

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

Vehicle registration (optional)	VIN/chassis number
	7A9E25013K1023812
Make	Component being certified:
DOMETT	<input type="checkbox"/> Chassis <input type="checkbox"/> Load anchorage
Model (optional)	<input type="checkbox"/> Log bolsters <input type="checkbox"/> Towing connection <input checked="" type="checkbox"/> Brakes
Certification category	<input type="checkbox"/> SRT <input type="checkbox"/> PSV stability <input type="checkbox"/> PSV rollover
HVEK	<input type="checkbox"/> Swept path <input type="checkbox"/> PBS

Description of work

CERTIFY TO SCHEDULE 5 OF LTR 32015/4

NEW ZEALAND HEAVY VEHICLE BRAKE SPECIFICATION.

RSS ON: TWIN / SINGLE TYRE TYRE SIZE = 265/70 R19.5

Code/standard/rule certified to	Component load rating(s)
LTR 32015/4	32 Tonnes GVM
General drawing number(s)	35 Tonnes (Group ratings)
N/A	

Supporting documents

BRAKE CODE CERTIFICATE	CJC195454
BRAKE CALCULATION #	50293A

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]		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

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) ID number

CHRIS CLARKE **CJC**

Date Number

26-Feb-19 **677354**

CoF vehicle inspector ID (if applicable)	CoF vehicle inspector signature (if applicable)	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
7A9E25013K1023812
CJC195454

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 08.07.2014

vehicle manufacturer: DOMETT
trailer model : 5AFT LIVESTOCK
trailer type : 5-axle-full-trailer
remarks : air / hydraulic / VA suspension
WABCO TRAILER - EBS E
TRISTOP 3+4: T.14/24
265/70 R 19,5

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

		unladen	laden
total mass	P in kg	5890	35050
axle 1	P1 in kg	1400	8000
axle 2	P2 in kg	1400	8000
axle 3	P3 in kg	1030	6350
axle 4	P4 in kg	1030	6350
axle 5	P5 in kg	1030	6350
wheel base	E in mm	6490 - 6490	
centre of gravity height	h in mm	1050	2396

	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 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	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	6.5	6.5	4.3	4.3	4.3
piston force ThA at pm6,5bar N	7564	7564	4085	4085	4085
brake force(rdyn min)T lad. at pm6,5bar N	57295	57295	30837	30837	30837
brake force(rdyn max)T lad. at pm6,5bar N	57295	57295	30837	30837	30837
brake force within 1 % rolling friction proportion %	22.3	22.3	18.5	18.5	18.5

braking rate z laden 0.602 for rdyn min
z = sum (TR)/PRmax 0.602 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

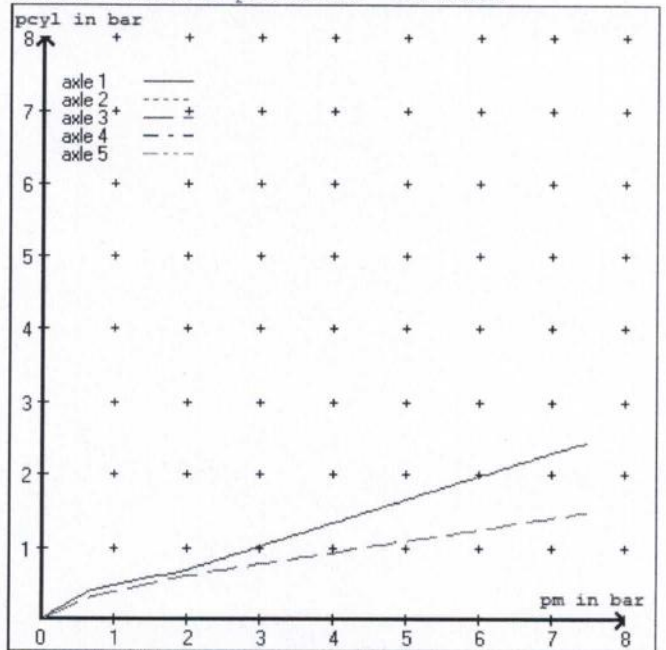
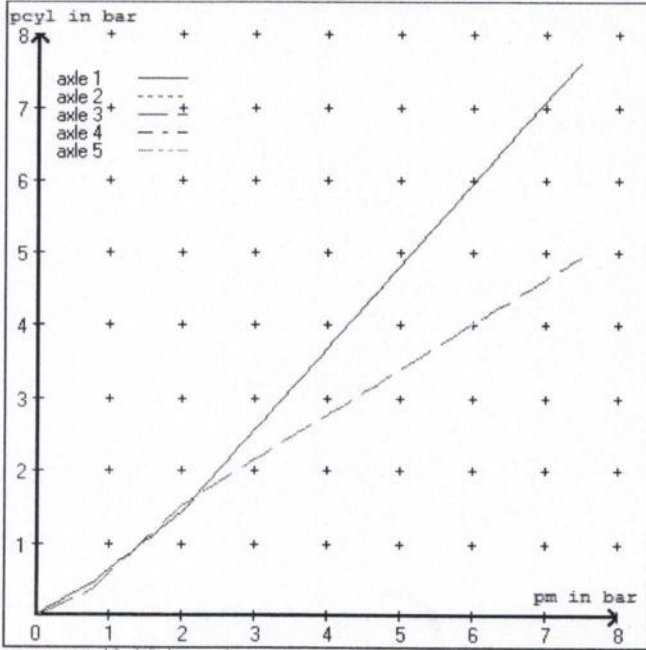
axle 5:

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

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

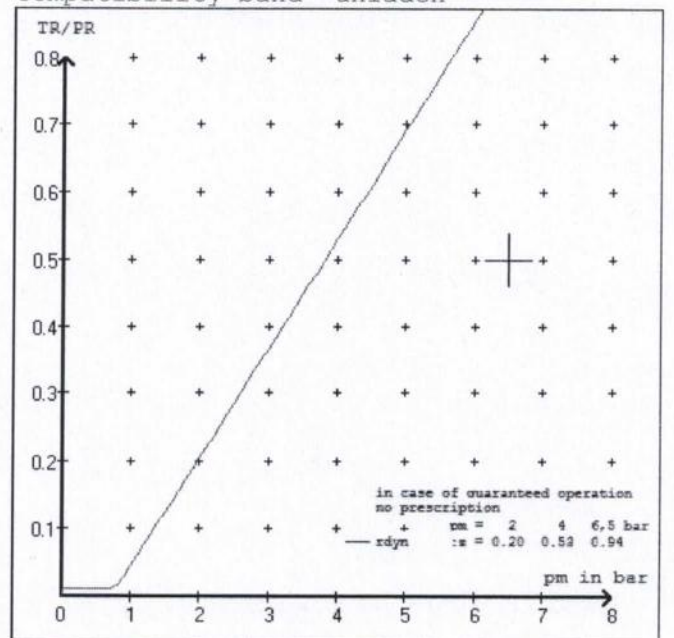
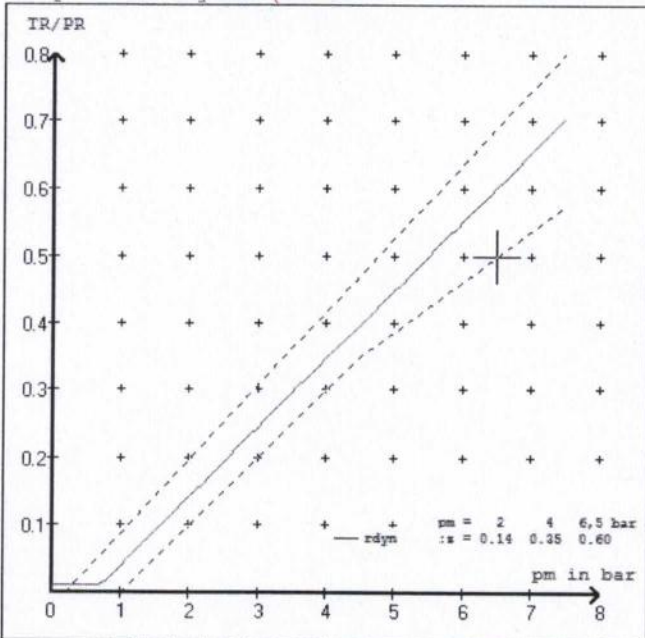
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.6 bar =>	pcha in bar :	3.2	3.2	2.5	2.5	2.5	2.5
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 1.2 bar =>	pcha in bar :	0.8	0.8	0.8	0.8	0.8	0.8



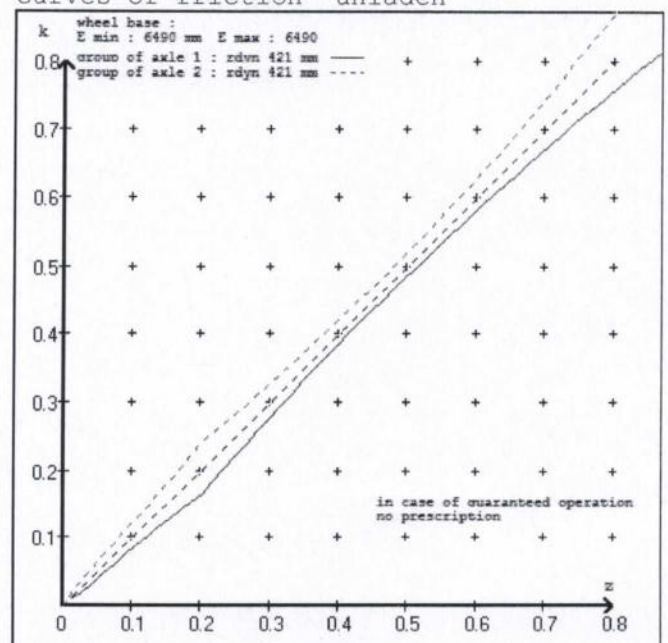
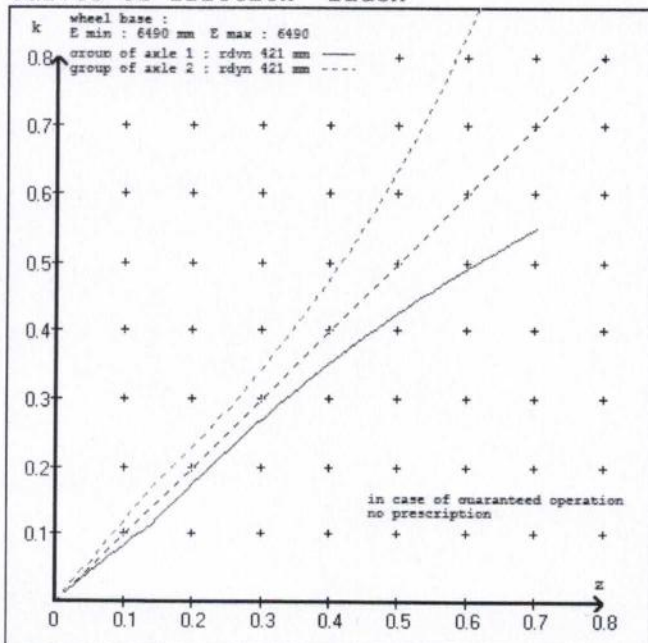
compatibility band laden

compatibility band unladen



curves of friction laden

curves of friction unladen



vehicle manufacturer: DOMETT
 trailer model : 5AFT LIVESTOCK
 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

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vehicle manufacturer: DOMETT
 trailer model : 5AFT LIVESTOCK
 trailer type : 5-axle-full-trailer
 brake calculation no. : GenNZ 50293A

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

assignment pm / deceleration z: pm 0.7 bar z = 0.010
 (laden condition) 2.0 bar z = 0.142
 6.5 bar z = 0.600

control pressure pm			6,5	control pressure pm			0.7	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	2.1	8000	to be	0.4	1.4	6.5	
2	1400	entered by the vehicle manufact.	2.1	8000	entered by the vehicle manufact.	0.4	1.4	6.5	
3	1030		1.3	6350		0.3	1.5	4.3	
4	1030		1.3	6350		0.3	1.5	4.3	
5	1030		1.3	6350		0.3	1.5	4.3	

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 pcyl	axle load pcyl	axle load pcyl	axle load pcyl	axle load pcyl
1400 2.1	1400 2.1	1030 1.3	1030 1.3	1030 1.3
1900 2.4	1900 2.4	1530 1.6	1530 1.6	1530 1.6
2400 2.8	2400 2.8	2030 1.9	2030 1.9	2030 1.9
2900 3.1	2900 3.1	2530 2.1	2530 2.1	2530 2.1
3400 3.4	3400 3.4	3030 2.4	3030 2.4	3030 2.4
3900 3.8	3900 3.8	3530 2.7	3530 2.7	3530 2.7
4400 4.1	4400 4.1	4030 3.0	4030 3.0	4030 3.0
4900 4.4	4900 4.4	4530 3.3	4530 3.3	4530 3.3
8000 6.5	8000 6.5	6350 4.3	6350 4.3	6350 4.3

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 = 26.2 % Fe
axle 2	(rdyn 421 mm)	T = 26.2 % Fe
axle 3	(rdyn 421 mm)	T = 16.9 % Fe
axle 4	(rdyn 421 mm)	T = 16.9 % Fe
axle 5	(rdyn 421 mm)	T = 16.9 % 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 = 7564 N
axle2	ThA = 7564 N
axle3	ThA = 4085 N
axle4	ThA = 4085 N
axle5	ThA = 4085 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 = 44727 N
axle 2	(rdyn 421 mm)	T = 44727 N
axle 3	(rdyn 421 mm)	T = 24161 N
axle 4	(rdyn 421 mm)	T = 24161 N
axle 5	(rdyn 421 mm)	T = 24161 N

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

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.60	(hot)braking 0.47
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required braking rate (items 1.5.3 and 1.7.2 to annex 11)	>= 0,4 and >= 0,6*E (0.36)
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axle 1	(rdyn 421 mm)	T = 44727 N
axle 2	(rdyn 421 mm)	T = 44727 N
axle 3	(rdyn 421 mm)	T = 24161 N
axle 4	(rdyn 421 mm)	T = 24161 N
axle 5	(rdyn 421 mm)	T = 24161 N

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

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.60	(hot)braking 0.47
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required braking rate (items 1.5.3 and 1.7.2 to annex 11)	>= 0,4 and >= 0,6*E (0.36)
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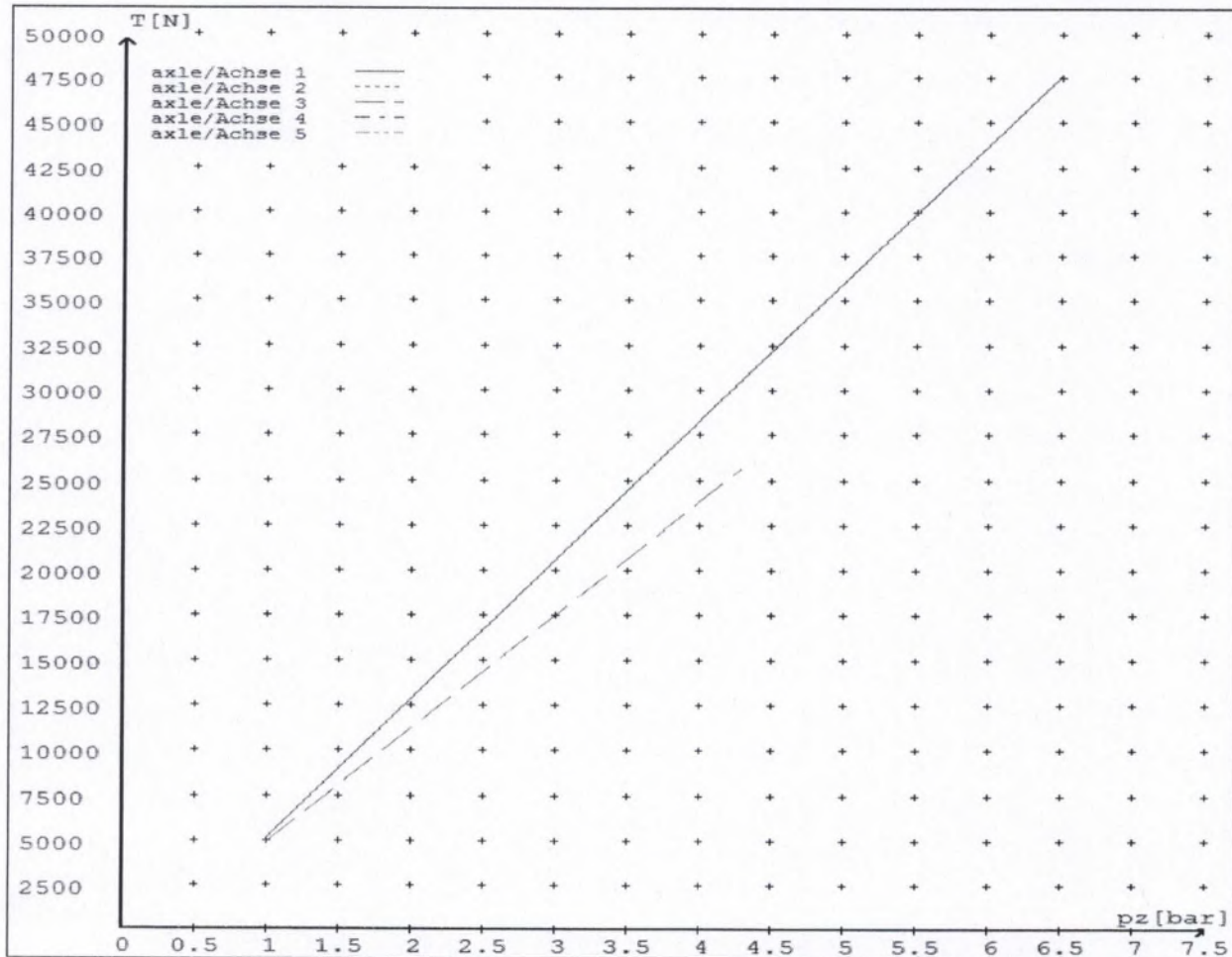
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5053	
	6.5	47588	
axle 2	1.0	5053	
	6.5	47588	
axle 3	1.0		4856
	4.3		25612
axle 4	1.0		4856
	4.3		25612
axle 5	1.0		4856
	4.3		25612

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 s _{max} = ...mm maximaler Hub s _{max} =mm	65	65	64	64	64
Lever length =mm Hebellänge =mm	69.08	69.08	69.08	69.08	69.08



reference values for $z = 0.5$

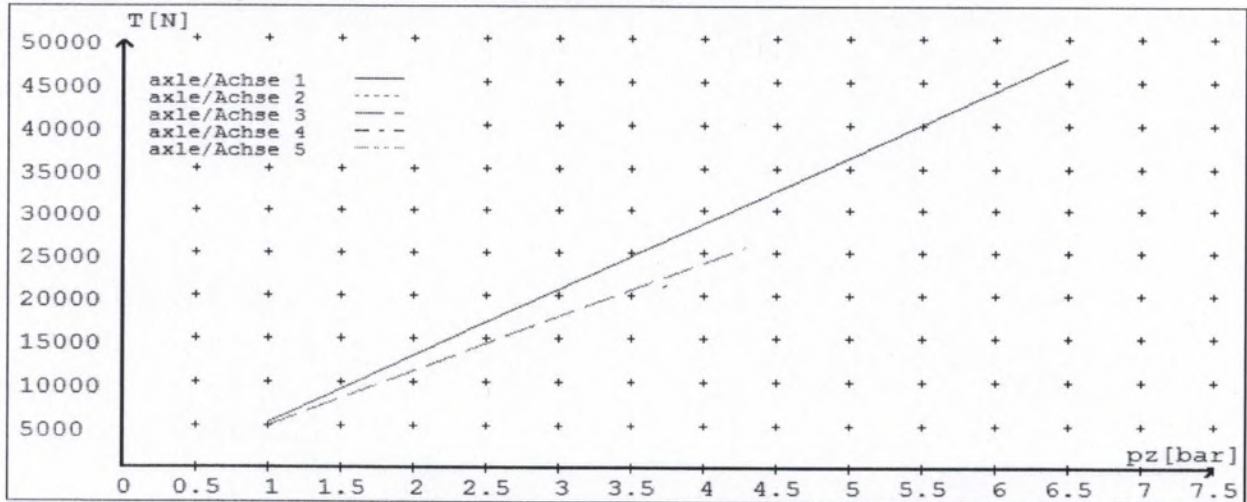
Angabe der Referenzwerte für $z = 0.5$

for max rdyn: 421 mm

für max rdyn: 421 mm

brake calculation no: GenNZ 50293A date 25.02.2019

Bremsberechnung Nr: GenNZ 50293A vom 25.02.2019



	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

**NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015-4
WORKSHEET, PROCEDURE DOCUMENTATION SHEET
& CONFIRMATION OF COMPLIANCE**

CLIENT

MANUFACTURER:	DOMETT TRAILERS
ADDRESS:	Taurikura Drive, Tauranga 3110
FLEET:	NOT SPECIFIED

VEHICLE DETAILS

VEHICLE TYPE:	SAFT LIVESTOCK	CERT #:	CJC195454
YEAR:	2019	CALCULATION #:	50293A
MAKE:	DOMETT	REGO:	N/A
MODEL:	E2501	LT400 #:	677354
CHASSIS #:	1812	ORDER NUMBER:	5406
VIN #:	7A9E25013K1023812		
GVM: TONNES	32	PRIME MOVER:	UNKNOWN
LOAD CONFIGURATION:	UNIFORM DENSITY		
GROUP RATINGS: TONNES	FRONT	REAR	
	16	19	
WHEEL BASE: METRES	6.49		
	UNLADEN COG	MAX HEIGHT	HEIGHT DECK
	1.05	4.3	1.1
COG: METRES	2.396		
	FRONT	REAR	TOTAL
TARE: TONNES	2.8	3.1	5.9
	FRONT	REAR	
TYRE SIZE:	265/70 R19.5	265/70 R19.5	
ROLLING CIRCUMFERENCE: MM	2645	2645	
AXLE SPACING: METRES	1.31	2.51	

BRAKE & AXLE DETAILS

AXLE:	MAKE	MODEL	TEST REPORT REF:
	SAF	SAF-ZI9W	361-037-08
POLE WHEEL FRONT:	90	POLE WHEEL REAR:	90
LINING MATERIAL:	JURID 539	BRAKE FACTOR:	23.03
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: MILLIMETRES	65	64	64
TEST REPORT #:	BC 0041.0 Jul '07	TSE derived	BZ 122.1 Sep '00
SPRINGBRAKE FORCE: kN	N/A	6.16	N/A
HOLDOFF PRESSURE: kPa	N/A	4.5	N/A
FOUNDATION BRAKE:	WABCO PAN19	WABCO PAN19	WABCO PAN19
LEVER LENGTH: MILLIMETRES	69	69	69
BRAKE VALVES:	MAKE:	PART NUMBER:	PM PRESS. kPa
ECU PART #:	WABCO	480/102/080/0 (MV)	70 kPa
3RD MODULATOR #:	WABCO	480/207/202/0 (12V)	70 kPa
ANTI-COMPOUNDING:	YES		
SPRING BRAKE RELAY:	SEALCO_SBR	110701	
YARD RELEASE VALVE:	SEALCO_YR	17600B	
INLINE RELAY FITTED:	N/A	N/A	
ECU DIRECTION:	<input checked="" type="checkbox"/> FRONT	<input type="checkbox"/> REAR	
SMARTBOARD/OPTILINK:	<input type="checkbox"/> SMARTBOARD	<input type="checkbox"/> OPTI-LINK	

SUSPENSION

	FRONT	REAR
SUSPENSION TYPE:	PNEUMATIC	PNEUMATIC
MAKE:	SAF_AIRSPRING	SAF_AIRSPRING
MODEL:	SAF_MODULAR	SAF_MODULAR
BELLOW SIZE:	2618, 300mm	2618, 300mm
HEIGHT CONTROL VALVE:	464/006/002/0	464/006/002/0
OTHER VALVES:		
RIDE HEIGHT <small>MM</small> :	240	240
HANGER HEIGHT <small>MM</small> :		
PEDESTAL HEIGHT <small>MM</small> :		
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: <small>L</small>	46	46 & 25
AUXILLARY TANK SIZE: <small>L</small>	N/A	46
PRESSURE PROTECTION:	WABCO PEM 461/513/002/A	

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:	1416/1392	1095/1085
NORMAL LEVEL:	1321/1282	1025/985
LOWER LEVEL:	1213/1233	933/955

CHECKS AT COMMISSION OF VEHICLE

CHAMBER BUNGS REMOVED: VALVE MOUNTING:
 ECU BLANKING PLUGS CHECKED:

RESPONSE TIME:	MODULATOR 2.1	MODULATOR 2.2	RELAY VALVE
ms:	199	200	365

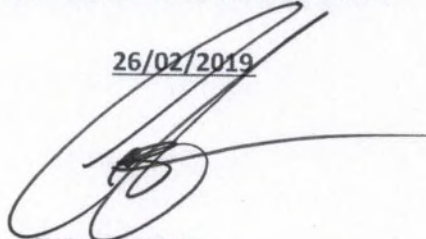
NOTES AND SPECIAL CONDITIONS

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 /4, SCHEDULE 5.

DATE: 26/02/2019

SIGNED:



CERTIFIER NAME & ID:

CHRIS CLARKE

CJC

SODC BY:

PHONE (BUS):

09-980-7300

FAX:

POSTAL ADDRESS:

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

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)

