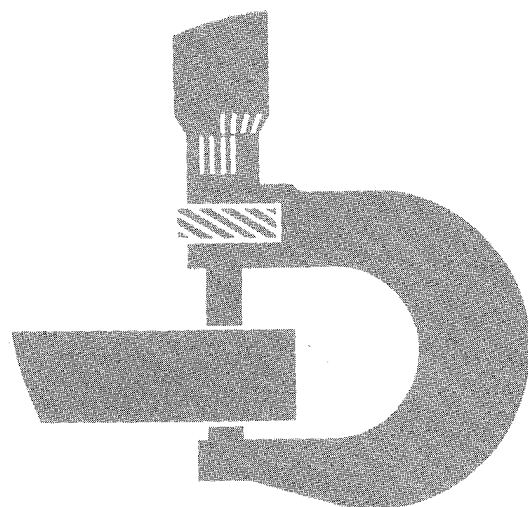


JOHN DEERE JD310 Loader Backhoe Service Repair Manual



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**John Deere
JD310
Loader Backhoe**



TECHNICAL MANUAL

**John Deere Dubuque works
TM-1036 (Feb-77)**

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JD310 LOADER BACKHOE

Technical Manual TM-1036 (Feb-77)

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Section 10 GENERAL

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Group 5

GENERAL MACHINE SPECIFICATIONS

Engine

	Gasoline	Diesel
Flywheel Horsepower (net) (observed at 2500 rpm)	50	50
Number of Cylinders	3	3
Bore and Stroke	4.02 x 4.33	4.02 x 4.33
Displacement	164	164
Compression Ratio	7.5 to 1*	16.2 to 1
Firing Order	1-2-3	1-2-3
Engine Speeds		
Slow Idle	600 rpm	800 rpm
Fast Idle	2650 rpm	2650 rpm
Governed Speed Range (rpm)	600-2650 rpm	800-2650 rpm
Valve Clearance		
Intake	0.014 in.	0.014 in.
Exhaust	0.022 in.	0.018 in.

Electrical System

Voltage	12
Battery Ground	Negative
Battery Specific Gravity	1.260

* 8.6:1 High-Altitude Pistons

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Capacities

Fuel Tank	19-1/2 gals.
Cooling System	12 qts.
Engine Crankcase	
(with filter) (early units)	7 qts.
(with filter) (later units)	9 qts.
Transmission-Hydrau- lic Reservoir	20-1/2 gals.

Clutch

Single-stage, spring-loaded,
 dry-disk, foot-operated.

Transmission

Collar-shift with hydraulic reverser containing hydraulic wet clutches provide 8 speeds forward and 4 rearward.

Differentials and Final Drives

Planetary-reduction final drives with spiral bevel gear drive differential.

Differential lock: foot-operated mechanical lock, spring-loaded out of engagement.

Hydraulic System

Closed-center, constant-pressure, variable displacement pump driven from front of engine. Provides hydraulic power for steering and loader-backhoe operation.

Steering System

Hydraulic power steering with provision for emergency manual steering.

Brake System

Fully hydraulic, foot-operated, individually or simultaneously actuated, wet disk type.

Front Tire Options

Size	Type	Ply Rating
7.50-16 (Early Units)	I-1A	6
7.50-16 (Early Units)	I-1A	10
11L-15	I-1	6
7.50-16	I-1A	8
11L-15 (Early Units)	I-1A	8

Rear Tire Options

Size	Type	Ply Rating
16.9-24 (Early Units)	R-1	8
16.9-24	R-4	8
16.9-24 (Early Units)	R-3	8
18.4-24*	R-4	8
19.5-24 (Early Units)	R-4	8

* Use with 9500 Backhoe

Operating Weight (JD310 with 9405 Backhoe)

	Gasoline	Diesel
Without canopy or cab	12,700 lbs.	12,750 lbs.
With canopy	13,103 lbs.	13,241 lbs.

Operating Weight (JD310 with 9500 Backhoe)

	Gasoline	Diesel
Without canopy or cab	13,549 lbs.	13,649 lbs.
With canopy	14,291 lbs.	14,391 lbs.

