

Directive 94/20/EC of the European Parliament and of the Council
of 30 May 1994 relating to the mechanical coupling devices of motor
vehicles and their trailers and their attachment to those vehicles (repealed)

- Article 1 For the purpose of this Directive: ‘vehicle’ means any motor...
Article 2 Member States may not refuse: EEC type-approval or national
type-approval...
Article 3 Member States shall adopt and publish the laws, regulations
and...
Article 4 This Directive is addressed to the Member States.
Signature

LIST OF ANNEXES

ANNEX I

1. Scope
 - 1.1. This Directive applies to the mechanical coupling devices for motor...
 - 1.2. This Directive states the requirements which mechanical coupling devices intended...
 - 1.3. The coupling devices are classified according to type, and distinguishing...
2. DEFINITIONS
 - 2.1. Mechanical coupling devices between motor vehicles and trailers are all...
 - 2.1.1. The coupling balls and towing brackets in Section 1.3.1 are...
 - 2.1.2. The coupling heads in Section 1.3.2 are mechanical coupling devices...
 - 2.1.3. The drawbar couplings in Section 1.3.3 are mechanical coupling devices...
 - 2.1.4. The drawbar eyes in Section 1.3.4 are mechanical coupling devices...
 - 2.1.5. The drawbars in Section 1.3.5 comprise overrun devices and similar...
 - 2.1.6. The drawbeams in Section 1.3.6 are all parts and devices...
 - 2.1.7. The fifth wheel coupling in Section 1.3.7 are plate-like coupling...
 - 2.1.8. The fifth wheel coupling pins in Section 1.3.8. are a...
 - 2.1.9. The mounting plates in Section 1.3.9 are all parts and...
 - 2.1.10. Steering wedges are components mounted on semi-trailers which control positive...
 - 2.1.11. Standard coupling devices are classified in Section 1.3. and conform...
 - 2.1.12. Non-standard coupling devices are those of Classes A to J...
 - 2.1.13. The miscellaneous coupling devices for transitional or exceptional use in...
 - 2.1.14. Remote control devices are devices which, in the case of...
 - 2.1.15. Remote indicators are indicating devices which indicate to the vehicle...
 - 2.1.16. A type of mechanical coupling device means a device which...
 - 2.1.17. A coupling procedure is automatic if reversing the towing vehicle...
 - 2.1.18. The ‘D-value’ is defined as the theoretical reference force for...
 - 2.1.19. The ‘V-value’ is defined as the theoretical reference force for...
 - 2.1.20. ‘Centre-axle trailer’ means a towed vehicle equipped with a towing...

- 2.1.2.1. For vehicles not falling clearly in any of the above...
- 2.1.2.2. 'Vehicle type' means vehicles which do not differ with respect...
- 3. EEC TYPE-APPROVAL FOR A COMPONENT
 - 3.1. Application for EEC type-approval
 - 3.1.1. The application for EEC type-approval pursuant to Article 3 (4)...
 - 3.1.2. A model for the information document is given in Annex...
 - 3.1.3. The following must be submitted to the technical service responsible...
 - 3.2. Marking of specimen
 - 3.2.1. Each of the specimens of the particular type of coupling...
 - 3.2.2. factory mark, trade name or manufacturer's name (and trade mark...
 - 3.2.3. type and, if applicable, version;
 - 3.2.4. a sufficiently large space for the EEC approval mark and...
 - 3.3. Granting of EEC type-approval
 - 3.3.1. If the relevant requirements are satisfied, EEC type-approval pursuant to...
 - 3.3.2. A model for the EEC type-approval certificate is given in...
 - 3.3.3. An approval number in accordance with Annex VII to Directive...
 - 3.3.4. There shall be affixed, conspicuously and in a readily accessible...
 - 3.3.4.1. A rectangle surrounding the letter 'e' followed by the distinguishing...
 - 3.3.4.2. A two-digit number, indicating the number of the latest amendment...
 - 3.3.4.3. The following supplementary marks placed anywhere close to the rectangle:...
 - 3.3.5. The approval mark shall be indelible and clearly legible even...
 - 3.3.6. Annex II to this Directive gives examples of the arrangement...
 - 3.4. Modification of the type of mechanical coupling device and extension...
 - 3.4.1. In the case of modification of a type approved pursuant...
- 4. EEC TYPE-APPROVAL FOR A VEHICLE
 - 4.1. Application for EEC type-approval
 - 4.1.1. The application for EEC type-approval pursuant to Article 3 (4)...
 - 4.1.2. A model for the information document is given in Annex...
 - 4.1.3. The following must be submitted to the technical service responsible...
 - 4.2. Granting of EEC type-approval
 - 4.2.1. If the relevant requirements are satisfied, EEC type-approval pursuant to...
 - 4.2.2. A model for the EEC type-approval certificate is given in...
 - 4.2.3. An approval number in accordance with Annex VII to Directive...
 - 4.3. Modification of the type of vehicle and extension of EEC...
 - 4.3.1. In the case of modification of a type-approval pursuant to...
 - 4.3.2. The holder of an EEC vehicle type-approval can apply for...
 - 4.3.3. In the case of standard coupling devices in classes A,...
- 5. REQUIREMENTS
 - 5.1. The mechanical coupling devices between motor vehicles and trailers must...
 - 5.2. Safe coupling and uncoupling of the vehicles must be possible...
 - 5.3. The mechanical coupling devices shall be so designed and manufactured...
 - 5.4. Every coupling device must be accompanied by installation and operating...
 - 5.5. The materials that may be used are those for which...
 - 5.6. All parts of the mechanical coupling devices whose failure could...
 - 5.7. All couplings must be designed for positive mechanical engagement, and...
 - 5.8. The mechanical coupling devices must satisfy the requirements of Annex...
 - 5.9. Loading requirements

- 5.9.1. Mechanical coupling devices are subject to the tests described in...
 - 5.9.2. These tests must not cause any cracks, fractures or other...
 - 5.10. The installation of the mechanical coupling devices to the vehicle...
 - 5.11. The abovementioned requirements and those of Annexes V, VI and...
6. CONFORMITY OF PRODUCTION
- 6.1. As a general rule, measures to ensure the conformity of...
 - 6.2. The normal frequency of inspections to be carried out by...

ANNEX II

- (a) Specimen EEC approval marking for a drawbar coupling
- (b) Specimen EEC approval marking for a drawbar eye
- (c) Specimen EEC approval mark for a fifth wheel coupling
- (d) Specimen EEC approval marking for a fifth wheel coupling pin...
- (e) Specimen EEC approval marking for a coupling ball and towing...
- (f) Specimen EEC approval marking for a coupling head
- (g) Specimen EEC approval marking for a drawbar

ANNEX III

INFORMATION DOCUMENT No ...

The following information, if applicable, must be supplied in triplicate...

If the systems, components of separate technical units have electronic...

ANNEX IV

Appendix I

to EEC type-approval certificate No ... concerning the component type-approval of mechanical coupling devices with regard to Directive 94/20/EC

ANNEX V

Requirements for mechanical coupling devices

1. COUPLING BALLS AND TOWING BRACKETS
- 1.1. Coupling balls of Class A must conform to Figure 2...
 - 1.2. The shape and the dimensions of the towing brackets have...

- 1.3. In the case of removable coupling balls the point of...
 - 1.4. Coupling balls and towing devices must be able to satisfy...
 - 1.5. Special requirements for standard coupling balls and flange type towing...
 - 1.5.1. Dimensions of Class A 50-1 coupling balls and flange type...
 - 1.5.2. Dimensions of Class A 50-2 and Class A 50-3 coupling...
 - 1.5.3. Coupling balls and flange type towing brackets of the Classes...
2. COUPLING HEADS
- 2.1. Coupling heads of Class B 50 must be designed so...
 - 2.2. Coupling heads must be able to satisfy the tests laid...
 - 2.3. Any additional device (e. g. braking, stabilizer, etc.) shall not...
 - 2.4. Horizontal rotation of the coupling head at least 90o to...
3. DRAWBAR COUPLINGS
- 3.1. Load requirements
 - 3.2. Suitable drawbar eyes
 - 3.3. Automatic operation
 - 3.4. Jaw
 - 3.5. Minimum freedom of movement of the coupled drawbar eye
 - 3.6. Minimum angle for coupling-up and uncoupling
 - 3.7. Locking to prevent inadvertent uncoupling
 - 3.8. Hand levers
 - 3.9. Special requirements for standard drawbar couplings of Class C 50-1...
 - 3.9.1. The swivel motion of the drawbar eye about the transverse...
 - 3.9.2. Tensile and compressive shock loads along the longitudinal axis due...
 - 3.9.3. The dimensions given in Figure 8 and Table 3 must...
 - 3.9.4. The couplings must be suitable and tested for the characteristic...
 - 3.9.5. The coupling must be opened by means of a hand...
4. DRAWBAR EYES
- 4.1. General requirements for drawbar eyes
 - 4.2. Special requirements for drawbar eyes of Class D 50-A
 - 4.3. Special requirements for drawbar eyes of Class D 50-B
 - 4.4. Special requirements for drawbar eyes of Class D 50-C
 - 4.5. Load values for standard drawbar eyes
5. DRAWBARS
- 5.1. Drawbars of Class E must be able to satisfy the...
 - 5.2. In order to provide a connection to the towing vehicle,...
 - 5.3. Hinged drawbars must be clear of the ground. They shall...
 - 5.4. Height adjusting devices for hinged drawbars
 - 5.4.1. Hinged drawbars have to be equipped with devices for adjusting...
 - 5.4.2. Height adjusting devices must be able to adjust the drawbar...
 - 5.4.3. The height adjusting device must not interfere with easy movement...
 - 5.4.4. The height adjusting devices must not interfere with the action...
 - 5.5. In the case of drawbars combined with overrun brakes the...
 - 5.6. Drawbars for use on centre-axle trailers must possess at least...
6. MOUNTING FRAMES
- 6.1. Mounting frames shall be appropriate for the attachment of the...
 - 6.2. Mounting frames must not be welded to the chassis, bodywork...
 - 6.3. Mounting frames must be able to satisfy the tests laid...

7. FIFTH WHEEL COUPLINGS AND STEERING WEDGES
 - 7.1. Suitable fifth wheel coupling pins.
 - 7.2. Automatic operation
 - 7.3. Guides
 - 7.4. Minimum free movement of the fifth wheel coupling with the...
 - 7.5. Locking devices to prevent uncoupling of fifth wheel couplings
 - 7.6. Operating devices
 - 7.7. Surface finish
 - 7.8. Load requirements
 - 7.9. Steering wedges
 - 7.9.1. The dimensions of steering wedges for the positive steering of...
 - 7.9.2. The steering wedge must allow safe and secure coupling-up. The...
 - 7.10. Special requirements for standard fifth wheels couplings
 - 7.10.1. Standard fifth wheel couplings must have the dimensions indicated in...
 - 7.10.2. Standard fifth wheel couplings must be suitable for and tested...
 - 7.10.3. Release must be possible by a hand lever directly at...
 - 7.10.4. Standard fifth wheel couplings must be suitable for the positive...
8. FIFTH WHEEL COUPLING PINS
 - 8.1. Fifth wheel coupling pins of class H 50 (ISO 337)...
 - 8.2. The coupling pins must be able to satisfy the tests...
9. MOUNTING PLATES
 - 9.1. Class J mounting plats for fifth wheel couplings must have...
 - 9.2. Mounting plates for standard fifth wheel couplings must be suitable...
 - 9.3. Mounting plates for fifth wheel couplings must be able to...
10. DEVICES FOR REMOTE INDICATION AND REMOTE CONTROL
 - 10.1. General requirements
 - 10.2. Remote indication
 - 10.2.1. For an automatic coupling procedure, remote indication devices must indicate...
 - 10.2.2. The change from the open to the closed and doubly...
 - 10.2.3. If the open and/or unsecured position is indicated, a red...
 - 10.2.4. In the case of indicating the completion of the automatic...
 - 10.2.5. The appearance of any fault in the remote indication system...
 - 10.2.6. The disengagement of one of the two locking devices must...
 - 10.2.7. The mechanical indicators directly at the coupling device must be...
 - 10.2.8. In order to avoid distracting the driver during normal driving,...
 - 10.2.9. The operating controls and indicators of the remote indication devices...
 - 10.3. Remote control
 - 10.3.1. If a remote control device is employed, there must also...
 - 10.3.2. There must be a dedicated switch (i. e. master switch,...
 - 10.3.3. If remote control involves the coupling being opened by external...
 - 10.3.4. If the actuating device for opening the coupling under remote...
 - 10.3.5. Any single error in operation or the occurrence of any...
 - 10.3.6. In the event of a failure of remote control it...
 - 10.3.7. The operating controls and indicators for the remote control devices...

ANNEX VI

TESTING OF MECHANICAL COUPLING DEVICES

1. GENERAL TESTING REQUIREMENTS
 - 1.1. Specimens of coupling devices must be tested; both, strength tests...
 - 1.2. With coupling devices the strength must be verified by a...
 - 1.3. The dynamic test should be performed with approximately sinusoidal load...
 - 1.4. Only slight permanent deformation is permitted with the static tests...
 - 1.5. The loading assumptions in the dynamic tests are based on...
 - 1.6. The characteristic values D, S, V and U on which...
2. TEST PROCEDURES
 - 2.1. For the dynamic tests and static tests the specimen must...
 - 2.2. The test frequency must not exceed 35 Hz. The selected...
 - 2.3. With alternating test forces (components) the mean force is zero....
 - 2.4. With static tests other than the special tests required by...
 - 2.5. The coupling devices on test should normally be mounted as...
 - 2.6. Preferably, couplings have to be tested in original condition as...
3. SYMBOLS AND DEFINITIONS IN ANNEX VI
4. SPECIFIC TESTING REQUIREMENTS
 - 4.1. Coupling balls and towing brackets
 - 4.1.1. The mechanical coupling devices of coupling balls may be of...
 - 4.1.2. The basic test is an endurance test with an alternating...
 - 4.1.3. The positions of the fixing points for attaching the coupling...
 - 4.1.4. The devices submitted to the test shall be provided with...
 - 4.1.5. The assembly mounted on the test bed shall be subjected...
 - 4.1.6. The test procedure is applicable to the different types of...
 - 4.1.6.3. Coupling devices with variable dimensions e and f for demountable...
 - 4.1.6.3.1. The strength tests for such towing brackets (shown in Figure...
 - 4.1.6.3.2. If a worst case configuration can be defined by agreement...
 - 4.1.6.3.3. In a simplified test programme, the value for f shall...
 - 4.2. COUPLING HEADS
 - 4.2.1. The basic test is an endurance test with an alternating...
 - 4.2.2. The dynamic test must be performed with a Class A...
 - 4.2.3. A static lifting test must also be performed. The coupling...
 - 4.3. Drawbar couplings and draw beams
 - 4.3.1. An endurance test must be performed on a test specimen....
 - 4.3.2. Drawbar couplings for hinged drawbars (S=0)
 - 4.3.3. Drawbar couplings for use with centre-axle trailers (S > 0)....
 - 4.3.3.1. Centre-axle trailer masses up to and including 3,5 tonnes
 - 4.3.3.2. Centre-axle trailer masses exceeding 3,5 tonnes
 - 4.3.4. Static test on coupling pin locking device
 - 4.4. Drawbar eyes
 - 4.4.1. Drawbar eyes must be subjected to the same dynamic testing...
 - 4.4.2. The testing of drawbar eyes must be conducted in such...
 - 4.5. Drawbars
 - 4.5.1. Drawbars shall be tested in the same way as drawbar...
 - 4.5.2. For drawbars for full trailers with free movement in the...
 - 4.5.3. In the case of steered axles, the resistance to bending...
 - 4.6. Fifth wheel couplings

- 4.6.1. The basic strength tests are a dynamic test and a...
- 4.6.2. Static tests
 - 4.6.2.1. Standard fifth wheel couplings designed for a steering wedge or...
 - 4.6.2.2. A static lifting test must be performed on all fifth...
- 4.6.3. Dynamic test
 - 4.6.3.1. In the case of fifth wheel couplings not intended for...
 - 4.6.3.2. In the case of fifth wheel couplings intended for the...
 - 4.6.3.3. For the dynamic test of fifth wheel couplings, a suitable...
- 4.7. Mounting plates for fifth wheel couplings
- 4.8. Fifth wheel coupling pins of semi-trailers
 - 4.8.1. A dynamic test with alternating stress must be performed on...
 - 4.8.2. A dynamic test with a horizontal load of Fhw =...

ANNEX VII

REQUIREMENTS RELATING TO THE TYPE-APPROVAL OF THE VEHICLE TYPE WITH REGARD TO THE OPTIONAL ATTACHMENT OF MECHANICAL COUPLING DEVICES TO THIS VEHICLE.

1. GENERAL REQUIREMENTS
 - 1.1. The vehicle manufacturer shall state which types and classes of...
 - 1.2. The coupling device shall be attached to the vehicle type...
 - 1.3. Only automatic coupling devices which allow an automatic coupling procedure...
 - 1.4. When mounting coupling devices of Classes B, D, E and...
2. SPECIAL REQUIREMENTS
 - 2.1. Attachment of coupling balls and towing brackets
 - 2.1.1. Coupling balls and towing brackets must be attached to a...
 - 2.1.2. For coupling balls and towing brackets the vehicle manufacturer must...
 - 2.1.3. It must also be possible to couple and uncouple ball...
 - 2.1.4. The mounted coupling ball must not obscure the place or...
 - 2.2. Attachment of coupling heads
 - 2.2.1. Class B coupling heads are permitted for trailers of the...
 - 2.2.2. It must be possible to operate the coupling heads safely...
 - 2.3. Attachment of drawbar couplings and mounting blocks
 - 2.3.1. Mounting dimensions for standard drawbar couplings
 - 2.3.2. Need for remote controlled couplings
 - 2.3.3. Easy and safe coupling operation
 - 2.3.4. Accessibility
 - 2.3.5. Clearance for the hand lever
 - 2.3.6. Clearance for free movement of drawbar coupling
 - 2.3.7. Admissibility of drawbar couplings with a special joint for vertical...
 - 2.4. Attachment of drawbar eyes and drawbars on trailers.
 - 2.4.1. Drawbars for centre-axle trailers must have a support device adjustable...
 - 2.4.2. When attaching drawbar eyes and drawbars to centre-axle trailers with...
 - 2.5. Attachment of fifth wheel couplings, mounting plates and coupling pins...
 - 2.5.1. Class G 50 fifth wheel couplings must not be mounted...

- 2.5.2. Semi-trailers must be equipped with landing gear or any other...
- 2.5.3. The fixing of the fifth wheel coupling pin in the...
- 2.5.4. If a semi-trailer is equipped with a steering wedge it...

ANNEX VIII

ANNEX IX

Appendix I

to EEC type-approval certificate No concerning the type-approval of a vehicle with regard to Directive 94/20/EC

- (1) [OJ No C 134, 25. 5. 1992, p. 36.](#)
- (2) [OJ No C 313, 30. 11. 1992, p. 10.](#)
- (3) [Opinion of the European Parliament of 29 October 1992 \(OJ No C 305, 23. 11. 1992, p. 115\).](#)
[Council common position of 27 September 1993 \(not yet published in the Official Journal\).](#)
[Decision of the European Parliament of 9 March 1994 \(not yet published in the Official Journal\).](#)
- (4) [OJ No L 42, 23. 2. 1970, p. 1.](#) Directive as last amended by [Directive 92/53/EEC \(OJ No L 225, 10. 8. 1992, p. 1\).](#)