

TRAILER BRAKE IVA MODEL REPORT PROCEDURE

Purpose :

This procedure defines guidelines to be used by Trailer Manufacturers wishing to create a Brake Model Report for an O3, O4 (or power braked O2) trailer on the basis of a combination of tests, calculation and documentary evidence to the requirements of ECE Regulation 13 for IVA.

Manufacturers will produce a 'Precedent Trailer' on which the IVA Model Report will be created. An authorised Technical Service (as listed in the European Commission website) will evaluate the trailer and verify all required fields on the model report pro-forma and conduct system reaction time and energy consumption tests. No Dynamic Testing will be required for this process.

This process can also be used for a "one off" approval in respect of a single trailer and where an IVA Model Report is not required. In the case of a "one off" trailer the full specification proforma need not be completed, only the first and last page which must accompany the test results when submitted.

Outputs :

Model reports are created for use on subsequent trailers under going an IVA inspection.

General Rules :

Scope

- All brake equipment on the trailer required to be specified in an IVA Model Report must be included within the scope of the original test report created by the Technical Service at the applicant's request (we suggest a worst case consideration before conducting calculations/testing other than where specific tests/calculations are required on each scenario being used).
- Model Reports will be produced by VOSA based on the data in the Technical Service test report and the data in the proforma verified by the technical Service.
- Where examination of subsequent trailers dictates, VOSA may require more than one IVA Model Report to be created from one test report to simplify the inspection process.
- An IVA Model Report will be limited to one trailer make/model/specific maximum weights.
- All calculations and testing must be to UNECE Regulation 13.
- An IVA Model Report is restricted to use only by the report owner in respect of trailers built by the report owner.

Variations accommodated within a single Model Report

- An IVA Model Report will not list individual variants, instead it will be created providing scope within the report to cover a range of trailers, e.g. lengths, body types etc.
- Variations on components (e.g. axles, suspensions etc) will be permitted where they are supported by alternative calculations and test reports where required.
- Alternative wheelbases will be permitted providing they are accommodated within the maximum pipe lengths and system reaction times /capacity covered by test results and the stated centre of gravity.
- Lift axle options will be accepted provided that calculations support these (i.e. meets unladen requirements with axle raised).
- IVA Model Reports may be extended beyond existing parameters by submission of additional calculations/test report data.

Calculations

- Will only be accepted from a Technical Service, axle manufacturer or the brake system manufacturer.

Procedure :

Responsibility	Action	Notes / Requirements
Trailer Manufacturer	Builds Trailer.	Uses approved components or components having a supporting test report from a technical service : Axles (with Brakes) EBS / ABS System
VOSA Swansea	Supply the manufacturer with a brake IVA Model Report pro-forma.	
Trailer Manufacturer	Supplies Technical Service with the incomplete/completed trailer and all relative information.	Detailed system schematics for the braking system (which may include the air suspension system) and EBS. Completed Brake System proforma. Braking calculations (if not provided by Technical Service). Axle information and brake approvals/test report to Annex 11 of Regulation 13. EBS / ABS information and approvals/ test report to Annex 19 of Regulation 13. Masses and Dimensions of the range.
Technical Service	Carries out response time and energy consumption tests and verifies compatibility and calculations (References to R13). Sends complete package direct to Swansea.	All tests carried out on the system must be to the criteria of UNECE Regulation 13. Trailer tested to worst case, this allows completed test report to be used for other trailers using the same equipment but may vary in length, body etc.
Technical Service	Verifies data on the IVA Model Report pro-forma and sends to VOSA Swansea.	
VOSA Swansea	Receives and collates the reports and detailed information from Technical Service and Trailer manufacturer.	Liaise with Tech Services and/or manufacturer if any issues arise.
VOSA Swansea	Creates Version 1 of the Model Report.	Triggered once an IVA Application is received.
Trailer Manufacturer	Requires IVA on trailer using Version 1 of the IVA Model Report and submits trailer for examination.	Trailer must be a complete/completed trailer if using a statutory application; alternatively an incomplete trailer can be considered in which case a voluntary application must be submitted.
IVA Examiner	Carries out the IVA.	Inspect precedent trailer using version 1 and verify the report contents, fill out feedback sheet and send to VOSA Swansea.
VOSA Swansea	Makes any necessary amendments to the IVA Model Report and then creates version 2 (Live) of the model report.	Amendments are for workability and use issues.
Trailer Manufacturer	Owens the Model Report.	This report will be used on the manufacturer's subsequent trailers only, although applications will be accepted from a second stage manufacturer.

Definitions :

Technical Service	A technical service is an organisation or body designated by the approval authority of a Member State as a testing laboratory to carry out tests, or as a conformity assessment body to carry out the initial assessment and other tests or inspections, on behalf of the approval authority.
Precedent Trailer	A precedent trailer is the first of its kind which is subject to an evaluation by a Technical Service for the creation of a Model Report.
Subsequent Trailer	A subsequent trailer is a trailer having the base vehicle built by the precedent trailer manufacturer to the specification documented in the precedent trailer Model Report.
Test Report	Information supplied by a technical service as a result of tests conducted. A pro-forma detailing the specifications and information required is completed by the technical service which together with the individual test results, then becomes the " test report ".
Model Report	An IVA Model Report is a document detailing the specification of a precedent trailer derived from the test report(s), calculations, pro-forma and approvals submitted by the applicant/technical service and used by the IVA examiner to evaluate a subsequent trailer.