

Axle mass loads and dimensions

THE ROAD TRAFFIC ACT AND REGULATIONS:

AXLE MASS RESTRICTIONS:

Single axle (steering) – singles:	7 700 kg
Single axle – singles:	8 000 kg
Single axle – dual tyres (four tyres):	9 000 kg
Tandem axle unit – single tyres:	16 000 kg
Tandem axle unit – dual tyres:	18 000 kg
Tridem axle unit – singles or duals:	24 000 kg
Maximum permissible combination mass:	56 000 kg

MAXIMUM DIMENSIONAL RESTRICTIONS:

Overall length:

Any vehicle excluding a semi-trailer:	12.5 m
Articulated unit:	18.5 m
Full trailer excluding drawbar (GVM exceeds 12 000 kg):	12.5 m
Full trailer including drawbar (GVM does not exceed 12 000 kg):	12.5 m
Overall length, excluding drawbar, of a trailer with one axle/axle unit other than a semi-trailer:	
(i) GVM exceeds 12 000 kg:	11.3 m
(ii) GVM does not exceed 12 000 kg:	8.0 m

Overall width:

Overall vehicle width (GVM is 12 000 kg and over):	2.6 m
Overall vehicle width (GVM is under 12 000 kg):	2.5 m

Overall height:

Maximum vehicle height:	4.3 m
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Wheelbase:

Semi-trailer:	10.0 m
All other vehicles:	8.5 m

Front overhang:

In the case of a front-axle unit, the front overhang is measured from the foremost axle and not the centre of the axle unit	
Semi-trailer:	1.8 m
Goods vehicle: 60% of wheelbase, or	
a) if the driver's seat is not more than 1.7 m from the front end: 6.2 m minus half the wheelbase	
b) any other goods vehicle (including a trailer): 5.8 m minus half the wheelbase. In the case of a front-axle unit, the front overhang is measured from the foremost axle and not the centre of the axle unit	

Rear overhang (measured from the rearmost axle):

Refuse collectors, roadmaking and road construction vehicles, buses and farming vehicles: 70% of wheelbase	
A trailer with one axle or one axle unit (excluding a semi-trailer): 50% of body length	
Any goods vehicle: 60% of wheelbase	

Load projections:

Load projection must not be confused with overhang. Basically, overhang is part of the vehicle, whereas projection is that part of the load extending beyond the front end and/or rear end of the vehicle

Maximum load projections:

Side load projection – in the case of a goods vehicle with a GVM exceeding 12 000 kg maximum on each side of the longitudinal centre line:	1.3 m
In the case of any other goods vehicle:	1.25 m
Front load projection on all goods vehicles – the projection of the load beyond the front of the vehicle: or the front overhang plus the front load projection must not exceed the front overhang as prescribed in regulation 356 (1) (b)	300 mm
Rear load projection on all goods vehicles – the projection of the load beyond the rear end of the vehicle:	1.8 m

Note: the combined length of a vehicle or combination of vehicles plus front or rear load projection must not exceed the prescribed overall length of the vehicle or combination.

Drawbar length:

Maximum length of conventional drawbar:	2.0 m
Length of an underslung drawbar – the maximum drawbar length is not prescribed, but the maximum distance between the rear end of the towing vehicle and the front end of the trailer must not exceed:	2.5 m

THE QUALITY FACTOR. BPW AXLES

AXLE AND VEHICLE COMBINATION LOAD LIMITS IN EAST AND SOUTHERN AFRICA

This information is kindly supplied by the Federation of Eastern and Southern African Road Transport Association (FESARTA), and is sponsored by BPW Axles (Pty) Ltd.

COUNTRY	Steering Axle Two Tyres	Single Axle Two Tyres	Single Axle Dual Tyres	Tandem Axle Four Tyres	Tandem Axle Dual Tyres	Tridem Axle Six Tyres	Tridem Axle Dual Tyres	Vehicle Combination	Allowance
Angola	6		10		16		24	38	
Botswana	8	8	9	16	18	24	24	* 56	5% • 56-ton limit will now be enforced
Kenya	8	8	10	12	16	18	*24	54	* The quadrem 32-ton axle unit is being banned
Lesotho	7.7	8	9	15.4	18	24	24	56	5%
Malawi	8	8	10	16	18	24	24	56	* 5% for static weigh bridges 10% for mobiles
Mozambique	8	8	8	16	16	24	24	* 48	** NIL * Excludes N4 Corridor which is 56 tons ** Except for Tete, Machipanda
Namibia	7.7	8	9	16	18	24	24	56	5%
South Africa *	7.7	8	9	16	18	24	24	56	**2%/5% * Bridge Formula 18 + 2.1 L applies ** 2% on Combination, 5% on Axles
Swaziland	7.7	8	9	16	18	21	24	56	
Tanzania *	8	8	10	12	18	15	24	** 56	5% * Interlink ban is to be lifted ** Load limit for a vehicle is 28 tons
Uganda	8	8	10	12	16	18	24	50	
Zambia	8	8	10	12	18	*24	24	56	** NIL/5% * For Super Single tyres ** No allowance for combination mass
Zimbabwe	8	8	10	16	18	24	24	56	5%
SADC	8	8	10	16	18	24	24	56	
COMESA *	8	8	10	16	18	24	24	56	* New recommended load limits still to be ratified by COMESA council

VEHICLE DIMENSION LIMITS IN EAST AND SOUTHERN AFRICA (for vehicles with a GVM } 12 tons

	Vehicle Combination Length	Articulated Vehicle Length	Width	Height	Rigid Vehicle Length	Trailer Length	Semi Trailer length
Angola	20	18	2.5	4	15	15	15
Botswana	22	17	2.5	4.1	12.5	12.5	12.5
Lesotho	22	17	2.6	4.1	12.5	12.5	12.5
Malawi	22	17	2.5	4.6	12.5	12.5	12.5
Mozambique*	18/22*	15	2.5	4	12	12	12 *22m for N4 corridor
Namibia	22	18.5	2.6	4.3	12.5	12.5	n/a
South Africa	22	18.5	2.6	4.3	12.5	12.5	n/a
Swaziland	20	17	2.5	4.1	12.5	12.5	12.5
Tanzania	22	17	2.6	4.6	12.5	12.5	12.5
Zambia	22	17	2.65	4.6	12.5	12.5	12.5
Zimbabwe	22	17	2.65	4.6	12.5	12.5	n/a
SADC *	22	18.5	2.6	4.6	12.5	12.5	n/a * in proposed document
COMESA	22	17	2.65	4.6	12.5	12.5	12.5

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