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| AR40.10-P-3201-01A ⓘ | Perform smooth running optimization Notes on tire flat spots | AH40.10-P-1030-01A |
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Balancing machines with menu-assisted "Smooth running optimization program"

Almost all balancing machines have a menu-assisted "smooth running optimization program" known as the matching program.

- 1 Match wheels.
 ⓘ Generally, only new tires with steel disk wheels have to be matched, except for the light alloy wheels of models 140, 215 and 220. These have to be matched. Matching is no longer essential for all other OE light alloy wheels (OE = Original Equipment).

ⓘ During matching, the smooth running characteristics of the entire wheel are optimized i.e. the lowest point of the 1st harmonic radial force variation of the tire is turned to the highest point of the disk wheel.

Balancing machines without lateral/radial runout measuring device and without menu-assisted "smooth running optimization program"

- 1 Carry out visual inspection for radial runout.
- 2 Mark tire position relative to disk wheel.
- 3 Deflate tire.
- 4 Pry tire off disk wheel.
 ⓘ Do not position bead breaker shovel in area of radar sensor.
- 5 Turn tire 180° relative to disk wheel.

- 6 Remove valve element from valve and gradually inflate tire to max. 3.5 bar.
 ⓘ The tire must never be allowed to jump over the hump at a pressure greater than 3.5 bar (risk of torn bead wire).
 ⓘ The pressure required for the tire to jump over the hump should not exceed 3 to 3.5 bar.
- 7 Balance wheel exactly to "zero".
- 8 Carry out visual inspection for radial runout.
 ⓘ If radial runout is still clearly visible, turn tire through another 90° relative to the marking.