

# Heavy vehicle specialist certificate

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

Heavy vehicle specialist inspector's or manufacturing inspecting organisation's name (PRINT IN CAPS) **RON PRATT** ID **TRSP**

Vehicle registration (optional) \_\_\_\_\_ VIN/chassis number **7A9B20018J1023695**

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

Description of work  
**CERTIFY TO SCHEDULE 5 OF LTR 32015/4**  
**RSS ON: TWIN TYRES / SUPER SINGLES** **SIZE = 265 70 R 19.5**

Code/standard/rule certified to **LTR 32015/4** Component load rating(s) **16.4 Tonnes GVM**  
**16.4 Tonnes (Group ratings)**  
 General drawing number(s) **N/A**

Supporting documents  
**BRAKE CODE CERTIFICATE JH180209**  
**BRAKE CALCULATION # TP51689**

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

Certification expiry date (if applicable) **N/A [UNLESS MODIFIED]** or Hubodometer reading (whichever comes first) \_\_\_\_\_

**Declaration**

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

Designer's ID (if different from inspector below) \_\_\_\_\_  
 Inspector's signature **[Signature]**  
 Inspector's name (PRINT IN CAPS) **RON PRATT** ID number \_\_\_\_\_  
 Date **13-Feb-18** Number **627057**

CoF vehicle inspector ID \_\_\_\_\_ CoF vehicle inspector signature \_\_\_\_\_ Date \_\_\_\_\_

All fields are mandatory unless otherwise stated.

**Statement of Design Compliance****S.O.D.C. number: JH180209**For Heavy vehicle brake specification  
(Schedule 5) of HV Brake Rule 32015/4**Vehicle details:**

Make:	DOMETT TRAILERS
Model:	B2001
VIN#:	7A9B20018J1023695
Chassis#:	1695
GCM (kgs):	N/A
GVM (kgs):	16,400
Wheelbase (mm):	5350
Axle test report #:	(SAF INTRADRUM: TDB0459)
Suspension:	SAF: NG-IU30-Z8-3718-68A (Bag Ø = 300 mm)

**Component Details:**

	<b>Axle 1</b>	<b>Axle 2</b>
Lever length (mm):	152	127
Brake chamber size:	TSE:24S	TSE: 2430GC
Tyre size:	265 70 R 19.5	265 70 R 19.5
Drawing number: (for component reference)	B2001	
Brake calculation#:	TP 51689	
Brake system:	WABCO T-EBS MV: ECU FACING FORWARD	

*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:** 14 Feb 2018

s

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

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

**Signed** R S PRATT **LT400 #627057****Dated:** 16/02/2018

\*) Programmed according to WABCO's End of Line protocol requirements where applicable and that the air suspension parameter pressures suit the suspension design & air bellow size.



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

CERTIFICATE NO. JH180209  
CUSTOMER NAME DOMETT TRAILERS LTD  
CUSTOMER ORDER NO. 5063 DATE RECEIVED 13-Feb-18  
VEHICLE TYPE CURTAINSIDE  
VIN/ CHASSIS NO. 7A9B20018J1023695

**BRIEF SPECIFICATION AS CERTIFIED TO SCHEDULE 5**

<u>BRAKE VALVES</u>	<u>MAKE</u>	<u>TYPE</u>
PRIMARY RELAY	WABCO	480 102 08. 0
SECONDARY RELAY.	WABCO	480 207 202 0
YARD RELEASE VALVE	WABCO	971 002 900 0
PARK BRAKE VALVE	WABCO	971 002 900 0
<u>SUSP. VALVES [WABCO]</u>	<u>FRONT</u>	<u>REAR</u>
CONTROL	441 044 101 0	N/A
DISTANCE SENSOR	464 008 011 0	464 008 011 0

**OTHER VALVES:**

MAKE: <u>WABCO</u>	TYPE: <u>461 513 002 0</u>	SETTING: <u>5.5 Bar</u>
MAKE: <u>WABCO</u>	TYPE: <u>446 192 110 0</u>	SETTING: <u>SMARTBOARD</u>
MAKE: _____	TYPE: _____	SETTING: _____
MAKE: _____	TYPE: _____	SETTING: _____

**BRAKE CHAMBERS:**

	<b>AXLE 1</b>	<b>AXLE 2</b>	
<b>MAKE</b>	TSE	TSE	N/A
<b>SIZE</b>	24S	2430GC	N/A
<b>MAX STROKE (mm)</b>	67	64	N/A
<b>SLACK LENGTH (mm)</b>	152	127	N/A

**DRUM TYPE:** 367x180 367x180 N/A

**OR**

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

**FRICITION MATERIAL:**

OEM

AFTERMARKET

**LINING BRAND**

**AXLE 1**

**AXLE 2**

BK6386

BK6386

N/A

**OTHERS:**

**TYRES:**

**AXLE 1**

**AXLE 2**

265 70 R 19.5

265 70 R 19.5

**BRAKE CALCULATION #:** TP51689

**COMMENTS:**

EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 # 627057RP

**SALES ORDER #:** SO1039265 **PROCESS TIME:** 1 HOUR

**TRAILERS EQUIPPED WITH PREV:** THE PARK BRAKE PERFORMANCE **MUST BE**  
MEASURED BY PULLING THE RED ACTUATION KNOB ON THE PREV VALVE WHEN  
THE AXLES - EQUIPPED WITH SPRING BRAKES - ARE IN THE BRAKE ROLLERS. THE  
PARK BRAKE IN THE CAB **MUST NOT** BE APPLIED.

**NOTES:**

**CHAMBERS & PARK BRAKE PERFORMANCE:**

REFER TO BRAKE CALCULATION TP51689: z = 0.25 @ 38567 (N)

FRONT FRICTION ( $\mu$ ) = 0.51

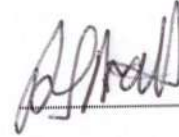
## CONFORMATION OF COMPLIANCE

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

DATE:

13-Feb-18

SIGNED: (pp)



NAME & ID:

J HIRST (JEH)

PHONE (BUS):

09 980 7300

FAX (BUS) 09 980 7306

POSTAL ADDRESS:

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

POSITION:

BRAKE CERTIFIER HVEK

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

DATE:

SIGNED:

NAME:

CERTIFIERS ID:

POSITION:

PHONE (BUS):

FAX (BUS):

COMMENTS:

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**NOTICE TO VEHICLE OPERATOR**

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

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

***PLEASE REFER TO THE CERTIFIER FOR FURTHER INFORMATION.***

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

**10.1 RESPONSIBILITIES OF OPERATORS**

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

**10.2 RESPONSIBILITIES OF REPAIRERS**

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

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

**10.3 RESPONSIBILITIES OF MODIFIERS**

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

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

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

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

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

## **NOTICE TO VEHICLE OPERATOR**

This trailer is equipped with an **Electronic Brake System**.

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

Failure to connect to such supply invalidates Brake Rule compliance.

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

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

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

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





**NOTICE TO VEHICLE OPERATOR**

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

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

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

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

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

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





South Auckland Mail Centre

P.O.Box 98-971

John Hirst (JEH)

DATE: 13-Feb-18

CERT. NO: JH180209

VIN / CHASSIS: 7 A 9 B 2 0 0 1 8 J 1 0 2 3 6 9 5

BRAKE SYSTEM: WABCO T- EBS E

BRAKE CALCULATION #: TP51689

Make Model Max stroke (mm)

BRAKE CHAMBERS Ax 1 & 2 • TSE 24S • 67

BRAKE CHAMBERS Ax 3 & 4 TSE 2430GC 64

BRAKE CHAMBERS Ax 5 N/A N/A

SLACK LENGTH FRONT (mm): 152

SLACK LENGTH REAR (mm): 127

TYRE SIZE FRONT: 265 70 R 19.5

TYRE SIZE REAR: 265 70 R 19.5

LINING MATERIAL FRONT: BK6386

LINING MATERIAL REAR: BK6386

THIS VEHICLE COMPLIES WITH THE NZ HEAVY VEHICLE BRAKE RULE 32015/4, SCHEDULE 5

# WABCO

## TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.0X  
TDB0459

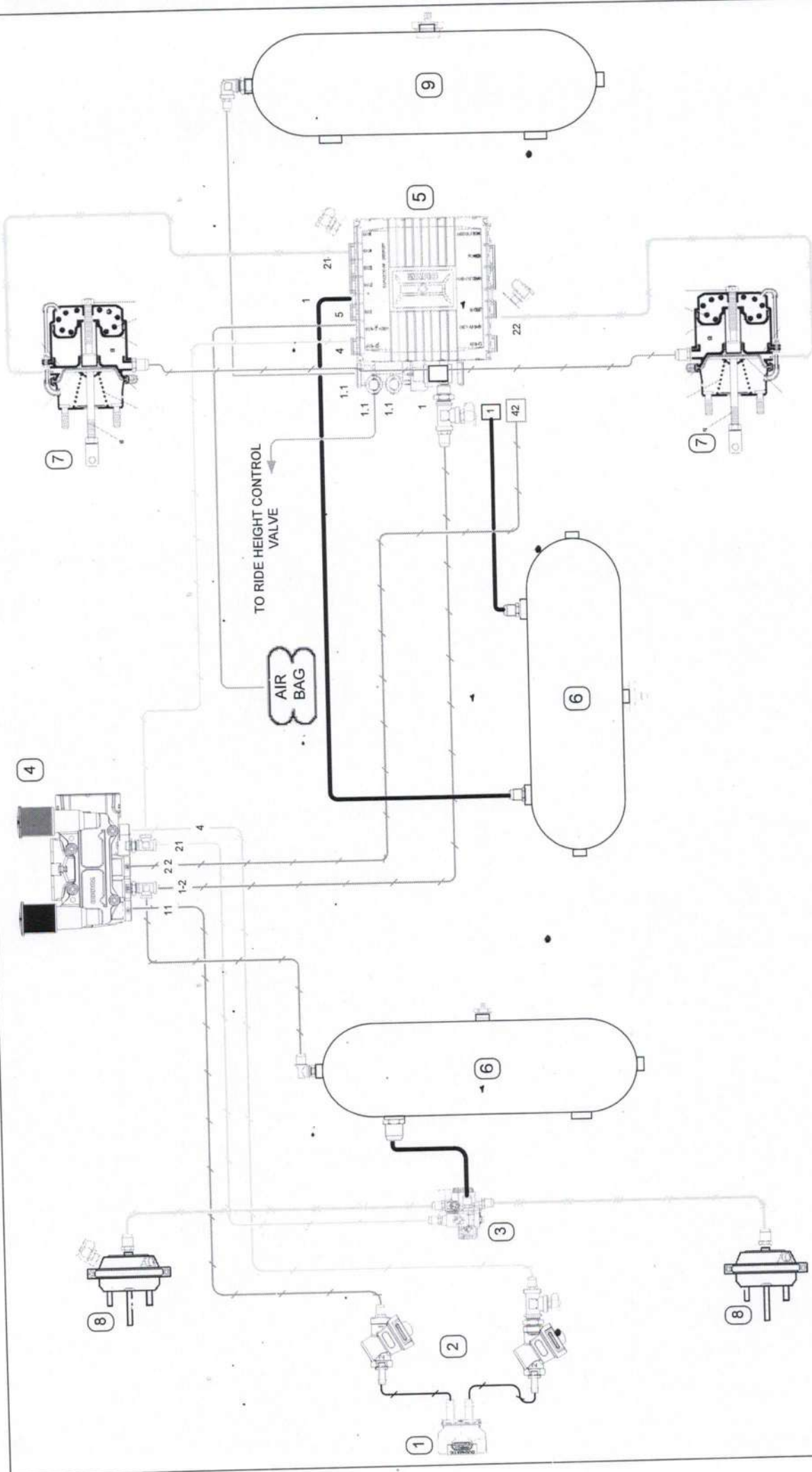
HERSTELLER MANUFACTURER CONSTRUCTEUR		<b>DOMETT TRAILERS</b>	
TYP TYPE TYPE		<b>2AFT CURTAINSIDE</b>	
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS		<b>7A9B20018J1023695</b>	
BREMSEBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.		<b>TP51689A</b>	
POLRADZÄHNEZAHL c-d   e-f POLE WHEEL TEETH c-d   e-f DENTS ROUE DENTÉE c-d   e-f	<b>90</b>	<b>90</b>	ABS-System ABS-System Système ABS <b>4S/3M</b>
RSS RSS RSS	Einfachbereifung Single Tire Monte simple	Lenkachse Steering axle Essieu vireur	
	Zwillingsbereifung Twin Tire Monte jumelée	Kipptritisches Fahrzeug Critical Trailer Véhicule critique	
Subsystems		<b>SB</b>	<b>I/O 24N</b>

GIO	Pin1	Pin3	Pin4
1	24V-01	---	---
2	---	---	---
3	ALS2	ALS2	---
4	---	---	---
5	DIAG	DIAG	DIAG
6	---	---	---
7	---	---	---



ACHSE AXLE ESSIEU	●●●			●●●●				TYP TYPE	(mm)	(mm)	⊙ (bar)				
	pm (bar)	6.5	pm (bar)	0.8	2.0	6.5	1.0				Pz				
	H (kg)	⊙	⊙	H (kg)	⊙	⊙	pz				TR (daN)				
1	2200	1.1	2.6	8200	5.2	0.4	1.3	---	5.8	-	24	67	152	648	4861
2	1850	0.8	1.8	8200	5.2	0.4	1.5	---	4.6	-	24 / 30	64	127	608	3176
3	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---
4	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---
5	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---

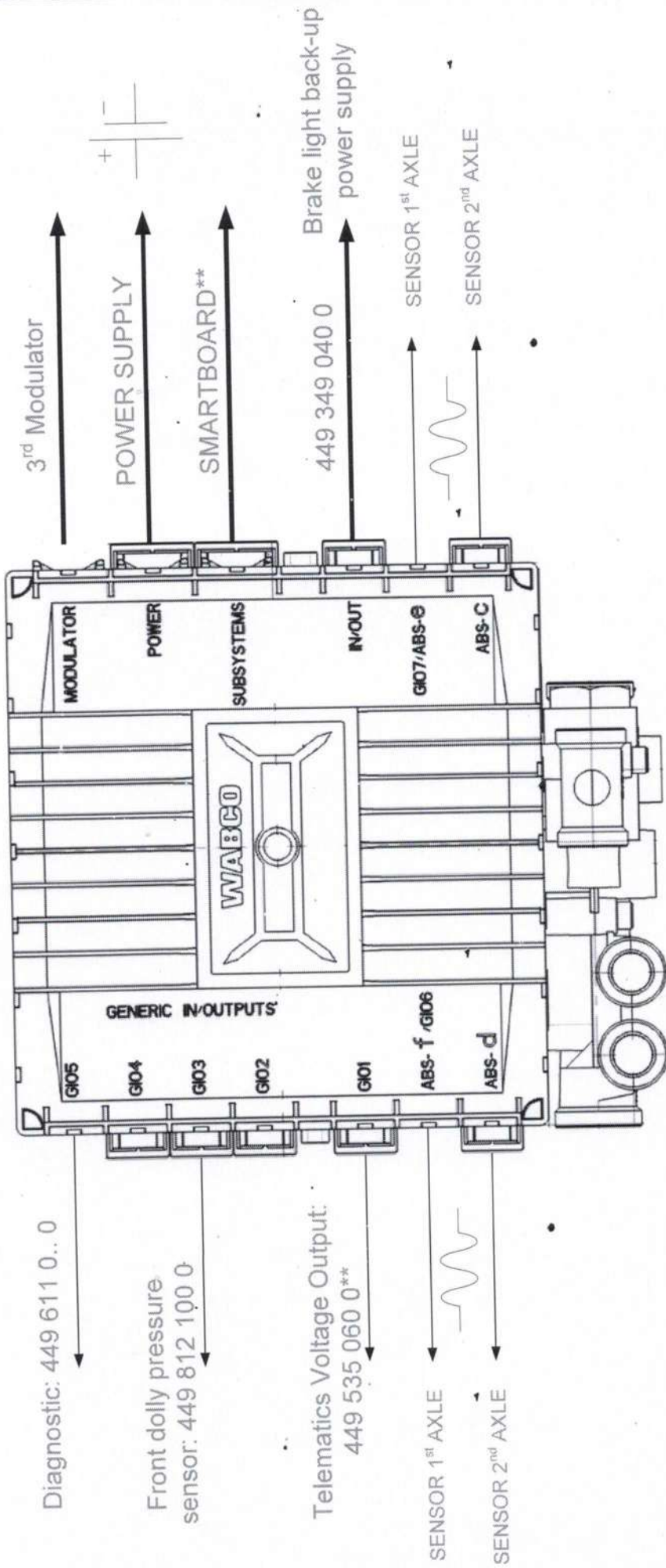




ITEM		QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:	
1	1	452 804 001 0	Wabco Duo-Matic coupling	9	1	24.5 Ltr Air Tank	3/8" Rubber	3/8" Rubber	---	---
2	2	432 500 020 0	Wabco control line filler	10	2	TSE Service brake chamber	1/2" Rubber	1/2" Rubber	---	---
3	1	480 207 202 0	Wabco EBS 3" modulator	10C	4	TSE Spring brake chamber	15mm Nylon	15mm Nylon	---	---
4	1	971 002 900 0	Wabco PREV	12			12mm Nylon	12mm Nylon	---	---
5	1	480 102 08 0	Wabco TEBS - E (premium)				8mm Nylon	8mm Nylon	---	---
6	2		46 Ltr Air tank				8mm Nylon	8mm Nylon	---	---
7	2	2430CC@127mm	TSE Spring brake chamber				8mm Nylon	8mm Nylon	---	---
8	2	24S@152mm	TSE Service brake chamber				8mm Nylon	8mm Nylon	---	---

**DOMETT TRAILERS**  
2 AXLE FULL TRAILER

SIZE A4  
SPEC REFERENCE 1695  
MODEL NUMBER B2001  
PARK LINES JOHN HIRST  
REV 1  
2 OF 3



\*\* OPTIONAL EXTRAS

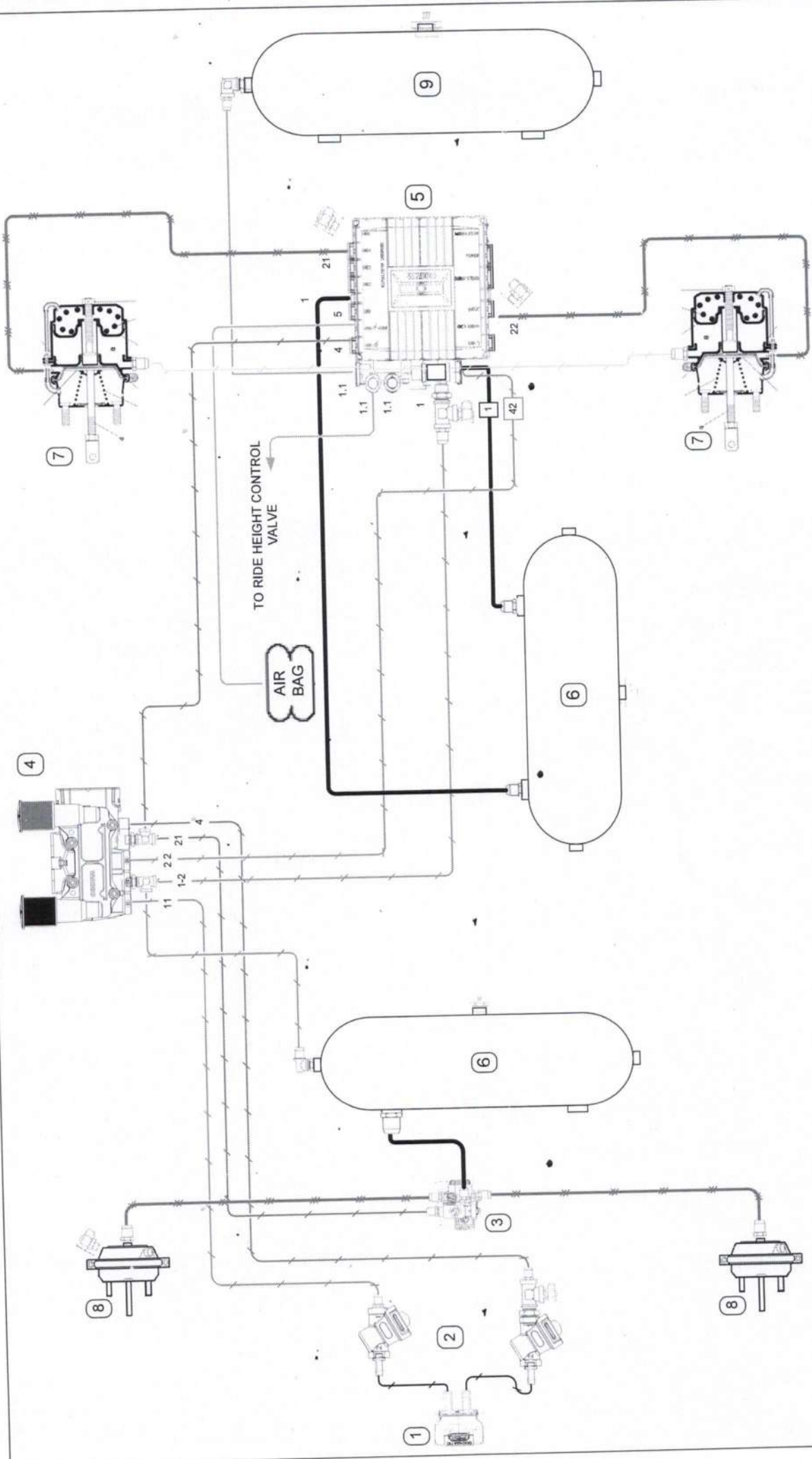
## 2 Axle Full Trailer

# ELECTRICAL ASSIGNMENT

**GOUGH** *Transpex*

SIZE	A4	SPEC REFERENCE	1695	MODEL NUMBER	B2001	REV	1
SCALE	Not to scale			JOHN HIRST		3 OF 3	





ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	452 804 001 0	Wabco Duo-Matic coupling	9	1	24.5 Ltr Air Tank	3/8" Rubber	3/8" Rubber
2	2	432 500 020 0	Wabco control line filter	10	2	24S@127mm	TSE Service brake chamber	3/8" Rubber
3	1	480 207 202 0	Wabco EBS 3rd modulator	10 <sup>+</sup>	4	2430CC@150mm	TSE Spring brake chamber	1/2" Rubber
4	1	971 002 900 0	Wabco PREV	12				15mm Nylon
5	1	480 102 08 0	Wabco TEBS - E (premium)					12mm Nylon
6	2		46 Ltr Air tank					8mm Nylon
7	2	2430CC@127mm	TSE Spring brake chamber					8mm Nylon
8	2	24S@157mm	TSE Service brake chamber					8mm Nylon

**DOMETT TRAILERS**

**2 AXLE FULL TRAILER**

SIZE	A4	SPEC REFERENCE	1695	MODEL NUMBER	B2001	REV	1
SCALE		SERVICE LINES	JOHN HIRST				1 OF 3

**PDS INFORMATION REQUIRED FOR FULL TRAILERS  
TO COMPLY WITH THE NZ HVBR 32015/4 .**



**CLIENT**

<b>BUILDER:</b>	DOMETT TRAILERS LTD
<b>ADDRESS:</b>	70 WHAKAKAKE STREET, TAURANGA
<b>END USER:</b>	NOT SPECIFIED

**VEHICLE DETAILS**

<b>VEHICLE TYPE:</b>	CURTAINSIDE	<b>CERT #</b>	JH180209
<b>YEAR:</b>	2018	<b>MODEL:</b>	B2001
<b>MAKE:</b>	DOMETT TRAILERS	<b>CHASSIS #:</b>	1695
<b>VIN #:</b>	7A9B20018J1023695		
<b>GVM (t):</b>	16.4	<b>REGO:</b>	N/A
<b>BODY TYPE</b>	1		
<b>GROUP RATINGS (t)</b>	<b>FRONT</b>	<b>REAR</b>	
	8.2	8.2	
<b>WHEEL BASE (M):</b>	5.35		
	<b>DECK HEIGHT (M)</b>	<b>MAX HEIGHT (M)</b>	
	1	4.25	
<b>COG (M):</b>	1.980		
	<b>FRONT</b>	<b>REAR</b>	<b>TOTAL</b>
<b>TARE (%):</b>	2.2	1.84	4.04
	<b>FRONT</b>	<b>REAR</b>	
<b>TYRE SIZE:</b>	265 70 R 19.5	265 70 R 19.5	
	<b>FRONT</b>	<b>REAR</b>	
<b>AXLE SPACING (M):</b>	N/A	N/A	
	<b>MAKE</b>	<b>MODEL</b>	<b>TEST REPORT</b>
<b>AXLE:</b>	SAF	INTRADRUM	TDB0459

**BRAKE DETAILS**

	AXLE SERIAL #	POLEWHEEL TEETH #
1	CUSTOMER REFERENCE	90
2	CUSTOMER REFERENCE	90
3	CUSTOMER REFERENCE	90
4	CUSTOMER REFERENCE	90
5	CUSTOMER REFERENCE	90



## BRAKE DETAILS

### CHAMBERS

	AXLE 1	AXLE 2	
BRAND:	TSE	TSE	N/A
SIZE/MODEL:	24S	2430GC	N/A
MAX STROKE (mm):	67	64	N/A
SPRINGBRAKE FORCE (Kn):	N/A	6.5	N/A
HOLDOFF PRESSURE (Bar):	N/A	4.8	N/A
SLACK LENGTH (mm):	152	127	N/A
FOUNDATION BRAKE:	367x180	367x180	N/A
LINING MATERIAL:	BK6386	BK6386	N/A

### BRAKE VALVES

	MAKE	PART#	CRACK / SETTING
SERVICE RELAY 1ST:	WABCO	480 102 08. 0	N/A
SERVICE RELAY 2ND:	WABCO	480 207 202 0	N/A
RATIO VALVE:	N/A	N/A	N/A
YARD RELEASE:	WABCO	971 002 900 0	N/A
PARK BRAKE	WABCO	971 002 900 0	YES

### ANTI-COMPOUND

### HEIGHT CONTROL:

Electronic  Pneumatic

### SMART BOARD:

N/A

### LIFT AXLE:

N/A

### ETASC:

N/A

### SUSPENSION TYPE:

Reactive  Non-Reactive

### MAKE:

SAF SAF

### MODEL:

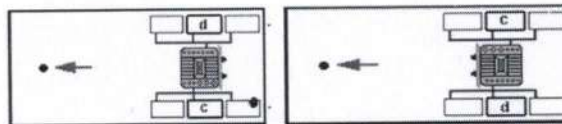
NG-IU30-Z8-3718-68A NG-IU30-Z8-3718-68A

### BELLOW SIZE (mm):

300 300

### ECU DIRECTION:

FRONT  REAR



## AIR TANKS

### AIR TANKS STANDARD:

SAE J10 / EN 286-2

### BRAKE CAPACITY (Ltr):

46 46

### SUSP. CAPACITY (Ltr):

N/A 25

### AUXILLARY/ PROTECTED:

WABCO 461 513 002 0

**AIR LINES & TEST POINTS****TEST POINTS**

<b>FRONT CHAMBER:</b>	YES	<b>RATIO IN (Bar):</b>	N/A
<b>REAR CHAMBER:</b>	YES (@ECU)	<b>RATIO OUT (Bar):</b>	N/A
<b>TANK:</b>	YES (@ECU)	<b>CONTROL LINE:</b>	YES
<b>DUOMATIC COLOUR CODED:</b>	YES		
<b>CLEARED ON SEMI:</b>	N/A		
<b>SENSORS ON AXLES:</b>	1 + 2		

**ELECTRONIC HEIGHT SENSOR CALIBRATION**

	TIMER TICKS: F / R	MILLIMETRE: F / R	
<b>UPPER LEVEL:</b>	N/A	N/A	
<b>NORMAL LEVEL:</b>	N/A	N/A	
<b>LOWER LEVEL:</b>	N/A	N/A	
	<b>MODULATOR 2.1</b>	<b>MODULATOR 2.2</b>	<b>RELAY VALVE</b>
<b>RESPONSE TIME (m/s):</b>			

**DECLARATION**

I UNDERSTAND AND DECLARE THAT I AM THE CERTIFIER IDENTIFIED BELOW AND HOLD A CURRENT VALID APPOINTMENT. I CERTIFY THAT AT THE TIME OF INSPECTION THE ABOVE MENTIONED VEHICLE COMPONENT DESIGN 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.

**NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015 /4, SCHEDULE 5.**

**DATE:** 13-Feb-18

**SIGNED:** \_\_\_\_\_

**NAME & ID:** J HIRST (JEH)

**SODC SIGNED:** \_\_\_\_\_

**NAME & ID:** R PRATT (TRSP)

**PHONE (BUS):** (09) 980 7300

**FAX:** (09) 980 7306

**POSTAL ADDRESS:** P.O. Box 98-971, Manukau 2241  
New Zealand

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

distribution: DOMETT TRAILERS  
7A9B20018J1Q23695  
SODC: JH180209  
LT400: TRSP

please note!

This brake calculation is made under consideration of  
-the legal precriptions mentioned above in the version valid at the time of making the program (V6.14.04.20).  
-the functional characteristics of our products as well as the data of the brake out of the test approvals of the axle manufacturers, and  
-the other vehicle data included in the brake calculation.  
Please check whether these data correspond to the actual vehicle data.  
Our conditions of delivery apply (particularly section 9.0).  
In any case we commend to do a braking harmonisation!  
WABCOBrake V6.14.04.20 db 20.04.2016

vehicle manufacturer: DOMETT TRAILERS  
trailer model : 2AFT CURTAINSIDE  
trailer type : 2-axle-full-trailer  
remarks : air / hydraulic / VA suspension  
WABCO TRAILER - EBS E  
TRISTOP 2: 24/30 [CHAMBERS ARE ACTUALLY TSE]  
265/70 R 19,5

axle 1 + 2 : SAF, SNK 367x180, TDB 0459 ECE,

		<u>unladen</u>	<u>laden</u>
total mass	P in kg	4050	16400
axle 1	P1 in kg	2200	8200
axle 2	P2 in kg	1850	8200
wheel base	E in mm	5350 - 5750	
centre of gravity height	h in mm	1000	1980

		<u>axle 1</u>	<u>axle 2</u>
no. of combined axles		1	1
no. of brake chambers per axle line	KDZ	2	2
The power output corresponds to		BC 0069.2BC	0051.0
brake chamber manufacturer		BPW	WABCO
chamber size		24.	24/30
lever length	lBh in mm	152	127
brake factor	[-]	9.73	9.73
dyn. rolling radius	rdyn min in mm	421	421
dyn. rolling radius	rdyn max in mm	421	421
threshold torque	Co Nm	13.0	13.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar		2.1	2.1
chamber pressure(rdyn max)pH at z=22,5%bar		2.1	2.1
chamber press.(servo)pcha at pm6,5bar	bar	5.8	4.6
piston force	ThA at pm6,5bar N	8329	6502
brake force(rdyn min)T lad. at pm6,5bar	N	58724	38371
brake force(rdyn max)T lad. at pm6,5bar	N	58724	38371
brake force within 1 % rolling friction			
proportion	%	54.8	45.2

braking rate z laden 0.604 for rdyn min  
z = sum (TR)/PRmax 0.604 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        or 480 207 2.. 0  
          EBS relay valve

brake cylinder: BPW 05.444.15...

axle 2:

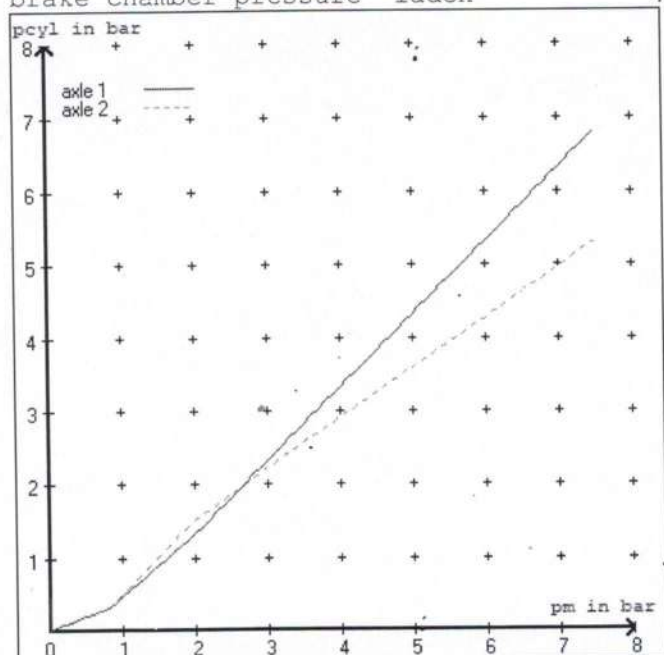
valve 1: 971 002 ... 0                    WABCO  
          EBS emergency valve

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

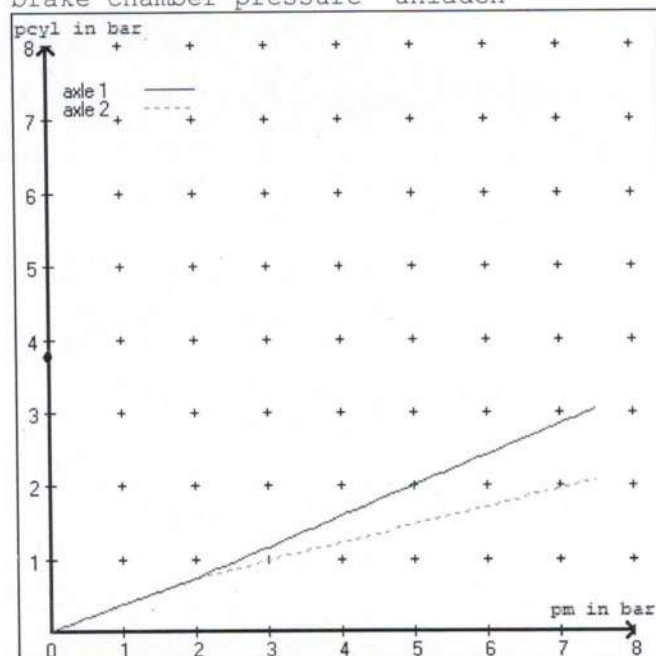
brake cylinder: WABCO 925 376 005 0 / 925 376 2.. 0

test type III (zIII = 0.30) for rdyn min : axle1 axle2  
at pm 3.5 bar => pcha in bar : 2.8 2.6  
test type III (zIII = 0.06) for rdyn min : axle1 axle2  
at pm 1.3 bar => pcha in bar : 0.7 0.8

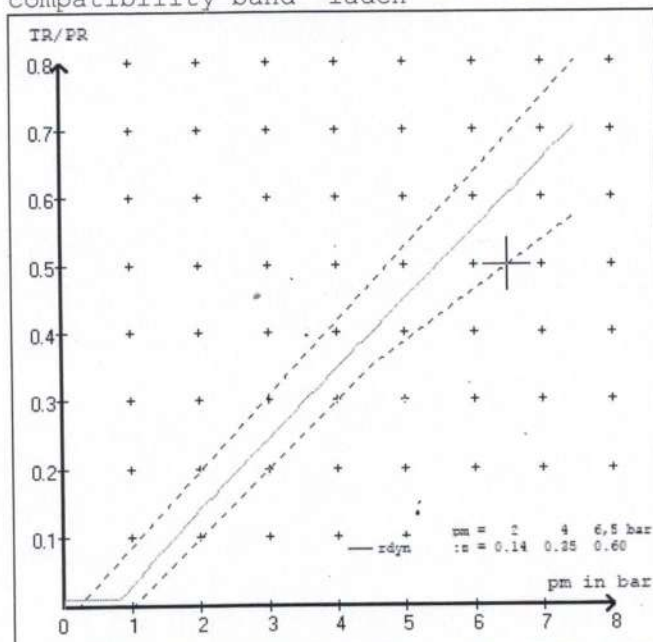
brake chamber pressure laden



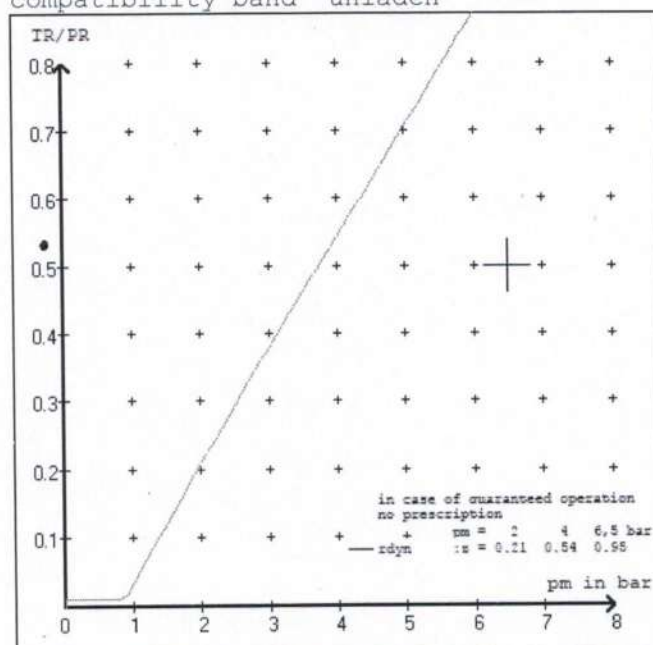
brake chamber pressure unladen



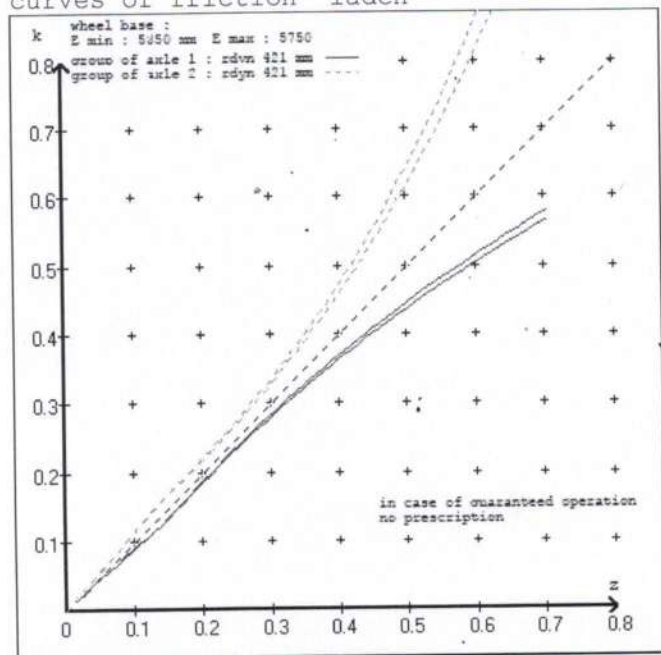
compatibility band laden



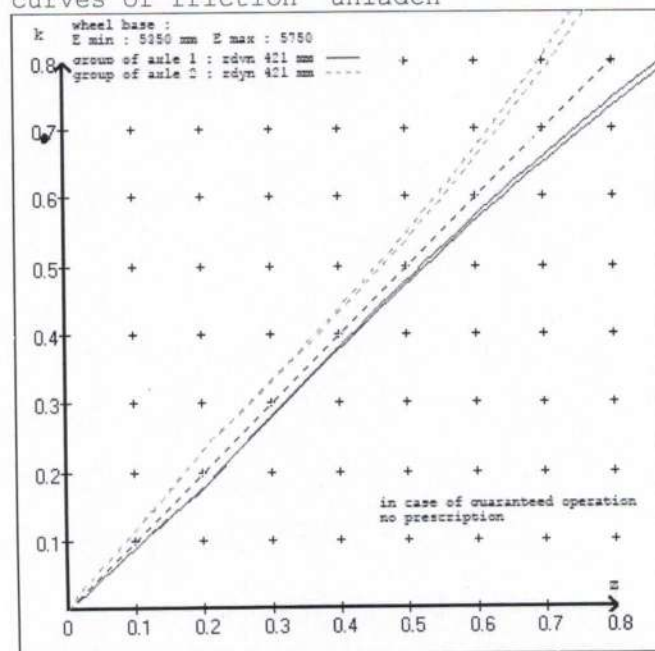
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS  
 trailer model : 2AFT CURTAINSIDE  
 trailer type : 2-axle-full-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter 24. (BPW) lever length 152 mm  
 axle 2 : 2 x type/diameter 24/30 (WABCO) lever length 127 mm

brake diagram :

valve :

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

EBS input data

vehicle manufacturer: DOMETT TRAILERS  
 trailer model : 2AFT CURTAINSIDE  
 trailer type : 2-axle-full-trailer  
 brake calculation no. : TP 51689A

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

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

control pressure pm			6,5	control pressure pm			0.8	2.0	6.5
axle	axle load unladen	bellow pr. unladen	brake pr. unladen	axle load laden	bellow pr. laden	brake pr. laden			
1	2200	to be	2.6	8200	to be	0.3	1.3	5.8	
2	1850	entered by	1.8	8200	entered by	0.3	1.5	4.6	
3	0	the vehicle	0,0	0	the vehicle	0,0	0,0	0,0	
4	0	manufact.	0,0	0	manufact.	0,0	0,0	0,0	
5	0	:	0,0	0		0,0	0,0	0,0	

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

axle 1	axle 2
axle load pcyl	axle load pcyl
2200 2.6	1850 1.8
2700 2.9	2350 2.0
3200 3.1	2850 2.2
3700 3.4	3350 2.5
4200 3.7	3850 2.7
4700 3.9	4350 2.9
5200 4.2	4850 3.1
5700 4.5	5350 3.3
8200 5.8	8200 4.6



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

axle 1 : reference axle: SAF	SNK 3718	brake lining: BK 6386
test report :	TDB 0459 ECE	date : 20130801 01.08.2013
axle 2 : reference axle: SAF	SNK 3718	brake lining: BK 6386
test report :	TDB 0459 ECE	date : 20130801 01.08.2013

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

axle 1	(rdyn 421 mm)	T = 27.4 % Fe
axle 2	(rdyn 421 mm)	T = 20.8 % Fe

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

axle 1	(sp = 73 mm)	s = 64 mm
axle 2	(sp = 63 mm)	s = 54 mm

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

axle1	ThA = 8329 N
axle2	ThA = 6502 N

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

axle 1	(rdyn 421 mm)	T = 42243 N
axle 2	(rdyn 421 mm)	T = 27710 N

basic test	type III
of subject	(calculated)
trailer (E)	residual
	(hot)braking

braking rate of the vehicle  
(item 4.3.2 to appendix 2 to annex 11)

0.60	0.43
------	------

required braking rate  
(items 1.5.3 and 1.7.2 to annex 11)

>= 0,4 and
>= 0,6*E (0.36)

axle 1	(rdyn 421 mm)	T = 42243 N
axle 2	(rdyn 421 mm)	T = 27710 N

basic test	type III
of subject	(calculated)
trailer (E)	residual
	(hot)braking

braking rate of the vehicle  
(item 4.3.2 to appendix 2 to annex 11)

0.60	0.43
------	------

required braking rate  
(items 1.5.3 and 1.7.2 to annex 11)

>= 0,4 and
>= 0,6*E (0.36)

spring parking brake

	<u>axle 2</u>
no of TRISTOP-actuators per axle line KDZ	2
TRISTOP-actuator type	24/30
lever length ; lBh in mm	127
stat. tyre radius rstat max in mm	401
at a stroke of s in mm	30
min. force of spring brake TFZ in N	6360
sp.brake chamber no 925 ... ..	376 005 0
sp.brake chamber no 925 ... ..	376 2.. 0
release pressure pLs in bar	4.9

calculation:

ratio until road	3.0816
$iFb = lBh * \eta * C * rBt / (2 * rBn * rstat)$	
for rstat in mm	401
brake force of spring br. Tf in N	38567
$Tf = (TFZ * KDZ - 2 * Co / lBh) * iFb$	
braking rate zf laden	0.250
$zf = \text{sum}(Tf) / P + 0,01$	

Test of the frictional connection required by the parking brake

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

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

$$\min Ef = 3911 \text{ mm} \quad \text{for } E = 5350 \text{ mm}$$

$$\min Ef = 4170 \text{ mm} \quad \text{for } E = 5750 \text{ mm}$$

min Ef =	minimum distance between front axle(s) (trailer) or support (semitraile
	and the rear axle(s) (resultant of the bogie)
E =	wheel base
fzul = 0.80	maximum permissible frictional connection required
zferf = 0.18	maximum required braking ratio of the parking brake
h = 1980 mm	height of center of gravity - laden
PR = 8200 kg	maximum bogie mass - laden
P = 16400 kg	maximum total mass - laden
nf = 1	no. of axle(s) with TRISTOP spring brake actuators
ng = 1	no. of bogie axle(s)

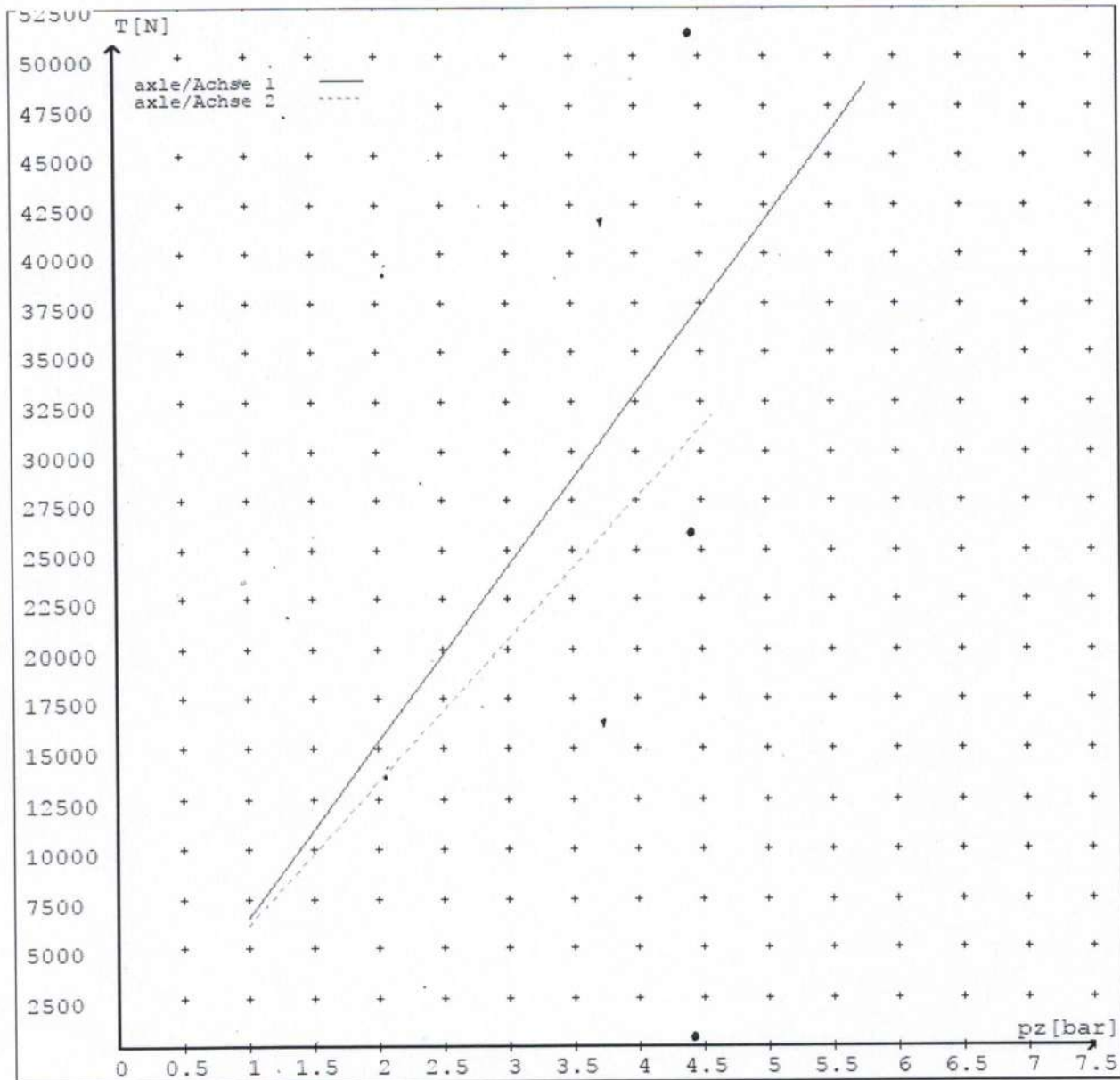
**reference values**

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	6485	
	5.8	48613	
axle 2	1.0		6083
	4.6		31764

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	24./	24/30	/	/	/
Maximum stroke smax = ...mm maximaler Hub smax = ....mm	75	64			
Lever length = ....mm Hebellänge = ....mm	152	127			





reference values for  $z = 0.5$

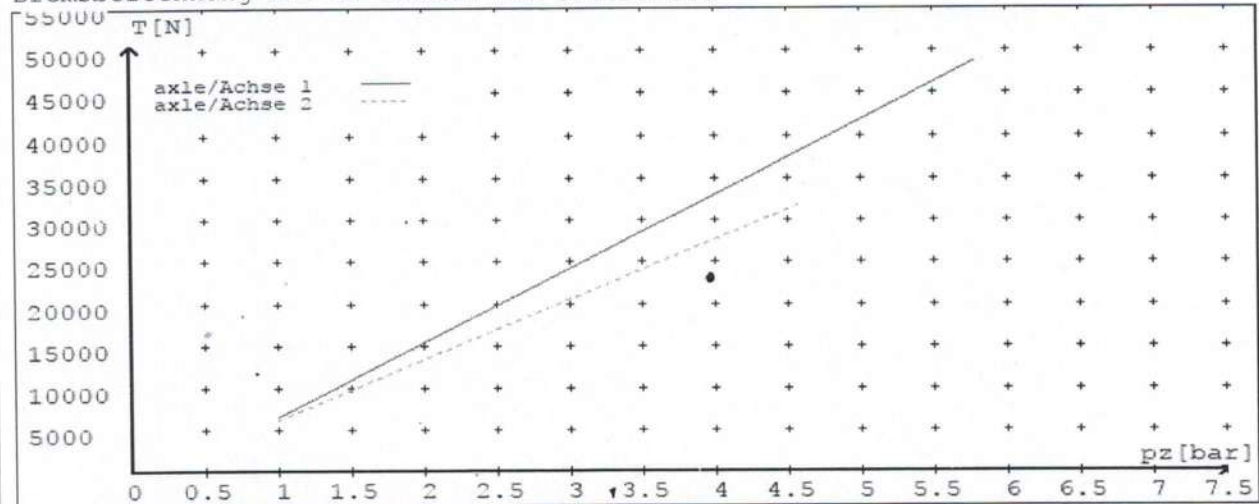
for max rdyn: 421 mm

Angabe der Referenzwerte für  $z = 0.5$

für max rdyn: 421 mm

brake calculation no: TP 51689A date 13.02.2018

Bremsberechnung Nr: TP 51689A vom 13.02.2018



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	24./	24/30	/	/	/
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	75	64			
Lever length = ...mm Hebellänge = ...mm	152	127			