ENGINE

It's John Deere engineered and manufactured. Replaceable wet type cylinder liners are spun cast and machined for uniform wall thickness to assure even heat dissipation. Piston spray cooling contributes to long component life. A dynamically balanced crankshaft assures smooth operation. Turbocharged for maximum performance.

Engine: John Deere 6068T
Rated power at 2100 rpm: 155 SAE net hp (116 kW)
Displacement: 414 cu. in. (6.785 L)
Cylinders: 6
Cooling fan: suction type viscous drive
Maximum net torque at 1300 rpm: 465 lb.-ft. (630 Nm)
Fuel consumption, typical: 4 to 6 gal./hr. (15 to 23 L/h)
Batteries: two 12-volt
Swing speed: 0-10 rpm

HYDRAULIC SYSTEM

Sophisticated, yet simple; state-of-the-art, yet easy to operate. You get the best of both worlds with the 790E LC's hydraulic system. This closed center system uses two axial piston pumps. A microprocessor ties the system with the engine to allow the operator to tailor hydraulic performance to particular job situations. A soft touch keypad control to the operator's right allows the desired performance to be tuned in with the touch of a button or two. This load sensing, speed sensing, variable flow system delivers smooth response even when the operator uses more than one function at the same time. The operator is in complete control at all times and can override any of the preset hydraulic modes or engine settings with the simple touch of a button.

Main pumps: 2 variable-displacement axial piston
Maximum rated flow: 2 x 50 gpm (2 x 189 L/min.)
Pilot pump: one gear
System operating pressure: 5980 psi (41,340 kPa)
Power boost: 5260 psi (36,270 kPa)
Travel circuits: 4780 psi (32,950 kPa)
Swing circuits: 4660 psi (32,130 kPa)
Swing drive: 10 qt. (9.5 L)

SWING MECHANISM

Multiple, planetary gearing is driven by an axial-piston, high-torque hydraulic motor. Ring and pinion gears are induction hardened for long life. The multiple, wet-disk swing brake is spring applied, hydraulically released. The single 90-ball swing bearing is sealed top and bottom.

Swing speed: 0-10 rpm

UNDERCARRIAGE

Heavy-duty rollers and chain are designed to stand up to the side-to-side stress of excavator work. The strong box-section track frame comes with a track guide at the front idler location and center of the frame. The track frames are welded to the center section to eliminate any need for periodic tightening and are designed to resist the buildup of mud and debris.

Carrier rollers (per side): 2
Track rollers (per side): 9
Idlers (per side): 1
Shoes, triple semigrouser (per side): 51
Track guides: front and center
Track adjustment: hydraulic
Travel speed: mph 0-1.2, 0-2.2, 0-3.4
km/h (0-1.9, 0-3.5, 0-5.5)

Swing drive: 10 qt. (9.5 L)

OPERATING WEIGHTS

Weights
Operating weight (long front) with full fuel tank, 790 lb. (355 kg) operator, 650 lb. (295 kg) bucket, 11,180-lb. (5050 kg) counterweight and 32-in. (800 mm) triple grouser shoes: 51,550 lb. 23,383 kg
Undercarriage: 5257 lb. 2400 kg
Shoe width:
24 in. (600 mm) triple grouser shoes: 17,240 lb. 7820 kg
32 in. (800 mm) triple grouser shoes: 18,760 lb. 8510 kg
26 in. (660 mm) high traction grouser shoes: 17,735 lb. 8044 kg

Component Weights:
Upperstructure with full fuel tank less front attachments and 11,180-lb. (5050 kg) counterweight: 11,590 lb. 5257 kg
One-piece boom (with arm cylinder): 5,294 lb. 2400 kg
Arm with bucket cylinder and linkage: 2,756 lb. 1250 kg
Boom lift cylinders (2) total weight: 960 lb. 436 kg

BUCKET

Width (without teeth): 60 in. (1525 mm)
Capacity, SAE (heaped): 0.9 cu. yd. (0.69 m³)
Drainage holes: Yes
Weight: 990 lb. (450 kg)

Digging Forces:
Bucket: 11,200 lb. (49.8 kN)
Arm: 11,900 lb. (52.9 kN)

*Note: 0.9 cu. yd. bucket restricted to materials below 1500 lb./cu. yd.
**DIMENSIONS**

790E LC Excavator with Long Front Specifications

**OPERATING INFORMATION**

- Arm length: 25 ft. 5 in. (7.86 m)
- Arm force with 60 in. (1525 mm) bucket: 11,900 lb. (52.9 kN)
- Bucket tangential force with 60 in. (1525 mm) bucket: 16,100 lb. (72 kN)
- Bucket cutting edge tip radius: 37 in. (940 mm)
- Lifting capacity over front or rear @ ground level 20 ft. (6.1 m) reach: 11,622 lb. (5272 kg)
  
  **A** Max. reach: 59 ft. 8 in. (18.19 m)
  **A** Max. reach @ ground level: 59 ft. 5 in. (18.11 m)
  **B** Max. digging depth: 45 ft. 4 in. (13.83 m)
  **C** Max. cutting height: 51 ft. 9 in. (15.78 m)
  **D** Max. dumping height: 44 ft. 5 in. (13.53 m)

**DIGGING DEPTH AND REACH**

- **FEET**
  
  - 60
  - 55
  - 50
  - 45
  - 40
  - 35
  - 30
  - 25
  - 20
  - 15
  - 10
  - 5
  - 0

- **METERS**
  
  - 18
  - 14
  - 10
  - 6
  - 2
  - 0
### LIFT CAPACITIES (FOR OVER FRONT OR REAR)

Ratings at bucket lift hook, machine equipped with 32-in. (800 mm) shoes, 650-lb. (295 kg) bucket, 15-ft. 3-in. (4.62 m) undercarriage 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. 24-in. (600 mm) shoes reduce the lift capacity 5 percent per SAE.

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### LIFT CAPACITIES (FOR OVER SIDE)

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