

# 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 **7A9E35014J1023765**

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** **SIZE: 265 70 R 19.5**

Code/standard/rule certified to **LTR 32015/4** Component load rating(s) **32 Tonnes GVM**

General drawing number(s) **N/A** **35 Tonnes (Group ratings)**

Supporting documents  
**BRAKE CODE CERTIFICATE JH180507**  
**BRAKE CALCULATION # TP51726**

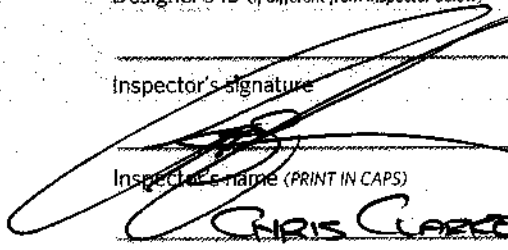
Special conditions (optional)  
**WARNING LAMP MUST ILLUMINATE WHEN IGNITION IS SWITCHED ON & THEN EXTINGUISH IMMEDIATELY OR WHEN VEHICLE SPEED EXCEEDS 7 KPH**

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 **3-May-18** Number **627441**

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	2017-12-11	Serial number	437005103400K
Serial number (modulator)	000000005210		
Fingerprint Customer EOL / Customer Development / Flash Program	W502664 / 2018-05-17 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

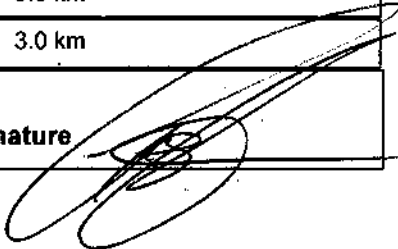
WABCO		TRAILER EBS-E		GGVS/ADR TUEN TB 2007 - 019.00 TDB0749											
HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS			GIÖ	Pin1	Pin3	Pin4								
TYP TYPE TYPE	5AFT TIPPER			1	24V-01	---	---								
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9E35014J1023765			2	---	---	---								
BREMSEBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL. DE FREINAGE NO.	TP51726A			3	ALS2	ALS2	---								
POLRADZAHLE POLE WHEEL TEST ROUE DENTEE	90	90	ABS-System ABS-System Systeme ABS	4	---	---	---								
			4S/3M	5	DIAG	DIAG	DIAG								
RSS RSS RSS	Einfachbereifung Single Tire Monte simple	Leitachse Steering axle Essien vaneur		6	---	---	---								
	Zwillingsbereifung Twin Tire Monte jumelle	Kritischeres Fahrzeug Critical Trailer Vehicule critique		7	---	---	---								
Subsystems	SB	I/O	24N												
	pm (bar)	6.5	pm (bar)	0.6	2.0	---	6.5								
ACHSE AXLE ESSEU															
1	1800	0.8	2.0	8000	5.1	0.4	1.5	---	6.7	-	20	65	69	509	4954
2	1800	0.8	2.0	8000	5.1	0.4	1.5	---	6.7	-	20	65	69	509	4954
3	1100	0.3	1.1	6400	4.0	0.3	1.6	---	4.1	-	14 / 16	64	69	490	2456
4	1100	0.3	1.1	6400	4.0	0.3	1.6	---	4.1	-	14 / 16	64	69	490	2456
5	1100	0.3	1.1	6400	4.0	0.3	1.6	---	4.1	-	14	64	69	490	2456

## 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 TRAILERS	Vehicle ident. no	7A9E35014J1023765
Vehicle type	5AFT TIPPER	Odometer reading	3.0 km
next Service	0 km	Trip reading	3.0 km
Tester	Chris Clarke	Signature 	
Date	2018-05-17 1:20:18 p.m.		

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

distribution: DOMETT TRAILERS  
 7A9E35014J1023765  
 SODC: JH180507  
 LT400: CJC 627441

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 TIPPER  
 trailer type : 5-axle-full-trailer  
 remarks : air / hydraulic / VA suspension  
 WABCO TRAILER - EBS  
 TRISTOP 3+4: T.14/24 [TSE1416HTLD64 ACTUALLY FITTED  
 -SEE PAGE 7 FOR PERFORMANCE DATA]  
 265/70 R 19,5

axle 1 + 2 + 3 + 4 + 5 : SAF, SBW 1937, TDB 0749 ECE,

		unladen	laden
total mass	P in kg	6900	35200
axle 1	P1 in kg	1800	8000
axle 2	P2 in kg	1800	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	4500 - 4900	
centre of gravity height	h in mm	1000	1850

		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	[-]	23.03	23.03	23.03	23.03	23.03
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	2.3	2.3	2.0	2.0	2.0
chamber pressure(rdyn max)pH at z=22,5%bar	2.3	2.3	2.0	2.0	2.0
chamber press.(servo)pcha at pm6,5bar bar	6.7	6.7	4.1	4.1	4.1
piston force ThA at pm6,5bar N	7810	7810	3884	3884	3884
brake force(rdyn min)T lad. at pm6,5bar N	59158	59158	29327	29327	29327
brake force(rdyn max)T lad. at pm6,5bar N	59158	59158	29327	29327	29327
brake force within 1 % rolling friction proportion %	22.3	22.3	18.5	18.5	18.5

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 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

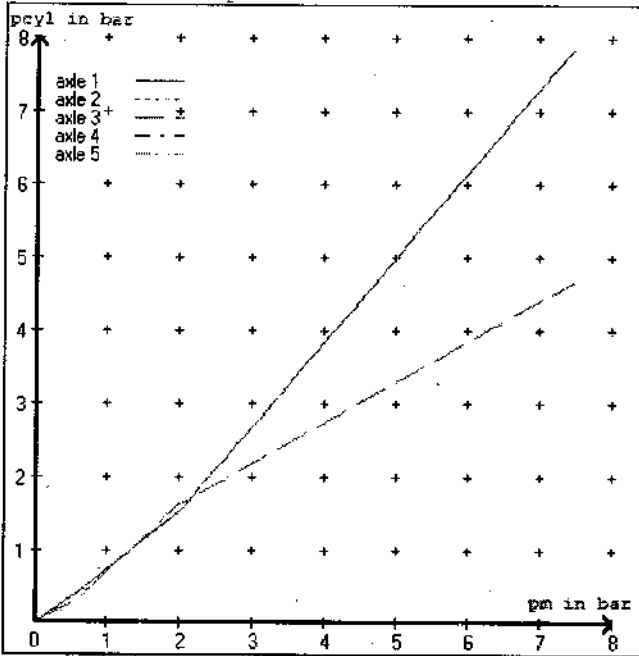
axle 5:

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

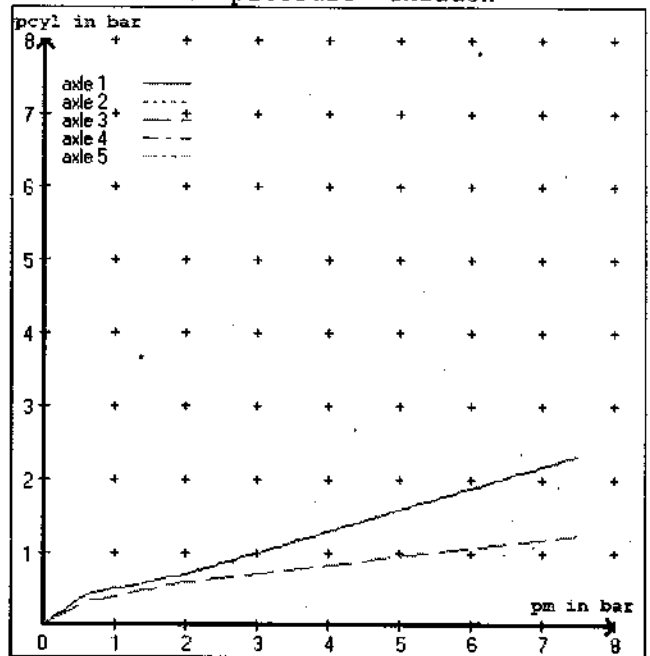
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.5 bar =>	pcha in bar :	3.2	3.2	2.4	2.4	2.4	
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 1.1 bar =>	pcha in bar :	0.8	0.8	0.8	0.8	0.8	

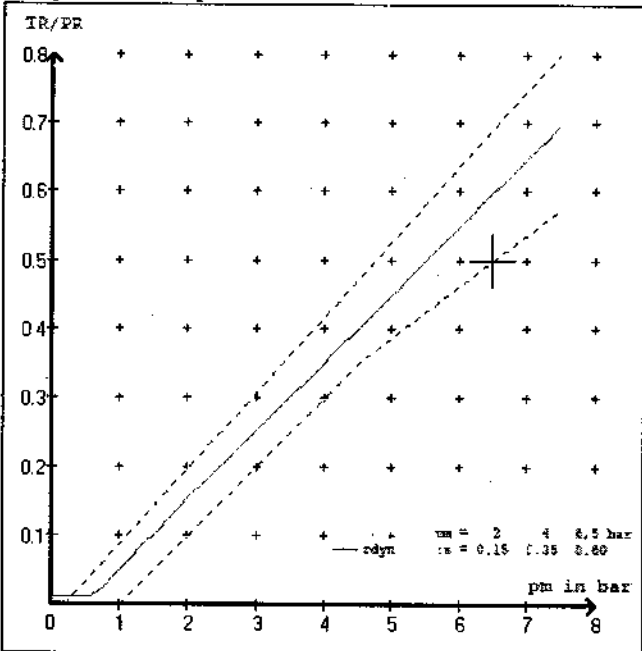
brake chamber pressure laden



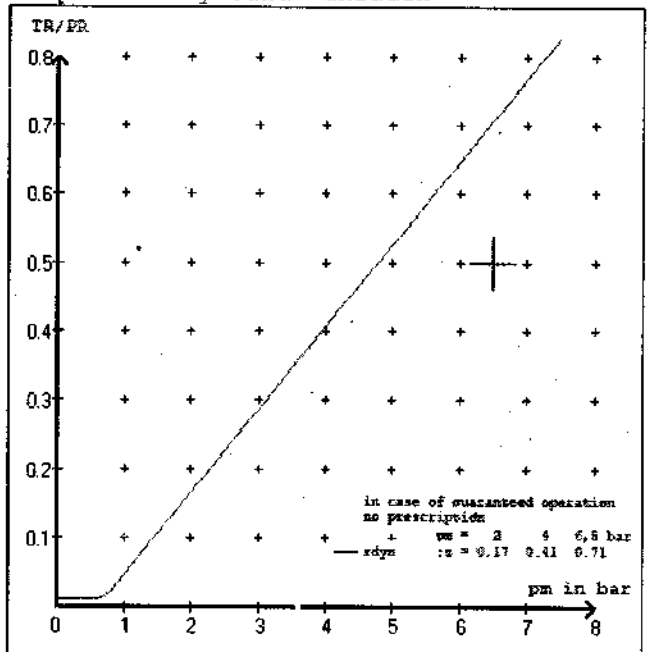
brake chamber pressure unladen



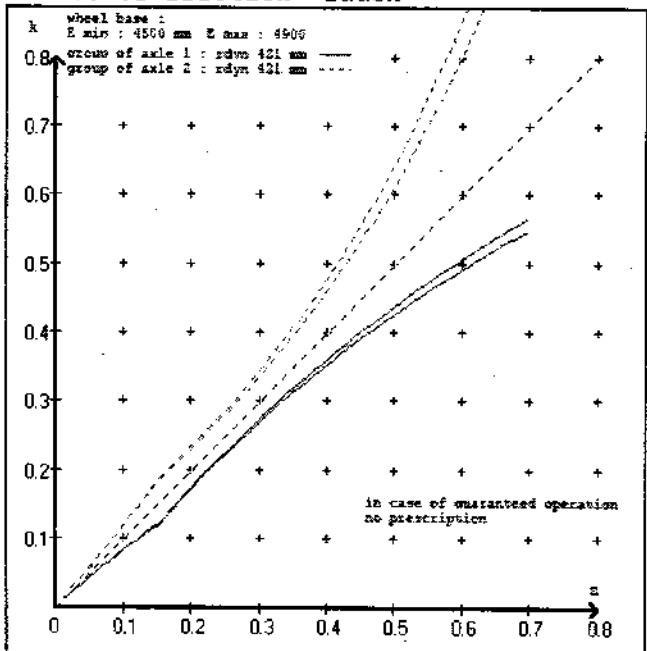
compatibility band laden



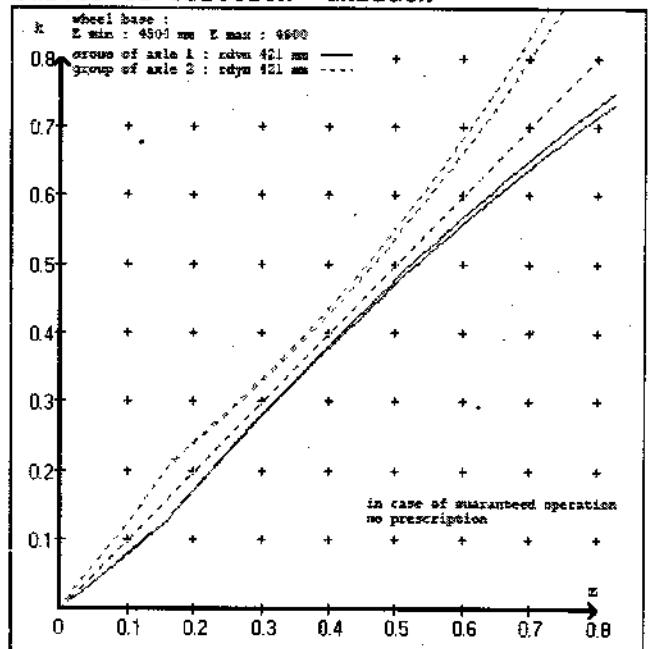
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS  
 trailer model : 5AFT TIPPER  
 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 TIPPER  
 trailer type : 5-axle-full-trailer  
 brake calculation no. : TP 51726A

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

assignment pm / deceleration z: pm 0.6 bar z = 0.010  
 (laden condition) 2.0 bar z = 0.150  
 6.5 bar z = 0.600

control pressure pm			6,5	control pressure pm			0.6	2.0	6.5
axle	axle load unladen	bellow pr. unladen	brake pr. unladen	axle load laden	bellow pr. laden	brake pr. laden			
1	1800	to be	2.0	8000	to be	0.4	1.5	6.7	
2	1800	entered by the vehicle manufact.	2.0	8000	entered by the vehicle manufact.	0.4	1.5	6.7	
3	1100		1.1	6400		0.3	1.6	4.1	
4	1100		1.1	6400		0.3	1.6	4.1	
5	1100		1.1	6400		0.3	1.6	4.1	

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 pcy1	axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1
1800 2.0	1800 2.0	1100 1.1	1100 1.1	1100 1.1
2300 2.4	2300 2.4	1600 1.4	1600 1.4	1600 1.4
2800 2.8	2800 2.8	2100 1.7	2100 1.7	2100 1.7
3300 3.1	3300 3.1	2600 1.9	2600 1.9	2600 1.9
3800 3.5	3800 3.5	3100 2.2	3100 2.2	3100 2.2
4300 3.9	4300 3.9	3600 2.5	3600 2.5	3600 2.5
4800 4.3	4800 4.3	4100 2.8	4100 2.8	4100 2.8
5300 4.7	5300 4.7	4600 3.1	4600 3.1	4600 3.1
8000 6.7	8000 6.7	6400 4.1	6400 4.1	6400 4.1

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

axle 1 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013
axle 2 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013
axle 3 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013
axle 4 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013
axle 5 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013

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 = 26.8 % Fe
axle 2	(rdyn 421 mm)	T = 26.8 % Fe
axle 3	(rdyn 421 mm)	T = 16.7 % Fe
axle 4	(rdyn 421 mm)	T = 16.7 % Fe
axle 5	(rdyn 421 mm)	T = 16.7 % Fe

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

axle 1	(sp = 58 mm)	s = 39 mm
axle 2	(sp = 58 mm)	s = 39 mm
axle 3	(sp = 56 mm)	s = 39 mm
axle 4	(sp = 56 mm)	s = 39 mm
axle 5	(sp = 56 mm)	s = 39 mm

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

axle1	ThA = 7810 N
axle2	ThA = 7810 N
axle3	ThA = 3884 N
axle4	ThA = 3884 N
axle5	ThA = 3884 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 = 46172 N
axle 2	(rdyn 421 mm)	T = 46172 N
axle 3	(rdyn 421 mm)	T = 22990 N
axle 4	(rdyn 421 mm)	T = 22990 N
axle 5	(rdyn 421 mm)	T = 22990 N

basic test	type III
of subject	(calculated)
trailer (E)	residual
	(hot)braking
	0.60
	0.47

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

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 = 46172 N
axle 2	(rdyn 421 mm)	T = 46172 N
axle 3	(rdyn 421 mm)	T = 22990 N
axle 4	(rdyn 421 mm)	T = 22990 N
axle 5	(rdyn 421 mm)	T = 22990 N

basic test	type III
of subject	(calculated)
trailer (E)	residual
	(hot)braking
	0.60
	0.47

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

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

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





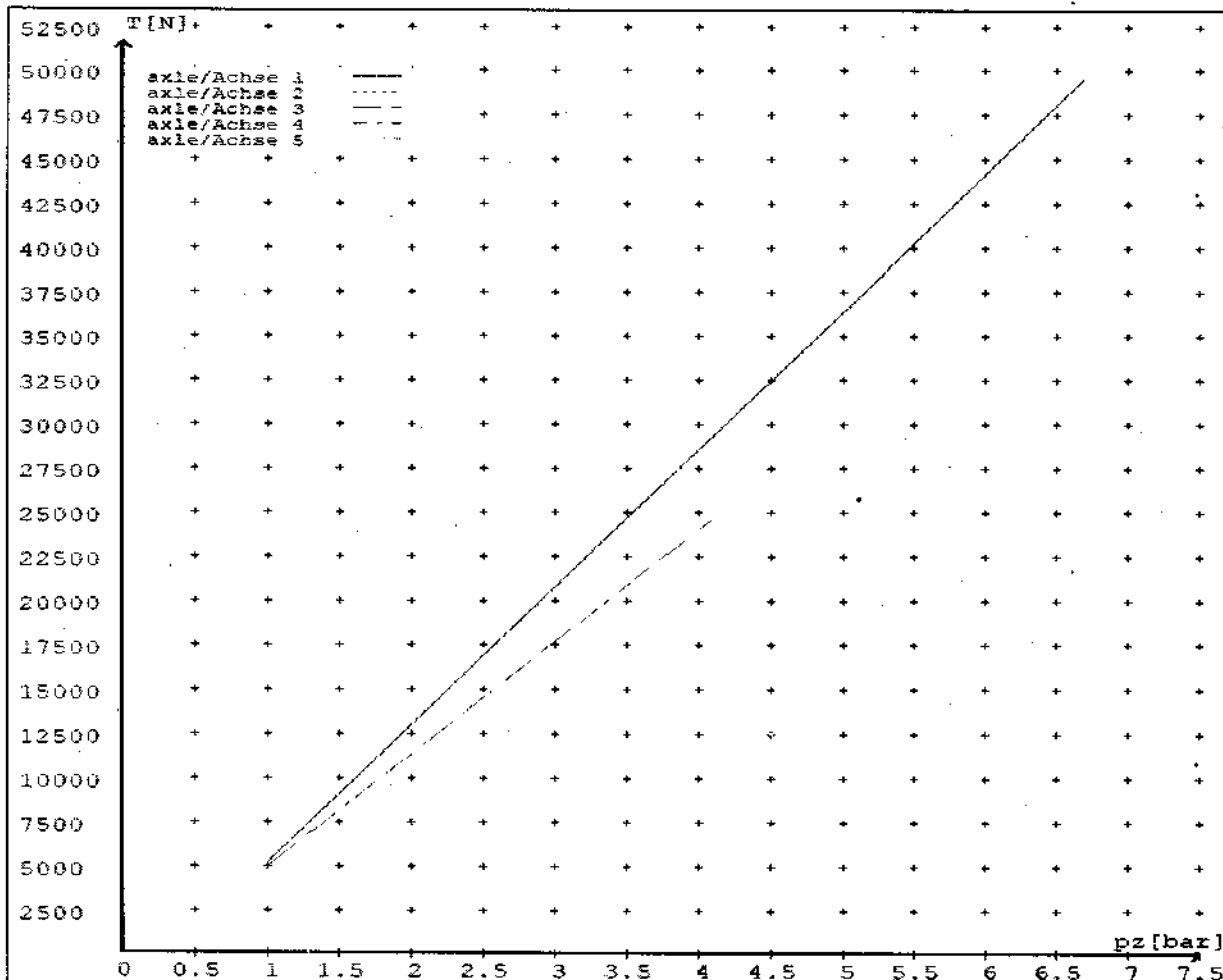
**reference values**

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5095	
	6.7	49546	
axle 2	1.0	5095	
	6.7	49546	
axle 3	1.0		4901
	4.1		24562
axle 4	1.0		4901
	4.1		24562
axle 5	1.0		4901
	4.1		24562

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	69.08	69.08	69.08	69.08	69.08





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

**CERTIFICATE NO.** JH180507

**CUSTOMER NAME** DOMETT TRAILERS LTD

**CUSTOMER ORDER NO.** 5437                      **DATE RECEIVED** 3-May-18

**VEHICLE TYPE** TIPPER

**VIN/ CHASSIS NO.** 7 A 9 E 3 5 0 1 4 J 1 0 2 3 7 6 5

**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	SEALCO	17600B
PARK BRAKE VALVE	SEALCO	110701
<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:**

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

**BRAKE CHAMBERS:**

	<b>AXLE 1 &amp; 2</b>	<b>AXLE 3 &amp; 4</b>	<b>AXLE 5</b>
<b>MAKE</b>	TSE	TSE	TSE
<b>SIZE</b>	20HSCLD65	1416HTLD64	14HSCLD64
<b>MAX STROKE (mm)</b>	65	64	64
<b>SLACK LENGTH (mm)</b>	69	69	69

**DRUM TYPE:**

	<b>AXLE 1 &amp; 2</b>	<b>AXLE 3 &amp; 4</b>	<b>AXLE 5</b>
	N/A	N/A	N/A

**OR****BRAKE CALIPER:**

	<b>AXLE 1 &amp; 2</b>	<b>AXLE 3 &amp; 4</b>	<b>AXLE 5</b>
	SBW1937	SBW1937	SBW1937

**FRICTION MATERIAL:** OEM AFTERMARKET**LINING BRAND**

	<b>AXLE 1 &amp; 2</b>	<b>AXLE 3 &amp; 4</b>	<b>AXLE 5</b>
	JURID 539	JURID 539	JURID 539

**OTHERS:****TYRES:**

	<b>FRONT</b>	<b>REAR</b>
	265 70 R 19.5	265 70 R 19.5

**BRAKE CALCULATION #:**

TP51726

**COMMENTS:**

EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 #

**SALES ORDER #:**

SO1126718

**PROCESS TIME:**

1 Hour

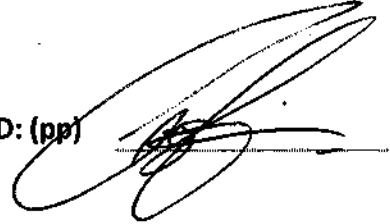
**TRAILERS EQUIPPED WITH PREV: THE PARK BRAKE PERFORMANCE MUST BE****MEASURED BY PULLING THE RED ACTUATION KNOB ON THE PREV VALVE WHEN****THE AXLES - EQUIPPED WITH SPRING BRAKES - ARE IN THE BRAKE ROLLERS. THE****PARK BRAKE IN THE CAB MUST NOT BE APPLIED.****NOTES:****CHAMBERS & PARK BRAKE PERFORMANCE:**REFER TO BRAKE CALCULATION TP51726:  $z = 0.289 @ 96377 (N)$ FRONT FRICTION ( $\mu$ ) = 0.49

**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:** 3-May-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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