



MANUALS AND METHODS

SALES DIVISION
TECHNICAL NETWORK LEADERSHIP

AIR AND FUEL PRESSURE TAPPING ON FUEL-INJECTED ENGINE VEHICLES

Tools required:

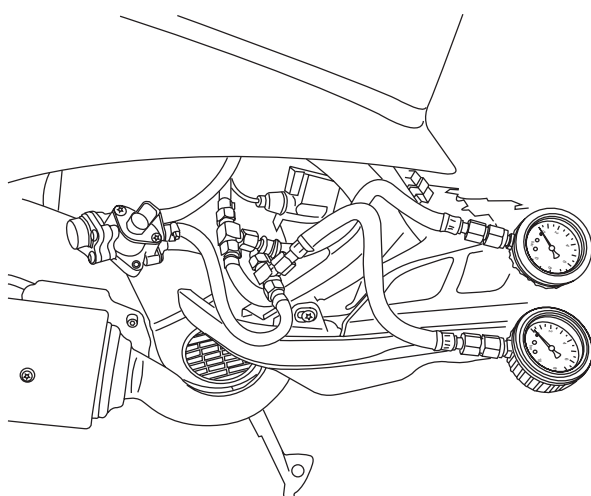
2 pressure gauges. Reference **757877**.



When switching on the ignition, the fuel pump will operate for 3 seconds.

Air and fuel pressure tapping on 50cc fuel-injected engine vehicles:

Method:



To dismantle and reassemble the components according to the dedicated procedure, refer to the workshop manual which corresponds to the vehicle. Remove the injection rail.

Lower the fuel pressure according to the method described in the workshop document.

Disconnect the air and fuel hoses from the injection rail.

Insert both pressure gauges between the hoses and the injection rail. (A pressure gauge for the air and a pressure gauge for the fuel).

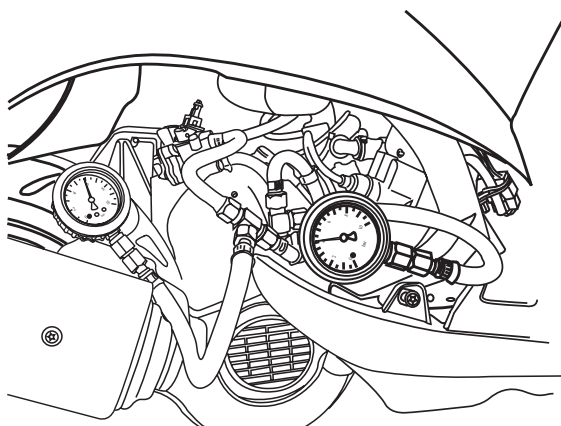
Always use hose clamps that are in good condition.

Refit the injection rail as equipped.

	Dealership	Spare parts	Mechanic 1	Mechanic 2	Mechanic 3
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Turn the ignition on 5 times to bleed the fuel system.
With the engine stopped, check the fuel pressure which must be 2.5 bars when switching on the fuel pump.

Start the engine.

The air pressure must be at least 4.5 bars and the fuel pressure must be equal to the air pressure +2.5 bars, that is to say at least 7 bars.



Before disconnecting the pressure gauges, lower the fuel pressure in the fuel system. Always reinstall the hoses with new hose clamps.

Troubleshooting chart for 50cc fuel-injected engine scooters:

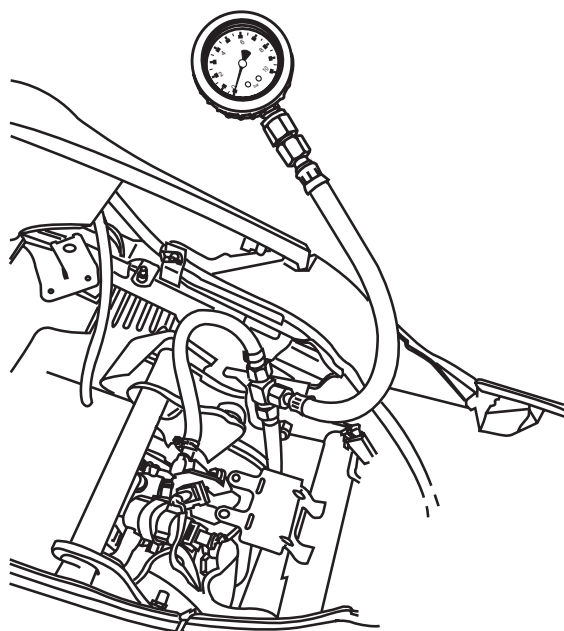
Incident	Checks
Ignition on, engine stopped, fuel pump is operating. Insufficient fuel pressure (less than 2.5 bars).	<ul style="list-style-type: none"> • Electrical power supply of the fuel pump. • Condition of the fuel tank strainer. • Mechanical operation of the fuel pump. (To be tested using the actuator test of the diagnostic tool). • Condition and routing of the fuel hose (squeezed hoses). • Faulty fuel pressure regulator.
Ignition on, engine stopped, fuel pump is operating. Fuel pressure is too high (more than 2.5 bars).	<ul style="list-style-type: none"> • Fuel tank return hose is squeezed. • Faulty fuel pressure regulator.
The fuel pump stopped less than 10 mn ago. Residual pressure less than 2 bars.	The check valve of the pump is not leak proof, change the fuel pump.
The engine is driven by the starter motor. Insufficient air pressure (less than 4 bars).	<ul style="list-style-type: none"> • Tightness of the hose between the compressor and the injection rail. • Compressor, roller or cam on the crankshaft are faulty. • The bottom end of the engine is leaky.
The engine is running. Insufficient air pressure (less than 4.5 bars).	<ul style="list-style-type: none"> • Tightness of the hose between the compressor and the injection rail. • Compressor, roller or cam on the crankshaft are faulty. • The bottom end of the engine is leaky.



Incident	Checks
The engine is running. Pressure difference between air and fuel is insufficient (less than 2.5 bars).	<ul style="list-style-type: none">Faulty fuel air pressure servo: clean or change the injection rail.Faulty fuel pressure regulator.
The engine is running. Pressure difference between air and fuel is too big (more than 2.5 bars).	<ul style="list-style-type: none">Fuel tank return hose is squeezed.Faulty fuel pressure regulator.

Air and fuel pressure tapping on 125cc fuel-injected engine vehicles:

Method:



To dismantle and reassemble the components according to the dedicated procedure, refer to the workshop manual which corresponds to the vehicle.

Lower the fuel pressure according to the method described in the workshop document.

Disconnect the fuel hose from the injector.

Insert the pressure gauge between the hose and the injector.

Always use hose clamps that are in good condition.

Turn the ignition on 2 times to bleed the fuel system.

With the engine stopped, check the fuel pressure which must be 2.5 bars when switching on the fuel pump.

Start the engine.

Fuel pressure at idling speed: 2.5 bars.



Before disconnecting the pressure gauges, lower the fuel pressure in the fuel system. Always reinstall the hoses with new hose clamps.



Troubleshooting chart for 125cc fuel-injected engine scooters:

Incident	Checks
Ignition on, engine stopped, fuel pump is operating. Insufficient fuel pressure (less than 2.5 bars).	<ul style="list-style-type: none"> • Electrical power supply of the fuel pump. • Condition of the fuel tank strainer. • Mechanical operation of the fuel pump. (To be tested using the actuator test of the diagnostic tool). • Condition and routing of the fuel hose (squeezed hoses). • Faulty fuel pressure regulator.
Ignition on, engine stopped, fuel pump is operating. Fuel pressure is too high (more than 2.5 bars).	<ul style="list-style-type: none"> • Fuel tank return hose is squeezed. • Faulty fuel pressure regulator.
The fuel pump stopped less than 10 mn ago. Residual pressure less than 2 bars.	The check valve of the pump is not leak proof, change the fuel pump.
Engine is running, after decelerating from 5000 rpm to idling speed. The fuel pressure does not change.	<ul style="list-style-type: none"> • Faulty inlet pressure regulator servo: hose between the inlet pipe and the regulator is cut, squeezed, or leaky. • Faulty fuel pressure regulator.

Addition to the time charts:

50cc fuel-injected engine scooters

Code	Description	Looxor 50cc	Jet Force 50cc	Elystar 50cc
1993	Checking air and fuel pressure.	0.60	0.90	0.60

125cc fuel-injected engine scooters

Code	Description	Jet Force 125cc	Elystar 125cc
1993	Checking fuel pressure.	0.40	0.50