



**THE NETHERLANDS  
( N E D E R L A N D )**



**COMMUNICATION**

Concerning <sup>(1)</sup>:

- approval granted
- ~~approval extended~~
- ~~approval refused~~
- ~~approval withdrawn~~
- ~~production definitely discontinued~~

of a type of vehicle with regard to braking pursuant to Regulation number 13.11

**Approval number: E4-13R-111670**

**Extension number: 00**

- |      |  |  |          |
|------|--|--|----------|
| 1.   | Trade name or mark of the vehicle                                | : JMR  |          |
| 2.   | Vehicle category   | : O2, 1 axle semi trailer  |          |
| 3.   | Vehicle type   | : See documentation  |          |
| 4.   | Manufacturer's name and address                                  | : JMR Trading BV<br>Staalstraat 1<br>2984 AJ Ridderkerk<br>The Netherlands |          |
| 5.   | If applicable, name and address of manufacturer's representative | : N.A.   |          |
| 6.   | Mass of vehicle:   |  |          |
| 6.1. | Maximum mass of vehicle  | : 3.250 kg   |          |
| 6.2. | Minimum mass of vehicle  | : 600 – 1.500 kg   |          |
| 7.   | Distribution of mass of each axle<br>(maximum value)             | : Axle no 1  | 1.750 kg |
| 8.   | Make and type of brake linings:                                  | DEX 1 FF   |          |
| 8.1. | Brake linings tested to all relevant prescriptions of Annex 4    | : RDW-71/320-1645  |          |



- 8.2. Alternative brake linings tested in Annex 15 : N.A.
9. In the case of a power-driven vehicle: N.A.
- 9.1. Engine type : N.A.
- 9.2. Number and ratios of gears : N.A.
- 9.3. Final drive ratio(s) : N.A.
- 9.4. If applicable <sup>(1)</sup> maximum mass of trailer which may be coupled:
- 9.4.1. Full trailer : N.A.
- 9.4.2. Semi-trailer : N.A.
- 9.4.3. Centre-axle trailer (indicate also the maximum ratio of the coupling overhang <sup>(2)</sup> to the wheelbase) : N.A.
- 9.4.4. Unbraked trailer : N.A.
- 9.4.5. Maximum mass of combination : N.A.
10. Tyre dimensions: Rdyn. : 338 mm
- 10.1. Temporary-use spare wheel/tyre dimensions : N.A.
11. Number and arrangement of axles : 1 rear axle's
12. Brief description of braking equipment : See documentation

## 13. Mass of vehicle when tested:

	Unladen (kg)	Laden (kg)
King pin/supporting load <sup>(3)</sup>	412	1.990
Axle number 1	1.244	1.755
Total	1.656	3.745

Remark



## 14. Results of the tests and vehicle characteristics:

Test results			Test speed (km/h)	Measured performance (m/s <sup>2</sup> )	Measured current intensity (Amp.)
14.1.	Type-0 tests, engine disconnected	Service braking	60	5,8 laden 6,6 Un.lad	6,1 laden 4,4 Un.lad.
		Secondary braking			
14.2.	Type-0 tests, engine connected	Service braking in accordance with Paragraph 2.1.1. of Annex 4			
14.3.	Type-I tests	With repeated braking <sup>(4)</sup>			
		With continuous braking <sup>(5)</sup>			
		Free running, in accordance with Annex 4, paragraph 1.5.4. <sup>(4)</sup> and Annex 4, Paragraph 1.7.3. <sup>(6)</sup>			
14.4.	Type-II or IIA <sup>(1)</sup> tests, as appropriate	Service braking			
14.5.	Type-III tests <sup>(6)</sup>	Free running, in accordance with Annex 4, paragraph 1.7.3.			

Remark.

14.6. Braking system(s) used during the Type-I /H/HIA/HH <sup>(1)</sup> test : See RDW-71/320-1645

14.7. Reaction time and dimensions of flexible pipes:

14.7.1. Reaction time at the brake actuator : ≤ 0,4 s

14.7.2. Reaction time at the control line coupling head : -... s

14.7.3. Flexible pipes of tractors for semi-trailers:

- Length : See doc. m

- Internal diameter : See doc. mm

14.8. Information required under paragraph 7.3. of Annex 10 to this regulation

14.9. Vehicle is/is not <sup>(1)</sup> equipped to tow a trailer with electrical braking systems

14.10. Vehicle is/is not <sup>(1)</sup> equipped with an anti-lock system



- 14.10.1. Category of anti-lock system : category ~~1/2/3~~<sup>(1)(4)</sup>  
: category ~~A/B~~<sup>(1)(5)</sup>
- 14.10.2. The vehicle fulfils the requirements of Annex 13 : ~~yes/no~~<sup>(1)</sup>
- 14.10.3. Vehicle is/is not<sup>(1)</sup> equipped to tow trailers equipped with anti-lock systems
- 14.10.4. Where an Annex 19 anti-lock test report has been utilised, the test report number(s) shall be stated : N.A.
- 14.11. The vehicle is subject to the requirements of Annex 5 (ADR) : ~~yes/no~~<sup>(1)</sup>
- 14.11.1. The vehicle fulfils the endurance braking performance requirements according to the Type-IIA test up to a total maximum mass of ... tonnes : ~~yes/no~~<sup>(1)</sup>
- 14.11.2. The power-driven vehicle is fitted with a control device for the endurance braking system on the trailer : ~~yes/no~~<sup>(1)</sup>
- 14.11.3. In the case of trailers, the vehicle is equipped with an endurance braking system : ~~yes/no~~<sup>(1)</sup>
- 14.12. Vehicle is equipped with a control line(s) according to paragraphs : ~~5.1.3.1.1./5.1.3.1.2./5.1.3.1.3~~<sup>(1)</sup>.
- 14.13. Adequate documentation according to Annex 18 was supplied in respect of the following systems : ~~yes/no/not applicable~~<sup>(1)</sup>  
- ...
- 14.14. The vehicle is equipped with a vehicle stability function : ~~yes/no~~ N.A.<sup>(1)</sup>

If yes:

The vehicle stability function has been tested according to and fulfils the requirements of Annex 21 : ~~yes/no~~<sup>(1)</sup>

Vehicle stability function is optional equipment : ~~yes/no~~<sup>(1)</sup>

Vehicle stability function includes directional control : ~~yes/no~~<sup>(1)</sup>

Vehicle stability function includes roll-over control : ~~yes/no~~<sup>(1)</sup>



- 14.14.1. Where an Annex 19 test report has been utilised, the test report number shall be stated : N.A.
15. Additional information for use with the Annex 20 alternative type-approval procedure:
- 15.1. Description of suspension : N.A.
- 15.1.1. Manufacturer : N.A.
- 15.1.2. Make : N.A.
- 15.1.3. Type : N.A.
- 15.1.4. Model : N.A.
- 15.2. Wheelbase of vehicle tested : N.A.
- 15.3. Actuation differential (if any) within bogie : N.A.
16. Trailer approved utilising Annex 20 procedure (if yes, Appendix 2 to this annex shall be completed) : ~~yes~~/no<sup>(1)</sup>
17. Vehicle submitted for approval on : 17-03-2010
18. Technical Service responsible for conducting approval tests : RDW  
P.O. Box 777  
2700 AT Zoetermeer  
The Netherlands
19. Date of report issued by that service : 29-April 2010
20. Number of report issued by that service : RDW-71/320-1645
21. Approval : ~~granted~~/~~extended~~/~~refused~~/~~withdrawn~~<sup>(1)</sup>



22. Position of approval mark on the vehicle : On or close to vehicle type plate
23. Place : Zoetermeer
24. Date : 18-06-2012
25. Signature :



The image shows a blue circular stamp of the RDW (Rijksdienst voor het Verkeer en Waterweg) logo, which includes a coat of arms and the motto 'JE MAINTIENDRAI'. To the right of the stamp is a handwritten signature in blue ink that reads 'W.R. Hartman'. Below the stamp and signature, the name 'W.R. Hartman' is printed in a standard blue font.

26. The summary referred to in paragraph 4.3. of this regulation is annexed to this communication.

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<sup>(1)</sup> Strike out what does not apply.

<sup>(2)</sup> 'Coupling overhang' is the horizontal distance between the coupling for centre-axle trailers and the centreline of the rear axle(s).

<sup>(3)</sup> In the case of a semi-trailer or centre-axle trailer, enter the mass corresponding to the load on the coupling device.

<sup>(4)</sup> Applies only to vehicles of categories O2 and O3.

<sup>(5)</sup> Applies only to power-driven vehicles.

<sup>(6)</sup> Applies only to vehicles of categories O4.

**INFORMATION DOCUMENT NO: E4-13R-111670-00**

Pursuant to Annex I of Council 2007/46/EC relating to EC type-approval of a vehicle with respect to the braking equipment of trailers with other than inertia (overrun) brakes (Directive 71/320/EEC as last amended by Directive 2006/20/EC) and Regulation 13R11.

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**Revision**

Request for extension/revision/correction : N.A.

Reason for extension/revision/correction : N.A.

**History**

Information document no.

E4-13R-111670-00

Reason for revision

Base approval





Pursuant to Annex I of Council 2007/46/EC relating to EC type-approval of a vehicle with respect to the braking equipment of trailers with other than inertia (overrun) brakes  
(Directive 71/320/EEC as last amended by Directive 2006/96/EC) and Regulation ECE R 13.11

If the systems, components or separate technical units have electronic controls, information concerning their performance shall be supplied.

0. GENERAL

- 0.1. Make (trade name of manufacturer) : JMR
- 0.2. Type : BE-SC, BE-MS, BE-HT, BE-CT, BE-CC, BE-CG
- 0.3. Means of identification of type, if marked on the vehicle (b) : See statutory plate
- 0.3.1. Location of that marking : Right side at front.
- 0.4. Category of vehicle (c) : O2 1 axle semi trailer
- 0.5. Name and address of manufacturer : JMR Trading BV  
Staalstraat 1  
2984 AJ Ridderkerk  
The Netherlands
- 0.8. Address(es) of the assembly plant(s) : N.A..

1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE

- 1.1. Photographs and/or drawings of a representative vehicle : See documentation
- 1.3. Number of axles and wheels : 1 axles 2 wheels
- 1.3.1. Number and positions of axles with double wheels : N.A.



(\*) The point numbers and footnotes used in this information document correspond to those set out in Annex I to Directive 70/156/EEC. Points not relevant for the purpose of this Directive are omitted.  
(\*\*) if necessary for the explanation of point 8.





2. MASSES AND DIMENSIONS (e) (in kg and mm) (refer to drawing where applicable)
- 2.1. Wheel base(s) (fully loaded) (f) : 5.000 – 8.000 mm
- 2.3.1. Track of each steered axle (i) : N.A. mm
- 2.6. Mass of the vehicle with bodywork or mass of the chassis in running order (maximum and minimum) : 600 – 1.250 kg
- 2.6.1. Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point (maximum and minimum) :
- |            |              |
|------------|--------------|
| King pin   | 200 - 500 kg |
| Axle no. 1 | 400 – 750 kg |
| Axle no. 2 | - kg         |
| Axle no. 3 | - kg         |
| Axle no. 4 | - kg         |
| Axle no. 5 | - kg         |
| Axle no. 6 | - kg         |
- 2.7. Minimum mass of the completed vehicle as stated by the manufacturer, in the case if an incomplete vehicle : N.A. kg
- 2.7.1. Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point :
- |            |      |
|------------|------|
| King pin   | - kg |
| Axle no. 1 | - kg |
| Axle no. 2 | - kg |
| Axle no. 3 | - kg |
| Axle no. 4 | - kg |
| Axle no. 5 | - kg |
| Axle no. 6 | - kg |



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 (\*\*) if necessary for the explanation of point 8.



- 2.8. Technical permissible maximum laden mass stated by the manufacturer (y) (maximum and minimum) : 3.250 kg
- 2.8.1. Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point (maximum and minimum) :
- |            |          |
|------------|----------|
| King pin   | 1.500 kg |
| Axle no. 1 | 1.750 kg |
| Axle no. 2 | - kg     |
| Axle no. 3 | - kg     |
| Axle no. 4 | - kg     |
| Axle no. 5 | - kg     |
| Axle no. 6 | - kg     |
- 2.9. Technically permissible maximum load/mass on each axle : 1.750 kg
- 2.10. Technically permissible maximum load/mass on each axle group : 1.750 kg
- 2.12. Technically permissible maximum static vertical load/mass on the vehicle's coupling point
- 2.12.2. ~~of the semi-trailer or centre-axle trailer~~ : 1.500 kg
5. AXLES
- 5.4. Position of retractable axles(s) : N.A.



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 (\*\*) if necessary for the explanation of point 8.



- 6. SUSPENSION
- 6.1. Drawing of the suspension arrangements (\*\*): See Documentation
- 6.2. Type and design of the suspension of each axle or group of axles or wheel : Mechanical / Torsion / Air suspension
- 6.6. Tyres and wheels :
- 6.6.1. Tyre/wheel combination(s) : See table below
- 6.6.2. Upper and lower limit or rolling radii : See table below mm
- 6.6.3. Tyre pressure(s) as recommended by the vehicle manufacturer : See table below Kpa

TYRE(S)					WHEEL(S)	
Size designation	Minimum Load Index	Minimum Speed symbol	Rolling radii	Tyre pressure(s)	Rim size	Off-set
225 x 70 R 15	112/110	P	338 mm	3,5	15 – 6J	-

- 6.6.1.1. AXLES
- 6.6.1.1.1. Axle no. 1 : Dexter Torflex 10 / 11 / 12



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 (\*\*) if necessary for the explanation of point 8.



8. BRAKES

The following particulars, including means of identification, where applicable, are to be given:

- 8.1. Type and characteristics of the brakes (as defined in Annex I, point 1.6, to Directive 71/320/EEC) with a drawing, (e.g. drums or discs, wheels braked, connection to braked wheels, make and type of shoe/pad assemblies and/or linings, effective braking areas, radius of drums, shoes or discs, mass of drums, adjustment devices relevant parts of the axle(s) and suspension, etc.) : See documentation
- 8.2. Operation diagram, description and/or drawing of the following braking systems (as defined in Annex I, point 1.2., to Directive 70/320/EEC) with e.g. transmission and control (construction, adjustment, lever ratios, accessibility of control and its position, ratchet controls in the case of mechanical transmission, characteristics of the main parts of the linkage, cylinder and control pistons, brake cylinders or equivalent components in the case of electrical braking systems) : See documentation



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(\*\*) if necessary for the explanation of point 8.



- 8.2.1. Service braking system : Electric controlled See documentation
- 8.2.3. Parking braking system : Spindle Herman Peeters / 0.90.000-00
- 8.2.4. Any additional braking system : N.A.
- 8.2.5. Break-away braking system : Make : Tekonsha Type 2010
- 8.5. Anti-lock braking system : N.A.
- 8.5.1. For vehicles with anti-lock braking systems, description of system operation (including any electronic parts), electric block diagram, hydraulic or pneumatic circuit plan : N.A.
- 8.6. Calculation and curves according to the Appendix to point 1.1.4.2. of Annex II to Directive 71/320/EEC (or the Appendix to Annex XI, if applicable) : N.A.
- 8.7. Description and/or drawing of the energy supply (also to be specified for power-assisted braking system) : Electric brake system Nominal 12V
- 8.7.1. In the case of compressed air braking systems, working pressure p<sub>2</sub> in the pressure reservoir(s) : N.A. bar
- 8.7.2. In the case of vacuum braking systems, the initial energy level in the reservoir(s) : N.A.
- 8.8. Calculation of the braking system; determination of the ratio between the total braking forces at the circumference of the wheels and the force applied to the braking control : N.A.
- 8.9. Brief description of the braking systems (according to point 1.6. of Annex IX, Appendix I to Directive 71/320/EEC) : N.A.
- 8.10. If claiming exemptions from the Type I and/or Type II or Type III tests, state the number of the report in accordance with Appendix 2 of annex VII to Directive 71/320/EEC : See testreport RDW-71/320-1645

Date:

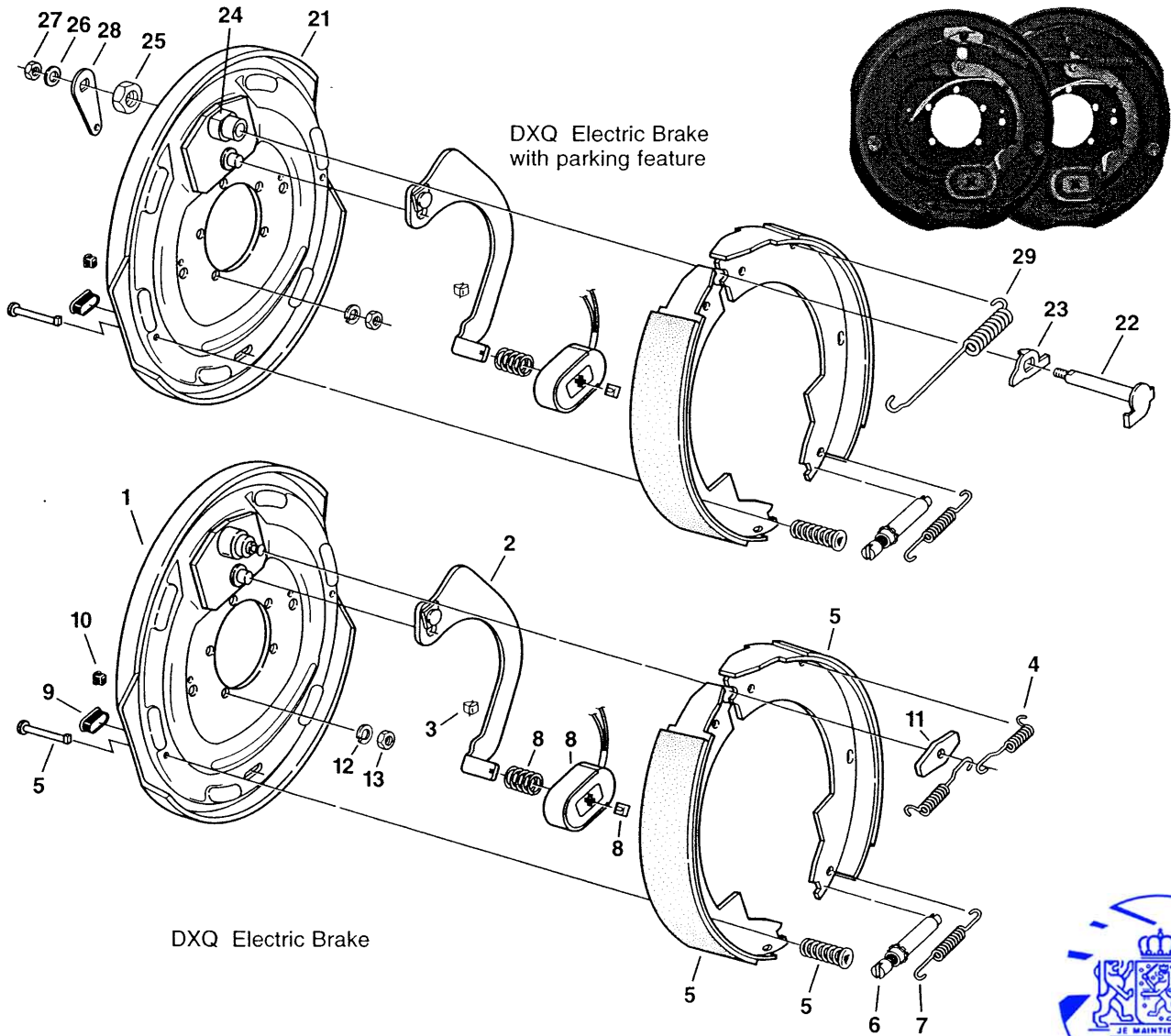
File: Brake schema



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 (\*\*) if necessary for the explanation of point 8.



# 12 x 2" ELECTRIC BRAKES



## DXQ ELECTRIC BRAKE

Item	Part No.	Qty/Brk	Description
0	023-105-00*	1	LH Complete Brake Assembly
0	023-106-00*	1	RH Complete Brake Assembly
1	036-089-05	1	Backing Plate Assembly
2	047-107-00	1	LH Actuating Lever Arm Assembly
2	047-108-00	1	RH Actuating Lever Arm Assembly
3	027-005-00	2	Wire Clip
4	046-009-00	2	Retractor Spring
5	K71-048-00	1	Shoe and Lining Kit containing: 1 #040-044-00 Primary S&L 1 #040-045-00 Secondary S&L 2 #049-011-00 Shoe Hold Down Pin #2 2 #046-077-00 Shoe Hold Down Spring
6	043-004-00	1	Adjuster Assembly
7	046-018-00	1	Adjusting Screw Spring
8	K71-105-00	1	Magnet Kit containing: 1 #042-099-01 Magnet (white wire) 1 #027-009-00 Magnet Clip 1 #046-080-00 Magnet Spring
9	046-007-00	1	Plug
10	046-016-00	1	Wire Grommet
11	005-067-00	1	Anchor Post Washer
12	005-004-00	5	Lockwasher
13	006-010-00	5	Brake Mounting Nut

\* CSA approved at 5200#

## DXQ ELECTRIC PARKING BRAKE

Item	Part No.	Qty/Brk	Description
00	023-112-00	1	LH Complete Brake Assembly
00	023-113-00	1	RH Complete Brake Assembly
ns	036-089-08	1	LH Backing Plate Assembly Complete
ns	036-089-09	1	RH Backing Plate Assembly Complete
21	036-089-06	1	LH Backing Plate Sub-Assembly
21	036-089-07	1	RH Backing Plate Sub-Assembly
22	039-025-00	1	LH Pivot Pin & Cam Sub-Assembly
22	039-026-00	1	RH Pivot Pin & Cam Sub-Assembly
23	039-048-00	1	LH Actuating Cam
23	039-049-00	1	RH Actuating Cam
24	038-068-00	1	Anchor Post & Bushing Sub-Assembly
25	006-047-00	1	Anchor Post Locknut
26	005-041-00	1	Washer
27	006-011-01	1	Pivot Pin Locknut
28	047-070-00	1	Parking Brake Lever
29	046-005-00	1	Retractor Spring

All other components same as no park.



RUBBER TORSION SUSPENSION AXLES



### Torflex Features

- Independent wheel suspension and self-damping action
- Rubber cushioning eliminates metal-to-metal contact
- Less transfer of road shock for better cargo protection
- Heat-treated solid steel inner bar
- Forged torsion arm for maximum strength
- Rubber cords compounded for dependability
- Axle can be used as a load carrying cross member
- Easy installation with less overall maintenance
- Low profile availability for maximum road clearance
- Single or tandem axle assemblies
- Five-year limited warranty on suspension system



### What is Torflex?

The Torflex® suspension system is a torsion arm type suspension which is completely self contained within the axle tube. It attaches directly to the trailer frame using brackets which are an integral part of the axle assembly. The Torflex® axle provides improved suspension characteristics relative to leaf spring axles through the unique arrangement of a steel torsion bar surrounded by four natural rubber cords encased in the main structural member of the axle beam.

The wheel/hub spindle is attached to a lever, called the torsion arm, which is fastened to the rubber encased bar. As load is applied, the bar rotates causing a rolling/compressive resistance in the rubber cords. This rotating action provides the same functionality as conventional sprung axles with several operating advantages including independent suspension.

Except for periodic inspection of the fasteners used to attach the Torflex® axle to the vehicle frame, no other suspension maintenance is required on Torflex® axles. They are, of course, subject to the maintenance and inspection procedures regarding brakes, hubs, bearings, seals, wheels, and tires as outlined in the Dexter Operation Maintenance Service Manual.

### Torflex Specifications

- Bearing lubrication options: E-Z Lube®, Nev-R-Lube™, or Oil (7,000 lbs. and above)
- 600 lbs. - 10,000 lbs. capacities, manufactured to the customer's exact requirements
- Ride heights available: 45° down, 22.5° down, 10° down, 0°, 10° up, and 22.5° up
- High and low profile brackets with optional mounting brackets available
- CAUTION: Triple axle assemblies are not recommended for Torflex® axles



**DEXTER AXLE**

Demand Better. Demand Dexter.



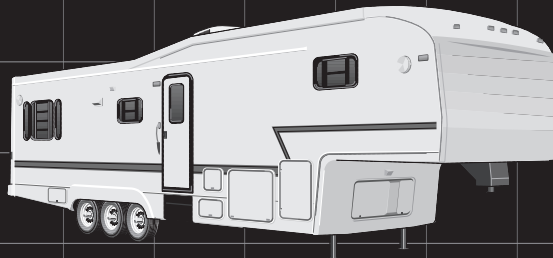
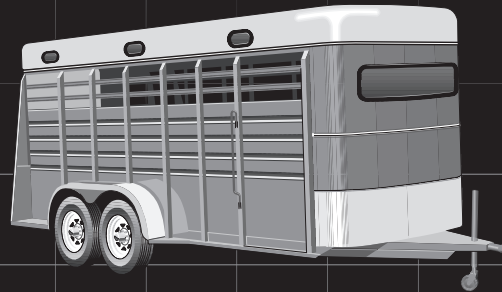
# LEAF SPRING

## SUSPENSION AXLES



### The Industry Standard...

- Axle capacities up to 27,500 lbs.
- Detailed product and service literature
- High quality alloy steel springs in a variety of capacities
- Slipper spring or double eye leaf spring suspension
- Durable, weather-resistant components
- Heavy duty suspension parts available
- Drop or straight spindle configurations
- Industry standard hubs and hub drums
- Finned drums for better heat dissipation
- CSA certification on many models
- Custom built to your specifications
- Nationwide distribution of parts
- Electric, hydraulic, disc, and air brakes available
- Single, tandem, or triple axle assemblies with equalized suspensions
- Precision machined steel spindles and integral cast iron hub-drums
- Inner wiring system for easier installation and protection of brake wiring
- Standard grease, E-Z Lube®, Nev-R-Lube™ and Oil (higher capacity models)
- Two-year limited warranty



# DEXTER AXLE

Demand Better. Demand Dexter.

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[dexteraxle.com](http://dexteraxle.com)



- Soft Ride – New hybrid suspension combines air and rubber torsion for an excellent ride
- Independent – Ride and stability improve with independent wheel action
- Equalizing – Axle-to-axle load equalization allows use on triple axle trailers
- Reliable – Rubber cushions ride even if air is not available
- Maintains constant ride height for the ultimate ride
- Fully assembled for easy installation
- Adjustable axle alignment feature
- Available for single, tandem or triple axle applications
- Optional ride height control valve and air generation kits are available
- Two year limited warranty



**AIRFLEX™**  
AIR RIDE SUSPENSION

## Smooth Out the Roughest Roads



## How Airflex™ provides a smoother ride

- Suspension brackets mount to the trailer frame
- The rubber torsion axle rides on air springs and the trailer is cushioned by both the air spring and rubber torsion springs

**ROAD  
BUMPS**

Harsh shock from road hazards, pot holes and train tracks

+

**RUBBER  
SUSPENSION**

Rubber absorbs some road shock

+

**AIR  
SPRINGS**

Air springs isolate even more of the bumps

=

**SOFT SMOOTH RIDE**

Protects you and your cargo



Forged steel torsion arms

Internal rubber bump stop prevents damage due to loss of air



**50 YEARS OF EXCELLENCE**



## **Beschrijving elektrisch remsysteem vlg. tek. 100407.**

Het remsysteem is middels de **steker (1)** elektrisch verbonden met het trekkende voertuig. De steker heeft minstens 3 contacten: 2 stuks (+/-12V) om de boordaccu te laden, en één contact welke verbonden is met het remlichtsignaal van de voorwagen. Het remlichtsignaal zorgt ervoor dat remregeling (4) geactiveerd wordt

De **regelaar (2)** dient om de laadstroom in de verbindingkabels naar de rem-accu van de aanhangwagen te begrenzen tot een maximum van 15 Ampère, zoals bepaald is in de remmenrichtlijn. Ook wordt er geen spanning meer doorgelaten als de spanning van de accu van de motorwagen lager is dan 11,5 Volt. Dit is zo gedaan om ervoor te zorgen dat de accu van de aanhangwagen die van de motorwagen niet kan ontladen als b.v. de combinatie langdurig wordt geparkeerd. Tevens is de regelaar verbonden met het remlichtsignaal van de motorwagen ter beveiliging van de remwerking van de aanhanger. Mocht de spanning van de rem-accu van de aanhangwagen lager worden dan 7 Volt, dan zorgt het remlichtsignaal ervoor dat tijdens de remming de regelaar weer voedingspanning gaat doorlaten van de motorwagen naar de accu van de aanhangwagen.

De **remregeling (4)** wordt geactiveerd door het remlichtsignaal van het trekkende voertuig. In de remregeling is een vertragingsoptrekkende opgenomen, welke de remvertraging van de combinatie registreert en afhankelijk hiervan een bij de vertraging passende stroom aan de remspoelen levert.

De maximaal te bereiken remkracht wordt afhankelijk van de asdruk automatisch geregeld door de **remkrachtregelaars (5)** welke de remregeling aansturen. Als het voertuig inveert als gevolg van ladingtoename zal de stand van de regelaar veranderen waardoor de maximaal uitgestuurde spanning van de remregeling (en remkracht) zal toenemen. Er zijn 2 remkrachtregelaars diagonaal gemonteerd, één op de voorste as en één op de achterste as, en ze zijn in serie met elkaar verbonden. Dit is zo gedaan om bij onafhankelijk geveerde wielen (torsie-assen) eventuele scheefstand van het voertuig te compenseren. Tijdens veerbewegingen zal de waarde van de remkrachtregelaars telkens veranderen, maar de remregeling regelt af op een waarde welke minstens 10 seconden achtereen aanwezig is, b.v. bij stilstand voor een verkeerslicht. De remkrachtregelaars kunnen bij mechanische vering zijn uitgevoerd als regelbare weerstanden (2,7-7,4 kOhm) of Hallsensoren (4-20 mA). Als regelbare weerstanden worden gebruikt moet het verschil in waarde per weerstand tussen onbeladen en beladen bij voorkeur zo groot mogelijk zijn. Richtwaardes voor de afstelling zijn min. 3 kOhm voor het onbeladen- en max. 6 kOhm voor het beladen voertuig. Bij luchtvering wordt gebruik gemaakt van een luchtdruksensor (4-20 mA), welke de druk in de luchtveerbalgen meet.

Omdat bij luchtvering meestal gebruik wordt gemaakt van starre assen en één luchtveerventiel om de rijhoogte te controleren en bovendien de luchtbalgen links en recht rechtstreeks met elkaar zijn doorverbonden, kan hier worden volstaan met één luchtdruksensor.

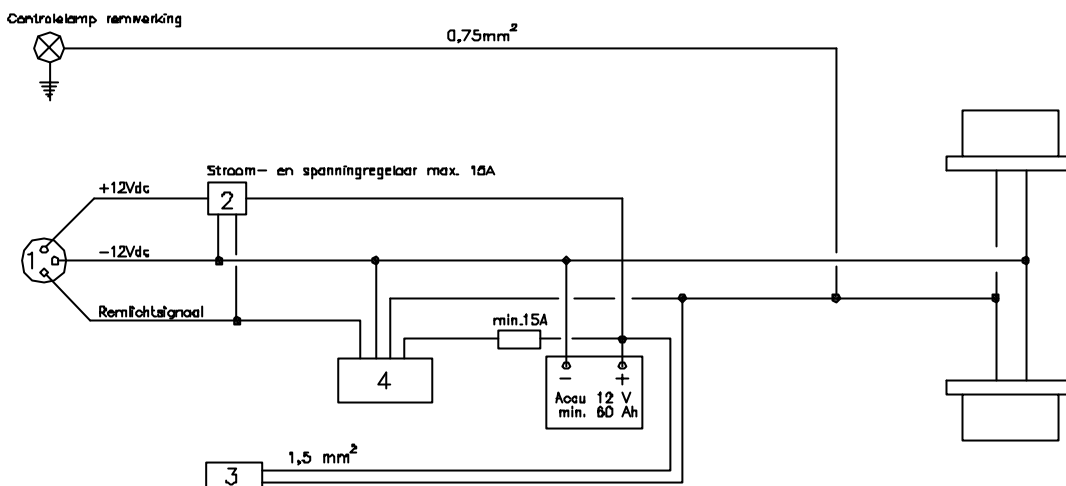
Ter controle van de remwerking is de kabel van de remspoelen verbonden met een controlelamp op het dashboard van de voorwagen, welke oplicht zodra er stroom geleverd wordt aan de remspoelen.

Het is ook mogelijk om deze controlelamp links – of rechtsvoor op de kop van de aanhangwagen te monteren, zodat deze vanuit de cabine te zien is in de achteruitkijkspiegel.

Optioneel is het ook mogelijk om in de cabine een accuspanningcontrole voor de accu van de aanhangwagen te monteren in de vorm van een buzzer of accuspanningsmeter.

Er is een **losbreekschakelaar (3)** gemonteerd, welke een uittrekbare pen heeft die met een staalkabel en clip verbonden is met het trekkende voertuig. Als tijdens de rit de aanhanger losbreekt van het trekkende voertuig, wordt de pen uit de schakelaar getrokken en wordt rechtstreeks uit de boordaccu 12 Volt naar de remspoelen gevoerd en gaat de oplegger remmen.





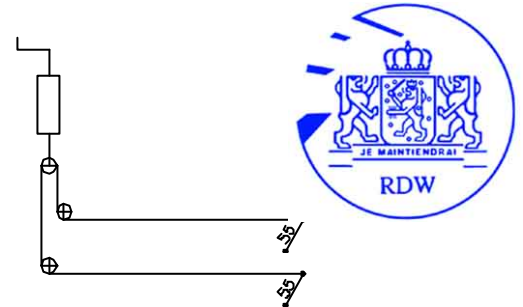
\*\* Alle niet nader genoemde aansluitdraden min. 2,5 mm<sup>2</sup>

\*\* Indien er een accessoire-accu aanwezig is moet deze geschakeld zijn middels een scheidingsrelais.

1. Steker, minimaal 3-polig.
2. Stroom- en spanningregelaar max. 15A  
merk: JMR, type EH15
3. Losbreekrem
4. Remregeling: Merk: JMR Trading B.V.  
Type: JACO SP 012-...

Handrem:

Handremspindel, merk: Herman Peters  
Type: 090.000-00 alt. 090.001-00  
Goedkeuringsnr.: Dekra 2008 19534  
Handrem werkend op één as.



Dynamische bandenstraal: 312-332 mm ± 5%

Wielremmen:

Merk: DEXTER  
Type: 12"x2" DXQ  
Remvoering: DEX 1 FF

	Vaertuiggewichten:			
	Oplegger		Middenaanhangwagen	
	Max. massa	Min. massa	Max. massa	Min. massa
Totaal	5000 kg	1613 kg	2100 kg	1363 kg
Koppeling	1500 kg	300 kg	350 kg	50 kg
As nr. 1	1750 kg	1313 kg	1750 kg	1313 kg

Fabrikant: JMR Trading B.V.  
Staalstraat 1  
2984 AJ Ridderkerk  
Tel. ++311804 27292  
Fax. ++311804 31302

Datum: 08-04-2010

Get: J. Mema

Wjz.

Benaming:

Elektrische reminstallatie voor oplegger of middenaanhangwagen met elektrische trommelremmen.

Tekeningnr.:

100408