



# Heavy Vehicle Specialist Certificate

Heavy Vehicle Specialist Inspector and Inspecting Organisation

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

ID

CHRIS CLARKE

CJC

Vehicle Registration\*

VIN / Chassis Number

7A9E20017C1023025

Component being certified:

Chassis Modification

Load Anchorage

Log Bolsters

Certification Category

Towing Connection

✓ Brakes

SRT

HUEK

Description of Work

CARRY OUT SET UP OF TRAILER EBS SYSTEM IN COMPLIANCE WITH THE NZ HEAVY VEHICLE BRAKE RULE

Code/Standard Certified to

Component Load Rating(s)

HUBNZ 32015/2 SCHED 5

General Drawing Number(s)

N/A

N/A

Supporting Documents

BRAKE DESIGN CERTIFICATE - JH11/204  
PREV EXEMPTION REFERENCE - HUB11/316

\*Special Conditions

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

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

Number

20.01.2012

394218

COF Vehicle Inspector ID:

COF Vehicle Inspector Signature:


Date

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

# WABCO

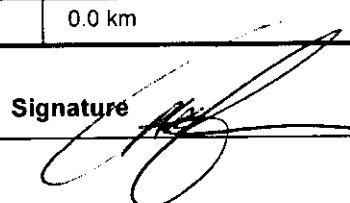
## START-UP PROTOCOL

System	Trailer EBS-E	WABCO part number	480 102 064 0
Production date	2011-06-07	Serial number	896002357800E
Fingerprint Customer EOL / Customer Development / Flash Program	W 039897 / 2012-01-20 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

<b>WABCO</b>		<b>TRAILER EBS-E</b>		GGVS/ADR TUEH TB 2007 - 019.00 RDW 1914 0492											
HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT			GIO	Pin1	Pin3	Pin4								
TYP TYPE	5AX F/T C/SIDE			1	---	---	---								
FAHRZEUG IDENTNR CHASSIS NUMBER NUMERO DE CHASSIS	7A9E20017C1023025			2	---	---	---								
BREMSBERECHNUNGS-NR BRAKE CALCULATION NO CALCUL DE FREINAGE NO.	TP50568			3	ALS2	ALS2	---								
POLRADZAHNZAHL, c-d   e-f POLE WHEEL TEETH c-d   e-f DENTS ROUE DENTÉE c-d   e-f	80	80	ABS-System ABS-System Systeme ABS	4	---	---	---								
			4S/3M	5	DIAG	DIAG	DIAG								
RSS AKSE ESSIEU	Einfaehbereifung Single Tire Monte simple	Lenkachse Steering axle Essieu virour		6	---	---	---								
	Zwillingsbereifung Twin Tire Monte jumelle	Kippkritisches Fahrzeug Critical Trailer Vehicule critique	X	7	---	---	---								
Subsystems	---	I/O													
	pm (bar)	6.5	pm (bar)	0.7	2.0	---	6.5								
							Pz								
							TR (daN)								
1	1700	0.7	2.1	7500	4.9	0.4	1.5	---	6.0	-	24	67	127	488	3762
2	1700	0.7	2.1	7500	4.9	0.4	1.5	---	6.0	-	24	67	127	488	3762
3	1300	0.5	1.7	7500	4.9	0.4	1.5	---	5.6	-	24 / 30	64	127	522	3624
4	1300	0.5	1.7	7500	4.9	0.4	1.5	---	5.6	-	24 / 30	64	127	522	3624
5	1300	0.5	1.7	7500	4.9	0.4	1.5	---	5.6	-	24 / 30	64	127	522	3624

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

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

Manufacturer	DOMETT	Vehicle ident. no	7A9E20017C1023025
Vehicle type	5AX F/T C/SIDE	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tested by	Chris Clarke		
Date	2012-01-20 3:12:12 p.m.		

# HVBR WORKSHEET

(PROCEDURE & COMPLIANCE DOCUMENTATION SHEET)

CERTIFICATE No.

JH111204

CUSTOMER NAME

DOMETT TRUCK & TRAILER LTD

CUSTOMER ORDER No.

3707/BC

DATE RECEIVED

2.12.11

VEHICLE TYPE

5 AXLE FULL TRAILER

REG No.

CHASSIS No.

7A9E20017C1023025

## BRIEF SPECIFICATION AS CERTIFIED TO HVBR

### BRAKE CHAMBERS:

Type: 24SCN2 (TSE): Max stroke = 67mm    Lever length = 127mm

Type: 2430TA2 (TSE): Max stroke = 64mm    Lever length = 127mm

### BRAKE VALVES:

Ratio Valve Setting: EBS CONTROL

Test Points: 3 4 5 7

### FRICITION LINING:

(All) Lining Brand

OEM  
ROR 329AF

Aftermarket

EBS CONTROL: IF SPECIAL CONDITIONS APPLY – SEE INSTRUCTION ON LT400

VALVES: AS PER DATA SHEET ATTACHED

TYRE SIZE: 265 70 R 19.5

### NOTES

PACKING SLIP NO.

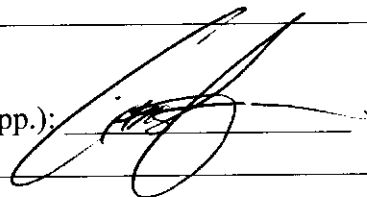
PROCESS TIME:

1

BRAKE CALC #TP50568

COMPLETION DATE : 12<sup>th</sup> December 2011

SIGNATURE (pp.):



## Statement of Compliance with the New Zealand Heavy Brake Rule

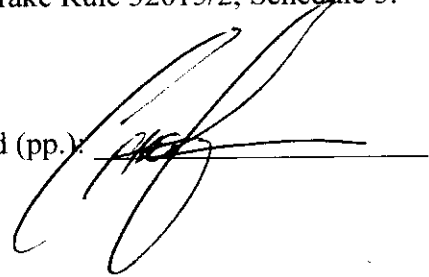
Documentation required supporting Statements of Compliance with the New Zealand Heavy Brake Rule, to be made available to the Statutory Authority on request, must include all calculations and test reports.

### 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: 12<sup>th</sup> December 2011

Signed (pp.):



### 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



**Transpecs**

QUALITY ON THE MOVE

## **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***

(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 32015/2, it must be used only in conjunction with a truck/tractor equipped with a 5 or 7 pin ABS/EBS power supply socket.

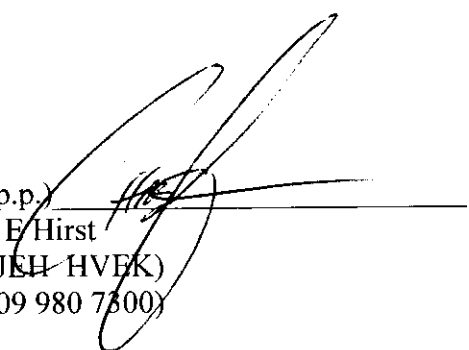
Failure to connect to such supply invalidates Brake Rule compliance.

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.**

(p.p.)  
J E Hirst  
(JEH HVEK)  
(09 980 7800)





## **NOTICE TO VEHICLE OPERATOR**

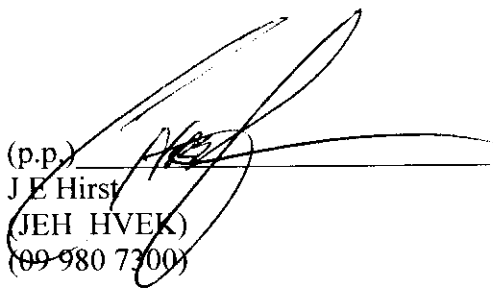
### **WABCO Park Release Emergency Valve** **(PREV)**

**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.**

(p.p.)   
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](http://www.nzta.govt.nz)

Document: A1252383  
Exemption: HVB11/316

**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, 5 axle full-trailer**  
VIN/CHASSIS: **7A9E20017C1023025**

**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 2<sup>nd</sup> day of December 2011.

Jackie Hartley  
Administrator (Assessments)





## Statement of Design Compliance

S.O.D.C. number: JH111204

**For Heavy vehicle brake specification  
(schedule 5) of HV Brake Rule 32015/2**

### Vehicle details:

**Make:** Domett Trailers  
**Model:** D2001  
**VIN#:** 7A9E20017C1023025  
**Chassis#:** 1025  
**GCM (kgs):** N/A  
**GVM (kgs):** 30000  
**Wheelbase (mm):** 7105  
**Axle test report #:** RDW 1914 0492  
**Type:** 5 Axle Curtain side

### Component Details:

	<u>Front</u>	<u>Rear</u>
<b>Slack adjuster length:</b>	127mm	127mm
<b>Brake chamber size:</b>	24 (24SCN2)	24/30 (2430TA2)
<b>Tyre size:</b>	265 70 R 19.5	265 70 R 19.5
<b>Drawing number:</b> (for component reference)	1025	
<b>Brake calculation#:</b>	TP50568	

*I declare that I am a Heavy Vehicle Specialist Certifier – Engineer and I hold a current valid appointment. I certify that this vehicle component design and this certification comply in all respects with the Land Transport Rule: **Vehicle Standards Compliance 2002**; my Deed of Appointment and applicable requirements. To the best of my knowledge the information contained in this certificate is true and correct.*

**Date:** 12 Dec 2011

**Name:** John Hirst (HVEK)  
**Certifier ID:** JEH

I, CHRIS CLARKE, certify that the braking system has been assembled and programmed\*) to the requirements of this Design Certificate.

**Signed:**

**Dated:** 20.07.2012

\*) Programmed according to Wabco's End of Line protocol requirements where applicable.

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  
7A9E20017C1023025  
SODC - JH111204

please note!

This brake calculation is made under consideration of  
-the legal prescriptions mentioned above in the version valid all 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 : SAX F/T C/SIDE  
trailer type : 5-axle-full-trailer  
remarks : air / hydraulic / VA suspension  
WABCO TRAILER - EBS  
TRISTOP 3+4+5: 24/30  
265/70 R 19,5

axle 1 + 2 + 3 + 4 + 5 : ROR, B 350 x 200, RDW 1914 0492,

		unladen	laden
total mass	P in kg	7300	37500
axle 1	P1 in kg	1700	7500
axle 2	P2 in kg	1700	7500
axle 3	P3 in kg	1300	7500
axle 4	P4 in kg	1300	7500
axle 5	P5 in kg	1300	7500
wheel base	E in mm	7105 - 7105	
centre of gravity height	h in mm	1090	2042

	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	2	2	2	2	2
The power output corresponds to	FE 747	FE 747BC	0051.0BC	0051.0BC	0051.0
brake chamber manufacturer	TSE	TSE	TSE	TSE	TSE
chamber size	24	24	24/30	24/30	24/30
lever length	127	127	127	127	127
brake factor	9.09	9.09	9.09	9.09	9.09
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	27.0	27.0	27.0	27.0

calculation:

chamber pressure (rdyn min) pH at z=22,5%bar	2.4	2.4	2.3	2.3	2.3
chamber pressure (rdyn max) pH at z=22,5%bar	2.4	2.4	2.3	2.3	2.3
chamber press. (servo) pcha at pm6,5bar bar	6.0	6.0	5.6	5.6	5.6
piston force ThA at pm6,5bar N	8271	8271	7970	7970	7970
brake force (rdyn min) T lad. at pm6,5bar N	44930	44930	43278	43278	43278
brake force (rdyn max) T lad. at pm6,5bar N	44930	44930	43278	43278	43278
brake force within 1 % rolling friction proportion	%	19.6	20.3	20.3	20.3

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).

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 24S

axle 2:

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

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

brake cylinder: TSE 24S

axle 3:

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

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

brake cylinder: TSE 2430GC

axle 4:

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

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

brake cylinder: TSE2430GC

axle 5:

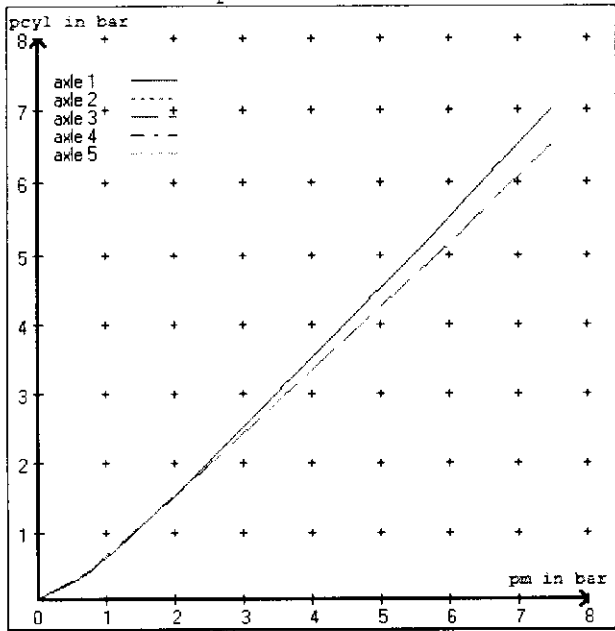
valve 1: 971 002 ... 0 WABCO  
EBS emergency valve

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

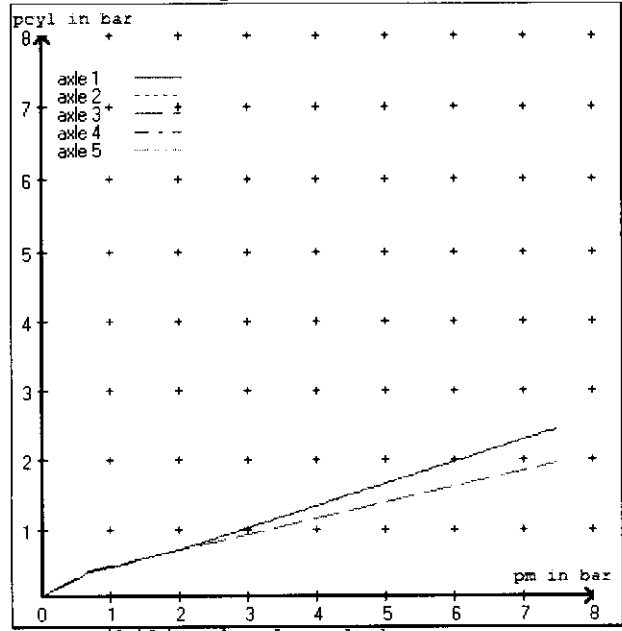
brake cylinder: TSE 2430GC

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.6 bar =>	pcha in bar :	3.1	3.1	3.0	3.0	3.0	
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 1.2 bar =>	pcha in bar :	0.8	0.8	0.8	0.8	0.8	

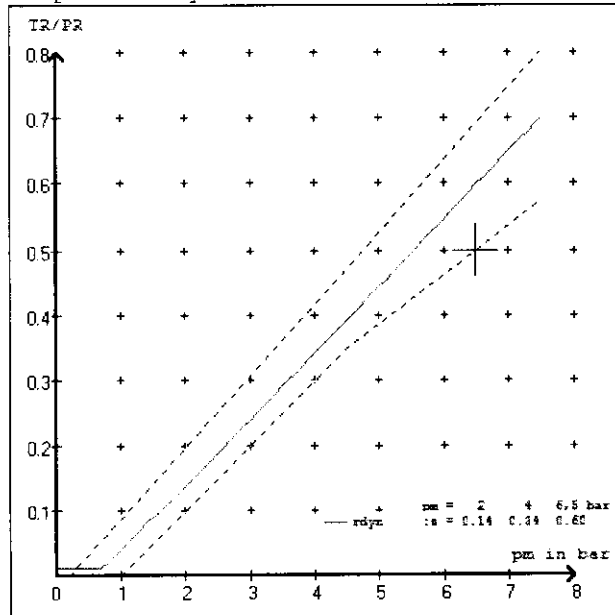
brake chamber pressure laden



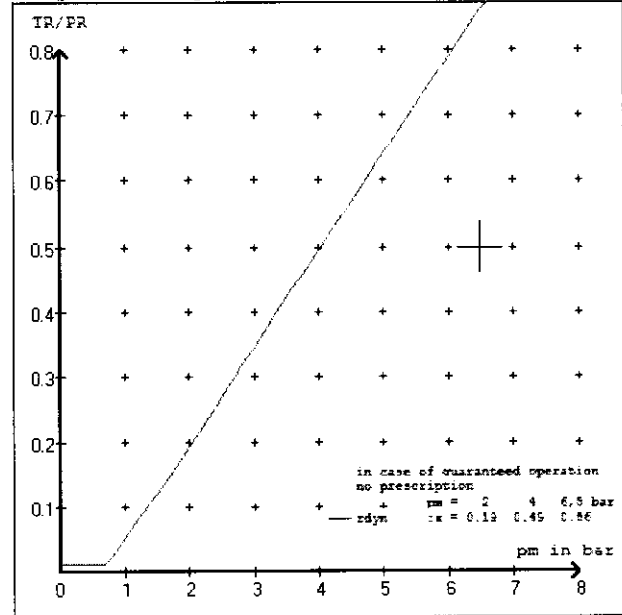
brake chamber pressure unladen



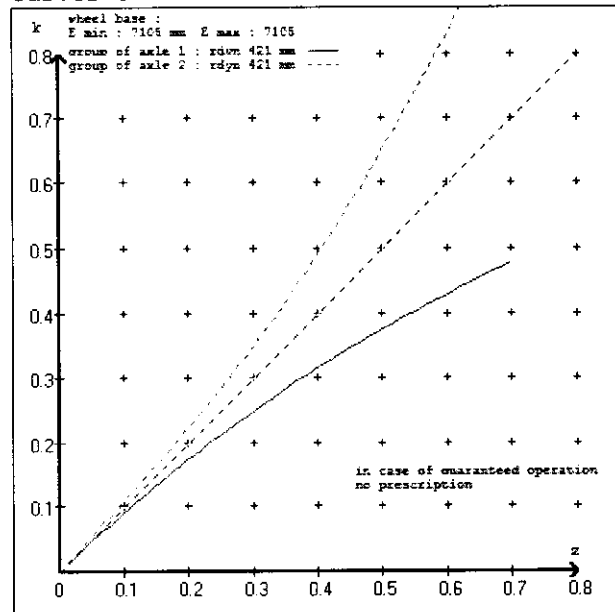
compatibility band laden



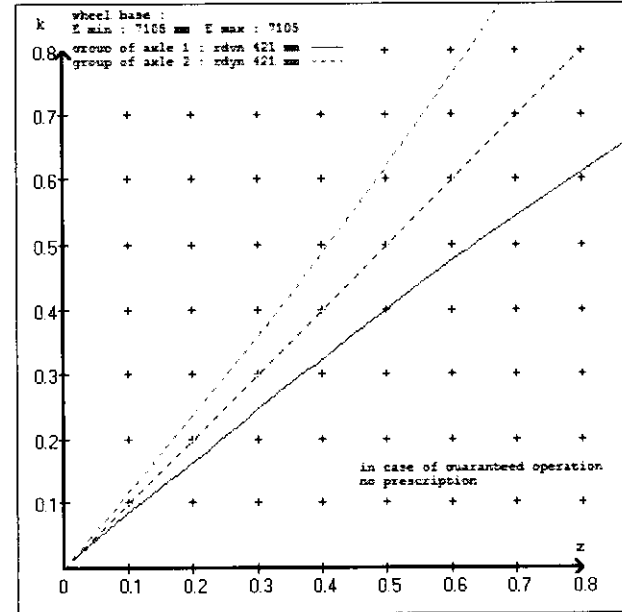
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT  
 trailer model : SAX F/T C/SIDE  
 trailer type : 5-axle-full-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter 24 (TSE) lever length 127 mm  
 axle 2 : 2 x type/diameter 24 (TSE) lever length 127 mm  
 axle 3 : 2 x type/diameter 24/30 (TSE) lever length 127 mm  
 axle 4 : 2 x type/diameter 24/30 (TSE) lever length 127 mm  
 axle 5 : 2 x type/diameter 24/30 (TSE) lever length 127 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  
 trailer model : 5AX F/T C/SIDE  
 trailer type : 5-axle-full-trailer  
 brake calculation no. : TP 50568A

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

assignment pm / deceleration z: pm 0.7 bar z = 0.000  
 (laden condition) 2.0 bar z = 0.132  
 6.5 bar z = 0.590

control pressure pm		6,5	control pressure pm		0.7	2.0	6.5	
axle	axle load unladen	bellow pr. unladen	brake pr. unladen	axle load laden	bellow pr. laden	brake pr. laden		
1	1700	to be	2.1	7500	to be	0.3	1.5	6.0
2	1700	entered by the vehicle manufact.	2.1	7500	entered by the vehicle manufact.	0.3	1.5	6.0
3	1300		1.7	7500		0.4	1.5	5.6
4	1300		1.7	7500		0.4	1.5	5.6
5	1300		1.7	7500		0.4	1.5	5.6

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 5
axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1
1700 2.1	1700 2.1	1300 1.7	1300 1.7	1300 1.7
2200 2.4	2200 2.4	1800 2.0	1800 2.0	1800 2.0
2700 2.8	2700 2.8	2300 2.3	2300 2.3	2300 2.3
3200 3.1	3200 3.1	2800 2.6	2800 2.6	2800 2.6
3700 3.4	3700 3.4	3300 3.0	3300 3.0	3300 3.0
4200 3.8	4200 3.8	3800 3.3	3800 3.3	3800 3.3
4700 4.1	4700 4.1	4300 3.6	4300 3.6	4300 3.6
5200 4.5	5200 4.5	4800 3.9	4800 3.9	4800 3.9
7500 6.0	7500 6.0	7500 5.6	7500 5.6	7500 5.6



spring parking brake

	axle 3	axle 4	axle 5
no of TRISTOP-actuators per axle line KDZ	2	2	2
TRISTOP-actuator type	24/30	24/30	24/30
lever length                      lBh in mm	127	127	127
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	6360	6360	6360
sp.brake chamber no 925 ... .. .	376 005 0376	005 0376	005 0
sp.brake chamber no 925 ... .. .	376 2.. 0376	2.. 0376	2.. 0
release pressure                    pLs in bar	4.9	4.9	4.9

calculation:

ratio until road	2.8789	2.8789	2.8789
$iFb = lBh * \eta * C * rBt / (2 * rBn * rstat)$ for rstat in mm	401	401	401
brake force of spring br. Tf in N $Tf = (TFZ * KDZ - 2 * Co / lBh) * iFb$	35395	35395	35395
braking rate                      zf laden	0.299		
$zf = \sum (Tf) / P + 0,01$			

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 = 4141 mm for E = 7105 mm  
 =====  
 min Ef = 4141 mm for E = 7105 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                       =                      2042 mm                height of center of gravity - laden  
 PR                     =                      22500 kg                maximum bogie mass - laden  
 P                       =                      37500 kg                maximum total mass - laden  
 nf                      =                      3                        no. of axle(s) with TRISTOP spring brake actuators  
 ng                      =                      3                        no. of bogie axle(s)



axle manufacturer	axle 1 + 2 + 3 + 4 + 5
type of brake	ROR
type of axle	B 350 x 200
test report no.	RDW 1914 0492
test report of characteristic value	
adm. stat. axle load	Pstat in kg 11800
tested axle load	Pe in kg 11800
max. adm. tyre radius	Rezul in mm 455
adm. cam. torque (6,5 bar)	Czul in Nm 1926
lining area per brake	AB in cm <sup>2</sup> 1276
no. of brake cylinder	- 2
brakefactor Bf	- 9.09
threshold torque (Co,e)	Co,e in Nm 27
date	11.02.1999
brake lining	ROR 329 AF
cam torque	Ce in Nm 1365
brake force	TeIII in daN 5310
stroke	seIII in mm 52
tested tyre radius	Re in mm 432
tested lever length	le in mm 127

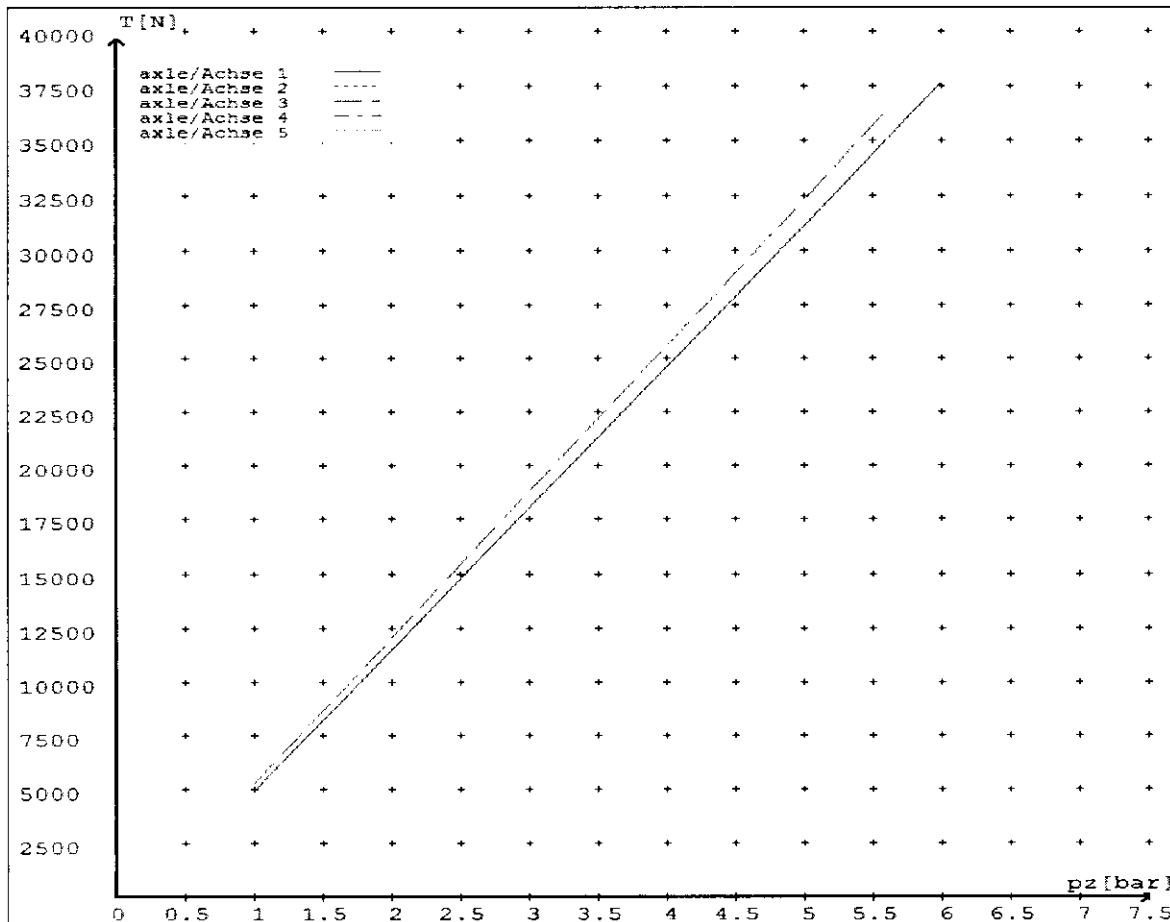
**reference values**

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	4880	
	6.0	37630	
axle 2	1.0	4880	
	6.0	37630	
axle 3	1.0		5230
	5.6		36246
axle 4	1.0		5230
	5.6		36246
axle 5	1.0		5230
	5.6		36246

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	24/	24/	24/30	24/30	24/30
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	75	75	64	64	64
Lever length = ...mm Hebellänge = ...mm	127	127	127	127	127



reference values for z = 0.5

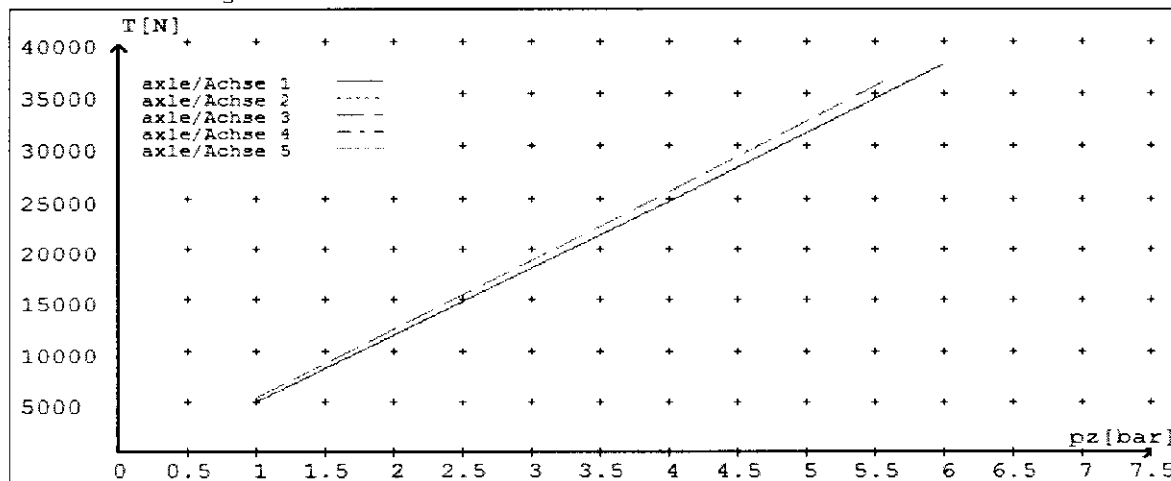
for max rdyn: 421 mm

Angabe der Referenzwerte für z = 0.5

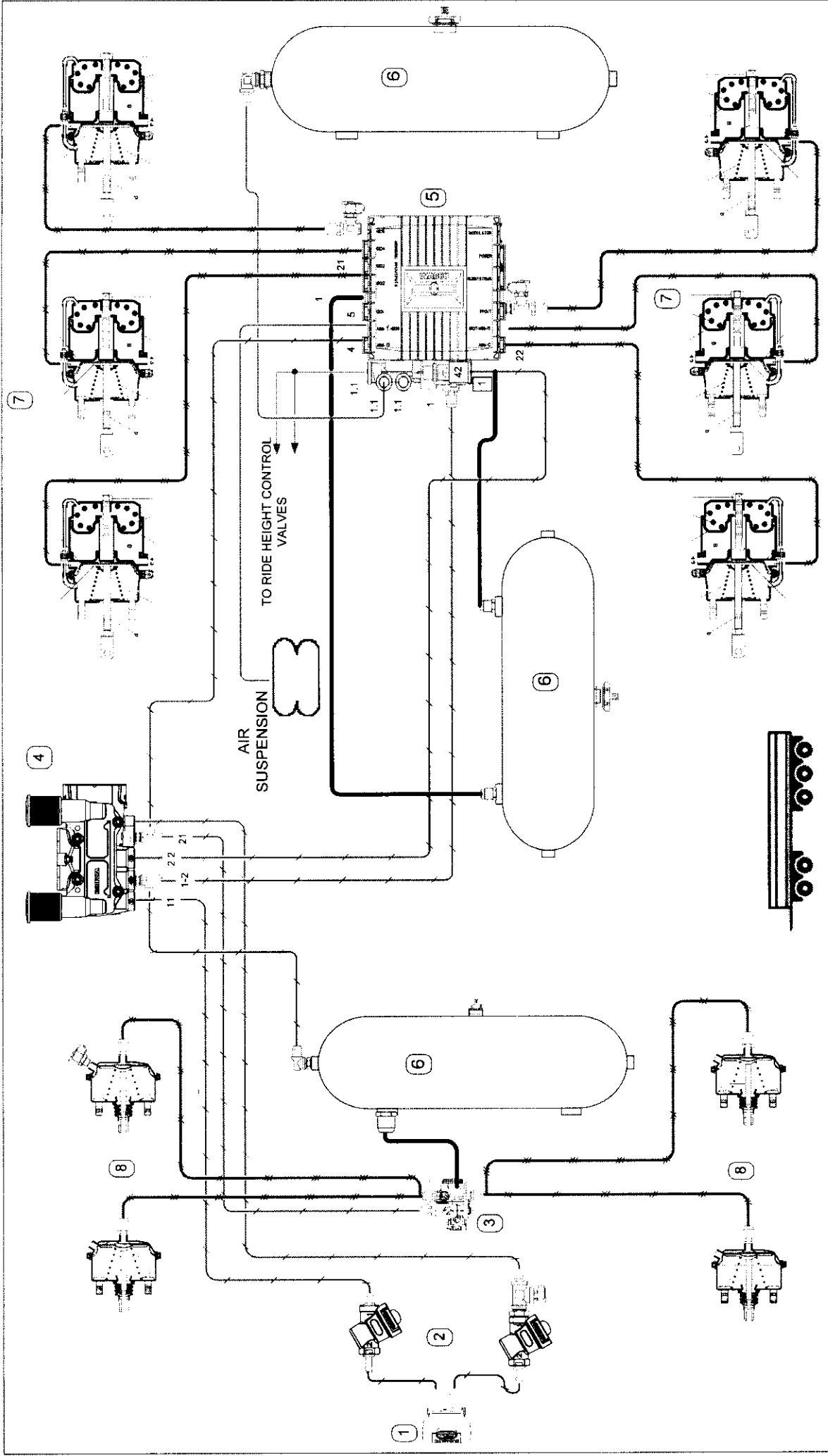
für max rdyn: 421 mm

brake calculation no: TP 50568A date 03.12.2011

Bremsberechnung Nr: TP 50568A vom 03.12.2011



	Axle (s) / Achse (n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	24/	24/	24/30	24/30	24/30
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	75	75	64	64	64
Lever length = ...mm Hebellänge = ...mm	127	127	127	127	127



ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	452 804 001 0	Wabco Duo-Matic coupling	9				3/8" Rubber
2	2	432 500 020 0	Wabco control line filter	10				3/8" Rubber
3	1	480 207 001 0	Wabco EBS 3" modulator	11				1/2" Rubber
4	1	871 002 900 0	Wabco PREV	12				15mm Nylon
5	1	480 102 064 0	Wabco TEBS - E (premium)					12mm Nylon
6	3	12583P	50 Ltr Air tank					8mm Nylon
7	4	2430GC**	TSE Spring brake chamber	**	4	1416GC	TSE disc option	8mm Nylon
8	4	24S	TSE Service brake chamber	**	4	14S	TSE disc option	8mm Nylon

**Domett T&T**

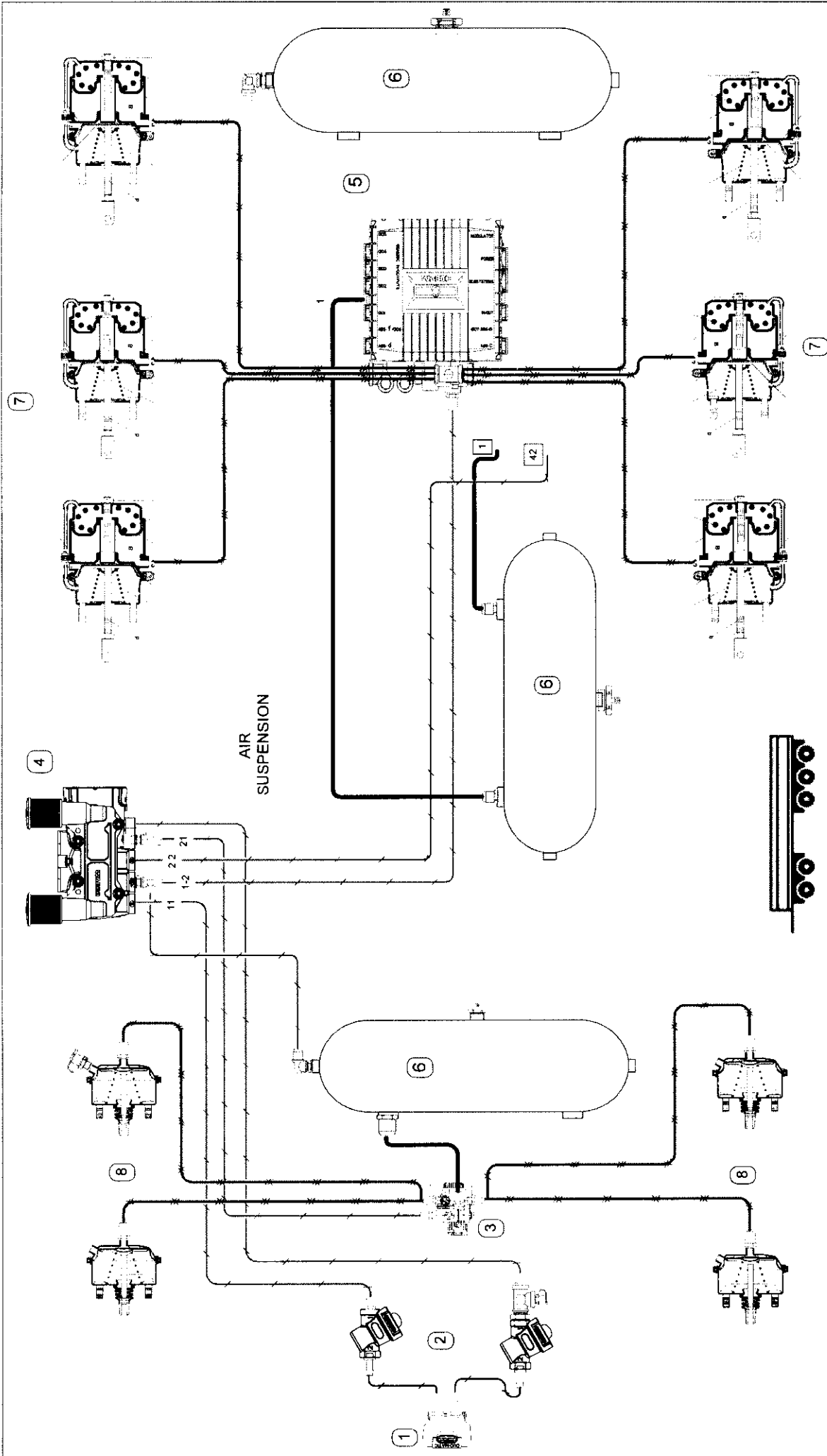
DOM5AXFULL/EBS

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 QUALITY ON THE MOVE

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S/PF SPEC REFERENCE A4 1025  
 MODEL NUMBER 2001  
 REV 1

SCALE SERVICE LINES



ITEM		QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	452 804 001 0	Wabco Duo-Matic coupling	9				3/8" Rubber	---
2	2	432 500 020 0	Wabco control line filter	10				3/8" Rubber	---
3	1	480 207 001 0	Wabco EBS 3 <sup>rd</sup> modulator	11				1/2" Rubber	---
4	1	971 002 900 0	Wabco PREV	12				15mm Nylon	---
5	1	480 102 064 0	Wabco TEBS - E (premium)					12mm Nylon	---
6	3	12593P	50 Ltr Air tank					8mm Nylon	---
7	4	2430GC**	TSE Spring brake chamber	**	4	1416GC		8mm Nylon	---
8	4	245	TSE Service brake chamber	**	4	145		8mm Nylon	---

<b>Domnett T&amp;T</b>	
DOM5AXFULL/D/EBS	
SPEC REFERENCE	MODEL NUMBER
1025	2001
SCALE	PARK LINES
A4	1

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