

Section 10 GENERAL

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Group 5 SPECIFICATIONS

LOADER DESIGN

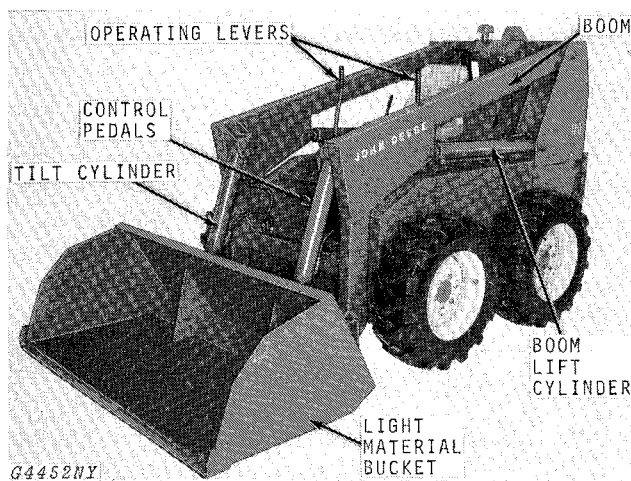


Fig. 1-170 Skid-Steer Loader

The John Deere 170 Skid-Steer Loader is a 1700-pound capacity, self-propelled, four-wheel drive loader used for various material handling operations. It also has the ability to maneuver in small, tight areas.

All references in this manual to front, rear, left-hand and right-hand are in relation to the position of the operator seated in the operator's station.

SERIAL NUMBERS

The serial number plate is located on the right-hand side; inside the frame under the boom pivot.

LOADER SPECIFICATIONS

HORSEPOWER (@ 2,400 engine rpm):

Brake(SAE)* 37 (49.617 Kw)

* Brake horsepower is for an engine equipped with fan, air cleaner and muffler; and is maximum under SAE standard conditions at sea level and 60°F (16°C).

ENGINE: Wisconsin VG4D, 4-cylinder, 4-stroke cycle, gasoline

Maximum torque @ 1,600 rpm 93.8 ft-lb
(127.18 Nm)

Number of Cylinders 4

Bore and Stroke .3.50 x 4 in. (8.89 x 10.16 cm)

Piston Displacement 154 cu. in. (252.41 cm³)

Compression Ratio 5.05 to 1

Intake Valve Clearance008 in. (0.2032 mm)

Exhaust Valve Clearance016 in. (0.4064 mm)

Slow Idle 900 RPM

Fast Idle 2550 RPM

Starting Electric

Fuel Gasoline (Regular Grade)

Governor Cam Gear Driven

Lubrication Pressure system w/full-flow filter

Cooling fan Suction

Air cleaner w/restriction indicator Dry

Electrical System 12 volt w/alternator

ELECTRICAL SYSTEM

Battery Voltage 12-volt

Battery Terminal Grounded Negative Ground

Alternator Regulation Regulator-Rectifier

Alternator Belt Driven, Motorola

Breaker Point Gap020 in. (0.508 mm)

Spark Plugs

Size 18 mm

Gap030 in. (0.762 mm)

CAPACITIES (U.S. STANDARD MEASURES)

Fuel Tank 25 gal. (94.63 l)

Engine Crankcase 4-1/2 qts. (4.26 l)

Hydraulic System 20 gal. (5.68 l)

Oil Filter 1/2 qt., Spin-On (13.24 l)

TIRES

Type Flotation, grip-type

Size 10-16.5, 6-ply-rated (25.40 x 41.91 cm)

DRIVE SYSTEM

Gearbox Transmits engine power to clutch packs. It drives hydraulic pump and variable drive pulley.

Clutch Packs Multi-disk type, roller cam actuated with 11 wear surfaces and heavy-duty separator springs.

TRAVEL SPEEDS: mph

Forward or reverse 0-7
(11.3 km/hr)

Turning Radius: 360 degrees in its own length

FINAL DRIVES:

Axle is specially-treated, forged 2.56 in. (6.50 cm) dia. steel. Chain and sprocket primary, secondary, and final drives.

STEERING Multiple-disk clutch. Control levers for left and right drive wheels. Front or reverse.

HYDRAULIC SYSTEM:

Pressure 1,750 psi (12.06 MPa)

Control Dual-pedal, double hydraulic system

Pump Gear, 18 gpm (68.13 l/min)
@ 2,400 engine rpm

Oil lines Welded JIC steel tubing;
single-wire-braid hose

Filter ... 33-micron paper cartridge in suction line

HYDRAULIC CYLINDERS

Bore Stroke

Boom (2) .. 3 in. (7.62 cm) .. 27.5 in. (69.85 cm)

Bucket (2) . 3 in. (7.62 cm) . 16.5 in. (41.91 cm)

Grapple (2) 2.5 in. (6.32 cm) 8 in. (20.32 cm)

Cylinder Rods Ground, heat-treated, chrome plated, polished

Boom cylinder rods 1.5 in. dia. (3.81 cm)

Bucket cylinder rods 1.25 in. dia. (3.18 cm)

Grapple cylinder rods .. 1.125 in. dia. (2.88 cm)

LOAD CAPACITY Load capacity is 1,700 lbs.
(771.11 kg) Bucket capacities vary according to application

SHIPPING WEIGHT 4,400 lbs.
Distribution Rear-82%, Front-18%

OPERATING WEIGHT

Distribution Rear-70%, Front-30%
(With dirt bucket)

BUCKET SPECIFICATIONS

REGULAR BUCKETS	Width	Height		Capacity Cu. Ft.		Wt. Lbs.
Dirt	65" (1.65m)	18-5/8"	(47.31cm)	10.0	(0.28m ³)	335 (14.99kg)
Produce	72" (1.83m)	28"	(71.12cm)	15.0	(0.425m ³)	405 (18.37kg)
Light Materials	67" (1.70m)	22-7/8"	(58.10cm)	20.2 (3/4 yd.)	(0.57m ³)	455 (20.65kg)
Fertilizer	65" (1.65m)	21-3/8"	(54.29cm)	15.3	(0.43m ³)	400 (18.14kg)
Utility	65" (1.65m)	20-1/8"	(51.12cm)	12.5	(0.35m ³)	380 (17.24kg)
Manure Bucket	65" (1.65m)	18-7/8"	(47.94cm)			375 (17.01kg)

QUIK-TATCH BUCKETS	Width	Height		Capacity Cu. Ft.		Wt. Lbs.
Dirt	65" (1.65m)	20"	(50.80cm)	10.5	(0.297m ³)	415 (18.82kg)
Light Materials	73" (1.85m)	27-3/4"	(70.49cm)	25.5 (1 yd.)	(0.722m ³)	465 (21.09kg)
Light Materials	67" (1.70m)	25-3/4"	(65.41cm)	20.2 (3/4 yd.)	(0.57m ³)	415 (18.82kg)
Fertilizer	65" (1.65m)	23-3/16"	(58.90cm)	15.3	(0.43m ³)	420 (19.05kg)
Utility	65" (1.65m)	20"	(50.80cm)	12.5	(0.35m ³)	402 (18.23kg)
Quik-Tatch Bar						100 (4.536kg)

PALLET FORKS

Width 43" (1.092m)

Weight

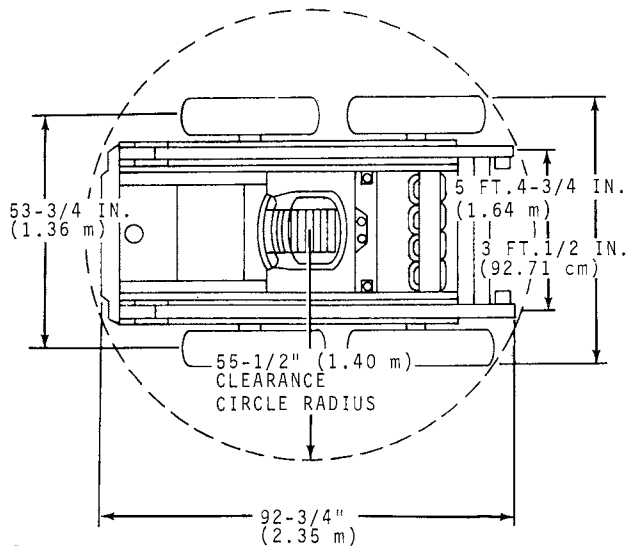
Quik-Tatch Mounting Frame ... 290 lbs. (13.54kg)

Standard Mounting Frame 115 lbs. (5.23kg)

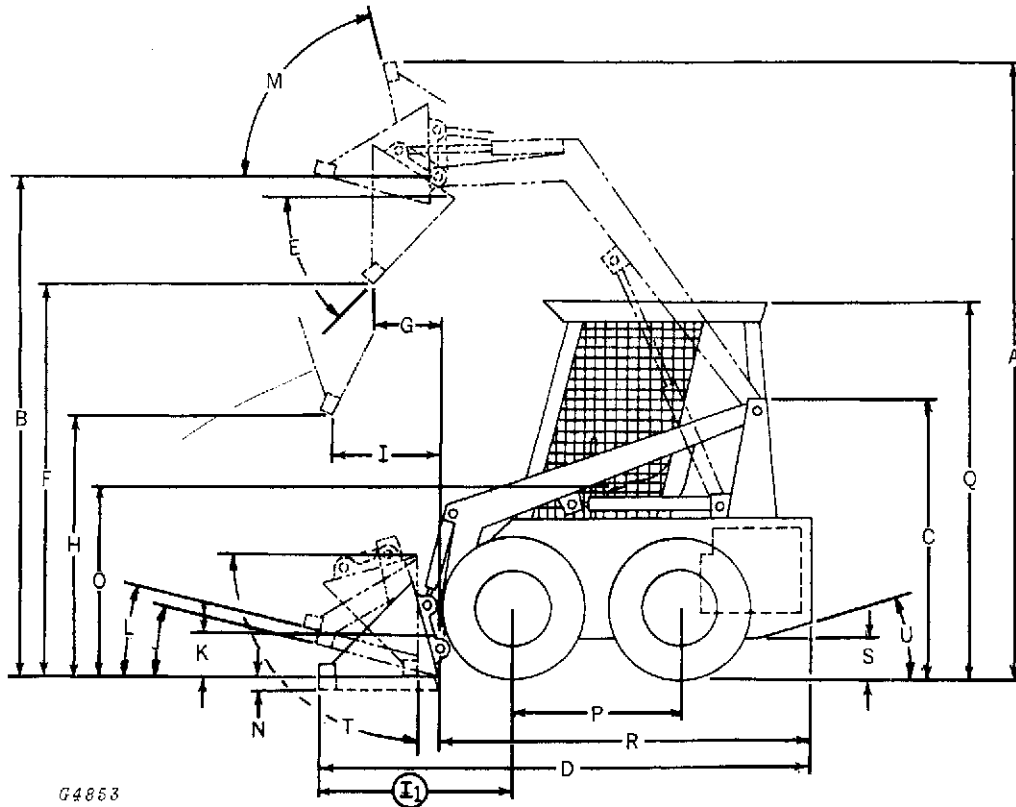
Forks (two) 36" (91.44cm) 150 lbs. (6.80kg)

Forks (two) 46" (122.84cm) 170 lbs. (7.71kg)

TURNING RADIUS



G5887



G4863

Specifications are in accordance with IEMC standards. Dimensions are with the Quik-Tatch Dirt and Foundry bucket.

A.	Overall height - lift arms raised	149-1/4" (3.79 m)
B.	Height to hinge pin (Maximum)	116" (2.95 m)
C.	Overall height	61-1/2" (1.56 m)
D.	Overall length - with bucket	122-3/4" (3.12 m)
E.	Dump angle	37°
F.	Dump height	91" (2.31 m)
G.	Reach of maximum height	19-1/4" (48.90 cm)
I.	Reach at "H" (25-1/4" [64.14 cm] at 74° dump)	20" (50.80 cm)
	(28" [71.12 cm] at 45° dump)	35-3/4" (90.81 cm)
I1.	Reach bucket on ground	52-1/4" (1.32 m)
J.	Maximum rollback at ground	32°
K.	Carry position	9-3/4" (24.77 cm)
L.	Maximum rollback at carry position	34°
M.	Maximum rollback - fully raised	104°
N.	Digging depth	3/4" (1.91 cm)
O.	Height to seat	42" (1.07 m)
P.	Wheel base	35" (88.90 cm)
Q.	Overall height with rollgard	85-1/4" (2.16 m)
R.	Overall length - less bucket	91" (2.31 cm)
S.	Ground clearance	7-3/4" (19.69 cm)
T.	Maximum grading angle	94°
U.	Angle of departure	20°

(Specifications and design subject to change without notice)

Group 10

PREDELIVERY, DELIVERY, AND AFTER-SALES SERVICES

PREDELIVERY SERVICE

Service	Specifications	Reference
Check battery for electrolyte level and specific gravity	Use battery hydrometer	See operator's manual
Check battery terminal connections	.....	See operator's manual
Check variable speed drive belt for alignment	2-3/4-inch (6.98 cm)	See operator's manual
Adjust pressure of tires	45 to 50 PSI (310 to 344 kPa)	See operator's manual
Check nuts for tightness	90 ft-lbs torque (122.02 Nm)	
Check crankcase oil	Fill to top mark on oil level indicator	See operator's manual
Check gearbox oil level	1/4 pt (0.118 l) use SAE 80 gear oil	See operator's manual
Lubricate grease fittings	John Deere Multi-Purpose Lubricant or an equivalent SAE Multipurpose-Type Grease	See operator's manual
Check hydraulic reservoir level	Fill to top mark on bayonet gauge	See operator's manual

DELIVERY SERVICE

A thorough discussion of the operation and service of a new loader at the time of delivery helps to assure complete customer satisfaction.

Complaints may arise if the owner is not shown how to operate and service his new loader correctly. Devote enough time, at your customer's convenience, to introduce him to his new loader.

The following procedure is recommended before the serviceman delivers the loader to the owner.

Using the operator's manual as a guide, be sure the owner thoroughly understands the following points:

1. Operation and use of controls.
2. Operation of the engine.
3. Operation and functions of the hydraulic system.
4. Importance of lubrication and periodic services.
5. Importance of safety.
6. Terms and conditions of warranty.

After explaining and demonstrating the above points, have the owner sign the delivery receipt and give him his operator's manual.

AFTER SALES SERVICE

The purpose of this inspection is to ensure that the customer is receiving satisfactory performance from his loader.

The following inspection program is recommended within the first 100 hours of operation:

At the same time, the inspection should reveal whether or not the loader is being operated, lubricated, and serviced properly.

Service	Specifications	Reference
Check battery specific gravity and electrolyte level	Use battery hydrometer	See operator's manual
Check engine crankcase oil	Fill to top mark on oil level indicator	See operator's manual
Check level of hydraulic oil	Top mark on gauge	See operator's manual
Check air cleaner for leaks	.....	See operator's manual
Fill tank and start engine	25 U.S. gal. (94.63 l)	See operator's manual
Check operation of starter and gauges	.....	See operator's manual
Check steering operation	.....	See operator's manual
Check seat operation	.....	See operator's manual
Check variable speed drive belt alignment	2-3/4 inch (6.98 cm)	See operator's manual



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