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)*: RONALD STUART PRATT

ID: TRSP

Vehicle Registration*:

VIN / Chassis Number: 7A9D31013900238538

Component being certified:

- ☐ Chassis Modification
- ☐ Load Anchorage
- ☐ Log Bolsters
- ☐ Towing Connection
- ☑ Brakes
- ☐ SRT

Certification Category: HVGK

Description of Work: Certify to Brake Rule 32015

Code/Standard Certified to: NZHUB Rule Schedule 5

Component Load Rating(s):

General Drawing Number(s): N/A

Supporting Documents: Brake Cert No RA00103.

*Special Conditions: ABS CONTROL. Warning light must illuminate when ignition switched on and extinguish immediately OR when vehicle reaches 7Kph

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 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: RS Pratt

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

Date: 08/01/2010

Number: 333629

COF Vehicle Inspector ID:	COF Vehicle Inspector Signature:	Date

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

NOTICE TO VEHICLE OPERATOR

THIS VEHICLE HAS A BRAKE SYSTEM WHICH HAS BEEN DESIGNED AND FITTED IN ACCORDANCE WITH THE NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015: SCHEDULE 5.
IF THIS VEHICLE IS OPERATED IN CONJUNCTION WITH NON-CODED VEHICLES, THERE MAY BE OPERATIONAL FACTORS WHICH NEED TO BE TAKEN INTO CONSIDERATION.

PLEASE REFER TO THE CERTIFIER FOR FURTHER INFORMATION.

EXCERPT FROM NZ HEAVY VEHICLE BRAKE RULE 32015

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 the rule : and
(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 a person or organisation appointed to carry out specialist inspection and certification of heavy vehicle brakes.

10.5 **Responsibilities of manufactures and retailers**
A person may manufacture, stock, or offer for sale a brake or its components. Intended for fitting to a vehicle to be used on New Zealand roads, only if that brake or component:

(a) complies with this Rule: and
(b) *does not prevent a repair to a vehicle, its structure, systems, components and equipment from complying with this Rule.*

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 Land Transport Safety Authority if dissatisfied with a Compliance issue. (refer LTNZ Deed Of Appointment Para 47.4) **Land Transport NZ Helpdesk 0800 699 000**

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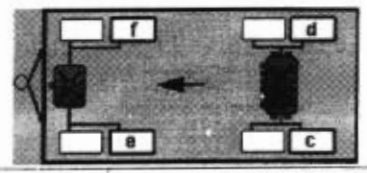
R S PRATT
(TRSP HVEK)

WABCO START-UP PROTOCOL

System	Trailer EBS	**WABCO part number**	480 102 014 0
Production date	2008-W25	**Serial number**	2660338548
Fingerprint EOL areas 1;2;3	342681, 195; 342681, 195; 342681, 195		

HERSTELLER MANUFACTURER CONSTRUCTEUR	Domett;			ELEKTR. SCHALTER 1 ELECTR. SWITCH 1 COMMUTATEUR ELECTR.1	---
TYP TYPE TYPE	4A Full Ti			ISS GESCHW. ISS SPEED COMMUTATEUR VITESSE	0
FAHRZEUG IDENTNR. CHASSIS NUMBER NUMERO DE CHASSIS	7A9D3101390023858			ISS PIN INVERTIERT ISS_PIN INVERT COMMUTATEUR INVERSÉ	---
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP12015;			10 s PULS 10 s PULSE IMPULSION 10s	---
ABS-System ABS-System ABS-System	4S/3M			ELEKTR. SCHALTER 2 ELECTR. SWITCH 2 COMMUTATEUR ELECTR.2	---
POLRADZÄHNEZAHL c,d POLE WHEEL TEETH c,d DENTS ROUE DENTÉE c,d	90	POS. LIFTACHSEN POS. LIFTAXLE PRÉP. ESS. RELEV		WARNLAMPE WARNING LAMP VOYANT DE SÉCURITÉ	2s
POLRADZÄHNEZAHL e,f POLE WHEEL TEETH e,f DENTS ROUE DENTÉE e,f	90	I/O 1 I/O 1 I/O 1	2AL	LIFTACHSE HEBEN V LIFTING AXLE SPEED V VITESSE ESS. RELEVABLE	0
EXT. BREMSDRUCKSENS. EXT. BRAKE PRESS. SENS. EXT. CAPT. PRES. DE FREIN.	---	RSS RSS RSS	RSS-D	LIFTACHSE SENKEN % LOWER LIFTING AXLE % BAISSER ESSIEU RELEV. %	0



BREMSENPRÜFNUMMER
BRAKE TEST NUMBER
NUMÉRO D'ESSAI DE FREIN

GGVS/ADR	TPN 1203/04
ANFAHRHILFE GESCHW. TRACTION HELP V VITESSE AIDE DEMARRAGE	0
ANFAHRHILFE DRUCK TRACTION HELP PRESS. PRES. AIDE DEMARRAGE	0.0

	STEUERDRUCK PM (BAR) CONTROL PRESSURE (BAR) PRESSION DE SERVICE PM (BAR)		6.5	STEUERDRUCK PM (BAR) CONTROL PRESSURE (BAR) PRESSION DE SERVICE PM (BAR)		0.8	2.0	6.5
ACHSE AXLE ESSIEU	ACHSLAST LEER AXLE LOAD UNLADEN CHARGE ESSIEU A VIDE (KG)	BALGDRUCK LEER SUSP. PRESS. UNLADEN PRESS. SUSP. A VIDE (BAR)	BREMSDRUCK LEER BRAKE PRESS. UNLADEN PRESS. DE FREIN. A VIDE (BAR)	ACHSLAST BELADEN AXLE LOAD LADEN CHARGE ESSIEU EN CHARGE (KG)	BALGDRUCK BELADEN SUSP. PRESS. LADEN PRESS. SUSP. EN CHARGE (BAR)	BREMSDRUCK BELADEN BRAKE PRESS. LADEN PRESS. DE FREIN. A CHARGE (BAR)		
1	1400	0.5	1.8	7000	4.2	0.3	1.4	5.8
2	1400	0.5	1.8	7000	4.2	0.3	1.4	5.8
3	1400	0.5	1.7	7000	4.2	0.3	1.4	5.5
4	1400	0.5	1.7	7000	4.2	0.3	1.4	5.5
5	---	---	---	---	---	---	---	---

	Test report number				
	Axle	**1**	**2**	**3**	**4**	**5**
Actuator type	**Service brake**					
	Spring brake					
Max. actuator stroke (mm)						
Lever length (mm)						

Diagnostic memory	OK	**Warning lamp control**	OK
Parameter setting	carried out	**Stop light power supply**	Not tested
EBS pressure test	OK	**Lifting axle test**	Not tested
Redundancy test	OK		
ABS sensor assignment	OK		

Manufacturer	Domett;	**Vehicle ident. no**	7A9D3101390023858
Vehicle type	4A Full Ti	**Odometer reading**	0.0 km
next Service	30000 km	**Trip reading**	0 km
Tested by	Ron Pratt		
Date	2010-01-08 11:49:18 AM	**Signature**	R Pratt

Transpecs

QUALITY ON THE MOVE

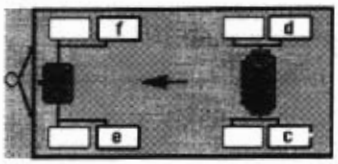
P.O.Box 98-971 South Auckland Mail Centre

Ronald Stuart Pratt (TRSP)

DATE	8-Jan-10	TYPE APPROVED	NO
CERTIFICATE No	RP100103		SAF4FTEBS
VIN No	7A9D3101390023858		
BRAKE CHAMBERS FRONT	TSE 14@64mm		
BRAKE CHAMBERS REAR	TSE 14/16@64mn	LOAD SENSED	Yes EBS Control
SLACK LENGTH FRONT	Disc	TYRE SIZE FRONT	265/70R19.5
SLACK LENGTH REAR	Disc	TYRE SIZE REAR	265/70R19.5
THIS VEHICLE COMPLIES W	N.Z.H.V.B.R	LINING MATERIALFRONT	Jurid 539 AF
32015 SCHEDULE 5		LINING MATERIAL REAR	Jurid 539 AF

WABCO

TRAILER EBS



HERSTELLER MANUFACTURER CONSTRUCTEUR	Domett;			ELEKTR. SCHALTER 1 ELECTR. SWITCH 1 COMMUTATEUR ELECTR.1	---
TYP TYPE TYPE	4A Full Ti			ISS GESCHW. ISS SPEED COMMUTATEUR VITESSE	0
FAHRZEUG IDENTNR. CHASSIS NUMBER NUMERO DE CHASSIS	7A9D3101390023858			ISS PIN INVERTIERT ISS_PIN INVERT COMMUTATEUR INVERSÉ	---
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP12015;			10 s PULS 10 s PULSE IMPULSION 10s	---
ABS-System ABS-System ABS-System	4S/3M			ELEKTR. SCHALTER 2 ELECTR. SWITCH 2 COMMUTATEUR ELECTR.2	---
POLRADZAHNEZAHL c,d POLE WHEEL TEETH c,d DENTS ROUE DENTÉE c,d	90	POS. LIFTACHSEN POS. LIFTAXLE PREP. ESS. RELEV.		WARNLAMPE WARNING LAMP VOYANT DE SÉCURITÉ	2s
POLRADZAHNEZAHL e,f POLE WHEEL TEETH e,f DENTS ROUE DENTÉE e,f	90	I/O 1 I/O 1 I/O 1	2AL	LIFTACHSE HEBEN V LIFTING AXLE SPEED V VITESSE ESS. RELEVABLE	0
EXT. BREMSDRUCKSENS. EXT. BRAKE PRESS. SENS. EXT. CAPT. PRES. DE FREIN.	---	RSS RSS RSS	RSS-D	LIFTACHSE SENKEN % LOWER LIFTING AXLE % BAISSER ESSIEU RELEV. %	0

	BREMSENPRÜFNUMMER BRAKE TEST NUMBER NUMÉRO D'ESSAI DE FREIN
GGVS/ADR	TPN 1203/04
ANFAHRHILFE GESCHW. TRACTION HELP V VITESSE AIDE DEMARRAGE	0
ANFAHRHILFE DRUCK TRACTION HELP PRESS. PRES. AIDE DEMARRAGE	0.0

	STEUERDRUCK PM (BAR) CONTROL PRESSURE (BAR) PRESSION DE SERVICE PM (BAR)		6.5	STEUERDRUCK PM (BAR) CONTROL PRESSURE (BAR) PRESSION DE SERVICE PM (BAR)		0.8	2.0	6.5
ACHSE AXLE ESSIEU	ACHSLAST LEER AXLE LOAD UNLADEN CHARGE ESSIEU A VIDE (KG)	BALGDRUCK LEER SUSP. PRESS. UNLADEN PRESS. SUSP. A VIDE (BAR)	BREMSDRUCK LEER BRAKE PRESS. UNLADEN PRESS. DE FREIN. A VIDE (BAR)	ACHSLAST BELADEN AXLE LOAD LADEN CHARGE ESSIEU EN CHARGE (KG)	BALGDRUCK BELADEN SUSP. PRESS. LADEN PRESS. SUSP. EN CHARGE (BAR)	BREMSDRUCK BELADEN BRAKE PRESS. LADEN PRESS. DE FREIN. A CHARGE (BAR)		
1	1400	0.5	1.8	7000	4.2	0.3	1.4	5.8
2	1400	0.5	1.8	7000	4.2	0.3	1.4	5.8
3	1400	0.5	1.7	7000	4.2	0.3	1.4	5.5
4	1400	0.5	1.7	7000	4.2	0.3	1.4	5.5
5	---	---	---	---	---	---	---	---

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.13.10

distribution: Domett
3354-858 EBS
00070RP

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 (V6.09.06.06).
--the functional characteristics of our products,
but not of those of other 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)
WABCOBrake V6.09.06.06 db 08.06.2009

vehicle manufacturer: Domett
trailer model : 4A Full Tipper
trailer type : 4-axle-full-trailer
remarks : air / hydraulic / VA suspension
WABCO T-EBS: D or D PLUS (PREV)
TRISTOP 3+4: T.14/24
265/70 R 19,5

axle 1 + 2 + 3 + 4 : SAF, PAN 19-1, TDB 0749 ECE,

		unladen	laden
total mass	P in kg	5600	28000
axle 1	P1 in kg	1400	7000
axle 2	P2 in kg	1400	7000
axle 3	P3 in kg	1400	7000
axle 4	P4 in kg	1400	7000
wheel base	E in mm	5900 - 5900	
centre of gravity height	h in mm	1170	2100

		axle 1	axle 2	axle 3	axle 4
no. of combined axles		1	1	1	1
no. of brake chambers per axle line	KDZ	2	2	2	2
The power output corresponds to		BZ 122.1	BZ 122.1	BZ 119.6	BZ 119.6
brake chamber manufacturer		Meritor	Meritor	Meritor	Meritor
chamber size		14.	14.	T.14/16	T.14/16
lever length	lBh in mm	69	69	69	69
brake factor	[-]	23.03	23.03	23.03	23.03
dyn. rolling radius	rdyn min in mm	421	421	421	421
dyn. rolling radius	rdyn max in mm	421	421	421	421
threshold torque	Co Nm	6.0	6.0	6.0	6.0
calculation:					
chamber pressure(rdyn min)pH at z=22,5%bar		2.3	2.3	2.2	2.2
chamber pressure(rdyn max)pH at z=22,5%bar		2.3	2.3	2.2	2.2
chamber press.(servo)pcha at pm6,5bar	bar	5.8	5.8	5.5	5.5
piston force	ThA at pm6,5bar N	5588	5588	5287	5287
brake force(rdyn min)T lad. at pm6,5bar	N	42260	42260	39988	39988
brake force(rdyn max)T lad. at pm6,5bar	N	42260	42260	39988	39988
brake force within 1 % rolling friction proportion	%	25.0	25.0	25.0	25.0

braking rate z laden 0.599 for rdyn min
z = sum (TR)/PRmax 0.599 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: 480 207 0.. 0 WABCO
  EBS relay valve

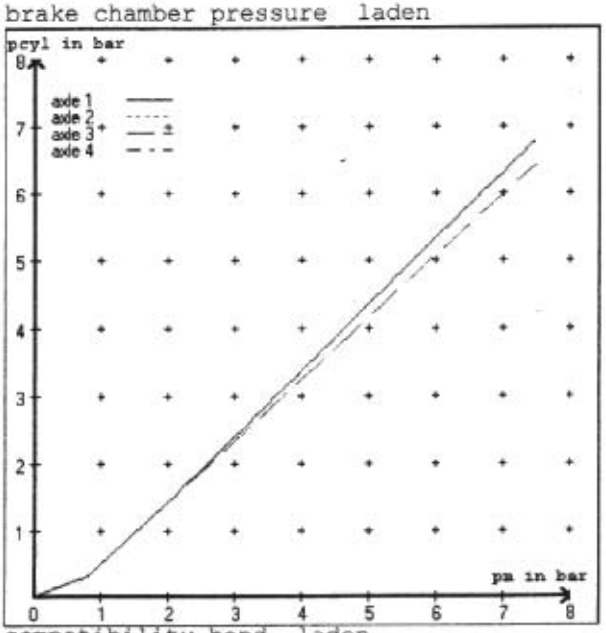
axle 2:
  valve 1: 480 207 0.. 0 WABCO
  EBS relay valve

axle 3:
  valve 1: 480 102 0.. 0 WABCO
  EBS trailer modulator

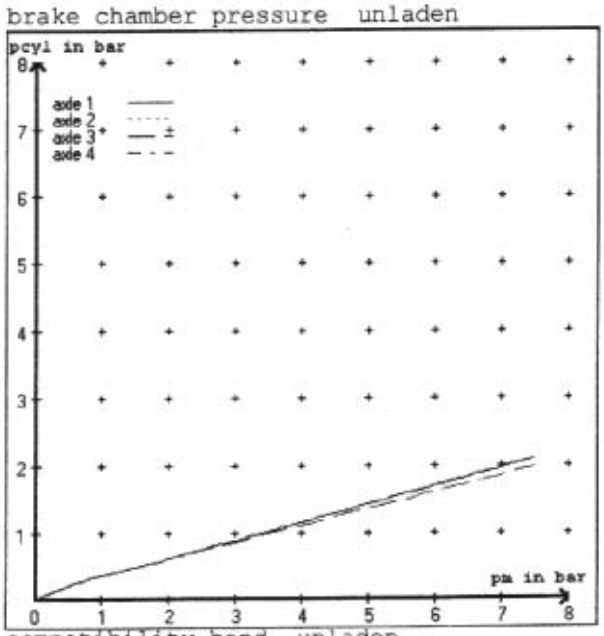
axle 4:
valve 1: 480 102 0.. 0 WABCO
EBS trailer modulator

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	
at pm 3.6 bar =>	pcha in bar :	3.0	3.0	2.9	2.9	
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	
at pm 1.3 bar =>	pcha in bar :	0.8	0.8	0.8	0.8	

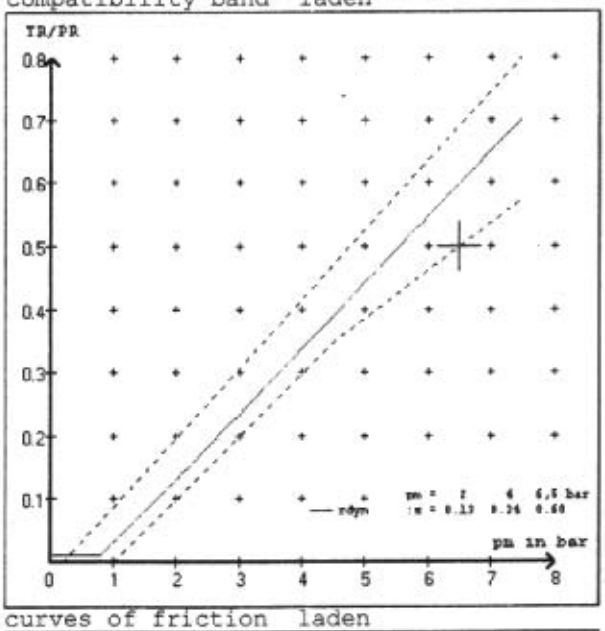
brake chamber pressure laden



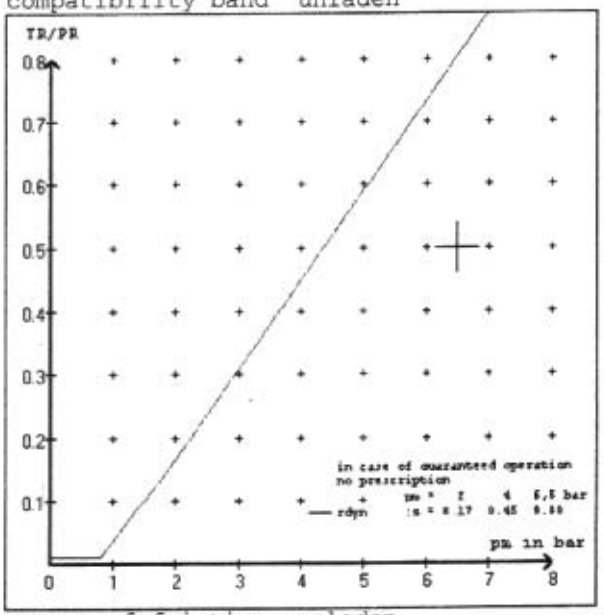
brake chamber pressure unladen



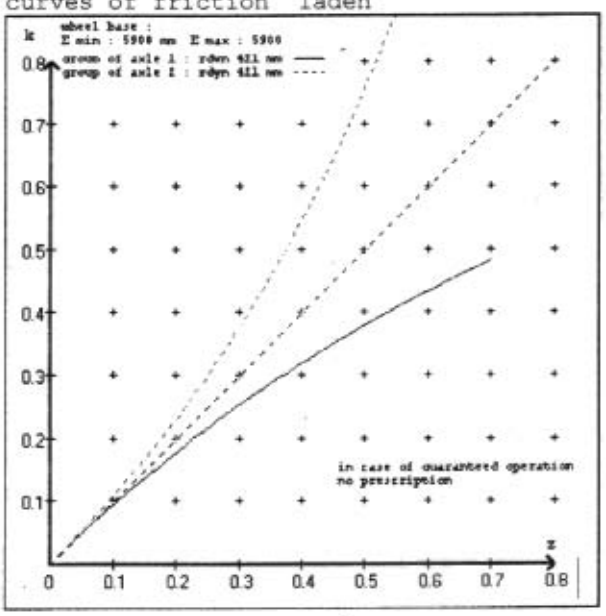
compatibility band laden



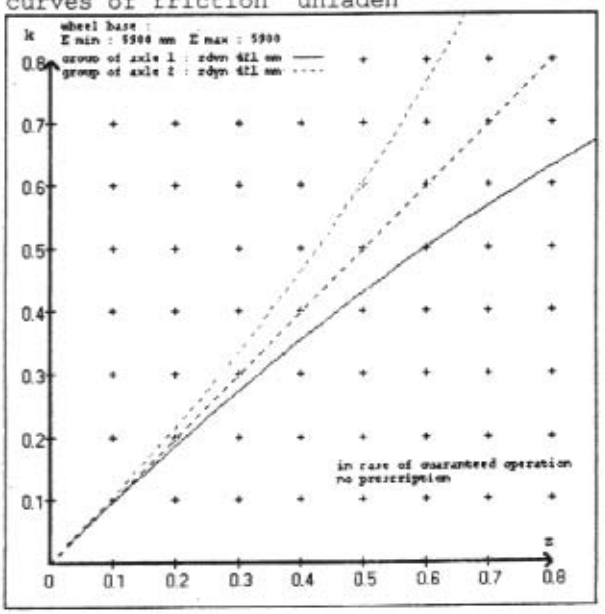
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: Domett
trailer model : 4A Full Tipper
trailer type : 4-axle-full-trailer

brake chamber and lever length :

axle 1 :	2 x type/diameter	14.	(Meritor)	lever length 69 mm
axle 2 :	2 x type/diameter	14.	(Meritor)	lever length 69 mm
axle 3 :	2 x type/diameter	T.14/24	(Meritor)	lever length 69 mm
axle 4 :	2 x type/diameter	T.14/24	(Meritor)	lever length 69 mm

brake diagram :

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

EBS input data
==========
vehicle manufacturer: Domett
trailer model : 4A Full Tipper
trailer type : 4-axle-full-trailer
brake calculation no. : TP 12015A

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 = 0.000
(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	1400	to be	1.8	7000	to be	0.3	1.4	5.8
2	1400	entered by	1.8	7000	entered by	0.3	1.4	5.8
3	1400	the vehicle	1.7	7000	the vehicle	0.3	1.4	5.5
4	1400	manufact.	1.7	7000	manufact.	0.3	1.4	5.5
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 4	
axle load	pcyl	axle load	pcyl	axle load	pcyl	axle load	pcyl
1400	1.8	1400	1.8	1400	1.7	1400	1.7
1900	1.8	1900	1.8	1900	1.8	1900	1.8
2400	2.2	2400	2.2	2400	2.1	2400	2.1
2900	2.6	2900	2.6	2900	2.5	2900	2.5
3400	3.0	3400	3.0	3400	2.9	3400	2.9
3900	3.4	3900	3.4	3900	3.2	3900	3.2
4400	3.8	4400	3.8	4400	3.6	4400	3.6
4900	4.2	4900	4.2	4900	4.0	4900	4.0
7000	5.8	7000	5.8	7000	5.5	7000	5.5

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: SAF	SBW 1937-...	brake lining: Jurid 539	
test report :	TDB 0749 ECE	date	: 13.10.2008
axle 2 : reference axle: SAF	SBW 1937-...	brake lining: Jurid 539	
test report :	TDB 0749 ECE	date	: 13.10.2008
axle 3 : reference axle: SAF	SBW 1937-...	brake lining: Jurid 539	
test report :	TDB 0749 ECE	date	: 13.10.2008
axle 4 : reference axle: SAF	SBW 1937-...	brake lining: Jurid 539	
test report :	TDB 0749 ECE	date	: 13.10.2008

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

axle 1	(rdyn 421 mm)	T = 21.0 % Pe
axle 2	(rdyn 421 mm)	T = 21.0 % Pe
axle 3	(rdyn 421 mm)	T = 20.2 % Pe
axle 4	(rdyn 421 mm)	T = 20.2 % Pe

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

axle 1	(sp = 57 mm)	s = 39 mm
axle 2	(sp = 57 mm)	s = 39 mm
axle 3	(sp = 56 mm)	s = 39 mm
axle 4	(sp = 56 mm)	s = 39 mm

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

axle1	ThA = 5588 N
axle2	ThA = 5588 N
axle3	ThA = 5287 N
axle4	ThA = 5287 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 = 33284 N
axle 2	(rdyn 421 mm)	T = 33284 N
axle 3	(rdyn 421 mm)	T = 31503 N
axle 4	(rdyn 421 mm)	T = 31503 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)	0.60	0.47
required braking rate (items 1.3.3 and 1.6.2 to annex II)		>= 0,4 and >= 0,6*z (0.36)

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

axle 1	(rdyn 421 mm)	T = 33284 N
axle 2	(rdyn 421 mm)	T = 33284 N
axle 3	(rdyn 421 mm)	T = 31503 N
axle 4	(rdyn 421 mm)	T = 31503 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)	0.60	0.47
required braking rate (items 1.3.3 and 1.6.2 to annex II)		>= 0,4 and >= 0,6*z (0.36)

spring parking brake

		axle 3	axle 4
no of TRISTOP-actuators per axle line	KDZ	2	2
TRISTOP-actuator type		T.14/24	T.14/24
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	7605	7605
sp.brake chamber no Meritor.....		4	4
release pressure	pLs in bar	4.8	4.8

calculation:

ratio until road		3.9674	3.9674
iFb = 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	zf laden	0.444
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 = 4294 mm for E = 5900 mm
==========
min Ef = 4294 mm for E = 5900 mm
==========

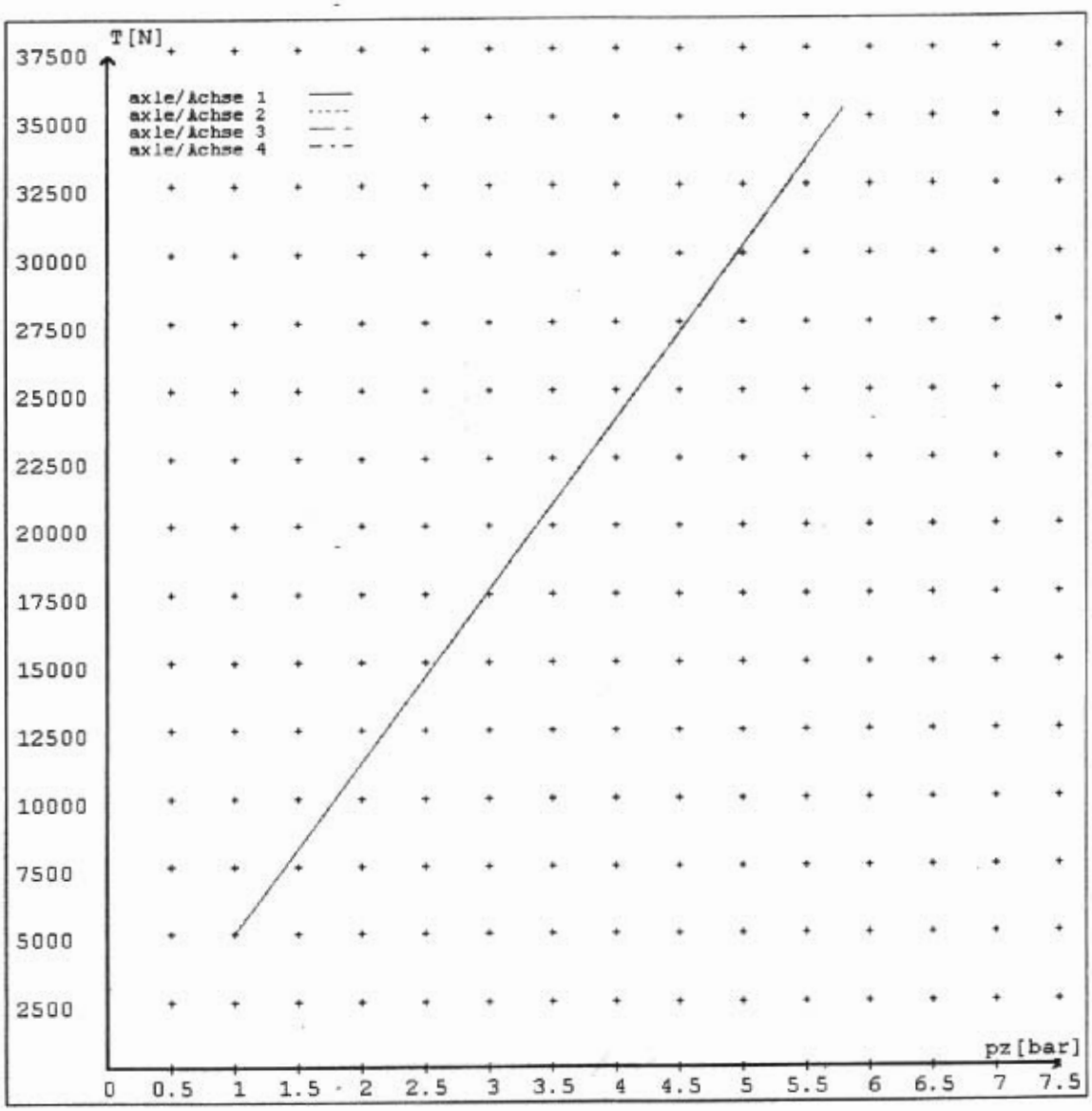
min Ef	=		minimum distance between front axle(s) (trailer) or support (semitrailer) and the rear axle(s) (resultant of the bogie)
E	=		wheel base
fzul	=	0.80	maximum permissible frictional connection required
zferf	=	0.18	maximum required braking ratio of the parking brake
h	=	2100 mm	height of center of gravity - laden
PR	=	14000 kg	maximum bogie mass - laden
P	=	28000 kg	maximum total mass - laden
nf	=	2	no. of axle(s) with TRISTOP spring brake actuators
ng	=	2	no. of bogie axle(s)

reference values

reference values for z = 50%

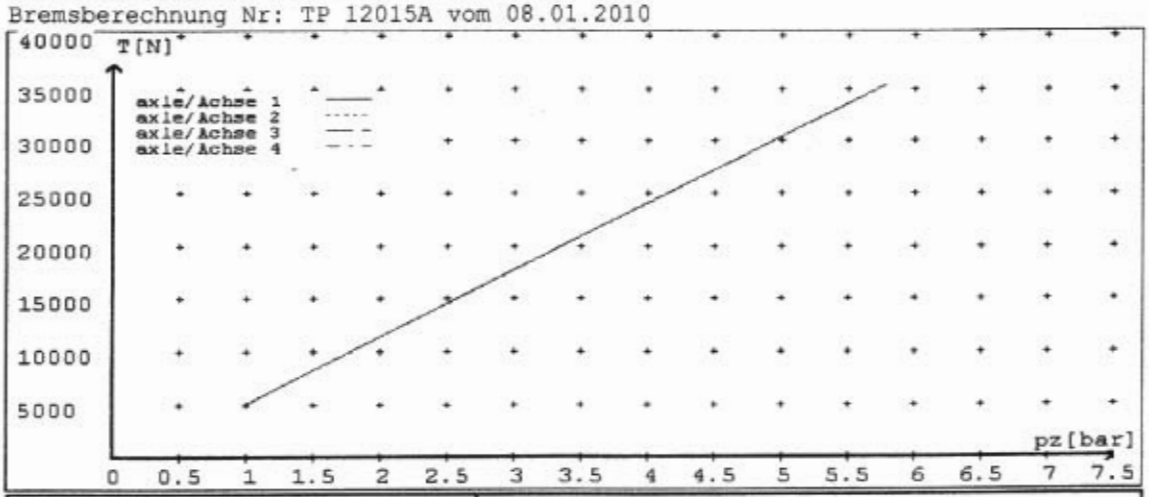
	pz [bar]	T [N]	T [N]
axle 1	1.0 5.8	4933 35276	
axle 2	1.0 5.8	4933 35276	
axle 3	1.0 5.5		4933 33379
axle 4	1.0 5.5		4933 33379

VIN - no.:



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

reference values for z = 0.5
Angabe der Referenzwerte für z = 0.5
brake calculation no: TP 12015A date 08.01.2010
Bremsberechnung Nr: TP 12015A vom 08.01.2010



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