

SD-100 B Series Vibratory Compactor





SD-100 B Series features

Drive Train

The Ingersoll-Rand SD-100 B is powered by a Cummins four cylinder, 3.9 liter displacement, turbocharged diesel engine. The SD-100, with axle drive only, is suited for the majority of applications. For more demanding projects or where superior gradeability is required, the SD-100D and SD-100F, with drum drive as well as axle drive, are powered by a turbocharged and after cooled four cylinder Cummins engine. Both engines are fuel-conservative, easy to service and provide long life.

Serviceability

The SD-100 B series compactors are easily serviced. Components that require regular attention, like filters,



are reachable from ground level.
Maintenance intervals are optimized; fluid capacities are sized for durability and protection. Coolant level checks are easily performed.

Vibration System

A patented dual amplitude eccentric design is standard equipment for all SD-100 B models. A positive oil-splash eccentric bearing lubrication system permits operation on slopes without the risk

of bearing lubrication loss. Vibration frequency is infinitely variable in either amplitude setting to 30 Hertz. This permits the operator to match frequency of the compactor to soil type, moisture content and job site conditions.



Operator Station

The easily accessible ergonomically designed

operator station provides comfort, convenience, ease of control, excellent 360 degree visibility and a safe environment for the operator.





Gradeability

The SD-100 B has drive of its rear axle tires only. The drum is unpowered. This propulsion system works adequately on the majority of applications where slight grades or slopes are encountered and where material rolling resistance is not excessive. For more extreme applications, Ingersoll-Rand recommends using drum drive for enhanced traction and gradeability. Heavy duty drum drive is standard on the SD100-F pad foot model.

Versatility

An optional, patented, two-piece clamp-on pad foot drum shell kit is available for the SD-100D. This kit is

easily installed by a service technician. The kit also includes a pad foot drum scraper bar and heavy-duty torque hub drum drive. The shell kit permits a smooth drum unit to be modified for cohesive soil compaction



applications for added versatility.

Standard Features

- Back-up alarm
- Hydrostatic drive of axle and drum (except SD-100 B) with two speed transmission
- Oil splash eccentric bearing lubrication
- Patented, dual amplitude eccentric mechanism
- Planetary axle with No-Spin® differential
- ROPS/FOPS w/seat belt
- Torque-balanced hydraulic components
- Variable vibration frequency

| Machine weights (with ROPS) | Specifications for B Series | | SD-100 | | SD-100D | | SD-100F | |
|---|-----------------------------|---|--------------|----------------------|--------------------|--------------------------------------|---------------|---------------|
| Sperating weight (CECE) | Machine weights (with ROPS | 5) | | | | | | |
| Static weight at drum 13,225 bs. (6000 kg) 13,530 bs. (6160 kg) 15,265 bs. (6190 kg) Shipping weight 5,540 bs. (4425 kg) 9,710 bs. (4405 kg) 9,150 bs. (415 bs. (10950 kg) Shipping weight 22,475 bs. (10190 kg) 23,000 bs. (10430 kg) 24,145 bs. (10950 kg) | | - / | 22.765 lbs. | (10325 kg) | 23,290 lbs. | (10560 kg) | 24.435 lbs. | (11080 kg) |
| Static weight at tires 9,540 lbs. (4325 kg) 9,710 lbs. (4405 kg) 2,145 lbs. (1950 kg) 20,000 lbs. (1950 | | | • | | • | ` | • | |
| Shipping weight | , | | • | | · · | | | |
| Dimensions | _ | | - | , ,,, | · | , ,,, | • | , ,, |
| Overall length 218 in. (5547 mm) 218 in. (5547 mm) 218 in. (5547 mm) 218 in. (2312 mm) 91 in. (3122 mm) 102 in. (3121 mm) 112 in. (3122 mm) 112 in. (3122 mm) 122 in. (3163 mm) 131 in. (3325 mm) 13 | | | 22, 170 180. | (10100 kg) | 20,000 100. | (10 100 kg) | 21,110 150. | (10000 kg) |
| Overall width 94 in. (2312 mm) 991 in. (2312 mm) 991 in. (3121 mm) 125 in. (3163 mm) Overall height (top of ROPS) 123 in. (3121 mm) 123 in. (3121 mm) 123 in. (3163 mm) 125 in. (3163 mm) Overall height (top of steering wheel) 94 in. (2376 mm) 94 in. (2376 mm) 94 in. (2376 mm) 95 in. (2141 mm) Wheelbase 131 in. (3325 mm) 131 in. (3525 mm) 220 in. (515 mm) 220 in. (555 mm) 220 in. (555 mm) 220 in. (555 mm) 220 in. (5755 mm) 20 in. (5755 mm) | | | 040 % | (55.47) | 040 :- | (55.47) | 040 '- | (55.47) |
| Overall height (top of ROPS) 123 in. (3121 mm) 123 in. (3212 mm) 123 in. (3212 mm) 34 in. (2376 mm) 94 in. (2376 mm) 94 in. (2376 mm) 94 in. (2376 mm) 95 in. (2414 mm) Wheelbase 131 in. (3325 mm) 226 in. (5755 mm) 226 in. (5 | | | _ | | | ` , | | ` ' |
| | | | | , | - | ` , | | |
| Wheelbase 131 in. (3325 mm) 131 in. (3325 mm) 131 in. (3325 mm) 131 in. (3325 mm) 228 in. (5755 mm) 222 in. (5755 mm) 222 in. (5755 mm) 228 in. (5755 mm) 250 in. (1500 mm) 59 in. (1500 mm) 67 in. (1700 mm) 67 in. (1700 mm) 43 in. (2134 mm) 84 in. (2134 mm) 11 in. (25 mm) 11 in. (25 mm) 11 in. (25 mm) 12 in. (25 mm) 12 in. (25 mm) 12 in. (102 mm) 40 mm 4 | I | | | , | | , | | |
| Curb clearance 20 in. (514 mm) 20 in. (575 mm) 22 in. (5755 mm) 59 in. (1500 mm) 67 in. (1702 mm) 67 in. (1702 mm) 70 mm 67 in. (1702 mm) 70 mm 67 in. (1702 mm) 67 in. (1702 mm) 70 mm 67 in. (1702 mm) 67 in. (123 mm) 67 in. (123 mm) 67 in. (123 mm) 67 in. (123 mm) 67 in. (102 mm) 67 in. (1 | | | | , | | ` , | | ` ' |
| Outside turning radius (measure to drum edge) 226 in. (5755 mm) 220 in. (5755 mm) 59 in. (1500 mm) 59 in. (1500 mm) 59 in. (1500 mm) 59 in. (1700 mm) 100 mm) 59 in. (1500 mm) 100 mm) | | | | , | | ` , | | |
| Drum diameter over pads Drum width 84 in. (2134 mm) 84 in. (2134 mm) B4 in. (2134 mm) B4 in. (2134 mm) B4 in. (2134 mm) Drum shell thickness I in. (25 mm) Drum shell thickness I in. (25 mm) I in. (25 | | | | , | | | | |
| Drum diameter over pads 84 in. (2134 mm) 84 in. (25 mm) 1 in. (10 mm) 1 in. (11 mm) | 1 | ured to drum edge) | | | | | | ` ' |
| Drum width Drum shell thickness 84 in. (2134 mm) (2134 mm) 84 in. (2134 mm) (25 mm) 1 in. (25 mm) (25 mm) 1 in. (25 mm) (25 mm) 2 cmm | | | 59 in. | (1500 mm) | 59 in. | (1500 mm) | | |
| Drum shell thickness 1 in. (25 mm) 1 in. (25 mm) 1 in. (25 mm) 1 in. (25 mm) Pad theight — — — — 21 sq. in. (135 sq. cm) Number of pads — — — — 4 in. (102 mm) Number of pads — — — — 4 in. (120 mm) Vibration Frequency — 0-1800 VPM (0-30 Hz) 0-1800 VPM (0-30 Hz) 0-1800 VPM 50,000 lbs. (222.4 kN) 50,000 lbs. (21.4 lmm) 60.30 lbs. (21.1 lmm) 60.50 lbs. | 1 | | | - | | - | | |
| Pad tip area Pad height Pad heig | | | | | | | | ` ′ |
| Pad height Number of pads = | | | 1 in. | (25 mm) | 1 in. | (25 mm) | | |
| Number of pads | | | | _ | | _ | | |
| Vibration Frequency 0-1800 VPM (0-30 Hz) 0-1800 VPM 0-1800 VPM 0-1800 VPM 0-30 Hz) 0-2000 VPM 0-2000 VPM 0-2000 VPM 0-2000 VPM 0-25,000 lbs. (111.2 kN) 25,000 lbs. (111.2 kN) 26,000 lbs. (111.2 kN) 26,000 lbs. (121 mbm 0.055 in. (111.2 kN) 0.055 in. (111.2 kN) | " | | | - | | _ | 4 in. | ` ′ |
| Prequency | Number of pads | | | _ | | _ | | 120 |
| Centrifugal force high low 50,000 lbs. (222.4 kN) 25,000 lbs. (111.2 kN) 25,000 lbs. (111.4 kN) 25,000 lbs. (111.4 kN) 25,000 lbs. (11.4 km) 25,000 lbs. (14.1 km) 25,000 lbs. (14.0 km) 25,000 lbs. (14.0 km) 25,000 lbs. (1 | Vibration | | | | | | | |
| Nominal amplitude | Frequency | | 0-1800 VPM | (0-30 Hz) | 0-1800 VPM | (0-30 Hz) | 0-1800 VPM | (0-30 Hz) |
| Nominal amplitude high low 067 in. (1.70 mm) 055 in. (1.41 mm) Brakes Parking/secondary brake Dynamic hydrostatic trulouangle Dynamic hydrostatic trulouangle Dynamic hydrostatic through propulsion system Brakes Brakes Brakes Dynamic hydrostatic through propulsion system Dynamic hydrostatic through propulsion system Brakes Brakes Brakes Dynamic hydrostatic through propulsion system Brakes Dynamic hydrostatic through propulsion system Brakes Service brake Dynamic hydrostatic through propulsion angle ± 40° ± 40° Oscillation angle ± 40° ± 40° E 40° E 40° F 40° Latorical (204 l) 54 gal. (204 l | Centrifugal force | high | 50,000 lbs. | (222.4 kN) | 50,000 lbs. | (222.4 kN) | 50,000 lbs. | (222.4 kN) |
| Low | | low | 25,000 lbs. | (111.2 kN) | 25,000 lbs. | (111.2 kN) | 25,000 lbs. | (111.2 kN) |
| Engine Make and model Cummins B3.9-C Turbo Cummins B3.9-C Turbo and aftercooled Rated power 96HP (71.6 kW) @2300 rpm 125HP (93.2 kW) @2200 rpm Electrical system 12 volt DC, negative ground;105 A alternator; one 900cca battery Propulsion Type system 2-speed Hydrostatic 0-6.5 mph (0-6.3 km/hr) 0-4.5 mph (0-7.2 km/hr) | Nominal amplitude | high | .067 in. | (1.70 mm) | .067 in. | (1.70 mm) | .055 in. | (1.41 mm) |
| Make and model Cummins B3.9-C Turbo Cummins B3.9-C Turbo and aftercooled Rated power 96HP (71.6 kW) @2300 rpm 125HP (93.2 kW) @2200 rpm Electrical system 12 volt DC, negative ground;105 A alternator; one 900cca battery Propulsion Type system 2-speed Hydrostatic 2-speed Hydrostatic 2-speed Hydrostatic Tire size 23.1 x 26, 8 PR R-3 diamond tread R-3 diamond tread R-1 lug tread Drum drive - standard standard Speed low gear 0-3.9 mph (0-6.3 km/hr) 0-4.5 mph (0-7.2 km/hr) 0-4.2 mph (0-6.8 km/hr) 0-6.8 mph (0-10.9 km/hr) Brakes Service brake Dynamic hydrostatic through propulsion system Parking/secondary brake Spring-Applied, Hydraulically-Released SAHR Miscellaneous Articulation angle ± 40° ± 40° ± 40° Articulation angle ± 17° ± 17° ± 17° Fuel capacity 72 gal. (272 l) 72 gal. (272 l) 72 gal. (272 l) Hydraulic oil capacity 54 gal. (204 l) 54 gal. (204 l) 54 gal. (204 l) | | low | .033 in. | (0.85 mm) | .033 in. | (.85 mm) | .028 in. | (0.70 mm) |
| Rated power Electrical system 96HP (71.6 kW) @ 2300 rpm 125HP (93.2 kW) @ 2200 rpm Propulsion Type system 2-speed Hydrostatic 3-speed Hydrostatic 2-speed Hydrostatic 2-speed Hydrostatic 3-speed Hydrostatic 3-speed Hydrostatic | Engine | | | | | | | |
| Propulsion | Make and model | • | | Cummins B3.9-C Turbo | | Cummins B3.9-C Turbo and aftercooled | | |
| Propulsion Type system 2-speed Hydrostatic R-1 lug tread R-1 lug tread R-1 lug tread Standard | Rated power | | | @2300 rpm | 125HP (93.2 | | kW) @2200 rpm | |
| Type system 2-speed Hydrostatic R-1 lug tread R-1 lug tread R-1 lug tread R-2 diamond tread R-3 diamond tread R-1 lug tread R-2 diamond tread R-3 diamond tread R-3 diamond tread R-3 diamond tread R-1 lug tread Standard Standard Standard Standard Standard Standard Standard O-4.2 mph (0-6.8 km/hr) 0-6.8 mph (0-6.8 km/hr) 0-6.8 mph (0-10.9 km/hr) Dynamic hydrostatic through propulsion system Spring-Applied, Hydraulically-Released SAHR Spring-Applied, Hydrau | Electrical system | | | | | | | |
| Type system 2-speed Hydrostatic R-1 lug tread R-1 lug tread R-1 lug tread R-2 diamond tread R-3 diamond tread R-1 lug tread R-2 diamond tread R-3 diamond tread R-3 diamond tread R-3 diamond tread R-1 lug tread Standard Standard Standard Standard Standard Standard Standard O-4.2 mph (0-6.8 km/hr) 0-6.8 mph (0-6.8 km/hr) 0-6.8 mph (0-10.9 km/hr) Dynamic hydrostatic through propulsion system Spring-Applied, Hydraulically-Released SAHR Spring-Applied, Hydrau | | | | | | | | |
| Tire size 23.1 x 26, 8 PR R-3 diamond tread R-3 diamond tread R-1 lug tread Drum drive - standard standard Speed low gear high gear 0-3.9 mph (0-6.3 km/hr) 0-4.5 mph (0-7.2 km/hr) 0-4.2 mph (0-6.8 km/hr) (0-6.8 km/hr) Brakes Service brake Dynamic hydrostatic through propulsion system Parking/secondary brake Spring-Applied, Hydraulically-Released SAHR Miscellaneous ** ** 40° ** | <u> </u> | | _ | | _ | | _ | |
| Drum drive — standard standard Speed low gear high gear 0-3.9 mph (0-6.3 km/hr) 0-4.5 mph (0-7.2 km/hr) 0-4.2 mph (0-6.8 km/hr) (0-6.8 km/hr) high gear 0-8.5 mph (0-13.6 km/hr) 0-7.6 mph (0-12.3 km/hr) 0-6.8 mph (0-10.9 km/hr) Brakes Service brake Dynamic hydrostatic through propulsion system Parking/secondary brake Spring-Applied, Hydraulically-Released SAHR Miscellaneous Articulation angle ± 40° ± 40° ± 40° Oscillation angle ± 17° ± 17° ± 17° Fuel capacity 72 gal. (272 l) 72 gal. (272 l) 72 gal. (272 l) Hydraulic oil capacity 54 gal. (204 l) 54 gal. (204 l) 54 gal. (204 l) | ** | | | | | | - | |
| Speed low gear high gear 0-3.9 mph (0-6.3 km/hr) 0-4.5 mph (0-7.2 km/hr) 0-4.2 mph (0-6.8 km/hr) (0-6.8 km/hr) Brakes Service brake Dynamic hydrostatic through propulsion system Parking/secondary brake Spring-Applied, Hydraulically-Released SAHR Miscellaneous Articulation angle ± 40° ± 40° ± 40° Oscillation angle ± 17° ± 17° ± 17° Fuel capacity 72 gal. (272 l) 72 gal. (272 l) 72 gal. (272 l) Hydraulic oil capacity 54 gal. (204 l) 54 gal. (204 l) 54 gal. (204 l) | | | R-3 di | amond tread | R-3 di | | | ı ı |
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| Brakes Service brake Dynamic hydrostatic through propulsion system Parking/secondary brake Spring-Applied, Hydraulically-Released SAHR Miscellaneous Articulation angle ± 40° ± 40° ± 40° 0 ± 17° | Speed | ŭ | | | | , | • | ` ′ |
| Miscellaneous ± 40° ± 40° ± 40° Oscillation angle ± 17° ± 17° ± 17° Fuel capacity 72 gal. (272 l) 72 gal. (204 l) 54 gal. (204 l) | | high gear | 0-8.5 mph (0 |)-13.6 km/hr) | 0-7.6 mph (0 |)-12.3 km/hr) | 0-6.8 mph (| 0-10.9 km/hr) |
| Parking/secondary brake Spring-Applied, Hydraulically-Released SAHR Miscellaneous Articulation angle ± 40° ± 40° ± 40° 0 ± 17° ± 17° ± 17° ± 17° Fuel capacity 72 gal. (272 l) 72 gal. (272 l) 72 gal. (272 l) 72 gal. (204 l) 54 gal. (204 l) | Brakes | | | | | | | |
| Miscellaneous Articulation angle ± 40° ± 40° ± 40° Oscillation angle ± 17° ± 17° ± 17° Fuel capacity 72 gal. (272 l) 72 gal. (272 l) 72 gal. (272 l) Hydraulic oil capacity 54 gal. (204 l) 54 gal. (204 l) 54 gal. (204 l) | Service brake | | | Dyna | amic hydrostatic t | hrough propuls | sion system | |
| Articulation angle $\pm 40^{\circ}$ $\pm 40^{\circ}$ $\pm 40^{\circ}$ Oscillation angle $\pm 17^{\circ}$ $\pm 17^{\circ}$ $\pm 17^{\circ}$ Fuel capacity 72 gal. (272 l) 72 gal. (272 l) 72 gal. (272 l) Hydraulic oil capacity 54 gal. (204 l) 54 gal. (204 l) | Parking/secondary brake | Spring-Applied, Hydraulically-Released SAHR | | | | | | |
| Articulation angle $\pm 40^{\circ}$ $\pm 40^{\circ}$ $\pm 40^{\circ}$ Oscillation angle $\pm 17^{\circ}$ $\pm 17^{\circ}$ $\pm 17^{\circ}$ $\pm 17^{\circ}$ Fuel capacity 72 gal. (272 I) 72 gal. (272 I) 72 gal. (272 I) Hydraulic oil capacity 54 gal. (204 I) 54 gal. (204 I) 54 gal. (204 I) | Miscollanoous | | | | | | | |
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| Fuel capacity 72 gal. (272 l) 72 gal. (272 l) 72 gal. (272 l) 72 gal. (272 l) Hydraulic oil capacity 54 gal. (204 l) 54 gal. (204 l) | " | | | | | | | - |
| Hydraulic oil capacity 54 gal. (204 l) 54 gal. (204 l) 54 gal. (204 l) | - | | 70 ~~! | | 70 ~~! | | 70 001 | |
| | | | 0 | ` , | • | | • | |
| | | | 54 gal | | 54 gai | | 54 gal. | |
| Gradeability (theoretical) 51% 53% 65% | Gradeability (theoretical) | | | 37% | | 53% | | 65% |

Selected Options

- · Air pre-cleaner for engine
- Biodegradeable fluids
- Cab, cab with heat or cab with AC and heat
- Clamp-on pad foot drum shell kit (except SD-100 B)
- · Cold weather starting aid
- EPA certified engine installation (SD-100D and SD-100F)
- · Heavy duty drum drive
- Lights with turning signals
- Optional 18.4 x 26, 6 PR tires
- Strike-off blade installation (for SD-100F B)
- Sun canopy
- Vandal cover for instrument panel
- · Work lights
- Contact factory for additional options.

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