

# **BL Motorcycles Ltd**

*Professional Workshop Manual - English Translation*

## **Vento - Vento\_Zip\_R3i\_Manuala\_de\_reparatie**

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This service manual has been specially prepared to provide all the necessary information for the proper maintenance and servicing of VENTO Zip r3i Scooter.

This manual contains an introductory description on VENTO Zip r3i and procedures for

Inspection/Service and overhaul of its main components. This Manual is intended those who have enough knowledge and skills for servicing of VENTO vehicles. Without such knowledge and skills

you should not attempt servicing by relying on this manual only. Instead, please contact your nearly authorized VENTO motorcycle dealer. Service Manual

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**Rev. 1 Date**

**01/05/2004**

### **CHAPTER 1**

#### **1-1 GENERAL INFORMATION**

##### **TYPE & IDENTIFICATION**

##### **FRAME NUMBER**

FRAME NUMBER is Engraving on the steel tube of frame as shown in figure.

##### **ENGINE NUMBER**

ENGINE NUMBER is Engraving on rear side

Crankcase Shown figure.

Both FRAME NUMBER AND ENGINE NUMBER are designed

Specially for registration your scooter and for spare part Orders.

##### **FUEL AND ENGINE OIL RECOMMENDATION**

Be sure to use specified fuel and engine oil.

Some specifications are as follows:

##### **FUEL**

Gasoline should be Unleaded, the octane number must be 85 ~95 or more.

##### **ENGINE OIL**

For engine lubrication, you can use specified high quality two-stroke engine oil (without being diluted).

##### **GEAR OIL**

Use high quality, all-purpose SAE10W/40 Gear oil for this scooter. Make sure that the Engine

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oil/Gear oil what you are using should come under API classification.

## BREAK-IN PROCEDURES

During manufacture only the best possible materials are used and all machined parts are finished to a very high standard but it is still necessary to allow the moving parts to BREAK-IN before subjecting the engine to maximum stresses. The future performance and reliability of the engine depends on the care and restraint during its early life.

General requirements are as follows

Limit break -in speed

At the first 1000 ms (630 miles mileage use throttle opening less than 1/2.

Up to 1600 Kms 1000 miles mileage use throttle opening less than 3/4.

Upon reaching an odometer reading of 1600 kms (1000 miles) you can subject the motorcycle to full throttle operation.

Do not maintain constant engine speed for an extended time period during any portion of the BREAK-IN period, try to vary the throttle position.

## 1-2 GENERAL INFORMATION

### PRECAUTIONS AND GENERAL INSTRUCTIONS

#### GENERAL PRECAUTIONS:

##### WARNING

Proper service and repair procedures are important for the safety of the service mechanic and the reliability of the vehicle.

When two or more persons are working together, pay attention to the safety of each other.

When it is necessary to run the engine indoors, make sure that the exhaust gas is forced outwards and ventilation should be proper.

When working with toxic or flammable materials, make sure that the area you work in is well ventilated and that you follow all of the material manufacturers instructions.

Dont use gasoline as a cleaning agent.

After servicing the motorcycle check all lines i.e. fuel, oil and brake lines for leaks.

Whenever you remove Oil seals, Gaskets, packing, O-rings, Locking washers, Cotter pins, Circlips, and certain other parts as specified, are sure to replace them with new ones. Also before installing these new parts be sure to remove any left out material from the mating surfaces.

Never reuse a circlip, when installing a new circlip, take care not to expand the end gap larger than required to slip the circlip the shaft. After installing a circlip, always ensure that it is completely seated in its groove and securely fitted.

Do not use self - locking nuts a few times over.

If parts replacement is necessary, replace the parts with VENTO Genuine parts or their equivalent.

When removing parts that are to be reused, keep them arranged in an orderly manner so that they may be reinstall in proper order and orientation.

Always use special tools when required.

Always use specified lubricant, bond& sealant.

While removing the battery, disconnect the Negative terminal / Cable first then Positive terminal / Cable and when reconnecting the battery, connect the Positive terminal / Cable first then Negative terminal / Cable.

During Service to electrical parts, if no need of battery power then, please disconnect the Negative terminal / Cable of the battery.

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During tightening of Cylinder head and crank case bolts and nuts start with larger diameter and ending with smaller diameter, from inside to outside diagonally, with the specified tightening torque values.

After reassembly, recheck parts for tightness and operation.

## REPLACEMENT COMPONENTS

Be sure to use genuine VENTO spare parts or their equivalent. Genuine VENTO components are high quality parts, which are designed specially for VENTO vehicles.

## CAUTION

Scooter/motorcycle may damage by using non genuine parts or parts that is not equivalent to VENTO parts and will be affecting performance also.

## 1-3 GENERAL INFORMATION SPECIFICATIONS

### DIMENSIONS AND NET WEIGHT

Overall Length.....1620mm

Overall Width.....625mm

Overall Height.....1010 mm

Wheelbase.....1170mm

Ground Clearance.....90mm

Dead Weight.....78kg

### CHASSIS

#### Front shock absorber

Telescopic, Coil spring, without oil damped.

#### Rear shock absorber

Swing arm type Coil spring, with oil damped.

#### Steering angle

48° (toward the left\toward the right)

Front Tire size.....3.50-10

Rear Tire size.....3.50-10

Front brake Disc.....160

Rear brake Drum.....110

### ENGINE

Type.....Two -stroke, Air Cooled

Intake system.....Reed valve

No. of Cylinder.....1

Bore.....40.0mm

Stroke.....39.6mm

Displacement.....49.8CC

Compression Ratio.....6.9:1

Carburetor.....Side draft

Air cleaner.....Dual polyurethane foam

Starting System

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Electric start & Kick pedal for Manual Start.

Lubricating System

Auto lubrication, by Oil Pump

**ELECTRICAL**

Ignition System.....Electronic

CDI Ignition Timing..... 150 at 5000 RPM

Spark Plug.....NGK/R/BR8HSA

Storage Battery.....YUASA/YB4L -4

Battery Capacity.....12V -4Ah

Magneto.....AC

Fuse.....10Amp

Headlight ..... 12V 35 / 35 Watt

Turn Indicators (X4)..... 12V / 3

Watt

Tail light/stop light..... 12V /

5Watt

Meter light.....12V / 3Watt

Oil level Indicator light.....12V / 3 Watt

Turn signal Indicator light .....12V / 3Watt

High beam Indicator light.....12V/3 Watt

**CAPACITY**

Fuel Tank.....5.2L

Engine Lubricating Oil Tank.....1.0L

Gear Oil.....0.1L

**TRANSMISSION**

Clutch System

Dry shoe, Automatic, Centrifugal Type

Gears shifting mechanism

Automatic Primary Reduction 1

Gear Reduction ratio

The first gear ..... 3.692(48/13)

The second gear .....3.000(36/12)

Drive System ..... V-Belt drive

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**PERIODIC MAINTENANCE AND SERVICE**

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