

H-90E

**PAY loader
Specifications**



PAY LINE DIVISION

International[®]

H-90E

PAY loader

ENGINE:

Make and model	International—DVT-573B
Type	4 cycle diesel, turbocharged, direct start, direct injection.
*Rated horsepower (kW)	260 (196)
**Flywheel horsepower (kW)	239 (180)
governed rpm	2500
Max. torque	
(lb.-ft.)	655
(N-m)	(888)
rpm	1700
Bore and stroke, in.	4.5 x 4.5 (114 x 114 mm)
No. of cylinders	8
Displacement, cu. in. (litre)	573 (9.39)
Electrical system	24 Volt
AMA HP U.S. tax purposes	64.8

*Rated horsepower output of standard engine complete with water pump, lubricating oil pump and fuel pump under SAE standard ambient temperature and barometric conditions of 29.38" Hg. (99.2 kPa) and 85°F (29.4°C).

**Flywheel horsepower output of standard engine as installed in this vehicle with addition of fan, air cleaner, alternator and air compressor. No deration required up to 10,000 ft. (3048 m) altitude.

TORQUE CONVERTER:

Single stage, single phase type, 2.6 to 1 stall ratio.

TRANSMISSION:

Full power shift, countershaft type, constant mesh.				
Speeds	1st	2nd	3rd	4th
Fwd. & Rev. mph	0—4.6	0—8.3	0—17.3	0—31.7
(km/h).....	(7.40)	(13.35)	(27.83)	(51.00)

DIFFERENTIALS:

Power transfer.

AXLES:

Heavy-duty type with full-floating axle shafts and planetary final drive. Four wheel drive.

Front axle fixed, rear axle oscillates a total of 30°. Vertical wheel travel of 23" (584 mm).

STEERING:

Articulated frame. Full hydraulic power with mechanical follow-up.

BRAKES:

Service—Four wheel, air-over-hydraulic, wedge-actuated shoe brakes with separate axle-by-axle operation. Operator's choice braking: left pedal neutralizes transmission and applies brakes, right pedal applies brakes only. Automatic, low-pressure-apply brake system with low-pressure warning buzzer. Parking-mechanical type intermediate drive shaft.

HYDRAULIC SYSTEM:

Type: Closed with pressure control (30 lb. per sq. in.) (0.21 MPa) and vacuum relief.
 Raise boom in 7.9 sec. Lower boom in 5.6 sec.
 Roll back bucket in 2.5 sec. Dump bucket in 3.8 sec.
 Reservoir: Cylindrical type with (4) 6" x 18" (152 x 457 mm) five-micron filters for full flow filtering, suction screen, removable full diameter cover for quick servicing.
 Pumps: 3 Vane type, driven from accessory drive.
 Main Hyd: Output at 2500 rpm and 1000 psi (6.89 MPa) 98 gpm (371 l/min).
 Steering Hyd: Output at 2500 rpm and 1000 psi (6.89 MPa) 41.5 gpm (157 l/min).
 Valve: Two-spool with relief valve.
 Valve remote mounted.
 Relief valve pressure 2500 psi (17.24 MPa).
 Cylinders (double acting)—hardened chrome plated piston rods.
 Boom-Bore and Stroke (2)7" x 39" (178 x 991 mm)
 Bucket-Bore and Stroke (2)8" x 20.5" (203 x 521 mm)
 Steering-Bore and Stroke (2)4" x 17" (102 x 432 mm)

HYDRAULIC CONTROLS:

Boom circuit: Automatic kickout adjustable from operator's deck from ground level to full lift height.
 Positions: Raise, hold, down pressure and float.
 Bucket circuit: Bucket indicator provides visual indication of bucket position.
 Positions: Roll back, hold and dump.

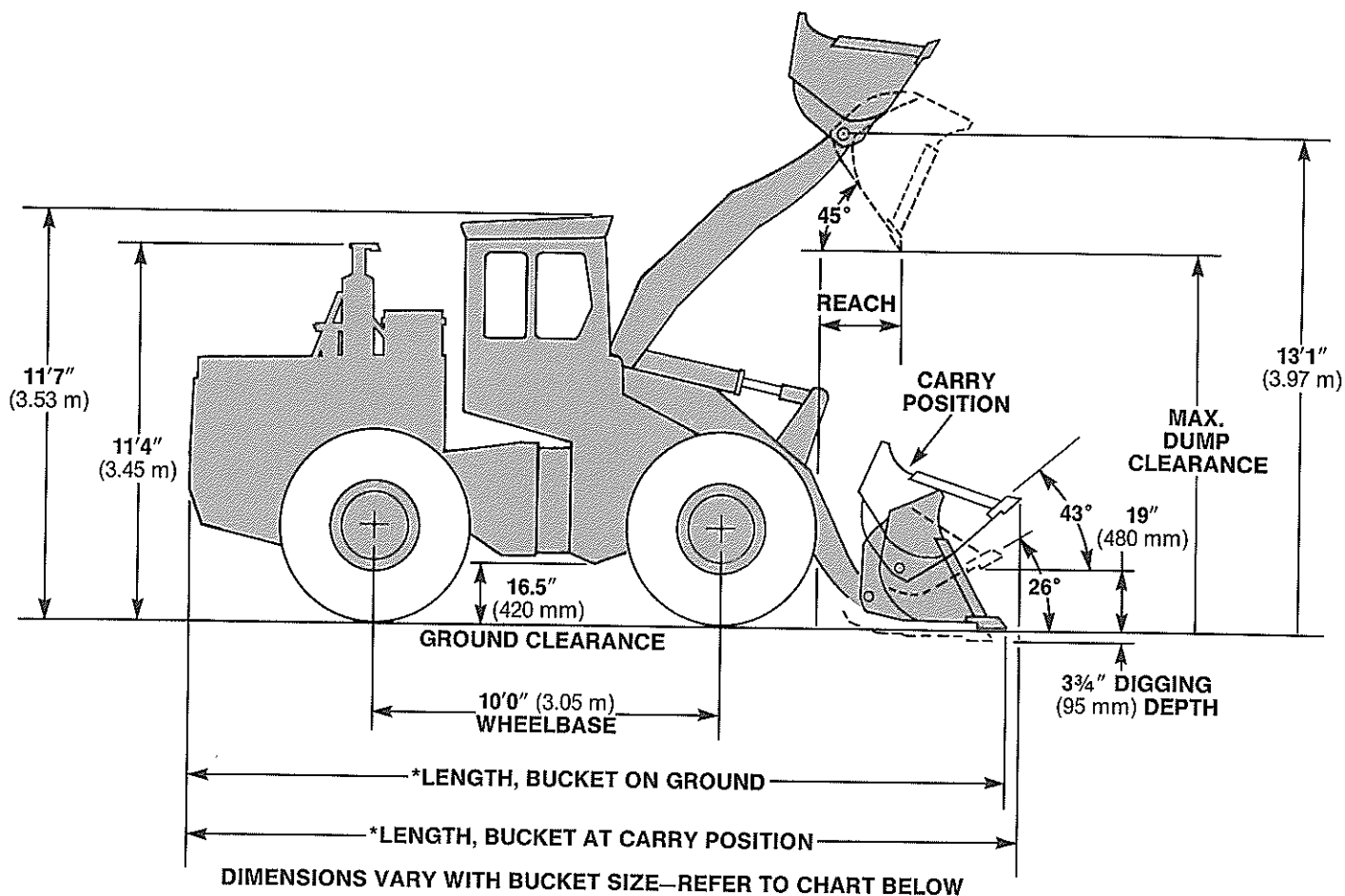
SERVICE CAPACITIES: (Approx.)	U.S. Gal.	(litre)
Cooling system.....	18	(68.13)
Lube systems:		
Crankcase.....	8	(30.28)
Transmission.....	7½	(28.38)
Differential & final drive, front	8	(30.28)
Differential & final drive, rear	8	(30.28)
Hydraulic system.....	45	(170.33)
Fuel Tank.....	97	(367.17)

STANDARD EQUIPMENT:

Air cleaner, dry type dual stage with safety element	Engine coolant temperature
Adjustable bucket seat	Hand throttle
Air horn	Hydraulic system cooler
Cab, ROPS (SAE J394) with seat belt (SAE J386) tinted glass, front windshield wipers.	Ladders, dual access
Cartridge type filters for engine oil	Lights, working and traveling, 2 front, 2 rear, 2 stop and tail
Drawbar, recessed	Muffler
Engine compartment side panels	Neutral safety start
	Parking brake with indicator light
	Quick access service panels
	Fuel
	Service meter
	Torque converter oil temperature
	Voltmeter
	Water Temp

GAUGES: Color-coded.

Air pressure
 Air cleaner service indicator
 Engine oil pressure



DIMENSIONS VARY WITH BUCKET SIZE—REFER TO CHART BELOW

BUCKET TYPE		General Purpose	General Purpose	General Purpose	Spade Nose Rock	Coal & Light Material
SAE Bucket Capacity	Rated-cu. yds. (m ³)	4.0 (3.1)	4.5 (3.44)	5.0 (3.82)	4.0 (3.1)	7.0 (5.35)
	Struck-cu. yds. (m ³)	3.2 (2.44)	3.8 (2.90)	4.25 (3.25)	3.4 (2.60)	6.25 (4.78)
Width—(mm)		120" (3048)	120" (3048)	120" (3048)	120" (3048)	136" (3454)
Max. Mat'l. Weight Per Cu. Yd./Lb. (kg/m ³)		Excavating	3000 (1780)	2666 (1582)	2400 (1424)	3000 (1780)
**Static Tipping Load with ROPS, lb. (kg)	Straight	29,924 (13573)	29,637 (13443)	29,269 (13276)	29,437 (13352)	28,694 (13015)
	Full Turn	26,932 (12216)	26,673 (12098)	26,342 (11953)	26,493 (12017)	25,825 (11714)
**Basic Operating Weight w/ROPS, lb. (kg). No Attachments Included		40,260 (18261)	40,480 (18361)	40,740 (18479)	40,480 (18362)	40,480 (18361)
*Dump Clearance, Max. Height and 45° Dump Angle—(m)		9'10" (3.00)	9'7" (2.92)	9'4" (2.84)	9'6" (2.90)	9'3" (2.82)
*Reach @ 7' Cut Edge Clearance and 45° Dump Angle—(m)		5'4" (1.63)	5'7" (1.70)	6'0" (1.84)	5'8" (1.74)	5'11" (1.82)
*Reach at Max. Height and 45° Dump Angle—(m)		3'9" (1.15)	4'0" (1.22)	4'2" (1.29)	4'1" (1.26)	4'4" (1.33)
Overall Length, Bucket on Ground—(m)		23'3.75" (7.10)	23'7.75" (7.21)	23'11.25" (7.30)	23'9.75" (7.26)	24'2" (7.37)
Overall Length, Bucket @ 19" Carry—(m)		23'11" (7.29)	24'1.6" (7.36)	24'3.9" (7.41)	24'2.9" (7.39)	24'5.7" (7.46)
Turning Radius, Outside Corner of Bucket—(m)		22'4.5" (6.82)	22'5.5" (6.85)	22'6.4" (6.87)	22'6" (6.86)	23'2.4" (7.07)
Lifting Capacity @ SAE Carry, lb. (kg)		49,278 (22352)	47,985 (21766)	44,957 (20392)	47,519 (21554)	45,282 (20539)
Breakout Force, lb. (kg)		37,478 (17122)	34,366 (15588)	32,029 (14528)	32,979 (14959)	25,672 (11645)

*Increases or Decreases according to tire size—Refer to Machine Dimensions—All dimensions and weights per SAE J-732C.

**Machine stability and weight can be increased for stockpile loading by adding larger tires, ballast or counterweights, proper selection of optional equipment for optimum machine performance is dependent upon material weight and operating conditions.

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OPTIONAL ATTACHMENTS:

Bucket, positioner (automatic)	Fenders
Bucket teeth	Hydraulic 3-spool valve
Cab Non-ROPS w/doors, front & rear windshield wipers, floor mat	Lighting system, low level
Cab, ROPS, heater with front and rear defrosters	Optional buckets
Cab, Non-ROPS, tinted windshield	Optional gauges
Cold weather starting aid	Seat suspension, "airride"
Counterweights	Seat belt
	Tire inflation kit
	Rear Wipers
	Tachometer

TIRES, Ballast and Counterweights—lb. (kg)	Change in Operating Weight		Change in Full Turn, Tipping Load	
	Tires Only	4 Tires w/75% Ca Cl ₂ in Rear Only	Tires Only	4 Tires w/75% Ca Cl ₂ in Rear Only
23.5 x 25—12 PR (L-3)	0	+2396 (1087)	0	+3235 (1467)
23.5 x 25—12 PR (L-4)	+1116 (506)	+3512 (1593)	+753 (341)	+3987 (1808)
23.5 x 25—16 PR (L-3)	+120 (54)	+2516 (1141)	+81 (37)	+3316 (1504)
23.5 x 25—20 PR (L-3)	+252 (114)	+2648 (1201)	+170 (77)	+3405 (1544)
26.5 x 25—14 PR (L-3)	+1036 (469)	+4264 (1934)	+699 (317)	+5057 (2293)
26.5 x 25—20 PR (L-3)	+1260 (571)	+4488 (2035)	+850 (385)	+5208 (2362)
26.5 x 25—20 PR (L-4)	+2428 (1101)	+5656 (2565)	+1639 (809)	+5697 (2584)
26.5 x 25—20 PR (L-5)	+3420 (1551)	+6648 (3015)	+2309 (1047)	+6666 (3023)
Side Counterweights	+1400 (635)		+2520 (1143)	
ROPS CAB not furnished	—1200 (544)		—920 (417)	

*Weights reflect an average of all tire brands. Ballast indicated for rear tires only.

MACHINE DIMENSIONS, Approx.

Tire Size	12 PR		14 PR	16 PR	20 PR		
	23.5 x 25 (L-3)	23.5 x 25 (L-4)	26.5 x 25 (L-3)	23.5 x 25 (L-3)	23.5 x 25 (L-3)	26.5 x 25 (L-3)	26.5 x 25 (L-4 & L-5)
Tread—(m)	7'5" (2.26)	7'5" (2.26)	7'7" (2.31)	7'5" (2.26)	7'5" (2.26)	7'7" (2.31)	7'7" (2.31)
Width over Tires—(m)	9'5.5" (2.88)	9'6" (2.90)	10'10.5" (3.31)	9'5.5" (2.88)	9'5.5" (2.88)	10'10.5" (3.31)	10'10.5" (3.31)
Change in Vert. Dimen. (mm)	0	+1.25" (31.7)	+2.25" (57)	0	0	+2.25" (57)	+3.5" (89)
Change in Reach—(mm)	0	—1.25" (31.7)	—2.25" (57)	0	0	—2.25" (57)	—3.5" (89)

Specifications subject to change without notice. Illustrations may include optional equipment and accessories and may not include all standard equipment. PAY is a registered trademark of International Harvester Company designating a family of IH products.



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