

# BL Motorcycles Ltd

Professional Workshop Manual - English Translation

## Aeon - Aeon\_New\_Sporty\_125\_180

Here's the translated and formatted motorcycle manual text:

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

### **\*\*1. CONTENTS\*\***

1. INFORMATION.....	2
2. MAINTENANCE.....	6
3. ENGINE REMOVAL AND INSTALLATION.....	16
4. ENGINE LUBRICATION AND COOLING SYSTEM.....	17
5. CYLINDER HEAD & VALVES.....	26
6. CYLINDER & PISTON.....	37
7. TRANSMISSION SYSTEM.....	46
8. FRONT WHEEL, SUSPENSION AND STEERING.....	57
9. REAR WHEEL SYSTEM.....	68
10. FENDERS AND EXHAUST PIPE.....	79
11. ELECTRICAL SYSTEM.....	81
12. TROUBLE SHOOTING.....	88

### **\*\*2. INFORMATION\*\***

1.1 Safety

1.2 Notes

1.3 Specifications

1.4 Serial Number

\*Torque valve\*

#### **\*\*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 consciousness and lead to death.

#### **\*\*BATTERY ELECTROLYTE\*\***

# BL Motorcycles Ltd

## Professional Workshop Manual - English Translation

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\*\*

FEATURE	125	180
**ENGINE**		
Type	Air-Cooled 4-stroke with Oil Cooler	Air-Cooled 4-stroke with Oil Cooler
Displacement	125 cc	169 cc
Bore and Stroke	52.4 x 57.8 mm	61 x 57.8 mm
Compression	9.1:1	9.1:1
Maximum Torque	6.21 Nm @ 4017 rpm	10.24 Nm @ 4403 rpm
Carburetor	MIKUNI 125	MIKUNI 180
Ignition	Capacitor Discharge	Capacitor Discharge
Starting	Electrical & Kick-Start	Electrical & Kick-Start
Lubrication	Forced pressure and wet sump	Forced pressure and wet sump
Air Cleaner	AE-9	AE-9
Transmission	Automatic (C.V.T. V-belt)	Automatic (C.V.T. V-belt)
**CHASSIS**		
Overall Length	71.7 inches (1820 mm)	71.7 inches (1820 mm)
Overall Width	38.4 inches (975 mm)	38.4 inches (975 mm)
Overall Height	41.7 inches (1060 mm)	41.7 inches (1060 mm)
Seat Height	30.7 inches (675 mm)	30.7 inches (675 mm)
Wheel Base	41.9 inches (1065 mm)	41.9 inches (1065 mm)
Ground Clearance	6.5 inches (165 mm)	6.5 inches (165 mm)
Dry Weight	166 kg (365 lb)	166 kg (365 lb)

# BL Motorcycles Ltd

Professional Workshop Manual - English Translation

Fuel Tank Capacity	8.0 liter	8.0 liter	
**SUSPENSION**			
Front	Swing Axle	Swing Axle	
Rear	Swing Arm	Swing Arm	
**BRAKES**			
Front	Drum	Drum	
Rear	Disc	Disc	
**TIRES**			
Front	21" x 7" - 10"	21" x 7" - 10"	
Rear	21" x 10" - 8"	21" x 10" - 8"	

\\*Specifications subject to change without notice.

## \*\*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.

## \*\*1.5 TORQUE VALUES\*\*

### \*\*STANDARD\*\*

DESCRIPTION	TORQUE VALUE
-----	-----
5 mm bolt and nut	5 N.m (3.5 lbs.ft)
6 mm bolt and nut	10 N.m (7.2 lbs.ft)
8 mm bolt and nut	22 N.m (16 lbs.ft)
10 mm bolt and nut	35 N.m (25 lbs.ft)
12 mm bolt and nut	55 N.m (40 lbs.ft)

### \*\*ENGINE\*\*

DESCRIPTION	TORQUE VALUE
-----	-----
Cylinder head nut	28 N.m (20.7 lbs.ft)
Spark plug	12 N.m (8.9 lbs.ft)
Cylinder head bolt	20 N.m (14.8 lbs.ft)
Alternator bolt	8 N.m (5.9 lbs.ft)

### \*\*FRAME\*\*

DESCRIPTION	TORQUE VALUE
-----	-----
Handlebar upper holder bolt	24 N.m (17.7 lbs.ft)

# BL Motorcycles Ltd

Professional Workshop Manual - English Translation

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)
King pin nut   40 N.m (29 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)
Swingarm pivot nut   90 N.m (65 lbs.ft)
Rear shock absorber mounting nut   45 N.m (33 lbs.ft)

## \*\*2. MAINTENANCE\*\*

- 2.1 Maintenance data
- 2.2 Maintenance schedule
- 2.3 Fuel tube
- 2.4 Throttle operation
- 2.5 Throttle cable adjustment
- 2.6 Air cleaner
- 2.7 Spark plug
- 2.8 Idle speed
- 2.9 Drive chain
- 2.10 Brake system
- 2.11 Wheels and tires
- 2.12 Steering system
- 2.13 Toe-in
- 2.14 Gear oil

### \*\*2.1 MAINTENANCE DATA\*\*

SPECIFICATION	VALUE
**SPARK PLUG**	
Spark plug gap	0.6-0.7 mm
Recommended spark plugs	NGK C7HSA or CR7HSA
Throttle lever free play	5-10 mm
Idle speed	1800 rpm

# BL Motorcycles Ltd

Professional Workshop Manual - English Translation

Brake lever free play	10~20 mm	
Drive chain slack	15-25 mm	
Front/rear tire size	21x7-10 / 22x10-8	
Front/rear tire pressure	3±0.3 psi (0.15 kgf/cm <sup>2</sup> )	
Toe-in	5±10 mm	
**TORQUE VALUES**		
SPARK PLUG	12-19 N.m	
TIE-ROD LOCK NUT	35-43 N.m	
**ENGINE OIL**		
Viscosity	SAE 15W-40	
**GEAR LUBRICATION OIL**		
Viscosity	SAE 85W-140	

## \*\*2.2 MAINTENANCE SCHEDULE\*\*

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

Service Item	Initial Service (First 30 hours)	Every 100 hours	Every 200 hours	Every 300 hours
ENGINE OIL	R	R		
GEAR OIL	R		R	
FUEL FILTER				R
AIR CLEANER FILTER			R	
ENGINE OIL FILTER			C	
CARBURETOR			I	
SPARK PLUG		C		
VALVE GAP			A	
IGNITION TIMING			A	
CHAIN		A		
BATTERY		I		
DRIVE BATTERY			I	
CLUTCH			I	
THROTTLE OPERATION		I		
TIRE PRESSURE	Check before riding each time			
BRAKE SYSTEM	Check before riding each time			
NUTS/BOLTS			T	

\*A: Adjust, C: Clean, I: Inspection, R: Replace, T: Tighten\*

## \*\*2.3 FUEL TUBE\*\*

Inspect the fuel lines for deterioration, damage, or leakage and replace if necessary.

## \*\*2.4 THROTTLE OPERATION\*\*

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Inspect for smooth lever operation, full opening, and automatic full closing in steering positions.

Inspect for deterioration, damage, cuts and nicks, or kinks 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 available lubricant to prevent premature wear.

## **\*\*2.5 THROTTLE CABLE ADJUSTMENT\*\***

Slide the rubber cap off the adjuster on the throttle housing, loosen the lock nut, and adjust the free play of the throttle lever by turning the adjuster on the throttle housing. Inspect the free play of the throttle lever.

## **\*\*2.6 AIR CLEANER MAINTENANCE\*\***

(1) Loosen the screw and remove the air cleaner from the carburetor.

(2) Disassemble the air cleaner cover and body.

(3) Remove the air cleaner element and screen.

(4) Install the new one.

(5) Assemble the air cleaner body and cover and re-attach to the carburetor with the screw.