

## PREFACE

No : **IB8A**

Thank you for selecting a Hero MotoCorp **ACHIEVER**. We wish you many miles of continued riding pleasure in the years ahead.

We, at Hero MotoCorp, are committed to demonstrate excellence in our environment performance on a continual basis, as an intrinsic element of our corporate philosophy. To achieve this we commit ourselves to continue product innovations to improve environment compatibility and strengthen the green supply chain. We are also using non asbestos brake shoes and engine gaskets which are environment friendly in nature.

This booklet is your guide to the basic operation and maintenance of your new Hero MotoCorp **ACHIEVER**. Please take time to read it carefully. As with any fine machine, proper care and maintenance are essential for trouble-free operation and optimum performance.

Authorised Distributor or the authorised dealer(s) of the Distributor ("**Dealer**") will be glad to provide you further information or assistance and to handle your future service needs.

Let us make this world a safer, healthier and more environment friendly place.



## NOTE

**ALL INFORMATION, ILLUSTRATION, PHOTOGRAPH, DIRECTIONS, SPECIFICATIONS AND OTHER CONTENTS COVERED IN THIS OWNER'S MANUAL ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF ITS PRINTING APPROVAL, AND THE ACCURACY OR CORRECTNESS OF THE SAME IS NOT UNDERTAKEN OR GUARANTEED.**

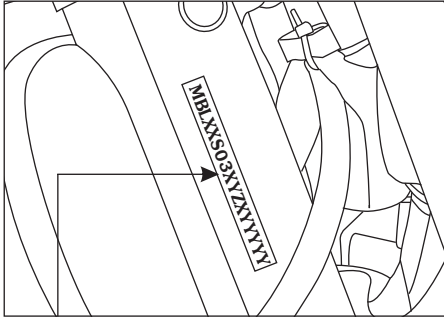
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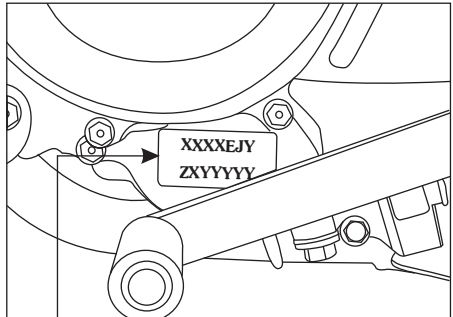
## MOTORCYCLE IDENTIFICATION



### VIN

Location: Stamped on the right side of the steering head tube.

**VIN: MBLXS03XYZXYYYY**



### Engine No.

Location: Stamped on the lower side of the left crankcase.

| MBL               | XXS03               | X           | Y          | Z          | X                      | YYYY                     |
|-------------------|---------------------|-------------|------------|------------|------------------------|--------------------------|
| Manufacturer code | Vehicle Description | Check Digit | Model Year | Plant Code | Month of Manufacturing | Production Serial Number |

**Engine No.: XXXXEJY ZXYYYY**

| XXXEJ              | Y                     | Z              | X                      | YYYY          |
|--------------------|-----------------------|----------------|------------------------|---------------|
| Engine Description | Year of Manufacturing | Assembly Plant | Month of Manufacturing | Serial Number |

**Model: ACHIEVER 150**

| Variants                       | Frame | Engine |
|--------------------------------|-------|--------|
| Cast wheel/Electric start/Drum | R04   | EJ     |
| Cast wheel/Electric start/Disc | S03   | EJ     |

**VIN and Engine No. may be required:**

1. During registration of the motorcycle.
2. For dealing with Legal & Insurance Departments.

## PRODUCT SPECIFICATION

| ITEM                          |                | SPECIFICATIONS                                     |
|-------------------------------|----------------|--|
| <b>Dimensions</b>             |                |  |
| Overall length                |                | 2060 mm  |
| Overall width                 |                | 763 mm   |
| Overall height                |                | 1086 mm  |
| Wheelbase                     |                | 1290 mm  |
| Ground clearance              |                | 160 mm   |
| <b>Weight</b>                 |                |  |
| Kerb weight                   |                | 139 kg   |
| <b>Capacities</b>             |                |  |
| Engine oil                    |                | 1.2 litres at disassembly and 1 litre at draining  |
| Fuel tank                     |                | 13 litres (Minimum)                                |
| Fuel reserve capacity         |                | 1.8 litres (Usable reserve)                        |
| Front fork oil                |                | 150 ml   |
| Hydraulic brake fluid         |                | Castrol Q Stop-DoT 3/DoT 4                         |
| <b>Engine</b>                 |                |  |
| Maximum power                 |                | 10 kW (13.4 BHP) @ 8000 rpm                        |
| Maximum torque                |                | 12.80 N-m @ 5000 rpm                               |
| Bore and stroke               |                | 57.3x57.8 mm                                       |
| Compression ratio             |                | 9.1:1  |
| Displacement                  |                | 149.1 cc   |
| Spark plug                    |                | NGK-CPR 8 EA9, CHAMPION-RG 6 YC, BOSCH-UR5DC       |
| Spark plug gap                |                | 0.8-0.9 mm   |
| Valve clearance               | Intake (cold)  | 0.08 mm  |
|                               | Exhaust (cold) | 0.12 mm  |
| Idle speed                    |                | 1400±100 rpm                                       |
| <b>Chassis and suspension</b> |                |  |
| Front Suspension              |                | Telescopic Hydraulic Shock Absorbers               |
| Rear Suspension               |                | Swingarm with adjustable Hydraulic Shock Absorbers |
| Caster angle                  |                | 26°  |
| Trail length                  |                | 89 mm  |

## PRODUCT SPECIFICATION

| ITEM                        |                   | SPECIFICATIONS                |
|-----------------------------|-------------------|-------------------------------|
| Tyre size                   | Front             | 80/100-18-47P (Tubeless)      |
|                             | Rear              | 80/100-18-54P (Tubeless)      |
| Brakes                      | Front (Disc type) | Dia. 240 mm                   |
|                             | Front (Drum type) | Dia. 130 mm                   |
|                             | Rear (Drum type)  | Dia. 130 mm                   |
| <b>Transmission</b>         |                   |                               |
| Primary reduction           |                   | 3.3500                        |
| Final reduction             |                   | 2.8000                        |
| Gear ratio, 1 <sup>st</sup> |                   | 3.0769                        |
| 2 <sup>nd</sup>             |                   | 1.7895                        |
| 3 <sup>rd</sup>             |                   | 1.3043                        |
| 4 <sup>th</sup>             |                   | 1.0909                        |
| 5 <sup>th</sup>             |                   | 0.9375                        |
| <b>Electricals</b>          |                   |                               |
| Battery                     |                   | *MF Battery (ETZ-5), 12V-5Ah  |
| Alternator                  |                   | 125 W @ 5000 rpm              |
| Starting system             |                   | Electric Start                |
| Headlamp (High/Low)         |                   | 12V-35/35W Halogen Bulb-**MFR |
| Tail/Stop lamp              |                   | 12V-5/21W-**MFR               |
| Turn signal lamp            |                   | 12V-10Wx4-**MFR               |
| Meter illumination          |                   | 12V-1.7Wx3                    |
| Neutral indicator           |                   | 12V-1.7W                      |
| Turn signal indicator       |                   | 12V-3.0W                      |
| Position lamp               |                   | 12V-5.0Wx2                    |
| Hi Beam indicator           |                   | 12V-1.7W                      |
| i3s indicator               |                   | 12V-1.7W                      |
| Side stand indicator        |                   | 12V-1.7W                      |
| Fuse                        |                   | 15A/20A                       |

\* MF stands for Maintenance Free

\*\* MFR stands for Multi-Focal Reflector

## **MOTORCYCLE SAFETY**

### **IMPORTANT SAFETY INFORMATION**

Your motorcycle can provide many years of service and pleasure if you take responsibility for your own safety and understand the challenges you can meet on the road.

There is much that you can do to protect yourself when you ride. You will find many helpful recommendations throughout this manual. Following are a few that we consider most important.

#### **Always wear a helmet**

It is a proven fact, Helmet significantly reduces the number and severity of head injuries. So always wear a helmet and make sure your pillion rider does the same. We also recommend that you wear eye protection, sturdy boots, gloves and other protective gear.

#### **Before riding your motorcycle**

Make sure that you are physically fit, mentally focused and free of alcohol and drugs. Check that you and your pillion are both wearing an approved motorcycle helmet and protective apparel. Instruct your pillion on holding onto the grab rail or your waist, leaning with you in turns, and keeping their feet on the footrest, even when the motorcycle is stopped.

#### **Take time to learn & practice your motorcycle**

Even if you have ridden other motorcycles, practice riding in a safe area to become familiar with how this motorcycle works and handles, and to become accustomed to the motorcycle's size and weight.

#### **Ride defensively**

Always pay due attention to other vehicles around you, and do not assume that other drivers see you. Be prepared to stop quickly or perform an evasive maneuver.

#### **Make yourself easily visible**

Some drivers do not see motorcycles because they are not looking for them. To make yourself more visible, wear bright reflective clothing, position yourself so that others can see you, signal before turning or changing lanes, and use horn which will help others to notice you.

#### **Ride within your limits**

Pushing the limits is another major cause of motorcycle accidents. Never ride beyond your personal abilities or faster than conditions demand. Remember that fatigue and negligence can significantly reduce your ability to make good judgements and ride safely.

#### **Do not drink and ride**

Riding under the influence of alcohol or drugs is dangerous. Alcohol can reduce your ability to respond to changing conditions and reduce the reaction time. Do not drink and ride.

#### **Keep your motorcycle in safe condition**

For safe riding, its important to inspect your motorcycle before every ride and perform all recommended maintenance. Never exceed load limits, and only use accessories that have been approved by Hero MotoCorp for this motorcycle.



## If you are involved in a crash

Personal safety is your first priority. If you or anyone else has been injured, take time to assess the severity of the injuries and whether it is safe to continue riding. Call for emergency assistance if needed. Also follow applicable laws and regulations if another person or vehicle is involved in the crash.

If you decide to continue riding, first evaluate the condition of your motorcycle. If the engine is still running, turn it off. Inspect for fluid leaks, check the tightness of critical nuts and bolts, and check the handlebar, brake levers, brakes, and wheels. Ride slowly and cautiously. Your motorcycle may have suffered damage that is not immediately apparent. Have your motorcycle thoroughly checked at a qualified service facility as soon as possible.

## PROTECTIVE APPAREL

For your safety, we strongly recommend that you always wear a helmet which should conform as per your country standards, in addition to eye protection, boots, gloves, long pants and a long sleeve shirt or jacket whenever you ride. Take care of loose/hanging clothes while solo/pillion riding. Although complete protection is not possible, wearing proper gear can reduce the chance of injury when you ride.

Following are suggestions to help you choose proper riding gear.



## WARNING

- ***Not wearing a helmet increases the chance of serious injury or death in a crash.***
- ***Be sure you and your pillion always wear a helmet, eye protection and other protective apparel when you ride.***

## Helmets and eye protection

Your Helmet is your most important piece of riding gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and securely. A bright coloured helmet can make you more noticeable in traffic, as can reflective strips. An open-face helmet offers some protection, but a full-face helmet offers more. Always wear face shield or goggles to protect your eyes and help your vision.

## Additional riding gear

In addition to a helmet and eye protection, we also recommend:

- Sturdy boots with non-slip soles to help protect your feet and ankles.
- Leather gloves to keep your hands warm and help prevent blisters, cuts, burns, and bruises.
- A two wheeler riding suit or jacket for comfort as well as protection. Bright coloured reflective clothing can help make you more noticeable in traffic. Be sure to avoid loose clothes that could get caught on any part of your motorcycle.

## SAFE RIDING TIPS

### Do's:

- Always conduct simple pre-ride inspection **(page 20)**.
- Always wear a helmet with chinstrap securely fastened and insist on a helmet for your pillion rider. Helmet should conform as per safety standards applicable in your country.
- While riding, sit in a comfortable position with your legs close to fuel tank.
- Ride defensively and at a steady speed (between **40-50 km/hr**).
- For stopping motorcycle, use both brakes simultaneously, keeping throttle in the close position.
- During night time, dip headlamps of your motorcycle for oncoming traffic, or when following another vehicle.
- Give way to others on the road and signal before you make a turn.
- To make yourself more visible, wear bright reflective clothing that fits well.
- Tightly wrap loose/hanging clothes & avoid entangling with moving parts.
- Get your motorcycle serviced regularly by the Authorised Distributor/Dealer.
- Before riding make sure in which mode you are riding whether with i3s switch "ON" or "OFF".

### Don't:

- Never use cell phone while riding the motorcycle.
- Avoid sudden acceleration, braking and turning of your motorcycle.
- Never shift gears without disengaging the clutch and closing the throttle.
- Never touch any part of the hot exhaust system like muffler.
- Never ride under the influence of alcohol or drugs.
- Concentrate on the road and avoid talking to the pillion rider or others on the road.
- Do not litter the road.
- Do not cross the continuous white/yellow line in the center of the road, while overtaking.
- Do not attach large or heavy items to the handlebars, front forks, or fenders.
- Never take your hands off the steering handle while riding.

## ACCESSORIES & MODIFICATIONS

Modifying your motorcycle or using non-Hero MotoCorp accessories can make your motorcycle unsafe. Before you consider making any modifications or adding an accessory, be sure to read the following information.



### WARNING

- ▶ ***Improper accessories or modifications can cause a crash in which you can be seriously hurt or killed.***
- ▶ ***Follow all instructions in this owner's manual regarding accessories and modifications.***

### Accessories

- ▶ Make sure that the accessory does not obscure any lamps, reduce ground clearance, limit suspension travel or steering travel, affect your riding position or interfere with operating any controls.
- ▶ Be sure electrical equipment does not exceed the motorcycle's electrical system capacity (**page 3**). A blown fuse can cause a loss of lights.
- ▶ Do not pull a trailer or sidecar with your motorcycle. This motorcycle was not designed for these attachments, and their use can seriously impair your motorcycle's handling.

### Modifications

We strongly advise you not to remove any original equipment or modify your motorcycle in any way that would change its design or operation. Such changes could seriously

impair your motorcycle's handling, stability and braking, making it unsafe to ride. Removing or modifying your lamps, mufflers, emission control system or other equipment can also make your motorcycle illegal.

### ANTI-THEFT TIPS

- ▶ Always lock the steering and never leave the key in the ignition switch. This sounds simple but people do forgets.
- ▶ Be sure the registration information for your motorcycle is accurate and correct.
- ▶ Park your motorcycle in a locked garage whenever possible.
- ▶ Use an additional anti-theft device of good quality.
- ▶ Never park your motorcycle in an isolated area. Park as far as possible in a designated area.
- ▶ Enter your name, address and phone number in this Owner's Manual and keep it in your motorcycle at all times. Many times stolen motorcycles are identified by information in the Owner's Manuals that are still with them.

**NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PHONE NO :** \_\_\_\_\_

## **SOME TIPS FOR HEALTHY ENVIRONMENT**

The following tips shall ensure a healthy motorcycle, healthy environment, and a healthy you.

- **Healthy engine:** The engine is the lifeline of every vehicle. To keep it healthy, it should be tuned regularly, which will also help reduce pollution and improve vehicle performance & fuel efficiency.
- **Regular servicing:** Get your motorcycle serviced at an Authorised Distributor/Dealer workshop, as per the service schedule, for an optimum performance and keep the emission level under check.
- **Genuine spares:** Always insist on Hero MotoCorp genuine parts as spurious or incompatible spares and accessories can upset or deteriorate your motorcycle's running condition.
- **Genuine engine oil:** Hero 4T Plus SAE 10W 30 SJ grade (JASO MA) engine oil recommended by Hero MotoCorp and make sure you change it every **6000** km (with top up every **3000** kilometres) to keep the engine fit and environment healthy.
- **Noise pollution:** Noise beyond a certain decibel is pollution. Whether it is from horns or defective mufflers, excessive noise will cause headaches and discomfort.
- **Fuel saving & reduce pollution:** Switch "OFF" the engine while waiting at traffic signal points to save fuel and reduce pollution, if the waiting period is long.

## MOTORCYCLE VIEWS

### TOP VIEW



- (1) Turn signal switch
- (2) Horn switch
- (3) Headlamp dimmer switch
- (4) Clutch lever
- (5) Pass lamp switch
- (6) Bystarter lever
- (7) Tripmeter knob
- (8) Odometer
- (9) Speedometer
- (10) Tripmeter
- (11) Fuel gauge
- (12) Tachometer
- (13) i3s indicator

- (14) Master cylinder
- (15) i3s switch
- (16) Rear view mirror
- (17) Front brake lever
- (18) Turn signal indicator
- (19) Throttle grip
- (20) Electric starter switch
- (21) Ignition switch with steering lock
- (22) High beam indicator
- (23) Fuel tank cap
- (24) Side stand indicator
- (25) Leg guard
- (26) Neutral indicator

**\*Accessories and features shown may not be part of standard fitment.**

## MOTORCYCLE VIEWS

### LEFT SIDE VIEW



- |                       |                            |                            |
|-----------------------|----------------------------|----------------------------|
| (1) Fuel valve        | (7) Side stand             | (12) Rear reflex reflector |
| (2) Starter motor     | (8) Pillion foot rest      | (13) Rear grip             |
| (3) Gear shift pedal  | (9) Helmet hanger          | (14) Seat lock             |
| (4) Rider foot rest   | (10) Saree guard with      | (15) Left side cover       |
| (5) Side stand switch | women pillion step         | (16) Air suction valve     |
| (6) Main stand        | (11) Rear turn signal lamp |                            |

**\*Accessories and features shown may not be part of standard fitment.**

## MOTORCYCLE VIEWS

### RIGHT SIDE VIEW



- |                                  |                             |                          |
|----------------------------------|-----------------------------|--------------------------|
| (1) Pillion foot rest            | (6) Brake pedal             | (11) Headlamp            |
| (2) Battery compartment (inside) | (7) Kick starter pedal      | (12) Visor               |
| (3) Carburetor                   | (8) Caliper assembly        | (13) Seat                |
| (4) Oil level dipstick           | (9) Brake disc              | (14) Tail/Stop lamp      |
| (5) Rider foot rest              | (10) Front turn signal lamp | (15) Rear shock absorber |

**\*Accessories and features shown may not be part of standard fitment.**

## PARTS FUNCTION

### Instruments and Indicators

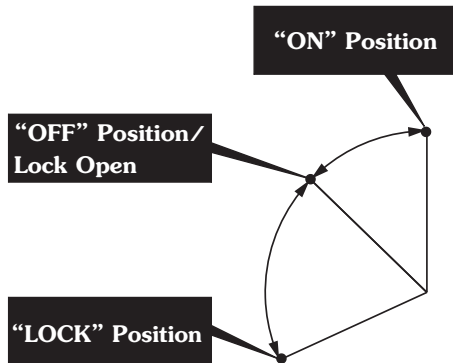
The indicators are in the speedometer panel above the headlamp. The functions are as below.



| Sl. No. | Description            | Function   |
|---------|------------------------|--|
| (1)     | Turn signal indicators | Flashes when turn signal switch is operated  |
| (2)     | Side stand indicator   | Indicator glows when the side stand is put down  |
| (3)     | Neutral indicator      | Indicator glows when vehicle is in neutral   |
| (4)     | Tripmeter knob         | Press the knob to set zero before a trip   |
| (5)     | Tripmeter              | Shows the distance travelled during a trip (after setting to zero)                       |
| (6)     | Odometer               | Shows accumulated mileage  |
| (7)     | Speedometer            | Indicates driving speed  |
| (8)     | Hi Beam indicator      | Indicator glows when headlamp is in Hi Beam  |
| (9)     | Tachometer             | Indicates engine rpm   |
| (10)    | Fuel gauge             | Indicates approximate fuel quantity  |
| (11)    | i3s indicator          | Indicator glows for few seconds and turns “OFF” indicating that i3s system is functional |



## Ignition switch





- (1) “OFF” position
- (2) Lock position
- (3) Ignition key

| Key Position  | Function  | Key Removal           |
|---------------|---|-----------------------|
| <b>“ON”</b>   | The engine can be started, Turn signal lamps, Horn, Tail/Stoplamp, Fuel gauge, Pass lamp, Position lamp, Licence plate lamp and Neutral indicator will be functional. | Key cannot be removed |
| <b>“OFF”</b>  | Engine cannot be started and no electrical system will be functional.   | Key can be removed    |
| <b>“LOCK”</b> | Steering can be locked  | Key can be removed    |

## LEFT HANDLEBAR CONTROLS



### 1. Headlamp Dimmer switch

The headlamp operates only when the engine is running or when passing switch is operated. Select “” for high beam and “” for low beam.

### 2. Turn Signal Switch (↵ ↘)

Shift the turn signal switch sideways for right/left indications and leave it to come back to its normal position on its own.

**IMPORTANT :** To switch “OFF” the turn signal after completing the turn, gently push the switch inside as directed on the switch.

### 3. Horn Switch (🔊)

Press the switch to operate the horn.

### 4. Bystarter Lever (⏏)

To apply bystarter, pull the lever (4) downwards, towards the rider, as directed on the switch.



## NOTE

*Do not accelerate during starting when the bystarter is on.*



### 5. Passing Lamp Switch

Gives an indication for passing ahead.

Press passing lamp switch (5) to operate the passing lamp

### 6. Clutch Switch

There is a clutch switch (6) provided for the safety of the rider. The motorcycle cannot be started by electric starter switch until the clutch lever is operated when the vehicle is engaged in gear.

## RIGHT HANDLEBAR CONTROLS



## 1. Electric starter switch ( ㊟ )

Ensure starter switch (1) is operated when the vehicle is in neutral gear. If the vehicle is engaged in gear, press the clutch lever before operating the starter switch. Release starter switch after the engine has started.

## 2. i3s Switch

There is an i3s switch (2) provided to enable the rider for turning i3s mode "ON" or "OFF" based on the traffic conditions.

### ! CAUTION

- ▶ *Never hold electric starter switch continuously more than 5 seconds as continuous cranking of engine will drain the battery.*
- ▶ *During electric or clutch start, the engine will cut-off if engine reaches 900 rpm if the relay is engaged for more than 5 seconds.*

## STEERING LOCK

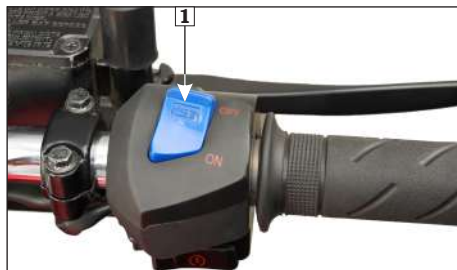


Steering lock is with ignition switch. Turn the key (1) to "OFF" position & turn the handle bar towards left or right & push the key downwards & turn towards "Lock" position. After locking take out the key.

## i3s (IDLE STOP START SYSTEM)

### Starting & Warm up the engine:

Keep the i3s switch (1) to "OFF" position. Turn the ignition key to "ON" position. The i3s indicator (2) will glow on the speedometer console for 2 seconds and turn "OFF". Start the engine and let it idle for 2-3 minutes.



(1) i3s switch



(2) i3s indicator



### NOTE

- **The engine will stall if the i3s switch is in “ON” position during warmup.**
- **Use choke during cold conditions.**

### Initial Activation of the i3s system:

Keep the i3s switch (1) to “ON” position. Turn the Ignition key to “ON” position. The i3s indicator (2) on the speedometer console will glow for 2 seconds and turn “OFF”. Start the vehicle and allow the engine to run in neutral gear position with the rpm less than 2000 rpm. The engine will cut off in 30 secs. After the first stop start every subsequent stop will be in 5 secs.

In this condition, the engine can be restarted either with kick or electric start only.

### Driving with i3s Switch in “ON” position:

While driving, if the engine is kept idling (while waiting in a traffic signal), the engine will cut off in 5 secs. (The vehicle should be in neutral at less than 2000 rpm with clutch lever/throttle is in released position) By pressing the clutch lever, the engine will start again and gear can be engaged to move the vehicle.

### Driving with i3s Switch in “OFF” position:

While driving in a traffic jam/or very dense traffic where the vehicle has to encounter a stop and go situation, the i3s switch can be changed to “OFF” position. Once this is done, the i3s system will not work and the vehicle

will be in normal operating conditions as other vehicles and no special functions will be performed.



### NOTE

- **If the battery voltage is low, the i3s system will not work. The i3s indicator on the speedometer console will start to blink, if the rpm is less than 2000 rpm and the i3s indicator goes off if the rpm is more than 2000 rpm. The vehicle will be in normal operating conditions as other vehicles and no special functions will be performed.**
- **If the vehicle is driven without battery or with the dead battery, the i3s system will not work. The i3s indicator on the speedometer console will start to glow continuously. The vehicle will be in normal operating conditions as other vehicles and no special functions will be performed.**
- **During electric or clutch start, the engine will cut-off**
  - **if engine reaches 900 rpm**
  - **if the relay is engaged for more than 5 seconds.**

### SIDE STAND INDICATOR/SWITCH

For the safety of the customer a side stand indicator (1) is provided.

When the vehicle is parked on side stand (Ignition Switch “ON”), an indicator lamp glows in the speedometer panel.



**(1) Side stand indicator**

A side stand switch (2) is provided in the side stand, when the vehicle is parked on side stand (Ignition Switch “ON”), the switch enables the side stand indicator lamp to glow on the speedometer panel.



**(2) Side stand switch**

## FUEL VALVE

The three way fuel valve is on the left side of the carburetor.

### “OFF” Position

At “OFF” position (1), fuel cannot flow from the tank to the carburetor. Turn the valve “OFF” whenever the motorcycle is not in use.



**(1) “OFF” Position**

### “ON” Position



**(2) “ON” Position**

At “ON” position (2), fuel will flow from the tank to the carburetor.

### “Reserve” Position

At “RESERVE” position (3), fuel will flow from the reserve fuel supply to the carburetor. Use the reserve fuel only when the main supply is exhausted. Refill the tank as soon as possible after switching to “RES”. The reserve fuel supply is 1.8 litres (usable reserve).



(3) “RES” Position



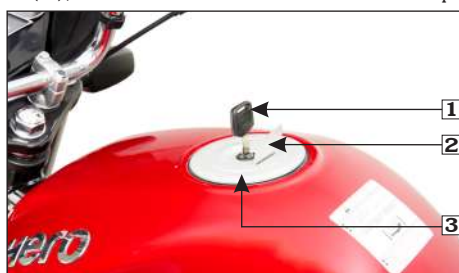
### NOTE

- ▶ Do not operate the motorcycle with the fuel valve in the “RES” position after refilling. You may run out of fuel, with no reserve.
- ▶ Do not keep the fuel valve between “ON” and “OFF” position while driving, since this may drain reserve fuel from the tank.

## FUEL TANK

Fuel tank capacity is 13 litres (Minimum) including reserve supply of 1.8 litres (usable reserve).

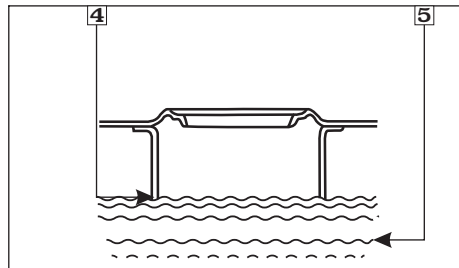
- ▶ To remove the fuel tank cap (3) open the keyhole cover (2), insert the ignition key (1), turn it clockwise and remove the cap.



(1) Ignition key  
(3) Fuel tank cap

(2) Key hole cover

- ▶ Do not overfill the tank, there should be no fuel in the filler neck (4). Fill the tank with fuel (5) as shown.



(4) Filler Neck

(5) Fuel

- For locking, position the cap with “▲” mark facing towards the front, back on the opening and press gently. The key springs back to the normal position and the cap gets locked.

**! CAUTION**

*Do not park the motorcycle under direct sunlight as it causes evaporation of petrol due to heat and deterioration of paint gloss due to ultra violet rays.*

**! WARNING**

*Petrol is extremely flammable and is explosive under certain conditions. Refill in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the motorcycle is refilled or where petrol is stored.*

## SEAT LOCK

**Location :** On the rear left side of the seat, on the rear cowl.

**Operation :** Insert the key and turn it clockwise to unlock. To install, engage the hook on the underside of the seat with the frame and slide the seat to the front until the lock clicks.



**(1) Seat lock**

## HELMET HANGER

The helmet can be hung and locked on the hook provided below the seat lock (1) by rotating the key.



**(1) Helmet hanger**

## PRE-RIDE INSPECTION

You should conduct pre-ride inspection before riding the motorcycle to enhance riding comfort and safety.

Clean your motorcycle regularly. It protects the surface finish. Avoid cleaning with products that are not specifically designed for motorcycle surfaces.

Inspect your motorcycle every day before you start the engine. The items listed here will only take few minutes, and in the long run they can save time, expense, and possibly your life. Please follow the tips as given below:

- **Engine oil level**—Check and top up engine oil if required (**page 29**). Check for leaks.
- **Fuel level**—Ensure sufficient fuel is available in your fuel tank for your journey (**page 18**). Check for leaks.
- **Front brake (Disc type)**—Check for correct brake fluid level in the master cylinder (**pages 39**).
- **Front and Rear brake (Drum type)**—Check operation. Adjust free play if necessary (**pages 40–42**).
- **Tyres**—Check condition and pressure (**page 30–33**).
- **Clutch**—Check for smooth operation. Adjust free play (**page 39 & 40**).
- **Drive chain**—Check condition and slackness (**page 37–39**). Adjust and lubricate if necessary.
- **Throttle**—Check for smooth opening and closing in all steering positions (**page 34**).
- **Lamp and horn**—Check that headlamp, tail/stop lamp, turn signal lamps, indicators and horn function properly.
- **Rear view mirror**—Ensure that the rear view mirror gives a good rear view when you are sitting on the motorcycle.
- **i3s Switch**—Make sure whether the i3s switch is in “ON” or “OFF” position (**page 15**).
- **i3s System**—Make sure that i3s system is functional properly (**page 15**).
- **Fitting & fasteners**—Check & tighten if necessary.
- **Steering**—Check for smooth action for easy maneuverability.
- **Air suction valve**—Make sure all tube connections are secured properly (**page 53**).
- **Side stand indicator**—Make sure the side stand is up. If it is in down position the side stand indicator (**page 17**) will glow on speedometer panel.



## STARTING THE ENGINE



1. Turn the ignition switch "ON".



3. Select neutral position & check (N) indicator glows on instrument cluster with ignition "ON".



5. Pull the bystarter lever forward to "ON" position as indicated (Use choke during cold conditions).



2. Turn the fuel valve "ON".



4. Make sure whether the i3s switch is in "ON" or "OFF" position.



6. Press the starter switch. (Alternatively kick pedal can be used for starting).



7. Push the bystarter lever upwards, (I) position as indicated, after the engine gets sufficiently warmed up to have a stable throttle response.

### WARNING

***Never run the engine in a closed area, the exhaust contains poisonous gases.***

### NOTE

- ***To start the engine in any gear position using the electric starter, press the clutch lever and push the starter switch.***
- ***Kick starting will not be possible when the transmission gears are engaged. Shift the transmission into neutral before kick starting.***
- ***Never attempt to kick start while motorcycle is moving forward or backward. This may lead to damage to the product and is not safe as well.***
- ***Do not accelerate when starting the vehicle with the bystarter "ON".***

## Flooded Engine

If the engine fails to start after repeated attempts, it may be flooded with excess fuel. To clear a flooded engine, turn the ignition switch “OFF” and turn the bystarter lever to “OFF” (↯). Close the throttle fully and crank the engine several times with the kick starter. Turn the ignition switch “ON” and start the engine without using bystarter.

## Running in

Help assure your motorcycle's future reliability and performance by paying extra attention to how you ride during the first 500 km. During this period, avoid full-throttle starts and rapid acceleration.

## RIDING

- ▶ After the engine has been warmed up, the motorcycle is ready for riding.
- ▶ While the engine is idling, press the clutch lever and depress the gearshift pedal downwards using the toe to shift into 1<sup>st</sup> gear.
- ▶ Slowly release the clutch lever and at the same time, gradually increase engine speed by opening the throttle. Coordination of the throttle and clutch lever will assure a smooth positive start.
- ▶ When the motorcycle attains a moderate speed, close the throttle, press the clutch

lever and shift to 2<sup>nd</sup> gear by depressing the gear pedal downwards using the heel.

- ▶ The sequence is repeated progressively to shift 3<sup>rd</sup> and 4<sup>th</sup> and 5<sup>th</sup> gear.



## Recommended max. operating speed in each gear.

|                 |           |                 |          |
|-----------------|-----------|-----------------|----------|
| 1 <sup>st</sup> | 35 km/hr  | 2 <sup>nd</sup> | 60 km/hr |
| 3 <sup>rd</sup> | 82 km/hr  | 4 <sup>th</sup> | 98 km/hr |
| 5 <sup>th</sup> | 101 km/hr |                 |          |

## ! CAUTION

***Do not shift gears without operation of clutch and without closing the throttle otherwise this would lead to damage of gears.***

## BRAKING

- For normal braking, close the throttle and gradually apply both front and rear brake together while shifting down gears to suit your road speed.
- For sudden deceleration/quick stopping, close the throttle and apply the front and rear brakes simultaneously.

### WARNING

- *Independent use of only the front or rear brake increases stopping distance.*
- *Extreme braking may cause wheel locking and reduce control over the motorcycle.*
- *Wherever possible, reduce speed or apply brake before entering a turn, closing the throttle or braking in mid turn may cause wheel slip. Wheel slip will reduce control over the motorcycle.*
- *When riding in wet or rainy conditions, or on loose surfaces the ability to stop the motorcycle reduces.*
- *All your actions should be smooth under these conditions. Sudden acceleration, braking or turning may cause loss of control. For your safety, exercise extreme caution when braking, accelerating or turning.*
- *When descending a long steep slope use engine braking (power) by changing to lower gears, with intermittent use of both brakes. Continuous brake application can overheat the brakes and reduce their effectiveness.*

## PARKING

After stopping the motorcycle, shift the transmission into neutral, turn the fuel valve “OFF” and turn the ignition switch “OFF”. Park the motorcycle on main stand, lock the steering and remove the key.

### CAUTION

- *Park the motorcycle on firm level ground to prevent overturning.*
- *While parking on side stand engage the first gear.*

## TOOL KIT

The tool kit ( 1 ) is located below the seat in the rear. Some emergency repairs, minor adjustments and parts replacement can be performed with the tools contained in the kit.

Kit consists of following tool:

- Tool Bag
- +, - No. 2 driver
- Grip
- Box wrench P 16 X 14
- Pin spanner



**(1) Tool kit**

## MAINTENANCE

### THE IMPORTANCE OF MAINTENANCE

A Well-maintained motorcycle is essential for safe economical and trouble-free riding. It will also help reduce air pollution.

To help you, take proper care of your motorcycle, the following pages include a maintenance schedule and a maintenance record for regular scheduled maintenance.

These instructions are based on the assumption that the motorcycle will be used exclusively for its designed purpose. Sustained high speed operation or operation in unusually wet or dusty conditions will require more frequent service than specified in the maintenance schedule.

Consult your Authorised Distributor/ Dealer for recommendation applicable to your individual needs and use.



#### **WARNING**

- ***Improperly maintaining this motorcycle or failing to correct a problem before you ride can cause a crash in which you can be seriously hurt or killed.***
- ***Always follow the inspection and maintenance recommendations and schedules in this owner's manual.***

## MAINTENANCE SAFETY

This section includes instructions on some important maintenance tasks. You can perform some of these tasks with the tools provided (if you have basic mechanical skills).

Other tasks that are more difficult and require special tools are best performed by professionals. Wheel removal should normally be handled only by a Hero MotoCorp skilled technician or other qualified technician; instructions are included in this manual only to assist in emergency service.

You will come across some of the most important safety precautions in the following pages of this manual.

However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task.



### WARNING

- ***Failure to follow maintenance instructions and precautions properly can seriously injure you.***
- ***Always follow the procedures and precautions in this owner's manual.***

## SAFETY PRECAUTIONS

- Make sure the engine is “OFF” before you begin any maintenance or repair. This will help to eliminate several potential hazards:

- **Carbon monoxide poisoning from engine exhaust.**

Be sure there is adequate ventilation whenever you operate the engine.

- **Burns from hot parts.**

Let the engine and exhaust system cool before touching.

- **Injury from moving parts.**

Do not run the engine unless instructed to do so.

- Read the instruction before you begin and make sure you have the tools and skills required.
- To help prevent the motorcycle from falling over, park it on a firm, level surface on the main stand.
- To reduce the possibility of a fire or explosion, be careful when working around petrol or batteries. Use only nonflammable solvent, not petrol, to clean parts. Keep cigarettes, sparks and flames away from the battery and all fuel-related parts.

Remember that your Authorised Distributor/ Dealer knows your motorcycle best and is fully equipped to maintain and repair it.

To ensure best quality and reliability, use only new Hero MotoCorp Genuine Parts for repair and replacement.

## MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection (**page 20**) at each scheduled maintenance period.

**I: INSPECT C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE T: TOP UP  
E: EMISSION CHECK**

The following Maintenance Schedule specifies all maintenance required to keep your motorcycle in peak operating condition. Maintenance work should be performed in accordance with standards and specifications of Hero MotoCorp by properly trained and equipped technicians. Your Authorised Distributor/Dealer meets all of these requirements.

Ensure that each paid service is availed within **90** days or **3000** km from the date of previous service, whichever is earlier.

- ↘ To be serviced by your Authorised Distributor/Dealer unless the owner has the relevant tools, technical information and is technically qualified.
- ✕ In the interest of safety, we recommend that these jobs are carried out only by your Authorised Distributor/Dealer.
- \* Replace air cleaner element once in every **15000** km or early replacement may be required when riding in dusty areas.
- \*\* Replace engine oil once in every **6000** km. Top up if the oil level is at or near the lower level mark.
- \*\*\* Inspect & maintain specified torque.
- \*\*\*\* Replace once in every two years or **30000** km, whichever is earlier.
- Check idle CO emission along with idle rpm/idle CO adjustment (if required).
- @ Visit Authorised Distributor/Dealer for inspection, cleaning, lubrication and adjustment of drive chain at every **2000** km.

**Note-1:** At higher odometer readings, repeat the frequency interval established here.

**Note-2:** Inspect the bearings free play, replace if necessary.

**Note-3:** Replace front fork oil once in every **2** years or **30000** km, whichever is earlier.

**Note-4:** Inspect for any play in the mounting bushes, replace if necessary.

**Note-5:** Inspect the hoses for deterioration, damage or loose connections and canister for cracks or other damages.








**Note:** Always wipe the water from the motorcycle after washing. Use clean soft cloth or pressurized air for completely drying the water.


















## MAINTENANCE

Dear Customer,

## MAINTENANCE SCHEDULE

We would strongly recommend the following schedule, to keep your motorcycle in perfect running condition and healthy environment. Motorcycle subjected to severe use or ridden in dusty area will require more frequent servicing.

| ITEMS  | SERVICE   | 1 <sup>st</sup>   | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 5 <sup>th</sup> | 6 <sup>th</sup> | 7 <sup>th</sup>          | 8 <sup>th</sup> | 9 <sup>th</sup> | 10 <sup>th</sup> | 11 <sup>th</sup> |
|--|-----------|---|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------------|-----------------|-----------------|------------------|------------------|
|  | DAYS      | 1st 60  | Next 90         | Next 90         | Next 90         | Next 90         | Next 90         | Next 90                  | Next 90         | Next 90         | Next 90          | Next 90          |
|  | KM Note-1 | 500-750   | 3000-3500       | 6000-6500       | 9000-9500       | 12000-12500     | 15000-15500     | 18000-18500              | 21000-21500     | 24000-24500     | 27000-27500      | 30000-30500      |
| Fuel Line  |           | I   | I               | I               | I               | I               | I               | I                        | I               | I               | I                | I                |
|  Throttle Operation            |           | I, A  | I, A            | I, A            | I, A            | I, A            | I, A            | I, A                     | I, A            | I, A            | I, A             | I, A             |
|  Bystarter Operation           |           | I   | I               | I               | I               | I               | I               | I                        | I               | I               | I                | I                |
|  Engine Idle Speed/Carburetor  |           | C, A  | A               | C, A            | A               | C, A            | A               | C, A                     | A               | C, A            | A                | C, A             |
| Air Cleaner Element*   |           | Do not open air cleaner element unless there is a drivability problem |                 |                 |                 |                 |                 | R                        |                 |                 |                  | R                |
| Spark Plug   |           | I, C, A   | I, C, A         | I, C, A         | I, C, A         | R               | I, C, A         | I, C, A                  | I, C, A         | I, C, A         | R                | I, C, A          |
|  Valve Clearance               |           | I, A  | I, A            | I, A            | I, A            | I, A            | I, A            | I, A                     | I, A            | I, A            | I, A             | I, A             |
| Engine Oil**   |           | O   | I, T            | O               | I, T            | O               | I, T            | O                        | I, T            | O               | I, T             | O                |
|  Engine Oil Strainer Screen    |           | C   |                 | C               |                 | C               |                 | C                        |                 | C               |                  | C                |
|  Engine Oil Centrifugal Filter |           | C   |                 | C               |                 | C               |                 | C                        |                 | C               |                  | C                |
| Electric Starter   |           | I   | I               | I               | I               | I               | I               | I                        | I               | I               | I                | I                |
| Oil Circulation  |           | I   | I               | I               | I               | I               | I               | I                        | I               | I               | I                | I                |
|  Drive Chain@                  |           | I,C,L,A at every 2000 km  |                 |                 |                 |                 |                 | I,C,L,A at every 2000 km |                 |                 |                  |                  |
| Battery Voltage  |           | I   | I               | I               | I               | I               | I               | I                        | I               | I               | I                | I                |
| Brake Shoe   |           | I, A  | I, A            | I, A            | I, A            | I, A            | I, A            | I, A                     | I, A            | I, A            | I, A             | I, A             |

| ITEMS   | SERVICE   | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 5 <sup>th</sup> | 6 <sup>th</sup> | 7 <sup>th</sup> | 8 <sup>th</sup> | 9 <sup>th</sup> | 10 <sup>th</sup> | 11 <sup>th</sup> |
|---|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|
|   | DAYS      | 1st 60          | Next 90         | Next 90         | Next 90         | Next 90         | Next 90         | Next 90         | Next 90         | Next 90         | Next 90          | Next 90          |
|   | KM Note-1 | 500-750         | 3000-3500       | 6000-6500       | 9000-9500       | 12000-12500     | 15000-15500     | 18000-18500     | 21000-21500     | 24000-24500     | 27000-27500      | 30000-30500      |
|  Brake System (Brake Cam & Brake Pedal) |           |                 | C, L            |                 | C, L            |                 | C, L            |                 | C, L            |                 | C, L             |                  |
|  Brake Fluid****                        |           | I               | I               | I               | I               | I               | I               | I               | I               | I               | I                | I                |
|  Stop Lamp Switch                       |           | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A             | I, A             |
|  Headlamp Focus                         |           | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A             | I, A             |
|  Clutch                                 |           | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A            | I, A             | I, A             |
|  Side Stand/Main Stand                  |           | L               | L               | L               | L               | L               | L               | L               | L               | L               | L                | L                |
|  Side Stand Switch                      |           | I, C            | I, C            | I, C            | I, C            | I, C            | I, C            | I, C            | I, C            | I, C            | I, C             | I, C             |
|  i3s System                             |           | I               | I               | I               | I               | I               | I               | I               | I               | I               | I                | I                |
|  Nut, Bolts & Fasteners***              |           | I               | I               | I               | I               | I               | I               | I               | I               | I               | I                | I                |
|  Wheels Bearings                        | NOTE-2    | I               | I               | I               | I               | I               | I               | I               | I               | I               | I                | I                |
|  Wheels/Tyres                           |           | I               | I               | I               | I               | I               | I               | I               | I               | I               | I                | I                |
|  Steering Head Bearing                  |           | I               | I, A            | I               | I, A            | I, L, A         | I               | I, A            | I               | I, L, A         | I                | I, A             |
|  Front Suspension/Oil                   | NOTE-3    | I               | I               | I               | I               | I               | I               | I               | I               | I               | I                | I                |
|  Rear Suspension                        | NOTE-4    | I               | I               | I               | I               | I               | I               | I               | I               | I               | I                | I                |
|  Secondary Air Injection                |           |                 |                 | I               |                 | I               |                 | I               |                 | I               |                  | I                |
|  Muffler (Catalytic Converter)*         |           |                 |                 | I, E            |                 | I, E            |                 | I, E            |                 | I, E            |                  | I, E             |
|  Evaporative Emission Control System    | NOTE-5    | I               | I               | I               | I               | I               | I               | I               | I               | I               | I                | I                |



## ENGINE OIL

Use only Hero Genuine Engine Oil.

**BRAND : Hero 4T plus**

**GRADE : SAE 10W 30 SJ Grade  
(JASO MA).**

Manufactured by :

1. Tide Water Oil Co. (India) Ltd.
2. Savita Oil Technologies Limited.
3. Bharat Petroleum Corporation Limited.

**OIL CAPACITY : 1.2 litres**

### ENGINE OIL LEVEL CHECK/TOP UP PROCESS

Check engine oil level each day before operating the motorcycle. The oil level dipstick (1) is on the right crankcase cover for measuring oil level. Oil level must be maintained between the upper (2) and lower (3) level marks on the oil level dipstick.



(1) Oil level dipstick

(2) Upper level mark

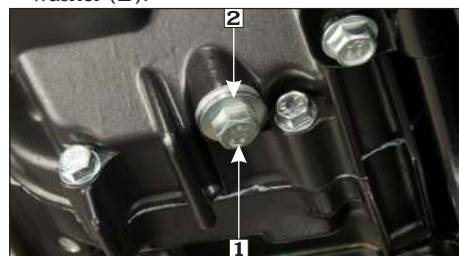
(3) Lower level mark

Do top up if oil level reaches towards the lower level mark or every 3000 km whichever is earlier.

- ▶ Park the motorcycle on its main stand.
- ▶ Start the engine & let it idle for 3-5 minutes.
- ▶ Stop the engine and wait for 2-3 minutes.
- ▶ Remove the oil level dipstick, wipe it clean and insert without screwing it in.
- ▶ Remove the oil level dipstick and check the oil level.
- ▶ If required, add the specified oil up to the upper level mark. Do not overfill.
- ▶ Quantity of oil to be filled is 1.1 litres (approx). during oil change (when right crankcase cover is not removed).
- ▶ Reinstall the oil level dipstick and check for oil leaks.

### ENGINE OIL REPLACEMENT PROCESS

- ▶ To drain the oil, remove the oil level dipstick and drain bolt (1).
- ▶ After the oil has completely drained, reinstall the drain plug with a new sealing washer (2).



(1) Drain bolt

(2) Sealing washer

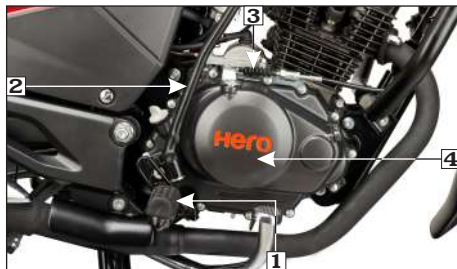
- Fill the crankcase through the filler hole with approximately 1.1 litres of the recommended grade oil (When right crankcase cover is not removed).
- Reinstall the oil level dipstick with a new O-ring.
- Start the engine and allow it to idle for few minutes.
- Stop the engine and let the engine oil settle down.
- Recheck the oil level.
- Make sure that oil level is at the “UPPER” level mark of the oil level dipstick with the motorcycle in an upright position and that there are no oil leaks.

### ! CAUTION

- **Running the engine with insufficient oil can cause serious engine damage.**
- **Running the engine with excessive oil can cause spark plug fouling & loss in performance.**
- **Engine oil is a major factor affecting the performance and service life of the engine. Non-detergent, vegetable or castor based racing oils are not recommended.**

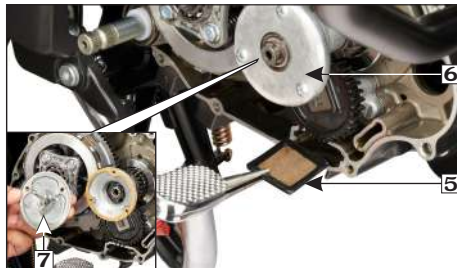
## OIL FILTER SCREEN & CENTRIFUGAL FILTER

- Drain the engine oil thoroughly.
- Remove the rider foot rest (1), kick starter pedal (2), muffler disconnect the clutch cable (3). Remove the right crankcase cover (4).



(1) Rider foot rest (2) Kick starter pedal  
(3) Clutch cable (4) Right crankcase cover

- Remove gasket and dowel pin.
- Remove the oil filter screen (5) and wash it in clean non flammable or high flash point solvent (kerosene).
- Reinstall the oil filter screen with tapered end facing in.



(5) Oil filter screen (6) Centrifugal filter cover  
(7) Centrifugal filter

- Remove centrifugal filter cover (6) & clean the centrifugal filter (7) with non flammable or high flash point solvent (kerosene).
- Reinstall the centrifugal filter cover, right crankcase cover, rider foot rest, muffler & kick starter pedal.
- Fill the crankcase with clean engine oil (page 29).



#### NOTE

- *Clean filters as specified in the maintenance schedule.*
- *Ensure to replace gasket with new one once removed*

### SPARK PLUG



**(1) Noise suppressor cap**

**(2) Spark plug**

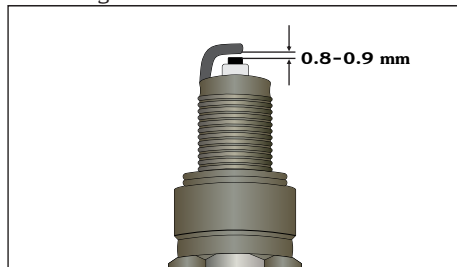
#### Recommended spark plugs:

NGK-CPR 8 EA9, CHAMPION-RG 6 YC, BOSCH-UR5DC

For most riding conditions this spark plug heat range number is satisfactory. However, if the motorcycle is going to be operated for extended periods at high speeds or near

maximum power in hot climates, the spark plug should be changed to a cold heat range number, consult Authorised Distributor/ Dealer on this if required.

- Clean any dirt around the spark plug base.
- Disconnect the noise suppressor cap (1) and remove the spark plug (2) with the help of spark plug box wrench provided in the tool bag.



- Visually inspect the spark plug electrodes for wear. The center electrode should have square edges and the side electrode should not be eroded. Discard the spark plug if there is apparent wear or if the insulator is cracked or chipped.
- Make sure that the spark plug gap is **0.8-0.9 mm** using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode carefully. Make sure the plug washer is in good conditions.
- With the plug washer attached, thread the spark plug in by hand to prevent cross-threading.

- ▶ Tighten a new spark plug  $1/2$  turn with after the plug seats, with a spark plug wrench to compress the washer. If you are reusing a plug, it should only take  $1/8$ – $1/4$  turn after the plug seats.

## AIR CLEANER ELEMENT

The air cleaner element is viscous type, it should be replaced at regular intervals **(page 26)**. Early replacement may be required when riding in unusually wet or dusty area.

- ▶ Remove the seat **(page 19)**.
- ▶ Remove the side cover (1) by removing side cover screws (2).



**(1) Side cover**

**(2) Side cover screws**

- ▶ Remove the air cleaner cover screws washers (3) and the cover (4).



**(3) Air cleaner cover screws/washers**

**(4) Air cleaner cover**

- ▶ Remove the air cleaner cover screws/washers (5) and remove the element air cleaner (6).



**(5) Element air cleaner screws/washers**

**(6) Element air cleaner**

- ▶ Remove the air cleaner element (6) from housing (7).
- ▶ Clean the air cleaner housing (7) using a shop towel.

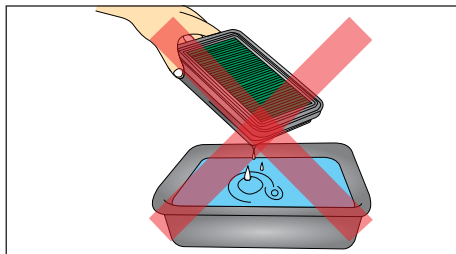
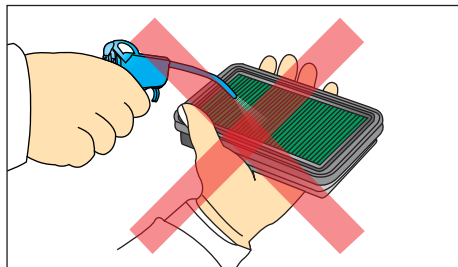


- (6) Element air cleaner
- (7) Air cleaner housing

- Install a new air cleaner element in the reverse order of removal.

### ! CAUTION

- *Never wash or clean the viscous filter. Replace filter element once in every 15000 km.*
- *Replace it earlier if it becomes very dirty, damage on surface or on the sealing area.*



### AIR CLEANER DRAIN TUBE

Remove the drain tube plug (1) from the tube and drain the deposit into a suitable container. Reinstall the drain tube plug.

Follow the above process more frequently when riding in rain or at full throttle.



(1) Drain tube plug



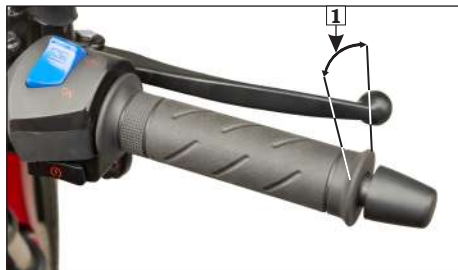
### NOTE

*Always ensure to reinstall the drain tube plug after draining the deposit.*

## THROTTLE OPERATION

### Cable inspection

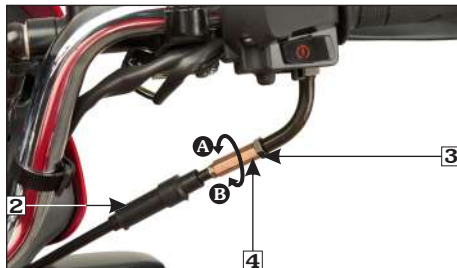
Check for smooth rotation of the throttle grip from the fully open to the fully closed position. Check at full left and full right steering positions. Inspect the condition of the throttle cable from the throttle grip down to the carburetor. If the cable is kinked, chafed or improperly routed, it should be replaced or rerouted. Standard throttle grip free play (1) is approximately 2– 6 mm of grip rotation.



(1) Free play 2– 6 mm

### Free Play Adjustment

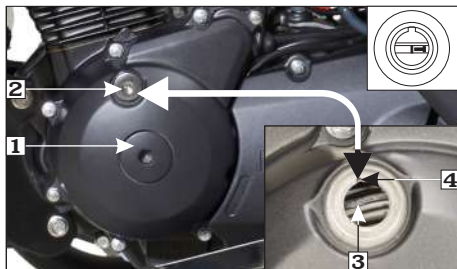
Slide the boot (2), loosen the lock nut (3) and turn the adjuster (4).



(2) Boot (3) Lock nut (4) Adjuster  
(A) Decrease free play (B) Increase free play

## VALVE CLEARANCE

Excessive valve clearance will cause noise, and little or no clearance will prevent the valve from closing and cause valve damage and power loss. Check valve clearance at the specified intervals (page 26).



(1) Crankshaft hole cap (2) Timing hole cap  
(3) 'T' mark (4) Index mark





## NOTE

**The checking or adjusting of valve clearance should be performed while the engine is cold. The clearance will change as the engine temperature rises.**

- Remove the crankshaft hole cap (1) and timing hole cap (2).
- Remove the cylinder head cover.
- Rotate the flywheel anticlockwise until the 'T' mark (3) on the flywheel coincides with the index mark (4) on the left crank case cover. In this position the piston will either be on the compression or exhaust stroke.

The adjustment must be made when the piston is at Top Dead Center and both the inlet and exhaust valves are closed.



(5) Adjusting screw

(6) Lock nut

This condition can be determined by moving the rocker arms. If they are free it is an indication that the valves are closed and the piston is in compression stroke. If they are tight the valves are open, rotate the flywheel

360° anticlockwise and re-align the 'T' mark with the index mark.



(7) Feeler gauge

- Check the clearance by inserting the feeler gauge (7) between the adjusting screw (5) and valve stem.

## Standard clearance (cold condition)

**Intake: 0.08 mm; Exhaust: 0.12 mm**

If adjustment is required, adjust by loosening the lock nut (6) and turning the adjusting screw (5) until there is a slight drag on the feeler gauge (7). After tightening the lock nut (6), check again the clearance.

- Install the parts in the reverse order of disassembly.



## NOTE

**Before inserting the feeler gauge, smear a bit of engine oil on the feeler gauge to avoid damage to the feeler gauge.**

## CARBURETOR (IDLE SPEED)

The carburetor is factory preset in order to achieve optimum performance and meet emission standards.

However in case of specific requirement of tuning due to engine stalling in idle speed, please follow the instructions given here under:

- Warm up the engine and park the motorcycle on the main stand.
- Adjust idle speed with the throttle stop screw (1).

**IDLE SPEED: 1400 ± 100 RPM**



### NOTE

*Always adjust the idle speed in i3s switch "OFF" position.*



### CAUTION

*Do not attempt to compensate for faults in other systems by adjusting idle speed. Visit your Authorised Distributor/Dealer for scheduled carburetor adjustment.*



(1) Throttle stop screw

(A) Decrease rpm

(B) Increase rpm

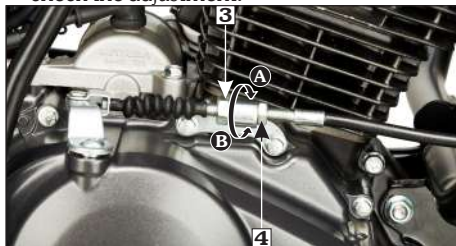
## CLUTCH

Clutch adjustment may be required if the motorcycle stalls when shifting into gear or tends to creep or if the clutch slips, causing acceleration to lag behind engine speed. Normal clutch lever free play (1) is 10–20 mm at the lever (2).



(1) Free play 10–20 mm (2) Clutch lever

- To adjust the free play, loosen the lock nut (3). Turn the adjusting nut (4) to obtain the specified free play. Tighten the lock nut and check the adjustment.



(3) Lock nut (4) Clutch cable adjusting nut

(A) Decrease free play (B) Increase free play



- Start the engine, press the clutch lever and shift into gear. Make sure the engine does not stall, and the motorcycle does not creep. Gradually release the clutch lever and open the throttle. The motorcycle should start smoothly and accelerate.



### NOTE

- **Check that the clutch cable routing is correct.**
- **If proper adjustment cannot be obtained or the clutch does not work correctly, visit your Authorised Distributor/Dealer .**

### Other Checks

- Check the clutch cable for kinks or signs of wear that could cause sticking or failure.
- Check for clutch cable model. Use genuine clutch cables.
- Check for clutch cable routing.

### DRIVE CHAIN

The service life of the drive chain depends upon proper lubrication and adjustment.

Poor maintenance can cause premature wear or damage to the drive chain and sprockets.

The drive chain (1) should be checked and lubricated as part of the Pre-ride Inspection (page 20). Under severe usage, or when the motorcycle is ridden in unusually dusty areas, more frequent maintenance will be necessary.

### Inspection

- Turn the engine “OFF”, park the motorcycle on its main stand and shift the transmission to neutral. Remove hole cap (2).
- Drive chain slack (3) should be adjusted to

allow approximately 20–30 mm vertical movement by hand.

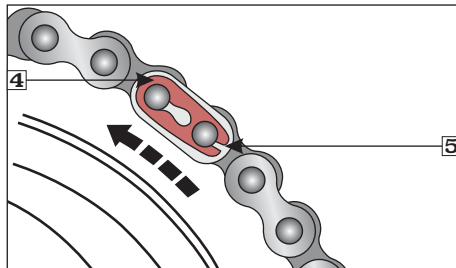
Rotate the wheel and check drive chain slack as the wheel rotates. Drive chain slack should remain constant as the wheel rotates. If the chain is slack in one section and tight in another, some links are kinked and binding. Binding can be eliminated by frequent lubrication.



(1) Drive chain

(2) Hole cap

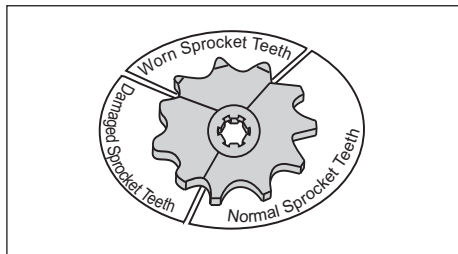
(3) Drive chain slack



(4) Chain lock plate

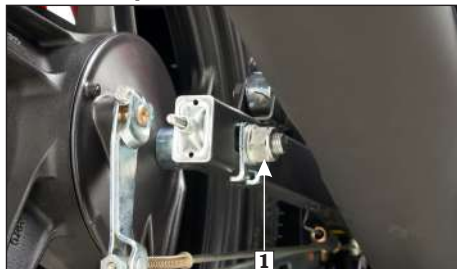
(5) Open end

- Turn the chain to view chain lock plate (4) inside the hole. Ensure that the chain lock plate open end (5) is installed in the opposite direction of the chain rotation.
- Inspect the sprocket teeth for wear or damage.
- If the drive chain or sprockets are excessively worn or damaged, they should be replaced. Never use a new chain with worn out sprockets since this will result in rapid chain wear.
- Align the chain adjuster index mark (5) with the rear edge (6) of the adjusting slots on both sides of the swing arm equally.
- If the drive chain slack is excessive when the rear axle is moved to the farthest limit of adjustment, the drive chain is worn and must be replaced.

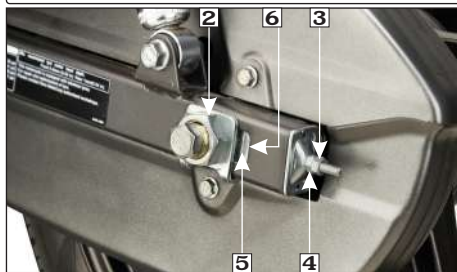


### Adjustment

- Park the motorcycle on its main stand with the transmission in neutral and the ignition switch in "OFF" position.
- Loosen the rear axle nut (1) and sleeve nut (2).
- Loosen the drive chain lock nut (3).
- Turn both the adjusting nuts (4) in an equal number of turns until the correct drive chain slack is obtained. Turn the adjusting nut clockwise to decrease the slack or anticlockwise to increase the slack of the chain.



**(1) Rear axle nut**



**(2) Sleeve nut (3) Drive chain lock nut  
(4) Drive chain adjusting nut (5) Index mark  
(6) Rear edge of adjusting slot**

- ▷ Tighten the rear axle nut and sleeve nut.
- ▷ Check the drive chain slack again.
- ▷ Rear brake pedal free play is affected when repositioning the rear wheel to adjust drive chain slack. Check rear brake pedal free play and adjust as necessary (**page 41**).

### Lubrication

- ▷ Turn the engine “OFF”, park the motorcycle on its main stand and shift the transmission into neutral.
- ▷ Lubricate the drive chain by applying liberal amount of SAE-90 oil or chain lubricant.

### ! CAUTION

**Regular adjustment and lubrication as per the maintenance schedule would ensure high performance and longer life.**



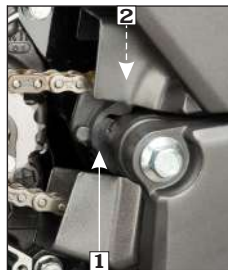
### NOTE

**Visit Authorised Distributor/Dealer for inspection, cleaning, lubrication and adjustment of drive chain at every 2000 km.**

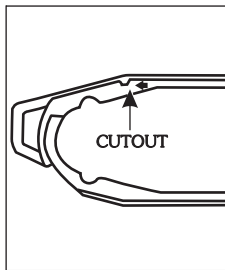
### DRIVE CHAIN SLIDER

(Refer to “Maintenance Schedule” on (**page 30**)).

Check the chain slider (1) for wear, The chain slider must be replaced if the or wear limit is reached. For replacement, visit your Authorised Distributor/Dealer.



**(1) Chain slider**



**(2) Wear limit**

### FRONT BRAKE (DISC TYPE)

Master Cylinder/Reservoir.

Location: Right handle bar.

Brake fluid recommended:

Castrol Q Stop-DoT 3 or DoT 4

Fluid level-Ensure that the brake fluid level does not fall below “MIN” mark (1) on the master cylinder, when checked with the



**(1) "MIN" mark**

master cylinder, when checked with the master cylinder parallel to the ground. The level decreases gradually due to piston movement to compensate pad wear. If the level decreases abruptly, check for leakage in the brake system and contact your Authorised Distributor/Dealer.



(1) Brake pad (2) Caliper (3) Brake disc



### NOTE

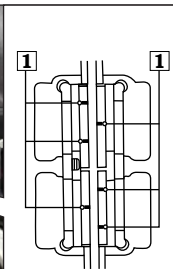
- Clean the dirt and mud accumulation between the brake pads (1), caliper (2) and the disc (3) by using a water jet.
- Always contact your Authorised Distributor /Dealer for refilling of master cylinder when necessary. Do not mix DoT 3 and DoT 4 brake fluid.

### Brake Pad Wear (Front Brake)

Brake pad wear depends upon the severity of usage, the type of riding & road conditions. Generally, the pads will wear faster on wet & dirty roads. Inspect the pads at each regular

maintenance interval.

- Check the brake pads for wear by examining the wear limit groove (1) on each pad.
- If either pad is worn to the bottom of the grooves replace both pads as a set. Visit your Authorised Distributor/Dealer for this service.



(1) Wear indicator grooves



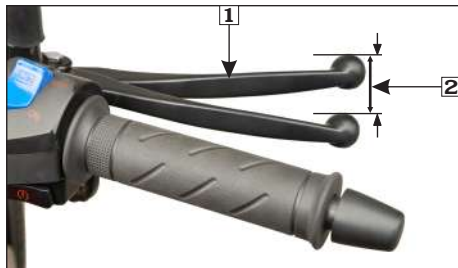
### WARNING

**Always apply front and rear brakes simultaneously to avoid skidding of vehicle.**

### FRONT BRAKE (DRUM TYPE)

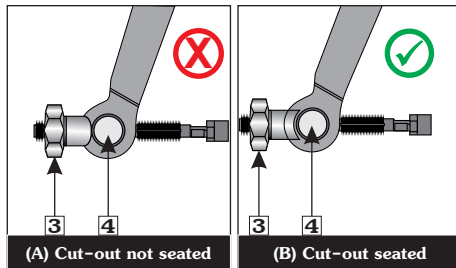
#### Adjustment

- Park the motorcycle on its main stand.
- Measure the distance, the front brake lever (1) moves before the brake starts to take hold. Free play should be 10-20 mm at the tip of the brake lever.



(1) Front brake lever (2) Free play 10-20 mm

- Make free play (2) adjustments by turning the adjusting nut (3).
- Make sure that cut-out on the adjusting nut is seated on the brake arm pin (4) after making final free play adjustment.
- Apply the brake and check for free wheel rotation when released.

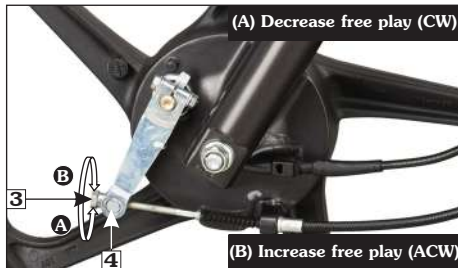


(A) Cut-out not seated (B) Cut-out seated

## REAR BRAKE

### (Adjustment)

- Park the motorcycle on its main stand.
- Measure the brake pedal (1) free play before brake starts to take hold. Free play (2) should be 20-30 mm.



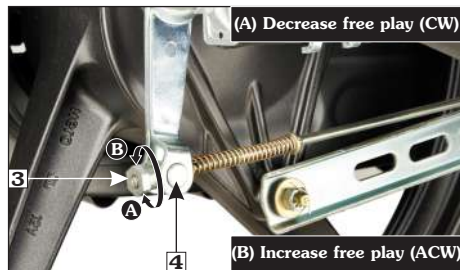
(3) Adjusting nut (4) Brake arm pin

CW- Clockwise ACW- Anticlockwise



(1) Rear brake pedal (2) Free play 20-30 mm

- If adjustment is necessary, turn the rear brake adjusting nut (3).
- Make sure that the cut-out on the adjusting nut is seated on the brake arm (4) after the final adjustment has been made.
- Apply the brake several times and check for free wheel rotation when released.



(3) Adjusting nut

(4) Brake arm pin



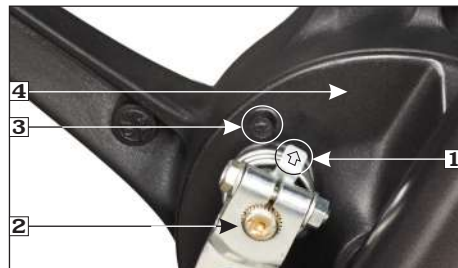
#### NOTE

*If proper adjustment cannot be obtained by this method, visit your Authorised Distributor/Dealer.*

## BRAKE WEAR INDICATORS

When the brake is applied, an arrow (3), fixed to the brake arm (4), moves towards a reference mark (2) on the brake panel (1). If the arrow aligns with the reference mark on full application of the brake, the brake shoes must be replaced.

### Front brake wear indication



(1) Brake panel

(2) Reference mark

(3) Arrow

(4) Brake arm

### Rear brake wear indication



(1) Brake panel

(2) Reference mark

(3) Arrow

(4) Brake arm

## TUBELESS TYRES

The tyres fitted on your motorcycles are of TUBELESS type.

To safely operate your motorcycle, your tyres must be of the proper type and size, in good condition with adequate tread, and correctly inflated for the load you are carrying. The following pages give more detailed information on how and when to check the air pressure, how to inspect your tyres for damage, and what to do when your tyres need to be repaired or replaced.

### WARNING

- ***Using tyres that are excessively worn or improperly inflated can cause a crash in which you can be seriously hurt or killed.***
- ***Follow all instructions in this owner's manual regarding tyres inflation and maintenance.***

## Air Pressure

Keeping your tyres properly inflated provides the best combination of handling, tread life and riding comfort.

Generally, under-inflated tyres wear unevenly, adversely affect handling and are more likely to fail from being overheated.

Over-inflated tyres make your motorcycle ride harshly, are more prone to damage from road hazards, and wear unevenly.

We recommend that you visually check your tyres before every ride and use a gauge to measure air pressure at least once a month or any time you think the tyres pressure might be low. Tubeless tyres have some self-sealing ability if

they are punctured. However, because leakage is often very slow, you should look closely for punctures whenever a tyre is not fully inflated. Always check air pressure when your tyres are "cold"—when the motorcycle has been parked for at least three hours. If you check air pressure when your tyres are "warm"—when the motorcycle has been ridden for even a few km—the readings will be higher than if the tyres were "cold". This is normal, so do not let air out of the tyres to match the recommended cold air pressures given below. If you do, the tyres will be under-inflated.

The recommended "cold" tyre pressures are:

|       | Rider only                        | Rider and Pillion                 |
|-------|-----------------------------------|-----------------------------------|
| Front | 2.30 kgf/cm <sup>2</sup> (33 psi) | 2.30 kgf/cm <sup>2</sup> (33 psi) |
| Rear  | 2.50 kgf/cm <sup>2</sup> (36 psi) | 2.80 kgf/cm <sup>2</sup> (41 psi) |



**(1) Air pressure gauge**

## ! CAUTION

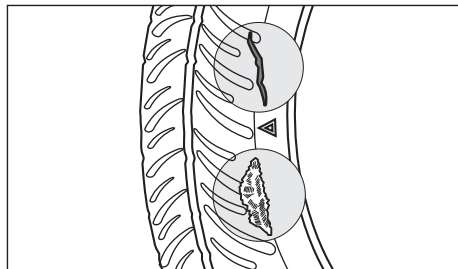
**Over inflation/Under inflation will affect the performance.**

### Inspection

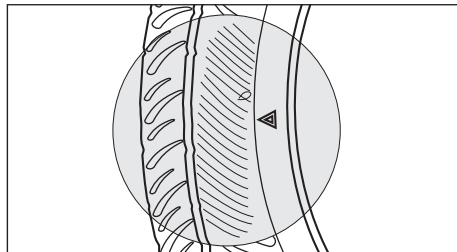
Whenever you check the tyre pressure, you should also examine tyre treads & side walls for wear, damage & foreign objects.

Look for:

- ▶ Bumps or bulges in the side of the tyre or the tread. Replace the tyre if you find any bumps or bulges.
- ▶ Cuts, splits or cracks in the tyre. Replace the tyre if you can see fabric or cord.



- ▶ Excessive tread wear.



- ▶ Carefully inspect the tyres for any damage, if the motorcycle hits a pothole or hard object.

### Tread Wear

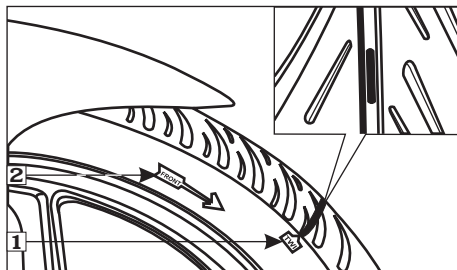
Replace tyres immediately when the wear indicator (1) appears on the tyre. The tread limits are:

#### MINIMUM TREAD DEPTH:

**Front: 1.0 mm**

**Rear: 1.0 mm**

Check the tread wear indicator for tyre wear.



(1) Tread wear indicator

(2) Arrow mark



## Unidirectional Tyres

Whenever the tyre is removed and put back in case of puncture, ensure the arrow mark (2) on the tyre is in the same direction as that of forward rotation of wheel.

## Tyre Repair

If a tyre is punctured or damaged, you should replace it, not repair it. As mentioned below, a tyre that is repaired either temporarily or permanently, will have lower speed and performance limits than a new tyre.

A temporarily repaired, such as an external tubeless tyre plug, may not be safe for normal speeds and riding conditions. If a temporary or emergency repair is made to a tyre, you should ride slowly cautiously to your Authorised Distributor/Dealer and have the tyre replaced. If possible you should not carry a pillion or load until a new tyre is installed. Even if a tyre is professionally repaired with a permanent internal patch plug, it will not be as good as a new tyre.

You should not exceed **70 km/hour** for the 1st 24 hours or **105 km/hour** at any time thereafter. In addition you may not be able to safely carry as much load as with a new tyre. Therefore, we strongly recommend that you replace a damaged tyre.

If you decide to have a tyre replace be sure the wheel is balanced before you ride.

## Tyre Replacement

The tyres that were installed on your motorcycle were designed to match the performance capabilities of your motorcycle and provide the best combination of handling, braking, durability and comfort.

The recommended tyre for your motorcycle are:

|              |                               |
|--------------|-------------------------------|
| <b>Front</b> | 80/100-18-47P (Tubeless Tyre) |
| <b>Rear</b>  | 80/100-18-54P (Tubeless Tyre) |



### WARNING

- ***Operation with excessively worn tyres is hazardous and will adversely affect traction and handling.***
- ***Under-inflation may result in the tyre slipping on or tyre coming off the rim.***
- ***Always use the size and type of tyres recommended in this owner's manual.***



### NOTE

***For repair and replacement of tyre it is advised to visit your Authorised Distributor/Dealer.***

## Important Safety Reminders

- Do not install a tube inside a tubeless tyre on this motorcycle. Excessive heat buildup can cause the tube to burst.
- Use only tubeless tyres on this motorcycle. The rims are designed for tubeless tyres, and during hard acceleration or braking, a tube-type tyre could slip on the rim and cause the tyre to rapidly deflate.

## BATTERY



**(1) Battery**

Refer to the safety precautions on (page 25).

### Location

The battery (1) is located behind the right side cover.

### Specification

MF Battery (ETZ-5), 12V-5Ah

It is not necessary to check the battery electrolyte level or add distilled water as the

battery is an **Maintenance-Free (sealed)** type. If your battery seems weak and/or electrolyte is leaking (causing hard starting or other electrical troubles), contact your Authorised Distributor/Dealer.



### NOTE



*This symbol on the battery means that this product must not be treated as household waste.*



*This symbol on the battery means the old battery must be returned to your Authorised Distributor/Dealer as it must be treated as recyclable material.*

Battery is a Maintenance-Free (sealed) type and can be permanently damaged if the sealing strip is removed.

An improperly disposed battery can be harmful to the environment and human health. Always confirm local regulations for battery disposal.



### WARNING

- *The battery gives off explosive hydrogen gas during normal operation.*
- *A spark or flame can cause the battery to explode with enough force to seriously hurt you.*
- *Wear protective clothing and a face shield, or have skilled technician do the battery maintenance.*

## Battery charging

Always visit your Authorised Distributor/ Dealer if you see any symptom of battery discharge as earliest as possible to get the battery charged. The battery has a tendency to discharge rapidly if additional electrical accessories are fitted on the motorcycle.

## Battery storage

- If in case your motorcycle is not used for more than a month remove the battery, fully charge and store in a cool and dry place.
- If the battery is expected to be stored for more than two months, ensure to fully charge the battery once in a month.
- Always ensure the battery is fully charged before installation.
- Ensure the battery leads are properly connected to the battery terminals during installation.

## Battery removal

- Make sure the ignition switch is "OFF"
- Remove the seat (**page 19**).
- Remove the right side cover screws (1) and remove the side cover (2).
- Remove the battery clamp bolt (3) and the battery clamp (4).
- Disconnect the negative (-)ve terminal lead (5) from the battery first, then disconnect the positive (+)ve terminal lead (6).
- Pullout the battery from the battery box.



(1) Right side cover screws (2) Side cover



(3) Bolt (4) Band battery  
(5) (-)ve terminal (6) (+)ve terminal

## Battery installation

- Reinstall in the reverse order of removal. Be sure to connect the positive (+)ve terminal first, then the negative (-)ve terminal.
- Check all fasteners are secure.

## FUSE REPLACEMENT

Refer to the safety precautions on (page 25).

**Fuse Box (A)** Location : Below the seat

**Fuse Type:** Blade fuse



(1) In circuit fuse 15A

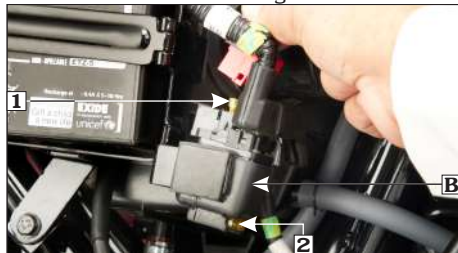
(2) Spare fuse 15A

## Start Mag. Switch (B)

**Location:** Inside right side cover

**Fuse Type:** Blade fuse

**Location:** Below start mag switch.



(1) In circuit fuse 20A (2) Spare fuse 20A



## WARNING

- ▶ *Never use a fuse with a different rating from that specified. It may lead to serious damage to the electrical system or a fire due to short circuit.*
- ▶ *Battery gives off explosive gases. Keep sparks, flames & cigarettes away.*



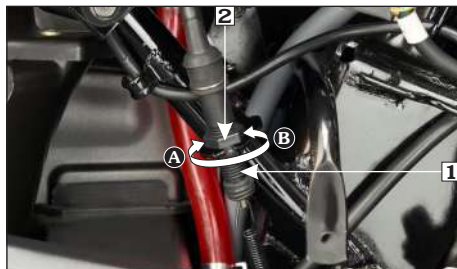
## CAUTION

- ▶ *Do not attempt to start or ride the motorcycle without a charged battery, it can cause fusing of the bulbs and permanent damage to certain electrical components.*
- ▶ *Turn the ignition switch "OFF" before checking or replacing the fuse to prevent accidental short-circuiting.*

## STOP LAMP SWITCH

The stop lamp switch (1) must be adjusted so that stop lamp will glow when rear brake is applied. Rear brake free play (page 41) should be adjusted before performing stop lamp switch adjustment. The procedure for adjusting stop lamp switch is as follows :

- ▶ Turn the ignition switch to "ON" position.
- ▶ Turn the adjusting nut (2) to position stop lamp switch at a point where the stop lamp will glow just before the brake pedal is depressed to the limit of its free play. Turn the adjusting nut in direction (A) to advance switch timing or in direction (B) to retard switch timing.



(1) Stop lamp switch

(2) Adjusting nut

(A) Advance

(B) Retard

## SIDE STAND/SIDE STAND INDICATOR

Check the side stand for proper function.

- Check the spring (1) for damage or loss of tension and the side stand assembly for free movement.



(1) Side stand spring

Check whether the side stand indicator (2) glows when vehicle is parked on side stand.

the side stand indicator should not glow. If the side stand indicator does not operate as described in steps 2 or 3, please visit your Authorised Distributor/Dealer.



(2) Side stand indicator

## ! CAUTION

*Ensure that adequate care should be taken while cleaning the side stand switch.*

## HEADLAMP ADJUSTMENT

Headlamp is preset. However in case of adjustment required, please follow the steps as given below:

- Headlamp adjustment is done by the loosening the bolt (1) located below the headlamp.
- Park the motorcycle on level ground.
- Adjust the headlamp beam by loosening the bolt (1) and moving the headlamp unit forward and backward for correct focus adjustment.

- Tighten the nut after adjustment.

### **WARNING**

*An improperly adjust headlamp may blind oncoming rider/driver or it may fail to light the road for a safe distance.*



**(1) Headlamp adjusting bolts**

## **SUSPENSION**

### **Inspection**

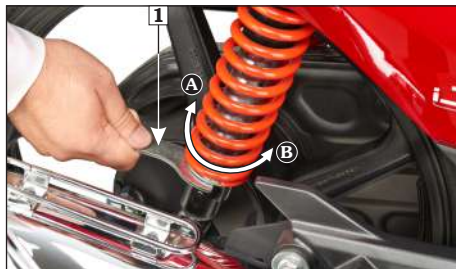
- Check the front forks by locking the front brake and pumping the front fork up and down vigorously. The suspension action should be smooth and there should be no oil leakage.
- Check the rear shock absorber by pushing hard downwards on rear grip while the motorcycle is not parked on stand. The suspension action should be smooth and there should be no oil leakage.



### **Rear Shock Absorber Adjustment**

Rear shock absorber adjustment can be made according to the load/road conditions.

- In direction A Stiffer
- In direction B Softer



**(1) Pin spanner**

### **NOTE**

*Always adjust both the rear shock absorber to the same position. Use the pin spanner (1) available in the tool kit.*

## FRONT WHEEL REMOVAL

- Raise the front wheel off the ground.
- Remove the speedometer cable (1) by pressing the tab (2) & pulling cable out from the speedometer gearbox.
- Remove the front axle nut (2).
- Remove the axle and the wheel.
- Remove the side collar from the wheel.



(1) Tab

(2) Axle Nut

### ! CAUTION

*Do not operate front brake lever when the wheel is removed.*

## FRONT WHEEL INSTALLATION

- Install the side collar (1) to the right side of the wheel hub and then install the speedometer gear box (2) on the left side of the wheel hub.
- Position the front wheel between the fork legs by aligning the slot on the speedometer

gear box with the lug on the fork leg and the disc between the brake pads to avoid damage to the pads. Insert the axle from the right side through the fork legs and wheel hub.

- Tighten the front axle nut to the specified torque.

### TORQUE : 5.9 kgf-m

- After installing the wheel apply the brake several times and then check if the wheel rotates freely. Recheck the wheel if the brake drags or if the wheel does not rotate freely.



(1) Side collar

(2) Speedometer gear box

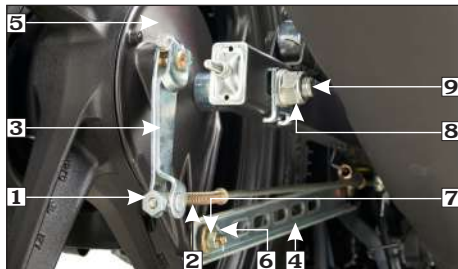
## REAR WHEEL REMOVAL

- Raise the rear wheel off the ground.
- Remove the rear brake adjusting nut (1) and disconnect the brake rod (2) from the brake arm (3) by pushing down the brake pedal. Disconnect the brake stopper arm



(4) from the brake panel (5) by removing split pin (6) and lock nut (7).

- Remove the axle nut (8) and pull out the rear axle (9). Remove the wheel.



- (1) Rear brake adjusting nut (2) Rear brake rod  
(3) Brake arm (4) Brake stopper arm  
(5) Brake panel (6) Split pin (7) Lock nut  
(8) Axle nut (9) Axle

### Installation

- Reverse the removal procedure
  - Axle nut torque: 6.8 kgf-m.
  - Brake stopper arm nut torque: 2.2 kgf-m
- Adjust the brake (**page 41**).
- After installing the wheel, apply the brake several times and check for free wheel rotation when released.

### ! CAUTION

**Always replace used split pins with new ones.**

## WASHING THE MOTORCYCLE

Follow the below mentioned steps for washing the motorcycle.

- Wet the motorcycle with light water spray. Avoid directing water to muffler outlets and electrical parts.
- Clean the headlamp lens and other plastic parts using a cloth or sponge dampened with a solution of mild detergent and water. Rub the soiled area gently rinsing it frequently with fresh water.
- After cleaning spray water thoroughly.
- Dry the motorcycle by wiping with dry soft cloth.



### NOTE

- *We at dealership take all above mentioned precautions like recommended detergents and usage of muffler caps/plugs during wash to ensure quality wash.*
- *Do not use high pressure water (or air). It can damage certain parts of the motorcycle.*

## CATALYTIC CONVERTER

This motorcycle is equipped with a catalytic converter in the muffler to meet the emission norms.

This catalytic converter contains noble metals that serve as catalyst, promoting chemical reactions to convert CO and HC in the exhaust to CO<sub>2</sub> and H<sub>2</sub>O (water vapour).

A defective catalytic converter contributes to air pollution and can impair your engine's performance.





**(1) Catalytic converter**

Follow these guidelines to protect your motorcycle's catalytic converter.

- Always use unleaded petrol. Even a small amount of leaded petrol can contaminate the catalyst metals, making the catalytic converter ineffective.
- Keep the engine tuned up.

## **AIR SUCTION VALVE**



**(1) Air suction valve**

Further to meet emission standards this motorcycle is provided with the air suction valve.

Air suction valve (1) supplies fresh air from the air filter to the exhaust manifold to convert carbon monoxide to carbon dioxide. This reduces the CO % in the vehicles' exhaust.

## **EVAPORATIVE EMISSION CONTROL**

This motorcycle is equipped with an evaporative emission control system to meet emission standards. During warm weather, the petrol vapours which contain HC evaporates easily into the atmosphere from the fuel tank, if the fuel system is unsealed or open. The evaporative emission control system is used to prevent petrol vapours from escaping into the atmosphere from fuel tank. This device collects the fuel vapour from the fuel tank and then the fuel vapour is drawn into the engine for re-burning to avoid pollution caused by the fuel vapour diffused into the air.



**(1) Evaporative emission control system**

## BASIC TROUBLESHOOTING

### 1. STARTING TROUBLE - ENGINE DOES NOT START

#### A. Fuel System

Check fuel valve position

"OFF"

Turn to "ON" position

↓ "ON" Position

Check fuel in Fuel Tank

No Fuel

Refill

↓ OK

Check fuel Lines

Leakage/Air Lock

Rectify

↓ OK

**Consult Authorised Distributor/Dealer**

#### B. Electric Starter Not Working

Check Fuse

Fuse

Replace Fuse (**ref. page 48**)

↓ OK

Inspect Battery

Weak

**Consult Authorised Distributor/Dealer**

↓ OK

Check connections, Ignition switch/starter switch

Loose

Secure connections

↓ OK

**Consult Authorised Distributor/Dealer**

#### C. No Spark At Spark Plug

Check Ignition Switch

"OFF"

Turn ignition switch "ON"

↓ OK

Check Spark Plug for Fouling/  
Improper Electrode Gap

No Spark

Replace Spark Plug/Adjust  
Spark Plug Gap (0.8–0.9 mm)

↓ OK

Check for Poorly Connected  
or Loose Spark Plug Wire

Loose Contact

Secure Properly

↓ OK

**Consult Authorised Distributor/Dealer**

### 2. ENGINE STARTS BUT STALLS

Check choke lever position

"ON"

Turn to "OFF" position

↓ "OFF" Position

Check Air Cleaner

Dirty

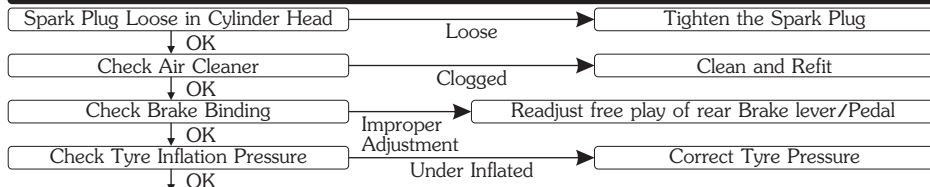
Clean and Refit

↓ OK

**Consult Authorised Distributor/Dealer**

## BASIC TROUBLESHOOTING

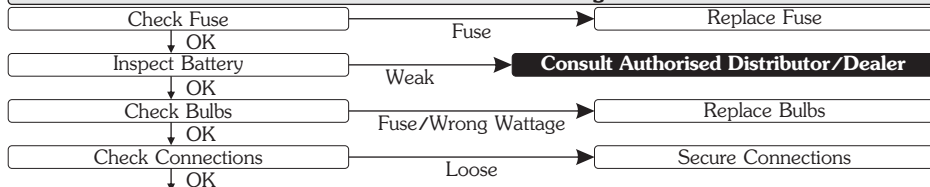
### 3. POOR PICK UP



**Consult Authorised Distributor/Dealer**

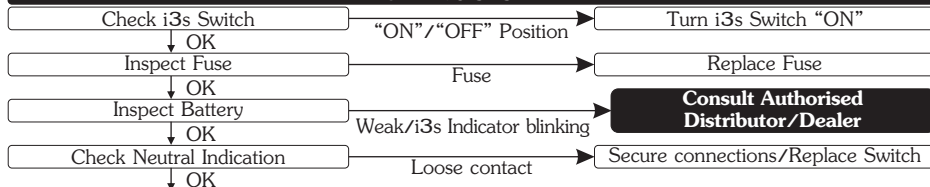
### 4. ELECTRICAL SYSTEM

#### Feeble Horn Sound or No Light



**Consult Authorised Distributor/Dealer**

### 5. i3s SYSTEM



**Consult Authorised Distributor/Dealer**



*Achiever*  
150

**Hero MotoCorp Ltd.**

**CUSTOMER'S COPY**

**DELIVERY CERTIFICATE**

**No.: IB8A**

I certify having taken delivery of one Hero MotoCorp **ACHIEVER 150** Motorcycle bearing the following particulars:-

**Engine No.** \_\_\_\_\_

**VIN** \_\_\_\_\_

**Colour/Model** \_\_\_\_\_ **Key No.** \_\_\_\_\_

**Allotment No.** \_\_\_\_\_ **Date of Sale** \_\_\_\_\_

**Customer's Name** \_\_\_\_\_

I have been explained by the dealer about correct and safe driving habits, warranty terms and conditions, service schedules and maintenance tips.

**Customer's Copy**



## Hero MotoCorp Ltd.

**Alongwith the motorcycle I have also received the following:-**

1. Owner's Manual
2. 2 Nos. Keys
3. 1 Set of tools **(for details see below)**
4. Standard Accessories
5. Battery                      Make \_\_\_\_\_ Sr. No. \_\_\_\_\_
6. Tyre    **Front**    Make \_\_\_\_\_ Sr. No. \_\_\_\_\_  
                  **Rear**    Make \_\_\_\_\_ Sr. No. \_\_\_\_\_

The vehicle has been delivered in factory fresh conditions to my satisfaction & I have understood all terms and conditions of warranty and shall abide by them.

**Customer's Name** \_\_\_\_\_

**Customer's Address** \_\_\_\_\_

**Customer's Signature** \_\_\_\_\_

**Authorised Distributor/Dealer Name** \_\_\_\_\_

**Authorised Distributor/Dealer Address** \_\_\_\_\_

### **Details of Tool kit**

*Tool Bag, +, - No. 2 driver, Grip, Box wrench P 16 X 14, Pin spanner*



*Achiever*  
150

**Hero MotoCorp Ltd.**

**DISTRIBUTOR / DEALER COPY**  
**AUTHORISED**

**DELIVERY CERTIFICATE**

**No.: IB8A**

I certify having taken delivery of one Hero MotoCorp **ACHIEVER 150** motorcycle bearing the following particulars:-

**Engine No.** \_\_\_\_\_

**VIN** \_\_\_\_\_

**Colour/Model** \_\_\_\_\_ **Key No.** \_\_\_\_\_

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**Authorised Distributor/Dealer copy**



## Hero MotoCorp Ltd.

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                 **Rear**    Make \_\_\_\_\_ Sr. No. \_\_\_\_\_

The vehicle has been delivered in factory fresh conditions to my satisfaction & I have understood all terms and conditions of warranty and shall abide by them.

**Customer's Name** \_\_\_\_\_

**Customer's Address** \_\_\_\_\_

**Customer's Signature** \_\_\_\_\_

**Authorised Distributor/Dealer Name** \_\_\_\_\_

**Authorised Distributor/Dealer Address** \_\_\_\_\_

### **Details of Tool kit**

*Tool Bag, +, - No. 2 driver, Grip, Box wrench P 16 X 14, Pin spanner*



## WHAT ARE THE BENEFITS OF Hero MotoCorp GENUINE SPARE PARTS ?

- Assures long life
- Ensures economy for a long time
- Safety of vehicle and rider
- Peace of mind
- Value for money
- Assured quality

## CONSEQUENTIAL DAMAGES ON USING NON-GENUINE PARTS

|                             |  |
|-----------------------------|--|
| <b>Clutch Plate</b>         | <ul style="list-style-type: none"><li>‣ Material used is inferior</li><li>‣ Damages other parts of clutch like, clutch center and outer clutch</li><li>‣ Affects fuel efficiency</li><li>‣ Poor acceleration</li></ul> |
| <b>Cam Chain Kit</b>        | <ul style="list-style-type: none"><li>‣ Poor performance</li><li>‣ Reduced life</li></ul>  |
| <b>Gasket Cylinder Head</b> | <ul style="list-style-type: none"><li>‣ Improper sealing</li><li>‣ Engine knocking</li><li>‣ Leads to leakage and smoky exhaust</li><li>‣ Higher emission level</li></ul>  |





## CONSEQUENTIAL DAMAGES ON USING NON-GENUINE PARTS

|                            |   |
|----------------------------|---|
| <b>Element Air Cleaner</b> | <ul style="list-style-type: none"><li>‣ Improper air filtration resulting in premature engine failure</li><li>‣ Affects fuel efficiency</li><li>‣ Poor engine performance</li></ul> |
| <b>Spark Plug</b>          | <ul style="list-style-type: none"><li>‣ Frequent stalling of engine</li><li>‣ Higher emission level</li><li>‣ Poor engine performance</li><li>‣ Affects fuel efficiency</li></ul>   |
| <b>Brake Pads/Shoes</b>    | <ul style="list-style-type: none"><li>‣ Poor braking efficiency</li><li>‣ Rider safety—an issue</li><li>‣ Discs/Drum wear out, resulting in subsequent repair cost</li></ul>        |
| <b>Chain Sprocket Kit</b>  | <ul style="list-style-type: none"><li>‣ Noisy Operation</li><li>‣ Failure of chain can cause fatal accident</li></ul>   |



# Hero MotoCorp Ltd.

## **JOBS APPLICABLE TO PERIODIC SERVICES**

- Wash the vehicle, blow dry with air.
- Inspect fuel line at every service.
- Inspect Bystarter operation at every service.
- Inspect throttle free play and operation at every service, adjust if necessary.
- Clean carburetor at first service then every **6000** km, adjust if necessary.
- Replace air cleaner element at every **15000** km.
- Inspect and clean air cleaner drain tube at every service, if required.
- Inspect, clean spark plug at every service, adjust if necessary (replace at every **12000** kms).
- Inspect the valve clearance at every service, adjust if necessary.
- Replace engine oil or top up as per the maintenance schedule.
- Clean engine oil strainer screen at first service then at every **6000** km.
- Clean engine oil centrifugal filter at first service then at every **6000** km.
- Inspect oil circulation at every service.
- Inspect electric starter operation at every service.
- Inspect, clean, lubricate and adjust the drive chain at every **2000** km.
- Inspect battery voltage at every service and charge if required.
- Inspect brake shoe wear at every service, adjust if necessary.
- Clean and lubricate brake cam at second service, then at every **6000** km.
- Inspect brake pads, disc wear and brake fluid level at every service. Top-up if necessary. Replace brake fluid once in every two years or **30000** km. whichever is earlier.
- Inspect all lamps, horn and switches at every service, adjust if necessary.
- Inspect headlamp focus at every service, adjust if necessary.
- Inspect clutch free play at every service, adjust if necessary.
- Lubricate the side stand and main stand at every service.
- Inspect and clean the side stand switch at every service.
- Inspect whether i3s system is working properly.
- Inspect all the fasteners and tighten to the specified torque (if required).
- Inspect wheels, wheel bearings and tyre pressure at every service.
- Inspect steering for smooth operation, adjust in every alternate service and lubricate at every **12000** km.
- Inspect rear suspension at every service.
- Inspect front suspension at every service, replace oil once in every **2** year or **30000** km whichever is earlier.
- Inspect the hoses for deterioration, damage or loose connections and canister for cracks or other damages.
- Inspect secondary air injection system at every **6000** km.
- Polish entire motorcycle.

**SERVICE RECORD SHEET**  
**To be Filled in by Supervisor**

| <b>Free/Paid Service</b> | <b>Km Range</b> | <b>Date</b> | <b>Km Reading</b> | <b>Job Card No.</b> | <b>Servicing Dealer (Sig. &amp; Stamp)</b> |
|--------------------------|-----------------|-------------|-------------------|---------------------|--|
| I                        | 500 - 750       |             |                   |                     |  |
| II                       | 3000 - 3500     |             |                   |                     |  |
| III                      | 6000 - 6500     |             |                   |                     |  |
| IV                       | 9000 - 9500     |             |                   |                     |  |
| V                        | 12000 - 12500   |             |                   |                     |  |
| VI                       | 15000 - 15500   |             |                   |                     |  |
| VII                      | 18000 - 18500   |             |                   |                     |  |
| VIII                     | 21000 - 21500   |             |                   |                     |  |
| IX                       | 24000 - 24500   |             |                   |                     |  |
| X                        | 27000 - 27500   |             |                   |                     |  |
| XI                       | 30000 - 30500   |             |                   |                     |  |
| XII                      | 33000 - 33500   |             |                   |                     |  |
| XIII                     | 36000 - 36500   |             |                   |                     |  |
| XIV                      | 39000 - 39500   |             |                   |                     |  |
| XV                       | 42000 - 42500   |             |                   |                     |  |
| XVI                      | 45000 - 45500   |             |                   |                     |  |
| XVII                     | 48000 - 48500   |             |                   |                     |  |



**NOTE**

It is mandatory to avail all free and paid services as per the recommended schedule to be eligible for the warranty benefits. Please ensure that each paid service is availed within **90** days from the date of previous service or as per the recommended schedule, whichever is earlier.

**SERVICE RECORD SHEET**  
**To be Filled in by Supervisor**

| <b>Free/Paid<br/>Service</b> | <b>Km Range</b> | <b>Date</b> | <b>Km<br/>Reading</b> | <b>Job Card<br/>No.</b> | <b>Servicing Dealer<br/>(Sig. &amp; Stamp)</b> |
|------------------------------|-----------------|-------------|-----------------------|-------------------------|--|
| XVIII                        | 51000 - 51500   |             |                       |                         |  |
| XIX                          | 54000 - 54500   |             |                       |                         |  |
| XX                           | 57000 - 57500   |             |                       |                         |  |
| XXI                          | 60000 - 60500   |             |                       |                         |  |
| XXII                         | 63000 - 63500   |             |                       |                         |  |
| XXIII                        | 66000 - 66500   |             |                       |                         |  |
| XXIV                         | 69000 - 69500   |             |                       |                         |  |
| XXV                          | 72000 - 72500   |             |                       |                         |  |

**REMARKS (IF ANY)**

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## SERVICE ADVICE SHEET

Normal wear and tear components replacement advice (Not covered under warranty)

| Date | Km           | Advice | Dealer<br>Sig. & Stamp | Completion Dt. |
|------|--------------|--------|------------------------|----------------|
|      | Job Card No. |        |                        | Job Card No.   |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |
|      |              |        |                        |                |



**Hero MotoCorp Ltd.**

**OWNERSHIP RECORD AND DATA**

**NAME**\_\_\_\_\_

**ADDRESS**\_\_\_\_\_

**MODEL** \_\_\_\_\_ **REGN. NO.** \_\_\_\_\_

**ENGINE NO.**\_\_\_\_\_ **VIN**\_\_\_\_\_

**DATE OF PURCHASE** \_\_\_\_\_ **KM. READING** \_\_\_\_\_

**AUTHORISED DISTRIBUTOR/DEALER NAME** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

\_\_\_\_\_  
**BATTERY MAKE**\_\_\_\_\_ **SERIAL NO.** \_\_\_\_\_

**AUTHORISED DISTRIBUTOR/DEALER  
STAMP AND SIGNATURE**