## 1 <br> Overview

| Engine Number Position | Bar Tool |
| :--- | :--- |
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| Standard Torque Values | Symbol Descriptions |

## Engine Number Position



## Maintenance Precautions

1. Use only the spare parts, fittings, lubricating oil and other auxiliary materials produced, recognized or recommended by China Jialing Industrial Co., Ltd. (Group). Using spare parts not conforming to the "Jialing" specifications or requirements may cause damage to the motorcycle.
2. Whenever reassembling after being disassembled, replace new washers, sealing members, etc.
3. While fastening bolts or nuts, proceed in diagonal crossing sequence to gradually screw down to the required torque for 2 to 3 tries.
4. After being disassembled, the parts and components should be cleaned before being inspected and measured.

To clean the spare parts, use only the cleaning fluid that is incombustible or has high ignition point.

Before reassembling, apply the specified lubricating oil to the sliding surface of the parts and components.

After reassembling, check whether all the spare parts are mounted properly by means of turning, moving and operating them.
5. To disassemble and assemble a motorcycle, special service tools (SST) and general-purpose tools must be used in accordance with relevant regulations.
6. The specified or equivalent lubricating grease (oil) must be applied to or refilled into the specified locations.
7. When 2 or more persons are carrying out the operation, they shall work with each other and pay attention to safety.

8. Before operating, always remove the negative (-) end of the battery first and take care to prevent the wrench or the like from touching the frame. After operating, reconfirm all the connections, fixings and junctions. If the battery is already removed, connect the positive (+) end first.
9. In case the fuse is blown, check for the causes and, after being repaired, replace corresponding fuse as per the specified capacity.
 release the lock before proceeding with operation.

While disassembling a connector joints, hold the connector body without pulling the wire harness.


Before connecting the connector, the terminals shall be free from breaking or bending. Make sure the terminals are not too long or are falling off.

The connector shall be fully inserted in place.
For a connector with lock, confirm whether the lock is completely fixed.

Make sure the harness is not falling off

Make sure the plastic jacket of the connector is securely covering the connector without scaling off.
12. Before connecting a connector, make sure the sleeve is not broken and the opening of the intermediate terminal is not too large.

The joint shall be fully inserted in place.
Make sure the plastic jacket is housing the terminal completely. The opening of the plastic jacket shall not face up.
13. The harness fixing strap shall firmly button the specified position on the frame.
14. The clamp shall reliably bite the wire harness.

In case of a welded clamp, it shall not bite the wire harness towards the weld mark.

The wire harness shall be clamped at the position without contacting a rotating part or a removing element.








The wire harness shall be clamped at the position without contacting a part that generates high temperature.

The wire harness shall be clamped at the position without contacting the edge or sharp corners of the vehicle body.

The wire harness shall be incapable of passing through the position contacting a bolt, a screw head or any front part.

The wire harness shall not be slackened or be forcibly pulled.

If the wire harness has to contact the edge or sharp corner parts, the contacting part shall be protected with hose or adhesive tape.

In case of a wire harness with garland, it shall be reliably harnessed.

Do not damage the garnish of the wire harness. Once the wire harness is damaged, repair it by coiling with plastic adhesive tape.

While mounting parts and components, do not press the wire harness.




Do not mount wire harness with it twisted.
15. When wiring, note when turning it leftwards or rightwards to the limit position, the wire harness shall not be tightened up or slackened, and make sure there is no significant bending, pressing, intervening of marginal parts.
16. While using the test table, operate according to the maintenance manual after understanding the explanations in the instruction manual.
17. Do not drop or throw the parts and components.
18. In case of rust on the terminals, carry out connection operation after disposing it with abrasive paper, etc.
19. Do not forcibly twist or forcefully bend the cable. Because a deformed or damaged cable is the cause of bad operation and damage.


Have you learned by heart the method of application? Arethe
measurement range and


## Technical Data of Main Performance

|  | Item | Data |
| :---: | :---: | :---: |
| Dimension \& Weight | Length <br> Width <br> Height <br> Wheelbase <br> Min. ground clearance Complete vehicle weight | $2,210 \mathrm{~mm}$ 860 mm $1,330 \mathrm{~mm}$ $1,470 \mathrm{~mm}$ 200 mm Non-loaded weight: 195 kg, Curb weight: 210 kg , Fully loaded weight: 390 kg |
| Vehicle body | Frame type <br> Rake angle <br> Front suspension device <br> Rear suspension device <br> Front Tire size <br> Rear Tire size <br> Front wheel pressure <br> Rear wheel pressure <br> Front brake <br> Rear brake <br> Fuel tank volume <br> Fuel grade |  |
| Engine | Mode <br> Cylinder bore $\times$ Stroke <br> Cylinder displacement <br> Compression ratio <br> Max. power <br> Max. torque <br> Valve clearance (cold) <br> Valve driving gear <br> Air filter <br> Cooling method <br> Cooling water charging <br> volume <br> Crankshaft balance system <br> Lubrication method <br> Fuel pump type <br> Engine oil grade <br> Engine oil charge volume <br> Engine oil filter element <br> Electric motor starting <br> Idle speed <br> Net weight of engine | Single-cylinder water-cooling 4-valve top-mounted camshaft type 4-stroke engine <br> $94 \mathrm{~mm} \times 85 \mathrm{~mm}$ <br> 589.9cc <br> 9.7:1 <br> 28.5kw/6000rpm <br> 50N.m/4500rpm <br> IN: 0.09-0.14, EX: 0.17-0.22 <br> Chain drive <br> Oilpaper filter <br> Water-cooling <br> 1.2L <br> Balance shaft <br> Pressure / Splash <br> Secondary cycloid <br> 10W/40 (SG Grade) <br> 2.3L <br> Oilpaper filter <br> Engine starting <br> $1500 \pm 150 \mathrm{r} / \mathrm{min}$ <br> 49kg |


|  | Item | Data |
| :---: | :---: | :---: |
| Driving system | Clutch <br> Clutch operating system <br> Variable speed gear <br> Primary reduction ratio <br> Transmission gear ratio <br> Final reduction ratio Gear shifting mode | Wet clutch, coil clutch, paper friction wafer Manual mechanical <br> 5-speed constant mesh 2.345 <br> I 2.571 <br> II $\quad 1.647$ <br> III 1.200 <br> IV 0.957 <br> V 0.800 <br> 3.000 <br> Left foot operated to and back type <br> Sequence: I-N II -III-IV-V |
| Electrical system | Electric generator <br> Accumulator capacity <br> Power supply system <br> Fusible cutout <br> Spark plug <br> Spark plug gap <br> Ignition coil type <br> Fuel supply mode <br> Ignition mode <br> Ignition advance angle <br> Ignition timing <br> Front lamp <br> Turn lamp <br> Stop / Rear-position lamp | 330w/5000rpm, permanent magnet AC magneto 12V 14A.h <br> DC power supply, and the electric generator is only used to recharge the accumulator 30A <br> Chinese model NHSP B8RC, Japanese model NGK CR8E <br> $0.7-0.8 \mathrm{~mm}$ <br> Open magnetic circuit <br> Electronically injection, ECU control <br> EMS <br> EMS <br> EMS <br> $2 \times 12 \mathrm{~V} 35 \mathrm{~W} / 35 \mathrm{~W}$ <br> Front: 12V21W <br> Rear: 12V21W <br> 12V21W/5W |

## Standard Torque Values

ENGINE

| Item | Quantity | Thread diameter (mm) | Torque value (N.m) | Thread locker |
| :---: | :---: | :---: | :---: | :---: |
| Cylinder head connecting bolt | 12 | 6 | 10~14 |  |
| Cylinder bolt | 4 | 10 | $48 \sim 52$ |  |
| Valve adjusting screw nut | 4 | 5 | 7~11 |  |
| Timing driven sprocket bolt | 2 | 6 | 10~14 |  |
| Rocker-arm shaft cover | 2 | 14 | 24~28 |  |
| Magneto flywheel fastening nut | 1 | 18 | 171~189 | LOCTITE 243 |
| Clutch fastening nut | 1 | 18 | 114~126 | LOCTITE 243 |
| Primary driving gear fastening nut | 1 | 18 | $143 \sim 157$ | LOCTITE 243 |
| Oil drain plug | 1 | 14 | $28 \sim 32$ |  |
| Crankshaft, main-shaft bearing baffle screw | 5 | 6 | $8 \sim 12$ | LOCTITE 648 |
| Screw M5*12 (GB/T818-2000) | 3 | 5 | 6~9 | LOCTITE 648 |
| Gearshift drum plate connecting bolt | 1 | 6 | 10~14 |  |
| Gearshift shaft set bolt | 1 | 8 | 23~27 |  |
| Stud | 7 | 6 | $8 \sim 12$ | LOCTITE 648 |
| Stud | 1 | 8 | $10 \sim 14$ |  |
| Exhaust valve stud bolt | 2 | 8 | 10~14 | LOCTITE 243 |
| Freewheel and flywheel connecting screw | 6 | 8 | $23 \sim 27$ | LOCTITE 243 |
| Stator connecting bolt | 3 | 6 | 10~14 | LOCTITE 648 |
| Stator leads pressure plate bolt | 2 | 6 | 10~14 | LOCTITE 648 |
| Spark Plug | 1 | 10 | $14 \sim 18$ |  |
| Driving primary driving gear fastening nut | 3 | 6 | $10 \sim 14$ | LOCTITE 648 |
| Liquid tube set bolt | 1 | 8 | 10~14 |  |
| Water temperature sensor | 1 | 12 | $27 \sim 33$ |  |
| Tensioner plate fastening bolt | 1 | 8 | 23~27 |  |

Vehicle body

| Item | Quantity | Thread diameter <br> $(\mathbf{m m})$ | Torque value <br> $($ N.m) $)$ | Thread <br> locker |
| :--- | :---: | :---: | :---: | :---: |
| Front wheel spindle | 1 | 16 | $50 \sim 60$ |  |
| Front vibration damper plate | 4 | 6 | $8 \sim 12$ |  |
| Real wheel spindle nut | 1 | 18 | $80 \sim 100$ |  |
| Rear fork shaft nut | 7 | 14 | $60 \sim 70$ |  |
| Engine hanging bolt | 5 | 10 | $39 \sim 49$ |  |
|  | 8 | 8 | $25 \sim 35$ |  |
| Steering handle set bolt | 4 | 8 | $20 \sim 30$ |  |
| Front fork vertical pipe cap nut | 1 | 22 | $60 \sim 70$ |  |
| Upper / lower connection plate set | 6 | 8 | $25 \sim 35$ |  |
| bolt | 6 | 8 | $20 \sim 30$ | LOCTITE 243 |
| Rear sprocket bolt | 18 | 8 | $20 \sim 30$ |  |
| Brake disc fastening nut | 4 | 8 | $18 \sim 25$ |  |
| Banister fastening nut | 3 | 10 | $34 \sim 44$ | LOCTITE 243 |
| Damping rocker arm bolt and nut | 3 | 4 | $0.5 \sim 1$ | LOCTITE 243 |
| Speed signal panel screw | 3 | 10 | $34 \sim 44$ | LOCTITE 243 |
| Front brake caliper screw | 2 | 8 | $18 \sim 25$ | LOCTITE 243 |

In addition to the torque values of the important parts as listed above, the torque values for other standard fasteners are as follow:

| Name and dimensions | Torque value (N.m) |
| :--- | :---: |
| 5mm bolt \& nut | $4.5 \sim 6$ |
| 6mm bolt \& nut | $8 \sim \sim 12$ |
| 8mm bolt \& nut | $18 \sim 25$ |
| 10mm bolt \& nut | $30 \sim 40$ |
| 12mm bolt \& nut | $50 \sim 60$ |
| 5mm Screw | $3.5 \sim 5$ |
| 6mm Screw | $7 \sim \sim 11$ |
| 6mm spool bolt \& nut | $10 \sim 14$ |
| 8mm spool bolt \& nut | $20 \sim 30$ |
| 10mm spool bolt \& nut | $30 \sim 40$ |

## Bar Tool

## Special Service Tools (SST)

| Tool Name | Number | Diagram | Reference sections |
| :---: | :---: | :---: | :---: |
| Counter shaft oil seal guide | F02F000001 | $0>0)$ | 10 |
| Rotor fastening tool | F02F000002 |  | 9 |
| Sprocket fastening tool | F02F000003 |  |  |
| Variable-speed shaft oil seal guide | F02F000004 | $0000$ | 8, 10 |
| Piston sliding scale base | F02F000007 |  | 7 |
| Oil shield press-in buck | F02F000008 |  | 7 |
| Rocker-arm shaft locating tool | F02F000009 | $20$ | 7 |
| Fastening tool | F02F000010 |  | 2, 8 |
| Crankshaft oil seal press-in buck | F02F000012 |  | 8 |
| Clutch control rod oil seal guide | F02F000013 | $000$ | 8 |
| Valve clearance adjusting tool | F02F000015 | © | 3, 7 |
| Clutch push rod assembler | F02F000026 |  | 2, 8 |
| Clutch push rod extractor | F02F000027 |  | 2, 8 |
| Tensioner locking key | F02F000028 | $\mathrm{Cl}$ | 3, 7, 9 |

(Continued) Special Service Tools (SST)

| Rotor extractor | F02F000029 |  | 9 |
| :---: | :---: | :---: | :---: |
| Valve dismantling tool |  |  | 7 |
| Gearshift drum oil seal guide | F02CF000001 | $0000$ | 10 |
| Spoke nut fastening tool | X02F000001 |  | 3 |
| Special socket for adjusting nut | X02F000002 |  | 12 |
| Rear damper adjusting wrench | X02F000003 |  | 13 |
| Special socket for thermoswitch | X02F000004 |  | 5 |
| Bumper oil seal buck | X02F000005-1 |  | 13 |
| Rocker arm oil seal buck I | X02F000005-2 | (1) | 13 |
| Rocker arm oil seal buck II | X02F000005-3 | $\sqrt[0]{2} \sqrt{2}$ | 13 |
| Riveting gun |  |  |  |
| Anchor ear pliers |  |  |  |

General-purpose Tools (Reference)

| Tool Name | BRIEF DESCRIPTION | Reference sections |
| :---: | :---: | :---: |
| T-type wrench 8\# | Ultra thin |  |
| T-type wrench 9\# |  |  |
| T-type wrench 10\# |  |  |
| T-type wrench 12\# |  |  |
| T-type wrench 13\# |  |  |
| T-type wrench 14\# |  |  |
| T-type wrench 15\# |  |  |
| Hexagonal socket 8 | 1/4" joint, overall length 23 mm |  |
| Hexagonal socket 10 | $1 / 4$ " joint, overall length 23 mm |  |
| Hexagonal socket 13 | $1 / 4$ " joint, overall length 23 mm |  |
| Stud bolt socket M6 | 1/2" joint, overall length 55mm |  |
| Stud bolt socket M8 | 1/2" joint, overall length 55 mm |  |
| Hexagonal socket 8 | 1/2" joint, overall length 38 mm |  |
| Hexagonal socket 8 | $1 / 2^{\prime \prime}$ joint, overall length 38 mm , ultra thin |  |
| Hexagonal socket 9 | 1/2" joint, overall length 38mm |  |
| Hexagonal socket 10 | 1/2" joint, overall length 38mm |  |
| Hexagonal socket 10 | $1 / 2^{\prime \prime}$ joint, overall length 125 mm , connecting rod type Ultra thin |  |
| Hexagonal socket 11 | 1/2" joint, overall length 38mm |  |
| Hexagonal socket 12 | 1/2" joint, overall length 38mm |  |
| Hexagonal socket 13 | 1/2" joint, overall length 38 mm |  |
| Hexagonal socket 14 | 1/2" joint, overall length 38 mm |  |
| Hexagonal socket 14 | 1/2" joint, overall length 78 mm , ultra thin |  |
| Hexagonal socket 15 | 1/2" joint, overall length 38 mm |  |
| Hexagonal socket 16 | 1/2" joint, overall length 38 mm |  |
| Hexagonal socket 17 | 1/2" joint, overall length 38 mm |  |
| Hexagonal socket 18 | 1/2" joint, overall length 38 mm |  |
| Hexagonal socket 19 | 1/2" joint, overall length 38 mm |  |
| Hexagonal socket 21 | 1/2" joint, overall length 38 mm |  |
| Hexagonal socket 24 | 1/2" joint, overall length 45 mm |  |
| Hexagonal socket 27 | 1/2" joint, overall length 50 mm |  |
| Hexagonal socket 27 | $1 / 2^{\prime \prime}$ joint, overall length 78 mm , ultra thin, Ex. diameter $\leq \varphi 37$ |  |
| Hexagonal socket 29 | 1/2" joint, overall length 50 mm |  |
| Spark plug socket 16 | 1/2" joint, $\varphi 22.5 \times 64 \mathrm{~mm}$ |  |
| Connecting rod | Joint, $12.7 \mathrm{~mm} \times 12.7 \mathrm{~mm}$, length 100 mm |  |
| Connecting rod | Joint, $12.7 \mathrm{~mm} \times 12.7 \mathrm{~mm}$, length 75 mm |  |
| L-type wrench | Joint, 12.7 mm , length 260 mm |  |
| Hooke's universal joint | Joint, $12.7 \mathrm{~mm} \times 12.7 \mathrm{~mm}$ |  |
| Hooke's universal joint | Joint, $6.3 \mathrm{~mm} \times 6.3 \mathrm{~mm}$ |  |
| Steering joint | 12.7 mm turn to 6.3 mm |  |
| ratchet wrench 6.3 | 6.3 mm joint |  |

(Continued) General-purpose Tools (Reference)


## Maintenance Period Table

| Maintenance times <br> Maintenance Items | Period | Odometer km (Remark 2) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} 2000 \\ \mathrm{~km} \end{gathered}$ | $\begin{gathered} 4,000 \\ \mathrm{~km} \end{gathered}$ | $\begin{gathered} 8,000 \\ \mathrm{~km} \end{gathered}$ | $\begin{gathered} 12,000 \\ \mathrm{~km} \end{gathered}$ | Remarks |
| Fuel system passage |  |  | I | I | I |  |
| ** Fuel precision filter |  | Replace for every 15000km driving |  |  |  |  |
| Throttle operating system |  | , | I | , | 1 |  |
| Throttle valve body |  | 1 | I | I | 1 |  |
| Air filter element | Remark 1 | C | C | R | Replace ev | 000km driving |
| Oil catcher |  | C | C | C | Clean for e | 000km driving |
| Spark Plug |  |  | 1 | I | Replace ev | 000km driving |
| Engine lubricant oil |  | For a motorcycle, change every $500 \mathrm{~km}, 1200 \mathrm{~km}$ and 2000 km respectively, and then change it every 3000 km driving |  |  |  |  |
| Oil filter |  | R | Replace every 12,000km driving |  |  |  |
| Tensioner | Remark 3 | I | 1 | I | 1 |  |
| both intake and exhaust | Remark 3 | I | Check every $8,000 \mathrm{~km}$ driving |  |  |  |
| Clutch |  | 1 | 1 | I | 1 |  |
| Driving chain |  | Proceed with I and L for every 500km driving |  |  |  |  |
| ${ }^{* *} \quad \begin{aligned} & \text { Front and rear brake } \\ & \text { system }\end{aligned}$ |  | I | I | 1 | I |  |
| ** Brake Pad |  | 1 | 1 | I | 1 |  |
| ** Brake fluid |  | Change every 2 years |  |  |  |  |
| Front and rear brake lamp switch |  | I | 1 | 1 | 1 |  |
| Accumulator | Monthly | 1 |  | 1 | 1 |  |
| Suspension system |  | I |  | 1 | I |  |
| Nut and bolt fastening |  | 1 |  | 1 | 1 |  |
| ${ }^{*}$ * Wheel \& tire |  | I | 1 | 1 | 1 |  |
| ** Steering column bearing |  | , | 1 |  | 1 |  |
| ** Steering backstay cable | Inspect every 5000 km driving and replace every 10000 km driving |  |  |  |  |  |

Maintenance shall be carried out to the motorcycle in a specified period. The meanings of various symbols in the list are as follows:
I: Carry out inspection, cleaning, adjustment, lubrication or replacement. C: Cleaning. R: Replacement. A: Adjustment. L: Lubrication.

* This item is subject to maintenance by persons from Jialing Service Station. If the user has special service tools, maintenance accessories or maintenance ability, it can repair it by itself.
** To ensure safety, this item is only subject to maintenance by persons from Jialing Service Station.


## Remarks:

(1) While driving in a dusty area, it shall be cleaned more often.
(2) When the odometer reads more than the given maximum value, its maintenance period shall still repeat as per the mile interval as stipulated in the table.
(3) To ensure safety, the adjustment of timing chain and valve clearance shall only be carried out by persons from Jialing Service Station.

## Wiring Diagram




Left turn lamp connecting wire


Vehicle speed sensor leads


## Magnified view of Part D



Accumulator connecting wire ( - )

## Magnified view of Part E

Injection nozzle patch plug

Rear brake switch leads


## Magnified view of Part F



Thermoswitch connecting wire (Main cable)


Throttle position sensor patch plug
-20-
https://www.motorcycle-manual.com/

## Magnified view of Part G

Phase sensor connection


## Symbol Descriptions

Meanings of various symbols in this manual:


Measures to be prompted during operating, inspecting and maintaining.

## $\triangle$ notice:

Special instructions or disposal measures given to prevent motorcycle from being damaged.

## (1i) WARNING:

Special instructions or measures given to avoid serious damages or personal injuries.

|  | Each time reassembled after being removed and disassembled, it must be replaced with a new one. |
| :---: | :---: |
| 5 T004 | Use special service tools (SST) |
| $0 \cdot 9$ | Use general-purpose tools. |
| 550 | Tightening torque of $50 \mathrm{~N} . \mathrm{m}$. |
| , | Use suggested engine oil. |
|  | Use the mixtures of engine oil and molybdenum disulfide (mixing ratio of 1:1). |
| $S_{100 \times}$ | Use thread locker. |
| $\delta \operatorname{stn} 9$ | Use sealant. |
| Lix | Use lithium base grease. |

