

Comparison of proposal from ETRTO and France for Informal Annexes 8 et 9 - R117 amendm

Topic	ETRTO (STD 04-05-ETRTO)	France (STD 04-04)
ANNEX 8		
General	Items not specified	Inter lab comparison according to ISO 5725 [Different sets of the same batch of alignment tyres (in parallel)] TS participating shall be in accordance with R117 annex 6 Assigned value is general average
Conditions for machines part of the network	Monitoring of drift Machine repeatability value σ_m 0.05 N/kN Assigned value is general average	No significant difference
Alignment tyre requirements	Cr range need TI assessment	Cover usage range-Cr values with a gap of 1.0 ± 0.5 N/kN
Alignment Procedure	Measurement according to Annex 6 with dismounting of tyre/wheel assembly between each measurement. 3 measurements per tyre, provide average and std deviation Machine repeatability value σ_m 0.05 N/kN	Specified in annex 9 § 5 a Specified in annex 9 § 5 d Specified in annex 9 § 5 c
Comparison regression definition	Described in annex 8 § 5	Described in annex 9 § 5 - Same method
Alignment process	Repeated at least every two years and after any significant machine change or any drift Not specified.	Repeated at least every two years During each two years period, the set of selected tyres and their assigned values will not be changed
Evolution of the list of participating Technical Services.	Not specified	Process described
ANNEX 9		

General	No change	Exact number of alignment tyres defined by Technical Services according to preliminary step described in § 1.2 of annex 8
Alignment tyre requirements		The alignment tyre set will be provided by the candidate laboratory to the Technical Service it chose to perform the alignment
Alignment Procedure for technical services participating to the inter-laboratory comparison (annex 8)	See annex 8	Cover usage range-Cr values with a gap of 1.0±0.5 N/kN
		No significant difference

Comments:

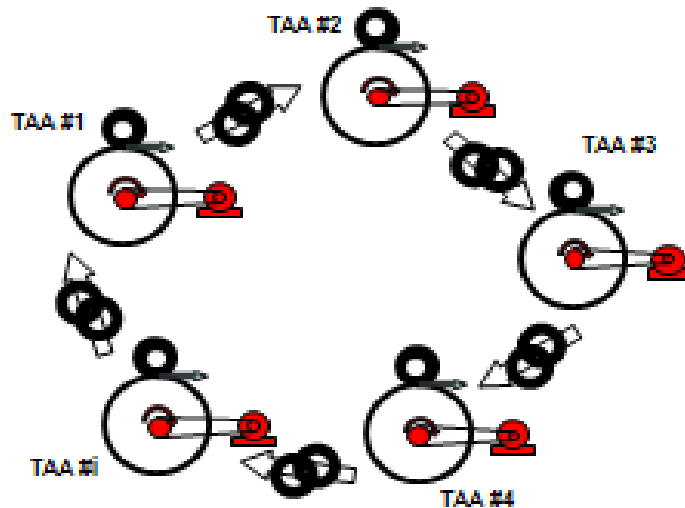
Beside the range for Cr and the way to organize the round robin test, from the comparison, it appears that both documents are almost equivalent.

The following have to be assessed:

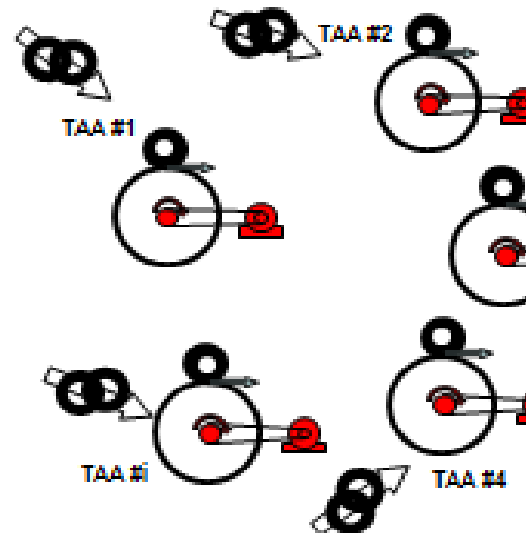
- 1) understanding why some parts have been moved by France from Annex 8 to annex 9 (Action item from France)
- 2) for the alignment procedure, to check whether there is a possibility to merge both proposals as follow: "Repeated at least every two years and after any significant machine change or any drift. During each two years period, the set of selected tyres and their assigned values will not be changed." (Action item from France)
- 3) explanation of the content of ISO 5725 and the reason why it is needed. (Action item from France)

The definition of a Virtual Lab: open points

An average is performed among the Type Approval Authorities in order to define the reference values to be used by the other Testing Machines to be aligned.



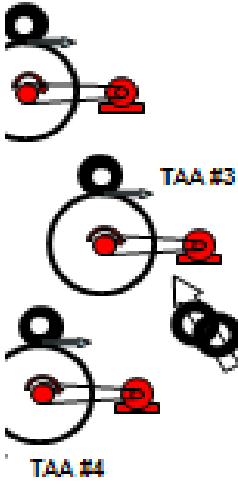
The same set of physical alignment tires circulated In Sequence for the alignment



The sets of similar alignment tires us Parallel for the alignment

There are pro/cons in the 2 possibilities in terms of accuracy, efficiency... that c
be further investigated

e

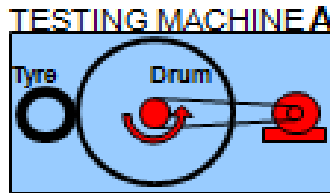


tires used in

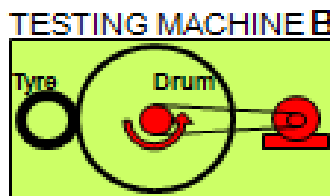
.. that can

The definition of a Virtual Lab: open points

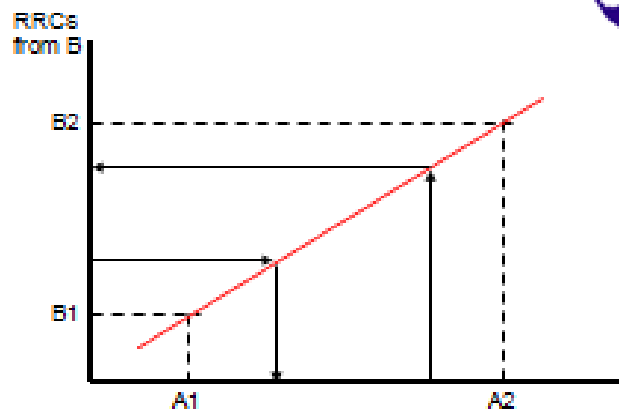
How the correlation works



Measures the alignment
tyres and obtains RRCs: Ax



Measures the alignment
tyres and obtains RRCs: Bx



Linear regression correlation formula by which
other RRC can be aligned to the other mach

For a proper linear regression an appropriate "range"
values should be considered (e.g. 3N/kN according
ISO28580, or 1.5 ± 0.5 N/kN according to Annex 9),
depending also on the number of tyres.

Tyre Industry assessment need to be completed.



RRCs
from A

by which any
or machine

the "range" for Or
according to
Annex 9),
yes.
completed.