3865

NZ TRANSPORT AGENCY
WAKA KOTAHI

Heavy Vehicle Specialist Certificate

Heavy Vehicle Specialist Inspector and Inspecting Organisation

Heavy Vehicle Specialist Inspector's Name *(PRINT IN CAPS)* | ID

CHR S CLARKE | CJC

Vehicle Registration* | VIN / Chassis Number

7A9E20017C1023073

Component being certified:

Chassis Modification	Load Anchorage	Log Bolsters
Towing Connection	X Brakes	SRT

Certification Category

HVEK

Description of Work

CARRY OUT SET UP OF TRAILER EBS BRAKE SYSTEM

Code/Standard Certified to

HVBR 32015/2 SCHED 5

Component Load Rating(s)

N/A

General Drawing Number(s)

N/A

Supporting Documents

BRAKE CODE CERTIFICATE - JH120903

PREV EXEMPTION HVB12/230

*Special Conditions

WARNING LAMP MUST ILLUMINATE WHEN IGNITION IS SWITCHED ON & THEN EXTINGUISH IMMEDIATELY OR WHEN VEHICLE SPEED EXCEEDS 7 KPH

Certification Expiry Date *(if applicable)* | *or* | Hubodometer Reading (whichever comes first)

N/A

Declaration

I the undersigned, declare that I am the Heavy Vehicle Specialist Inspector identified above 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 Deed of Appointment. To the best of my knowledge the information contained in this Certificate is true and correct.

Designer's ID *(if certified by a manufacturer)*

Inspector's / Delegate's Signature

*Delegate's Name *(PRINT IN CAPS)*

Date: 10-Sep-12

Number: 413981

COF Vehicle Inspector ID: | COF Vehicle Inspector Signature: | Date

All fields excluding those marked with * must be completed before this certificate can be accepted.

NZ TRANSPORT AGENCY
WAKA KOTAHI

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20 Ballance Street
PO Box 5084
Lambton Quay
Wellington 6145
New Zealand
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Document: B1205925
Exemption: HVB12/230

EXEMPTION FROM SPECIFIED REQUIREMENTS OF LAND TRANSPORT RULE: Heavy-vehicle Brakes 2006, Rule 32015

Pursuant to Section 166(1) of the Land Transport Act 1998, and pursuant to the powers delegated to me, I Jackie Hartley, Administrator (Assessments) hereby exempt the motor vehicle specified in Schedule 1 hereto from the section of Land Transport Rule: Heavy-vehicle Brakes 2006 (the Rule) listed in Schedule 2, subject to the conditions specified in Schedule 3.

SCHEDULE 1:

Make/Model: **Domett Truck & Trailer Ltd**
VIN/CHASSIS: **7A9E20017C1023073**

SCHEDULE 2: - Exempted Requirement

Section 2.3(9); The parking brake of a vehicle, whether or not it is being operated as a combination vehicle, must be able to be applied by the driver from the normal driving position using one control only.

SCHEDULE 3: - Conditions of this exemption:

1) The vehicle must be fitted with a Wabco park-release emergency valve (PREV), Part Number: 971 002 900 0.

2) The vehicle must be fitted with the Wabco PREV name plate, Part Number 971 002 103 4, adjacent to the PREV.

3) The vehicle must still be fitted with a parking brake that complies with all parking brake requirements in the Rule other than the requirement in Clause 2.3(9) of the Rule.

4) The installation of the PREV must be approved in writing by Transport Specialties Limited (Transpecs) or an NZ Transport Agency appointed HVEK certifier acting on behalf of, and under instruction from, Transpecs; Transpecs must keep a written record of all approvals.

5) An HVEK certifier in 4) must be fully trained in end of line procedures for Wabco electronically controlled braking systems

6) Transpecs must provide full operator training in the use of the PREV and furnish the operator with full written operating instructions for the PREV.

7) The vehicle must not be modified in any way while operating under this exemption.

8) This original exemption must be kept by Transport Specialties Ltd.

9) A copy of this exemption (printed on a silver WABCO Sticker) must be affixed to the exempted vehicle as close to the WABCO PREV as possible.

10) The sticker in 8) must be legible and include all printed areas of this original exemption letter.

11) This exemption can be revoked at any time in writing by the NZ Transport Agency.

Signed at Wellington this 16th day of July 2012.

Jackie Hartley
Administrator (Assessments)

WABCO START-UP PROTOCOL

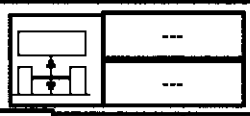
System	Trailer EBS-E	**WABCO part number**	480 102 080 0
Production date	2011-10-01	**Serial number**	897000158400D
Serial number (modulator)	000000000000		
Fingerprint Customer EOL / Customer Development / Flash Program	W503643 / 2012-09-10 ; 00000000 / 0000-00-00 ; W503643 / 2012-09-10		

WABCO TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.00
361-041-08 ECE

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT T&T
TYP TYPE TYPE	5AX F/T CURTAINSIDE
FAHRZEUG IDENTNR. CHASSIS NUMBER NUMERO DE CHASSIS	7A9E20017C1023073
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP50666
POLRADZÄHNEZAHL c-d | e-f POLE WHEEL TEETH c-d | e-f DENTS ROUE DENTÉE c-d | e-f	80 / 80 — ABS-System / ABS-System / Système ABS: 4S/3M
RSS RSS RSS — Einfachbereifung / Single Tyre / Monte simple	
RSS RSS RSS — Zwillingsbereifung / Twin Tyre / Monte jumelée	X
Lenkachse / Steering axle / Essieu vireur	
Kippkritisches Fahrzeug / Critical Trailer / Véhicule critique	
Subsystems	SB / I/O

GIO	Pin1	Pin3	Pin4
1	---	---	---
2	---	---	---
3	ALS2	ALS2	---
4	---	---	---
5	DIAG	DIAG	DIAG
6	---	---	---
7	---	---	---



	pm (bar)		6.5	pm (bar)		0.6	2.0	---	6.5		TYP TYPE	(mm)	(mm)	(bar) 1.0	Pz
ACHSE AXLE ESSIEU									pz					TR (daN)	
1	1500	0.7	1.9	7250	4.6	0.4	1.5	---	5.8	-	16	60	80	431	3649
2	1500	0.7	1.9	7250	4.6	0.4	1.5	---	5.8	-	16	60	80	431	3649
3	1300	0.6	2.0	6000	3.7	0.5	1.8	---	5.7	-	14 / 24	57	80	316	2882
4	1300	0.6	2.0	6000	3.7	0.5	1.8	---	5.7	-	14 / 24	57	80	316	2882
5	1300	0.6	2.0	6000	3.7	0.5	1.8	---	5.7	-	14 / 24	57	80	316	2882

Diagnostic memory	OK	**Warning lamp control**	OK
Parameter setting	carried out	**Stop light power supply**	Not tested
EBS pressure test	Not tested	**Lifting axle test**	Not tested
Redundancy test	OK	**ECAS distance sensor calibration**	Not tested
ABS sensor assignment	OK	**Distance sensor Axle load calibr**	Not tested
RTR check	Not tested	**Leak test**	Not tested
Immobilizer test	Not tested	**Signal outputs TEBS**	Not tested
Signal inputs	Not tested		

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

Manufacturer	DOMETT T&T	**Vehicle ident. no**	7A9E20017C1023073
Vehicle type	5AX F/T CURTAINSIDE	**Odometer reading**	0.0 km
next Service	0 km	**Trip reading**	0.0 km
Tested by	Chris Clarke	**Signature**	
Date	2012-09-10 11:43:39 a.m.		

HVBR WORKSHEET

(PROCEDURE & COMPLIANCE DOCUMENTATION SHEET)

CERTIFICATE No. JH120903

CUSTOMER NAME	DOMETT TRUCK & TRAILER LTD		
CUSTOMER ORDER No.	3885	DATE RECEIVED	June 2012
VEHICLE TYPE	5 AXLE FULL TRAILER		
REG No.		CHASSIS No.	7A9E20017C1023073

BRIEF SPECIFICATION AS CERTIFIED TO HVBR

BRAKE CHAMBERS:
Type: 16 (BPW): Max stroke = 60 mm Lever length = 80 mm
Type: 1424 (BPW): Max stroke = 57 mm Lever length = 80 mm

BRAKE VALVES: Ratio Valve Setting: EBS CONTROL
Test Points: 3 4 5 7

FRICTION LINING: OEM Aftermarket
(All) Lining Brand BPW 8200/8101

EBS CONTROL: SPECIAL CONDITIONS APPLY - SEE INSTRUCTION ON LT400

VALVES: AS PER DATA SHEET ATTACHED

TYRE SIZE: 265 70 R 19.5

NOTES
PACKING SLIP NO. SO1512827 PROCESS TIME: 1

Brake calculation TP50666

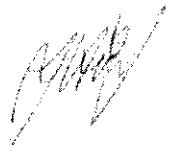
COMPLETION DATE : 10th Sept 2012 SIGNATURE

Statement of Compliance with the New Zealand Heavy Brake Rule

Documentation required to support Statements of Compliance with the New Zealand Heavy Brake Rule, to be made available to the Statutory Authority on request, must include all calculations and test reports.

Confirmation of compliance

I confirm that the vehicle identified on page 1 of this Statement of Compliance complies with all relevant requirements of the current New Zealand Heavy Vehicle Brake Rule 32015/2, Schedule 5.

Date: 10th Sept 2012 Signed: 

Certifier's identification

Name: J E Hirst

Phone (bus): (09) 980 7300 Fax (bus): (09) 980 7306

Postal address: Transport Specialties, Cnr Kerrs & Ash Roads

Wiri, Auckland, PO Box 98 971 Manukau City 2241

Position: JEH

Confirmation of continued compliance of modification

I confirm the brake system of the vehicle identified on page 1 of this Statement of Compliance as modified by myself, continues to comply with all the relevant requirements of the current New Zealand Heavy Vehicle Brake Rule 32015/2, Schedule 5.

Date: _____ Signed: _____

Certifier's identification: JEH

Name:

Phone (bus): (09) 980 7300 Fax (bus): (09) 980 7306

Postal address: Transport Specialties Ltd

Cnr Kerrs & Ash Roads, Wiri, Auckland

PO Box 98 971, Manukau City 2241

trailer (full, semi-, centre-axle) with air brake system acc. to 71/320/EEC, last amended by 98/12/EC and 2006/96/EC or UN/ECE-R.13.11

distribution: DOMETT T&T
7A9E20015C1023072 + 7A9E20017C1023073
SODC - JH120821 + JH120903

please note!

This brake calculation is made under consideration of
-the legal precriptions mentioned above in the version valid alt the time of making the program (V6.10.05.21).
-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 V6.10.05.21 db 26.05.2010

vehicle manufacturer: DOMETT T&T

trailer model : 5AX F/T CURTAINSIDE

trailer type : 5-axle-full-trailer

remarks : air / hydraulic / VA suspension
WABCO TRAILER - EBS E
TRISTOP 3+4+5: 14/24
265/70 R 19,5

axle 1 + 2 + 3 + 4 + 5 : BPW, TSB 3709, 361-041-08 ECE,

		unladen	laden
total mass	P in kg	6900	32500
axle 1	P1 in kg	1500	7250
axle 2	P2 in kg	1500	7250
axle 3	P3 in kg	1300	6000
axle 4	P4 in kg	1300	6000
axle 5	P5 in kg	1300	6000
wheel base	E in mm	7400 - 7400	
centre of gravity height	h in mm	1090	2078

		axle 1	axle 2	axle 3	axle 4	axle 5
no. of combined axles		1	1	1	1	1
no. of brake chambers per axle line	KDZ	2	2	2	2	2
The power output corresponds to		BZ 106.0	BZ 106.0	BZ 107.0	BZ 107.0	BZ 107.0
brake chamber manufacturer		BPW	BPW	BPW	BPW	BPW
chamber size		16	16	14/24	14/24	14/24
lever length	lBh in mm	80	80	80	80	80
brake factor	[-]	20.50	20.50	20.50	20.50	20.50
dyn. rolling radius	rdyn min in mm	421	421	421	421	421
dyn. rolling radius	rdyn max in mm	421	421	421	421	421
threshold torque	Co Nm	12.0	12.0	12.0	12.0	12.0
calculation:						
chamber pressure(rdyn min)pH at z=22,5%bar		2.2	2.2	2.5	2.5	2.5
chamber pressure(rdyn max)pH at z=22,5%bar		2.2	2.2	2.5	2.5	2.5
chamber press.(servo)pcha at pm6,5bar	bar	5.8	5.8	5.7	5.7	5.7
piston force	ThA at pm6,5bar N	5840	5840	4641	4641	4641
brake force(rdyn min)T lad. at pm6,5bar	N	45039	45039	35574	35574	35574
brake force(rdyn max)T lad. at pm6,5bar	N	45039	45039	35574	35574	35574
brake force within 1 % rolling friction proportion	%	22.6	22.6	18.2	18.2	18.2

braking rate z laden 0.617 for rdyn min
z = sum (TR)/PRmax 0.617 for rdyn max

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

brake diagram :

maximum pressure: 8.5 bar

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

valve 2: 480 207 0.. 0 WABCO
EBS relay valve

brake cylinder: BPW 05.444.32.....

axle 2:
valve 1: 971 002 ... 0 WABCO
EBS emergency valve

valve 2: 480 207 0.. 0 WABCO
EBS relay valve

brake cylinder: BPW 05.444.32.....

axle 3:
valve 1: 971 002 ... 0 WABCO
EBS emergency valve

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

brake cylinder: BPW 05.444.38.....

axle 4:
valve 1: 971 002 ... 0 WABCO
EBS emergency valve

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

brake cylinder: BPW 05.444.38.....

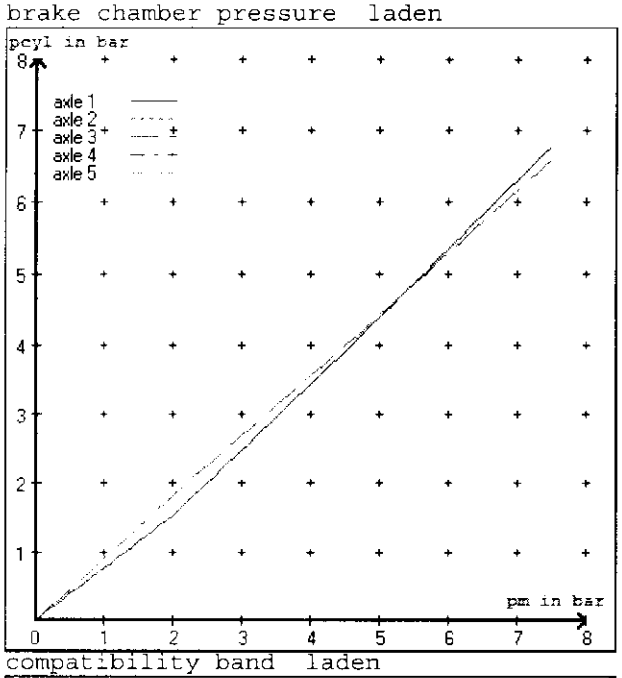
axle 5:
valve 1: 971 002 ... 0 WABCO
EBS emergency valve

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

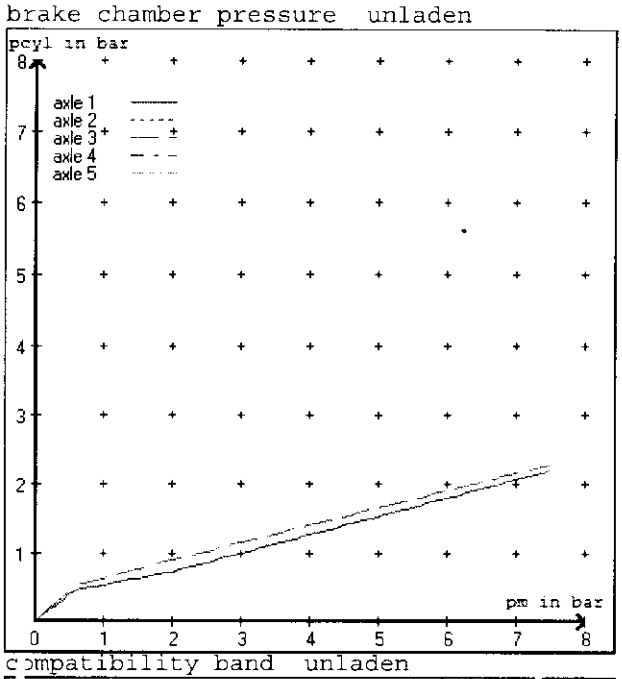
brake cylinder: BPW 05.444.38.....

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5
at pm 3.5 bar =>	pcha in bar :	2.9	2.9	3.1	3.1	3.1
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5
at pm 1.1 bar =>	pcha in bar :	0.8	0.8	1.0	1.0	1.0

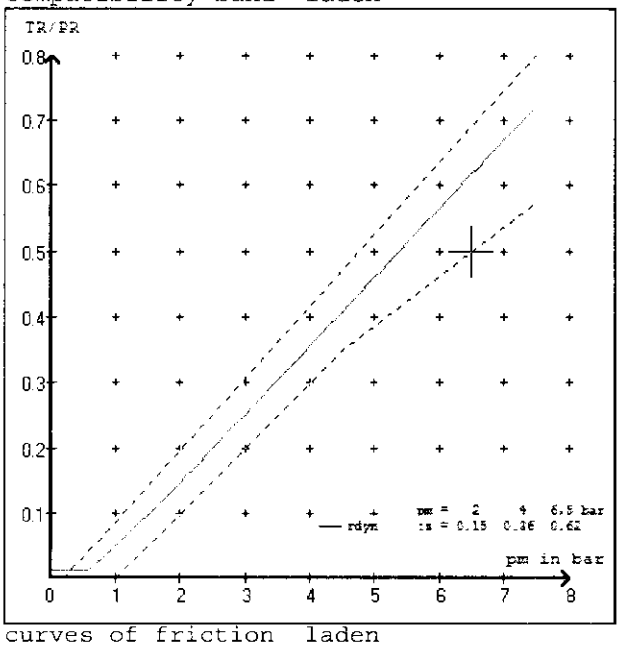
brake chamber pressure laden



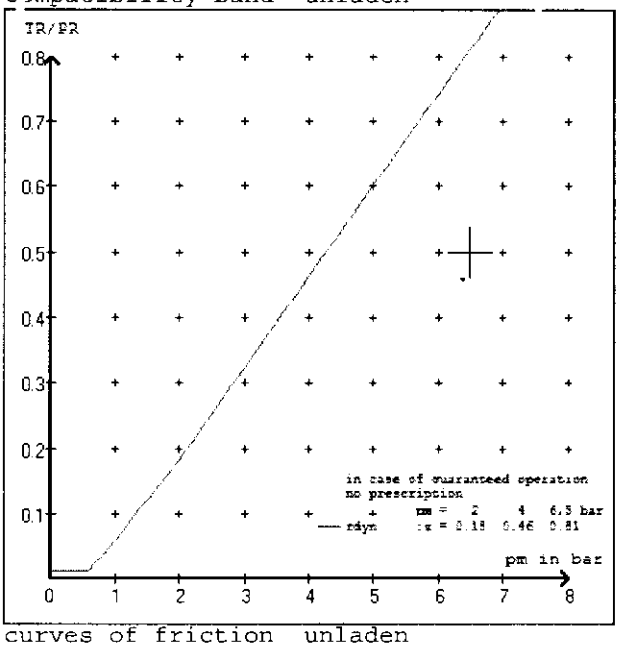
brake chamber pressure unladen



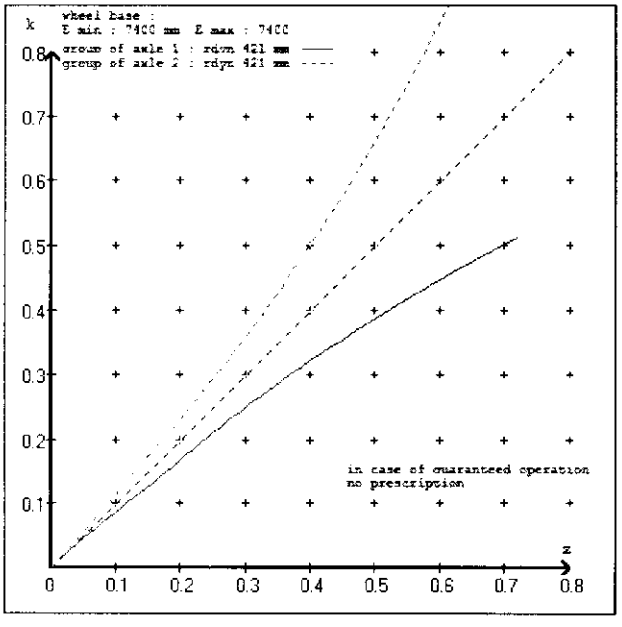
compatibility band laden



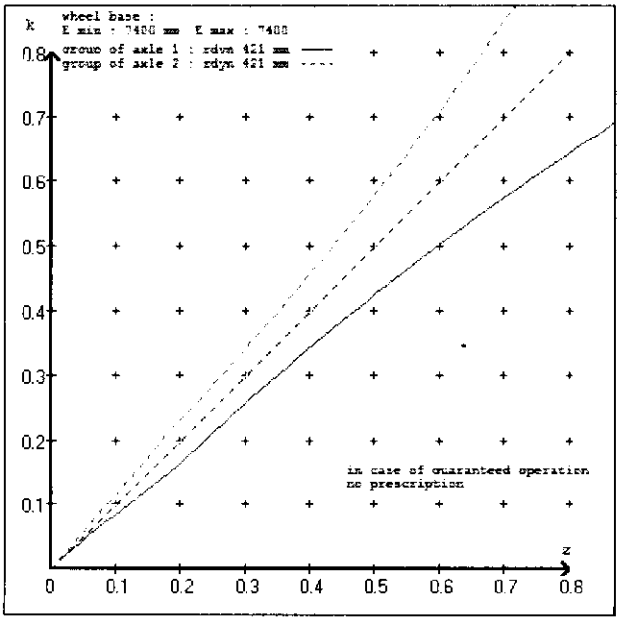
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT T&T
trailer model : 5AX F/T CURTAINSIDE
trailer type : 5-axle-full-trailer

brake chamber and lever length :

axle 1 :	2 x type/diameter	16	(BPW)	lever length 80 mm
axle 2 :	2 x type/diameter	16	(BPW)	lever length 80 mm
axle 3 :	2 x type/diameter	14/24	(BPW)	lever length 80 mm
axle 4 :	2 x type/diameter	14/24	(BPW)	lever length 80 mm
axle 5 :	2 x type/diameter	14/24	(BPW)	lever length 80 mm

brake diagram :

valve :
971 002 ... 0 WABCO EBS emergency valve
480 207 0.. 0 WABCO EBS relay valve
480 102 ... 0 WABCO EBS trailer modulator

EBS input data
==========
vehicle manufacturer: DOMETT T&T
trailer model : 5AX F/T CURTAINSIDE
trailer type : 5-axle-full-trailer
brake calculation no. : TP 50666A

tire circumference main axle : 2650 for rdyn max
tire circumference auxiliary axle : 2650 for rdyn max

assignment pm / deceleration z: pm 0.6 bar z = 0.000
(laden condition) 2.0 bar z = 0.146
6.5 bar z = 0.615

control pressure pm			6,5	control pressure pm		0.6	2.0	6.5
axle	axle load unladen	bellow pr. unladen	brake pr. unladen	axle load laden	bellow pr. laden	brake pr. laden		
1	1500	to be entered by the vehicle manufact.	1.9	7250	to be entered by the vehicle manufact.	0.4	1.5	5.8
2	1500		1.9	7250		0.4	1.5	5.8
3	1300		2.0	6000		0.5	1.8	5.7
4	1300		2.0	6000		0.5	1.8	5.7
5	1300		2.0	6000		0.5	1.8	5.7

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 faller below.
==========

axle 1		axle 2		axle 3		axle 4		axle 5	
axle load	pcyl	axle load	pcyl	axle load	pcyl	axle load	pcyl	axle load	pcyl
1500	1.9	1500	1.9	1300	2.0	1300	2.0	1300	2.0
2000	2.2	2000	2.2	1800	2.4	1800	2.4	1800	2.4
2500	2.6	2500	2.6	2300	2.8	2300	2.8	2300	2.8
3000	2.9	3000	2.9	2800	3.2	2800	3.2	2800	3.2
3500	3.3	3500	3.3	3300	3.6	3300	3.6	3300	3.6
4000	3.6	4000	3.6	3800	4.0	3800	4.0	3800	4.0
4500	3.9	4500	3.9	4300	4.4	4300	4.4	4300	4.4
5000	4.3	5000	4.3	4800	4.8	4800	4.8	4800	4.8
7250	5.8	7250	5.8	6000	5.7	6000	5.7	6000	5.7

data sheet to EC/ECE vehicle type-approval certificate concerning braking equipment: according to 98/12/EC annex IX 2.7.4 / ECE R13 annex 11

axle 1 : reference axle: BPW	D 115-2	brake lining: BPW 8200	
test report :	361-041-08 EC	date : 28.04.2009	
axle 2 : reference axle: BPW	D 115-2	brake lining: BPW 8200	
test report :	361-041-08 EC	date : 28.04.2009	
axle 3 : reference axle: BPW	D 115-2	brake lining: BPW 8200	
test report :	361-041-08 EC	date : 28.04.2009	
axle 4 : reference axle: BPW	D 115-2	brake lining: BPW 8200	
test report :	361-041-08 EC	date : 28.04.2009	
axle 5 : reference axle: BPW	D 115-2	brake lining: BPW 8200	
test report :	361-041-08 EC	date : 28.04.2009	

calc. verif. of residual (hot) braking force type III
(item 4.2 of appendix I to annex VII)

axle 1	(rdyn 421 mm)	T = 18.7 % Fe
axle 2	(rdyn 421 mm)	T = 18.7 % Fe
axle 3	(rdyn 421 mm)	T = 15.8 % Fe
axle 4	(rdyn 421 mm)	T = 15.8 % Fe
axle 5	(rdyn 421 mm)	T = 15.8 % Fe

calculated actuator stroke in mm
(item 4.3.1.1 of appendix I to annex VII)

axle 1	(sp = 57 mm)	s = 47 mm
axle 2	(sp = 57 mm)	s = 47 mm
axle 3	(sp = 51 mm)	s = 47 mm
axle 4	(sp = 51 mm)	s = 47 mm
axle 5	(sp = 51 mm)	s = 47 mm

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

axle1	ThA = 5840 N
axle2	ThA = 5840 N
axle3	ThA = 4641 N
axle4	ThA = 4641 N
axle5	ThA = 4641 N

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

axle 1	(rdyn 421 mm)	T = 42399 N
axle 2	(rdyn 421 mm)	T = 42399 N
axle 3	(rdyn 421 mm)	T = 33491 N
axle 4	(rdyn 421 mm)	T = 33491 N
axle 5	(rdyn 421 mm)	T = 33491 N

	basic test of subject trailer (z)	type III (calculated) residual (hot)braking
braking rate of the vehicle (item 4.3.2 to appendix I to annex VII)	0.62	0.58
required braking rate (items 1.3.3 and 1.6.2 to annex II)		>= 0,4 and >= 0,6*z (0.37)

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

axle 1	(rdyn 421 mm)	T = 42399 N
axle 2	(rdyn 421 mm)	T = 42399 N
axle 3	(rdyn 421 mm)	T = 33491 N
axle 4	(rdyn 421 mm)	T = 33491 N
axle 5	(rdyn 421 mm)	T = 33491 N

	basic test of subject trailer (z)	type III (calculated) residual (hot)braking
braking rate of the vehicle (item 4.3.2 to appendix I to annex VII)	0.62	0.58
required braking rate (items 1.3.3 and 1.6.2 to annex II)		>= 0,4 and >= 0,6*z (0.37)

data sheet to EC/ECE vehicle type-approval certificate concerning braking equipment: according to 98/12/EC annex IX 2.7.4 / ECE R13 annex 11

axle 1 : reference axle:	BPW	D 115-2	brake lining:	BPW 8101
test report :		361-041-08 EC	date :	16.03.2009
axle 2 : reference axle:	BPW	D 115-2	brake lining:	BPW 8101
test report :		361-041-08 EC	date :	16.03.2009
axle 3 : reference axle:	BPW	D 115-2	brake lining:	BPW 8101
test report :		361-041-08 EC	date :	16.03.2009
axle 4 : reference axle:	BPW	D 115-2	brake lining:	BPW 8101
test report :		361-041-08 EC	date :	16.03.2009
axle 5 : reference axle:	BPW	D 115-2	brake lining:	BPW 8101
test report :		361-041-08 EC	date :	16.03.2009

calc. verif. of residual (hot) braking force type III
(item 4.2 of appendix I to annex VII)

axle 1	(rdyn 421 mm)	T = 18.7 % Fe
axle 2	(rdyn 421 mm)	T = 18.7 % Fe
axle 3	(rdyn 421 mm)	T = 15.8 % Fe
axle 4	(rdyn 421 mm)	T = 15.8 % Fe
axle 5	(rdyn 421 mm)	T = 15.8 % Fe

calculated actuator stroke in mm
(item 4.3.1.1 of appendix I to annex VII)

axle 1	(sp = 57 mm)	s = 48 mm
axle 2	(sp = 57 mm)	s = 48 mm
axle 3	(sp = 51 mm)	s = 48 mm
axle 4	(sp = 51 mm)	s = 48 mm
axle 5	(sp = 51 mm)	s = 48 mm

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

axle1	ThA = 5840 N
axle2	ThA = 5840 N
axle3	ThA = 4641 N
axle4	ThA = 4641 N
axle5	ThA = 4641 N

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

axle 1	(rdyn 421 mm)	T = 40816 N
axle 2	(rdyn 421 mm)	T = 40816 N
axle 3	(rdyn 421 mm)	T = 32242 N
axle 4	(rdyn 421 mm)	T = 32242 N
axle 5	(rdyn 421 mm)	T = 32242 N

	basic test of subject trailer (z)	type III (calculated) residual (hot)braking
braking rate of the vehicle (item 4.3.2 to appendix I to annex VII)	0.62	0.56
required braking rate (items 1.3.3 and 1.6.2 to annex II)		>= 0,4 and >= 0,6*z (0.37)

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

axle 1	(rdyn 421 mm)	T = 40816 N
axle 2	(rdyn 421 mm)	T = 40816 N
axle 3	(rdyn 421 mm)	T = 32242 N
axle 4	(rdyn 421 mm)	T = 32242 N
axle 5	(rdyn 421 mm)	T = 32242 N

	basic test of subject trailer (z)	type III (calculated) residual (hot)braking
braking rate of the vehicle (item 4.3.2 to appendix I to annex VII)	0.62	0.56
required braking rate (items 1.3.3 and 1.6.2 to annex II)		>= 0,4 and >= 0,6*z (0.37)

spring parking brake

		axle 3	axle 4	axle 5
no of TRISTOP-actuators per axle line	KDZ	2	2	2
TRISTOP-actuator type		14/24	14/24	14/24
lever length	lBh in mm	80	80	80
stat. tyre radius	rstat max in mm	401	401	401
at a stroke of	s in mm	30	30	30
min. force of spring brake	TFZ in N	5809	5809	5809
sp.brake chamber no BPW		05.444.38	05.444.38	05.444.38
release pressure	pLs in bar	4.9	4.9	4.9

calculation:

ratio until road		4.0898	4.0898	4.0898
iFb = lBh*Eta*C*rBt/(rBn*rstat)				
for rstat	in mm	401	401	401
brake force of spring br. Tf	in N	46288	46288	46288
Tf = (TFZ*KDZ-2*Co/lBh)*iFb				

braking rate zf laden 0.446
zf = sum (Tf)/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 Ef = E * (1 - PR/P + zferf * h/E) / (1 - zferf / (fzul * nf/ng))

min Ef = 4743 mm for E = 7400 mm
==========
min Ef = 4743 mm for E = 7400 mm
==========

min Ef	=		minimum distance between front axle(s) (trailer) or support (semitrailer) 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	=	2078 mm	height of center of gravity - laden
PR	=	18000 kg	maximum bogie mass - laden
P	=	32500 kg	maximum total mass - laden
nf	=	3	no. of axle(s) with TRISTOP spring brake actuators
ng	=	3	no. of bogie axle(s)

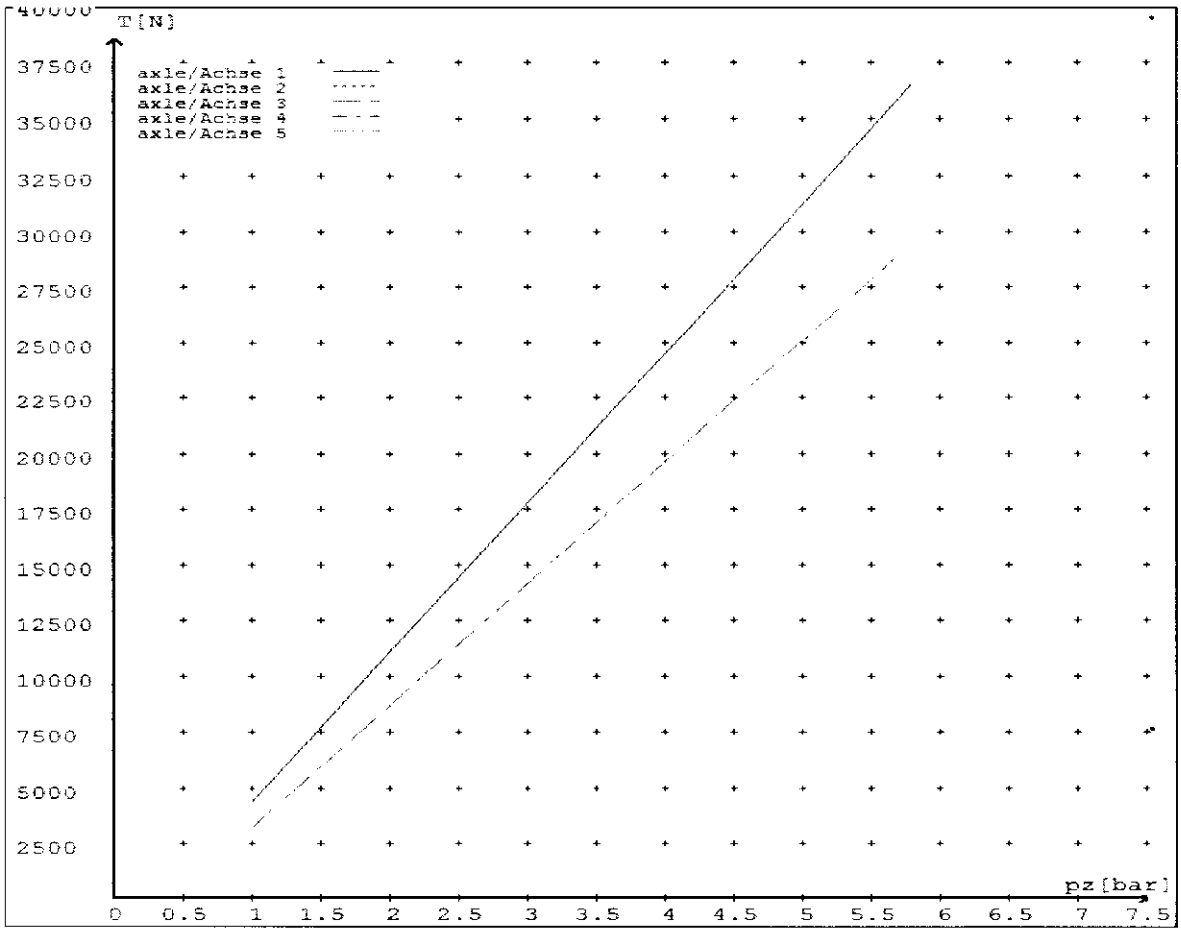
reference values

reference values for z = 50% for max rdyn: 421 mm

	pz [bar]	T [N]	T [N]
axle 1	1.0 5.8	4314 36498	
axle 2	1.0 5.8	4314 36498	
axle 3	1.0 5.7		3160 28828
axle 4	1.0 5.7		3160 28828
axle 5	1.0 5.7		3160 28828

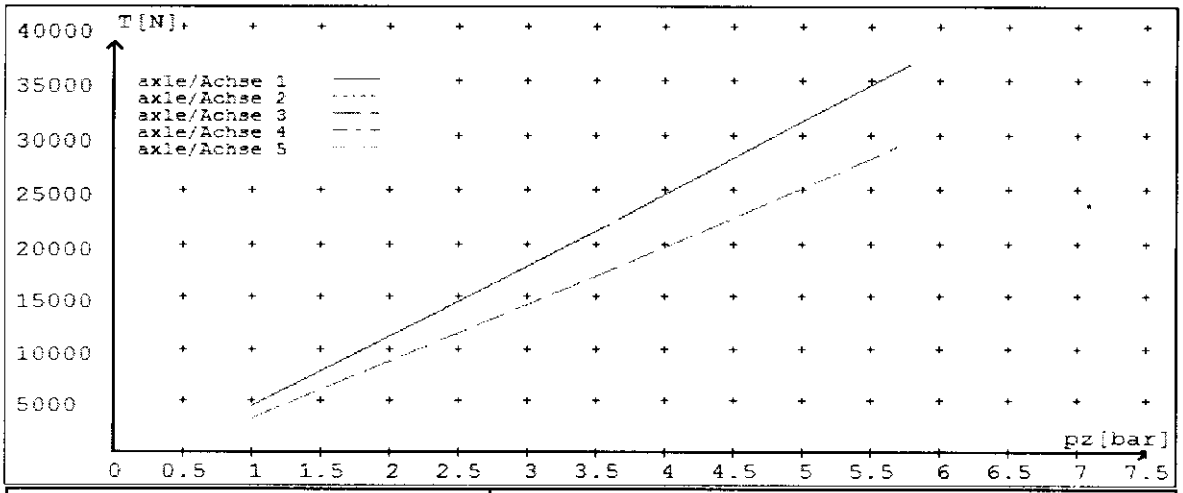
VIN - no.:

	Axle's) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	16/	16/	14/24	14/24	14/24
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	60	60	57	57	57
Lever length = ...mm Hebellänge = ...mm	80	80	80	80	80



Print on WABCO no. 899 200 922 4 (only possible with laser printers!)

reference values for z = 0.5 **for max rdyn: 421 mm**
Angabe der Referenzwerte für z = 0.5 für max rdyn: 421 mm
brake calculation no: TP 50666A date 28.08.2012
Bremsberechnung Nr: TP 50666A vom 28.08.2012



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	16/	16/	14/24	14/24	14/24
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	60	60	57	57	57
Lever length = ...mm Hebellänge = ...mm	80	80	80	80	80

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Document: B1205925
Exemption: HVB12/230

EXEMPTION FROM SPECIFIED REQUIREMENTS OF LAND TRANSPORT RULE: Heavy-vehicle Brakes 2006, Rule 32015

Pursuant to Section 166(1) of the Land Transport Act 1998, and pursuant to the powers delegated to me, I Jackie Hartley, Administrator (Assessments) hereby exempt the motor vehicle specified in Schedule 1 hereto from the section of Land Transport Rule: Heavy-vehicle Brakes 2006 (the Rule) listed in Schedule 2, subject to the conditions specified in Schedule 3.

SCHEDULE 1:

Make/Model: **Domett Truck & Trailer Ltd**
VIN/CHASSIS: **7A9E20017C1023073**

SCHEDULE 2: - Exempted Requirement

Section 2.3(9); The parking brake of a vehicle, whether or not it is being operated as a combination vehicle, must be able to be applied by the driver from the normal driving position using one control only.

SCHEDULE 3: - Conditions of this exemption:

1) The vehicle must be fitted with a Wabco park-release emergency valve (PREV), Part Number: 971 002 900 0.

2) The vehicle must be fitted with the Wabco PREV name plate, Part Number 971 002 103 4, adjacent to the PREV.

3) The vehicle must still be fitted with a parking brake that complies with all parking brake requirements in the Rule other than the requirement in Clause 2.3(9) of the Rule.

4) The installation of the PREV must be approved in writing by Transport Specialties Limited (Transpecs) or an NZ Transport Agency appointed HVEK certifier acting on behalf of, and under instruction from, Transpecs; Transpecs must keep a written record of all approvals.

5) An HVEK certifier in 4) must be fully trained in end of line procedures for Wabco electronically controlled braking systems

6) Transpecs must provide full operator training in the use of the PREV and furnish the operator with full written operating instructions for the PREV.

7) The vehicle must not be modified in any way while operating under this exemption.

8) This original exemption must be kept by Transport Specialties Ltd.

9) A copy of this exemption (printed on a silver WABCO Sticker) must be affixed to the exempted vehicle as close to the WABCO PREV as possible.

10) The sticker in 8) must be legible and include all printed areas of this original exemption letter.

11) This exemption can be revoked at any time in writing by the NZ Transport Agency.

Signed at Wellington this 16th day of July 2012.

Jackie Hartley
Administrator (Assessments)