

# **BL Motorcycles Ltd**

*Professional Workshop Manual - English Translation*

## **Hyosung - Comet 650s**

SERVICE MANUAL  
99000-94910

HYOSUNG MOTORS & MACHINERY INC.

Comet650S/R

SERVICING INFORMATION  
GROUP INDEX

GENERAL INFORMATION 1  
PERIODIC MAINTENANCE 2  
ELECTRICAL SYSTEM 6  
CHASSIS 7  
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This manual has been prepared on the basis of the latest specification at the time of publication. If modification has been made since then, difference may exist between the content of this manual and the actual vehicle. Illustrations in this manual are used to show the basic principles of operation and work procedures. They may not represent the actual vehicle exactly in detail.

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HYOSUNG MOTORS & MACHINERY INC. FOREWORD

This manual contains an introductory description on HYOSUNG and procedures for its inspection/service and overhaul of its main components. It covers the differences from and please refer to the service manual of (99000-94810) for others which are not covered in this manual. This page numbers on the top are ones which are in the service manual of and ones on the bottom are the page numbers in this manual. Other information considered as generally known is not included. Read GENERAL INFORMATION section to familiarize yourself with outline of the vehicle and MAINTENANCE and other sections to use as a guide for proper inspection and service. This manual will help you know the vehicle better so that you can assure your customers of your optimum and quick service.

### **WARNING**

This manual is intended for those who have enough knowledge and skills for servicing HYOSUNG vehicles. Without such knowledge and skills, you should not attempt servicing by relying on this manual only. Instead, please contact your nearby authorized HYOSUNG motorcycle dealer.

2  
(Standard type)

3  
NOTE

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Difference between photographs and actual motorcycles depends on the markets.  
(Sports type)

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## **HOW TO USE THIS MANUAL**

TO LOCATE WHAT YOU ARE LOOKING FOR:

1. The text of this manual is divided into sections.
2. As the title of these sections are listed on the previous page as GROUP INDEX, select the section where you are looking for.
3. Holding the manual as shown at the right will allow you to find the first page of the section easily.
4. On the first page of each section, its contents are listed. Find the item and page you need.

## **SYMBOL**

Listed in the table below are the symbols indicating instructions and other information necessary for servicing and meaning associated with them respectively.

Apply THREAD LOCK 1324

Apply or use brake fluid.

Measure in voltage range.

Measure in resistance range.

Measure in current range.

Use special tool.

Use engine coolant.

Torque control required. Data beside it indicates specified torque.

Apply oil. Use engine oil unless otherwise specified.

Apply SUPER GREASE A

Apply SILICONE GREASE.

Apply MOLY PASTE.

Apply BOND 1215 .

Use fork oil.

## **DEFINITION SYMBOL DEFINITION SYMBOL**

Apply SUPER GREASE C.

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## **GENERAL INFORMATION**

### **CONTENTS**

**EXTERIOR ILLUSTRATION 6 (1-7-1)**

**SPECIFICATIONS 9 (1-8)**

## **1-7-1 GENERAL INFORMATION**

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**EXTERIOR ILLUSTRATION [ (Standard type)]**

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Rear reflector  
Turn signal lamp (Rear)  
Tail / Brake lamp  
License plate lamp  
Head lamp  
Turn signal lamp (Front)  
Passenger footrests

(HEIGHT) 1,125  
(WIDTH) 780  
(WHEEL BASE) 1,435  
(LENGTH) 2,060

## **GENERAL INFORMATION 1-7-2**

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## **EXTERIOR ILLUSTRATION [ (Sports type)]**

Rear reflector  
Turn signal lamp (Rear)  
Tail / Brake lamp  
License plate lamp  
Head lamp  
Turn signal lamp (Front)  
Passenger footrests

(HEIGHT) 710  
(WIDTH) 710  
(WHEEL BASE) 1,435  
(LENGTH) 2,060

510  
315  
655  
825  
150  
330  
970  
645  
800  
785  
790  
810  
880

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## **1-7-3 GENERAL INFORMATION**

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### **EXTERIOR ILLUSTRATION []**

Rear reflector

Turn signal lamp (Rear)

Tail / Brake lamp

License plate lamp

Head lamp

Turn signal lamp (Front)

Passenger footrests

(HEIGHT)

(WIDTH)

(WHEEL BASE)

(LENGTH)

## **GENERAL INFORMATION 1-8**

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### **ITEM SPECIFICATIONS**

#### **DIMENSIONS AND DRY MASS**

Overall length: 2,060 mm (81.1 in)

Overall width: (Standard type) 740 mm (29.1 in), (Sport type) 655 mm (25.8 in)

Overall height: (Standard type) 1,125 mm (44.3 in), (Sport type) 710 mm (28.0 in)

Wheelbase: 1,435 mm (56.5 in)

Ground clearance: 150 mm (5.9 in)

Mass: (Standard type) 215 kg (474 lbs), (Sport type) 220 kg (485 lbs)

### **ITEM ENGINE**

Type: Four-stroke, DOHC, Liquid-cooled V-2 cylinder

Number of cylinder: 2

Bore: 81.5 mm (3.21 in)

Stroke: 62.0 mm (2.44 in)

Piston displacement: 647 (39.5 in<sup>3</sup>)

Carburetor: BDSR39 TYPE (DOUBLE)

Starter system: Electric starter

Lubrication system: Wet sump

### **ITEM TRANSMISSION**

Clutch: Wet multi-plate type

Transmission: 6-speed constant mesh

Gearshift pattern: 1-down, 5-up

Final reduction: 2.93

Gear ratio, 1st: 2.46

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2nd: 1.60

3rd: 1.32

4th: 1.13

5th: 0.96

6th: 0.85

Drive chain: RK525XSO 108 links