

DURING THE REMOVAL OPERATIONS DESCRIBED ABOVE, THE ROLLER BUSHINGS ARE DESTROYED WHEN THE EXTRACTOR IS USED. UPON REFITTING, IT IS THEREFORE NECESSARY TO USE NEW BUSHINGS AS WELL AS A NEW PIN, NEW SEALING RINGS AND DUST GAITER.

Specific tooling

020021Y Front suspension service tool

Connect the swinging hub to the steering tube with the guiding pin.

- Use the tool fitted with part 3 on the stem and part 4.

Lubricate the pin with recommended grease and insert it temporarily on the swinging hub, move the tool hand-grip until part 3 is fully inserted on the steering tube.

After fitting the pin, insert the two spacers, slightly hitting them with the mallet.

N.B.

BEFORE PROCEEDING WITH THE DESCRIBED FITTING, PLACE THE TWO DUST GAITER RINGS ON THE SWINGING HUB AS SHOWN IN THE FIGURE.

Specific tooling

020021Y Front suspension service tool

Recommended products

Molybdenum disulphide grease Lithium grease with molybdenum disulphide.

Grey black grease

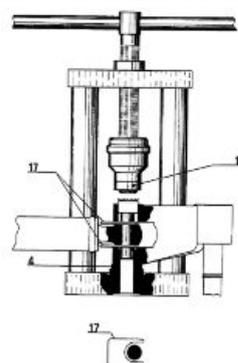
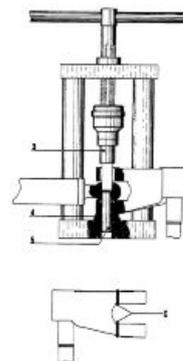
Insert the sealing ring on the pin and the roller bushing with its wedging washer at the same time.

- Remove the tool and the part 5 (guide), which has been partially ejected during the previous pin fitting phase, and leave part 4 always fitted.

- Replace part 3 with part 16 (on the stem).

- By moving the tool hand-grip, push the wedging washer - roller bushing - seal ring unit, placing part 16 until it stops on the swinging hub.

- Repeat the above operation using the tool with part 16 and part 22, instead of part 4, always fitted to the stem, on the side opposite that indicated in



the figure to fit the second wedging washer - roller bushing - sealing ring unit.

WARNING

BEFORE PROCEEDING WITH THE DESCRIBED PRE-FITTING, DIP THE SEALING RINGS IN MINERAL OIL AND THE "NADELLA" ROLLER BUSHINGS (PREVIOUSLY WASHED IN PURE PETROL OR NEUTRAL PETROLEUM TO ELIMINATE THE ANTI-RUST PROTECTION), HALF-FILLED WITH GREASE.

Specific tooling

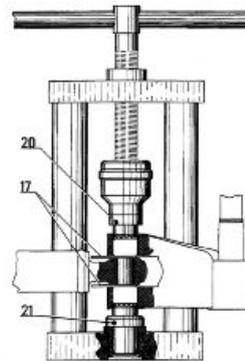
020021Y Front suspension service tool

Recommended products

Multi-purpose grease "Multi-purpose" lithium and medium fibre-based yellow brown grease suitable for various uses.

ISO L-X-BCHA 3 - DIN 51 825 K3K -20

- Use the tool fitted with part 20 on its stem and part 21 on the tool base as shown in the figure.
- By moving the tool hand-grip, push the two NADELLA bushings until their internal bottoms make contact with the pin end.
- Use the tool fitted with parts 3 and 4 to fit the pin, and press moving the tool hand-grip, until wedging the washers on the swinging hub.
- Now, remove the two spacers (parts 17 and 16) and, once the space between the NADELLAs - steering tube and swinging hub - has been fully filled with grease, move the dust gaiter rings until they are placed in that space.
- By wedging the washers as described above, the front suspension unit refitting stage is finished.



Recommended products

Multi-purpose grease "Multi-purpose" lithium and medium fibre-based yellow brown grease suitable for various uses.

ISO L-X-BCHA 3 - DIN 51 825 K3K -20

Refitting

Insert the steering tube.



- Insert the lower steering ring nut.
- Screw the lower steering ring nut and tighten it to the prescribed torque using the special tool.

Specific tooling

020055Y Wrench for steering tube ring nut

Locking torques (N*m)

Lower steering ring nut 8 to 10



- Insert the shield.



- Insert the upper steering ring nut.
- Screw the upper steering ring nut and tighten it to the prescribed torque using the special tool.

Specific tooling

020055Y Wrench for steering tube ring nut

Locking torques (N*m)

Upper steering ring nut 35 - 40



- Fit the handlebar
- Insert and tighten the fixing screw of the front brake tube.



- Fit the brake calliper and shock absorber support, the shock absorber and the hub.
- Fit the brake calliper and connect it to the brake tube.
- Fit the front wheel.
- Remove the vehicle from its supports.

Front shock absorber

Removal

- Remove the wheel.
- Remove the front brake calliper.
- Remove the wheel hub.



- Undo and remove the screw fixing the shock absorber to the brake calliper and shock absorber support



- Support the shock absorber adequately, undo and remove the screws fixing the steering tube.



- Remove the shock absorber.

Refitting

- Insert the shock absorber.
- insert the fastening screws at the steering tube and tighten to the specified torque.

Locking torques (N*m)

Shock absorber - Steering tube 20 - 25 Nm



- Insert the screws fixing the shock absorber to the shock absorber and brake calliper support and tighten to the prescribed torque.

Locking torques (N*m)

Shock absorber - shock absorber and brake calliper support 20 - 25 Nm



Shock-absorber - calliper bracket

Removal

- Remove the wheel
- Remove the brake calliper and the hub.
- Remove the shock absorber.
- Remove the Seeger ring.

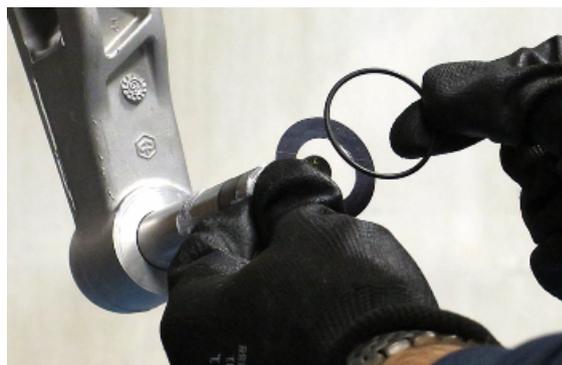
- Remove the spacer.



- Remove the brake calliper and shock absorber support from the wheel axle.



- Remove the washer and the O-Ring.



Overhaul

- Support the brake calliper and shock absorber support adequately.
- Remove the oil seal.



- With the special tool remove the roller casings.

Specific tooling

020376Y Adaptor handle

020441S 26 x 28 mm adaptor

020365Y 22 mm guide

- Turn the shock absorber support and remove the oil seal on the hub side.
- With the special tool insert a new oil seal.

Specific tooling

020376Y Adaptor handle

020360S 52 x 54 mm adapter



- With the special tool insert the new roller casings.

Specific tooling

020037Y Punch



- Turn the support.
- With the special tool insert a new oil seal.



Refitting

- Place the washer and the O-Ring.



- Insert the brake calliper and shock absorber support on the wheel axle.



- Insert the spacer.

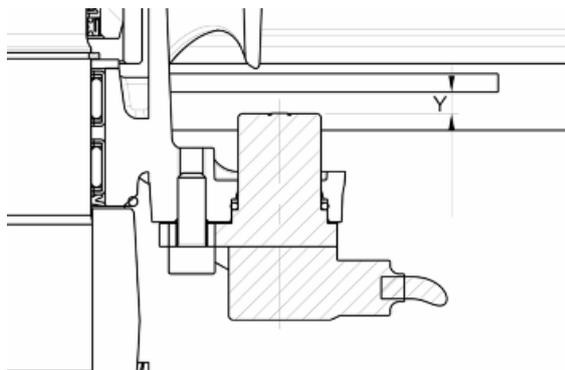


- Fit the seeger ring.
- Fit the shock absorber.
- Fit the brake calliper and the hub.
- Fit the wheel.



PAY PARTICULAR ATTENTION TO THE FITTING OF THE SPEED SENSOR; PROCEED AS FOLLOWS:

- Mount the sensor on its seat.
- Measure the distance «Y» between the brake disc and the sensor with a feeler gauge.
- Based on the measured distance, insert the calibration thickness number (from the spare parts catalogue) indicated in the table between sensor and support.



**Characteristic
Calibration thickness**

0.3 ± 0.03 mm

Locking torques (N*m)

Speed sensor fastener screw 8 to 10

SPEED SENSOR MOUNTING

Distance (mm)	Calibration thickness number
Y = 4.7 - 5	1
Y = 4.4 - 4.6	2
Y = 4.3 - 4.1	3
Y = 4 - 3.8	4
Y = 3.7 - 3.5	5
Y = 3.4 - 3.2	6

Steering bearing**Removal**

- Use the specific tool both to remove the lower seat of the upper bearing and to remove the upper seat of the lower bearing fitted on the chassis.

N.B.

TO REMOVE THE LOWER SEAT OF THE LOWER STEERING BEARING JUST USE A SCREW-DRIVER AS A LEVER BETWEEN THE SEATING AND THE SLEEVE.

Specific tooling**020004Y Punch for removing steering bearings from headstock**

- Remove the fifth wheel fitting and the dust gaiter on the steering bearing as shown in figure, using the specific tool. Proceed giving a few taps with the mallet.

**Specific tooling****020004Y Punch for removing steering bearings from headstock**

- Refit the fifth wheel fitting and the dust gaiter on the steering bearing until they stop, using the specific tool.

Specific tooling**006029Y Punch for fitting steering bearing on the steering tube**

Refitting

- Fit the fifth wheel fitting and the dust gaiter on the steering bearing until they stop, using the specific tool.

Specific tooling

006029Y Punch for fitting steering bearing on the steering tube

- Fit the steering tube on the vehicle.
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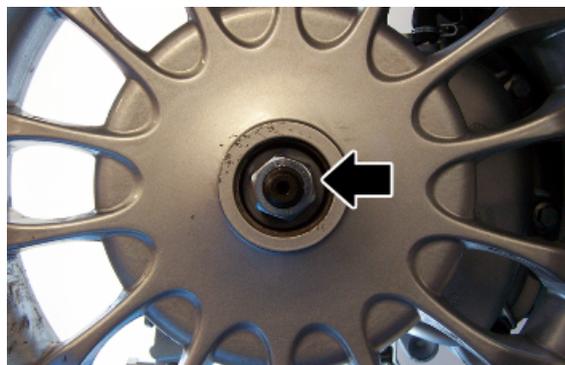
Rear

Removing the rear wheel

- Remove the silencer.
- Remove the cotter pin and remove the cap.

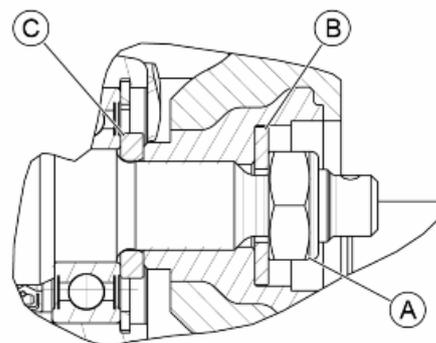


- Unscrew the nut fixing the wheel axle and collect the washer.



FOR VERSIONS WITH FIXING BY SELF-LOCKING NUT

- Unscrew the self-locking nut «A».
- Remove the washer «B».
- Remove the rear wheel.
- Remove the spacer «C».

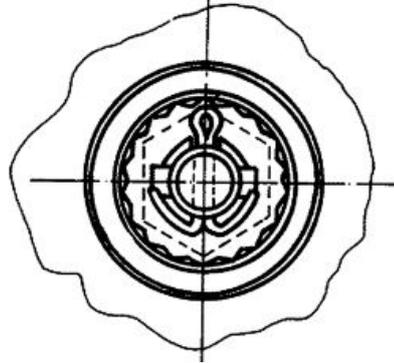


Refitting the rear wheel

- To refit, follow the removal steps but in reverse order; be careful to tighten to the prescribed torque.

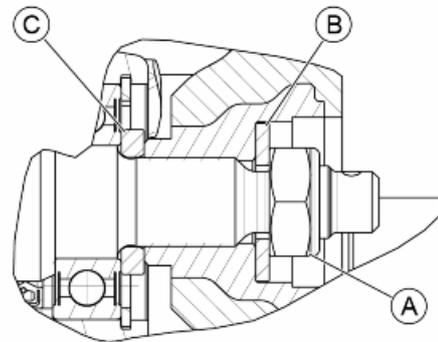
Locking torques (N*m)

Rear wheel axle 104 to 126 (76.7 to 92.9 lb*ft)



FOR VERSIONS WITH FIXING BY SELF-LOCKING NUT

- Insert the spacer «C».
- Refit the rear wheel.
- Insert the washer «B».
- Tighten a new self-locking nut «A» to the prescribed torque.



CAUTION



ALWAYS USE A NEW NUT.

CAUTION

IN CASE OF FIXING BY SELF-LOCKING NUT, THE HOLE ON THE WHEEL AXLE IS NOT USED.

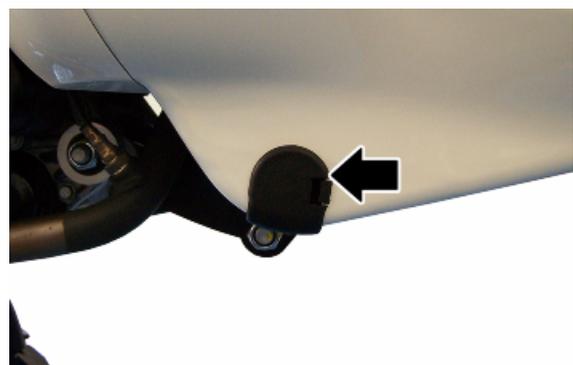
Locking torques (N*m)

Rear wheel axle - self-locking nut 108 to 130 (79.7 to 95.9 lb*ft)

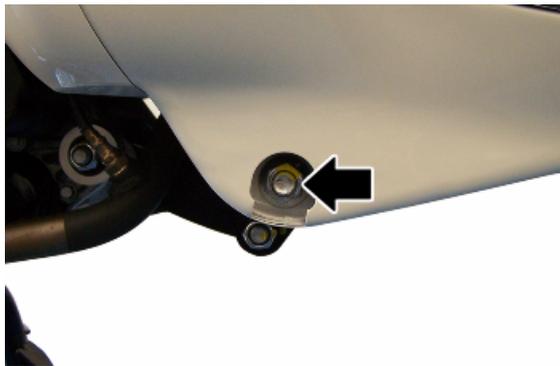
Swing-arm

Removal

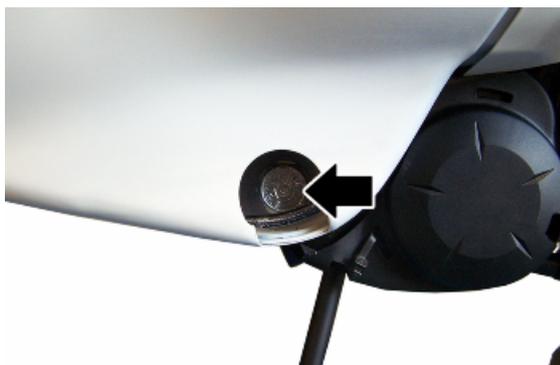
- Support the vehicle adequately.
- Working on both sides, remove the cover caps.



- Working on the right side, unscrew the side fixing nut to the chassis and collect the washer.



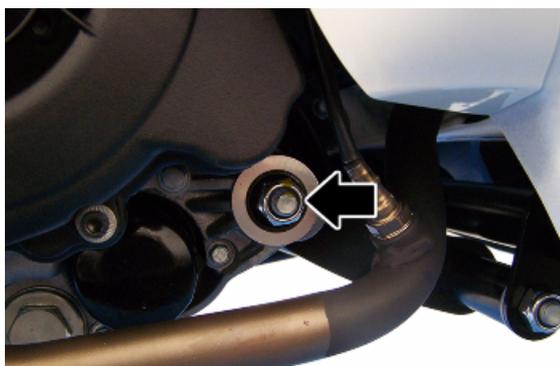
- Working on the left side, remove the bolt.



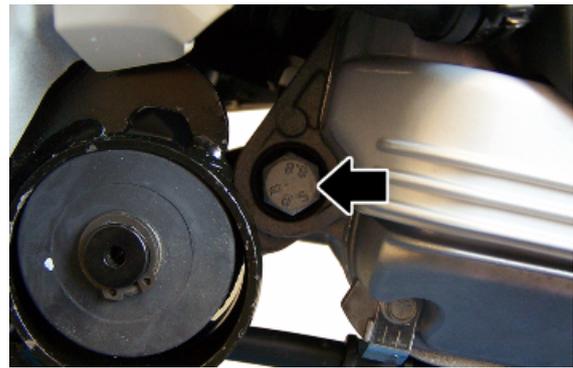
- Remove the clamp indicated.
- By disengaging the fittings, remove the silent block cover and slide it off from the piping.



- Remove the spoiler terminal from both sides.
- Working on the right side, unscrew the fixing nut.



- Remove the fixing pin to the engine and collect the spacer.
- Now the swinging arm is free.



- Remove the swinging arm from the vehicle; first release it from the engine side and then from the chassis side.

Overhaul

- Check that the silent-blocks are in good conditions.
- Otherwise, replace the swinging arm.

Refitting

- To fit, follow the removal steps but in reverse order; be careful to tighten to the prescribed torques.

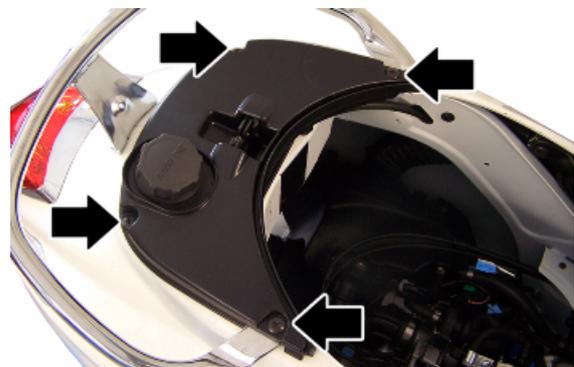
Locking torques (N*m)

Silent block-swinging arm retaining bolts 40 - 45 Swinging arm - frame pin 44 to 52 Swinging arm pin - engine 40 - 45

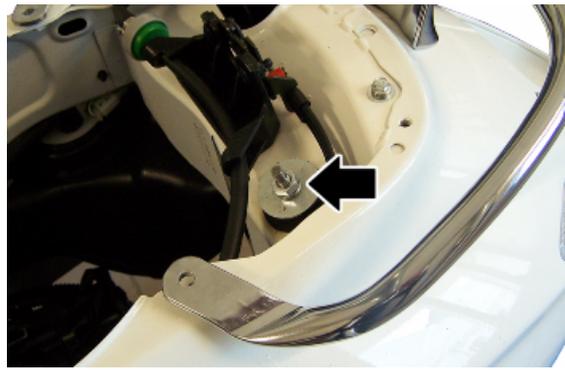
Shock absorbers

Removal

- Remove the helmet compartment.
- Remove the four indicated screws, then undo the fuel tank cap to remove the plastic cover.



- Adequately support the rear part of the vehicle.
- Undo the indicated upper fixing screw to the chassis.



- Unscrew the lower fixing bolt to the transmission crankcase.



Refitting

- To fit, follow the removal steps but in reverse order; be careful to tighten to the prescribed torques.

Locking torques (N*m)

Shock absorber/chassis nut torque 20 - 25 Nm Lower shock absorber clamp 40 - 45

Centre-stand

REMOVAL

- Use a jack to support the vehicle properly.
- Remove the two return springs from the centre stand.
- Undo the fixing nut on the left-hand side of the engine.
- Remove the pin from the right side.
- Remove the centre stand.



FITTING

- On refitting tighten the nut to the specified torque.

Locking torques (N*m)

Centre stand pin 40 - 45

INDEX OF TOPICS

BRAKING SYSTEM

BRAK SYS

ABS

CAUTION

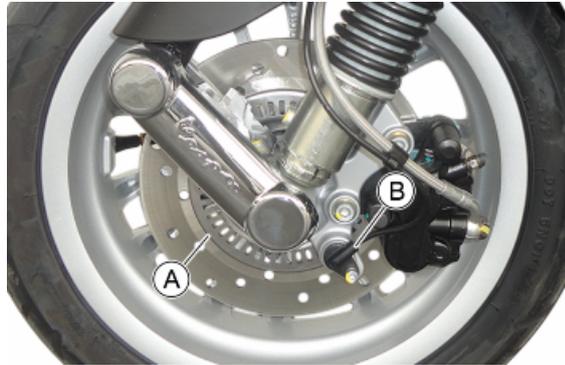
THE FOLLOWING INSTRUCTIONS ARE APPLICABLE FOR VEHICLE VERSIONS WITH ABS - ASR SYSTEM.

The vehicle is equipped with a locking ABS system on the front wheel.

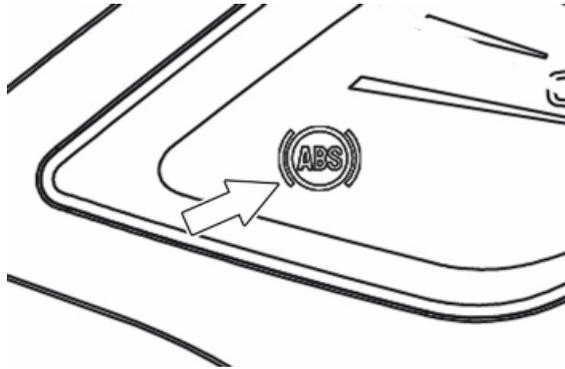
A: Tone wheel

B: Speed sensor

- ABS: It is a hydraulic - electronic device that limits the pressure within the braking circuit when a sensor, located on the wheel, detects its tendency to lock. This system prevents the front wheel from locking to avoid the risk of falling.



In case of failure of the ABS system, immediately reported to the rider with ABS warning light on the instrument cluster, the vehicle retains the characteristics of a conventional braking system. The safety provided by the ABS does not, in any case, justify risky manoeuvres. The stopping distance may be greater, compared to a conventional vehicle equipped with traditional braking in the following conditions:



- Riding on rough roads, with gravel or snow
- Riding on roads with holes or bumps

It is therefore recommended to reduce speed in these conditions.



AT VERY LOW SPEEDS, LESS THAN 5 km/h (3 mph) THE ABS SYSTEM IS DISABLED.

IT IS RECOMMENDED TO PAY ATTENTION THEREFORE IN CASES OF BRAKING IN LOW GRIP CONDITIONS AT LOW SPEED (FOR EXAMPLE BRAKING ON GARAGE FLOOR TILES AFTER HAVING RIDDEN ON WET ROADS OR SIMILAR SITUATIONS)

N.B.

THE ABS WARNING LIGHT TURNS ON AND STAYS ON UNTIL REACHING 5 Km/h (3 mph).

CAUTION



IN THE EVENT OF MALFUNCTION OF THE BATTERY, THE ABS SYSTEM TURNS OFF.

WARNING



ANY FLASHING OF THE ABS WARNING LIGHT DURING DRIVING INDICATES A MALFUNCTION OF THE LOCKING SYSTEM.

WITH THE VEHICLE AT A STANDSTILL, THE BLINKING ABS WARNING LIGHT INDICATES THE CORRECT OPERATION OF THE SYSTEM.

WARNING



THE ABS BRAKING SYSTEM WITH WHICH THE VEHICLE IS EQUIPPED OPERATES ONLY ON THE FRONT WHEEL. THEREFORE, THE REAR WHEEL MAY BE SUBJECT TO LOCK.

Modulator

To access the ABS system modulator remove the leg shield back plate.



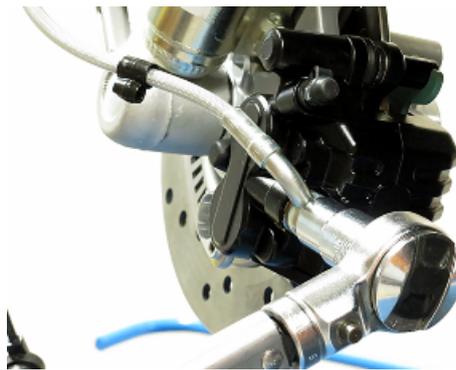
Front brake calliper

Removal

- Remove the wheel.
- Operate the brake lever just beyond the point of closing communication with the tank.
- Block the position of the lever by fastening it.



- Previously loosen the screw fastening the pipe connector to the calliper.



- Undo and remove the fixing screw and disconnect the brake calliper from the support.



- Lift the calliper so that the end part of the pipe is tilted upwards.
- Maintaining this position, remove the calliper by acting on the connector with the relative copper washers.

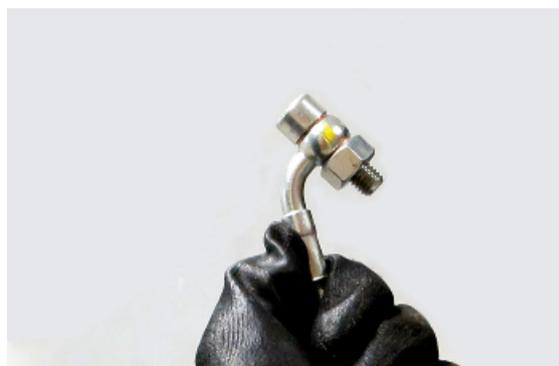
**WARNING**

KEEP THE END OF THE PIPE TILTED UPWARD.

- Suitably protect the connector and secure it so it is tilted upward to keep air from entering.
- Immediately proceed with installing the new brake calliper.

CAUTION

BRAKE FLUID IS HYGROSCOPIC; THAT IS, IT ABSORBS MOISTURE FROM THE AIR. IT IS IMPORTANT TO COMPLETE THESE OPERATIONS AS QUICKLY AS POSSIBLE TO AVOID THE DEGRADATION OF THE CHARACTERISTICS OF THE FLUID.



Refitting

- Without lowering the pipe, connect the new calliper using the connector and the new copper washers.
- Keeping the calliper aligned with the vehicle, temporarily block the connector to maintain a seal.



- Fasten or maintain the calliper in the up position and free the pump lever.

WARNING

TO RELEASE THE BRAKE LEVER, CUT THE WIRE OF THE FASTENING IN ORDER TO OPEN THE COMMUNICATION WITH THE TANK. AVOID ANY ADDITIONAL OPERATION OF THE BRAKE LEVER.



- Loosen the connector screw 1/4 turn.
- Pull the lever and let the brake fluid and the residual air drain from the connector gaskets.
- Tighten the connector screw.

WARNING

BELOW THE BRAKE CALLIPER INSERT A CLOTH IN ORDER TO AVOID BRAKE OIL CONTAMINATION ON THE BRAKE PADS OR OTHER VEHICLE COMPONENTS.

CAUTION

ELIMINATE ANY REMAINING BRAKE FLUID SPILLS.



- Check and if necessary top up the tank level.
- Move the pads away if necessary and install the brake calliper on the disc
- Fasten the screws fastening the support to the specified torque.

Locking torques (N*m)

Front brake calliper screws - Fork 19.6 - 24.5 Nm



- Loosen the connector fastening the pipe as little as possible to settle the pipe in the neutral position at about 45° with the vertical.
- Finally block the connector to the specified torque.

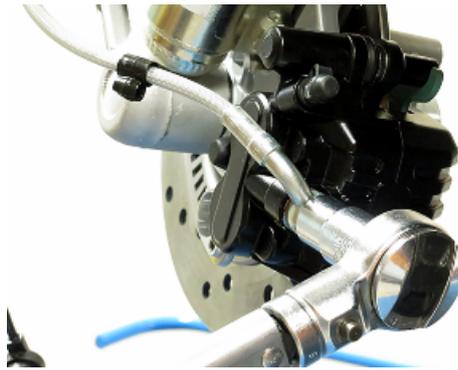
WARNING

KEEP THE PIPE IN POSITION WHEN TIGHTENING THE CONNECTOR.

Locking torques (N*m)

Calliper - brake calliper connector 20 - 25 Nm

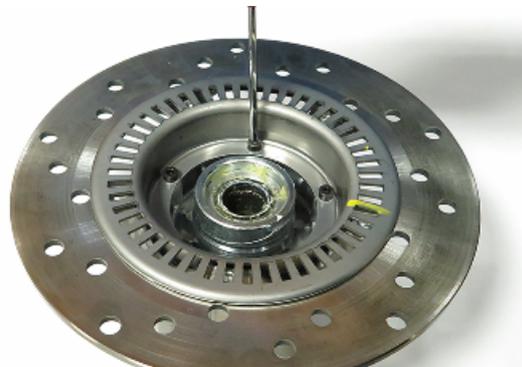
- Refill the level of the brake fluid and close the tank cover.
- Check system efficiency. If the work was performed properly, the brake must be efficient.



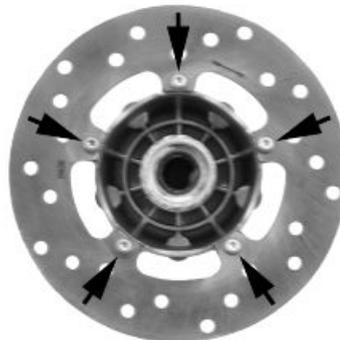
Front brake disc

Removal

- Remove the front wheel.
- Remove the front brake calliper.
- Remove the front wheel hub.
- Support the hub adequately.
- Unscrew and remove the fixing screws from the tone wheel.
- Remove the tone wheel.

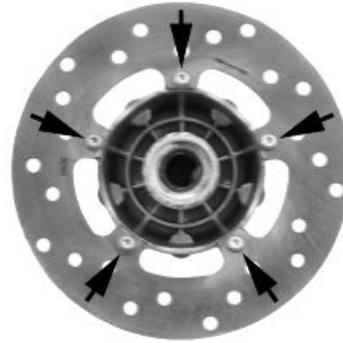


- Insert and tighten the screws indicated in the photo to the prescribed torque

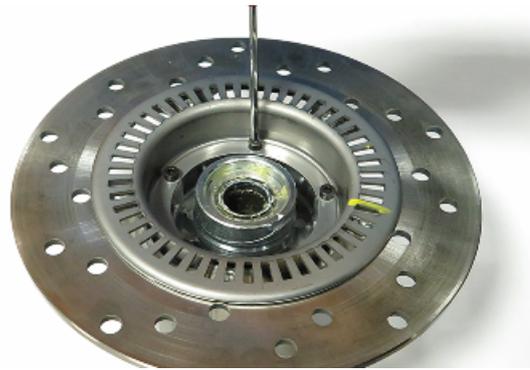


Refitting

- Insert and tighten the screws indicated in the photo to the prescribed torque



- Place the tone wheel.
- Insert and tighten the fixing screws.



- fit the front wheel hub.
- Fit the front brake calliper.
- Fit the front wheel.

Disc Inspection

- Remove the front wheel.
- Use a micrometer to check the disc thickness as shown in the photograph.
- Repeat the measurement in at least 6 points on the disk.
- Remove the front brake calliper.
- In order to secure the specific tool adequately use a metal plate with an M8 threaded hole and fix it to one of the two front brake calliper attachment points.
- Place the dial gauge on the disc outer edge.
- Make the wheel hub turn and check the disc deviation.



Specific tooling

020335Y Magnetic mounting for dial gauge**Characteristic****Standard thickness:**

4 +0.2 -0.2 mm

Max. deviation allowed:

0.1 mm



Front brake pads

Removal

- Remove the brake calliper.
- Undo the indicated screws and remove the brake pads.



Refitting

- Follow the process in reverse order to refit.

Fill

Front

- Remove the rubber cap from the bleed screw.
- Insert a rubber pipe in the bleed screw to permit the brake fluid to be recovered.
- With the right-hand brake lever, load the system and bring it up to the required pressure.
- Keeping the right-hand brake lever pulled, loosen the bleed screw to purge the air. Then tighten the bleed screw.
- Release the brake lever.
- Repeat the operation until only brake fluid comes out of the rubber pipe.



- Remove the fluid recovery pipe and refit the rubber cap over the bleed screw.
- Top up the brake fluid to the right level in the reservoir.

If necessary, bleeding can be done using a special vacuum pump

N.B.

DURING BLEEDING FREQUENTLY CHECK THE LEVEL TO PREVENT AIR GETTING INTO THE SYSTEM THROUGH THE PUMP.

N.B.

DURING THE BLEEDING OPERATIONS, MAKE SURE THE BRAKE FLUID DOES NOT COME INTO CONTACT WITH THE BODYWORK SO AS NOT TO DAMAGE IT. FURTHERMORE, DURING THE BLEEDING OPERATIONS REGARDING THE BRAKE CALLIPERS, MAKE SURE THE BRAKE FLUID DOES NOT COME INTO CONTACT WITH THE DISC BRAKES AND WITH THE BRAKE PADS. CONTACT WITH BRAKE FLUID WILL COMPROMISE THE PERFORMANCE AND EFFICACY OF THE BRAKING SYSTEM.

Specific tooling

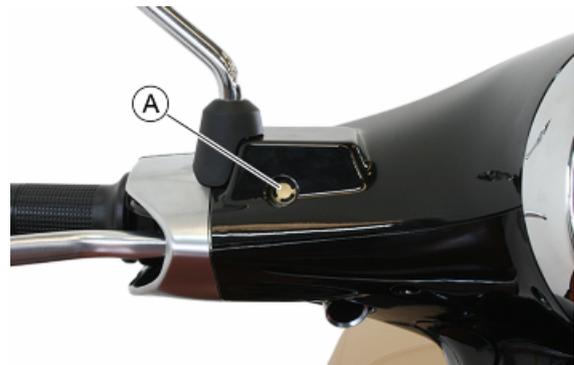
020329Y Mity-Vac vacuum pump

Locking torques (N*m)

System bleed calliper fitting: 20 - 25 Nm

Brake fluid level check

- Rest the vehicle on its centre stand on flat ground.
- The brake fluid reservoir has a sight glass «A» made of transparent material; the quantity of liquid contained in the sight glass indicates the level of fluid in the reservoir.
- When the sight glass «A» is full, the level inside the reservoir is above the MIN level; when it is partially full, the level has dropped to the MIN level; when it is fully empty, the level of fluid in the reservoir is below the MIN level.



N.B.

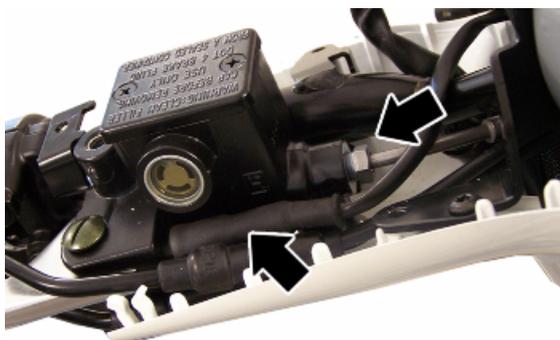
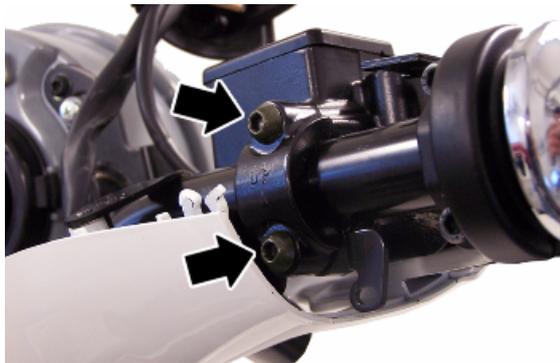
THE LEVEL TENDS TO DROP AS THE BRAKE PADS GET WORN, A MINIMUM LEVEL SHOULD NOT BE REACHED. IF THE LEVEL IS TOO LOW, CHECK AND FIX THE SYSTEM SEALS, IF REQUIRED. TOP UP THE PUMP RESERVOIR, IF REQUIRED, CONSIDERING THAT THE "MAX." LEVEL MUST ONLY BE OBTAINED WITH NEW PADS.

- Under standard climatic conditions, replace fluid as indicated in the scheduled maintenance table.

Front brake pump

Removal

- Remove the upper handlebar cover
- Remove the two screws fixing the brake pump to the handlebar indicated in the photograph
- Remove the oil pipe joint from the pump
- Remove the connector from the stop lights switch



Refitting

For refitting, follow the operations in reverse order observing the tightening torque.

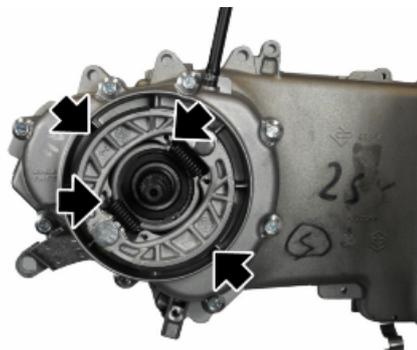
Locking torques (N*m)

Oil pipe joint to the pump: 20 - 25 Brake pump fixing screws to the handlebar: 7 - 10 Nm

Rear drum brake

Once the silencer and the wheel have been removed, follow these steps:

1. Remove the shoe springs using the specific spanner.
2. Remove the shoe with the aid of a lever.
3. Refit the new shoes giving a few taps with the mallet.
4. Attach the springs using the specific pliers.



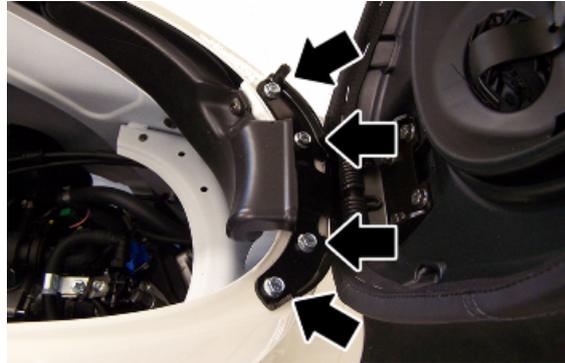
INDEX OF TOPICS

CHASSIS

CHAS

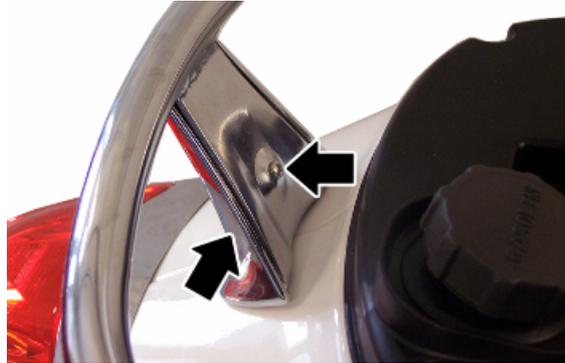
Seat

- Open the saddle.
- Remove the helmet compartment.
- Remove the four screws indicated.

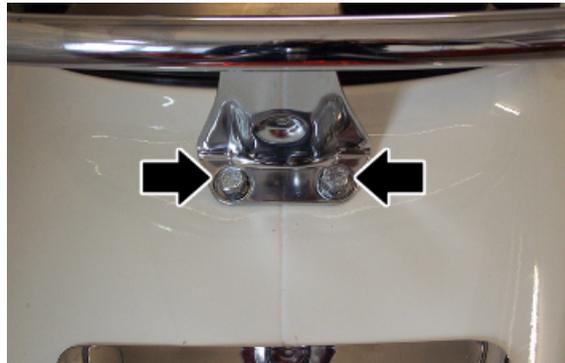


Rear rack

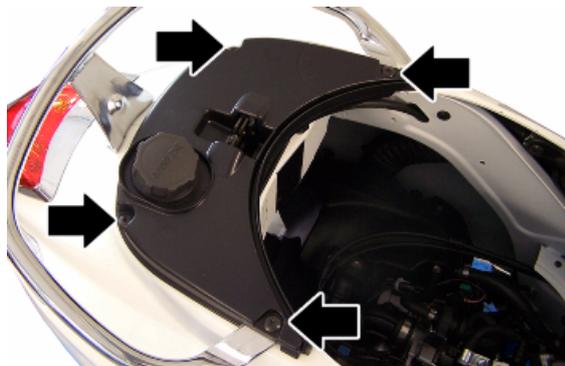
- Remove the screw and then the indicated cover.



- Remove the two screws indicated.



- Remove the helmet compartment.
- Remove the four indicated screws, then undo the fuel tank cap to remove the plastic cover.

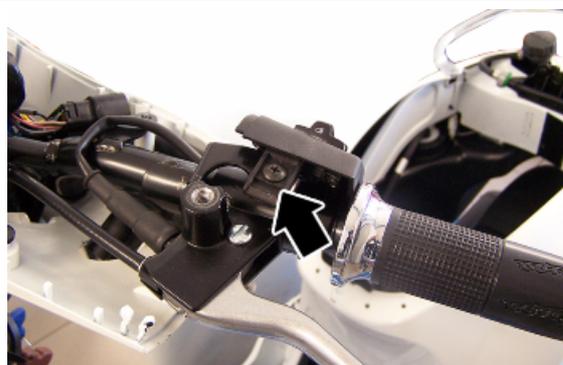


Rear handlebar cover

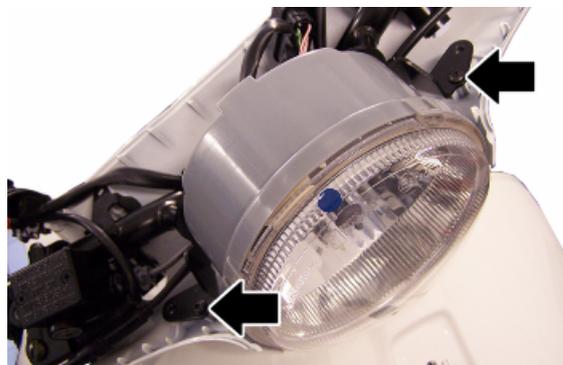
- Remove the upper handlebar cover.
- Working on both sides, undo the screw to remove the indicated plastic.



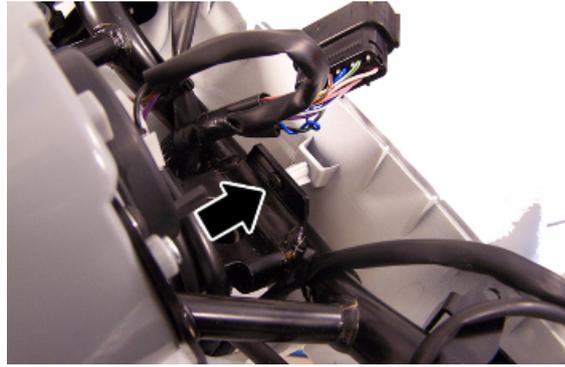
-
- On both sides, undo the two indicated screws to remove the control lock.



-
- Remove the handlebar.
 - Remove the two screws indicated.

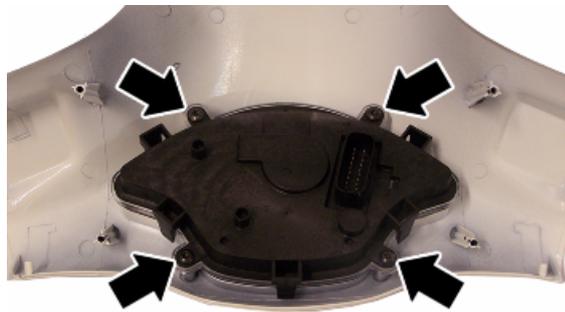


- Remove the indicated screw.



Instrument panel

- Remove the upper handlebar cover.
- Remove the four indicated screws fixing the instrument panel to the handlebar cover.

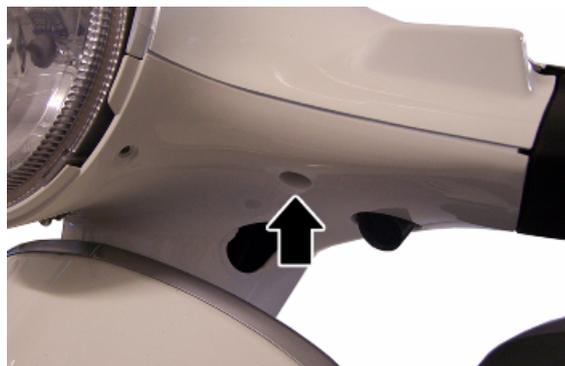


Front handlebar cover

- Remove the rear-view mirrors.
- Unscrew the indicated screw on both sides and the remove the headlight frame.



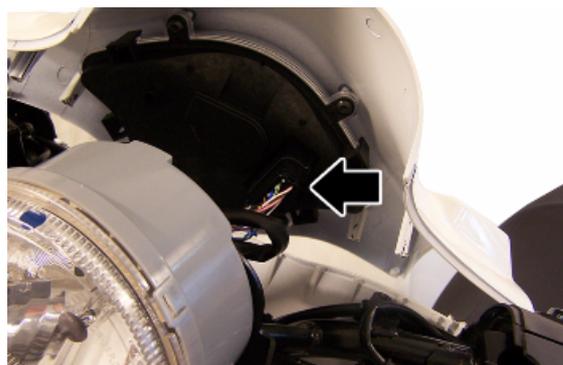
- Remove the indicated screw on both sides..



- Remove the two screws indicated.

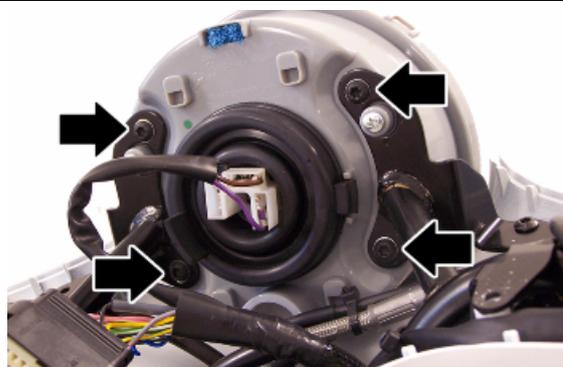


- Disconnect the indicated connector and remove the handlebar cover complete with instrument panel.



Headlight assy.

- Remove the upper handlebar cover.
- Disconnect the connector of the light assembly and remove the four indicated screws.

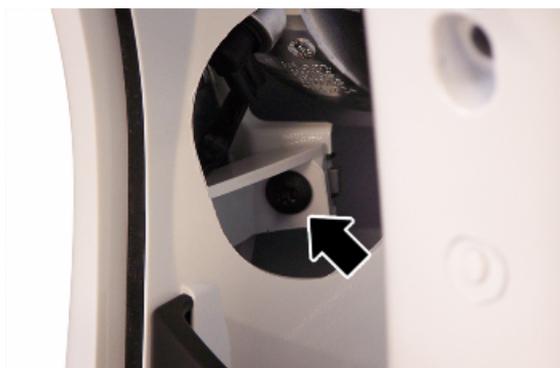


Knee-guard

- Open the front case and remove the three indicated screws.



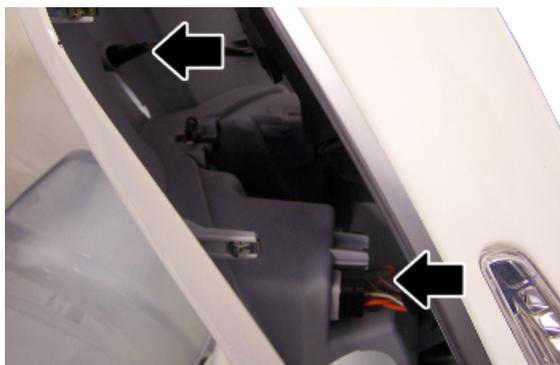
- On both sides remove the rubber cap of the turn indicator cover and the indicated underlying screw.



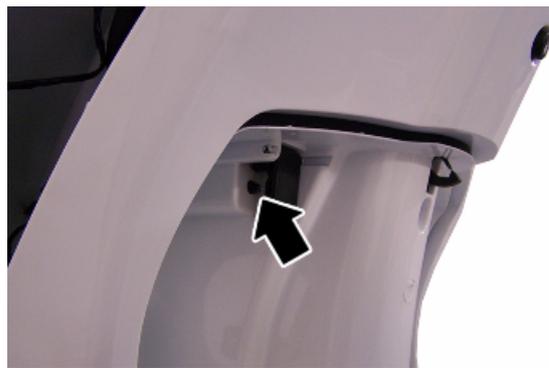
- By disengaging the fittings, remove the leg shield back plate towards the rear part of the vehicle.



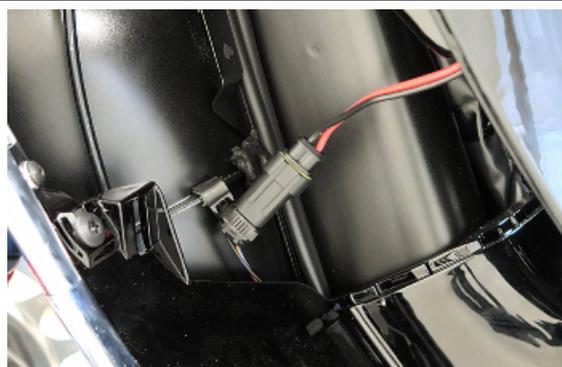
- Disconnect the saddle opening button connector and remove the fuse box from the front case.



-
- Disconnect the saddle opening lever transmission and remove it from the leg shield back plate.

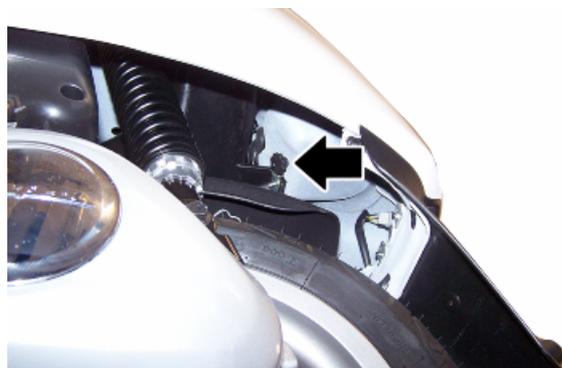


-
- Disconnect the USB port connector.



Taillight assy.

-
- Operating from the left side of the vehicle, undo the indicated toggle screw.



-
- Remove the light assembly by disengaging the fittings and disconnecting the two connectors.



ONLY IN THE VERSIONS WHERE FITTED

- Remove the indicated screw.



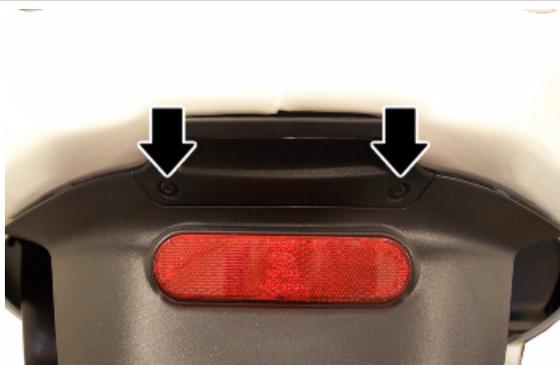
- Remove the bulb cover and take off the bulb.



- Remove the indicated nut, disconnect the connector and remove the turn indicator from the licence plate holder.

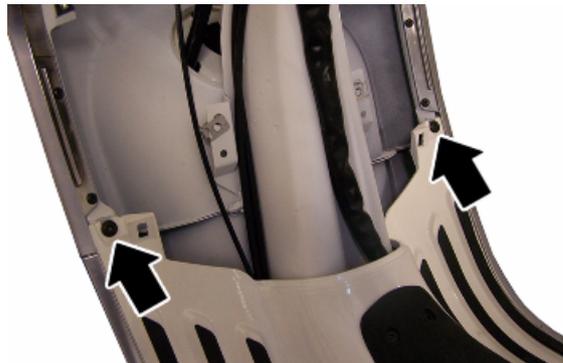
**License plate light**

- Remove the licence plate light cover by unscrewing the two indicated screws and disconnect the bulb holder.



Footrest

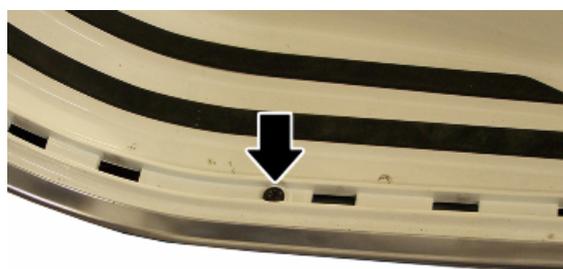
- Remove the leg shield back plate.
- Remove the spark plug inspection lid.
- Remove the two screws indicated.



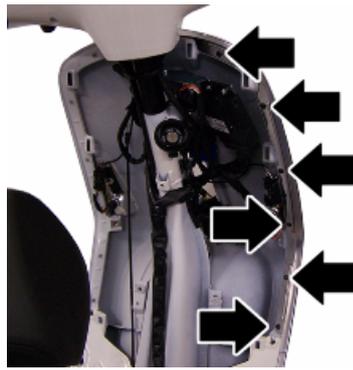
- On both sides of the vehicle unscrew the indicated screw, then remove the plastic and the underlying screw.



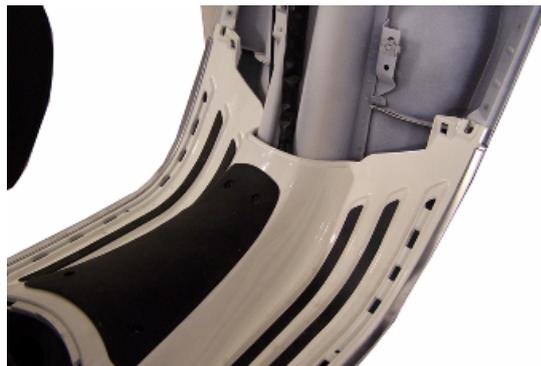
- Working on both sides, by disengaging the fittings remove the outermost rubber cover and then the underlying screw.



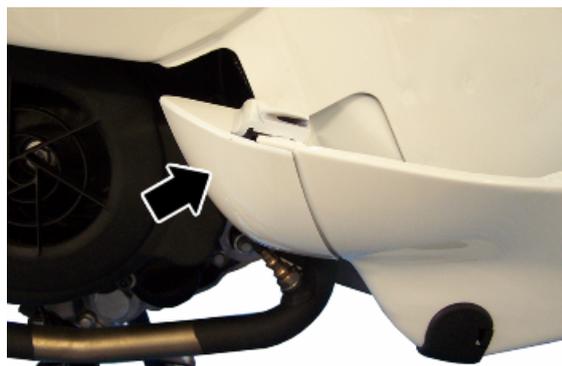
- Undo the six indicated screws on both sides and remove the front shield frame.



- By disengaging the fittings, remove the footrest by extracting it upwards.



- Remove the indicated plastic on both sides.



License plate holder

- Remove the indicated screw on both sides of the licence plate holder.



-
- Remove the licence plate light cover by unscrewing the two indicated screws and disconnect the bulb holder.



-
- Remove the two screws indicated.

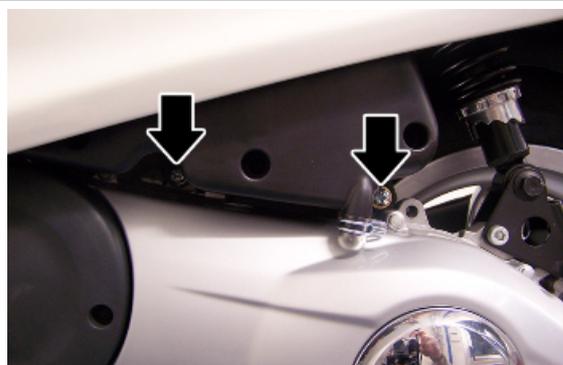


Air filter

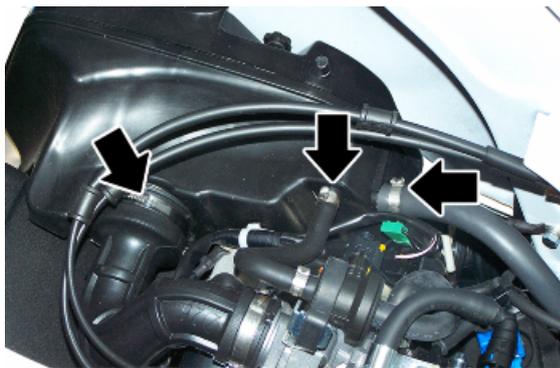
- Remove the helmet compartment.
- Disconnect the air socket duct.



-
- Remove the two indicated fixing screws at the crankcase.



- Remove the three indicated clamps.

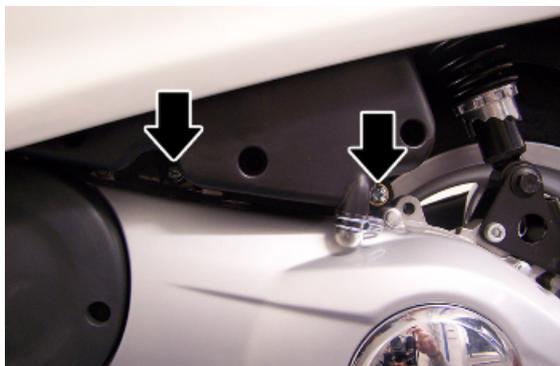


Rear mudguard

- Remove the rear wheel.
- Undo the screw indicated.

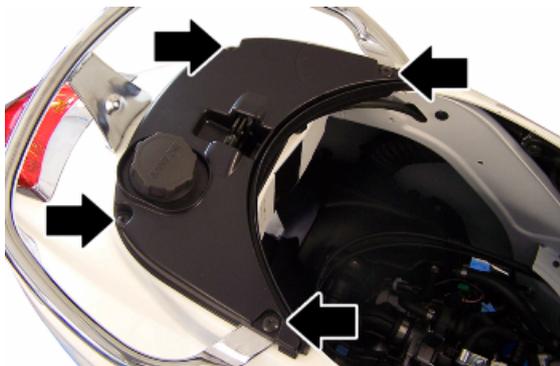


- Remove the two screws indicated.



Fuel tank

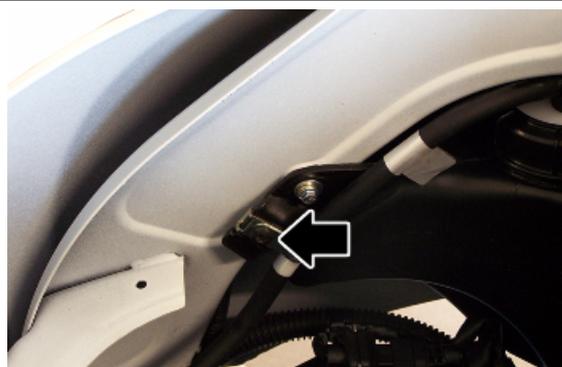
- Remove the helmet compartment.
- Remove the four indicated screws, then undo the fuel tank cap to remove the plastic cover.



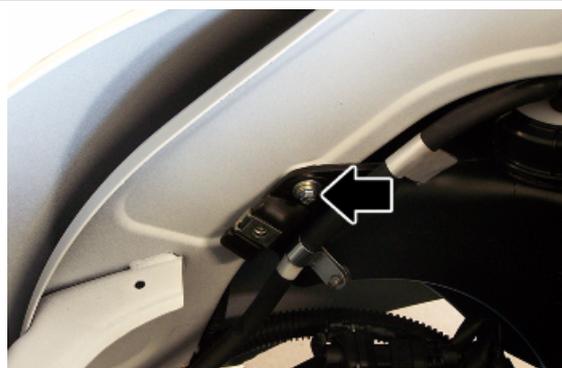
- Remove the rear wheel.
- Remove the rear light assembly and undo the indicated underlying screw.



- Remove the fuel piping fixing screw indicated.



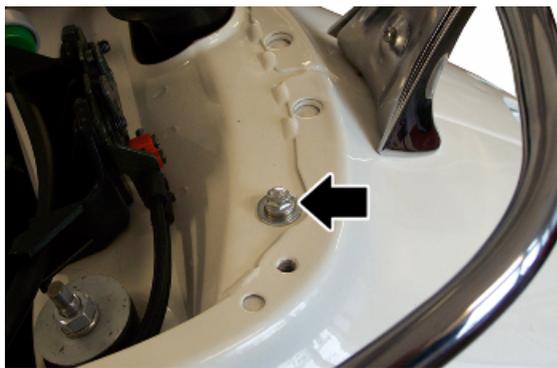
- Remove the indicated screw.



- Remove the clamp and slide off the indicated piping.

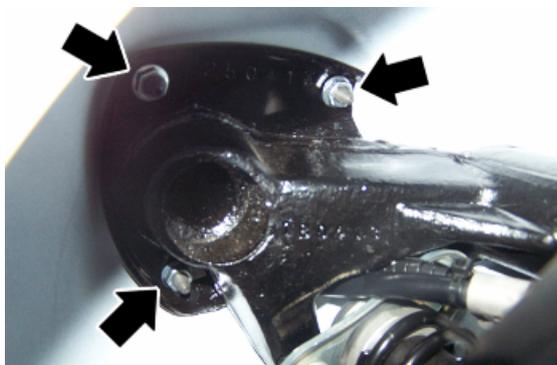


- Remove the indicated screw.
- Slide off from the bottom the tank, by disconnecting the pump and fuel level transmitter connectors and the delivery piping.



Front mudguard

- First remove the steering tube and uncouple the front brake pipes from the calliper in order to remove the front mudguard.
- Then remove the three mudguard-steering tube clamps indicated in the figure.



Front central cover

- Remove the "PIAGGIO" clip-on badge.
- Undo the screw indicated in the figure.
- Remove the grille.



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