



SP/CPX-594 Pipelayers

Max lift capacity	90,000 kg / 200,000 lb
Operating weight	55,100 kg / 121,500 lb (SP & CPX)
Net flywheel power	305 kW / 410 HP



An aerial photograph showing three yellow SP/CPX-594 pipelayers, which are converted Caterpillar D9H tractors, working on a large pipeline in a forested area. The machines are positioned along a dirt road, with workers in orange safety gear visible around them. The pipeline is a large, dark, cylindrical structure running through the landscape.

SP/CPX-594 PIPELAYER

ABOUT THE SP/CPX-594

The SP/CPX Series are fully hydraulic pipelayers which have been converted from either a Cat mechanical pipelayer or a Cat dozer. The mechanical pipelayer requires only a Hydraulic Kit whereas a dozer requires both a Hydraulic Kit and drawworks. This is known as a full Conversion Package. Both the Hydraulic Kit and Conversion Package are also available for purchase as standalone items for you to install on your own machine.

SP-594 CONVERSION PACKAGE

The SP-594 is a conversion of a Caterpillar D9H tractor into a fully hydraulic-controlled sideboom. This includes the CPX hydraulic kit, counterweight assembly, upper and lower hardbar, A-frame, boom and blocks.

594 CPX HYDRAULIC KIT

The CPX package is a rapid conversion of your Caterpillar mechanical 594 sideboom into a fully hydraulic-controlled sideboom.

CE APPROVAL

These pipelayers will qualify for CE approval with the inclusion of the following optional features:

- Noise-proof engine enclosure
- Blocks with anti-friction bearings
- Sturdier booms
- Electronic anti-tipping system

GENERAL SPECIFICATIONS

CAPACITIES

Hydraulic System Tank	120 liters / 32 U.S. gallons
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HYDRAULIC SYSTEM

Pump	Variable displacement, load sensing
Maximum flow	286 liters / minute
Control blocks	LUDV type, three balanced spools
Maximum working pressure	320 bar / 4640 p.s.i.
Load lowering valves	1-1/4 inch flangeable, pilot assisted

HYDRAULIC WINCHES

Type	Hydraulically 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 released	
	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	330 mm / 13 in	360 mm / 14.1 in
Capacity (19 mm / 3/4 in)	125 m / 411 ft	75 m / 247 ft
Wire rope installed	120 m / 395 ft	70 m / 230 ft
Hook speed	0-16 m/min / 0-52 ft / min	

BOOM

Type	7.31 m / 24 ft welded box square section
Diameter wire rope	19 mm / 3/4 in
Minimum breaking strength rope	323 kN / 72,530 lb
Part load line	8
Part boom line	5

ADJUSTABLE COUNTERWEIGHTS

Removable counterweight leaves (CPX-594 & Cat 594H)	17 leaves 600 kg / 1,330 lb each
Total weight extendable	12,560 kg / 27,680 lb
Removable counterweight leaves (SP-594)	20 leaves 640 kg / 1,408 lb each
Total weight extendable	15,160 kg / 33,352 lb

COMPARISONS

	SUPEROR SP-594		SUPERIOR CPX-594		CATERPILLAR® 594H	
Tractor						
Flywheel Power	305 kW	410 hp	305 kW	410 hp	305 kW	410 hp
Track Gauge	2.28 m	89 in	2.54 m	100 in	2.54 m	100 in
Width of Std. Shoe	762 mm	30 in	860 mm	34 in	860 mm	34 in
Sideboom						
Std. Boom Length	7.31 m	24 ft	7.31 m	24 ft	7.31 m	24 ft
SUPERIOR Optional Boom	8.5 m	28 ft	8.5 m	28 ft	N/A	N/A
Hyd. Tank Capacity	120 liters	32 gal	120 liters	32 gal	N/A	N/A
Wire Rope Diameter	19 mm	3/4 in	19 mm	3/4 in	19 mm	3/4 in
Load Line Parts	8	8	8	8	8	8
Boom Line Parts	5	5	5	5	5	5
Working Weight	55,100 kg	121,500 lb	55,100 kg	121,500 lb	55,100 kg	121,500 lb

WINCH SPECIFICATIONS



MAIN PUMP

Type	Bosch-Rexroth axial piston variable displacement pump
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VALVES

Type	Bosch load-sensing mobile control block proportional directional valves
Max capacity	286 liters/min - 75.5 U.S. gal/min
Working pressure	320 bar - 4,642 p.s.i.

CONTROL

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

Type	Gear pump
Max capacity	10 liters/min - 2.6 U.S. gal/min
Working pressure	30 bar - 435 p.s.i.

HYDRAULIC TANK

Type	Pressurized type
Max capacity	120 liters - 32 U.S. gal

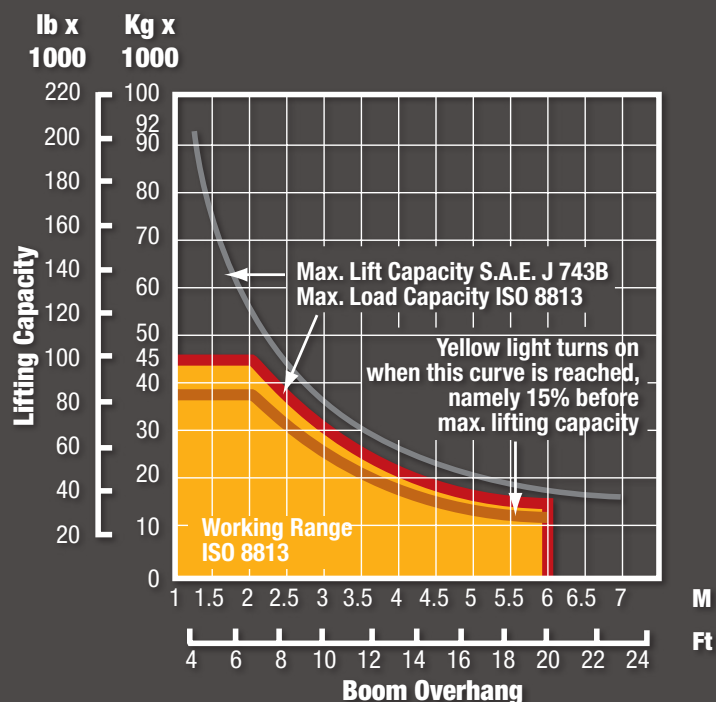
FILTER

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

LIFTING CAPACITY

24 ft / 7.32 m boom

Maximum load capacity 45 ton



REAR WINCH AVAILABLE

Max line pull	350 KN
Max line speed	0-30 m/min 0-98.4 ft/min
Cable size	36 mm - 1.4 in
Weight	2,800 kg - 6,173 lb
<i>DIMENSIONS</i>	
Drum diameter	530 mm - 20.9 in
Flange diameter	890 mm - 35 in
Drum length	510 mm - 20 in

FEATURES

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





HYDRAULIC SYSTEM OPTIONS

ALL HYDRAULIC

- **Freefall System**

When the button is engaged, the load free-falls and then immediately stops when the button is released.

IMPORTANT: Improper use of this feature may cause damage to the winch. Read all documentation before use.

- **Boom Kick-Out System**

This system will ensure you will never bend another boom.

- **Anti-Two Block**

Sets a minimum distance between the top block and the hook block, preventing collisions between them.

ELECTRONIC OVER HYDRAULIC

- **Freefall system, Boom kick-out system and anti-two block plus:**

- **Anti-Tipping System**

Prevents tipping by calculating the maximum load that can be lifted.



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

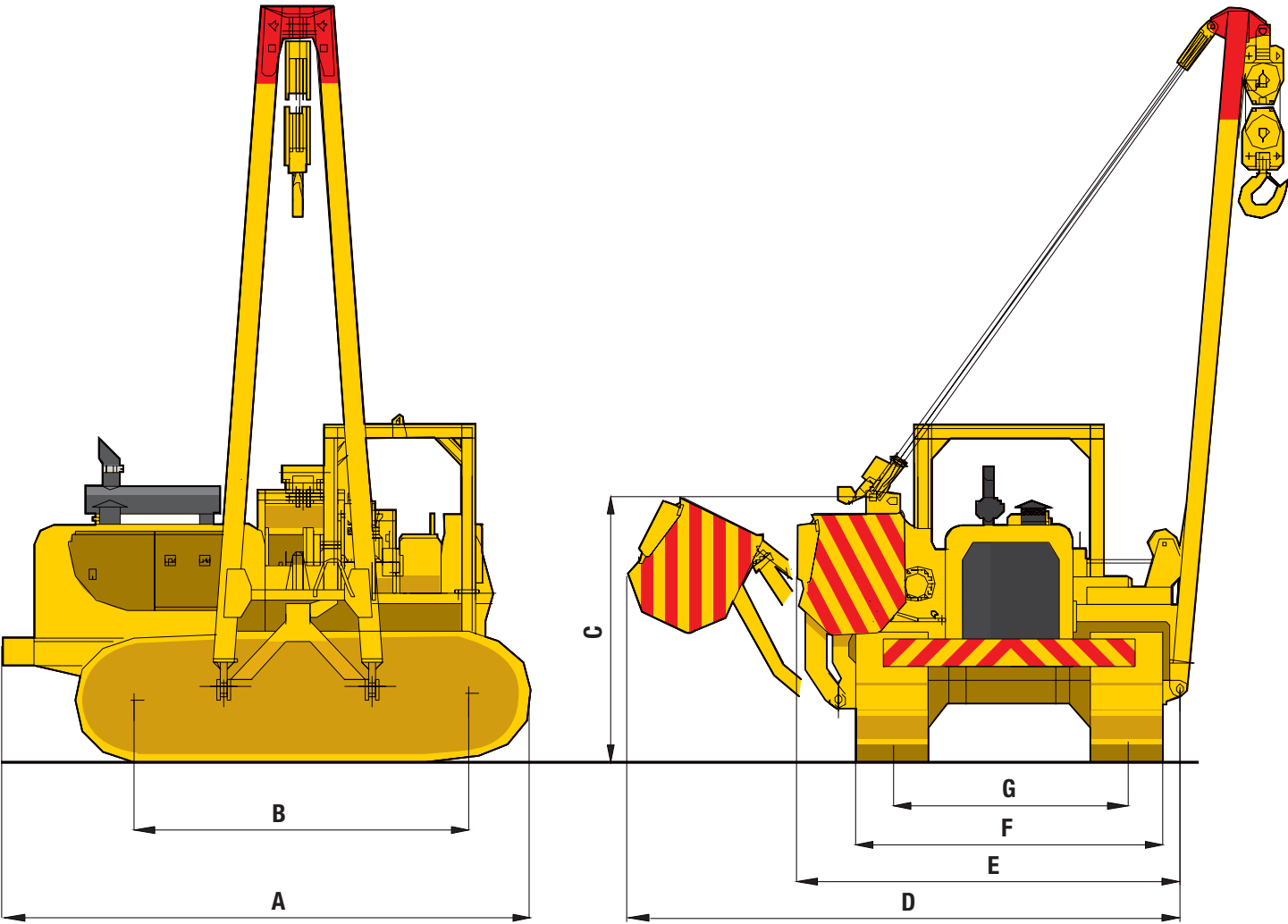


SINGLE JOYSTICK CONTROLLER

SUPERIOR'S single lever control system allows the operator to control the load with one fully-directional joystick for both the boom line and the load line. The operator can activate both winches at the same time by positioning the joystick in different diagonal positions for different desired effects. With light pressure applied, the operator can inch, or with maximum pressure applied and full throttle, can go full bore. No gearing system is necessary, as our package will operate as efficiently as the two gear systems used by our competitors.

DIMENSIONS

Operating weight 55,100 kg / 121,500 lb (SP & CPX)



	Feet	Meters
A Overall length	18 ft	5.5 m
B Length of tracks on ground	11 ft	3.4 m
C Height to top of counterweight (retracted)	10.2 ft	3.1 m
D Overall width (counterweights extended)	18.3 ft	5.8 m
E Overall width (counterweights retracted)	13.4 ft	4.1 m
F Width of tractor	10.1 ft	3.1 m
G Track gauge	7.5 ft	2.3 m

AVAILABLE MODELS



SP-D5M/N LGP



SP-D6M/N LGP



CPX-561



CPX-571



SP/CPX-572



SP/CPX-583



SP/CPX-594

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