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 4276T
Rated power at 2,100 rpm.....95 SAE net hp (71 kW)
.....100 SAE gross hp (75 kW)
Cylinders.....4
Displacement.....276 cu. in. (4.524 L)
Maximum net torque at 1,300 rpm.....284 lb-ft (385 Nm)
Fuel consumption, typical.....2 to 3.5 gal./hr. (7.5 to 13 L/h)
Cooling fan.....suction type
Electrical system.....24-volt with 42-amp alternator
Batteries (two 12-volt).....reserve capacity: 180 min.

HYDRAULIC SYSTEM

Two variable-displacement axial-piston pumps with speed-sensing controls and two control valves provide independent and combined operation of all functions. Each pump is controlled by an independent regulator. Cross-sensing of pressure by the regulators increases or decreases pump flow in relation to the combined pressure they are sensing. This produces faster cycle times when using multiple functions. A mode selector switch lets operator choose one of three settings: P (Power), E (Economy), or L (Light).

Main pumps.....2 variable-displacement axial-piston
Maximum oil flow.....2 x 41.7 gpm (2 x 158 L/min.)
Pressure setting.....5050 psi (34 800 kPa)
Pilot pump.....one gear
Pressure setting.....570 psi (3930 kPa)
Maximum oil flow.....5.7 gpm (21 L/min.)
System relief valves operating pressure:
Travel circuits.....5,050 psi (34 800 kPa)
Front-end circuits.....4,050 psi (27 920 kPa)
Circuit relief valves:
Boom circuits.....4,270 psi (29 440 kPa)
Arm circuits.....4,270 psi (29 440 kPa)
Bucket head circuit.....4,270 psi (29 440 kPa)
Bucket rod circuit.....4,770 psi (32 890 kPa)
Cross-over relief valves:
Travel circuits.....5,120 psi (35 300 kPa)
Swing circuits.....3,555 psi (24 510 kPa)
Oil filtration:
One suction filter
One 10-micron full-flow return filter with bypass

Cylinders	Bore	Rod Diameter	Stroke
Boom (2)	4.53 in. (115 mm)	3.15 in. (80 mm)	46.85 in. (1190 mm)
Arm (1)	4.72 in. (120 mm)	3.35 in. (85 mm)	52.95 in. (1345 mm)
Bucket (1)	4.53 in. (115 mm)	3.15 in. (80 mm)	36.22 in. (920 mm)

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, providing a lube interval of 500 hours.

Swing speed.....0–13.5 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).....7
Idlers (per side).....1
Shoes, triple semigrouser (per side).....45
Track guides.....front and center
Track adjustment.....hydraulic

Travel speed	Low	High
mph	0–2.4	0–3.0
km/h	(0–3.9)	(0–4.8)

Drawbar pull.....22,500 lb. (100 kN)
Gradability (limited by the off-level capacity of the engine).....100% (45 deg.)

Ground Pressure Data:

Shoe Width/ Grouser	Average Ground Pressure	Recommended Application
20 in./triple (500 mm)	6.68 psi (46.0 kPa)	Rocky terrain and stumps
28 in./triple (700 mm)	4.90 psi (33.8 kPa)	General/soft terrain

CAPACITIES

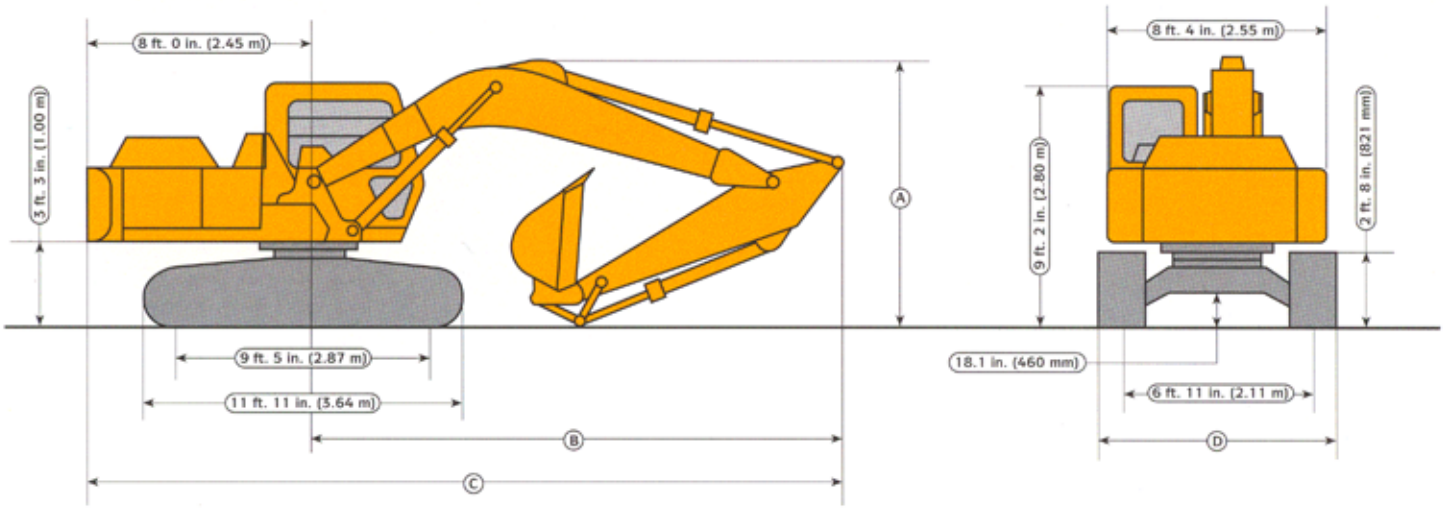
Fuel tank.....66 gal. (250 L)
Cooling system.....22 qt. (21 L)
Engine lubrication, including filter.....3.5 gal. (13 L)
Hydraulic system.....42.3 gal. (160 L)
Hydraulic reservoir.....22.5 gal. (85 L)
Planetary propel drive (each).....1.1 gal. (4 L)
Swing drive.....1.3 gal. (5 L)

OPERATING WEIGHTS

Weights	lb.	kg
Operating weight with full fuel tank, operator, optional 28-in. (700 mm) triple grouser shoes, 10 ft. 2 in. (3.1 m) arm, and 36-in. (925 mm) 0.82 cu. yd. (0.55 m^3) bucket	33,180	15 050
Undercarriage shoe width:		
20-in. (500 mm) triple grouser shoes	11,067	5020
28-in. (700 mm) triple grouser shoes	11,950	5420
Component Weights:		
Upperstructure with full fuel tank and counterweight, less all front attachments	14,310	6490
Boom, one-piece, with two boom cylinders and arm cylinder	3,450	1566
Arm, 8 ft. 6 in. (2.6 m), with bucket cylinder and linkage	1,620	735
Arm, 10 ft. 2 in. (3.1 m), with bucket cylinder and linkage	1,810	820
Boom cylinders (2) total weight with pins	675	306
Arm cylinder without pins	425	192
Bucket cylinder without pins and linkage	250	114
Counterweight	5,950	2700

DIMENSIONS

Note: Track-shoe lug height not included.

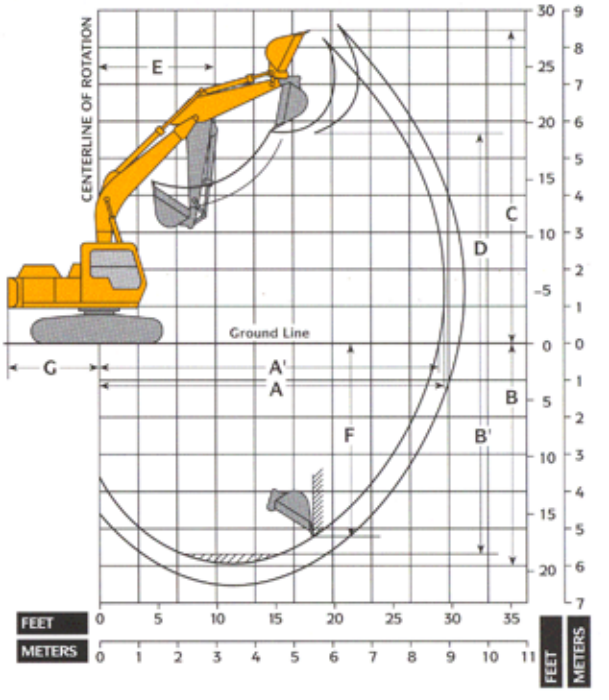


A) With 8 ft. 6 in. (2.6 m) arm ..... 9 ft. 2 in. (2.80 m)
With 10 ft. 2 in. (3.1 m) arm ..... 9 ft. 10 in. (3.00 m)
B) With 8 ft. 6 in. (2.6 m) arm ..... 19 ft. 11 in. (6.05 m)
With 10 ft. 2 in. (3.1 m) arm ..... 19 ft. 11 in. (6.05 m)
C) With 8 ft. 6 in. (2.6 m) arm ..... 27 ft. 11 in. (8.50 m)
With 10 ft. 2 in. (3.1 m) arm ..... 27 ft. 11 in. (8.50 m)
D) With 20 in. (500 mm) shoes ..... 8 ft. 6 in. (2.60 m)
With 28 in. (700 mm) shoes ..... 9 ft. 2 in. (2.80 m)

OPERATING INFORMATION

	8 ft. 6 in. (2.6 m) Arm Length	10 ft. 2 in. (3.1 m) Arm Length
Arm force	14,330 lb. (63.7 kN)	12,570 lb. (55.9 kN)
Lifting capacity over front or rear @ ground level, 20-ft. (6.1 m) reach	6,214 lb. (2818 kg)	6,186 lb. (2806 kg)
A Max. digging reach	29 ft. 2 in. (8.9 m)	30 ft. 9 in. (9.36 m)
A' Max. digging reach @ ground level	28 ft. 8 in. (8.73 m)	30 ft. 2 in. (9.19 m)
B Max. digging depth	19 ft. 10 in. (6.05 m)	21 ft. 6 in. (6.55 m)
B' Max. digging depth @ 8 ft. (2.44 m) flat bottom	19 ft. 1 in. (5.81 m)	20 ft. 10 in. (6.34 m)
C Max. cutting height	28 ft. 1 in. (8.55 m)	28 ft. 10 in. (8.78 m)
D Max. dumping height	19 ft. 0 in. (5.8 m)	19 ft. 9 in. (6.03 m)
E Min. swing radius	10 ft. 3 in. (3.13 m)	10 ft. 3 in. (3.13 m)
F Max. vertical wall	17 ft. 1 in. (5.21 m)	18 ft. 9 in. (5.71 m)
G Tail swing radius	8 ft. 0 in. (2.45 m)	8 ft. 0 in. (2.45 m)

DIGGING DEPTH AND REACH



LIFT CAPACITIES

Ratings at bucket lift hook, machine equipped with 20 in. (500 mm) shoes, 3/4 cu. yd. (0.6 m^3) 41 in. (1045 mm) wide 1056 lb. (479 kg) 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.

OVER FRONT OVER SIDE

With 8 ft. 6 in. (2.6 m) Arm

Load Point Height	5 ft. (1.52 m)		10 ft. (3.05 m)		15 ft. (4.57 m)		20 ft. (6.10 m)		25 ft. (7.62 m)	
20 ft. (6.10 m)							**4859 (2204)**	**4859 (2204)**		
15 ft. (4.57 m)							**6067 (2752)**	5496 (2493)		
10 ft. (3.05 m)					**8756 (3971)**	8420 (3819)	6925 (3141)	5187 (2353)	4622 (2096)	3401 (1543)
5 ft. (1.52 m)					10364 (4701)	7552 (3425)	6526 (2960)	4812 (2183)	4456 (2021)	3242 (1471)
Ground Line					9803 (4446)	7040 (3193)	6214 (2818)	4519 (2050)	4312 (1955)	3104 (1408)
– 5 ft. (– 1.52 m)			**14,058 (6376)**	13,544 (6143)	9646 (4375)	6897 (3128)	6072 (2754)	4386 (1990)		
– 10 ft. (– 3.05 m)	**15,122 (6858)**	**15,122 (6858)**	**10,827 (4911)**	**10,827 (4911)**	9746 (4420)	6988 (3170)	6125 (2780)	4436 (2012)		
– 15 ft. (– 4.57 m)			13,772 (6248)	**13,772 (6248)**	10,139 (4600)	7346 (3333)				

With 10 ft. 2 in. (3.1 m) Arm

Load Point Height	5 ft. (1.52 m)		10 ft. (3.05 m)		15 ft. (4.57 m)		20 ft. (6.10 m)		25 ft. (7.62 m)	
20 ft. (6.10 m)										
15 ft. (4.57 m)							**5200 (2359)**	5200 (2359)	**3896 (1767)**	3540 (1606)
10 ft. (3.05 m)					**7410 (3361)**	**7410 (3361)**	**6460 (2930)**	5249 (2381)	4643 (2106)	3412 (1548)
5 ft. (1.52 m)					10,539 (4780)	7696 (3491)	6559 (2975)	4833 (2192)	4440 (2014)	3219 (1460)
Ground Line					9816 (4452)	7037 (3192)	6186 (2806)	4483 (2033)	4255 (1930)	3042 (1380)
– 5 ft. (– 1.52 m)	**5752 (2609)**	**5752 (2609)**	**11,907 (5400)**	**11,907 (5400)**	9533 (4324)	6779 (3075)	5980 (2712)	4290 (1946)	4155 (1885)	2948 (1337)
– 10 ft. (– 3.05 m)	**12,861 (5834)**	**12,861 (5834)**	**10,488 (4757)**	**10,488 (4757)**	9551 (4332)	6796 (3088)	5965 (2705)	4275 (1939)		
– 15 ft. (– 4.57 m)			**13,068 (5928)**	**13,068 (5928)**	9838 (4462)	7057 (3201)				

BUCKETS

A full line of buckets is offered to meet a wide variety of applications. All capacities are SAE heaped* ratings. The buckets have an adjustable bushing feature for side clearance, with the exception of the ditching bucket. Tooth selection includes either the John Deere Fanggs® tooth or the ESCO Vertalok tooth. Replaceable cutting edges are available through John Deere parts. Optional side cutters add 4 inches (100 mm) to bucket widths.

Type Bucket	Bucket Width		Bucket Capacity*		Weight		Bucket Dig Force		Arm Dig Force 8 ft. 6 in. (2.6 m)		Arm Dig Force 10 ft. 2 in. (3.1 m)		Bucket Tip Radius		No. Teeth
	in.	mm	yd^3	m^3	lb.	kg	lb.	kN	lb.	kN	lb.	kN	in.	mm	
General Purpose Plate Lip	24	600	0.50	0.38	899	407	21,660	96.3	15,005	66.7	13,095	58.2	50.5	1283	4
	30	750	0.64	0.49	1068	484	21,660	96.3	15,005	66.7	13,095	58.2	50.5	1283	4
	36	900	0.78	0.60	1096	497	21,660	96.3	15,005	66.7	13,095	58.2	50.5	1283	5
	41**	1045**	0.75	0.57	1050	475	18,965	84.4	14,330	63.7	12,570	55.9	57.7	1465	5
	42	1067	0.92	0.70	1253	568	21,660	96.3	15,005	66.7	13,095	58.2	50.5	1283	6
	48	1220	1.06	0.81	1399	634	21,660	96.3	15,005	66.7	13,095	58.2	50.5	1283	7
General Purpose High Capacity	24	600	0.59	0.45	1106	501	19,710	87.7	14,530	64.6	12,725	56.6	55.5	1410	4
	30	750	0.77	0.59	1182	536	19,710	87.7	14,530	64.6	12,725	56.6	55.5	1410	4
	36	900	0.95	0.73	1401	635	19,710	87.7	14,530	64.6	12,725	56.6	55.5	1410	5
	42	1067	1.12	0.86	1590	721	19,710	87.7	14,530	64.6	12,725	56.6	55.5	1410	5
Heavy Duty Plate Lip	24	600	0.59	0.45	1390	630	19,710	87.7	14,530	64.6	12,725	56.6	55.5	1410	4
	30	750	0.77	0.59	1481	671	19,710	87.7	14,530	64.6	12,725	56.6	55.5	1410	4
	36	900	0.95	0.73	1558	706	19,710	87.7	14,530	64.6	12,725	56.6	55.5	1410	5
	42	1067	1.12	0.86	1687	765	19,710	87.7	14,530	64.6	12,725	56.6	55.5	1410	5
Ditching	48	1220	0.74	0.57	848	384	29,565	131.5	16,460	73.2	14,205	63.2	37.0	940	0
	60	1500	0.90	0.69	959	435	29,565	131.5	16,460	73.2	14,205	63.2	37.0	940	0

**With side cutters

BUCKET SELECTION CHART

RECOMMENDED BUCKET SIZE*						
			GENERAL PURPOSE BUCKET		HEAVY DUTY BUCKET	
lb/yd³	kg/m³	MATERIAL (loose weight)	cu. yd.	m³	cu. yd.	m³
700	420	Wood chips	4.00	3.1	—	—
750	440	Peat, dry	3.50	2.7	—	—
950	560	Cinders	2.50	1.9	—	—
1170	690	Peat, wet	2.25	1.7	—	—
1600	950	Topsoil	1.75	1.3	—	—
1780	1050	Coal	1.50	1.1	—	—
2100	1250	Caliche	0.88–1.12	0.7–0.9	0.75–1.00	0.6–0.8
2100	1250	Earth, loam	1.12	0.9	1.00	0.8
2250	1330	Shale	1.12	0.9	1.00	0.8
2400	1420	Sand, dry	1.12	0.9	1.00	0.8
2500	1480	Clay, dry	0.75–1.00	0.6–0.8	0.88	0.7
2550	1510	Earth, dry	0.88–1.00	0.7–0.8	0.88	0.7
2600	1540	Limestone, broken or crushed	0.75–1.00	0.6–0.8	0.63–0.88	0.5–0.7
2700	1600	Earth, wet	1.00	0.8	0.88	0.7
2800	1660	Clay, wet	1.00	0.8	0.88	0.7
2800	1660	Rock, granite, blasted and broken	0.88–1.12	0.7–0.9	0.75–1.00	0.6–0.8
2850	1690	Sand, moist	1.00	0.8	0.88	0.7
2900	1720	Sand and gravel, dry	1.00	0.8	0.88	0.7
3100	1840	Sand, wet	0.88	0.7	0.75	0.6
3400	2020	Sand and gravel, wet	0.88	0.7	0.75	0.6

*Contact your John Deere dealer for optimum bucket and attachment selections. These recommendations are for general conditions and average use. Larger buckets may be possible when using light buckets, for flat and level operations, less compacted materials, and volume loading applications such as mass excavation applications in ideal conditions. Smaller buckets are recommended for adverse conditions such as off-level applications and uneven surfaces. Bucket capacity indicated is SAE heaped.

ADDITIONAL STANDARD EQUIPMENT

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
Oil filter
Radiator trash screen
Underhood muffler with vertical exhaust

Cab:
Auto-idle system
Gauges
- Engine coolant temperature gauge
- Fuel gauge

Heater, 13,500 Btu/hr (4.1 kW) with recirculating fan
Horn
Hourmeter, quartz
Interior light
Mode selection:
- Power modes – three
- Travel modes – two

Monitor system with alarm features:
- Auto-idle indicator light
- Engine air cleaner restriction indicator light
- Engine alternator charge indicator light
- Engine coolant level light
- Engine coolant temperature warning light with audible alarm
- Engine oil pressure warning light with audible alarm
- Hydraulic oil level light
- Low fuel indicator light
- Work lights-on indicator light

Motion alarm with cancel switch
Positive-position hand throttle
Seat, deluxe cloth with armrests
Seat belt
Tinted glass
Windshield wiper, front

Frame:
Fully-enclosed swing gears
Right- and left-hand mirrors
Toolbox
Vandal locks
- Cab door
- Service doors
- Fuel cap

Worklights
- One mounted on frame
- One mounted on boom

Front attachments:
Bucket-to-arm clearance adjusting mechanism
Centralized lubrication system
Dirt seals on all bucket pins
8 ft. 6 in. (2.6 m) standard arm

Undercarriage:
Planetary drive
Propel motor and hydraulic line shields
Single flange lower track rollers
Two-speed propel
Track guides, front idler and center locations
Upper carrier roller

OPTIONAL OR SPECIAL EQUIPMENT

Cab:
Defroster fan kit
Heater, 20,000 Btu (5.9 kW)
Heater, 40,000 Btu (11.7 kW)
Propel control levers
Window vandal protection covers
24- to 12-volt D.C. radio converters

Front attachments:
10 ft. 2 in. (3.1 m) arm
Boom cylinder with plumbing to mainframe
Buckets
- General purpose
- High capacity
- Heavy duty
- Side cutters and teeth

No-boom-arm option

Hydraulic system:
Auxiliary function control kit
Hydraulic filter restriction indicator kit

Undercarriage:
20-in. (500 mm) triple grouser shoes
28-in. (700 mm) triple grouser shoes