

DD-90 & DD-90HF Vibratory Asphalt Compactors



Machines shown with optional equipment.

A Pair of Eleven Ton Compactors

The Ingersoll-Rand DD-90 and DD-90HF vibratory asphalt compactors have 66 inch (1675 mm) wide drums and provide high performance for highway and other large paving projects. The DD-90 has a frequency of 2,500 vpm (41.7 Hz) and a nominal capacity up to 250 tons (227 metric tonnes) of HMA per hour. The DD-90HF, with a frequency of 3,800 vpm (63.3 Hz), has a nominal capacity up to 325 tons (290 metric tonnes) of HMA per hour. And with operating weights of nearly 11 tons (9.8 metric tonnes), the DD-90 and DD-90HF compactors meet all state D.O.T. static rolling requirements.

Key Features

- Dual frequency vibration systems of 2,500 / 1,850 vpm (41.7 / 30.8 Hz) on the DD-90 and 3,800 / 2,850 vpm (63.3 / 47.5 Hz) on the DD-90HF match machine performance to production requirements
- Eight amplitude settings achieve required compaction throughout deep lifts and/or stiffer mix designs
- Five-position rotating operator's station with an adjustable seat provides a smooth ride and comfortable operating environment
- Two complete, independent water systems include triple water filtration, four water pumps, four spray bars, and variable waterflow
- Eccentric rotation automatically matches direction of travel, improving smoothness
- Patented Impact Spacing Meter provides a visual reference for speed control to maintain proper impact spacing, resulting in consistent smoothness
- Exclusive machined drums with chamfered, radiused drum edges minimize drum edge marking and facilitate finish rolling

DD-90 & DD-90HF Vibratory Asphalt Compactors

Specifications

STANDARD FEATURES

- ROPS / FOPS with seat belt
- Superior drum spray system to maintain maximum productivity
 - Variable waterflow control to conserve water
 - Independent primary and secondary spray systems (each with separate water pumps, water filters, distribution lines, and spray bars with hand-serviceable nozzles)
 - Water tank level LED indicators
- Unobstructed engine access through swing-up hood and removeable side panels
- Vibration-isolated operator platform

OPTIONAL EQUIPMENT

- Air precleaner
- Back-up alarm
- Cocoa mats
- Edge compactor
- HID night operating lights
- Hydraulic oil temperature gauge
- Infrared pavement temperature sensor
- Inside wipers scraper kit
- Operator platform spray shield
- Outside urethane wipers
- Special paint
- Speed limiter
- Speedometer / tachometer
- Speedometer / rpm meter
- Strobe light
- Turn signals and flashers
- Work lights

MODEL	DD-90	DD-90HF
MACHINE WEIGHTS (W/ ROPS / FOPS)		
Operating Weight – lb (kg)	21,820 (9895)	21,705 (9845)
Static Weight @ Front Drum – lb (kg)	11,370 (5155)	11,280 (5115)
Static Weight @ Rear Drum – lb (kg)	10,450 (4740)	10,425 (4730)
Shipping Weight – lb (kg)	20,075 (9105)	20,075 (9105)
MACHINE DIMENSIONS		
Overall Length – in (mm)	200.2 (5085)	200.2 (5085)
Overall Width – in (mm)	75.2 (1910)	75.2 (1910)
Overall Height (top of steering wheel) – in (mm)	87 (2210)	87 (2210)
Overall Height (top of ROPS / FOPS) – in (mm)	112 (2845)	112 (2845)
Drum Base – in (mm)	126 (3200)	126 (3200)
Curb Clearance – in (mm)	17 (430)	17 (430)
Side Clearance – in (mm)	4.5 (115)	4.5 (115)
Inside Turning Radius (to drum edge) – in (mm)	140 (3560)	140 (3560)
DRUM		
Width – in (mm)	66 (1675)	66 (1675)
Diameter – in (mm)	48 (1220)	48 (1220)
Shell Thickness (nominal) – in (mm)	0.75 (19)	0.75 (19)
Finish	Machined surface; chamfered & radiused edges	
VIBRATION		
Frequency – vpm (Hz)	2,500 / 1,850 (41.7 / 30.8)	3,800 / 2,850 (63.3 / 47.5)
Amplitude – in (mm)	0.016 – 0.040 (0.41 – 1.02)	0.019 – 0.025 (0.48 – 0.64)
Centrifugal Force Range – lb (kN)	5,840 – 26,000 (26.0 – 115.6)	16,030 – 38,430 (71.3 – 171.0)
Amplitude Settings	8	8
PROPULSION		
Type	Closed-loop hydrostatic, parallel circuit to both drums	
Drum Drive	Heavy-duty radial piston LSHT motors	
Travel Speed – mph (km/h)	0 – 7.4 (0 – 11.8)	0 – 8.7 (0 – 14.0)
ENGINE		
Make & Model	Cummins B3.9-C	
Engine Type	Turbocharged 4-cylinder	
Rated Power @ 2,200 rpm – hp (kW)	110 (82)	110 (82)
Electrical	12 V DC, negative ground; 95 A alternator	
Battery	1 absorbed electrolytic, 800 CCA	
BRAKES		
Service	Dynamic hydrostatic through propulsion system	
Parking / Secondary	SAHR on front-drum & rear-drum drive motors	
WATER SYSTEM		
Type	Pressure spray drum wetting system with LDPE water tanks	
Pumps	Diaphragm water pumps, primary & secondary for each drum	
Spray Bars	Primary & secondary spray bars for each drum	
Nozzles	Hand-serviceable fan spray nozzles; 7 main, 6 auxiliary per spray bar	
Filtration	Basket strainer each tank, water filter each pump, fine filter each nozzle	
Drum Wipers	Rubber wiper for each drum	
Water Tank Capacity – gal (L)	260 (984)	260 (984)
MISCELLANEOUS		
Articulation Angle (center pivot steering)	+ / - 40°	+ / - 40°
Oscillation Angle	+ / - 10°	+ / - 10°
Fuel Capacity – gal (L)	45 (170)	45 (170)
Hydraulic Oil Capacity – gal (L)	35 (133)	35 (133)
Gradeability (theoretical)	24.8%	25.0%

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