

ENGINE

John Deere engineered and manufactured. Replaceable wet type cylinder liners provide superior heat dissipation, longer life. High strength alloy heads have replaceable valve seat inserts. The forged steel, 7-main bearing crankshaft is statically and dynamically balanced for smooth operation. Cast aluminum pistons provide good heat transfer and pistons are sprayed with cooling oil for longer life.

Engine: John Deere 6059T
 Rated power @ 2200 rpm 115 SAE net hp (86 kW)
 120 SAE gross hp (90 kW)
 Cylinders 6
 Displacement 359 cu. in. (5.884 L)
 Fuel consumption, typical 2.0 to 3.3 gal/hr (7.6 to 12.5 L/h)
 Torque rise 25 percent
 Maximum net torque 343 lb-ft (465 Nm)
 Lubrication pressure system w/full-flow filter and cooler
 Air cleaner dual stage dry type with safety element and precleaner
 Electrical system 12 volt with 78-amp alternator

TRANSMISSION

John Deere designed and built power shift transmission with modulated full power shifting between forward and reverse. Uses single stage, dual phase 12.2-inch (310 mm) torque converter with 1:99:1 stall ratio.

TRAVEL SPEEDS

| | Gear | Forward | | Reverse | |
|--------------------|------|---------|--------|---------|--------|
| | | mph | (km/h) | mph | (km/h) |
| With standard | 1 | 3.1 | 5.0 | 3.4 | 5.4 |
| 21L-24 rear and | 2 | 5.4 | 8.7 | 6.0 | 9.6 |
| 14.5/75-16.1 front | 3 | 11.1 | 17.9 | | |
| tires | 4 | 19.0 | 30.6 | | |
| With MFWD and | 1 | 3.4 | 5.5 | 3.7 | 6.0 |
| required 21L-28 | 2 | 6.0 | 9.6 | 6.6 | 10.6 |
| rear and 15-19.5 | 3 | 12.3 | 19.8 | | |
| front tires | 4 | 21.0 | 33.9 | | |

FINAL DRIVES

Heavy-duty, inboard mounted planetary type. Evenly distributes axle shock loads over three gears that run in a cooling oil bath.

BRAKES

Hydraulic wet disk brakes are mounted inboard and are pressure cooled and lubricated. They're self-adjusting, self-equalizing, require no periodic service. Individual pedals allow them to be applied together or separately. Parking/emergency brake is an independent system that uses a caliper and disk on the rear axle input pinion.

CAPACITIES

| | U.S. |
|-----------------------------|-----------------|
| Fuel tank | 37 gal. (140 L) |
| Engine coolant | 28 qt. (26 L) |
| Engine oil including filter | 20 qt. (19 L) |
| Transmission system | 6 gal. (23 L) |
| Hydraulic system | 40 gal. (151 L) |
| Rear axle | 18 qt. (17 L) |

STEERING

Hydrostatic power steering gives superior control at all speeds. Excellent steering torque allows easy maneuvering with heavy loads.

| | |
|---|-------------------------|
| Non-powered axle | |
| Curb turning radius with brakes | 14 ft. 4 in. (4.37 m) |
| without brakes | 15 ft. 2 in. (4.63 m) |
| Bucket clearance circle with brakes | 36 ft. 2 in. (11.02 m) |
| without brakes | 37 ft. 10 in. (11.54 m) |
| Axle oscillation stop to stop | 20 degrees |
| Mechanical-front-wheel drive | |
| Curb turning radius with brakes | 14 ft. 5 in. (4.39 m) |
| without brakes | 15 ft. 7 in. (4.76 m) |
| Bucket clearance circle with brakes | 36 ft. 3 in. (11.06 m) |
| without brakes | 38 ft. 9 in. (11.80 m) |
| Axle oscillation stop to stop | 18 degrees |
| Steering wheel turns stop to stop, both axles | 3.0 to 3.8 |

| Axle ratings: | Static | Dynamic | SAEJ43 |
|---------------|---------------------------|---------------------------|-------------------------|
| Front | 78,700 lb. (35 700 kg) | 78,700 lb. (35 700 kg) | 12,500 lb. (5670 kg) |
| Rear | 74,000 lb. (33 600 kg) | 98,800 lb. (44 900 kg) | 19,400 lb. (8800 kg) |

HYDRAULICS

| | |
|-----------------------|--|
| System | closed center |
| Pressure, main relief | 2550 psi (17 500 kPa) |
| Pump | radial pistons |
| Flow at 2200 rpm | 53 gpm (201 L/min) |
| Filter, return oil | 10 micron, spin-on replaceable element |

CYLINDERS

| | Bore | | Stroke | | Rod | |
|-------------------------------|------|------|--------|------|------|------|
| | in. | (mm) | in. | (mm) | in. | (mm) |
| Loader boom (2) | 3.84 | 100 | 34.25 | 870 | 2.20 | 56 |
| Loader bucket (1) | 4.53 | 115 | 32.32 | 821 | 2.20 | 56 |
| Backhoe boom (1) | 6.30 | 160 | 44.37 | 1127 | 3.15 | 80 |
| Backhoe crowd (1) | 5.51 | 140 | 35.35 | 898 | 2.76 | 70 |
| Backhoe bucket (1) | 3.94 | 100 | 37.46 | 952 | 2.48 | 63 |
| Backhoe swing (2) | 4.50 | 114 | 9.88 | 251 | 2.25 | 57 |
| Backhoe extendable dipper (1) | 3.00 | 76 | 60.00 | 1525 | 1.50 | 38 |
| Backhoe stabilizer (2) | 4.53 | 115 | 21.34 | 542 | 2.48 | 63 |
| Steering (1) regular axle | 2.76 | 70 | 9.06 | 230 | 1.26 | 32 |

TIRES

| Rear | Front |
|-----------------------------------|--------------------------|
| 21L-24, 16 PR R4 | 14.5/75-16.1, 10 PR F3 |
| 20.5-25, 12 PR L2 | 14.5/75-16.1, 10 PR F3 |
| With mechanical-front-wheel drive | |
| 21L-28, 14 PR R4 | 15-19.5, 8 PR, lug tread |

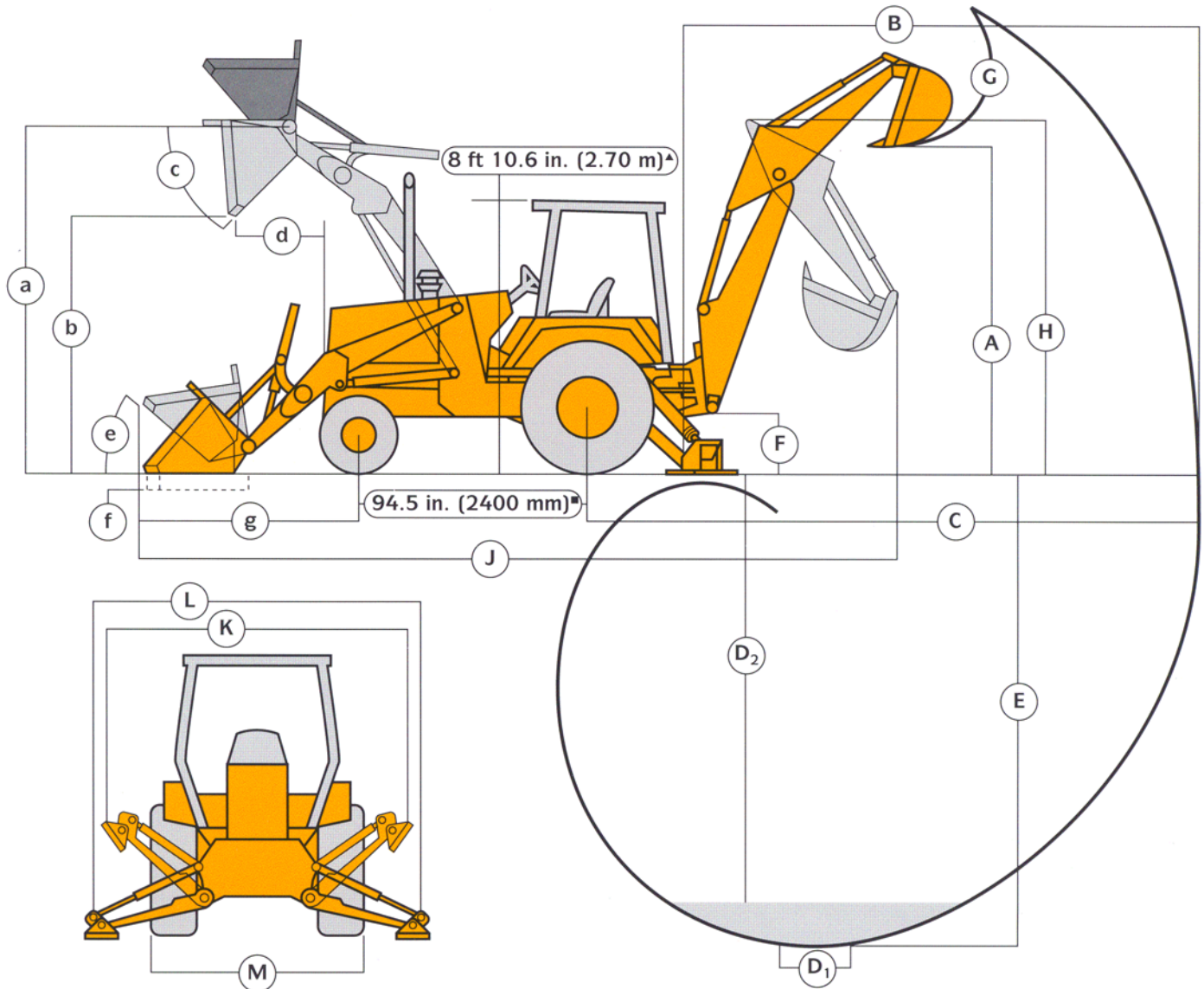
OPERATING WEIGHTS

| | |
|---|------------------------|
| SAE 710C | 22,500 lb. (10 200 kg) |
| cab adds | 450 lb. (204 kg) |
| mechanical-front-wheel drive adds | 1300 lb. (590 kg) |
| extendable dipperstick with required counterweight adds | 1362 lb. (618 kg) |
| optional front counterweighting adds | 700 lb. (318 kg) |
| reversible stabilizer pads add | 90 lb. (41 kg) |

See backhoe and loader performance data for bucket weights

DIMENSIONS

See loader performance (a-g)



▲ ROPS and Cab
 ■ MFWD 96.5 in. (2450 mm)

Key:

| | Backhoe * | Extendable Dipperstick Retracted | Extended |
|---|-------------------------|-------------------------------------|-------------------------|
| A. Loading height, truck loading position . . . | 13 ft. 2 in. (4.01 m) | 12 ft. 11 in. (3.94 m) | 15 ft. 0 in. (4.57 m) |
| B. Reach from center of swing mast | 22 ft. 8 in. (6.90 m) | 22 ft. 4 in. (6.81 m) | 27 ft. 1 in. (4.26 m) |
| C. Reach from center of rear axle | 26 ft. 9 in. (8.15 m) | 26 ft. 6 in. (8.08 m) | 31 ft. 2 in. (9.50 m) |
| D. Digging depth (SAE): | | | |
| (1) 2-ft. (610 mm) flat bottom | 17 ft. 10 in. (5.45 m) | 17 ft. 9 in. (5.41 m) | 22 ft. 0 in. (6.71 m) |
| (2) 8-ft. (2440 mm) flat bottom | 17 ft. 0 in. (5.18 m) | 17 ft. 0 in. (5.18 m) | 22 ft. 8 in. (6.91 m) |
| E. Maximum digging depth | 18 ft. 0 in. (5.49 m) | 17 ft. 10 in. (5.45 m) | 22 ft. 9 in. (6.93 m) |
| F. Ground clearance, minimum | 14 in. (356 mm) | 14 in. (356 mm) | 14 in. (356 mm) |
| G. Bucket rotation | 149 deg./159 deg. | 149 deg./159 deg. | 149 deg./159 deg. |
| H. Transport height | 13 ft. 9 in. (4.20 m) | 13 ft. 9 in. (4.20 m) | 13 ft. 9 in. (4.20 m) |
| J. Overall length, transport | 26 ft. 7.9 in. (8.13 m) | 26 ft. 7.9 in. (8.13 m) | 26 ft. 7.9 in. (8.13 m) |
| K. Stabilizer width – transport | 8 ft. (2.44 m) | 8 ft. (2.44 m) | 8 ft. (2.44 m) |
| L. Stabilizer spread – operating | 11 ft. 5 in. (3.48 m) | 11 ft. 5 in. (3.48 m) | 11 ft. 5 in. (3.48 m) |
| M. Overall width (less loader bucket) | 88 in. (2235 mm) | 88 in. (2235 mm) | 88 in. (2235 mm) |

* See backhoe performance

BACKHOE PERFORMANCE

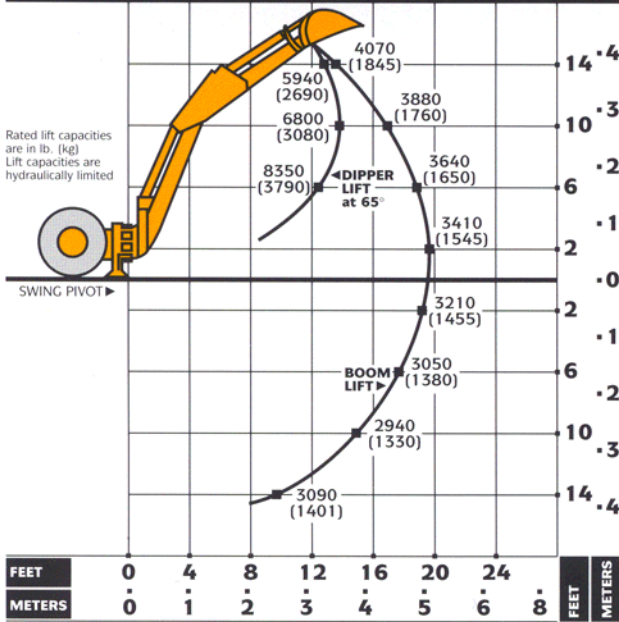
| | |
|---|----------------------|
| Digging force, bucket cylinder (power dig position) | 13,500 lb. (60 kN) |
| Digging force, crowd cylinder | 9600 lb. (42.7 kN) |
| Swing arc | 180 deg. |
| Operator control | Two levers |
| Bucket positions | 0 to 3 deg. rollback |
| Stabilizer angle rearward | 13 deg. |
| Lifting capacity, maximum, boom at 65 deg. | 7300 lb. (3300 kg) |
| Leveling angle | 13 deg. |

*Backhoe specifications are with 24 in. x 11.1 cu. ft. (610 x 0.31 m³) bucket.

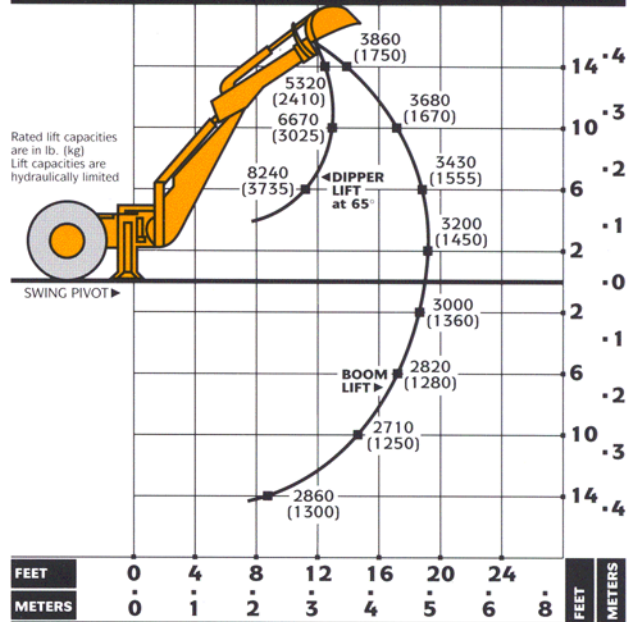
Extendable Dipperstick

| | Retracted | Extended |
|---|----------------------|----------------------|
| Digging force, bucket cylinder (power dig position) | 13,500 lb. (60 kN) | 13,500 lb. (60 kN) |
| Digging force, crowd cylinder | 9600 lb. (42.7 kN) | 6700 lb. (29.8 kN) |
| Swing arc | 180 deg. | 180 deg. |
| Operator control | Two levers | Two levers |
| Bucket positions | 0 to 3 deg. rollback | 0 to 3 deg. rollback |
| Stabilizer angle rearward | 13 deg. | 13 deg. |
| Lifting capacity, maximum, boom at 65 deg. | 6300 lb. (2850 kg) | 3300 lb. (1500 kg) |
| Leveling angle | 13 deg. | 13 deg. |

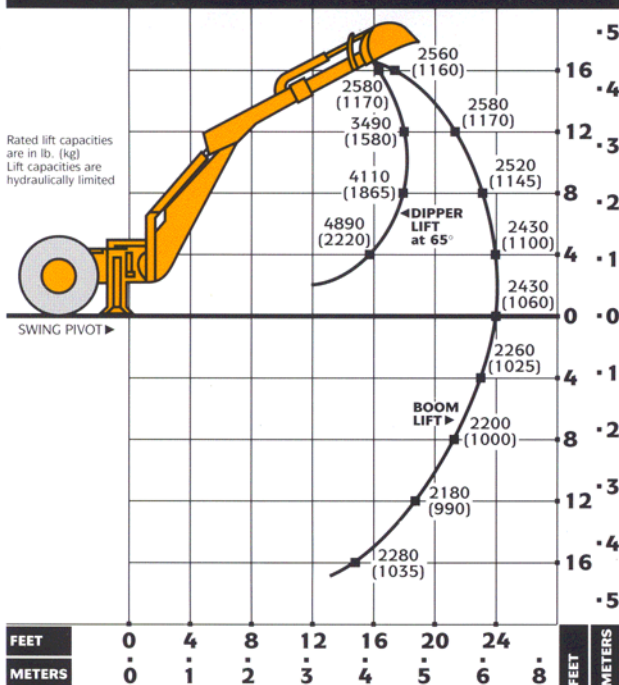
LIFT CAPACITY Backhoe with standard dipperstick. Based on SAE J31.



LIFT CAPACITY Backhoe with extendable dipperstick, retracted. Based on SAE J31.



LIFT CAPACITY Backhoe with extendable dipperstick, extended. Based on SAE J31.



BACKHOE BUCKETS

| in. | Width (mm) | Capacity | | Weight | |
|-----|------------|----------|-------------------|--------|-------|
| | | cu. ft. | (m ³) | lb. | (kg) |
| 18 | (457) | 7.7 | (0.22) | 532 | (241) |
| 24 | (610) | 11.1 | (0.31) | 592 | (268) |
| 30 | (762) | 15.0 | (0.42) | 642 | (291) |
| 36 | (914) | 18.8 | (0.53) | 700 | (317) |

LOADER PERFORMANCE

| | W/1.5 cu. yd. (1.15 m ³) Bucket | W/1.7 cu. yd. (1.3 m ³) Bucket and MFWD |
|---|---|---|
| Operator control | single lever | single lever |
| Breakout force | 13,560 lb. (60.3 kN) | 11,870 lb. (52.8 kN) |
| Lifting capacity, full height | 7100 lb. (3230 kg) | 6600 lb. (2990 kg) |
| a) Height to bucket hinge pin, max. | 11 ft. 10 in. (3.60 m) | 12 ft. 0 in. (3.65 m) |
| b) Dump clearance, bucket at 40 degrees | 9 ft. 7 in. (2.92 m) | 9 ft. 7 in. (2.92 m) |
| c) Bucket dump angle, max. | 40 degrees | 40 degrees |
| d) Reach at full height, bucket at 40 degrees | 29 in. (737 mm) | 31 in. (789 mm) |
| e) Rollback at ground level | 40 degrees | 40 degrees |
| f) Digging depth below ground bucket level | 4 in. (100 mm) | 2 in. (50 mm) |
| g) Distance from front axle centerline to bucket cutting edge | 81.5 in. (2070 mm) | 82 in. (2080 mm) |
| Raising time to full height | 4.3 sec. | 4.3 sec. |
| Bucket dump time | 1.3 sec. | 1.3 sec. |
| Bucket lowering time | 3.2 sec. | 3.2 sec. |

LOADER BUCKETS

| Loader: | Width | | Heaped Capacity | | Weight | |
|--------------|-------|--------|-----------------|-------------------|--------|-------|
| | in. | (mm) | cu. yd. | (m ³) | lb. | (kg) |
| | 92 | (2340) | 1.5 | (1.15) | 960 | (435) |
| Multipurpose | 96 | (2440) | 1.75 | (1.34) | 1500 | (680) |
| | 96 | (2440) | 1.375 | (1.0) | 1780 | (807) |