



# 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

7A9C10037C1023103

Component being certified:

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

Certification Category

HUEK

Description of Work

Certify to Brake Rule 32015/2

Code/Standard Certified to

NZHUB Rule Schedule 5

Component Load Rating(s)

max Cum = 34000kg  
RSS Switched on (Dual tyres)

General Drawing Number(s)

NA

Supporting Documents

Brake Cert No JH 12/208  
RoR 3 AS EBS

\*Special Conditions

EBS Control - warning lamp must illuminate when ignition switched on and extinguish immediately OR when vehicle reaches 7km/h

Certification Expiry Date (if applicable)

NA

or

Hubodometer Reading (whichever comes first)

[Empty boxes for hubodometer reading]

### 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)

[Empty box for Designer's ID]

Inspector's / Delegate's Signature

*R. Pratt*

\*Delegate's Name (PRINT IN CAPS)

[Empty box for Delegate's Name]

Date

18/12/2012

Number

417995

COF Vehicle Inspector ID:

COF Vehicle Inspector Signature:

Date

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

Domett Co Ltd



NZ TRANSPORT AGENCY  
WAKA KOTAHI

**NATIONAL OFFICE**

50 Victoria Street  
Private Bag 6995  
Wellington 6141  
New Zealand  
T 64 4 894 5400  
F 64 4 894 6100

Exemption: HVB12/315

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

**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, 3 axle semi (A trailer)**  
VIN/CHASSIS: **7A9C10037C1023103**

**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 Gough Transpecs or an NZ Transport Agency appointed HVEK certifier acting on behalf of, and under instruction from, Gough Transpecs; Gough 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) Gough 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 Gough Transpecs.
- 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 10<sup>th</sup> day of October 2012.

Jackie Hartley  
Administrator (Assessments)



# Statement of Design Compliance

**S.O.D.C. number: JH121208**

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

### Vehicle details:

Make:	DOMETT
Model:	C1003
VIN#:	7A9C10037C1023103
Chassis#:	1103
GCM (kgs):	N/A
GVM (kgs):	34,000
Wheelbase (mm):	5970
Axle test report #:	361-071-04
Type:	3AS B FRONT

### Component Details:

	Front	Rear
Lever length (mm):	74	74
Brake chamber size:	TSE1624HTLD64	TSE16HSCLD64
Tyre size:	265 70 R 19.5	265 70 R 19.5
Drawing number: (for component reference)	C1003	
Brake calculation#:	TP50744	

*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: 18 Dec 2012

s

Name: John Hirst (HVEK)  
Certifier ID: JEH

LT 400 A8 4F7995

*Ron Pratt*

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

Signed: *Ron Pratt*

Dated: 18/12/2012

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



P.O.Box 98-971

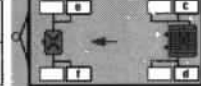
South Auckland Mail Centre

J.HIRST (JEH)

DATE	17-Dec-12	BRAKE SYSTEM	WABCO TEBS-E
CERT. NO.	JH121208	PREV/OPTI EXEMPTION	HVB12/315
VIN / CHASSIS	7A9C10037C1023103		
BRAKE CHAMBERS FRONT	1624(TSE1624 HTLD64 MaxStroke - 64mm)		
BRAKE CHAMBERS REAR	16 (TSE16HSCD64 MaxStroke - 64mm)		
SLACK LENGTH FRONT	74 mm	TYRE SIZE FRONT	265 70 R 19.5
SLACK LENGTH REAR	74 mm	TYRE SIZE REAR	265 70 R 19.5
THIS VEHICLE COMPLIES WITH THE NZ			
HVBR 32015/2 - SCHEDULE 5		LINING MATERIAL FRONT	
		LINING MATERIAL REAR	
		ROR 8616 AF	
		ROR 8616 AF	

**WABCO****TRAILER EBS-E**GGVS/ADR TUEH TB 2007 - 019.00  
36102202

HERSTELLER MANUFACTURER CONSTRUCTEUR		TD Haulage		GIO		Pin1		Pin3		Pin4	
TYP TYPE TYPE		4A Full		1		---		---		---	
FAHRZEUG IDENT.NR. CHASSIS NUMBER NUMERO DE CHASSIS		7A9D3811880023814		2		---		---		---	
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.		TP299		3		ALS2		ALS2		---	
POLRADZÄHREZAHL c-d   e-f POLE WHEEL TEETH c-d   e-f DENTS ROUE DENTÉE c-d   e-f		100 100		4		---		---		---	
ABS-System ABS-System Systeme ABS		4S/3M		5		DIAG		DIAG		DIAG	
RSS RSS RSS		X		6		---		---		---	
Einfachbereifung Single Tyre Monte simple				7		---		---		---	
Zwillingsbereifung Twin Tyre Monte jumelle											
Lenkachsen Steering axle Essieu vitour											
Kippröhliches Fahrzeug Critical Trailer Véhicule critique											
Subsystems		---		I/O							



ACHSE AXLE ESSEU	pm (bar)		6.5		pm (bar)		0.7	2.0	---	6.5	TYP TYPE	(mm)	(mm)	(bar)	
	H (kg)	⊗	⊗	H (kg)	⊗	⊗	pz	1.0	Pz						
	H (kg)	⊗	⊗	H (kg)	⊗	⊗									TR (daN)
1	1620	0.7	2.7	7500	4.4	0.6	1.9	---	6.5	-	16	76	74	332	3738
2	1620	0.7	2.7	7500	4.4	0.6	1.9	---	6.5	-	16	76	74	332	3738
3	1420	0.4	2.4	7500	4.5	0.6	1.9	---	6.3	-	16 / 24	76	74	332	3614
4	1420	0.4	2.4	7500	4.5	0.6	1.9	---	6.3	-	16 / 24	76	74	332	3614
5	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---

# WABCO


# START-UP PROTOCOL

System	Trailer EBS-E	WABCO part number	480 102 080 0
Production date	2012-06-27	Serial number	897000468700N
Serial number (modulator)	000000016192		
Fingerprint Customer EOL / Customer Development / Flash Program	W033869 / 2012-12-18 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

## WABCO

## TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.00  
361 071 04

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT T&T			GIO	Pin1	Pin3	Pin4
TYP TYPE TYPE	3AS B FRONT			1	---	---	---
FAHRZEUG IDENTNR. CHASSIS NUMBER NUMERO DE CHASSIS	7A9C10037C1023103			2	---	---	---
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP50744			3	---	---	---
POLRADZAHNZAHL c-d   e-f POLE WHEEL TEETH c-d   e-f DENTS ROUE DENTEE c-d   e-f	90	---	ABS-System ABS-System Système ABS	4	---	---	---
			2S/2M	5	DIAG	DIAG	DIAG
RSS RSS RSS	Einfachbereifung Single Tyre Monte simple		Lenkachse Steering axle Essieu vitour	6	---	---	---
	Zwillingsbereifung Twin Tyre Monte jumelle	X	Kippfühliches Fahrzeug Critical Trailer Véhicule critique	7	---	---	---
Subsystems	---	I/O					

ACHSE AXLE ESSIEU	pm (bar)		6.5		pm (bar)		0.7		2.0		---		6.5		TYP TYPE	(mm)	(mm)	(bar)	
	H (kg)	⊗	⊗	H (kg)	⊗	⊗	⊗	---	---	---	---	---	---	---				1.0	Pz
1	1200	0.4	1.8	6000	3.9	0.4	1.3	---	4.5	-	16 / 24	64	74	417	2650				
2	1200	0.4	1.8	6000	3.9	0.4	1.3	---	4.5	-	16 / 24	64	74	417	2650				
3	1200	0.4	1.8	6000	3.9	0.4	1.3	---	4.5	-	16	64	74	417	2650				
4	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---				
5	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---				

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	ECAS distance sensor calibration	Not tested
ABS sensor assignment	OK	Distance sensor Axle load calibr	Not tested
RTR check	Not tested	Leak test	Not tested
Immobilizer test	Not tested	Signal outputs TEBS	Not tested
Signal inputs	Not tested		

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

Manufacturer	DOMETT T&T	Vehicle ident. no	7A9C10037C1023103
Vehicle type	3AS B FRONT	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tested by	Ron Pratt	<b>Signature</b>	
Date	2012-12-18 1:14:10 p.m.		

# WABCO START-UP PROTOCOL

System	Trailer EBS-E	WABCO part number	480 102 080 0
Production date	2012-06-27	Serial number	897000468700N
Serial number (modulator)	000000016192		
Fingerprint Customer EOL / Customer Development / Flash Program	W033869 / 2012-12-18 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

## WABCO

## TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.00  
361 071 04

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT T&T		
TYP TYPE TYPE	3AS B FRONT		
FAHRZEUG IDENTIF. CHASSIS NUMBER NUMERO DE CHASSIS	7A9C10037C1023103		
BREMSENRECHNUNG-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP50744		
POLRADZÄHREZAHL c-d   e-f POLE WHEEL TEETH c-d   e-f DENTS ROUE DENTÉ c-d   e-f	90	---	ABS-System ABS-System Système ABS
			2S/2M
RSS RSS RSS	Einfachbereifung Single Tyre Monte simple	Lenkachse Steering axle Essieu virant	
	X	Kipprittisches Fahrzeug Critical Trailer Véhicule critique	
Subsystems	---	I/O	

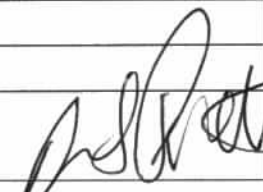
GIO	Pin1	Pin3	Pin4
1	---	---	---
2	---	---	---
3	---	---	---
4	---	---	---
5	DIAG	DIAG	DIAG
6	---	---	---
7	---	---	---



ACHSE AXLE ESSIEU	pm (bar)		6.5		pm (bar)		0.7		2.0		---		6.5		TYF TYPE	(mm)	(mm)	(bar)	
	H (kg)	⊗	⊗	⊗	H (kg)	⊗	⊗	⊗	---	---	---	---	---	---				1.0	Pz
1	1200	0.4	1.8	⊗	6000	3.9	0.4	1.3	---	4.5	-	16 / 24	64	74	417	2650			
2	1200	0.4	1.8	⊗	6000	3.9	0.4	1.3	---	4.5	-	16 / 24	64	74	417	2650			
3	1200	0.4	1.8	⊗	6000	3.9	0.4	1.3	---	4.5	-	16	64	74	417	2650			
4	0	---	---	⊗	0	---	---	---	---	---	-	---	---	---	---	---			
5	0	---	---	⊗	0	---	---	---	---	---	-	---	---	---	---	---			

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	ECAS distance sensor calibration	Not tested
ABS sensor assignment	OK	Distance sensor Axle load calibr	Not tested
RTR check	Not tested	Leak test	Not tested
Immobilizer test	Not tested	Signal outputs TEBS	Not tested
Signal inputs	Not tested		

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

Manufacturer	DOMETT T&T	Vehicle ident. no	7A9C10037C1023103
Vehicle type	3AS B FRONT	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tested by	Ron Pratt	Signature 	
Date	2012-12-18 1:14:10 p.m.		

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

distribution: DOMETT T&T  
7A9C10037C1023103  
SODC: JH121208

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 (V6.12.08.27).  
-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 V6.12.08.27 db 30.08.2012

vehicle manufacturer: DOMETT T&T  
trailer model : 3AS B FRONT  
trailer type : 3-axle-semi-trailer  
remarks : air / hydraulic / VA suspension  
kc < 0,95 => new kc = 0,95  
WABCO TRAILER - EBS  
TRISTOP 1+2: T.16/24  
265/70 R 19,5

axle 1 + 2 + 3 : ROR, Elsa 195 LE, 36107104 ECE,

		<u>unladen</u>		<u>laden</u>	
total mass	P in kg	5500	- 6500	34000	- 36000
king-pin	PS kg	1900	- 2900	16000	- 18000
axle 1	P1 in kg		1200		6000
axle 2	P2 in kg		1200		6000
axle 3	P3 in kg		1200		6000
total axle mass	PR in kg		3600		18000
wheel base	E in mm	5970	- 5970		
centre of gravity height	h in mm		1505		2102
K-factor		Kv min	1.5554	Kc min	0.9500
K-factor		Kv max	1.5767	Kc max	0.9500

		<u>axle 1</u>	<u>axle 2</u>	<u>axle 3</u>
no. of combined axles		1	1	1
no. of brake chambers per axle line	KDZ	2	2	2
The power output corresponds to		BZ 119.6	BZ 119.6	BZ 122.1
brake chamber manufacturer		Meritor	Meritor	Meritor
chamber size		T.16/24	T.16/24	16.
lever length	lBh in mm	74	74	74
brake factor	[-]	20.26	20.26	20.26
dyn. rolling radius	rdyn min in mm	421	421	421
dyn. rolling radius	rdyn max in mm	421	421	421
threshold torque	Co Nm	6.0	6.0	6.0

calculation:			
chamber pressure (rdyn min) pH at z=22,5%bar		2.1	2.1 2.1
chamber pressure (rdyn max) pH at z=22,5%bar		2.1	2.1 2.1
chamber press. (servo) pcha at pm6,5bar	bar	4.5	4.5 4.5
piston force	ThA at pm6,5bar N	4448	4448 4448
brake force (rdyn min) T lad. at pm6,5bar	N	31687	31687 31687
brake force (rdyn max) T lad. at pm6,5bar	N	31687	31687 31687
brake force within 1 % rolling friction proportion	%	33.3	33.3 33.3

braking rate z laden 0.538 for rdyn min  
z = sum (TR)/PRmax 0.538 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: 480 102 ... 0                   WABCO  
          EBS trailer modulator

brake cylinder: Meritor 1624HTLD64

axle 2:

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

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

brake cylinder: Meritor 1624HTLD64

axle 3:

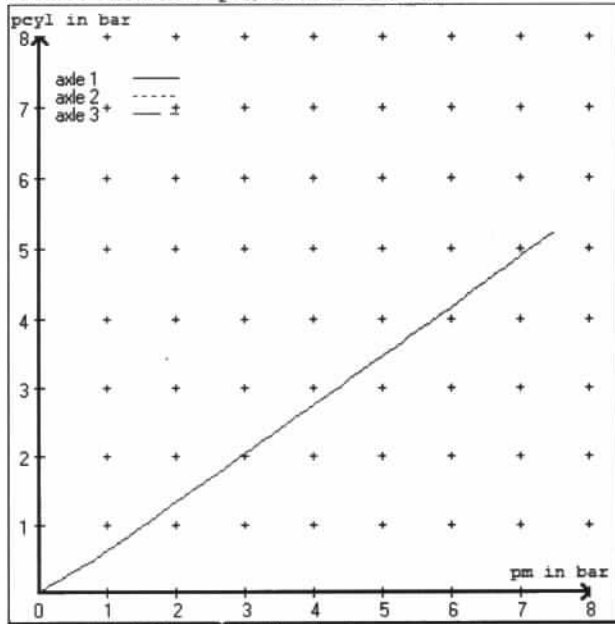
valve 1: 971 002 ... 0                   WABCO  
          EBS emergency valve

valve 2: 480 102 ... 0 ( )               WABCO     or 480 207 0.. 0 / 2.. 0  
          EBS trailer modulator

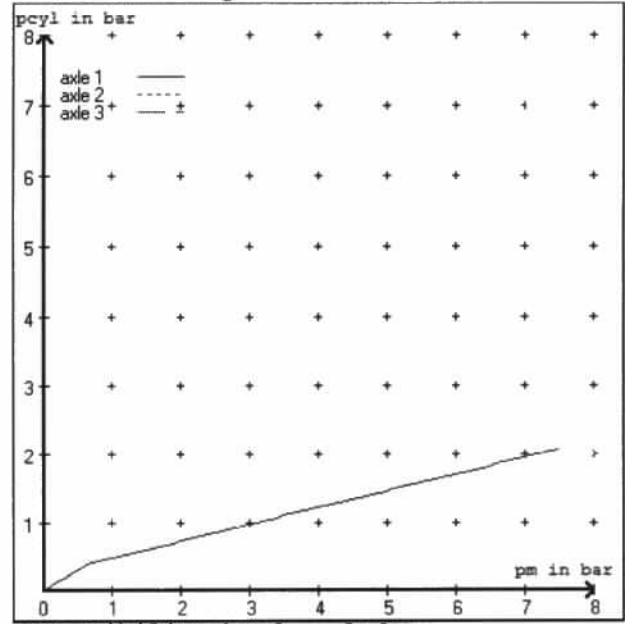
brake cylinder: Meritor 16HSCLD64

test type III (zIII = 0.30) for rdyn min : axle1 axle2 axle3  
at pm 3.9 bar => pcha in bar : 2.7 2.7 2.7  
test type III (zIII = 0.06) for rdyn min : axle1 axle2 axle3  
at pm 1.3 bar => pcha in bar : 0.8 0.8 0.8

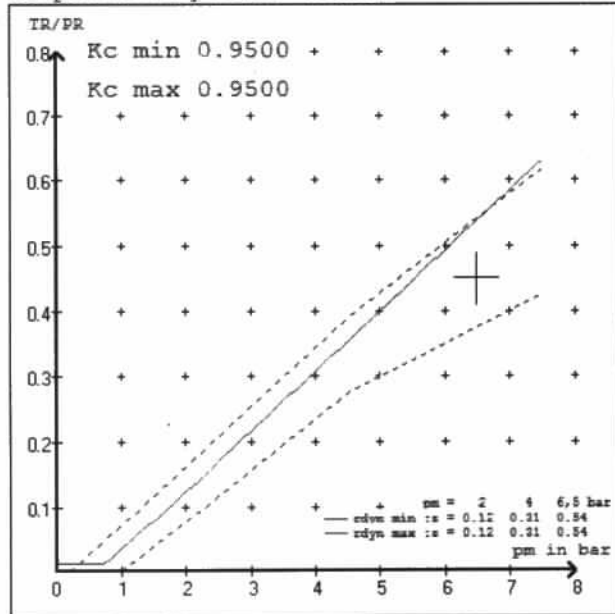
brake chamber pressure laden



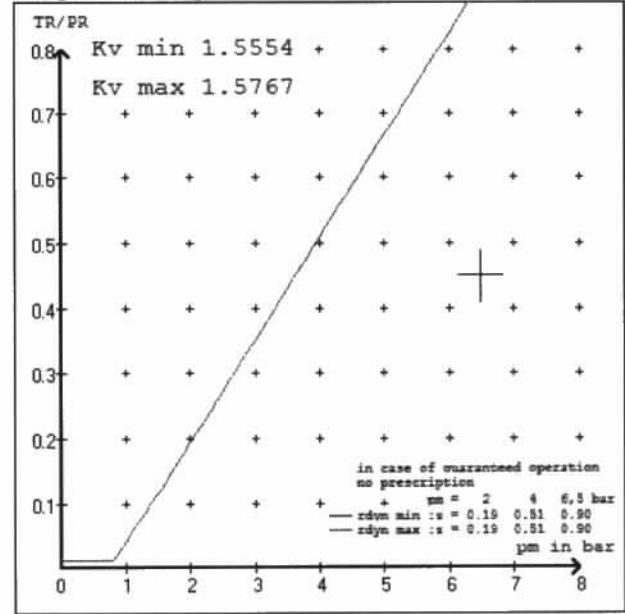
brake chamber pressure unladen



compatibility band laden



compatibility band unladen



vehicle manufacturer: DOMETT T&T  
 trailer model : 3AS B FRONT  
 trailer type : 3-axle-semi-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter T.16/24 (Meritor) lever length 74 mm  
 axle 2 : 2 x type/diameter T.16/24 (Meritor) lever length 74 mm  
 axle 3 : 2 x type/diameter 16. (Meritor) lever length 74 mm

brake diagram :

valve :

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

EBS input data

=====

vehicle manufacturer: DOMETT T&T  
 trailer model : 3AS B FRONT  
 trailer type : 3-axle-semi-trailer  
 brake calculation no. : TP 50744S

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 = 0.010  
 (laden condition) 2.0 bar z = 0.127  
 6.5 bar z = 0.540

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	1200	to be	1.8	6000	to be	0.4	1.3	4.5	
2	1200	entered by	1.8	6000	entered by	0.4	1.3	4.5	
3	1200	the vehicle	1.8	6000	the vehicle	0.4	1.3	4.5	
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 3	
axle load pcy1	axle load pcy1	axle load pcy1	
1200	1.8	1200	1.8
1700	2.1	1700	2.1
2200	2.4	2200	2.4
2700	2.6	2700	2.6
3200	2.9	3200	2.9
3700	3.2	3700	3.2
4200	3.5	4200	3.5
4700	3.8	4700	3.8
6000	4.5	6000	4.5

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

axle 1	: reference axle: ROR	.../... .../K brake lining: ROR 8616 AF
	test report :	36107104 ECE date : 30.10.2006
axle 2	: reference axle: ROR	.../... .../K brake lining: ROR 8616 AF
	test report :	36107104 ECE date : 30.10.2006
axle 3	: reference axle: ROR	.../... .../K brake lining: ROR 8616 AF
	test report :	36107104 ECE date : 30.10.2006

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

axle 1	(rdyn 421 mm)	T = 16.4 % Fe
axle 2	(rdyn 421 mm)	T = 16.4 % Fe
axle 3	(rdyn 421 mm)	T = 16.4 % Fe

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

axle 1	(sp = 57 mm)	s = 40 mm
axle 2	(sp = 57 mm)	s = 40 mm
axle 3	(sp = 57 mm)	s = 40 mm

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

axle1	ThA = 4448 N
axle2	ThA = 4448 N
axle3	ThA = 4448 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 = 33903 N
axle 2	(rdyn 421 mm)	T = 33903 N
axle 3	(rdyn 421 mm)	T = 33903 N

	basic test	type III
	of subject	(calculated)
	trailer (E)	residual
braking rate of the vehicle		(hot)braking
(item 4.3.2 to appendix 2 to annex 11)	0.54	0.58

required braking rate	>= 0,4 and
(items 1.5.3 and 1.7.2 to annex 11)	>= 0,6*E (0.32)

axle 1	(rdyn 421 mm)	T = 33903 N
axle 2	(rdyn 421 mm)	T = 33903 N
axle 3	(rdyn 421 mm)	T = 33903 N

	basic test	type III
	of subject	(calculated)
	trailer (E)	residual
braking rate of the vehicle		(hot)braking
(item 4.3.2 to appendix 2 to annex 11)	0.54	0.58

required braking rate	>= 0,4 and
(items 1.5.3 and 1.7.2 to annex 11)	>= 0,6*E (0.32)

spring parking brake

	<u>axle 1</u>	<u>axle 2</u>
no of TRISTOP-actuators per axle line KDZ	2	2
TRISTOP-actuator type	T.16/24	T.16/24
lever length                      lBh in mm	74	74
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	3.7388	3.7388
$iFb = lBh * \eta * C * rBt / (rBn * rstat)$ for rstat in mm	401	401
brake force of spring br. Tf in N	56260	56260
$Tf = (TFZ * KDZ - 2 * Co / lBh) * iFb$		
braking rate                      zf laden	0.329	
$zf = \sum (Tf) / P + 0,01$		

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 = 5077 mm for E = 5970 mm  
 =====  
 min Ef = 5077 mm for E = 5970 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            =                      2102 mm height of center of gravity - laden  
 PR          =                      18000 kg maximum bogie mass - laden  
 P            =                      36000 kg maximum total mass - laden  
 nf           =                      2            no. of axle(s) with TRISTOP spring brake actuators  
 ng           =                      3            no. of bogie axle(s)

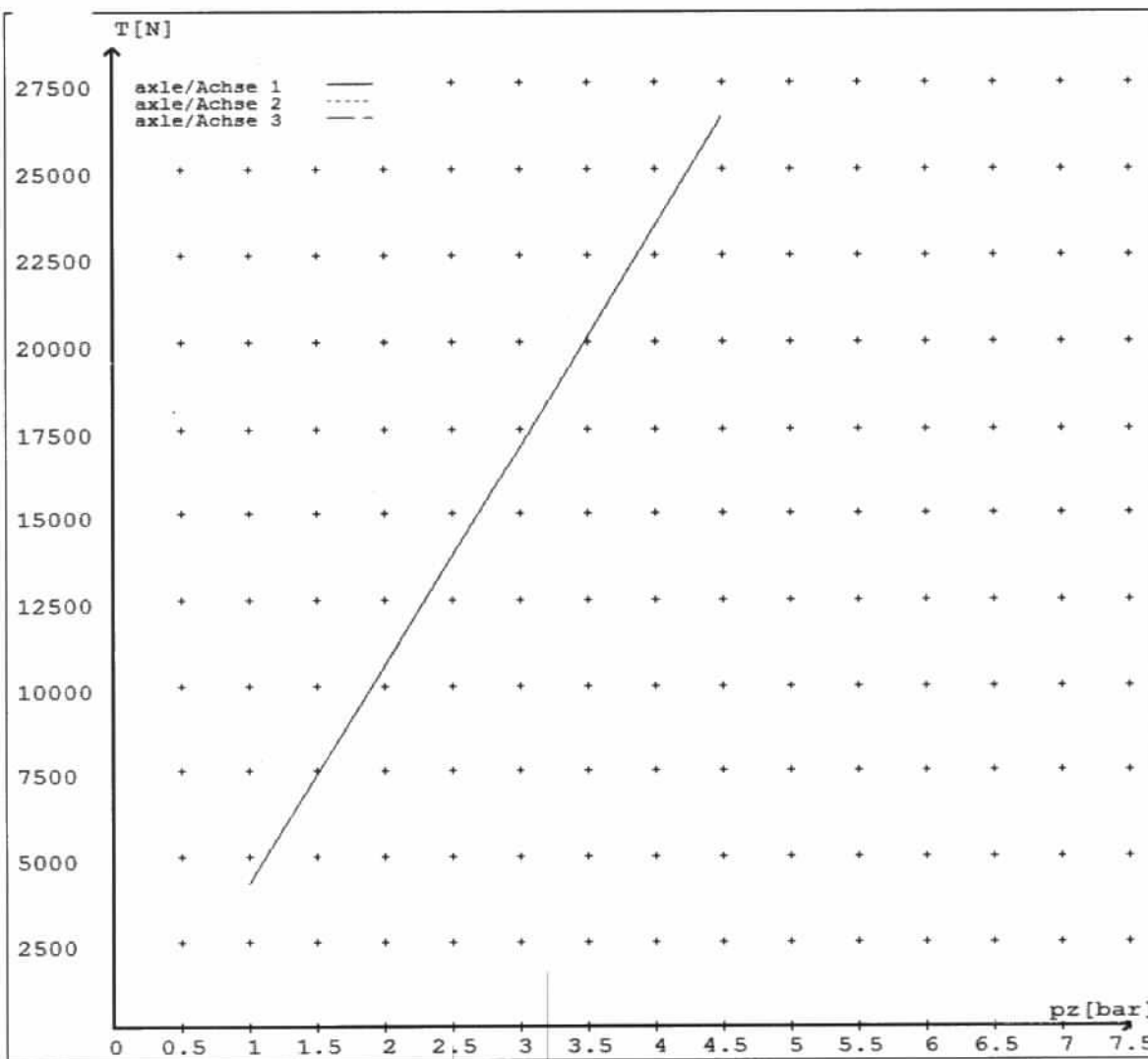
**reference values**

reference values for z = 45% for max rdyn: 421 mm

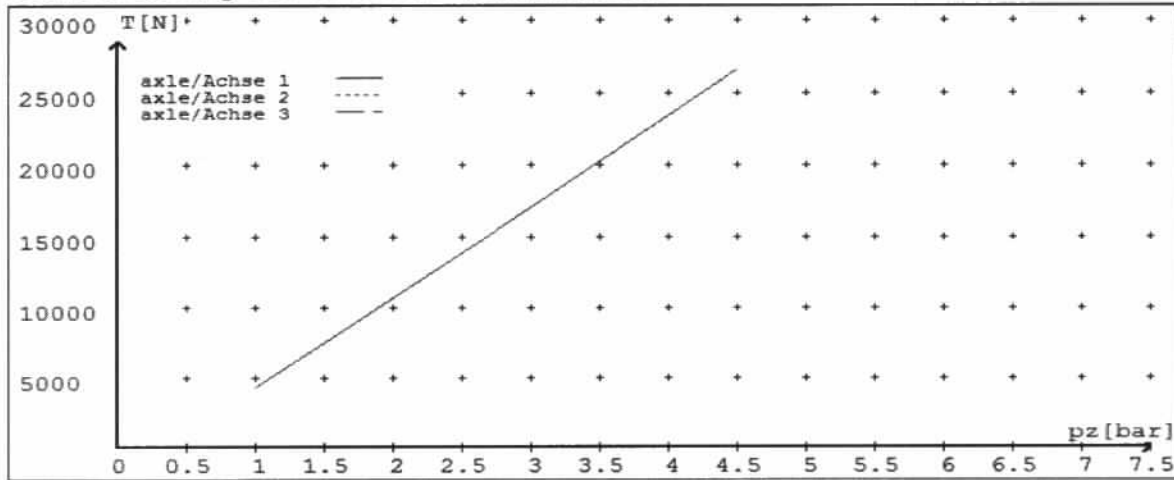
	pz [bar]	T [N]	T [N]
axle 1	1.0		4173
	4.5		26504
axle 2	1.0		4173
	4.5		26504
axle 3	1.0		4173
	4.5		26504

VIN - no.:

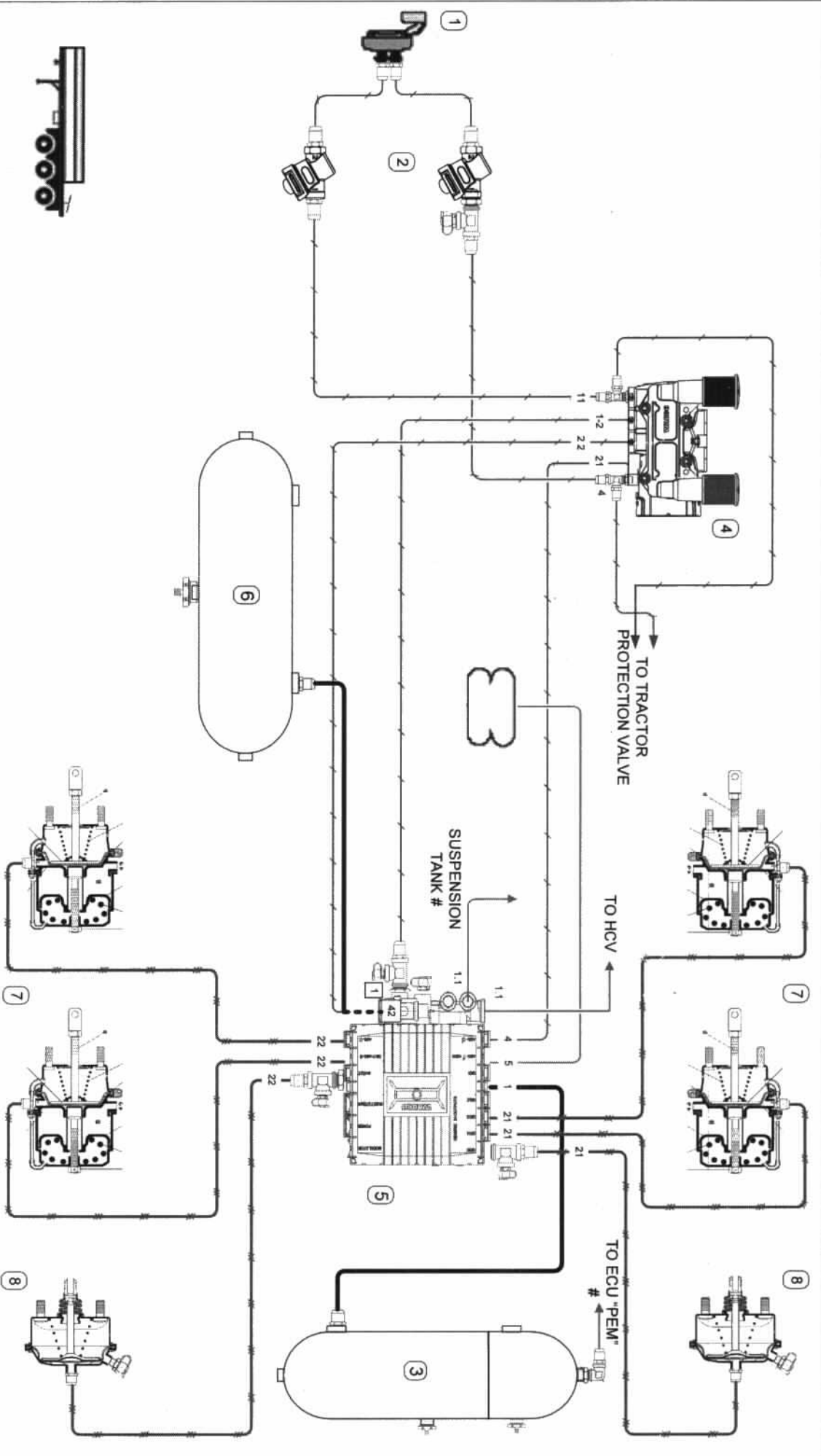
	Axle(s) / Achse(n)				
	brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	T.16/24	T.16/24	16./	/
Maximum stroke smax = ...mm maximaler Hub smax = ....mm	64	64	64		
Lever length = ....mm Hebellänge = ....mm	74	74	74		



reference values for  $z = 0.45$  for max r<sub>dyn</sub>: 421 mm  
 Angabe der Referenzwerte für  $z = 0.45$  für max r<sub>dyn</sub>: 421 mm  
 brake calculation no: TP 50744S date 18.12.2012  
 Bremsberechnung Nr: TP 50744S vom 18.12.2012



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	T.16/24	T.16/24	16./	/	/
Maximum stroke s <sub>max</sub> = ...mm maximaler Hub s <sub>max</sub> = ...mm	64	64	64		
Lever length = ...mm Hebellänge = ...mm	74	74	74		



# DOMETT T&T

3 AXLE SEMI 'B' FRONT

**GOUGH Transpieces**

**WABCO**

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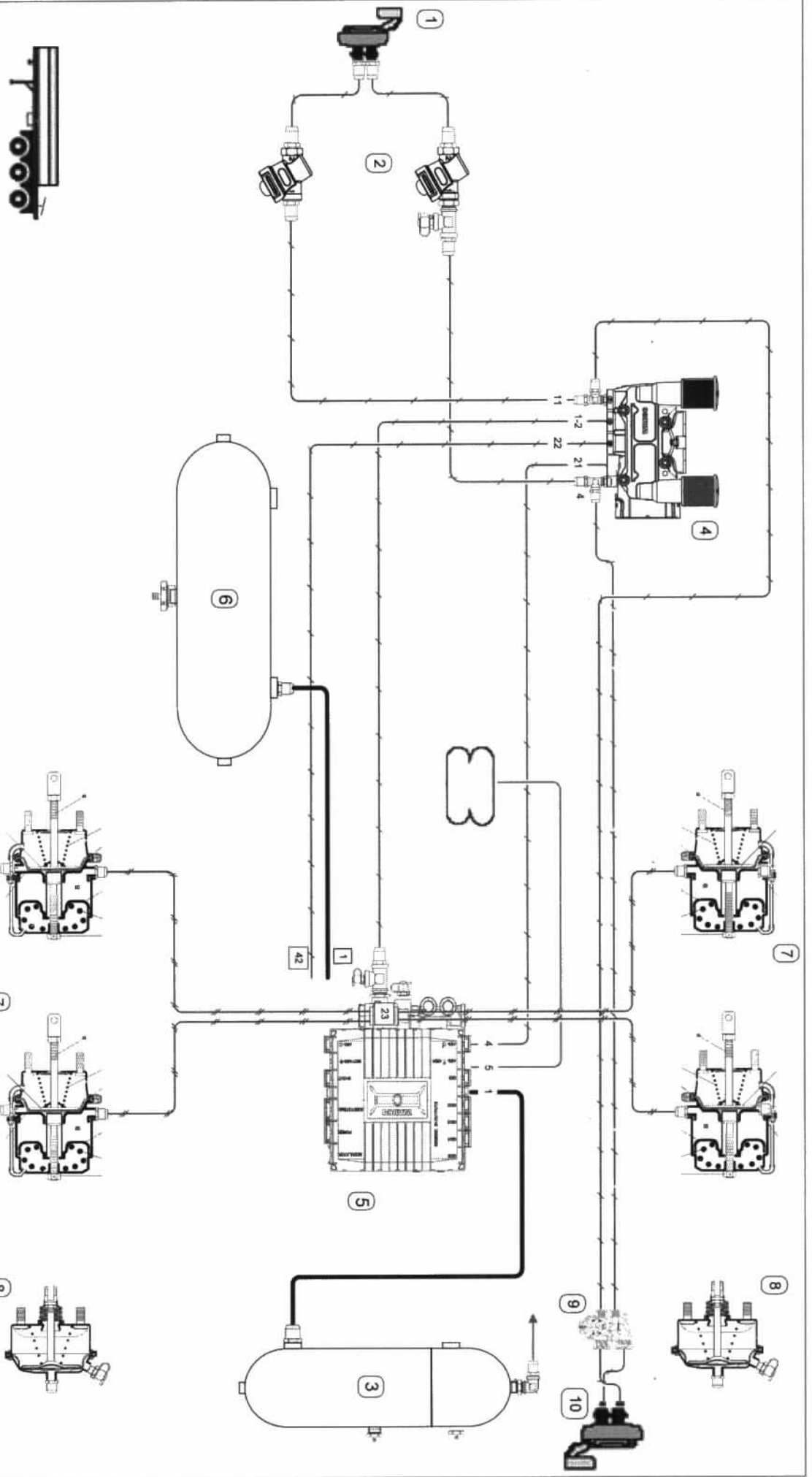
ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND.
1	1	452 804 001 0	WABCO Duc-Matic coupling					3/8" Rubber
2	1	432 800 020 0	WABCO Filters					3/8" Rubber
3	1	121 17ZC	Hoosier split tank					1/2" Rubber
4	1	971 002 900 0	WABCO PREV					15mm Nylon
5	1	490 102 ... 0	WABCO TERS-E ECU					12mm Nylon
6	1	12113P	Hoosier 48Ltr tank					8mm Nylon
7	4	1624HTLD64	TSE Spring brake					8mm Nylon
8	2	16HSCLD64	TSE Service brake					8mm Nylon

ITEM: C1003  
DRAWING NUMBER: DOMBTFRONT 3AX/D/EBS  
DATE: 16.12.12

ASSY/VT NUMBER: E & OE  
CHECKED BY NAME: J HRST

PAGE NO: 1/2





# DOMETT T&T

3 AXLE SEMI 'B' FRONT

**GOUGH** Franspacs

**WABCO**

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ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1			AS PER PAGE ONE	9	1	452 802 000 0	DUOMATIC	3/8" Rubber
2				10	1			3/8" Rubber
3								1/2" Rubber
4								12mm Nylon
5								15mm Nylon
6								8mm Nylon
7								8mm Nylon
8								8mm Nylon

ITEM DRAWING NUMBER C-1003  
 ASSEMBLY NUMBER DOMBTFRONT 3AX/D/EBS  
 DATE 18.12.12

PAGE NO 2/2  
 J HIRST  
 E & OE  
 CHECKED BY NAME

8