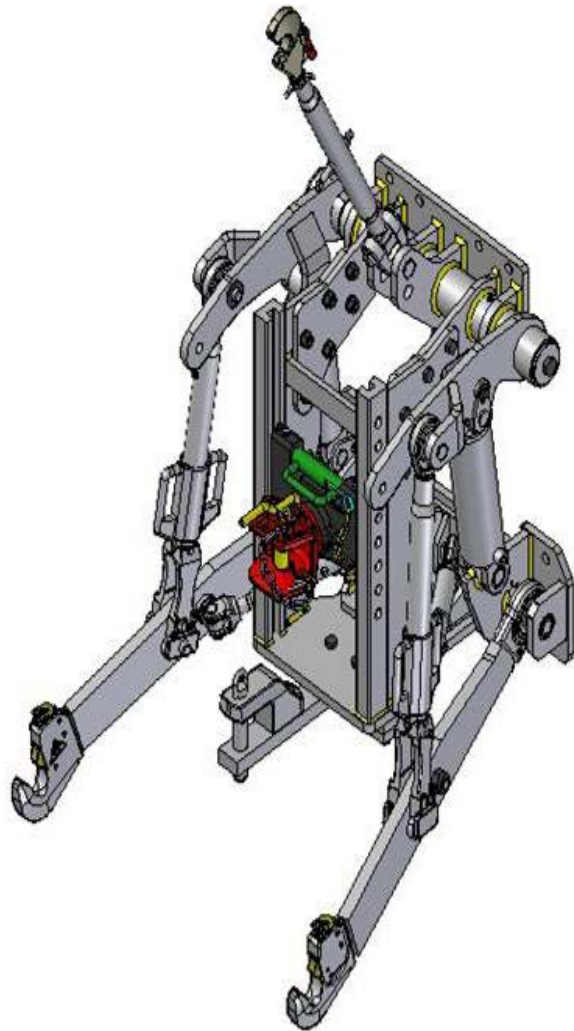




Auto Service

Mehr Sicherheit.
Mehr Wert.



Chronological agricultural couplings ECE R55

Point of view: chairman IWG R55



- 28.07.2011 German meeting of technical services decided to present list of amendments to ECE R55.01 to GRRF
- 22.09.2011 German advisory meeting FKT-SA Verbindungseinrichtungen (coupling devices) decided to propose German proposal of „agricultural couplings“ to GRRF
- 22.-24.02.2012 72. GRRF agreed to German proposal to create a working group on ECE R55. items: innovations, corrections and integrations of agricultural couplings.
- 21.06.2012 kick-off Meeting with more than 20 participants

21.06.2012 kick-off meeting of more than 20 participants
results:

Handling of “German proposal: agricultural coupling”

- Translation of technical items of the German proposal (end of august 2012)
- Invitation of further experts on agricultural to an “ad-Hoc” group:
- Hr. Afflerbach (GKN), Hr. Graser TüvSüd, Hr. Fliegl, Hr. Jörgens (Krone), Hr. Neukamm (AGCO), Hr. Rehm (JD), Struck (DEKRA), French experts (according to Mr. Preud`homes research), Mr. Malverti (Argotractors), Mr. Calanca (cnh), Mr. Signorelli (sdfgroup), Swedish experts on research by Mr. Svensson, Netherland expert researched by Mr. Stockreef, Spanish experts researched by Mr. Grassi, Mr. Schack (Jost-Rockinger).
- First meeting KW 41/KW42 2012
- After “ad-hoc” group completed a proposal, IWG shall be informed and discuss
- September meeting GRRF: accepted TOR of IWG R55



After “ad-hoc” group completed a proposal, IWG R55 shall be informed and shall discuss together with agricultural experts:

Not about the details of agricultural couplings

But

- About formal questions of regulations, requirements to transport couplings and agricultural coupling shall not
- Agreement on interface between transport and agricultural couplings

The experts of IWG R55 group have more than 15 years experience in regulations and standards and knowledge in fatigue testing and formal requirements

Agricultural meeting did not take place in week 42/2012!

19.-22.02.2013 75. GRRF did not agree to install a sub-group „agricultural couplings“

15.-16.05. 2013 first meeting of experts agricultural couplings

03.02.2014 4. th meeting to amend and close the proposal

No presentation to IWG ever also on invitation

26.05.2015 Task Force agricultural couplings in Frankfurt
results:

next meeting 10.09.2015 (not happened)

seperate R55A from ECE R55 without justification to GRRF

- June 2015: Mr. Schauer sent 2 proposals to Mr. Svensson
 - integrated and seperated proposal
- July 2015: Mr. Svensson worked over both proposals in order to adapt to required form THANKS A LOT FOR THIS!!!!!!!!!!!!!!!!!!!!!!
IS THE FORM OF TFAC05-09e the requested format?
- September 2015
GRRF required Justification, if agricultural couplings are not included into ECE R55, Mr. Klöckner, representative of German ministry, asked IWG not to decide about separation.
NO news since that.

- Different coupling constructions: the couplings are bolt-, hook- and ballcouplings
- Not a common agreement on automatic couplings: ???
- Different speeds: since 2013 also more than 40 km/h is allowed
- Fast regulation is not needed, because of reg 2015/208: see below



- GRRF proposal of 2012
- Mechanical requirements shall be the same, physics are the same
- Evitation of different handling of the same coupling

So-called mother regulation 2013/167 has 4 children, of which

- 2015/208 so-called functional safety is dealing with 34 items, also with couplings
- 2015/68 brakes
- In „couplings“ are not included hitches, neither fix nor sliding hitches
Not included drawbars of any kind. Further problems
- In brakes for inertia brakes, vertical loads are not taken into account

Instead of O3/ O4, trailers can be approved as categorie R, here no approval for drawbar, no ABS, limited approvals for tires, no limit in speed.



It seems to be urgently necessary to discuss the proposal before sending to GRRF february meeting.

Proposed are meetings in Garching and Essen 03 and 04.2016

This is not a prejudication between integrated or separated agricultural couplings. The separated version TFAC 05-10e has nearly the same items to discuss. Actual situation (see beginning of this presentation) is the integrated one.

1. The supplements 4 and 5 of inbetween ECE R55.01 are not taken into account.
2. Contents: in annex 8 and 9 have to be mentioned categorie C vehicles.
3. Calculation of „height above ground shall form annex 7 appendix 2.
4. § 1.2.3. categorie C vehicles missing.
5. Cancel 1.4., with lower link arms and 3 point linkage it is not possible to form a combination of vehicles (§1.2.3.), no need to exclude this devices.
6. § 2.3 . Cancel this sentence: before 94/20/EC the interchangeability was assured by categories of couplings regarding dimensions and characteristic values, in agricultural application this is not standardized. So there are no „standard couplings“ in the sense of ECE R55 in agricultural application.



7. § 2.7. categorie C vehicle missing.
8. § 2.7. cancel all sub-classes (with 4 digits), as there are no interchangeable standard couplings, sub classes with or without standard make no sense.
With different mounting provisions there is no risk to failure with interchangeability. Discuss: class e as same as class E until 40 km/h
9. Class p:cancel, according to 2015/68 it is not allowed to mount 5th-wheel couplings on tractors. Otherwise obviously king pins and 5th-wheel couplings are intended to mount in accordance to ECE R55.01, so also mounting plates shall be approved accordingly.
10. Class s: cancel, if necessary the definition of class S is good enough.
11. The inclusion of rigid drawbar trailers to ECE R55 / or R55A has a great effect on transport trailers and approval procedures. Provisions have to be taken, calculation method ISO 7641-1 has to be discussed / amended.

12. § 4.3. non automatic couplings to be limited to T?a) and C?a) vehicles until 40km/h; not to be excluded all small letter couplings.
13. §4.9. Class f: „Quick height-adjustable“ is a German-English word by word translation is, please agree on more common international expression such as slider hitch.
14. § 6.2.2. Annex 7 item 3 (see also discussing item 3 on page 11) actually is the calculation of ground height. This shall not be required on categorie R, S vehicles.
15. Mounting equirment
16. Mounting requirments on class f, such as fixing points, coupling point, distance to the PTO, free space around hand levers are missing,
17. § 6.2.4. (mounting instructions) is not necessary, 6.1.3. shall be generally valid.

18. § 8.5.3. all couplings of existing ECE R55 are adapted for agricultural vehicles, a supplement letter is not needed
19. §8.5.4. categorie C is missing
20. Annex 1, § 9.2.1. cancel „if applicable“ and „ v_{max} “ speed is not a characteristic value. Indicate in approval number, on type plate and in application range.
21. Annex 3, give one more example
22. Annex 4, table 2: see supplement 5 footnote to table 1, T is defined in definitions,
23. Annex 7 agricultural couplings: class f missing requirments for fixing points (see A50-X), coupling point, distance to PTO, free space arround handles.
24. Tables and pictures shall have current counting numbers not starting again for every annex. So the tractor in annex 7 item3 sall be figure 27, and so on.
25. Some drawings still are in German language



- 26. Change to form a,b,c... instead of standard flanges, standard drawbar eyes, couplings and so on or refer to ISO standard
- 27. Annex 6 § 3.1.8. (secondary coupling) must be repeated with higher values.
- 28. Annex 8 table 6: connection between major and minor letter couplings?
- 29. Clevis couplings behind trailers?

TESTING REQUIREMENTS annex 9 to be discussed in order to keep closed logic over all coupling devices.



If a tractor is approved with a coupling dynamic tested.
Is it possible to mount a static test coupling?

Or back to the roots:

