

Aeon - Aeon_Cobra_220

Okay, here's the translated motorcycle service manual text, with retained technical specifications and a focus on accuracy.

****AEON MOTOR CO., LTD****

****SERVICE MANUAL****

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****2.****

****1. INFORMATION****

- 1.1 Safety
- 1.2 Notes
- 1.3 Specifications
- 1.4 Serial number
- 1.5 Torque values

****1.1 SAFETY****

****GASOLINE****

Gasoline is extremely flammable and explosive under certain conditions. Do not smoke or allow sparks or flames in your work area.

****CARBON MONOXIDE****

Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas that may cause loss of

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consciousness and lead to death.

****BATTERY ELECTROLYTE****

The battery electrolyte contains sulfuric acid. Protect your eyes, skin, and clothing. If you come into contact with the electrolyte, flush the area thoroughly with water. If you get the electrolyte in your eyes, flush with water and contact a doctor immediately.

****HOT PARTS****

Engine and exhaust pipe become very hot and remain hot for one hour after the engine is run. Wear insulated gloves before handling these parts.

****USED ENGINE /GEAR OIL****

Used engine oil and gear oil may cause skin disease after repeated contact with the skin for long periods. Keep out of reach of children.

****1.2 NOTES****

All information, illustrations, directions, and specifications included in this publication are based on the latest product information available at the time of approval for printing.

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****1.3 SPECIFICATIONS****

****ENGINE****

Type	Air-cooled 4-stroke, vertical cylinder	
-----	-----	
Displacement	195.8 cc	
Bore and Stroke	65 x 59 mm	
Compression Ratio	9.6:1	
Maximum Torque	1.45 N-m @ 5000 rpm	
Carburetor	Mikuni	
Ignition	C.D.I. Electronic	
Starting	Electrical & Kick-Start	
Lubrication	Wet Sump	
Air Cleaner	AE-9	
Transmission	Automatic (C.V.T. system with reverse gear)	

****CHASSIS****

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Overall Length	68.5 inches (1740mm)	
-----	-----	
Overall Width	41.3 inches (1050mm)	
Overall Height	49.6 inches (1260mm)	
Seat Height	31.1 inches (790mm)	
Wheel Base	44.9 inches (1140mm)	
Ground Clearance	7.0 inches (178mm)	
Dry Weight	175kg (385.8 lb)	
Fuel Tank Capacity	8.5 liter	

SUSPENSION

Front	Double Wishbone	
----	-----	
Rear	Swing Arm	

BRAKES

Front	Disc	
----	---	
Rear	Disc	

TIRES

Front	21 x 7 - 10	
----	-----	
Rear	20 x 10 - 9	

*Specifications subject to change without notice.

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1.4 SERIAL NUMBER

The frame serial number is stamped on the front frame.
And stick a bar code paper to cover it.

The engine number is stamped under the crankcase.

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1.5 TORQUE VALUES

STANDARD

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Bolt/Nut Size	Torque Value
-----	-----
5mm bolt and nut	5 N.m (3.5 lbs.ft)
6mm bolt and nut	10 N.m (7.2 lbs.ft)
8mm bolt and nut	22 N.m (16 lbs.ft)
10mm bolt and nut	35 N.m (25 lbs.ft)
12mm bolt and nut	55 N.m (40 lbs.ft)

ENGINE

Component	Torque Value
-----	-----
Cylinder head nut	18~22 N.m (13~16 lbs.ft)
Spark plug	12~14 N.m (9~11 lbs.ft)
Cylinder head bolt	7~9 N.m (5~7 lbs.ft)
Alternator bolt	8 N.m (5.9 lbs.ft)

FRAME

Component	Torque Value
-----	-----
Handlebar upper holder bolt	24 N.m (17.7 lbs.ft)
Throttle housing cover screw	4 N.m (2.9 lbs.ft)
Steering shaft nut	50 N.m (36.9 lbs.ft)
Steering shaft holder bolt	33 N.m (24 lbs.ft)
Wheel rim bolt	18 N.m (13.3 lbs.ft)
Tie rod lock nut	35 N.m (25.8 lbs.ft)
Handlebar lower holder nut	40 N.m (29.5 lbs.ft)
Front wheel bolt	24 N.m (17.7 lbs.ft)
Front axle nut	60 N.m (44 lbs.ft)
Front brake arm nut	4 N.m (3.0 lbs.ft)
Rear brake arm nut	7 N.m (5.2 lbs.ft)
Rear axle nut	60 N.m (44.3 lbs.ft)
Rear wheel bolt	24 N.m (17.7 lbs.ft)
Exhaust muffler mounting bolt	30 N.m (22.1 lbs.ft)
Engine hanger bolt	30 N.m (22 lbs.ft)
Rear axle holder bolt	90 N.m (65 lbs.ft)
Swing arm pivot nut	90 N.m (65 lbs.ft)
Rear shock absorber mounting nut	45 N.m (33 lbs.ft)

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2. MAINTENANCE

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- 2.1 Maintenance data
- 2.2 Maintenance schedule
- 2.3 Throttle operation
- 2.4 Air cleaner maintenance
- 2.5 Spark plug
- 2.6 Idle speed setting
- 2.7 Drive chain adjustment
- 2.8 Brake system adjustment
- 2.9 Wheels and tires
- 2.10 Steering system
- 2.11 Toe-alignment
- 2.12 Transmission lubrication

2.1 MAINTENANCE DATA

SPECIFICATION	Value
-----	-----
SPARK PLUG	
Spark plug cap	0.6-0.7mm
Recommended spark plugs	NGK CR7HSA
Throttle lever free play	5-10mm
Idle speed	1500 ± 100 rpm
Brake lever free play	10~20mm
Drive chain slack	15-25mm
Front/rear tire size	21 x 7 - 10 / 20 x 10 - 9
Front/rear tire pressure	4 ± 0.3psi (0.2 kgf/cm2)
Toe-in	5 ± 10mm

TORQUE VALUES	Value
-----	-----
SPARK PLUG	12-14 N.m
TIE-ROD LOCK NUT	35-43 N.m

ENGINE OIL	Value
-----	-----
Viscosity	SAE 15W-40

GEAR LUBRICATION OIL	Value
-----	-----
Viscosity	SAE 85W-140

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2.2 MAINTENANCE SCHEDULE

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The maintenance intervals in the following table are based upon average riding conditions. Riding in usually dusty areas requires more frequent servicing.

Item	Hours	Calendar	Miles(Km)	Remarks
Engine breather filter (if equipped)	25H	6 M	250 (400)	Inspect; replace if necessary
Engine breather hose	100H	3 M	1000 (1600)	Inspect
General lubrication	50H	6 M	500 (800)	Lubricate all fittings, pivots, cables, etc.
Shift Linkage	50H	6 M	500 (800)	Inspect, lubricate, adjust
Steering	50H	6 M	500 (800)	Inspect daily, Lubricate
Front suspension	50H	6 M	500 (800)	Inspect, lubricate, Tighten Fasteners
Rear suspension	50H	6 M	500 (800)	Inspect, lubricate, Tighten Fasteners
Carburetor float bowl	50H	6 M	500 (800)	Drain bowl periodically and prior to storage
Throttle Cable/ETC Switch	50H	6 M	500 (800)	Inspect; adjust; lubricate; replace if necessary
Choke cable	50H	6 M	500 (800)	Inspect; adjust; lubricate; replace if necessary
Carburetor air intake ducts/flange	50H	6 M	500 (800)	Inspect ducts for proper sealing/air leaks
Drive belt	100H	12 M	1000 (1600)	Inspect; adjust; replace as needed
Cooling system (if applicable)	50H	6 M	500 (800)	Inspect coolant strength seasonally; pressure test system yearly
Engine oil change *Severe Duty **Normal Duty	25H 50H	6 M 12 M	500 (800) 1000 (1600)	Perform a break-in oil change at 25 hours/one month, change more frequently during cold weather
Engine oil change *Severe Duty **Normal Duty	25H 50H	6 M 12 M	500 (800) 1000 (1600)	Replace at oil change
Oil filter change	100H	6 M	1000 (1600)	Replace with oil change
Valve clearance	100H	12 M	1000 (1600)	Inspect; adjust

*Perform these procedures more often for vehicles subjected to severe use.

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Item	Hours	Calender	Miles(Km)	Remarks
Fuel system	100H	12 M	1000 (1600)	Check for leaks at tank cap, lines, fuel valve, filter, pump, carburetor; replace lines every two years
Fuel filter	100H	12 M	1000 (1600)	Replace yearly
Radiator (if applicable)	100H	12 M	1000 (1600)	Inspect; clean external surfaces
Cooling hoses (if applicable)	100H	12 M	1000 (1600)	Inspect for leaks
Engine mounts	100H	12 M	1000 (1600)	Inspect
Exhaust muffler/pipe	100H	12 M	1000 (1600)	Inspect
Spark plug	100H	12 M	1000 (1600)	Inspect; replace as needed
Ignition Timing	100H	12 M	1000 (1600)	Inspect
Wiring	100H	12 M	1000 (1600)	Inspect for wear, routing, security; apply dielectric grease to connectors subjected to wear, mud, etc.
Clutches (drive and driven)	100H	12 M	1000 (1600)	Inspect; clean; replace worn parts
Front wheel bearings	100H	12 M	1000 (1600)	Inspect; replace as needed
Brake fluid	200H	24 M	2000 (3200)	Change every two years
Spark arrestor	300H	36 M	3000 (4800)	Clean out
Idle speed	Adjust as needed			
Toe adjustment	Inspect periodically; adjust when parts are replaced			
Auxiliary brake	Pre-Ride daily; adjust as needed			
Headlight aim	Adjust as needed			

*Perform these procedures more often for vehicles subjected to severe use.

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****2.3 THROTTLE OPERATION****

Inspect for smooth lever operation, full opening and automatic full closing in steering positions. Inspect for deterioration, damage, cuts and nicks, or kink in the throttle cable, replace it if necessary.

Check the throttle lever, free play should be not more than 5-10 mm at the tip of the throttle lever.

Disconnect the throttle cable at the upper end.

Lubricate the cable with commercially lubricant to prevent premature wear.