



Heavy Vehicle Specialist Certificate

Heavy Vehicle Specialist Inspector and Inspecting Organisation

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

JOHN HIRST

ID

JEH

Vehicle Registration*

VIN / Chassis Number

7 A 9 D 1 0 0 1 X 1 0 0 2 3 2 4 6

Component being certified:

Chassis Modification

Load Anchorage

Log Bolsters

Certification Category

Towing Connection

X Brakes

SRT

HVEK

Description of Work

CERTIFY TO SCHEDULE 5

Code/Standard Certified to

HVBR 32015/2

Component Load Rating(s)

N/A

General Drawing Number(s)

N/A

Supporting Documents

BRAKE CODE CERTIFICATE JH110902

PREV exemption note - HVB11/232

*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)*

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 / ~~Designer's~~ Signature

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

Date

Number

2-Sep-11

383452

COF Vehicle Inspector ID:

COF Vehicle Inspector Signature:

Date

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

HVBR WORKSHEET
(PROCEDURE & COMPLIANCE DOCUMENTATION SHEET)

CERTIFICATE No. JH110902

CUSTOMER NAME

DOMETT TRUCK & TRAILER LTD

CUSTOMER ORDER No.

3591/BC

DATE RECEIVED

28.04.11

VEHICLE TYPE

4 AXLE FULL TRAILER

REG No.

CHASSIS No.

7A9D1001X10023246

BRIEF SPECIFICATION AS CERTIFIED TO HVBR

BRAKE CHAMBERS:

Type: 14HSCLD64-1604 (TSE): Max stroke = 64mm Lever length = 69mm
Type: 1416HTLD64-1606 (TSE): Max stroke = 64mm Lever length = 69mm

BRAKE VALVES:

Ratio Valve Setting: EBS CONTROL

Test Points: 3 4 5 7

FRICITION LINING:

(All) Lining Brand

OEM
JURID 539

Aftermarket

EBS CONTROL: SPECIAL CONDITIONS APPLY – SEE INSTRUCTION ON LT400

VALVES: AS PER DATA SHEET ATTACHED

TYRE SIZE: 265 70 R 19.5

NOTES

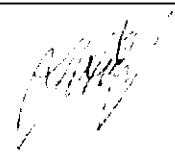
PACKING SLIP NO.

PROCESS TIME:

1

COMPLETION DATE : 2nd September 2011

SIGNATURE



Statement of Compliance with the New Zealand Heavy Brake Rule

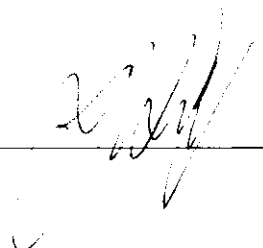
Documentation required to support Statements of Compliance with the New Zealand Heavy Brake Rule, to be made available to the Statutory Authority on request, must include all calculations and test reports.

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: 2nd September 2011

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

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 32015/2.

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 32015/2. 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



.....
(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 32015/2, 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.



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 32015/2.

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.

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



NZ TRANSPORT AGENCY
WAKA KOTAHI

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20 Ballance Street
PO Box 5084
Lambton Quay
Wellington 6145
New Zealand
T 64 4 894 5200
F 64 4 894 3305
www.nzta.govt.nz

Document: A1215808
Exemption: HVB11/232

**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, 4 Axle Full Trailer**
VIN/CHASSIS: **7A9D1001X10023246**

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 29th day of August 2011.

Jackie Hartley
Administrator (Assessments)

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
 VIN # 7A9D1001X10023246
 CALC # JH110902
 LT400 # SODC

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 (V6.10.05.21),
 -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
 trailer model : D1001 TANKER
 trailer type : 4-axle-full-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS
 TRISTOP 3+4: T.14/24
 265/70 R 19,5

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

		<u>unladen</u>	<u>lade</u>
total mass	P in kg	5000	2800
axle 1	P1 in kg	1400	700
axle 2	P2 in kg	1400	700
axle 3	P3 in kg	1100	700
axle 4	P4 in kg	1100	700
wheel base	E in mm	4750 - 4800	
centre of gravity height	h in mm	1200	180

		<u>axle 1</u>	<u>axle 2</u>	<u>axle 3</u>	<u>axle 4</u>
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		TSE	TSE	TSE	TSE
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		2.4	2.4	2.1	2.1
chamber pressure(rdyn max)pH at z=22,5%bar		2.4	2.4	2.1	2.1
chamber press.(servo)pcha at pm6,5bar	bar	5.8	5.8	4.6	4.6
piston force	ThA at pm6,5bar N	5588	5588	4385	4385
brake force(rdyn min)T lad. at pm6,5bar	N	42260	42260	33173	33173
brake force(rdyn max)T lad. at pm6,5bar	N	42260	42260	33173	33173
brake force within 1 % rolling friction					
proportion	%	25.0	25.0	25.0	25.0

braking rate z laden 0.549 for rdyn min
 z = sum (TR)/PRmax 0.549 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: TSE 14HSCLD64

axle 2:

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

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

brake cylinder: TSE 14HSCLD64

axle 3:

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

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

brake cylinder: TSE 1416HTLD64

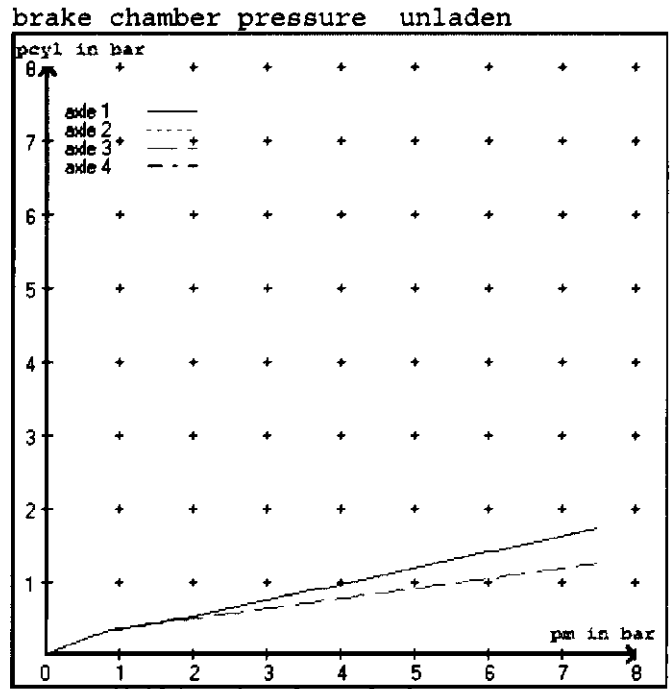
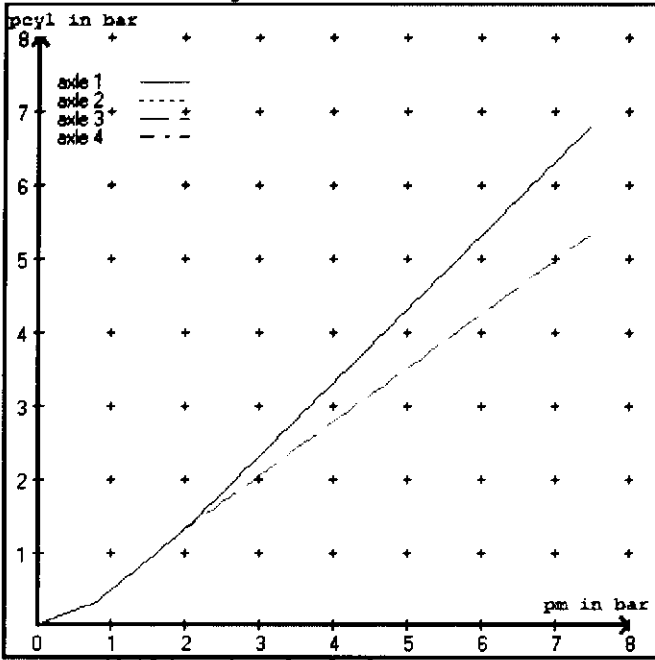
axle 4:

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

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

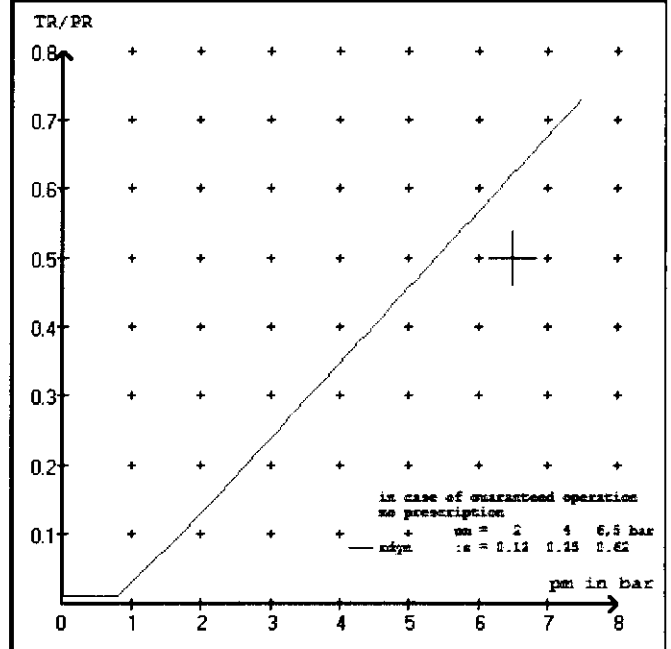
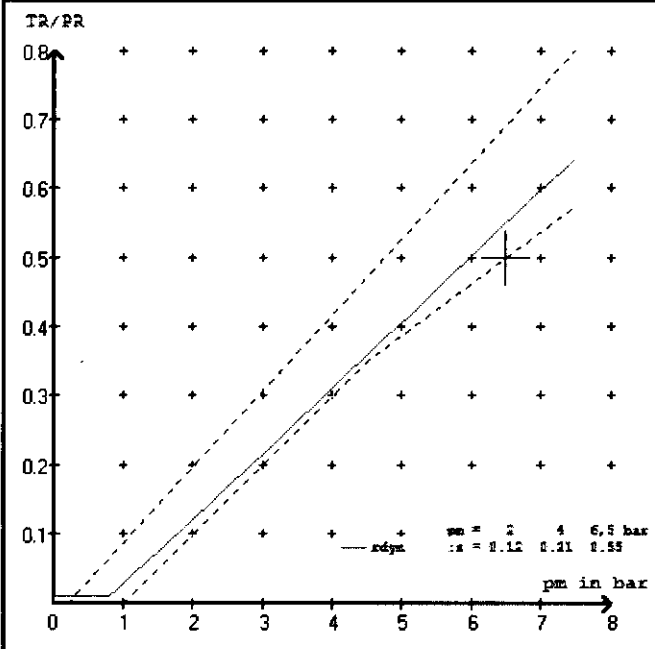
brake cylinder: TSE 1416HTLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	
at pm 3.9 bar =>	pcha in bar :	3.2	3.2	2.7	2.7	
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	



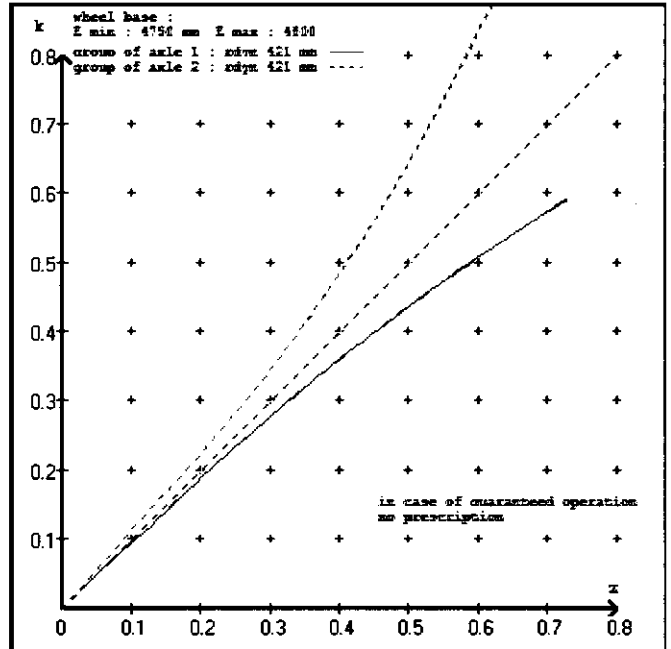
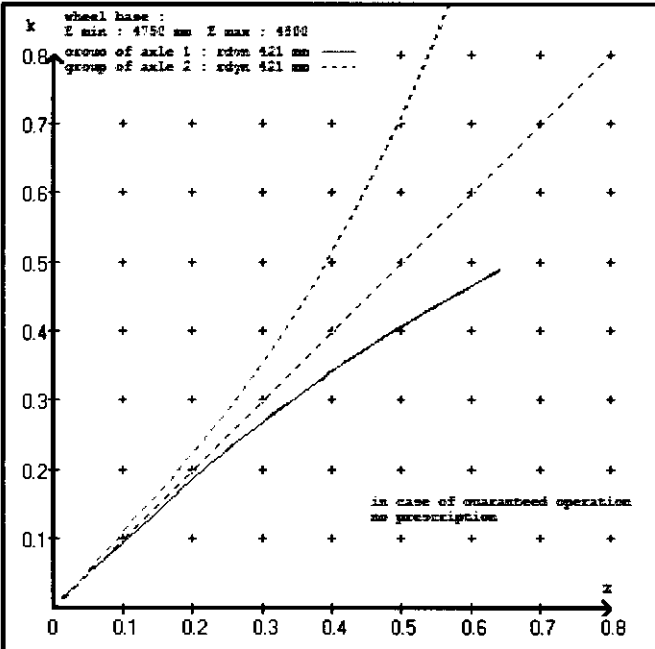
compatibility band laden

compatibility band unladen



curves of friction laden

curves of friction unladen



vehicle manufacturer: DOMETT
 trailer model : D1001 TANKER
 trailer type : 4-axle-full-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter 14. (TSE) lever length 69 mm
 axle 2 : 2 x type/diameter 14. (TSE) lever length 69 mm
 axle 3 : 2 x type/diameter T.14/16 (TSE) lever length 69 mm
 axle 4 : 2 x type/diameter T.14/16 (TSE) lever length 69 mm

brake diagram :

valve :

971 002 ... 0 WABCO EBS emergency 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 : D1001 TANKER
 trailer type : 4-axle-full-trailer
 brake calculation no. : TP 2011A

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 = 0.116
 6.5 bar z = 0.550

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	1.5	7000	to be	0.3	1.3	5.8	
2	1400	entered by	1.5	7000	entered by	0.3	1.3	5.8	
3	1100	the vehicle	1.1	7000	the vehicle	0.3	1.3	4.6	
4	1100	manufact.	1.1	7000	manufact.	0.3	1.3	4.6	
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 pcy1	axle load pcy1	axle load pcy1	axle load pcy1
1400 1.5	1400 1.5	1100 1.1	1100 1.1
1900 1.9	1900 1.9	1600 1.4	1600 1.4
2400 2.3	2400 2.3	2100 1.7	2100 1.7
2900 2.7	2900 2.7	2600 2.0	2600 2.0
3400 3.0	3400 3.0	3100 2.3	3100 2.3
3900 3.4	3900 3.4	3600 2.6	3600 2.6
4400 3.8	4400 3.8	4100 2.9	4100 2.9
4900 4.2	4900 4.2	4600 3.2	4600 3.2
7000 5.8	7000 5.8	7000 4.6	7000 4.6

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 = 22.5 % Fe
axle 2	(rdyn 421 mm)	T = 22.5 % Fe
axle 3	(rdyn 421 mm)	T = 18.7 % Fe
axle 4	(rdyn 421 mm)	T = 18.7 % Fe

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 = 4385 N
axle4	ThA = 4385 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 = 26161 N
axle 4	(rdyn 421 mm)	T = 26161 N

	basic test	type III
	of subject	(calculated)
braking rate of the vehicle	trailer (z)	residual
(item 4.3.2 to appendix I to annex VII)	0.55	(hot)braking
		0.43

required braking rate $\geq 0,4$ and $\geq 0,6*z$ (0.33)
(items 1.3.3 and 1.6.2 to annex II)

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 = 26161 N
axle 4	(rdyn 421 mm)	T = 26161 N

	basic test	type III
	of subject	(calculated)
braking rate of the vehicle	trailer (z)	residual
(item 4.3.2 to appendix I to annex VII)	0.55	(hot)braking
		0.43

required braking rate $\geq 0,4$ and $\geq 0,6*z$ (0.33)
(items 1.3.3 and 1.6.2 to annex II)

reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5383	
	5.8	38488	
axle 2	1.0	5383	
	5.8	38488	
axle 3	1.0		5383
	4.6		30212
axle 4	1.0		5383
	4.6		30212

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	14./	14./	T.14/16	T.14/16	/
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	

