



## SPX-960 Pipelayer

|                    |                        |
|--------------------|------------------------|
| Max lift capacity  | 96,000 kg / 211,200 lb |
| Operating weight   | 61,000 kg / 134,500 lb |
| Net flywheel power | 324 kW / 440 HP        |



# SPX-960 PIPELAYER

- **TIER 3 ENGINE**

All SPX-Series pipelayers are built with Caterpillar Tier 3 engines.

- **HYDROSTATIC SYSTEM**

State-of-the-art hydrostatic system insures safety and reliability and is especially efficient when working on steep grades.

- **HYDRAULIC KIT**

The same kit used in the conversion of Caterpillar, Komatsu and Fiat pipelayers is used on this machine.

- **SAFETY**

Safety has always been a big focus for us. Some of the safety features are our new ATP-Plus anti-tipping system, electronic boom kick-out, anti-two block and free fall.

- **ROPS/FOPS**

Optional ROPS/FOPS is designed in such a way to allow the operator a clear view of the top of the boom and the load.

- **COUNTERWEIGHT RACK**

New design which makes the counterweight system easy to assemble and disassemble.



# GENERAL SPECIFICATIONS

| ENGINE                                  |                     |
|-----------------------------------------|---------------------|
| Type                                    | Caterpillar         |
| Model                                   | C13 ACERT           |
| Net flywheel power (DIN 6270-SAEJ 1349) | 440 HP - 324 kW     |
| Governed speed                          | 2,200 rpm           |
| Displacement                            | 12.5 lt - 763 cu in |

| HYDRAULIC SYSTEM |                                              |
|------------------|----------------------------------------------|
| Main pumps       | (Bosch-Rexroth) 4 independent variable pumps |
| Maximum capacity | 2x450 lt/min - 2x119 U.S. gal/min            |
| Service pumps    | 1 tandem gear type                           |
| Maximum capacity | 50 lt/min - 13 U.S. gal/min                  |

| TRANSMISSION   |                                 |
|----------------|---------------------------------|
| Type           | Hydrostatic closed circuit      |
| Brakes         | (4) Integrated negative control |
| Final drives   | Epicycloidal oil soaked         |
| Maximum speed: |                                 |
| - 1 speed      | 1.7 km/h - 1 miles/h            |
| - 2 speed      | 2.6 km/h - 1.6 miles/h          |
| - 3 speed      | 5.3 km/h - 3.3 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. 28 ft / 8.5 m welded box square section |
| Optional                       | 30 ft / 9.1 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                 | 8                                            |
| Part boom line                 | 5                                            |

| ADJUSTABLE COUNTERWEIGHTS                                                                                                        |                                  |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| QD-CS: quick-disconnected counterweight system. For the possibility of disassembly in a short time (all the counterweight pack.) |                                  |
| Removable counterweight                                                                                                          | 18 leaves 600 kg - 1,300 lb each |
| Total weight extendable                                                                                                          | 13,500 kg - 29,700               |

| lb                                                         |                           |
|------------------------------------------------------------|---------------------------|
| TRACK FRAME                                                |                           |
| Hard track frame with sealed and lubricated chain D9H type |                           |
| Number of bottom rollers                                   | 9+9                       |
| Number of carrying rollers                                 | 2+2                       |
| Gauge                                                      | 2.6 m - 8.5 ft            |
| Length of track on the ground                              | 4.08 m - 13.4 ft          |
| Standard shoes width                                       | 914 mm - 36 in            |
| Ground pressure                                            | 0.83 kg/cm2 - 12 p.s.i.   |
| Optional shoes width                                       | 1015 mm - 40 in           |
| Ground pressure                                            | 0.74 kg/cm2 - 10.8 p.s.i. |
| Pitch chain                                                | 260.35 mm - 10.25 in      |

| FLUID CAPACITIES         |                           |
|--------------------------|---------------------------|
| Fuel tank                | 720 liters / 190 U.S. gal |
| Hydraulic system circuit | 345 liters / 91 U.S. gal  |
| Cooling system           | 65 liters / 17.2 U.S. gal |
| Engine oil               | 34 liters / 9 U.S. gal    |
| Final drive each         | 12 liters / 3.4 U.S. gal  |

| ELECTRIC SYSTEM                     |        |
|-------------------------------------|--------|
| Operating voltage                   | 24 V   |
| Maintenance free supplied batteries | 2      |
| Capacity (total)                    | 220 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                                                         |

| WINCH                    | Hook                     | Boom            |
|--------------------------|--------------------------|-----------------|
| Drum diameter            | 390 mm / 15.3 in         | 390mm / 15.3in  |
| Flange diameter          | 590 mm / 23.2 in         | 530mm / 20.8 in |
| Drum length              | 360 mm / 14.1 in         | 360mm / 14.1in  |
| Capacity (19 mm - 3/4in) | 136 m / 446 ft           | 105m / 344ft    |
| Wire rope installed      | 120 m / 394 ft           | 70 m / 230 ft   |
| Hook speed               | 0-16 m/min / 0-52 ft/min |                 |

| OPTIONAL         |  |
|------------------|--|
| Closed cabin     |  |
| Air conditioning |  |
| Rear winch       |  |

## WINCH SPECIFICATIONS



### MAIN PUMP

|      |                                                       |
|------|-------------------------------------------------------|
| Type | Bosch-Rexroth axial piston variable displacement pump |
|------|-------------------------------------------------------|

### 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<br>Progressive and sensitive operations |
|------|----------------------------------------------------------------------------------------|

### 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 | 115 liters - 30.4 U.S. gal |

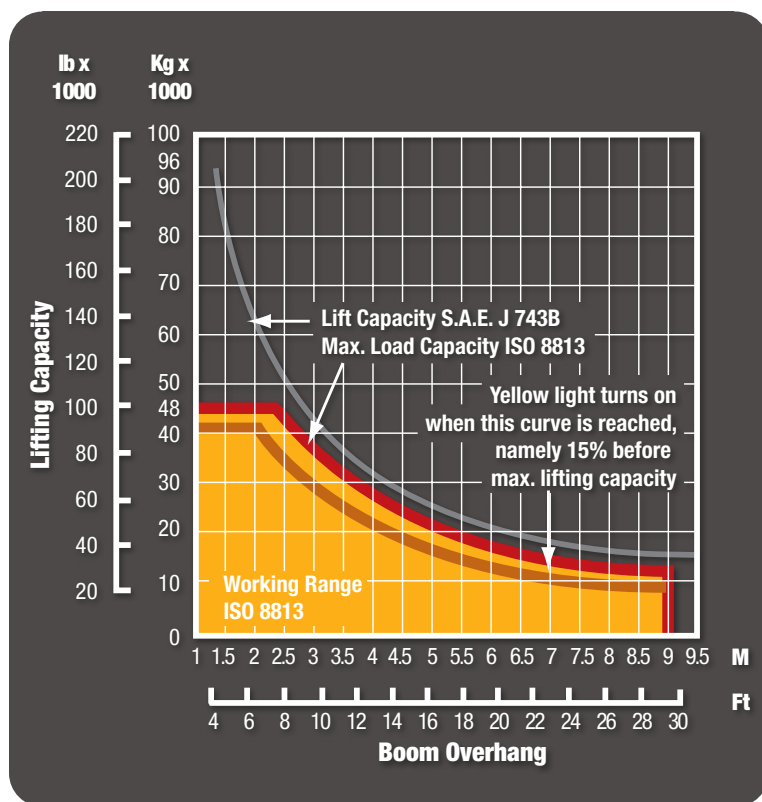
### FILTER

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

## LIFTING CAPACITY

28 ft / 8.53 m boom

Maximum load capacity 48 ton (ISO 8813)

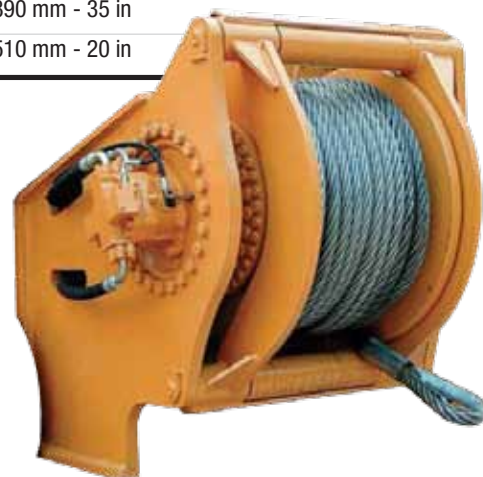


## REAR WINCH AVAILABLE

|                          |                             |
|--------------------------|-----------------------------|
| Max line pull            | 350 KN                      |
| Max line speed           | 0-30 m/min<br>0-98.4 ft/min |
| Cable size               | 36 mm - 1.4 in              |
| Weight                   | 2,800 kg - 6,173 lb         |
| <b><i>DIMENSIONS</i></b> |                             |
| 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.





## STATE-OF-THE-ART CABIN



- **CONTROLS**

With only 2 joysticks, the operator can operate both winches, increase/decrease the engine's throttle, and control the machine's travel.

- **TRANSMISSION PILOT LEVERS**

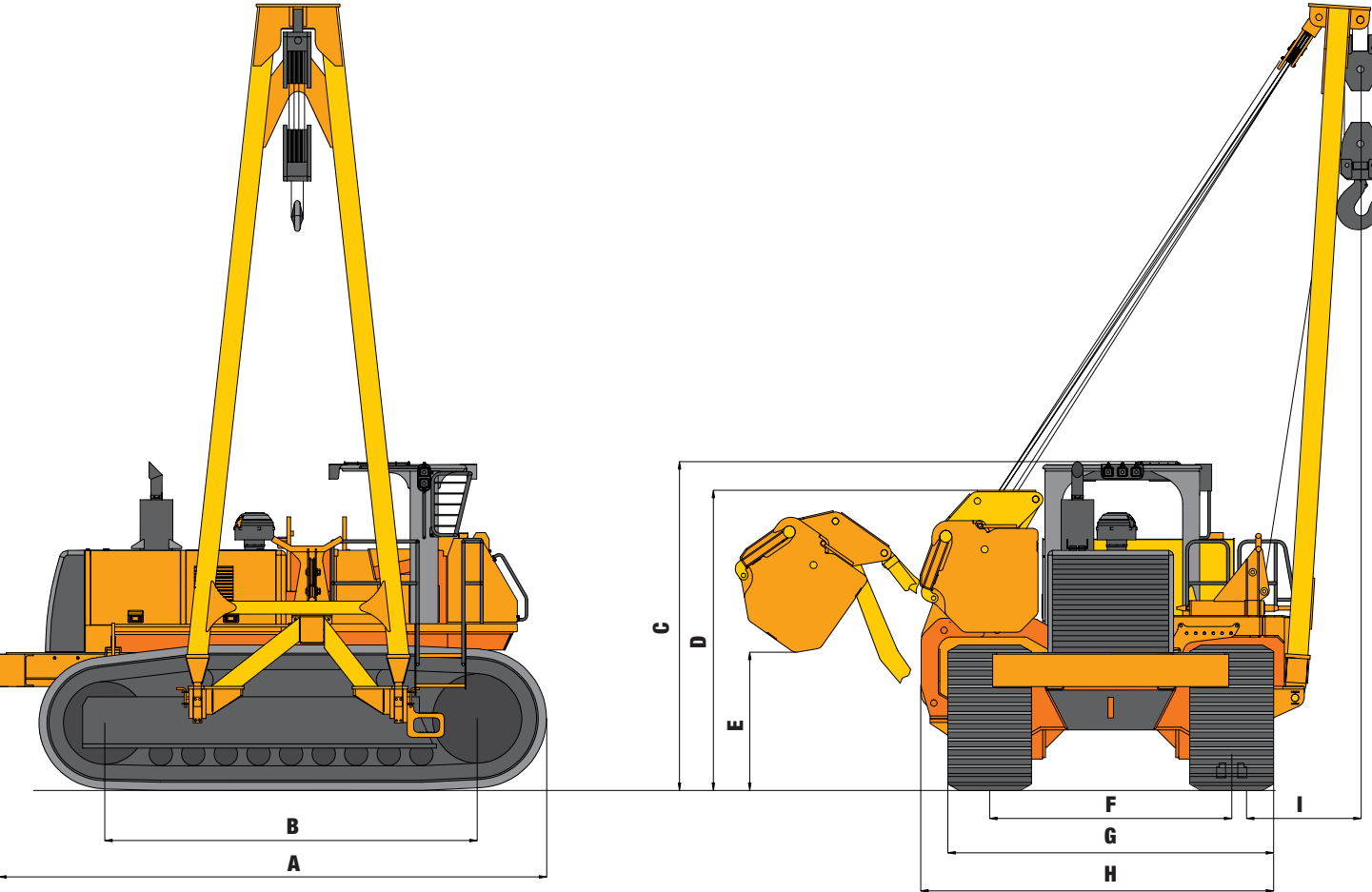
There are 2 extra pilot levers for the transmission, which can assist the operator in making precise maneuvers, such as turning in a steep hill or making pin-point movements to couple the pipes.

- **LCD DISPLAY**

It displays relevant information in a beautiful, easy to read, graphical interface. It can also be adjusted for day or night viewing.

# DIMENSIONS

Operating weight 134,500 lb / 61,000 kg



|                                                | Feet    | Meters |
|------------------------------------------------|---------|--------|
| A Overall length                               | 19.3 ft | 5.9 m  |
| B Length of tracks on ground                   | 13.1 ft | 4 m    |
| C Height to top of ROPS                        | 11.5 ft | 3.5 m  |
| D Height to top of counterweight (retracted)   | 10.5 ft | 3.2 m  |
| E Height to bottom of counterweight (extended) | 4.9 ft  | 1.5 m  |
| F Track gauge                                  | 8.5 ft  | 2.6 m  |
| G Width of tracks                              |         |        |
| 36" standard shoes                             | 11.5 ft | 3.5 m  |
| 40" optional shoes                             | 11.8 ft | 3.6 m  |
| H Shipping width (left frame removed)          |         |        |
| 36" standard shoes                             | 12.3 ft | 3.76 m |
| 40" optional shoes                             | 12.5 ft | 3.81 m |
| I Boom overhang                                |         |        |
| Minimum                                        | 3.9 ft  | 1.22 m |
| Maximum                                        | 25 ft   | 7.5 m  |

## AVAILABLE MODELS



SPX-460 | 46-Ton



SPX-660 | 66-Ton



SPX-960 | 96-Ton

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