

Torque Values Chart (1 of 3)

**These data are from JD Field Service Bulletin No. 163-S,
Dated 8-15-49, Pages 2 & 3.**

TIGHTENING TORQUE SPECIFICATIONS FOR JOHN DEERE WATERLOO TRACTORS

Repeated requests have reached the factory from our service organizations asking for torque specifications on various nuts and bolts on John Deere Tractors. The following table, prepared from factory specifications and shop procedures, gives tensions for many major assemblies. As necessary engineering work is completed, other torque data

will be forthcoming.

Continued, sole use of genuine John Deere bolts, studs, and nuts, tightened to tensions listed herein, will result in service work that is in full accord with factory specifications and procedures.

Part Designation	Model	Torque Value		Remarks
		# In.	# Ft.	
Cylinder Head Stud Nuts	"A"	1500	125	Use 1800 # in. on A628889-up (Heat-Treated Studs) Use 1250 # in. on B248284-up (Heat-Treated Studs)
	"B"	1150	96	
	"D"	2500	208	
	"G"	2500	208	
	"R"	2500	208	
	"SE"**	240	20	
Cylinder to Main Case Stud Nuts	"A"	1500	125	
	"B"	1500	125	
	"R"	2500	208	
Connecting Rod Bolts	"A"	1080	90	Tighten to torque shown, then tighten further as necessary to insert cotter pins.
	"AR"-"AO"	1080	90	
	"B"	900	75	
	"D"	1080	90	
	"G"	900	75	
	"R"	2000	167	
	"SE"**	180	15	
Flywheel Bolt	"R"	4000	334	
S.E. Crankshaft Hex. Jam Nut	"SE"**	2500	208	
Fan and Oil Pump Drive Nut	"R"	1200	100	Tighten C1387R nut to 1200 # in. torque and adjust end play to .0025" to 0.0050".

(*) S.E.—Starting Engine on Diesel Tractor.

Torque Values Chart (2 of 3)

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Part Designation		Torque	Value	
— Cont'd.	Model	# In.	#Ft.	Remarks
Brake Pedal Shaft Nut	"A" "B" "G" "R"	750 450 750 750	63 38 63 63	Take up brake lever shaft taper spline with torque indicated and provide .004" to .044" end play by adding proper washers as required.
Brake Shaft Nut	"R"	2500	208	Take up brake shaft taper spline with 2500 # in. torque and provide end play of .004" to .044" by adding D136R washers as required.
Belt Pulley Dust Shield to First Reduction Gear Cover	"R"	180	15	
Front Wheel Knuckle Nut	All	1250	104	Tighten nut to 1250 # in. torque, then loosen one full castellation plus additional amount required for inserting cotter pin, not to exceed two castellations.
Rear Pressed Steel Wheel to Hub Bolt	"A" "B"	1200 1200	100 100	Tighten to 1200 # in. torque plus or minus 100 # in.
Rear Axle Housing Assembly	"A" "B" "G"	4200 3000 3000	350 250 250	Tighten to torque shown, then loosen or tighten to nearest castellation for inserting cotter pin.
Rear Axle Quill and Shaft Complete	"D"	3000	250	
Rear Axle Housing Assembly	"R"	3000	250	Tighten nut to 250 # ft. torque, then tighten to next castellation for inserting cotter pin.
Power Lift Cylinder to Housing Cap Screws	"A" "B" "G"	1500 750 1500	125 63 125	Use 1800 # in. on heat-treated cap screws.
Remote Cylinder End Cap to Cylinder Cap Screws	"A" "B" "G"	1500 1500 1500	125 125 125	
Crankcase Drain Plugs	All	720	60	
Transmission Drain Plugs	All "SE"*	840 350	70 28	
Timing Gear Cover Drain Plug	"R"	350	28	

(*) S.E.—Starting Engine on Diesel Tractor.

TORQUE VALUES CHART (3 of 3)

~~For the JD-H Tractor—

1. Cylinder Head Stud Nuts — Tighten all studs, center outward in gradual increments to final torque of 96 ft-lbs except for the 3/4" oil lead stud which shall be torqued to 180 ft-lbs. Values are from I&T (JD-4) Shop Service Manual.

2. Connecting Rod Bolts — Torque to 62-1/2 ft-lbs, and then tighten further as necessary to insert cotter pins. Value is from I&T (JD-4) Shop Service Manual.

3. Cylinder to Main Case Stud Nuts — Tighten to a torque not to exceed 125 ft-lbs. This value is deduced from FSB 163-S. The value for "A" and "B" fasteners is used because those fasteners are of the same diameter, and employing the same type of gasket material.

4. Other JD-H Torque Values - That you can take from FSB 163-S include front wheel knuckle nut, rear pressed steel wheel to hub bolt, and the drain plugs for crankcase and transmission. See FSB 163-S, page 3 of 4.

5. Comments, Questions, & Corrections — Please bring comments, questions and/or corrections to the attention of this website's management by going to the Home Page, and then to CONTACT ME.