892D-LC EXCAVATOR LONG FRONT

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 m³) 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

ENGINE PERFORMANCE

* Depending on operating variables

Model shown may include options.
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 940 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.

**Rated Power @ 2100 engine rpm:**

<table>
<thead>
<tr>
<th>SAE</th>
<th>DIN 6270B</th>
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<td>195 hp (116 kW)</td>
<td>195 kW</td>
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**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:** 5.9 in. x 4.1 in. (116 x 121 mm)
- **Compression ratio:** 5.9:1
- **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/cm²)
- **System operating pressure:**
  - Implement circuits: 4050 psi (27 930 kPa) (285 kgf/cm²)
  - Travel circuits: 4980 psi (34 340 kPa) (285 kgf/cm²)
- **Relief valve setting:**
  - Implement circuits: 4270 psi (29 440 kPa) (300 kgf/cm²)
  - Crossover relief valves: 5050 psi (34 820 kPa) (355 kgf/cm²)
  - Swing circuits: 3560 psi (24 550 kPa) (250 kgf/cm²)

- **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
- **Pressure setting:** 570 psi (3930 kPa) (40 kg/cm²)

**Cylinders:**

- **Bore:** 5.7 in. (145 mm)
- **Rod Diameter:** 3.9 in. (100 mm)
- **Stroke:** 60.2 in. (1530 mm)

**Boom and Arm:**

- **Bore:** 5.9 in. (150 mm)
- **Rod Diameter:** 4.1 in. (105 mm)
- **Stroke:** 70.3 in. (1785 mm)

**Bucket (1):**

- **Bore:** 3.9 in. (100 mm)
- **Rod Diameter:** 2.6 in. (66 mm)
- **Stroke:** 30.3 in. (770 mm)

**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 600-hour lubrication interval.
Weights:
Operating weight with full fuel tank, 175-lb. (80 kg) operator, 31 in. (800 mm) triple grouser shoes, 7/8 cu. yd. (7 m³) bucket .......................... 63,875 28,973
Component—
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 2,690
Arm, 25 ft. 7 in. (7.8 m) with bucket cylinder and linkage .................................................. 2,866 1,300
Boom lift cylinders (2), total weight ............................................................................ 1,323 600
Main counterweight ............................................................................................................ 13,670 6,200
Operating Information:
With 7/8 cu. yd. (7 m³) 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 lb)
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 .................................................................................. 59 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
### LIFTING OVER FRONT OR REAR

Horizontal distance from centerline of rotation

<table>
<thead>
<tr>
<th>Distance (ft)</th>
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<td>(1.5 m)</td>
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<td>40 ft.</td>
<td>(12.19 m)</td>
<td>2622 (1189)</td>
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<td>35 ft.</td>
<td>(10.67 m)</td>
<td>3435 (1558)</td>
<td>4790 (2173)</td>
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<td>5972 (2762)</td>
<td>6723 (3308)</td>
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<td>30 ft.</td>
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<td>5746 (2646)</td>
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<td>25 ft.</td>
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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.
892D-LC EXCAVATOR LONG FRONT BUCKET

Capacity

SAE (Heaped)

7/8 cu. yd. (.7 m³)

Weight

840 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)

ARM AND BUCKET DIGGING FORCES

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BUCKET SELECTION CHART

Recommended Bucket Size*

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<tr>
<th>lb/yd³</th>
<th>kg/m³</th>
<th>Material</th>
<th>Regular Duty</th>
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<tbody>
<tr>
<td>700</td>
<td>420</td>
<td>Wood chips</td>
<td>4-1/4 cu. yd. (3.3 m³)</td>
</tr>
<tr>
<td>800</td>
<td>470</td>
<td>Peat, dry</td>
<td>3-3/4 cu. yd. (2.9 m³)</td>
</tr>
<tr>
<td>1250</td>
<td>740</td>
<td>Peat, wet</td>
<td>2-3/8 cu. yd. (1.8 m³)</td>
</tr>
<tr>
<td>1450</td>
<td>860</td>
<td>Cinders</td>
<td>2 cu. yd. (1.5 m³)</td>
</tr>
<tr>
<td>1600</td>
<td>950</td>
<td>Topsoil, loose</td>
<td>1-7/8 cu. yd. (1.5 m³)</td>
</tr>
<tr>
<td>2300</td>
<td>1360</td>
<td>Topsoil, heavy-packed</td>
<td>1-1/4 cu. yd. (1.0 m³)</td>
</tr>
<tr>
<td>2300</td>
<td>1360</td>
<td>Coal, natural bed</td>
<td>1-1/4 cu. yd. (1.0 m³)</td>
</tr>
<tr>
<td>2600</td>
<td>1540</td>
<td>Earth, dry loam</td>
<td>1-1/8 cu. yd. (0.9 m³)</td>
</tr>
<tr>
<td>2700</td>
<td>1600</td>
<td>Sand, dry</td>
<td>1-1/8 cu. yd. (0.9 m³)</td>
</tr>
<tr>
<td>3200</td>
<td>1900</td>
<td>Earth, moist loam</td>
<td>7/8 cu. yd. (0.7 m³)</td>
</tr>
<tr>
<td>3250</td>
<td>1930</td>
<td>Sand, gravel, dry</td>
<td>7/8 cu. yd. (0.7 m³)</td>
</tr>
<tr>
<td>3300</td>
<td>1960</td>
<td>Sand, moist</td>
<td>7/8 cu. yd. (0.7 m³)</td>
</tr>
<tr>
<td>3500</td>
<td>2080</td>
<td>Sand, wet</td>
<td>3/4 cu. yd. (0.6 m³)</td>
</tr>
<tr>
<td>3500</td>
<td>2080</td>
<td>Shale</td>
<td>3/4 cu. yd. (0.6 m³)</td>
</tr>
<tr>
<td>3600</td>
<td>2100</td>
<td>Clay, wet</td>
<td>3/4 cu. yd. (0.6 m³)</td>
</tr>
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</table>

* 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

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