

## BULLETIN No 2 – Suspension

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### 12. SUSPENSION.

12.1. The operating principle of the suspensions - original.

12.2. Wheelbase - original.

12.3. Springs – ST XTA (part number of suspension set ST18220832) or H&R (part number of suspension set RSN16-177-5/7). Springs may be combined with the same manufacturer shock absorbers only.

12.4. Spring supports - ST XTA (part number of suspension set ST18220832) or H&R (part number of suspension set RSN16-177-5/7). Rear axle spring supports may be removed.

12.5. Shock absorbers – ST XTA (part number of suspension set ST18220832) or H&R (part number of suspension set RSN16-177-5/7). Must fit to the range of manufacturer setup.

12.6. Shock absorber top mounts (bearings) - ST XTA. May be adjustable in transverse direction only (camber adjustment). No caster adjustment allowed.

12.7. ST Front shock absorbers must comply with the following technical characteristics and allowed tolerance +/- 7%:

a) Measurement:

i. Shock absorber dynamometer LABA 7. Stroke 75mm.

ii. Shock absorber temperature at measurement start: 35°C.

iii. Rebound - 10 click

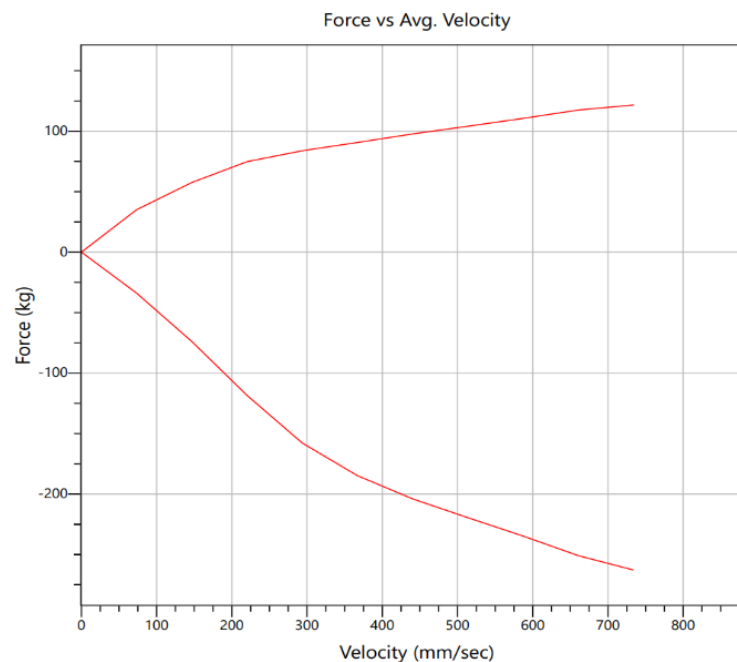
iv. Three measurements:  $v_1=0,1\text{m/s}$ ,  $v_2=0,3\text{m/s}$ ,  $v_3=0,7\text{m/s}$ .

b) Results:

i. Temperature at the end of measurement: 37-40°C.

ii. Front shock absorber compression loads:  $0,1\text{m/s}=43\text{kg}$ ,  $0,3\text{m/s}=85\text{kg}$ ,  $0,7\text{m/s}=120\text{kg}$ .

iii. Rebound loads:  $0,1\text{m/s}=48\text{kg}$ ,  $0,3\text{m/s}=160\text{kg}$ ,  $0,7\text{m/s}=257\text{kg}$



12.8. H&R Suspension must comply with the following technical characteristics and allowed tolerance +/-7%.

Link <https://batcc.eu/wp-content/uploads/2024/03/hr-specs.pdf>

12.9. Suspension sets must be bought only from APE Motors.

Contact details: [martins.iesalnieks@apemotors.lv](mailto:martins.iesalnieks@apemotors.lv) or +371 26168866

Price is 1000,- EUR (without VAT) for ST suspension.

Price is 1358 EUR (without VAT) for H&R suspension.

- 12.10. Uprights (including bearings, hubs) - original.
- 12.11. Wishbones, trailing arms – original (including bushings). BMW M3 parts are prohibited.
- 12.12. Anti-roll bars (sway bars) and their connections with the suspension (rods, bushings) – original. Size of the front bar (for a measure point refer to BMW325CUP homologation form) – 23,5 mm, size of the rear bar – not more than 14,0 mm.
- 12.13. Suspension joints (bushings, bearings) – original (including bottom bushings of the rear shock absorbers).
- 12.14. Subframes – original (including bushings, which may be from BMW M3 model), but may be reinforced according to BMW325CUP homologation form.
- 12.15. Suspension mounting points – original but may be strengthened by adding material of the same shape. Connections with the roll cage authorized for the front suspension towers and for the front mounting points of the rear subframe.
- 12.16. Sensors – no sensors allowed (except original ABS sensors).
- 12.17. Other parts of the suspension - FREE, but they cannot be made of composite materials.
- 12.18. Ride height is set to be not less than – 110 mm. For a measure point refer to BMW325CUP homologation form. Ride height checks will be performed on a flat surface under race conditions with a driver onboard. During procedure tyre pressure may be increased not more than to 2,0 Bar.

**GOOD LUCK!**