

SB-85M Extra

PIPELAYER

EPA Tier 3/EU Stage IIIA
STANDARD

ENGINE

	SB-85M Extra
Make and model	Cummins QSX 15
Emissions Standard	EPA Tier 3/EU Stage IIIA
Displacement	15 l (915 in ³)
Bore and stroke	137 x 169 mm (5.39 in x 6.65 in)
Gross Horsepower, SAE J1995	306 kW (410 hp)
Net Horsepower, SAE J1349/ ISO 9249	276 kW (370 hp)
Rated rpm	2000
Max . Torque	1825 Nm (1346 lb-ft) @ 1400 rpm
Air Cleaner	2-stage, dry type with exhaust aspirated primary and safety element and service indicator
Cold-Starting Aid	intake- mounted air -inlet grid heater

COOLING

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Type	suction- type variable-speed fan, hydraulically driven with perforated engine side sheets and heavy duty louvered front grill
Engine coolant rating	-50 deg C to +40 deg C (-58 deg F to +104 deg F)

HYDRAULICS

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Type	Open-center hydraulic system with fixed-displacement multiple piston and gear pumps
System relief pressure	winch hook and boom 35 MPa (5215 psi); counterweights 12 MPa (1,790 psi)
Control	two lever for winch two lever for counterweight

ELECTRICAL

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Voltage	24 V
Number of batteries	4
Battery capacity	960 CCA
Alternator rating	105 A
Lights	10 total; cab mounted (2F & 2R), 2F grill, 2R fuel tank, 1 boom, 1 winch mounted

OPERATOR STATION

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ROPS	ROPS (ISO 3471 - 2008)
FOPS	FOPS (ISO 3449 - 2005)

OPERATING WEIGHTS

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Base Weight with standard equipment, boom 7,315 mm, Cab ROPS/FOPS, full fuel tank, and 79-kg [175 lb] operator)	64 480 kg (142153 lb)

OPTIONAL COMPONENTS

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Track Shoes	
508 mm (20 in)	-193,2 kg (426 lb)

POWERTRAIN

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Transmission	Single stage 409 mm (16 in) torque converter with a 2.7:1 stall ratio drives to transmission through a double universal joint. Modular, countershaft type power shift transmission, electro-hydraulic control. Preset travel speed selection and auto-downshift.
Steering	Exclusive 2-speed geared steering module provides gradual turns while maintaining full power to both tracks plus conventional clutch-brake performance for tight or pivot turns. Coupled to 3-speed transmission, the 2-speed steering provides 6 speeds forward and 6 reverse. The left hand joystick controls transmission and steering drive for up and down shifting, steering, Hi/Lo selection and LH/RH gradual geared turn.
Final drives	Double-reduction planetary type final drives mounted independently of track frames and dozer push frames for isolation from shock loads
Total ratio	11.57 to 1

Travel speeds			
Gear	Range	Forward	Reverse
		km/h (mph)	km/h (mph)
1st	Low	3.1 (1.9)	3.7 (2.3)
	High	4.0 (2.5)	4.8 (3.0)
2nd	Low	5.2 (3.2)	6.2 (3.9)
	High	6.6 (4.1)	7.9 (4.9)
3rd	Low	8.1 (5.0)	9.6 (6.0)
	High	10.3 (6.8)	12.2 (7.6)

Brakes	
Service	Spring applied hydraulically released multi-disc wet brakes. Foot pedal piloted control.
Parking	The steering brakes also act as service and parking brakes. Service brakes are locked automatically when the transmission safety lever is actuated or when the engine is cut off.

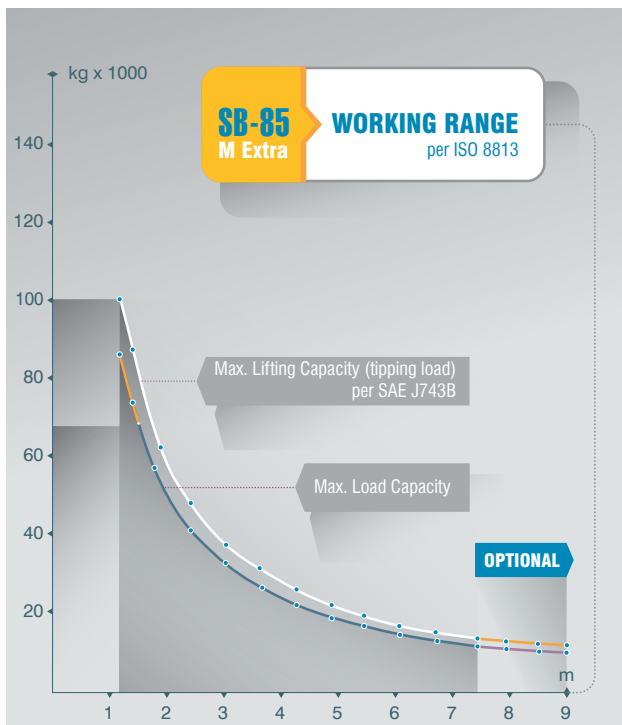
UNDERCARRIAGE

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Suspension	Rigid type
Tracks	Large deep-heat-treated, sealed, and lubricated track links and through-hardened, sealed, and lubricated rollers for maximum wear resistance
Track Gauge	2590 mm (8 ft 6 in)
Track Shoe Width	915 mm (36in)
Chain	Sealed and lubricated
Shoes, Each Side	46
Track Rollers, Each Side	8
Track Length on Ground	3980 mm (13 ft 1 in)
Ground Contact Area	73834 cm ² (11,304 sq in)
Ground Pressure	89.7 kPa (12.9 psi)
Track Pitch	250 mm (9.96 in)
Sprocket sements, each side	3

TRAVEL SPEEDS - LIFTING CAPACITY

SB-85M Extra



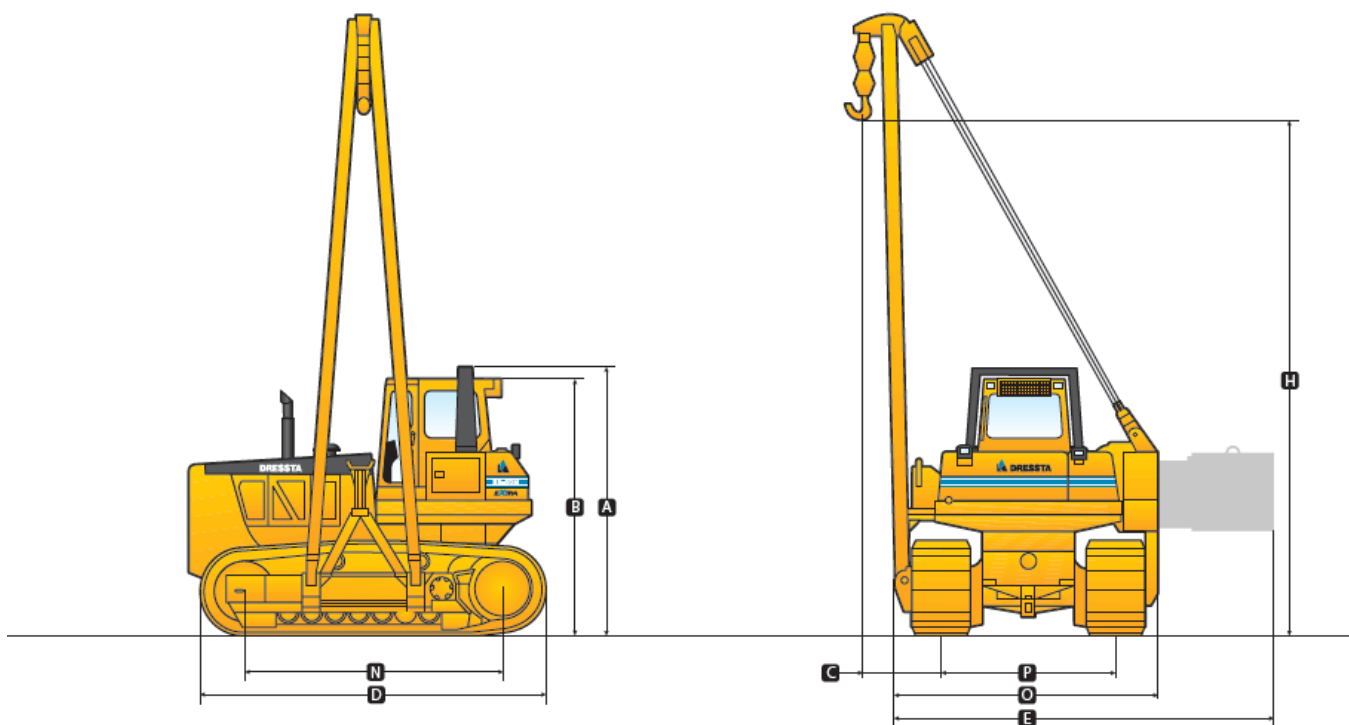
SERVICEABILITY

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Refill capacities	
Fuel Tank	745 l (198.7 US gal)
Cooling System	68 l (17.96 US gal)
Engine Oil	49 l (13.1 US gal)
Transmission System	270 l (72 US gal)
Final drive, each side	84 l (22.4 US gal)
Hydraulic Reservoir	195 l (52 US gal)

MACHINE DIMENSIONS

A Overall Height -ROPS	4000 mm (13 ft 1 in)
B Overall Height -FOPS cab	3840 mm (12 ft 7 in)
C Overhang, min	1220 mm (4 ft)
D Operating length	5770 mm (18 ft 11 in)
E Width of tractor (counterweight extended)	5860 mm (19 ft 3 in)
H Hook height max w/std boom	7440 mm (24 ft 5 in)
N Length track on ground	3985 mm (13 ft 1 in)
O Width of tractor counterweight /boom removed	4100 mm (13 ft 5 in)
P Track gauge	2590 mm (8 ft 6 in)



PIPELAYING EQUIPMENT

Boom length std/optional	7,315 mm / 9,000 mm (24 ft / 29 ft 6 in)
Counterweights	Adjustable hydraulically controlled 4pcs / 9360 kg (20 635 lb)
Live power	continuous power to pipelayer winches independent of torque converter
Winch transmission	operated independently or simultaneously sliding gear planetary, 2 speed for raising, 2 speed for lowering
Drums diameter (hook & boom)	338 mm (13.3 in) / 338 mm (13.3 in)
Wire rope length (inside flanges) hook/boom	106 m (347 ft 9 in) / 74 m (242 ft 9 in)
Wire rope diameter	22.2 mm (7/8 in)
Hook speed:	
raise 1st	6.7 m/min (22 ft/min)
raise 2nd	14.8 m/min (48.5 ft/min)
lower 1st	9.1 m/min (30 ft/min)
lower 2nd	20.1 m/min (65.9 ft/min)
max lifting capacity per SAE 743B	100 t (220460 lb)

STANDARD EQUIPMENT SB-85M Extra

ENGINE

Engine: Cummins QSX15, Tier 3/EU Stage IIIA, emission certified, turbocharged, direct start, direct injection, 276 kW (370 fwhp)

Air cleaner, dry type, with exhaust aspirated primary, safety elements and service indicator

Antifreeze, -34°F (-37°C)

Cooling module; includes radiator, transmission oil cooler, hydraulic oil cooler, charge air cooler; isolation mounted

Coolant filter conditioner

Exhaust pipe extension

Fan, hydraulically driven

Filters, oil, full flow with replaceable elements

Filters, transmission, hydraulic system, fuel system

Muffler, under engine hood, insulated

Strainers, fuel and hydraulic tanks

Water separator, fuel system

DRIVETRAIN

Torque converter, single stage

Transmission, power shift, 3 speeds forward, 3 reverse combined with 2 speed steering provides 6 speeds forward, 6 reverse

Steering, planetary type, 2 speed, left hand single lever control (joystick)

Brakes, wet, multiple disc, closed type, spring applied, hydraulically released

Decelerator - right foot pedal, and brake - center foot pedal

OPERATOR'S ENVIRONMENT

Cab, 6-sided, w/sound suppression, air recirculation system, lights: 2 front and 1 side (LH), 4 wipers w/washers, dome light, inside mirror, roof window and emergency hatch (approved according to FOPS - SAE J231)

Seat, deluxe, air suspension type, fabric cover, adjustable with arm rest

Seat belt (SAE J386) - 3" wide, retractable

Sun visor for front cab window

Tools compartment

BOOM

Lifting capacity - 100 000 kg (220,460 lb) with counterweights extended (per SAE J743B)

Boom, welded type, box-section structure, 'A' shape frame, length - 7315 mm (24')

Boom kickout, uppermost position

Brake, hook lowering, auxiliary

Emergency hook lowering system

Load capacity indicator, mechanical, on boom frame

INSTRUMENTATION

Gauges: fuel level, engine coolant temperature, engine oil pressure, torque converter oil temp., voltmeter, hourmeter, brake lock, emergency hook lowering, joystick control display

Warning lights: air cleaner filter, transmission oil filter, hydraulic oil filter, transmission/clutch oil low pressure, counterweights extended, hook top limit position, boom top limit position

Audible & visual warning system: low engine coolant level, low engine oil pressure, coolant high temperature, hydraulic oil high temperature

ELECTRICAL

Alarm, back-up

Alternator 105 A

OPTIONAL EQUIPMENT SB-85M Extra

WORKING ATTACHMENTS

Boom, welded type, box-section structure length - 9000 mm (29'6") with or without electronic load limit indicator

Hook pulley block limit switch, uppermost position

OPERATOR'S ENVIRONMENT

Air conditioner/heater/pressurizer/defroster, underseat mounted, behind roof mounted A/C condenser

Heater/pressurizer/defroster

ROPS, for use with standard Cab

For use with cab:

- AM/FM CD radio
- Lights for cab, 2 rear
- Mirrors, 2 pcs, exterior, cab mounted
- Sun visors (2), additional, for side door windows

GUARDS

Sprocket, dirt/rock deflector

Track roller guard

Engine hood, perforated

ADDITIONAL OPTIONS

Beacon light, rotating

Inspection lamp, 24 V, portable, with 6 m (20') cable

Light, winch

Starting/charging receptacle plug assembly with cable (required to jump start or charge batteries)

Vandalism protection

Maintenance tool kit, 17 items in a metal box

1000 h maintenance package (filters)

1500 h maintenance package (filters)

2000 h maintenance package (filters)

SFR

Export packing, SB-85, drive-on / drive-off Machine on the trailer

Export packing, SB-85, drive-on / drive-off Machine on the railway wagon, cab disassembled and protected in box

Cab disassembled and protected in box

