U.S. gal/min

TRANSMISSION

Type	Hydrostatic closed circuit
Brakes	(2) Integrated negative control
Final drives	Epicycloidal oil soaked
Maximum speed:	
- 1 speed	2.9 km/h - 1.8 miles/h
- 2 speed	7.2 km/h - 4.5 miles/h

CONTROLS

Type	Twin pilot operated
Safety	Emergency shut-off

TPS System: twin steering system to provide with other two levers, to drive the track independently in order to guarantee small and precise movements.

BOOM

Type	Std. 18 ft / 5.5 m welded box square section
Optional	20 ft / 6.1 m welded box square section
Diameter wire rope	19 mm - 3/4 in
Minimum breaking strength rope	323 KN - 72,530 lb
Part load line	4
Part boom line	4

ADJUSTABLE COUNTERWEIGHTS

QD-CS: quick-disconnected counterweight system. For the possibility of disassembly in a short time (all the counterweight pack.)

Removable counterweight	8 leaves 550 kg - 1,215 lb each
Total weight extendable	7,400 kg - 16,300 lb

TRACK FRAME

Hard track frame with sealed and lubricated chain	
Number of bottom rollers	8+8
Number of carrying rollers	2+2
Gauge	2.22 m - 7.2 ft
Length of track on the ground	3.2 m - 10.5 ft
Standard shoes width	700 mm - 27.5 in
Ground contact area	44,800 cm <sup>2</sup> - 6,944 in <sup>2</sup>
Optional shoes	
- Option 1 width	600 mm - 23.6 in
Ground contact area	38,400 cm <sup>2</sup> - 5,952 in <sup>2</sup>
- Option 2 width	760 mm - 29.9 in
Ground contact area	49,000 cm <sup>2</sup> - 7,595 in <sup>2</sup>

FLUID CAPACITIES

Fuel tank	400 liters / 105.6 U.S. gal
Hydraulic system circuit	210 liters / 55.5 U.S. gal
Cooling system	45 liters / 12 U.S. gal
Engine oil	27 liters / 7 U.S. gal

VALVES

Type	Bosch load-sensing mobile control block proportional directional valves
Maximum capacity	140 liters/min - 37 U.S. gal/min
Working pressure	250 bar - 3,625 p.s.i.

ELECTRIC SYSTEM

Operating voltage	24 V
Maintenance free supplied batteries	2
Capacity (total)	160 Ah
Starter capacity	7.5 Kw
Alternator	55 A

HYDRAULIC WINCHES

Type Hydraulic controlled drums (reversible.) Driven by variable flow hydraulic pump and control valve block in open circuit.

Final drive	Compact hydrostatic drive unit, three-stage planetary gear
Brakes	Integrated multiple disk brake, spring applied hydraulic release

<b>WINCH</b>	Hook	Boom	Drum
diameter	390 mm/15.3 in	390 mm/15.3 in	
Flange diameter	590 mm/23.2 in	530 mm/20.8 in	
Drum length	360 mm/14.1 in	360 mm/14.1 in	
Capacity (19 mm - 3/4in)	136 m/446 ft	105 m/344 ft	
Wire rope installed	51 m/167 ft	40 m/131 ft	
Hook speed	0-24 m/min - 0-79 ft/min		

OPTIONAL

Closed cabin	
Air conditioning	
Rear winch	

HYDRAULIC TANK

Type	Pressurized type
Max capacity	125 liters - 33 U.S. gal

FILTER

Type	Donaldson FI0500
Maximum capacity	500 liters/min - 132 U.S. gal/min

WINCH SPECIFICATIONS

MAIN PUMP

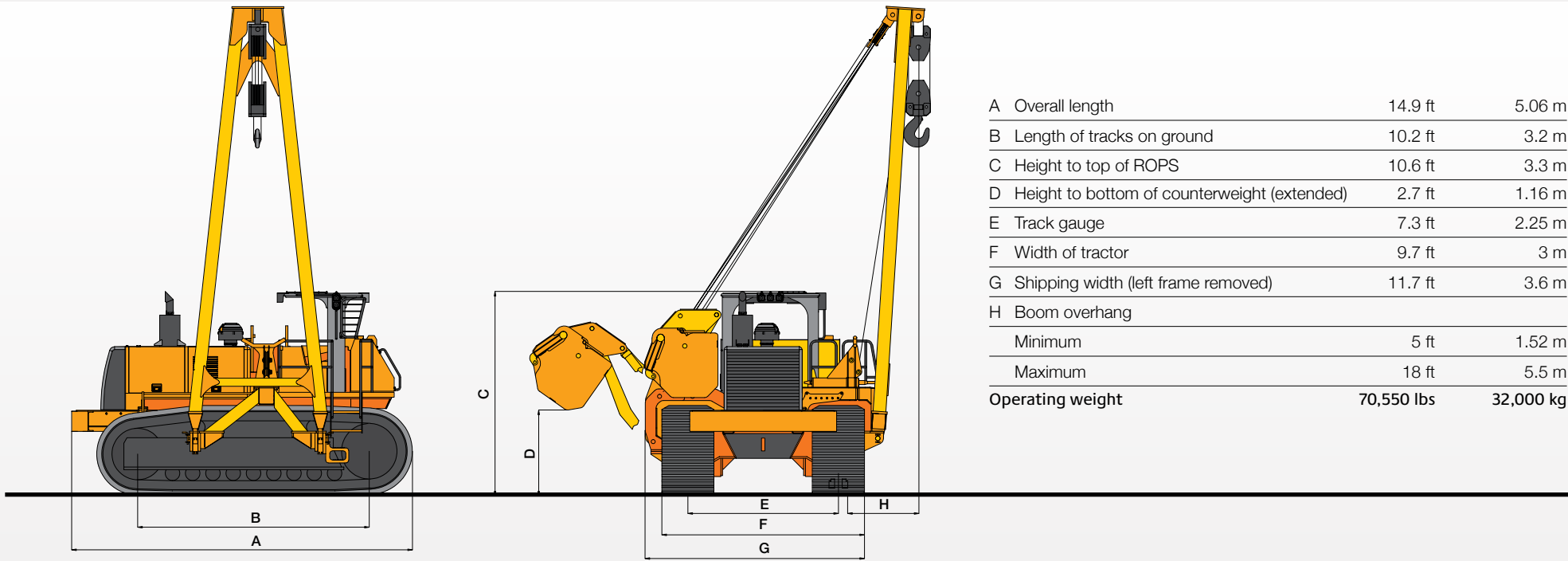
Type	Bosch-Rexroth axial piston variable displacement pump
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CONTROL

Type	Pilot units for remote control of winch motors Progressive and sensitive operations
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DIMENSIONS



AVAILABLE MODELS



SPX-260  
Lifting capacity: 26-ton



SPX-460  
Lifting capacity: 46-ton



SPX-660  
Lifting capacity: 66-ton



SPX-960  
Lifting capacity: 96-ton

OPTIONAL ACCESSORIES

ENCLOSED CABIN

The SPX-Series comes standard with a ROPS/FOPS structure to protect the operator. For harsher weather conditions an optional enclosed cabin is also available along with a winterization package, A/C and heater.

WINCH

SUPERIOR's rear winch is compatible with both the SP/CPX and SPX-Series and can be purchased separately.

FEATURES

- CE approved design
- Planetary gear
- Automatic negative brakes
- Anti-friction bearings

SPECIFICATIONS

Max line pull	220 KN
Max line speed	0-39 m/min / 0-128 ft/min (Bare drum)
Cable size	19 mm - 3/4 in
Weight	1,200 kg - 2,500 lb
Drum diameter	217 mm - 9 in







Padding Machines



Pipelayers



Crawler Carriers



Pipeline Accessories



Pipe Benders



Hydraulic Kits



Pipe Facing Machines



Vacuum Lifts



Top-Loading Padders



Rock Dump Crawlers



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