

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
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Vehicle registration (optional)	VIN/chassis number 7A9E10011H1023578
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Make DOMETT	<input type="checkbox"/> Chassis <input type="checkbox"/> Load anchorage <input checked="" type="checkbox"/> Brakes <input type="checkbox"/> PSV rollover
Model (optional)	<input type="checkbox"/> Log bolsters <input type="checkbox"/> Towing connection <input type="checkbox"/> PSV stability <input type="checkbox"/> PSV rollover
Certification category HVEK	<input type="checkbox"/> SRT <input type="checkbox"/> Swept path <input type="checkbox"/> PBS

Description of work

**CERTIFY TO HEAVY VEHICLE BRAKE RULE 32015/4.
NEW ZEALAND HEAVY VEHICLE BRAKE SPECIFICATION.**

Code/standard/rule certified to SCHEDULE 5	Component load rating(s) GVM 30,000 Kgs
General drawing number(s) N/A	BRAKES 35,200 Kgs

Supporting documents

BRAKE CODE CERTIFICATE LC170311

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) UNTIL MODIFIED or CHANGE OF USE	or	Hubodometer reading (whichever comes first)
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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 **17-May-17** Number **587592**

CoF vehicle inspector ID	CoF vehicle inspector signature	Date
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All fields are mandatory unless otherwise stated.

WABCO START-UP LOG

System	Trailer EBS-E	WABCO part number	480 102 064 0
Production date	2017-02-07	Serial number	436031058500A
Serial number (modulator)	000000142153		
Fingerprint Customer EOL / Customer Development / Flash Program	W503643 / 2017-05-17 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

WABCO		TRAILER EBS-E		GGVS/ADR TUEH TB 2007 - 019.00 TDB0870															
HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT T&T		GIO	Pin1	Pin3	Pin4													
TYP TYPE TYPE	5AFT TANKER		1	ILS1	---	ILS1													
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9E10011H1023578		2	eTASC	---	eTASC													
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP2017 SAF NEW		3	ALS2	ALS2	---													
POLRADZAHNEZAHL e-d e-f POLE WHEEL TEETH e-d e-f DENTS ROUE DENTÉE e-d e-f	90	90	4	---	---	LS1													
		ABS-System ABS-System Système ABS	5	DIAG	DIAG	DIAG													
RSS RSS RSS	Einfachbereifung Single Tire Monte simple	Lenkachse Steering axle Essieu vireur	6	---	---	---													
	Zwillingsbereifung Twin Tire Monte jumelle	Kipptisches Fahrzeug Critical Trailer Vehicule critique	7	---	---	---													
Subsystems	---	I/O	24N																
ACHSE AXLE ESSIEU	pm (bar)	6.5	pm (bar)	0.8	2.0	---	6.5	---	---	---	---	---	---	---	---	---	---	---	---
1	1400	0.5	1.5	8000	5.1	0.4	1.3	---	5.8	-	18	65	69	506	3799	---	---	---	
2	1400	0.5	1.5	8000	5.1	0.4	1.3	---	5.8	-	18	65	69	506	3799	---	---	---	
3	1100	0.3	1.2	6400	3.9	0.3	1.4	---	4.6	-	14 / 16	64	69	500	2781	---	---	---	
4	1100	0.3	1.2	6400	3.9	0.3	1.4	---	4.6	-	14 / 16	64	69	500	2781	---	---	---	
5	1100	0.3	1.2	6400	3.9	0.3	1.4	---	4.6	1	14	64	69	500	2781	---	---	---	

TEBS-E

Diagnostic memory	OK	Warning lamp control	OK
Parameter setting	carried out	Stop light supply	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 T&T	Vehicle ident. no	7A9E10011H1023578
Vehicle type	5AFT TANKER	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tester	Chris Clarke		
Date	2017-05-17 1:59:56 p.m.		

Signature

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: DOMETTS
2017, 5A, SAF,
NEW TANKER
SAF CALIPERS

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: DOMETTS
trailer model : 2017 5A TANKER, E1001 SAF
trailer type : 5-axle-full-trailer
remarks : air / hydraulic / VA suspension
EC w.o.annexVII
WABCO TRAILER - EBS
TRISTOP 3+4: T.14/24
265/70 R 19,5

axle 1 + 2 + 3 + 4 + 5 : SAF, SBS 1918, TDB 0870 ext01 ECE,

		<u>unladen</u>	<u>laden</u>
total mass	P in kg	6100	35200
axle 1	P1 in kg	1400	8000
axle 2	P2 in kg	1400	8000
axle 3	P3 in kg	1100	6400
axle 4	P4 in kg	1100	6400
axle 5	P5 in kg	1100	6400
wheel base	E in mm	5700 - 5700	
centre of gravity height	h in mm	900	1524

	<u>axle 1</u>	<u>axle 2</u>	<u>axle 3</u>	<u>axle 4</u>	<u>axle 5</u>
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 brake chamber manufacturer	BZ 122.1 Meritor	BZ 122.1 Meritor	BZ 119.6 Meritor	BZ 119.6 Meritor	BZ 122.1 Meritor
chamber size	18.	18.	T.14/24	T.14/24	14.
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	2.2	2.2	2.0	2.0	2.0
chamber pressure(rdyn max)pH at z=22,5%bar	2.2	2.2	2.0	2.0	2.0
chamber press.(servo)pcha at pm6,5bar bar	5.8	5.8	4.6	4.6	4.6
piston force ThA at pm6,5bar N	6172	6172	4385	4385	4385
brake force(rdyn min)T lad. at pm6,5bar N	49996	49996	35408	35408	35408
brake force(rdyn max)T lad. at pm6,5bar N	49996	49996	35408	35408	35408
brake force within 1 % rolling friction proportion %	21.2	21.2	19.2	19.2	19.2

braking rate z laden 0.597 for rdyn min
z = sum (TR)/PRmax 0.597 for rdyn max

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

brake diagram :

maximum pressure: 8.5 bar

axle 1:

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

brake cylinder: Meritor 18HSCLD64

axle 2:

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

brake cylinder: Meritor 18HSCLD64

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

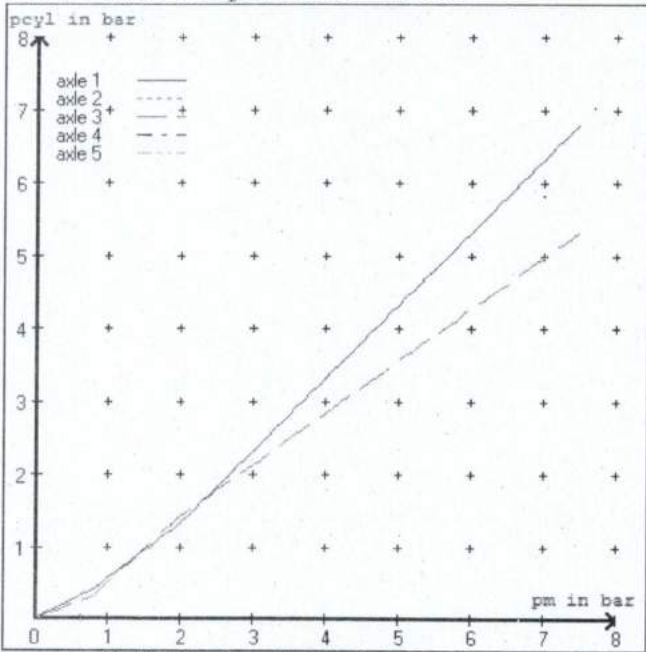
axle 5:

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

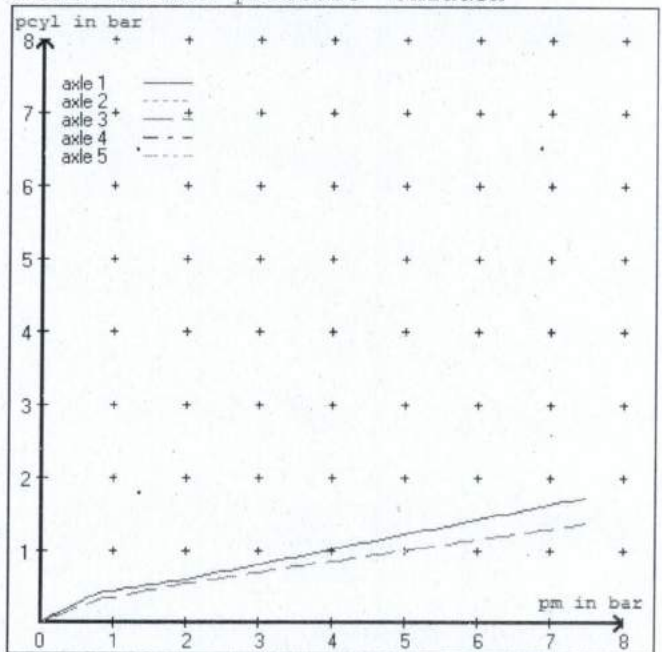
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.6 bar =>	pcha in bar :	2.9	2.9	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	0.7	0.7	0.7	

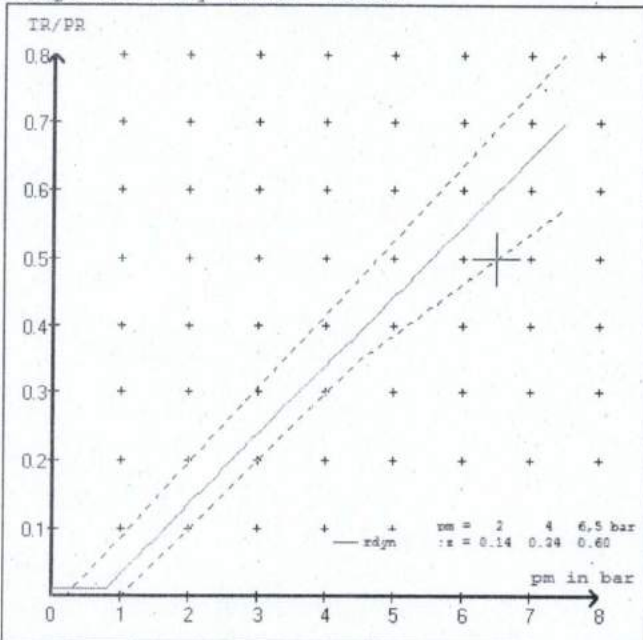
brake chamber pressure laden



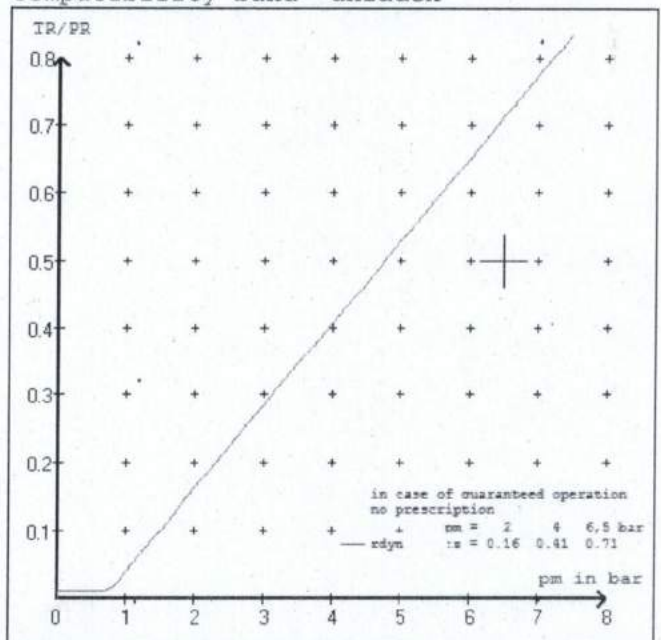
brake chamber pressure unladen



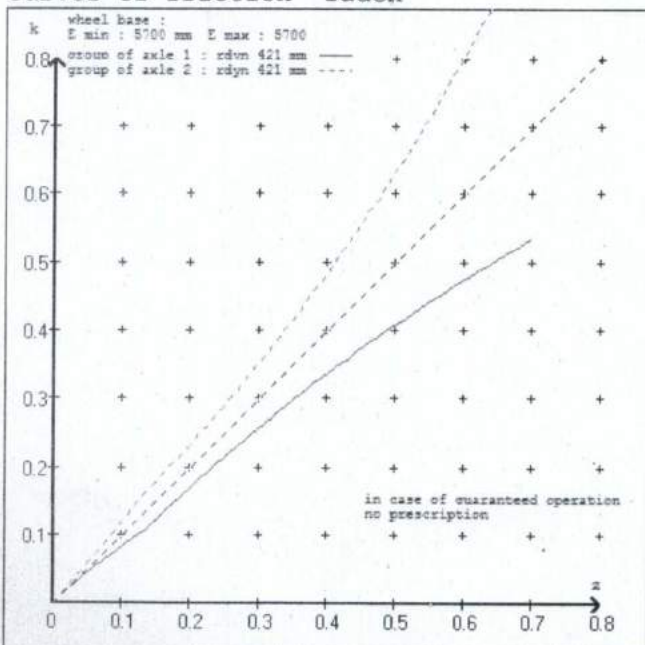
compatibility band laden



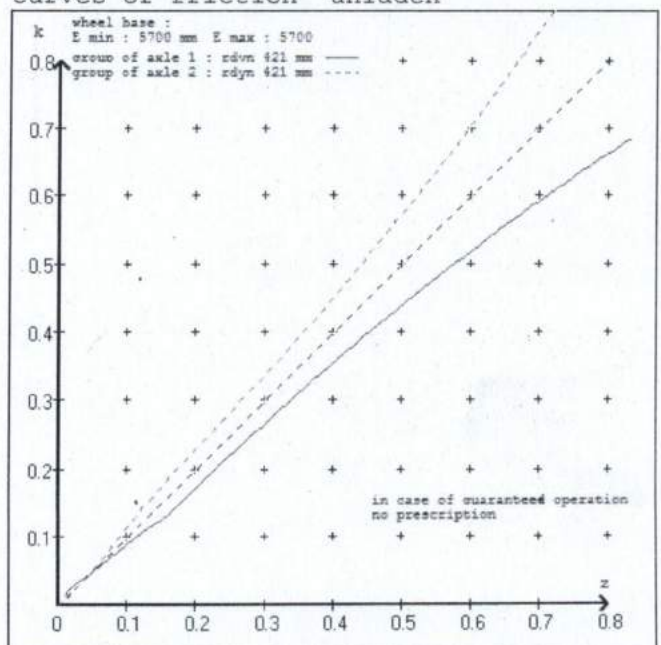
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETTS
 trailer model : 2017 5A TANKER, E1001 SAF
 trailer type : 5-axle-full-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter 18. (Meritor) lever length 76 mm
 axle 2 : 2 x type/diameter 18. (Meritor) lever length 76 mm
 axle 3 : 2 x type/diameter T.14/24 (Meritor) lever length 76 mm
 axle 4 : 2 x type/diameter T.14/24 (Meritor) lever length 76 mm
 axle 5 : 2 x type/diameter 14. (Meritor) lever length 76 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

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vehicle manufacturer: DOMETTS
 trailer model : 2017 5A TANKER, E1001 SAF
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 2017A

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	1400	to be	1.5	8000	to be	0.4	1.3	5.8	
2	1400	entered by the vehicle manufact.	1.5	8000	entered by the vehicle manufact.	0.4	1.3	5.8	
3	1100		1.2	6400		0.3	1.4	4.6	
4	1100		1.2	6400		0.3	1.4	4.6	
5	1100		1.2	6400		0.3	1.4	4.6	

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

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axle 1	axle 2	axle 3	axle 4	axle 5
axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1
1400 1.5	1400 1.5	1100 1.2	1100 1.2	1100 1.2
1900 1.8	1900 1.8	1600 1.5	1600 1.5	1600 1.5
2400 2.2	2400 2.2	2100 1.8	2100 1.8	2100 1.8
2900 2.5	2900 2.5	2600 2.2	2600 2.2	2600 2.2
3400 2.8	3400 2.8	3100 2.5	3100 2.5	3100 2.5
3900 3.1	3900 3.1	3600 2.8	3600 2.8	3600 2.8
4400 3.5	4400 3.5	4100 3.1	4100 3.1	4100 3.1
4900 3.8	4900 3.8	4600 3.4	4600 3.4	4600 3.4
8000 5.8	8000 5.8	6400 4.6	6400 4.6	6400 4.6

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.14/24	T.14/24
lever length lBh in mm	76	76
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	4.2397	4.2397
$iFb = lBh * \eta * C * rBt / (rBn * rstat)$		
for rstat in mm	401	401
brake force of spring br. Tf in N.	63816	63816
$Tf = (TFZ * KDZ - 2 * Co / lBh) * iFb$		
braking rate zf laden	0.380	
$zf = \text{sum}(Tf) / P + 0,01$		

Test of the frictional connection required by the parking brake

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

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

min Ef = 4325 mm for E = 5700 mm

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min Ef = 4325 mm for E = 5700 mm

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- 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 = 1524 mm height of center of gravity - laden
- PR = 19200 kg maximum bogie mass - laden
- P = 35200 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: 421 mm

	pz [bar]	T [N]	T [N]
axle 1	1.0	5345	
	5.8	41873	
axle 2	1.0	5345	
	5.8	41873	
axle 3	1.0		5254
	4.6		29655
axle 4	1.0		5254
	4.6		29655
axle 5	1.0		5254
	4.6		29655

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	18./	18./	T.14/24	T.14/24	14./
Maximum stroke smax = ...mm maximaler Hub smax =mm	64	64	64	64	64
Lever length =mm Hebellänge =mm	76	76	76	76	76



reference values for $z = 0.5$

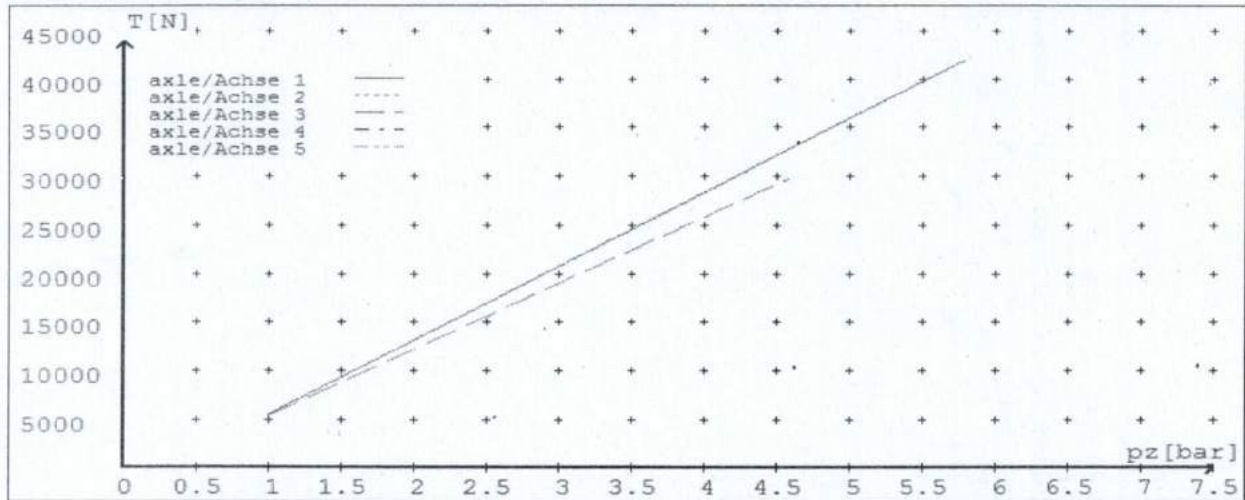
for max rdyn: 421 mm

Angabe der Referenzwerte für $z = 0.5$

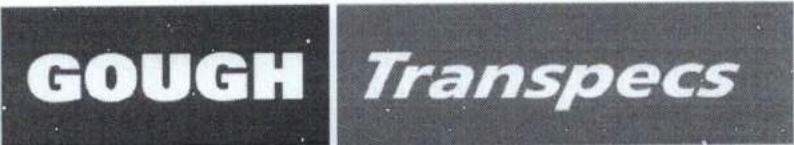
für max rdyn: 421 mm

brake calculation no: TP 2017A date 17.02.2017

Bremsberechnung Nr: TP 2017A vom 17.02.2017



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	18./	18./	T.14/24	T.14/24	14./
Maximum stroke $s_{max} = \dots$ mm maximaler Hub $s_{max} = \dots$ mm	64	64	64	64	64
Lever length = \dots mm Hebellänge = \dots mm	76	76	76	76	76



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

CERTIFICATE NO: LC170311
CUSTOMER NAME: DOMETT TRAILERS
CUSTOMER ORDER NO: 4726 DATE RECEIVED: 13/02/2017
VEHICLE TYPE: FULL TANKER
VIN / CHASSIS NO: 7A9E10011H1023578

BRIEF SPECIFICATION AS CERTIFIED TO SCHEDULE 5

BRAKE VALVES:	MAKE	TYPE
PRIMARY RELAY:	WABCO	480 102 064 0
SECONDARY RELAY:	WABCO	480 207 001 0
SPRING BRAKE RELAY:	SEALCO	110701
PARK BRAKE VALVE:	SEALCO	17600B
LOCKED RATIO:		
MAKE:		
SETTING:		

OTHER VALVES

OTHER VALVES	MAKE	TYPE	SETTING

BRAKE CHAMBERS

	FRONT	REAR	5TH
MAKE:	TSE	TSE	TSE
SIZE:	18HSCLD65	1416HTLD64	14HSCLD64
STROKE: <i>MM</i>	65mm	64mm	64mm
SLACK LENGTH: <i>MM</i>	DISC	DISC	DISC

BRAKE CALIPERS

BRAKE CALIPERS: SAF

FRICTION MATERIAL:

OEM

Aftermarket

LINING BRAND

LINING BRAND

FRONT	REAR
SAF 607	SAF 607

OTHERS

TYRES:

FRONT	REAR
265/70R 19.5	265/70R 19.5

COMMENTS

EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 #

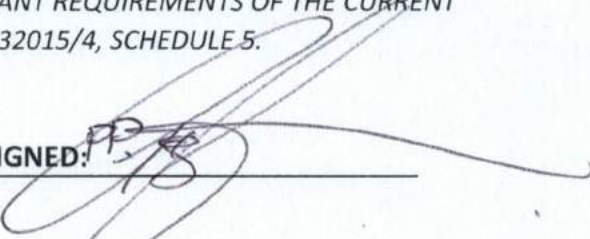
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NOTES:

PACKING SLIP NO. _____ PROCESS TIME _____

CONFIRMATION OF COMPLIANCE

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

DATE: 17/05/2017 **SIGNED:** 

NAME & ID: LANCE CAWTE (LPC)

PHONE (BUS): 09 980 7300 **FAX (BUS):** 03 3083277

POSTAL ADDRESS: TRANSPORT SPECIALTIES LTD
PO BOX 98-971,
MANUKAU CITY,
AUCKLAND 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 RELEVANT REQUIREMENTS OF THE CURRENT NEW ZEALAND HEAVY BRAKE RULE 32015/4 SCHEDULE 5.

DATE: _____ **SIGNED:** _____

NAME: _____

CERTIFIERS ID: _____ **POSITION:** _____

PHONE (BUS): _____ **FAX (BUS):** _____

COMMENTS: _____

