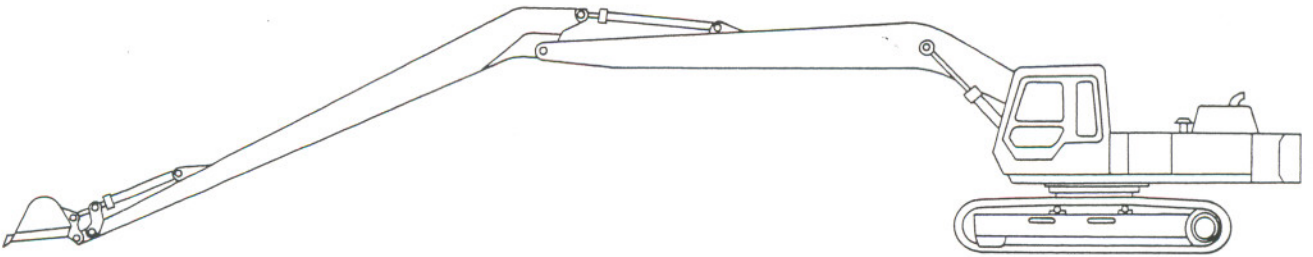


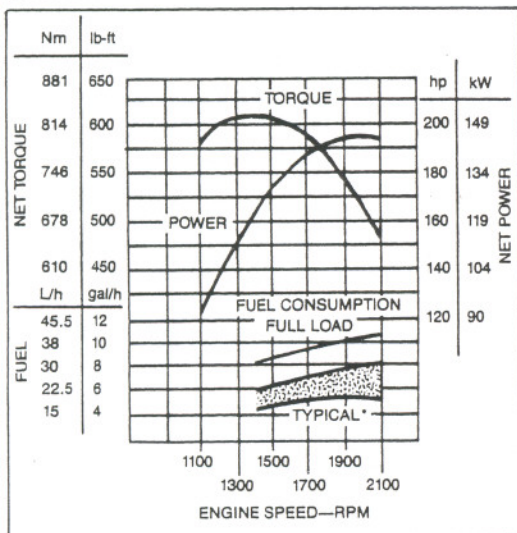


# 892D-LC EXCAVATOR LONG FRONT



Model shown may include options.

## ENGINE PERFORMANCE



\* Depending on operating variables

## FEATURES

195 SAE net hp (145 kW) turbocharged John Deere diesel engine

63,886 lb. (28 978 kg) maximum operating weight

45 ft. 10 in. (13.98 m) digging depth

60 ft. 6 in. (18.44 m) reach at ground level

16 ft. 0 in. (4.87 m) undercarriage length

Simultaneous operation of long-front digging functions, swing and propel

Advanced high-efficiency variable-flow hydraulic system

Adjustable two-lever, all-hydraulic pilot control of long-front boom, arm, bucket, and 360-degree continuous swing

Automatic engine idling system

Excavator track-type undercarriage with high pressure propel system

Large cab for improved operator comfort and visibility

Heavy-duty planetary swing and propel gear reduction with automatically engaged multiple wet-disk brakes

Vandal protection—lockable cab and service doors

7/8 cu. yd. (.7 m<sup>3</sup>) SAE heaped rated ditch cleaning bucket—59 in. (1500 mm) width without side cutters

Long front designed specifically for dredging mud, silt organic material from river or canal beds



# 892D-LC EXCAVATOR LONG FRONT SPECIFICATIONS

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with PCSA and SAE Standards. Except where otherwise noted these specifications are based on a unit equipped with 640 lb. (290 kg) bucket, 31-in. (800 mm) track shoes, 16 ft. 0 in. (4.87 m) long undercarriage, full fuel tank, 175-lb. (80 kg) operator and standard equipment.

<b>Rated Power @ 2100 engine rpm:</b>	<b>SAE</b>	<b>DIN 6270B</b>
Net .....	195 hp (116 kW)	195 kW
Gross .....	205 hp (153 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 6270B, using No. 2-D fuel @ 35 API gravity. No derating is required up to 10,000 ft. (3050 m) altitude. Gross power is without cooling fan.

### Engine: John Deere 6466A

Type ..... 4-stroke cycle, turbocharged and intercooled diesel  
 Bore and stroke ..... 4.56 x 4.75 in. (116 x 121 mm)  
 No. of cylinders ..... 6  
 Displacement ..... 466 cu. in. (7.638 L)  
 Compression ratio ..... 14.9 to 1  
 Maximum net torque @ 1400 rpm ..... 610 lb-ft (827 Nm) (84.3 kg-m)  
 Lubrication ..... Pressure system w/full-flow filter  
 Cooling fan ..... Suction type  
 Air cleaner w/restriction indicator ..... Dry  
 Electrical system ..... 24-volt w/42-amp alternator  
 Batteries (2) 12-volt ..... Reserve capacity: 300 minutes  
 An engine auto-idle system automatically lowers engine speed when control levers are in neutral. An auto-idle cancel switch is provided.

### Hydraulic System: Open center

Two variable-displacement axial-piston pumps and two control valves (5 and 4 spool) provide independent and combined operation of all functions. The 5-spool control valve has one spool for an auxiliary attachment function. Travel speed and hydraulic system mode switches are easy to reach; permit slowing propel and implement circuits for more precise control.

Main pumps ..... 2 variable-displacement axial piston  
 Minimum flow ..... 2 x 18 gpm (2 x 68 L/min)  
 Maximum rated flow ..... 2 x 72.1 gpm (2 x 273 L/min)  
 Pilot pump ..... One gear  
 Maximum rated flow ..... 9.25 gpm (35 L/min)  
 Pressure setting ..... 570 psi (3930 kPa) (40 kg/cm<sup>2</sup>)  
 System operating pressure  
 Implement circuits ..... 4050 psi (27 930 kPa) (285 kg/cm<sup>2</sup>)  
 Travel circuits ..... 4980 psi (34 340 kPa) (350 kg/cm<sup>2</sup>)  
 Relief valve setting  
 Implement circuits ..... 4270 psi (29 440 kPa) (300 kg/cm<sup>2</sup>)  
 Crossover relief valves  
 Travel circuits ..... 5050 psi (34 820 kPa) (355 kg/cm<sup>2</sup>)  
 Swing circuits ..... 3560 psi (24 550 kPa) (250 kg/cm<sup>2</sup>)  
 Oil filtration  
 One suction filter  
 One 10-micron full flow return filter w/bypass  
 One pilot oil filter  
 Oil cooler ..... Mounted in front of the engine coolant radiator  
 High pressure hydraulic connections ..... Flat-face O-ring type

Cylinders:	Bore	Rod Diameter	Stroke
Boom (2) .....	5.7 in. (145 mm)	3.9 in. (100 mm)	60.2 in. (1530 mm)
Arm (1) .....	5.9 in. (150 mm)	4.1 in. (105 mm)	70.3 in. (1785 mm)
Bucket (1) .....	3.9 in. (100 mm)	2.6 in. (65 mm)	30.3 in. (770 mm)

Boom cylinders have built-in hydraulic cushions on the extension side only. The arm and bucket cylinders have a built-in hydraulic cushion at each end of the stroke. All cylinder rods are ground, heat-treated, chrome-plated and polished.

### Swing Mechanism:

Swing speed ..... 0-12 rpm  
 Swing ..... 360 degrees; axial piston, high torque, hydraulic motor integral crossover reliefs and multiple planetary gearing.  
 Swing brake ..... Hydraulically released, spring applied, wet-disk.  
 Swing bearing ..... Sealed single row ball with internal drive, induction hardened ring and pinion gears and 500-hour lubrication interval.

### Undercarriage:

Propel system (one for each track) ..... High-torque, axial-piston hydraulic motors with counterbalance valve and planetary drive are integrated and completely enclosed within the track shoe width. Wet multiple-disk brakes automatically release while propelling and apply when stationary. Independent drive to each track permits counterrotation.

Undercarriage and track frame ..... Excavator track-type undercarriage with heavy-duty frame with track guide. Each track frame is a formed, reinforced U-channel. A reinforced "X"-type undercarriage frame joins the track frame to the swing bearing mount.

Track rollers and idlers ..... Nine lower, two upper rollers and one idler per track. Permanently lubricated rollers and idlers have metal-faced seals. Idlers have heavy-duty spring recoil mechanisms.

Track adjustment ..... Hydraulic  
 Undercarriage length ..... 16 ft. 0 in. (4.87 m)

Track Shoes (each side) ..... 50 shoes

Track Shoes:	Shoes	Ground Contact	Average Ground Pressure
31 in. (800 mm)	Triple semigrouters	10,700 sq. in. (69 032 cm <sup>2</sup> )	6.0 psi (41.2 kPa) (0.42 kg/cm <sup>2</sup> )

Required track shoes are through-hardened, rolled alloy.

### Cab:

Large, isolation-mounted, with sound-absorbing material under floor, on ceiling and sidewalls. Tinted safety glass windows. Front window can be stored overhead. Side windows, door, and roof hatch open for ventilation. Centralized monitoring with audible alarm. Floor mat.

### Seat:

Deluxe, fully cushioned, cloth covered, with adjustable backrest, headrest and padded fold-up armrests. Independent horizontal and vertical adjustments.

### Controls:

All hydraulic functions are pilot controlled for precise metering and low operator effort. Two adjustable levers control swing, boom, arm, and bucket functions. Right and left pedals control forward, reverse and counterrotation movements. All pilot controls are neutralized by a lever on the left console.

### Boom and Arm:

Internally reinforced tapered-box construction with heat-treated steel bushings. Pivot points are sealed to allow extended lubrication intervals. Machined and line-bored after welding for accurate alignment. Centralized lubrication system allows convenient servicing.

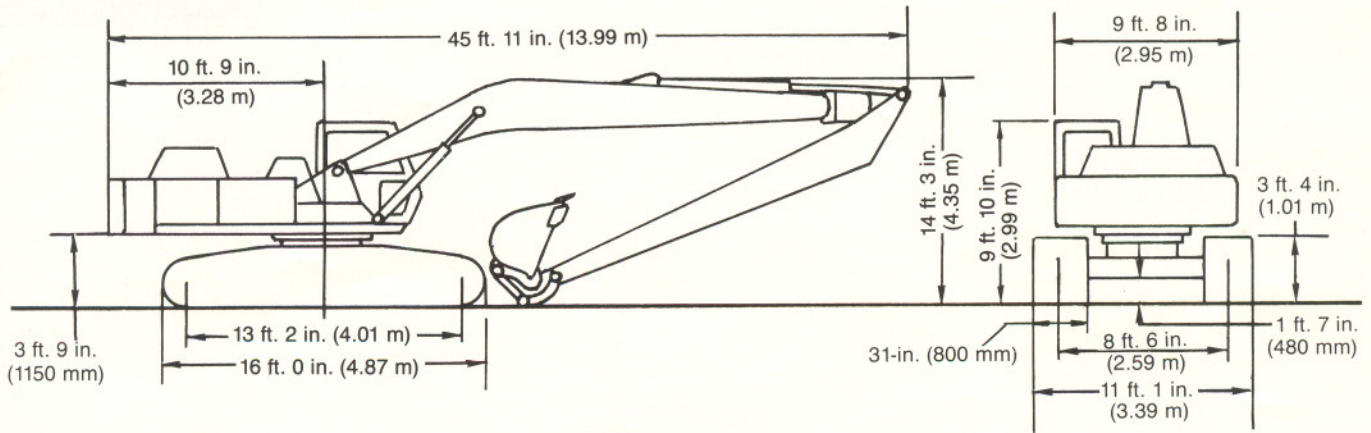
### Servicing and Vandal Protection:

Swingaway service doors expose built-in platforms and handrails. Hinged hood provides easy access to engine and hydraulic system. Cab and service access areas lock with the common ignition switch key. Optional lockable vandal covers available to protect all cab windows.

### Capacities:

	U.S.	Liters
Fuel tank .....	135 gal.	510
Cooling system .....	36 qt.	34
Engine lubrication, including filter .....	25 qt.	24
Hydraulic system .....	87 gal.	330
Planetary propel drive (each) .....	9 qt.	8
Swing drive .....	11 qt.	10





**Weights:**

Operating weight with full fuel tank, 175-lb. (80 kg) operator, 31 in. (800 mm) triple grouser shoes, 7/8 cu. yd. (.7 m<sup>3</sup>) bucket

**Component—**

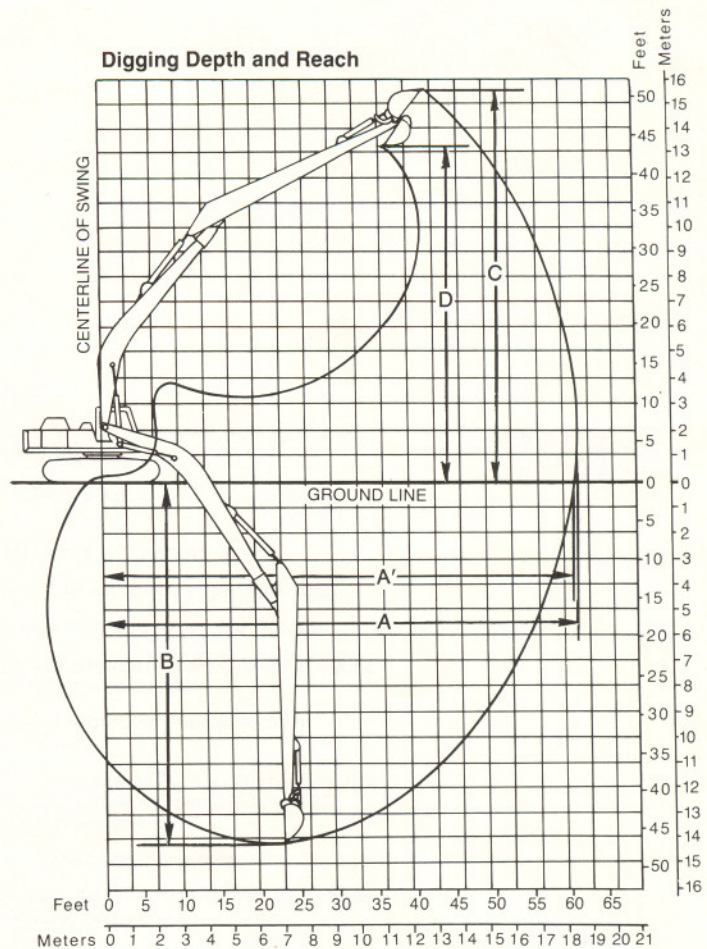
	lb.	kg
Operating weight with full fuel tank, 175-lb. (80 kg) operator, 31 in. (800 mm) triple grouser shoes, 7/8 cu. yd. (.7 m <sup>3</sup> ) bucket	63,875	28 973
Upperstructure with counterweight and full fuel tank (less long-front attachments and undercarriage)	29,901	13 563
Undercarriage with 31-in. (800 mm) triple grouser shoes	24,361	11 050
Boom, 31 ft. 10 in. (9.7 m) with boom cylinders and arm cylinder	5,930	2690
Arm, 25 ft. 7 in. (7.8 m) with bucket cylinder and linkage	2,866	1300
Boom lift cylinders (2), total weight	1,323	600
Main counterweight	13,670	6200

**Operating Information:**

With 7/8 cu. yd. (.7 m<sup>3</sup>) 59 in. (1500 mm) bucket:

- Gradability . . . . . 100% (45 deg.)\*
- Drawbar pull . . . . . 45,410 lb. (202 kN)
- Swing speed . . . . . 0-12 rpm
- Travel speed . . . . . 0-2.5 mph (0-4.2 km/h)
- Arm length . . . . . 25 ft. 7 in. (7.8 m)
- Arm force . . . . . 9,127 lb. (40.6 kN) (4140 kg)
- Lifting capacity over front or rear @ ground level 20 ft. (6.1 m) reach . . . . . 17,380 lb. (7783 kg)
- A Max. reach . . . . . 60 ft. 10 in. (18.6 m)
- A' Max. reach @ ground level . . . . . 60 ft. 6 in. (18.44 m)
- B Max. digging depth . . . . . 45 ft. 10 in. (13.98 m)
- C Max. cutting height . . . . . 50 ft. 7 in. (15.4 m)
- D Max. dumping height . . . . . 43 ft. 5 in. (13.25 m)

\*Limited by the off-level operating capacity of the engine





## 892D-LC EXCAVATOR LONG FRONT LIFTING CAPACITIES W/16 ft. 0 in. (4.87 m) UNDERCARRIAGE LENGTH

Ratings at bucket lift point, machine equipped with 31-in. (800 mm) shoes, 59 in. (1500 mm) wide bucket and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. **Boldface** type indicates hydraulic-limited capacities, lightface type indicates stability-limited capacities, in lb. (kg). Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.

### LIFTING OVER FRONT OR REAR

Horizontal distance from centerline of rotation

	5 ft. (1.5 m)	10 ft. (3.05 m)	15 ft. (4.57 m)	20 ft. (6.10 m)	25 ft. (7.62 m)	30 ft. (9.14 m)	35 ft. (10.67 m)	40 ft. (12.19 m)	45 ft. (13.72 m)	50 ft. (15.24 m)	55 ft. (16.76 m)
40 ft. (12.19 m)									2622 (1189)		
35 ft. (10.67 m)									3581 (1624)	1427 (647)	
30 ft. (9.14 m)									4058 (1841)	2866 (1300)	
25 ft. (7.62 m)									4399 (1995)	3613 (1639)	
20 ft. (6.10 m)									4764 (2161)	4119 (1868)	2128 (965)
15 ft. (4.57 m)									5519 (2503)	5242 (2378)	2900 (1315)
10 ft. (3.05 m)							6877 (3119)	6443 (2922)	5888 (2671)	5034 (2283)	3364 (1526)
5 ft. (1.52 m)			15955 (7237)	14400 (6532)	11278 (5116)	9462 (4292)	8296 (3763)	7499 (3401)	6735 (3055)	5535 (2511)	3645 (1653)
Ground level			7319 (3320)	17380 (7883)	13212 (5993)	10782 (4891)	9230 (4187)	8174 (3708)	7190 (3261)	6033 (2737)	3722 (1688)
- 5 ft. (- 1.52 m)	1652 (749)	3102 (1407)	6867 (3115)	16193 (7345)	14780 (6704)	11924 (5409)	10068 (4567)	8340 (3783)	6987 (3169)	5930 (2690)	3471 (1574)
- 10 ft. (- 3.05 m)	3435 (1558)	4790 (2173)	7946 (3604)	15000 (6804)	15790 (7162)	12199 (5533)	9818 (4453)	8111 (3679)	6826 (3096)	5827 (2643)	2592 (1176)
- 15 ft. (- 4.57 m)	5286 (2398)	6698 (3038)	9712 (4405)	16053 (7282)	15467 (7016)	11927 (5410)	9604 (4356)	7953 (3607)	6719 (3048)	5771 (2618)	
- 20 ft. (- 6.10 m)	7293 (3308)	8846 (4012)	12001 (5444)	18298 (8345)	15333 (6955)	11793 (5349)	9492 (4305)	7873 (3571)	6678 (3029)	4518 (2049)	
- 25 ft. (- 7.62 m)	9460 (4291)	11314 (5132)	14876 (6748)	21006 (9528)	15359 (6967)	11785 (5346)	9483 (4301)	7882 (3575)	6723 (3050)		
- 30 ft. (- 9.14 m)	11926 (5410)	14257 (6467)	18589 (8432)	19916 (9034)	15530 (7044)	11903 (5399)	9586 (4348)	8000 (3629)	3654 (1657)		
- 35 ft. (- 10.67 m)	14876 (6748)	17977 (8154)	23340 (10587)	18069 (8196)	14557 (6603)	11959 (5425)	9833 (4460)	5494 (2492)			
- 40 ft. (- 12.19 m)			19205 (8711)	15102 (6850)	12163 (5517)	9728 (4413)	5077 (2303)				

### LIFTING OVER SIDE OR 360 DEGREES

Horizontal distance from centerline of rotation

	5 ft. (1.5 m)	10 ft. (3.05 m)	15 ft. (4.57 m)	20 ft. (6.10 m)	25 ft. (7.62 m)	30 ft. (9.14 m)	35 ft. (10.67 m)	40 ft. (12.19 m)	45 ft. (13.72 m)	50 ft. (15.24 m)	55 ft. (16.76 m)
40 ft. (12.19 m)									2622 (1189)		
35 ft. (10.67 m)									3581 (1624)	1427 (647)	
30 ft. (9.14 m)									4058 (1841)	2866 (1300)	
25 ft. (7.62 m)									4399 (1995)	3613 (1639)	
20 ft. (6.10 m)									4764 (2161)	4119 (1868)	2128 (965)
15 ft. (4.57 m)									5519 (2503)	5224 (2370)	2900 (1315)
10 ft. (3.05 m)							6877 (3119)	6184 (2805)	5010 (2272)	4085 (1853)	3327 (1509)
5 ft. (1.52 m)			15955 (7237)	14400 (6532)	11278 (5116)	9186 (4167)	7269 (3297)	5862 (2659)	4785 (2170)	3932 (1784)	3235 (1467)
Ground level			7319 (3320)	14792 (6710)	10997 (4988)	8549 (3878)	6830 (3098)	5554 (2519)	4568 (2072)	3784 (1716)	3145 (1427)
- 5 ft. (- 1.52 m)	1652 (749)	3102 (1407)	6867 (3124)	13746 (6235)	10255 (4652)	8023 (3639)	6454 (2927)	5283 (2396)	4376 (1985)	3653 (1657)	3072 (1393)
- 10 ft. (- 3.05 m)	3435 (1558)	4790 (2173)	7946 (3604)	13144 (5962)	9753 (4424)	7634 (3463)	6161 (2795)	5067 (2298)	4223 (1916)	3554 (1612)	2592 (1176)
- 15 ft. (- 4.57 m)	5286 (2398)	6698 (3038)	9712 (4405)	12857 (5832)	9462 (4292)	7383 (3349)	5961 (2704)	4918 (2231)	4121 (1869)	3501 (1588)	
- 20 ft. (- 6.10 m)	7293 (3308)	8846 (4012)	12001 (5444)	12790 (5801)	9342 (4237)	7260 (3293)	5856 (2656)	4843 (2197)	4082 (1852)	3515 (1594)	
- 25 ft. (- 7.62 m)	9460 (4291)	11314 (5132)	14876 (6748)	12893 (5848)	9365 (4248)	7253 (3290)	5854 (2655)	4851 (2200)	4125 (1871)		
- 30 ft. (- 9.14 m)	11926 (5410)	14257 (6467)	18589 (8432)	13145 (5962)	9519 (4318)	7362 (3339)	5944 (2696)	4962 (2551)	3654 (1657)		
- 35 ft. (- 10.67 m)	14876 (6748)	17977 (8154)	21046 (9546)	13556 (6149)	9814 (4452)	7602 (3448)	6175 (2801)	5254 (2383)			
- 40 ft. (- 12.19 m)			19205 (8711)	14171 (6428)	10296 (4670)	8040 (3647)	5077 (2303)				



# 892D-LC EXCAVATOR LONG FRONT BUCKET

**Width**  
59 in. (1500 mm)  
without teeth

**Capacity**  
**SAE (Heaped)**  
7/8 cu. yd. (.7 m<sup>3</sup>)

**Weight**  
640 lb. (290 kg)

**Drainage**  
**Holes**  
Yes

## ARM AND BUCKET DIGGING FORCES

**Bucket Tangential Digging Forces**  
14,345 lb. (63.8 kN) (6507 kg)

**Arm Digging Force**  
11,795 lb. (52.5 kN) (5350 kg)

## BUCKET SELECTION CHART Recommended Bucket Size\*

lb/yd <sup>3</sup>	kg/m <sup>3</sup>	Material	Regular Duty
700	420	Wood chips	4-1/4 cu. yd. (3.3 m <sup>3</sup> )
800	470	Peat, dry	3-3/4 cu. yd. (2.9 m <sup>3</sup> )
1250	740	Peat, wet	2-3/8 cu. yd. (1.8 m <sup>3</sup> )
1450	860	Cinders	2 cu. yd. (1.5 m <sup>3</sup> )
1600	950	Topsoil, loose	1-7/8 cu. yd. (1.5 m <sup>3</sup> )
2300	1360	Topsoil, heavy-packed	1-1/4 cu. yd. (1.0 m <sup>3</sup> )
2300	1360	Coal, natural bed	1-1/4 cu. yd. (1.0 m <sup>3</sup> )
2600	1540	Earth, dry loam	1-1/8 cu. yd. (.9 m <sup>3</sup> )
2700	1600	Sand, dry	1-1/8 cu. yd. (.9 m <sup>3</sup> )
3200	1900	Earth, moist loam	7/8 cu. yd. (.7 m <sup>3</sup> )
3250	1930	Sand, gravel, dry	7/8 cu. yd. (.7 m <sup>3</sup> )
3300	1960	Sand, moist	7/8 cu. yd. (.7 m <sup>3</sup> )
3500	2080	Sand, wet	3/4 cu. yd. (.6 m <sup>3</sup> )
3500	2080	Shale	3/4 cu. yd. (.6 m <sup>3</sup> )
3600	2100	Clay, wet	3/4 cu. yd. (.6 m <sup>3</sup> )

\*\*Contact your John Deere dealer for optimum bucket and attachment selection. The use of larger than recommended buckets in heavy materials and tough conditions should be carefully analyzed for digging force and load capacity. Bucket capacity indicated is SAE heaped.

Because of the additional digging reach and depth, machines equipped with the long front should be placed in a lighter duty work environment than units equipped with standard booms and arms. The long front is designed for dredging mud, silt and organic material from river or canal beds. The long front should not be used for general excavation work, especially in hard, dense material.

### Additional Standard Equipment:

#### Cab:

- Adjustable lever pilot controllers
- Auto-idle system
- Heater, 13,500 Btu/hr (4.1 kW)
- Horn
- Interior light
- Positive position hand throttle
- Tinted glass
- Travel alarm w/cancel switch
- Windshield wiper
- Monitor system with alarm features—
  - Auto-idle indicator
  - Engine air cleaner restriction indicator light
  - Engine alternator charge indicator light
  - Engine coolant temperature warning light w/audible alarm
  - Engine oil pressure warning light w/audible alarm
  - Hydraulic oil level light
  - Low fuel indicator light
  - Work-lights-on indicator

#### Gauges—

- Engine coolant gauge
- Fuel gauge
- Hourmeter
- Digital clock
- Instrument lights
- Operating mode selection control—
  - Digging mode selection—three modes
  - Travel mode selection—two modes

#### Engine:

- Antifreeze
- Dual dry-type air filter
- Electric cold weather (ether) starting aid
- Fan guard
- Full-flow oil filter
- Heavy-duty fuel filter
- Heavy-duty low maintenance batteries
- Isolation-mounted engine
- Manual fuel shut off
- Underhood muffler w/vertical exhaust

#### Frame:

- Counterweight, 13,670 lb. (6200 kg)
- Hinged engine cover
- Toolbox with lockable cover
- Vandal protection—lockable service doors

#### Front attachments:

- Arm, 25 ft. 7 in. (7.8 m)
- Boom, 31 ft. 10 in. (9.7 m)
- Centralized lubrication system
- Dirt seals on all bucket pins

#### Undercarriage:

- Center track guide
- Front track guide
- Propel motor and hydraulic line shields
- Track length 16 ft. 0 in. (4.87 m)
- Nine lower rollers—two upper rollers each side
- 31 in. (800 mm) triple semigrouser shoes

### Optional or Special Equipment:

#### Cab:

- Air conditioner w/integral heater
  - Air conditioner, 20,000 Btu/hr (5.9 kW)
  - Heater, 40,000 Btu/hr (11.7 kW)
- Heater, 40,000 Btu/hr (11.7 kW)
- Heater, 20,000 Btu/hr (5.9 kW)
- Alternate pilot control pattern
- Seat belt
- Window protection covers

#### Engine:

- Engine coolant heater