PREFACE

Thank you for selecting a Hero MotoCorp **XPULSE 200 4V**. 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 EURO-V(OBD STAGE II-PHASE-B) regulation for emission, safety & noise levels. We are also using non asbestos brake shoes/pads and engine gaskets which are environment friendly in nature.

This booklet is your guide to the basic operation and maintenance of your new Hero MotoCorp **XPULSE 200 4V.** Please take time to read it carefully. As with any fine machine, proper care and maintenance are essential for trouble-free operation and optimum performance.

Authorised Distributor or dealer (s) of the Distributor (''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 PUBLISHING APPROVAL, AND THE ACCURACY OR CORRECTNESS OF THE SAME IS NOT UNDERTAKEN OR GUARANTEED.

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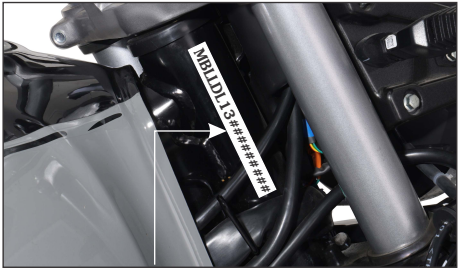
Hero
WeCare

VEHICLE IDENTIFICATION



Vehicle Identification Number (VIN)
Location: Stamped on the right side of the steering head tube.

Engine No.
Location: Stamped on the lower side of the left crankcase.

VIN: MBLLDL13#########

MBL	LDL13	#	#	#	#	#####
Manufacturer code	Vehicle Description	Check Digit	Model Year	Plant Code	Month of Manufacturing	Production Serial Number

Engine No.: LD20AA########

LD20AA	#	#	#	#####
Engine Description	Year of Manufacturing	Assembly Plant	Month of Manufacturing	Serial Number

Model: XPULSE 200 4V

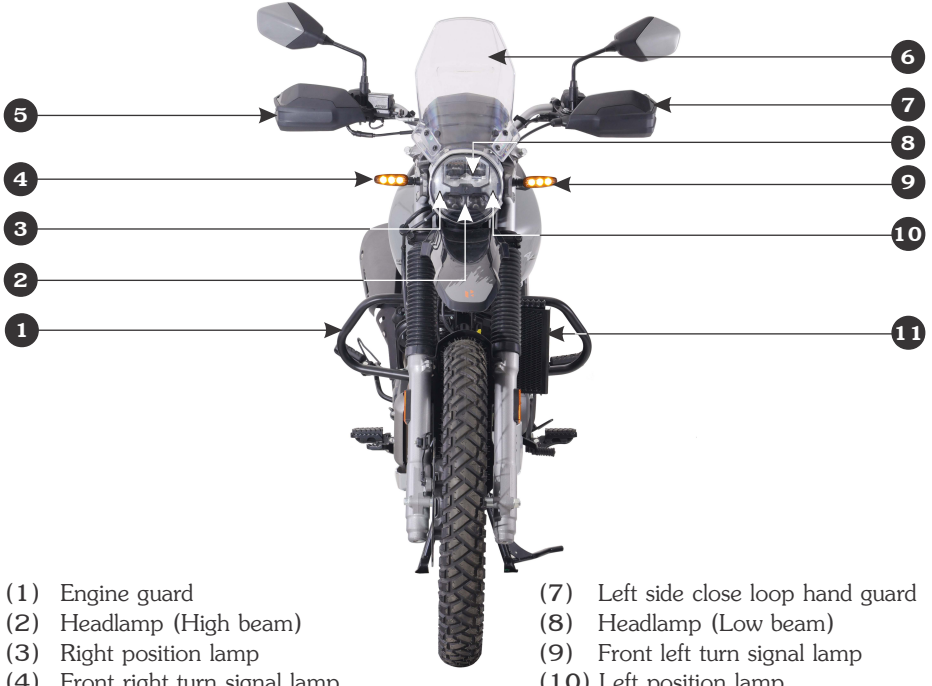
Variants	VIN	Engine
Front disc with ABS/Rear disc/Non Connect/Xpulse 200 4V Pro	LDL14	LD20AB
Front disc with ABS/Rear disc/Non Connect/Xpulse 200 4V	LDL13	LD20AA
Front disc with ABS/Rear disc/Non Connect/Xpulse 200 4V/Black variant	LDL13	LD20AC

VIN and Engine No. may be required:

- During registration of the vehicle.
- For dealing with legal & insurance departments.

VEHICLE VIEWS

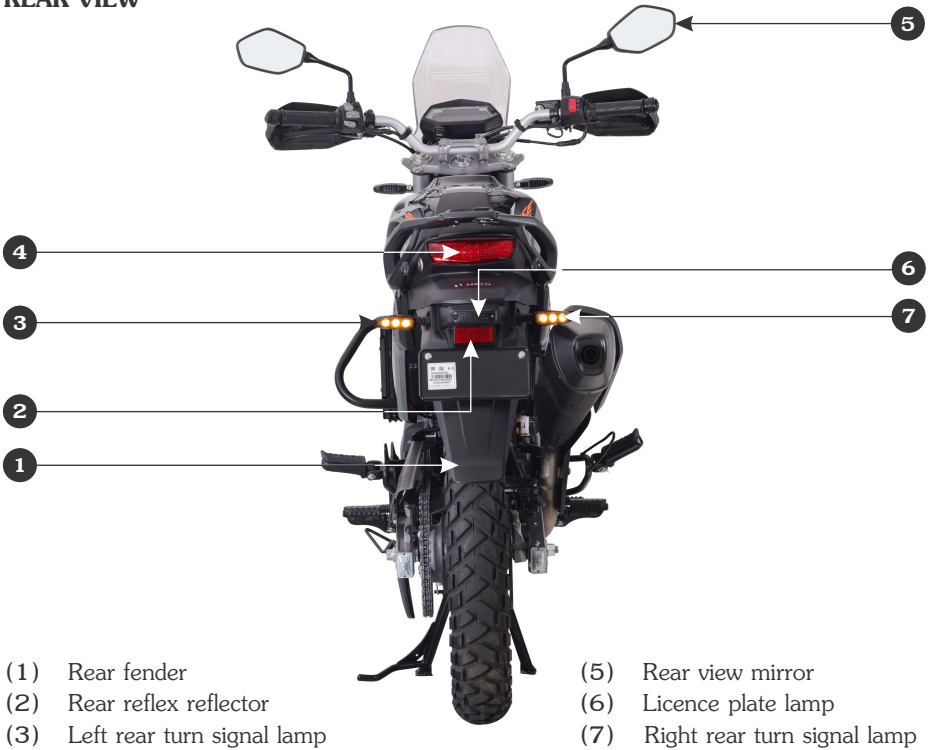
FRONT VIEW



(1) Engine guard
(2) Headlamp (High beam)
(3) Right position lamp
(4) Front right turn signal lamp
(5) Right side close loop hand guard
(6) Wind screen
(7) Left side close loop hand guard
(8) Headlamp (Low beam)
(9) Front left turn signal lamp
(10) Left position lamp
(11) Engine oil cooler

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

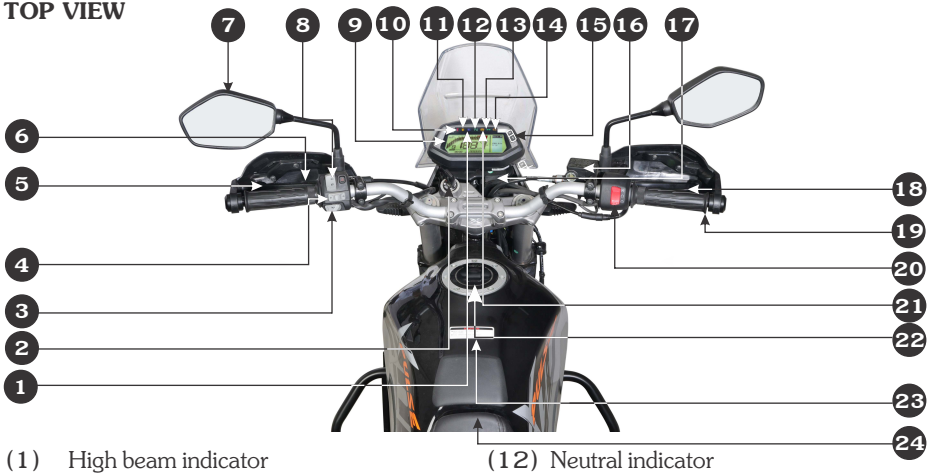
REAR VIEW



(1) Rear fender
(2) Rear reflex reflector
(3) Left rear turn signal lamp
(4) Tail/stop lamp
(5) Rear view mirror
(6) Licence plate lamp
(7) Right rear turn signal lamp

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

TOP VIEW



(1) High beam indicator
(2) Ignition switch with key
(3) Horn switch
(4) Turn signal switch
(5) Clutch lever
(6) Pass lamp switch
(7) Rear view mirror
(8) Headlamp dimmer switch
(9) LCD panel of Meter console. refer instruments and indicators **(page 19)** for fuel gauge, speedometer and other features of console
(10) Side stand indicator
(11) Low fuel indicator
(12) Neutral indicator
(13) Turn signal indicators
(14) Programmed FI malfunction indicator lamp (MIL)
(15) Mode (M) and Set (S) buttons
(16) Front brake master cylinder/Reservoir
(17) USB charger
(18) Front brake lever
(19) Throttle grip
(20) Integrated start-kill switch
(21) ABS indicator
(22) Fuel tank cap
(23) Caution sticker
(24) Traction pad

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

LEFT SIDE VIEW

(1) Side reflex reflector
(2) Front hugger fender
(3) Starter motor
(4) Gear shift pedal
(5) Rider footrest
(6) Side stand
(7) Pillion footrest
(8) Seat lock
(9) Rear grip
(10) Seat
(11) Left side cover
(12) Battery compartment (inside)
(13) Side stand switch
(14) Front fender

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

RIGHT SIDE VIEW

(1) Rear caliper assembly
(2) Rear brake fluid reservoir
(3) Kick starter pedal
(4) Rear brake master cylinder
(5) Brake pedal
(6) Bash plate
(7) Oil level dipstick
(8) Front caliper assembly
(9) Front disc
(10) Throttle body
(11) Right side cover
(12) Tool kit compartment (inside)
(13) Air cleaner assembly (inside)
(14) Exhaust muffler assembly
(15) Rear disc

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

VEHICLE SPECIFICATION

ITEM		SPECIFICATIONS
Dimensions		
Overall length	STD variant	2222 mm
	Pro variant	2255 mm
Overall width		862 mm
Overall height	STD variant	1320 mm
	Pro variant	1380 mm
Wheelbase	STD variant	1410 mm
	Pro variant	1427 mm
Saddle height	STD variant	825 mm
	Pro variant	891 mm
Ground clearance	STD variant	220 mm
	Pro variant	270 mm
Weight		
Kerb weight	STD variant	159 kg
	Pro variant	161 kg
Payload		130 kg
Capacities		
Engine oil		1400 ml at disassembly and 1200 ml at draining
Fuel tank capacity		13.0 litres
Hydraulic brake fluid		DoT-4/DoT-3
Engine		
Maximum power		13.75 kW @ 8500 r/min
Maximum torque		17.0 N-m @ 6500 r/min
Bore and stroke		66.5x57.5 mm
Compression ratio		10:01
Displacement		199.6 cc
Spark plug		Champion REK6YC (Federal Mogul)
Spark plug gap		0.8-0.9 mm
Idle speed		1600±100 r/min

VEHICLE SPECIFICATION

ITEM			SPECIFICATIONS
Chassis and suspension			
Front suspension		STD variant	Telescopic front forks (dia 37 mm) with anti friction bush
		Pro variant	Cartridge telescopic front forks (dia 37) with adjustable compression and rebound damping
Rear suspension		STD variant	Rectangular swingarm with monoshock with adjustable preload
		Pro variant	Rectangular swingarm with monoshock with adjustable rebound damping and preload
Caster angle			27°
Trail length			114 mm
Tyre size		Front	90/90-21 M/C 54S
		Rear	120/80-18 M/C 62S
Brakes	Front (Disc type)		Dia. 276 mm
	Rear (Disc type)		Dia. 220 mm
Transmission			
Primary reduction			3.05 (67/22)
Final reduction			3.461 (45/13)
Transmission			5 speed constant mesh
Gear ratio, 1st			2.916 (35/12)
2nd			1.875 (30/16)
3rd			1.350 (27/20)
4th			1.043 (24/23)
5th			0.880 (22/25)

VEHICLE SPECIFICATION

ITEM		SPECIFICATIONS
Electricals		
Battery		*MF Battery 12V-6 Ah/ETZ-7
Alternator		170 W @ 5000 r/min
Headlamp		12V-14.8W/31.3W (LED)
Position lamp		12V-3.4W (LED)
Tail/Stop lamp		12V-0.2/2.1W (LED)
Turn signal lamp		9 V to 16 Vx4 nos. (LED)
Meter illumination		Module illuminated LCD
Neutral indicator		LED
Turn signal indicator (RH/LH)		LED
Hi beam indicator		LED
ABS indicator		LED
Service reminder indicator		LCD display
Malfunction indicator lamp (MIL)		LED
Licence plate lamp		12V-5W
Side stand indicator		LED
Low fuel indicator		LED
Fuse	Starter magnetic switch	20A (Circuit fuse) and 20A (Spare fuse)
	Fuse box	10A, 10A, 10A and 10A (Circuit fuse) & 10A, 10A (Spare fuse)

***MF stands for Maintenance Free**

VEHICLE SAFETY
IMPORTANT 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. See **(page 13)** for more details.

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

Following are suggestions to help you choose proper riding gear.

⚠ WARNING

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

Helmets and eye protection

Your helmet is your most important piece of riding gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and securely. A bright coloured helmet can make you more noticeable in traffic, as can reflective strips.

An open-face helmet offers some protection, but a full-face helmet offers more. Always wear face shield or goggles to protect your eyes and help your vision.

Additional riding gear

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

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

OFF-ROAD SAFETY GUIDELINES AND GENERAL INFORMATION

This vehicle allows you to enjoy all the excitement of riding it off-road. For this, it is necessary to follow some recommendations, which will tie off-road excitement with safety.

Tips for off-roading

Off-road riding skill develops gradually by practicing the vehicle step-by step.

Practice at low speeds initially in a safe area to understand the handling and operation of the vehicle to build your skills.

Contact Authorised Distributor/Dealer. and ask whether there are off-road riding groups in your area where you can learn from experienced riders.

Protective equipment

Essential for your safety. Make a rule of always wearing them.

- **Helmet-** essential equipment.
- **Goggles-** the greater the visibility, the better.
  Choose goggles that do not break or splinter.
- **Long sleeved shirts-** having fillings in the elbows and shoulders to protect against eventual injuries in the arms.
- **Gloves-** models with padded hand backs are the most indicated for off-road riding. Choose gloves that fit your hands.
- **Adbominal band-** it protects internal organs against off-road bumps.
- Nylon trousers with protection in the knees or reinforced jeans. They increase protection. Choose the right size for your proper freedom of motion.
- **Boots-** they should be made of reinforced leather with thick grooved soles and steel tips. They should also be flexible and fit you properly.
- **Waist bag-** it is important so you may carry spare parts and those parts that were removed from the vehicle.
- **Chest/Shoulder protector-** it protects against chest and shoulder injuries by absorbing and dissipating the forces during an impact.

Off-road use

This vehicle is designed for on-road riding and light off-road riding.

Light off-road riding includes riding on:

- Unpaved roads.
- Gravel roads.
- Dirt roads.

Light off-road riding does not include:

- Off road competitions (such as motocross or enduro riding).
- Riding off-road with a pillion.
- Jumping the vehicle or riding over any bumps or obstacles.

⚠ WARNING

Never attempt to ride over any obstacles.

⚠ WARNING

A variety of challenges can be present in the terrain while riding in off-road conditions. Always read the terrain for unexpected turns, rocks, ruts, drop-offs and other hazards. Always keep your vehicle speed low to have enough time to see and react to hazards.

Preparing the vehicle

For off-road practice, it is essential that your vehicle is in perfect mechanical condition. The front brake lever, clutch lever and turn signal brackets should be loosened in order to rotate in case of falling down, preventing breakage. They should be loosened to turn on the handlebars only with a slight force. Under most adverse conditions, the rear view mirrors and turn signals should be removed.

LOAD LIMITS AND GUIDELINES

Your vehicle has been designed to carry you, one pillion and limited amount of cargo. When you add cargo or carry a passenger, you may feel some difference during acceleration and braking. But so long as you keep your vehicle well maintained, with good tyres and brakes, you can safely carry loads within the limits and guidelines.

However exceeding the weight limit or carrying an unbalanced load can seriously affect your vehicle's handling, braking and stability. Non genuine accessories, modifications, and poor maintenance can reduce your safety margin.

Loading

How much weight you put on your vehicle, and how you load it, are important to your safety. Anytime you ride with a pillion or cargo you should be aware of the following information.

⚠ WARNING

- ***Overloading or improper loading can cause a crash and you can be seriously injured.***
- ***Follow all load limits and other loading guidelines in this manual.***

Load limits and weight distribution

This vehicle is designed to carry the rider (1) and one pillion (2). The overall weight should be distributed in four points (A, B, C, and D) and should never exceed the maximum load capacity of **130 kg**. This will assure higher stability, better drivability and more comfort.

(1)+(2)=130 kg {where, 1=A+B & 2=C+D}

(A) Rider seat	**(B) Rider footrest**
(C) Pillion seat	**(D) Pillion footrest**

Damages caused by excessive load will not be covered under Authorised Distributor/Dealer warranty policy. If you are not sure about how to calculate the load weight that can be accommodated to your vehicle without causing overload and structural damages, see your Authorised Distributor/Dealer.

Loading guidelines

Your vehicle is primarily intended for transporting you and a pillion. If you wish to carry cargo, check with your Authorised Distributor/Dealer, for advice and be sure to read the information regarding accessories **(page 14)**.

Improperly loading your vehicle can affect its stability and handling. Even if your vehicle is properly loaded, you should ride at reduced speeds whenever carrying cargo.

Follow these guidelines whenever you carry a pillion or cargo:

- Keep cargo and accessory weight low and close to the center of the vehicle. Load weight equally on both sides to minimize imbalance. As weight is located further from the vehicle's center of gravity, handling is proportionally affected.
- Adjust tyre pressure **(page 74)** to suit load weight and riding conditions.
- Vehicle handling and stability can be adversely affected by loose cargo. Recheck cargo security and accessory mounts frequently.
- Do not attach large or heavy items to the handlebars, front fork or fender. Unstable handling or slow steering response may result.

ACCESSORIES & MODIFICATIONS

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

⚠ WARNING

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

Accessories

- Make sure that the accessory does not obscure any lamps, reduce ground clearance, limit suspension travel or steering travel, affect your riding position or interfere with operating any controls.
- Be sure electrical equipment does not exceed the vehicle's electrical system capacity **(page 8).** 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.

Modifications

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 lamps, mufflers, emission control system or other equipment can also make your vehicle illegal.

ANTI-THEFT TIPS

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

NAME: _____

ADDRESS: _____

_____

_____

_____

PHONE NO : _____

SAFE RIDING TIPS

Hero RideSafe

Do's:

- Always conduct simple pre-ride inspection **(page 42).**
- Always wear a helmet 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 km/hr).
- For stopping vehicle, use both brakes simultaneously, keeping throttle in the closed position.
- 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.
- Take care of loose/hanging clothes while solo/pillion riding.
- Get your vehicle serviced regularly by the Authorised Distributor/Dealer.
- Before riding make sure that integrated start-kill switch is in "ON" (⏻) position.
- Keep checking the ABS indicator. At any point if indicator remains on, then ABS is not working **(page 36).**
- Keep checking speedometer. In case of ABS malfunction, speed display may go to zero.
- It is suggested to go through the do's & dont's of ABS **(page 46)** and practice your ABS vehicle initially in low-traffic condition unless you are thoroughly familiar with your vehicle and its controls.

Don'ts

- Never use cell phone while riding the vehicle.
- Avoid sudden acceleration, braking and turning of your vehicle.
- Never shift gears without disengaging the clutch and closing the throttle.
- Never touch any part of the hot exhaust system like muffler.
- Never ride under the influence of alcohol or drugs.
- Concentrate on the road and avoid talking to the pillion rider or others on the road.
- Do not litter the road.
- Do not cross the continuous white/yellow line in the center of the road, while overtaking.
- Do not attach large or heavy items to the handlebars, front forks, or fenders.
- Never take your hands off the steering handle while riding.
- Do not attempt to apply the front brake lever intermittently for ABS vehicle.
- Do not panic by mechanical noises or slight lever pulses while applying the brake in vehicle. These conditions are normal and indicates that ABS is working.
- Do not apply the hard braking in wet or rainy conditions.
- Do not switch off the integrated start-kill switch (⊗) while riding the vehicle **(page 36).**
- Do not move the side stand down while riding, as engine will stop while vehicle is in gear **(page 36)** (Wheel locking leading to accident, part damage, etc.).
- Navigation system assists you to reach your destination, don't be distracted while driving. Drive safely and always obey traffic rules.

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 Distributor/Dealer, as per the service schedule, for an optimum performance and keep the emission level under check.

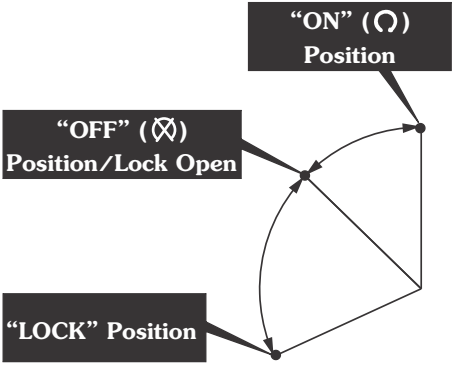
- **Genuine spares:** Always insist on Hero MotoCorp genuine parts as spurious or incompatible spares and accessories can upset or deteriorate your vehicle's running condition.

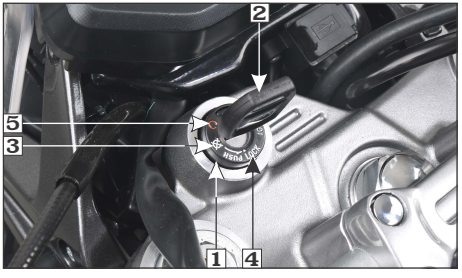
- **Genuine engine oil:** Hero Xotic+ SAE 10W 30 SL MA2 fully synthetic PAO based oil recommended by Authorised Distributor/Dealer and make sure you change it every 12000 km. (with top up every 3000 kilometres) to keep the engine fit and environment healthy.

- **Noise pollution:** Noise beyond a certain decibel is pollution. Whether it is from horns or defective mufflers, excessive noise will cause headaches and discomfort.

- **Fuel saving & reduce pollution:** Switch "OFF" the engine while waiting at traffic signal points to save fuel and reduce pollution, if the waiting period is long.

PARTS FUNCTION
IGNITION SWITCH



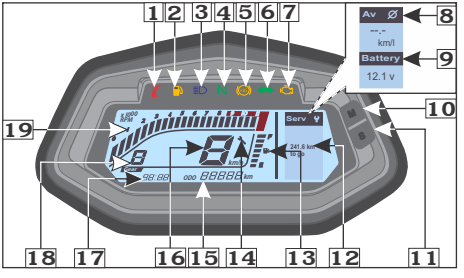


1. Ignition switch
2. Ignition key
3. "OFF" (⊗) position
4. Steering lock position
5. "ON" (⚷) position

Key Position	Function	Key Removal
"ON" (⚷)	The LCD panel illuminates & initial display of multi function digital segments are displayed. The tachometer segment and the fuel gauge segment will swing to the maximum scale once and back to its normal position. The engine can be started. Turn signal lamp, horn, tail/stop lamp, fuel gauge, pass lamp, position lamp, programmed FI malfunction indicator lamp (MIL) illuminates continuously & neutral indicator will be functional.	Key cannot be removed.
"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.

INSTRUMENTS AND INDICATORS

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



Sl. No.	Description	Function
1	Side stand indicator	Light glows when the vehicle is parked on the side stand.
2	Low fuel indicator	Light glows when the fuel quantity is low **(page 25).**
3	High beam indicator	Light glows when headlamp is in high beam.
4	Neutral indicator	Light glows when vehicle is in neutral.
5	Anti-lock braking system (ABS) indicator	This indicator normally comes on for approx 1.8 seconds when the ignition switch is turned "ON" (Ω) and then keeps blinking until the vehicle attains speed of 5 km/h. If there is a problem with the anti-lock braking system, ABS indicator turns "ON" **(page 49).**
6	Turn signal indicators	Flashes when turn signal switch is operated.
7	Malfunction indicator lamp (MIL)	When the ignition switch is turned "ON" the malfunction indicator lamp (MIL) glows continuously and then should go "OFF" once the engine is started. It indicates that vehicle is OK. If it glows continuously there is an abnormality in the vehicle, it is recommended to reduce the speed and drive to the Authorised Distributor/Dealer for check-up.

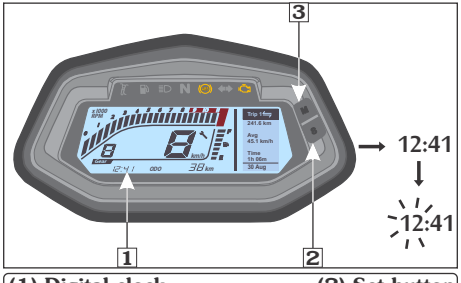
Sl. No.	Description	Function
8	Real time mileage indicator (RTMI)	It indicates the current mileage of the vehicle (in km/ litre). The indication will change after every 3 seconds depending upon the driving condition **(page 24)**.
9	Battery voltage	Displays vehicle battery voltage.
10	Mode button	Switches display between odometer, tripmeter-1 & 2, clock, Eco mode, Bluetooth connectivity, RTMI, Battery voltage & ABS mode.
11	Set button	To adjust clock, date & tripmeter. When long pressed resets tripmeter to zero.
12	Next service distance	Indicates how many kilometers are left before the next service is due. It appears for few seconds when the ignition switch is turned "ON" (⏻) **(page 25).**
13	Fuel gauge	Indicates approximate fuel available in the form of digital segments. The digital segments will swing to maximum scale on the meter console once the ignition switch is turned "ON" (⏻) **(page 24).**
14	Service reminder indicator	Displays when the next service is due **(page 25).**
15	Odometer	Shows accumulated distance travelled **(page 22).**
16	Speedometer	Indicates riding speed.
17	Digital clock	Indicates hours & minutes **(page 21)**.
18	Gear indicator	Displays the selected gear while riding **(page 28).**
19	Tachometer	Shows engine revolution per minute. The tachometer digital segments will swing to maximum scale on the meter console once the ignition switch is turned "ON" .

LCD PANEL

(a) Digital clock

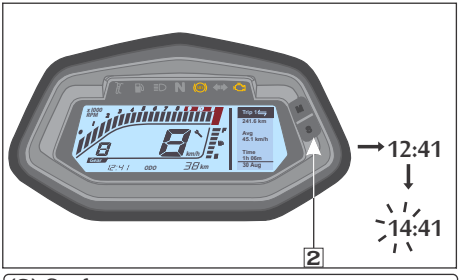
Digital clock (1) shows hour and minute. To adjust the time, proceed as follows :

- Turn the ignition switch "ON" (⏻).
- Press and hold set button (2) and mode button (3) simultaneously for more than 2 seconds. The clock will be set in the adjust mode with the hour's digit display blinking.



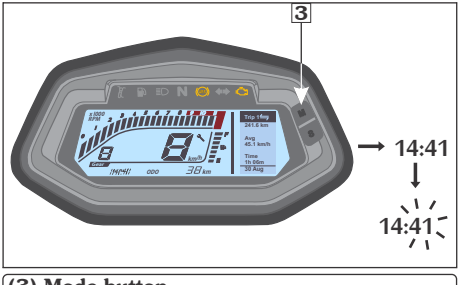
(1) Digital clock **(2) Set button**
(3) Mode button

- To set the hour, press set button (2) until the desired hour is displayed. Clock format is 24 hours type. The hour display will return to "00" after "23".
  - The time is advanced by 1 hour each time the button is pressed.
  - The time advances fast when the button is pressed and held.



(2) Set button

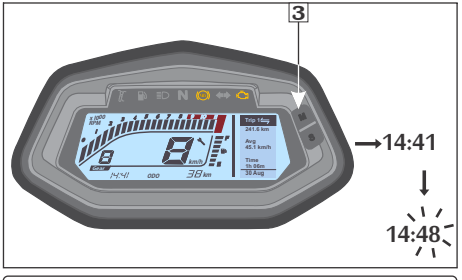
- Press the mode button (3). The minutes display starts blinking.



(3) Mode button

- To set the minute press set button (2) until the desired minute is displayed. The minute display will return to "00" when "60" is reached without affecting the hour display.
  - The time advances by 1 minute, each time the button is pressed.

- The time advances fast when the button is pressed and held.



(3) Mode button

- To end the adjustment press the mode button (3) until clock display stops blinking.

NOTE

The clock will reset to "1:00" if the battery is disconnected.

(b) Odometer/Tripmeter

The odometer (1) shows accumulated distance travelled.

The tripmeter shows distance travelled since trip meter was reset last time. There are two tripmeters, "Trip-1" and "Trip-2".

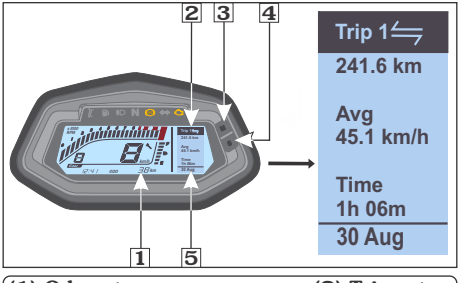
Push the mode button (3) to select "Trip-1" and "Trip-2". "Trip-1" and "Trip-2" can be displayed up to "999.9" km.

If the tripmeter exceeds "999.9" km it will return to "0.0" km automatically.

Trip meter displays following parameters:

- **Distance**: distance covered in a trip.
- **Avg speed**: average speed at which vehicle completes a trip
- **Trip time**: time taken to complete a trip.
- **Date**: it shows the current date.

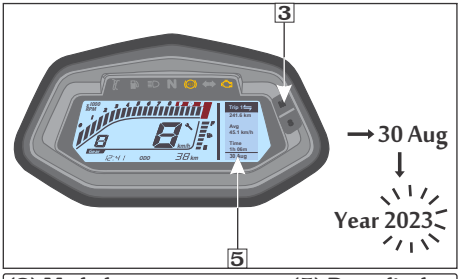
When tripmeter is selected, long press (more than 2 seconds) the set button to reset tripmeter to zero. The odometer can be displayed from "0 to 99999" km.



(1) Odometer **(2) Tripmeter**
(3) Mode button **(4) Set button**
(5) Date

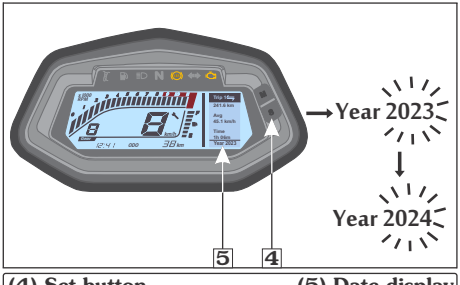
To update the date proceed as follows :

- Turn the ignition switch "ON" (⏻).
- Press and hold set button (4) and mode button (3) simultaneously for more than 2 seconds. The clock display will start blinking **(page 21)**.
- Keep pressing and releasing mode button (3) until date display (5) starts blinking.



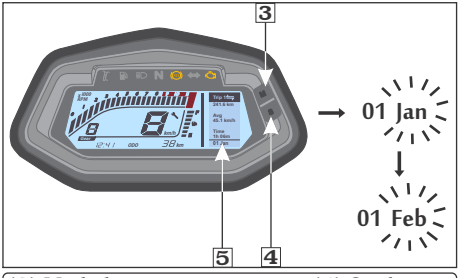
(3) Mode button **(5) Date display**

- Now to set year, press set button (4) until the desired year is displayed.



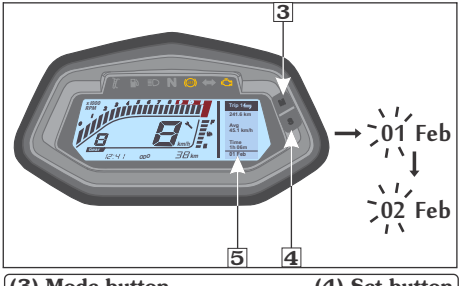
(4) Set button **(5) Date display**

- To set month, press the mode button (3) to switch from year to month display. Now press the set button (4) until the desired month is displayed.



(3) Mode button **(4) Set button**
(5) Date display

- To set day, press the mode button (3) to switch from month to day display. Now press the set button (4) until the desired day is displayed.



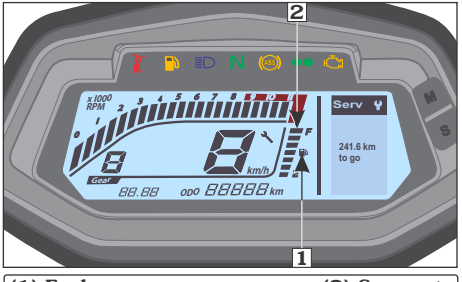
(3) Mode button **(4) Set button**
(5) Date display

- To end the adjustment press the mode button until date display stops blinking.

(c) Fuel gauge

The fuel gauge (1) indicates approximate fuel available in the form of digital segments.

The digital segments (2) will swing to maximum scale on the meter console once the ignition switch is turned "ON" (). If all the segments are displayed it means fuel quantity in the fuel tank is 13.0 litres.

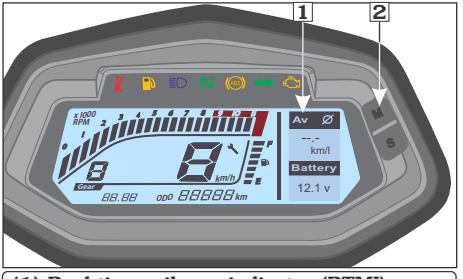


(1) Fuel gauge (2) Segments

(d) Real time mileage indicator (RTMI)

The real time mileage indicator (RTMI) (1) shows the current mileage of the vehicle in km/litre and is refreshed after every 3 seconds. Press the mode button (2) until RTMI is displayed.

When the ignition switch is turned "ON" () position, the real time mileage indicator will temporarily show the digit "--.-" km/litre The display range is from (0 to 120 km/litre).



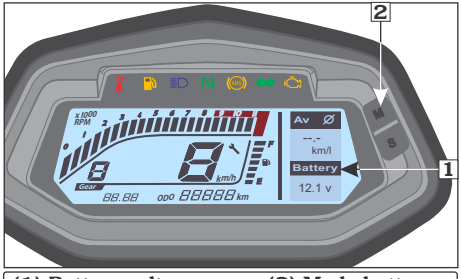
(1) Real time mileage indicator (RTMI)
(2) Mode button

The fuel consumption shall be displayed when the speed of the vehicle is 5±2 km/hr. If the speed is less then 5±2 km/hr "--.-" km/litre will be displayed.

The RTMI shows a minimum value of "0.0" km/litre and maximum value of "120" km/litre. During coasting with throttle fully closed, the fuel consumption is very minimal and hence the display can go up to "120" km/litre.

(e) Battery voltage

Displays the vehicle battery voltage (1). Press the mode button (2) until battery voltage is displayed.



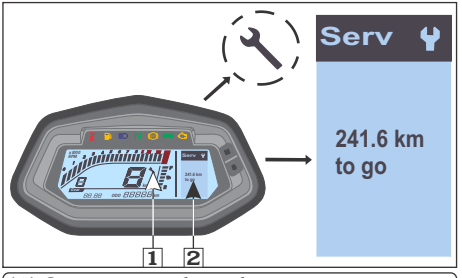
(1) Battery voltage (2) Mode button

(f) Service reminder indicator

The service reminder indicator (1) is to indicate the user to bring the vehicle to an Authorised Distributor/Dealer for service. The indicator shall start blinking when the vehicle covers kilometers as specified in the maintenance schedule. The indicator will keep on blinking throughout the kilometer interval for a particular service and will stay ''ON'' thereafter.

Meter console also displays the next service distance (2). It indicates how many kilometers are left before the next service is due. It appears for few seconds when the ignition switch is turned "ON" (ON).

The service reminder indicator " " can be reset at an Authorised Distributor/Dealer.



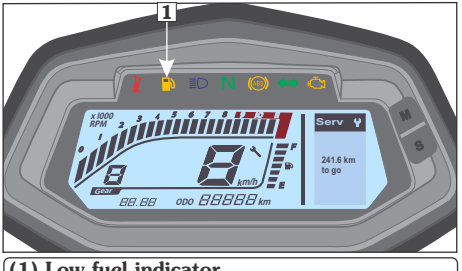
(1) Service reminder indicator
(2) Next service distance

NOTE

After getting the vehicle serviced, make sure that the Service Reminder Indicator has been reset.

LOW FUEL INDICATOR

Low fuel indicator (1) is a warning indicator for the user to refuel as soon as possible.



(1) Low fuel indicator

CAUTION

Please ensure the vehicle is not used with low fuel indicator glowing continuously. It will not only result in the vehicle running out of fuel, but may also cause serious damage to the fuel pump. Please ensure fuel is refilled as soon as the low fuel indicator starts glowing.

NOTE

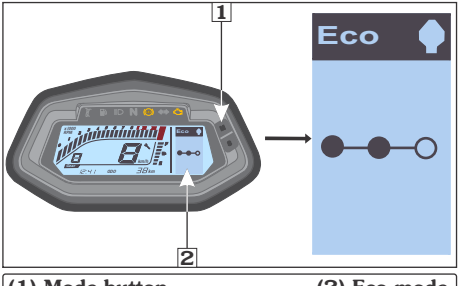
To check the fuel level indication, the vehicle should be on levelled surface and in stationary condition.

FEATURES

(a) ECO mode

ECO mode assists the rider to achieve optimum fuel efficiency.

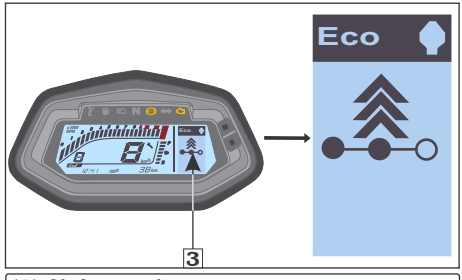
Press the mode button (1) until ECO mode (2) is displayed.



(1) Mode button **(2) Eco mode**

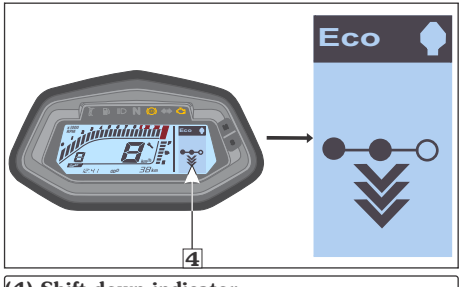
It displays following riding instructions :

- Shift up indicator (3): it recommends shifting to higher gear.



(3) Shift up indicator

- Shift down indicator (4): it recommends shifting to lower gear.



(4) Shift down indicator

NOTE

ECO mode assists the rider to achieve optimum fuel efficiency based on your vehicle's engine performance.
It is recommended to ride your vehicle as per road and traffic conditions.

(b) ABS mode

There are three following ABS modes available in the vehicle:

- **Road–** This is the optimal ABS setting for riding on public roads.
- **Rally–** Rally ABS mode is for unpredictable rough terrains where optimal control is needed for braking. The working principle of rally ABS mode is similar to road ABS mode, but allows higher wheel slip to provide better stability, based on rider input & road condition (specially on rough terrains).
- **OFF road–** Mode switches off the ABS completely to allow wheel locking during Off roading.

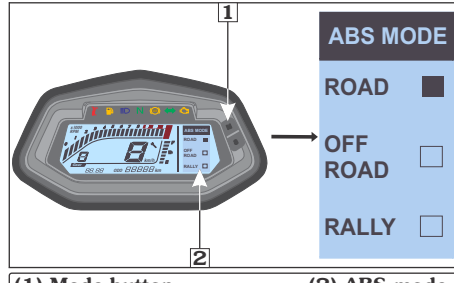
! CAUTION

OFF road mode should only be used by expert off-road riders.

Mode selection

To select the desired ABS mode, proceed as follows:

- Turn the ignition key to "ON" (ᗣ).
- Press the mode button (1) until ABS mode (2) appears in the meter console.
- To change the ABS mode, press and hold the mode button (1) for more than 2 seconds and release it once the selection is done.



(1) Mode button **(2) ABS mode**

NOTE

- ***While riding the vehicle, ABS mode change is not possible, it will activate only when the vehicle is in idle condition.***
- ***Every time the ignition switch is turned "ON", the road mode will be activated by default.***

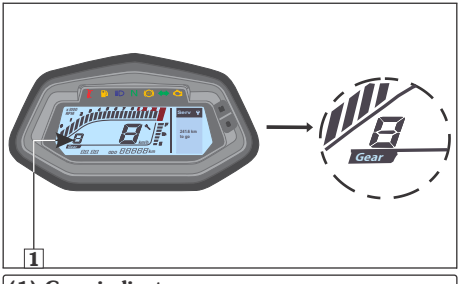
⚠ WARNING

After riding off-road (with ABS in "Rally" or "OFF road" mode), always make sure to select "Road" mode when returning to ride on public roads.

Riding on public roads with ABS in "Rally" or "OFF road" mode may lead to wheel locking (or wheel skidding) under hard braking.

(c) Gear indicator

Gear indicator (1) indicates current gear position of your vehicle in which it is running.



(1) Gear indicator

NOTE

Gear indicator displays "0" when your vehicle is in neutral.

(c) Hero ride guide/Navigation Application:

Hero navigation application is available in the google play store (for android) or App Store (for iOS), which can be installed in your device to access bluetooth, incoming calls alerts, missed call alerts, mobile low battery alert, and navigation features.

NOTE

- ***Compatibility and performance of hero ride guide application may vary based on your device and software version.***
- ***Application needs GPS signal, internet and bluetooth connectivity to perform the desired navigation functionality.***

Bluetooth:

Your vehicle is equipped with bluetooth connectivity feature by which you can pair your smartphone with the meter console of your **XPULSE 200 4V** vehicle through Hero navigation application.

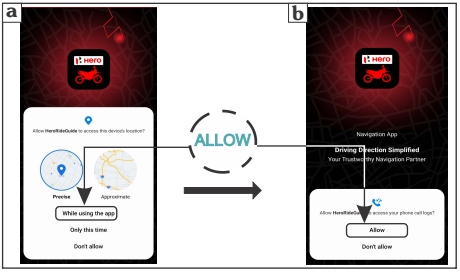
To connect your device proceed as follows:

- Turn the ignition switch "ON".
- Open hero navigation application on your smartphone.

• For first time pairing, allow the application to access:

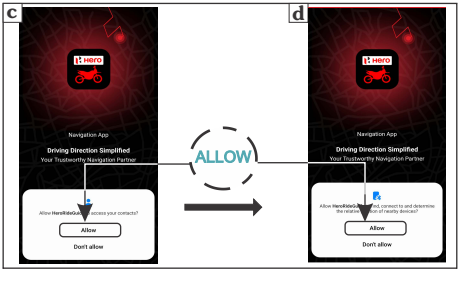
a. Device's location if GPS is not enabled in your device

b. Phone call logs on your device



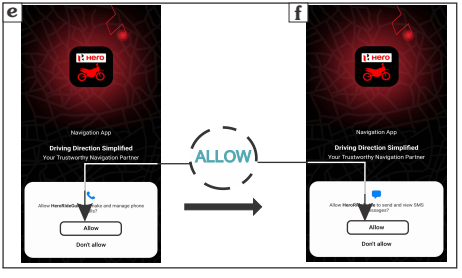
c. Contacts

d. Bluetooth connectivity

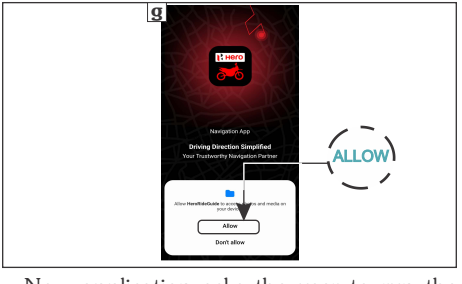


e. Make & manage phone calls

f. Send and view SMS messages

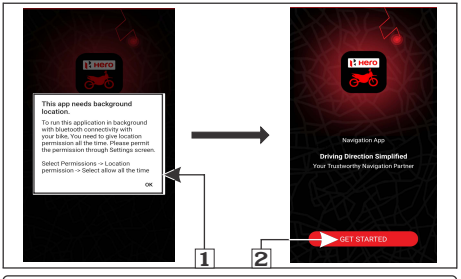


g. Photo & Media



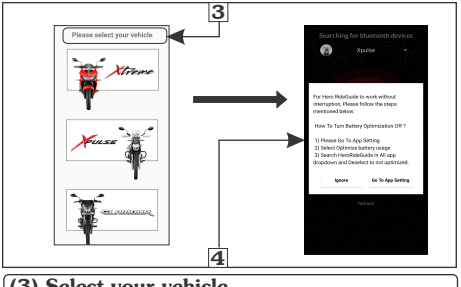
• Now application asks the user to run the application on background (1). It can be done by following the steps which are mentioned in the application and click OK.

• Now select "GET STARTED" (2) to proceed.



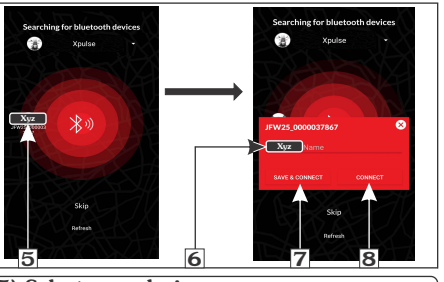
(1) Run application in background
(2) Get started

- Now select your vehicle (3).
- Now application asks the user to turn the battery optimization off (4). It can be done by following the steps which are mentioned in the application or the user can ignore this step.



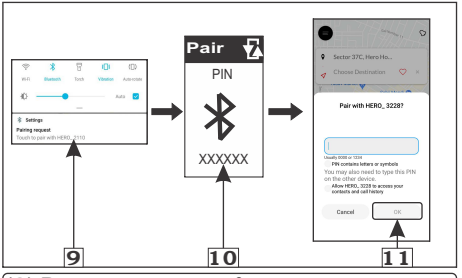
(3) Select your vehicle
(4) Battery optimization

- The application searches for a while and displays all compatible nearby devices. Select the device with your name (5).
- Update your name (6) (if required) and select either save and connect (7) or connect (8) to proceed.



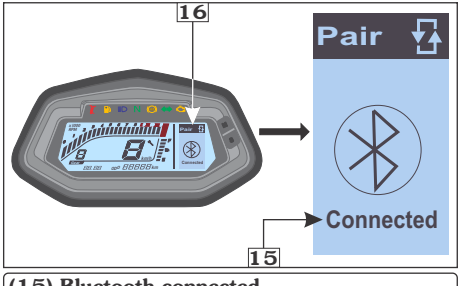
(5) Select your device
(6) Update your name
(7) Save and connect **(8) Connect**

- Now application will send paring request notification (9). Click on the notification
- Now meter console will display paring pin (10).
- Enter the pin in navigation screen and select “OK” (11).

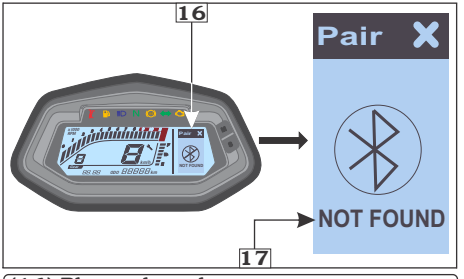


(9) Pairing request notification
(10) Pin **(11) "OK"**

- On pairing, meter console displays "Connected" (15) below bluetooth symbol in bluetooth mode (16).



(15) Bluetooth connected
(16) Bluetooth mode

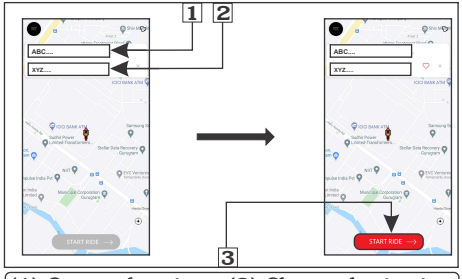


(16) Bluetooth mode
(17) Not found

Navigation:

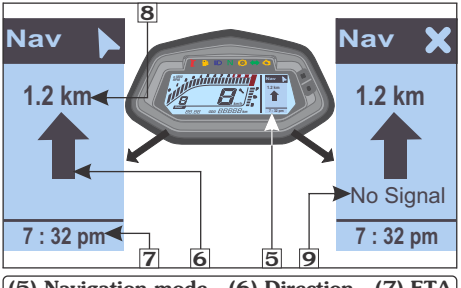
To use navigation feature proceed as follows:

- Connect your vehicle with your hero ride guide/navigation application via bluetooth **(page 27).**
- After successful connection, the application and meter console display will automatically switch to navigation mode (4). It will also update your current location (1) through GPS system.



(1) Current location (2) Choose destination (3) Start ride

- Now choose your destination (2) through the application and select "start ride" (3).



(5) Navigation mode (6) Direction (7) ETA (8) Distance for next move (9) No signal

- If any error occurs during the course of pairing process, then meter console will display "Not found" (17) below bluetooth symbol. Repeat the above steps and keep your smartphone close to the vehicle to reconnect.

Autopairing

Your vehicle is equipped with autopairing feature by which if you turn ''OFF'' vehicle's ignition switch after successful pairing with Hero App, it will reconnect automatically once ignition switch is turned ''ON''.

NOTE

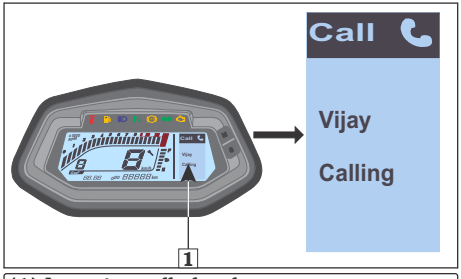
- ***Always keep your smartphone close to your vehicle during the course of pairing, autopairing and navigation.***
- ***Application need to be running in the background.***

Various features of Hero App are as follows:

- **Incoming call alert**

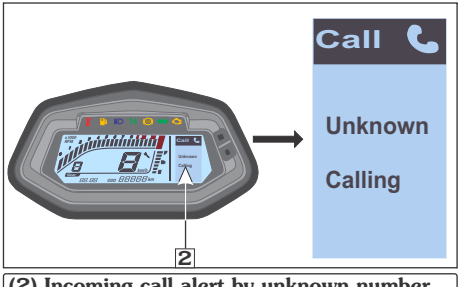
When smartphone is paired with Hero App **(page 28)**, then you will get all the incoming calls alerts (1) on the meter console.

It will display the name of the caller (2) if it is stored in your compatible smartphone. For example: If caller's number is stored in your compatible smartphone by name of Vijay, then your meter console will display Vijay.



(1) Incoming call alert by name

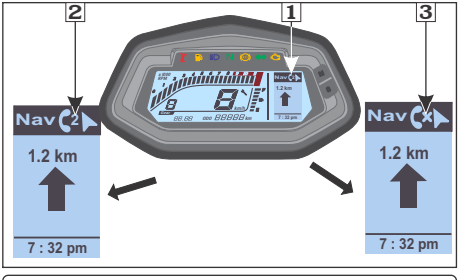
If the number is not saved in your device by name or your device is an iOS, then it will display “unknown calling” (2).



(2) Incoming call alert by unknown number

- **Missed call alert**

When smartphone is paired with Hero App **(page 28)**, then you will get all the missed calls alerts (1) on the meter console.



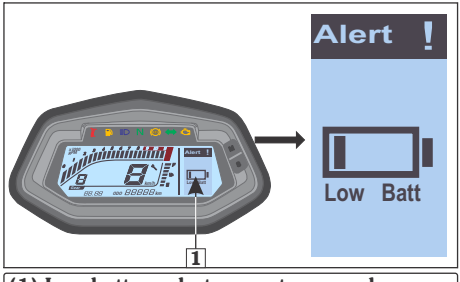
(1) Missed call alert
(2) Number of missed call (1 to 9)
(3) Number of missed call (more than 9)

- If number of missed call is less than or equal to 9 then it will display number of missed calls as respective digit (2) .
- If number of missed call is more than 9 then it will display as “X” (3).

In dashboard of Hero App (4) it will show missed call count (STD variant).

• **Low battery alert**

When smartphone is paired with Hero App **(page 28)**, then a symbol of low battery alert (1) appears for few seconds on the meter console if the battery of your paired smartphone is too low and in dashboard of Hero App (2) it will display phone battery status (STD variant).



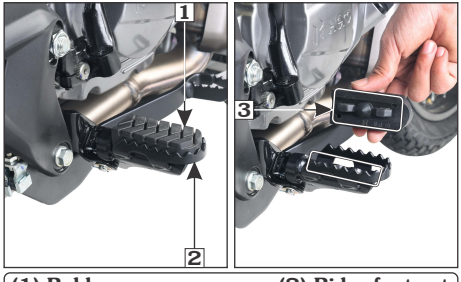
(1) Low battery alert on meter console

(1) Ignition key

(f) Rider footrest

The rubbers (1) of the rider footrest (2) (both side) are detachable and can be detached for "OFF-ROAD" riding only {refer off-road safety guide line **(page 12)**}.

While installing the rider footrest rubbers, the projections (3) of the rider footrest rubbers must be attached to the rider footrest properly.



(1) Rubbers (2) Rider footrest
(3) Projections

HANDLEBAR SWITCHES CONTROL

Left handlebar controls

1. Headlamp dimmer switch

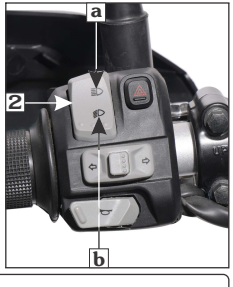
The headlamp operates only when the engine is running.

Press the switch (1) upwards for high beam "" downwards for low beam "".

2. Turn signal lamp switch ( )

Shift the turn signal switch (2) sideways for right/left indications and leave it to come back to its normal position on its own.

IMPORTANT: To switch "OFF" the turn signal after completing the turn, gently push the switch inside.



(1) Position lamp
(2) Headlamp dimmer switch
(3) High beam **(4) Low beam**
(a) **(b)**

In engine running condition, when headlamp dimmer switch is set to " " (b) position:

- High beam (3) will be "OFF".
- Low beam (4) will be "ON".
- Position lamp (1) will be "ON".

In engine running condition, when headlamp dimmer switch is set to " " (c) position:

- High beam (3) will be "ON".
- Low beam (4) will be "ON".
- Position lamp (1) will be "ON".

WARNING

It is recommended to use the " ", " " and " " as per the visibility, road and traffic conditions.

3. Horn switch ( )

Press the switch to operate the horn (2).

4. Hazard switch (⚠)

Press the hazard switch (3) in ignition "ON" condition whenever your vehicle becomes a temporary hazard for other road users and it is necessary to park the vehicle due to breakdown or other unavoidable problems.

Upon pressing the hazard switch, all turn signal lamps start flashing simultaneously to warn other road users behind you of a hazard or obstruction ahead.

To turn "OFF" the indicator lamps in hazard switch "ON" condition, press the hazard switch again.

NOTE

Use hazard lights only when your vehicle becomes a temporary hazard for other road users.

(1) Turn signal switch
(2) Horn switch
(3) Hazard switch

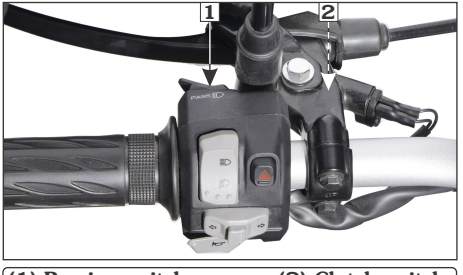
5. Passing switch

Gives an indication for passing ahead.

Press passing lamp switch (1) to operate the passing lamp.

6. Clutch switch

There is a clutch switch (2) 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.



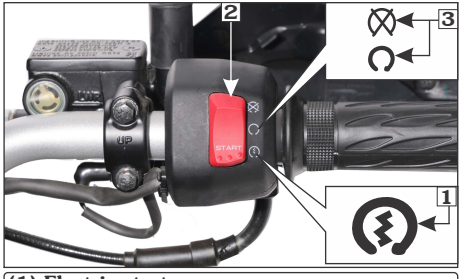
(1) Passing switch **(2) Clutch switch**

Right handlebar controls

1. Integrated start-kill switch

(a) Electric starter operation (🔘)

Press the electric starter (🔘) (1) of integrated start-kill switch (2) downwards to start the vehicle. Ensure the electric starter operation is done when the vehicle transmission is in neutral. If the vehicle is engaged in gear, press the clutch lever before electric starter (🔘) operation. Release switch after the engine has started.



(1) Electric starter
(2) Integrated start-kill switch
(3) Engine stop (ON/OFF)

(b) Engine stop switch operation

For engine stop operation (3) integrated start-kill switch (1) has two positions. In "ON" (Ω) position, engine will operate and in "OFF" (⊗) position, engine will not operate. The prime function of it is to stop the engine during emergency (Vehicle tip over, throttle cable stuck etc.). The switch should normally remain in "ON" (Ω) position. During emergency, put the switch to "OFF" (⊗) position.

⚠ WARNING

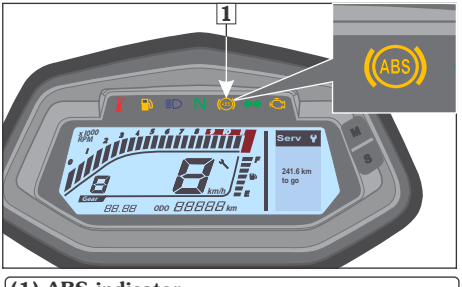
While riding the vehicle in normal condition, do not press the "Integrated start-kill switch to "OFF" (⊗) position to avoid any damage (Wheel locking leading to accident, part damage, battery discharge etc.).

ABS INDICATOR

The ABS indicator (1) on speedometer come "ON" for approx 1.8 seconds when the ignition switch is turned "ON" (Ω) & then keeps blinking until the vehicle attains a speed of 5 km/h.

When the system functions normally indicator goes "OFF" (ABS) once vehicle speed exceeds 5 km/h.

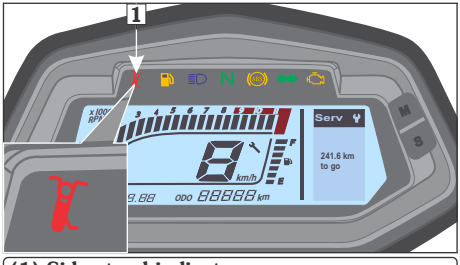
At any point if ABS indicator remains "ON" then ABS is not working, but the brakes still work normally. Reduce your vehicle speed and visit your Authorised Distributor/Dealer.



(1) ABS indicator

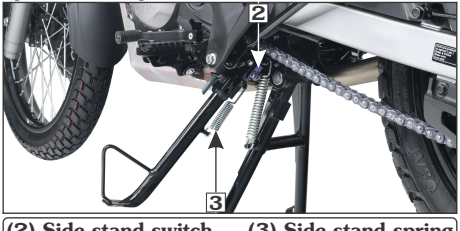
SIDE STAND INDICATOR/SWITCH

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



(1) Side stand indicator

A side stand switch (2) is provided in the side stand, when the side stand is down (Ignition switch "ON"), the switch enables the side stand indicator lamp to glow on the speedometer panel.



(2) Side stand switch (3) Side stand spring

- Check the side stand for proper function and the spring (3) for damage or loss of tension and the side stand assembly for free movement.
- Check whether the side stand indicator (1) glows when the side stand is down.
- While the side stand is up, the side stand indicator (1) should not glow.
- If the side stand indicator (1) does not operate as described in above steps, please visit your Authorised Distributor/Dealer.

! CAUTION

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

Your vehicle is equipped with "Side stand engine kill" feature for safety purpose.

This feature has following functions:

- It prevents starting the engine when transmission is in gear (irrespective of clutch lever operation) and side stand is down.
- It stops the running engine when transmission is in gear (irrespective of clutch lever operation) and side stand is moved down.

⚠ WARNING

"Side stand engine kill" system is not affected by clutch lever operation.

To inspect the functionality of this feature, park the vehicle on its main stand (optional) and check all the conditions described in the inspection flow diagram:

INSPECTION FLOW DIAGRAM

1. Turn the ignition switch to "ON" ( ) position and press the electric starter ( ) of integrated start-kill switch (with transmission in neutral and side stand is down).

Does engine start?

- NO → Visit Authorised Distributor/Dealer
- YES ↓

2. Then shift the transmission to gear (with engine running and irrespective of clutch lever operation).

Does engine stop?

- NO → Visit Authorised Distributor/Dealer
- YES ↓

3. Now pull in the clutch lever and press the electric starter ( ) of integrated start-kill switch (After engine has stopped).

Does engine start?

- YES → Visit Authorised Distributor/Dealer
- NO ↓

SYSTEM IS OK

If your vehicle doesn't operate as described in above flow diagram, please visit your Authorised Distributor/Dealer.

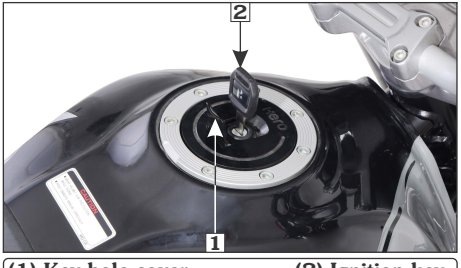
WARNING

***Regularly inspect the functionality of "Side stand engine kill" feature and in case of any malfunction visit* Authorised Distributor/Dealer.**

FUEL

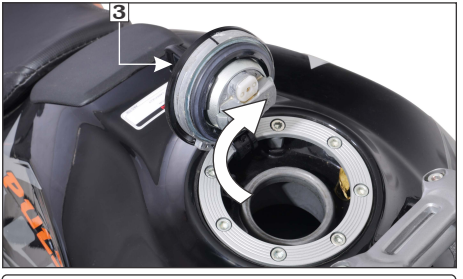
(a) Fuel tank

Fuel tank capacity is 13.0 litres (Be sure to fill the fuel tank when low fuel indicator glows).

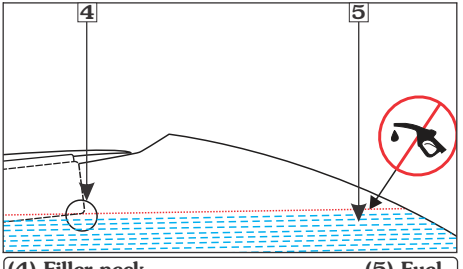


(1) Key hole cover **(2) Ignition key**

- To unlock fuel tank cap, lift the key hole cover (1), insert key (2) turn it clockwise and lift open the cap (3).
- Do not overfill the tank. There should be no fuel in filler neck (4). Fill the tank with fuel (5) as shown.



(3) Fuel tank cap



(4) Filler neck **(5) Fuel**

- To lock fuel tank cap, close the cap back on the opening and press gently. The key springs back to the normal position and cap gets locked.
- Remove the key and put back the keyhole 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.

(b) Petrol containing alcohol

Fuel available at your location may contain ethanol. Ethanol is a form of alcohol and is generally mixed with petrol to reduce emissions.

(1) Fuel tank

It is recommended not to use petrol containing more than 20% of ethanol to avoid any damage to engine and other parts of the vehicle.

If you observe any problem related to the operational performance of the vehicle, contact your Authorised Distributor/Dealer.

CAUTION

Please ensure the vehicle is not used with low fuel indicator glowing continuously. It will not only result in the vehicle running out of fuel, it may also cause serious damage to the fuel pump. Please ensure fuel is filled up as soon as the low fuel indicator starts glowing.

WARNING

- ***Petrol is highly flammable and explosive. You can be burned or seriously injured when handling fuel.***
- ***Stop the engine and keep heat, sparks and flame away.***
- ***Refuel only outdoors.***
- ***Wipe off spills immediately.***

SEAT LOCK

Location: On the left side of the rear cowl, below the rear grip.

Operation: Insert the ignition key (1) and turn is clock wise to unlock the seat. To install, engage the hook on the underside of the seat with the frame and slide the seat to the front until the lock clicks.

(1) Ignition key

HELMET HOLDER

The helmet holder is located below the seat. Remove the seat. Hang the helmet on the helmet holder hook (1) using wire helmet set (2) supplied with the vehicle. Install the seat (3) and lock it securely.

(1) Helmet holder hook (2) Wire helmet set
(3) Seat

⚠ WARNING

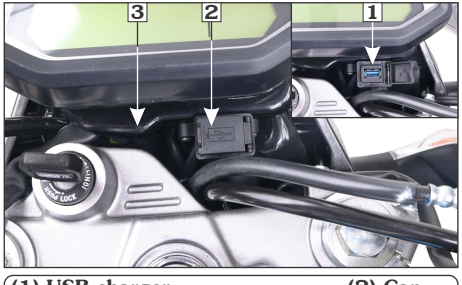
- ***Riding with a helmet attached to the holder can interfere with the rear wheel and could cause a crash in which you can be seriously hurt or killed.***
- ***Use the helmet holder only while parked. Do not ride with a helmet secured by the holder.***

USB CHARGER

A USB charger (1) with a cap (2) mounted on the meter console stay (3) to charge your mobile phone safely while riding.

Use of non-standard USB cable may cause damage to the mobile phones.

To connect a mobile phone to the charger, first open the cap from the USB charger and then plug in the charger cable to it. Hero MotoCorp will not be responsible for damages caused due to use of non-standard USB cable.



(1) USB charger (2) Cap
(3) Meter console stay

CAUTION

- ***Always place the device in a soft clean cloth/towel to avoid any damage due to road shocks while riding.***
- ***Multiple charging of USB devices have to be avoided, simultaneous charging may lead to slow or no charging.***
- ***USB port is for charging compatible USB devices.***
- ***Do not leave the USB device and USB cable in the vehicle, when the vehicle is parked.***
- ***Charge your device when the engine is operational/while riding.***
- ***USB charger will not be covered under warranty in case of USB charger cap damage.***

NOTE

- ***Do not apply any soap solution, oil or grease inside the USB charger.***
- ***Any personal belongings have to be removed before water washing to avoid damage.***
- ***Always keep the USB port cap closed after use to prevent dust or water entry during rains/water wash.***
- ***Do not direct water jet towards the port even with cap closed to avoid any short circuit. Always dry the area using a dry cloth or moisture free compressed air before use.***
- ***Press the cap slightly for proper locking of USB charger cap.***
- ***The charging time of mobile may vary, depending on the mobile's battery state of the charge, mobile make and conditions.***

PRE- RIDE INSPECTION

A pre-ride inspection is thorough inspection of vehicle that rider must perform before riding the vehicle to enhance riding comfort and safety.

It is rider's responsibility to perform a pre-ride inspection and ensure that any problem found is corrected before riding.

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

Before on-road riding or returning to pavement after riding off-road, take some time to check the vehicle for any loose parts or anything that appears unusual. 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 55).** Check for leaks.
- **Programmed FI malfunction indicator lamp (MIL)-**When the ignition switch is turned "ON" the programmed FI malfunction indicator lamp (MIL) glows continuously and then should go "OFF" once the engine is started.
- **Fuel level-**Fuel level-Ensure sufficient fuel is available in your fuel tank for journey **(page 24)**. Check for leaks.
- **Low fuel indicator-**Vehicle should not be operated with low fuel indicator glowing continuously **(page 25)**.

- **Front brake–**Check for correct brake fluid level in master cylinder/reservoir **(page 66).**
- **ABS indicator–**Check ABS indicator for proper functioning of ABS **(page 35).**
- **Rear brake–**Check for correct brake fluid level in the reservoir **(page 67).**
- **Tyres–**Check condition and pressure **(page 73).**
- **Clutch–**Check for smooth operation. Adjust free play if necessary **(page 61).**
- **Drive chain–**Check condition and slackness **(page 63).** Lubricate if necessary.
- **Throttle–**Check for smooth opening and closing in all steering positions **(page 62)**.
- **Lamps & Horn–**Check that headlamp, daytime running light, tail/stop lamp, turn signal lamps, indicators and horn function properly.
- **Rear view mirror–**Ensure that the rear view mirror gives a good rear view when you are sitting on the vehicle.
- **Integrated start-kill switch–**Check for proper functionality **(page 34)**.
- **Fitting & Fasteners–**Check & tighten if necessary.
- **Steering–**Check for smooth action and for easy maneuverability.
- **Side stand–**Check for proper functionality **(page 35).**

Before riding off–road, check following points along with all other pre–ride inspection points:

- Make sure the spokes are tight.
- Check the rims for any damage.
- Make sure the fuel tank cap is securely fastened.
- Check the vehicle throughly for loose cables and other parts, anything that appears abnormal.
- Check all accessible nuts, bolts and fasteners, if found loose, contact an Authorised Distributor/Dealer, to get them tighten to specified torque.

STARTING THE ENGINE

Always follow the proper starting procedure described below :

- To protect the catalytic converter in your vehicle's exhaust system, avoid extended idling and the use of leaded petrol.
- Your vehicle's exhaust contains poisonous carbon monoxide gas. High levels of carbon monoxide can collect rapidly in enclosed areas such as garage. Do not run the engine with the garage door closed.

! CAUTION

- ***Never hold electric starter (⏲) of integrated start–kill switch continuously more than 5 seconds as continuous cranking of engine will discharge the battery.***
- ***This vehicle is equipped with a side stand engine kill feature (page 38).***

Preparation

Before starting insert the key and follow the below mentioned procedure :

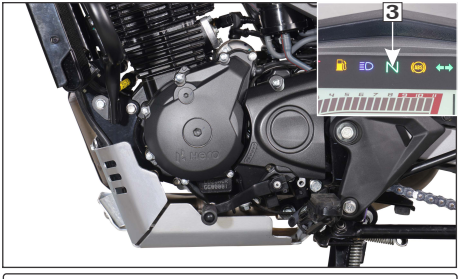
- Turn the ignition switch (1) "ON" position.
- Confirm that the programmed FI malfunction indicator lamp (MIL) (2) glows continuously and then should go "OFF" once the engine is started.

NOTE

If MIL remains "ON" even if the vehicle is started, there is an abnormality in the programmed FI system. It is recommended to reduce the speed and drive to the* Authorised Distributor/Dealer, *for check-up.

(1) Ignition switch
(2) Malfunction indicator lamp (MIL)

- Find neutral position & check neutral Ⓝ indicator (3) on instrument console with ignition "ON".



(3) Neutral indicator

- Make sure that the integrated start-kill switch (4) is at "ON" (⍝) position.

(4) Integrated start-kill switch

- **Electric start :** Press the electric starter (⍟) of integrated start-kill switch with fully closed throttle.

- **Kick start :** Depress the kick starter until resistance is felt. Then let the kick starter return to the top of its stroke. Kick from the top of the stroke through to the bottom with a rapid, continuous motion.

! CAUTION

- ***Do not open excessive throttle when engine is idling and the vehicle is parked, as it may lead to overheating and damage to engine and exhaust system components.***
- ***Running the engine at idle for more than 3 minutes may also result in engine overheating.***

Starting procedure

At any ambient temperature, Press the electric starter (⊛) of integrated start-kill switch with the throttle completely closed.

NOTE

- ***This vehicle has a fuel-injected engine with an idle air control valve (IACV).***
- ***It is not recommended to start engine with throttle.***
- ***Engine will not start if throttle is kept fully open as Electronic Control Unit (ECU) cuts-off the fuel supply for internal components safety.***

Flooded engine

If the engine fails to start after repeated attempts, it may be flooded with excess fuel.

- Open the throttle fully.
- Press the electric starter (⊛) of integrated start-kill switch for 5 seconds.
- Follow the normal starting procedure.
- If the engine starts with unstable idle, open the throttle slightly.
- If the engine does not start wait for 10 seconds, then follow first 3 steps again.

Ignition cut off

Your vehicle is designed to automatically stop the engine & fuel pump, if vehicle falls down.

(Bank angle sensor cuts off the ignition).

NOTE

If the vehicle has fallen down, before restarting the engine you must turn the ignition switch to "OFF" (⊗) position and then back to "ON" (○) position.

Running in

Help assure your vehicle's future reliability and performance by paying extra attention to how you ride during the first 500 km.

During this period, avoid full-throttle starts and rapid acceleration.

NOTE

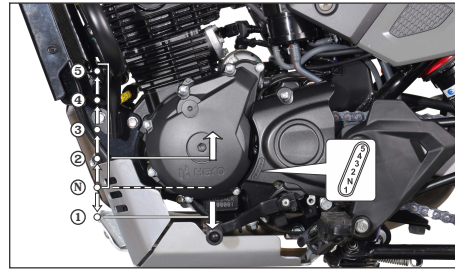
- ***To start the engine if any gear is engaged, press the clutch lever and press the integrated start-kill switch.***
- ***Do not open the throttle during starting the vehicle.***

WARNING

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

RIDING

- Excessive revving the engine during cold condition can reduce engine life.
- While the engine is idling, press the clutch lever and depress the gearshift pedal downwards using the toe to shift into 1st 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 2nd gear by placing the toe on the underside of gear pedal and lift upwards.
- This sequence is repeated progressively to shift to 3rd, 4th and 5th gear.



CAUTION

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

BRAKING

Anti-lock braking system (ABS)

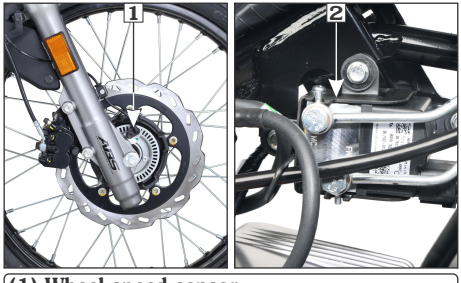
This model is equipped with Anti-lock braking system (ABS) which enhances active safety by helping to prevent the wheels from locking during braking.

ABS is designed to meet two essential requirements during every brake application:

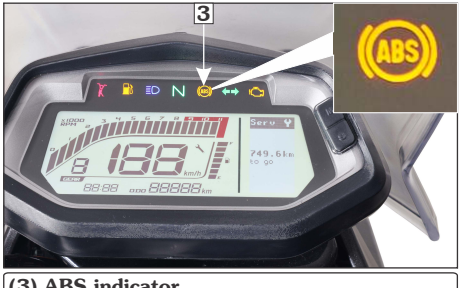
- To help provide vehicle stability.
- To help maintain steering control and maneuverability-on road surfaces.

The ABS system is self-regulating and always active once vehicle speed exceeds 5 km/h.

- The ABS controller acts on the basis of the comparative speeds of the front wheel. The use of non-approved tyres can affect the speed of the wheels and supply incorrect information to the ABS computer.
- The system has a wheel speed sensor (1), hydraulic electronic control unit (HECU) (2), and an ABS indicator lamp (3) on meter console.



(1) Wheel speed sensor
(2) Hydraulic electronic control unit (HECU)



(3) ABS indicator

Whenever you ride your vehicle, Wheel speed sensor monitors the speed of the wheel and sends the input to Hydraulic Electronic control unit (HECU). Then HECU monitors your vehicle and takes control when vehicle speed exceeds 5 km/h.

Now whenever you will apply front brake, ABS will come into picture and based on the input from wheel speed sensor, HECU will modulate the pressure at front caliper thus avoiding wheel to lock and in turn resulting safe stop of the vehicle.

Do's and Dont's

Do's

- Check your brake pads and be sure you have clean brake fluid. ABS systems can also fail due to worn brake pads or air or dirt in brake fluid.
- Use the recommended brake fluid.
- If brake gets wet, apply the brake while riding at low speed to help them dry.
- It is recommended that ABS should be serviced at Authorised Distributor/Dealer.
- Read your owner's manual for additional riding instructions.
- Carefully remove the wheel during the puncture/tyre replacement to prevent the Sensor ring damage/bend.
- Use only the recommended make, type, size of tyre and maintain specified tyre pressure **(page 74).**
- Keep checking speedometer. In case of ABS malfunction, speed display may go to zero.

- Always maintain sufficient distance from the objects/vehicles ahead, for proper braking and to match riding speed.
- On certain surfaces, such as rough road or gravel road, brake lever may have hard/pulsating feel. Apply full braking on the lever even on the hard or pulsating feel of the lever to get the optimum performance.
- In case of ABS malfunction, the brake system will work as conventional (Non-ABS) brake. Rider is recommended not to apply hard brake to prevent wheel lock and visit Authorised Distributor/Dealer.

Don't's

- Don't panic by mechanical noises or slight lever pulses while applying the brake (whenever ABS actuates) in vehicle. These conditions are normal and indicates that ABS is working.
- Don't apply the hard braking in wet or rainy conditions and while taking a turn.
- Do not adjust the wheel speed sensor air gap yourself.
- Do not attempt to correct the encoder teeth by bending manually or by using any other mode. Do not use a different encoder teeth
- Do not insert any metallic part near wheel speed sensor.
- Don't try to service HECU or open to separate the parts.
- Don't use the non-genuine spares like pads, discs, tyres etc.

NOTE

- ***ABS may get activated without brake application while riding on uneven road surfaces (sharp drop or rise on the road level). This is normal functioning of ABS and won't be having any impact on performance.***
- ***ABS may not work if the battery is discharged.***
- ***ABS operation is also affected by road conditions, vehicle handling and brake operation. It is the rider's responsibility to ride at reasonable speed and to leave a margin of safety.***
- ***ABS consists of an electric motor, from which sound can be heard.***

PARKING

After stopping the vehicle, shift the transmission to neutral, turn the ignition switch "OFF" (⊗), park the vehicle on main stand (optional), lock the steering and remove the key.

! CAUTION

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

TOOL KIT

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

(1) Tool kit

Kit consists of following tool:

- Tool bag–1 No.
- +, – No. 2 Driver – 1 No
- Grip–1 No.
- Box wrench P16 x 14–1 No.
- Handle pin spanner–1 No.
- Pin spanner–1 No.
- No.3 cross point screw driver–1 No.
- Wire helmet set–1 No.

CLEANING AND WASHING OF VEHICLE

Follow the below mentioned steps for washing the vehicle.

- Wet the vehicle with light water spray. Avoid directing high pressure water spray to meter console, muffler outlets, electrical parts and oil cooler.
- Clean the headlamp lens and other plastic parts using a cloth or sponge dampened with a solution of mild detergent and 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 and oil cooler cover during wash to ensure quality wash.

⚠ WARNING

Avoid direct high pressure water spray on any electrical, electronic components and oil cooler.

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 Distributor/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 Distributor/Dealer 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 Authorised Distributor/Dealer.

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 (optional).
- To reduce the possibility of a fire or explosion, be careful when working around petrol or batteries. Use only nonflammable solvent, not petrol, to clean parts. Keep cigarettes, sparks and flames away from the battery and all fuel-related parts.

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

To ensure best quality and reliability, it is recommended to use genuine parts for repair and replacement.

MAINTENANCE SCHEDULE

Perform the pre-ride inspection **(page 41)** 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 Distributor/Dealer meets all of these requirements.

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

To be serviced by your Authorised Distributor/Dealer unless the owner has the relevant tools, technical information and is technically qualified.

In the interest of safety, we recommend that these jobs are carried out only by your Authorised Distributor/Dealer.

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

Note-2 : Service more frequently if the vehicle is ridden in unusually wet or dusty areas.

Note-3 : Replace engine oncein every 12000 km. Top up if the oil level is at or near the lower level mark.

Note-4 : Must clean the engine oil strainer screen & centrifugal filter at 1st service and in every 12000 km.

Note-5 : Clean the magnetic drain plug bolt tip in every 12000 km or during oil change and replace if damaged.

Note-6 : Visit Authorised Distributor/Dealer for inspection, cleaning, lubrication and adjustment of drive chain at every 700 km.

Note-7 : Replace brake fluid once in every two years or 30000 km, whichever is earlier.

Note-8 : Inspect & maintain specified torque.

Note-9 : Inspect the wheel bearings free play, replace if necessary.

Note-10 : Inspect & adjust before and after every off-road riding.

Note-11 : Replace front fork oil once in a every 2 years or 30000 km, whichever is earlier.

Note-12 : Inspect rear suspension mounting bushes play, replace rear shock absorber if necessary.

Note-13 : Check CO emission at idle.

Note-14 : Inspect the canister hoses for deterioration, damage or loose connections and canister for cracks or other damages.

Note

- Service more frequently if the vehicle is ridden in wet or dusty areas.
- Service more frequently if the vehicle is ridden in rain or at full throttle.
- Always wipe the water from the vehicle after washing. Use clean soft cloth or pressurized air for completely drying the water.
- Always replace gaskets, O-rings, circlips and cotter pins with new one once removed.

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.

ITEMS		SERVICE	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th
		DAYS	1st 60	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90
		KM Note-1	500-750	3000-3500	6000-6500	9000-9500	12000-12500	15000-15500	18000-18500	21000-21500	24000-24500	27000-27500	30000-30500
	Fuel Line		I	I	I	I	I	I	I	I	I	I	I
	Throttle Operation		I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A
	Air Cleaner Element	Note-2	C	C	C	C	R	C	C	C	R	C	C
	Spark Plug		I, C, A	I, C, A	I, C, A	I, C, A	R	I, C, A	I, C, A	I, C, A	I, C, A	R	I, C, A
	Valve Clearance		I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A
	Engine Oil	Note-3	O	I, T	I, T	I, T	O	I, T	I, T	I, T	O	I, T	I, T
	Engine Oil Strainer Screen		C				C				C		
	Engine Oil Centrifugal Filter		C				C				C		
	Magnetic Drain Plug Bolt Tip	Note-4	C				C				C		
	Engine Oil Cooler & Hoses		I	I	I	I	I	I	I	I	I	I	I
	Electric Starter		I	I	I	I	I	I	I	I	I	I	I
	Oil Circulation		I	I	I	I	I	I	I	I	I	I	I
	Drive Chain	Note-5	I,C,L,A at every 700 km						I,C,L,A at every 700 km				
	Drive Chain Slider			I	I	I	I	I	I	I	I	I	I

	ITEMS	SERVICE	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th
		DAYS	1st 60	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90	Next 90
		KM Note-1	500-750	3000-3500	6000-6500	9000-9500	12000-12500	15000-15500	18000-18500	21000-21500	24000-24500	27000-27500	30000-30500
	Battery Voltage		I	I	I	I	I	I	I	I	I	I	I
	Brake Pads Wear		I	I	I	I	I	I	I	I	I	I	I
	Brake Fluid	Note-6	I	I	I	I	I	I	I	I	I	I	I
	Brake System (Brake Pedal)			I, C		I, C		I, C		I, C		I, C	
	Stop Lamp Switch		I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A
	Headlamp Focus		I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A
	Clutch Lever Free Play		I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A	I, A
	Side Stand/ Main Stand (Optional)		L	L	L	L	L	L	L	L	L	L	L
	Side Stand Switch		I, C	I, C	I, C	I, C	I, C	I, C	I, C	I, C	I, C	I, C	I, C
	Nut, Bolts & Fasteners	Note-7	I	I	I	I	I	I	I	I	I	I	I
	Wheels Bearings	Note-8	I	I	I	I	I	I	I	I	I	I	I
	Wheels/Tyres		I	I	I	I	I	I	I	I	I	I	I
	Steering Head Bearing		I	I, A	I	I, A	I, L, A	I	I, A	I	I, L, A	I	I, A
	Front Suspension Oil	Note-9	I	I	I	I	I	I	I	I	I	I	R
	Rear Suspension	Note-10	I	I	I	I	I	I	I	I	I	I	I
	Muffler (Catalytic Converter)	Note-11			I, E		I, E		I, E		I, E		I, E
	Evaporative Emission Control System	Note-12	I	I	I	I	I	I	I	I	I	I	I

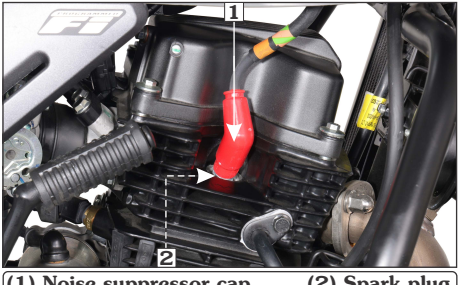
SPARK PLUG INSPECTION

Recommended plugs:

Champion REK6YC (Federal Mogul)

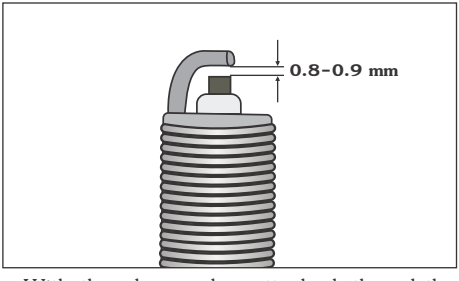
For most riding conditions this spark plug heat range number is satisfactory. However, if the vehicle is going to be operated for extended periods at high speeds or near maximum power in hot climates, the spark plug should be changed to a cold heat range number, consult Authorised Distributor/Dealer on this if required.

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



(1) Noise suppressor cap (2) Spark plug

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



- With the plug washer attached, thread the spark plug in by hand to prevent cross-threading.
- Tighten a new spark plug 1/2 turn after the plug seats, with a spark plug box wrench to compress the washer. If you are reusing a plug, it should only take 1/8-1/4 turn after the plug seats.

! CAUTION

- ***Do not remove the spark plug and test for spark on the vehicle by cranking the engine as this could lead to fire or explosion***
- ***Never use a spark plug with improper heat range.***
- ***Install a dummy spark plug in the cylinder head and test for spark.***
- ***Always use resistor type spark plug.***

ENGINE OIL

Use hero genuine engine oil or recommended grade oil.

BRAND: Hero Xotic+

GRADE: SAE 10W 30 SL MA2 fully synthetic PAO based oil.

Manufactured by:

Indian Oil Corporation Limited.

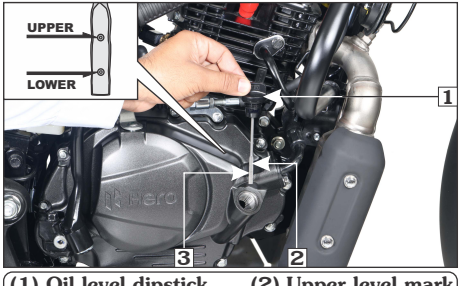
OIL CAPACITY : 1400ml (at disassembly)

: 1200ml (at draining)

Engine oil level inspection/

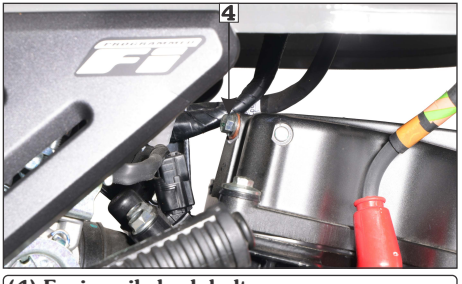
Top up process

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.



(1) Oil level dipstick (2) Upper level mark
(3) Lower level mark

- Do top up if oil level reaches towards the lower level mark or every 3000 km whichever is earlier.
- Park the vehicle on main stand (optional).
- Start the engine & let it idle for 3-5 minutes.
- Slightly loosen the engine oil check bolt (4) and check the engine oil entry into the cylinder head cover.

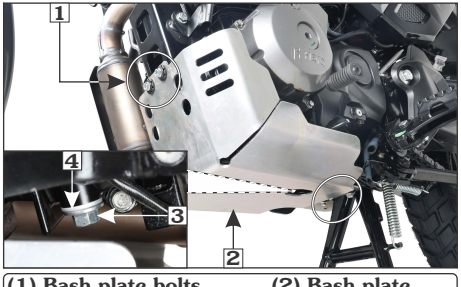


(4) Engine oil check bolt

- After checking the oil circulation, tighten the engine oil check bolt.
- 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.
- Reinstall the oil level dipstick with new O-ring and check for oil leaks.

Engine oil replacement/
Oil circulation inspection

- Start the engine, warm it up for several minutes and then turn it off.
- Wait a few minute until the oil settles down.
- Remove the bash plate bolts (1) and bash plate (2).
- To drain the oil, remove the oil level dipstick, drain bolt (3) and sealing washer (4).
- After the oil has completely drained, reinstall the drain bolt (3) with a new sealing washer (4).
- Fill the crankcase through the oil filler hole with 1200 ml (approximately) of recommended grade oil during oil change (when right crankcase cover is not removed).



(1) Bash plate bolts **(2) Bash plate**
(3) Drain bolt **(4) Sealing washer**

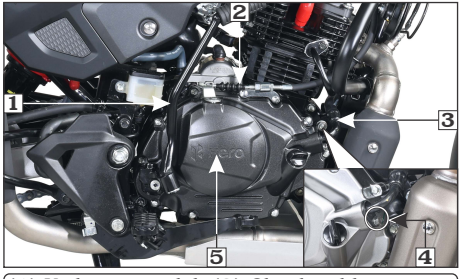
- Reinstall the oil level dipstick with a new O-ring.
- Install the bash plate.
- Start the engine and allow it to idle for few minutes.
- Stop the engine and let the engine oil settle down.
- Recheck the oil level.
- Make sure that oil level is at the "UPPER" level mark of the oil level dipstick with the vehicle in an upright position and that there are no oil leaks.

! CAUTION

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

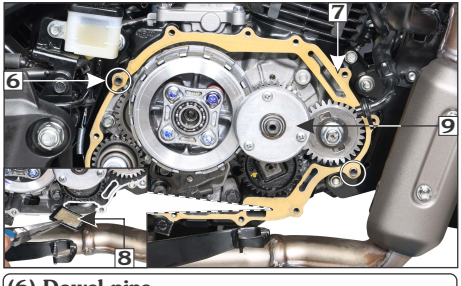
OIL FILTER SCREEN & CENTRIFUGAL FILTER CLEANING

- Drain the engine oil thoroughly **(page 56)**.
- Remove the kick starter pedal (1).
- Disconnect the clutch cable (2).
- Remove the oil cooler hose (3) by removing its bolt (4) and right crankcase cover (5).



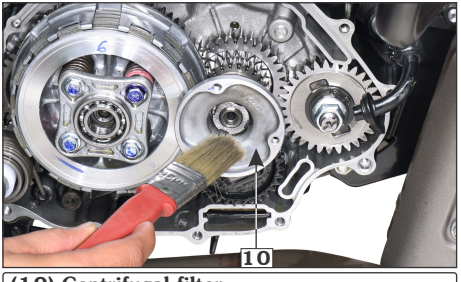
(1) Kick start pedal (2) Clutch cable
(3) Oil cooler hose (4) Oil cooler hoses bolt
(5) Right crankcase cover

- Remove the dowel pins (6) and gasket (7).
- Remove the oil filter screen (8) and wash it in clean non flammable or high flash point solvent (kerosene).



(6) Dowel pins
(7) Gasket
(8) Oil filter screen
(9) Centrifugal filter cover

- Reinstall the filter screen with the tapered end facing in.
- Remove centrifugal filter cover with gasket (9) & clean the centrifugal filter (10) with non flammable or high flash point solvent (kerosene).



(10) Centrifugal filter

- Reinstall the centrifugal filter cover with new gasket.
- Install the new dowel pins & gasket, right crankcase cover.
- Install the oil cooler hose by tightening its bolt.
- Connect the clutch cable.
- Install the kick starter pedal.
- Install the bash plate.
- Fill the crankcase with clean engine oil as per specification **(page 56).**

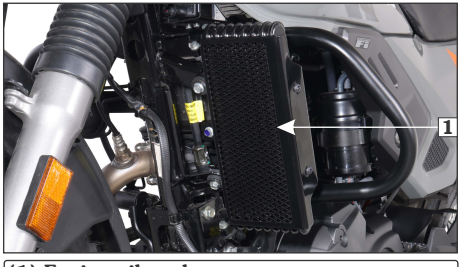
NOTE

Ensure to replace gasket & dowel pin with new one once removed.

! CAUTION

- ***Must clean the strainer screen & centrifugal filter at 1st service and in every 12000 km.***
- ***Ensure that adequate care should be taken while removing the oil cooler hose to avoid any damage or leakage.***

ENGINE OIL COOLER



(1) Engine oil cooler

! CAUTION

- ***No hard objects to be used for cleaning the engine oil cooler (1), otherwise the fins will get damaged.***
- ***No high pressure washing of the oil cooler as it may damaged the fins, any physical contact with fins is to be avoided.***
- ***Avoid keeping any cloth or flammable object between hot parts (muffler, oil cooler, engine).***

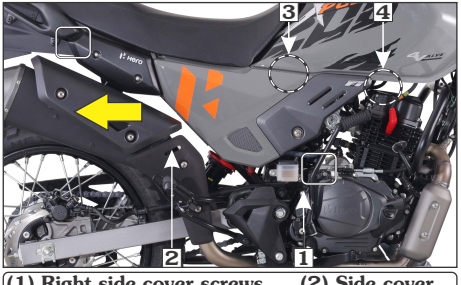
AIR CLEANER

Air cleaner element inspection

Refer to the safety precautions **(page 51)**.

The air cleaner element is of dry paper pleated type, it should be serviced at specified intervals **(page 52)**. Service more frequently when riding in unusually wet or dusty areas.

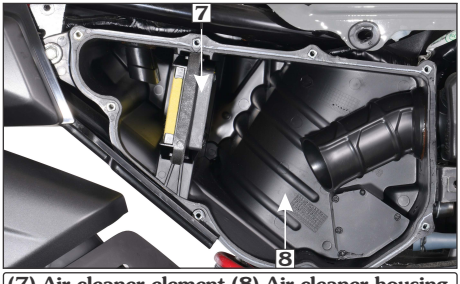
- Remove the seat **(page 40).**
- Remove the right side cover screws (1), side cover (2) by releasing the lug from the grommet (3) and slide the cover towards the rear to release tab from the slot (4).



(1) Right side cover screws **(2) Side cover**
(3) Lug/Grommet **(4) Tab/Slot**

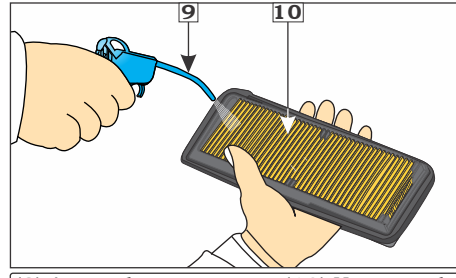
- Remove the air cleaner cover screws (5) and the cover (6).
- Remove the air cleaner element (7) from air cleaner housing (8).

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



(7) Air cleaner element (8) Air cleaner housing

- Air cleaner element cleaning
  - Clean the element by tapping it gently to loosen dust.
  - Blow away the remaining dust by forcing compressed moisture-free air using an air nozzle (9) from the housing side (10) of the air cleaner.
  - Replace the air cleaner element if it is excessively dirty, torn or damaged.



(9) Air nozzle **(10) Housing side**

! CAUTION

- ***Never wash the air cleaner element. Only blow air in the air cleaner element for cleaning dust, as explained. Replace air cleaner element once in every 12000 km.***
- ***Replace it earlier if it becomes very dirty, damaged on surface or on the sealing area.***

- Install the air cleaner element.
- Install the air cleaner cover.
- Install the right side cover.
- Install the seat **(page 40)**.

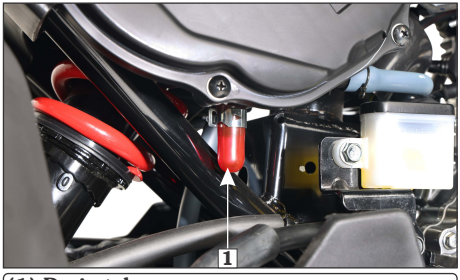
Air cleaner drain tube cleaning

Remove the drain tube (1) and drain the deposit into a container.

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

NOTE

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



(1) Drain tube

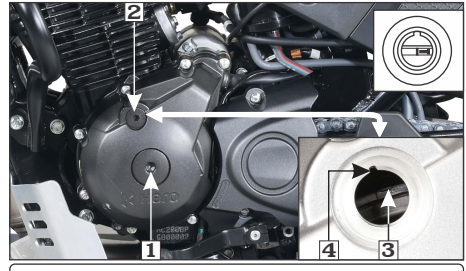
VALVE CLEARANCE ADJUSTMENT

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 52).**

NOTE

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

- Remove the fuel tank.
- Remove the crankshaft hole cap (1) and timing hole cap (2).
- Remove the cylinder head cover.
- Rotate the flywheel anticlockwise until the "T" mark (3) on the flywheel coincides with the index mark (4) on the left crankcase cover. In this position the piston will either be on the compression or exhaust stroke.



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

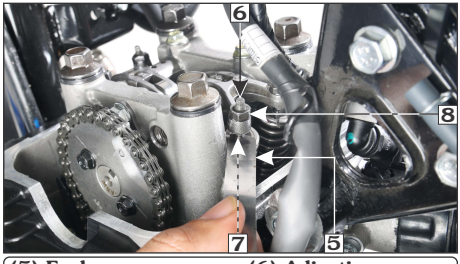
The adjustment must be made when the piston is at top dead center and both the inlet and exhaust valves are closed.

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 flywheel 360° anticlockwise and realign the "T" mark with the index mark.

- Check the clearance by inserting the feeler gauge (5) between the adjusting screw (6) and valve stem (7).

Standard clearance (cold condition)
Intake: 0.08 mm
Exhaust: 0.12 mm

- If adjustment is required, adjust by loosening the lock nut (8) and turning the adjusting screw until there is a slight drag on the feeler gauge.
- After tightening the lock nut, check the clearance again.



(5) Feeler gauge (6) Adjusting screw
(7) Valve stem (8) Lock nut

Installation is in the reverse order of removal.

NOTE

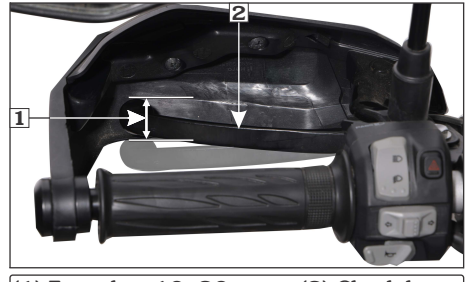
- ***Before inserting the feeler gauge, smear a bit of engine oil on the feeler gauge to avoid damage to the feeler gauge.***
- ***Make sure the valve clearance adjustment of both the inlet valves should be same as per specifications.***
- ***Make sure the valve clearance adjustment of both the exhaust valves should be same as per specifications.***

CLUTCH LEVER FREE PLAY

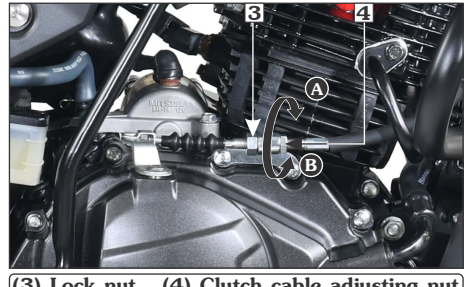
Adjustment

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).



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



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

- 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.

NOTE

***If proper adjustment cannot be obtained or the clutch does not work correctly, visit your* Authorised Distributor/Dealer.**

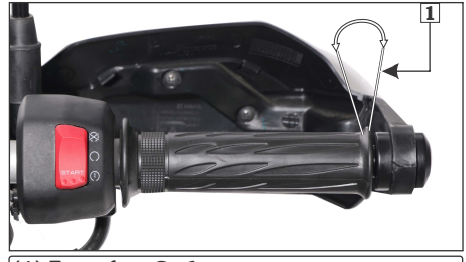
Other checks

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

THROTTLE OPERATION

Cable inspection

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

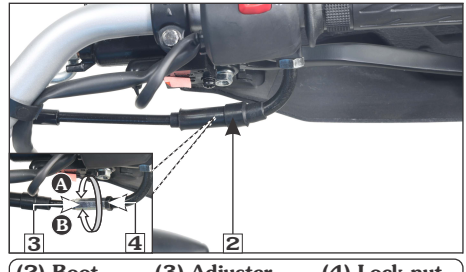


(1) Free play: 2-6 mm

Free play adjustment

(a) At handlebar side

To adjust the free play, slide the boot (2), then loosen the lock nut (4). Turn the adjuster (3) to adjust free play. After adjustment, tighten the lock nut and slide the boot on the adjuster and lock nut securely.



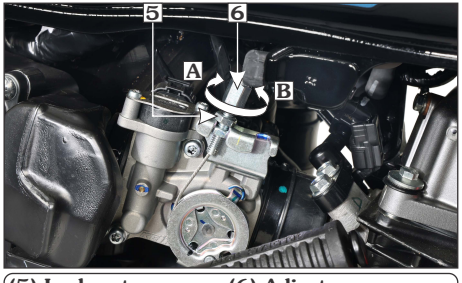
(2) Boot (3) Adjuster (4) Lock nut
(A) Decrease free play (B) Increase free play

If the specified free play is not achieved, adjust the free play on throttle body side.

(b) At throttle body side

Remove the right side cover **(page 57)**.

Loosen the lock nut (5). Turn the adjusting nut (6) to obtain the specified free play. Tighten the lock nut and check the adjustment.



(5) Lock nut **(6) Adjuster**
(A) Decrease free play **(B) Increase free play**

DRIVE CHAIN SLACKNESS

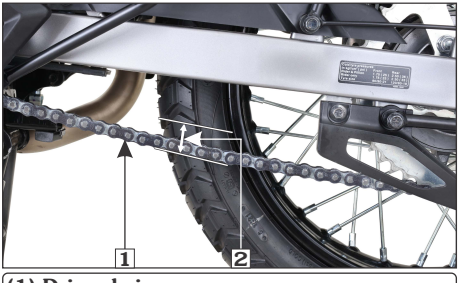
The service life of the drive chain depends upon proper lubrication and adjustment.

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

The drive chain (1) should be checked and lubricated as part of the pre-ride inspection **(page 42).** 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 service stand or main stand (optional) and shift the transmission to neutral.
- Drive chain slack (2) should be checked in the lower run midway between the sprockets. Move the drive chain up and down by hand and chain slack should be adjusted to 30-35 mm vertical movement by hand.



(1) Drive chain
(2) Drive chain slack: 30-35 mm

- Rotate the wheel and check the drive chain slack. Repeat this procedure several times. Drive chain slack should remain constant (30-35 mm). If the chain is slack only in certain sections, some links are kinked or binding. Binding and kinking can be eliminated by frequent lubrication.

NOTE

Drive chain slack should be adjusted at your Authorised Distributor/Dealer as per the specification.

- Rotate the rear wheel slowly and inspect the drive chain and sprockets for any of the following conditions.

Drive chain

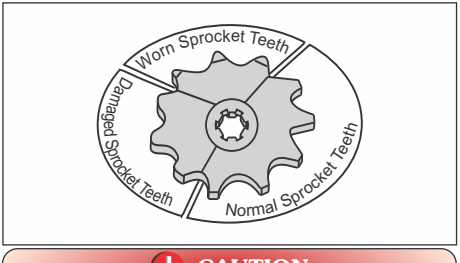
- Damaged rollers
- Loose pins
- Dry or rusted links
- Kinked or binding links
- Excessive wear
- Improper adjustment
- Damaged or missing O-rings.

Sprockets

- Excessively worn teeth
- Broken or damaged teeth.
- If the drive chain has damaged rollers, loose links or missing O-rings, replace it. If the chain is dry or rusted, it should be lubricated.

Lubricate the chain if the links are kinked or binding. If the problem is not solved after lubrication, replace the chain.

If the drive chain or sprockets are excessively worn or damaged, they should be replaced.



! CAUTION

Always replace the drive chain and sprockets as a set. Otherwise the new part will wear prematurely.

Adjustment

Drive chain slack should be checked and adjusted, if necessary at every 700 km.

When operated at sustained high speeds or under conditions of frequent rapid acceleration, the chain may require more frequent adjustments.

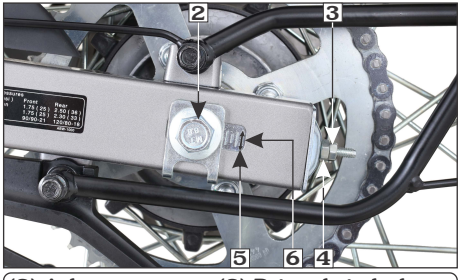
If the drive chain requires adjustment, follow the procedures below:

- Park the vehicle on its service stand or main stand (optional) with the transmission in neutral and the ignition switch in "OFF" position.
- Loosen the rear axle nut (1).

(1) Rear axle nut

- Loosen the drive chain lock nut (3) from both side.
- Turn the adjusting nut (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 rear edge (6) of the adjusting slots on both sides of the swingarm equally.



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

- Tighten the rear axle nut.
  Torque: 6.8 kgf-m
- Check the drive chain slack again.
- If after adjustment of drive chain slack, axle (2) touches to the rear edge of adjustment slot (6). Chain kit has to be replaced.

WARNING

If a torque wrench is not used for installation, see your Authorised Distributor/Dealer as soon as possible to check for proper assembly.

Cleaning and Lubrication

Lubricate every 700 km or sooner if the chain appears dry.

- Turn the engine off, park the vehicle on its service stand or main stand (optional) and shift the transmission into neutral. Open side stand to facilitate cleaning.
- Spray a commercially available chain cleaner for cleaning the drive chain over its entire length.

NOTE

Ensure that the chain cleaner and lubricant used is the one recommended for use on an O-ring chain, otherwise the O-rings may deteriorate, fail and lose their sealing properties.

- Rotate the rear wheel backwards to expose the next section of the drive chain and repeat second step until all of the drive chain is cleaned.
- Let the spray dry for about five minutes.
- To remove stubborn dirt, scrub the rollers and side plates with soft nylon brush.
- Apply SAE 90 grade oil on the hanger side of the entire length of the chain using an oil can.
- Wait for 7-10 minutes for penetration of lubricant inside the bush and roller wipe the excessive lubricant from the chain and nearby parts using a clean rag.

NOTE

Excessive lubricant if not wiped off, will aid in accumulation of dust, sand and dirt on the drive chain, increasing its wear and will also be sprayed on the vehicle as well due to chain movement.

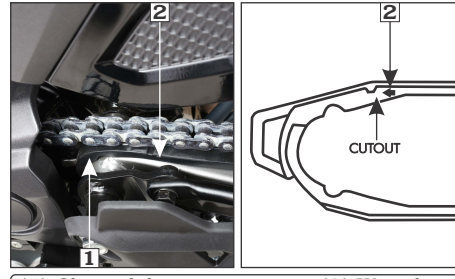
! CAUTION

- ***Steam cleaning, high pressure washers and certain solvents can damage the drive chain O-rings.***
- ***While lubricating and cleaning hold the rear wheel with one hand to prevent the possibility of your finger being trapped between the chain and sprocket.***
- ***Clean and lubricate the chain, whenever possible, after riding the vehicle under rain or in terrain with excessive dust, mud or sand.***
- ***The drive chain is fitted with O-rings between the link plates. These O-rings retain grease inside the chain to improve its service life. However, special precautions must be taken when adjusting, lubricating, washing and replacing the chain.***
- ***If the chain is excessively dirty, it should be removed and cleaned before lubrication. For your own safety, we recommend that service be performed by an Authorised Distributor/Dealer.***

DRIVE CHAIN SLIDER INSPECTION

(Refer to "Maintenance Schedule" on **page 66**).

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



(1) Chain slider **(2) Wear limit**

BRAKES

Refer to the safety precautions on **(page 50).**

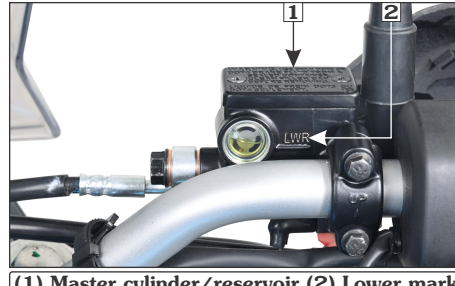
(a) Front brake

Master Cylinder/Reservoir (1)

Location : Right handlebar.

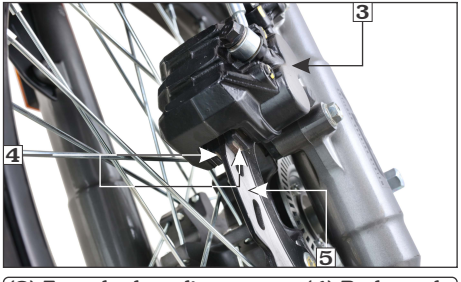
Brake fluid recommended:

DoT-4/DoT-3.



(1) Master cylinder/reservoir (2) Lower mark

Fluid level – Ensure that the brake fluid level does not fall below "LWR" (lower) mark (2) on master cylinder, when checked with the master cylinder parallel to the ground. The level decreases gradually due to piston movement to compensate pad wear. If the level decreases abruptly, check for the leakages in the brake system and consult your Authorised Distributor/Dealer.



(3) Front brake caliper (4) Brake pad (5) Disc

NOTE

- ***Clean the dirt and mud accumulation between the front brake caliper (3), brake pads (4) and the disc (5) by using a water jet.***
- ***Always contact your* Authorised Distributor/Dealer *for refilling of master cylinder/reservoir when necessary. Do not mix DoT 3 and DoT 4 brake fluid.***
- ***Always use recommended tyres (page 73) for better braking performance.***

(b) Rear brake

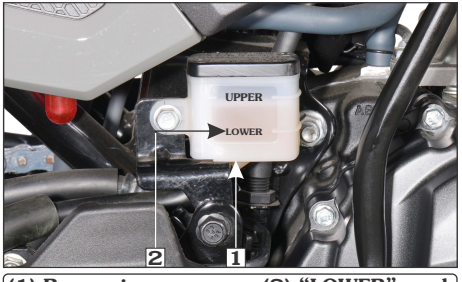
Refer to the safety precautions on **(page 51).**

Reservoir (1)

Location : Near pillion footrest.

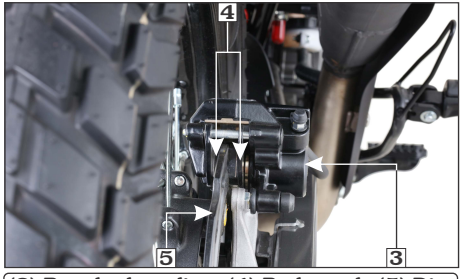
Brake fluid recommended:

DoT-4/DoT-3.



(1) Reservoir (2) "LOWER" mark

Fluid level – Ensure that the brake fluid level does not fall below "LOWER" mark (2) on the reservoir parallel to the ground. The level decreases gradually due to piston movement to compensate pad wear. If the level decreases abruptly, check for the leakages in the brake system and consult your Authorised Distributor/Dealer.



(3) Rear brake caliper (4) Brake pads (5) Disc

NOTE

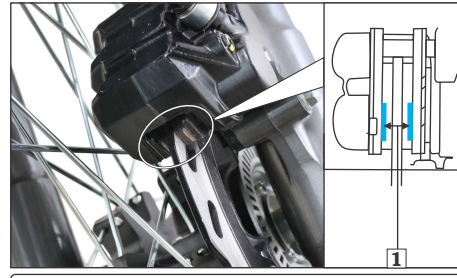
- ***Clean the dirt and mud accumulation between the rear brake caliper (3), brake pads (4) and the disc (5) by using a water jet.***
- ***Always contact your Authorised Distributor/Dealer for refilling of reservoir when necessary. Do not mix DoT 3 and DoT 4 brake fluid.***

(c) Brake pad wear

Brake pad wear depends upon the severity of usage, type of riding & road conditions. Generally, the pads will wear faster on wet & dirty roads. Inspect the pads as per maintenance schedule, however more frequent inspection is recommended if used in wet and dirty roads.

Front brake

- Check the brake pads for wear by examining the wear indicator groove (1) on each pad.

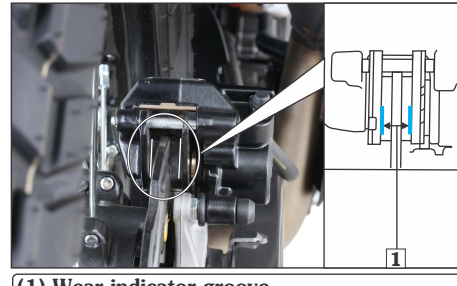


(1) Wear indicator groove

- If either pad is worn to the bottom of the grooves replace both pads as a set. Visit your Authorised Distributor/Dealer for this service.

Rear brake

- Check the wear indicator groove (1) in each pad.



(1) Wear indicator groove

- If either pad is worn to the bottom of the groove, replace both as a set. Visit your Authorised Distributor/Dealer for this service.

WARNING

- ***Ridding the vehicle more frequently in off-road conditions may lead to increased brake pad wear. Always inspect the brake pads more frequently if the vehicle is used off-road and replace the brake pads before they become worn to the bottom of the wear indicator grooves.***
- ***Riding with worn brake pads may reduce brake efficiency, leading to loss of vehicle control.***
- ***Always apply front and rear brakes simultaneously to avoid skidding of vehicle.***
- ***While riding on unpaved or dirt roads, the brake response may get delayed due to soiled brakes discs and pads. As the stopping distance becomes more from the point of brake application, it is important to apply brakes earlier than the normal brake application point until the brakes are clean.***

SUSPENSION

Front and rear 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 monoshock absorber by pushing hard downwards on rear grip while the vehicle is not parked on stand. The suspension action should be smooth and there should be no oil leakage.

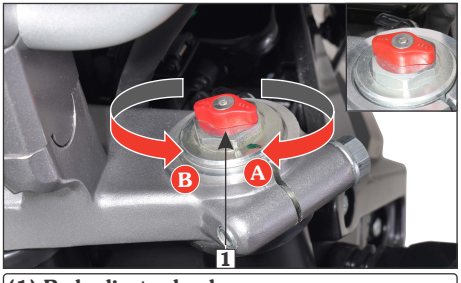
FRONT FORK ADJUSTMENT (PRO variant)

NOTE

- ***Counting of clicks starts from the fully clockwise (closed) position, and the first stop (click) is counted as 1.***
- ***Due to minor production variations, the actual number of clicks on the damping force adjuster may differ slightly from the specifications given. However, the full adjustment range is always the total number of clicks available on your vehicle. To obtain the desired adjustment, check the total number of clicks available on your vehicle and modify the specifications as necessary.***

(a) Right fork adjuster
(Red adjuster knob)

Front fork suspension rebound damping adjustment can be made by using red adjuster knob (1) on the right front fork according to the load/road conditions or owner's requirement.



(1) Red adjuster knob
(A) Harden the rebound damping
(B) Soften the rebound damping

- To increase the rebound damping force and harden the rebound damping–Rotate the red adjuster knob (1) in clockwise direction (A).
- To reduce the rebound damping force and soften the rebound damping–Rotate the red adjuster knob (1) in anticlockwise direction (B).

REBOUND DAMPING SETTINGS (IN DIRECTION A)			
ADJUSTMENT DIRECTION	**FIRM** Sand/Undulated terrain	**STD** Normal terrain	**SOFT** Broken roads
Clicks in anticlockwise direction when counted from fully clockwise direction.	5	14	20

(b) Left fork adjuster
(White adjuster knob)

Front fork suspension compression damping adjustment can be made by using white adjuster knob (2) on the left front fork according to the load/road conditions or owner's requirement.

(2) White adjuster knob
(A) Harden the compression damping
(B) Soften the compression damping

- To increase the compression damping force and harden the compression damping–Rotate the white adjuster knob (2) in clockwise direction (A).
- To reduce the compression damping force and soften the compression damping–Rotate the white adjuster knob (2) in anticlockwise direction (B).

COMPRESSION DAMPING SETTINGS (IN DIRECTION A)			
ADJUSTMENT DIRECTION	**FIRM** Sand/Undulated terrain	**STD** Normal terrain	**SOFT** Broken roads
Clicks in anticlockwise direction when counted from fully clockwise direction.	5	14	20

REAR MONO SHOCK ABSORBER ADJUSTMENT

(a) Rebound adjustment (PRO variant)

The rebound damping regulates the rate at which the shock absorber rebounds. Rear monoshock absorber rebound can be adjusted by turning the adjuster screw (1) according to the load and road conditions or owner's requirement.

- To increase the damping force–Rotate the adjuster screw (1) toward hard direction.
- To reduce the damping force–Rotate the adjuster screw (1) toward soft direction.

(1) Adjuster screw

REBOUND DAMPING SETTINGS			
ADJUSTMENT DIRECTION	**FIRM** Sand/Undulated terrain	**STD** Normal terrain	**SOFT** Broken roads
Clicks towards "hard" direction when counted from fully "soft" direction.	4	10	16

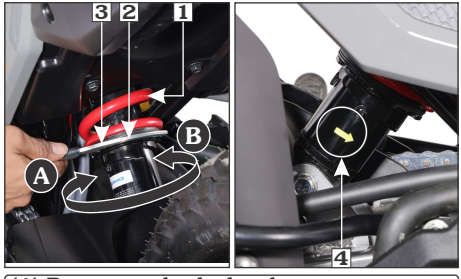
NOTE

After adjusting rebound, ride height must be inspected (page 83).

(b) Preload adjustment

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

- In direction A: Stiffer
- In direction B: Softer



(1) Rear monoshock absorber
(2) Pin spanner (3) Pin spanner handle
(4) Arrow mark sticker
(A) Stiffer (B) Softer

NOTE

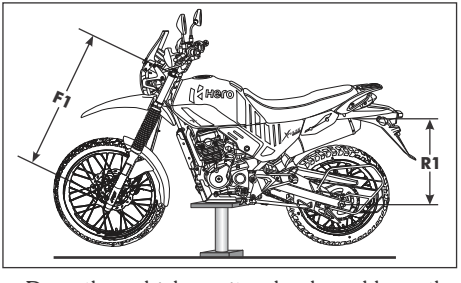
- ***To adjust the rear mono shock absorber (1), use the rear shock absorber adjustment tool [Pin spanner (2) with handle (3)] available in the tool kit.***
- ***Rear monoshock absorber arrow mark sticker (4) to be pointing towards vehicle front side during assembly on vehicle.***

WARNING

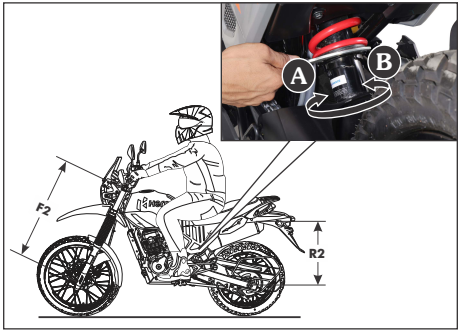
This assembly contains high-pressure nitrogen gas. Any attempt to disassemble or refill this shock assembly may result in an explosion, causing serious injury. Exposure to flame or puncture may also result in an explosion. Replacement and disposal should only be done by your Authorised Distributor/Dealer.

(c) Ride height inspection and adjustment (PRO variant)

- Securely lift the vehicle by using a stand or a scissor jack under the engine as shown until the front and rear wheels are out of contact with the ground.
- Measure the vertical distance between the rear wheel axle and a point on the bodywork of the vehicle directly above the rear wheel axle, with the wheel in the air. This will be dimension R1.



- Drop the vehicle on its wheels and have the rider sit on it in the natural riding position, whilst someone balances the vehicle from the front end.
- Measure the vertical distance between the rear wheel axle and a point on the bodywork of the vehicle directly above the rear wheel axle, with wheels on the ground and rider on the vehicle. This will be dimension R2.

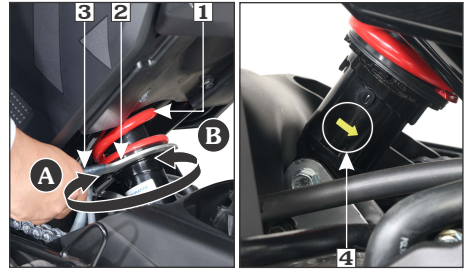


- Calculate R1–R2=X (Sag height).
  - If X is less than 60 mm, reduce spring preload by 1 step (Direction B).
  - If X is 60–65 mm, then spring preload is within specification and no adjustment is required.
  - If X is more than 65 mm, increase spring preload by 1 step (Direction A).
- Repeat this procedure from beginning until the sag height is within the specification (60–65 mm).

Rear monoshock absorber adjustment

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

- In direction A: Softer
- In direction B: Stiffer



(1) Rear monoshock absorber
(2) Pin spanner (3) Pin spanner handle
(4) Arrow mark sticker
(A) Stiffer (B) Softer

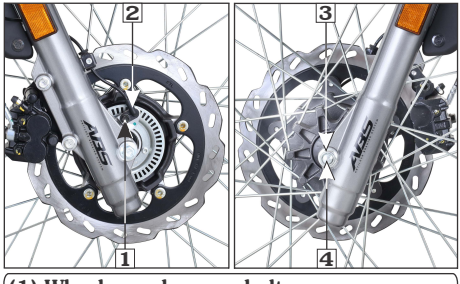
WHEEL

(a) Front wheel

Removal

Refer to the safety precautions on **(page 50).**

- Support the vehicle securely on the service stand or main stand (optional) and raise the front wheel off the ground.
- Remove the wheel speed sensor bolt (1) from right fork leg and disconnect the wheel speed sensor (2).



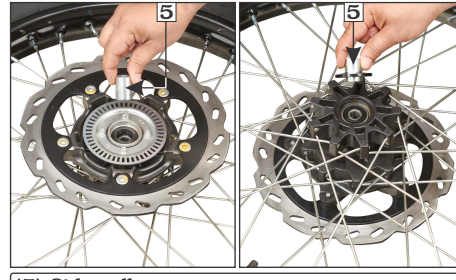
(1) Wheel speed sensor bolt
(2) Wheel speed sensor
(3) Front axle nut
(4) Axle

- Remove the front axle nut (3), remove the axle (4) and wheel.

! CAUTION

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

- Remove the side collars (5) from both sides of the wheel.



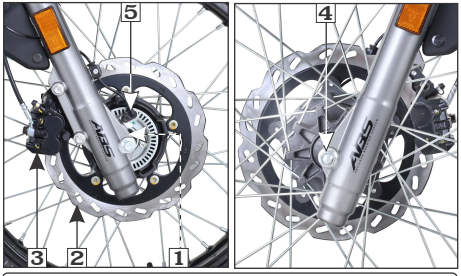
(5) Side collars

Installation

- Install the side collars (1) to both sides of the wheel hub.
- Insert the disc (2) between the pads in the caliper assembly (3). When installing the wheel, carefully fit the brake disc between the brake pads to avoid damage to the pads.
- Tighten the front axle nut (4) to the specified torque.

TORQUE : 5.9 kgf-m

- Install the wheel speed sensor (5).
- After installing the wheel apply the brake several times and then check if the wheel rotates freely. Recheck the wheel if the brake drags or if the wheel does not rotate freely.



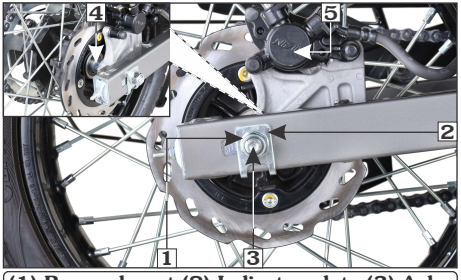
(1) Side collar (2) Disc (3) Caliper
(4) Front axle nut (5) Wheel speed sensor

(b) Rear wheel

Removal

Refer safety precautions on **(page 50).**

- Support the vehicle securely on the service stand or main stand (optional) and raise the rear wheel off the ground.

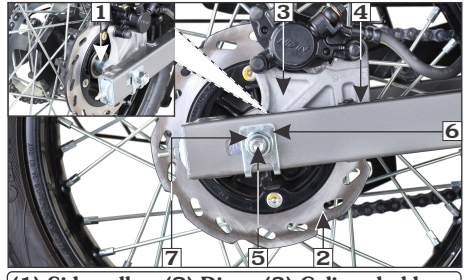


(1) Rear axle nut (2) Indicator plate (3) Axle
(4) Side collar (5) Caliper assembly

- Remove the rear axle nut (1) and indicator plate (2).
- Remove the axle (3) and the right side collar (4).
- Move the caliper assembly (5) upwards.
- Remove the wheel.

Installation

- Install the side collar (1) to the right side of the wheel hub.
- Position the rear wheel between the swingarm.
- Insert the disc (2) between the pads in the caliper assembly. When installing the wheel, carefully fit the brake disc between the brake pads to avoid damage to the pads.
- Align the rear caliper holder (3) with the swingarm (4).



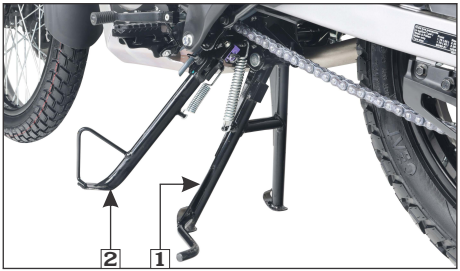
(1) Side collar (2) Disc (3) Caliper holder
(4) Swingarm (5) Rear axle
(6) Indicator plate (7) Rear axle nut

- Insert the axle (5) from the left side through the swingarm, wheel hub, collar and rear caliper holder.
- Install the indicator plate (6) and tighten the rear axle nut (7) to the specified torque.

  TORQUE : 6.8 kgf-m
- Adjust the drive chain slack **(page 63).**

MAIN STAND (OPTIONAL)/ SIDE STAND LUBRICATION

- Park the vehicle on the level surface.
- Check the main/side stand return spring for damage or loss of tension.
- Check the main stand (1)/side stand (2) for freedom of movement.
- Lubricate the side stand.
- Make sure the main/side stand is not bent.

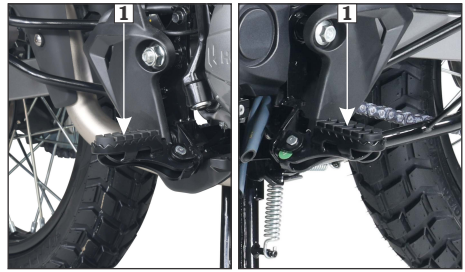


(1) Main stand (optional) (2) Side stand

RIDER FOOTREST MOVEMENT INSPECTION

After off-road riding, inspect the rider's footrest for ease of movement by following the steps below:

- Park the vehicle on the level surface.
- Check both right and left side rider footrests for ease of movement.
- If rider footrests are not moving freely, visit your Authorised Distributor/Dealer to get the rider footrests checked.



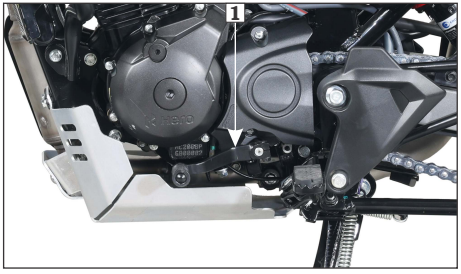
(1) Rider footrest

GEARSHIFT PEDAL MOVEMENT INSPECTION

After off-road riding, inspect the gearshift pedal for ease of movement by following the steps below:

- Park the vehicle on the level surface.
- Check the gearshift pedal for ease of movement while shifting the gear.

- If gearshift pedal is not moving freely, visit your Authorised Distributor/Dealer to get the gearshift pedal checked.



(1) Gearshift pedal

TYRES

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

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

Front	90/90-21 M/C 54S
Rear	120/80-18 M/C 62S

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.

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/cm^2 (25 psi)	1.75 kgf/cm^2 (25 psi)
Rear	2.30 kgf/cm^2 (33 psi)	2.50 kgf/cm^2 (36 psi)

NOTE

- ***Recommended tyre pressure for knobby tyres (if used) are 1.48 kgf/cm^2 (21 psi) for both front and rear wheels.***
- ***The tyre pressure can be adjusted accordingly during off-road riding using studded tyres.***

(1) Air pressure gauge

! CAUTION

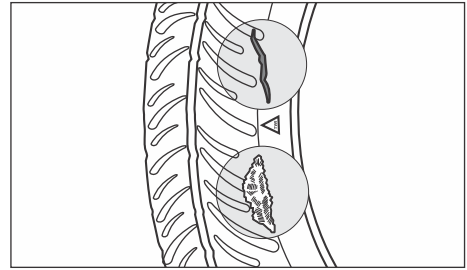
Over inflation/Under inflation will affect the performance.

Inspection

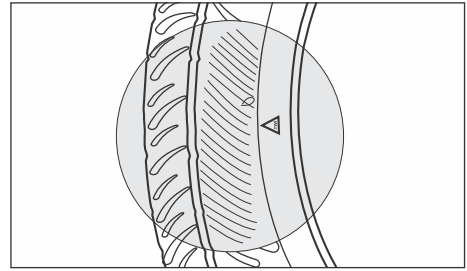
Whenever you check the tyre pressure, you should also examine tyre treads & side walls for wear, damage & foreign objects:

Look for :

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



- Excessive tread wear.



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

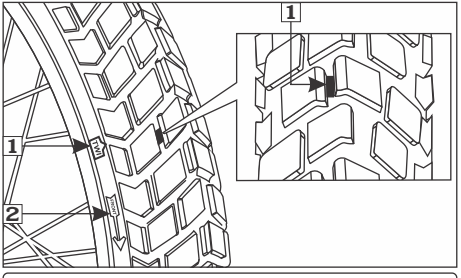
Tread wear

Replace tyres immediately when the tyres get worn upto the wear indicator **(1)** on the tyre. The tread limits are :

MINIMUM TREAD DEPTH:

Front: 1.0 mm **Rear:** 1.0 mm

Check the tread wear indicator for tyre wear.



(1) Tread wear indicator (2) Arrow mark

Unidirectional tyres

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.

⚠ 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.***
- ***Spoke tightness and wheel centering and alignment are essential for vehicle safety. During the first 1,000 km, the spokes become loose due to initial seating. Excessively loose spokes will cause instability at high speeds and possible loss of control.***
- ***Off-road riding or riding in rough terrain may result in loosening of the spokes. Make sure that the spokes are checked for loosening and wheel rims are checked for damage before and after off-road riding. Tighten any loose spoke.***

Riding with knobby tyres

For an enhanced riding experience during an off-road ride, it is recommended to use the approved off-road tyres (or knobby tyres) which are included in the accessory rally kit.

The rider should adapt his/her riding style according to the these knobby tyres (if used).

These tyres are specifically recommended for off-road use, as their performance may reduce on normal roads compared to the standard tyres.

Recommended tyre pressure for knobby tyres are 21 psi for both front and rear wheels.

NUTS, BOLTS & FASTENERS

- Tighten bolts and nuts as per maintenance schedule.
- Check that all chassis nuts and bolts are tightened to correct torque values.
- Check that all cotter pins, safety clips, hose clamps and cable stays are in place.

BATTERY

Refer to the safety precautions on **(page 50).**

Location

The battery is located behind the left side cover.

Specification

*MF Battery-12V-6 Ah/ETZ-7

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 Distributor/Dealer .

***MF stands for Maintenance Free**

NOTE

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

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

- ***Battery is a maintenance-free (sealed) type and can be permanently damaged if the sealing strip is removed.***
- ***An improperly disposed battery can be harmful to the environment and human health. Always confirm local regulations for battery disposal.***

Battery charging

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

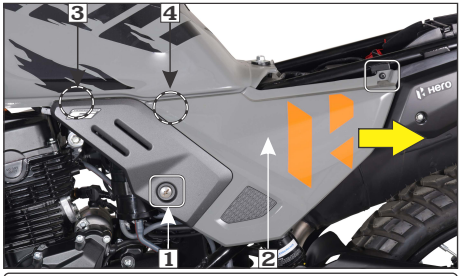
Battery storage

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

- Ensure the battery leads are properly connected to the battery terminals during installation.

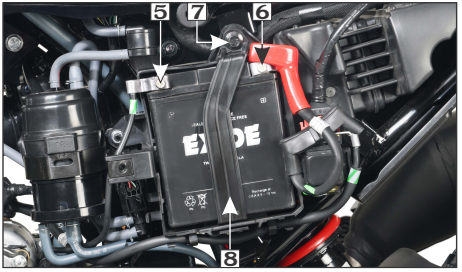
Battery removal

- Make sure the ignition switch is “OFF” (⊗).
- Remove the seat **(page 40).**
- Remove the right side cover screws (1), side cover (2) by releasing the lug from the grommet (3) and slide the cover towards the rear to release tab from the slot (4).



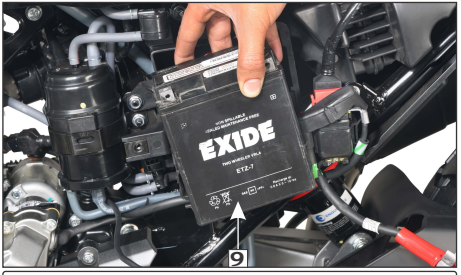
(1) Right side cover screws	**(2) Side cover**
(3) Lug/Grommet	**(4) Tab/Slot**

- Disconnect the (–)ve terminal lead (5) from the battery first, then disconnect the (+)ve terminal lead (6).
- Remove the battery clamp bolt (7) and the battery clamp (8).



(5) (–)ve terminal	**(6) (+)ve terminal**
(7) Battery clamp bolt	**(8) Battery clamp**

- Pullout the battery (9) from the battery box.



(9) Battery

Battery installation

- Reinstall in the reverse order of removal. Be sure to connect the (+)ve terminal first, then the (–)ve terminal.
- Check all bolt and other fasteners are secure properly.

FUSE REPLACEMENT

Refer to the safety precautions on **(page 50).**

Fuse box (1)

Location: Below the seat.

Fuse type: Blade fuse

Main fuse (2) :10A, 10A, 10A and 10A

Spare fuse (3) :10A and 10A

(1) Fuse box
(2) Main fuse :10A, 10A, 10A and 10A
(3) Spare fuse:10A and 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.***

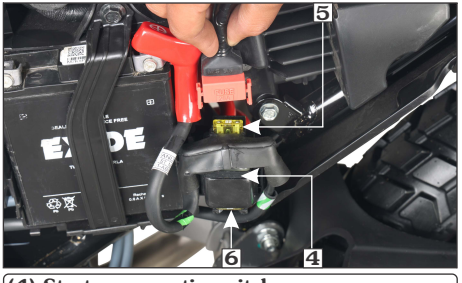
Starter magnetic switch (4)

Location: Inside left side cover, below the starter magnetic switch.

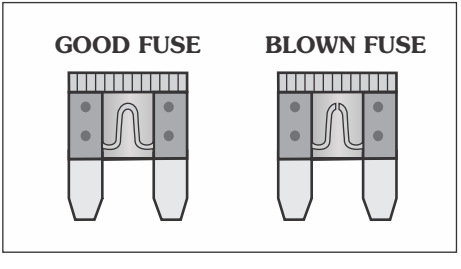
Fuse type: Blade fuse

Main fuse (5) :20A

Spare fuse (6) :20A



(4) Starter magnetic switch
(5) Main fuse:20A (6) Spare fuse:20A



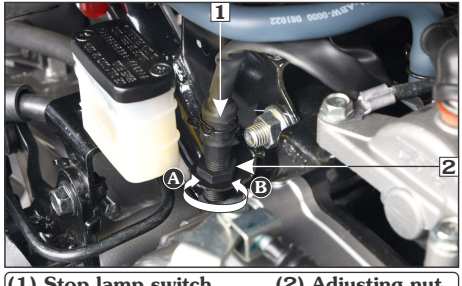
! CAUTION

- ***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 glows when rear brake is applied. The procedure for adjusting stop lamp is as follows :

- Turn the ignition switch to the "ON" (⏼) position.



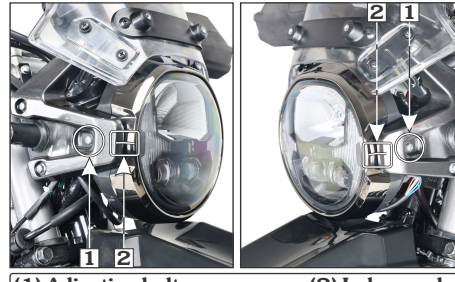
(1) Stop lamp switch **(2) Adjusting nut**
(A) Advance **(B) Retard**

- Turn the adjusting nut (2) to position stop lamp switch at a point where the stop lamp glows once the brake pedal is depressed. Turn the adjusting nut in direction (A) to advance switch timing or in direction (B) to retard switch timing.

HEADLAMP FOCUS ADJUSTMENT

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

- Headlamp adjustment is done by loosening the bolts (1) located on both the sides of the headlamp assembly.



(1) Adjusting bolts **(2) Index marks**

- Park the vehicle on the level ground.
- Turn the ignition switch to "ON" (⏼) position and start the engine.
- Set the headlamp dimmer switch to "D" position.
- Adjust the headlamp by loosening the bolts (1) and moving the headlamp assembly up and down for correct focus adjustment.
- Align the headlamp casing index marks (2) to the index mark on the headlamp assembly cover.
- After adjusting the headlamp, tighten the 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.

CATALYTIC CONVERTER

This vehicle is equipped with a catalytic converter (1) in the muffler to meet the emission norms.

The catalytic converter contains precious metals that serve as catalysts, promoting chemical reactions to convert the exhaust gasses without affecting the metals. The catalytic converter acts on HC, CO and NOx.

The catalytic converter must operate at a high temperature for the chemical reactions to take place. It can set on fire any combustible material that come near it. Park your vehicle away from high grasses, dry leaves, or other flammable material.

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 in good running condition. A poorly running engine can cause the catalytic converter to overheat.
- If your engine is misfiring, backfiring, stalling, or otherwise not running properly, stop riding and turn "OFF" the engine. Have your vehicle serviced as soon as possible.

(1) Catalytic converter

! CAUTION

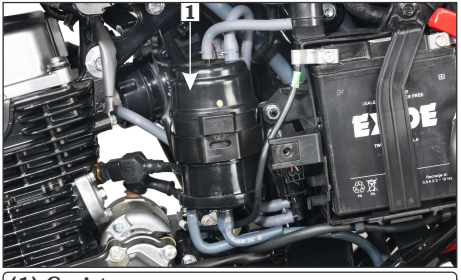
Avoid keeping any cloth or flammable object between hot parts (muffler, oil cooler, engine).

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.



(1) Canister

POLISHING OF VEHICLE

After washing your vehicle, wax all painted surfaces (except matte painted surfaces) using a commercially available polish/quality liquid or paste wax to finish the job. Use only a non abrasive polish or wax made specifically for automobiles. Apply the polish or wax according to the instructions on the container.

NOTE

Polishing or waxing is not applicable for models having matte paint.

1. STARTING TROUBLE - ENGINE DOES NOT START

A. Integrated Start-Kill Switch

Check engine stop switch position → "OFF" → Turn to "ON" (Ω) position

↓ "ON" (Ω) position

Consult Authorised Distributor/Dealer

B. Side Stand Engine Kill System

Check side stand in gear condition **(page 36)** → Side stand"Down" → Move the side stand up

↓ Side stand "Up"

Consult Authorised Distributor/Dealer

C. Fuel System

Check fuel gauge → Low fuel indicator glows continuously → Refill the fuel tank

↓ Key "ON" position

Check fuel lines → Leakage → **Consult Authorised Distributor/Dealer**

↓ OK

Check for operating sound of fuel pump → Broken fuel pump wire connector → Secure connections

↓ OK

Consult Authorised Distributor/Dealer

D. Electric Starter Not Working

Check fuse → Fused → Replace fuse **(page 78)**

↓ OK

Inspect battery → Weak → **Consult Authorised Distributor/Dealer**

↓ OK

Check connections, ignition switch/starter switch → Loose → Secure connections

↓ OK

Consult Authorised Distributor/Dealer

E. No Spark At Spark Plug

Check ignition switch → "OFF" (⊗) position → Turn ignition switch "ON" (Ω)

OK

Check spark plug for fouling/ improper electrode gap → No spark → Replace spark plug/adjust Spark plug gap **(0.8–0.9 mm)**

OK

Check for poorly connected or loose spark plug wire → Loose contact → Secure properly

OK

Consult Authorised Distributor/Dealer

2. ENGINE STARTS BUT STALLS

Check fuel lines → Leakage → **Consult Authorised Distributor/Dealer**

OK

Check air cleaner element → Dirty/Clogged → Clean & Refit

OK

Consult Authorised Distributor/Dealer

3. POOR PICK UP

Spark plug loose in cylinder head → Loose → Tighten the spark plug

OK

Check air cleaner element → Dirty/Clogged → Clean & Refit

OK

Check brake binding → Improper functioning → **Consult Authorised Distributor/Dealer**

OK

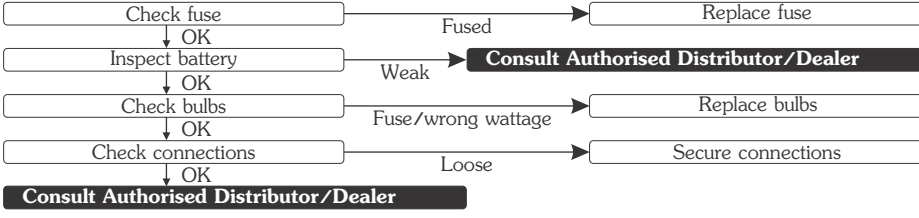
Check tyre inflation pressure → Under inflated → Correct tyre pressure

OK

Consult Authorised Distributor/Dealer

4. ELECTRICAL SYSTEM

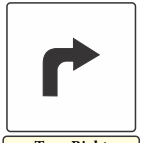
Feeble Horn Sound or No Light



NAVIGATION SIGNS

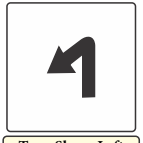
Navigation signs: Hero navigation app. and meter console of your vehicle will display step by step navigation guidance/direction through below navigation signs when your vehicle is in navigation mode with your smartphone.


Turn Left


Turn Right

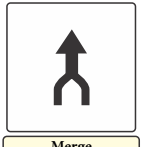

Turn Slight Left

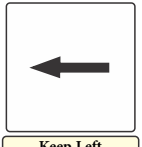

Turn Slight Right

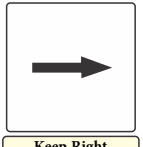

Turn Sharp Left

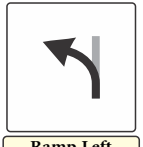

Turn Sharp Right

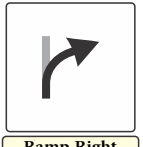

Straight


Merge


Keep Left

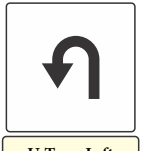

Keep Right

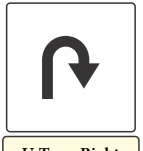

Ramp Left

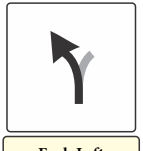

Ramp Right

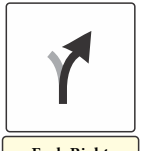

Round About Left


Round About Right

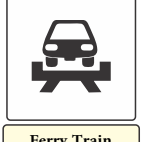

U Turn Left


U Turn Right

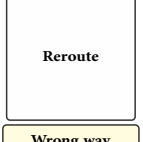

Fork Left


Fork Right


Ferry


Ferry Train


Destination Reached



Wrong way

Hero MotoCorp Ltd.

CUSTOMER'S COPY

DELIVERY CERTIFICATE

I certify having taken delivery of one Hero MotoCorp **XPULSE 200 4V** Vehicle bearing the following particulars:-

Engine No. _____

VIN _____

Colour/Model _____ **Key No.** _____

Allotment No. _____ **Date of Sale** _____

Customer's Name _____

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

Customer's Copy

Alongwith the vehicle I have also received the following:-

1. Owner's Manual
2. 2 Nos. Keys
3. 1 Set of tools **(for details see below)**
4. Standard Accessories **(optional accessories is/are chargeable)**
5. Battery Make _____ Sr. No. _____
6. Tyre **Front** Make _____ Sr. No. _____
   Rear Make _____ Sr. No. _____

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

Customer's Name _____

Customer's Address _____

Customer's Signature _____

Authorised Distributor/Dealer Name _____

Authorised Distributor/Dealer Address _____

Details of Tool kit

- Tool bag-1 No.,+ , - Driver No.2-1 No., Grip-1 No., Box wrench P16 x 14-1No. Handle pin spanner-1 No., Pin spanner-1 No., No.3 cross point screw driver-1 No. Wire helmet set-1 No.

Hero MotoCorp Ltd.

AUTHORISED DISTRIBUTOR/DEALER COPY

DELIVERY CERTIFICATE

I certify having taken delivery of one Hero MotoCorp **XPULSE 200 4V** Vehicle bearing the following particulars:-

Engine No. _____

VIN _____

Colour/Model _____ **Key No.** _____

Allotment No. _____ **Date of Sale** _____

Customer's Name _____

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Authorised Distributor/Dealer copy

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   Rear Make _____ Sr. No. _____

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

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Customer's Address _____

Customer's Signature _____

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GENUINE PARTS

WHAT ARE THE BENEFITS OF Hero MotoCorp GENUINE SPARE PARTS ?

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

CONSEQUENTIAL DAMAGES ON USING NON-GENUINE PARTS

Clutch Plate	• Material used is inferior • Damages other parts of clutch like, clutch center and outer clutch • Affects fuel efficiency • Poor acceleration
Cam Chain Kit	• Poor performance • Reduced life
Gasket Cylinder Head	• Improper sealing • Engine knocking • Leads to leakage and smoky exhaust • Higher emission level

Hero

GENUINE PARTS

CONSEQUENTIAL DAMAGES ON USING NON-GENUINE PARTS

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

JOBS APPLICABLE TO PERIODIC SERVICES

- Test drive the vehicle if required for reported troubles, if any.
- Wash the vehicle, blow dry with air at every service.
- Fuel line inspection at every service.
- Inspect throttle free play and operation at every service, adjust if necessary.
- Clean air cleaner element at every service. (replace at every 12000 km.).
- Inspect, clean the spark plug at every service, adjust if necessary. (replace at every 12000 km.).
- Inspect the valve clearance at every service, adjust if necessary.
- Engine oil top up or change as per the maintenance schedule.
- Clean engine oil strainer screen at first service then every 12000 km.
- Clean engine oil centrifugal filter at first service then every 12000 km.
- Inspect oil circulation at every service.
- Inspect engine oil cooler and hoses at every service.
- Inspect electric starter operation at every service.
- Inspect, clean, lubricate and adjust the drive chain at every 700 km.
- Inspect the drive chain slider.
- Inspect battery voltage at every service and charge if required.
- Inspect brake pads, disc wear and brake fluid level at every service. Replace brake fluid once in every two year or 30000 km. whichever is earlier.
- Inspect brake pad and brake fluid level at every service, adjust brake pad if necessary.
- Clean and lubricate brake pedal at second service, then every 6000 km.
- Inspect all lamps, horn and switches at every service, adjust if necessary.
- Inspect headlamp focus at every service, adjust if necessary.
- Inspect clutch lever free play at every service, adjust if necessary.
- Lubricate the side stand and main stand (optional) at every service.
- Inspect and clean the side stand switch at every service.
- Inspect fasteners and tighten to the specified torque (if required).
- Inspect the bearings free play, replace if necessary.
- Inspect wheels/tyres. Inflate tyre to specified pressure at every service.
- Inspect steering for smooth operation, adjust (if necessary) in every alternate service and lubricate at every 12000 km.
- Inspect front suspension at every service, replace oil once in every 2 year or 30000 km whichever is earlier.
- Inspect rear suspension mounting bushes play, replace if necessary.
- Check CO emission at idle (if required).
- Inspect the canister hoses for deterioration, damage or loose connections and canister for cracks or other damages at every service.
- Test drive the vehicle for repair of problems reported.
- Polish entire vehicle.

SERVICE RECORD SHEET
To be Filled in by Supervisor

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

NOTE

It is suggested to avail all free and paid services as per the recommended schedule for optimum performance of your vehicle. Vehicle malfunction due to unauthorized tempering of the vehicle will not be covered under the warranty policy. Please ensure that each paid service is availed within 90 days from the date of previous service or as per the recommended schedule, whichever is earlier.

SERVICE RECORD SHEET
To be Filled in by Supervisor

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

REMARKS (IF ANY)

SERVICE ADVICE SHEET

Normal wear and tear components replacement advice

Date	Km / Job Card No.	Advice	Authorised Distributor/Dealer (Sig. & Stamp)	Completion Dt. / Job Card No.

Hero MotoCorp Ltd.

OWNERSHIP RECORD AND DATA

NAME_____

ADDRESS_____

MODEL_____ REGN. NO. _____

ENGINE NO._____

VIN_____

DATE OF PURCHASE_____KM. READING _____

AUTHORISED DISTRIBUTOR/DEALER NAME_____

ADDRESS_____

_____

BATTERY MAKE_____ SERIAL NO._____

AUTHORISED DISTRIBUTOR/DEALER
STAMP AND SIGNATURE