2021 – 2022 Honda CRF300L Service Info

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Sources: 2021-2022 Honda CRF300L/LA/LR/LRA Factory Service Manual, 2022 (61K1T01).
(A = ABS, R = Rally)
Use this document at your own risk.

Note that we have the factory service manual for the 2021-2022 CRF300L. We do not own a CRF300L although we intend to buy one. We do own a 2012 CBR250RA which shares a lot of engine parts with the CRF300L.

Torque Values

Item	Thread Dia. (mm)	N.m	lbf.ft	Remark
Standard Torque Values				
5 mm hex bolt and nut	5	5.2	3.8	
6 mm hex bolt and nut	6	10	7	
8 mm hex bolt and nut	8	22	16	
10 mm hex bolt and nut	10	34	25	
12 mm hex bolt and nut	12	54	40	
5 mm screw	5	4.2	3.1	
6 mm screw	6	9.0	6.6	
6 mm flange bolt	6	12	9	
8 mm flange bolt and nut	8	27	20	
10 mm flange bolt and nut	10	39	29	
Specific Fasteners (incomplete list)				
Oil change				
Engine oil drain bolt	12	24	18	
Oil filter cover bolt				no specific torque value mentioned, so use standard torque value
Valve adjustment				
Cylinder head (valve) cover	6	10	7	
Timing hole cap	14	6.0	4.4	Apply engine oil
Crankshaft hole cap	30	8.0	5.9	Apply engine oil
External bolt securing rocker arm shaft		15	11	
Engine, other				
Spark plug	10	16	12	
Clutch center lock nut	16	108	80	Replace and stake; apply engine oil
Clutch spring bolt		12	9	
Brakes				
Front brake hose oil bolt	10	34	25	Use new sealing washers

Item	Thread Dia. (mm)	N.m	lbf.ft	Remark
Front brake caliper mounting bolt	8	30	22	ALOC, replace with new one
Front brake caliper bleed valve	8	5.4	4.0	
Front brake caliper torque nut	8	22	16	Apply locking agent
Front brake caliper pin bolt	8	17	13	
Front brake pad hanger pin	10	17	13	
Front brake disc bolt	6	20	15	ALOC, replace with new one
Front brake hose guide bolt	6	10	7	
Front brake hose clamp bolt	6	10	7	
Rear brake hose oil bolt	10	34	25	
Rear master cylinder bolt	6	14	10	ALOC, replace with new one
Rear master cylinder push rod nut	8	17	13	
Rear brake caliper nut	8	22	16	Apply locking agent
Rear brake caliper pin bolt	8	12	9	Apply locking agent
Rear brake pad hanger pin	10	17	13	
Rear brake caliper bleed valve	8	5.4	4.0	
Rear brake disc bolt	8	42	31	ALOC, replace with new one
Rear brake hose guide mounting screw	5	1.2	0.9	
Brake pipe joint nut (ABS)	10	14	10	
Exhaust				
Muffler mounting bolt	8	32	24	
Exhaust pipe joint nut	8	18	13	
Muffler band bolt	8	23	17	
Exhaust pipe protector bolt	6	12	9	
Side stand				
Side stand pivot bolt	10	10	7	
Side stand pivot nut	10	30	22	Self-lock
Side stand switch bolt	6	10	7	ALOC, replace with new one
Front wheel, front suspension, steering				
Front axle bolt	14	69	51	
Front Axle holder bolt	8	22	16	
Front spoke	BC 3.2	3.7	2.7	
Fork center bolt	8	20	15	Apply locking agent
Fork cap	50	35	26	
Fork top bridge pinch bolt	8	29	21	
Fork bottom bridge pinch bolt	8	29	21	
Fork rod nut	10	20	15	
Fork protector bolt	6	7	5.2	ALOC, replace with new one
Handlebar holder bolt				Tighten front bolts first
Steering stem adjusting nut	26			Special procedure
Steering stem nut	24	103	76	

Item	Thread Dia. (mm)	N.m	lbf.ft	Remark
Rear wheel, rear suspension, final drive				
Shock absorber upper nut	10	44	32	Self-lock
Shock absorber lower nut	10	44	32	Self-lock
Shock link bolt (frame side)	10	44	32	Self-lock
Shock link nut (shock arm side)	10	44	32	Self-lock
Shock arm-to-swingarm nut	12	74	55	Self-lock, apply engine oil
Swingarm pivot nut	14	88	65	Self-lock
Drive chain guide bolt	6	10	7	ALOC; replace with new one
Drive chain slider bolt	5	4.2	3.1	ALOC; replace with new one
Drive Chain slider side bolt	5	4.2	3.1	ALOC; replace with new one
Rear spoke	BC 3.2	3.7	2.7	
Rear axle nut	16	88	65	Self-lock
Driven (rear) sprocket nut	8	32	24	Self-lock
Drive chain adjuster lock nut	8	27	20	UBS nut
Drive (front) sprocket fixing plate bolt	6	10	7	
Other				
Seat bolts		21	15	

Thread diameter in mm refers to “male” thread and is measured on the outer surface (peak, not trough) of the bolt thread (equals diameter of smooth portion of bolt shaft if not completely cut with threads).

UBS: “Uniform Bearing Stress”. UBS bolts are designed to resist loosening.

Thread Locking Agent

ALOC - bolts have a pre-applied locking agent on them.

According to the service manual, when applying a thread locking agent to specific bolts, use a small amount towards the end of the bolt, skipping the first 1 to 3 mm. The width of the application area should be 5.5 to 7.5 mm wide. Otherwise just apply a small amount of locking agent to the end of the bolt threads resulting in the locking agent being distributed throughout. Threads should be clean, dry and oil-free before applying thread locking agent. Avoid contact with plastic.

Use a medium strength locking agent unless otherwise specified.

Spark Plug Gap

0.8 – 0.9 mm (0.03 – 0.04 in)

Valve Clearance

Measure with the engine cold: below 35C (95F)
Intake: 0.16 +/- 0.03 mm (0.006 +/- 0.001 in)
Exhaust: 0.27 +/- 0.03 mm (0.011 +/- 0.001 in)

Valve Clearance Inspection and Adjustment

The valve clearance inspection itself is essentially the same as for the CBR250R/RA. The valve clearances are even the same. The procedure for removing and moving parts to gain access to the valve cover will be different, though. The valve clearance inspection and adjustment procedures for the CBR250RA are documented on this website.

Fuel Tank Removal (CRF300L)

- Remove the seat, fuel tank shrouds and left side cover. See the owner's manual.
- Remove the front and rear fuel tank mounting bolts.
- Lift the fuel tank a bit and support it. Do not bend or twist the fuel line.
- Disconnect the fuel pump 5P connector.
- Start the engine and let it idle until it stops, then turn off the ignition. This is to reduce the fuel line pressure.
- Disconnect the negative battery cable.
- Clean around the fuel quick connect fitting.
- Place a shop towel or rag around the fuel quick connector to absorb any gas that may leak out.
- Push the retainer tab on the quick connector forward.
- Push down the retainer and disconnect the connector from the fuel pipe. Do not use tools to remove. Push and pull the connector if necessary until it comes off.
- Put small, clean plastic bags over the connector and the fuel pipe and secure them to keep them clean.
- Disconnect the fuel tank breather hose.
- Lift off the fuel tank and place on a secure surface, and support it so that no weight is placed on the fuel pump and fuel pipe.
- To reconnect the fuel line, push the connector onto the fuel pipe until the retainer clicks into place. You can add a small amount of engine oil to the fuel pipe to make it easier to push the connector on.