

3. INSPECTION/ADJUSTMENT

3

INSPECTION / ADJUSTMENT

SERVICE INFORMATION	3- 1
MAINTENANCE SCHEDULE.....	3- 2
THROTTLE OPERATION.....	3- 3
ENGINE OIL	3- 4
RESERVE TANK	3- 5
AIR CLEANER	3- 6
SPARK PLUG	3- 6
VALVE CLEARANCE.....	3- 7
CYLINDER COMPRESSION	3- 7
FINAL REDUCTION GEAR OIL	3- 8
DRIVE BELT.....	3- 8
BRAKE SYSTEM.....	3- 9
CLUTCH SHOE WEAR.....	3-10
SUSPENSION.....	3-10
NUTS/BOLTS/FASTENERS.....	3-11
WHEELS/TIRES.....	3-11
STEERING HANDLEBAR.....	3-11
SIDE STAND	3-12

3. INSPECTION/ADJUSTMENT

SERVICE INFORMATION

GENERAL

 **WARNING**

- Before running the engine, make sure that the working area is well ventilated. Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas, which may cause death to people.
- Gasoline is extremely flammable and is explosive under some conditions. The working area must be well ventilated and do not smoke or allow flames or sparks near the working area or fuel storage area.

SPECIFICATIONS

ENGINE

- Throttle grip free play : 2 \pm 6 mm
- Spark plug : NGK: DPR6EA-9
- Spark plug gap : 0.8 mm ~ 0.9 mm
- Valve clearance : IN: 0.10 mm EX: 0.10 mm
- Idle speed : 1600 \pm 100 rpm

Engine oil capacity:

- Cylinder compression: 15 kg/cm²
- At disassembly : 1.1 Liter Ignition timing : ECU
- At change : 0.9 Liter Coolant type : Water Cooling

Gear oil capacity :

- At disassembly : 0.23 Liter
- At change : 0.18 Liter

TIRE

	1 Rider	2 Riders
Front	2.0 kg/cm ²	2.0 kg/cm ²
Rear	2.25 kg/cm ²	2.25 kg/cm ²

TIRE SPECIFICATION

- Front : 120/80-14 58S
- Rear : 150/70-13 64S

TORQUE VALUES

- Front axle nut : 2 kg-m
- Rear axle nut : 12 kg-m

SPECIAL TOOL

- Tappet Adjuster E012

3. INSPECTION/ADJUSTMENT

Maintenance schedule

Perform the pre-ride inspection at each scheduled maintenance period. This interval should be judged by odometer reading or months, whichever comes first.

Maintenance schedule legend

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY

C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE

The maintenance schedule on the following two pages specifies the maintenance required to keep your X-Town 300i scooter in peak operating condition. Maintenance work should be performed in accordance with KYMCO standards and specifications by properly trained and equipped technicians. Your KYMCO dealer meets all of these requirements.

* Should be serviced by your KYMCO dealer, unless you have the proper tools, service data and are technically qualified.

** In the interest of safety, we recommend these items be serviced only by your KYMCO dealer. KYMCO recommends that your KYMCO dealer road test your scooter after each periodic maintenance service is completed.

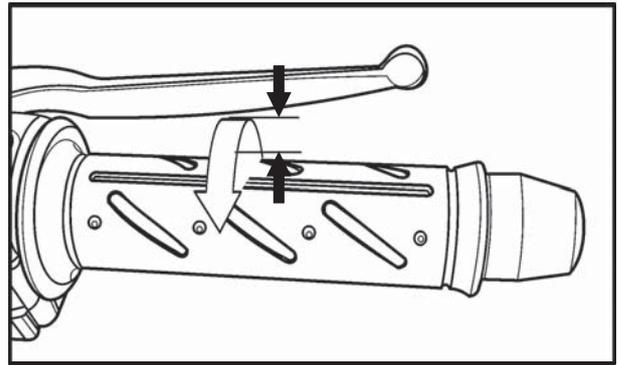
ITEM !	FREQUENCY	WHICHEVER	ODOMETER READING						
		COMES FIRST	1	3	6	9	12	15	18
		X 1000 km	0.6	2	4	6	8	10	12
		X1000 mi		3	6	9	12	15	18
	MONTH								
AIR CLEANER			R	R	R	R	R	R	
SPARK PLUG				I		R		I	
THROTTLE OPERATION			I	I	I	I	I	I	
VALVE CLEARANCE		A				A			
FUEL LINE						I			
CRANKCASE		C	C	C	C	C	C	C	
ENGINE OIL		R	R	R	R	R	R	R	
ENGINE OIL SCREEN		C	C	C	R	C	C	R	
ENGINE IDLE SPEED				I		I		I	
TRANSMISSION OIL		R		R		R		R	
DRIVE BELT				I	I	I	R	I	
RADIATOR COOLANT		Replace at every 10000km or every year							
CLUTCH SHOE WEAR				I		I		I	
BRAKE FLUID		Replace at every 10000km or every year							
BRAKE PAD WEAR			I	I	I	I	I	I	
BRAKE SYSTEM			I	I	I	I	I	I	
BRAKE LIGHT SWITCH			I	I	I	I	I	I	
STEERING BEARINGS			I	I	I	I	I	I	
HEADLIGHT AIM			I	I	I	I	I	I	
NUTS,BOLTS,FASTENE			I	I	I	I	I	I	
WHEEL/TIRES			I	I	I	I	I	I	
CVT FILTER				C		C		C	
INJECTOR			D	D	C	D	D	C	
ENGINE LIMIT LEVER		Inspection every 10000km,							
RUBBER GASKET		replacement every 30000Km							

3. INSPECTION/ADJUSTMENT

THROTTLE OPERATION

Check the throttle grip for smooth movement.
Measure the throttle grip free play.

Free Play: 2~6 mm



Major adjustment of the throttle grip free play is made with the adjusting nut at the throttle body side. Adjust by loosening the lock nut and turning the adjusting nut.

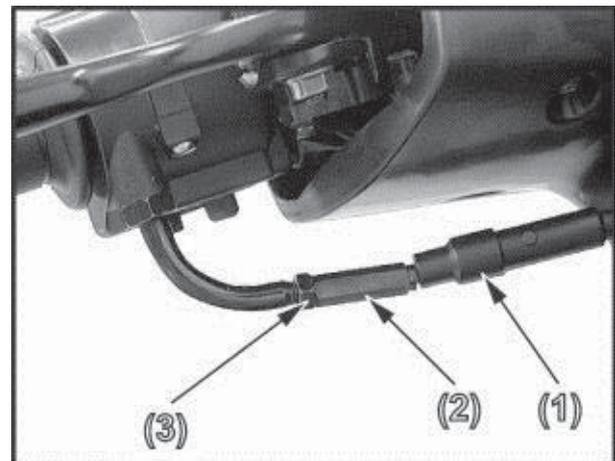


Adjusting Nut

Lock Nut

Minor adjustment is made with the adjusting nut at the throttle grip side.

Slide the rubber cover(1) out and adjust by loosening the lock nut(3) and turning the adjusting nut(2).



3. INSPECTION/ADJUSTMENT

ENGINE OIL

OIL LEVEL INSPECTION

Stop the engine and support the scooter upright on the level ground.
 Wait for 2~3 minutes and check the oil level with the dipstick. Do not screw in the dipstick when checking the oil level.

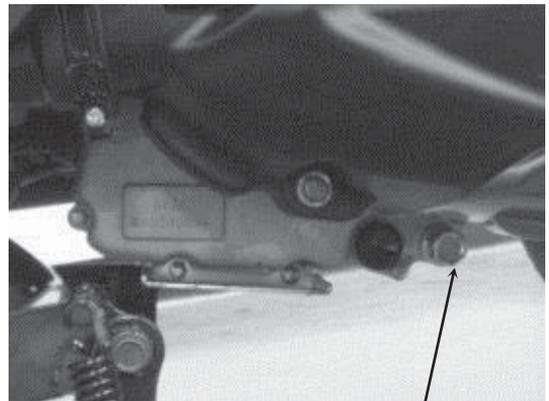
OIL CHANGE

Remove the oil drain bolt to drain the engine oil.
 Install the aluminum washer and tighten the oil drain bolt.

Torque: 2.5 kg-m

- * • Replace the aluminum washer with a new one if it is deformed or damaged.

Pour the recommended oil through the oil filler hole.



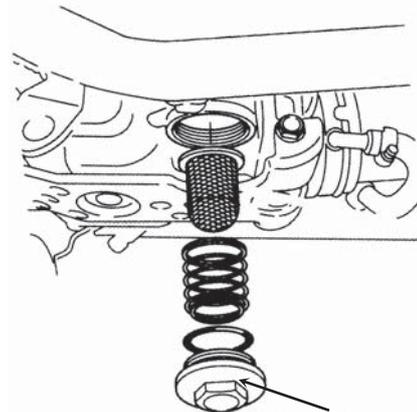
Oil Drain Bolt !

OIL CAPACITY

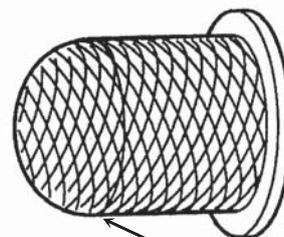
Engine oil capacity: 1.1 L
 Engine oil exchanging capacity: 0.9 L
 Engine Oil Viscosity : SAE 5W50

OIL FILTER REPLACEMENT

Remove the oil filler cap attaching the right-under crankcase cover.



Oil Drain Cap !



Oil Strainer Screen !

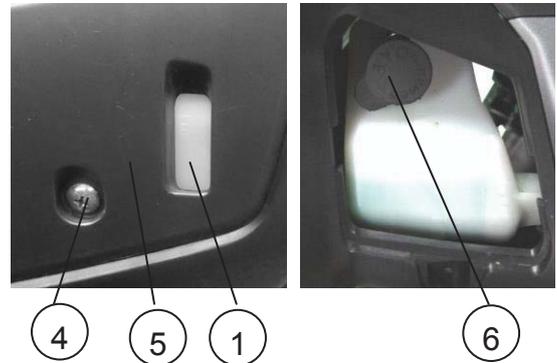
3. INSPECTION/ADJUSTMENT

RESERVE TANK

COOLANT LEVEL INSPECTION

The coolant reservoir is in the front in the box. Check the coolant level through the inspection window ① at the left side skirt while the engine is at the normal operating temperature, with the scooter in an upright position.

If the level is below the "LOW" level line ③, remove the left foot mat, remove the lid screw ④, the reservoir lid ⑤, and the reservoir tank cap ⑥ to add coolant until it reaches the "FULL" level line ②.



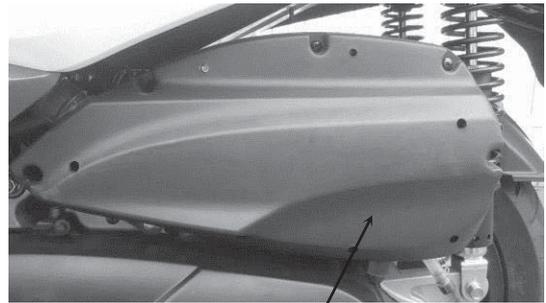
* Add coolant to the reserve tank only. Do not attempt to add coolant by removing the radiator cap. Coolant in the radiator is under pressure and is very hot and can cause serious burns.

3. INSPECTION/ADJUSTMENT

AIR CLEANER

AIR FILTER REPLACEMENT

Remove the body cover.
 Remove seven screws attaching to the air cleaner cover.
 Remove six screws attaching to the filter.
 Check the filter and replace it if it is excessively dirty or damaged.

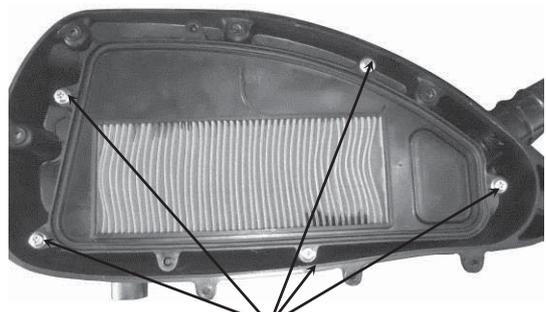


Air Cleaner Cover

CHANGE INTERVAL

More frequent replacement is required when riding in unusually dusty or rainy areas.

- *
 - The air cleaner element has a viscous type paper element. Do not clean it with compressed air.
 - Be sure to install the air cleaner element and cover securely.



Bolts

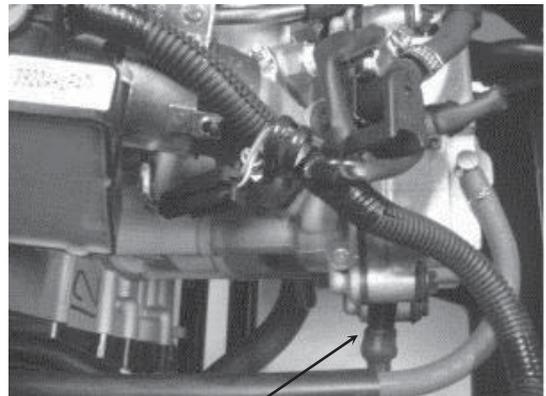
SPARK PLUG

Remove the spark plug cap and spark plug.
 Check the spark plug for wear and fouling deposits.
 Clean any fouling deposits with a spark plug cleaner or a wire brush.

Specified Spark Plug: NGK-DPR6EA-9

Measure the spark plug gap.

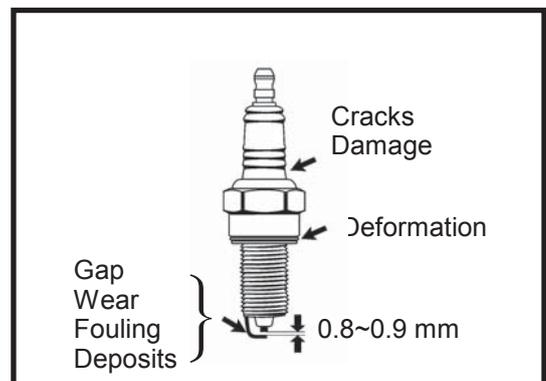
Spark Plug Gap: 0.8 ~0.9 mm



Spark Plug

- *
 - When installing, first screw in the spark plug by hand and then tighten it with a spark plug wrench.

Torque: 17.2 N-m



3. INSPECTION/ADJUSTMENT

VALVE CLEARANCE

- * • Inspect and adjust valve clearance while the engine is cold (below 35°C).

Remove the seat assy and luggage box.
Remove the four bolts and then cylinder head cover.

Turn the A.C. generator flywheel to the top dead center (TDC) on the compression stroke so that the "T" mark on the flywheel aligns with the index mark on the left crankcase cover.
Inspect and adjust valve clearance.

Inspect and adjust valve clearance.

Valve Clearance: IN: 0.10 mm
EX: 0.10 mm

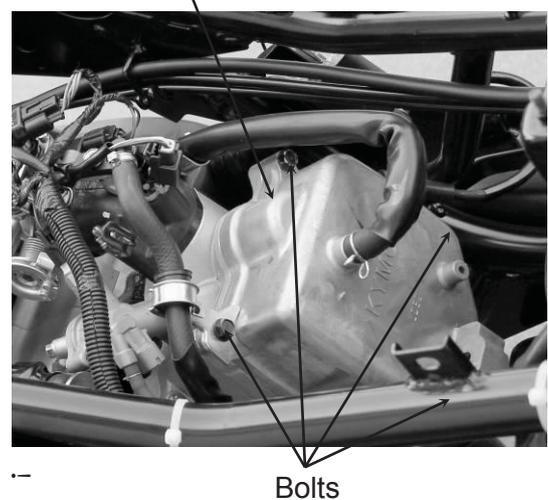
Loosen the lock nut and adjust by turning the adjusting nut

Special !

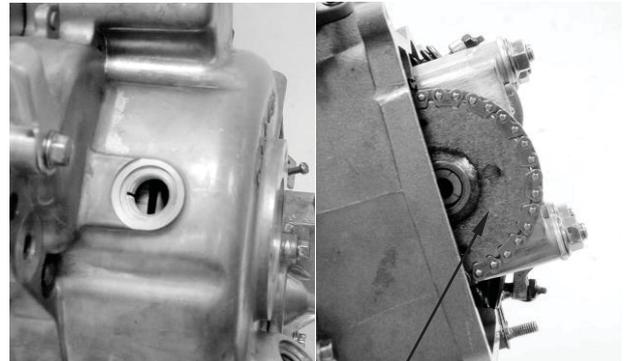
Valve Adjuster E012
Feeler Gauge

- * • Check the valve clearance again after the lock nut is tightened.

Cylinder Head Cover



Index Mark !



"T" Mark

Punch Mark !

CYLINDER COMPRESSION

Warm up the engine before compression test.

Remove the center cover and luggage box.

Remove the spark plug.

Insert a compression gauge.

Open the throttle fully and push the starter button to test the compression.

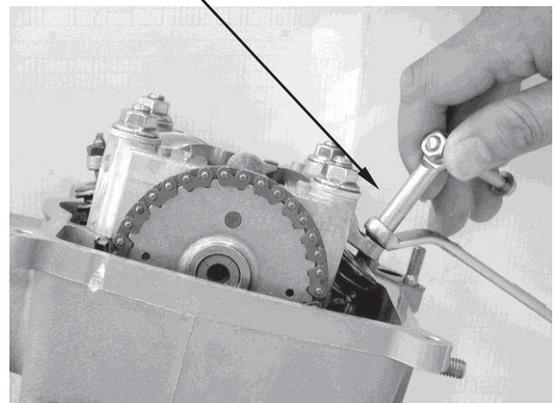
Max. Compression: 15 kg/cm²

If the compression is low, check for the following:

- Leaky valves
- Valve clearance too small
- Leaking cylinder head gasket
- Worn piston rings
- Worn piston/cylinder

If the compression is high, it indicates that carbon deposits have accumulated on the combustion chamber and the piston head.

Valve Wrench



3. INSPECTION/ADJUSTMENT

FINAL REDUCTION GEAR OIL

- Place the scooter on its main stand on level ground.

Remove the transmission fluid drain bolt.
 Remove the transmission fluid filler bolt, then slowly rotate the rear wheel to drain the fluid.
 Fill the transmission with the recommend fluid to the capacity listed below.

Transmission fluid type: SAE 90
Transmission fluid capacity: 0.23 L
Transmission fluid exchanging capacity: 0.18 L

Install the transmission filler bolt and tighten it to the specified torque.

DRIVE BELT

Remove the left crankcase cover.
 Inspect the drive belt for cracks or excessive wear.
 Replace the drive belt with a new one if necessary and in accordance with the Maintenance Schedule.

CVT Check/Clean

Change or clean the air filter every 5000km
 Remove set screws on the left crankcase cap
 Remove screws on the clapboard
 On the left crankcase
 Remove the air filter, change or clean
 <Install method>
 Install in the reverse order
 <clean method>
 Clean the sponge with compressed air and
 Clean the stain on left inner crankcase



Oil Filler Bolt



Oil Drain Bolt



Drive Belt

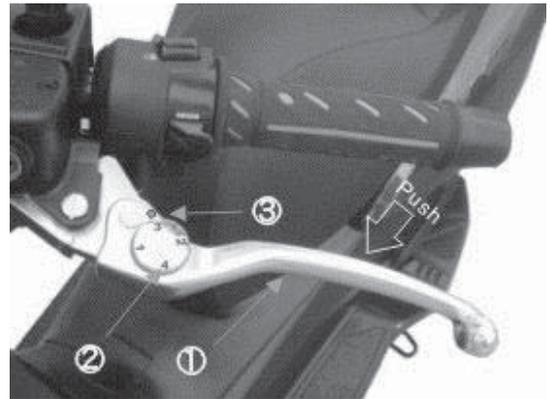


3. INSPECTION/ADJUSTMENT

BRAKE SYSTEM

There is adjuster on each brake lever. Each adjuster has four positions so that the released lever position can be adjusted to suit the rider's hands.

To adjust the distance of the lever from the handlebar grip, push the lever (1) forward and turn the adjuster knob (2) to align the number with the arrow mark (3) on the lever holder.



BRAKE DISK/BRAKE PAD

Check the brake disk surface for scratches, unevenness or abnormal wear.

Check if the brake disk runout is within the specified service limit.

Check if the brake pad wear exceeds the wear indicator line.



* Keep grease or oil off the brake disk to avoid brake failure.

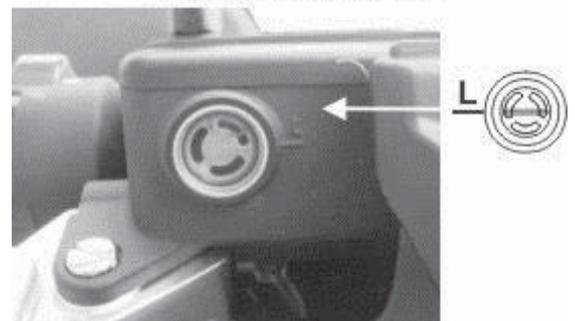
BRAKE FLUID

Turn the steering handlebar upright and check if both brake fluid levels is at the upper limit. If the brake fluid is insufficient, fill to the upper limit.

Specified Brake Fluid: DOT-4

* The brake fluid level will decrease if the brake pads are worn.

Brake fluid reservoir



3. INSPECTION/ADJUSTMENT

CLUTCH SHOE WEAR

Start engine and check the clutch operation by increasing the engine speed gradually. If the motorcycle tends to creep or the engine stop, check the clutch shoes for wear and replace if necessary.

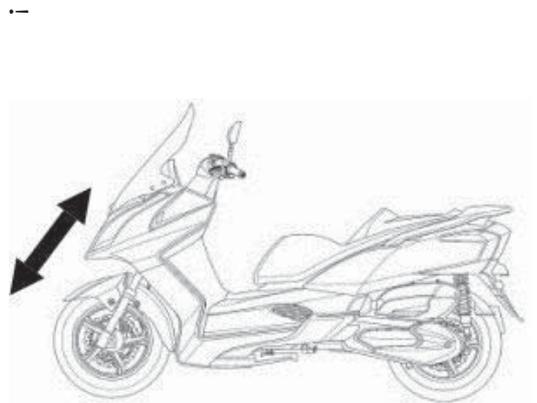


SUSPENSION

FRONT

Check the action of the front shock absorbers by compressing them several times.

Check the entire shock absorber assembly for oil leaks, looseness or damage.

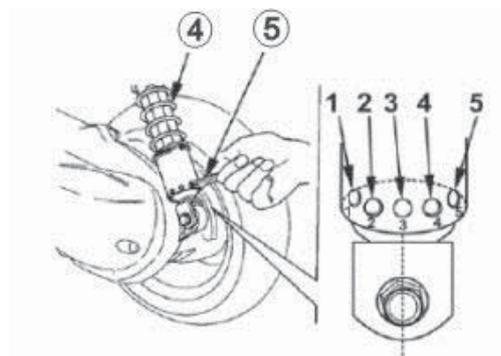


REAR

Each shock absorber(4) on your scooter has 5 spring preload adjustment positions for different load or riding conditions.

Use a pin spanner(5) to adjust the rear shock spring preload. Position 1 is for light loads and smooth road conditions. Position 3 to 5 increase spring preload for a stiffer rear suspension and can be used when the scooter is heavily loaded.

Be certain to adjust both shock absorbers to the same spring preload positions.



3. INSPECTION/ADJUSTMENT

NUTS/BOLTS/FASTENERS

Check all important chassis nuts and bolts for looseness.

Tighten them to their specified torque values if any looseness is found.

WHEELS/TIRES

Check the tires for cuts, imbedded nails or other damages.

Check the tire pressure.

- * • Tire pressure should be checked when tires are cold.

Tire Pressure

	1 Rider	1 Rider (with passenger)
Front	2.0kg/cm ²	2.00 kg/cm ²
Rear	2.25kg/cm ²	2.25 kg/cm ²

Tire Size:

Front 120/80-14 58S
Rear 150/70-13 64S

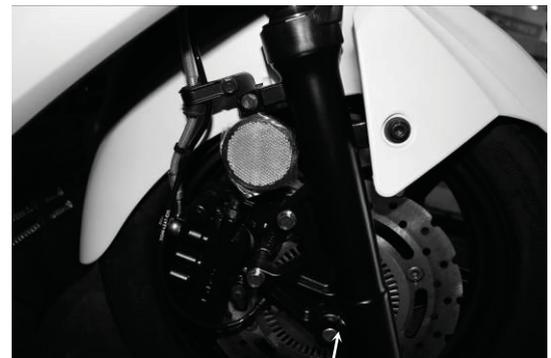
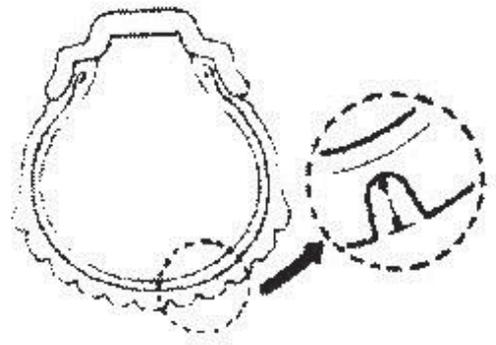
Check the front axle nut for looseness.

Check the rear axle nut for looseness.

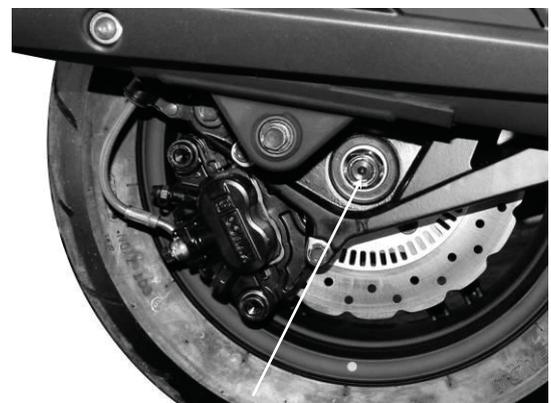
If the axle nuts are loose, tighten them to the specified torques.

Torque:

Front axle nut 2 kg-m
Rear axle nut 12 kg-m



Front Axle Nut



Rear Axle Nut

STEERING HANDLEBAR

Raise the front wheel off the ground and check that the steering handlebar rotates freely.

If the handlebar moves unevenly, binds, or has vertical movement, adjust the steering head bearing.



3. INSPECTION/ADJUSTMENT

SIDE STAND

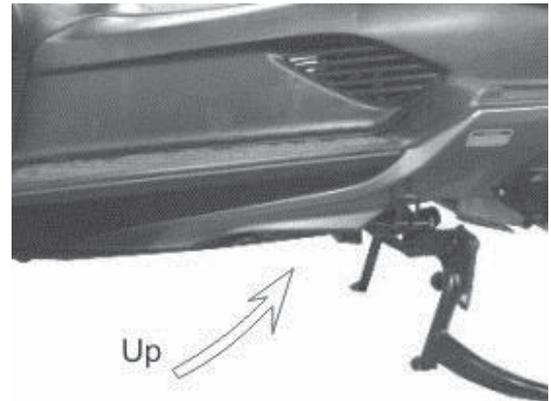
Your scooter's side stand is not only necessary when you park, but it contains an important safety feature. This feature cuts-off the ignition if you try to ride the scooter when the side stand is down. Perform the following side stand inspection.

INTERLOCK FUNCTION CHECK

Check the side stand ignition cut-off system,

1. Place the scooter on its center stand.
2. Put the side stand up and start the engine.
3. Lower the side stand. The engine should stop as you put the side stand down.

* If the side stand system does not operate as described, see your KYMCO dealer for service.



Engine limit lever rubber gasket

Engine limit lever rubber gasket is made of rubber, Deterioration and friction is normal, so it needs inspection and replacement: inspect every 10000km and replace every 30000km.

Removal

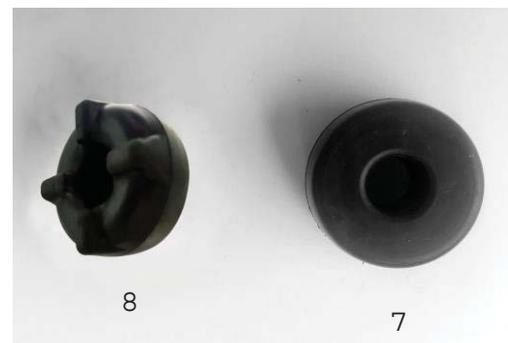
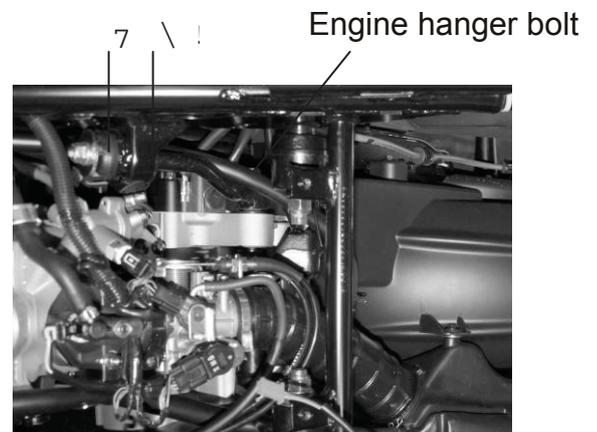
1. Remove the engine hanger fixing nut, and remove the engine hanger bolt.
2. Remove the engine limit lever nut and remove the rubber gasket ①.
3. Remove the limit lever and remove the gasket ②.

Install the new gaskets in reverse order.

Torque:

Engine hanger nut torque: 60-70 NM

Engine limit lever nut torque: 40-50 NM



① 1. The bumping points of gasket 7 should be placed towards the vehicle head.