

# High output headlamps for motorcycles ( $> 2000$ lumens)

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# The benefits

- Better night-time vision
- The same illumination for a smaller electrical supply
- Great potential for developing new lighting systems throughout the motorcycle range
- Great improvements in motorcycle night-time safety

# The proposals

- The proposals relate to HID, but in principle they apply to any other high output lamps
- The proposal for adding HID headlamps to R113 is in GRE/2006/47
- The proposal for adding HID to R53 is in GRE/2006/46
- The background research by JARI is in GRE-56-07.

# Discussions so far

- The proposals were presented as informal documents at 56/GRE
- The documents were discussed at 57/GRE
- There was general agreement on the approach and the content, with the exception of the levelling provisions

# The levelling provisions

- JARI research (GRE-56-07) has shown that:
  - Glare from cornering/banking is not significant.
  - Glare from pitching under acceleration is momentary, as it is for passenger cars
  - With the headlamp aimed at the median value of the range prescribed by R53 (-1.5%), the cutoff remains below the HH line
  - the risk of glare is therefore only for the higher aiming inclinations

# Vertical alignment vs load

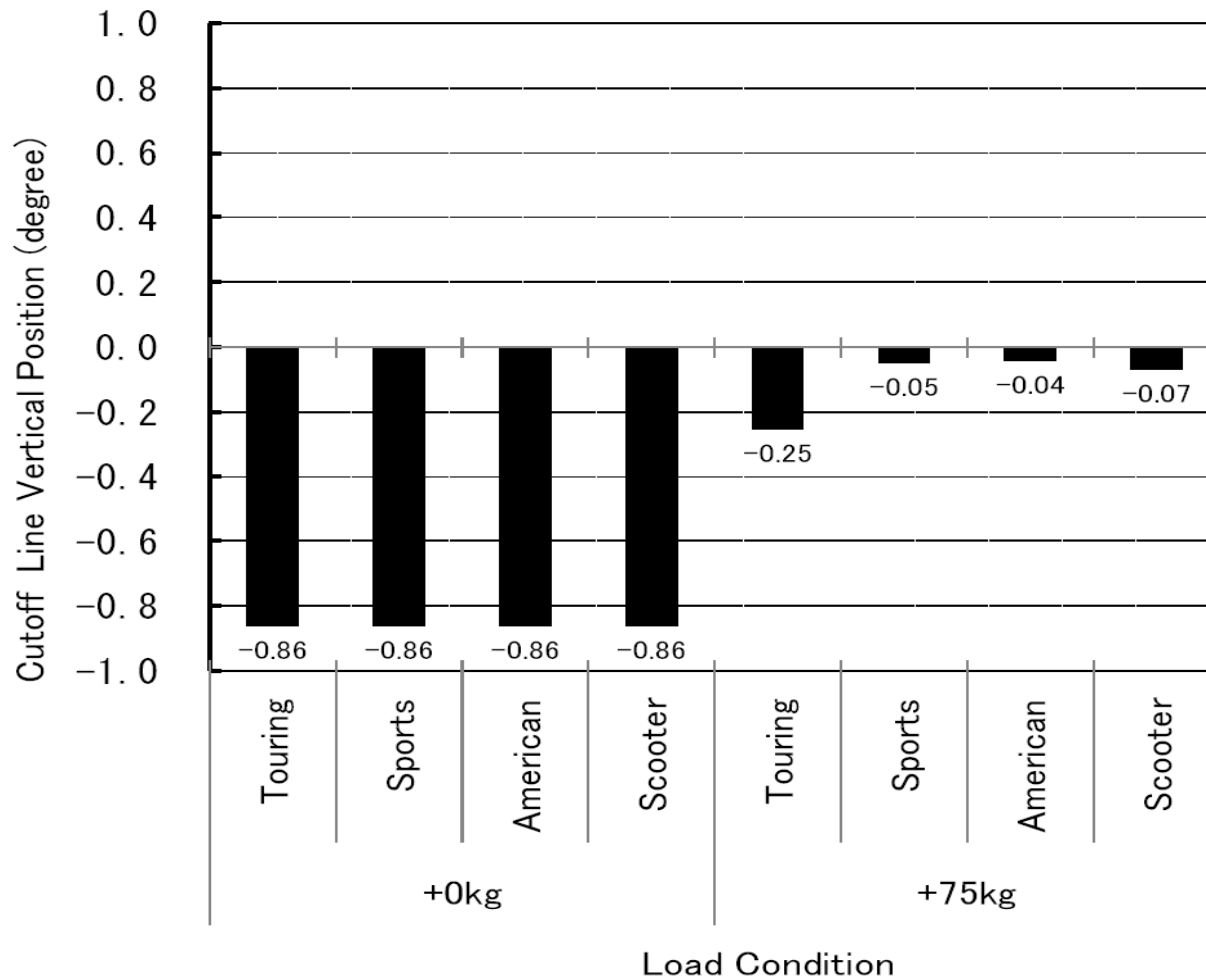


Fig. 3 Passing beam cutoff line vertical position vs load condition

# Proposed provisions

- A motorcycle, unlike a car, has two basic loading provisions:
  - rider alone
  - fully laden
- At night, riders will have to use the control to see the road
- To control the aim of the headlamp a two-position manual device is sufficient