

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 **7A9E20017H1023680**

Make **DOMETT** 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) **33 Tonnes GVM**
(35 Tonnes (Group ratings))
 General drawing number(s) **N/A**


Supporting documents
BRAKE CODE CERTIFICATE JH171209
BRAKE CALCULATION # TP51615

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 **10-Jan-18** Number **618205**

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

All fields are mandatory unless otherwise stated.

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

distribution: DOMETT TRAILERS
 7A9E20017H1023680
 SODC: JH171209
 LT400: CJC 618205

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!
 WABCO Brake V6.14.04.20 db 20.04.2016

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT CURTAINSIDE
 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 : HENDRICKSON, SBW 1937, AT0185,

		unladen	laden
total mass	P in kg	7100	35200
axle 1	P1 in kg	1600	8000
axle 2	P2 in kg	1600	8000
axle 3	P3 in kg	1300	6400
axle 4	P4 in kg	1300	6400
axle 5	P5 in kg	1300	6400
wheel base	E in mm	7800 - 8200	
centre of gravity height	h in mm	1090	2098

	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	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	69	69	69	69	69
brake factor	23.49	23.49	23.49	23.49	23.49
dyn. rolling radius	421	421	421	421	421
dyn. rolling radius	421	421	421	421	421
threshold torque	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	2.1	2.1	2.1
chamber pressure(rdyn max)pH at z=22,5%bar	2.1	2.1	2.1	2.1	2.1
chamber press.(servo)pcha at pm6,5bar bar	5.7	5.7	4.8	4.8	4.8
piston force ThA at pm6,5bar N	6578	6578	4586	4586	4586
brake force(rdyn min)T.lad. at pm6,5bar N	50826	50826	35307	35307	35307
brake force(rdyn max)T lad. at pm6,5bar N	50826	50826	35307	35307	35307
brake force within 1 % rolling friction proportion %	22.3	22.3	18.5	18.5	18.5

braking rate z laden 0.601 for rdyn min
 z = sum (TR)/PRmax 0.601 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: Meritor 1424HTLD64

axle 4:

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

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

brake cylinder: Meritor 1424HTLD64

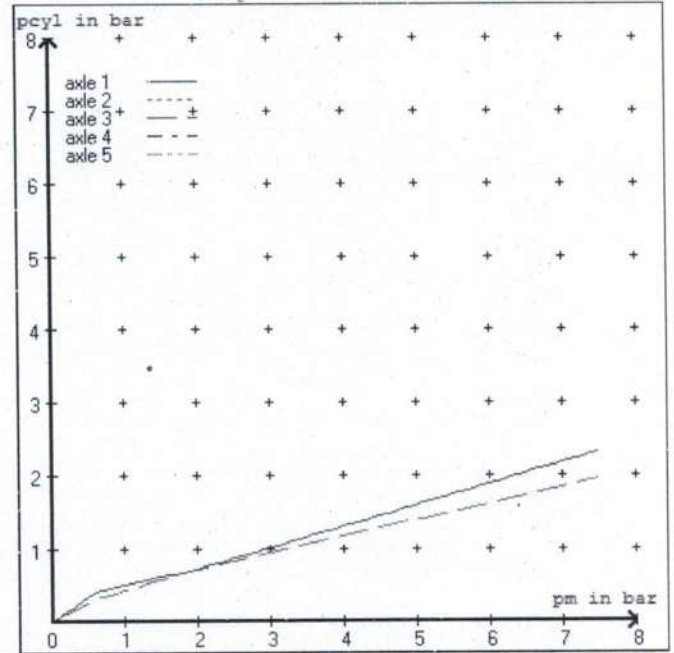
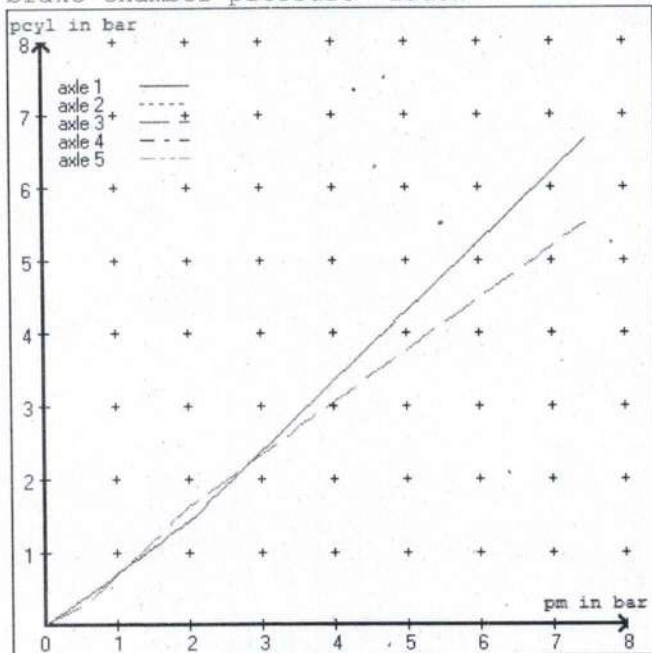
axle 5:

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

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

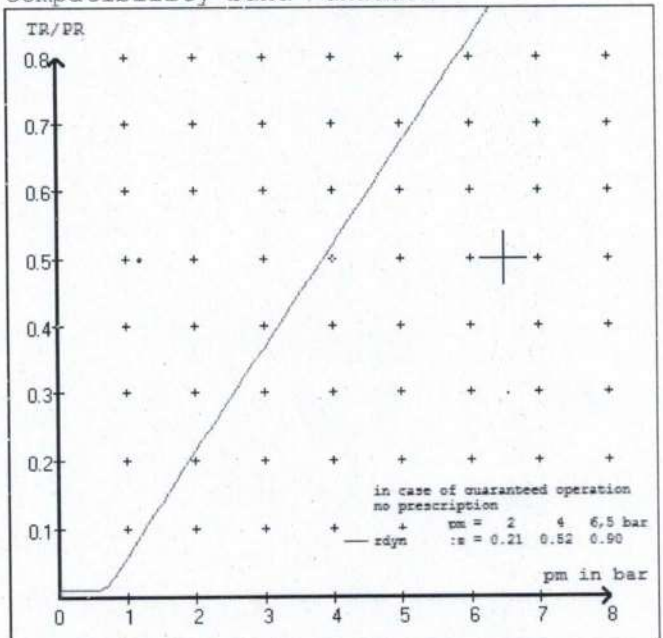
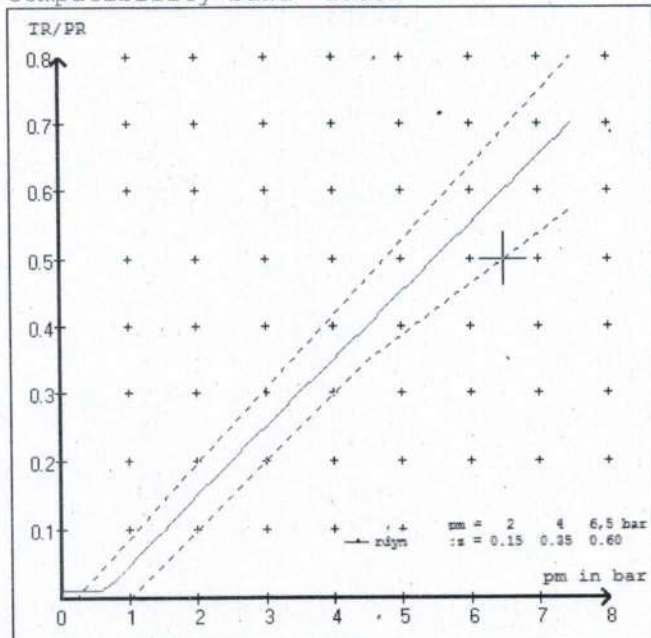
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.5 bar =>	pcha in bar :	2.8	2.8	2.7	2.7	2.7	2.7
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	0.8



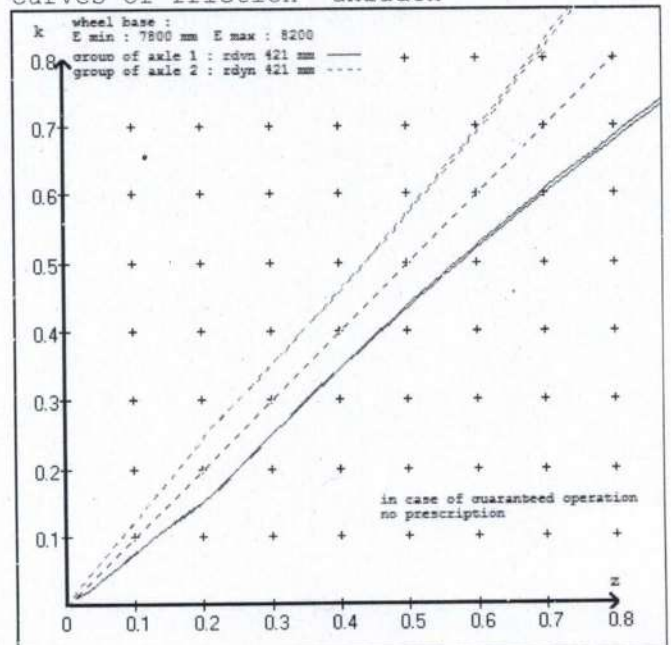
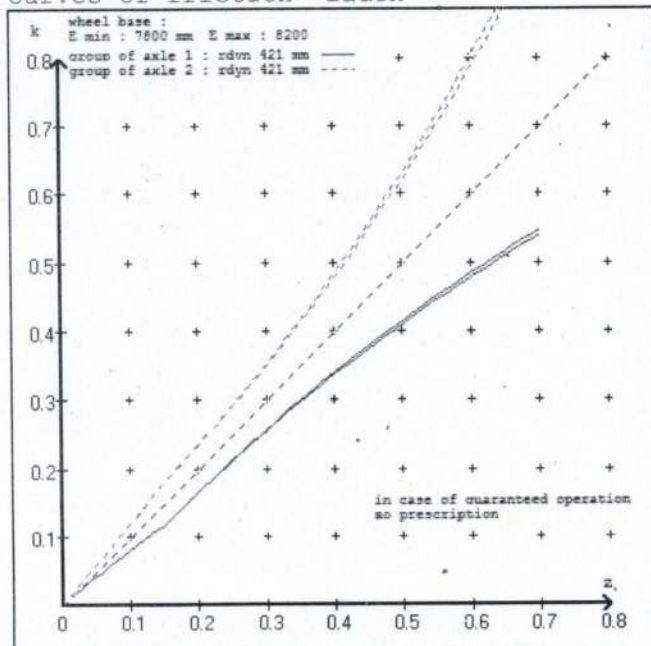
compatibility band laden

compatibility band unladen



curves of friction laden

curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT CURTAINSIDE
 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 :
 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

=====

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT CURTAINSIDE
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 51615A

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	1600	to be	2.0	8000	to be	0.4	1.4	5.7	
2	1600	entered by the vehicle manufact.	2.0	8000	entered by the vehicle manufact.	0.4	1.4	5.7	
3	1300		1.7	6400		0.3	1.6	4.8	
4	1300		1.7	6400		0.3	1.6	4.8	
5	1300		1.7	6400		0.3	1.6	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
1600 2.0	1600 2.0	1300 1.7	1300 1.7	1300 1.7
2100 2.3	2100 2.3	1800 2.0	1800 2.0	1800 2.0
2600 2.6	2600 2.6	2300 2.3	2300 2.3	2300 2.3
3100 2.9	3100 2.9	2800 2.6	2800 2.6	2800 2.6
3600 3.2	3600 3.2	3300 2.9	3300 2.9	3300 2.9
4100 3.4	4100 3.4	3800 3.2	3800 3.2	3800 3.2
4600 3.7	4600 3.7	4300 3.5	4300 3.5	4300 3.5
5100 4.0	5100 4.0	4800 3.8	4800 3.8	4800 3.8
8000 5.7	8000 5.7	6400 4.8	6400 4.8	6400 4.8

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

axle 1 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017
axle 2 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017
axle 3 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017
axle 4 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017
axle 5 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017

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 = 23.6 % Fe
axle 2 (rdyn 421 mm)	T = 23.6 % Fe
axle 3 (rdyn 421 mm)	T = 18.8 % Fe
axle 4 (rdyn 421 mm)	T = 18.8 % Fe
axle 5 (rdyn 421 mm)	T = 18.8 % Fe

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

axle 1 (sp = 58 mm)	s = 48 mm
axle 2 (sp = 58 mm)	s = 48 mm
axle 3 (sp = 56 mm)	s = 48 mm
axle 4 (sp = 56 mm)	s = 48 mm
axle 5 (sp = 56 mm)	s = 48 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 = 4586 N
axle4	ThA = 4586 N
axle5	ThA = 4586 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 = 40650 N
axle 2 (rdyn 421 mm)	T = 40650 N
axle 3 (rdyn 421 mm)	T = 28257 N
axle 4 (rdyn 421 mm)	T = 28257 N
axle 5 (rdyn 421 mm)	T = 28257 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	0.48
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 = 40650 N
axle 2 (rdyn 421 mm)	T = 40650 N
axle 3 (rdyn 421 mm)	T = 28257 N
axle 4 (rdyn 421 mm)	T = 28257 N
axle 5 (rdyn 421 mm)	T = 28257 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	0.48
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	HENDRICKSON		
type of axle	SBW 1937		
	SBW 1937		
	AT0185		
test report of characteristic value			
adm. stat. axle load	Pstat in kg	9000	
tested axle load	Pe in kg	10200	
max. adm. tyre radius	Rezul in mm	999	
adm. cam. torque (6,5 bar)	Czul in Nm	640	
lining area per brake	AB in cm ²	292	
no. of brake cylinder	-	2	
brakefactor (SB) Bf	-	23.49	
brakefactor (PB) Bf	-	23.49	
threshold torque (Co,dec)	Mo in Nm	6	
date			
	02.03.2017		
brake lining	WABCO 230		
cam torque	Ce in Nm	638	
brake force	TeIII in daN	4649	
stroke	seIII in mm	48	
tested tyre radius	Re in mm	520	
tested lever length	le in mm	69	
threshold torque (Co,e)	in Nm	5	

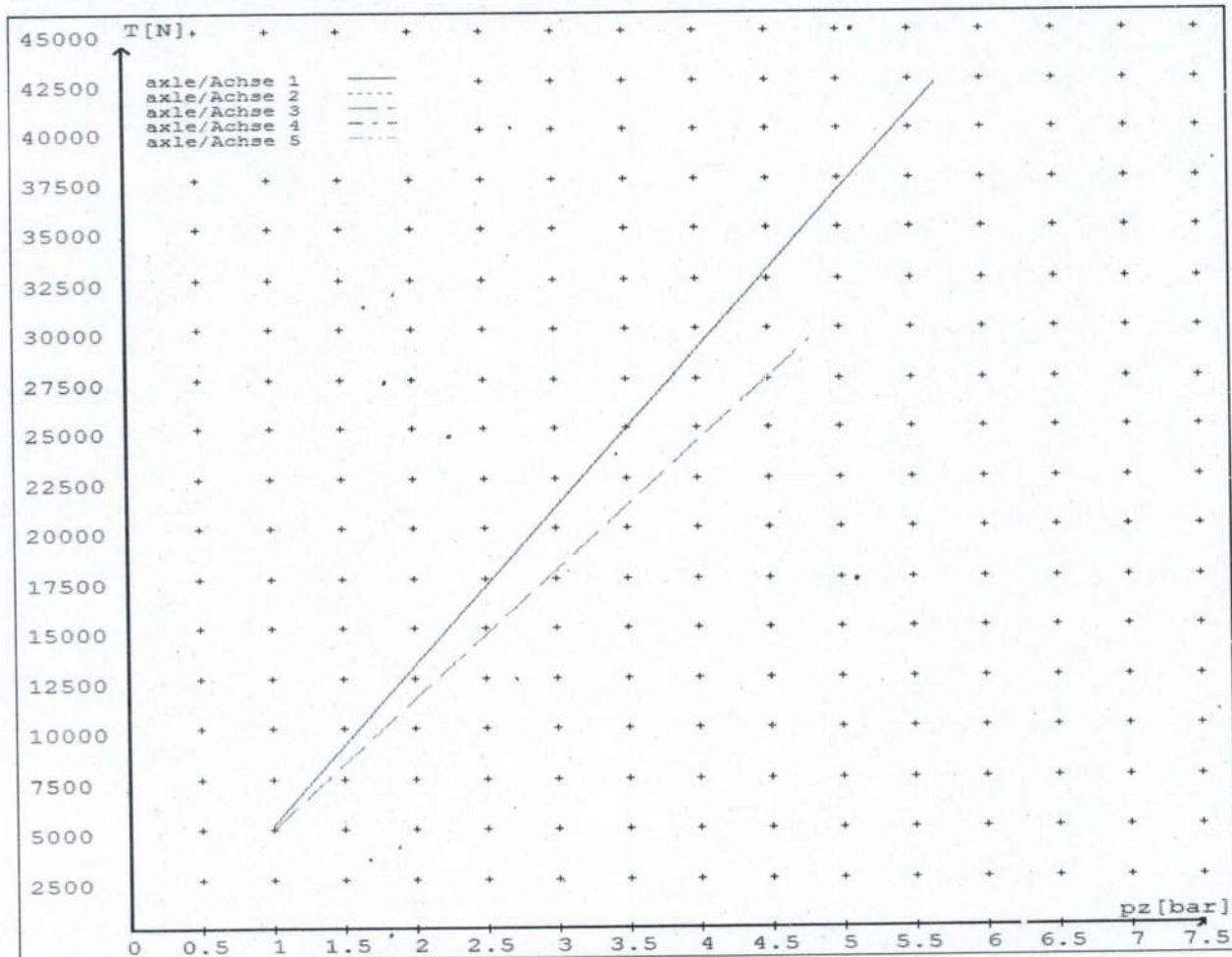
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5150	
	5.7	42285	
axle 2	1.0	5150	
	5.7	42285	
axle 3	1.0		4955
	4.8		29374
axle 4	1.0		4955
	4.8		29374
axle 5	1.0		4955
	4.8		29374

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



reference values for $z = 0.5$

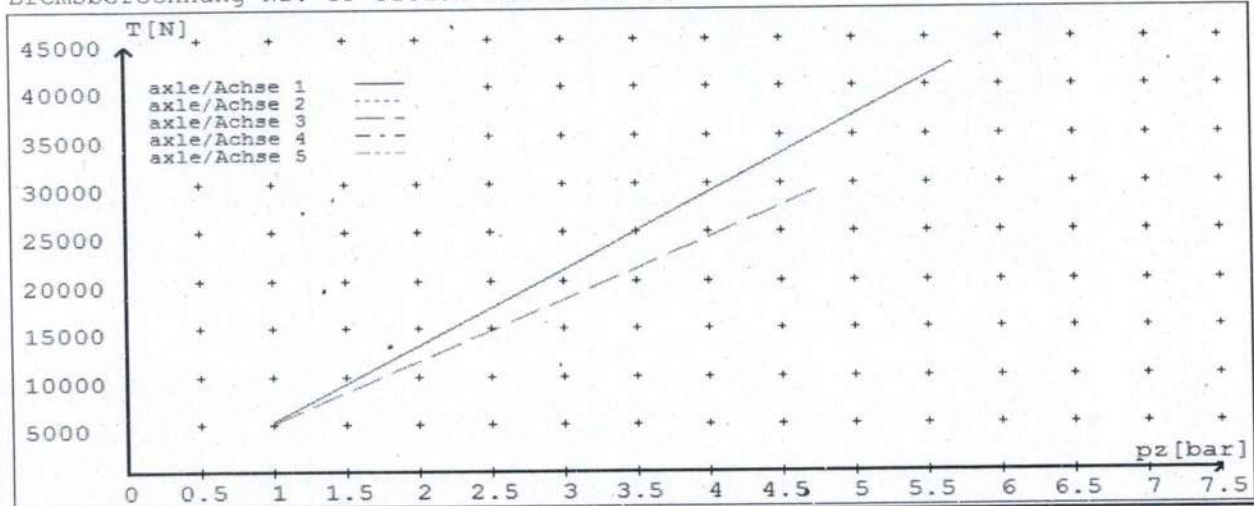
Angabe der Referenzwerte für $z = 0.5$

for max rdyn: 421 mm

für max rdyn: 421 mm

brake calculation no: TP 51615A date 04.07.2017

Bremsberechnung Nr: TP 51615A vom 04.07.2017



	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	69.08	69.08	69.08	69.08	69.08

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 32015/4.

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 32015/4. 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 32015/4, 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 32015/4.

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)

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

CERTIFICATE NO. JH171209

CUSTOMER NAME DOMETT TRAILERS LTD

CUSTOMER ORDER NO. 4953 DATE RECEIVED 10-Jan-18

VEHICLE TYPE CURTAINSIDE

VIN/ CHASSIS NO. 7A9E20017H1023680

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	463 090 500 0
DISTANCE SENSOR	464 008 011 0	441 050 100 0

OTHER VALVES:

MAKE: WABCO	TYPE: 461 513 002 0	SETTING: 5.5 Bar
MAKE: WABCO	TYPE: 472 195 052 0	SETTING: M.A. VALVE (12V)
MAKE: WABCO	TYPE: 463 090 500 0	SETTING: eTASC
MAKE: WABCO	TYPE: 446 192 110 0	SETTING: SMARTBOARD

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

TSE

TSE

TSE

SIZE

20HSCLD65

1416HTLD64

14HSCLD64

MAX STROKE (mm)

65

64

64

SLACK LENGTH (mm)

69

69

69

DRUM TYPE:

N/A

N/A

N/A

OR**BRAKE CALIPER:**

SBW1937

SBW1937

SBW1937

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

WABCO 230

WABCO 230

WABCO 230

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

265 70 R 19.5

265 70 R 19.5

BRAKE CALCULATION #:

TP51615

COMMENTS:

EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 #

CJC

SALES ORDER #:

S0962427

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 #: TP51615

PARK BRAKE (z) = 0.295 @ 98302 N FOR 35,200 Kgs GVM

FRONT FRICTION (μ) = 0.48

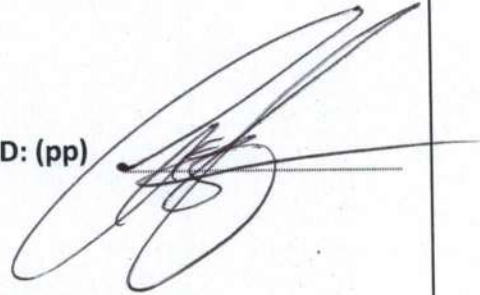
MANOEUVRE ASSIST FOR OFF-HIGHWAY USE.

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: 10-Jan-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:
