

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

RON PRATT **CHRIS CLARKE** **TRSA CJC**

Vehicle registration (optional) VIN/chassis number

7A9E25012K1023896

Make **DOMETT** Component being certified:

Model (optional) **E2501 H** Chassis Load anchorage

Certification category **HVEK** Log bolsters Towing connection Brakes

SRT PSV stability PSV rollover

Swept path PBS

Description of work

CERTIFY TO SCHEDULE 5 OF LTR 32015/5

NEW ZEALAND HEAVY VEHICLE BRAKE SPECIFICATION.

5AFT LIVESTOCK **RSS ON TYRE: 215 75 R17.5**

Code/standard/rule certified to Component load rating(s)

LTR 32015/5 **32 Tonnes GVM**

General drawing number(s) **35 Tonnes (Group ratings)**

N/A

Supporting documents

BRAKE RULE CERTIFICATE JH191104

BRAKE CALCULATION # TP51813

Special conditions (optional)

WARNING LAMP MUST ILLUMINATE WHEN IGNITION IS SWITCHED ON & THEN EXTINGUISH IMMEDIATELY OR WHEN VEHICLE SPEED EXCEEDS 7 KM/H

Certification expiry date (if applicable) or Hubodometer reading (whichever comes first)

N/A [UNLESS MODIFIED] **07**

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 **TRSA**

Date **06-Nov-19** Number **727164**

CoF vehicle inspector ID (if applicable) CoF vehicle inspector signature (if applicable) Date

All fields are mandatory unless otherwise stated.

Statement of Design Compliance

S.O.D.C. number: JH191104

For Heavy Vehicle Brake Specification
(Schedule 5) of HV Brake Rule 32015/5

Vehicle details:

Make: DOMETT
Model: E2501 H
Chassis#: 1896
Vin#: 7A9E25012K1023896
GVM (Tonne): 32
Wheelbase (m): 7.405
Axle test report #: WABCO
Axle type: PAN 17 DISC
Suspension & Air bag Ø (mm): SAF_MODULAR 2618, 300mm
Trailer type: 5AFT LIVESTOCK

Component Details:

	AXLE 1 & 2	AXLE 3 & 4	AXLE 5
Lever length (mm):	69	69	69
Brake chamber size:	20HSCLD	1416HTLD	14HSCLD
Tyre size:	215 75 R17.5		
Drawing number: (for component reference)	1896		
Brake calculation#:	TP51813	LT400#	727164RP

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: 6/11/2019

Name: JOHN HIRST

SIGNED: 

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

Signed: R S PRATT 

Dated: 11/11/2019

*) Programmed according to WABCO's End of Line protocol requirements where applicable and the vehicle and components correspond to the attached PDS worksheet.

**NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015-5
WORKSHEET, PROCEDURE DOCUMENTATION SHEET
& CONFIRMATION OF COMPLIANCE**

CLIENT

MANUFACTURER:	DOMETT TRAILERS
ADDRESS:	TAURIKURA DRIVE, TAURANGA 3173
FLEET:	STOCKLINES

VEHICLE DETAILS

VEHICLE TYPE:	SAFT LIVESTOCK	CERT #:	JH191104
YEAR:	2019	CALCULATION #:	TP51813
MAKE:	DOMETT	REGO:	N/A
MODEL:	E2501 H	LT400 #:	727164RP
CHASSIS #:	1896	ORDER NUMBER:	6931
VIN #:	7A9E25012K1023896		
GVM: TONNES	32	PRIME MOVER:	EBS / EUROPEAN
LOAD CONFIGURATION:	UNIFORM DENSITY		
GROUP RATINGS: TONNES	FRONT	REAR	
	16	19	
WHEEL BASE: METRES	7.405		
	UNLADEN COG	MAX HEIGHT	HEIGHT DECK
	0.6	4.3	0.96
COG: METRES	2.002		
	FRONT	REAR	TOTAL
TARE: TONNES	4.2	5.7	9.9
	FRONT	REAR	
TYRE SIZE:	215 75 R17.5	215 75 R17.5	
ROLLING CIRCUMFERENCE: MM	2344	2344	
AXLE SPACING: METRES	1.31	2.51	

BRAKE & AXLE DETAILS

	MAKE	MODEL	TEST REPORT
AXLE:	IMT	PAN 17 DISC	WABCO
POLE WHEEL FRONT:	80	POLE WHEEL REAR:	80
LINING MATERIAL:	JURID 539	BRAKE FACTOR:	19.98
SENSED AXLES:	2 + 4		
SERIAL NUMBERS:	1	N/A	
	2	N/A	
	3	N/A	
	4	N/A	
	5	N/A	

CHAMBER AND VALVING DETAILS

CHAMBERS:	AXLE 1 & 2	AXLE 3 & 4	AXLE 5
BRAND:	TSE_CHAMBERS	TSE_CHAMBERS	TSE_CHAMBERS
SIZE:	20HSCLD	1416HTLD	14HSCLD
STROKE: <i>MILLIMETRES</i>	65	64	64
TEST REPORT #:	BC_0041.0 Jul '07	BC0143.0	BZ 122.1 Sep '00
SPRINGBRAKE FORCE: <i>kN</i>	N/A	6.16	N/A
HOLDOFF PRESSURE: <i>kPa</i>	N/A	4.5	N/A
FOUNDATION BRAKE:	WABCO PAN 17	WABCO PAN 17	WABCO PAN 17
LEVER LENGTH: <i>MILLIMETRES</i>	69	69	69
BRAKE VALVES:	MAKE:	PART NUMBER:	PM PRESS. <i>kPa</i>
ECU PART #:	WABCO	480 102 08. 0 (MV)	80 kPa
3RD MODULATOR #:	WABCO	480 207 202 0 (12V)	80 kPa
ANTI-COMPOUNDING:	YES	ELEX:	N/A
SPRING BRAKE RELAY:	SEALCO_SBR	110701	
YARD RELEASE VALVE:	SEALCO_YR	17600B	
INLINE RELAY FITTED:	N/A	N/A	

ECU DIRECTION:

FRONT

REAR

FRONT FRICTION: μ

0.47

SMARTBOARD/OPTILINK:

SMARTBOARD

OPTI-LINK

Page 2

SUSPENSION

	FRONT	REAR
SUSPENSION TYPE:	ELECTRONIC	ELECTRONIC
MAKE:	SAF_AIRSPRING	SAF_AIRSPRING
MODEL:	SAF_MODULAR	SAF_MODULAR
BELLOW SIZE:	2618, 300mm	2618, 300mm
HEIGHT CONTROL VALVE:	441 050 100 0	441 050 100 0
OTHER VALVES:	463 090 500 0 (eTASC)	463 090 500 0 (eTASC)
RIDE HEIGHT <i>MM</i> :	240	240
HANGER HEIGHT <i>MM</i> :	290	290
PEDESTAL HEIGHT <i>MM</i> :	40	40
LIFTAXLE:		N/A
TIPPING DUMP SWITCH:		N/A
LIFTAXLE VALVE:		N/A

AIR TANKS

AIR TANKS STANDARD:	SAE J10A / EN286-2	
	FRONT	REAR
BRAKE TANK SIZE: <i>L</i>	46	46 + 25
AUXILLARY TANK SIZE: <i>L</i>	N/A	46 + 20
PRESSURE PROTECTION:	WABCO PEM: 461 513 002 0	

AIR LINES

TEST POINTS:

CONTROL LINE:	X 1	TANK:	X 1
REAR CHAMBER:	X 2	FRONT CHAMBER:	X 1
DUOMATIC COLOUR CODED:	YES		

ELECTRONIC HEIGHT SENSOR CALIBRATION

	TIMER TICKS [F/R]	MILLIMETRE [F / R]
UPPER LEVEL:		
NORMAL LEVEL:		240 / 240
LOWER LEVEL:		

CHECKS AT COMMISSION OF VEHICLE

CHAMBER BUNGS REMOVED:	<input checked="" type="checkbox"/>	VALVE MOUNTING:	<input checked="" type="checkbox"/>
ECU BLANKING PLUGS CHECKED:	<input checked="" type="checkbox"/>		
RESPONSE TIME:	MODULATOR 2.1	MODULATOR 2.2	RELAY VALVE
ms:	190	195	355

NOTES AND SPECIAL CONDITIONS

OK TO USE TP51813 BRAKE CALCULATION BECAUSE THIS SHOWS A LOWER CoG.

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 32015/5, SCHEDULE 5.

DATE: 6/11/2019

SIGNED:

CERTIFIER NAME & ID: JOHN HIRST JEH
 SODC ENDORSED BY: RON PRATT TRSP
 PHONE (BUS): 09-980-7300



FAX:

POSTAL ADDRESS:

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

Service Bulletin

Wabco Welding Warning

From: John Hirst, OE Braking Product Manager
Ref: JH-TSL-091115

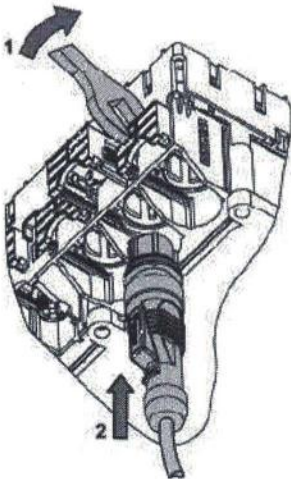
Date: 9 November 2015

NB: Any sort of arc welding can cause damage to an ECU fitted to a trailer. The inverter that we supply is also susceptible to damage from welding arcs.

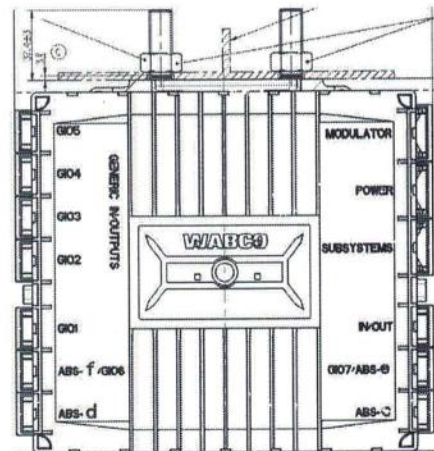
Prevention is less costly than the cure.

Please follow the following recommendation from Wabco for all ABS and EBS models:

1. Remove all the main power cables and diagnostic cables from the ECU as they have non interchangeable connections.
2. Leave the sensor cables that are plugged into the ECU and disconnect them at the wheel end. This will cover the protection against welding, and at the same time will prevent mixing them up at the ECU end.



Above: Wabco TEBS E Modulator – Plugs and dismantling of cables and protective caps.



Above: Diagram of a Wabco ECU.

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 32015/5.

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 32015/5. 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 32015/5, 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 32015/5.

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)

WABCO

TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.0X
361-037-08

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS		
TYP TYPE TYPE	5AFT STOCK		
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9E25012K1023896		
BREMSBERECHNUNG-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP51813A		
POLRADZÄHNEZAHL c-d e-f POLE WHEEL TEETH c-d e-f DENTS ROUE DENTÉE c-d e-f	80	80	ABS-System ABS-System Système ABS
RSS RSS RSS			4S/3M
Einfachbereifung Single Tire Monte simple			Lenkachse Steering axle Essieu vireur
Zwillingsbereifung Twin Tire Monte jumeleé	X		Kippkritisches Fahrzeug Critical Trailer Vehicule critique
Subsystems	SB	I/O	24N

GIO	Pin1	Pin3	Pin4
1	ALS2	ALS2	LS2
2	eTASC2	---	eTASC2
3	eTASC	---	eTASC
4	---	---	LS1
5	DIAG	DIAG	DIAG
6	---	---	---
7	---	---	---



ACHSE AXLE ESSIEU	pm (bar)		6.5		pm (bar)		0.8		2.0		---		6.5		TYP TYPE	(mm)	(mm)	(bar)	
	1.0	Pz	1.0	Pz	1.0	Pz	1.0	Pz	1.0	Pz	1.0	Pz	1.0	Pz				1.0	Pz
	TR (daN)		TR (daN)		TR (daN)		TR (daN)		TR (daN)		TR (daN)		TR (daN)						
1	2100	1.0	2.1	8000	5.1	0.4	1.3	---	6.1	-	20	65	69	518	4360				
2	2100	1.0	2.1	8000	5.1	0.4	1.3	---	6.1	-	20	65	69	518	4360				
3	1900	0.9	1.8	6350	3.9	0.3	1.4	---	4.8	-	14 / 16	64	69	498	2826				
4	1900	0.9	1.8	6350	3.9	0.3	1.4	---	4.8	-	14 / 16	64	69	498	2826				
5	1900	0.9	1.8	6350	3.9	0.3	1.4	---	4.8	-	14	64	69	498	2826				

VIN #:
7A9E25012K1023896

Tare CoG 0.6

GVM 32000
Tare mass 9900

Payload CoG

H_{deck} 0.96
 H_{load} 3.34
 H_{cog} 2.630

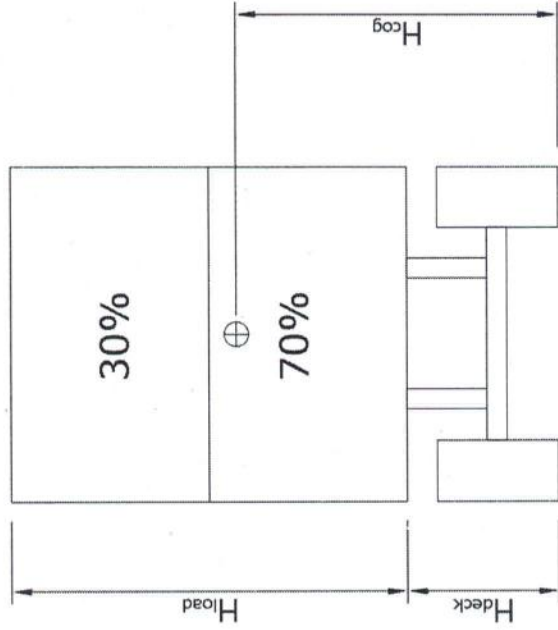
Payload mass 22100

Freight option 0.5
- mixed freight - 0.4
- uniform density - 0.5

Combined CoG

2.002

Mixed Freight



MIXED FREIGHT 0.4
UNIFORM DENSITY 0.5

$$H_{cog} = 0.4H_{load} + H_{deck}$$



P.O.Box 98-971

South Auckland Mail Centre

JOHN HIRST

JEH

TRSP

SODC ENDORSED BY:

DATE:

6-Nov-19

WABCO TEBS - E

CERT. NO:

JH191104

BRAKE CALCULATION #:

TP51813

VIN / CHASSIS:

7 A 9 E 2 5 0 1 2 K 1 0 2 3 8 9 6

BRAKE CHAMBERS:

Make

Max stroke (mm)

AXLE 1 & 2

TSE_CHAMBERS

20HSCLD

65

AXLE 3 & 4

TSE_CHAMBERS

1416HTLD

64

AXLE 5

TSE_CHAMBERS

14HSCLD

64

LEVER LENGTH FRONT (mm):

69

TYRE SIZE FRONT:

215 75 R17.5

LEVER LENGTH REAR (mm):

69

TYRE SIZE REAR:

215 75 R17.5

THIS VEHICLE COMPLIES WITH THE NZ

JURID 539

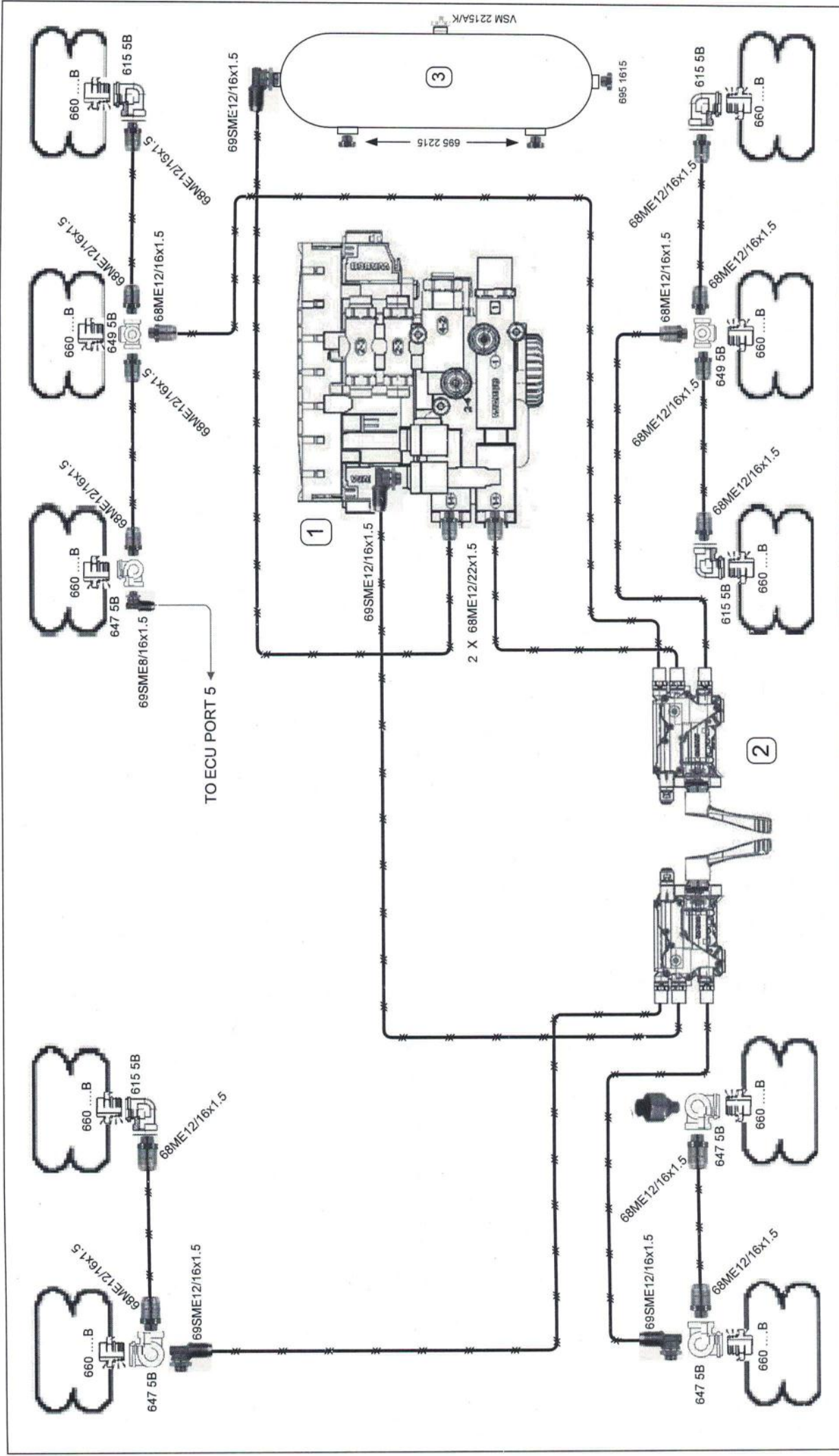
HEAVY VEHICLE BRAKE RULE 32015/5, SCHEDULE 5

LINING MATERIAL FRONT:

JURID 539

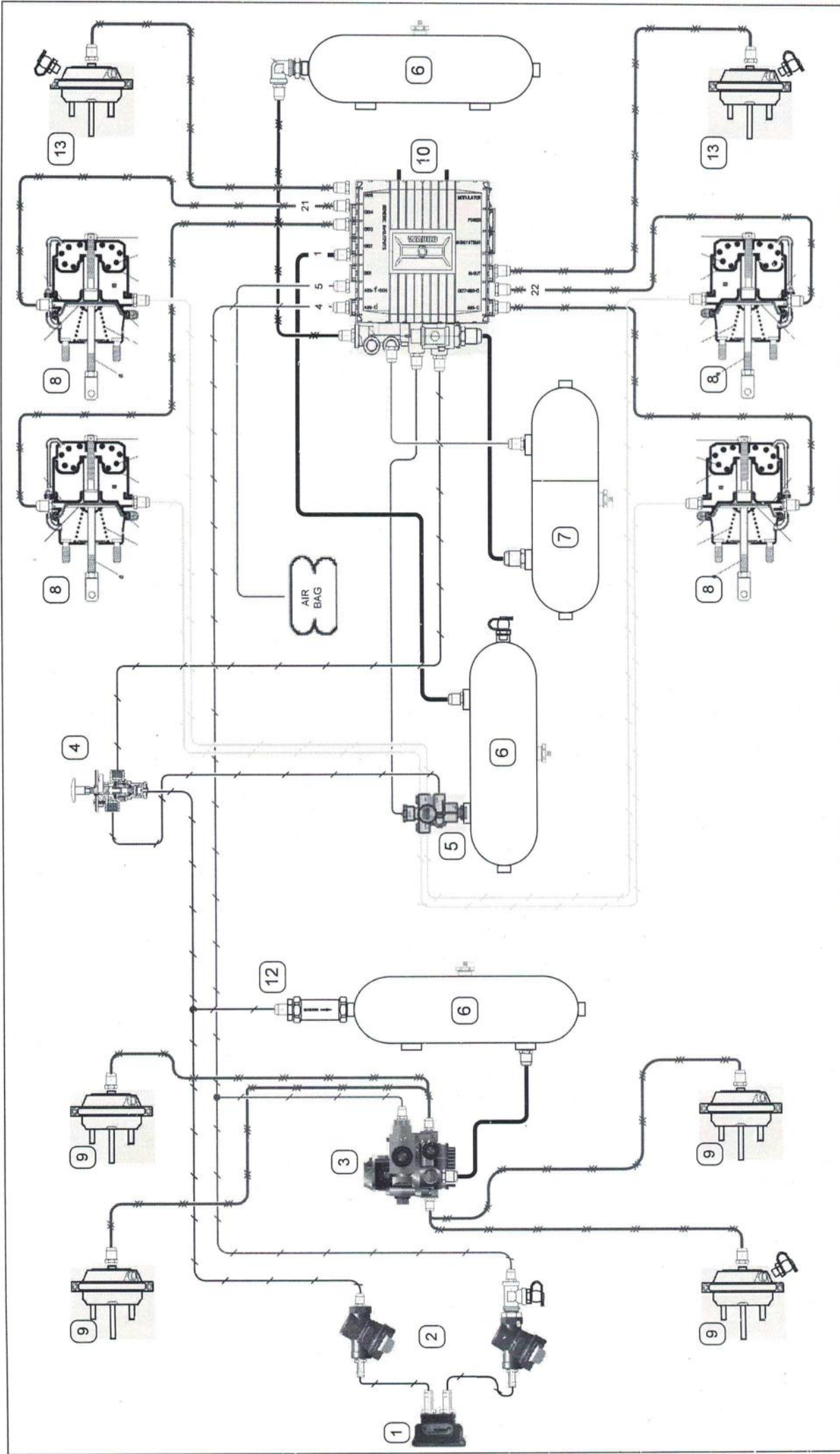
LINING MATERIAL REAR:

JURID 539



ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	480 102 08. 0	WABCO TEBS E (IN BRAKE KIT)					3/8" Rubber
2	2	463 090 500 0	e-TASC VALVE					3/8" Rubber
3	1	9TA3104600	46 LTR AIR TANK					12mm Nylon
								15mm Nylon
								12mm Nylon
								8mm Nylon
								8mm Nylon
								8mm Nylon

ALUMINIUM TANK		DATE	19/1/2016
eTASC 2 Point control		ASS'Y/PRT NUMBER	ECAS12P15A/ALU
ITEM	SYSTEM	PAGE NO.	1/2
WABCO		W. Sindclair	E & OE
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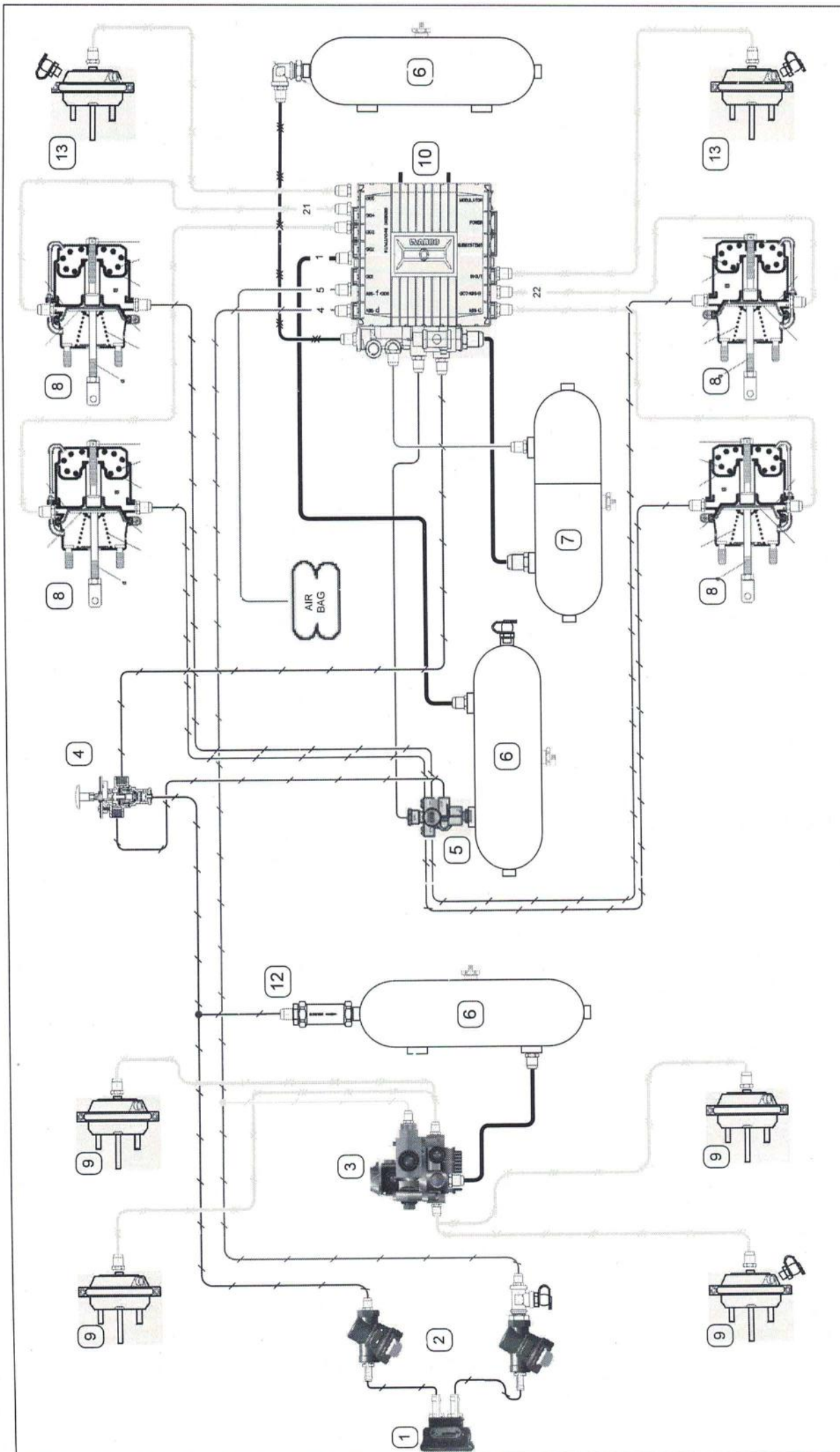


ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	452 804 001 0	WABCO DIOMATIC	9	4	20HSCLD65	TSE BRAKE CHAMBERS	3/8" Rubber
2	2	432 500 020 0	WABCO LINE FILTER	10	1	480 102 08. 0	WABCO EBS ECU	3/8" Rubber
3	1	480 207 202 0	WABCO EBS 3 RD MODULATOR	11	1	15390	SEALCO PRV	1/2" Rubber
4	1	17800B	SEALCO YARD RELEASE	12	1	434 014 000 0	WABCO CHECK VALVE	15mm Nylon
5	1	110701	SEALCO S.B.C.V.	13	2	14HSCLD64	TSE BRAKE CHAMBER	12mm Nylon
6	3	9TA3104600	46 LTR AIR TANK					8mm Nylon
7	1	9TA31045XX	20L/25LT AIR TANK					8mm Nylon
8	4	1416HTLD64	TSE BRAKE CHAMBERS					8mm Nylon

DOMETT TRAILERS

5AFT LIVESTOCK
7A9E25012K1023896

SIZE	REV
A4	1
SPEC REFERENCE	
1896	
SERVICE BRAKE LINES	
SCALE	



ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	452 804 001 0	WABCO DUOMATIC	9	4	20HSCLD65	TSE BRAKE CHAMBERS	3/8" Rubber
2	2	432 500 020 0	WABCO LINE FILTER	10	1	480 102 08. 0	WABCO EBS ECU	3/8" Rubber
3	1	480 207 202 0	WABCO EBS 3 RD MODULATOR	11	1	14800	SEALCO PPE	1/2" Rubber
4	1	17800B	SEALCO YARD RELEASE	12	1	434 014 000 0	WABCO CHECK VALVE	15mm Nylon
5	1	110701	SEALCO S.B.C.V.	13	2	14HSCLD64	TSE BRAKE CHAMBER	12mm Nylon
6	3	9TA3104600	46 LTR AIR TANK					8mm Nylon
7	1	9TA31045XX	20LT/25LT AIR TANK					8mm Nylon
8	4	1416HTLD64	TSE BRAKE CHAMBERS					8mm Nylon

DOMETT TRAILERS
5AFT LIVESTOCK
7A9E25012K1023896

REV 1
 SPEC REFERENCE
 SIZE A4
 1896
 SCALE
 PARK BRAKE LINES



WABCO
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WABCO START-UP LOG

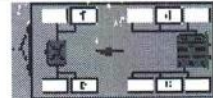
System	Trailer EBS-E	WABCO part number	480 102 084 0
Production date	2019-05-20	Serial number	437007526300A
Serial number (modulator)	000000000057		
Fingerprint Customer EOL / Customer Development / Flash Program	W033869 / 2019-11-11 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

WABCO TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.00
361-037-08

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS		
TYP TYPE	5AFT STOCK		
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9E25012K1023896		
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP51813A		
POLRADZAHNEZAHL c-d e-f POLE WHEEL TEETH c-d e-f DENTS ROUE DENTEE c-d e-f	80	80	ABS-System ABS-System Système ABS 4S/3M
RSS RSS RSS	Einfachbereifung Single Tire Monte simple	Lenkachse Steering axle Essieu vireur	
	Zwillingsbereifung Twin Tire Monte jumelée	X	Kippkritisches Fahrzeug Critical Trailer Véhicule critique
Subsystems	SB	I/O	24N

GIO	Pin1	Pin3	Pin4
1	ALS2	ALS2	LS2
2	eTASC2	---	eTASC2
3	eTASC	---	eTASC
4	---	---	LS1
5	DIAG	DIAG	DIAG
6	---	---	---
7	---	---	---




ACHSE AXLE ESSIEU	pm (bar)			pm (bar)			pz	TYP TYPE	(mm)	(mm)	(bar)				
	1.0	2.1	6.5	0.8	2.0	6.5					1.0	Pz			
1	2100	1.0	2.1	8000	5.1	0.4	1.3	---	6.1	-	20	65	69	518	4360
2	2100	1.0	2.1	8000	5.1	0.4	1.3	---	6.1	-	20	65	69	518	4360
3	1900	0.9	1.8	6350	3.9	0.3	1.4	---	4.8	-	14 / 16	64	69	498	2826
4	1900	0.9	1.8	6350	3.9	0.3	1.4	---	4.8	-	14 / 16	64	69	498	2826
5	1900	0.9	1.8	6350	3.9	0.3	1.4	---	4.8	-	14	64	69	498	2826

TEBS-E

Diagnostic memory	OK	Warning lamp control	OK
Parameter setting	carried out	Stop light supply	Not tested
EBS pressure test	OK	Lifting axle test	Not tested
Redundancy test	OK	ECAS height sensor calibration	Not tested
ABS sensor assignment	OK	Height sensor axle load	Not tested
RTR test	Not tested	Leak test	Not tested
Immobilizer test	Not tested	Signal outputs	Not tested
Signal inputs	Not tested	Tag axle test	Not tested

Electronic Extension Module

Diagnostic memory	Not tested	Signal outputs	Not tested
TailGUARDlight	Not tested	TailGUARD	Not tested
Manufacturer	DOMETT TRAILERS	Vehicle ident. no	7A9E25012K1023896
Vehicle type	5AFT STOCK	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tester	Ron Pratt	Signature 	
Date	2019-11-11 3:41:24 PM		

trailer (full, semi-, centre-axle) with air brake system acc. to 71/320/EEC, last amended by 98/12/EC and 2006/96/EC

distribution: DOMETT TRAILERS
 7A9E25012K1023896
 SODC: JH191104
 LT400: CJC

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 03.11.2017

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT STOCK
 trailer type : 5-axle-full-trailer
 remarks : air / hydraulic / VA suspension
 EC w.o.annexVII
 WABCO TRAILER - EBS E
 TRISTOP 3+4: T.14/24 [TSE1416HTLD64 ACTUALLY FITTED - SEE PAGE 6 FOR PERFORMANCE DATA]
 215/75 R 17,5 - 235/75 R 17,5

axle 1 + 2 + 3 + 4 + 5 : IMT, WABCO PAN-17, 361-037-08 ECE,

		unladen	laden
total mass	P in kg	9900	35050
axle 1	P1 in kg	2100	8000
axle 2	P2 in kg	2100	8000
axle 3	P3 in kg	1900	6350
axle 4	P4 in kg	1900	6350
axle 5	P5 in kg	1900	6350
wheel base	E in mm	7400 - 7900	
centre of gravity height	h in mm	1050	2280

		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	KDZ	2	2	2	2	2
The power output corresponds to		BZ 122.1	BZ 122.1	BZ 119.6	BZ 119.6	BZ 122.1
brake chamber manufacturer		Meritor	Meritor	Meritor	Meritor	Meritor
chamber size		20.	20.	T.14/24	T.14/24	14.
lever length	lBh in mm	69	69	69	69	69
brake factor	[-]	19.98	19.98	19.98	19.98	19.98
dyn. rolling radius	rdyn min in mm	373	373	373	373	373
dyn. rolling radius	rdyn max in mm	387	387	387	387	387
threshold torque	Co Nm	3.4	3.4	3.4	3.4	3.4

calculation:

chamber pressure (rdyn min) pH at z=22,5%bar	2.2	2.2	2.1	2.1	2.1
chamber pressure (rdyn max) pH at z=22,5%bar	2.3	2.3	2.1	2.1	2.1
chamber press. (servo) pcha at pm6,5bar bar	6.1	6.1	4.8	4.8	4.8
piston force ThA at pm6,5bar N	7071	7071	4586	4586	4586
brake force (rdyn min) T lad. at pm6,5bar N	52992	52992	34350	34350	34350
brake force (rdyn max) T lad. at pm6,5bar N	51104	51104	33130	33130	33130
brake force within 1 % rolling friction proportion %	22.3	22.3	18.5	18.5	18.5

braking rate z laden 0.608 for rdyn min
 z = sum (TR)/PRmax 0.586 for rdyn max

Trailer may only be operated in combination with trucks/tractors with ISO 7638 supply (5 or 7 polar).

brake diagram :

maximum pressure: 8.5 bar

axle 1:

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

brake cylinder: Meritor 20HSCLD65

axle 2:

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

brake cylinder: Meritor 20HSCLD65

axle 3:

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

brake cylinder: Meritor 1424HTLD64

axle 4:

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

brake cylinder: Meritor 1424HTLD64

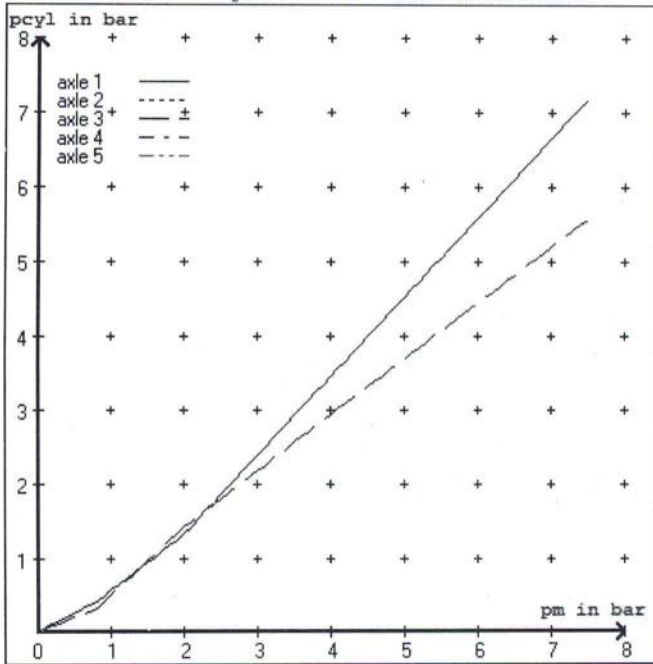
axle 5:

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

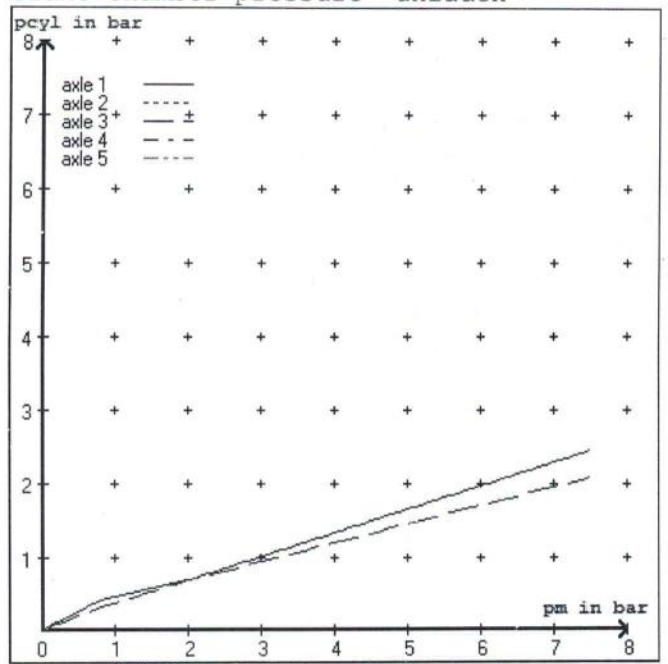
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.6 bar =>	pcha in bar :	3.0	3.0	2.6	2.6	2.6	2.6
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 1.3 bar =>	pcha in bar :	0.8	0.8	0.7	0.7	0.7	0.7

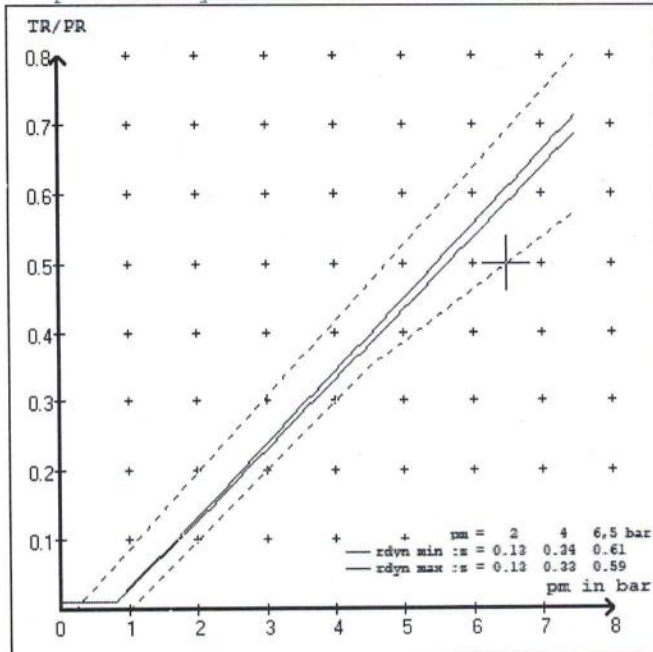
brake chamber pressure laden



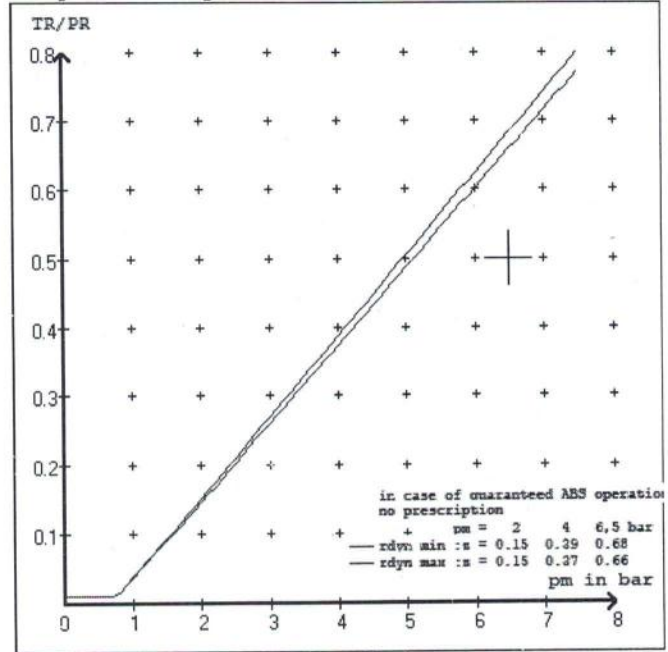
brake chamber pressure unladen



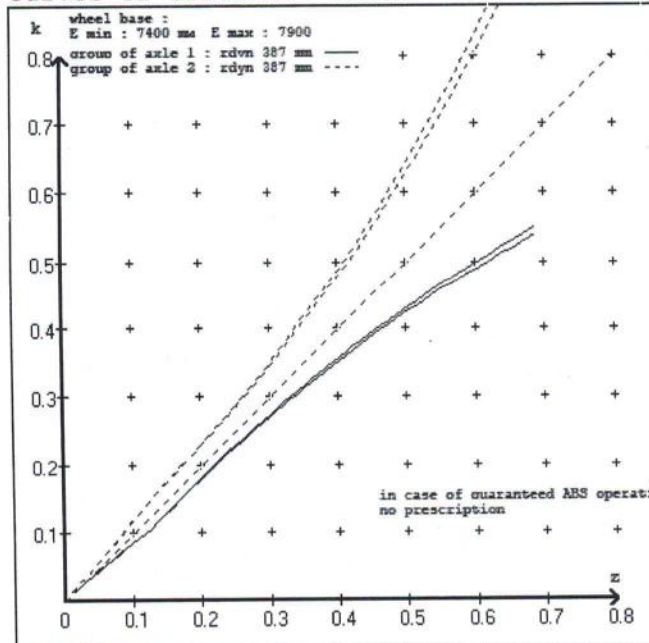
compatibility band laden



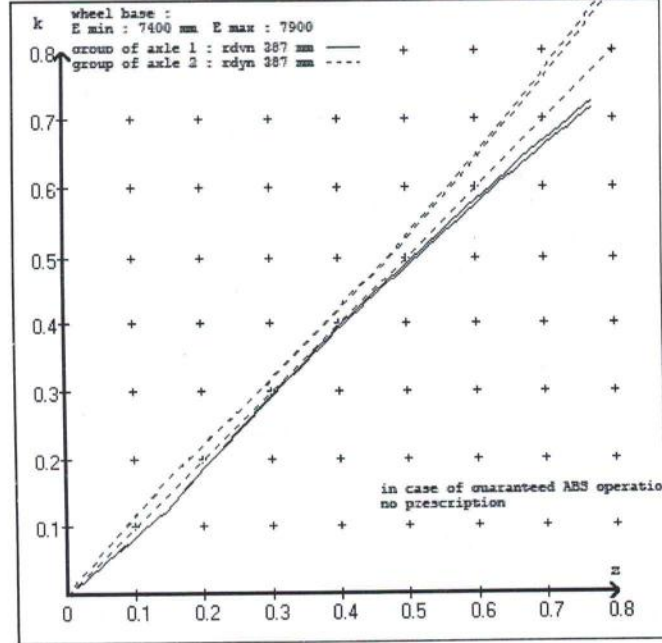
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT STOCK
 trailer type : 5-axle-full-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter 20. (Meritor) lever length 69 mm
 axle 2 : 2 x type/diameter 20. (Meritor) lever length 69 mm
 axle 3 : 2 x type/diameter T.14/24 (Meritor) lever length 69 mm
 axle 4 : 2 x type/diameter T.14/24 (Meritor) lever length 69 mm
 axle 5 : 2 x type/diameter 14. (Meritor) lever length 69 mm

brake diagram :

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 : 5AFT STOCK
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 51813A

tire circumference main axle : 2425 for rdyn max
 tire circumference auxiliary axle : 2425 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	2100	to be	2.1	8000	to be	0.4	1.3	6.1
2	2100	entered by the vehicle manufact.	2.1	8000	entered by the vehicle manufact.	0.4	1.3	6.1
3	1900		1.8	6350		0.3	1.4	4.8
4	1900		1.8	6350		0.3	1.4	4.8
5	1900		1.8	6350		0.3	1.4	4.8

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	pcyl	axle load	pcyl	axle load	pcyl	axle load	pcyl	axle load	pcyl
2100	2.1	2100	2.1	1900	1.8	1900	1.8	1900	1.8
2600	2.4	2600	2.4	2400	2.1	2400	2.1	2400	2.1
3100	2.8	3100	2.8	2900	2.5	2900	2.5	2900	2.5
3600	3.1	3600	3.1	3400	2.8	3400	2.8	3400	2.8
4100	3.5	4100	3.5	3900	3.1	3900	3.1	3900	3.1
4600	3.8	4600	3.8	4400	3.5	4400	3.5	4400	3.5
5100	4.1	5100	4.1	4900	3.8	4900	3.8	4900	3.8
5600	4.5	5600	4.5	5400	4.2	5400	4.2	5400	4.2
8000	6.1	8000	6.1	6350	4.8	6350	4.8	6350	4.8

spring parking brake

		<u>axle 3</u>	<u>axle 4</u>
no of TRISTOP-actuators per axle line KDZ		2	2
TRISTOP-actuator type		T.14/16	T.14/16
lever length	lBh in mm	69	69
stat. tyre radius	rstat max in mm	376	376
at a stroke of	s in mm	30	30
min. force of spring brake	TFZ in N	6160	6160
sp.brake chamber no Meritor.....		4	4
release pressure	pLS in bar	4.8	4.8

calculation:

ratio until road		3.6878	3.6878
$iFb = lBh * \eta * C * rBt / (rBn * rstat)$			
	for rstat in mm	376	376
brake force of spring br. Tf in N		45070	45070
$Tf = (TFZ * KDZ - 2 * Co / lBh) * iFb$			
braking rate	zf laden	0.272	
$zf = \sum (Tf) / P + 0,01$			

Test of the frictional connection required by the parking brake

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

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

$$\min Ef = 5718 \text{ mm} \quad \text{for } E = 7400 \text{ mm}$$

$$\min Ef = 6063 \text{ mm} \quad \text{for } E = 7900 \text{ mm}$$

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 = 2280 mm height of center of gravity - laden

PR = 19050 kg maximum bogie mass - laden

P = 35050 kg maximum total mass - laden

nf = 2 no. of axle(s) with TRISTOP spring brake actuators

ng = 3 no. of bogie axle(s)

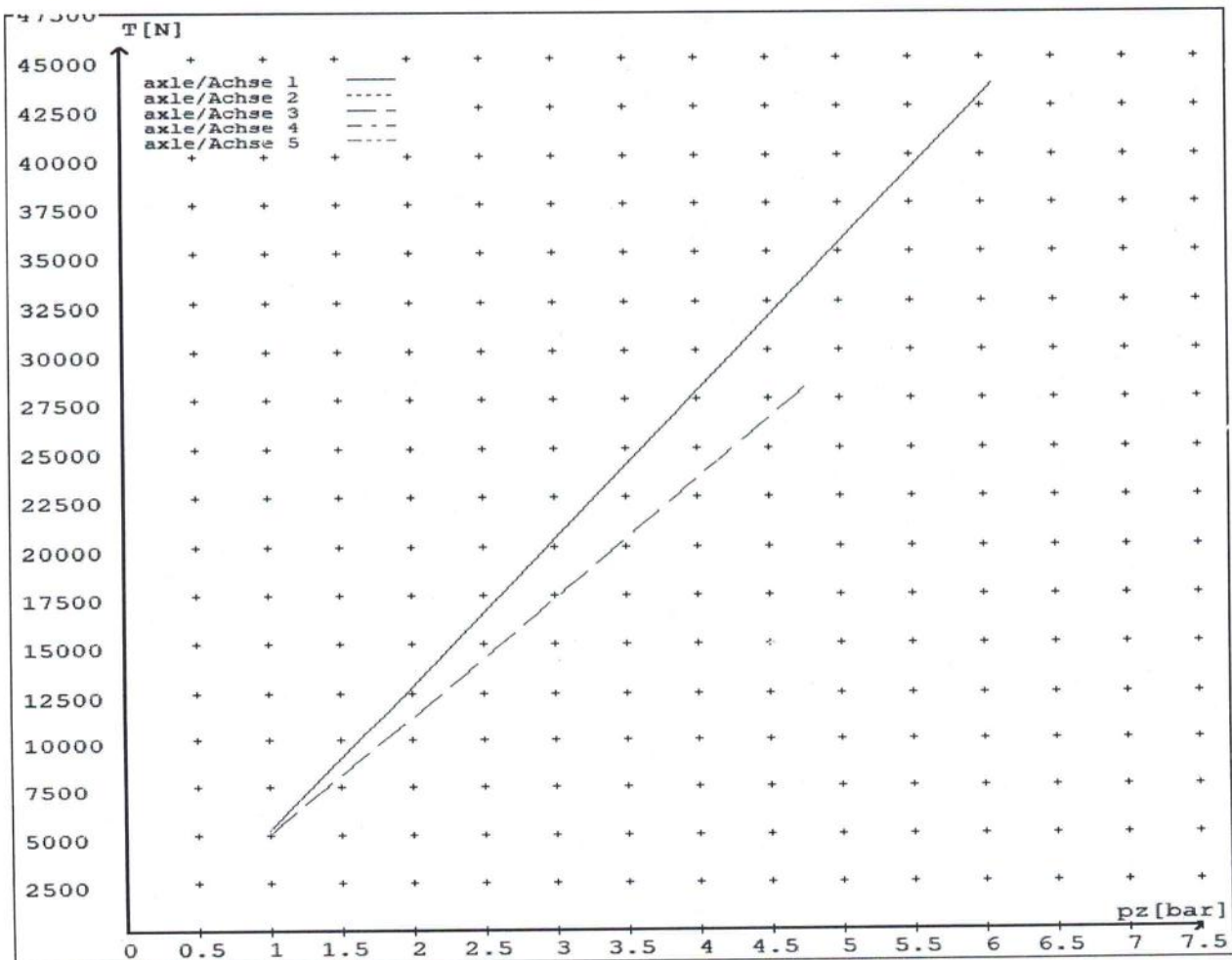
reference values

reference values for z = 50% for max rdyn: 387 mm

	pz [bar]	T [N]	T [N]
axle 1	1.0	5186	
	6.1	43604	
axle 2	1.0	5186	
	6.1	43604	
axle 3	1.0		4987
	4.8		28268
axle 4	1.0		4987
	4.8		28268
axle 5	1.0		4987
	4.8		28268

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	20./	T.14/24	T.14/24	14./
Maximum stroke smax = ...mm maximaler Hub smax =mm	65	65	64	64	64
Lever length =mm Hebellänge =mm	69.4	69.4	69.4	69.4	69.4



reference values for $z = 0.5$

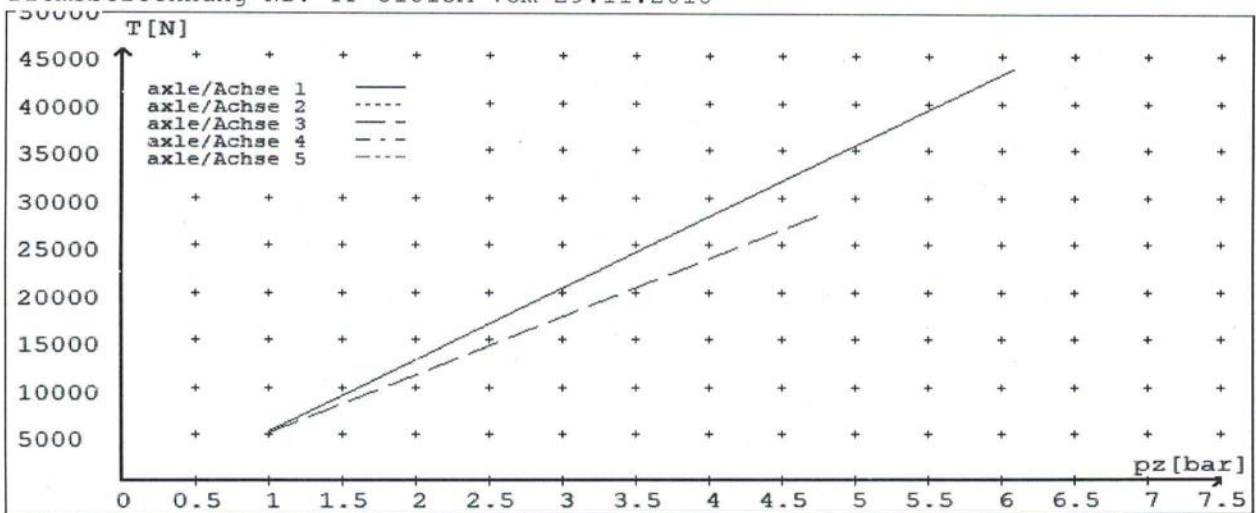
for max rdyn: 387 mm

Angabe der Referenzwerte für $z = 0.5$

für max rdyn: 387 mm

brake calculation no: TP 51813A date 29.11.2018

Bremsberechnung Nr: TP 51813A vom 29.11.2018



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	20./	T.14/24	T.14/24	14./
Maximum stroke $s_{max} = \dots$ mm maximaler Hub $s_{max} = \dots$ mm	65	65	64	64	64
Lever length = \dots mm Hebellänge = \dots mm	69.4	69.4	69.4	69.4	69.4