

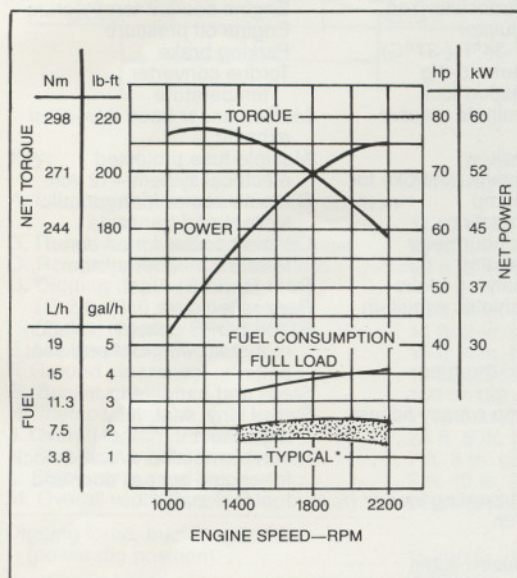


## 410C BACKHOE LOADER



Model shown may include options

### ENGINE PERFORMANCE



\*Depending on operating variables

### FEATURES

75 SAE net hp (56 kW)

Backhoe digging depth (SAE)  
15 ft. 4 in. (4.67 m) - long dipperstick  
14 ft. 8 in. (4.47 m) - short dipperstick

Unitized frame

Isolated engine and operator's station

Walk-in front entry

Designed-in quietness

Closed-center hydraulic system

O-ring face seal hydraulic plumbing

Weight distributed for working stability

Self-adjusting 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 with anti-drift lockouts—raise and lower

Multi-adjustable swivel seat w/high backrest and armrests

Hydrostatic power steering

Soundproofed cab w/integral ROPS/FOPS

Vandal protection w/built-in locks

### ADD VERSATILITY WITH:

Mechanical front-wheel drive with:  
Wet clutch—engage on the go  
Offset driveshaft for better ground clearance

Extendable dipperstick

## 410C BACKHOE LOADER SPECIFICATIONS

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on a unit with 17.5L-24, 10 PR, R4 rear tires, 11L-15, 10 PR, F3 front tires, 1.0 cu. yd. (0.76 m<sup>3</sup>) loader bucket, 24-in. (610 mm) standard duty backhoe bucket, ROPS/FOPS, full fuel tank and 175 lb. (80 kg) operator.

| Rated Power @ 2200 rpm: | SAE           | DIN 70 020 |
|-------------------------|---------------|------------|
| Net .....               | 75 hp (56 kW) | 57 kW      |
| Gross .....             | 80 hp (60 kW) |            |

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 70 020, using No. 2-D fuel @ 35 API gravity. No derating is required up to 5000 feet (1500 m) altitude. (With optional ACT\*, 10,000 feet [3050 m] altitude.) Gross power is without cooling fan. \*Altitude compensating turbocharger

### Engine: John Deere 4276D

|                                  |                                               |
|----------------------------------|-----------------------------------------------|
| Type .....                       | 4-stroke cycle, naturally aspirated diesel    |
| Bore and stroke .....            | 4.19 x 5.00 in. (106.5 x 127 mm)              |
| No. of cylinders .....           | 4                                             |
| Displacement .....               | 276 cu. in. (4.524 L)                         |
| Maximum net torque @ 1200 rpm .. | 215 lb-ft (292 Nm) (29.7 kg-m)                |
|                                  | 20 percent torque rise                        |
| Cooling fan .....                | Suction                                       |
| Compression ratio .....          | 16.8 to 1                                     |
| Lubrication .....                | Pressure system w/full-flow filter and cooler |
| Main bearings .....              | 5                                             |
| Air cleaner .....                | Dry                                           |
| Electrical system .....          | 12 volt                                       |
| Alternator .....                 | 65 amps                                       |

### Torque Converter:

Single stage, dual phase, overrunning stator, 11-in. (280 mm) diameter, stall torque ratio 2.23:1.

### 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:                                                  | Gear | Forward |        | Reverse |        |
|-----------------------------------------------------------------|------|---------|--------|---------|--------|
|                                                                 |      | mph     | (km/h) | mph     | (km/h) |
| With standard 17.5L-24 rear and 11L-15 front tires              | 1    | 3.0     | 4.8    | 3.5     | 5.8    |
|                                                                 | 2    | 5.1     | 8.2    | 5.9     | 9.5    |
|                                                                 | 3    | 10.9    | 17.6   | 12.6    | 20.3   |
|                                                                 | 4    | 19.0    | 30.6   | 22.0    | 35.4   |
| With MFWD and 21L-24 (required) rear and 12.00-16.5 front tires | 1    | 3.3     | 5.3    | 3.9     | 6.3    |
|                                                                 | 2    | 5.7     | 9.2    | 6.6     | 10.6   |
|                                                                 | 3    | 12.1    | 19.5   | 14.0    | 22.5   |
|                                                                 | 4    | 22.1    | 35.6   | 25.6    | 41.2   |

**Final Drives** ..... Planetary, inboard

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

**Secondary Brake:** Mechanical "V" groove band located on differential ring gear.

### Steering: Hydrostatic power

Non-powered axle

|                                           |                        |
|-------------------------------------------|------------------------|
| Curb turning radius—w/brakes .....        | 11 ft. 8 in. (3.55 m)  |
| ..... w/o brakes .....                    | 13 ft. 3 in. (4.04 m)  |
| Bucket clearance circle—w/brakes .....    | 31 ft. 8 in. (9.64 m)  |
| ..... w/o brakes .....                    | 34 ft. 9 in. (10.60 m) |
| Steering wheel turns, left to right ..... | 2.2                    |
| ..... right to left .....                 | 2.9                    |
| Axle oscillation stop to stop .....       | 22 deg.                |
| Mechanical Front-Wheel Drive              |                        |
| Curb turning radius—w/brakes .....        | 11 ft. 5 in. (3.49 m)  |
| ..... w/o brakes .....                    | 13 ft. 6 in. (4.11 m)  |
| Bucket clearance circle—w/brakes .....    | 29 ft. 7 in. (9.02 m)  |
| ..... w/o brakes .....                    | 33 ft. 8 in. (10.26 m) |
| Steering wheel turns, left to right ..... | 2.3                    |
| ..... right to left .....                 | 2.8                    |
| Axle oscillation stop to stop .....       | 22 deg.                |

### Hydraulic System: Closed-center

(variable flow, constant pressure)

|                                                             |                                                   |
|-------------------------------------------------------------|---------------------------------------------------|
| Pressure .....                                              | 2755 psi (19 000 kPa) (193.7 kg/cm <sup>2</sup> ) |
| Pump .....                                                  | 8 radial pistons, variable flow                   |
| Flow @ 2500 psi (17 238 kPa) (175.8 kg/cm <sup>2</sup> ) .. | 35 gpm (133 L/min)                                |
| Filter, return oil .....                                    | 10 micron, steel-enclosed replaceable element     |
| Screen, pressure oil .....                                  | 50/in. (20 cm) mesh                               |

### Hydraulic Cylinders:

|                              | Bore |      | Stroke |      | Rod  |      |
|------------------------------|------|------|--------|------|------|------|
|                              | In.  | (mm) | In.    | (mm) | In.  | (mm) |
| Loader boom (2) .....        | 3.15 | 80   | 29.8   | 757  | 1.77 | 45   |
| Loader bucket (1) .....      | 3.54 | 90   | 28.2   | 716  | 1.77 | 45   |
| Backhoe boom (1) .....       | 4.53 | 115  | 38.5   | 978  | 2.48 | 63   |
| Backhoe crowd (1) .....      | 3.94 | 100  | 32.2   | 819  | 2.20 | 56   |
| Backhoe bucket (1) .....     | 3.54 | 90   | 31.0   | 787  | 1.97 | 50   |
| Backhoe swing (2) .....      | 4.0  | 102  | 9.5    | 241  | 2.0  | 51   |
| Backhoe extendable           |      |      |        |      |      |      |
| ..... dipper (1) .....       | 2.5  | 64   | 48.0   | 1220 | 1.25 | 32   |
| Backhoe stabilizers (2) ..   | 3.94 | 100  | 20.3   | 516  | 1.97 | 50   |
| Steering (1) regular axle .. | 2.0  | 51   | 9.5    | 241  | 1.0  | 25   |
| Steering (1) MFWD .....      | 2.0  | 51   | 12.6   | 320  | 1.0  | 25   |

### Tires:

|            | Front                       |  | Rear                |  |
|------------|-----------------------------|--|---------------------|--|
|            | 11L-15, 10 PR, F3           |  | 17.5-24, 10 PR, R4  |  |
| MFWD ..... | 11L-16, 12 PR, F3           |  | 19.5L-24, 10 PR, R4 |  |
|            | 12.00-16.5, 8 PR, lug tread |  | 21L-24, 10 PR, R4   |  |

### Wheel Treads:

|                  |                  |
|------------------|------------------|
| Front .....      | 69 in. (1750 mm) |
| Rear .....       | 64 in. (1625 mm) |
| MFWD—Front ..... | 68 in. (1730 mm) |
| —Rear .....      | 69 in. (1750 mm) |

**Wheelbase** ..... 82.7 in. (2100 mm)

### Axle Ratings:

|             | Static Rating | Dynamic Rating | SAE J43    |
|-------------|---------------|----------------|------------|
| Front ..... | 56,000 lb.    | 56,500 lb.     | 11,950 lb. |
|             | (25 500 kg)   | (25 500 kg)    | (5420 kg)  |
| Rear .....  | 51,000 lb.    | 68,000 lb.     | 15,290 lb. |
|             | (23 200 kg)   | (30 900 kg)    | (6930 kg)  |

### Capacities:

|                                            | U.S.    | Liters |
|--------------------------------------------|---------|--------|
| Fuel tank .....                            | 23 gal. | 87     |
| (Optional fuel tank) .....                 | 38 gal. | 144    |
| 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 .....       | 21 gal. | 80     |

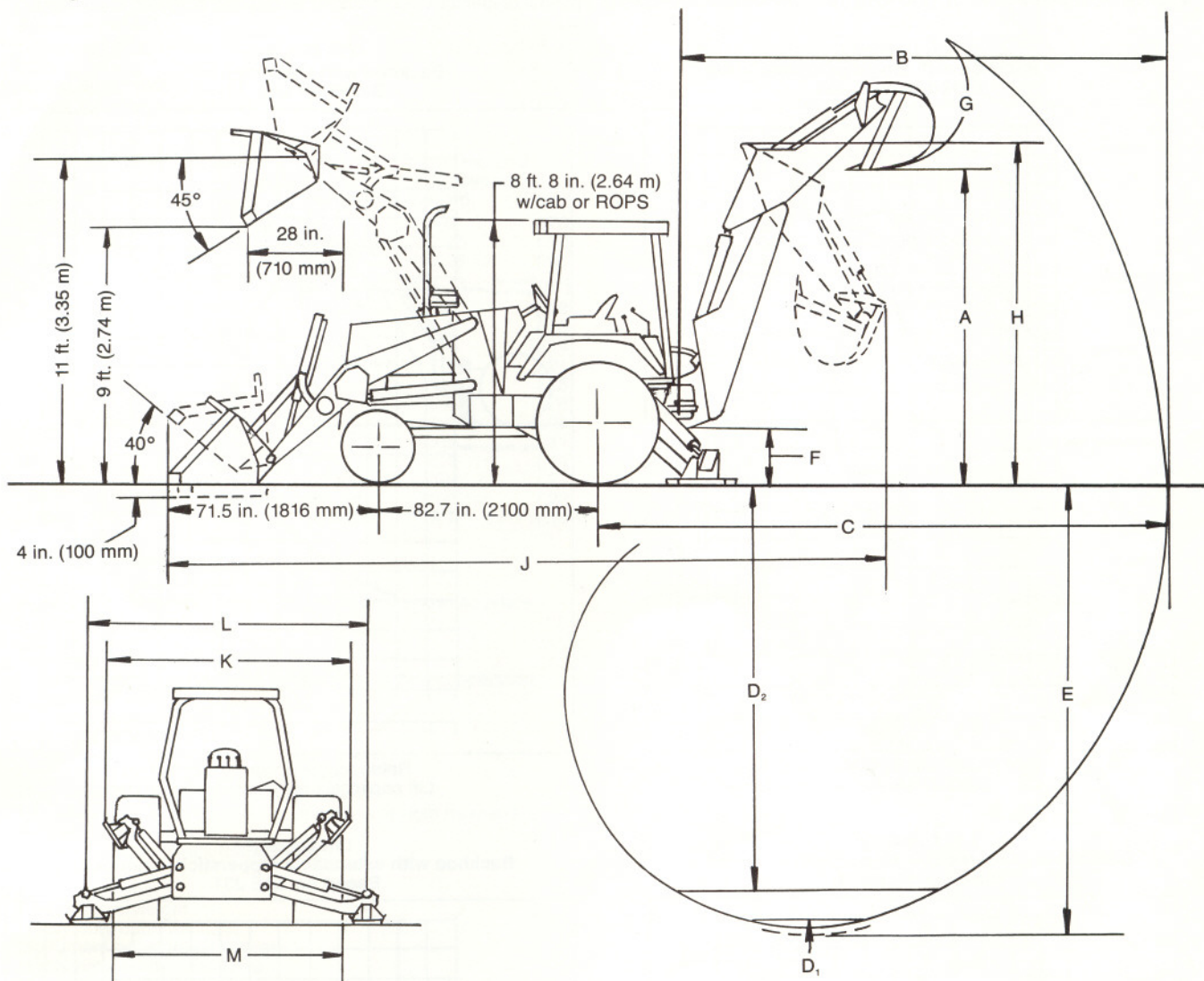
### Additional Standard Equipment:

|                                                       |                                                                            |
|-------------------------------------------------------|----------------------------------------------------------------------------|
| Air cleaner restriction indicator                     | Loader bucket level indicator                                              |
| Air cleaner, dry type w/safety element and precleaner | Monitor for:                                                               |
| Alternator, w/transistorized voltage regulator        | Alternator                                                                 |
| Antifreeze to -34°F (-37°C)                           | Engine coolant temperature                                                 |
| Automatic return-to-dig                               | Engine oil pressure                                                        |
| Backhoe transport lock                                | Parking brake                                                              |
| Battery, 180-minute reserve capacity                  | Torque converter temperature                                               |
| Differential lock                                     | Muffler, under hood w/vertical exhaust                                     |
| Electric automatic destroke for hydraulic pump        | Multiple fuse protected electrical system—12 volt                          |
| Electric combination tachometer/hourmeter             | Oil-to-air cooler for hydraulic system and transaxle                       |
| Electric fuel shutoff                                 | Oil-to-air cooler for reverser/torque converter system                     |
| Emergency/parking brake                               | Rear fenders                                                               |
| Engine side shields w/built-in locks                  | Rear reflectors                                                            |
| Floor mat                                             | ROPS/FOPS canopy, isolation mounted, with roof and seat belt               |
| Foot and hand throttles                               | Steps and handholds                                                        |
| Fuel gauge                                            | Swivel vinyl seat, fully adjustable                                        |
| Fuel tank sump w/easy access drain                    | Vandal protection w/built-in lock for engine access door and fuel tank cap |
| Headliner                                             |                                                                            |
| Horn                                                  |                                                                            |
| Hydraulic self-leveling loader                        |                                                                            |
| Key start switch                                      |                                                                            |
| Lights:                                               |                                                                            |
| ..... Flashing hazard lights                          |                                                                            |
| ..... Halogen driving lights                          |                                                                            |
| ..... Halogen work lights                             |                                                                            |
| ..... Tail and brake lights                           |                                                                            |
| ..... Turn signal lights                              |                                                                            |

**SAE Operating Weight** ..... 14,400 lb. (6550 kg)

## 410C BACKHOE LOADER SPECIFICATIONS AND DIMENSIONS

Drawing based on machine with 17.5L-24 tires



### Key:

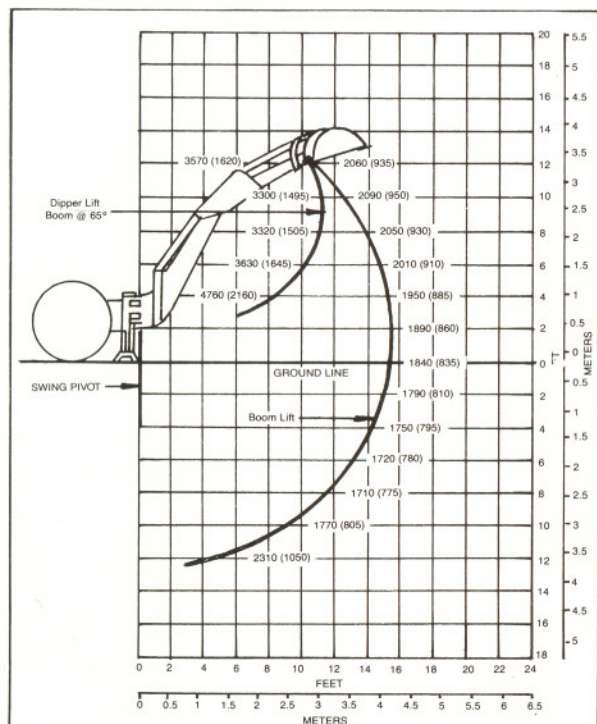
|                                                        | Backhoe*<br>w/Long Dipperstick    | Backhoe*<br>w/Short Dipperstick   | Extendable Dipperstick<br>Retracted | Extendable Dipperstick<br>Extended |
|--------------------------------------------------------|-----------------------------------|-----------------------------------|-------------------------------------|------------------------------------|
| A. Loading height, truck loading position              | 11 ft. 10 in. (3.61 m)            | 11 ft. 1 in. (3.38 m)             | 11 ft. 6 in. (3.51 m)               | 13 ft. 11 in. (4.24 m)             |
| B. Reach from center of swing mast                     | 18 ft. 5 in. (5.61 m)             | 17 ft. 9 in. (5.42 m)             | 17 ft. 9 in. (5.42 m)               | 21 ft. 5 in. (6.53 m)              |
| C. Reach from center of rear axle                      | 22 ft. 2 in. (6.76 m)             | 21 ft. 6 in. (6.55 m)             | 21 ft. 6 in. (6.55 m)               | 25 ft. 2 in. (7.67 m)              |
| D. Digging depth (SAE):                                |                                   |                                   |                                     |                                    |
| (1) 2-ft. (610 mm) flat bottom                         | 15 ft. 3 in. (4.65 m)             | 14 ft. 6 in. (4.42 m)             | 14 ft. 6 in. (4.42 m)               | 18 ft. 4 in. (5.59 m)              |
| (2) 8-ft. (2440 mm) flat bottom                        | 14 ft. 2 in. (4.32 m)             | 13 ft. 5 in. (4.09 m)             | 13 ft. 5 in. (4.09 m)               | 17 ft. 6 in. (5.34 m)              |
| E. Maximum digging depth                               | 15 ft. 4 in. (4.67 m)             | 14 ft. 8 in. (4.47 m)             | 14 ft. 8 in. (4.47 m)               | 18 ft. 5 in. (5.61 m)              |
| F. Ground clearance, minimum                           | 12 in. (305 mm)                   | 12 in. (305 mm)                   | 12 in. (305 mm)                     | 12 in. (305 mm)                    |
| G. Bucket rotation                                     | 160 or 180 degrees                | 160 or 180 degrees                | 160 or 180 degrees                  | 160 or 180 degrees                 |
| H. Transport height                                    | 11 ft. 5 in. (3.48 m)             | 11 ft. 5 in. (3.48 m)             | 11 ft. 8 in. (3.56 m)               | 11 ft. 8 in. (3.56 m)              |
| J. Overall length, transport                           | 23 ft. 5 in. (7.14 m)             | 22 ft. 11 in. (6.99 m)            | 23 ft. (7.01 m)                     | 23 ft. (7.01 m)                    |
| K. Stabilizer width—transport                          | 7 ft. 8 in. (2.34 m)              | 7 ft. 8 in. (2.34 m)              | 7 ft. 8 in. (2.34 m)                | 7 ft. 8 in. (2.34 m)               |
| L. Stabilizer spread—operating                         | 9 ft. 10 in. (3.00 m)             | 9 ft. 10 in. (3.00 m)             | 9 ft. 10 in. (3.00 m)               | 9 ft. 10 in. (3.00 m)              |
| M. Overall width (less loader bucket)                  | 82 in. (2080 mm)                  | 82 in. (2080 mm)                  | 82 in. (2080 mm)                    | 82 in. (2080 mm)                   |
| Digging force, bucket cylinder<br>(power dig position) | 11,700 lb. (52.0 kN)<br>(5310 kg) | 11,700 lb. (52.0 kN)<br>(5310 kg) | 11,700 lb. (52.0 kN)<br>(5310 kg)   | 11,700 lb. (52.0 kN)<br>(5310 kg)  |
| Digging force, crowd cylinder                          | 6300 lb. (28.0 kN)<br>(2860 kg)   | 6800 lb. (30.3 kN)<br>(3085 kg)   | 6800 lb. (30.3 kN)<br>(3085 kg)     | 4600 lb. (20.5 kN)<br>(2085 kg)    |
| Swing arc                                              | 180 degrees                       | 180 degrees                       | 180 degrees                         | 180 degrees                        |
| Bucket positions                                       | 9 or 18 deg. rollback             | 12 or 21 deg. rollback            | 8 or 17 deg. rollback               | 12 or 22 deg. rollback             |
| Operator control                                       | Two levers                        | Two levers                        | Right foot treadle                  | Right foot treadle                 |
| Stabilizer angle rearward                              | 14.5 degrees                      | 14.5 degrees                      | 14.5 degrees                        | 14.5 degrees                       |
| Lifting capacity, maximum, boom @ 65°                  | 4100 lb. (1860 kg)                | 4200 lb. (1910 kg)                | 4100 lb. (1860 kg)                  | 2700 lb. (1220 kg)                 |
| Leveling angle                                         | 14 degrees                        | 14 degrees                        | 14 degrees                          | 14 degrees                         |

\*Note: Backhoe specifications are with 24-in. (610 mm) standard bucket.

## 410C BACKHOE LOADER LIFTING CAPACITIES

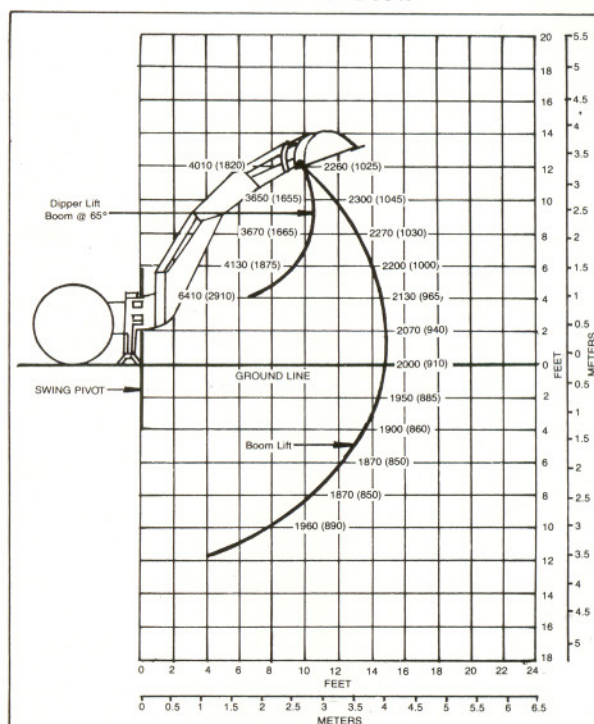
Lifting Capacity Ratings made from bucket hinge pin, loader bucket and stabilizer on firm, level ground. Lifting capacities are 87 percent of the maximum lift over any point on the swing arc and do not exceed 75 percent of the tipping load. Angle between boom and ground at 65 degrees. Machine equipped with 24-in. (610 mm) trenching bucket, standard or optional dipperstick (as indicated below) and standard equipment.

**Lift Capacity**  
Backhoe with long dipperstick.  
Based on SAE J31.



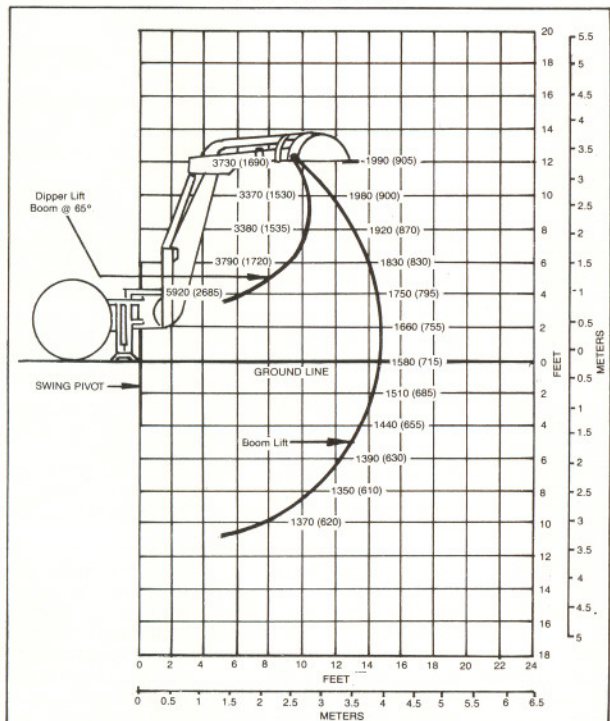
Rated lift capacities are in lb. (kg)  
Lift capacities are hydraulically limited.

**Lift Capacity**  
Backhoe with short dipperstick.  
Based on SAE J31.



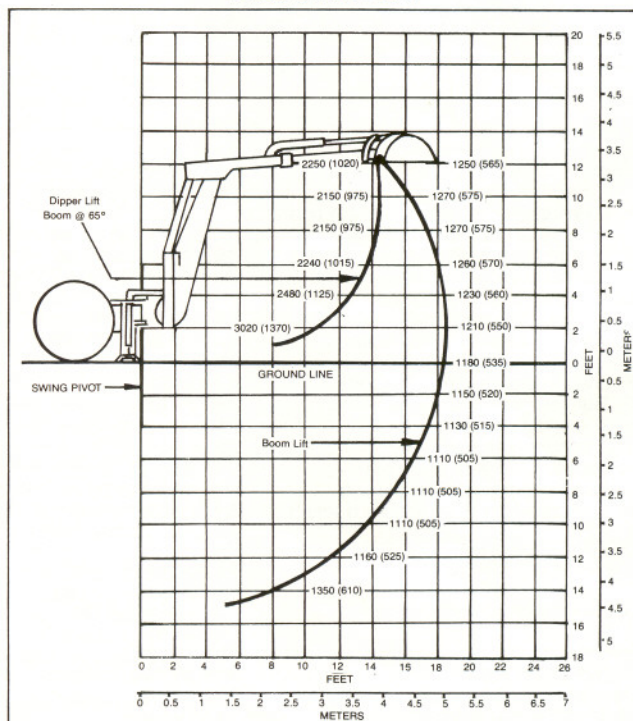
Rated lift capacities are in lb. (kg)  
Lift capacities are hydraulically limited.

**Lift Capacity**  
Backhoe with extendable dipperstick, retracted.  
Based on SAE J31.



Rated lift capacities are in lb. (kg)  
Lift capacities are hydraulically limited.

**Lift Capacity**  
Backhoe with extendable dipperstick, extended.  
Based on SAE J31.



Rated lift capacities are in lb. (kg)  
Lift capacities are hydraulically limited.

## 410C BACKHOE LOADER

### LOADER:

|                                         |                              |
|-----------------------------------------|------------------------------|
| Operator control .....                  | Single lever                 |
| Breakout force .....                    | 8800 lb. (39.1 kN) (3992 kg) |
| Lifting capacity, full height .....     | 5700 lb. (2585 kg)           |
| Raising time to full height .....       | 4.4 sec.                     |
| Bucket dump time .....                  | 1.10 sec.                    |
| Bucket lowering time (power down) ..... | 3.0 sec.                     |

### BUCKETS

| Loader:         | Width |        | Heaped Capacity   |                   |
|-----------------|-------|--------|-------------------|-------------------|
|                 | In.   | (mm)   | Cu. Yd.           | (m <sup>3</sup> ) |
| General purpose | 92    | (2340) | 1.0               | (.76)             |
|                 | 92    | (2340) | 1.25              | (.96)             |
| Long lip        | 89.4  | (2270) | 1.25              | (.96)             |
| Backhoe:        |       |        | Cu. Ft.           |                   |
|                 |       |        | (m <sup>3</sup> ) |                   |
| Standard-duty   | 12    | (305)  | 3.0               | (.08)             |
|                 | 16    | (406)  | 4.5               | (.13)             |
|                 | 18    | (457)  | 5.1               | (.14)             |
|                 | 24    | (610)  | 7.5               | (.21)             |
|                 | 24    | (610)  | 8.8               | (.25)             |
|                 | 30    | (762)  | 10.0              | (.28)             |
|                 | 36    | (914)  | 10.0              | (.28)             |
|                 | 36    | (914)  | 14.5              | (.41)             |
| Heavy-duty      | 18    | (457)  | 5.1               | (.14)             |
|                 | 24    | (610)  | 7.5               | (.21)             |
|                 | 30    | (762)  | 10.0              | (.28)             |
| Ejector         | 24    | (610)  | 5.7               | (.16)             |

### Optional or Special Equipment:

Altitude-compensating engine turbocharger  
 Auxiliary hydraulic valves and circuit for loader and backhoe  
 Backup alarm  
 Cab with:  
   Alternator, 51-amp  
   Fabric-covered swivel seat, suspension or non-suspension  
   Front defroster fan  
   Front and rear wipers  
   Integral ROPS/FOPS  
   Standard heater—19,000 Btu/hr (5.6 kW)  
 Cab, quarter (front windshield and door)  
 Cold-weather starting aid, remote mounted  
 Economy seat, vinyl covered, suspension or rigid mounted  
 Engine coolant heater  
 Extendable dipperstick for backhoe  
 Fan blast baffles  
 Fire extinguisher  
 Front counterweight  
 Heavy-duty batteries  
 Instrument panel vandal cover  
 Mechanical front-wheel drive  
 Rear defroster fan  
 Rearview mirror, inside mounted, curved, heavy-duty  
 Rear wheel spacers for tire chain clearance  
 Reversible stabilizer pads  
 Rotating beacon light  
 SMV emblem  
 3-in. (76 mm) seat belt  
 Three- or four-lever, pedal-swing backhoe controls  
 Toolbox

### Additional Available Equipment:\*

Auxiliary bolt-on cutting edge for loader buckets  
 Auxiliary fuel tank  
 Backhoe lift eye  
 Bolt-on teeth for loader bucket  
 Cab pressurizer  
 Deluxe heater w/fresh air intake—40,000 Btu/hr (11.7 kW)  
   Air conditioner, 24,000 Btu/hr (7.0 kW)  
 Front windshield and door kit  
 Grille guard  
 Lateral slides for operator's seat  
 Loader bucket chain hooks, outer  
 Longer dippersticks  
 Light materials/snow loader buckets  
 MFWD driveshaft guard  
 Multipurpose loader buckets  
 Radio or radio cassette  
 Special paint

\*See your John Deere dealer for further information