



**Vehicle
Certification
Agency**

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TEST REPORT: LATERAL PROTECTION (SIDE GUARDS)

The specifications below are based on published Volpe recommendations (Reports DOT-VNTSCDCAS-14-01 and DOT-VNTSC-SFMTA-16-05) and may be referred to as the “Volpe side guard standard” or “Volpe side guard specifications.”

REPORT/JOB NUMBER: PST396051

TEST DETAILS

Location of Test Portugal
Date of Test 05 June, 2017
VCA Representative(s) Telmo Costa
Manufacturer’s Representative(s) Giuseppe Calia
Reason for Test Compliance with the mentioned standard

MANUFACTURER DETAILS

Manufacturer’s Name Takler
Manufacturer’s Address Via Appia Antica KM 13,100
75100 Matera - Italy
Model Type & description All Configurations
Category LPD components

CONCLUSION

The above mentioned ~~vehicle~~/component was tested in accordance with DOT-VNTSCDCAS-14-01 and was found to comply in all respects

Signature: 
Name: Telmo Costa
Position: Type Approval Engineer
Date: 12 June, 2017

LIST OF ANNEXES

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TEST SPECIFICATION AND WORST CASE RATIONALE

The only combination tested complied with all the requirements stated on the mentioned standard. The force of 2KN was applied in the 3 different places of the side guard.

COMPONENT SPECIFICATION (as specified in agreed worse case rationale)

MANUFACTURER'S DOCUMENTATION

Manufacturer's documentation is complete and reflects the agreed specification for the component tested and covers all variants and versions agreed in the worst case rationale

Yes

FACILITY AND EQUIPMENT CHECKS

1 Generic Risk assessment followed *Insert RA identifier here*

Yes

OR

Specific Risk assessment completed and stored in electronic job folder

Yes

2 Facilities and test equipment are appropriate
Brief description of test equipment:

Yes

3 Calibration certificates checked and valid, recorded in the following table

Yes

Equipment	Serial No.	Calibration data
Load Cell	00257	25/03/2017
Measure	00122	17/02/2017



		Complies Yes/NA
Vehicle Type:		
Motor Vehicle, Draw bar Trailer, Semi Trailer.		Yes
Unladen mass of the vehicle	4500Kg or higher	Yes
Vehicle is fitted with a specific device, OR the sides of the vehicle are so designed that component parts can be regarded as replacing the side guards		N/A
Side guards do not increase overall vehicle width.		N/A
Distance of main part of outer surface inboard from outermost plane of vehicle (limit < 120mm)	mm	N/A
Max distance or rearmost 250mm of side guard inboard from outermost edge of rear tyres (excluding bulging closes to the ground) limit < 30mm	mm	N/A
Outer surface of side guard is smooth and flat or *horizontally corrugated. (*not Regulation)		Yes
Outer surface is continuous from front to rear except for gaps (< 25mm) and/or overlapping edges face rearwards or downwards.		Yes
Gaps between adjacent parts are < 25mm and rearward part does not protrude out board of forward part.		Yes
Protruding heads of bolts and/or rivets are domed and do not protrude more than 10mm.		Yes
Other protruding parts are smooth and rounded and so do not protrude more than 10mm		Yes
All external edges and corners have a minimum radii of 2.5mm. Side guard consists of:		Yes
continuous flat surface		
OR one or more horizontal rails		Yes
OR combination of above		



Rails are not more than 300mm apart and :

> 50mm high (N₂ and O₃)

Yes
Yes

> 100mm high (N₃ and O₄)

Motor Vehicle / Drawbar :

Longitudinal distance of forward edge of side guard to rear of rearmost part of tyre on wheel immediately forward of the guard (Limit < 300mm Motor vehicle, < 500mm Drawbar trailer) mm

N/A

Motor vehicle:

Dimension above falls within cab or falls behind cab but has been extended to meet cab according to paragraph 2.4.4.

N/A

Guard meets cab panels and, if necessary, is turned in through an angle not exceeding 45° OR on suspended / tilt cab, gap between front edge of guard and cab panel is < 100mm (in which case 2.4.2 does not apply)

N/A

Semi-Trailer

Longitudinal distance of forward edge of side guard to the rear of the transverse plane of the supporting legs, if fitted (limit 250mm) mm

N/A

Longitudinal distance of front edge of side guard to centre of kingpin (in rearmost position) limit 2700mm mm

N/A

Where forward edge of side guard lies in otherwise open space, edge consists of continuously vertical member extending over whole height of guard

N/A

Outer edge of member measures at least 50mm rearward (N₂,O₃) or 100mm rearward (N₃, O₄) and is turned 100mm inwards.

Yes

Longitudinal distance of rearward edge of side guard to forward of foremost part of tyre on wheel immediately rearward of the guard (limit 300mm) mm

N/A

Height of lower edge of guard above ground on unladen vehicle (limit 550mm) mm

N/A



Upper edge of guard is not more than 350mm below part of vehicle structure cut or contacted by vertical plane tangential to outer surface of tyres (excluding bulging close to ground) N/A

OR where the plane does not cut the vehicle structure: upper edge is level with load carrying platform or 950mm above the ground, whichever is the less N/A

OR where the plane cuts the vehicle structure at a level more than 1.3m above the ground: upper edge is not less than 950mm above the ground. N/A

Side guard is rigid, securely mounted and made of metal or suitable material. Yes

Components incorporated in the side guards and permanently fixed, e.g. battery box, air tanks, fuel tanks, lamps, reflectors, spare wheels and tool boxes meet the dimensional requirements. N/A

Brake, air or hydraulic pipes are not attached to side guard. N/A

APPLIED FORCE TEST

Tests performed on a number of Configurations:

Each design has had the load applied at the 3 worst case points:

1. The rearmost area on the lower side of each rail
2. The front most area, lowest point (loading the bottom of the front edge cover)
3. In the middle of the unsupported section on the lower side of each rail

Face of ram in circular and flat with a diameter of 220mm +/- 10mm Yes

Centre of ram is aligned perpendicularly with the external surface of the guard. Yes

Maximum deflection under horizontal static force of **2kN**:

Over rearmost 250mm (limit 30mm) 29.8 mm Yes

Over remainder of guard (limit 150mm) 145.3 mm Yes



CALCULATIONS

Strength calculations show that the stresses in the side guard do not exceed the yield stress of the materials used.

N/A

Calculations show that the deflection of the guard when a 2 kN horizontal force is applied is less than 30mm over the rearmost 250mm of the guard and less than 150mm over the remainder of the guard.

N/A

Remarks (if applicable):

