DRAFT

AUTOMOTIVE INDUSTRY STANDARD

Requirements of Driver's Seat for Agricultural Tractors

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Status chart of the standard to be used by the purchaser for updating the record

Sr. No.	Corrigenda.	Amendment	Revision	Date	Remark	Misc.
General Remarks						

INTRODUCTION

0.1 Introductory clause to be added later on

0.6 The AISC panel responsible for formulation of this standard is given in Annex ……(To be added)

0.7 The Automotive Industry Standards Committee (AISC) responsible for approval of this standard is given in Annex ……(To be added)

CHECKLIST FOR PREPARING AUTOMOTIVE INDUSTRY STANDARD

Draft AIS-121: REQUIREMENTS OF DRIVER'S SEAT FOR AGRICULUTURAL TRACTORS

SR. NO.	PARTICULARS	REMARKS
1.	Indicate details of the base reference standard. (eg. ECE / EEC Directive/GTR etc.)	ANNEX XIV of 1322/2014 (COMMISSION DELEGATED REGULATION (EU) No 1322/2014)
2.	Add an explanatory note indicating differences between the above standard and the draft, if any.	1. Cross references to respective Indian Standards. (e.g. AIS) 2. Marking requirements. 3. Transitional provisions. 4. Administrative provisions, e.g. Type approval & extension of approvals. 5. Deviations to be decided if required
3.	Specify details of technical specifications to be submitted at the time of type approval relevant to the requirements of this standard covered.	As per Annex 9
4.	Are the details of Worst Case Criteria covered?	The Criteria shall be as agreed between the testing agency and applicant. TO be added
5.	Are the performance requirements covered?	Yes, Clauses to be added here
6.	Is there a need to specify dimensional requirements?	Yes.
7.	If yes, are they covered?	Yes. As per Annex E.
8.	Is there a need to specify COP requirements? If yes, are they covered?	To be discussed
9.	Is there a need to specify type approval, and routine test separately, as in the case of some of the Indian Standards? If yes, are they covered?	Yes (To be discussed)
10.	If the standard is for a part/component or sub-system; i) AIS-037 or ISI marking scheme be implemented for this part? ii) Are there any requirements to be covered for this part when fitted on the vehicle? If yes, has a separate standard been prepared?	i) Yes ii) Yes Installation requirement for driver's seat.
11.	If the standard is intended for replacing or revising an already notified standard, are transitory provisions for re-certification of	Yes. Provisions included in clause 12.

	already certified parts/vehicles by comparing the previous test result, certain additional test, etc. required? If yes, are they included?	
12.	Include details of any other international or foreign national standards which could be considered as alternate standard.	ANNEX XIV of 1322/2014 (COMMISSION DELEGATED REGULATION (EU) No 1322/2014)
13.	Are the details of accuracy and least counts of test equipment/meters required to be specified? If yes, have they been included?	To be reviewed by test agency
14.	What are the test equipment for establishing compliance?	As specified in this standards
15.	If possible, identify such facilities available in India.	To be reviewed by test agency
16.	Are there any points on which special comments or information is to be invited from members? If yes, are they identified?	Comments / discussion required on yellow highlighted points.
17.	Does the scope of standard clearly identify vehicle categories?	Yes
18.	Has the clarity of definitions been examined?	Yes

Requirements of Driver's Seat for Agricultural Tractors

Clause No.	Clause as compared with REGULATION (EU) No 1322/2014 – changes are marked blue.
1	**SCOPE**
	This standard specifies performance & Installation requirements for driver's seat for Agricultural tractors.
2	**DEFINITIONS**
	For the purpose of this standard following definitions shall apply:-
2.1	Agricultural Tractors as per AIS 053
2.2	'Seat surface' means the almost horizontal area of the seat which supports the driver when seated.
2.3	'Lateral seat supports' means the devices or forms of the seat surface which prevent the driver from sliding sideways.
2.4	'Seat armrests' means the devices on either side of the seat which support the driver's arms when he is seated.
2.5	'Depth of the seat surface' means the horizontal distance between the Seat Reference Point (S) and the front edge of the seat surface.
2.6	'Width of the seat surface' means the horizontal distance between the outside edges of the seat surface measured in a plane perpendicular to the median plane of the seat.
2.7	'Load adjustment range' means the range between the two loads corresponding to the mean positions in the suspension system curves plotted for the heaviest and lightest driver.
2.8	'Suspension travel' means the vertical distance between the highest position and the position at a given moment of a point situated on the seat surface 200 mm in front of the Seat Reference Point (S) in the median longitudinal plane.
2.9	'Vibration' means the vertical movement up and down of the driver's seat.
2.10	'Vibration acceleration (a)' means the second differential of the vibration displacement with respect to time.
2.11	'Rms value of the acceleration (aeff)' means the square root of the mean square of the accelerations.
2,12	Weighted vibration acceleration (aw)' means the weighted vibration acceleration determined with the help of a weighting filter in accordance with point 4.5.3.3.5.2.

<table>
<tr><td></td><td>awS = rms value of the weighted seat vibration acceleration measured during a bench test or a standard roadway test;
awB = rms value of the weighted vibration acceleration measured at the seat attachment during a bench test;
awB* = reference rms value of the weighted vibration acceleration measured at the seat attachment;
awS* = corrected rms value of the weighted seat vibration acceleration measured during a bench test;
awF* = rms value of the weighted vibration acceleration measured at the seat attachment during a standard roadway test.</td></tr>
<tr><td>2.13</td><td>‘Vibration ratio’ means the ratio of the weighted vibration acceleration measured on the driver’s seat to that measured at the seat attachment in accordance with point</td></tr>
<tr><td>2.14</td><td>‘Vibration class’ means the class or group of tractors which show the same vibration characteristics.</td></tr>
<tr><td>2.15</td><td>‘Category A tractor’ means a tractor which can be assigned to a given vibration class by reason of similar design features.

The characteristics of these tractors are as follows:

number of axles: two having wheels or rubber tracks on at least one axle

suspension: unsuspended rear axle

Category A tractors shall be divided up into three classes:

<table><tr><td>Class I</td><td>tractors having an unladen mass of up to 3 600;</td></tr><tr><td>Class II</td><td>tractors having an unladen mass of 3 600 — 6 500 kg;</td></tr><tr><td>Class III</td><td>tractors having an unladen mass of more than 6 500 kg.</td></tr></table></td></tr>
<tr><td>2.16</td><td>‘Category B tractor’ means a tractor which cannot be assigned to a vibration class in Category A.</td></tr>
<tr><td>2.17</td><td>‘Seats of the same type’ means seats which do not differ in any essential respects; the only aspects in which the seats may differ being as follows:

— dimensions;

— position and inclination of the backrest;

— inclination of the seat surface;

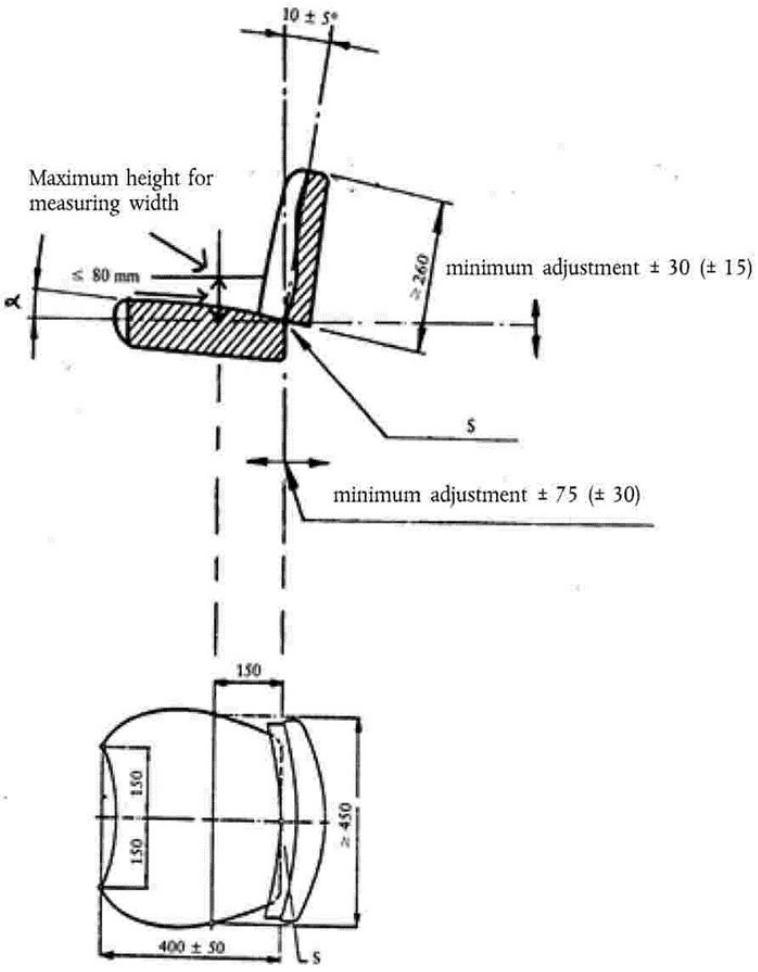
— longitudinal and vertical adjustment of the seat.</td></tr>
<tr><td>2.18</td><td>Seat Belt: Seat belts are one of the operator restraint systems used for securing the driver in motor vehicles.</td></tr>
<tr><td>2.18.1</td><td>The seat belt assembly is any strap or belt device fastened across the lap or pelvic girdle area designed to secure a person in a machine.</td></tr>
</table>

2.18.2	The extension belt is intended as any strap, belt, or similar device that aids in the transfer of seat belt loads.
2.18.3	The anchorage is intended as the point where the seat belt assembly is mechanically attached to the seat system or tractor.
2.18.4	The seat mounting is intended as all intermediary fittings (such as slides, etc.) used to secure the seat to the appropriate part of the tractor.
2.18.5	The Operator Restraint System is intended as the total system composed of seat belt assembly, seat system, anchorages and extension which transfers the seat belt load to the tractor.
2.18.6	Applicable Seat Components comprise all components of the seat whose mass could contribute to loading of the seat mounting (to the vehicle structure) during a roll-over event.
3	**General requirements**
3.1	The driver's seat must be designed to ensure a comfortable position for the driver when controlling and manoeuvring the tractor, and to afford him the utmost protection as regards health and safety.
3.2	The seat must be adjustable in the longitudinal direction and in the height without the use of a tool.
3.3	The seat must be designed to reduce shocks and vibration. It must therefore be well sprung, have good vibration absorption and provide adequate support at the rear and sides. The lateral support is considered adequate if the seat is designed to prevent the driver's body from slipping sideways.
3.3.1	The seat must be suitable for persons of different mass. Any adjustment necessary in order to comply with this requirement must be carried out without the use of tools.
3.4	The seat surface, the backrest, the lateral supports and, where fitted, the removable, folding or fixed armrests, must be padded and the coating material must be washable.
3.5	The Seat Reference Point (S) must be calculated in the manner specified in Appendix 8
3.6	Save as otherwise provided, the measurements and tolerances must comply with the following requirements:
3.6.1	the measurements given must be expressed in whole units, if necessary rounded off to the nearest whole number of units;

3.6.2	the instruments used for making measurements must enable the measured value to be rounded off to the nearest whole unit and must be accurate within the following tolerance limits: — for length: ± 0,5 %, — for angle measurements: ± 1°, — for determination of the mass of the tractor: ± 20 kg, — for measurement of tyre pressure: ± 0,1 bar;
3.6.3	for all data relating to dimensions, a tolerance of ± 5 % is allowed.
3.7	The seat must undergo the following tests, carried out on the same seat and in the order indicated below:
3.7.1	determination of the suspension characteristics and the range of adjustment to the driver's mass;
3.7.2	determination of lateral stability;
3.7.3	Determination of vertical vibration characteristics.
3.7.4	Determination of the damping characteristics in the resonance range
3.8	If the seat is manufactured so that it can revolve about a vertical axis, then tests are carried out with the seat facing the forward position, locked in a position parallel with the median longitudinal plane of the tractor.
3.9	The seat undergoing the above tests must possess the same characteristics with respect to construction and fittings as the seats in series production.
3.10	Before the tests are carried out, the seat must have been run in by the manufacturer.
3.11	A test report, which confirms that the seat has completed all the specified tests without damage and which includes details of the seat vibration characteristics, must be prepared by the test laboratory.
3.12	Seats tested for Class I tractors are suitable only for tractors of that class, whereas seats tested for Class II tractors are suitable for Class I or Class II tractors and seats tested for class III tractors are suitable for class II and III tractors.
3.13	A vehicle equipped with a straddle seat and handlebars is deemed to comply with the requirements of points **3.2 to 3.7** where the straddle seat allows the operator to adjust his position on the seat so that he can effectively operate the control devices and where the vehicle passes the vibration test on the standard roadway as defined in point **4.5.3.**
3.14	As an alternative to the provisions of **point 4.5**, for vehicles of category C with steel tracks, the vibrations transmitted to the driver may be measured according to the specifications of paragraph 5.3.2 of ISO 6395:2008 with the unladen vehicle travelling over a layer of humid sand at a constant speed of 5 km/h (± 0,5 km/h) and with the engine at rated speed. The measurement shall be done following specifications of **point 4.5.3.3**.
3.15	Seat belt (if provided) should meet minimum performance and tests requirements for anchorage as mentioned in Appendix VIII for agricultural and forestry tractors. It applies to the anchorage of pelvic restraint systems.

4.0	**Special requirements**
4.1	Seat surface dimensions
4.1.1	The depth of the seat surface, measured parallel to and at a distance of 150 mm from the median longitudinal plane of the seat, must be 400 ± 50 mm (see figure 1).
4.1.2	The width of the seat surface, measured perpendicular to the median plane of the seat, 150 mm in front of the Seat Reference Point (S) and at not more than 80 mm above that point, must be at least 450 mm (see figure 1).
4.1.3	The depth and width of the surface of seats intended for tractors in which the minimum rear-wheel track width does not exceed 1 150 mm may be reduced to not less than 300 and 400 mm respectively if the design of the tractor prevents compliance with the requirements of points **4.1.1 and 4.1.2.**
4.2	Position and inclination of the backrest
4.2.1	The upper edge of the backrest of the seat must be at least 260 mm above the Seat Reference Point (S) (see figure 1).
4.2.2	The backrest must have an inclination of 10 ± 5° (see figure 1).
4.3	**Inclination of the seat surface**
4.3.1	The inclination towards the rear (see angle α in figure 1) of the surface of the loaded cushion must be 3 to 12° in relation to the horizontal, measured with the loading device in accordance with **Appendix 8.**
4.4	**Seat adjustment (see figure 1)**
4.4.1	**The seat must be adjustable in the longitudinal direction over a minimum distance of :**
	— 150 mm for tractors with a minimum rear-wheel track width of more than 1 150 mm, — 60 mm for tractors with a minimum rear-wheel track width of 1 150 mm or less.
4.4.2	The seat must be adjustable in the vertical direction over a minimum distance of: — 60 mm for tractors with a minimum rear-wheel track width of more than 1 150 mm, — 30 mm for tractors with a minimum rear-wheel track width of 1 150 mm or less.

4.4.3	As an alternative to the requirements set out in points **4.4.1** and **4.4.2**, vehicles not equipped with an adjustable seat shall be equipped with a steering column and pedal(s) adjustable in the longitudinal and vertical directions over the minimum distances set out in points **4.4.1. to 4.4.2.**
	Figure 1 Special requirements of the driver's seat



(Dimensions in millimetres)

4.5	Seat tests
4.5.1	Determination of the suspension characteristics and the range of adjustment to the driver's mass.
4.5.1.1	The suspension characteristics are determined by a static test. The range of adjustment to the driver's mass is calculated from the suspension characteristics. These calculations are not necessary in the case of seats that cannot be manually adjusted to the driver's mass.
4.5.1.2	The seat is mounted on a test stand or on a tractor and a load applied to it, either directly or by means of a special device; this load must not differ by more than 5 N from the nominal load. The measuring error for the suspension travel shall not exceed ± 1 mm. The load must be applied in accordance with the procedure laid down in the Appendix 8.
4.5.1.3	A complete characteristic curve representing the deflection of the suspension system must be plotted from zero load to maximum load, and back to zero. The load graduations at which the suspension travel is measured must not exceed 100 N; at least eight measurement points must be plotted at approximately equal intervals in the suspension travel. The point taken as the maximum load should be either that at which no further suspension travel can be measured, or a load of 1 500 N. After each application or removal of the load, the suspension travel must be measured 200 mm in front of the Seat Reference Point (S) in the median longitudinal plane of the seat surface. After application or removal of the load, the seat must be allowed to return to its at-rest position.
4.5.1.4	In the case of seats with a mass adjustment scale, the characteristic curves representing the deflection of the suspension system are plotted at mass adjustments for drivers having a mass of 50 and 120 kg. In the case of seats without a mass adjustment scale and with adjustment stops, measurements are taken at the lowest and the highest mass adjustment. In the case of seats without a mass adjustment scale or adjustment stops, the adjustment must be so selected that:
4.5.1.4.1	for the lower mass adjustment limit, the seat just returns to the top of the suspension travel when the load is removed, and
4.5.1.4.2	for the upper mass adjustment limit, the load of 1 500 N depresses the seat to the lowest limit of the suspension travel.
4.5.1.5	The mean position of the suspension system is the position which the seat assumes when it is depressed by half the full travel of the suspension system.
4.5.1.6	Since the characteristic curves of the suspension system are generally hysteresis loops, the load must be determined by drawing a centre line through the loop (see definition of point 2.7. and sections A and B of Appendix 1).
4.5.1.7	To determine the limits of the adjustment range as a function of the driver's mass, the vertical forces determined in accordance with point 4.5.1.6 for points A and B (see Appendix 1) must be multiplied by the scale factor 0,13 kg/N.
4.5.2	Determination of lateral stability

4.5.2.1	The seat must be set for the upper limit of the weight adjustment and connected to the test stand or to the tractor in such a way that its base plate rests on a rigid plate (test stand) not smaller than the base plate itself.
4.5.2.2	A test load of 1 000 N is applied to the surface or cushion of the seat. The point of application must lie 200 mm in front of the Seat Reference Point (S) and alternately on the two sides 150 mm from the plane of symmetry through the seat.
4.5.2.3	During application of the load, the variation in the lateral angle of inclination of the seat surface is measured in the end settings for horizontal and vertical seat adjustment. The permanent deformation close to the point of application of the load is not to be taken into consideration.
4.5.3	Determination of the vertical vibration characteristics
	The seat vibration is determined by tests on a test stand and/or a standard roadway depending on whether the seat is intended for a class (or classes) of Category A tractor or for a Category B tractor
4.5.3.1	Testing on the test stand
4.5.3.1.1	The test stand must simulate the vertical vibrations at the point of attachment of the driver's seat. The vibrations are generated by means of an electro-hydraulic device. The set values to be used are either those specified in Appendices 3, 4a and 4b for the class of tractor in question or the double-integrated acceleration signals recorded at the seat attachment of a Category B tractor moving at a speed of 12 ± 0,5 km/h on a standard roadway as defined in point 4.5.3.2.1. To generate the vibrations, an uninterrupted double run of the set values must be used.
	The transition from the end of the sequence of acceleration signals recorded on the standard roadway in the first run to the start of the second run must be smooth and jolt-free. The measurements must not be made during the first run of the set values or of the acceleration signals. More values than the 700 laid down in Appendices 3 and 4a and 4b may be used if these values were calculated, for example, with a cubic Spline function from the original 700 values.
4.5.3.1.2	Besides an attachment for the test seat, the platform must contain a steering wheel and footrest. Its configuration must be as shown in Appendix 5.
4.5.3.1.3	The test stand must have a high degree of flexural and torsional rigidity and its bearings and guides must have no more than the technically necessary clearance. If the platform is carried on an oscillating arm, the dimension R must be not less than 2 000 mm (see Appendix 5). The magnitude of the vibration ratio at frequencies between 0,5 and 5,0 Hz shall be within the range 1,00 ± 0,05, measured at intervals not exceeding 0,5 Hz. The phase shift shall not vary by more than 20° throughout the same frequency range.
4.5.3.2.	Testing on a standard roadway

4.5.3.2.1	The roadway consists of two parallel strips spaced according to the wheel track of the tractor. Both strips must be made of a rigid material, such as wood or concrete, and be formed either of blocks set in a base structure or of a continuous smooth surface. The longitudinal profile of each track strip is defined by the ordinates of elevation in relation to a base level; these ordinates are shown in the tables in Appendix 2. With regard to the roadway, the elevation is defined at intervals of 16 cm along each strip.
	The roadway must be firmly set in the ground and the distance between the strips must deviate only slightly over its entire length; the tractor's wheels must be fully supported at all times. Where the strips are formed of blocks, these must be 6 to 8 cm thick, with a distance of 16 cm between the centres of the blocks. The length of the standard roadway shall be 100 m. The measurements must begin as soon as the axis of the rear axle of the tractor is perpendicular to point D = 0 on the roadway, and end as soon as the axis of the front axle of the tractor is perpendicular to point D = 100 of the test roadway (see the table in Appendix 2).
4.5.3.2.2	Measurements shall be taken at a speed of 12 ± 0,5 km/h.
	The prescribed speed must be maintained without the use of brakes. The vibrations must be measured on the seat and at the point where the seat is attached to the tractor, with a light and a heavy driver.
	The speed of 12 km/h must be reached after a run-up track has been traversed. The surface of this run-up track must be flat and must join the standard roadway without any change in level.
4.5.3.2.3	The seat must be set for the driver's mass in accordance with the manufacturer's instructions
4.5.3.2.4	The tractor must be fitted with a protective frame and/or cab unless of a type for which this equipment is not required. It must not carry any ancillary equipment. Moreover, there must be no ballast on the wheels or framework, and no fluid in the tyres.
4.5.3.2.5	The tyres used during the test must have the standard dimensions and ply-rating, as specified in the manufacturer's instructions. The depth of the tread must not be less than 65 % of the depth of a new tread.
4.5.3.2.6	The side-walls of the tyres must not be damaged. The pressure of the tyre must correspond to the arithmetical mean of the reference pressures recommended by the tyre manufacturer. The wheel track must correspond to that used under normal working conditions for the tractor model on which the seat is fitted.
4.5.3.2.7	The measurements at the point of seat attachment and on the seat itself must be made during the same run.
	For measuring and recording the vibrations, an accelerometer, a measuring amplifier and a magnetic tape recorder or direct-reading vibration meter shall be used. The specifications for these instruments are as laid down in 4.5.3.3.2 to 4.5.3.3.6.

4.5.3.3	Specifications for tests on roadway and test stand
4.5.3.3.1	Driver's mass
	The tests must be carried out with two drivers: one with a total mass of 59 ± 1 kg, of which not more than 5 kg may be carried in a weighting belt around the body; the other with a mass of 98 ± 5 kg with a maximum mass of 8 kg in the weighting belt.
4.5.3.3.2.	Position of the accelerometer
	To measure the vibrations transmitted to the driver, an accelerometer is fixed on a flat plate with a diameter of 250 ± 50 mm, the central part of which must be rigid up to a diameter of 75 mm and must include a rigid device to protect the accelerometer. This plate must be placed in the middle of the seat surface between the seat and the driver and have a non-slip surface.
	To measure the vibrations at the seat attachment, an accelerometer must be fixed near to this attachment at a point not more than 100 mm from the median longitudinal plane of the tractor and not outside the vertical projection of the seat surface on the tractor.
4.5.3.3.3.	Measurement of vibration acceleration
	The accelerometer and the associated amplifying and transmitting equipment must respond to vibrations with an r.m.s. value of 0,05 m/s2, and be capable of measuring vibrations with an r.m.s. value of 5 m/s2 and a crest factor (ratio of peak to r.m.s. value) of 3 without distortion and with a maximum error of ± 2,5 % over the range 1 to 80 Hz.
4.5.3.3.4	Magnetic tape recorder
	If a tape recorder is used, it must have a maximum reproduction error of ± 3,5 % in a frequency range of 1 to 80 Hz, including change of tape speed during replay for analysis.
4.5.3.3.5	Vibration meter
4.5.3.3.5.1	Vibrations of more than 10 Hz may be disregarded. It is therefore permissible to connect upstream of the measuring instrument a low-pass filter with a cut-out frequency of about 10 Hz and an attenuation of 12 dB per octave.
4.5.3.3.5.2	This instrument must incorporate an electronic weighting filter between the sensor and the integrator device. The filter must correspond to the curve shown in Appendix 6 and the margin of error must be ± 0,5 dB in the 2 to 4 Hz frequency band and ± 2 dB for the other frequencies.
4.5.3.3.5.3	The electronic measuring device must be capable of indicating either:
	-- the integral (I) of the square of the weighted vibration acceleration (aw) for a test time
	(T) $I = \left(\int_o^T \right) (a_w)^2 \, dt$
	--- or the square root of that integral
	--- or directly the r.m.s. value of the weighted vibration acceleration
	(a_{weff}) $a_{weff} = \sqrt[2]{I/T} = \left(\sqrt[2]{I} / \sqrt[2]{T} \right)$

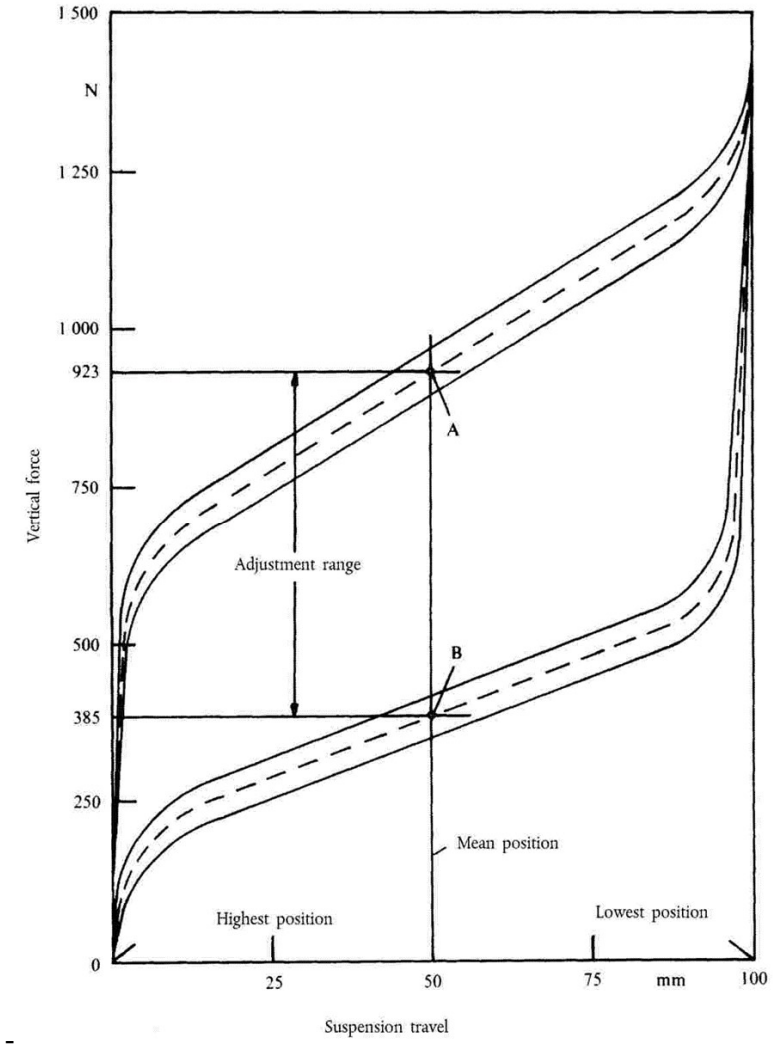
	The inaccuracy of the entire system for measuring the rms value of the acceleration must not exceed ± 5 % of the measured value.
4.5.3.3.6	All instruments must be regularly calibrated.
4.5.3.3.7	Evaluation of vibration tests
4.5.3.3.7.1	During each test, the weighted vibration acceleration for the whole test time must be determined with the vibration meter specified in point 4.5.3.3.5.
4.5.3.3.7.2	The test report must give the arithmetic mean value of the rms values of the weighted seat vibration acceleration (awS) for both the light driver and the heavy driver. The test report must also give the ratio of the arithmetic mean of the rms values of the weighted vibration acceleration measured on the seat (awS) to the arithmetic mean of the rms values of the weighted vibration acceleration measured at the seat attachment (awB). This ratio shall be given to two decimal places.
4.5.3.3.7.3	The ambient temperature during the vibration test must be measured and shown in the report.
4.5.4	Vibration test for tractor seats in accordance with their intended use
4.5.4.1	A seat intended for use on a class (or classes) of Category A tractors must be tested on a vibration stand using the appropriate set value signals.
4.5.4.2	A seat intended for use on a type of Category B tractor must be tested on a standard roadway with a tractor of that type. However, a simulation test may also be carried out using a set value signal corresponding to the acceleration curve which was determined during the standard roadway test with the type of tractor for which the seat is intended.
4.5.4.3	A seat intended for use only on a particular type of Category A tractor may also be tested in accordance with the requirements of 4.5.4.2. In this case, component type-approval will be granted only for the type of tractor for which the test seat is intended.
4.5.5	Procedure used for determining the weighted vibration acceleration of seats intended for Category A tractors
4.5.5.1	The test on the vibration test stand shall be carried out in accordance with point 4.5.3.1. the value awB actually occurring at the seat attachment during measurement must be determined. In the case of deviations from the reference value:
	a*wB = 2,05 m/s2 for class I, category A tractors.
	a*wB = 1,5 m/s2 for class II, category A tractors.
	a*wB = 1,3 m/s2 for class III, category A tractors.
	The acceleration awS measured at the driver's seat must be corrected in accordance with the following equation:
	$\left(a^{*}_{wS}\right) = (a_{wS})\left(a\left(^{*}_{wB}\right) / (a_{wB})\right)$

4.5.5.2	For each of the two drivers provided for in point 4.5.3.3.1, the weighted acceleration of the vibratory movement shall be measured at the seat for 28 seconds in the case of classes I and III, and for 31 seconds in the case of class II. The measurement must begin at the set value signal corresponding to t = 0 seconds and end at the set value signal corresponding to t = 28 or 31 seconds (see table in Appendices 3, 4a and 4b). At least two test runs must be carried out. The measured values must not deviate from the arithmetical mean by more than ± 5 %. Each complete set point sequence must be reproduced in 28 or 31 ± 0,5
4.5.6	Procedure used for determining the weighted vibration acceleration of seats intended for Category B tractors
4.5.6.1	In accordance with the requirements of points 4.5.4.2, the seat vibration tests are not applicable to a class of tractors, but only to each tractor type for which the seat is intended.
4.5.6.2	The standard roadway test must be carried out in accordance with the requirements of points **4.5.3.2 and 4.5.3.3**. The vibration acceleration measured on the driver's seat (awS) need not be corrected. At least two test runs must be carried out on the standard roadway. The measured values must not deviate from the arithmetic mean by more than ± 10 %.
4.5.6.3	If a bench test is conducted, it must be carried out in association with a standard roadway test pursuant to the requirements of points 4.5.3.1 and 4.5.3.3.
4.5.6.4	The vibration test stand shall be adjusted in such a way that the rms value of the weighted vibration acceleration recorded at the seat attachment (awB) deviates by less than ± 5 % from the rms value of the weighted vibration acceleration at the seat attachment recorded on the standard roadway (a*wF).
	In the event of deviations from the value (awF*) measured at the seat attachment during the test run, the weighted vibration acceleration recorded at the driver's seat during the test on the test stand must be corrected as follows:
	$\left(a^{*}_{wS}\right) = (a_{wS})\left(\left(a^{*}_{wF}\right) / (a_{wB})\right)$
	Each of the tests on the test stand must be carried out twice. The measured values must not deviate from the arithmetic mean by more than ± 5 %.
4.5.7	Test for determining the damping characteristics in the resonance range
4.5.7.1	This test is carried out on the test stand as specified in point 4.5.3.1. However, account must be taken of the following:
4.5.7.2	Instead of the set values specified in the second paragraph of point 4.5.3.1.1 (see Appendices 3, 4a and 4b), sinusoidal oscillations of ± 15 mm amplitude with a frequency of 0,5 to 2 Hz are generated. The frequency range is to be run through with a constant rate of frequency change in not less than 60 seconds or at intervals no greater than 0,05 Hz with increasing frequency, and in an identical manner with decreasing frequency. During this measurement, it is permissible to filter the signals emitted by the accelerometers through a bandpass filter with cut-off frequencies of 0,5 and 2,0 Hz.

4.5.7.3	The seat is to be loaded with a ballast of 40 kg in the first test and with a mass of 80 kg in the second test; the ballast is to be applied on the device illustrated in Figure 1 of Appendix 8, with the same line of action of the force as when determining the Seat Reference Point (S).
4.5.7.4	The ratio of the rms values of the vibration acceleration on the seat surface awS to those at the seat attachment awB:
	$V = (a_{wS}) / (a_{wB})$
	is to be determined in the frequency range from 0,5 to 2,0 Hz at intervals no greater than 0,05 Hz.
4.5.7.5	The ratio measured must be given in the test report to two decimal places.
5	Application of Approval
5.1	Manufacturer / Importer has to submit the application for type approval for driver's seat & / or seat belt anchorages in format mentioned in Appendix X & Appendix 11 respectively .
5.2	After verifying the application , manufacturer will submit minimum 2 Nos of samples driver's seat & seat belt anchorage to the test agency after necessary run in .
5.3	Test agency will verify the samples submitted against the requirement mentioned in this standard & issue the type approval number to the manufacture.
6	Markings
6.1	On receipt of type approval number from test agency , manufacturer will declare the location of affixing the type approval mark on the driver's seat & seat belt anchorages .
6.2	Manufacturer should display following on the type approved component either engraved on the seat or marked / engraved /pasted on compliance plate attached to seat :- (1) Make (2) Type approval Number
7.0	Transitional provisions
	Required or not to be discussed .
8.0	Extension of type approval
8.1	Manufacturer / Applicant may submit the application of extension for change in technical specification along with drawings & details of change in specification parameters . test agency shall go through the document & decide the method of extension , i.e Testing is required to establish the compliance or administratively extension can be issued. Any criteria of extension to be added – to be discussed with members .
9.0	Establishing compliance of "E"/"e"/OECD Code 3 / approved driver's seat / Seat belt

<table>
<tr><td></td><td>If manufacturer already has compliance test report as per equivalent international standard the test agency may issue administrative extension after verification of test results of already submitted approval . No testing will be required if test report /certificate as tabulated below is submitted :-
<table>
<tr><td>S.No</td><td>Component / STU</td><td>Equivalent International Standard</td></tr>
<tr><td>1</td><td>Driver’s Seat</td><td>Annexure XXIII to RVFSR 1322/2014</td></tr>
<tr><td>2</td><td>Seat Belt Anchorage</td><td>OECD code 3 / UNECE Regulation No 14 (OJ L 109, 28.4.2011, p. 1)</td></tr>
</table>
TO be discussed and concluded internally.</td></tr>
<tr><td></td><td>Appendix 1

Determination of the characteristics curves of the suspension system and the load adjustment range (point 4.5.1)</td></tr>
</table>


1 500
N
1 250
1 000
923
750
500
385
250
0
Vertical force
A
B
Adjustment range
Mean position
Highest position
Lowest position
25
50
75
mm
100
Suspension travel

	Appendix 2 Test on standard roadway
	Table of elevation ordinates in relation to a basic level defining the surface of each strip of the roadway (point 4.5.3.2.1) D = distance from the beginning of the standard roadway (in metres) L = ordinate of the left-hand strip (mm) R = ordinate of the right-hand strip (mm)

D	L	R
0	115	140
0·16	110	125
0·32	110	140
0·48	115	135
0·64	120	135
0·80	120	125
0·96	125	135
1·12	120	125
1·28	120	115
1·44	115	110
1·60	110	100
1·76	110	110
1·92	110	110
2·08	115	115
2·24	110	110
2·40	100	110
2·56	100	100
2·72	95	110
2·88	95	95
3·04	90	95
3·20	90	100
3·36	85	100
3·52	90	100
3·68	90	115
3·84	95	110
4·00	90	110
4·16	90	95
4·32	95	100

D	L	R
4·48	100	100
4·64	100	90
4·90	90	90
4·96	90	90
5·12	95	90
5·28	95	70
5·44	95	65
5·60	90	50
5·76	95	50
5·92	85	50
6·08	85	55
6·24	75	55
6·40	75	55
6·56	70	65
6·72	75	75
6·88	65	75
7·04	65	85
7·20	65	90
7·36	75	95
7·52	75	100
7·68	95	95
7·84	115	110
8·00	115	100
8·16	125	110
8·32	110	100
8·48	110	100
8·64	110	95
8·80	110	95
8·96	110	95

D	L	R
9·12	110	100
9·28	125	90
9·44	120	100
9·60	135	95
9·76	120	95
9·92	120	95
10·08	120	95
10·24	115	85
10·40	115	90
10·56	115	85
10·72	115	90
10·88	120	90
11·04	110	75
11·20	110	75
11·36	100	85
11·52	110	85
11·68	95	90
11·84	95	90
12·00	95	85
12·16	100	95
12·32	100	90
12·48	95	85
12·64	95	85
12·80	95	90
12·96	85	90
13·12	85	85
13·28	75	90
13·44	75	95
13·60	75	90

D	L	R
13·76	70	75
13·92	70	90
14·08	70	100
14·24	70	110
14·40	65	95
14·56	65	100
14·72	65	90
14·88	65	90
15·04	65	85
15·20	55	85
15·36	65	85
15·52	65	85
15·68	55	75
15·84	55	85
16·00	65	75
16·16	55	85
16·32	50	75
16·48	55	75
16·64	65	75
16·80	65	75
16·96	65	85
17·12	65	70
17·28	65	65
17·44	65	75
17·60	65	75
17·76	50	75
17·92	55	85
18·08	55	85
18·24	65	85

D	L	R
18·40	70	75
18·56	75	75
18·72	95	75
18·88	90	75
19·04	90	70
19·20	95	70
19·36	85	70
19·52	85	75
19·68	75	85
19·84	85	85
20·00	75	90
20·16	85	85
20·32	75	70
20·48	70	75
20·64	65	75
20·80	70	75
20·96	65	75
21·12	70	75
21·28	70	85
21·44	70	85
21·60	70	90
21·76	75	95
21·92	75	95
22·08	75	90
22·24	85	90
22·40	85	95
22·58	90	85
22·72	90	85
22·88	95	85

▼B

D	L	B
23·04	95	85
23·20	100	85
23·36	100	75
23·52	110	85
23·68	110	85
23·84	110	85
24·00	100	75
24·16	100	75
24·32	95	70
24·48	100	70
24·64	100	70
24·80	115	75
24·96	110	75
25·12	110	85
25·28	100	75
25·44	110	95
25·60	100	95
25·76	115	100
25·92	115	100
26·08	110	95
26·24	115	95
26·40	110	95
26·56	100	95
26·72	100	95
26·88	100	100
27·04	100	95
27·20	100	95
27·36	110	90
27·52	115	90
27·68	115	85
27·84	110	90
28·00	110	85
28·16	110	85
28·32	100	85
28·48	100	90
28·64	90	85
28·80	90	75

D	L	B
28·96	75	90
29·12	75	75
29·28	75	75
29·44	70	75
29·60	75	75
29·76	75	85
29·92	85	75
30·08	75	75
30·24	85	75
30·40	75	75
30·56	70	75
30·72	75	75
30·88	85	75
31·04	90	75
31·20	90	85
31·36	100	75
31·52	100	75
31·68	120	85
31·84	115	75
32·00	120	85
32·16	120	85
32·32	135	90
32·48	145	95
32·64	160	95
32·80	165	90
32·96	155	90
33·12	145	90
33·28	140	95
33·44	140	85
33·60	140	85
33·76	125	75
33·92	125	75
34·08	115	85
34·24	120	75
34·40	125	75
34·56	115	85
34·72	115	75

D	L	B
34·88	115	90
35·04	115	100
35·20	120	100
35·36	120	100
35·52	135	95
35·68	135	95
35·84	135	95
36·00	135	90
36·16	120	75
36·32	115	75
36·48	110	70
36·64	100	65
36·80	110	55
36·96	115	55
37·12	100	50
37·28	115	50
37·44	110	50
37·60	100	65
37·76	90	55
37·92	95	55
38·08	90	55
38·24	90	55
38·40	110	55
38·56	100	55
38·72	115	55
38·88	100	55
39·04	100	55
39·20	110	50
39·36	110	45
39·52	110	50
39·68	100	55
39·84	110	50
40·00	90	55
40·16	85	55
40·32	90	65
40·48	90	65
40·64	90	70

D	L	B
40·80	95	75
40·96	95	75
41·12	95	75
41·28	90	90
41·44	90	95
41·60	85	95
41·76	85	100
41·92	90	100
42·08	90	95
42·24	85	100
42·40	85	110
42·56	95	110
42·72	95	115
42·88	95	115
43·04	100	100
43·20	100	95
43·36	100	95
43·52	100	90
43·68	110	95
43·84	100	100
44·00	110	90
44·16	100	85
44·32	110	90
44·48	110	85
44·64	100	85
44·80	100	90
44·96	95	90
45·12	90	95
45·28	90	100
45·44	95	100
45·60	90	90
45·76	85	90
45·92	75	90
46·08	85	90
46·24	75	90
46·40	75	90
46·54	75	90

D	L	B
46·72	85	90
46·88	85	85
47·04	90	85
47·20	75	85
47·36	65	75
47·52	70	70
47·68	70	75
47·84	70	75
48·00	75	85
48·16	90	95
48·32	95	95
48·48	100	120
48·64	110	100
48·30	115	100
48·96	115	115
49·12	120	115
49·28	120	110
49·44	115	95
49·60	115	90
49·76	115	90
49·92	110	95
50·08	110	100
50·24	100	110
50·40	100	120
50·56	95	120
50·72	95	115
50·88	95	120
51·04	95	120
51·20	90	135
51·36	95	125
51·52	95	120
51·68	100	120
51·84	100	120
52·00	100	120
52·16	100	125
52·32	110	125
52·48	110	125

▼B

D	L	R
52·64	100	125
52·80	100	120
52·96	100	120
53·12	110	115
53·28	100	110
53·44	110	110
53·60	95	110
53·76	95	110
53·92	100	110
54·08	95	100
54·24	100	100
54·40	100	100
54·56	100	100
54·72	95	100
54·88	100	100
55·04	100	115
55·20	110	115
55·36	100	110
55·52	110	100
55·68	100	110
55·84	100	110
56·00	100	110
56·16	95	115
56·32	90	110
56·48	95	110
56·64	95	110
56·80	90	100
56·96	100	100
57·12	100	95
57·28	95	100
57·44	100	100
57·60	95	115
57·76	85	110
57·92	90	115
58·08	90	110
58·24	90	100
58·40	85	95

D	L	R
58·56	90	95
58·72	85	90
58·88	90	90
59·04	90	95
59·20	90	115
59·36	90	115
59·52	90	115
59·68	85	110
59·84	75	110
60·00	90	115
60·16	90	120
60·32	90	120
60·48	90	120
60·64	95	120
60·80	95	120
60·96	90	120
61·12	90	115
61·28	95	110
61·44	95	110
61·60	100	100
61·76	110	100
61·92	100	100
62·08	100	100
62·24	95	100
62·40	95	100
62·56	95	100
62·72	90	100
62·88	90	100
63·04	90	100
63·20	90	90
63·36	90	90
63·52	85	90
63·68	85	90
63·84	75	85
64·00	75	85
64·16	75	75
64·32	75	75

D	L	R
64·48	70	75
64·64	70	70
64·80	70	55
64·96	70	45
65·12	65	55
65·28	65	55
65·44	65	65
65·60	55	70
65·76	55	75
65·92	55	75
66·08	55	75
66·24	55	85
66·46	55	85
66·56	65	90
66·72	70	90
66·88	70	110
67·04	65	100
67·20	55	100
67·36	65	100
67·52	50	100
67·68	50	85
67·84	50	90
68·00	50	100
68·16	55	100
68·32	55	95
68·48	65	90
68·64	50	85
68·80	50	70
68·96	50	70
69·12	50	65
69·28	50	55
69·44	45	50
69·60	35	50
69·76	35	55
69·92	35	65
70·08	35	65

D	L	R
70·24	35	65
70·40	35	55
70·58	45	55
70·72	50	55
70·88	50	50
71·04	50	45
71·20	50	45
71·36	50	50
71·52	45	45
71·68	45	55
71·84	55	65
72·00	55	65
72·16	70	65
72·32	70	75
72·48	75	85
72·64	75	85
72·80	75	90
72·96	85	95
73·12	90	100
73·28	90	110
73·44	90	115
73·60	90	120
73·76	90	115
73·92	90	115
74·08	110	115
74·24	100	100
74·40	100	110
74·56	100	110
74·72	95	115
74·88	95	120
75·04	95	125
75·20	95	135
75·36	100	135
75·52	100	140
75·68	100	140
75·84	100	140
76·00	110	135

D	L	R
76·16	100	125
76·32	100	125
76·48	100	125
76·64	110	125
76·80	115	125
76·96	120	125
77·12	120	125
77·28	120	135
77·44	110	125
77·60	100	125
77·76	120	135
77·92	120	125
78·03	120	125
78·24	115	125
78·40	115	120
78·56	115	120
78·72	110	120
78·88	100	120
79·04	100	120
79·20	95	120
79·36	95	120
79·52	95	125
79·68	95	125
79·84	100	120
80·00	95	125
80·16	95	125
80·32	95	125
80·48	100	120
80·64	100	125
80·80	100	125
80·96	110	125
81·12	115	135
81·28	110	140
81·44	115	140
81·60	110	140
81·76	115	140
81·92	110	140

▼B

D	L	R
82·08	110	140
82·24	110	135
82·40	110	135
82·56	100	125
87·72	110	125
82·88	110	125
83·04	100	125
83·20	100	120
83·36	100	125
83·52	100	120
83·68	100	135
83·84	95	140
84·00	100	135
84·16	110	140
84·32	110	140
84·48	110	140
84·64	110	140
84·80	120	155
84·96	115	145
85·12	115	155
85·28	120	160
85·44	120	165
85·60	120	160

D	L	R
85·76	125	165
85·92	135	160
86·08	135	160
86·24	125	155
86·40	125	155
86·56	120	145
86·72	120	145
86·98	110	140
87·04	110	140
87·20	110	140
87·36	110	140
87·52	110	140
87·68	100	135
87·84	100	135
88·00	100	135
88·16	100	125
88·32	110	120
88·48	115	120
88·64	110	120
88·80	110	125
88·96	100	125
89·12	100	125
89·28	95	125

D	L	R
89·44	95	125
89·60	100	120
89·76	100	135
89·92	110	140
90·08	110	135
90·24	110	140
90·40	100	145
90·56	100	155
90·72	110	155
90·88	110	155
91·04	100	155
91·20	110	155
91·36	110	160
91·52	115	160
91·68	110	155
91·84	115	155
92·00	115	140
92·16	115	155
92·32	120	155
92·48	125	145
92·64	125	155
92·80	125	155
92·96	120	155

D	L	R
93·12	120	145
93·28	120	145
93·44	115	145
93·60	120	145
93·76	115	140
93·92	115	140
94·08	115	140
94·24	115	140
94·40	115	140
94·56	115	140
94·72	115	135
94·88	115	135
95·04	110	135
95·20	110	135
95·36	110	135
95·52	115	135
95·68	100	140
95·84	95	135
96·00	100	125
96·16	95	125
96·32	95	125
96·48	95	125
96·64	110	125

D	L	R
96·80	95	120
96·96	95	120
97·12	95	120
97·28	95	110
97·44	100	115
97·60	110	120
97·76	110	115
97·92	100	115
98·08	95	115
98·24	100	115
98·40	95	115
98·52	100	115
98·72	100	110
98·88	110	100
99·04	95	95
99·20	90	100
99·36	90	100
93·52	75	110
99·68	75	115
99·84	75	115
100·00	75	110

Appendix 3

Set-value signals for the test-stand inspection of the driver's seat on Category A (Class I) tractors (point 4.5.3.1.1)

PS = set point
a = amplitude of the required value signal in 10–4 m,
t = measurement time in seconds

When the sequence of signals is repeated in the table for 701 points, points 700 and 0 coincide in time at an amplitude of a = 0:

PS No	a 10^{-4} m	t s
0	0 000	0
1	0 344	0·04
2	0 333	0·08
3	0 272	
4	0 192	
5	0 127	
6	0 115	
7	0 169	
8	0 243	
9	0 298	
10	0 320	
11	0 270	
12	0 191	
13	0 124	
14	0 057	
15	0 027	
16	0 004	
17	– 0 013	
18	– 0 039	
19	– 0 055	
20	– 0 056	
21	– 0 059	
22	– 0 068	
23	– 0 104	
24	– 0 134	
25	– 0 147	1·0

PS No	a 10^{-4} m	t s
26	– 0 144	
27	– 0 143	
28	– 0 155	
29	– 0 179	
30	– 0 181	
31	– 0 155	
32	– 0 139	
33	– 0 141	
34	– 0 170	
35	– 0 221	
36	– 0 259	
37	– 0 281	
38	– 0 268	
39	– 0 258	
40	– 0 285	
41	– 0 348	
42	– 0 437	
43	– 0 509	
44	– 0 547	
45	– 0 562	
46	– 0 550	
47	– 0 550	
48	– 0 576	
49	– 0 622	
50	– 0 669	2·0
51	– 0 689	
52	– 0 634	
53	– 0 542	

PS No	a 10^{-4} m	t s
54	– 0 429	
55	– 0 314	
56	– 0 282	
57	– 0 308	
58	– 0 373	
59	– 0 446	
60	– 0 469	
61	– 0 465	
62	– 0 417	
63	– 0 352	
64	– 0 262	
65	– 0 211	
66	– 0 180	
67	– 0 182	
68	– 0 210	
69	– 0 222	
70	– 0 210	
71	– 0 186	
72	– 0 141	
73	– 0 088	
74	– 0 033	
75	0 000	3·0
76	0 001	
77	– 0 040	
78	– 0 098	
79	– 0 130	
80	– 0 115	
81	– 0 068	

PS No	a 10^{-4} m	t s
82	– 0 036	
83	– 0 032	
84	– 0 050	
85	– 0 052	
86	– 0 039	
87	– 0 011	
88	0 014	
89	0 041	
90	0 054	
91	0 040	
92	0 006	
93	– 0 000	
94	0 025	
95	0 065	
96	0 076	
97	0 054	
98	– 0 016	
99	– 0 066	
100	– 0 048	4·0
101	– 0 011	
102	0 061	
103	0 131	
104	0 168	
105	0 161	
106	0 131	
107	0 086	
108	0 067	
109	0 088	

PS No	a 10^{-4} m	t s
110	0 110	
111	0 148	
112	0 153	
113	0 139	
114	0 119	
115	0 099	
116	0 091	
117	0 078	
118	0 059	
119	0 062	
120	0 072	
121	0 122	
122	0 155	
123	0 191	
124	0 184	
125	0 143	5·0
126	0 087	
127	0 029	
128	0 010	
129	0 025	
130	0 074	
131	0 106	
132	0 115	
133	0 090	
134	0 048	
135	0 038	
136	0 066	
137	0 116	

▼B

PS No	a 10^{-4} m	t s	PS No	a 10^{-4} m	t s	PS No	a 10^{-4} m	t s	PS No	a 10^{-4} m	t s	PS No	a 10^{-4} m	t s
138	0 180		174	0 321		210	0 270		246	0 053		282	– 0 011	
139	0 229		175	0 399	7·0	211	0 285		247	0 020		283	– 0 052	
140	0 212		176	0 411		212	0 285		248	0 016		284	– 0 143	
141	0 157		177	0 373		213	0 258		249	0 041		285	– 0 241	
142	0 097		178	0 281		214	0 223		250	0 090	10·0	286	– 0 330	
143	0 055		179	0 179		215	0 194		251	0 136		287	– 0 343	
144	0 073		180	0 109		216	0 165		252	0 151		288	– 0 298	
145	0 175		181	0 094		217	0 132		253	0 123		289	– 0 235	
146	0 287		182	0 136		218	0 106		254	0 070		290	– 0 203	
147	0 380		183	0 206		219	0 077		255	0 034		291	– 0 249	
148	0 406		184	0 271		220	0 065		256	– 0 001		292	– 0 356	
149	0 338		185	0 267		221	0 073		257	– 0 010		293	– 0 448	
150	0 238	6·0	186	0 203		222	0 099		258	– 0 031		294	– 0 486	
151	0 151		187	0 091		223	0 114		259	– 0 061		295	– 0 444	
152	0 080		188	0 009		224	0 111		260	– 0 086		296	– 0 343	
153	0 090		189	0 006		225	0 083	9·0	261	– 0 104		297	– 0 240	
154	0 146		190	0 074		226	0 026		262	– 0 103		298	– 0 215	
155	0 196		191	0 186		227	– 0 028		263	– 0 093		299	– 0 277	
156	0 210		192	0 280		228	– 0 052		264	– 0 074		300	– 0 399	12·0
157	0 222		193	0 342		229	– 0 069		265	– 0 056		301	– 0 527	
158	0 184		194	0 330		230	– 0 077		266	– 0 039		302	– 0 585	
159	0 147		195	0 265		231	– 0 067		267	– 0 000		303	– 0 569	
160	0 115		196	0 184		232	– 0 095		268	0 033		304	– 0 479	
161	0 114		197	0 118		233	– 0 128		269	0 067		305	– 0 363	
162	0 140		198	0 105		234	– 0 137		270	0 097		306	– 0 296	
163	0 198		199	0 128		235	– 0 144		271	0 085		307	– 0 299	
164	0 257		200	0 174	8·0	236	– 0 131		272	0 034		308	– 0 374	
165	0 281		201	0 215		237	– 0 155		273	0 002		309	– 0 466	
166	0 276		202	0 229		238	– 0 208		274	– 0 050		310	– 0 528	
167	0 236		203	0 221		239	– 0 266		275	– 0 080	11·0	311	– 0 520	
168	0 201		204	0 199		240	– 0 285		276	– 0 096		312	– 0 432	
169	0 167		205	0 164		241	– 0 276		277	– 0 121		313	– 0 320	
170	0 145		206	0 162		242	– 0 205		278	– 0 116		314	– 0 244	
171	0 115		207	0 174		243	– 0 110		279	– 0 092		315	– 0 237	
172	0 165		208	0 210		244	– 0 020		280	– 0 060		316	– 0 310	
173	0 242		209	0 242		245	0 041		281	– 0 018		317	– 0 413	

▼B

PS No	a 10^{-4} m	t s
318	– 0·462	
319	– 0·456	
320	– 0·351	
321	– 0·181	
322	– 0·045	
323	0·013	
324	– 0·037	
325	– 0·160	13·0
326	– 0·247	
327	– 0·258	
328	– 0·187	
329	– 0·069	
330	0·044	
331	0·078	
332	0·061	
333	– 0·012	
334	– 0·102	
335	– 0·127	
336	– 0·103	
337	– 0·045	
338	0·039	
339	0·094	
340	0·107	
341	0·058	
342	– 0·011	
343	– 0·078	
344	– 0·093	
345	– 0·068	
346	– 0·025	
347	0·021	
348	0·008	
349	– 0·016	
350	– 0·038	14·0
351	– 0·024	
352	0·041	
353	0·135	
354	0·196	
355	0·171	
356	0·053	
357	– 0·111	
358	– 0·265	
359	– 0·348	
360	– 0·336	
361	– 0·258	
362	– 0·155	
363	– 0·059	
364	– 0·056	
365	– 0·123	
366	– 0·187	
367	– 0·218	
368	– 0·136	
369	0·012	
370	0·149	
371	0·212	
372	0·153	
373	0·021	
374	– 0·104	
375	– 0·160	15·0
376	– 0·142	
377	– 0·027	
378	0·099	
379	0·186	
380	0·174	
381	0·085	
382	– 0·031	
383	– 0·086	
384	– 0·069	
385	0·012	
386	0·103	
387	0·164	
388	0·129	
389	0·047	
390	– 0·055	
391	– 0·097	
392	– 0·056	
393	0·043	
394	0·162	
395	0·220	
396	0·205	
397	0·129	
398	0·053	
399	0·022	
400	0·052	16·0
401	0·114	
402	0·175	
403	0·191	
404	0·172	
405	0·138	
406	0·092	
407	0·052	
408	0·051	
409	0·025	
410	0·001	
411	– 0·026	
412	– 0·065	
413	– 0·073	
414	– 0·038	
415	– 0·001	
416	0·029	
417	0·030	
418	– 0·005	
419	– 0·045	
420	– 0·068	
421	– 0·093	
422	– 0·075	
423	– 0·067	
424	– 0·051	
425	– 0·049	17·0
426	– 0·059	
427	– 0·077	
428	– 0·107	
429	– 0·143	
430	– 0·141	
431	– 0·142	
432	– 0·106	
433	– 0·080	
434	– 0·050	
435	– 0·030	
436	– 0·014	
437	– 0·017	
438	– 0·031	
439	– 0·037	
440	– 0·068	
441	– 0·113	
442	– 0·167	
443	– 0·203	
444	– 0·191	
445	– 0·135	
446	– 0·047	
447	0·028	
448	0·052	
449	– 0·031	
450	– 0·108	18·0
451	– 0·157	
452	– 0·155	
453	– 0·081	
454	– 0·012	
455	0·053	
456	0·085	
457	0·054	
458	0·002	
459	– 0·026	
460	– 0·034	
461	– 0·014	
462	0·031	
463	0·061	
464	0·098	
465	0·123	
466	0·103	
467	0·078	
468	0·046	
469	0·042	
470	0·044	
471	0·072	
472	0·109	
473	0·133	
474	0·138	
475	0·125	19·0
476	0·095	
477	0·105	
478	0·129	
479	0·181	
480	0·206	
481	0·200	
482	0·168	
483	0·140	
484	0·149	
485	0·186	
486	0·237	
487	0·242	
488	0·207	
489	0·130	
490	0·055	
491	0·015	
492	0·014	
493	0·036	
494	0·054	
495	0·056	
496	0·022	
497	– 0·032	

▼B

PS No	a 10^{-4} m	t s
498	– 0·076	
499	– 0·108	
500	– 0·099	20·0
501	– 0·029	
502	0·051	
503	0·138	
504	0·199	
505	0·213	
506	0·184	
507	0·139	
508	0·062	
509	0·027	
510	0·030	
511	0·067	
512	0·146	
513	0·247	
514	0·314	
515	0·330	
516	0·289	
517	0·224	
518	0·179	
519	0·184	
520	0·216	
521	0·229	
522	0·210	
523	0·130	
524	0·062	
525	0·006	21·0
526	– 0·004	
527	0·004	
528	0·018	
529	0·031	
530	0·020	
531	0·014	
532	– 0·011	
533	– 0·022	

PS No	a 10^{-4} m	t s
534	– 0·029	
535	– 0·042	
536	– 0·066	
537	– 0·120	
538	– 0·188	
539	– 0·241	
540	– 0·252	
541	– 0·243	
542	– 0·212	
543	– 0·183	
544	– 0·170	
545	– 0·189	
546	– 0·233	
547	– 0·286	
548	– 0·311	
549	– 0·280	
550	– 0·215	22·0
551	– 0·128	
552	– 0·038	
553	– 0·018	
554	– 0·024	
555	– 0·052	
556	– 0·055	
557	– 0·033	
558	0·013	
559	0·061	
560	0·079	
561	0·060	
562	0·024	
563	– 0·013	
564	– 0·027	
565	– 0·018	
566	0·011	
567	0·064	
568	0·111	
569	0·171	

PS No	a 10^{-4} m	t s
570	0·238	
571	0·285	
572	0·295	
573	0·261	
574	0·201	
575	0·145	23·0
576	0·142	
577	0·163	
578	0·222	
579	0·284	
580	0·334	
581	0·342	
582	0·301	
583	0·240	
584	0·205	
585	0·216	
586	0·257	
587	0·326	
588	0·363	
589	0·380	
590	0·358	
591	0·303	
592	0·273	
593	0·341	
594	0·249	
595	0·252	
596	0·245	
597	0·244	
598	0·225	
599	0·212	
600	0·189	24·0
601	0·160	
602	0·130	
603	0·118	
604	0·104	
605	0·081	

PS No	a 10^{-4} m	t s
606	0·040	
607	– 0·004	
608	– 0·040	
609	– 0·057	
610	– 0·049	
611	– 0·021	
612	0·011	
613	0·033	
614	0·038	
615	0·027	
616	0·019	
617	0·024	
618	0·040	
619	0·069	
620	0·082	
621	0·086	
622	0·068	
623	0·056	
624	0·036	
625	0·006	25·0
626	– 0·015	
627	– 0·049	
628	– 0·071	
629	– 0·075	
630	– 0·078	
631	– 0·074	
632	– 0·069	
633	– 0·094	
634	– 0·116	
635	– 0·150	
636	– 0·178	
637	– 0·188	
638	– 0·198	
639	– 0·194	
640	– 0·187	
641	– 0·170	

PS No	a 10^{-4} m	t s
642	– 0·161	
643	– 0·154	
644	– 0·140	
645	– 0·115	
646	– 0·055	
647	0·001	
648	0·040	
649	0·085	
650	0·094	26·0
651	0·071	
652	0·039	
653	– 0·001	
654	– 0·027	
655	– 0·025	
656	0·000	
657	0·028	
658	0·045	
659	0·019	
660	– 0·032	
661	– 0·101	
662	– 0·162	
663	– 0·198	
664	– 0·193	
665	– 0·149	
666	– 0·096	
667	– 0·075	
668	– 0·086	
669	– 0·151	
670	– 0·246	
671	– 0·329	
672	– 0·382	
673	– 0·392	
674	– 0·340	
675	– 0·286	27·0
676	– 0·249	
677	– 0·245	

▼B

PS No	a 10^{-4} m	t s
678	– 0 298	
679	– 0 348	
680	– 0 366	
681	– 0 330	
682	– 0 247	

PS No	a 10^{-4} m	t s
683	– 0 175	
684	– 0 135	
685	– 0 149	
686	– 0 165	
687	– 0 178	

PS No	a 10^{-4} m	t s
688	– 0 142	
689	– 0 097	
690	– 0 067	
691	– 0 051	
692	– 0 071	

PS No	a 10^{-4} m	t s
693	– 0 101	
694	– 0 110	
695	– 0 091	
696	– 0 043	
697	0 020	

PS No	a 10^{-4} m	t s
698	0 061	
699	0 064	
700	0 036	28·0

Appendix 4a

Set-value signals for the test-stand inspection of the driver's seat on Category A (Class II) tractors (point 4.5.3.1.1)

PS = set point

a = amplitude of the required value signal in 10–4 m

t = measurement time in seconds

When the sequence of signals is repeated in the table for 701 points, points 700 and 0 coincide in time at an amplitude of a = 0:

PS No	a 10^{-4} m	t s
0	0 000	0
1	0 156	0·04
2	0 147	0·08
3	0 144	
4	0 162	
5	0 210	
6	0 272	
7	0 336	
8	0 382	
9	0 404	
10	0 408	
11	0 376	
12	0 324	
13	0 275	
14	0 226	
15	0 176	
16	0 141	
17	0 126	
18	0 144	
19	0 180	
20	0 205	
21	0 198	
22	0 184	
23	0 138	
24	0 102	
25	0 068	1·0

PS No	a 10^{-4} m	t s
26	0 050	
27	0 055	
28	0 078	
29	0 120	
30	0 184	
31	0 209	
32	0 224	
33	0 206	
34	0 157	
35	0 101	
36	0 049	
37	– 0 002	
38	– 0 038	
39	– 0 068	
40	– 0 088	
41	– 0 100	
42	– 0 110	
43	– 0 151	
44	– 0 183	
45	– 0 234	
46	– 0 303	
47	– 0 364	
48	– 0 410	
49	– 0 407	
50	– 0 367	2·0
51	– 0 289	

PS No	a 10^{-4} m	t s
52	– 0 180	
53	– 0 081	
54	– 0 000	
55	– 0 011	
56	– 0 070	
57	– 0 168	
58	– 0 256	
59	– 0 307	
60	– 0 302	
61	– 0 249	
62	– 0 157	
63	– 0 056	
64	0 013	
65	0 044	
66	0 025	
67	– 0 026	
68	– 0 077	
69	– 0 115	
70	– 0 131	
71	– 0 102	
72	– 0 031	
73	0 035	
74	0 078	
75	0 057	3·0
76	0 000	
77	– 0 069	

PS No	a 10^{-4} m	t s
78	– 0 124	
79	– 0 143	
80	– 0 129	
81	– 0 091	
82	– 0 045	
83	– 0 004	
84	– 0 004	
85	– 0 016	
86	– 0 047	
87	– 0 080	
88	– 0 083	
89	– 0 080	
90	– 0 060	
91	– 0 029	
92	– 0 013	
93	– 0 004	
94	– 0 039	
95	– 0 100	
96	– 0 171	
97	– 0 218	
98	– 0 226	
99	– 0 190	
100	– 0 116	4·0
101	– 0 054	
102	– 0 001	
103	– 0 001	

PS No	a 10^{-4} m	t s
104	– 0 045	
105	– 0 126	
106	– 0 191	
107	– 0 223	
108	– 0 206	
109	– 0 168	
110	– 0 122	
111	– 0 095	
112	– 0 101	
113	– 0 114	
114	– 0 161	
115	– 0 212	
116	– 0 254	
117	– 0 273	
118	– 0 258	
119	– 0 211	
120	– 0 169	
121	– 0 125	
122	– 0 115	
123	– 0 127	
124	– 0 156	
125	– 0 185	5·0
126	– 0 232	
127	– 0 256	
128	– 0 260	
129	– 0 260	

▼B

PE No	a 10^{-4} m	t s
130	– 0 247	
131	– 0 228	
132	– 0 204	
133	– 0 192	
134	– 0 179	
135	– 0 144	
136	– 0 129	
137	– 0 117	
138	– 0 131	
139	– 0 154	
140	– 0 164	
141	– 0 160	
142	– 0 128	
143	– 0 059	
144	0 015	
145	0 074	
146	0 034	
147	0 042	
148	– 0 034	
149	– 0 101	
150	– 0 147	6·0
151	– 0 141	
152	– 0 091	
153	– 0 031	
154	0 017	
155	0 027	
156	– 0 012	
157	– 0 058	
158	– 0 127	
159	– 0 151	
160	– 0 125	
161	– 0 049	
162	0 045	
163	0 104	

PE No	a 10^{-4} m	t s
164	0 122	
165	0 104	
166	0 046	
167	– 0 018	
168	– 0 047	
169	– 0 036	
170	0 016	
171	0 145	
172	0 257	
173	0 330	
174	0 330	
175	0 258	7·0
176	0 138	
177	0 034	
178	– 0 057	
179	– 0 030	
180	0 026	
181	0 141	
182	0 216	
183	0 243	
184	0 388	
185	0 079	
186	– 0 015	
187	– 0 047	
188	– 0 008	
189	0 091	
190	0 230	
191	0 340	
192	0 381	
193	0 332	
194	0 225	
195	0 099	
196	0 014	
197	– 0 012	

PE No	a 10^{-4} m	t s
198	0 033	
199	0 131	
200	0 247	8·0
201	0 335	
202	0 348	
203	0 314	
204	0 239	
205	0 161	
206	0 124	
207	0 139	
208	0 218	
209	0 328	
210	0 403	
211	0 426	
212	0 403	
213	0 314	
214	0 193	
215	0 088	
216	0 025	
217	0 030	
218	0 087	
219	0 173	
220	0 240	
221	0 274	
222	0 250	
223	0 182	
224	0 077	
225	– 0 019	9·0
226	– 0 075	
227	– 0 061	
228	– 0 033	
229	0 011	
230	0 042	
231	0 025	

PE No	a 10^{-4} m	t s
232	– 0 021	
233	– 0 078	
234	– 0 142	
235	– 0 197	
236	– 0 225	
237	– 0 217	
238	– 0 196	
239	– 0 133	
240	– 0 038	
241	0 052	
242	0 128	
243	0 168	
244	0 164	
245	0 169	
246	0 170	
247	0 188	
248	0 210	
249	0 220	
250	0 210	10·0
251	0 185	
252	0 149	
253	0 100	
254	0 057	
255	0 035	
256	0 006	
257	– 0 000	
258	0 010	
259	0 034	
260	0 047	
261	0 047	
262	0 031	
263	0 028	
264	0 036	
265	0 072	

PE No	a 10^{-4} m	t s
266	0 125	
267	0 188	
268	0 216	
269	0 189	
270	0 119	
271	0 031	
272	– 0 026	
273	– 0 059	
274	– 0 052	
275	– 0 009	11·0
276	0 039	
277	0 081	
278	0 107	
279	0 079	
280	0 023	
281	– 0 044	
282	– 0 121	
283	– 0 168	
284	– 0 172	
285	– 0 147	
286	– 0 119	
287	– 0 114	
288	– 0 155	
289	– 0 217	
290	– 0 287	
291	– 0 243	
292	– 0 341	
293	– 0 289	
294	– 0 217	
295	– 0 157	
296	– 0 150	
297	– 0 193	
298	– 0 248	
299	– 0 319	

▼B

PS No	a 10^{-4} m	t s
300	– 0 371	12·0
301	– 0 378	
302	– 0 354	
303	– 0 309	
304	– 0 264	
305	– 0 241	
306	– 0 236	
307	– 0 264	
308	– 0 262	
309	– 0 282	
310	– 0 275	
311	– 0 278	
312	– 0 285	
313	– 0 302	
314	– 0 318	
315	– 0 316	
316	– 0 293	
317	– 0 238	
318	– 0 154	
319	– 0 070	
320	– 0 021	
321	– 0 029	
322	– 0 075	
323	– 0 138	
324	– 0 189	
325	– 0 193	13·0
326	– 0 153	
327	– 0 095	
328	– 0 012	
329	0 033	
330	0 069	
331	0 064	
332	0 000	
333	– 0 074	

PS No	a 10^{-4} m	t s
334	– 0 147	
335	– 0 164	
336	– 0 142	
337	– 0 067	
338	– 0 001	
339	0 057	
340	0 080	
341	0 040	
342	– 0 010	
343	– 0 096	
344	– 0 148	
345	– 0 164	
346	– 0 134	
347	– 0 060	
348	0 038	
349	0 136	
350	0 195	14·0
351	0 170	
352	0 077	
353	– 0 067	
354	– 0 212	
355	– 0 321	
356	– 0 356	
357	– 0 339	
358	– 0 277	
359	– 0 189	
360	– 0 119	
361	– 0 100	
362	– 0 124	
363	– 0 170	14·0
364	– 0 193	
365	– 0 173	
366	– 0 105	
367	– 0 000	

PS No	a 10^{-4} m	t s
368	0 075	
369	0 092	
370	0 074	
371	0 011	
372	– 0 049	
373	– 0 082	
374	– 0 076	
375	– 0 039	15·0
376	0 010	
377	0 053	
378	0 078	
379	0 068	
380	0 033	
381	0 004	
382	– 0 000	
383	– 0 013	
384	– 0 003	
385	0 000	
386	– 0 001	
387	– 0 010	
388	– 0 023	
389	– 0 019	
390	0 014	
391	0 060	
392	0 093	
393	0 117	
394	0 137	
395	0 123	
396	0 098	
397	0 075	
398	0 055	
399	0 062	
400	0 087	16·0
401	0 113	

PS No	a 10^{-4} m	t s
402	0 126	
403	0 139	
404	0 119	
405	0 080	
406	0 023	
407	– 0 043	
408	– 0 099	
409	– 0 121	
410	– 0 090	
411	– 0 009	
412	0 072	
413	0 120	
414	0 111	
415	0 049	
416	– 0 021	
417	– 0 098	
418	– 0 136	
419	– 0 117	
420	– 0 072	
421	– 0 020	
422	0 038	
423	0 061	
424	0 026	
425	– 0 016	17·0
426	– 0 090	
427	– 0 151	
428	– 0 171	
429	– 0 150	
430	– 0 080	
431	– 0 001	
432	0 064	
433	0 113	
434	0 109	
435	0 089	

PS No	a 10^{-4} m	t s
436	0 036	
437	– 0 040	
438	– 0 098	
439	– 0 142	
440	– 0 147	
441	– 0 112	
442	– 0 028	
443	0 058	
444	0 118	
445	0 124	
446	0 080	
447	0 006	
448	– 0 052	
449	– 0 068	
450	– 0 030	18·0
451	– 0 000	
452	0 063	
453	0 129	
454	0 155	
455	0 156	
456	0 111	
457	0 069	
458	0 049	
459	0 036	
460	0 056	
461	0 100	
462	0 143	
463	0 178	
464	0 193	
465	0 178	
466	0 136	
467	0 087	
468	0 030	
469	0 041	

▼B

PS No	a 10^{-4} m	t s
470	0 067	
471	0 117	
472	0 165	
473	0 188	
474	0 178	
475	0 171	19·0
476	0 154	
477	0 141	
478	0 137	
479	0 146	
480	0 177	
481	0 231	
482	0 282	
483	0 314	
484	0 287	
485	0 222	
486	0 138	
487	0 050	
488	– 0 003	
489	0 001	
490	0 041	
491	0 095	
492	0 124	
493	0 112	
494	0 060	
495	– 0 022	
496	– 0 112	
497	– 0 161	
498	– 0 153	
499	– 0 087	
500	0 030	20·0
501	0 127	
502	0 197	
503	0 203	

PS No	a 10^{-4} m	t s
504	0 147	
505	0 060	
506	– 0 027	
507	– 0 103	
508	– 0 096	
509	– 0 026	
510	0 062	
511	0 198	
512	0 275	
513	0 293	
514	0 244	
515	0 149	
516	0 056	
517	0 005	
518	– 0 001	
519	0 023	
520	0 035	
521	0 063	
522	0 034	
523	– 0 009	
524	– 0 074	
525	– 0 154	21·0
526	– 0 203	
527	– 0 204	
528	– 0 167	
529	– 0 119	
530	– 0 077	
531	– 0 068	
532	– 0 094	
533	– 0 168	
534	– 0 254	
535	– 0 337	
536	– 0 383	
537	– 0 400	

PS No	a 10^{-4} m	t s
538	– 0 391	
539	– 0 365	
540	– 0 346	
541	– 0 342	
542	– 0 372	
543	– 0 398	
544	– 0 431	
545	– 0 464	
546	– 0 459	
547	– 0 425	
548	– 0 354	
549	– 0 259	
550	– 0 187	22·0
551	– 0 174	
552	– 0 182	
553	– 0 211	
554	– 0 241	
555	– 0 228	
556	– 0 192	
557	– 0 131	
558	– 0 066	
559	– 0 050	
560	– 0 065	
561	– 0 117	
562	– 0 164	
563	– 0 191	
564	– 0 165	
565	– 0 109	
566	– 0 025	
567	0 081	
568	0 163	
569	0 191	
570	0 164	
571	0 089	

PS No	a 10^{-4} m	t s
572	– 0 004	
573	– 0 075	
574	– 0 090	
575	– 0 034	23·0
576	0 024	
577	0 126	
578	0 203	
579	0 223	
580	0 200	
581	0 113	
582	0 026	
583	– 0 008	
584	– 0 003	
585	0 057	
586	0 149	
587	0 236	
588	0 290	
589	0 299	
590	0 244	
591	0 192	
592	0 145	
593	0 095	
594	0 090	
595	0 111	
596	0 151	
597	0 186	
598	0 185	
599	0 165	
600	0 120	24·0
601	0 057	
602	0 008	
603	– 0 022	
604	– 0 044	
605	– 0 062	

PS No	a 10^{-4} m	t s
606	– 0 070	
607	– 0 061	
608	– 0 057	
609	– 0 044	
610	– 0 040	
611	– 0 037	
612	– 0 028	
613	– 0 017	
614	– 0 006	
615	0 011	
616	0 032	
617	0 045	
618	0 050	
619	0 039	
620	0 036	
621	0 027	
622	0 025	
623	0 006	
624	0 000	
625	– 0 012	25·0
626	– 0 040	
627	– 0 047	
628	– 0 058	
629	– 0 070	
630	– 0 076	
631	– 0 098	
632	– 0 103	
633	– 0 127	
634	– 0 158	
635	– 0 158	
636	– 0 163	
637	– 0 182	
638	– 0 177	
639	– 0 184	

▼B

PS No	a 10^{-4} m	t s
640	– 0 201	
641	– 0 199	
642	– 0 187	
643	– 0 145	
644	– 0 092	
645	– 0 040	
646	0 017	
647	0 044	
648	0 061	
649	0 029	
650	– 0 018	26·0
651	– 0 078	
652	– 0 129	

PS No	a 10^{-4} m	t s
653	– 0 135	
654	– 0 110	
655	– 0 039	
656	0 008	
657	0 019	
658	– 0 033	
659	– 0 102	
660	– 0 194	
661	– 0 264	
662	– 0 292	
663	– 0 261	
664	– 0 210	
665	– 0 147	

PS No	a 10^{-4} m	t s
666	– 0 092	
667	– 0 089	
668	– 0 138	
669	– 0 248	
670	– 0 360	
671	– 0 455	
672	– 0 497	
673	– 0 473	
674	– 0 393	
675	– 0 294	27·0
676	– 0 230	
677	– 0 214	
678	– 0 241	

PS No	a 10^{-4} m	t s
679	– 0 294	
680	– 0 343	
681	– 0 375	
682	– 0 379	
683	– 0 349	
684	– 0 276	
685	– 0 202	
686	– 0 136	
687	– 0 099	
688	– 0 101	
689	– 0 139	
690	– 0 196	
691	– 0 246	

PS No	a 10^{-4} m	t s
692	– 0 256	
693	– 0 234	
694	– 0 156	
695	– 0 078	
696	0 015	
697	0 083	
698	0 118	
699	0 080	
700	0 000	31·0

Appendix 4b

Set-value signals for the test-stand testing of drivers' seats for category A tractors in class III

(point 4.5.3.1.1)

PS = set point
a = amplitude of the set value signal in mm
t = measurement time in seconds

If the signal sequence is repeated for 701 points in the table, point 700 and 0 merge in time, with amplitude a = 0.

PS No	a mm	t s	PS No	a mm	t s	PS No	a mm	t s	PS No	a mm	t s	PS No	a mm	t s
1	0	0,000	27	– 4	0,712	55	– 4	1,478	83	19	2,244	111	10	3,011
2	– 3	0,027	28	– 4	0,739	56	– 8	1,505	84	15	2,272	112	16	3,038
3	– 0	0,055	29	– 4	0,766	57	– 11	1,533	85	8	2,299	113	20	3,055
4	2	0,082	30	– 2	0,794	58	– 13	1,560	86	0	2,326	114	20	3,093
5	4	0,109	31	– 0	0,821	59	– 12	1,587	87	– 7	2,354	115	17	3,120
6	6	0,137	32	2	0,848	60	– 9	1,613	88	– 15	2,361	116	12	3,148
7	6	0,164	33	4	0,876	61	– 4	1,642	89	– 19	2,409	117	5	3,175
8	5	0,192	34	6	0,903	62	6	1,670	90	– 21	2,436	118	– 3	3,202
9	3	0,219	35	6	0,931	63	6	1,697	91	– 20	2,463	119	– 10	3,230
10	1	0,246	36	6	0,958	64	11	1,724	92	– 15	2,491	120	– 17	3,257
11	– 0	0,274	37	4	0,985	65	15	1,752	93	– 8	2,518	121	– 20	3,284
12	– 2	0,301	38	1	1,013	66	16	1,779	94	– 0	2,545	122	– 21	3,312
13	– 4	0,328	39	– 1	1,040	67	14	1,806	95	7	2,573	123	– 18	3,339
14	– 4	0,356	40	– 4	1,067	68	11	1,834	96	14	2,600	124	– 13	3,367
15	– 4	0,383	41	– 6	1,093	69	5	1,861	97	19	2,628	125	– 6	3,396
16	– 2	0,411	42	– 8	1,122	70	– 1	1,869	98	21	2,655	126	2	3,421
17	– 1	0,439	43	– 8	1,150	71	– 8	1,916	99	19	2,662	127	10	3,449
18	0	0,465	44	– 7	1,177	72	– 14	1,943	100	14	2,710	128	16	3,476
19	2	0,493	45	– 4	1,204	73	– 18	1,971	101	7	2,737	129	21	3,503
20	3	0,520	46	– 1	1,232	74	– 19	1,998	102	– 0	2,764	130	22	3,531
21	4	0,547	47	2	1,259	75	– 17	2,025	103	– 8	2,792	131	20	3,558
22	3	0,575	48	6	1,286	76	– 13	2,053	104	– 15	2,819	132	15	3,586
23	1	0,602	49	8	1,314	77	– 6	2,080	105	– 19	2,847	133	8	3,613
24	0	0,630	50	10	1,341	78	0	2,108	106	– 20	2,874	134	0	3,640
25	– 1	0,657	51	10	1,369	79	8	2,135	107	– 18	2,901	135	– 8	3,668
26	– 3	0,684	52	8	1,396	80	15	2,162	108	– 13	2,929	136	– 15	3,695
			53	4	1,423	81	19	2,190	109	– 5	2,956	137	– 20	3,722
			54	0	1,451	82	21	2,217	110	2	2,983	138	– 23	3,750

▼B

PN No	a mm	t s
139	– 22	3,777
140	– 18	3,804
141	– 11	3,832
142	– 3	3,859
143	5	3,887
144	13	3,914
145	19	3,941
146	23	3,969
147	23	3,996
148	20	4,023
149	14	4,051
150	6	4,078
151	– 2	4,106
152	– 11	4,133
153	– 17	4,160
154	– 21	4,188
155	– 22	4,215
156	– 20	4,242
157	– 14	4,270
158	– 7	4,297
159	0	4,325
160	8	4,352
161	14	4,379
162	18	4,407
163	19	4,434
164	17	4,461
165	13	4,489
166	7	4,516
167	0	4,543
168	– 6	4,571
169	– 11	4,598
170	– 14	4,626
171	– 16	4,653
172	– 14	4,680
173	– 11	4,708
174	– 6	4,735

PN No	a mm	t s
175	– 1	4,762
176	4	4,790
177	8	4,817
178	12	4,845
179	13	4,872
180	13	4,899
181	11	4,927
182	7	4,954
183	3	4,981
184	– 1	5,009
185	– 5	5,036
186	– 9	5,064
187	– 11	5,091
188	– 12	5,118
189	– 12	5,146
190	– 10	5,173
191	– 6	5,200
192	– 2	5,228
193	1	5,255
194	5	5,283
195	9	5,310
196	11	5,337
197	13	5,365
198	12	5,392
199	11	5,419
200	7	5,447
201	3	5,474
202	– 0	5,501
203	– 5	5,529
204	– 9	5,556
205	– 12	5,584
206	– 14	5,611
207	– 14	5,638
208	– 12	5,666
209	– 9	5,693
210	– 4	5,720

PN No	a mm	t s
211	0	5,748
212	5	5,775
213	9	5,803
214	13	5,830
215	15	5,857
216	15	5,885
217	13	5,912
218	9	5,939
219	4	5,967
220	– 1	5,994
221	– 7	6,022
222	– 11	6,049
223	– 15	6,076
224	– 16	6,104
225	– 16	6,131
226	– 12	6,158
227	– 7	6,186
228	– 1	6,213
229	4	6,240
230	10	6,268
231	16	6,295
232	17	6,323
233	17	6,350
234	14	6,377
235	9	6,405
236	3	6,432
237	– 3	6,459
238	– 10	6,487
239	– 15	6,514
240	– 19	6,542
241	– 19	6,569
242	– 17	6,596
243	– 12	6,624
244	– 6	6,651
245	1	6,678
246	9	6,706

PN No	a mm	t s
247	16	6,733
248	21	6,761
249	22	6,788
250	21	6,815
251	16	6,843
252	9	6,870
253	0	6,897
254	– 8	6,925
255	– 16	6,952
256	– 22	6,979
257	– 25	7,007
258	– 24	7,034
259	– 20	7,062
260	– 13	7,089
261	– 4	7,116
262	5	7,144
263	14	7,171
264	24	7,198
265	29	7,226
266	26	7,253
267	23	7,281
268	17	7,308
269	8	7,335
270	– 1	7,363
271	– 11	7,390
272	– 20	7,417
273	– 26	7,445
274	– 27	7,472
275	– 25	7,500
276	– 19	7,527
277	– 11	7,554
278	– 1	7,582
279	9	7,609
280	18	7,636
281	24	7,664
282	27	7,691

PN No	a mm	t s
283	26	7,718
284	21	7,746
285	13	7,773
286	4	7,801
287	– 5	7,828
288	– 13	7,855
289	– 20	7,883
290	– 24	7,910
291	– 25	7,937
292	– 22	7,965
293	– 17	7,992
294	– 9	8,020
295	– 1	8,047
296	7	8,074
297	14	8,102
298	20	8,129
299	22	8,156
300	22	8,184
301	19	8,211
302	13	8,239
303	6	8,266
304	– 1	8,293
305	– 9	8,321
306	– 15	8,348
307	– 19	8,375
308	– 20	8,403
309	– 19	8,430
310	– 14	8,457
311	– 8	8,485
312	– 0	8,512
313	6	8,540
314	12	8,567
315	16	8,594
316	18	8,622
317	16	8,649
318	12	8,676

▼B

PS No	a mm	t s
319	6	8,704
320	0	8,731
321	– 7	8,759
322	– 12	8,786
323	– 15	8,813
324	– 16	8,841
325	– 15	8,868
326	– 8	8,895
327	– 1	8,923
328	5	8,950
329	11	8,978
330	15	9,005
331	17	9,032
332	15	9,060
333	11	9,087
334	5	9,114
335	– 2	9,142
336	– 9	9,169
337	– 15	9,196
338	– 18	9,224
339	– 19	9,261
340	– 16	9,279
341	– 11	9,306
342	– 3	9,333
343	4	9,361
344	11	9,388
345	16	9,415
346	19	9,443
347	19	9,470
348	16	9,498
349	11	9,525
350	4	9,552
351	– 2	9,580
352	– 9	9,607
353	– 14	9,634
354	– 17	9,662

PS No	a mm	t s
355	– 18	9,689
356	– 16	9,717
357	– 12	9,744
358	– 7	9,771
359	– 1	9,799
360	4	9,826
361	9	9,853
362	13	9,881
363	16	9,908
364	15	9,935
365	14	9,963
366	10	9,990
367	5	10,018
368	– 0	10,045
369	– 5	10,072
370	– 10	10,100
371	– 13	10,127
372	– 15	10,154
372	– 14	10,182
374	– 12	10,209
375	– 7	10,237
376	– 2	10,264
377	2	10,291
378	8	10,319
379	11	10,346
380	13	10,373
381	13	10,401
382	11	10,428
383	7	10,456
384	2	10,483
385	– 2	10,510
386	– 7	10,538
387	– 10	10,565
388	– 11	10,592
389	– 11	10,620
390	– 8	10,647

PS No	a mm	t s
391	– 5	10,674
392	– 0	10,702
393	3	10,729
394	7	10,757
395	9	10,784
396	9	10,811
397	8	10,839
398	5	10,866
399	1	10,893
400	– 2	10,921
401	– 6	10,949
402	– 7	10,975
403	– 8	11,003
404	– 7	11,030
405	– 5	11,058
406	– 2	11,085
407	0	11,112
408	4	11,140
409	6	11,167
410	7	11,195
411	7	11,222
412	6	11,249
413	4	11,277
414	1	11,304
415	– 1	11,331
416	– 4	11,359
417	– 7	11,386
418	– 8	11,413
419	– 8	11,441
420	– 6	11,468
421	– 4	11,496
422	– 1	11,523
423	1	11,550
424	4	11,578
425	7	11,605
426	8	11,632

PS No	a mm	t s
427	8	11,660
428	7	11,687
429	5	11,715
430	2	11,742
431	– 0	11,769
432	– 2	11,797
433	– 4	11,824
434	– 6	11,851
435	– 7	11,879
436	– 6	11,906
437	– 6	11,934
438	– 4	11,961
439	– 3	11,988
440	– 1	12,016
441	0	12,043
442	2	12,070
443	4	12,098
444	6	12,125
445	7	12,152
446	7	12,180
447	7	12,207
448	6	12,235
449	4	12,262
450	1	12,289
451	– 1	12,317
452	– 5	12,344
453	– 8	12,371
454	– 10	12,399
455	– 11	12,426
456	– 11	12,454
457	– 9	12,481
458	– 5	12,509
459	– 1	12,536
460	3	12,563
461	8	12,590
462	11	12,618

PS No	a mm	t s
463	13	12,645
464	12	12,673
465	10	12,700
466	7	12,727
467	2	12,755
468	– 2	12,782
469	– 6	12,809
470	– 9	12,837
471	– 10	12,864
472	– 10	12,891
473	– 8	12,919
474	– 5	12,946
475	– 2	12,974
476	1	13,001
477	3	13,028
478	6	13,056
479	6	13,083
480	5	13,110
481	4	13,138
482	2	13,165
483	0	13,193
484	– 0	13,220
485	– 1	13,247
486	– 2	13,275
487	– 2	13,302
488	– 1	13,329
489	– 1	13,357
490	– 0	13,384
491	0	13,412
492	1	13,439
493	1	13,466
494	1	13,494
495	0	13,521
496	0	13,548
497	– 0	13,576
498	– 1	13,603

▼B

PS No	a mm	t s
499	– 1	13,630
500	– 1	13,659
501	– 1	13,685
502	– 1	13,713
503	– 1	13,740
504	– 0	13,767
505	– 0	13,795
506	0	13,822
507	1	13,849
508	1	13,877
509	2	13,904
510	2	13,932
511	2	13,959
512	2	13,986
513	1	14,014
514	1	14,041
515	0	14,068
516	– 0	14,096
517	– 1	14,123
518	– 1	14,151
519	– 2	14,178
520	– 2	14,205
521	– 2	14,233
522	– 2	14,260
523	– 1	14,287
524	– 1	14,316
525	– 1	14,342
526	– 0	14,370
527	– 0	14,397
528	0	14,424
529	0	14,452
530	1	14,479
531	2	14,506
532	2	14,534
533	3	14,561
534	4	14,598

PS No	a mm	t s
535	4	14,616
536	3	14,643
537	2	14,671
538	1	14,698
539	– 0	14,725
540	– 2	14,753
541	– 5	14,780
542	– 7	14,807
543	– 8	14,835
544	– 8	14,862
545	– 7	14,890
546	– 5	14,917
547	– 1	14,944
548	1	14,972
549	6	14,999
550	9	15,026
551	12	15,054
552	13	15,081
553	11	15,109
554	9	15,136
555	4	15,163
556	– 0	15,191
557	– 6	15,218
558	– 11	15,245
559	– 15	15,273
560	– 16	15,300
561	– 15	15,327
562	– 12	15,356
563	– 6	15,382
564	– 0	15,410
565	6	15,437
566	12	15,464
567	17	15,492
568	19	15,519
569	18	15,546
570	14	15,574

PS No	a mm	t s
571	8	15,601
572	1	15,629
573	– 6	15,656
574	– 12	15,683
575	– 17	15,711
576	– 19	15,738
577	– 19	15,766
578	– 15	15,793
579	– 10	15,820
580	– 8	15,848
581	4	15,875
582	11	15,902
583	16	15,930
584	18	15,957
585	18	15,984
586	15	16,012
587	10	16,039
588	3	16,066
589	– 3	16,094
590	– 10	16,121
591	– 15	16,149
592	– 17	16,176
593	– 17	16,203
594	– 15	15,231
595	– 10	16,258
596	– 3	16,285
597	2	16,313
598	9	16,340
599	14	16,368
600	16	16,395
601	17	16,422
602	14	16,450
603	10	16,477
604	5	16,504
605	– 1	16,532
606	– 7	16,559

PS No	a mm	t s
607	– 12	16,587
608	– 15	16,614
609	– 16	16,641
610	– 16	16,669
611	– 13	16,696
612	– 8	16,728
613	– 3	16,741
614	2	16,776
615	8	16,803
616	12	16,833
617	15	16,860
618	16	16,888
619	15	16,915
620	12	16,943
621	8	16,970
622	2	16,997
623	– 2	17,024
624	– 8	17,052
625	– 12	17,079
626	– 14	17,107
627	– 15	17,134
628	– 14	17,161
629	– 11	17,189
630	– 7	17,216
631	– 2	17,243
632	1	17,271
633	6	17,298
634	9	17,326
635	11	17,353
636	12	17,380
637	11	17,408
638	9	17,435
639	6	17,462
640	2	17,490
641	– 0	17,517
642	– 3	17,544

PS No	a mm	t s
643	– 5	17,572
644	– 6	17,599
645	– 6	17,627
646	– 6	17,654
647	– 4	17,681
648	– 3	17,709
649	– 1	17,736
650	– 0	17,763
651	0	17,791
652	1	17,818
653	0	17,845
654	0	17,873
655	0	17,900
656	– 0	17,928
657	– 0	17,955
658	– 0	17,982
659	0	18,010
660	1	18,037
661	3	18,065
662	4	18,092
663	5	18,119
664	5	18,147
665	5	18,174
666	4	18,201
667	2	18,229
668	– 0	18,256
669	– 3	18,283
670	– 6	18,311
671	– 9	18,339
672	– 10	18,366
673	– 10	18,393
674	– 9	18,420
675	– 6	18,448
676	– 3	18,475
677	1	18,502
678	6	18,530

▼B

PS No	a mm	t s
679	10	18,557
680	12	18,585
681	14	18,612
682	13	18,639
683	10	18,667
684	6	18,694
685	1	18,721
686	– 3	18,749
687	– 6	18,776
688	– 11	18,804
689	– 13	18,831
690	– 13	18,858
691	– 10	18,886
692	– 7	18,913
693	– 3	18,940
694	1	18,968
695	4	18,996
696	7	19,022
697	8	19,050
698	8	19,077
699	6	19,105
700	4	19,132
701	1	19,159
702	– 0	19,187
703	– 2	19,214
704	– 2	19,241
705	– 2	19,269
706	– 1	19,296
707	0	19,324
708	1	19,351
709	2	19,378
710	2	19,406
711	1	19,433
712	– 0	19,460
713	– 2	19,488
714	– 5	19,515
715	– 6	19,543
716	– 7	19,570
717	– 7	19,597
718	– 5	19,625
719	– 3	19,652
720	0	19,679
721	3	19,707
722	7	19,734
723	9	19,761
724	11	19,789
725	11	19,816
726	10	19,844
727	7	19,871
728	3	19,898
729	– 0	19,926
730	– 4	19,953
731	– 8	19,980
732	– 11	20,008
733	– 12	20,035
734	– 12	20,063
735	– 10	20,090
736	– 7	20,117
737	– 3	20,145
738	0	20,172
739	5	20,199
740	8	20,227
741	11	20,254
742	12	20,282
743	11	20,309
744	9	20,336
745	6	20,354
746	1	20,391
747	– 2	20,418
748	– 6	20,446
749	– 9	20,473
750	– 10	20,500
751	– 9	20,526
752	– 7	20,556
753	– 4	20,583
754	– 1	20,610
755	2	20,637
756	5	20,665
757	7	20,692
758	8	20,719
759	7	20,747
760	5	20,774
761	2	20,802
762	– 1	20,829
763	– 4	20,856
764	– 7	20,884
765	– 9	20,911
766	– 9	20,938
767	– 7	20,966
768	– 5	20,993
769	– 1	21,021
770	2	21,048
771	5	21,075
772	8	21,103
773	10	21,130
774	10	21,157
775	8	21,185
776	6	21,212
777	2	21,239
778	– 1	21,267
779	– 4	21,294
780	– 7	21,322
781	– 9	21,349
782	– 9	21,376
783	– 8	21,404
784	– 7	21,431
785	– 4	21,458
786	– 1	21,486
787	1	21,513
788	4	21,541
789	6	21,568
790	7	21,595
791	7	21,623
792	7	21,650
793	5	21,677
794	1	21,705
795	0	21,732
796	– 1	21,760
797	– 4	21,787
798	– 5	21,814
799	– 6	21,842
800	– 5	21,869
801	– 4	21,896
802	– 2	21,924
803	– 0	21,951
804	2	21,978
805	4	22,006
806	5	22,033
807	5	22,061
808	4	22,088
809	1	22,115
810	0	22,143
811	– 1	22,170
812	– 3	22,197
813	– 5	22,225
814	– 6	22,252
815	– 5	22,280
816	– 4	22,307
817	– 3	22,334
818	– 0	22,362
819	1	22,389
820	4	22,416
821	5	22,444
822	6	22,471
824	6	22,526
825	5	22,553
826	3	22,581
827	0	22,608
828	– 2	22,635
829	– 4	22,663
830	– 7	22,690
831	– 8	22,717
832	– 9	22,745
833	– 8	22,772
834	– 7	22,800
835	– 4	22,827
836	– 1	22,854
837	2	22,882
838	6	22,909
839	9	22,936
840	11	22,964
841	12	22,991
842	11	23,019
843	9	23,046
844	5	23,073
845	0	23,101
846	– 5	23,128
847	– 9	23,155
848	– 13	23,183
849	– 15	23,210
850	– 15	23,238
851	– 13	23,265
852	– 9	23,292
853	– 3	23,320
854	3	23,347
855	9	23,374
856	14	23,402
857	18	23,429
858	18	23,457
859	16	23,484

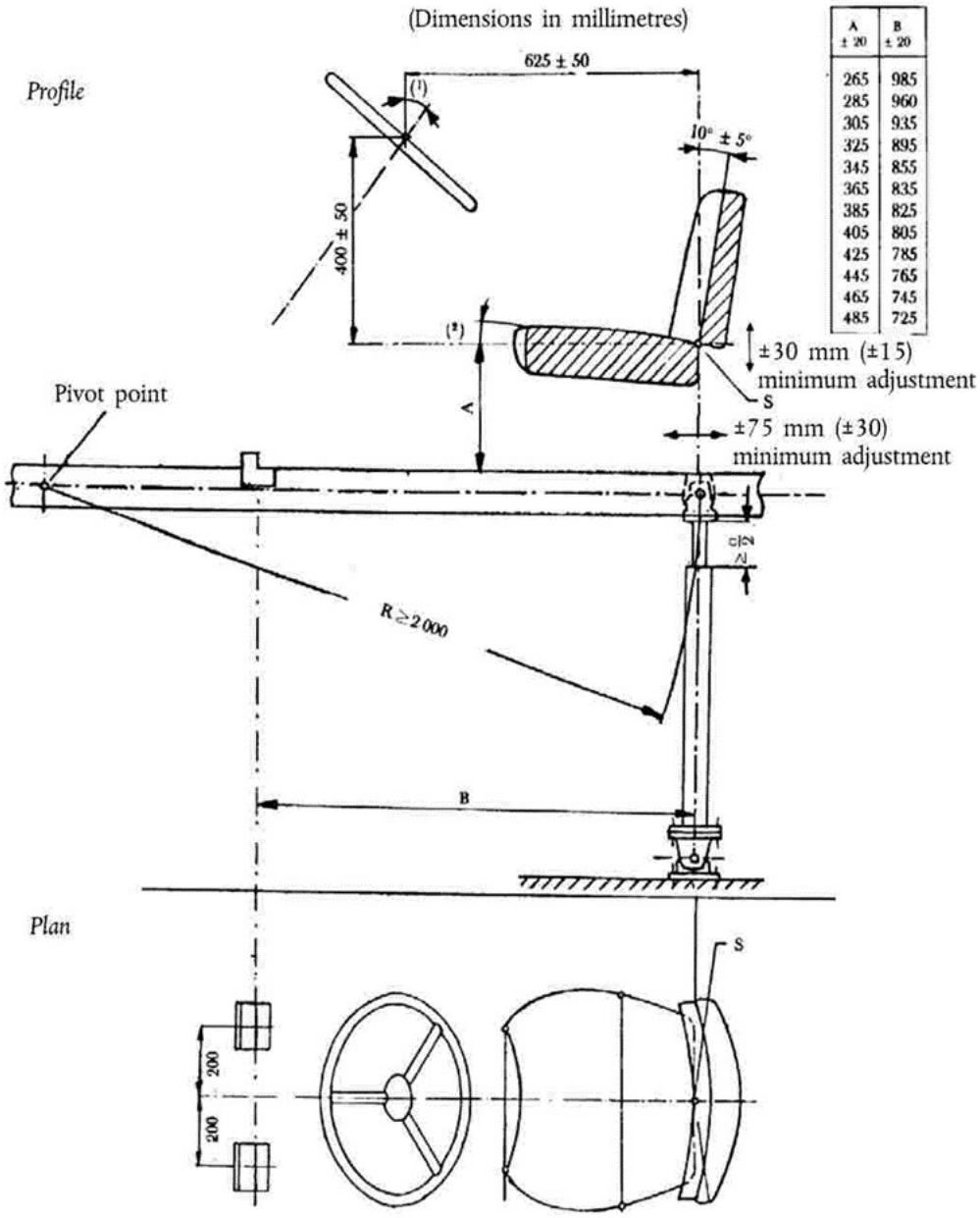
▼B

PS No	a mm	t s
860	12	23,511
861	5	23,539
862	– 1	23,566
863	– 7	23,593
864	– 13	23,621
865	– 16	23,648
866	– 17	23,675
867	– 16	23,703
868	– 12	23,730
869	– 7	23,758
870	– 1	23,785
871	4	23,812
872	9	23,840
873	12	23,867
874	14	23,894
875	13	23,922
876	11	23,949
877	7	23,977
878	2	24,004
879	– 1	24,031
880	– 6	24,059
881	– 9	24,086
882	– 11	24,113
883	– 11	24,141
884	– 9	24,168
885	– 6	24,196
886	– 3	24,223
887	0	24,250
888	4	24,278
889	7	24,305
890	9	24,332
891	9	24,360
892	8	24,387
893	6	24,414
894	3	24,442
895	– 0	24,469
896	– 3	24,497
897	– 6	24,524
898	– 8	24,551
899	– 9	24,579
900	– 8	24,606
901	– 6	24,633
902	– 2	24,661
903	0	24,688
904	4	24,716
905	7	24,743
906	8	24,770
907	9	24,798
908	7	24,825
909	5	24,852
910	1	24,880
911	– 2	24,907
912	– 6	24,935
913	– 8	24,962
914	– 10	24,989
915	– 9	25,017
916	– 7	25,044
917	– 3	25,071
918	0	25,099
919	4	25,126
920	8	25,153
921	11	25,181
922	12	25,208
923	11	25,236
924	9	25,263
925	4	25,290
926	– 0	25,318
927	– 5	25,345
928	– 9	25,372
929	– 12	25,400
930	– 13	25,427
931	– 12	25,455
932	– 9	25,482
933	– 5	25,509
934	– 0	25,537
935	4	25,564
936	8	25,591
937	11	25,619
938	13	25,645
939	13	25,674
940	11	25,701
941	7	25,728
942	3	25,756
943	– 1	25,783
944	– 5	25,810
945	– 8	25,839
946	– 10	25,855
947	– 11	25,892
948	– 10	25,920
949	– 8	25,947
950	– 6	25,975
951	– 2	26,002
952	0	26,029
953	3	26,057
954	5	26,084
955	7	26,111
956	8	26,139
957	8	26,166
958	7	26,194
959	6	26,221
960	4	26,248
961	2	26,276
962	0	26,303
963	– 2	26,330
964	– 4	26,358
965	– 5	26,385
966	– 6	26,413
967	– 7	26,440
968	– 7	26,467
969	– 7	26,495
970	– 6	26,522
971	– 4	26,549
972	– 2	26,577
973	0	26,604
974	3	26,631
975	6	26,659
976	9	26,686
977	10	26,714
978	11	26,741
979	10	26,768
980	8	26,796
981	5	26,823
982	1	26,850
983	– 3	26,878
984	– 7	26,905
985	– 10	26,933
986	– 12	26,960
987	– 13	26,987
988	– 12	27,015
989	– 10	27,042
990	– 6	27,069
991	– 2	27,097
992	2	27,124
993	6	27,152
994	10	27,179
995	12	27,206
996	14	27,234
997	13	27,261
998	11	27,288
999	8	27,316
1000	3	27,343
1001	– 0	27,370
1002	– 5	27,399
1003	– 9	27,426
1004	– 12	27,453
1005	– 13	27,480
1006	– 13	27,507
1007	– 11	27,535
1008	– 7	27,562
1009	– 2	27,589
1010	1	27,617
1011	6	27,644
1012	9	27,672
1013	11	27,699
1014	12	27,726
1015	10	27,754
1016	8	27,781
1017	4	27,808
1018	0	27,836
1019	– 3	27,863
1020	– 6	27,891
1021	– 8	27,918
1022	– 9	27,945
1023	– 8	27,973
1024	0	28,000

Appendix 5

Test stand (point 4.5.3.1); example of construction

(dimensions in mm)



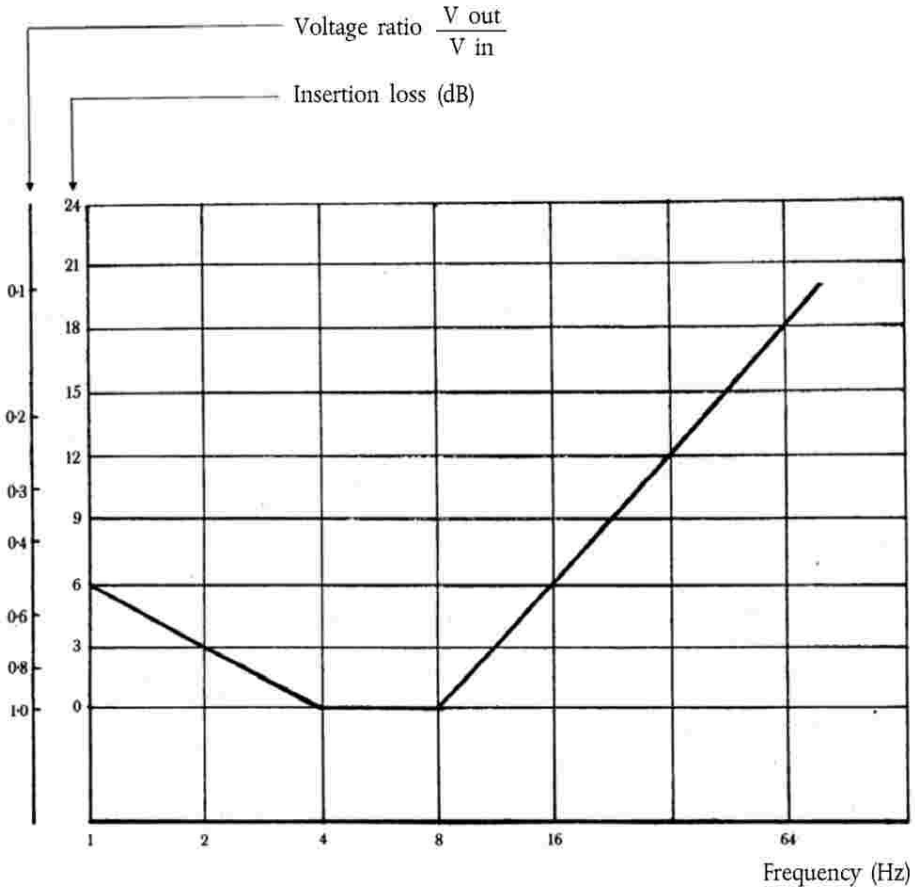
A ± 20	B ± 20
265	985
285	960
305	935
325	895
345	855
365	835
385	825
405	805
425	785
445	765
465	745
485	725

(1) The angle of the steering column in relation to the vertical depends on the position of the seat, the diameter of the steering wheel.

(2) The rearward inclination of the surface of the fitted seat cushion must be 3 to 12 in relation to the horizontal when measured with the loading device in accordance with Appendix 1 to Annex II. The choice of the angle of inclination within this class depends on the position when seated.

Appendix 6

Characteristic of the filter of the vibration measuring instrument (point 4.5.3.3.5)



Appendix 7

Driver's seat installation requirements for CMVR of a tractor

1	Every driver's seat with suspension system must bear the component type-approval mark and comply with the following installation requirements:
1.1	the driver's seat must be installed in such a way that:
1.1.1	the driver is assured of a comfortable position for driving and manoeuvring the tractor;
1.1.2	the seat is easily accessible;
1.1.3	the driver, when seated in the normal driving position, can easily reach the various control devices of the tractor that are likely to be actuated during operation;
1.1.4	no part of any of the seat or tractor components is likely to cause the driver to suffer cuts or bruises
1.1.5	where the position of the seat is adjustable only lengthwise and vertically, the longitudinal axis passing through the Seat Reference Point (S) shall be parallel with the vertical longitudinal plane of the tractor passing through the centre of the steering wheel and not more than 100 mm from that plane
1.1.6	where the seat is designed to revolve round a vertical axis it must be capable of being locked in all or certain positions and in any case in the position mentioned in point 1.1.5.
2.0	The holder of the type-approval may request that it be extended to other types of seat. The competent authorities must grant this extension on the following conditions:
2.1	the new type of seat has received component type-approval;
2.2	it has been designed to be installed on the type of tractor for which the extension of the type-approval has been requested;
2.3	it is installed in such a manner as to comply with the installation requirements in this Annex.
3.0	Seats intended for tractors with a minimum rear-wheel track of not more than 1 150 mm may have the following minimum dimensions in respect of the depth and width of the seat surface:
	■ depth of seat surface: 300 mm;
	■ width of seat surface: 400 mm.
	This provision is applicable only if the values specified for the depth and the width of the seat surface (i.e. 400 ± 50 mm and at least 450 mm respectively) cannot be adhered to on grounds relating to the tractor.

Appendix 8

Method for determining the seat reference point (S)

1.0	Device for determining the seat reference point (S)
	The device illustrated in Figure 1 consists of a seat pan board and backrest boards. The lower backrest boards must be hinged in the region of the ischium humps (A) and the loin (B), the hinge (B) being adjustable in height.
2.0	Method of determining the seat reference point (S)
	The seat reference point (S) must be obtained by using the device illustrated in Figures 1 and 2, which simulates loading by a human occupant. The device must be positioned on the seat. It must then be loaded with a force of 550 N at a point 50 mm in front of hinge (A) and two parts of the backrest lightly pressed tangentially against the padded backrest.
	If it is not possible to determine definite tangents to each area of the padded backrest (below and above the lumbar region) the following procedure must be adopted:
(a)	where there is no possibility of defining the tangent to the lowest possible area, the lower part of the backrest board in a vertical position must be lightly pressed against the padded backrest;
(b)	where there is no possibility of defining the tangent to the highest possible area, if the lower part of the backrest board is vertical, the hinge must be fixed at a height of 230 mm above the seat reference point (S). The two parts of the backrest board in a vertical position must then be lightly pressed tangentially against the padded backrest.

Figure 1

Device for determining the seat reference point

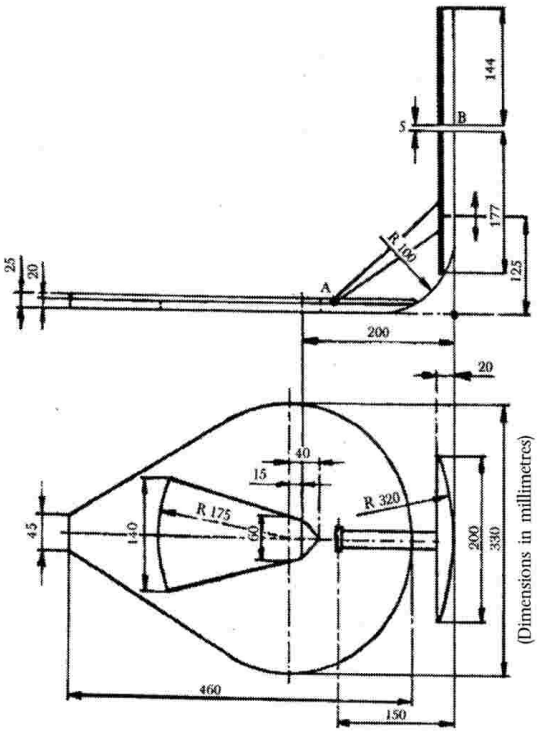
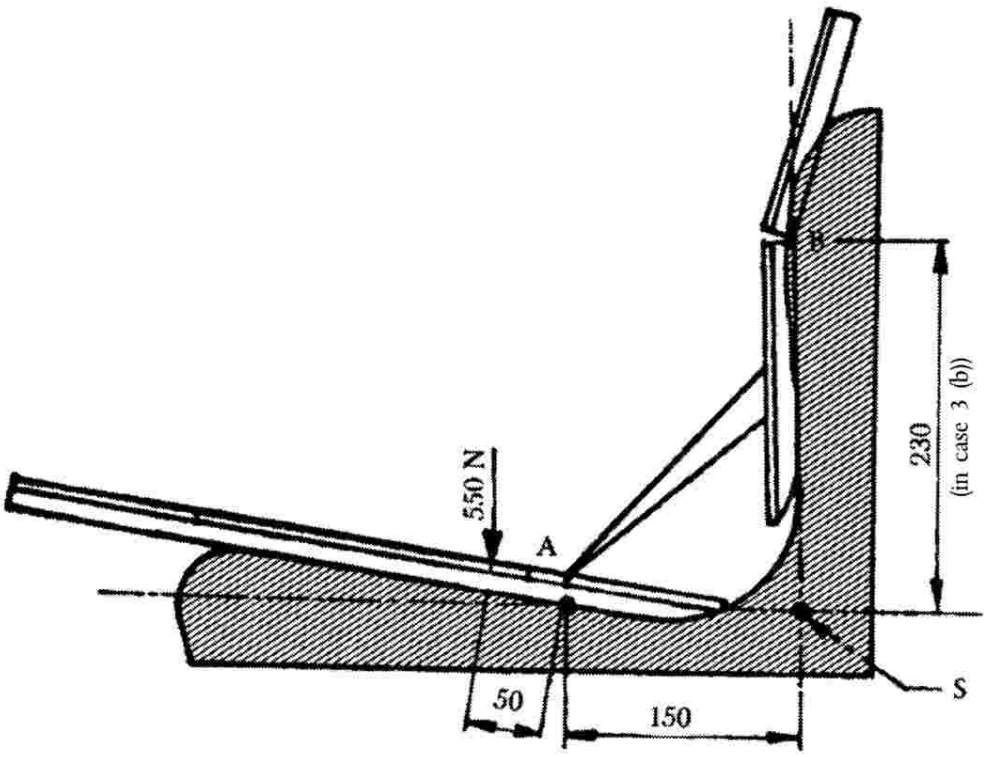


Figure 2

Device in position



APPENDIX 9

TEST PROCEDURE FOR SEAT BELT ANCHORAGE

9.0	Test Procedure
9.1	Only static tests for anchorages are given in this procedure.
9.1.1	If, for a given seat configuration, a manufacturer provides more than one totally identical seat with regard to the seatbelt anchorage performance test, the Testing Station is authorized to test only one configuration, corresponding to the heaviest seat.
9.1.2	The seat shall be in position during the tests and fixed to the mounting point on the tractor using all intermediary fittings (such as suspension, slides, etc.) specified for the complete tractor. No additional non-standard fittings contributing to the strength of the construction may be used.
9.2	The anchorages shall be capable of withstanding the loads applied to the seat belt system using a device as shown in Figure 9.1. The seat belt anchorages shall be capable of withstanding these test loads applied with the seat adjusted in the worst position of the longitudinal adjustment to ensure that the test condition is met. The test loads shall be applied with the seat in the mid-position of the longitudinal adjustment if a worst position among the possible seat adjustments is not recognized by the testing station. For a suspended seat, the seat shall be set to the midpoint of the suspension travel, unless this is contradictory to a clearly stated instruction by the seat manufacturer. Where special instructions exist for the seat setting, these shall be observed and specified in the report.
9.3	After the load is applied to the seat system, the load application device shall not be repositioned to compensate for any changes that may occur to the load application angle.
9.4	Forward loading
	A tensile force shall be applied in a forward and upward direction at an angle of 45º ± 2º to the horizontal, as shown in Figure 9.2. The anchorages shall be capable of withstanding a force of 4 450 N. In the event that the force applied to the seat belt assembly is transferred to the vehicle chassis by means of the seat, the seat mounting shall be capable of withstanding this force plus an additional force equal to four times the force of gravity on the mass of all applicable seat components, applied 45º ± 2º to the horizontal in a forward and upward direction, as shown in Figure 9.2.
9.5	Rearward loading
	A tensile force shall be applied in a rearward and upward direction at an angle of 45º ± 2º to the horizontal, as shown in Figure 9.3. The anchorages shall be capable of withstanding a force of 2 225N. In the event that the force applied to the seat belt assembly is transferred to the vehicle chassis by means of the seat, the seat mounting shall be capable of withstanding this force plus an additional force equal to two times the force of gravity on the mass of all applicable seat components, applied 45º ± 2º to the horizontal in a rearward and upward direction, as shown in Figure 9.3. Both tensile forces shall be equally divided between the anchorages.
9.6	Condition of acceptance
	Permanent deformation of any system component and anchorage area is acceptable under the action of the forces specified in 9.4 and 9.5. However, there shall be no failure allowing release of the seat belt system, seat assembly, or the seat adjustment locking mechanism.

	The seat adjuster or locking device need not be operable after application of the test load.

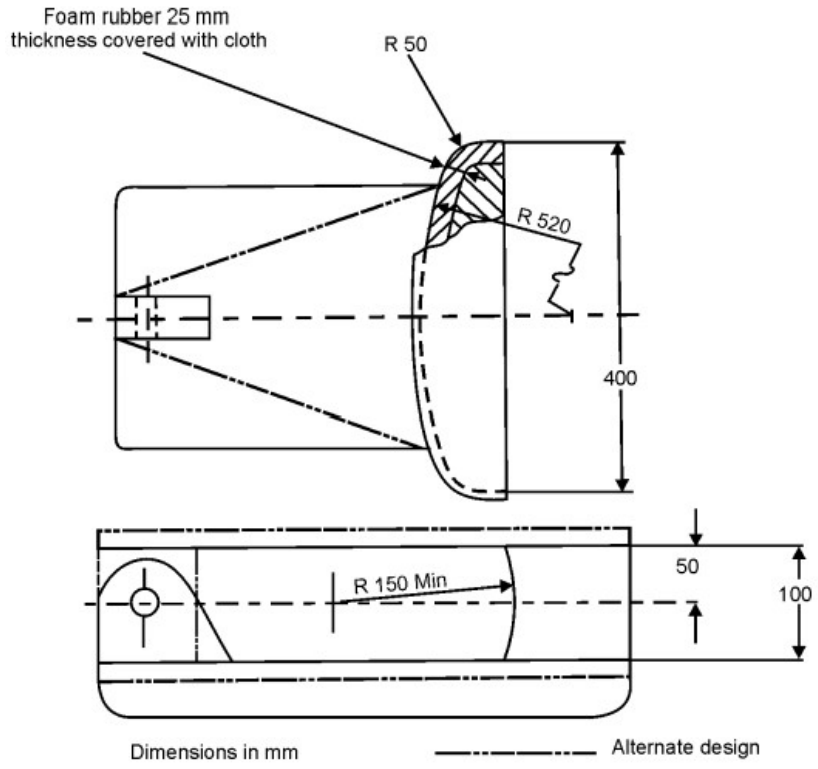


Figure 9.1
The load application device

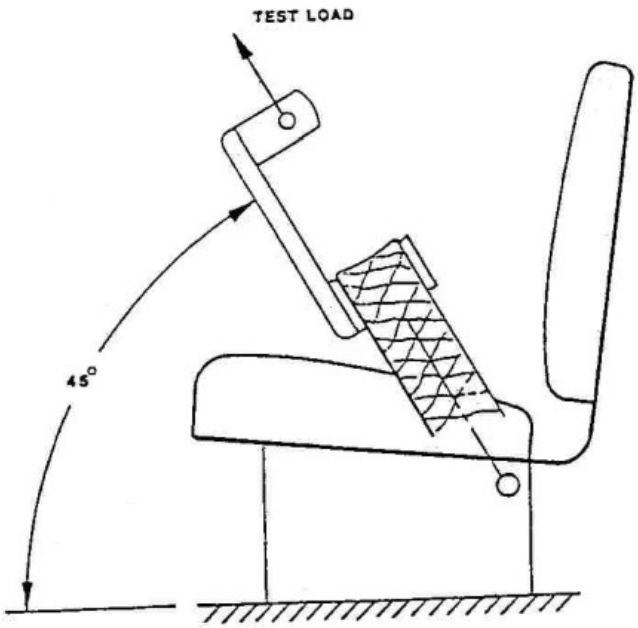


Figure 9.2
Load application in the upward and forward direction

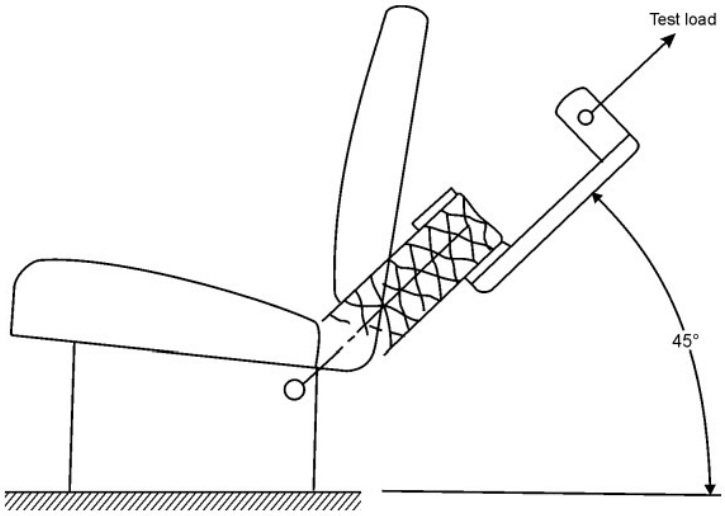


Figure 9.3
Load application in the upward and rearward direction

APPENDIX 10

Specification to be submitted for type approval of driver's seat	
1	GENERAL INFORMATION CONCERNING SYSTEMS, COMPONENTS OR SEPARATE TECHNICAL UNITS
1.1.	Make(s) (trade name(s) of manufacturer):
1.2.	Type
1.2.1.	Commercial name(s) (if available):
1.2.2.	Type-approval number(s) (49) (if available):
1.2.3.	Type-approval(s) issued on (date, if available):
1.2.4.	location and method of attachment of the type-approval mark(s) (if available)
1.3.	Company name and address of manufacturer:
1.3.1.	Name(s) and address(es) of assembly/manufacture plants:
1.3.2.	Name and address of manufacturer's authorised representative (if any):
1.4.	For systems and separate technical units, vehicle(s) for which they are intended for (21):
1.4.1.	Model Name
1.4.2.	Manufacturer's Name
1.4.3	Max speed of vehicle intended for
1.4.4.	Category, subcategory of the vehicle :
2	SEATING POSITIONS (SADDLES AND SEATS)
2.1	Seating position configuration: seat/saddle
2.2	Coordinates or drawing of the Seat Reference point(s) (S) of all seating positions :
2.3	Description and drawings of:
2.3.1	The seats and their anchorages:
2.3.2	The adjustment system:
2.3.3	The displacement and locking systems:
2.3.4	The seat-belt anchorages (if incorporated in the seat structure):
2.3.5	The parts of the vehicle used as anchorages:
2.4	Driver's seat
2.4.1	Position of the driving seat: left/right/centre (4):
2.4.2	Driver's seat type category: category A class I/II/III, category B (4)
2.4.3	Reversible driving position: yes/no (4)
2.4.3.1	Description of the reversible driving position:
2.4.4	Dimensions of the driving seat, including the depth and width of the seat surface, the position and inclination of the backrest, as well as the inclination of the seat surface :
2.4.5	Main characteristics of the driving seat:
2.4.6	Adjustment system :
2.4.7	Displacement and locking Displacement and locking system in the longitudinal and vertical directions:
2.4.7.1	In the case of vehicles not equipped with an adjustable seat, indicate the displacement of the steering column and pedal(s):

APPENDIX 11

Model information document relating to type-approval of a type of (or a type of a vehicle with regard to) a seat belt anchorages system

A.	**GENERAL INFORMATION**
1	GENERAL INFORMATION CONCERNING SYSTEMS, COMPONENTS OR SEPARATE TECHNICAL UNITS
1.1.	Make(s) (trade name(s) of manufacturer):
1.2.	Type (49):
1.2.1.	Commercial name(s) (if available):
1.2.2.	Type-approval number(s) (49) (if available):
1.2.3.	Type-approval(s) issued on (date, if available):
1.2.4.	For components and separate technical units, location and method of attachment of the type-approval mark(s) (if available) (19):
1.3.	Company name and address of manufacturer:
1.3.1.	Name(s) and address(es) of assembly/manufacture plants:
1.3.2.	Name and address of manufacturer's authorised representative (if any):
1.4.	For systems and separate technical units, vehicle(s) for which they are intended for (21):
1.4.1.	Type (17):
1.4.2.	Variant(s) (17):
1.4.3.	Version(s) (17):
1.4.4.	Commercial name(s) (if available):
1.4.5.	Category, subcategory and speed index of the vehicle (2):
2	**ROLL-OVER PROTECTIVE STRUCTURE (ROPS)**
2.1.	Equipment of ROPS: compulsory/optional/standard (4)
3.	**SEATING POSITIONS (SADDLES AND SEATS)**
3.1.	Seating position configuration: seat/saddle (4)
3.2.	Coordinates or drawing of the Seat Reference point (S) of all seating positions:
3.3.	Description and drawings of:
3.3.	Description and drawings of:
3.3.1.	The seats and their anchorages:
3.3.2.	The adjustment system:
3.3.3.	The displacement and locking systems:
3.3.4.	The seat-belt anchorages (if incorporated in the seat structure):
3.3.5.	The parts of the vehicle used as anchorages:
4.	**SEAT-BELT ANCHORAGES**
4.1.	Requirements under standard ISO 3776-1:2006 (Tractors and machinery for agriculture — Seat belts — Part 1: Anchorage location requirements) are met with relevant documentation included in the information document: yes/no (4)
4.2.	Photographs and/or drawings of the bodywork showing the true, effective location and dimensions of the anchorages:
4.3.	Drawings of the anchorages and the parts of the vehicle structure to which they are attached (together with a statement on the nature of the materials used):
4.4.	Designation of the types of belts (14) authorised for attachment to the anchorages on the vehicle

53.4. Designation of the types of belts (14) authorised for attachment to the anchorages on the vehicle

					Anchorage location	
					Vehicle structure	Seat structure
Driver's seat	{	Lower anchorages Upper anchorages	{	outboard inboard		
Passenger seat 1	{	Lower anchorages Upper anchorages	{	outboard inboard		
Passenger seat ...	{	Lower anchorages Upper anchorages	{	outboard inboard		

53.4.1. Observation:
53.5. Special devices (example: seat-height adjustment, preloading device, etc.):
53.6. Description of a particular type of safety belt where an anchorage is located in the seat backrest or incorporates an energy dissipating device:
53.7. Alternative to entries 53.2 to 53.6.
53.7.1. Requirements under standard ISO 3776-2:2013 (Tractors and machinery for agriculture — Seat belts — Part 2: Anchorage strength requirements) on anchorage strength location are met with relevant documentation included in the information document: yes/no/not applicable (4)
53.7.2. Test report granted a on the basis of UNECE Regulation No 14 (OJ L 109, 28.4.2011, p. 1) with relevant documentation included in the information document: yes/no/not applicable (4)
53.7.3. Complete test report issued on the basis of the OECD standard Code for the official testing of protective structures on agricultural and forestry tractors (dynamic test), OECD Code 3 with seat-belt anchorages tested, Edition 2015 of July 2014, is provided with relevant documentation included in the information document: yes/no/not applicable (4)
53.7.4. Complete test report issued on the basis of the OECD standard Code for the official testing of protective structures on agricultural and forestry track-laying tractors, OECD Code 8 with seat-belt anchorages tested, Edition 2015 of July 2014, is provided with relevant documentation included in the information document: yes/no/not applicable (4)
53.7.5. Complete test report issued on the basis of the OECD standard Code for the official testing of protective structures on agricultural and forestry tractors (static test), OECD Code 4 with seat-belt anchorages tested, Edition 2015 of July 2014, is provided with relevant documentation included in the information document: yes/no/not applicable (4)
53.7.6. Complete test report issued on the basis of the OECD standard Code for the official testing of front mounted roll-over protective structures on narrow-track wheeled agricultural and forestry tractors, OECD Code 6 with seat-belt anchorages tested, Edition 2015 of July 2014, is provided with relevant documentation included in the information document: yes/no/not applicable (4)
53.7.7 Complete test report issued on the basis of the OECD standard Code for the official testing of rear mounted roll-over protective structures on narrow-track wheeled agricultural and forestry tractors, OECD Code 7 with seat-belt anchorages tested, Edition 2015 of July 2014, is provided with relevant documentation included in the information document: yes/no/not applicable (4)