Operation Manual
Diesel Injection Nozzle Tester – 0-60 Mpa
ARTICLE 61476

Read and follow the operating instructions and safety information before using for the first time.

Technical changes reserved!
Due to further developments, illustrations, functioning steps and technical data can differ insignificantly.

Updating the documentation
If you have suggestions for improvement or have found any irregularities please contact us.
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this user manual please complete and send this form back to us.

FAX-notification (+++49 2403 55592-15),
from: ________________________________________
Name: ____________________________
Firm: _____________________________
Tel/Fax: ___________________________
I would like to report the following mistakes:

Customer Service WilTec Wildanger Technik GmbH
e-mail: service@WilTec.info
Tel:++ +49 2403 55592-0

Introduction
Thank you for purchasing this quality product. To minimize the risk of injury by means of fire or
electric shock we urge that our clients take some basic safety precautions when using this
device. Please read the operation instructions carefully and make sure you have understood its
content.
Always use a grounded power connection with the appropriate mains voltage. You can find the
corresponding mains voltage on the type plate. If you have any doubts about the connection being
grounded, have it checked by a qualified professional. Never use a faulty electric cable.
Do not inspect the electrical part of the pressure pond filter in a wet or damp environment or when you
are wet yourself and protect it from direct sunlight. Install this device in a safe location so that nobody
can step on the cable, fall over or damage it. Disconnect the power plug before cleaning it and use
only a damp cloth for cleaning. Avoid using cleaning agents and make sure that no liquid enters the
electrical part of the pump.
The electric part of the device contains no parts that can be inspected or serviced by the user. Leave
the maintenance, adjustment and repair to qualified technical personnel. In case of unauthorised
intervention the 2-year warranty is no longer valid! Keep these operation instructions safe.
SAFETY PRECAUTIONS

Always keep the unit away from open fire and other sources of heat during use to prevent damage and possible injury from fire. Also make sure that the diesel fuel used for testing does not contain any impurities.

Always wear gloves when using the unit and keep your hands away from the injector opening when it is under pressure. A jet of fuel can penetrate deeply into the finger or hand and injure the skin. If diesel oil enters the bloodstream, it may cause blood poisoning.

Perform spray nozzle tests only in well-ventilated rooms and avoid skin contact or direct inhalation of diesel mist sprayed from the injector to prevent injury and damage to health.

MAINTENANCE

When working with the tester, cleanliness is of the utmost importance; keep both your workplace and the tester free of dust and other contaminants and ensure that only clean fuel is used. Filter the diesel before placing it in the tester to ensure that it does not contain any contaminants. Contaminated fluids should be replaced immediately and should not enter the injectors. The filter element should always be washed in pure fuel.

It is important that the liquid used for the tests is not contaminated. It is recommended to test the injectors together with the nozzle holders.

1. Calibrating fuel must be a high quality light diesel that has been stored for 48 hours.
2. When filling with fuel, filter it with a silk cloth. Do not fill the tank with unfiltered diesel.
3. After the measurement, cover the tester with a dust cover.

APPLICATION AREAS

This tester for injection nozzles of diesel vehicles is used to adjust, calibrate and check the injection nozzle opening pressure. Ideal adjustment of the injection pressure optimizes the quality of the atomization process, ensuring optimum engine performance and increased economy. This device can be used to test both opening pressure and tightness as well as noise generation.

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Type</th>
<th>Measuring Range</th>
<th>Dimensions</th>
<th>Capacity</th>
<th>Highest, tested pressure</th>
<th>Net Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>430 000 318</td>
<td>0-60 Mpa</td>
<td>16 x 10 x 38 cm</td>
<td>1 L</td>
<td>40 Mpa</td>
<td>5.8 kg</td>
</tr>
</tbody>
</table>
OPERATION

1. Fix the injection nozzle tester securely to a flat and stable surface such as a workbench or a table with the aid of the predrilled holes in the base plate.

2. Make sure that the working area as well as the tester and the gloves you use are clean. Always carry out injection nozzle tests in well-ventilated rooms. Only use pure diesel fuel that is free of contamination.

3. When screwing the nozzle into the holder, make sure that the sealing surfaces are clean and undamaged. First press the nozzle against the sealing surface of the holder and then tighten the nut (first by hand and then with a wrench). For holders with fit pins, the spring in the holder must first be completely loosened.

4. **Cracking pressure test:**
   Slowly push down the pump arm until the nozzle injects with a slight noise. Read the pressure on the device and compare it to the specifications specified by the manufacturer. The pressure for each engine is specified in the engine manual and must be adjusted according to these specifications. In some cases, the pressure reference is stamped on the nozzle holder. If the deviation from the set pressure is too great, adjust the compression spring until the pressure meets the manufacturer's specifications.

5. **Leak test:**
   Dry the tip of the injection nozzle with a soft cloth dipped in brake cleaner and actuate the pump arm of the nozzle tester to generate a pressure 20 bar below the nozzle opening pressure. No droplets should form at the tip of the nozzle within 10 seconds. If such a drop forms, the tested injection nozzle is leaking.

6. **Jet pattern:**
   The quality of the atomization of the fuel generally increases with a higher opening pressure. If the injection nozzle is completely intact, a fine, uniform mist should be emitted.
Disposal regulations

EU guidelines regarding the disposal of scrap electric appliances (WEEE, 2012/19/EU) were implemented in the law related to electrical and electronic equipment and appliances.

All WilTec electric devices that fall under the WEEE regulations are labelled with the crossed-out wheeled waste bin logo. This logo indicates that this electric equipment must not be disposed with the domestic waste.

The company WilTec Technik GmbH has been registrated in the German registry EAR under the WEEE-registration number DE45283704.

Disposal of used electrical and electronic appliances (intended for use in the countries of the European Union and other European countries with a separate collection system for these appliances). The logo on the article or on its packaging points out that this article must not be treated as normal household waste but must be disposed to a recycling collection point for electronic and electrical waste equipment. By contributing to the correct disposal of this article you protect the environment and the health of your fellow men. Environment and health are threatened by inappropriate disposal.

Materials’ recycling helps reduce the consumption of raw materials.

Additional information on recycling this article can be provided by your local community, municipal waste disposal facilities or the store where you purchased the article.

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