

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) **CHRIS CLARKE** ID **CJC**

Vehicle registration (optional) _____ VIN/chassis number **7A9E5001XH1023681**

Make **DOMETT TRAILERS** Component being certified: Chassis Load anchorage

Model (optional) _____ Log bolsters Towing connection Brakes

Certification category **HVEK** 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 TYRE SIZE = 265 70 R 19.5

Code/standard/rule certified to **LTR 32015/4** Component load rating(s) **33 Tonnes GVM**

General drawing number(s) **N/A** **35 Total group ratings**

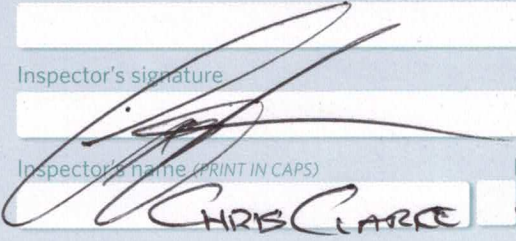
Supporting documents
BRAKE CODE CERTIFICATE JH171207
BRAKE CALCULATION # TP51679

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 
Inspector's name (PRINT IN CAPS) **CHRIS CLARKE** ID number **CJC**
Date **5-Dec-17** Number **618162**

CoF vehicle inspector ID _____ CoF vehicle inspector signature _____ Date _____

All fields are mandatory unless otherwise stated.

WABCO START-UP LOG

System	Trailer EBS-E	WABCO part number	480 102 084 0
Production date	2016-09-19	Serial number	437003147100L
Serial number (modulator)	000000001569		
Fingerprint Customer EOL / Customer Development / Flash Program	W503643 / 2017-12-05 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

WABCO	TRAILER EBS-E	GGVS/ADR TUEH TB 2007 - 019.00 361-005-16
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HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS			GIO	Pin1	Pin3	Pin4
TYP TYPE TYPE	5AFT SKELETAL			1	24V-O1	---	---
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9E5001XH1023681			2	---	---	---
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP51679A			3	ALS2	ALS2	---
POLRADZAHNEZAHL c-d e-f POLE WHEEL TEETH c-d e-f DENTS ROUE DENTÉE c-d e-f	90	90	ABS-System ABS-System Système ABS	4	---	---	---
RSS RSS RSS	Einfachbereifung Single Tire Monte simple		Lenkachse Steering axle Essieu vireur	5	DIAG	DIAG	DIAG
	Zwillingbereifung Twin Tire Monte jumelée	X	Kippkritisches Fahrzeug Critical Trailer Vehicule critique	6	---	---	---
Subsystems	SB	I/O	24N	7	---	---	---

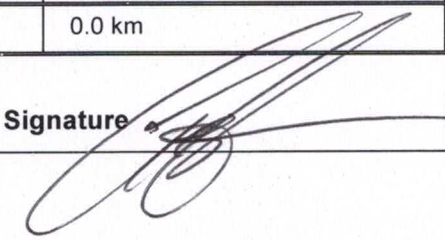
ACHSE AXLE ESSIEU	6.5		6.5				pZ	TYP TYPE	(mm)	(mm)	(bar)				
	pm	0.4	pm	0.8	2.0	---					6.5	1.0	Pz		
1	1200	0.4	1.3	8000	4.4	0.4	1.3	---	5.7	-	20	66	76	542	4439
2	1200	0.4	1.3	8000	4.4	0.4	1.3	---	5.7	-	20	66	76	542	4439
3	850	0.1	1.0	6400	3.5	0.4	1.5	---	4.4	-	16 / 24	65	76	442	2799
4	850	0.1	1.0	6400	3.5	0.4	1.5	---	4.4	-	16 / 24	65	76	442	2799
5	850	0.1	1.0	6400	3.5	0.4	1.5	---	4.4	-	16	65	76	442	2799

TEBS-E

Diagnostic memory	OK	Warning lamp control	OK
Parameter setting	carried out	Stop light supply	Not OK
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	7A9E5001XH1023681
Vehicle type	5AFT SKELETAL	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tester	Chris Clarke	Signature 	
Date	2017-12-05 3:18:07 p.m.		

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

distribution: DOMETT TRAILERS
 7A9E5001XH1023681
 SODC: JH171207
 LT400: CJC 618162

please note!

This brake calculation is made under consideration of
 -the legal prescriptions mentioned above in the version valid at the time of making the program (V6.14.04.20).
 -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 : 5AFT SKELETAL
 trailer type : 5-axle-full-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS E
 TRISTOP 3+4: 16/24
 265/70 R 19,5
 FRONT CHAMBERS ARE T20 HALDEX [125 200 001]

axle 1 + 2 + 3 + 4 + 5 : Assali Stefen, R, 361-005-16,

		unladen	laden
total mass	P in kg	4950	35200
axle 1	P1 in kg	1200	8000
axle 2	P2 in kg	1200	8000
axle 3	P3 in kg	850	6400
axle 4	P4 in kg	850	6400
axle 5	P5 in kg	850	6400
wheel base	E in mm	7900 - 8000	
centre of gravity height	h in mm	1000	2405

	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	BC 0165.0	BC 0165.0	BC 0169.0
brake chamber manufacturer	Meritor	Meritor	Haldex	Haldex	Haldex
chamber size	20.	20.	16/24	16/24	16"
lever length lBh in mm	76	76	76	76	76
brake factor [-]	22.37	22.37	22.37	22.37	22.37
dyn. rolling radius rdyn min in mm	421	421	421	421	421
dyn. rolling radius rdyn max in mm	421	421	421	421	421
threshold torque Co Nm	6.0	6.0	6.0	6.0	6.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar	2.1	2.1	2.0	2.0	2.0
chamber pressure(rdyn max)pH at z=22,5%bar	2.1	2.1	2.0	2.0	2.0
chamber press.(servo)pcha at pm6,5bar bar	5.7	5.7	4.4	4.4	4.4
piston force ThA at pm6,5bar N	6578	6578	4161	4161	4161
brake force(rdyn min)T lad. at pm6,5bar N	53278	53278	33597	33597	33597
brake force(rdyn max)T lad. at pm6,5bar N	53278	53278	33597	33597	33597
brake force within 1 % rolling friction proportion %	22.2	22.2	18.5	18.5	18.5

braking rate z laden 0.600 for rdyn min
 z = sum (TR)/PRmax 0.600 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: Meritor 20HSCLD65

axle 2:

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: Meritor 20HSCLD65

axle 3:

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

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

brake cylinder: Haldex 135 1624 ...

axle 4:

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

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

brake cylinder: Haldex 135 1624 ...

axle 5:

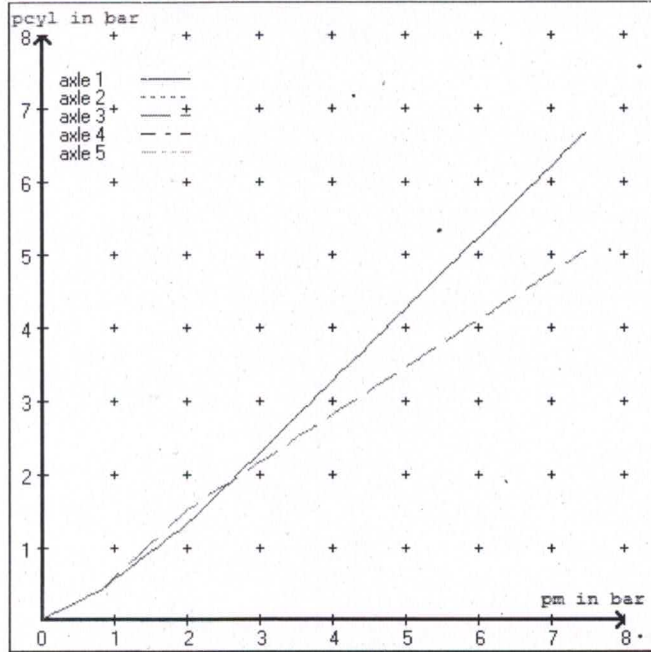
valve 1: 971 002 ... 0 WABCO
EBS emergency valve

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

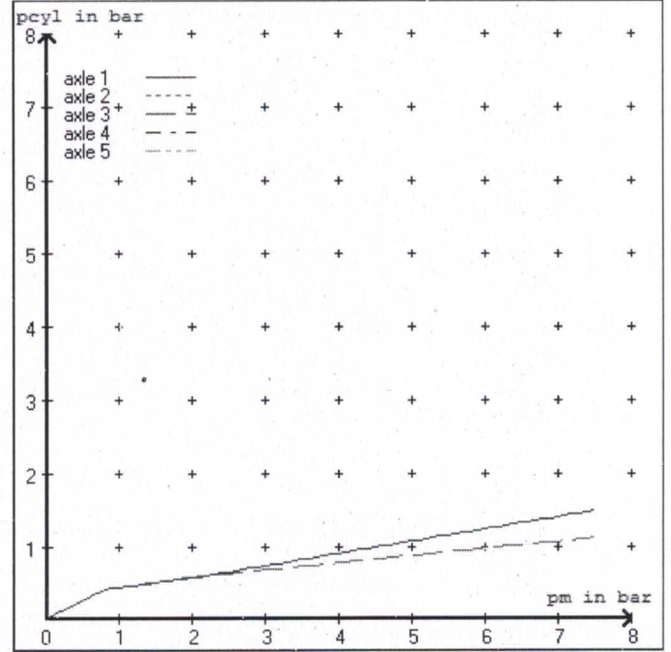
brake cylinder: Haldex 125 160 ...

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.6 bar =>	pcha in bar :	2.8	2.8	2.5	2.5	2.5	2.5
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	0.9	0.9	0.9	0.9

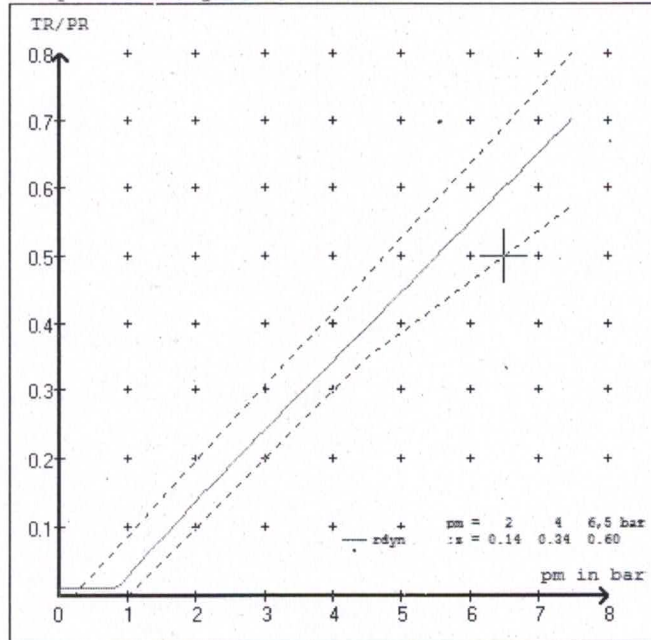
brake chamber pressure laden



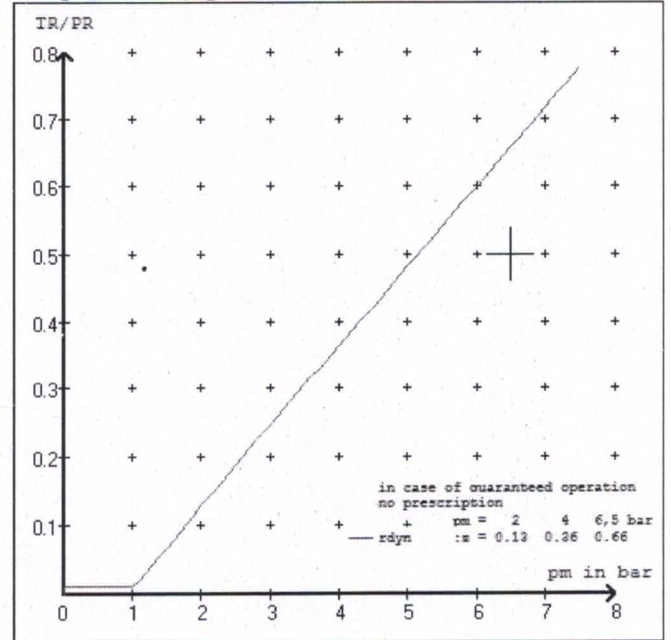
brake chamber pressure unladen



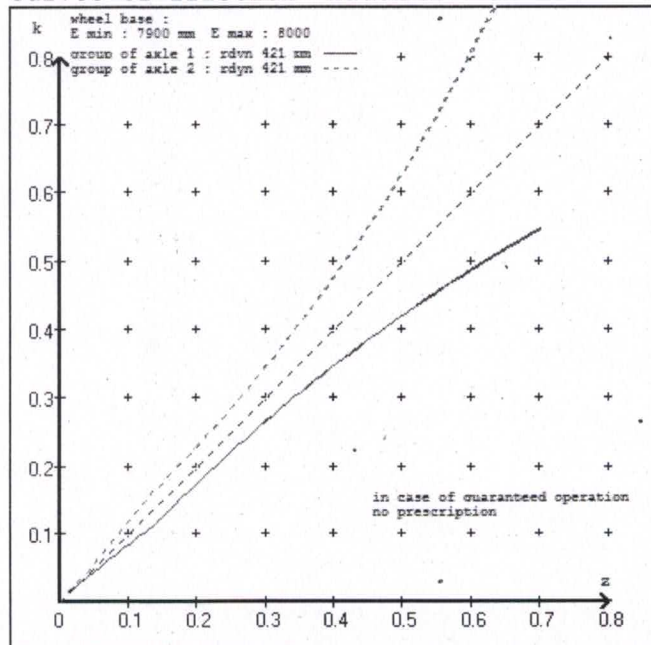
compatibility band laden



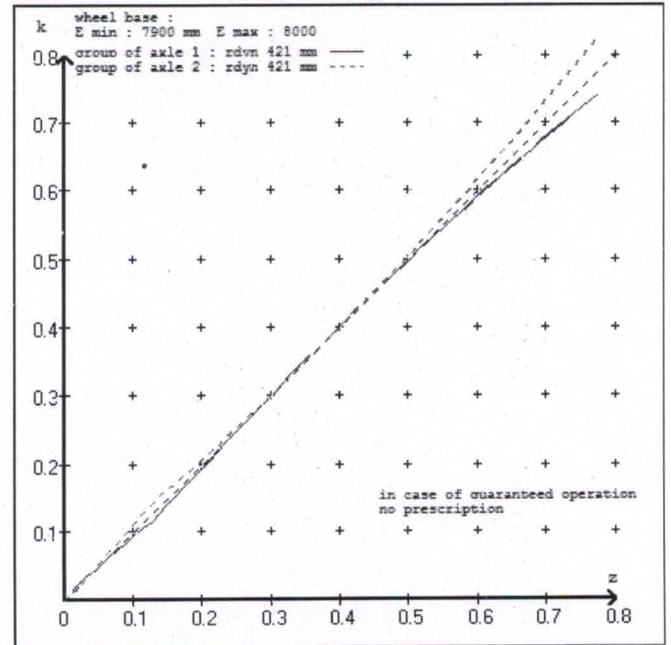
compatibility band unladen



curves of friction laden



curves of friction unladen



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

brake chamber and lever length :

axle 1 : 2 x type/diameter 20. (Meritor) lever length 76 mm
 axle 2 : 2 x type/diameter 20. (Meritor) lever length 76 mm
 axle 3 : 2 x type/diameter 16/24 (Haldex) lever length 76 mm
 axle 4 : 2 x type/diameter 16/24 (Haldex) lever length 76 mm
 axle 5 : 2 x type/diameter 16" (Haldex) lever length 76 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 WABCO EBS trailer modulator

EBS input data

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vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT SKELETAL
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 51679A

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	1200	to be	1.3	8000	to be	0.4	1.3	5.7
2	1200	entered by the vehicle manufact.	1.3	8000	entered by the vehicle manufact.	0.4	1.3	5.7
3	850		1.0	6400		0.4	1.5	4.4
4	850		1.0	6400		0.4	1.5	4.4
5	850		1.0	6400		0.4	1.5	4.4

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
1200 1.3	1200 1.3	850 1.0	850 1.0	850 1.0
1700 1.6	1700 1.6	1350 1.3	1350 1.3	1350 1.3
2200 1.9	2200 1.9	1850 1.6	1850 1.6	1850 1.6
2700 2.3	2700 2.3	2350 1.9	2350 1.9	2350 1.9
3200 2.6	3200 2.6	2850 2.2	2850 2.2	2850 2.2
3700 2.9	3700 2.9	3350 2.5	3350 2.5	3350 2.5
4200 3.2	4200 3.2	3850 2.8	3850 2.8	3850 2.8
4700 3.6	4700 3.6	4350 3.1	4350 3.1	4350 3.1
8000 5.7	8000 5.7	6400 4.4	6400 4.4	6400 4.4

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

axle 1 : reference axle: Assali SteftM or LM or LCen	brake lining: FER 5200 - 215
test report : 361-005-16	date : GA140710 01.07.2014
axle 2 : reference axle: Assali SteftM or LM or LCen	brake lining: FER 5200 - 215
test report : 361-005-16	date : GA140710 01.07.2014
axle 3 : reference axle: Assali SteftM or LM or LCen	brake lining: FER 5200 - 215
test report : 361-005-16	date : GA140710 01.07.2014
axle 4 : reference axle: Assali SteftM or LM or LCen	brake lining: FER 5200 - 215
test report : 361-005-16	date : GA140710 01.07.2014
axle 5 : reference axle: Assali SteftM or LM or LCen	brake lining: FER 5200 - 215
test report : 361-005-16	date : GA140710 01.07.2014

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 = 23.1 % Fe
axle 2 (rdyn 421 mm)	T = 23.1 % Fe
axle 3 (rdyn 421 mm)	T = 16.6 % Fe
axle 4 (rdyn 421 mm)	T = 16.6 % Fe
axle 5 (rdyn 421 mm)	T = 16.6 % Fe

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

axle 1 (sp = 58 mm)	s = 37 mm
axle 2 (sp = 58 mm)	s = 37 mm
axle 3 (sp = 50 mm)	s = 37 mm
axle 4 (sp = 50 mm)	s = 37 mm
axle 5 (sp = 50 mm)	s = 37 mm

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

axle1	ThA = 6578 N
axle2	ThA = 6578 N
axle3	ThA = 4161 N
axle4	ThA = 4161 N
axle5	ThA = 4161 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 = 51344 N
axle 2 (rdyn 421 mm)	T = 51344 N
axle 3 (rdyn 421 mm)	T = 32385 N
axle 4 (rdyn 421 mm)	T = 32385 N
axle 5 (rdyn 421 mm)	T = 32385 N

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

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.60	0.58
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 = 51344 N
axle 2 (rdyn 421 mm)	T = 51344 N
axle 3 (rdyn 421 mm)	T = 32385 N
axle 4 (rdyn 421 mm)	T = 32385 N
axle 5 (rdyn 421 mm)	T = 32385 N

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

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.60	0.58
required braking rate (items 1.5.3 and 1.7.2 to annex 11)		>= 0,4 and >= 0,6*E (0.36)

axle manufacturer	axle 1 + 2 + 3 + 4 + 5
type of brake	Assali Stefen
type of axle	R
	TM or LM or LC
	361-005-16

test report of characteristic value

adm. stat. axle load	Pstat in kg	11000
tested axle load	Pe in kg	11000
max. adm. tyre radius	Rezul in mm	999
adm. cam. torque (6,5 bar)	Czul in Nm	940
lining area per brake	AB in cm ²	305
no. of brake cylinder	-	2
brakefactor (SB) Bf	-	22.37
brakefactor (PB) Bf	-	22.37
threshold torque (Co,dec)	Mo in Nm	6

date	GA140710	01.07.2014
brake lining	FER 5200	- 215
cam torque	Ce in Nm	638
brake force	TeIII in daN	5366
stroke	seIII in mm	37
tested tyre radius	Re in mm	518
tested lever length	le in mm	76
threshold torque (Co,e)	in Nm	6

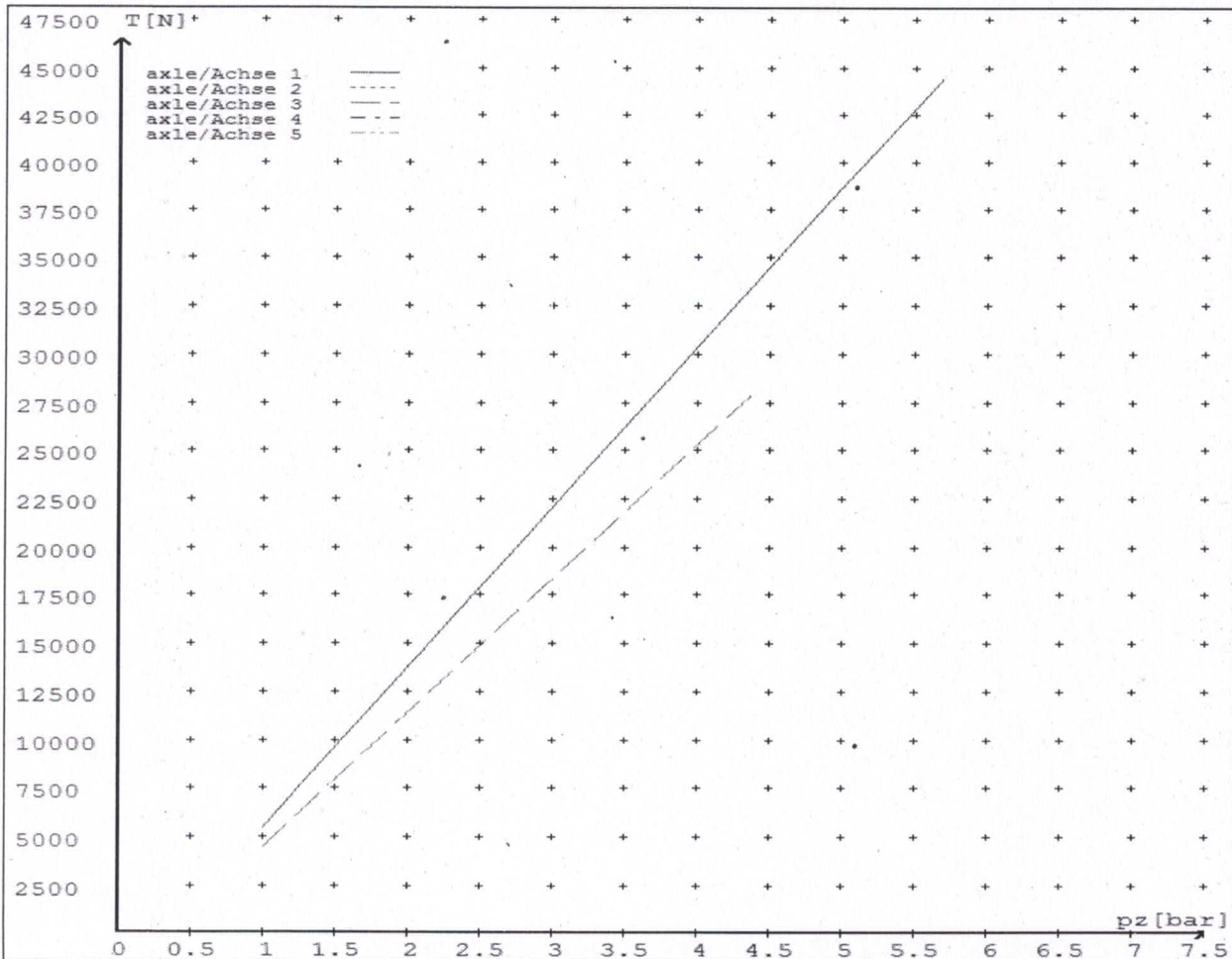
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5426	
	5.7	44398	
axle 2	1.0	5426	
	5.7	44398	
axle 3	1.0		4427
	4.4		27997
axle 4	1.0		4427
	4.4		27997
axle 5	1.0		4427
	4.4		27997

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	20./	16/24	16/24	16"/
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	66	66	65	65	65
Lever length =mm Hebellänge =mm	76	76	76	76	76



reference values for z = 0.5

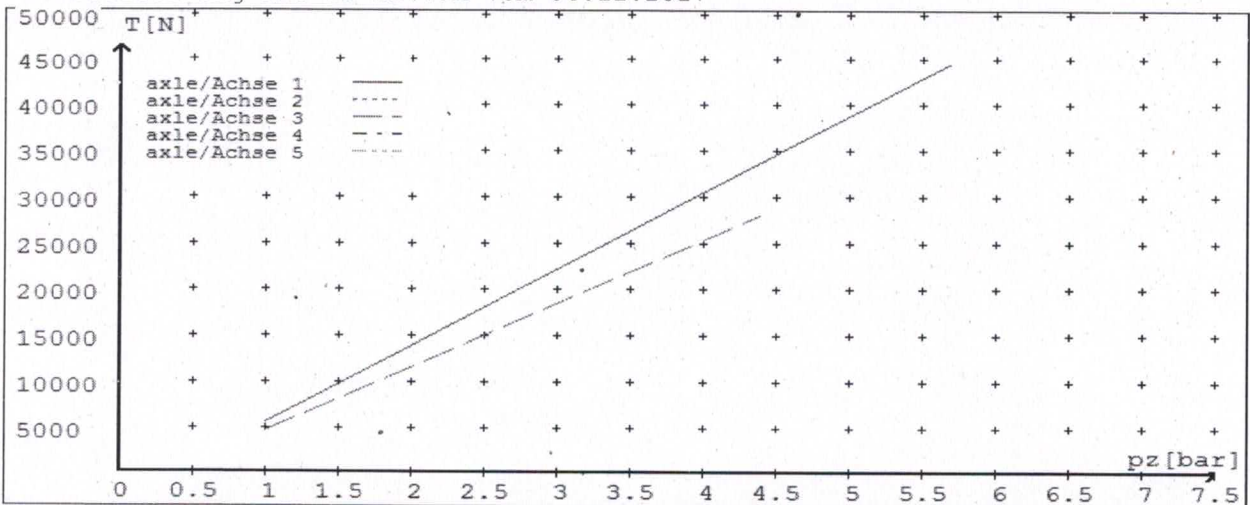
for max rdyn: 421 mm

Angabe der Referenzwerte für z = 0.5

für max rdyn: 421 mm

brake calculation no: TP 51679A date 04.12.2017

Bremsberechnung Nr: TP 51679A vom 04.12.2017



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	20./	16/24	16/24	16"/
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	66	66	65	65	65
Lever length = ...mm Hebellänge = ...mm	76	76	76	76	76

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

CERTIFICATE NO.

JH171207

CUSTOMER NAME

DOMETT TRAILERS

CUSTOMER ORDER NO.

4960

DATE RECEIVED

5-Dec-17

VEHICLE TYPE

SKELETAL

VIN/ CHASSIS NO.

7A9E5001XH1023681

BRIEF SPECIFICATION AS CERTIFIED TO SCHEDULE 5

<u>BRAKE VALVES</u>	<u>MAKE</u>	<u>TYPE</u>
PRIMARY RELAY	WABCO	480 102 080 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
HEIGHT SENSOR	464 008 011 0	464 008 011 0

OTHER VALVES:

MAKE:	WABCO	TYPE:	461 513 002 0	SETTING:	PPV @ 5.5 Bar
MAKE:	_____	TYPE:	_____	SETTING:	_____
MAKE:	_____	TYPE:	_____	SETTING:	_____
MAKE:	_____	TYPE:	_____	SETTING:	_____

BRAKE CHAMBERS:**AXLE 1 & 2****AXLE 3 & 4****AXLE 5****MAKE**

HALDEX

HALDEX

HALDEX

SIZE

20 [125 200 001]

1624 [135 1624 ..]

16 [125 160 ..]

MAX STROKE (mm)

66

65

65

SLACK LENGTH (mm)

76

76

76

DRUM TYPE:

N/A

N/A

N/A

OR**BRAKE CALIPER:**

R (HALDEX)

R (HALDEX)

R (HALDEX)

FRICION MATERIAL: OEM AFTERMARKET**LINING BRAND****AXLE 1 & 2****AXLE 3 & 4****AXLE 5**

FER 5200-215

FER 5200-215

FER 5200-215

OTHERS:**TYRES:****FRONT****REAR**

265 70 R 19.5

265 70 R 19.5

BRAKE CALCULATION #:

TP51679

COMMENTS:

EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 #

SALES ORDER #:

SO1028754

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:**

BRAKE CALCULATION No.: TP51679

FRONT CHAMBERS: HALDEX/GRAU 20 [125 200 001] SHARE THE SAME PERFORMANCE

CHARACTERISTIC AS THE TSE 20HSCLD65.

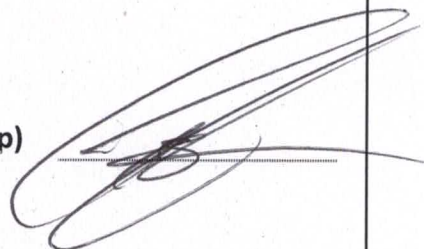
PARK BRAKE $z = .301$ @ 100465 N FOR 35,200 Kgs GVMFRONT FRICTION $\mu = .48$

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: 5-Dec-17

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:
