

510

PAY loader
Specifications



International

510 PAY loader

- All-Wheel Disc Brakes
- Sealed Linkage Design
- Pressure Compensated Hydraulic System
- Articulated 80° Steering



ENGINE:

Make & Model	International D-268
Type	4-cycle diesel, direct start, direct injection, naturally aspirated.
*Rated kW (horsepower)	60 (80)
**Flywheel kW (horsepower)	55 (74)
governed rpm	2500
Max. torque	
N·m	274
(lb. ft.)	(202)
rpm	1600
Bore and Stroke, mm	100 x 140
(ins.)	(3.937 x 5.5)
No. of cylinders	4
Displacement, cu. litre (ins.)	4.39 (268)
Fuel	Diesel
Electrical system	24 Volt
AMA HP U.S. tax purposes	24.8

*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 99.0 kPa and 29.4°C (29.38° Hg and 85°F).

**Flywheel horsepower output of standard engine as installed in this vehicle with addition of fan, air cleaner and alternator.

TORQUE CONVERTER:

Single stage, single phase type; 2.95 to 1 stall ratio.

TRANSMISSION:

Full power shift, countershaft type. Full soft-shift allows range and directional changes at full engine rpm.

Speeds	1st	2nd	3rd
Forward, km/h	8.53	16.50	34.55
(mph)	(0-5.30)	(0-10.25)	(0-21.47)
Reverse, km/h	8.46	16.37	34.28
(mph)	(0-5.26)	(0-10.17)	(0-21.3)

DIFFERENTIALS:

Conventional.

AXLES:

Heavy-duty type with inboard planetary final drive
Four wheel drive.
Front axle fixed, rear axle oscillates a total of 24°. Vertical wheel travel of 371 mm (14.6").

STEERING:

Articulation, right or left 40°
Turning radius outside tires 4.52 m (14'10").

BRAKES:

Service—Four wheel hydraulic disc brakes, standard. Inboard mounted wet disc with separate axle by axle operation and warning indicator light and buzzer. Operator's choice braking, left pedal neutralizes transmission and applies brakes, right pedal applies brakes only.

Parking—254 mm (10") drum type, mounted on pinion shaft. Hand operated with warning light on dash.

LOADER LINKAGE:

Sealed pivot points with extended lubrication intervals.

HYDRAULIC SYSTEM:

Single pump provides multiple operations by means of a pressure compensated steering valve.
Raise boom in 5.9 sec. Lower boom in 4.5 sec.
Roll back bucket in 2.4 sec. Dump bucket in 1.79 sec.
Reservoir: Closed with pressure control (0.21 MPa) (30 lb psi) and vacuum relief. Sight gauge and one 10 micron spin-on type filter.
Pump: Gear type, driven from accessory drive.
Main Hyd.: Output at 2500 rpm and 20.7 mPa (3000 psi) 91 litre/min (24 gpm).

Valve: Two-spool.

Relief valve pressure 20.7 MPa (3000 psi).

Cylinders (double-acting)—hardened chrome plated piston rods.

Boom-Bore and

Stroke (2) 102 x 559 mm (4.0" x 22")

Bucket-Bore and

Stroke (1) 102 x 445 mm (4.0" x 17.5")

Steering-Bore and

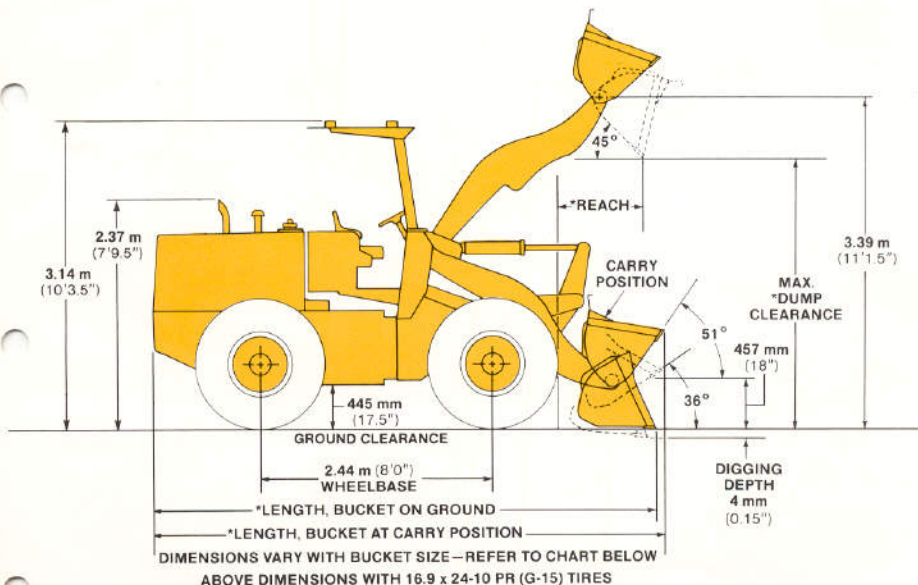
Stroke (2) 76 x 411 mm (3.0" x 16.2")

HYDRAULIC CONTROLS:

Boom Positions: Raise, hold, down pressure and float.
Bucket Positions: Roll back, hold and dump.

SERVICE CAPACITIES: (Approx):

	litre	(gal)
Cooling system	40.0	(10.5)
Lube systems:		
Crankcase	9.5	(2.5)
Transmission & converter	17.0	(4.5)
Differential, front	15.0	(4)
Differential, rear	15.0	(4)
Hydraulic system	38.0	(10)
Fuel tank	119.0	(31.5)



BUCKET SIZE		General Purpose	General Purpose	General Purpose	Multi Purpose
SAE	Rated-m ³ (cu. yds.)	0.96 (1.25)	1.15 (1.5)	1.34 (1.75)	0.96 (1.25)
Bucket Capacity	Struck-m ³ (cu. yds.)	0.76 (1.0)	0.99 (1.3)	1.15 (1.5)	0.76 (1.00)
Width—mm		2337 (92")	2388 (94")	2388 (94")	2388 (94")
Max. Mat'l. Wt. Per	Excavating	1780 (3000)	1483 (2500)	1270 (2140)	1780 (3000)
kg/m ² (lb./yd ²)	Stockpile	2136 (3600)	1780 (3000)	1525 (2570)	—
**Static Tipping Load	Straight	4502 (9925)	4491 (9900)	4423 (9750)	3874 (8540)
w/ROPS, kg (lb.)	Full turn	3826 (8435)	3817 (8415)	3758 (8285)	*** 3293 (7260)
** Basic Operating Wt. w/ROPS, kg (lb.) No attachments included		6282 (13850)	6294 (13875)	6362 (14025)	6674 (14714)
*Dump Clearance, Max. Height and 45° Dump Angle—m		2.76 (9'0.5")	2.71 (8'10.5")	2.65 (8'8.5")	2.62 (8'7")
*Reach @ 7° Cut Edge Clearance and 45° Dump Angle—m		1.27 (4'2")	1.31 (4'3.5")	1.33 (4'4.5")	1.32 (4'4")
*Reach at Max. Height and 45° Dump Angle—m		0.93 (3'0.5")	0.98 (3'2.5")	1.04 (3'5")	0.99 (3'3")
*Overall Length, Bucket on Ground—m		5.30 (17'4.5")	5.37 (17'7.5")	5.45 (17'10.5")	5.53 (18'1.5")
*Overall Length, Bucket @ Carry—m		5.44 (17'10")	5.49 (18'0")	5.54 (18'2")	5.59 (18'4")
Turning Radius, Outside Corner of Bucket—m		4.89 (16'0.5")	4.93 (16'2")	4.95 (16'3")	5.00 (16'5")
Lifting Capacity @ SAE Carry, kg (lb.)		4981 (10980)	4869 (10735)	4799 (10580)	4436 (9780)
Breakout Force, N (lb)		72 947 (16400)	65919 (14820)	59025 (13270)	56979 (12810)

*Increases or decreases according to tire size—Refer to Machine Dimensions—All dimensions, weights and performance values per SAE J-732c where applicable.

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

***Additional counterweight or ballast is required to meet SAE J-818b.

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STANDARD EQUIPMENT:

Air cleaner, dry type w/safety element
Adjustable bucket seat
Access ladders
Alternator—40 amp
Cartridge-type filters for engine oil, transmission, torque converter oil and hydraulic oil
Electric horn
Engine compartment side panels
Lights, working and traveling, 2 front and 2 rear driving, 2 stop and tail
Master key disconnect
Muffler
Neutral safety start
ROPS—open (SAE J1040) w/seat belt (SAE J386)
Safety lock for loader and transmission controls
Vandalism protection

OPTIONAL ATTACHMENTS:

Adjustable boom kickout
Adjustable bucket leveler
Back-up alarm
Bucket, multi-purpose
Bucket teeth (bolt on)
Cold weather starting aid
Counterweight kit
Fenders
Hydraulic 3 spool valve w/front hydraulics
Heater and defroster
No-spin differential (Front)

Rear wiper and washer
ROPS cab, enclosed with tinted safety glass, front windshield wiper and washer
Auxiliary steering—ground driven
Sound suppression
Tachometer
Turn signal w/hazard switch
West Coast outside mirror w/convex lower section right or left

GAUGES:

Engine coolant temperature, fuel, hourmeter, torque converter oil temperature and voltmeter.
Warning Lights: Engine coolant temperature, engine oil pressure and torque converter oil temperature.
Parking brake light.

TIRES, Ballast and Counterweights—kg. (lb.)	Change in Operating Weight		Change in Full Turn Tipping Load	
	Tires Only	4 Tires w/75% CaCl ₂ in Rear Only	Tires Only	4 Tires w/75% CaCl ₂ in Rear Only
16.9 x 24—10 PR (G-15) std.	0	+560 (1232)	0	+700 (1540)
15.5 x 25—8 PR (L-2)	+82 (180)	+508 (1120)	+50 (110)	+585 (1285)
15.5 x 25—12 PR (L-2)	+84 (185)	+510 (1125)	+52 (115)	+587 (1295)
15.5 x 25—12 PR (L-3)	+132 (290)	+557 (1228)	+82 (180)	+617 (1360)
Rear Counterweight		+295 (650)		+500 (1105)
ROPS Cab add		+200 (435)		+95 (210)

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

MACHINE DIMENSIONS, Approx.

Tire Size	8PR	10 PR	12PR	
	15.5 x 25 (L-2)	16.9 x 24 (G-15)	15.5 x 25 (L-2)	15.5 x 25 (L-3)
Tread—m (in)	1.82 (5'11.7")	1.78 (5'10")	1.82 (5'11.7")	1.82 (5'11.7")
Width over Tires—m (in)	2.22 (7'3.3")	2.22 (7'3.4")	2.22 (7'3.3")	2.22 (7'3.3")
Change in Vert. Dimen.—mm (in)	+15.2 (0.6")	0	+15.2 (0.6")	+15.2 (0.6")
Change in Reach—mm (in)	-15.2 (0.6")	0	-15.2 (0.6")	-15.2 (0.6")



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