

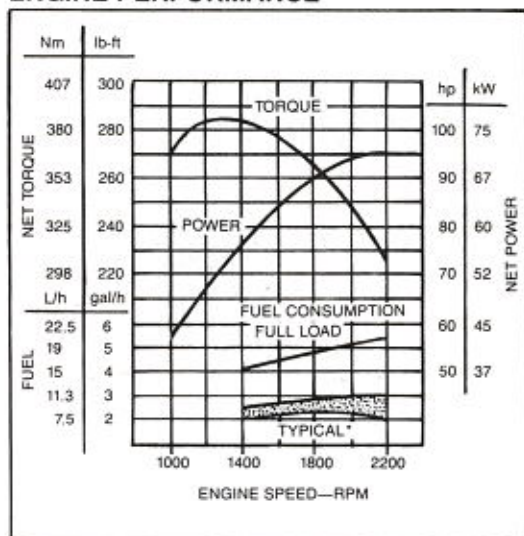


595 EXCAVATOR



Model shown may include options

ENGINE PERFORMANCE



*Depending on operating variables

FEATURES

- 95 SAE net hp (71 kW) John Deere turbocharged diesel engine
- 37,100 lb. (16 830 kg) standard operating weight
- 20 ft. 10 in. (6.35 m) maximum digging depth
- 30 ft. 9 in. (9.38 m) maximum reach at ground level
- 18 mph (29 km/h) travel speed—rubber-tired mobility
- Advanced high-efficiency, variable-flow hydraulic system provides excellent digging performance, function control and fuel economy
- Comfortable high-visibility cab includes all controls for transporting and excavating
- Precision low-effort controls for boom, arm, bucket, travel and 360-degree continuous swing
- Complete instrumentation/warning system continuously monitors vital machine functions
- Hydrostatic drive with Hi-Lo ranges provides excellent on- and off-road versatility
- Complete vandal protection with lockable service access

595 EXCAVATOR 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 with full fuel tank, 175-lb. (80 kg) operator and standard equipment.

Rated Power @ 2200 rpm:	SAE	DIN 70 020
Net	95 hp (71 kW)	71 kW
Gross	100 hp (75 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 10,000 ft. (3050 m) altitude. Gross power is without cooling fan.

Engine: John Deere 4-276T

Type	4-stroke cycle, turbocharged 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)
Compression ratio	16.8 to 1
Maximum net torque @ 1300 rpm	284 lb-ft (385 Nm) (39.3 kg-m)
Lubrication	Pressure system with full-flow filter
Cooling fan	Suction type
Electrical system	24-volt with 42-amp alternator
Batteries (two 12-volt)	Reserve capacity: 230 minutes

Hydraulic System: Open Center

Variable-flow, constant horsepower hydraulic system provides independent and combined operation of all functions. Load-sensing adjusts hydraulic flow and pressure to individual function demands. Pump displacement is automatically reduced when controls are returned to neutral.

Main pumps: 2 variable-displacement, axial piston	
Pressure setting	4270 psi (29 420 kPa) (300 kg/cm ²)
Maximum oil flow	2 x 48.3 gpm (2 x 183 L/min)
Pilot pump: Gear	
Pressure setting	526 psi (3628 kPa) (37 kg/cm ²)
Maximum oil flow	2.54 gpm (9.6 L/min)
Steering pump: Gear	
Pressure setting	1778 psi (12 258 kPa) (125 kg/cm ²)
Maximum oil flow	8.35 gpm (31.6 L/min)
Control valves: 2 five-spool valves	
System operating pressure	4410 psi (30 400 kPa) (310 kg/cm ²)
Travel	4410 psi (30 400 kPa) (310 kg/cm ²)
Boom	3770 psi (25 994 kPa) (265 kg/cm ²)
Arm	3770 psi (25 994 kPa) (265 kg/cm ²)
Bucket	3770 psi (25 994 kPa) (265 kg/cm ²)
Swing	3560 psi (24 519 kPa) (250 kg/cm ²)
Stabilizers	3560 psi (24 519 kPa) (250 kg/cm ²)

Cylinders:	Bore		Rod Diameter		Stroke	
	In.	(mm)	In.	(mm)	In.	(mm)
Boom (2)	4.72	120	3.15	80	46.46	1180
Arm	4.92	125	3.35	85	52.95	1345
Bucket	4.72	120	3.15	80	36.22	920
Stabilizer	5.12	130	3.35	85	14.88	378
Steering	2.36	60	.98	25	8.66	220
Blade	4.72	120	2.76	70	6.30	160
Axle lock	4.72	120	4.72	120	-	-

Boom, arm and bucket cylinders have a built-in hydraulic cushion at each end of the stroke.

Swing Mechanism:

Swing speed	0 to 13.6 rpm
Swing lock	Manual for transporting
Turntable bearing	Single-row, shear-type ball bearing with induction-hardened, lubricated internal gear and pinion, 500-hour lube interval.

Wheeled Undercarriage:

The undercarriage is available with a blade and (2) stabilizers or with (4) stabilizers. The frame is an all-welded, stress-relieved structure.

Drive system	low speed range - all wheels drive high-speed range - rear wheels drive
Travel motor	Variable displacement, axial piston motor with hydraulic retarding valve for preventing overspeeding when traveling downhill.
Transmission	Constant mesh with high and low speed range.
Travel speeds:	
Low speed range	0 to 5.6 mph (0 to 9.0 km/h) forward and reverse
High speed range	0 to 18.6 mph (0 to 30.0 km/h) forward
Maximum traction force	19,800 lb-ft (88.1 kN) (9 000 kg)
Gradability	65 percent (33 degrees)

Steering System:

Full hydraulic power steering using two steering cylinders	
Bore	2.4 in. (60 mm)
Rod diameter	1 in. (25 mm)
Stroke	8.7 in. (220 mm)

Brakes:

Service	Air over hydraulic brakes acting at each wheel - internal-expanding shoe type
(foot pedal or switch)	
Parking	Spring actuated, air-released, internal-expanding shoe type, acting on horizontal drive shaft
(switch)	

Note: Applying brakes with switch also locks oscillating axle

Axles:

Front	Oscillating axle with locking hydraulic cylinders; 14° total oscillation
Rear	Fixed to frame

Tires: (Traction type tread pattern)

10.00-20.0 x 14 PR, duals
18.00-19.6 x 18 PR, singles

Stabilizers:

Each stabilizer cylinder is fitted with a pilot-operated check valve for positive locking. Front and rear stabilizers can be operated independently.

Dozer Blade:

Width	8 ft. 1 in. (2465 mm)
Height	2 ft. 0 in. (610 mm)

Cab:

Large, isolation-mounted, with sound-absorbing materials on ceiling and sidewalls. Safety glass windows. Front window can be stored overhead. Rear window, door, and roof hatch open for ventilation.

Seat:

Deluxe, fully cushioned, vinyl covered, with adjustable backrest, headrest and padded fold-up armrests. Independent horizontal and vertical adjustments. Seat suspension is adjustable to operator weight.

Controls:

Two levers control swing, boom, arm, and bucket functions. The left control lever is deactivated by a lock-out on left console. Front stabilizers and rear stabilizers or blade have independent controls. Hydraulic plumbing can be converted so all stabilizers are controlled together. This makes a control for an auxiliary function (either hand- or foot-operated) available.

Boom and Arm:

Internally reinforced tapered box construction with heat-treated steel bushings. Machined and line-bored after welding for accurate alignment. Centralized lubrication system.

Servicing and Vandal Protection:

Non-slip steps and handrails allow easier servicing and maintenance. Easily accessible engine and hydraulic system covers. Machine covers, fuel cap, and cab door are lockable.

Additional Standard Equipment:

Cab:	Gauges:
Foot throttle and positive position hand throttle	Air pressure gauge
Heater	Engine coolant temperature gauge
Horn	Fuel gauge
Interior light	Quartz hourmeter
Windshield wiper and washer	Engine:
Monitor system with alarm features:	Distributor-type injection pump
Engine coolant temperature warning light w/audible alarm	Dual dry-type air filter
Engine oil pressure warning light w/audible alarm	Electric cold weather (ether) starting aid
Low brake air pressure w/audible alarm	Equipped with 15 CFM (708 m ³ /s), 100 psi (689.5 kPa)
Engine air cleaner restriction indicator light	(7.03 kg/m ²) air compressor system
Engine alternator charge indicator light	Full-flow oil filter
Axle lock indicator light	Heavy-duty fuel filter
Hazard indicator light	Isolated engine mounting
High-beam indicator light	Underhood muffler
Low fuel warning light	Work lights—one boom mounted and two frame mounted
Park brake indicator light	
Service brake indicator light	
Turn indicator lights	
Work light indicator light	

