

Informal document GRSG-119-25
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Agenda item 7a)

J15 LPG FILLING UNIT

Introduction in R67 of a new profile as defined by ISO19825

Geneva 119 GRSG

Working document ECE/TRANS/WP.29/GRSG/2020/9

Overview of J15 filling unit

- ▶ ISO 19825:2018 defines a new LPG filling unit denominated «J15» (together with a bigger one defined as «K15»).
- ▶ This new profile was derived by an existing filling unit (Korea/Japan), well known in Asian markets, with several technical improvements.
- ▶ ECE R67 should be updated in order to allow the use of this new connector, the same way as the existing ones



Main features and advantages of J15 filling unit/1

The main features of «J15» filling unit are:

- ▶ One-hand operation
 - ▶ Safe in general for operators and suitable for self service.
- ▶ Defined profile
 - ▶ No chance to couple J15 with nozzles dedicated to other gases/fuels
- ▶ Defined spillage volume
 - ▶ Low spillage during disconnection, improved environmental and human health protection
- ▶ Defined leak rate
 - ▶ Ensures tightness both during filling operations and when not connected to the nozzle

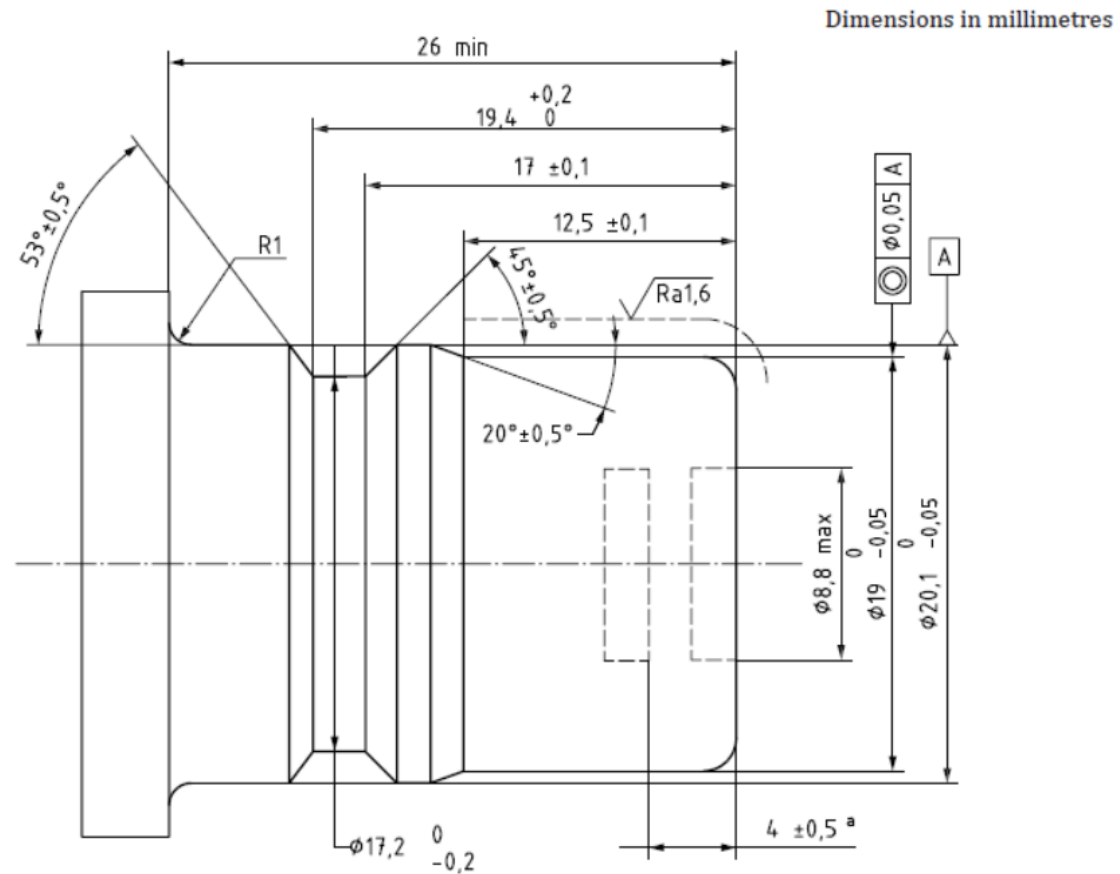
Main features and advantages of J15 filling unit/2

- ▶ Durability
 - ▶ Robust and simplified design
- ▶ Low connection and disconnection forces
 - ▶ Suitable for self service
- ▶ Male receptacle
 - ▶ Same concept as NGV1 filling unit (different profile)
 - ▶ In case of drop of refilling nozzle (female) no leakage parts affected
- ▶ Good feedback from the market
 - ▶ Many years of use in asian markets
- ▶ Reduced size
 - ▶ Suitable for a larger number of applications than «K15» (Euro) filling unit, especially in light duties vehicles and in aftermarket sector.

Safety and operation of J15 filling unit

- ▶ Subjected to full class 1 pressure requirements
- ▶ Tightness parts of the nozzle are less subjected to damage, due to male design of the receptacle
- ▶ Long durability
- ▶ Reduced dimensions

J15 profile



Key

A reference for geometrical tolerances

Ra surface roughness

R1 radius

^a Stroke.

ECE R67 amendment proposal

After considering all the above mentioned advantages, ECE R67 should be updated to accommodate the following topics:

- ▶ Introduction of J15 connector, in addition to the current filling units;
- ▶ Rename of «Euro filling unit» as K15 to keep consistency with ISO19825.

Thank you !

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the right side of the frame, creating a modern, layered effect against the white background.