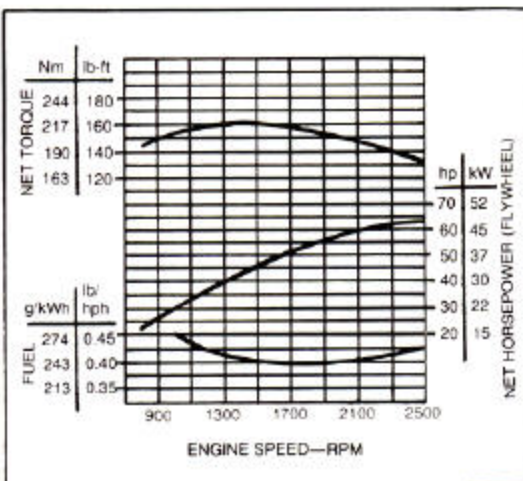




410B BACKHOE LOADER



ENGINE PERFORMANCE



FEATURES

- 62 SAE net hp (46.2 kW)
- Backhoe digging depth (ICED) 14 ft. 5 in. (4.40 m)
- Unitized frame
- Isolated engine and operator's station
- Walk-in front entry
- Designed for quietness
- Closed-center hydraulic system
- Weight distributed for working stability
- Self-adjusting manual hydraulic wet-disk brakes
- Inboard planetary final drives
- Transaxle 1st and 2nd collar shift, 3rd and 4th synchronized
- Full power-shift reverser
- Torque converter
- Single-lever loader control
- Two-lever backhoe control
- Two-lever stabilizer control
- Multi-adjustable swing-around seat
- Hydrostatic power steering
- Built-in ROPS/FOPS
- Soundproofed cab with integral ROPS/FOPS
- Vandal protection with built-in locks

ADD VERSATILITY WITH:

Extendable dipperstick

410B BACKHOE LOADER SPECIFICATIONS

(Specifications and designs subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, these specifications are based on a standard machine equipped with 17.5L-24, 10 PR, R4 rear tires; 11L-15, 10 PR, F3 front tires; 1.0 cu. yd. (0.76 m³) loader bucket; 24 in. (610 mm) standard duty backhoe bucket, ROPS/FOPS, full fuel tank and 175 lb. (79 kg) operator.)

Power (@ 2500 engine rpm):	SAE	DIN
Gross	66 hp (49.2 kW)	
Net	62 hp (46.2 kW)	66 hp (49 kW)

Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. Gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500-ft. (150 m) altitude and 85 F (29.5 C) temperature and DIN 70 020 standard conditions of 760 mm Hg barometer (sea level) and 20 C. temperature

Engine: John Deere 4-cylinder diesel, 4-stroke cycle

Bore and stroke	4.02 x 4.33 in. (102 x 110 mm)
Piston displacement	219 cu. in. (3.589 L)
Compression ratio	16.2 to 1
Maximum torque @ 1300 rpm	160 lb-ft (217 Nm) (22.1 kg-m)
NACC or AMA (U.S. Tax) horsepower	25.65
Main bearings	5
Lubrication	Pressure w/full-flow filter and cooler
Cooling	Pressurized w/thermostat and fixed bypass
Fan	Suction
Air cleaner	Dry
Electrical system	12-volt
Alternator	51 amps w/cab, 35 amps regular

Torque Converter:
Single stage, dual phase, overrunning stator, 11 in. (280 mm) diameter, stall ratio 2.8/1.

Reverser:
Modulated, full power shift with multiple wet-disk clutches. Reverser operating lever at left of steering wheel.

Transmission:
Manual shift with first and second speeds having sliding collar engagement and third and fourth speeds engaged with cone-type synchronizers. Single shift lever, floor mounted.

Travel Speeds:	Forward		Reverse	
	Gear:	mph	km/h	mph
1	0-3.4	0-5.5	0-4.0	0-6.4
2	0-7.3	0-11.7	0-8.5	0-13.7
3	0-13.3	0-21.4	0-15.5	0-24.9
4	0-21.8	0-35.0	0-25.3	0-40.7

Final Drives Planetary, inboard

Service Brakes:
Manual hydraulic, applied with separate pedals; hydraulically equalized when both pedals are depressed. Wet disks and facings are fully enclosed and self-adjusting.

Steering: Hydrostatic power
Steering axle, regular:
Turning radius (brake applied) 10 ft. 3 in. (3.12 m)
Clearance circle (brake applied) 29 ft. 6 in. (9 m)
Steering wheel turns, left to right 3.3
right to left 3.9

Hydraulic System: Closed-center (variable flow, constant pressure)
Pressure 2500 psi (17 238 kPa) (175.8 kg/cm²)
Pump 8 radial pistons, variable flow
Flow @ 2200 psi (15 170 kPa) (154.7 kg/cm²) 30 gpm (1.89 L/s)
Filter, return oil 10-micron steel-enclosed replaceable element
Screen, pressure oil50/in. (20/cm) mesh

Hydraulic Cylinders:	Bore	Stroke	Rod
Loader boom (2)	3.25 in. (83 mm)	30.0 in. (762 mm)	1.75 in. (45 mm)
Loader bucket (1)	3.5 in. (89 mm)	24.4 in. (620 mm)	1.75 in. (45 mm)
Backhoe boom (1)	4.5 in. (114 mm)	38.5 in. (980 mm)	2.25 in. (57 mm)
Backhoe crowd (1)	4.0 in. (102 mm)	33.0 in. (840 mm)	2.0 in. (51 mm)
Backhoe bucket (1)	3.5 in. (89 mm)	27.4 in. (695 mm)	2.5 in. (64 mm)
Backhoe swing (2)	4.0 in. (102 mm)	9.5 in. (241 mm)	2.0 in. (51 mm)

Backhoe extendable dipper (1)	Bore	Stroke	Rod
	2.5 in. (64 mm)	48 in. (1220 mm)	1.25 in. (32 mm)
Backhoe stabilizers (2)	4.0 in. (102 mm)	20.3 in. (515 mm)	2.0 in. (51 mm)
Steering (1) regular axle	2.0 in. (51 mm)	9.5 in. (241 mm)	1.0 in. (25.5 mm)

Tires:	Front	Rear
	11L-15, 10 PR, F3	17.5L-24, 10 PR, R4
	11L-16, 12 PR, F3	19.5L-24, 10 PR, R4

Wheel Treads:
Front 69 in. (1750 mm)
Rear 64 in. (1620 mm)

Wheelbase 83 in. (2110 mm)

Axle Ratings: (SAE J43)
Front 9,000 lb. (4080 kg)
Rear 12,530 lb. (5680 kg)

Capacities:	U.S.	Liters
Engine coolant	17 qt.	16
Engine oil including filter	9 qt.	8.5
Torque converter and reverser system	14 qt.	13
Transaxle and hydraulic system	19 gal.	72
Fuel tank	23 gal.	87

Additional Standard Equipment
Alternator, 35 amp, w/transistorized voltage regulator
Backhoe transport lock
Cast-in counterweight front axle
Differential lock, foot-engaged collar
Electric automatic destroke for hydraulic pump
Electric combination tachometer/hourmeter
Electric shutoff on diesel injection pump
Emergency/Park brake
Foot and hand throttles
Fuel tank contaminant sump w/easy access drain
Gauges for:
Engine coolant temperature
Fuel tank level
Hydraulic/transmission temperature
Horn
Hydraulic lockouts for stabilizers
Indicator lights:
Alternator
Engine oil pressure
Park brake
Turn signals
Key switch controls for electrical circuits
Lights, road operation and work site
Loader bucket automatic hydraulic self-leveling
Loader bucket level indicator
Multiple-fuse-protected electrical system
Oil-to-air cooler for hydraulic system and transaxle
Oil-to-air cooler for torque converter and reverser
Pushbutton safety start switch
Rear fenders
Rear reflectors
Restriction indicator for engine air cleaner
ROPS/FOPS with roof and seatbelt
Steps and handholds

SAE Operating Weight 14,100 lb. (6395 kg)

410B BACKHOE LOADER SPECIFICATIONS

BACKHOE:

Operator control	Two levers
Digging depth (ICED):	
Maximum	14 ft. 6 in. (4.42 m)
2-ft. (610 mm) flat bottom	14 ft. 5 in. (4.40 m)
8-ft. (2440 mm) flat bottom	13 ft. 3 in. (4.04 m)
Swing arc	180 degrees
Lifting capacity:	
Boom lifting, dipper extended	2000 lb. (910 kg)
Dipper lifting, boom at 65°	4000 lb. (1810 kg)
Digging force:	
Bucket cylinder in power dig position	10,200 lb. (45.4 kN) (4625 kg)
Crowd cylinder	6,600 lb. (29.4 kN) (2995 kg)
Reach:	
From center of swing mast	17 ft. 7 in. (5.36 m)
From center of rear axle	21 ft. 5 in. (6.53 m)
Loading height, truck loading position	10 ft. 3 in. (3.12 m)
Transport height	11 ft. 5 in. (3.48 m)
Bucket rotation	Adjustable for 123, 127 or 155 degrees
Bucket positions	12 or 20 degrees rollback or 6 degrees forward

Extendable Dipper Option:

Operator control	Right foot treadle
Digging depth, 2 ft. (610 mm) flat bottom	
Extended	18 ft. 6 in. (5.64 m)
Retracted	14 ft. 7 in. (4.44 m)
Reach from center of swing mast	
Extended	21 ft. 7 in. (6.58 m)
Retracted	17 ft. 9 in. (5.41 m)
Loading height, truck loading position	
Extended	12 ft. 10 in. (3.91 m)
Retracted	10 ft. 5 in. (3.18 m)
Digging force, crowd cylinder	
Extended	4360 lb. (19.4 kN) (1980 kg)
Retracted	6360 lb. (28.3 kN) (2880 kg)

Stabilizers:

Operator control	Two levers
Transport width	7 ft. 8 in. (2.34 m)
Spread in operating position	9 ft. 10 in. (3 m)
Angle rearward	13 degrees

Optional or Special Equipment:

Altitude compensating engine turbocharger
Automatic return-to-dig
Auxiliary bolt-on cutting edge for loader buckets
Auxiliary hydraulic valves and circuits for loader and backhoe
Bolt-on teeth for loader buckets
Cab with:
51 amp alternator
Fabric covered swivel seat, suspension or non-suspension
Front defroster fan
Front and rear wipers
Integral ROPS/FOPS
Standard heater
Cold weather starting aid, remote mounted
Engine coolant heater
Extendable dipperstick for backhoe
Fire extinguisher
Front frame mounted counterweight
Heavy-duty batteries
Rear defroster fan
Rear wheel spacers for tire chain clearance
Rear view mirror, inside mounted, curved, heavy-duty
Reverse warning alarm
Reversible stabilizer pads
Ripper tooth for backhoe, 24 in. (610 mm)
Rotating beacon light
Special loader buckets for bolt-on teeth or auxiliary cutting edge
Swivel seat, vinyl covered, suspension or non-suspension
SMV emblem
3-in. (76 mm) seat belt
Toolbox

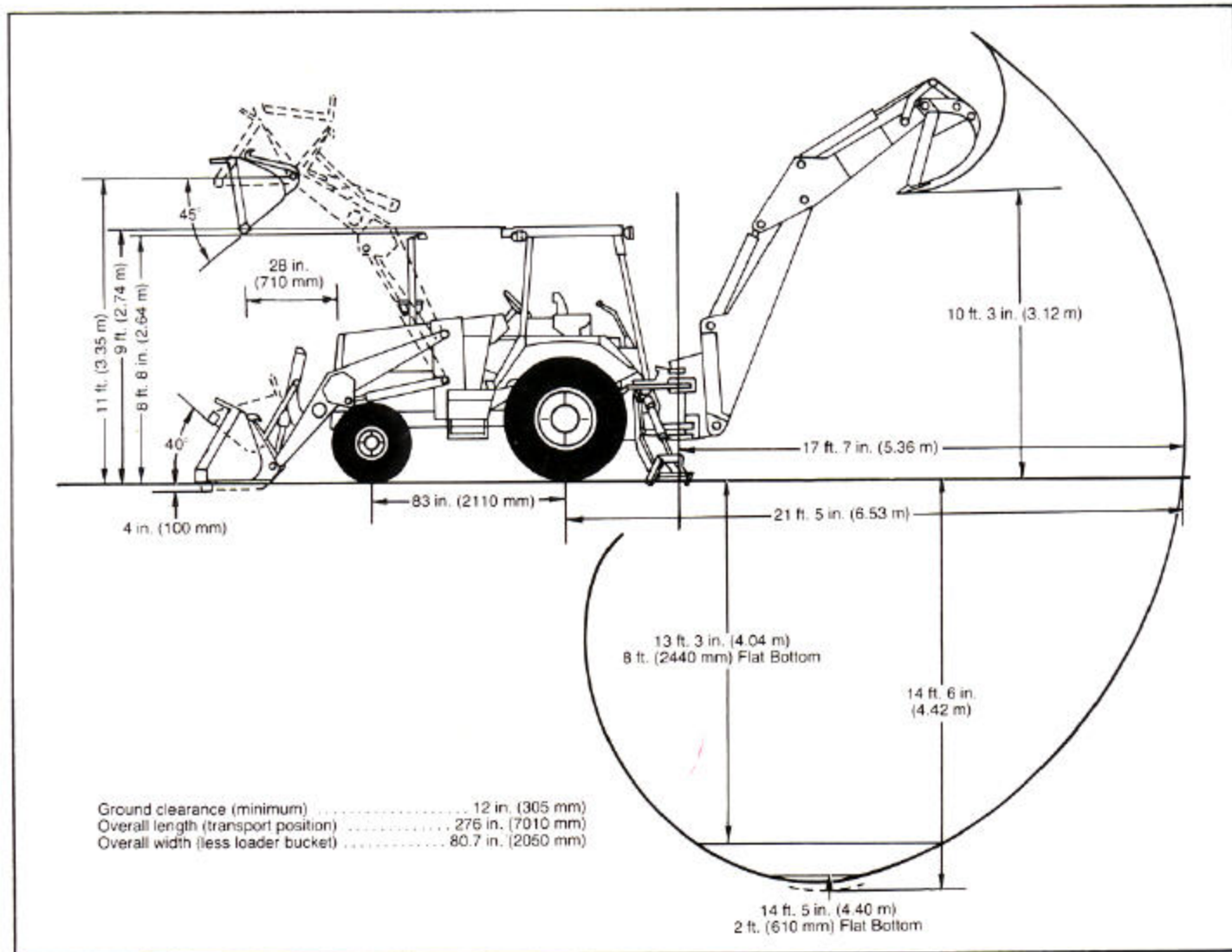
LOADER:

Operator control	Single lever
Rollback at ground level	40 degrees
Breakout force	7800 lb. (34.7 kN) (3540 kg)
Digging depth below ground, bucket level	4 in. (100 mm)
Lifting capacity, full height	5000 lb. (2270 kg)
Height to bucket hinge pin, max.	11 ft. (3.35 m)
Bucket dump angle, max.	50 degrees
Dump clearance, bucket @ 45 degrees	9 ft. (2.74 m)
Reach at full height, bucket @ 45 degrees	28 in. (710 mm)
Raising time to full height	4.4 sec.
Bucket dump time	1.0 sec.
Bucket lowering time (power down)	3.0 sec.

Loader:	Width		BUCKETS Struck Capacity		Heaped Capacity	
	In.	(mm)	Cu. Ft.	(m ³)	Cu. Yd.	(m ³)
Backhoe:	92	(2340)			1.0	(0.76)
	92	(2340)			1.3	(1.00)
Standard duty	12	(305)	2.6	(0.07)	3.0	(0.08)
	16	(406)	3.7	(0.10)	4.5	(0.13)
	18	(457)	4.2	(0.12)	5.1	(0.14)
	24	(610)	5.9	(0.17)	7.5	(0.21)
	30	(762)	7.5	(0.21)	10.0	(0.28)
Heavy duty	36	(914)	7.5	(0.21)	10.0	(0.28)
	18	(457)	4.2	(0.12)	5.1	(0.14)
	24	(610)	5.9	(0.17)	7.5	(0.21)
High capacity	30	(762)	7.5	(0.21)	10.0	(0.28)
	24	(610)	7.2	(0.20)	8.8	(0.25)
Ejector	36	(914)	11.2	(0.32)	14.5	(0.41)
	24	(610)	4.6	(0.13)	5.7	(0.16)

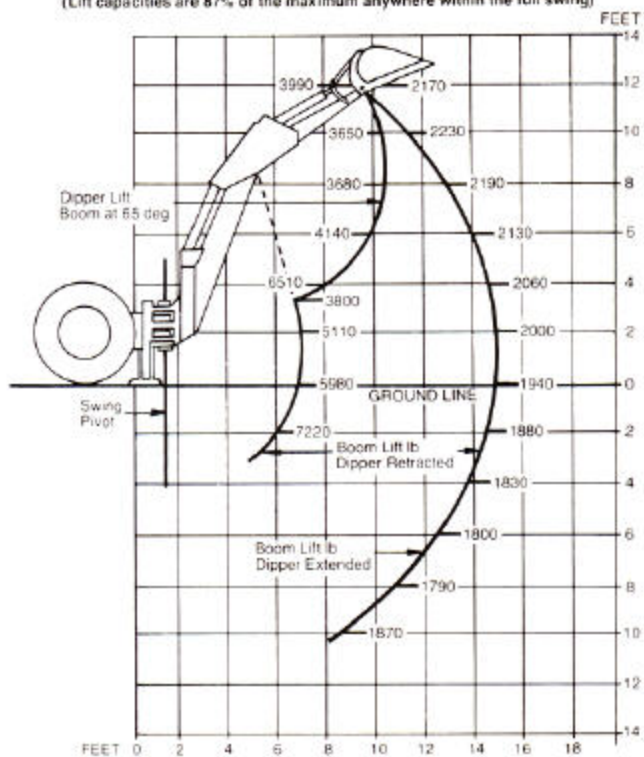


410B BACKHOE LOADER DIMENSIONS



410B BACKHOE LIFT PER SAE J31

(Lift capacities are 87% of the maximum anywhere within the full swing)



410B BACKHOE LIFT PER SAE J31

(Lift capacities are 87% of the maximum anywhere within the full swing)

