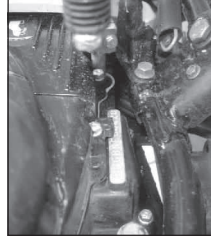
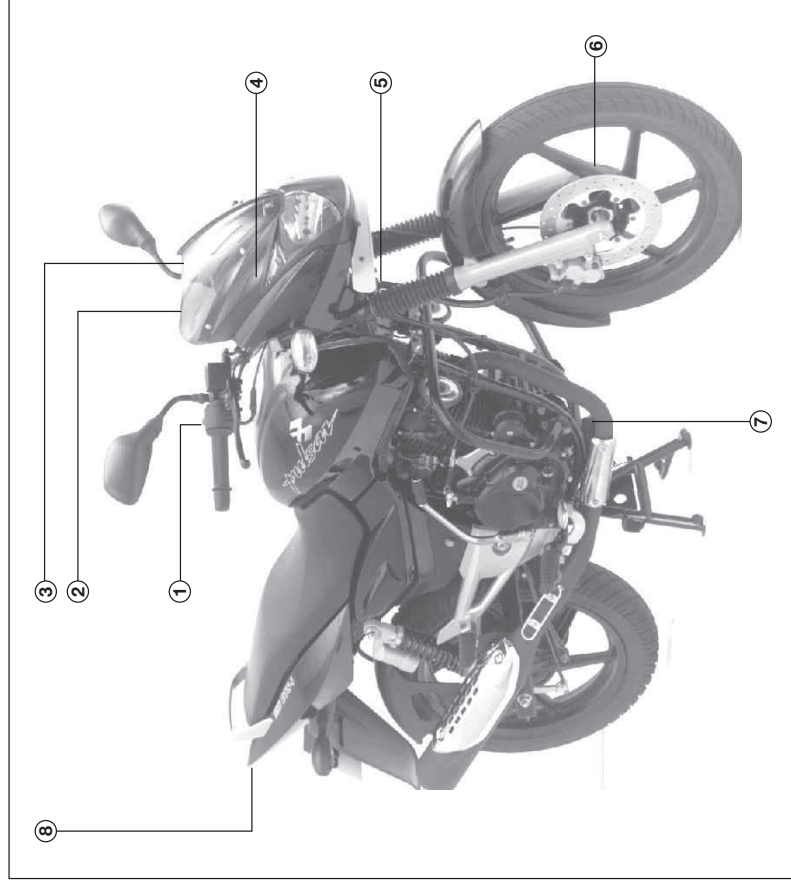


The Engine and Frame serial numbers are used to register the vehicles. They are the only means of identifying your particular vehicle from the other of the same model and type. These serial numbers may be needed by your dealer when ordering the parts. In the event of theft, the investigating authorities will require both these numbers in addition to the model, type and any special features of your vehicle that can help identifications.

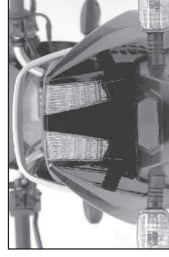


Location of Parts



1. Control Switch RH
2. LCD Speedo Console
3. Control Switch LH
4. Body Control Unit
(Placed inside Head Light fairing)
5. Hall Sensor for Indicator
6. Vehicle Speed Sensor
7. Exhaust TEC
8. Tail Light LED display

Salient Features



Performance :

- Refined engine power delivery by optimization of Exhaust TEC location and revised Ignition timing with intelligent CDI
- New clutch & revamped gear shifting mechanism that gives smooth, positive, virtually friction-free gear shift feel
- New Bigger twin foam filter with an optimized intake system to provide better torque
- Optimized valve timing and Roller rocker with NR bearing for friction reduction that improves drivability.
- LED tail lamp that consumes negligible power & require zero maintenance
- Stainless steel silencer that overcomes rusting problem
- All sensor type electrical switches that enables switches to function for the life of the bike. Absolutely no maintenance in absence of mechanical contacts.

Style :

- Stylish fairing and head lamp assembly with owl eye
- A new black mask that separates headlamp from parking lights adds to aesthetics.
- Clear lens indicator with amber bulbs.
- New age, sharp and attractive 2 Row Tail lamp with LED lights
- New seat cowl to match stylish LED tail lamp.
- Louver type LH & RH covers with wire mesh gives sturdy look.
- Ergonomically designed self-letting switches

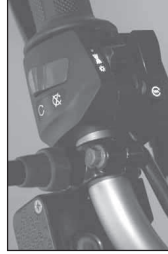


Convenience and Comfort

- LCD Speedo Console with digital fuel gauge (12 level indicator)
- Digital speed display, odometer and two trip meter with resetting provision.
- Self-canceling indicators After completion of turn, the indicator will be switched off automatically.
- Engine oil level window for easy to monitor level.
- Maintenance free battery once a year electrolyte top up.
- In addition to Fuel gauge, Reserve indicator bulb is provided that glows continuously till the petrol filled to main level.
- Self check provision for Tachometer for its functioning

**Safety :**

- 🏍 Day night mode of Speedo console
- 🏍 The turn Indicator, neutral, high beam, and side stand Indicator bulb glow brightly in the day for clarity, and Intensity reduces during night to reduce irritation to the rider's eye
- 🏍 High RPM warning lamp when engine reaches to 9000 RPM automatically Red LED bulb starts blinking. This enables the rider to control the speed to avoid damages if any that may take place to engine components.
- 🏍 Engine cut-off at 10000 RPM Spark gets cut-off at 10000 RPM to bring down the engine RPM for safety.
- 🏍 LED illumination for tail-tale icons on electrical switches that glows in the night for positive access of individual functions.



Technical Specifications

Engine and Transmission

Type	: Four stroke DTS-i, Natural air cooled.
No. of cylinders	: One
Bore	: 63.50 mm.
Stroke	: 56.40 mm.
Engine displacement	: 178.60 cc.
Compression ratio	: 9.5 ± 0.5:1
Idling Speed	: 1400 ± 100 rpm.
Max. net power	: 12.15 kW (16.51 Ps) at 8000 rpm.
Max. net torque	: 15.22 Nm at 6000 rpm.
Ignition System	: Microprocessor controlled digital C.D.I.
Ignition Timing	: 10° BTDC at 1500 rpm.
	: 28° BTDC at 3500 rpm.
Fuel	: Unleaded petrol
Carburettor	: UCAI-MIKUNI BS29, Side Drought, CV Type.
Spark Plug	: 2 Nos. Champion RG4HC, Bosch UR3DC (Resistive)
Spark Plug Gap	: 0.7 to 0.8 mm.
Lubrication	: Wet sump, Forced.
Starting	: Kick start / Electric start.
Clutch	: Wet, Multidisc type.
Transmission	: 5 speed constant mesh.
Primary Reduction	: 3.47 : 1 (66/19)
Gear Ratios:	1st gear : 26.93 : 1 (36/13) 2nd gear : 18.31 : 1 (32/17) 3rd gear : 13.43 : 1 (29/21) 4th gear : 10.54 : 1 (26/24) 5th gear : 8.98 : 1 (24/26)
Final drive ratio	: 2.80 : 1 (43/15)

CHASSIS & BODY

Frame Type	: Double cradle.
Suspension	Front : Telescopic front fork with DU bush (Stroke 135mm) Rear : Trailing arm with coaxial hydraulic cum gas filled adjustable shock absorbers, and triple rate coil springs.
Brakes	Front : Mechanically expanding shoe and drum type. Rear : Hydraulically operated disc type.
Tyres	Front : 2.75 x 17, 41 P Rear : 100/90 x 17, 55 P
Tyre Pressure	Front : 1.75 kg/cm ² (24.5 Psi) Rear Solo : 2.00 kg/cm ² (28.0 Psi) Rear Pillion : 2.25 kg/cm ² (32.0 Psi)
Rims (Alloy Wheels)	Front : 1.60 x 17 Rear : 2.15 x 17

Fuel Tank Capacity	: 15 liters Full : 3.2 liters Reserve : 2.0 liters Usable reserve
CONTROLS	
Steering	: Handle Bar
Accelerator	: Twist grip type on RH side of handle bar
Gears	: Left foot pedal operated
Clutch	: Lever operated on LH side of handle bar
Brakes	Front : Lever operated on RH side of handle bar Rear : Pedal operated by right foot
ELECTRICALS	
System	: 12 V (AC+DC)
Battery	: 12V 9Ah
Head Lamp	: 35/35 W-HS1
Pilot Lamp	: 5W - 2 Nos.
Tail/Stop lamp	: LED
Turn signal lamp	: 10 W (2 Nos.)
Turn signal pilot lamp	: LED
Side stand indicator lamp	: LED
Hi beam indicator lamp	: LED
Neutral indicator lamp	: LED
Speedometer lamp	: LED display
Rear number plate lamp	: 5 W
Horn	: 12V DC

DIMENSIONS

Length	: 1990 mm.
Width	: 750 mm.
Height	: 1090 mm.
Wheel base	: 1320 mm.
Turning circle radius	: 2180 mm. (Minimum)
Ground clearance	: 165 mm. (Minimum)

WEIGHTS

Vehicle kerb weight	: 143 kg.
Gross vehicle weight	: 273 Kg.

PERFORMANCE

Maximum speed	: 125 km/h with single rider (68kg)
Climbing ability	: 28% (16° Maximum)

Notes:

- Values given babove are nominal and for guidance only, 15% variations is allowed to cater for production and measurement variation.
- All dimensions are under UNLADEN condition.
- Definitions of terminologies wherever applicable are as per relevant IS/ISO standards.
- Specifications are subject to change without notice.

What are the special features of 'PULSAR DTS-i 180 UG III '2 OR

What is so special in this 'PULSAR DTS-i 180 UG III '2

Pulsar UGIII is next version of Pulsar breed. It is loaded with lots of unique & contemporary features and that distinguishes the Pulsar not only in the category of Power, Performance & Style but also for Comfort, Convenience & Safety from the competition.

Apart from refining the power delivery, it is loaded with the features that are meant for cars. So, here is the Comfort, Convenience & Safety of the 4 wheels (cars) available on 2 wheels.

The major changes / features are

Enhanced Performance

- Refined engine power delivery by optimization of ExhaustTEC location, bigger & twin Air Filter element, optimized valve timing, reduced engine friction etc.
- Stainless steel silencer that lasts long & overcomes rusting.
- All sensor type electrical switches that function for the life of the bike. Absolutely no maintenance in absence of mechanical contacts.

Enhanced Style

- Stylish fairing & Headlamp assembly with owl eye, new black mask to separate headlamp from parking lights
- New age, sharp & attractive 2 Row Tail lamp with LED lights
- Louver type LH & RH covers with wire mesh gives sturdy look.
- Ergonomically designed self-letting switches
- Absolutely no maintenance in absence of mechanical contacts.

Enhanced Comfort & Convenience

- Loaded with Digital Technology like LCD Speed/Odo display, digital fuel meter, Digital trip meter that enables to count two trips.
- Car like self canceling indicator switches that keeps rider free from switching off the indicators after turn.
- Apart from digital fuel meter, warning light for low fuel level is provided.
- Self check provision for tachometer to ensure proper functioning.
- Oil level inspection window that indicates oils level at a glance.

Enhanced Safety

- Engine cut-off at 10000 RPM Spark gets cut-off at 10000 RPM
- High RPM warning lamp when engine reaches to 9000 RPM automatically Red LED bulb starts blinking.
- Day night mode of Speedo console, LED illumination for tell-tale icons on electrical switches that glows in the night for positive access.

How does the digital Speedo work?

Front wheel of the bike has a sensor & magnet unit. The sensor counts no. of pulses w.r.t. wheel rotation & logically calculates number of wheel rotation & gives input to the display unit in the speedo console and the LCD display indicates accurate speed, odo reading & trip meter readings.

• **What are the advantages / Benefits of the digital speedometer apart from giving accurate reading?**

• This system is totally contact less & no mechanical transmission of drive from wheel to speedometer is available. Thus this system is totally maintenance free & lasts for the life of the bike.

• **How the digital fuel indicator meter works? OR How one can understand the available fuel level in the fuel tank? OR How to read the graphical bar of the fuel meter?**

• Graphic bar with 12-segment display is provided in the speedo console for indicating fuel level in the tank. If the all the 12 segments of a bar graph are 'ON', that indicates that the fuel tank is full.

• As the float gauge in the tank starts lowering down due fuel level coming down, the segments of the bar graph starts diminishing with corresponding drop in fuel level.

• When the petrol level comes down to below four liters, all the segments of the bar will vanish.

• Apart from LCD graph bar, a red warning light also has been provided in the console that glows continuously when the petrol level falls down to reserve. And it will be 'ON' till petrol is filled above reserve level.

• **When the digital fuel meter is available, why the red warning light is provided?**

• While the LCD graphical bar segments indicates the petrol level in the fuel tank, the red warning light continuously reminds the rider to fill the petrol.

• **Why two trip meter reading option is given? How is it useful?**

• It is just to enable the rider to count reading for two different trips unlike only single trip in case of conventional type.

• It is like this - on selecting 'Trip1' its will indicate the distance covered in first trip that is set for. In continuation, on selecting 'Trip2', it will indicate the distance covered in the second trip. Then if one wants to know the cumulative distance covered in first & second trip, it can be found in 'Trip1' mode. For this one has to just press/select 'Trip1' mode.

• This is an added advantage taken from digital technology!

• **What do Self-canceling Indicators switches means?**

• In conventional type of switches, the rider has to manually depress or turn knob of indicator switch for putting 'OFF' the indicator bulbs. In case of this Self-canceling switches the indicator goes off automatically after the rider takes a turn & brings the handle bar straight. This feature is similar to cars. That means, rider do not have to press or turn the switch to cancel the indicators.

• **What if one switches ON the indicator and do not physically take a turn? Will it work in such situation?**

• Yes. Of course. When the rider selects a right or left turn indicator, but changes his mind and physically do not take a turn, the indicators turn 'OFF' automatically after pre-set time. For this a timer function is incorporated in the system. And the timing for this timer is set around 80 seconds.

• **What does non-contact Handlebar switches mean?**

• The control switches on both sides of the handlebar are conventional to look at, in terms of switch operations & knob position etc. But the key & distinguishing difference is the principle of functioning that means these switches do not function on the basis of physical contact for ON & OFF. These are on non-contact sensor based.

• This feature will have any wear and tear & hence its life would be more than the life of the bike. These are absolutely maintenance free as far as wear & tear is concerned.

• The other feature, in these switches is the Illumination of the tell-tale icons that is lit up with LEDs inside the switch body. This gives the icons a pleasant bluish white glow that can be seen in the night clearly & coolly.

• **The tail lamp assembly seems to be too special. What is so in that?**

• Yes. The tail lamp is unique on this vehicle and no other competitor's vehicle has this feature. It consists of 16 (8) nos. of LED bulbs with bi-filaments.

• **The specialties of LED bulbs are**

- Consume very low current
- Glow brightly
- Last far long
- Totally maintenance free

• So, the LED tail lamp apart from delivering fantastic performance, it adds to aesthetics.

• **What is this bi-filament bulb?**

• Bi-filament bulb means these LED bulbs have two filaments in each bulb. One filament of lower wattage for parking lights & another for brake lighting, which is of little higher wattage.

• **If so much so electrical /electronic appliances are loaded, it may affect on Battery?**

• Absolutely not. In fact, all the bulbs & backlit bulbs in the Speedo console (except Head Lamp bulb & pilot bulbs) are of LED type. Few of them works on AC & few are on DC i.e. battery. So there is hardly any drain on the battery as compared to conventional type of bulbs.

• Moreover, the Battery of this new Pulsar 180 is special & maintenance free.

• **What is this maintenance free Battery?**

• The battery is new development in DC system on two wheelers (in fact, such batteries are introduced in cars earlier than bikes) it is different than the conventional one in the material composition it is made up of. The main features of this new battery are

- Electrolyte level checking is required at every one year instead of every fortnight
- The unique vent mechanism that do not allow loss of electrolyte
- No drainpipe unlike in conventional type battery. So no chances of spillage of electrolyte.

• So, in all it is almost maintenance free battery. Moreover, the LED bulbs, & disable function of cranking after 3 successive self starts attempts, will further only enhance the life of the battery.

🔊 **What is that disabling of cranking after 3 successive attempts?**

🔊 A protective device has been incorporated in the system that allows rider to attempt self-start option (pressing of self-start button) for starting only three times at times. After third attempt the battery power supply gets cut-off to the self-starter motor, thus avoid rider from further cranking of engine by self-start.

🔊 This is mainly to protect the battery from over draining by excess attempts of pressing of self-start button to start the engine.

🔊 However, one can again use the self-start option after 15 seconds after third attempt.

🔊 **How come so many features are managed accurately & what is the guarantee of no malfunctioning of these features?**

🔊 It is needless to say that the digital technology that works with sensors & chips works accurately. To control all the functions of these electronics features, an intelligent device has been installed in the electrical system. This is called BCU (Body Control Unit)

🔊 **What exactly is BCU (Body Control Unit)? How it controls all these functioning?**

🔊 BCU (Body Control Unit) is a device that integrates & controls major of all electrical / electronic functions on the vehicle. It is an intelligent device that works on microchip base.

🔊 In the eventuality of electrical overloads or short circuits, the built in intelligent protection circuit takes the control of the situation & prevent future damages on other electronic parts. For example:- During night, suppose one of the Head light filament blows OFF then there is a possibility of an accident due to sudden darkness.. To rescue, here the BSU plays an important role. It switches over the Headlight to the other beam automatically without manual shifting of any switches.

🔊 It also checks & inspects the fused circuit religiously for any corrections and thus riders' safety is ensured.

🔊 **Are these type of product features available in Pulsar150cc also?**

🔊 Presently not. But as in all sphere of life, technology also proliferates. When that happens you may find similar features in Pulsar 150cc also.

🔊 **Can one alter the current Pulsar model & incorporate these features?**

🔊 No. It is not possible. Physically lot of changes are there that are not easily accommodated in the existing Pulsar.

Sl.	Check Points for PDI	Check	PDI done by BAL/Service Engg.	PDI Done by Dealer
1	LOCK OPERATION			
	STEERING LOCK NOT WORKING/JAM			
	SIDE COVER LOCK NOT WORKING			
2	PAINT FINISH - OVER FLOW (Samples / photographs)			
3	FUEL TANK DEFECTS			
	LEAKAGE			
	BLISTERS			
	RUSTY			
	OTHERS (Specify)			
4	FUEL COCK OPERATION - HARD / LEAKAGE			
5	FRONT / REAR WHEEL OFFSET			
6	WHEEL			
	FR. WHEEL TYRE -Free rotation.			
	FRONT WHEEL RUNOUT (SPECIFY)			
	REAR WHEEL RUN OUT (SPECIFY)			
7	SILENCER -BAFFLE NOISE			
8	SWITCHES			
	RH switch operations			
	LH Switch operations			
	IGNITION SWITCH SHORT			
9	LIGHTS:-			
	Side indicator blinking.			
	HEAD LIGHT			
	TAIL/BRAKE LED			
10	HORN :- DISTORTED/WEAK SOUND(DO NOT SET)			
11	Speedo :			
	SPEEDO NOT SENSING.			
	SPEEDO Needle flickering.			
	Tripmeter - 1/2 working -Resetting			
	Odometer working			
	Auto - Calibration of RPM meter			
	Fuel level indication			
	Reserve indication (by red lamp)			
	Red lamp blinking after crossing Engine RPM 9000			
	Auto-switch off of Ind lamps(Hi bar straight for > 2 sec)			
	Head light / tail light illumination after 3 seconds			
	LED functioning - Speedounit - Both side indication, Side stand, Neutral, Hi beam, RES Ind lamp			

Sl.	Check Points for PDI	Check	PDI done by BAL/ Service Engg.	PDI Done by Dealer
12	FLAT SPOT (GIVE CO %)			
13	DRIVE CHAIN slack (mention amount of play)			
14	BRAKE OPERATION - FRONT/REAR			
	FRONT BRAKE			
	REAR BRAKE EFFECTIVENESS			
	BRAKE LIGHT REMAINING ON CONTINUOUSLY.			
15	GAP AT THE REED SWITCH AND MAGNETO.			
CHECK POINTS FOR PDI				
16	LOOSE PARTS			
	KICK BOSS BOLT			
	ENGINE MOUNTING BOLT			
17	ENGINE NOISE			
	TAPPET NOISE			
	CHAIN TENSIONER / TIMING CHAIN			
18	ENGINE OIL LEAKAGE			
	DRAIN BOLT			
	MAGNETO COVER			
	CRANKCASE JOINT			
	OIL FILLING PLUG			
	OHC COVER			
	TAPPET COVER			
	BENJO BOLT			
	CHAIN TENSIONER 'O' RING			
	OIL LEVEL INDICATOR WINDOW			
	OIL FILTER COVER			
19	CLUTCH OPERATION			
	HARD			
	CLUTCH JUDDERING			
20	PLATING DEFECTS			
	HANDLE BAR			
21	ENGINE OPENING DURING PDI (if any)			
	(Give engine no & reason for engine opening)			
22	FRAME OPENING DURING PDI (if any)			
	(Give chassis no & reason for chassis opening)			
23	OTHER DEFECTS :			
	MINOR ADJUSTMENTS			
24	TRANSIT DAMAGES (Send photographs)			

✓ Marked if the ok observed

Sr. No.	Description	Position	SMM	GP Tools	Special Tools	PNR & its Attachment	Consumables	M & T / Service Shop Equipments
1	Identify & Park Vehicle on Work Bay		0.80					Lifter Bay
2	Remove the Thermocool and additional packing if any. Study PDI card and Work content.		0.50					
3	Open Petrol tank cap & pour petrol		0.50	Measuring Jar, Funnel			Petrol, Waste Cloth	
4	Check for smooth operation of fuel cock lever		0.10					
5	Check & top up engine oil level, if required.	RH	0.30					
6	Check clutch cable operation & Adjust if required.	RH	0.10	12-13 OE Spanner				
7	Check front brakes for efficient working & Adjust if required.	Front / RH	0.10	12-13 Ring Spanner				Air Gun
8	Check and correct tyre inflation pressure - Front Wheel	Front	0.20	Pencil Type Pressure Gauge				Analogous/Digital type Pressure gauge, Air filling Valve
9	Check Battery voltage, fill / top-up electrolyte, apply petroleum jelly, connect terminals properly.	LH	0.60	Screw Driver, Distilled water Filler, 10mm 'T' Spanner			Cloth, Fine Polish Paper, Petroleum Jelly, Distilled Water	Hydrometer, Battery Charger, Battery Tester
10	Inspect Rear Shock Absorber setting & correct if necessary.	RH/LH	0.10					
11	Check Rear brakes for efficient working & adjust if required.	Rear	0.10	14-15 No. O.E. Spanner				Cloth, Graphite Grease, Fine Polish Paper
12	Check and Correct tyre inflation pressure - Rear Wheel.	Rear	0.20	Pencil Type Pressure Gauge				Analogous/Digital Type Pressure Gauge, Air Filling Valve
13	Lubricate chain and Check / Adjust chain slackness if required.	LH	0.40	20-22, 24-27 Ring Spanner, 10-11 No. OE Spanner, Torque Wrench, Socket Set, Oil Can			Cloth, SAE 90 Oil	Air gun
14	Check Choke lever operation	LH	0.05	10-11 No. OE Spanner				
15	Check Accelerator cable free play	LH	0.05	8 & 10 No. OE Spanner				
16	Check & Adjust TPS	LH	0.10	10-11 No. OE Spanner				
17	Check gear shifter lever operation	LH	0.05	8 No. 'T' Spanner				
18	Check & Adjust steering and Handle bar for free movement.	RH / Front	0.20	12-13, 16-17 Ring Spanner				Fork Spanner
19	Check front mudguard alignment wrt Front Wheel	Front	0.05					

Sr. No.	Description	Position	SMM	GP Tools	Special Tools	PNR & its Attachment	Consumables	M & T / Service Shop Equipments
20	Check all important nut bolts for torque and tightness, • Handle bar mounting bolt • Stem lower & upper bracket bolts • Stem of bolts • Front axle nut • Cylinder head nuts • Engine foundation bolts • Trailing arm bolts • Silencer cover shield bolts • Both LH/RH engine mtg. bolts	LH/RH	4.00	12-13, 14-15, 16-17, 20-22 Ring Spanner, 22 mm Box Spanner with Handle Ratchet		Pistol Grip PNR		
21	Check the following and lubricate if necessary • Rear brake lever • Rear brake pedal / cam • Pillion foot rest • Center stand • Side stand • Kick lever boss • Clutch lever	RH/LH FRONT REAR	1.00	Oil Can			SAE 20W40 Oil	
22	OE accessories fitment - Mirrors RH & LH	LH/RH	1.15	17mm OE Spanner				
23	OE accessories fitment - Leg guard	LH/RH	3.25	10-12 No. OE Spanner and 12 No. Box Spanner		Pistol Grip PNR		
24	Start vehicle, Check operation of electrical like- Head light, Tail light, Brake light, Side stand indicator, Horn, Speedometer, Odometer, Side indicators, Parking and Pass light working.	LH/RH	0.35					
25	Check idling and CO%.	LH/RH	0.60	Small Screw driver				CO-HC Analyzer; Tachometer, Proper Exhaust Sealing Arrangement of Silencer
26	Trip meter working	LH/RH	0.10					
27	Check all locks for proper operation	LH/RH	0.50					
28	Test drive the vehicle, check digital speedometer working. Study the job card and verify work done. Take vehicle out and park.		1.30					
29	Clean/Wash the veh. before delivery		1.00					
	Total SMM		17.75					
30	Repair for any other defects seen or observed during test drive.							
Expected Output in 480 Minutes / Man / 27 Vehicles								

Sr. No.	Operation	Which ever comes first	RECOMMENDED FREQUENCY				
			Initial		Subsequent		
			750	2,500	5,000	7,500	Every 2,500km
		OR	Days 30-45	105-120	185-210	285-300	Every 90 days
1.	Servicing		●	●	●	●	●
2.	Idle speed / OQ%	C.A		●	●	●	●
3.	Valve tappet clearance	A		●	●	●	Every 5000 kms
4.	Engine oil (SAE 20W50 of API SG-JASO MA)	R	●		●		Every 5000 kms
5.	Oil strainer / Centrifugal filter	CL					Every 10000 kms
6.	Air cleaner element V	CL	●	●	●	●	●
7.	Air cleaner element	R					Every 10000 kms
8.	Carburettor	CL.A	●	●	●	●	●
9.	Fuel system leakages	C.R	●	●	●	●	●
10.	Fuel pipes	R					Every Year
11.	Spark plug / gap	CL.A	●	●	●	●	●
12.	Spark plugs (2 Nos.)	R					Every 10000 kms
13.	Battery electrolyte level	C.A	●	●	●	●	Every Year
14.	Brake light switch	C.A	●	●	●	●	●
15.	Clutch play	C.A	●	●	●	●	●
16.	Throttle play	C.A	●	●	●	●	●
17.	Rear brake pedal play	C.A	●	●	●	●	●
18.	Brake lining or pad wear	C.R	●	●	●	●	●
19.	Brake fluid level / top up	C	●	●	●	●	●
20.	Brake fluid change	R					Every 10,000 kms.
21.	Steering play	C.A	●	●	●	●	●
22.	All fasteners tightness	C,T	●	●	●	●	●
23.	Engine mounting silent blocks	R					Every 20,000 kms.
24.	Tyre tread wear	C,R		●	●	●	●
25.	General lubrication	L	●	●	●	●	●
26.	Steering stem bearing	L,R	1 year				Every 10000kms
27.	Wheel bearing	C,L	1 year				Every 10000kms
28.	Master cylinder cup and Dust seal	R					Every 2 years
29.	Caliper piston seal and Dust seal	R					Every 2 years
30.	Swing arm pivot pin	L		●	●	●	Every 5000kms.
31.	Front fork	C,L		●	●	●	●
32.	Front fork oil	R					Every 10000kms
33.	Front brake hose	C,R	2 years				
34.	Rr. Shock Absorber- Check gas pressure 7.0±0.5 Kg/cm ²						Every 10000kms
35.	Drive chain	L					Every 500 kms.
36.	Drive chain slack	A	●				Every 2500 kms.
37.	Drive chain wear / Remove & Lubricate	C,R			●		Every 5000kms.
38.	Engine compression pressure	C					Every 10000kms
39.	Cylinder head de-carbonising & valve lapping	CL					Every 30000kms
40.	Valve oil seals	R					Every 30000kms

● : Indicates operation to be performed.

★ : More frequent cleaning may be required when driving in dusty condition.

Note: Parts / Lubricants to be replaced as per Periodic Maintenance and Lubrication Chart are mandatory and the same are chargeable to customer.

A - Adjust
CL - Clean
C - Check
L - Lubricate
T - Tighten
R - Replace

Sr. No.	Description	LH/RH Side	SMM	GP Tools	Special Tools	PNR	Consumables	M & T / Service Shop Equipments
1	Wash vehicle thoroughly.	Both		To be done by washing boy				
2	Identify the Vehicle		0.30					
3	Bring vehicle & position on bay		0.50					
4	Raise the lift		0.30					
5	Start veh. & Warm up. Remove RH/LH side covers, Seat, Petrol Tank & keep properly.	LH/RH	0.70	12-13 No. Ring Spanner, 12mm Socket		Pistol Grip PNR		
6	Drain Engine Oil	LH	1.30	16mm Socket, Extension, Tommy & Plastic Tray			Cloth	Oil Draining Equipment
7	Clean Air filter. (Replace - if necessary)	RH	3.00	8mm T Spanner			Cloth, 20W40 Oil, Diesel, Air Filter Element	Filter Cleaning Stand, Air Gun
8	Drain Carburetor. (Overhaul - if required)	LH	1.30	Phillips Screw Driver, Screw Driver, 10mm Nylon Brush, Plastic Tray, 10-11 & 14-15mm OE Spanner	Float Gauge		Cloth, Diesel	Air gun
9	Check Accelerator and adjust	LH	0.40	8-9, 10-11 OE spanner				
10	Clean, Check & Adjust (Replace - if necessary)	LH	2.40	Spark Plug Spanner, Plug Cleaner, Wire Brush	Filler Gauge 0.01~1mm		Cloth, Fine Polish Paper, Spark Plug	Spark Plug Cleaner and Tester, Air Gun
11	Check & Adjust tappet clearance, (if required) During 4th Servicing or after 5000 Km whichever is later.	LH		8-9 No. Ring Spanner, 24-27 OE Spanner, 14 mm Box Spanner with Handle Ratchet, Spark Plug Spanner	Filler Gauge 0.01~1mm Tappet Holder		Cloth	
12	Check • Side bolts of Front fork • Engine foundation bolts • Side stand • RSA top and bottom nuts	LH/RH	0.60	14-15, 16-17, 20-22 Ring Spanner, 12 mm Box Spanner with Handle Ratchet, 12-13 No. OE Spanner		Pistol Grip PNR		
13	Adjust chain slackness & Lubricate, Remove and Clean, If required.	LH / Rear	3.90	10mm T Spanner, 20-22, 24-27 Ring Spanner, 10-11 OE Spanner			Cloth, SAE 90 Oil	Air gun
14	Check/ Adjust	Rear	0.50	20-22, 24-27 Ring Spanner, 10-11, 14-15 OE Spanner			Cloth, Graphite Grease, Fine Polish Paper	Air Gun

Sr. No.	Description	LH/RH Side	SMM	GP Tools	Special Tools	PNR	Consumables	M & T / Service Shop Equipments
15	Check & Adjust Rear tyre air pressure.	Rear	0.40	Pencil Type Pressure Gauge				Analogous / Digital Type Pressure Gauge, Air Filling Valve
16	Check Battery, Top-up distilled water, Clean terminals & apply petroleum jelly. Route cables properly and fit terminal caps properly. Recharge battery if required.	LH	1.80	Screw Driver, Distilled Water Filler, 10mm T Spanner			Cloth, Fine Polish Paper, Petroleum Jelly, Distilled Water	Hydrometer, Battery Charger, Battery Tester
17	Clean oil strainer. (Replace - if required) After 1 Year or 10000 Km whichever is later.	RH		8 No. Box Spanner, 12-13 OE Spanner, 12-13 Ring Spanner, 8mm T Spanner, Plastic Tray, Phillips Screw Driver		Pistol Grip PNR	Diesel, cloth, Clutch Cover Gasket, Oil Strainer	
18	Check clutch and Adjust.	RH	0.30	12-13 OE Spanner, Small Screw Driver				
19	Fill engine oil.	RH	1.35	6" Combination Pliers, Measuring Jar 1Liter, Funnel			Cloth, Oil 20W50 of API SG + JASO MA grade	Oil Dispenser
20	Clean, Check & Adjust RH spark plug.	RH	2.40	Spark Plug Spanner, Plug Cleaner, Wire Brush	Filler Gauge 0.01~1mm		Cloth, Fine Polish Paper, Spark Plug	Spark Plug Cleaner and Tester, Air Gun
21	Check and Top-up brake fluid level.	Front	1.00	Phillips Screw Driver			Cloth, Oil Dot-4	
22	Check/ Adjust	Front	0.50	12-13 Ring Spanner, 5 & 10 mm Allen Key			Cloth, Fine Polish Paper	Air Gun
23	Check & Adjust front tyre air pressure.	Front	0.40	Pencil Type Pressure Gauge				Analogous / Digital Type Pressure Gauge, Air filling Valve
24	Check and Adjust steering.	Front	0.80	16-17 No. Ring Spanner	Fork Spanner			
25	Check • Engine foundation bolts • Front axle nut • Side bolts of Front fork • Handle bar bolts • RSA top and bottom nuts • Swing arm axle nut • Silencer protective cover screws / bolts • Rear view mirror	RH	1.30	10-11, 12-13, 14-15, 16-17, 20-22 No. Ring Spanner, 22 mm Box Spanner with Handle Ratchet		Pistol Grip PNR		

Sr. No.	Description	LH/RH Side	SMM	GP Tools	Special Tools	PNR	Consumables	M & T / Service Shop Equipments
	Lubricate • Clutch lever • Rear Brake pedal • Rear Brake Cam • Pillion Foot Rest • Center Stand • Side Stand • Kick lever boss pin	LH/RH	0.80	Oil Can			20W40 Oil, Graphite Grease, Cloth	Grease Gun
26								
27	Refit RH, LH side covers, Seat, Petrol tank	LH/RH	0.50	12-13 No. Ring Spanner, 12mm Socket		Pistol Grip PNR		
28	Check and Clean fuel line & Clean petrol tank. (Replace fuel pipe - if required)	LH	0.50					Air Gun
29	Check all Meters for proper functioning & Correct, if reqd.	Front	0.50					
30	Start vehicle, Check & Adjust the following.	RH						
	Head light.	Front		Screw Driver				
	Tail light.	Rear						
	Brake light.	RH/Rear	0.95	Phillips Screw Driver				
	Horn	Front						
	Speedo, Pass. Parking light	Front						
	Side indicators - Front & Rear	Both						
30	Tune Engine & Carburetor.	LH	2.00	Small Screw Driver				CO-HC Analyzer, Tachometer, Proper Exhaust Sealing Arrangement of Silencer
31	Study Job Card. Verify work.		1.00					
32	Lower the Lift		0.30					
33	Take vehicle out and park		0.50					
	Sub Total		32.50					
34	Carry out any additional work as indicated by the Customer or as required.		10.00					
	Total SMM		42.50					
Expected Production / 480 minutes / Man / 11								
35	Test Ride of the Vehicle if required and park.		1.5	To be Carried out by Expert				
36	Clean the vehicle at the time of delivery.		1	Will be done by Delivery boy				

PNR = Pneumatic Nut Runner

Periodic Part Replacement Kit for Free Services					Part Name	Quantity
Type of Service	Days	Kms. Limit				
1st Free	30-45	500-750			Engine oil	1000 ml.
					Clutch cover gasket	1
2nd Free	105-120	2000-2500			NIL	NIL
3rd Free	195-210	4500-5000			Engine oil	1000 ml.
1st Paid	285-300	7000-7500			NIL	NIL
					Engine oil	1000 ml.
					Clutch cover gasket	1
					Air filter foam element	1
					Spark plug	2
					Fork oil	330 ml.
2nd Paid	375-390	9500-10000			Drive chain lock & link set	1
					Brake shoes (if worn out)	1
					Starter clutch bush	1
					Fork oil seal	2
					Cylinder head gasket (if required)	1
					Front disc pad inspect / replace (if worn out)	1
3rd Paid	465-480	12000-12500			NIL	NIL
					Engine oil	1000 ml.
4th Free	555-570	14500-15000			Drive chain lock & link set	1
					Steering cone kit	1
4th Paid	615-630	17000-17500			NIL	NIL
					Engine oil	1000 ml.
					Clutch cover gasket	1
					Air filter foam element	1
					Spark plug	2
					Brake shoes (if worn out)	1
5th Paid	705-720	19500-20000			Front disc pad inspect / replace (if worn out)	1
					Fork oil	330 ml.
					Clutch plate	1
					Rear brake damper	1
					Drive chain lock & link set	1
6th Paid	795-810	22000-22500			NIL	NIL
					Carburettor insulator	1
7th Paid	885-900	24500-25000			Chain sprocket kit	1
8th Paid	975-990	27000-27500			NIL	NIL

Schedule Maintenance

pulsar-DTS-i

Periodic Part Replacement Kit for Free Services

Periodic Part Replacement Kit for Free Services				
Type of Service	Days	Kms. Limit	Part Name	Quantity
9th Paid	1065-1080	29500-30000	Engine oil	1000 ml.
			Clutch cover gasket	1
			Air filter foam element	1
			Spark plug	2
			Valve oil kit	1
			Cylinder head gasket	1
			Cylinder head stud copper washer	4
			Brake shoes (if worn out)	1
			Front disc pad inspect / replace (if worn out)	1
			Steering cone kit	1
Fork oil				330 ml.
Drive chain lock & link set				1

Use always Genuine Bajaj Auto parts & recommended lubricants.
(Engine oil: SAE 20W50 API 'SG' + JASO 'MA' grade)

Notes :

[illegible]

Cleaning

The vehicle must be cleaned periodically using pressurized water. Before cleaning the vehicle cover the important parts like Ignition switch, Silencer Tail end, CDI unit, H.T. coil with plastic bags. Don't apply the jet of water directly on electrical parts such as Switches, Ignition unit, Coils etc. otherwise they may get damaged.

Brushing with kerosene and wiping dry with clean rag is advisable for external cleaning of the engine. All painted surfaces should be washed with water. Do not use kerosene or hard detergent soap on painted surfaces as it damages the paint and turns it dull.

After washing, dry the vehicle with compressed air and carry out the lubrication as recommended

Caution : Water may enter on the brake liners during washing & brake slippage may occur. Ensure that brake liners are dry before driving the vehicle.

Periodic Maintenance

Periodic maintenance (in accordance with the periodic maintenance chart) of a vehicle is most important to prolong vehicle life, trouble free running and ensure your safety while driving.

Engine Oil Level Checking

- Park the vehicle on level surface on center stand to check the oil level.
- Inspect the oil level through oil inspection window
- It should be in between upper and lower mark
- Top up if required

Recommended Oil Grade and Qty

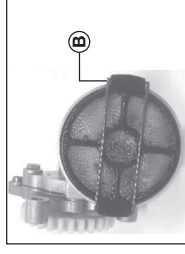
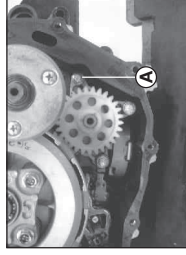
Grade	SAE 20W50 of API 'SG' + JASO 'MA'
Quantity	Drain & Refill 1000 ml. Engine Overhaul 1100 ml.

Note : It is most vital to adhere to recommended frequency of oil change for the purpose of long life of critical engine components for details refer Periodic Maintenance Chart.

Oil Strainer Cleaning

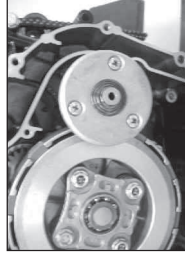
Remove :

- Drain engine oil.
- Clutch cover
- Oil pump mounting bolts (A)
(3 Nos.)
- Pump with strainer.
- Clip (B) and take out 'Oil Strainer' from oil pump.

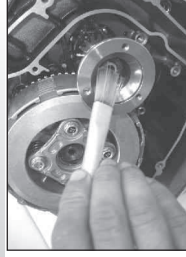


**Remove :**

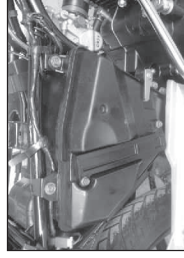
- Clean oil strainer with Kerosene / Diesel blow compressed air and then refit it.
- Replace oil strainer if found damaged.

**Centrifugal Oil Filter Cleaning:****Remove :**

- Centrifugal oil filter cover mounting screws (C) 3 Nos.
- The cover with gasket
- Replace gasket if damaged
- Clean centrifugal oil filter using Nylon brush/kerosene or Diesel

**Air Filter****Air Cleaner Element Removal****Remove :**

- RH side panel by unlocking it with key

**Remove :**

- 2 bolts (A).
- Air filter cover (B).

**Remove :**

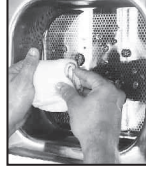
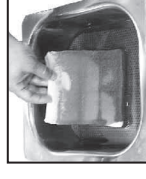
- Air filter element assembly along with cartridge
- Separate foam filter from the cartridge

**Note :**

- No need of removing flame arrester
- White colour filter portion towards carburettor side
- Ensure beading placed properly when fitting cover

Air Filter Cleaning

Clean Air filter element adhering to standard SOP

**1st Stage:
Clean with Kerosene****Squeeze****2nd Stage:
Clean with
Kerosene Again****Blow Low Pressure
Compressed Air****3rd Stage:
Dip into
Engine Oil (20W40)****Squeeze and Remove
Excess Oil****Dry with Cotton Cloth****Air Filter Element Cleaning and Inspection**

Note : In dusty areas, the element should be cleaned more frequently than the recommended interval.

After riding through rain or on muddy roads, the element should be cleaned immediately.

Since repeated cleaning opens the pores of the foam element replace it with a new one in accordance with the Periodic Maintenance Chart. Also if there is a brackage in the element material or any other damage to the element replace the element with a new one.

Warning : Clean the element in a well-ventilated area, and make sure that there are no sparks or flames anywhere near the working area. Because of the danger of highly flammable liquid, do not use gasoline/petrol or a low-flash point solvent to clean the element.



Spark Plug	
Recommended Spark Plug	Champion RG4HC / Bosch UR3DC
Electrode Gap	0.7 ~ 0.8 mm
Replace Spark Plug	After every 10000 Kms.



Battery - 12V - 9 Ah

- Battery is located inside LH cover
- Check the electrolyte level in each cell and ensure that the level is between the upper and lower level lines.
- Remove the battery filler caps and fill with distilled water until the electrolyte level in each cell reaches the upper level line if required.

Note : Add only distilled water to the battery. Tap water is not a substitute for distilled water and will shorten the life of the battery.

- Apply petroleum jelly on to the terminals



Front Brake Fluid Level

- Front brake fluid master cylinder reservoir is located near RH switch on handle bar.
- To check oil level, park the vehicle on Main / Center stand with handle bar in straight position.
- Always ensure that brake fluid level is above 'MIN' mark given on inspection window.
- Use only DOT-3 or DOT-4 brake fluid (from sealed container) to top up if required.

Note : It is advisable that brake fluid should be replenished once in a year.



Rear Shock Absorber

The rear shock absorbers can be adjusted to one of five positions to suit riding conditions. Using special tool adjust the required position you desire. They can be left soft for average road riding condition but should be adjusted harder for rough road condition.

Shock Absorbers adjusted either too soft or too hard adversely affect riding comfort and stability.

To adjust the Rear Shock Absorbers

Turn the adjusting sleeve on each shock absorber to the desired position. The higher the adjuster sleeve is positioned, the stronger the spring tension, and the harder the ride.
Check to see that both sleeves are turned to the same relative position.



Position	1	2	3	4	5
Spring Action					Stronger →

If the Shock Absorber sleeves on both sides are not adjusted to the same position, an unsafe riding condition may result.

Note : Std setting is done in 2nd notch



Nitrox Air Filling

Procedure for gas checking and Refilling

- Remove the Phillips-headed small screw and 'O' ring.
- Clamp the cylindrical guide clamp on to the canister keeping the rubber plug in the center to support the syringe needle insertion and keeping in position.
- Hold the pump as shown and pierce the syringe needle into the center of rubber plug.
- The molded needle adaptor will rest into the clamped cylindrical guide
- Read the gas pressure on the dial gauge. If the gas pressure is below 6.5 kg/cm2 refill the air by pumping, keeping the needle in as it is condition without removal. As the natural air consists of 71% of nitrogen it will serve the purpose.
- To fill the air into the canister, apply full stroke of pump as shown; otherwise air will not get inflated into the pump.
- Keep on pumping the air unless you get 7.5 kg/cm2 on the gauge
- Pull out the air pump along with needle carefully and take out the guide clamp
- Finally fix the phillips headed screw with 'O' ring.



Drive Chain Slack / Lubrication

- Set the motorcycle upon its center stand.
- Rotate the rear wheel to find the position where the chain is tightest & measure the vertical movement midway between the sprockets.
- If the drive chain is too tight or too loose, adjust it so that the chain slack will be within the standard value.
- Check drive chain slackness at every 1000 kms.

Drive Chain Slackness : 25 ~ 30 mm

Service Limit 35 ~ 45 mm



Drive Chain Cleaning / Lubrication

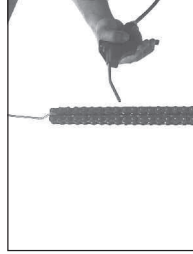
1st Stage:

Clean with Kerosene

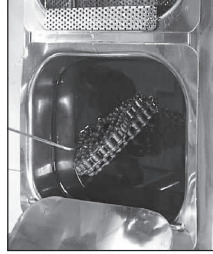


2nd Stage:

Clean with Cleaner Kerosene again



Blow Compressed Air

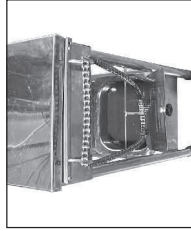


3rd Stage:

Dip into SAE 90 Oil



Soak into SAE 90 Oil



Final Stage:

Hook Chain for dripping of excess oil



Tyre Air Pressure

- Keep appropriate tyre pressure as mentioned below to increase life of this tyre and for better fuel consumption.

Front	1.75 Kg/cm ² (25 PSI)
Rear - with Solo	2.00 Kg/cm ² (28 PSI)
Rear - with Pillion	2.25 Kg/cm ² (32 PSI)

Important Adjustments and Checking Procedures

Idling Speed Adjustment

Whenever the idling adjustment is disturbed follow the procedure given below for setting proper engine idling.

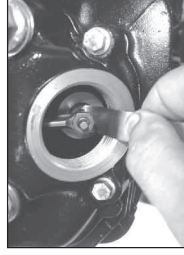
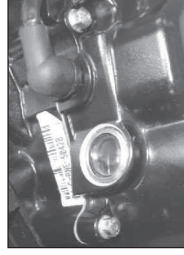
- Start engine & drive it for at least 5 kms. or warm the engine till the oil temp reaches 60°C.
- Remove the Bolt/Plug near Exhaust TEC
- Connect the probe of CO analyser. Set the CO between 1.75 ~ 2.25% by adjusting volume control screw.
- Then set the engine idling r.p.m. by rotating the idle adjustment screw clockwise or anticlockwise by hand.
- For the precise adjustment of idling speed, use of tachometer is recommended.
- Rotate the throttle a few times to make sure that the idling speed does not change. Readjust if necessary.
- Do not attempt to compensate for faults in other systems by adjusting the idle speed.



Idling Speed : 1400 ± 100 rpm

Tappet Clearance Setting

- Ensure that the engine is cold.
- Ensure the 'T' mark on the 'Rotor' match with the mark on the 'Crankcase LH'. At this stage the 'Piston' is at TDC and both the 'Tappets' are free.
- Holding tappet screw firmly with special tool loosen the tappet screw nut.



- Put the feeler gauge, measure and adjust the clearance.
- Lock the nut holding screw with special tool after getting desired clearance.
- Again check the tappet clearance with gauge. The gauge should slide with slight resistance between tappet and valve stem head feeler and tighten the check nut with a spanner.

• Inlet Valve : 0.05 mm • Exhaust Valve : 0.1 mm

Special Tools : Feeler Gauge - 69 7502 51

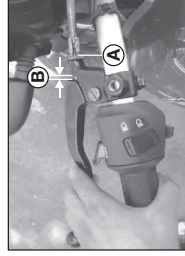
: Valve Adjusting Screw Holder - 37 1031 53





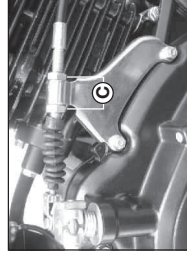
Ignition Timing Inspection

- Connect cable of stroboscope to one of the H. T. Coil carrying current to spark plug.
- Start the engine.
- Aim the stroboscope light at Magneto cover glass window.
 - At idling speed the 'F' marked line on the rotor coincide with the line mark on magneto side c'case. (10° BTDC @ 1500 rpm).
 - As the engine rpm is increased the 'A' marked on the rotor coincide with the line mark on magneto side c'case. (28° BTDC @ 3500 rpm).
- This indicates the advance timing is functioning correctly.
- Remember the 'T' marked line is a reference line for TDC position of the piston and is not for Ignition timing.



Clutch Lever Free Play Adjustment

- Slide the dust cover at lever yoke end.
- Check that the clutch cable outer end is fully seated in the adjuster.
- Turn the adjuster (A) until the proper amount of free play can be obtained.
- Tighten the lock nut (B) against the adjuster. If the clutch free play cannot be adjusted with the adjuster at the handle bar end, use the adjuster at the lower ends of the clutch cable situated on clutch cover.
- Loosen the 2 lock nuts (C) on clutch cable bracket and adjust threading in the adjuster provided on the clutch cover. Tighten both the lock nuts on clutch cable bracket by holding one nut and tightening the other, after the required free play.



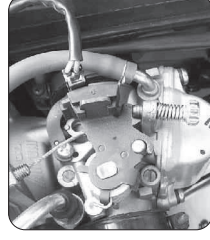
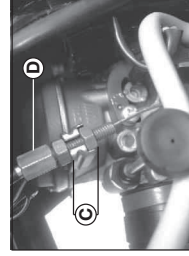
Clutch Lever Free Play : 2 ~ 3 mm



Accelerator Free Play Adjustment

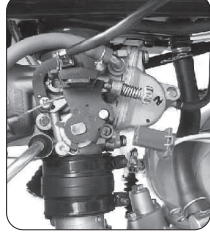
- Turn the adjuster (A) until the proper amount of free play can be obtained.
- Tighten the lock nut (B) against the adjuster.
- If the accelerator free play can not be adjusted with the adjuster at the handle bar end, use the adjuster at the lower ends of the Accelerator cable situated on carburettor.
- Loosen the 2 lock nuts (C) on accelerator cable bracket end adjust by adjuster (D) provided on the cable.
- Tighten both the lock nuts on bracket by holding one nut and tightening the other, after ensuring the required free play.

Accelerator Grip Free Play : 2 ~ 3 mm



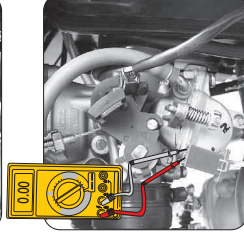
Reed Switch Setting and Checking

- Check throttle lever movement by rotating it with hand. It should not be sticky in operation and should return back it self on releasing. bracket Multimeter should show continuity.
- Magnet should not touch with reed switch.
 - Gap between Magnet & Reed Switch should not be more than 2.5mm.
 - Movement of throttle lever with magnet assembly and Reed Switch fitted should be free.



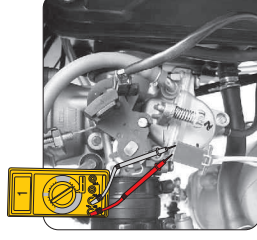
Reed Switch : Setting

- Accelerator cable play: 2-3 mm by adjusting the Adjuster
- Protude stopper of the throttle lever bracket must on idling screw tip.

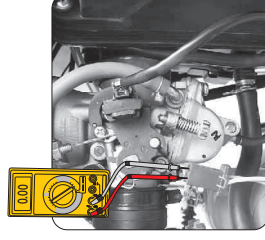


Reed Switch : Checking

- Keep throttle at zero position.
- On connecting multimeter to Reed Switch coupler it should show continuity.



- When throttle is open and Reed Switch magnet crosses to straight edge of fix bracket of Reed Switch multimeter should show discontinuity.



- On De-acceleration, when of Reed Switch magnet re-coinsides with straight edge of fix bracket of Reed Switch Multimeter should show continuity.



Front Brake Free Play Adjustment

There is no need for free play adjustment, since the pistons in caliper assembly will move towards the pads and take new positions in order to automatically compensate for pad wear. The free play will be approximately 2 ~ 3 mm.

Front Brake Lever Play : 2 ~ 3 mm.



Rear Brake Pedal Adjustment

Check the rear brake pedal play as stated below. If it is more or less than the standard, adjust the rear brake.

- Depress the rear brake pedal lightly by hand. This is free play.
- If the rear brake pedal free play is incorrect, adjusting the rear brake shoe adjuster nut (A).
- Operate the pedal (B) for few times to see that it returns to its rest position immediately upon release.
- Rotate rear wheels to check for brake drag.
- Check braking effectiveness.
- If there is any doubt as to the conditions of the brake, check the brake parts for wear or damage.
- Turn the adjuster until the rear brake pedal have the correct amount of play.

Rear Brake Pedal Play : 25 ~ 30 mm.



Rear Brake Pedal Position Adjustment

To suit rider foot comfort / operating style the angle of the rear brake pedal can be adjusted by loosening the lock nut (A) and adjusting the bolt (B).

Ensure free play by turning the adjuster clockwise or anticlockwise to achieve specified free play. Fix the rubber sleeve on the bolt.

Note : After pedal position adjustment, it is necessary to set the free play.

Rear Brake Light Switch Adjustment

When either the front or rear brake is applied, the brake light glows on. The front brake light switch requires no adjustment but the rear brake light switch should be adjusted in accordance with the periodic maintenance chart.

Inspection :

- Turn on the ignition switch. The brake light should go on when the front brake is applied.
- If it does not, then inspect the front brake light switch.
- Check the operation of the rear brake light switch by depressing the brake pedal. The brake light should glow after about 15 mm of pedal travel.

- If it does not, adjust the rear brake light switch.

Adjustment :

- Adjust the rear brake light switch (A) by rotating the switch nut to create adequate tension in spring to operate the switch.

Standard Checking Procedure



Compression Pressure Testing

- For testing the compression pressure first warm up the engine.
- Remove the spark plug, LH side.

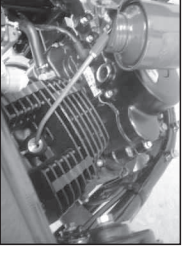
Caution : Disconnect H. T. lead cable from second spark plug i.e. RH side.

- Fit the compression gauge with adapter in the Spark plug hole.
- Open the throttle fully – then kick 5 times instantaneously.
- Note the reading in the compression gauge.
- Release the pressure by pressing the release valve on hose pipe.
- Take average of 3 such readings for noting actual compression pressure.
- Confirm the compression pressure is between 6 to 10 Kg/cm²

Wet Compression Test :

- If the compression pressure is found below lower limit than specified, put few drops of engine oil through the spark plug hole and again check compression pressure.
- If you find considerable increase this time, then cause for the low compression pressure lies in Cylinder / Piston assembly.
- If compression pressure remains the same, then the cause for low compression pressure lies in Cylinder / Head assembly.

Caution : If wet compression is done, remove second spark plug and clean thoroughly to avoid oil fouling before fitment.



Chain Slack Adjustment :

- Set the motorcycle upon its centre stand.
- Rotate the rear wheel to find the position where the chain is tightest and measure the vertical movement midway between the sprockets.

- If the drive chain is too tight or too loose, adjust it so that the chain slack will be within the standard value i.e. 25-30 mm.

- Loosen the rear torque link nut (A) & rear brake adjuster nut (F).

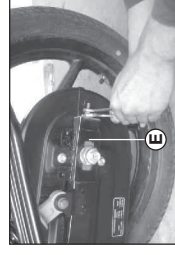
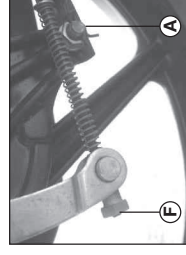
- Loosen the left and right chain adjuster lock nuts (B).

- Loosen the axle nut (C).

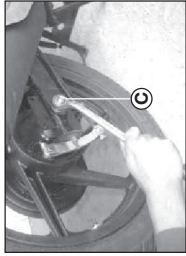
- Loosen the bearing carrier nut (D).

- If the chain is too tight, back out the left & right chain adjusting nuts evenly & kick the wheel forward until the chain is too loose.

- Turn both chain adjusting nuts evenly until the drive chain has the correct amount of slack. To keep the chain and wheel properly aligned, the notch (E) on the left chain adjuster should align with the same swing arm mark that the right chain adjuster notch (E) aligns with.



Warning : Misalignment of the wheel will result in abnormal wear, and may result in unsafe riding condition.



- Tighten both chain adjuster lock nuts.
- Tighten the sleeve nuts securely.

Warning : Tighten the bearing carrier nut before tightening the axle nut. If the nut tightening order is reversed, the rear axle will not be securely mounted on the swing arm. This may cause misalignment of the wheels and result in loss of control.

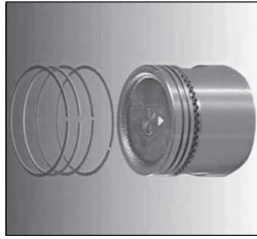
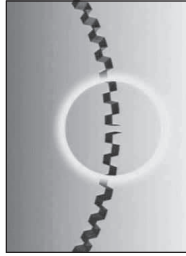
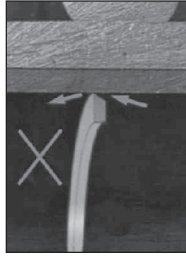


- Center the brake panel assembly in the brake drum. This is done by tightening the axle nut lightly, spinning the wheel, and depressing the brake pedal forcefully. The partially tightened axle nut allows the brake panel assembly to center itself within the brake drum.
- Tighten the Axle Nut
- Fix the snap ring
- Adjust the correct brake play

Note : This procedure can prevent a soft or spongy feeling brake.

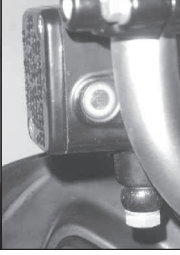
Piston Ring Fitment :

- Piston rings must always be fitted with respect to exhaust mark on the piston.
- First place the bottom oil rail ring with end gap 28° towards left of the exhaust mark in the last groove.
- Place oil expander ring with butting end downward and end gap facing opposite to the exhaust mark.
- Now fit top oil rail ring on the expander ring with end gap 30° towards right of the exhaust mark.
- Fit the second piston ring with 'Top 2' mark facing upward and end gap facing opposite to the exhaust mark.
- Finally fit the first ring with 'Top 1' mark upward and end gap facing towards the exhaust mark.
- Remember fitment of 2nd ring upside down may lead to passing of oil above the piston and ultimately leading to smoky exhaust.



Air Bleeding of Disc Brake System :

- For air bleeding from front Hydraulic brake system first top up the master cylinder with hydraulic oil.
- Operate the brake lever slowly in order to get filled the oil in the circuit.
- Connect transparent tube to the bleeder screw at caliper
- Operate the brake lever and keeping in pressed position loosens the bleeder screw so that some oil escapes with the air bubbles.
- Keep on operating the brake lever till the air bubble escape out completely through bleeder screw, and top up the master cylinder if required.
- Once the air escapes out from the hose pipe the brake lever meets resistance, which indicates completion of air bleeding
- After completing the bleeding, top up the master cylinder up to the maximum level mark.



Nitrox Air Filling

- Remove the Phillips head screw & small 'O' ring fitted on air valve of Nitrox RSA.
- Fix the guide to canister of Nitrox shocker in such a way that guide hole is concentric with air filling valve.
- Insert the Nitrox air filling pumps needle end into the guide & carefully pierce the rubber pin fitted inside the air valve of Nitrox RSA.
- Note the pressure indicated by pressure gauge of Nitrox air pump. Refill the pressure.
- Once the pressure reaches upto 7.5 Kg/cm², take out the needle slowly from canister.
- Fit the Phillips head screw & small 'O' ring fitted on air valve of Nitrox RSA.

Power Up the Jig

The Jig should carry out a self test, where first all Red LED; glow sequentially and then all Green LED; flash twice.



Manual Testing

- Connect wiring harness to C1 connector.
- Through this harness the following testing can be carried out :
 - Vehicle sensor speed.
 - Hall sensor.
 - Starter relay.

