THE SOCIETY OF MOTOR MANUFACTURERS AND TRADERS LIMITED

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Circulation:	Commercial Trailer Association CV Bodybuilders Section CV Manufacturers Section Trailer IG Truck IG Sideguards and Rear Underrun IG
Action required:	For information

Dear Member

SIDEGUARDS: REVISION OF VOSA REQUIREMENTS AT ANNUAL TEST

Further to TEC/2008/098, VOSA has now issued an Internal Memo (copy attached) to their staff containing its revised interpretation of Construction & Use Regulation 51. It should be noted that the Regulation itself has not been subject to amendment.

The Memo advises that sideguards constructed to comply with the technical requirements of Directive 89/297/EEC are to be considered acceptable even where an approval to that directive has not been granted. In addition, it provides guidance on compliance with the requirements when a ladder/step or stabiliser legs are required to be fitted and incorporated into the sideguard.

The revised interpretation applies from 1st May 2010.

Yours faithfully,

A.R. MCKENZIE
Deputy Head and Senior Manager Vehicle Legislation,
Public Policy and Vehicle Legislation

Atts. (1)

Memo No	05/10
Title	Sideguards
Subject area	IM 9
From	Bob Taylor
Contact details	Robert.taylor@vosa.gov.uk 01792 454206
To (Action required)	All testing staff, AMs, SMs, QA&I officers,
Copy to (for information)	Training Services, VEs, RHA, FTA, CPT, SMMT, RMI, ALLMI, & SOE.
Expiry date	
Supersedes	(TSE 9/26) & (Memo 17/07)

Details: To clarify the testing requirements of sideguards.

Further to VOSA memo 17/07 we have had clarification, it is acceptable for sideguards to be built to the technical standards of Directive 89/297/EEC but not approved. This is an alternative of complying with Regulation 51 of The Road Vehicles (Construction and Use) Regulation 1986 as amended or full compliance with the Directive 89/297/EEC.

The main changes to the standards are:

- There is only a requirement to have a maximum of two sideguard rails.
- The maximum height for a sideguard is 950mm.
- The main part of the outer surface shall not be more than 120mm inboard from the maximum width of the vehicle.
- The rearward end shall not be more than 30mm inboard from the outermost edge of the rear tyres (excluding any bulging of the tyres close to the ground) over at least the rearmost 250mm.
- Semi trailers the distance of the sideguard from the kingpin is 3000mm
- For N_2 and O_3 vehicles rails must be smooth, substantially flat or horizontally corrugated on the outside and at least 50mm wide. For N_3 and O_4 vehicles the 50mm should read 100 mm. (but can be wider for any vehicle) and the distance between them not more than 300mm.
- For N_2 and O_3 vehicles, the front edge of the sideguard must have a continuous surface extending back for 50mm and turning inwards 100 mm. For N_3 and O_4 vehicles the 50mm shall read as 100mm. The continuous vertical rail or turn in may not be required if the front edge of the sideguard is within 100mm of a permanent structure of the vehicle (vehicle cab/wheelarch).

N_2 vehicles are vehicles over 3500kg but does not exceed 12000kg DGVW.
N_3 vehicles are vehicles that exceed 12000kg DGVW.
O_3 trailers are trailers over 3500kg but does not exceed 10,000kg TAW.
O_4 trailer are trailers which exceed 10,000kg TAW.

DGVW = Design Gross Vehicle Weight TAW = Total Axle Weight

With effect from 1 May 2010 VOSA will accept sideguards which comply with the above standard and also re-introduce the full requirements of the annual test, this was amended in 2000 by VOSA memo 5/2000 which said:
"If the defect relates to Reasons for Failure 2e, 2f. or 2h. It should not fail the test, but an advisory notice should be issued." The items 2e, 2f and 2h will from 1 May 2010 be reintroduced as Reasons for Failure. For semi-trailers, disregard the 550mm minimum dimension distance from the ground.

Sideguard rails should be fitted where regulations require them, measurement checks are only required where it is obvious a section is missing. The attached annex provides examples to the new directive requirements where sideguards are required and shows where they should be fitted. The examples are not exhaustive other arrangements may be acceptable.

Until 1 May 2010 a vehicle should not be failed for a sideguard section missing, but the presenter must be informed that the vehicle is non compliant and will fail in the future.
Particular vehicles that appear to be causing problems are "short bodied" vehicles with cranes mounted behind the cab, vehicles with sleeper cabs and some tankers.

Construction – general requirements

- **Motor Vehicle** – The front edge of the guard must not be more than 300mm from the tyre on the front wheel (or second axle wheel if fitted with two front axles) and must extend to within 300mm of the tyre on the first rear axle.
- **Drawbar Trailer** (not centre axle). The front edge of the guard must not be more than 500mm from the tyre on the front wheel (or second axle wheel if fitted with two front axles) and must extend to within 300mm of the tyre on the first rear axle.
- **Semi Trailer**. The front edge of the guard can be up to 250mm behind the centre line of the landing legs, but not more than 3.0m behind the centre of the king pin (in its rearmost position) and must extend to within 300 mm of the tyre on the first rear axle.

All Vehicles

- The sideguard should be as continuous as possible and the outermost surface smooth, essentially rigid and either flat or horizontally corrugated, but can be split into rails.
- Parts of the sideguard may be detachable for access, but must be securely fixed when the vehicle is in use on the road.
- On occasions a single rail may fulfil this requirement and it will be sufficient that the forward face only covers the depth of the rail.

Exemptions (these are as well as those mentioned currently in the Inspection Manual).

Sideguards may not be fitted to vehicles designed and constructed for special purposes where it is not possible, for practical reasons, to fit such lateral protection.

Examples

Vehicles fitted with an extendible device or leg to provide stability during loading, and equipped with loading devices and controls, which makes it impracticable to fully comply with the sideguard legislation, will be deemed compliant provided sideguards are in place to the fullest extent practicable. All vehicles must be presented for statutory test with any such devices in the stowed position.

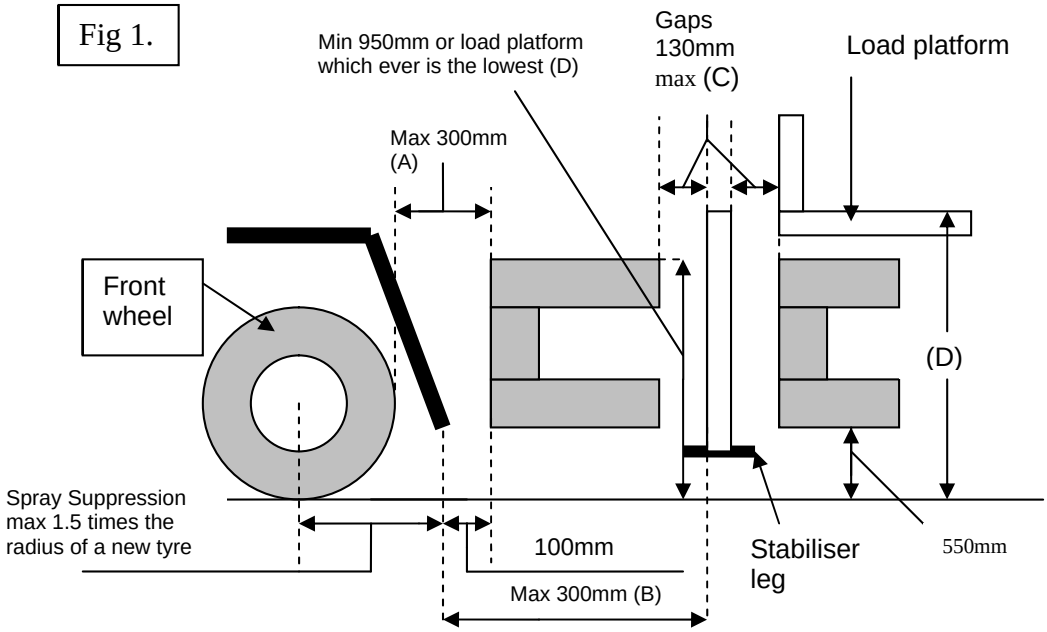
Vehicles with access and a working platform adjacent to, and necessary for the operation of, a loading device, shall be regarded as the load carrying platform for sideguard compliance forward of the extendable device or leg.

From 1 May 2010 VOSA requires vehicles registered after this date to comply fully with the legislation for sideguards this can be either to the Road vehicles (Construction and Use) Regulations, Directive 89/297/EEC or to the technical standards of the Directive 89/297/EEC. The above exemption will still apply from this date.

Andrew Cattell
Head of Large Vehicle Policy
Swansea
January 2009

Vehicles with stabiliser legs built to the technical requirements of Directive89/297/EEC

Fig 1.



The general requirements in relation to sideguard position apply.
If the distance between the rear most point of the front wheel mudguard and a stabiliser leg measured at 550mm from the ground is 300mm (B) or less, no sideguard is required in the area forward of the stabiliser leg.
Where the distance between the rear most point of the front wheel mudguard and a stabiliser leg is more than 300mm (B), a sideguard is required.
If a sideguard is required it must be fitted within 300mm of the rear face of the front tyre,

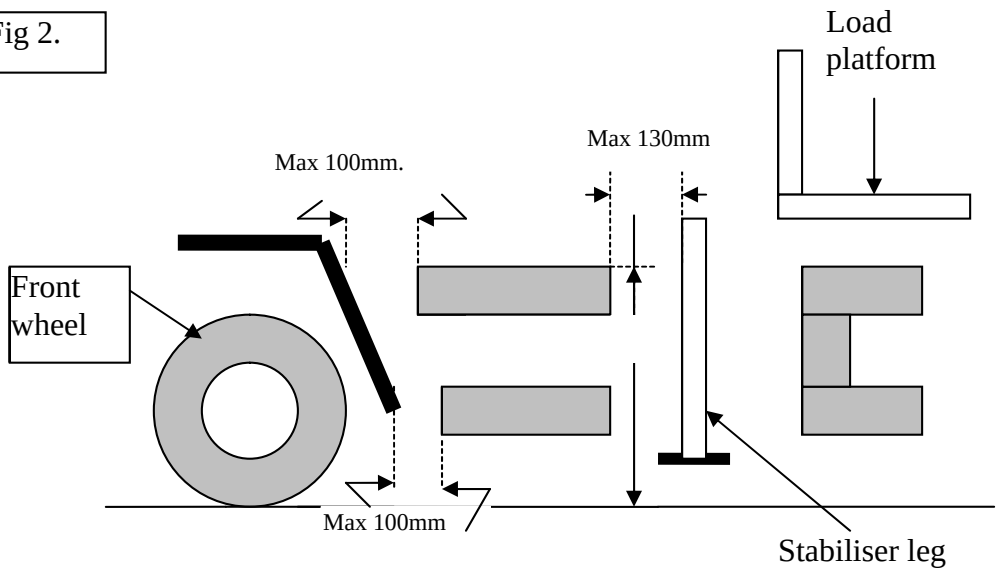
Spray suppression should not be fitted in excess of 1.5 times the tyre radius on a steerable wheel. (Included to prevent spray suppression being fitted incorrectly in an attempt to fill the gap between the stabiliser leg and wheel.)

Where a sideguard section is required:

a. The sideguard is to be not more than 300mm (A) from the tyre.
b. The minimum length of a sideguard between the Stabilizer leg and wheel is 100mm.
c. The clearance between sideguard and the stabiliser leg, should be not more than 130mm (C), assuming the leg is in the same plane as the sideguard. (This does not mean the leg has to be stowed in the same plane it is purely to asses the distance.)
d. If the distance between a mudguard/spray suppression and a stabiliser leg is greater than 300mm a sideguard is required (B).
e. Vehicles that require the installation of spray suppression must not have the suppression fitted in excess of 1.5 times the tyre radius of the steerable wheel, (to prevent the incorrect fitment of spray suppression to avoid sideguards).
f. The minimum height of a sideguard in the area where there is no load platform is 950 mm or the height level with the top of the load carrying area whichever is the lowest (D). See also exemptions pages 2 and 3 of this memo.

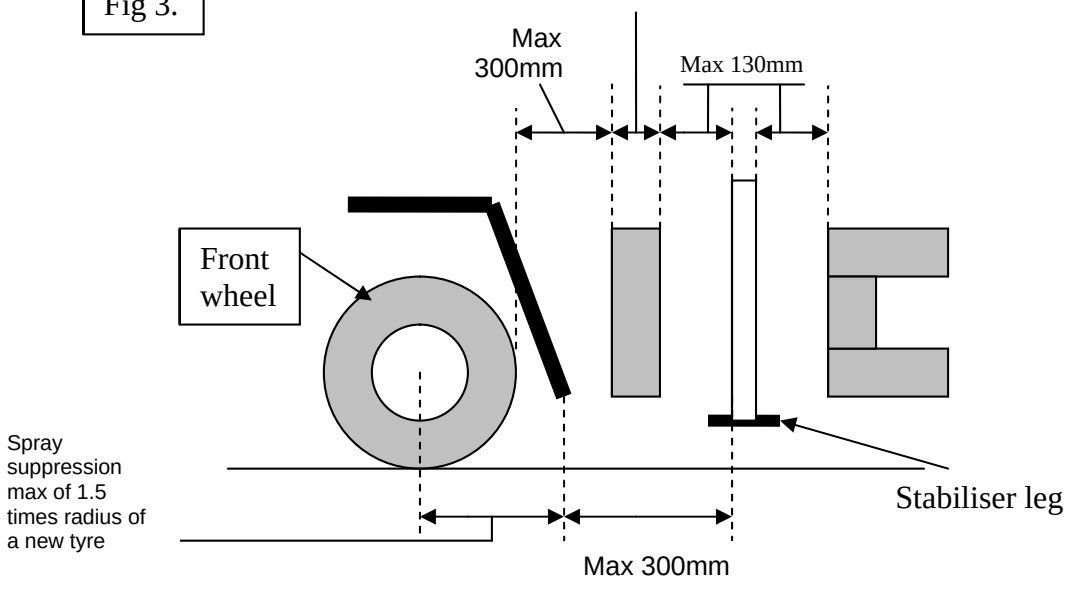
Vehicles with stabiliser legs built to the technical requirements of Directive89/297/EEC Cont

Fig 2.



As Fig 1, but alternatively if the sideguard rails extend to within 100mm of a part of the vehicle's permanent structure, there is no requirement to have a 50mm/100mm section extending back and 100mm section turned inwards. (50/100 mm vertical section depends on the class of vehicle, see "All Vehicles" page 1 of this memo.)

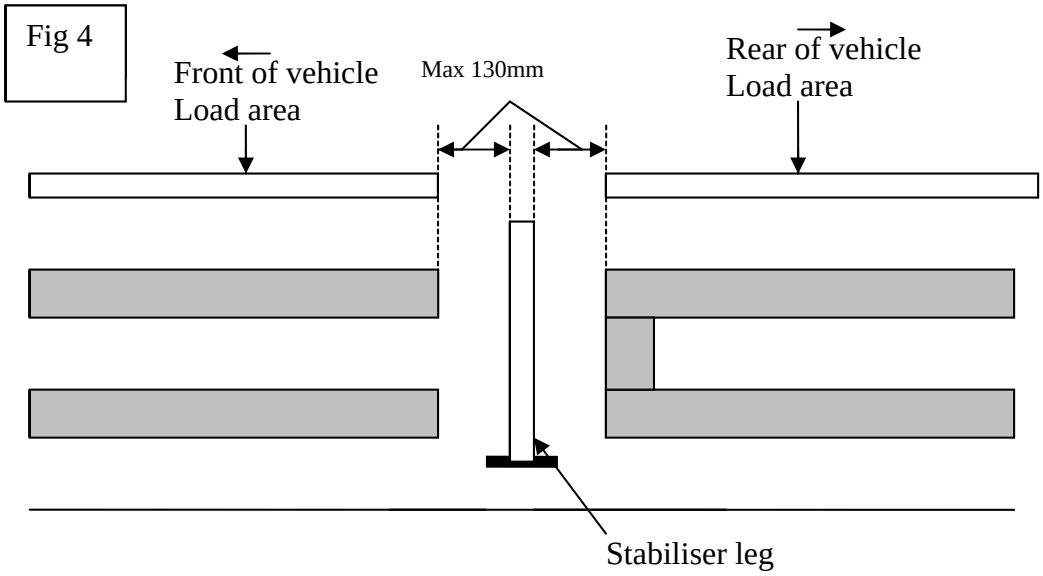
Fig 3.



If the clearance to the stabiliser leg is greater than 300mm from the wheel mudguard/spray suppression, there must be a section of sideguard within 300mm of the wheel of at least 100mm long that also meets the height requirement. For N_2 vehicles and O_3 trailers the vertical rail joining the upper and lower sideguards may be 50 mm wide but still turn in 100 mm. The width of a sideguard can also be 50 mm for this class of vehicle.

Vehicles with Centre mounted stabiliser legs built to the technical requirements of Directive 89/297/EEC

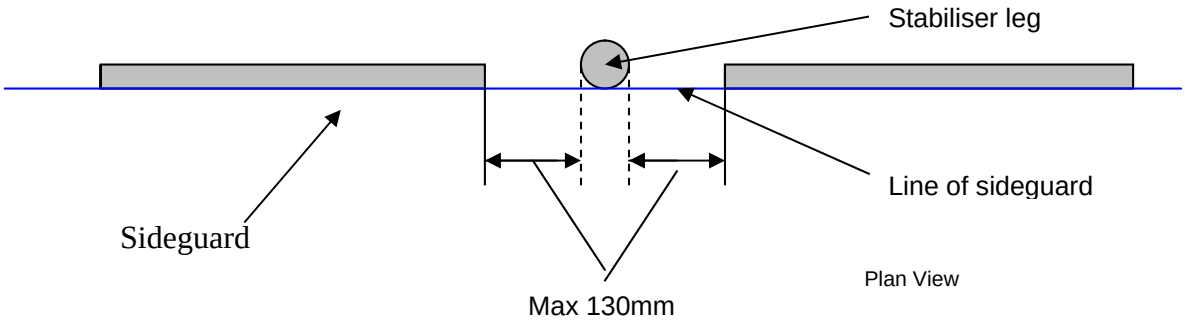
Fig 4



For stabiliser legs fitted in between the load area the sideguard must be no more than 130mm from the crane support leg.

Stabiliser to sideguard dimensions

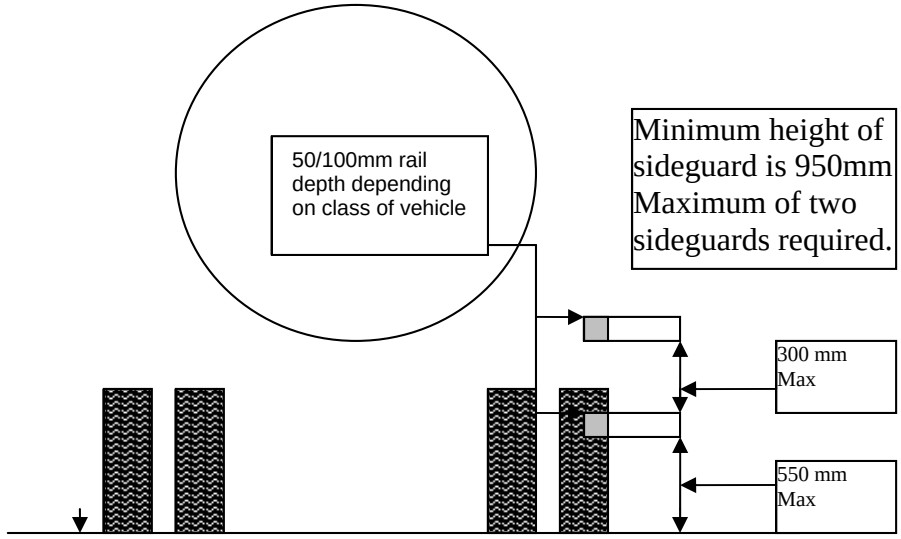
Fig 5



The diagram is only to illustrate the dimensions allowed between the stabiliser leg and a sideguard, it is not the intention that the stabiliser leg should be stowed in this position.

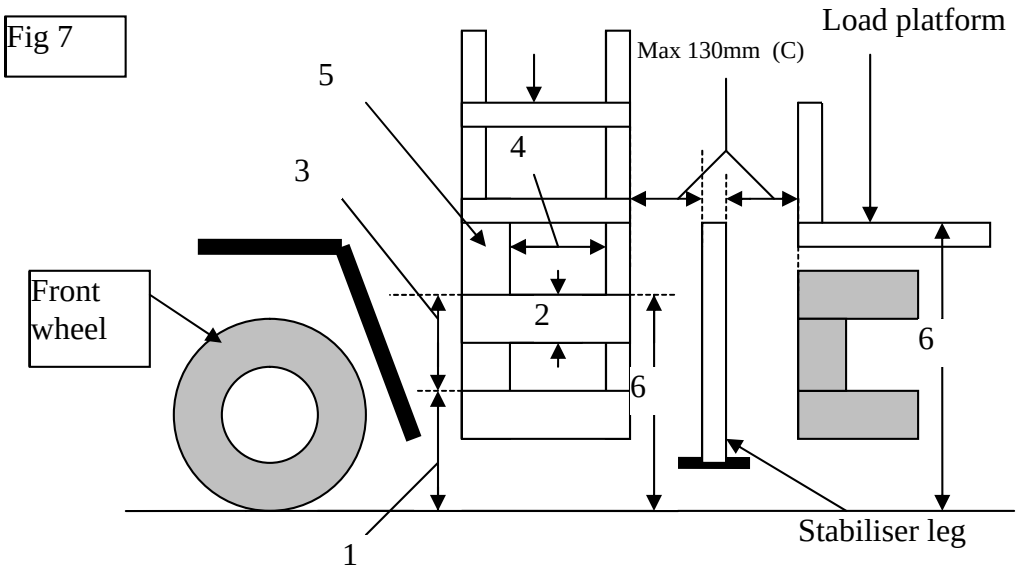
Narrow Bodied Tanker Vehicles built to the technical requirements of Directive89/297/EEC

Fig 6



Vehicles which have a ladder as part of a sideguard Dimensional requirements to meet Health & Safety and built to the technical requirements of Directive89/297/EEC

Fig 7



1 Height of first rung, min no requirement max 600mm.

2 Rung depth while acting as sideguard min 50mm for N_2 vehicles and O_3 trailers, 100mm for N_3 vehicles and O_4 trailers, otherwise

min 19mm max 40mm. (If the access is via a stairway the tread depth may be min 240mm and max 400mm.)

3 Height of riser min 220mm max 350mm.

4 Step width min 300mm (150mm for one foot only acceptable when width restrictions will not allow 300mm, but sufficient to meet sideguard requirements).

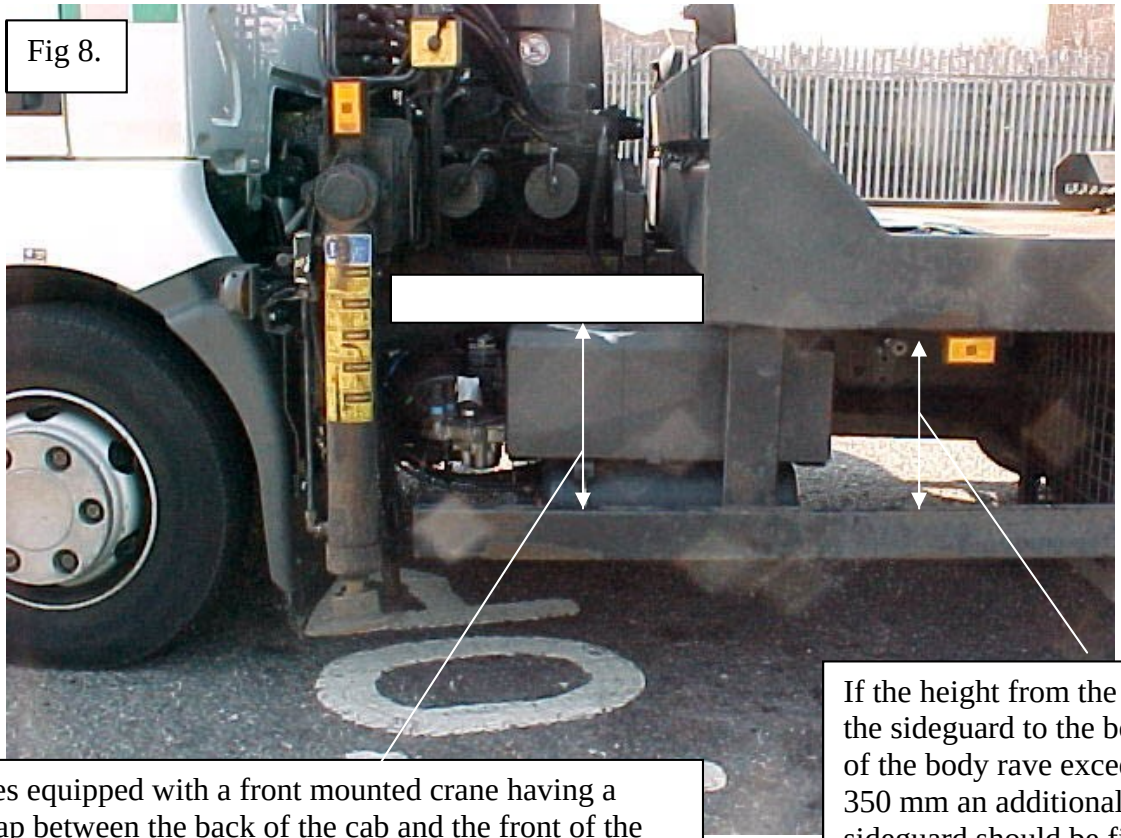
5 The front stanchion of the ladder needs to meet the requirements of the sideguard regulations in the area a sideguard is required (50mm for N_2 vehicles and O_3 trailers, 100mm for N_3 vehicles and O_4 trailers to the rear and turn in 100mm. This is not required if the front stanchion of the ladder is within 100mm of the main structure of the vehicle throughout the area where a sideguard is required).

6 Height of sideguard to be a minimum of 950mm or the height of the load carrying area whichever is the lowest. See also exemptions pages 2 and 3 of this memo

Note:
The ladder is only required to be tested for compliance with sideguard dimensions in the area of where a sideguard is required.

Any tread area fitted to the top of a rung of a ladder must not form a lip or protrusion on the face of the area where a sideguard is required.

Fig 8.

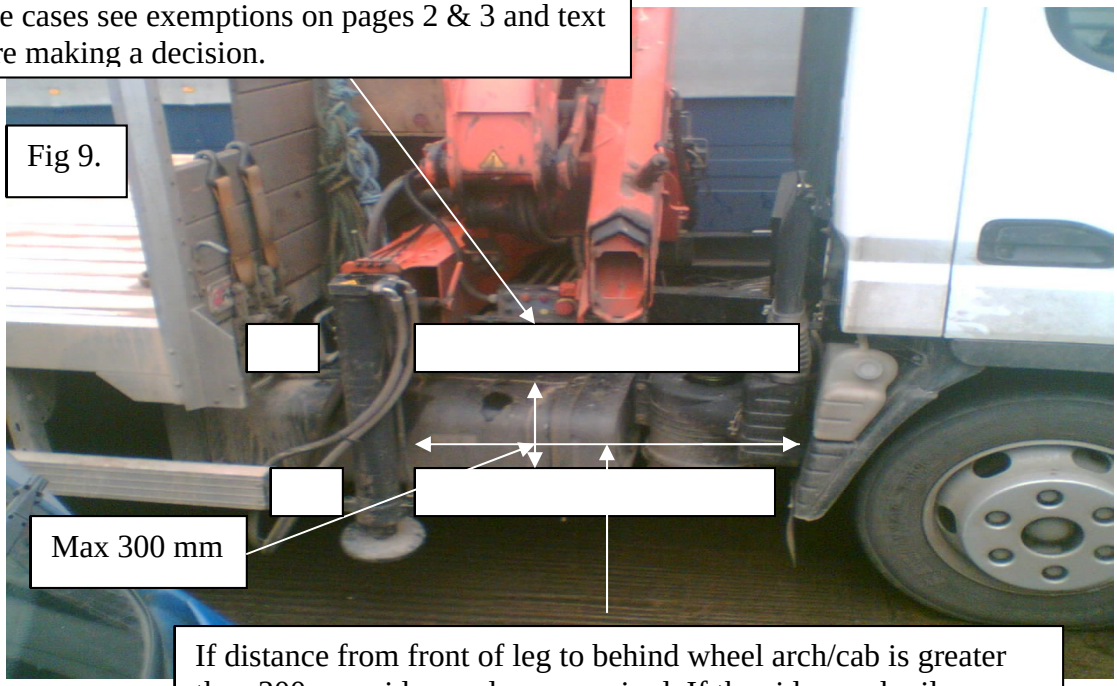


If the height from the top of the sideguard to the bottom of the body rave exceeds 350 mm an additional sideguard should be fitted in the space or a wider rail fitted to reduce the gap.

Vehicles equipped with a front mounted crane having a large gap between the back of the cab and the front of the load area should be treated as short bodied vehicles. These vehicles may have a considerable area not covered by the body, in these cases see exemptions on pages 2 & 3 and text in fig 1 before making a decision.

Vehicles equipped with a front mounted crane having a large gap between the back of the cab and the front of the load area should be treated as short bodied vehicles. These vehicles may have a considerable area not covered by the body, in these cases see exemptions on pages 2 & 3 and text in fig 1 before making a decision.

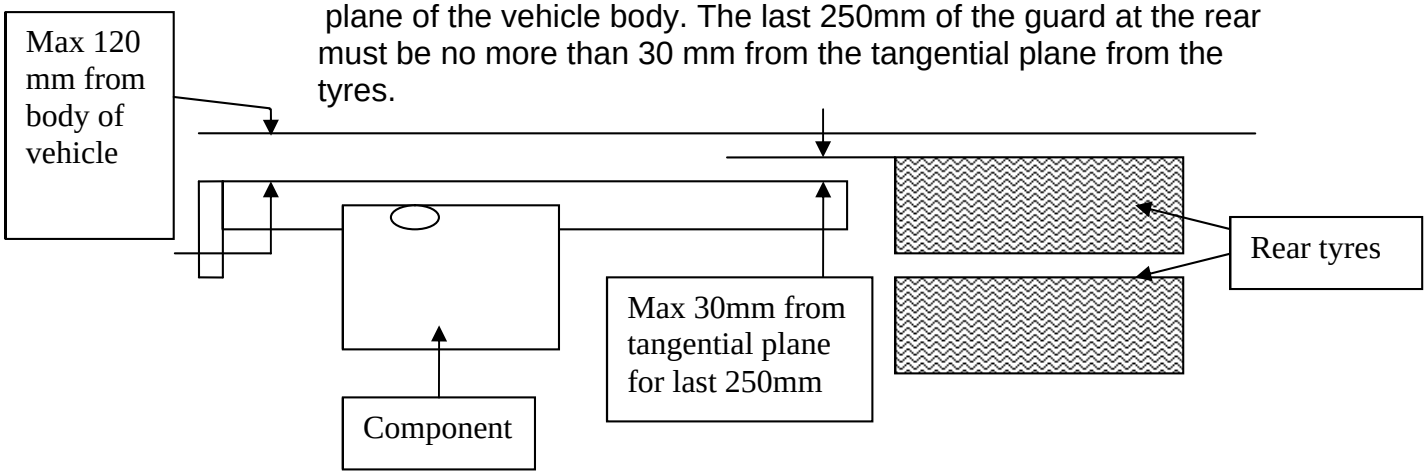
Fig 9.



If distance from front of leg to behind wheel arch/cab is greater than 300 mm sideguards are required. If the sideguard rails are fitted within 100 mm of the rear of the cab, there is no requirement for a 100mm turned inwards face or 50/100mm section extending back, see page 1 main changes to standards.

Fig 10.

Sideguards must be no more than 120mm in from the outermost plane of the vehicle body. The last 250mm of the guard at the rear must be no more than 30 mm from the tangential plane from the tyres.

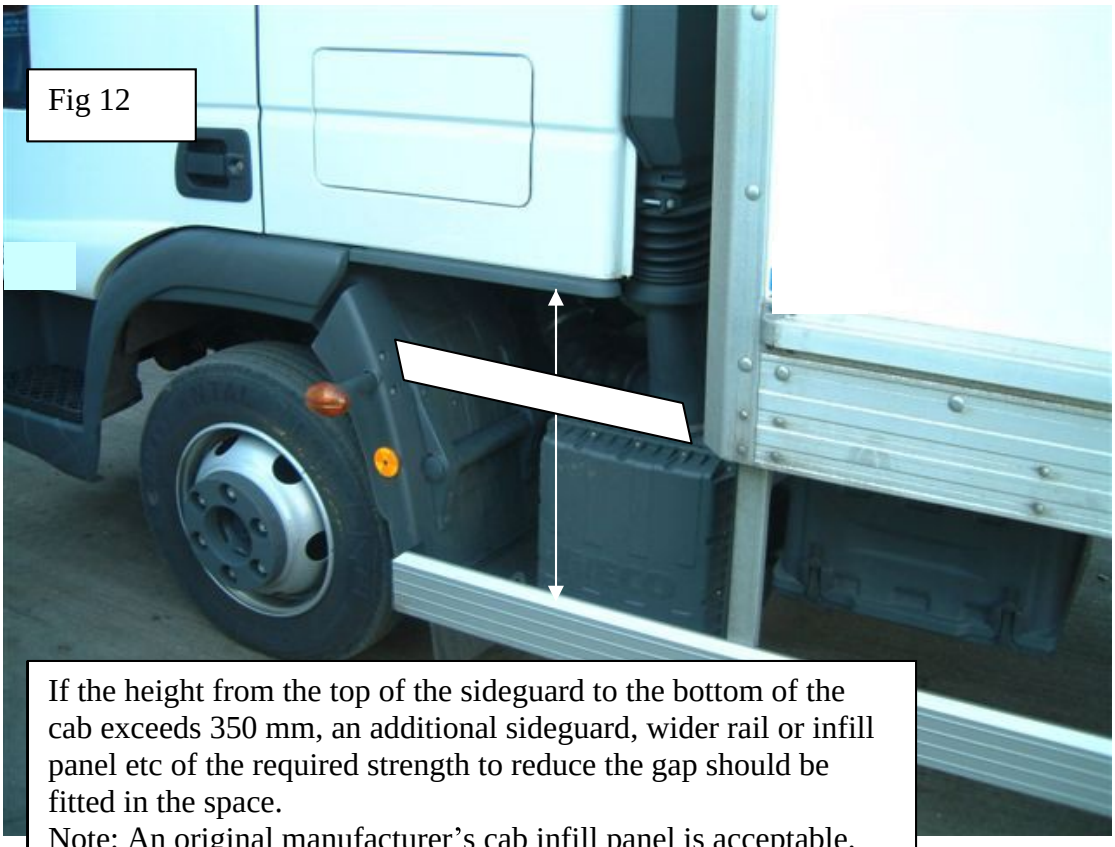


Plan View: Sideguard may be cut away to pass in front of a component, but must still comply with the strength requirements allowing for the support provided by the component in close proximity.

Fig 11.

If the height from the top of the sideguard to the bottom of the cab exceeds 350 mm, an additional sideguard, wider rail or infill panel etc of the required strength to reduce the gap should be fitted in the space.
Note: An original manufacturer's cab infill panel is acceptable.

Fig 12



If the height from the top of the sideguard to the bottom of the cab exceeds 350 mm, an additional sideguard, wider rail or infill panel etc of the required strength to reduce the gap should be fitted in the space.
Note: An original manufacturer's cab infill panel is acceptable.

The Main Dimensional Differences for Sideguards

Item	C&U	Directive
Max height from ground	1500mm	950mm
Number of rails	1-3	1-2
Height from ground	550mm	550mm
Depth of each rail	100mm	50mm for N2 vehicles 03 trailers 100 mm for N3 vehicles and 04 trailers
Max distance in from side of tyre/body	30mm from tangential plane of tyres	120mm from side of body last 250 mm not more than 30mm in from tangential plane of the tyres
Continuous vertical rail if required	100mm backwards and inwards	50mm backwards 100mm inwards for N2 vehicles and 03 trailers 100mm backwards, 100mm inwards for N3 vehicles and 04 trailers.

The remaining requirements/dimensions are the same for both regulations.