

# ***THE ENGINE AGAIN***

***Case Study***

**By: Tamas Krasznai**

- Vw polo
- 2003 year
- 1,2 3 cylinders 6 valves
- BMD engine code
- ~100.000km



# Read ECU DCT

Bosch Kts 540

1 cylinder misfire

- Sometime in early 2012, this car was in our garage on valve exchange.
- 2 valves were burnt, the owner brought 6 of it based on our proposal, we install them. The car worked fine, customer were satisfied .
- November 2012: the same car arrived, with the check engine light(MIL) on.

- Another workshop already found that
  1. cylinder: 8Bar
  2. cylinder: 11Bar
  3. cylinder: 16Bar

And the car's ran less than 3,000 km since valve change

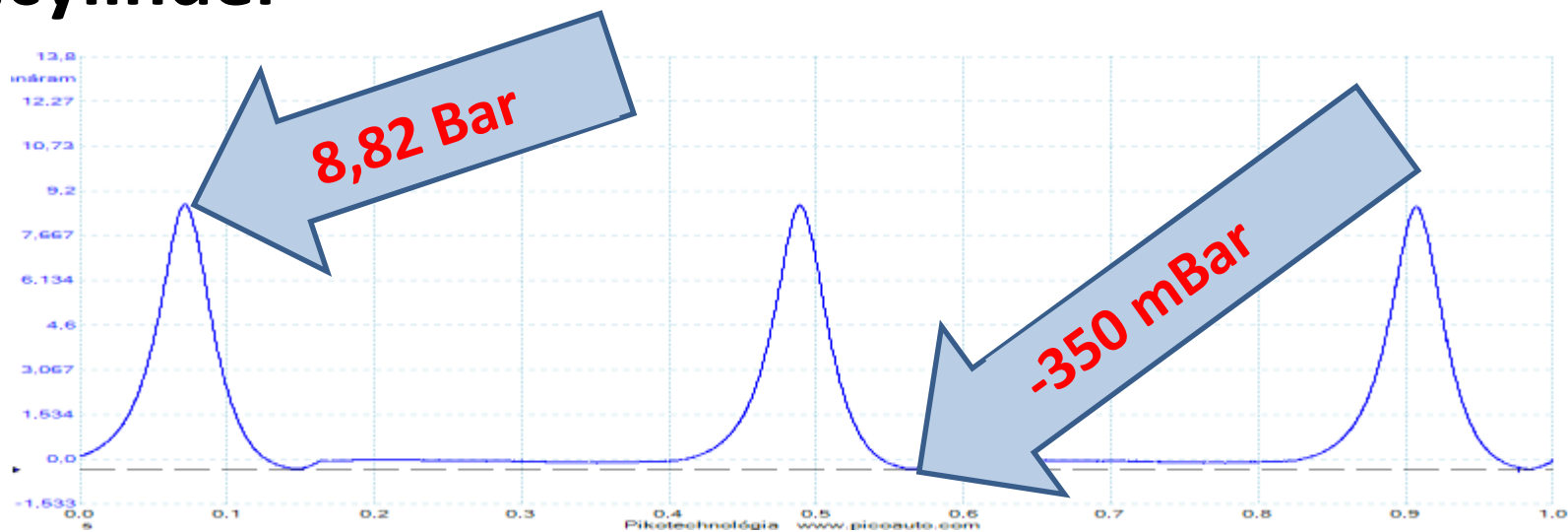
At this point we used PICO and WPS



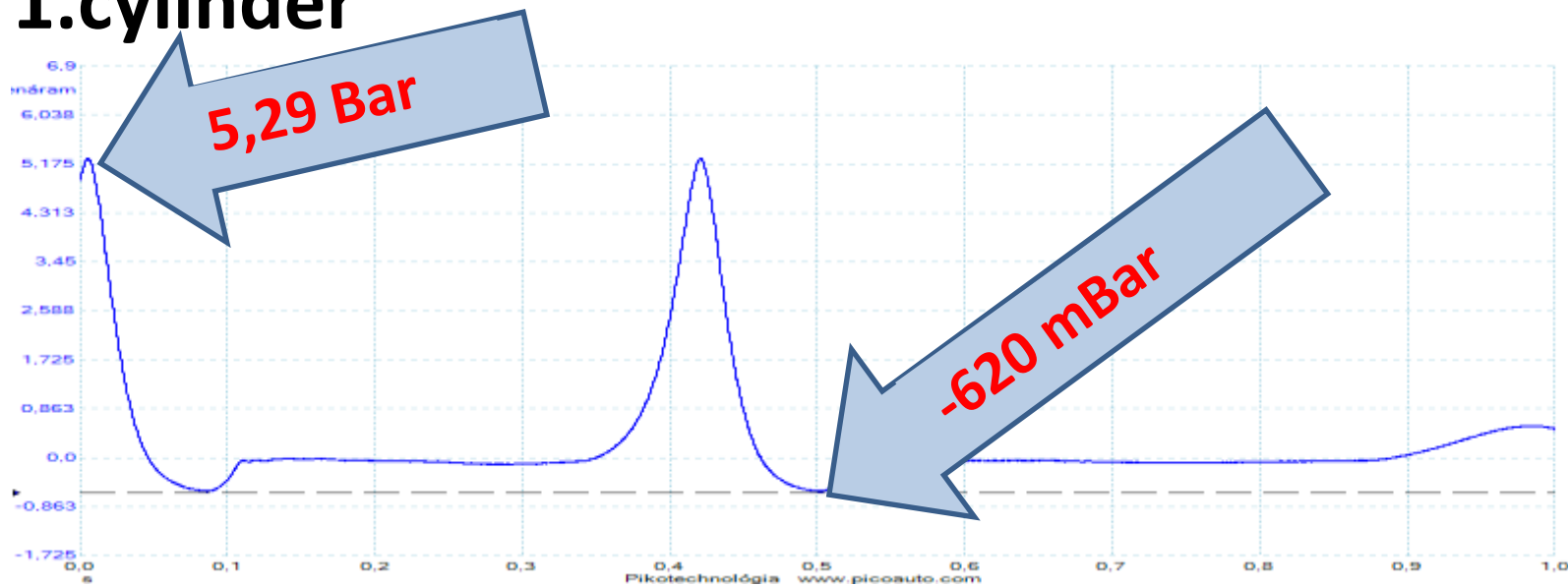
# WPS measurement at cranking



# 3.cylinder



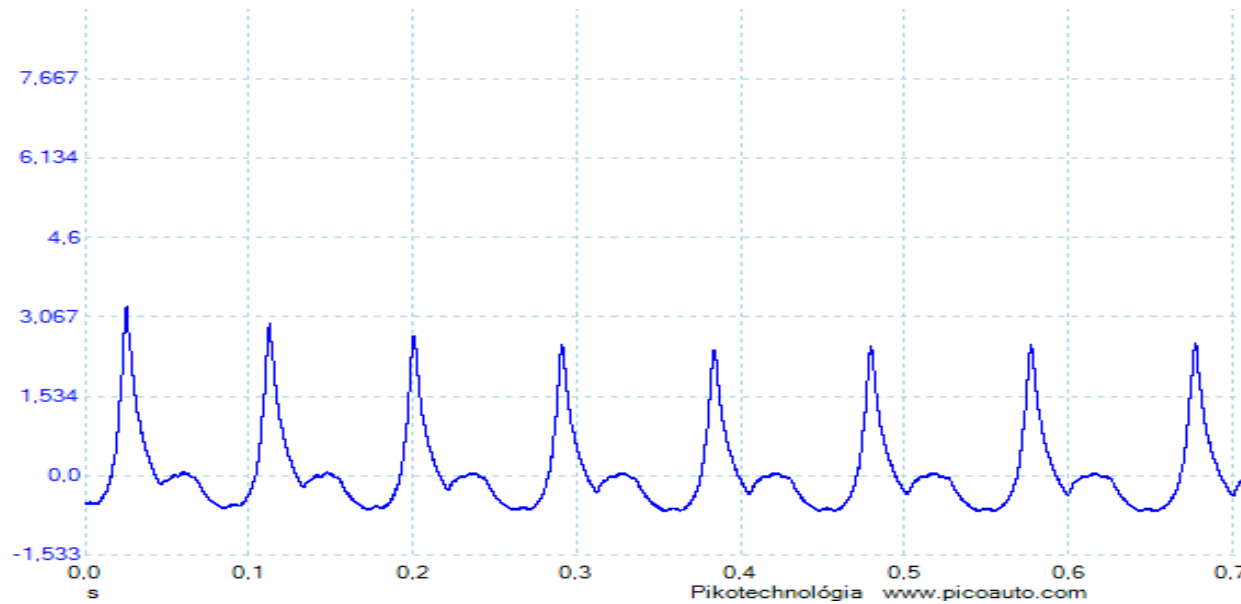
# 1.cylinder



# WPS measurement at running



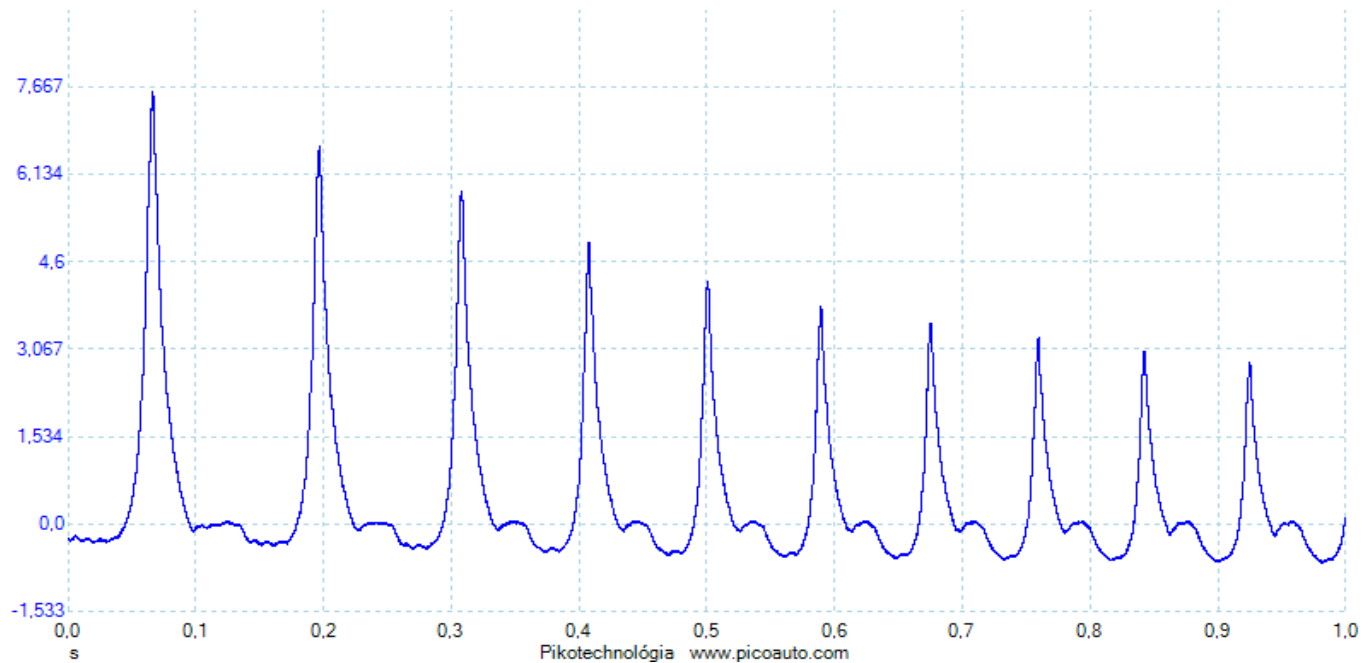
# 1. Cylinder



•Valves do not work

•Incorrect pressure

# 2. Cylinder



# The assembly

replaced parts :



6 pcs



3 pcs

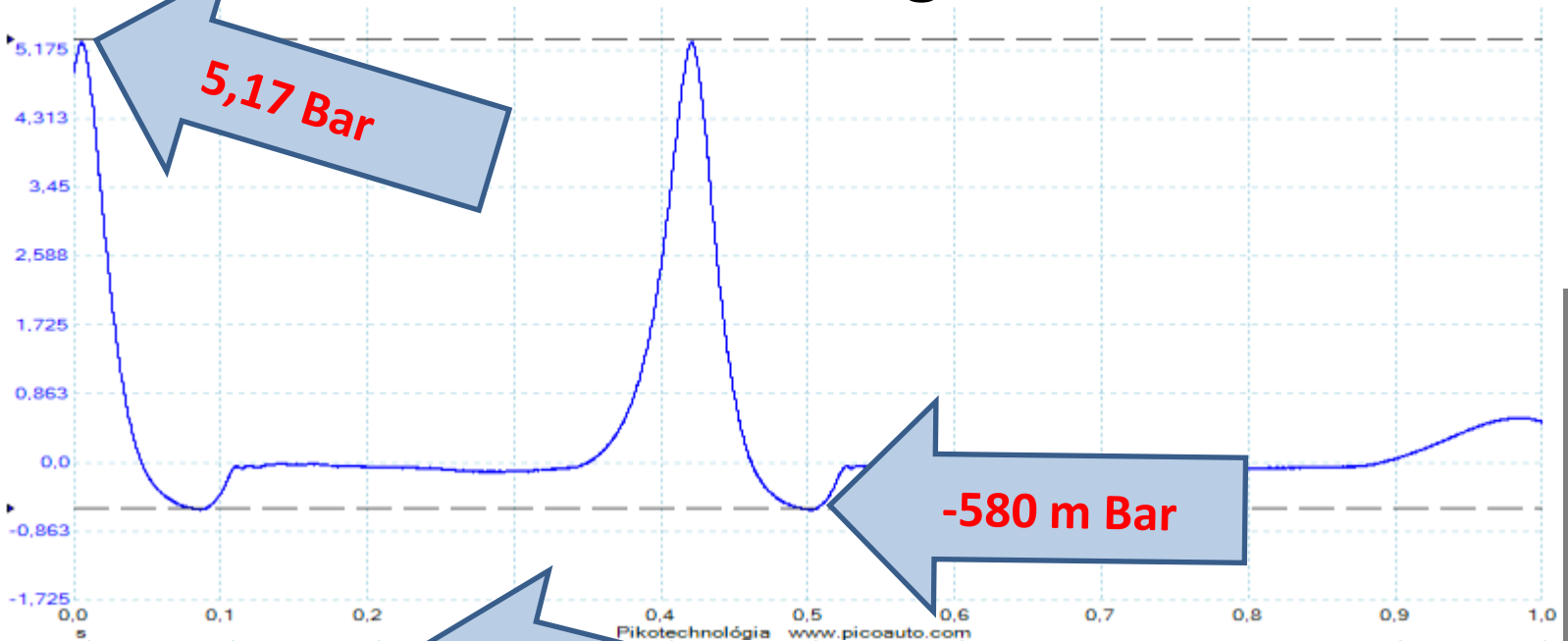


1pc

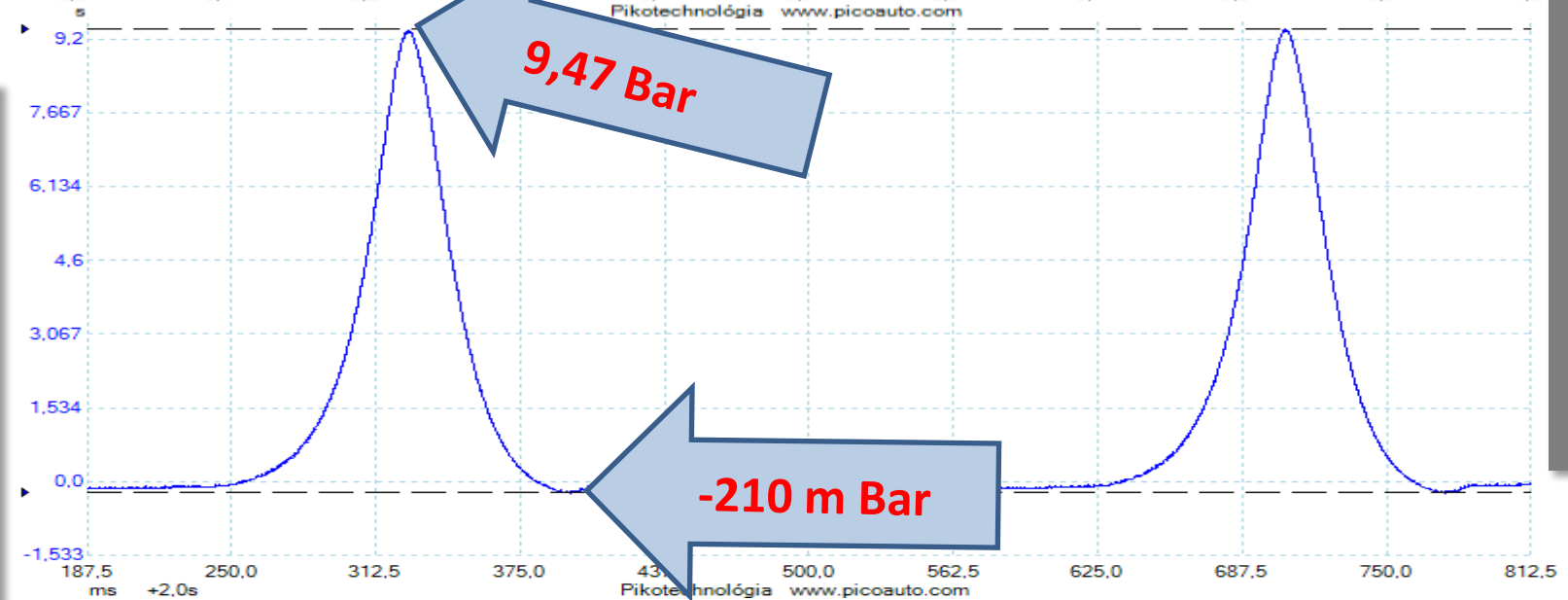
# ***The control measurements***

# Cranking

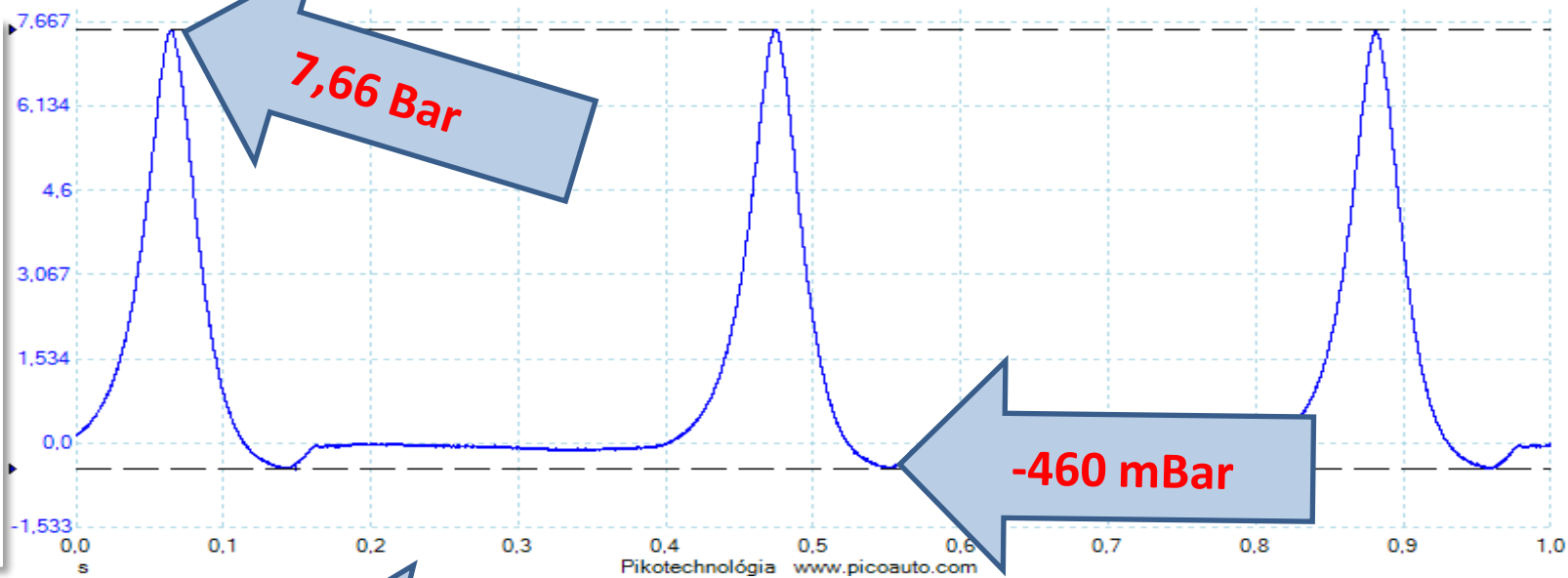
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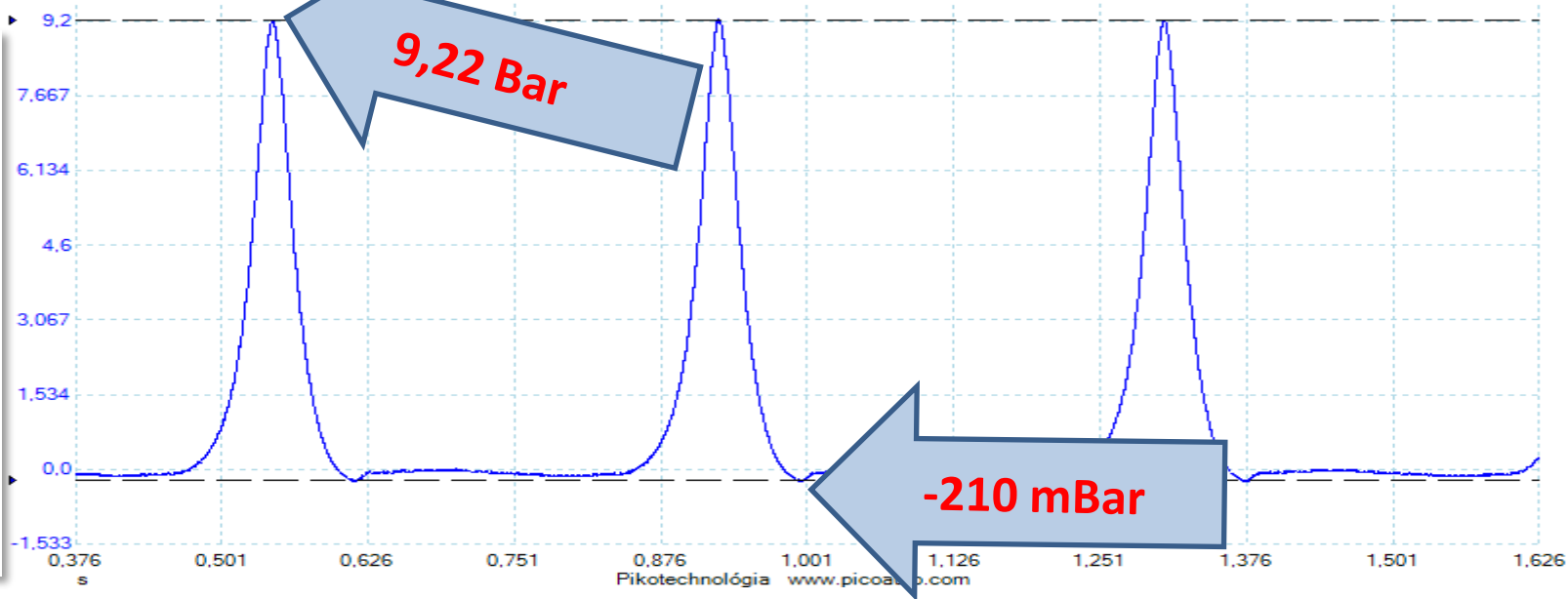


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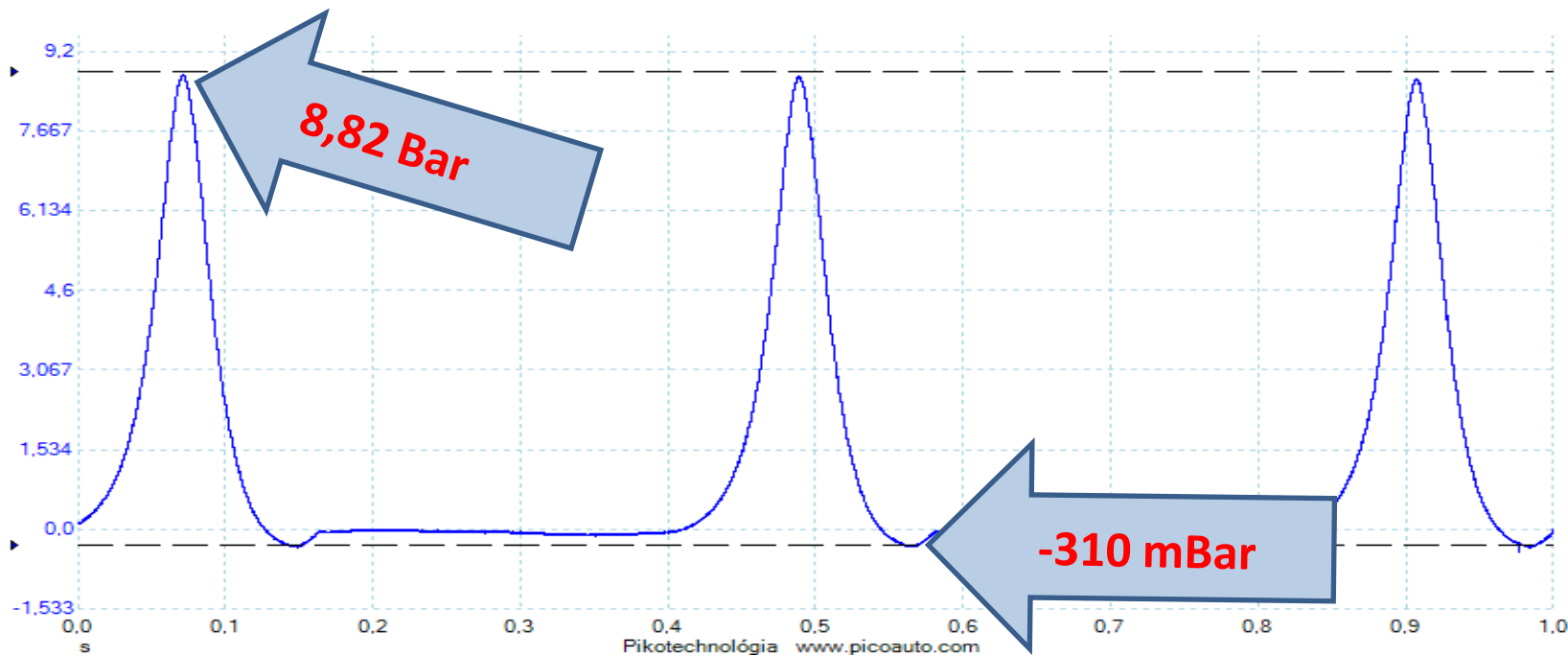


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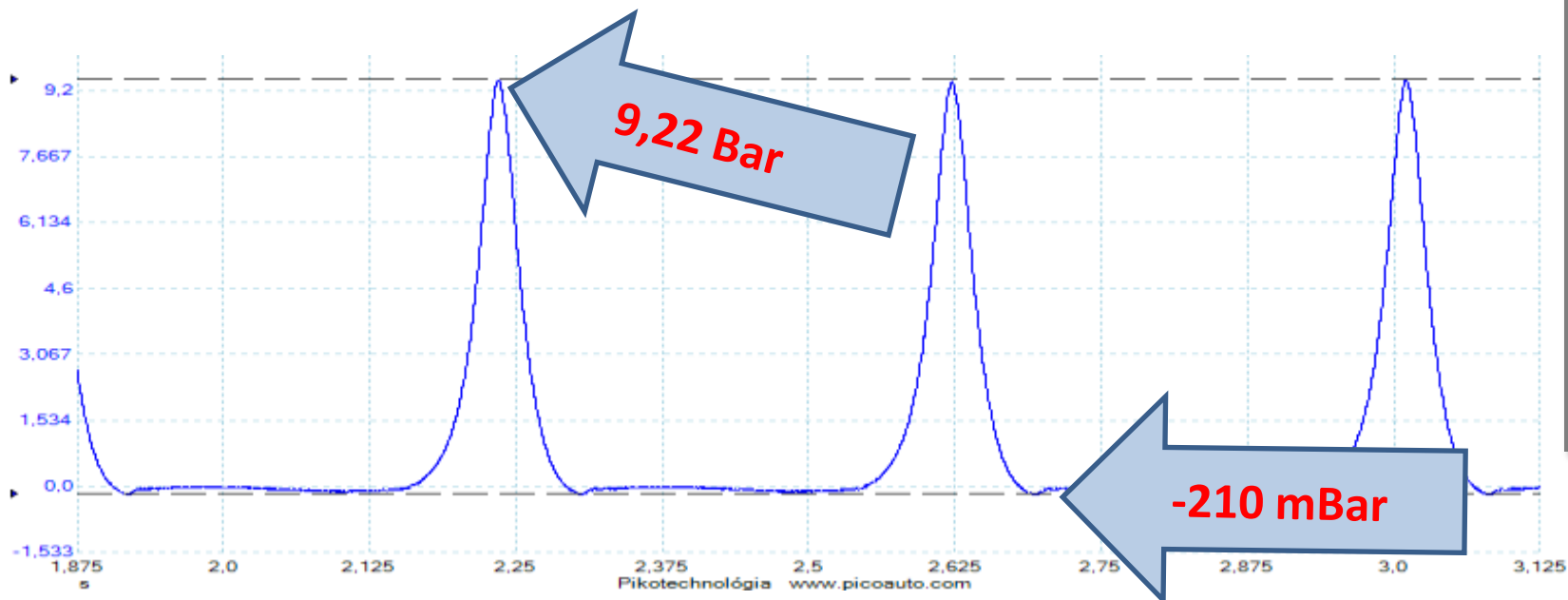
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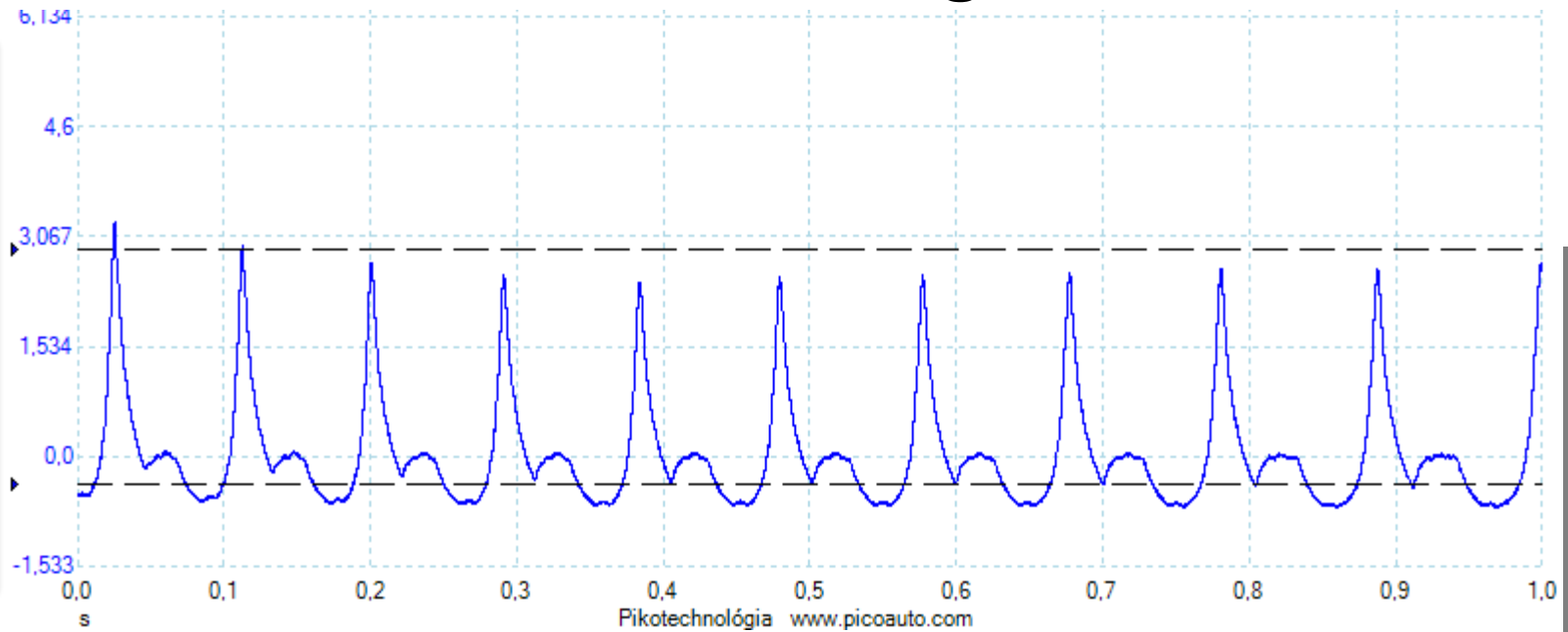


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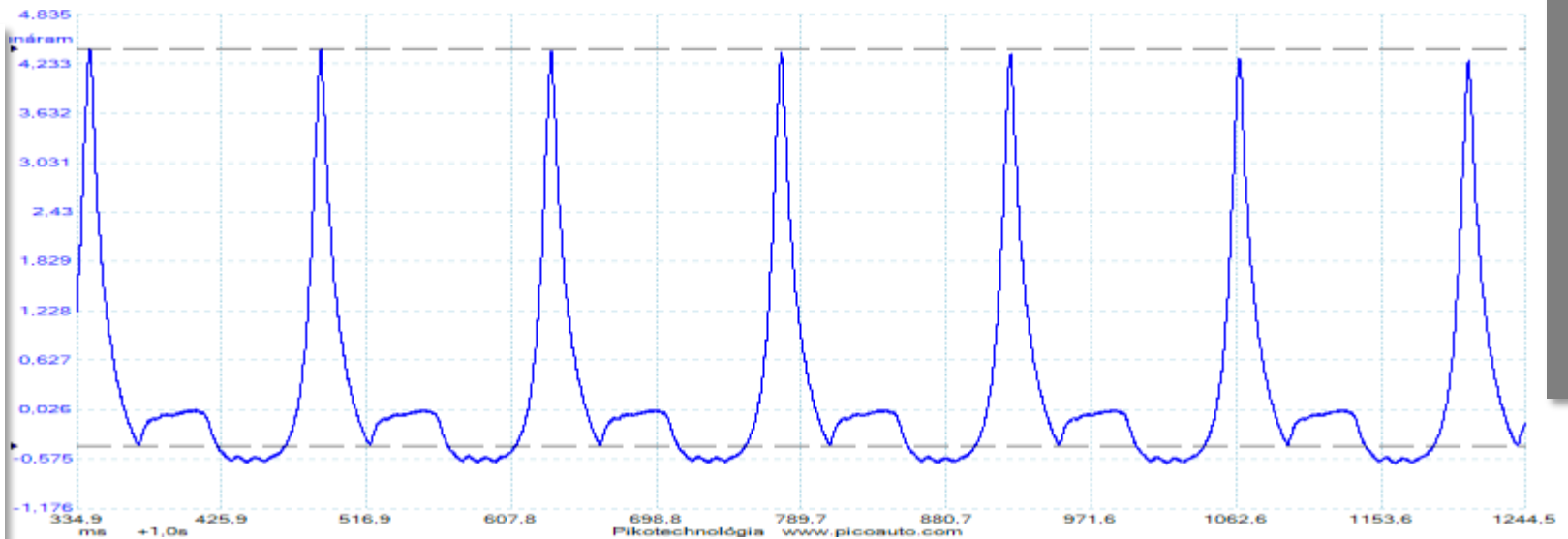
# Running

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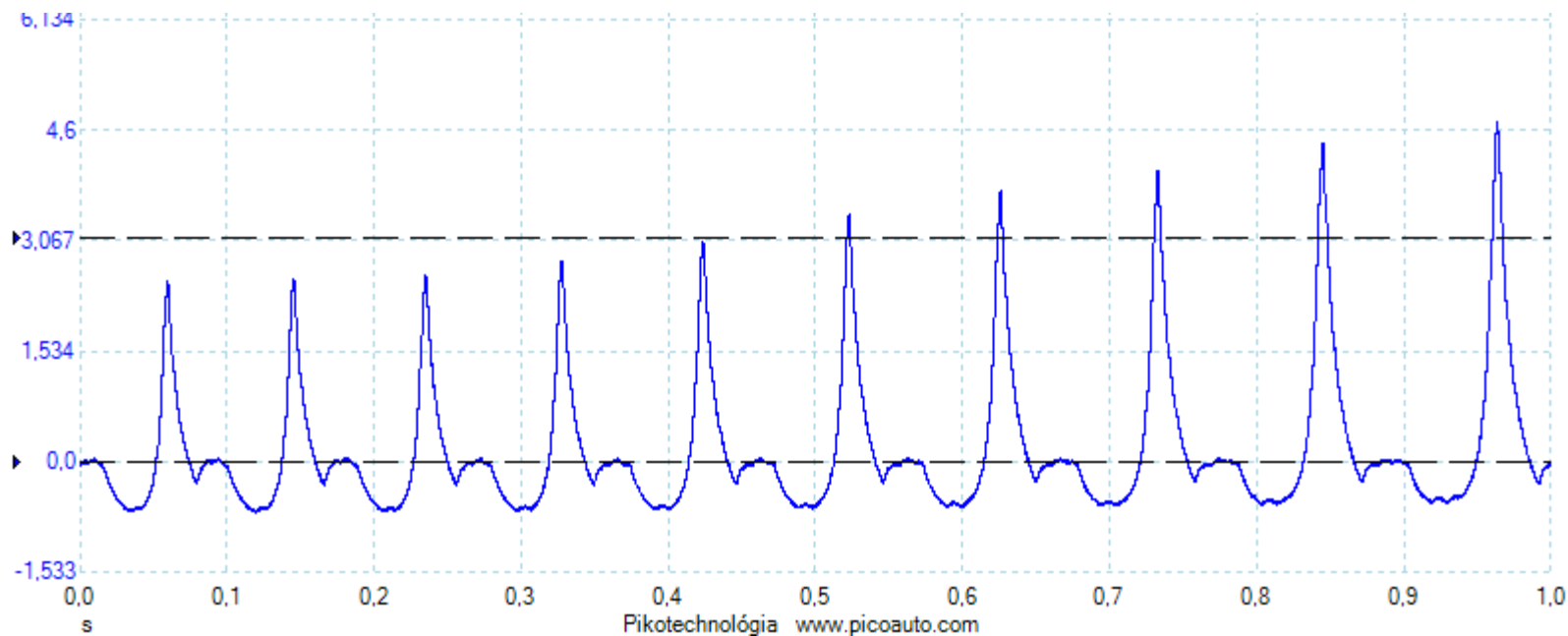


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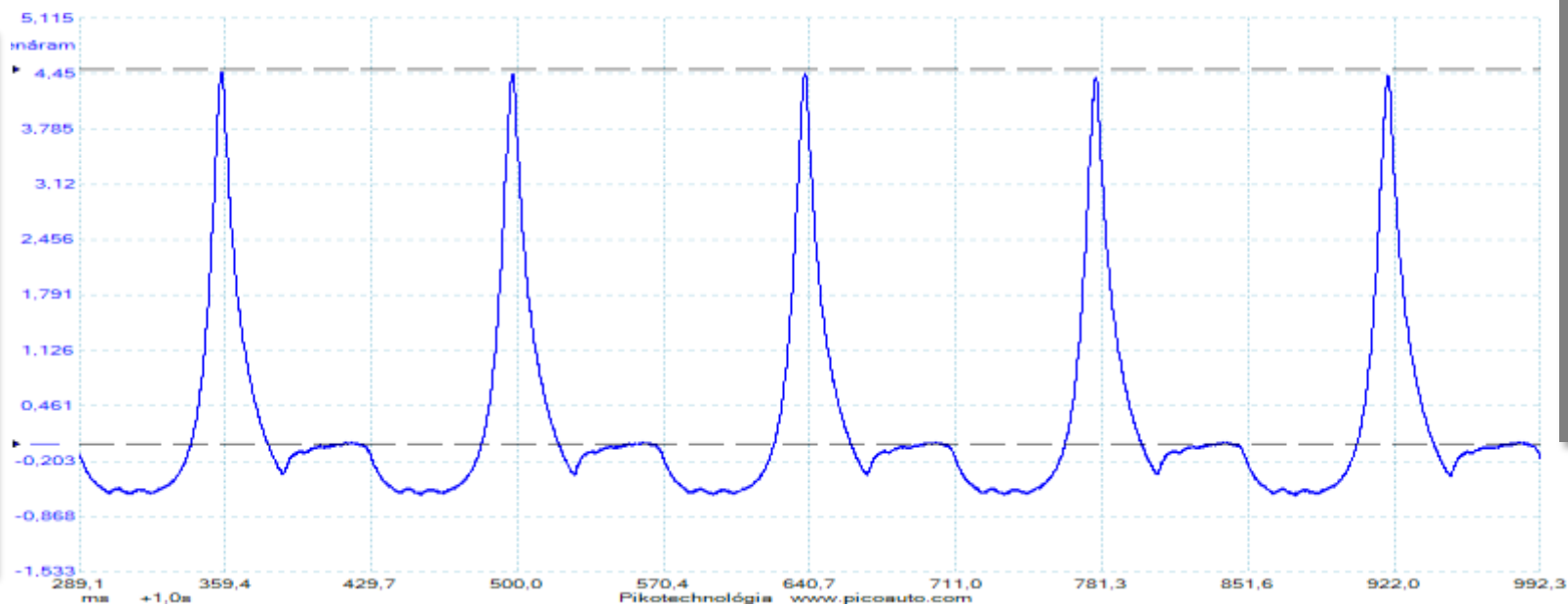
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