



INTERNATIONAL ORGANIZATION OF MOTOR VEHICLE MANUFACTURERS

# EuroNCAP test results

## Phases 12 – 17

### Lower leg tests

16-19 January 06

Pedestrian Safety GRSP Informal  
Group - January 06

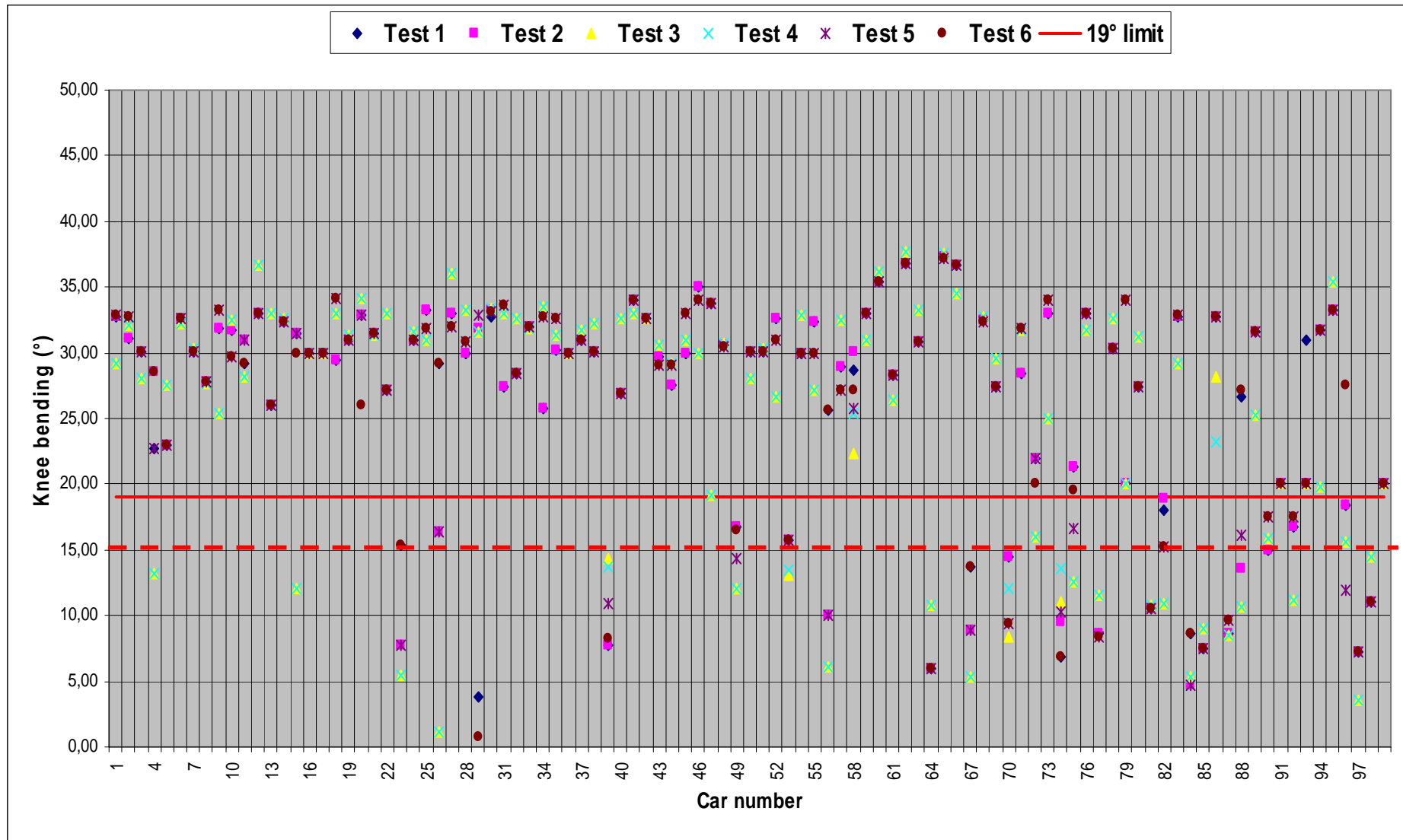


# Test protocol – lower leg

|                                 | <b>EuroNCAP</b>        | <b>Draft gtr – INF GR PS 143/Rev1</b> |
|---------------------------------|------------------------|---------------------------------------|
| <b>Test tool</b>                | <b>"TRL" lower leg</b> | <b>"TRL" lower leg</b>                |
| <b>Impact speed</b>             | <b>40 km/h</b>         | <b>40 km/h</b>                        |
| <b>Knee bending angle</b>       | <b>15°</b>             | <b>19°</b>                            |
| <b>Knee shear displacement</b>  | <b>6.0 mm</b>          | <b>6.0 mm</b>                         |
| <b>Upper tibia acceleration</b> | <b>150 g</b>           | <b>170 g</b>                          |



# Lower leg EuroNCAP tests – Knee bending angle

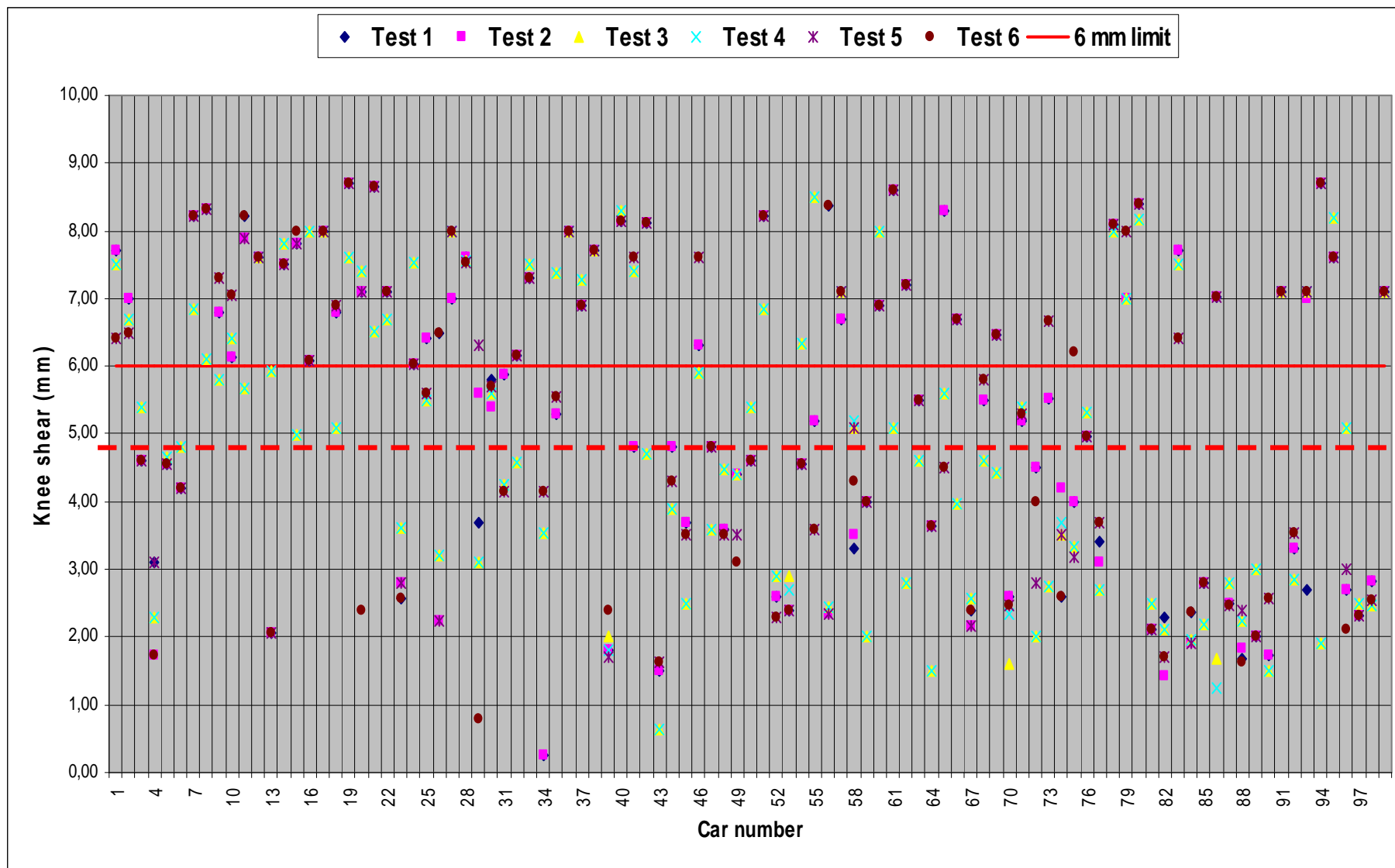


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# Lower leg EuroNCAP tests – Knee shear displacement

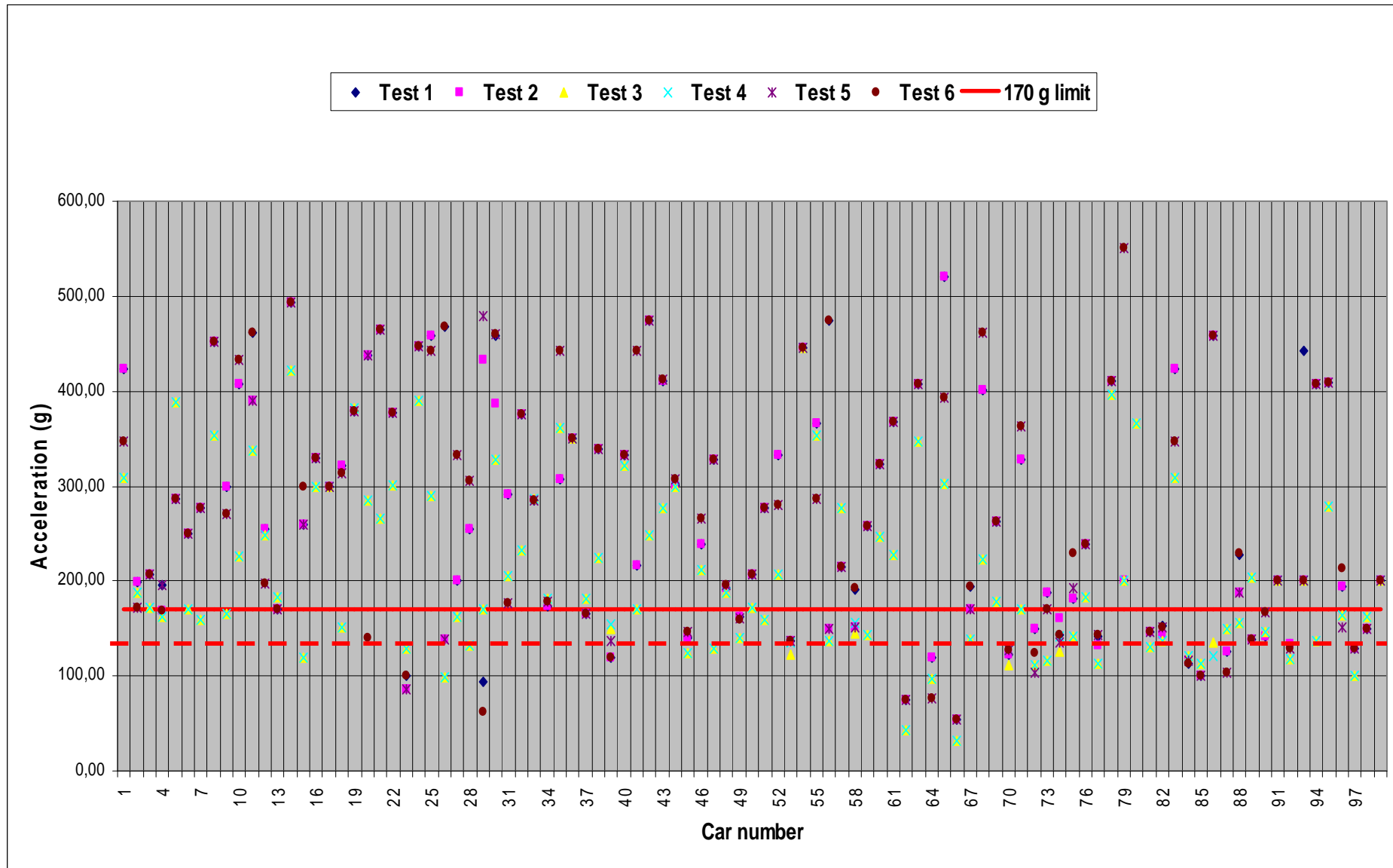


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# Lower leg EuroNCAP tests – Upper tibia acceleration



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# EuroNCAP Phases 12 – 17 lower leg tests

## Conclusions and remarks:

- 99 cars tested, only 17 of the tested cars (17%) meet all proposed gtr criteria for lower leg test
- Any complying car would not automatically be certified to gtr requirements, because:
  - EuroNCAP only tests the best-seller, i.e. not all possible equipment is included (e.g. washers, radar)
  - For Type Approval, worst case is used for assessing vehicle model in all its configurations
- In conclusion, existing models have serious difficulties to comply