#### **PREFACE**

Thank you for selecting a Hero MotoCorp **HF-Deluxe**. 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, comply with all applicable legislation including environment legislation and strengthen the green supply chain.

Your vehicle is conforming to latest (Bharat Stage-IV norms) regulation for emission, safety & noise levels. We are also using non asbestos brake shoes and engine gaskets which are environment friendly in nature.

This vehicle is fitted with a lighting feature known as "Automatic Headlamp ON". The feature is mandated for all 2 Wheelers by Ministry of Road Transport & Highways (Government of India) vide notification GSR 188 (E) dated 22nd February 2016. This feature helps in conspicuity for improving rider safety. The headlamp of this vehicle will always be lit ON when the engine gets ON.

This booklet is your guide to the basic operation and maintenance of your new Hero MotoCorp **HF-Deluxe**. 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.

Your Authorised Hero MotoCorp dealer will be glad to provide further information or assistance and is equipped 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. Hero MotoCorp Ltd RESERVES THE RIGHT TO MAKE CHANGES IN ITS CONTENTS AT ANY TIME WITHOUT NOTICE AND/OR INCURRING ANY OBLIGATION, WHATSOEVER. NO ONE IS ALLOWED TO REPRODUCE ANY PART OF THIS PUBLICATION WITHOUT OBTAINING PRIOR WRITTEN PERMISSION FROM Hero MotoCorp Ltd.

ACCESSORIES SHOWN MAY NOT BE THE PART OF STANDARD FITMENT. IT IS OUR ENDEAVOUR TO CONSTANTLY IMPROVE OUR PRODUCTS. THIS COULD LEAD TO CHANGE IN PRODUCT SPECIFICATIONS WITHOUT NOTICE. Hero MotoCorp Ltd 'HF-Deluxe' COMPLIES WITH THE LATEST EMISSION NORMS.

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#### VEHICLE IDENTIFICATION



HA11EN# ####### Engine No.

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

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

VIN: MBLHAW03#######

| MBL               | HAW03                  | #              | #          | #             | #                         | #####                       |
|-------------------|------------------------|----------------|------------|---------------|---------------------------|-----------------------------|
| Manufacturer code | Vehicle<br>Description | Check<br>Digit | Model Year | Plant<br>Code | Month of<br>Manufacturing | Production<br>Serial Number |

Engine No.: HA11EN######

| HA11EN                | #                        | #              | #                         | #####         |  |
|-----------------------|--------------------------|----------------|---------------------------|---------------|--|
| Engine<br>Description | Year of<br>Manufacturing | Assembly Plant | Month of<br>Manufacturing | Serial Number |  |

Model: HF-Deluxe

| Variants   | VIN   | Engine |
|--|-------|--------|
| Kick Start/Drum/Spoke Wheel                        | HA502 | HA11EM |
| Kick Start/Drum/Cast Wheel                         | HAC02 | HA11EM |
| Electric Start/Drum/Cast Wheel                     | HAW02 | HA11EN |
| Electric Start/Drum/Cast Wheel/i3s                 | HAW03 | HA11EN |
| Electric Start/Drum/Cast Wheel (Black Variant)     | HAW04 | HA11EP |
| Electric Start/Drum/Cast Wheel/i3s (Black Variant) | HAW05 | HA11EP |

# VIN and Engine No. may be required:

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

# **VEHICLE SPECIFICATION**

| ITEM                             |               | SPECIFICATIONS  |  |  |  |  |
|----------------------------------|---------------|---|--|--|--|--|
| Dimensions                       |               |   |  |  |  |  |
| Overall length                   |               | 1965 mm   |  |  |  |  |
| Overall width                    |               | 720 mm  |  |  |  |  |
| Overall height                   |               | 1045 mm   |  |  |  |  |
| Wheelbase                        |               | 1235 mm   |  |  |  |  |
| Saddle height                    |               | 805 mm  |  |  |  |  |
| Ground clearance                 |               | 165 mm  |  |  |  |  |
| Weight                           |               |   |  |  |  |  |
| Kerb weight                      |               | 110 kg (Kick start)   |  |  |  |  |
| Kero weight                      |               | 112 kg (Electric start)                                       |  |  |  |  |
| Capacities                       |               |   |  |  |  |  |
| Engine oil                       |               | 1.05 litres at disassembly and 0.85 litre at draining         |  |  |  |  |
| Fuel tank                        |               | 9.5 litres  |  |  |  |  |
| Fuel reserve capacity            |               | 1.5 litres (Usable)   |  |  |  |  |
| Front fork oil                   |               | 163 ± 1.75 ml   |  |  |  |  |
| Engine                           |               |   |  |  |  |  |
| Maximum power                    |               | 6.15 kW (8.36 Ps) @ 8000 r/min                                |  |  |  |  |
| Maximum torque                   |               | 0.82 kgf-m (8.05 N-m) @ 5000 r/min                            |  |  |  |  |
| Bore and stroke                  |               | 50.0x49.5 mm  |  |  |  |  |
| Compression ratio                |               | 9.9:1   |  |  |  |  |
| Displacement                     |               | 97.2 cc   |  |  |  |  |
| Spark plug                       |               | NGK-CR7HSA, BOSCH-UR4AC,                                      |  |  |  |  |
|                                  |               | Champion-P-RZ9HC (Federal Mogul)                              |  |  |  |  |
| Spark plug gap                   |               | 0.6-0.7 mm  |  |  |  |  |
| Valve clearance (cold condition) | Intake (cold) | 0.10mm  |  |  |  |  |
| Exhaust (cold)                   |               |   |  |  |  |  |
| Idle speed                       |               | 1400±200 r/min  |  |  |  |  |
| Chassis and suspension           |               |   |  |  |  |  |
| Front Suspension                 |               | Telescopic Hydraulic Shock Absorbers                          |  |  |  |  |
| Rear Suspension                  |               | Swing Arm with 2 step Adjustable Hydraulic<br>Shock Absorbers |  |  |  |  |

### PRODUCT SPECIFICATION

| PRODUCT SPECIFIC            |          |            | SPECIFICATIONS   |  |  |  |  |
|-----------------------------|----------|------------|--|--|--|--|--|
| Caster angle                |          |            | 26°  |  |  |  |  |
| Trail length                |          |            | 89 mm  |  |  |  |  |
| Tura ciza                   |          | Front      | 2.75x18-4 PR/42P   |  |  |  |  |
| Tyre size                   | j        | Rear       | 2.75x18-6 PR/48P   |  |  |  |  |
| Brakes                      | Front (I | Drum type) | Dia. 130 mm  |  |  |  |  |
| Rear (                      |          | rum type)  | Dia. 130 mm  |  |  |  |  |
| Front/Rear Wheel            |          |            | Spoke Wheel and Cast Wheel (Optional)                      |  |  |  |  |
| Transmission                |          |            |  |  |  |  |  |
| Primary reduction           |          |            | 3.722 (67/18)  |  |  |  |  |
| Final reduction             |          |            | 3.143 (44/14)  |  |  |  |  |
| Gear ratio, 1 <sup>st</sup> |          |            | 3.182 (35/11)  |  |  |  |  |
| 2 <sup>nd</sup>             |          |            | 1.706 (29/17)  |  |  |  |  |
| 3 <sup>rd</sup>             |          |            | 1.238 (26/21)  |  |  |  |  |
| $oxed{4}^{	ext{th}}$        |          |            | 0.958 (23/24)  |  |  |  |  |
| Electricals                 |          |            |  |  |  |  |  |
| Battery                     |          |            | **MF Battery, ETZ-3:12V-3Ah (Kick Start),                  |  |  |  |  |
|                             |          |            | 12V-3Ah/ETZ-4 (Electric Start)                             |  |  |  |  |
| Alternator                  |          |            | 115 W  |  |  |  |  |
| Starting System             |          |            | Kick/Electric Start (Optional) [i3s idle stop start system |  |  |  |  |
| Headlamp (High/Low)         |          |            | 12V-35/35W (Halogen Bulb, Trapezoidal *MFR                 |  |  |  |  |
| Tail/Stop lamp              |          |            | 12V-5/21W-*MFR   |  |  |  |  |
| Turn signal lamp            |          |            | 12V-10Wx4 (Amber bulb) with clear lens-*MFR                |  |  |  |  |
| Meter Illumination          |          |            | 12V-1.7Wx2   |  |  |  |  |
| Neutral indicator           |          |            | 12V-1.7W   |  |  |  |  |
| Turn signal indicator       |          |            | 12V-3.0Wx2   |  |  |  |  |
| Hi Beam indicator           |          |            | 12V-1.7W   |  |  |  |  |
| i3s indicator               |          |            | 12V-1.7W   |  |  |  |  |
| Side stand indicator        |          |            | 12V-1.7W   |  |  |  |  |
| Fuse                        |          |            | [ 10A, 15A   |  |  |  |  |

<sup>\*\*</sup> MF stands for Maintenance Free

<sup>\*</sup> MFR stands for Multi-Focal Reflector

# VEHICLE SAFETY INFORMATION

Your vehicle 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 through out 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 vehicle

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 vehicle 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 vehicle is stopped.

# Take time to learn & practice your vehicle

Even if you have ridden other vehicles, practice riding in a safe area to become familiar with how this vehicle works and handles, and to become accustomed to the vehicle'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 vehicles 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 vehicle 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 vehicle in safe condition

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

#### 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 vehicle. 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 vehicle may have suffered damage that is not immediately apparent. Have your vehicle thoroughly checked at a qualified service facility as soon as possible.

#### PROTECTIVE APPAREL

For your safety, we strongly recommend that you always wear an approved helmet (ISI marked), 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 vehicle.

#### SAFE RIDING TIPS



#### Do's:

- ➤ Always conduct simple pre-ride inspection (page 19).
- > Always wear a helmet (ISI marked) with chin strap securely fastened and insist on a helmet for your pillion rider.
- > While riding, sit in a comfortable position with your legs close to fuel tank.
- Ride defensively and at a steady speed (between  $40-50 \,\mathrm{km/hr}$ ).
- > To stop the vehicle(in IBS), press the rear > Never shift gears without disengaging the brake pedal for the application of front and rear brake simultaneously. However for more > Never touch any part of the hot exhaust effective braking, use both brakes simultaneously, keeping throttle in the close position.
- > Respect road signs and obey traffic rules for your own safety and that of others on the road (page 54 & 55).
- During night time, dip headlamps of your vehicle 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 vehicle serviced regularly by the Authorised Hero MotoCorp workshop.

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 vehicle.
- > Avoid sudden acceleration, braking and turning of your vehicle.
- clutch and closing the throttle.
- 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/ vellow 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 vehicle or using non-Hero MotoCorp accessories can make your vehicle **Modifications** 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

We strongly recommend that you use only genuine Hero MotoCorp accessories that > have been specifically designed and tested for vour vehicle. Hero MotoCorp cannot test all other accessories, you must be personally responsible for proper selection, installation and use of non Hero MotoCorp accessories. Check with your dealer for assistance and always follow these guidelines:

- 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 vehicle's electrical system capacity (page **3).** A blown fuse can cause a loss of lights.
- Do not pull a trailer or sidecar with your vehicle. This vehicle was not designed

for these attachments, and their use can seriously impair your vehicle's handling.

We strongly advise you not to remove any original equipment or modify your vehicle in any way that would change its design or operation. Such changes could seriously impair your vehicle's handling, stability and braking, making it unsafe to ride. Removing or modifying your vehicle lamps, mufflers, emission control system or other equipment can also make your vehicle not meeting applicable local laws & regulations.

#### ANTI-THEFT TIPS

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

| O WITCH O'T IGHT GGOOD LITCH GTO O'LLIT WITCH LITCHIN |
|---|
| NAME:   |
| ADDRESS:  |
|   |
|   |
| PHONE NO:   |
|   |

#### TIPS FOR HEALTHY ENVIRONMENT

The following tips shall ensure a healthy vehicle, 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 vehicle serviced at an Authorised Hero MotoCorp 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 vehicle's running condition.
- ▶ Genuine engine oil: Hero 4T Plus SAE 10W 30 SL Grade (JASO MA2) 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.
- Emission Pollution: Get emission of your vehicle checked by Authorised agencies atleast once every 3 months or as notified by the government from time to time.
- > 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.

#### VEHICLE VIEWS



- (1) Horn switch
- (2) Turn signal lamp switch
- (3) Clutch lever
- (4) Rear view mirror
- (5) Headlamp dimmer switch
- (6) Turn signal indicator
- (7) i3s indicator (optional)
- (8) Speedometer
- (9) Odometer
- (10) Neutral indicator

- (11) Fuel gauge
- (12) High beam indicator
- (13) Side stand indicator
- (14) i3s switch (optional)
- (15) Front brake lever
- (16) Throttle grip
- (17) Electric starter switch (optional)
- (18) Ignition switch with steering lock
- (19) Leg guard
- (20) Fuel tank cap

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

#### VEHICLE VIEWS



- (1) Fuel valve
- (2) Carburetor
- (3) Gear shift pedal
- (4) Rider foot rest
- (5) Side stand switch
- (6) Main stand

- (7) Side stand
- (8) Left side cover
- (9) Pillion foot rest
- (10) Saree guard with women pillion step
- (11) Rear turn signal lamp

- (12) Rear reflex reflector
- (13) Tail/stop lamp
- (14) Rear grip
- (15) Front turn signal lamp
- (16) Front reflex reflector

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

#### VEHICLE VIEWS



- (1) Pillion foot rest
- Battery compartment (Inside)
- (3) Kick starter pedal
- (4) Rider foot rest
- (5) Starter motor (Optional)

- (6) Oil level dipstick (11) Front visor
- (7)Rear brake pedal
- (8)Utility box
- (10) Headlamp

- (12) Fuel tank
- (13) Seat
- (9) Front suspension (14) Rear shock absorber
  - (15) Exhaust muffler

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

### **PARTS FUNCTIONS**

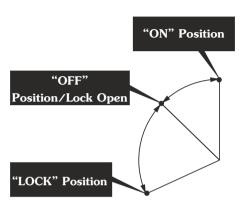
#### Instruments and Indicators

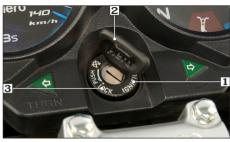
The indicators are in the speedometer panel above the headlamp. The functions are as below.



| Sl. No. | Description            | Function   |
|---------|------------------------|--|
| 1       | Speedometer            | Indicates driving speed  |
| 2       | Odometer               | Shows accumulated distance traveled  |
| 3       | Gear shifting          | Maximum operating speed in each gear   |
| 4       | Fuel gauge             | Indicates approximate fuel quantity  |
| 5       | High beam indicator    | Light glows when headlamp is in Hi Beam  |
| 6       | Side stand indicator   | Light glows when the vehicle is parked on the side stand                                 |
| 7       | Neutral Indicator      | Light glows when vehicle is in neutral   |
| 8       | Turn signal indicators | Flashes when turn signal switch is operated  |
| 9       | i3s indicator          | Indicator glows for few seconds and turns "OFF" indicating that i3s system is functional |

### **IGNITION SWITCH**





- 1. Ignition switch
- 2. Ignition key
- 3. Steering lock position

| Key Position | Function   | Key Removal        |
|--------------|--|--------------------|
| "ON"         | The engine can be started, Turn signal indicators, Horn, Tail/Stop lamp and Fuel gauge will be functional. |                    |
| "OFF"        | Engine cannot be started and no electrical system will be functional.                                      | Key can be removed |
| "LOCK"       | Steering can be locked   | Key can be removed |

#### LEFT HANDLEBAR CONTROLS



#### 1. Dimmer Switch

Select " for high beam and " for low beam.



#### 2. Turn signal lamp 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 inside as directed on the knob.

#### 3. Horn switch

Press the switch to operate the horn.

### 4. Clutch switch

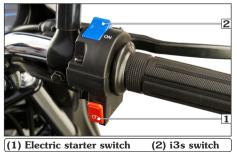
# (For electric start model)

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

#### RIGHT HANDLEBAR CONTROLS

# 1. Starter switch (For electric start model)

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 (For i3s model)

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 r/min if the relay is engaged for more than 5 seconds.

#### STEERING LOCK

Steering lock with Ignition switch, put 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.



(1) Ignition key

# i3s (idle stop start system) (For i3s model) 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 r/min less than 2000 r/min. 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 then 2000 r/min 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, glows in the speedometer panel. 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 r/min is less than 2000 r/min and the i3s indicator goes off if the r/min is more than 2000 r/min. 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 r/min
  - · if the relay is engaged for more than 5 seconds.

# SIDE STAND INDICATOR/SIDE STAND **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



#### (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 vehicle is not in use.



(1) "OFF" Position

### "ON" Position



(2) "ON" Position

At "ON" position fuel will flow from the tank > Do not overfill the tank, there should be no to the carburetor.

#### "RFS" Position

At "RES" 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 1.5 litres (Usable).



(3) "RES" Position

# NOTE

- Do not operate the vehicle 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 9.5 litres (Minimum) including reserve supply of 1.5 litres (Usable).

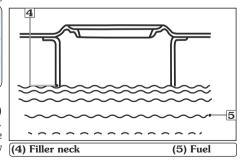
> To remove the fuel tank cap (1), slide the keyhole cover (2) insert the ignition key (3), turn it clockwise and remove the cap.

- fuel in the filler neck (4). Fill the tank with fuel (5) as shown.
- 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 cap gets locked.



(1) Fuel tank cap (3) Ignition key

(2) Kev hole cover



# ( CAUTION

Do not park the vehicle 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 vehicle is refilled or where petrol is stored.

#### PRE-RIDE INSPECTION

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

Clean your vehicle regularly. It protects the surface finish. Avoid cleaning with products that are not specifically designed for vehicle surfaces. Inspect your vehicle very day before you start the engine. The items listed here will only take a 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 28). Check for leaks.
- Fuel Level-ensure sufficient fuel is available in your fuel tank for journey (page 18). Check for leaks.

- Front and rear brakes-check operation. Adjust free play if necessary (page 38 to 40).
- Tyres-check condition and pressure (page 41).
- Clutch-check for smooth operation. Adjust free play (page 35).
- Drive Chain-check condition and slackness (page 36 to 38). Adjust and lubricate if necessary.
- Throttle-check for smooth opening and closing in all steering positions (page 32).
- Lamps and Horn-check that headlamp, tail/stop lamp, turn signal lamps and horn function properly.
- > Rear View Mirror-ensure that the rear view mirror gives a good rear view when you are sitting on the vehicle.
- 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.
- Side Stand Indicator-make sure that the side stand is up. If it is in down position the side stand indicator (page 16) will glow on the 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 choke lever upwards to "ON" position as indicated (Use choke during cold conditions)



Turn the fuel valve "ON"



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



OFF

- Open the throttle slightly & press the starter switch. (Alternatively kick starter pedal can be used for starting).
- Push the choke lever downwards to "OFF" 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 vehicle is moving forward or backward. This may lead to damage to the product and is not safe as well.

# **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 choke lever to 2<sup>nd</sup> "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 choke.

Running In

During first 1000 km, do not operate the vehicle at more than 60kms/hr speed in top gear, 45 km/hr in third gear, 30 km/hr in second gear and 15 km/hr in first gear. Avoid full throttle operation.

During initial running in, newly machined surfaces will be in contact with each other and these surfaces will wear in quickly. Running in precautions till 1000 km will reduce initial wear of engine components and increase its service life.

#### RIDING

- After the engine has been warmed up, the vehicle is ready for riding.
- While the engine is idling, press the clutch lever and depress the gearshift pedal to shift into 1<sup>st</sup> (low) 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 vehicle attains a moderate speed, close the throttle, press the clutch lever and shift to 2<sup>nd</sup> gear by depressing the gearshift pedal.

▶ The sequence is repeated progressively to shift 3<sup>rd</sup> and 4<sup>th</sup> (top gear).

# **Recommended Shifting Speed**

- 1<sup>st</sup> 0-20 km/hr
  - 15-30 km/hr 20-40 km/hr
- 4<sup>th</sup> 30 km/hr and above



# 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 brakes simultaneously 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.

# For Integrated braking system(IBS)

To stop the vehicle press the rear brake pedal for the application of front and rear brake simultaneously.

# / WARNING

- When riding in wet, rainy or loose surface, use front brake carefully after applying rear brake to avoid wheel slip.
- Extreme braking may cause wheel locking and reduce control over the vehicle.
- 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 vehicle.
- When riding in wet or rainy conditions, or on loose surfaces the ability to stop the vehicle 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 vehicle, shift the transmission to neutral, turn the fuel valve "OFF", turn the ignition switch "OFF", park the vehicle on main stand, lock the steering and remove the key.

# ( CAUTION

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

#### UTILITY BOX

To store some utility items a utility box has been provided.



(1) Key

(2) Cover

(3) Hook

To open, insert the key (1), rotate it clockwise, pull the cover (2), and slide it sideways to disengage it from the hook (3). To close, engage the hook and press gently.

Hold the key in clockwise direction, slide the cover back and release the key.

# TOOL KIT/FIRST AID KIT

The tool kit (1) is stored in the utility box. Some emergency repairs, minor adjustments and parts replacement can be performed with the tools contained in the kit.

- > Kit consists of following tools:
- ▶ Tool Bag-1 No.
- ⇒ +, No. 2 Driver-1 No.
- ▶ Grip-1 No.
- Box wrench P16x14-1 No.
- ▶ Pin Spanner-1 No.



(1) Tool kit

(2) First aid kit

The first aid kit (2) is stored in the utility box. For some emergency first aid can be performed by medicine contained in the kit. Kit contains the following items:

- ▶ Antiseptic Cream-1 No.
- Sterilized Dressing-1 No.
- ▶ Water Proof Plaster-1 No.
- ▶ Elastic Bandage-1 No.
- → Gauze (Rolled Bandage) 1 No.
- Sterilized Elastic Plaster-1 No.
- First Aid Bag-1No.

#### MAINTENANCE

#### THE IMPORTANCE OF MAINTENANCE

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

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

These instructions are based on the assumption that the vehicle 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 Hero MotoCorp Dealer for recommendation applicable to your individual needs and use.

If your vehicle overturns or is involved in a crash, be sure that you visit your Authorised Hero MotoCorp workshop for detailed inspections.

# / WARNING

- Improperly maintaining this vehicle 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. It is recommended that wheel removal should normally be handled by a Hero MotoCorp authorised workshop.

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 vehicle 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 Hero MotoCorp workshop knows your vehicle best and is fully equipped to maintain and repair it. To ensure best quality and reliability, it is recommended to use Hero MotoCorp genuine parts for repair and replacement.

Perform the Pre-ride inspection (page 19) 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 vehicle 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 Hero MotoCorp workshop 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 Hero MotoCorp workshop unless the owner has the relevant tools, technical information and is technically qualified.
- X In the interest of safety, we recommend that these jobs are carried out only by your Authorised Hero MotoCorp workshop.
- **Note-1**: At higher odometer readings, repeat the frequency interval established here.
- **Note-2**: More frequent cleaning may be required when riding in dusty areas.
- Note-3: Replace engine oil once in every 6000 km. Top up if the oil level is at or near the lower level mark.
- **Note-4**: Electric start version only.
- Note-5: Visit Authorised Hero MotoCorp workshop for inspection, cleaning, lubrication and adjustment of drive chain at every 2000 km.
- **Note-6**: i3s variant only.
- Note-7: Inspect & maintain specified torque.
- **Note-8**: Inspect the bearings free play, replace if necessary.
- Note-9 : Replace front fork oil once in a every 2 years or  $30000 \, \text{km}$ , whichever is earlier.
- **Note-10:** Inspect for any play in the rear suspension mounting bushes, replace if necessary.
- Note-11: Check idle CO emission along with idle r/min/idle CO adjustment (if required).
- **Note-12:** Inspect the hoses for deterioration, damage or loose connections and canister for cracks or other damages.

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

#### MAINTENANCE SCHEDULE

Dear Customer,

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

| WHICHEVER<br>COMES FIRST |                                  |           | DURING FI   | REE SERVI       | CE PERIOI       | )               | AFTER FREE SERVICE |         |               |            |        |       |
|--------------------------|----------------------------------|-----------|-------------|-----------------|-----------------|-----------------|--------------------|---------|---------------|------------|--------|-------|
|                          | ITEMS SERVICE DAYS               |           | 1**         | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 5 <sup>th</sup>    |         | ONCE IN EVERY |            |        |       |
|                          |                                  |           | 1st 60      | Next<br>100     | Next<br>100     | Next<br>100     | Next<br>100        |         |               |            |        |       |
|                          |                                  | Km Note-1 | 500-<br>750 | 3000-<br>3500   | 6000-<br>6500   | 9000-<br>9500   | 12000-<br>12500    | 3000    | 6000          | 9000       | 12000  | 15000 |
|                          | Fuel Line                        |           | I           | I               | I               | I               | I                  | I       |               |            |        |       |
| 1                        | Throttle Operation               |           | I, A        | I, A            | I, A            | I, A            | I, A               | I, A    |               |            |        |       |
| `                        | Engine Idle Speed/<br>Carburetor |           | C, A        | А               | C, A            | А               | C, A               | А       | C, A          |            |        |       |
|                          | Air Cleaner Element              | Note-2    | С           | С               | С               | С               | R                  | С       |               |            | R      |       |
|                          | Spark Plug                       |           | I, C, A     | I, C, A         | I, C, A         | I, C, A         | R                  | I, C, A |               |            | R      |       |
| ×                        | Valve Clearance                  |           | I, A        | I, A            | I, A            | I, A            | I, A               | I, A    |               |            |        |       |
|                          | Engine Oil                       | Note-3    | 0           | I, T            | 0               | I, T            | 0                  | I, T    | 0             |            |        |       |
| *                        | Engine Oil Strainer<br>Screen    |           | С           |                 | С               |                 | С                  |         | С             |            |        |       |
| ×                        | Engine Oil<br>Centrifugal Filter |           | С           |                 | С               |                 | С                  |         | С             |            |        |       |
|                          | Electric Starter                 | Note-4    | I           | I               | I               | I               | I                  | I       |               |            |        |       |
| ×                        | Electric Starter Chain           | Note-4    | L           |                 | L               |                 | L                  |         | L             |            |        |       |
|                          | Oil Circulation                  |           | I           | I               | I               | I               | I                  | I       |               |            |        |       |
| Ж                        | Drive Chain                      | Note-5    |             | I,C,L,A         | at every 2      | 000 km          |                    |         | I,C,L,A       | at every 2 | 000 km |       |
|                          | Drive Chain Slider               |           |             | I               | I               | I               | I                  | I       |               |            |        |       |
|                          | Battery Voltage                  |           | I           | I               | I               | I               | I                  | I       |               |            |        |       |

|          | WHICHEVE<br>COMES FIRS                    |           |             | DURING F        | REE SERV        | ICE PERIO       | D               | AFTER FREE SERVICE |      |          |         |       |
|----------|---|-----------|-------------|-----------------|-----------------|-----------------|-----------------|--------------------|------|----------|---------|-------|
|          | ITEMS                                     | SERVICE   | 1**         | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 5 <sup>th</sup> |                    | ON   | CE IN EV | ERY     |       |
|          |   | DAYS      | 1st 60      | Next<br>100     | Next<br>100     | Next<br>100     | Next<br>100     | 1                  |      |          |         |       |
|          |   | Km Note-1 | 500-<br>750 | 3000-<br>3500   | 6000-<br>6500   | 9000-<br>9500   | 12000-<br>12500 | 3000               | 6000 | 9000     | 12000   | 15000 |
|          | Brake Shoe                                |           | I, A        | I, A            | I, A            | I, A            | I, A            | I, A               |      |          |         |       |
| 1        | Brake System (Brake<br>Cam & Brake Pedal) |           |             | C, L            |                 | C, L            |                 |                    | C, L |          |         |       |
| <b>\</b> | Stop Lamp Switch                          |           | I, A        | I, A            | I, A            | I, A            | I, A            | I, A               |      |          |         |       |
| 1        | Headlamp Focus                            |           | 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               |      |          |         |       |
|          | Side Stand/Main Stand                     |           | L           | L               | L               | L               | L               | L                  |      |          |         |       |
|          | Side Stand Switch                         |           | I, C        | I, C            | I, C            | I, C            | I, C            | I, C               |      |          |         |       |
|          | i3s System                                | Note-6    | I           | I               | I               | I               | I               | I                  |      |          |         |       |
| 1        | Nut, Bolts & Fasteners                    | Note-7    | I           | I               | I               | I               | I               | I                  |      |          |         |       |
| ×        | Wheels Bearings                           | Note-8    | I           | I               | I               | I               | I               | I                  |      |          |         |       |
| Ж        | Wheels/Tyres                              |           | I           | I               | I               | I               | I               | I                  |      |          |         |       |
| ×        | Steering Head Bearing                     |           | I           | I, A            | I               | I, A            | I, L, A         | I                  | I, A |          | I, L, A |       |
| ×        | Front Suspension/Oil                      | Note-9    | I           | I               | I               | I               | I               | I                  |      |          |         |       |
| 1        | Rear Suspension                           | Note-10   | I           | I               | I               | I               | I               | I                  |      |          |         |       |
| ×        | Muffler<br>(Catalytic Converter)          | Note-11   |             |                 | I, E            |                 | I, E            |                    | I, E |          |         |       |
| `        | Evaporative Emission<br>Control System    | Note-12   | I           | I               | I               | I               | I               | I                  |      |          |         |       |

#### **ENGINE OIL**

Use hero genuine engine oil or recommended grade oil.

**BRAND**: Hero 4T plus

GRADE: SAE 10W 30 SL Grade (JASO MA2).

Manufactured by:

- > Tide Water Oil Co. (India) Ltd.
- Savita Oil Technologies Limited.
- Bharat Petroleum Corporation Limited.

# OIL CAPACITY: 1.05 litres ENGINE OIL LEVEL CHECK

Check engine oil level each day before operating the vehicle.

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

#### ENGINE OIL TOP UP PROCESS

- Park the vehicle 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.

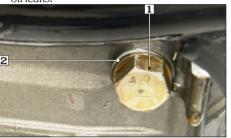


- 1. Oil level dipstick
  3. Lower level mark
- 2. Upper level mark
- Quantity of oil to be filled is 0.85 litre (approx.) during oil change when right crankcase cover is not removed.
- Reinstall the oil level dipstick and check for oil leaks.

#### ENGINE OIL REPLACEMENT PROCESS

- > Drain the engine oil with the engine warm and the vehicle on its main stand.
- > To drain the oil, remove the oil level dipstick and drain plug (1).
- After the oil has completely drained, reinstall the drain plug with a new sealing washer (2).
- Fill the crankcase through the filler hole with 0.85 litre (approx.) of the recommended grade oil.
- Reinstall the oil level dipstick with a new Oring.
- Start the engine and allow it to idle for few minutes.

- Stop the engine and let the engine oil settle Remove the kick starter pedal (1), muffler down.
- > Recheck the oil level.
- Make sure that oil level is at the upper level mark of the oil level dipstick with the vehicle in an upright position, and that there are no oil leaks.



(1) Drain plug

(2) Sealing washer

# 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 (page28).

- Remove the kick starter pedal (1), muffler (2), disconnect the clutch cable (3) and rider foot rest (4). Remove the right crankcase cover (5).
- Remove the oil filter screen (6) and wash it with non flammable or high flash point solvent (kerosene).
- > Reinstall the filter screen with the sharp edge inside facing inwards.



- (1) Kick Starter Pedal
- (2) Muffler
- (3) Clutch Cable
- (4) Rider foot rest
- (5) Right crankcase cover
- Remove centrifugal filter cover (7) & clean the centrifugal filter (8) with non flammable or high flash point solvent (kerosene).
- Reinstall the centrifugal filter cover, right crankcase cover, rider foot rest, muffler, kick start pedal and clutch cable.
- Fill the crankcase with clean engine oil.

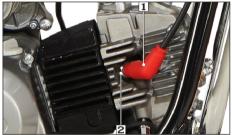
# NOTE

Clean filters as specified in the maintenance schedule.



(6) Oil Filter Screen (7) Centrifugal Filter Cover(8) Centrifugal Filter

#### **SPARK PLUG**



(1) Noise suppressor cap

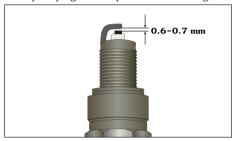
(2) Spark plug

# Recommended spark plugs: NGK-CR7HSA, BOSCH-UR4AC, Champion-P-RZ9HC (Federal Mogul)

For most riding conditions this spark plug heat range number is satisfactory. However, if the vehicle 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 your Authorised Hero MotoCorp workshop 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 wrench provided in 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 0.6-0.7mm 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 crossthreading.

▶ Tighten a new spark plug 1/2 turn 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

- > The air cleaner element is of dry paper pleated type it should be serviced at regular intervals (page 24). When riding in dusty areas, more frequent service may be necessary.
- Remove the side cover (1) by by removing side cover bolt (2). Pull out lug (3) from the grommet and slide the cover as per direction indicator (4).



- (1) Side cover (3) Lug
- (2) Side cover bolt
  (4) Direction indicator
- Remove the air cleaner cover screws (5) and the cover (6).
- Press the mounting clamp (8) to release the air cleaner assembly from the housing and remove the air cleaner assembly (7).



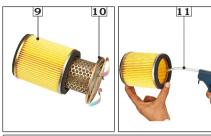
(5) Air cleaner cover screws (6) Air cleaner cover



(7) Air cleaner assembly (8) Mounting clamp

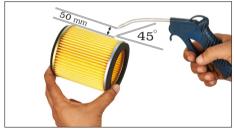
#### Air cleaner cleaning

- Remove the air cleaner element (9) from the element holder (10).
- The air cleaner element should be cleaned by blowing moisture free pressurized air.
- Start cleaning by directing the air nozzle (11) inside the element and cleaning it by rotating the element about its axis.



# (9) Air cleaner element (10) Element holder (11) Air nozzle

 Now blow the dust from the surface of the paper element about 50 mm away from it, with the air nozzle at an angle of  $45^{\circ}$ and moving it along the paper pleats.



Replace it earlier if it becomes very dirty, Cable Inspection damaged on surface or on the sealing area. Check for smooth rotation of the throttle grip

take proper seat on the other side of the mounting clamp.

# CAUTION

- Never wash the air cleaner element. Only blow air for cleaning the dust, as explained, Replace air cleaner element every 12000 km.
- Never blow air initially from outside to inside as the fine dust particles may go deep inside the element.

#### AIR CLEANER DRAIN TUBE

Drain the deposit into a suitable container by pressing the drain tube end. Follow the above process more frequently when riding in rain or at full throttle.



(1) Drain tube

# THROTTLE OPERATION

Install the air cleaner element on holder, from the fully open to the fully closed position. insert the air cleaner assembly into the inlet Check at full left and full right steering air duct & press gently to fix the mounting positions. Inspect the condition of the throttle clamp in housing. Ensure cover lug should cable from the throttle grip down to the



# (1) Free play 2-6 mm

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.

Free Play Adjustment



(2) Boot (3) Lock nut (4) Adjuster (A) Decrease free play (B) Increase free play Slide the boot (2), loosen the lock nut (3) and turn the adjuster (4).

#### 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).

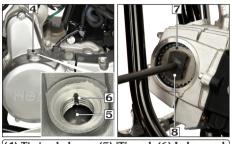


(1) Tappet covers (2) Gasket (3) Cylinder head left side cover

# 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 tappet covers (1) and cylinder head left side cover (3) with gasket (2) by removing the bolt/sealing washer.
- Remove the timing hole cap (4) and tappet covers. Rotate the cam sprocket (7) clockwise using the special tool (8) until



(4) Timing hole cap (5) 'T' mark (6) Index mark (7) Cam sprocket (8) Special tool

with the index mark (6) on the left crankcase 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. 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 cam sprocket (7) 360° clockwise and re-align the 'T' mark with the index mark.

Check the clearance by inserting the feeler gauge (9) between the adjusting screw (10) and valve stem.

#### Standard clearance (cold condition) Exhaust: 0.10 mm Intake: 0.10 mm



(9) Feeler gauge (10) Adjusting screw (11) Lock nut

- the 'T' mark (5) on the flywheel coincides > Adjust by loosening the lock nut (11) and turning the adjusting screw until there is a slight drag on the feeler gauge. After tightening the lock nut, check again the clearance.
  - Install all 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)/ THROTTLE CONTROLLED IGNITION SYSTEM (TCIS)

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 Throttle position sensor switch (3) alters the instructions given here under:

- > Warm up the engine and rest the vehicle on and ensures optimum driving performance. the main stand.
- screw (1).

#### IDLE SPEED: 1400+200 R/MIN

If air screw is tampered it affects the overall performance characteristics of the vehicle.

# NOTE

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

# **CAUTION**

Never adjust air screw (2). Air screw adjustment is to be done only by Authorised Hero MotoCorp workshop.



- (1) Throttle stop screw
- (A) Decrease r/min

(2) Air screw

- (B) Increase r/min
- (3) Throttle position sensor switch

ignition timing as per the throttle operation

#### CLUTCH

Adjust idle speed with the throttle stop Clutch adjustment may be required if the vehicle 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).

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



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

# 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 Hero MotoCorp workshop.



(3) Lock nut (4) Clutch cable adjusting nut (A) Decrease free play (B) Increase free play

#### 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 is 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

The drive chain (1) should be checked and lubricated as part of the Pre-ride Inspection

(page 19). Under severe usage, or when the vehicle is ridden in unusually dusty areas. more frequent maintenance will be necessary.

# Inspection

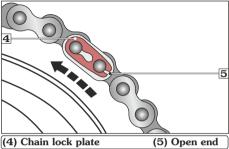
- > Turn the engine "OFF", park the vehicle on its main stand and shift the transmission to neutral. Remove hole cap (2).
- Drive chain slack (3) should be adjusted to allow approximately 25 mm (1 inch) vertical movement by hand.

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.

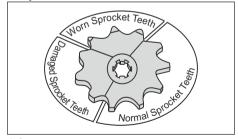


- (1) Drive chain (2) Hole cap (3) Drive chain slack 25 mm (1 inch)
- > Turn the chain to view chain lock plate (4) inside the hole. Ensure that the chain lock plate open end (5) is installed in the opposite direction of the chain rotation.

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.



# Adjustment

Park the vehicle 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.
- Align the chain adjuster index mark (5) with the corresponding scale graduations (6) on both the 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.



- (1) Rear axle nut
- > Tighten the rear axle nut and sleeve nut.
  - Rear axle nut torque 5.4 kgf-m.
  - Sleeve nut torque 4.4 kgf-m.

- Check the drive chain slack again.
- Rear brake pedal free play and stop lamp switch free play are affected when repositioning the rear wheel to adjust drive chain slack. Check rear brake pedal free play and adjust as necessary (page 39).



- (2) Sleeve nut (5) Index mark
- (3) Drive chain lock nut
- (4) Drive chain adjusting nut
  - (6) Scale graduation

#### Lubrication

- > Turn the engine "OFF", park the vehicle on its main stand and shift the transmission into neutral.
- Lubricate the drive chain by applying liberal amount of SAE#90 oil.

# **CAUTION**

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

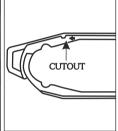
# NOTE

Visit Authorised Hero MotoCorp workshop for inspection, cleaning, lubrication and adjustment of drive chain at every 2000 km.

## DRIVE CHAIN SLIDER

(Refer to "Maintenance Schedule" on (page 26).





(1) Drive chain slider

(2) Wear limit

Check the drive chain slider (1) for wear, the chain slider must be replaced if it is worn to the bottom of the cutout or wear limit (2) is reached.

For replacement, visit your Authorised Hero MotoCorp workshop.

# Brakes (Integrated braking system)

Brakes are items of personal safety and should always be maintained with proper adjustments.

When one applies the Integrated/Rear brake pedal, front & rear brakes activate jointly.



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



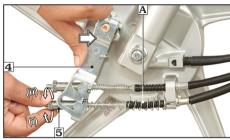
(2) Integrated/Rear brake Pedal (3) Free play 20-30 mm

The distance, the front brake lever (1) and integrated brake pedal (2) moves before each brake starts to engage is called free play (3).

# Adjustment

# Right hand front brake cable (A) on "F" side

 Push the integrated brake arm (4) by hand in the direction as shown.



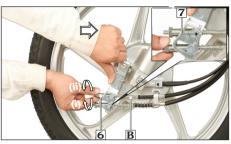
- (4) Integrated brake arm (5) First adjuster nut (i) Decrease free play (ii) Increase free play
- Turn the first adjuster nut (5) till you cannot turn it by hand.
- · Check the free play of Front brake lever.

# FREE PLAY: 10-20 mm

 If the free play is more than 20 mm further turn the adjuster nut to obtain desired free play.

# Integrated brake cable (B) on "C" side.

• Push the integrated brake arm (4) by hand in the direction as shown.



(6) Second adjuster nut (7)Joint
(i) Decrease free play (ii) Increase free play

- Turn the second adjuster nut (6) until a gap is created between joint (7) and the slot on the first side in integrated brake arm.
- After ensuring the gap, turn the second adjuster nut counterclockwise by half rotation.

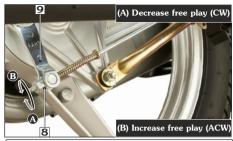
# NOTE

"F" & "C" is marked on integrated brake arm.

#### Rear brake

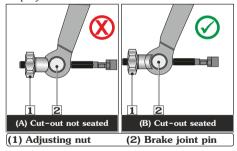
- Make free play adjustment by turning the adjuster nut (8) in the brake arm (9).
- Check the free play of integrated/Rear brake pedal.

FREE PLAY: 20-30 mm



# (8) Adjuster nut (9) Brake arm

 If the free play is more than 30 mm further turn the adjuster nut to obtain desired free play.



Make sure the cut-out on the adjusting nut (1) is seated on the brake joint pin (2) after making final free play adjustment. If proper adjustment cannot be obtained by this method, visit your Authorised Hero MotoCorp workshop.

#### Other checks:

Check brake cable for kinks or signs of wear that could cause sticking or failure.

Make sure the brake arm spring and fasteners are in good condition.

# NOTE

Apply the brake several times and check for free wheel rotation after the brake lever is released.

#### BRAKE WEAR INDICATORS



- (1) Arrow (3) Reference mark
- (2) Brake arm (4) Brake panel

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

# Rear Brake Wear Indication



- (1) Arrow (3) Reference mark
- (2) Brake arm (4) Brake panel

#### **TYRES**

The tyres that are fitted on your vehicle are designed to match the performance capabilities of your vehicle and provide the best combination of handling, braking, durability and comfort.

# **WARNING**

The imported tyre(s) if fitted without ISI mark: are in compliance of BIS standard and Central Motor Vehicle Rules 1989, as declared by the tvre manufacturer.

To safely operate your vehicle, the tyres must be of recommended type and size, in good condition with adequate tread, and correctly

| Front | 2.75x18-4PR/42P |
|-------|-----------------|
| Rear  | 2.75x18-6PR/48P |

# Air Pressure

Properly inflated tyres provide 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. Under inflated tyres can also cause wheel damage in rocky terrain.

Over inflated tyres make your vehicle ride more harshly, are more prone to damage from surface hazards and wear unevenly.



### (1) Air pressure gauge

Make sure the valve stem caps are secure. If necessary, install a new cap.

The recommended "cold" tyre pressure are:

|       | Rider only            | Rider and Pillion     |
|-------|-----------------------|-----------------------|
| Front | 1.75 kgf/cm² (25 psi) | 1.75 kgf/cm² (25 psi) |
| Rear  | 2.00 kgf/cm² (28 psi) | 2.80 kgf/cm2 (41 psi) |

# CAUTION

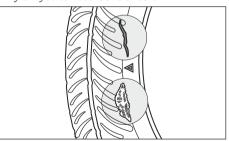
Over inflation/Under inflation will affect the performance.

# Inspection

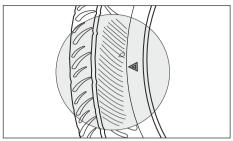
Whenever you check the tyre pressure, you should also examine tyre treads & side walls for wear, damage & foreign objects:

# 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.



Also, if you hit a pothole or hard object, pull to the side of the road as soon as you safely can and carefully inspect the tyres for damage.

# **Tread Wear**

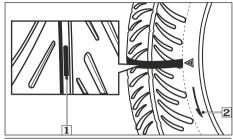
Replace tyres immediately when the wear indicator (1) appears on the tyre. The tread limits are:

#### **MINIMUM TREAD DEPTH:**

**Front:** 1.0 mm **Rear:** 1.0 mm Check the tread wear indicator for tyre wear.

# **Unidirectional Tyres**

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



(1) Tread wear indicator

(2) Arrow mark

# **WARNING**

- Using tyres that are excessively worn or improperly inflated can cause a crash in which you can be seriously hurt or killed.
- Operation with excessively worn tyres is hazardous and will adversely affect traction and handling.
- > Follow all instruction in this owner's manual regarding tyre inflation and maintenance.
- 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.

# **BATTERY**

# Location

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

# **Specification**

- \*\*MF Battery, ETZ-3:12V 3 Ah (Kick start), 12V 3 Ah/ETZ-4 (Electric start)
- \*\*MF stands for Maintenance Free



(1) Battery (2) (-)ve terminal (3) (+)ve terminal (4) Bolt (5) Battery clamp

It is not necessary to check the battery electrolyte level or add distilled water as the battery is a **Maintenance-Free** (sealed) type. If your battery seems weak and/or electrolyte is leaking (causing hard starting or other electrical troubles), contact your Authorised Hero MotoCorp workshop.

# 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 Hero MotoCorp workshop 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 Hero MotoCorp workshop 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 vehicle.

# **Battery storage**

- If in case your vehicle is not used for more then 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 then 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".
- Insert the ignition key into the right side cover lock. Remove the side cover by turning the key clockwise. Pull out lug from the grommet and slide the cover as per direction indicator (available on the top of right side cover).
- Disconnect the negative (-) terminal lead from the battery first, then disconnect the positive (+) terminal lead.
- Remove the battery clamp bolt (page 44).
- Remove the battery from the battery box.

# **Battery installation**

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

#### **FUSE REPLACEMENT**



**Fuse Box** (1): Location: Mounted on the battery clamp (4).

**Fuse Type:** Blade fuse In circuit fuse: (2) 15A, 10A Spare fuse (3) 15A, 10A

# / 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 vehicle 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 39 to

- **40)** should be adjusted before performing stop lamp switch adjustment. The procedure for adjusting stop lamp switch is as follows:
- > Turn the ignition switch to the "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.



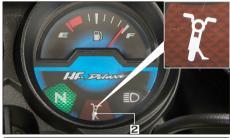
- (1) Stop lamp switch (2) Adjusting nut
- (A) Advance (B) Retard

#### SIDE STAND



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.
- > Check whether the side stand indicator (2) glows when vehicle is parked on side stand.
- While the vehicle is removed from side stand, the side stand indicator (2) should not glow.



(2) Side stand indicator

# ( CAUTION

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

### **HEADLAMP ADJUSTMENT**

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

Headlamp adjustment is done by the headlamp adjusting bolt (1) located below headlamp.

- > Park the vehicle on level ground.
- Adjust the headlamp beam vertically by loosening the bolt & move the headlamp unit forward & backward for correct focus adjustment.



(1) Headlamp adjusting bolt

# WARNING

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

# 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 > In direction B Softer hard downwards on rear carrier while the vehicle is not parked on stand. The

suspension action should be smooth and there should be no oil leakage.





Rear Shock Absorber Adjustment



# (1) Pin spanner

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

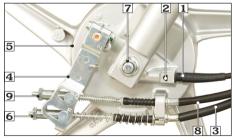
- In direction A Stiffer

# 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 (Spoke/Cast wheel version)

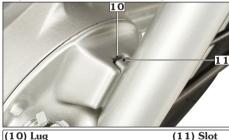
- Raise the front wheel off the ground.
- Remove the speedometer cable (1) by pressing the tab (2) & pulling cable out.
- Disconnect the front brake cable (3) from the brake arm (4) and brake panel (5) by removing the front brake adjusting nut (6).
- Disconnect the integrated cable (8) from the brake arm (4) and brake panel (5) by removing the integrated brake adjusting nut (9).
- Remove the axle nut (7).
- > Remove the axle, remove the wheel.



- (1) Speedometer cable (2) Tab (3) Front brake cable (4) Brake arm (5) Brake panel
- (6) Front brake adjusting nut (7) Axle nut
- (8) Integrated brake cable
- (9)integrated brake adjusting nut.

#### **Installation Notes**

- > Reverse the removal procedure
- Install the front wheel by ensuring that the lug (10) on the left fork is located in the slot (11) in the brake panel.
- > Rotate the front wheel & see if the speedometer needle is working.

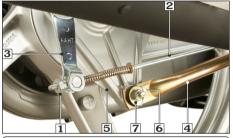


- > Tighten the axle nut.
- Axle nut torque: 5.4 Kgf-m
- Adjust the brake (page 38 & 39).
- After installing the wheel, apply the brake several times and check for free wheel rotation when released.

### REAR WHEEL REMOVAL

# (Spoke/Cast wheel version)

- 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 nut (7).



(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

> Remove the axle nut (8) and pull the axle (9). Remove the wheel.



(8) Axle nut

(9) Rear axle

#### **Installation Notes**

- > Reverse the removal procedure
- > Axle nut torque: 5.4 kgf-m
- Brake stopper arm nut torque: 2.2 kgf-m Adjust the brake (page 39 to 40) and drive chain (page 36 to 38).
- 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 VEHICLE**

Follow the below mentioned steps for washing the vehicle.

Wet the vehicle 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 vehicle by wiping with dry soft cloth.

# NOTE

- Our authorised 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 vehicle.

#### **CATALYTIC CONVERTER**

This vehicle is equipped with a catalytic converter in the muffler. The catalytic converter contains noble metals that serve as catalyst, promoting chemical reactions to convert CO and HC in the exhaust to  $\mathrm{CO}_2$  and  $\mathrm{H}_2\mathrm{O}$  (water vapour).

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

Follow these guidelines to protect your vehicle'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.



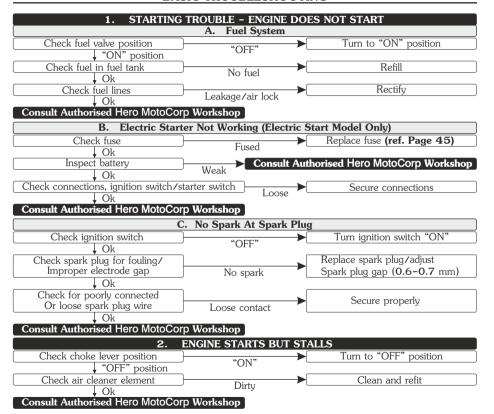
(1) Catalytic converter

# EVAPORATIVE EMISSION CONTROL SYSTEM

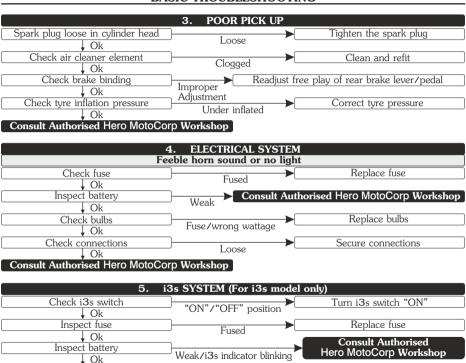
This vehicle is equipped with an evaporative emission control system to meet emission standards. During warm weather, the petrol vapours which contain HC evaporates easily into the atmosphere from the fuel tank, if the fuel system is unsealed or open. The evaporative emission control system is used to prevent petrol vapours from escaping into the atmosphere from fuel tank. The canister (1) 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.



#### BASIC TROUBLESHOOTING



#### **BASIC TROUBLESHOOTING**



Consult Authorised Hero MotoCorp Workshop

Check neutral indication

Ok

Loose contact

Secure connections/replace switch

# ROAD SIGNS

Mandatory signs: These road signs inform drivers/riders of the traffic rules that apply on a certain stretch of road, thereby instructing them on how to drive/ride. Mandatory signs are distinguished by the bright red circle with black and blue markings. It is imperative that all riders follow these signs as they help avoid accidents. Their violation can be penalised under the Motor Vehicle Act.

#### Mandatory











Stop

Give Way

One Way

No Horn

No Bicyles

No Automobiles













No Hand Craft



No Right Turn

Overtaking Prohibited

Speed Limit

No Stopping



Length Limit

**High Limit** 

No 'U' Turn

Restriction Ends



Compulsory-

Ahead Only

or Standing







Compulsory-Turn Left

Compulsory-Right Ahead

Compulsory-Ahead or Turn Right

Compulsory-Keep Left

Compulsory-Bicycle Track

Compulsory-Sound Horn

#### ROAD SIGNS

Cautionary signs: These signs inform the driver/rider of the road conditions ahead. Cautionary signs therefore serve as a warning. They are usually in a red triangle with black pictures on a white background. Illustrations, diagrams and symbols are used to forewarn about dangers ahead. Cautionary road signs are as important as mandatory signs. However, the violation of cautionary signs does not attract penalty.

#### Cautionary



Right Reverse Bend

Gap in Medium









Right Hand Curve



Incline Ahead

Cross Road

Men at Work

Roundahout



School Ahead

**ROAD SIGNS** 

**Informatory signs:** These are facility signs that provide important information about road directions are maps of specific destinations. On highways, they provide information about the location of public telephones, restaurants, hospitals, parking, petrol pumps, resting-places and more. These signs are usually rectangular, with black or white pictures on a blue background.



























Resting Place

Public Telephone

Place Identification Place















Bahadurgarh 10 Rohtak 48

Destination Sign



Taxi Stand



Parking This Side

No Through Road

No Through Side Road

Re-assure Sign

Signs and Signals are language of the road. Learn them, respect them.



#### WARRANTY

# **Scope of warranty**

Hero MotoCorp Ltd. (hereinafter called 'Hero MotoCorp') warrants its **HF-Deluxe** vehicles, assembled/manufactured in its Plants and sold through its channel partners, to be free from any defect-both in material and workmanship, under normal use and conditions, subject to the following terms & conditions.

# **Terms & conditions**

- a) **HF-Deluxe** vehicle is warranted for a period of **5 years or 70000 Km**, whichever is earlier, from the date of purchase.
- b) It is advised that the purchaser avails all free and paid services from the Hero MotoCorp's authorized workshop as per the recommended schedule, to be eligible for warranty benefits. Each paid service should be availed within 90 days from the date of previous service or as per the recommended schedule, whichever is earlier.
- c) If any problem is observed in **HF-Deluxe** vehicle, Hero MotoCorp's only obligation/liability is to repair or replace that part/those parts which is/are considered to be the cause of such problem, provided however that such problem has not resulted due to misuse/improper handling etc. of the vehicle. Any **HF-Deluxe** vehicle needing repair should be brought along with owner's manual to Hero MotoCorp's authorized workshop for necessary inspection and carrying rectification job.



#### LIMITATIONS OF WARRANTY

#### The warranty shall not apply—

- If all free services/paid services/oil top-ups are not availed as per the recommended schedule at Hero MotoCorp's authorized workshop.
- (2) If any other engine oil which is non compatible with product is used other than SAE 10W30 SL Grade (JASO MA2).
- (3) To normal wear & tear components including (but not limited to) brake shoes/pads, clutch plates, drive chain & sprockets, bulbs, electrical wiring, filter, spark plug, fasteners, shims, washers, oil seals, gaskets, rubber parts, bush, rubber bellows, plastic parts breakage and wheel rim for misalignment/bend.
- (4) If additional wheel(s) is/are fitted and/or any other modification carried out/unauthorized accessories fitted which shall be responsible for malfunction/detoriation of the vehicle.
- (5) If **HF-Deluxe** vehicle has been used in any competitive events like races or rallies or for any commercial purposes as taxi etc.
- (6) To any damage on vehicle's painted surface cropping due to industrial pollution or other external factors.
- (7) For normal phenomena like noise vibration, oil seepage etc., which do not affect the performance of the vehicle.
- (8) To any damage caused due to usage of improper oil/grease, non-genuine parts.
- (9) If any defect crops or repairs needed as a result of using adulterated fuel.
- (10) If any maintenance/repairs required due to bad road conditions or misuse of **HF-Deluxe** vehicle.
- (11) If any defect crops or repairs needed as a result of **HF-Deluxe** vehicle meeting to some accident.
- (12) For consumables like oil, grease, gasket etc to be used during free services and/or warranty repairs.
- (13) To any part of the HF-Deluxe vehicle which has been tampered or repaired in such a manner which has resulted in malfunction of the vehicle.
- (14) For HF-Deluxe vehicle not used in accordance with the guidelines given in this Owner's Manual.
- (15) To proprietary items like Tyres, Tubes, Batteries etc, as they are subjected to the warranty terms & conditions of respective manufacturers and directly handled by them only.
- (16) Any defect(s) developing on account of external factors such as environmental factors; including but not limited to fading/peeling/rusting of paint and/or stripes and/or plated parts, seat leather tearing & cracking, aluminium parts oxidation and cracking & discoloring of control switches etc.

Decision regarding warranty settlement shall be taken by Hero MotoCorp and the same shall be final and binding on all concern.

Subject to DELHI JURISDICTION only.



#### BATTERY WARRANTY PERIOD

- 1. 18 months from date of sale of vehicle or 20000 km, or
- 2. 21 months from the date of charging (whichever is earlier).
- 3. 3 months idle period is allowed from the date of charging to date of sale on vehicle.

#### Terms and condition of warranty

- Batteries are warranted against all defects in material and workmanship. Liability under this warranty is limited to making good of
  defects rising solely from the use of faulty material or workmanship during manufacturing and developing under proper use.
   The warranty commences from the date of delivery to the original purchase of the vehicle.
- In the event of any complaint the battery is to be returned complete with electrolyte to nearest battery service station or any OEM dealer. On inspection, battery would be returned or replaced.
- This warranty card accompanies a battery sold as OEM fitment only. Claims should be supported with vehicle purchase invoice to enable processing.
- 4. The right to determine whether a battery needs repair or totally replacement lies with the company. In case where the battery is replaced, the defective battery becomes the property of the company and no scrap rebate will be given for it. The warranty period on the battery being repaired/replaced shall commence from the date of sale of the original battery as stated in the original warranty card.
- All liabilities under this warranty will cease if the battery is used on the vehicle other than that on which the battery was originally fitted and on the expiry of the warranty period as mentioned above.
- Recharging is not covered under the purview of this warranty and shall be billed as extra. However, FOC battery replacement/ repair includes cost of charging.
- 7. This warranty does not cover damage to the battery caused by faulty electrical systems, incorrect charging and filling, improper handling of the battery by unauthorized dealers/auto electricians, maintenance, willfull abuse, destruction by fire, collusion, theft or recharging.
- 8. Breakage of container and cover do not come under the purview of this warranty.
- 9. Adjudication and settlement of claim will take a couple of days as a battery has to be tested for the reported failure.
- $10. \ \ \text{In case of tempering of the original wiring circuit in any manner whatsoever.}$
- 11. If a battery which is not recommended is fitted on the vehicle then such battery will not carry any warranty.
- 12. The applicable taxes which is leviable on the battery under repair or replacement will be borne by the customer.
- 13. Customers are deemed to have read, understood and agreed to these conditions at the time of purchase of the vehicle.



#### **EMISSION WARRANTY**

#### Scope of warranty

Hero MotoCorp Ltd. Warrants all its vehicles, assembled/manufactured at its various Plants and sold through its Authorised dealers, to comply with emission standards as specified in S.No. 5 of table in item(i) of sub rule (2) of Rule 115 of Central Motor Vehicles Rules, 1989, which stipulates that "Idle CO (Carbon monoxide) emission limit for all two wheeled petrol driven vehicles shall not exceed 3.0 percent by volume and HC (Hydro Carbon) 3000 ppm, subject to following terms & conditions.

#### **Terms & conditions**

- a) The emission warranty shall be applicable in India and shall remain valid for a period of 3 years or 30000 kms, whichever occurs earlier, from the date of vehicle purchase.
- b) In case any defect is observed in any emission-related component, Hero MotoCorp only obligation/liability shall be to repair and/or replace those part (s) which is/are considered to be the cause of non-compliance with the emission standards.
- c) The emission warranty shall be applicable only to those vehicles, which are being regularly maintained at Hero MotoCorp Authorised Dealers/Service Points in accordance with the maintenance schedule provided in the owner's manual.
- d) The customer should follow the recommended parts replacement as per the maintenance schedule in order to avail the emission warranty.
- e) If any part (s) related to emission characteristics of the vehicles is/are tampered and/or repaired by unauthorised person/workshops etc, then the emission warranty shall stand cancelled.
- f) Any part (s) suffering wear and tear under the normal course of running shall not be covered under the emission warranty. Therefore, all such parts should be replaced by the customer from time to time, on payment basis, as per the maintenance schedule provided in owner's manual and dealer's advice.
- g) It is recommended to avail the services as per the recommended schedule to be eligible for the emission warranty benefits. Please ensure that each paid service is availed within 90 days from the date of previous services or as per the recommended schedule, whichever is earlier. All service details should be completely filled by the dealer, in the Service Record Sheet given in the owner's manual.
- h) It is mandatory to obtain a PUC certificate from the Authorised PUC center. In case of non-compliance with the emission standards please contact the channel partner/authorised workshop immediately alongwith the previous OK certificate, for the necessary rectification. The manufacturer or the dealer is not responsible for any penalty levied on you on account of non-compliance with the emission standards.
- All decisions regarding emission warranty settlement shall be taken by Hero MotoCorp Ltd. and shall be final binding on all concerned.

Subjected to Delhi jurisdiction only.



# WHAT ARE THE BENEFITS OF HERO MOTOCOTO 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

| Clutch Plate         | <ul> <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> |
|----------------------|---|
| Cam Chain Kit        | <ul><li>Poor performance</li><li>Reduced life</li></ul>   |
| Gasket Cylinder Head | <ul> <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

| Element Air Cleaner | <ul> <li>Improper air filtration resulting in premature engine failure</li> <li>Affects fuel efficiency</li> <li>Poor engine performance</li> </ul> |
|---------------------|---|
| Spark Plug          | <ul> <li>Frequent stalling of engine</li> <li>Higher emission level</li> <li>Poor engine performance</li> <li>Affects fuel efficiency</li> </ul>    |
| Brake Pads/Shoes    | <ul> <li>Poor braking efficiency</li> <li>Rider safety-an issue</li> <li>Discs/Drum wear out, resulting in subsequent repair cost</li> </ul>        |
| Chain Sprocket Kit  | <ul><li>Noisy Operation</li><li>Failure of chain can cause fatal accident</li></ul>   |

## ZONAL/REGIONAL/AREA OFFICES

For any of your service related query/requirements you may contact the respective Zonal/Regional/Area Offices

#### CENTRAL ZONE

Hero MotoCorp Ltd., No. 209–210, Ganpati Plaza, M.I. Road, Jaipur–302001, (Rajasthan).

Tel: +91 141 2389031, +91 141 2389156, E-mail: jaipur@heromotocorp.com

Hero MotoCorp Ltd., Office No. 705–706, 7th Floor, Fun Square, Durga Nursery Road, Udaipur –313001 (Rajasthan). Tel: +91 0294–2980578, 79, E-mail: udaipur@heromotocorp.com

Hero MotoCorp Ltd., Office. No.401, 4th Floor, Offizo, Magneto Mall, Labhandi, G.E. Road, Raipur -492 001, (Chhattisgarh)
Tel: +91-771-4034749, E-mail: raipur@heromotocorp.com

Hero MotoCorp Ltd., Third Floor, Alankar Palace, Plot No. 11, Zone II, M.P. Nagar Bhopal-462011, India.

Tel: +91-755-4203160, 2553697, 4272429, 2550086, E-mail: bhopal@heromotocorp.com

Hero MotoCorp Ltd., Maloo-01, 601-602, 6th Floor, Plot No. 26C, Scheme No. 94, Ring Road, Indore, M.P.-452010, Tel: +91-731-4978269, 70, E-mail: indore@heromotocorp.com

#### **EAST ZONE**

Hero MotoCorp Ltd., Flat No: 1002. 10th Floor, Martin Burn Business Park, BP3, Salt Lake, Sector-V, Kolkata-70009 I West Bengal, India. Tel: +91-33-44026841,+91-33-44026830, E-mail: kolkata@heromotocorp.com

Hero MotoCorp Ltd., Odyssa Business Centre, Plot no. 30, 30/982, 172/1030, 4th Floor Cuttack, Bhubaneshwar highway road, Rasulgarh, Bhubaneswar-751010, Odisha, India. Tel: +91-674-2581161, 62, 63, 64, E-mail: bhubaneshwar@heromotocorp.com

Hero MotoCorp Ltd., Yash Heights, 1st Floor Bariatu Road, Above Basudeb Tata Showroom Ranchi-834009, Jharkhand, India. Tel: +91-651-2542222, 2542224, 2542225, E-mail: ranchi@heromotocorp.com

Hero MotoCorp Ltd., Sai Corporate Park, A Block, 6th Floor, Rukanpura, Bailey Road Patna, Bihar — 800014 Tel: +919334280555/7004569648 E-mail: patna@heromotocorp.com

# **NORTH ZONE**

Hero MotoCorp Ltd., 3rd Floor, Tower-A, DLF Centre Court, Sector-42, Golf Course Road, DLF Phase 5, Gurgaon - 122002, Haryana, India. Tel: 0124-4754800, E-mail: delhi@heromotocorp.com

Hero MotoCorp Ltd., 602, 6th Floor, Office Tower-1, Plot No BW58, Logix City Center, Sector-32, Noida – 201301. Tel: 0120-4631000, E-mail: noida@heromotocorp.com

Hero MotoCorp Ltd., S.C.O-367-368, First Floor, Sector-34A, Chandigarh-160022, India. Tel: +91-172-2623773, 2623774, 2623775, E-mail: chandigarh@heromotocorp.com

Hero MotoCorp Ltd., Kapoor Towers, Plot No-284, 15-B, Rajpur Road, Dehradun-248001, India. Tel:0135-2714661,2713662,2714663, E-mail: dehradun@heromotocorp.com

## ZONAL/REGIONAL/AREA OFFICES

#### NORTH ZONE

Hero MotoCorp Ltd., Summit Building (10th Floor) Plot No TCG 3/3 Vibhuti Khand, Gomti Nagar Lucknow — 226010, India. Tel: 0522-4006594, E-mail: lucknow@heromotocorp.com

Hero MotoCorp Ltd., C-19/134-B ,Third Floor I .P Grand, Lallapura, Sigra, Varanasi, Uttar Pradesh - 221010, India. Tel: +91-0542- 2390949,2390241, E-mail: varanasi@heromotocorp.com

#### SOUTH ZONE

Hero MotoCorp Ltd., SKAV 909, 3rd Floor, 9/1, Lavelle Road, Bangalore–560001, India. Tel: +91-80-46881000, E-mail: bangalore@heromotocorp.com

Hero MotoCorp Ltd., 3-6-289, 3rd Floor, Kareem Manzil, Hyderguda, Hyderabad-500029, India. Tel:+91-40-23223735, 23223727, 23223570, E-mail; hyderabad@heromotocorp.com

Hero MotoCorp Ltd., 9th Floor Seshachalam Centre No.636/1. Anna Salai, Nandanam, Chennai–600035, India. Tel: +91–44–24340974. 24340977. 24340978. E-mail: chennai@heromotocorp.com

Hero MotoCorp Ltd., 6-A, DD Trade Tower, (6th Floor), Kaloor-Kadavanthra Road, Kaloor-682 017, Kochi-682017 India. Tel:+91-0484-4039646-7, E-mail: cochin@heromotocorp.com

Hero MotoCorp Ltd., No 1547, 2nd Floor Classic Towers, Trichy Road, Coimbatore -641018 Tel: +91-422-2200058, 2200061, E-mail: coimbatore@heromotocorp.com

Hero MotoCorp Ltd., First Floor VA Kalburgi Mahalakshmi Mansion, Mandakini Hospital Road, New Cotton Market, Hubli-580029, India. Tel: 0836-2269717, 2361038, E-mail: hubli@heromotocorp.com

Hero MotoCorp Ltd., D.NO. 54–11–18 E, 2nd Floor, Sai Oddessey Building, Opp Executive Club, Near NH–5, Viiavawada–520008. Andhra Pradesh. India. Tel: +91–866–2546859. 2546860. E-mail: viiavawada@heromotocom.com

#### **WEST ZONE**

Hero MotoCorp Ltd., Chrome Building, Sr. No. 33, Hissa-A-1/1/2, Plot - 2, Viman Nagar Avenue 2, Nagar Road, Pune-411014, India. Tel: +91-020-71903500, E-mail: pune@heromotocorp.com

Hero MotoCorp Ltd., 603-604, Gunjan Tower, Off Alembic Gorwa Road, Baroda-390023, India. Tel: +91-265-2286569/2286570. E-mail: baroda@heromotocorp.com

Hero MotoCorp Ltd., Ground Floor, Block No.2, Vishnu Vaibhav Complex, 222, Palm Road, Civil Lines, Nagpur-440001 India. Tel: +91-712-2545990-91, E-mail: nagpur@heromotocorp.com

Hero MotoCorp Ltd., Astarc House-Third Floor, 76/79, Makwana Lane, Off. Andheri-Kurla Road, Andheri (East), Mumbai-400059, India. Tel: +91-22-28562071, E-mail: mumbai@heromotocorp.com

Hero MotoCorp Ltd., 604, Kings Plaza, Astron Chowk, Rajkot, Gujarat – 360001 Tel: 0281–2460622, 2460623, E-mail: rajkot@heromotocorp.com