

Heavy vehicle specialist certificate

Must be presented to a CoF (heavy) inspecting organisation
Heavy vehicle specialist inspector and inspecting organisation

Heavy vehicle specialist inspector's or manufacturing inspecting organisation's name (PRINT IN CAPS) **CHRIS CLARKE** ID **CJC**

Vehicle registration (optional) _____ VIN/chassis number **7A9C20032H1023644**

Make **DOMETT** Component being certified: Chassis Load anchorage
 Log bolsters Towing connection Brakes
 SRT PSV stability PSV rollover
 Swept path PBS

Model (optional) _____

Certification category **HVEK**

Description of work
CERTIFY TO SCHEDULE 5 OF LTR 32015/4

Code/standard/rule certified to **LTR 32015/3** Component load rating(s) **30 Tonnes GVM**

General drawing number(s) **N/A**

Supporting documents
BRAKE CODE CERTIFICATE CJC174689
BRAKE CALCULATION # GENNZ50239S

Special conditions (optional)
WARNING LAMP MUST ILLUMINATE WHEN IGNITION IS SWITCHED ON & THEN EXTINGUISH IMMEDIATELY OR WHEN VEHICLE SPEED EXCEEDS 7 KPH

Certification expiry date (if applicable) **N/A** or Hubodometer reading (whichever comes first) _____

Declaration

I the undersigned, declare that I am the heavy vehicle specialist inspector identified and I hold a current valid appointment. I certify that the above mentioned vehicle component's design, manufacture and installation, and this certification complies in all respects with the Land Transport Rule: Vehicle Standards Compliance 2002 and my appointment. To the best of my knowledge the information contained in the certificate is true and correct.

Designer's ID (if different from inspector below) _____
 Inspector's signature 
 Inspector's name (PRINT IN CAPS) **CHRIS CLARKE** ID number **CJC**
 Date **24-Oct-17** Number **611539**

CoF vehicle inspector ID _____ CoF vehicle inspector signature _____ Date _____

All fields are mandatory unless otherwise stated.

WABCO START-UP LOG

System	Trailer EBS-E	WABCO part number	480 102 080 0
Production date	2017-01-09	Serial number	437003429400B
Serial number (modulator)	000000061468		
Fingerprint Customer EOL / Customer Development / Flash Program	W503643 / 2017-10-24 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

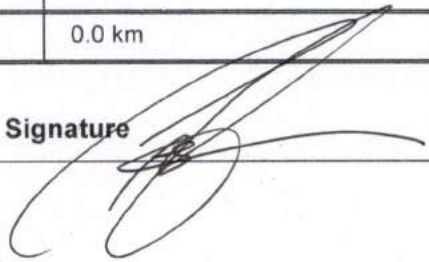
WABCO		TRAILER EBS-E		GGVS/ADR TUEH TB 2007 - 019.00											
HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRUCKS & TRAI		GIO	Pin1	Pin3	Pin4									
TYPE TYPE	3ABTF CURTAIN SIDE		1	24V-O1	---	---									
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9C20032H1023644		2	---	---	---									
BREMSEBERECHNUNGS NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	GenNZ50239S		3	---	---	---									
POLRADZAHNEZAHL c-d e-f POLE WHEEL TEETH c-d e-f DENTS ROUE DENTEE c-d e-f	90	---	4	---	---	---									
RSS	Einfachbereifung Single Tire Molette simple	Lenkachse Steering axle Essieu vireur	5	DIAG	DIAG	DIAG									
RSS	Zwillingsbereifung Twin Tire Molette jumelle	Kipprichtiges Fahrzeug Critical Trailer Vehicule critique	6	---	---	---									
RSS	X		7	---	---	---									
Subsystems	SB	I/O	24N												
ACHSE AXLE ESSIEU	pm (bar)	6.5	pm (bar)	0.8	2.0	---	6.5	TYP TYPE	(mm)	(mm)	(bar)	Pz			
											1.0				
												TR (daN)			
1	1260	0.4	1.8	6400	4.0	0.3	1.3	---	5.2	-	14 / 16	64	69	438	2824
2	1260	0.4	1.8	6400	4.0	0.3	1.3	---	5.2	-	14 / 16	64	69	438	2824
3	1260	0.4	1.8	6400	4.0	0.3	1.3	---	5.2	-	14	64	69	438	2824
4	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---
5	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---

TEBS-E

Diagnostic memory	OK	Warning lamp control	OK
Parameter setting	carried out	Stop light supply	OK
EBS pressure test	OK	Lifting axle test	Not tested
Redundancy test	OK	ECAS height sensor calibration	Not tested
ABS sensor assignment	OK	Height sensor axle load	Not tested
RTR test	Not tested	Leak test	Not tested
Immobilizer test	Not tested	Signal outputs	Not tested
Signal inputs	Not tested	Tag axle test	Not tested

Electronic Extension Module

Diagnostic memory	Not tested	Signal outputs	Not tested
TailGUARDlight	Not tested	TailGUARD	Not tested

Manufacturer	DOMETT TRUCKS & TRAI	Vehicle ident. no	7A9C20032H1023644
Vehicle type	3ABTF CURTAIN SIDE	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tester	Chris Clarke	Signature 	
Date	2017-10-24 1:46:37 p.m.		

**HEAVY VEHICLE BRAKE RULE
32015/4 WORKSHEET
(PROCEDURE DOCUMENTATION SHEET-PDS)
&
CONFIRMATION OF COMPLIANCE**

CERTIFICATE NO.

CJC174689

CUSTOMER NAME

DOMETT TRAILERS

CUSTOMER ORDER NO.

4889

DATE RECEIVED

24-Oct-17

VEHICLE TYPE

CURTAINSIDE

VIN/ CHASSIS NO.

7A9C20032H1023644

BRIEF SPECIFICATION AS CERTIFIED TO SCHEDULE 5

<u>BRAKE VALVES</u>	<u>MAKE</u>	<u>TYPE</u>
PRIMARY RELAY	WABCO	480 102 080 0
SECONDARY RELAY	N/A	N/A
YARD RELEASE VALVE	WABCO	971 002 900 0
PARK BRAKE VALVE	WABCO	971 002 900 0
<u>SUSPENSION VALVES</u>	<u>FRONT</u>	<u>REAR</u>
CONTROL	N/A	N/A
DISTANCE SENSOR	N/A	464 008 011 0

OTHER VALVES:

MAKE:	WABCO	TYPE:	461 513 002 0	SETTING:	P.P.V. @ 5.5 Bar
MAKE:	WABCO	TYPE:	446 192 110 0	SETTING:	SMARTBOARD
MAKE:	_____	TYPE:	_____	SETTING:	_____
MAKE:	_____	TYPE:	_____	SETTING:	_____

BRAKE CHAMBERS:

	AXLE 1 & 2	AXLE 3	AXLE 4
MAKE	TSE	TSE	N/A
SIZE	1416HTLD64	14HSCLD64	N/A
MAX STROKE (mm)	64	64	N/A
SLACK LENGTH (mm)	69	69	N/A

DRUM TYPE:

N/A	N/A	N/A
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OR**BRAKE CALIPER:**

SBW1937	SBW1937	N/A
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FRICION MATERIAL: OEM AFTERMARKET**LINING BRAND****AXLE 1 & 2****AXLE 3****AXLE 4**

JURID 539

JURID 539

N/A

OTHERS:**TYRES:****FRONT****REAR**

N/A

265 70 R 19.5

BRAKE CALCULATION #:

GENNZ50239S

COMMENTS:

EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 #

SALES ORDER #:**PROCESS TIME:****1 HOUR****TRAILERS EQUIPPED WITH PREV: THE PARK BRAKE PERFORMANCE MUST BE****MEASURED BY PULLING THE RED ACTUATION KNOB ON THE PREV VALVE WHEN****THE AXLES - EQUIPPED WITH SPRING BRAKES - ARE IN THE BRAKE ROLLERS. THE****PARK BRAKE IN THE CAB MUST NOT BE APPLIED.****NOTES:****CHAMBERS & PARK BRAKE PERFORMANCE:**

BRAKE CALCULATION GENNZ50239S USES THE TSE1424HTLD TO DETERMINE THE SERVICE

BRAKE PERFORMANCE & GENNZ50240S USES TSE1616HTLD64 TO MEASURE THE PARK BRAKE

PERFORMANCE OF AXLES 1 & 2. THE ACTUAL CHAMBER USED (TSE1416HTLD64) IS NOT

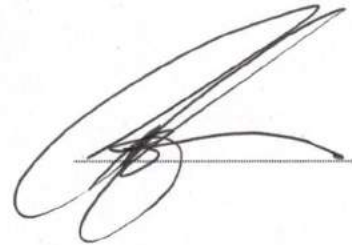
AVAILABLE IN THE WABCO BRAKE CALCULATOR.

CONFORMATION OF COMPLIANCE

I CONFIRM THAT THE VEHICLE IDENTIFIED IN PAGES 1 AND 2 OF THIS CONFORMATION OF COMPLIANCE COMPLIES WITH ALL RELEVANT REQUIREMENTS OF THE CURRENT NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015/4, SCHEDULE 5.

DATE: 24-Oct-17

SIGNED:



NAME & ID: C CLARKE (CJC)

PHONE (BUS): 09 980 7300

FAX (BUS) 09 980 7306

POSTAL ADDRESS: TRANSPORT SPECIALTIES LTD
PO BOX 98-971,
MANUKAU CITY,
MANUKAU 2241

POSITION: BRAKE CERTIFIER HVEK

I CONFIRM THE BRAKE SYSTEM OF THE VEHICLE IDENTIFIED IN PAGE 1 OF THIS STATEMENT OF COMPLIANCE AS MODIFIED BY MYSELF, CONTINUES TO COMPLY WITH ALL THE RELIVANT REQUIREMENTS OF THE CURRENT NEW ZEALAND HEAVY BRAKE RULE 32015/4 SCHEDULE 5.

DATE:

SIGNED:

NAME:

CERTIFIERS ID:

POSITION:

PHONE (BUS):

FAX (BUS):

COMMENTS:

trailer (full, semi-, centre-axle) with air brake system acc. to UN/ECE-R.13.11

distribution: DOMETT TRUCKS & TRAILERS
 7A9C20032H1023644
 CJC174689
 LT400 611539

please note!

This brake calculation is made under consideration of
 -the legal prescriptions mentioned above in the version valid
 at the time of making the program (V6.14.04.20).
 -the functional characteristics of our products
 as well as the data of the brake out of the test
 approvals of the axle manufacturers, and
 -the other vehicle data included in the brake calculation.
 Please check whether these data correspond to the actual vehicle data.
 Our conditions of delivery apply (particularly section 9.0).
 In any case we commend to do a braking harmonisation!
 WABCOBrake V6.14.04.20 db 08.07.2014

vehicle manufacturer: DOMETT TRUCKS & TRAILERS
 trailer model : 3ABTF CURTAIN SIDE
 trailer type : 3-axle-semi-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS E
 TRISTOP 1+2: T.14/24
 265/70 R 19,5

axle 1 + 2 + 3 : SAF, SBW 1937, TDB 0749 ECE,

		<u>unladen</u>		<u>laden</u>	
total mass	P in kg	5620	- 5620	30000	- 30000
king-pin	PS in kg	1840	- 1840	10800	- 10800
axle 1	P1 in kg		1260		6400
axle 2	P2 in kg		1260		6400
axle 3	P3 in kg		1260		6400
total axle mass	PR in kg		3780		19200
wheel base	E in mm	6780	- 6780		
centre of gravity height	h in mm		1265		2237
K-factor		Kv min	1.7813	Kc min	0.9790
K-factor		Kv max	1.7813	Kc max	0.9790

		<u>axle 1</u>	<u>axle 2</u>	<u>axle 3</u>
no. of combined axles		1	1	1
no. of brake chambers per axle line	KDZ	2	2	2
The power output corresponds to		BZ 119.6	BZ 119.6	BZ 122.1
brake chamber manufacturer		Meritor	Meritor	Meritor
chamber size		T.14/24	T.14/24	14.
lever length	lBh in mm	69	69	69
brake factor	[-]	23.03	23.03	23.03
dyn. rolling radius	rdyn min in mm	421	421	421
dyn. rolling radius	rdyn max in mm	421	421	421
threshold torque	Co Nm	6.0	6.0	6.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar		2.1	2.1	2.1
chamber pressure(rdyn max)pH at z=22,5%bar		2.1	2.1	2.1
chamber press.(servo)pcha at pm6,5bar bar		5.2	5.2	5.2
piston force ThA at pm6,5bar N		4986	4986	4986
brake force(rdyn min)T lad. at pm6,5bar N		37658	37658	37658
brake force(rdyn max)T lad. at pm6,5bar N		37658	37658	37658
brake force within 1 % rolling friction	%	33.3	33.3	33.3

braking rate z laden 0.600 for rdyn min
 z = sum (TR)/PRmax 0.600 for rdyn max

Trailer may only be operated in combination with trucks/tractors with ISO 7638 supply (5 or 7 polar).

brake diagram : 841 701 101 0

maximum pressure: 8.5 bar

axle 1:

valve 1: 971 002 ... 0 WABCO
EBS emergency valve

valve 2: 480 102 ... 0 WABCO
EBS trailer modulator

brake cylinder: Meritor 1424HTLD64

axle 2:

valve 1: 971 002 ... 0 WABCO
EBS emergency valve

valve 2: 480 102 ... 0 WABCO
EBS trailer modulator

brake cylinder: Meritor 1424HTLD64

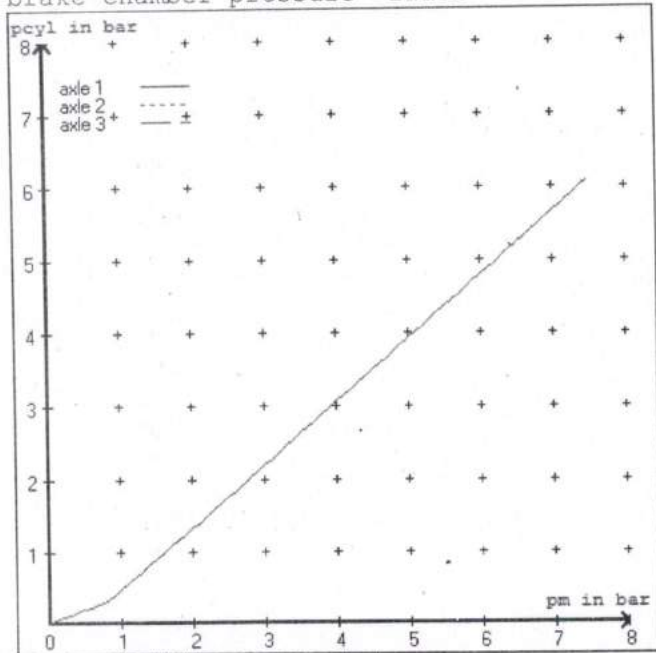
axle 3:

valve 1: 971 002 ... 0 WABCO
EBS emergency valve

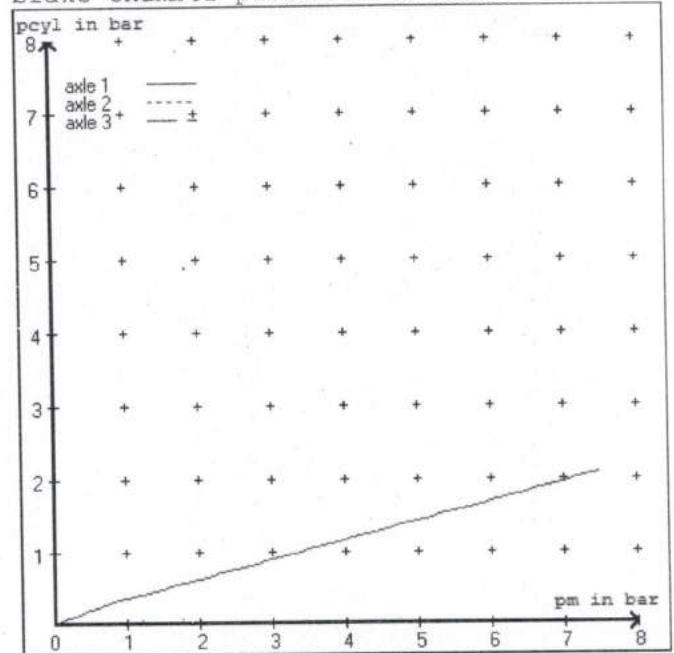
valve 2: 480 102 ... 0 () WABCO or 480 207 0.. 0 / 2.. 0
EBS trailer modulator

brake cylinder: Meritor 14HSCLD64

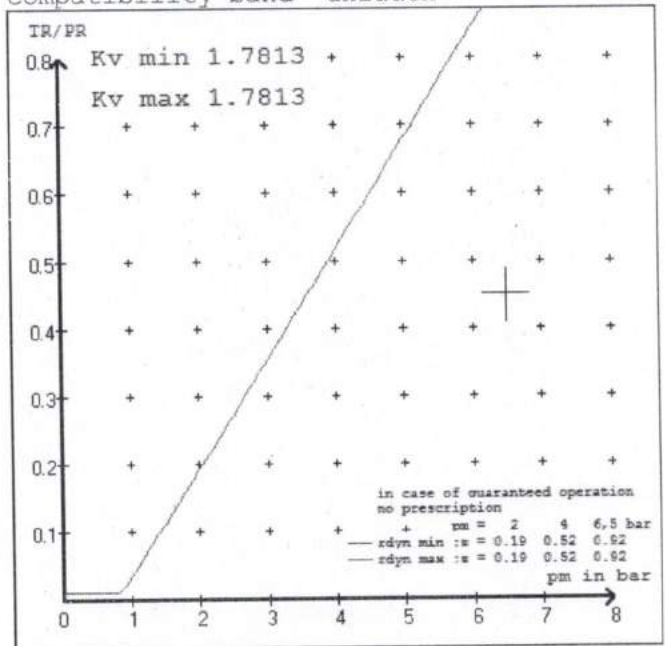
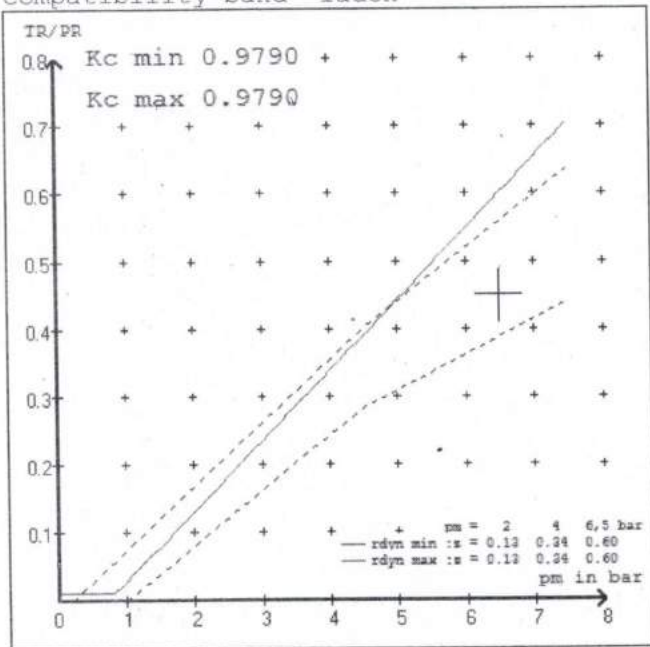
test type III (zIII = 0.30) for rdyn min : axle1 axle2 axle3
at pm 3.6 bar => pcha in bar : 2.7 2.7 2.7
test type III (zIII = 0.06) for rdyn min : axle1 axle2 axle3
at pm 1.3 bar => pcha in bar : 0.7 0.7 0.7



compatibility band laden



compatibility band unladen



vehicle manufacturer: DOMETT TRUCKS & TRAILERS
 trailer model : 3ABTF CURTAIN SIDE
 trailer type : 3-axle-semi-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter T.14/24 (Meritor) lever length 69 mm
 axle 2 : 2 x type/diameter T.14/24 (Meritor) lever length 69 mm
 axle 3 : 2 x type/diameter 14. (Meritor) lever length 69 mm

brake diagram : 841 701 101 0

valve :

971 002 ... 0 WABCO EBS emergency valve
 480 102 ... 0 WABCO EBS trailer modulator
 480 102 ... 0 WABCO EBS trailer modulator or 480 207 0.. 0 / 2.. 0

EBS input data

vehicle manufacturer: DOMETT TRUCKS & TRAILERS
 trailer model : 3ABTF CURTAIN SIDE
 trailer type : 3-axle-semi-trailer
 brake calculation no. : GenNZ 50239S
 tire circumference main axle : 2650 for rdyn max
 tire circumference auxiliary axle : 2650 for rdyn max

assignment pm / deceleration z: pm 0.8 bar z = 0.010
 (laden condition) 2.0 bar z = 0.134
 6.5 bar z = 0.600

control pressure pm			6,5	control pressure pm			0.8	2.0	6.5
axle	axle load unladen	bellow pr. unladen	brake pr. unladen	axle load laden	bellow pr. laden	brake pr. laden			
1	1260	to be	1.8	6400	to be	0.3	1.3	5.2	
2	1260	entered by the vehicle manufact.	1.8	6400	entered by the vehicle manufact.	0.3	1.3	5.2	
3	1260		1.8	6400		0.3	1.3	5.2	
4	0		0,0	0		0,0	0,0	0,0	
5	0		0,0	0		0,0	0,0	0,0	

The unladen values indicated in the above table are values for the basic parameter set. Higher unladen axle loads and liftaxles are automatically recognized and do not require separate adjustment. The above unladen axle loads must not be fallen below.

axle 1		axle 2		axle 3	
axle load	pcyl	axle load	pcyl	axle load	pcyl
1260	1.8	1260	1.8	1260	1.8
1760	2.1	1760	2.1	1760	2.1
2260	2.5	2260	2.5	2260	2.5
2760	2.8	2760	2.8	2760	2.8
3260	3.1	3260	3.1	3260	3.1
3760	3.5	3760	3.5	3760	3.5
4260	3.8	4260	3.8	4260	3.8
4760	4.1	4760	4.1	4760	4.1
6400	5.2	6400	5.2	6400	5.2

data sheet to ECE vehicle type-approval certificate concerning braking equipment: according to ECE R13 annex 11

axle 1 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013
axle 2 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013
axle 3 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013

calc. verific. of residual (hot) braking force type III
(item 4.2.1 of appendix 2 to annex 11)

axle 1	(rdyn 421 mm)	T = 18.8 % Fe
axle 2	(rdyn 421 mm)	T = 18.8 % Fe
axle 3	(rdyn 421 mm)	T = 18.8 % Fe

calculated actuator stroke in mm
(item 4.3.1.1 of appendix 2 to annex 11)

axle 1	(sp = 56 mm)	s = 39 mm
axle 2	(sp = 56 mm)	s = 39 mm
axle 3	(sp = 56 mm)	s = 39 mm

average thrust output in N at pm = 6,5 bar (however max. pcha = 7,0 bar)

axle1	ThA = 4986 N
axle2	ThA = 4986 N
axle3	ThA = 4986 N

calc. residual (hot) braking force in N
(item 4.3.1.4 of appendix 2 to annex 11)

axle 1	(rdyn 421 mm)	T = 29453 N
axle 2	(rdyn 421 mm)	T = 29453 N
axle 3	(rdyn 421 mm)	T = 29453 N

	basic test	type III
	of subject	(calculated)
	trailer (E)	residual
braking rate of the vehicle		(hot)braking
(item 4.3.2 to appendix 2 to annex 11)	0.60	0.47
required braking rate		>= 0,4 and
(items 1.5.3 and 1.7.2 to annex 11)		>= 0,6*E (0.36)

axle 1	(rdyn 421 mm)	T = 29453 N
axle 2	(rdyn 421 mm)	T = 29453 N
axle 3	(rdyn 421 mm)	T = 29453 N

	basic test	type III
	of subject	(calculated)
	trailer (E)	residual
braking rate of the vehicle		(hot)braking
(item 4.3.2 to appendix 2 to annex 11)	0.60	0.47
required braking rate		>= 0,4 and
(items 1.5.3 and 1.7.2 to annex 11)		>= 0,6*E (0.36)

spring parking brake

	<u>axle 1</u>	<u>axle 2</u>
no of TRISTOP-actuators per axle line KDZ	2	2
TRISTOP-actuator type	T.14/24	T.14/24
lever length	69	69
stat. tyre radius	401	401
	lBh in mm	rstat max in mm
at a stroke of	30	30
min. force of spring br.	7605	7605
sp.brake chamber no Meritor.....	4	4
release pressure	4.8	4.8
	s in mm	TFZ in N
	pLs in bar	

calculation:

ratio until road	3.9674	3.9674
$iFb = \frac{lBh * \eta * C * rBt}{rBn * rstat}$		
for rstat in mm	401	401
brake force of spring br. Tf in N	59654	59654
$Tf = (TFZ * KDZ - 2 * Co / lBh) * iFb$		
braking rate	0.415	
zf = sum (Tf) / P + 0,01.	zf laden	

Test of the frictional connection required by the parking brake

minimum wheelbase/minimum supporting width min Ef necessary to fulfil the regulations

$$\min Ef = E * (1 - PR/P + zferf * h/E) / (1 - zferf / (fzul * nf/ng))$$

min Ef = 4292 mm for E = 6780 mm

=====

min Ef = 4292 mm for E = 6780 mm

=====

min Ef =	minimum distance between front axle(s) (trailer) or support (semitraile)
and the rear axle(s) (resultant of the bogie)	
E	= wheel base
fzul	= 0.80 maximum permissible frictional connection required
zferf	= 0.18 maximum required braking ratio of the parking brake
h	= 2237 mm height of center of gravity - laden
PR	= 19200 kg maximum bogie mass - laden
P	= 30000 kg maximum total mass - laden
nf	= 2 no. of axle(s) with TRISTOP spring brake actuators
ng	= 3 no. of bogie axle(s)

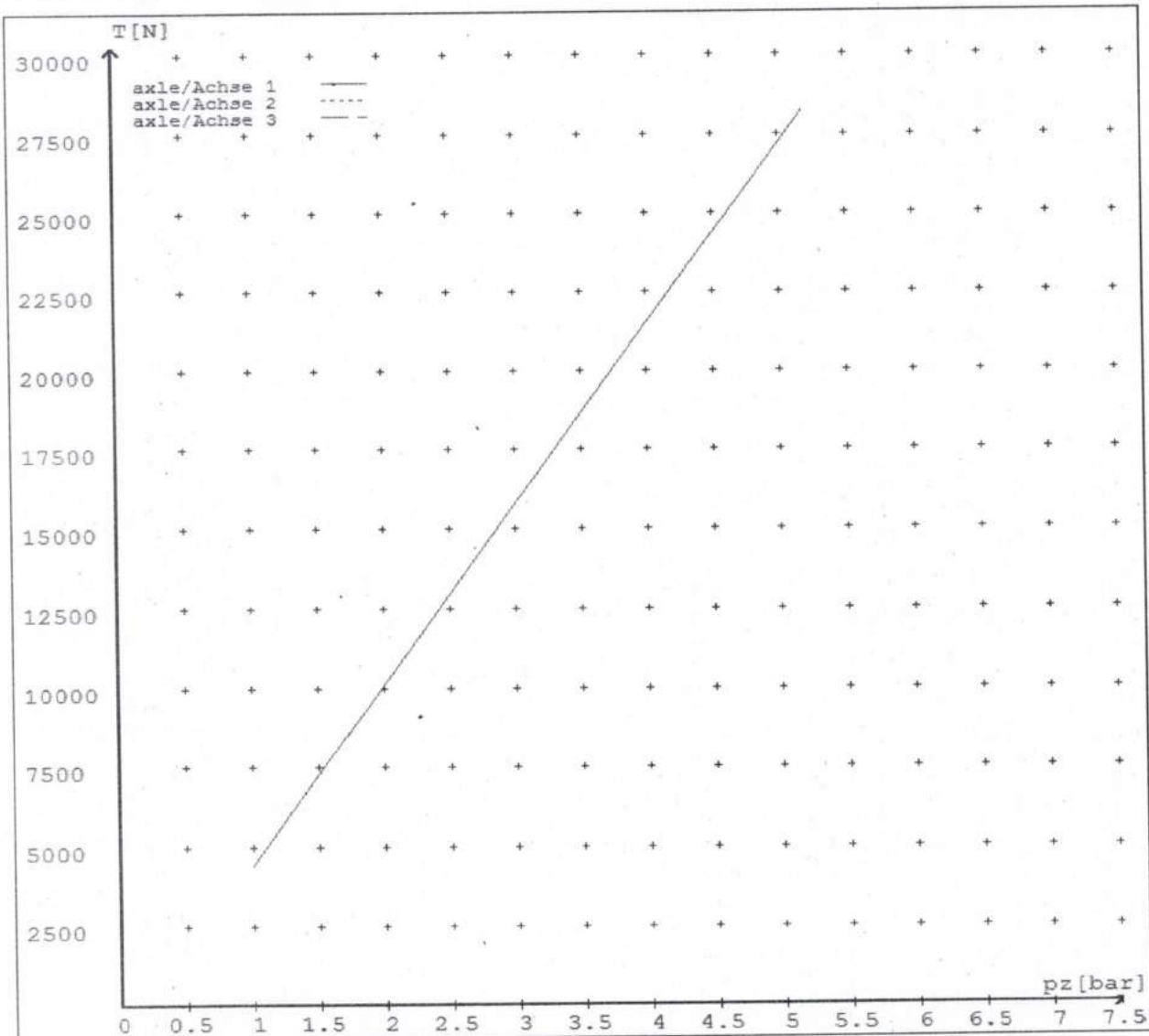
reference values

reference values for z = 45% for max rdyn: 421 mm

	pz [bar]	T [N]	T [N]
axle 1	1.0		4389
	5.2		28243
axle 2	1.0		4389
	5.2		28243
axle 3	1.0		4389
	5.2		28243

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	T.14/24	T.14/24	14./	/	/
Maximum stroke smax = ...mm maximaler Hub smax =mm	64	64	64		
Lever length =mm Hebellänge =mm	69.08	69.08	69.08		



reference values for $z = 0.45$

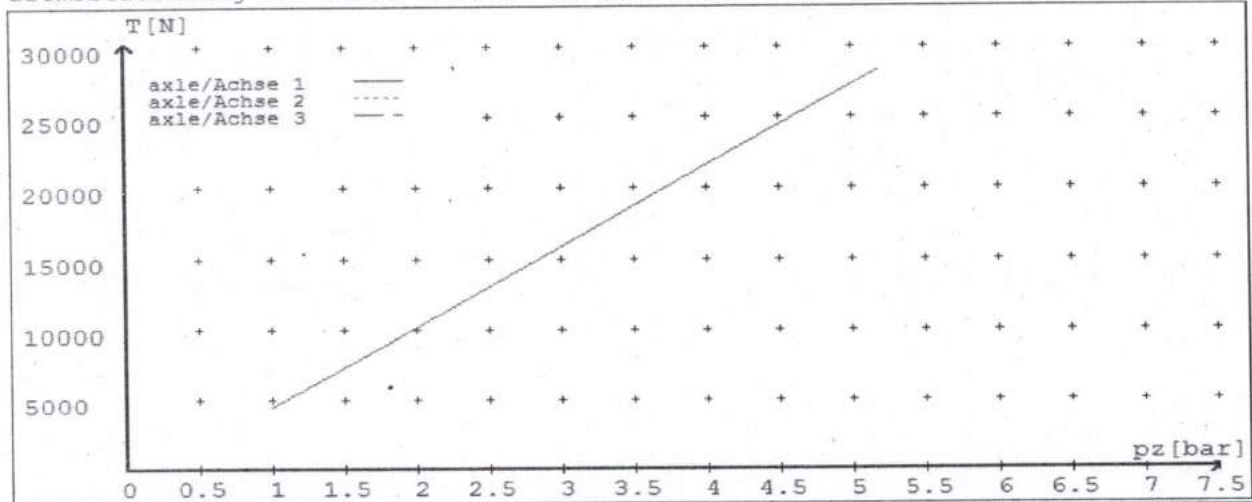
for max rdyn: 421 mm

Angabe der Referenzwerte für $z = 0.45$

für max rdyn: 421 mm

brake calculation no: GenNZ 50239S date 10.10.2017

Bremsberechnung Nr: GenNZ 50239S vom 10.10.2017



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	T.14/24	T.14/24	14./	/	/
Maximum stroke $s_{max} = \dots$ mm maximaler Hub $s_{max} = \dots$ mm	64	64	64		
Lever length = \dots mm Hebellänge = \dots mm	69.08	69.08	69.08		

trailer (full, semi-, centre-axle) with air brake system acc. to UN/ECE-R.13.11

distribution: DOMETT TRUCKS & TRAILERS
 7A9C20032H1023644
 CJC174689 PARKING ONLY
 LT400 611539

please note!

This brake calculation is made under consideration of
 -the legal prescriptions mentioned above in the version valid at the time of making the program (V6.14.04.20),
 -the functional characteristics of our products as well as the data of the brake out of the test approvals of the axle manufacturers, and
 -the other vehicle data included in the brake calculation.
 Please check whether these data correspond to the actual vehicle data. Our conditions of delivery apply (particularly section 9.0). In any case we commend to do a braking harmonisation!
 WABCO Brake V6.14.04.20 db 08.07.2014

vehicle manufacturer: DOMETT TRUCKS & TRAILERS
 trailer model : 3ABTF CURTAIN SIDE
 trailer type : 3-axle-semi-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS E
 TRISTOP 1+2: T.16/16
 265/70 R 19,5

axle 1 + 2 + 3 : SAF, SBW 1937, TDB 0749 ECE,

		unladen		laden
total mass	P in kg	5620 - 5620	30000 -	30000
king-pin	PS in kg	1840 - 1840	10800 -	10800
axle 1	P1 in kg			6400
axle 2	P2 in kg			6400
axle 3	P3 in kg			6400
total axle mass	PR in kg			19200
wheel base	E in mm	6780 - 6780		
centre of gravity height	h in mm			2237
K-factor		Kv min 1.7813	Kc min	0.9790
K-factor		Kv max 1.7813	Kc max	0.9790

		axle 1	axle 2	axle 3
no. of combined axles		1	1	1
no. of brake chambers per axle line	KDZ	2	2	2
The power output corresponds to		BZ 119.6	BZ 119.6	BZ 122.1
brake chamber manufacturer		Meritor	Meritor	Meritor
chamber size		T.16/16	T.16/16	14.
lever length	lBh in mm	69	69	69
brake factor	[-]	23.03	23.03	23.03
dyn. rolling radius	rdyn min in mm	421	421	421
dyn. rolling radius	rdyn max in mm	421	421	421
threshold torque	Co Nm	6.0	6.0	6.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar	2.1	2.1	2.1
chamber pressure(rdyn max)pH at z=22,5%bar	2.1	2.1	2.1
chamber press.(servo)pcha at pm6,5bar bar	5.1	5.1	5.1
piston force ThA at pm6,5bar N	5003	5003	4886
brake force(rdyn min)T lad. at pm6,5bar N	37779	37779	36900
brake force(rdyn max)T lad. at pm6,5bar N	37779	37779	36900
brake force within 1 % rolling friction proportion %	33.6	33.6	32.8

braking rate z laden 0.597 for rdyn min
 z = sum (TR)/PRmax 0.597 for rdyn max

Trailer may only be operated in combination with trucks/tractors with ISO 7638 supply (5 or 7 polar).

spring parking brake

	<u>axle 1</u>	<u>axle 2</u>
no of TRISTOP-actuators per axle line KDZ	2	2
TRISTOP-actuator type	T.16/16	T.16/16
lever length lBh in mm	69	69
stat. tyre radius rstat max in mm	401	401
at a stroke of s in mm	30	30
min. force of spring brake TFZ in N	6160	6160
sp.brake chamber no Meritor.....	4	4
release pressure pLs in bar	4.5	4.5

calculation:

ratio until road	3.9674	3.9674
$iF_b = lBh \cdot \eta \cdot C \cdot r_{Bt} / (r_{Bn} \cdot r_{stat})$		
for rstat in mm	401	401
brake force of spring br. Tf in N	48189	48189
$T_f = (TFZ \cdot KDZ - 2 \cdot C_o / lBh) \cdot iF_b$		
braking rate zf laden	0.337	
$z_f = \sum (T_f) / P + 0,01$		

Test of the frictional connection required by the parking brake

minimum wheelbase/minimum supporting width min Ef necessary
to fulfil the regulations

$$\min E_f = E \cdot (1 - PR/P + z_{ferf} \cdot h/E) / (1 - z_{ferf} / (f_{zul} \cdot n_f/n_g))$$

$$\min E_f = 4292 \text{ mm} \quad \text{for } E = 6780 \text{ mm}$$

$$\min E_f = 4292 \text{ mm} \quad \text{for } E = 6780 \text{ mm}$$

min Ef =	minimum distance between front axle(s) (trailer) or support (semitraile)
and the rear axle(s)	(resultant of the bogie)
E =	wheel base
fzul = 0.80	maximum permissible frictional connection required
zferf = 0.18	maximum required braking ratio of the parking brake
h = 2237 mm	height of center of gravity - laden
PR = 19200 kg	maximum bogie mass - laden
P = 30000 kg	maximum total mass - laden
nf = 2	no. of axle(s) with TRISTOP spring brake actuators
ng = 3	no. of bogie axle(s)

NOTICE TO VEHICLE OPERATOR

THIS VEHICLE HAS A BRAKE SYSTEM WHICH HAS BEEN DESIGNED AND FITTED IN ACCORDANCE WITH THE LAND TRANSPORT HEAVY VEHICLE BRAKE RULE 32015/4.

IF THIS VEHICLE IS OPERATED IN CONJUNCTION WITH NON-CERTIFIED VEHICLES, THERE MAY BE OPERATIONAL FACTORS WHICH NEED TO BE TAKEN INTO CONSIDERATION.

PLEASE REFER TO THE CERTIFIER FOR FURTHER INFORMATION.

**EXCERPT FROM LAND TRANSPORT RULE; HEAVY-VEHICLE BRAKES
RULE 32015/4. SECTION 10,**

10.1 RESPONSIBILITIES OF OPERATORS

A person who operates a vehicle must ensure that the vehicle complies with this rule.

10.2 RESPONSIBILITIES OF REPAIRERS

A person who repairs or adjusts a brake must ensure that the repair or adjustment:

- a) does not prevent the vehicle from complying with this rule;
- b) complies with Land Transport Rule: Vehicle Repair 1998.

10.3 RESPONSIBILITIES OF MODIFIERS

A person who modifies a vehicle so as to affect the braking performance of the vehicle must:

- a) ensure that the modification does not prevent the vehicle from complying with this Rule; and
- b) notify the operator that the vehicle must be inspected and, if necessary, certified by person or organisation appointed to carry out specialist inspection and certification of heavy vehicle brakes.

IF YOU ARE UNSURE ABOUT YOUR RESPONSIBILITIES, PLEASE CONTACT THE VEHICLE MANUFACTURER, OR MYSELF.

COMPLAINTS. Complaints and Warranty issues which relate to Brake Certification will be acknowledged within 7 working days and a resolution proposed within 25 working days. Resolution of complaints and Warranty issues is subject to Transpecs Warranty policy. Customers have the right to appeal to the New Zealand Transport Authority if dissatisfied with a Compliance issue. (Refer NZTA Deed Of Appointment Para 47.4) NZTA Helpdesk 0800 699 000

(p.p.).....
(J.Hirst (JEH) HVEK)

NOTICE TO VEHICLE OPERATOR

This trailer is equipped with an Electronic Brake System.

To comply with the New Zealand Heavy Vehicle Brake Rule 32015/4, it must be used only in conjunction with a truck/tractor equipped with a 5 or 7 pin ABS/EBS power supply socket.

Failure to connect to such supply invalidates Brake Rule compliance.

The trailer ABS/EBS warning light on the towing vehicle dashboard must illuminate when the ignition is switched on and extinguish when the vehicle is in motion.

If the light does not illuminate when ignition is switched on, the system must be checked. If the light remains illuminated when the vehicle is in motion, Brake Rule compliance is compromised. Repairs must be made as soon as possible.

If you are unsure of your responsibilities and/or obligations, please contact either the vehicle manufacturer or myself.


(p.p.)
J E Hirst
(JEH HVEK)
(09 980 7300)

NOTICE TO VEHICLE OPERATOR

WABCO Park Release Emergency Valve
(PREV)

This trailer is equipped with a WABCO PREV
Part # 971 002 900 0

Application of the park brake via the cab control valve will actuate and apply all service brakes on the trailer. In the event of a leak in the service brake system the Spring Brakes will automatically override and hold the vehicle in compliance to Land Transport Rule: Heavy-vehicle Brakes Rule 32015/4.

When the vehicle is presented for COF the trailer park brake system is tested by pulling the red actuation knob on the PREV, situated mid way down the chassis rail. The cab control in the prime mover does not have to be applied for this test procedure.

If you are unsure of any aspect relating to this instruction please contact either the vehicle manufacturer or myself.


(p.p.)
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(JEH 14VEK)
(09 980 7300)