

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

Plate number (optional) _____ VIN/chassis number **7A9B70010M2023125**

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

Model (optional) **B7001** 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 32015/5: NZ HEAVY VEHICLE BRAKE SPECIFICATION.

CARRY OUT BRAKE CALCULATIONS, INSPECTION AND ECU END OF LINE PROTOCOL.

2AFT BULK SPREADER **RSS ON TYRE: 265 70 R19.5**

FOR SYSTEM ARCHITECTURE, PLEASE REFER TO PDS WORKSHEET & SCHEMATIC.

REASON FOR CERTIFICATION: NEW TRAILER BUILD

Code/standard/rule certified to **LTR 32015/5** Component load rating(s) **15 Tonnes GVM**

General drawing number(s) **N/A** **7.5 Tonnes (Front brake mass)**
7.5 Tonnes (Rear brake mass)

Supporting documents

BRAKE RULE CERTIFICATE JH211102

BRAKE CALCULATION # TP52386

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) **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 **02.11.2021** Number **805176**

CoF vehicle inspector ID (if applicable) _____ CoF vehicle inspector signature (if applicable) _____ 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	2021-02-16	Serial number	437010106200J
Serial number (modulator)	000000505068		
Fingerprint Customer EOL / Customer Development / Flash Program	W503643 / 2021-11-02 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

WABCO	TRAILER EBS-E	GGVS/ADR TUEH TB 2007 - 019.00 TDB0749
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HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS		
TYP TYPE TYPE	2AFT BULK SPREADER		
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9B70010M2023125		
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP52386A		
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 4S/3M
RSS RSS RSS	Einfachbereifung Single Tire Monte simple	Lenkachse Steering axle Essieu vireur	
	Zwillingsbereifung Twin Tire Monte jumelée	X	Kippkritisches Fahrzeug Critical Trailer Vehicule critique
Subsystems	SB	I/O	24N

GIO	Pin1	Pin3	Pin4
1	24 V-O1	---	---
2	---	---	---
3	ALS2	ALS2	---
4	---	---	---
5	DIAG	DIAG	DIAG
6	---	---	---
7	---	---	---

ACHSE AXLE ESSIEU	pm (bar)			pm (bar)			pz			TYP TYPE	(mm)	(mm)	(bar)		
	1.0	1.1	3.2	0.7	2.0	---	6.5	1.0	Pz						
1	2200	1.1	3.2	7500	4.7	0.4	1.5	---	6.6	-	20	65	69	511	4930
2	2200	1.1	2.0	7500	4.7	0.3	1.6	---	4.0	-	14 / 16	64	69	505	2430
3	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---
4	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---
5	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---

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.	7A9B70010M2023125
Vehicle type	2AFT BULK SPREADER	Odometer reading	0.0 km
Next service	0 km	Trip reading	0.0 km
Tester	Chris Clarke	Signature	
Date	2021-11-02 2:22:07 pm		

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

distribution: DOMETT TRAILERS
 7A9B70010M2023125
 SoDC: JH211102
 LT400: CJC 805176

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 (V6.18.07.12).
 -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 V6.18.07.12 db 31.08.2018

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 2AFT BULK SPREADER
 trailer type : 2-axle-full-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS
 TRISTOP 2: T.14/24 [TSE1416HTLD ACTUALLY FITTED -
 SEE PAGE 6 FOR PERFORMANCE DATA]
 265/70 R 19,5

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

		<u>unladen</u>	<u>laden</u>
total mass	P in kg	4400	15000
axle 1	P1 in kg	2200	7500
axle 2	P2 in kg	2200	7500
wheel base	E in mm	3300 - 3300	
centre of gravity height	h in mm	1000	1587

		<u>axle 1</u>	<u>axle 2</u>
no. of combined axles		1	1
no. of brake chambers per axle line	KDZ	2	2
The power output corresponds to		BZ 122.1	BZ 119.6
brake chamber manufacturer		Meritor	Meritor
chamber size		20.	T.14/24
lever length	lBh in mm	69	69
brake factor	[-]	23.03	23.03
dyn. rolling radius	rdyn min in mm	421	421
dyn. rolling radius	rdyn max in mm	421	421
threshold torque	Co Nm	6.0	6.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar		2.4	2.0
chamber pressure(rdyn max)pH at z=22,5%bar		2.4	2.0
chamber press.(servo)pcha at pm6,5bar bar		6.6	4.0
piston force ThA at pm6,5bar N		7687	3784
brake force(rdyn min)T lad. at pm6,5bar N		58177	28678
brake force(rdyn max)T lad. at pm6,5bar N		58177	28678
Brake force incl. 1 % rolling resistance	%	54.7	45.3

braking rate z laden 0.590 for rdyn min
 z = sum (TR)/PRmax 0.590 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

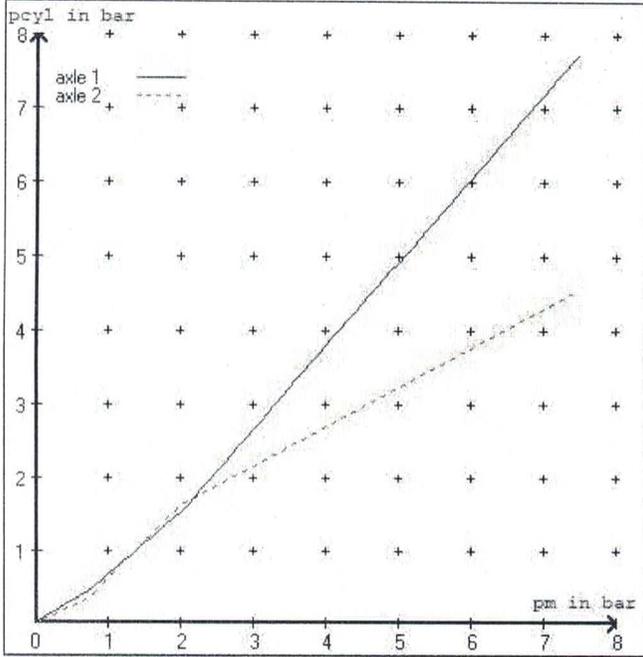
axle 2:

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

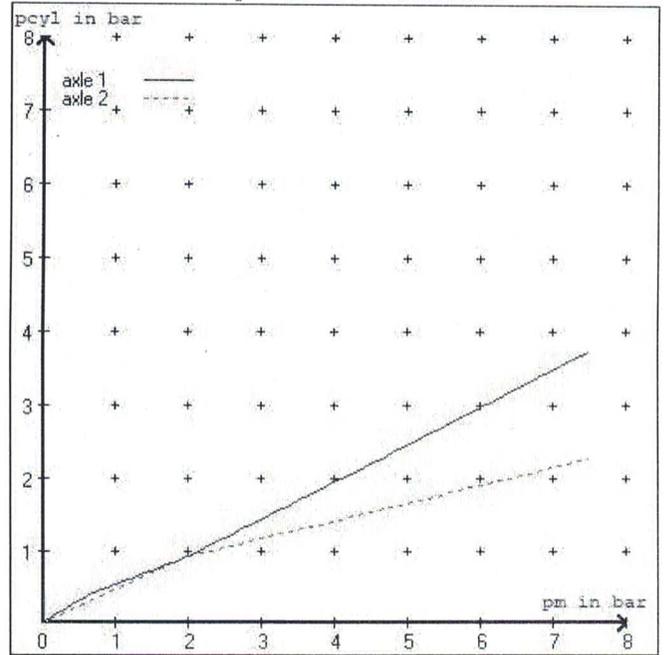
brake cylinder: Meritor 1424HTLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2
at pm 3.6 bar =>	pcha in bar :	3.3	2.4
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2
at pm 1.2 bar =>	pcha in bar :	0.8	0.8

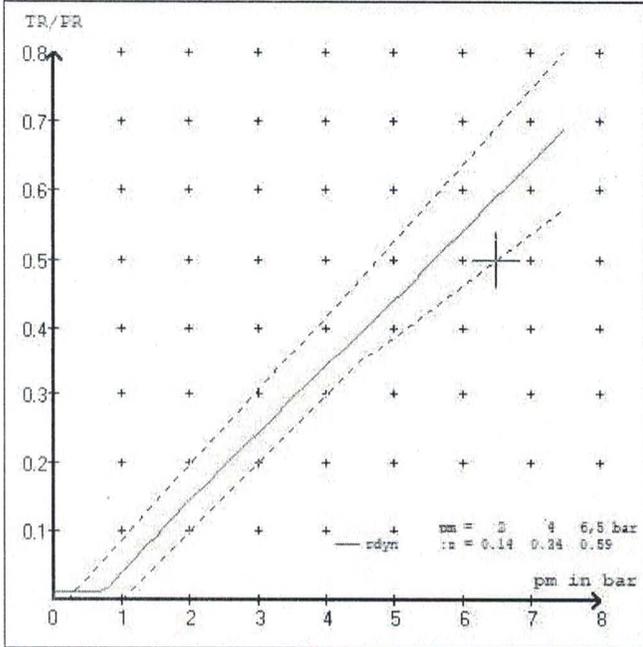
brake chamber pressure laden



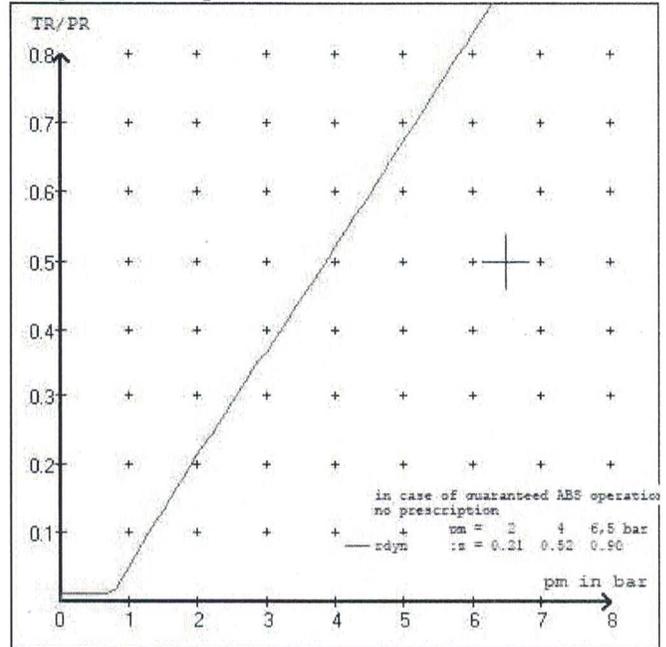
brake chamber pressure unladen



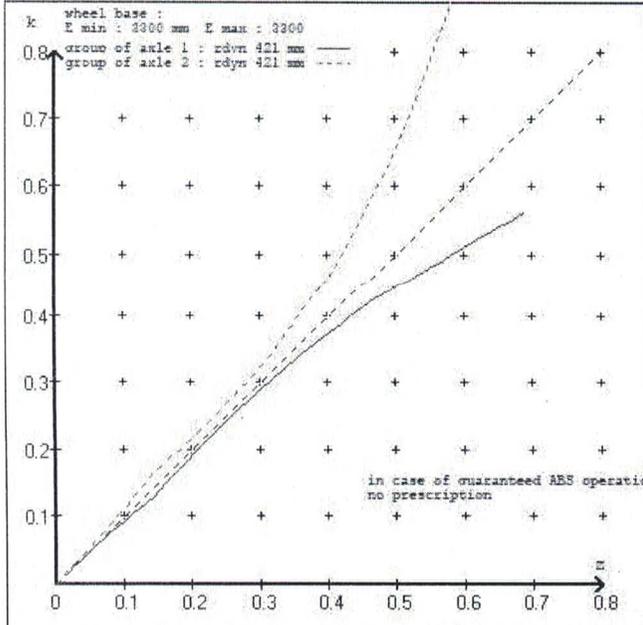
compatibility band laden



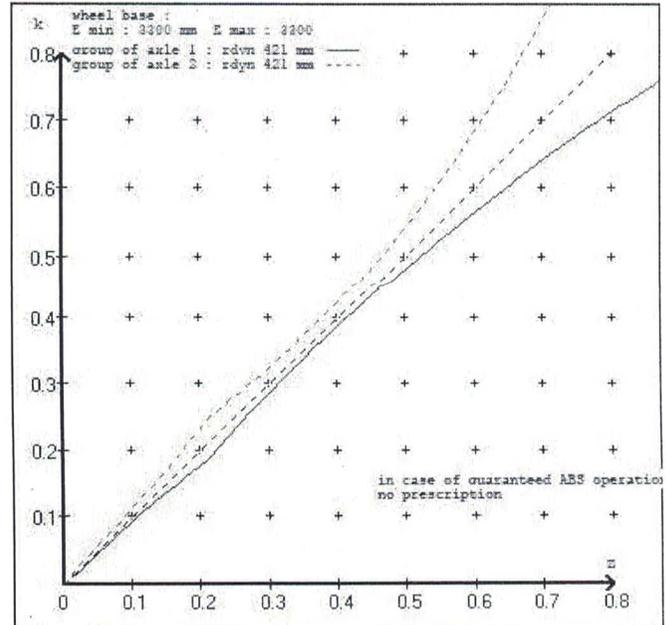
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 2AFT BULK SPREADER
 trailer type : 2-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 T.14/24 (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

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vehicle manufacturer: DOMETT TRAILERS
 trailer model : 2AFT BULK SPREADER
 trailer type : 2-axle-full-trailer
 brake calculation no. : TP 52386A

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 = 0.140
 6.5 bar z = 0.590

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	2200	to be	3.2	7500	to be	0.4	1.5	6.6	
2	2200	entered by	2.0	7500	entered by	0.3	1.6	4.0	
3	0	the vehicle	0,0	0	the vehicle	0,0	0,0	0,0	
4	0	manufact.	0,0	0	manufact.	0,0	0,0	0,0	
5	0		0,0	0		0,0	0,0	0,0	

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 load pcy1	axle load pcy1
2200 3.2	2200 2.0
2700 3.5	2700 2.2
3200 3.8	3200 2.4
3700 4.2	3700 2.6
4200 4.5	4200 2.8
4700 4.8	4700 2.9
5200 5.1	5200 3.1
5700 5.4	5700 3.3
7500 6.6	7500 4.0

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

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 = 27.3 % Fe
axle 2	(rdyn 421 mm)	T = 16.8 % 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 = 55 mm)	s = 39 mm

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

axle1	ThA = 7687 N
axle2	ThA = 3784 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 = 45399 N
axle 2	(rdyn 421 mm)	T = 22513 N

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

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.59	0.46
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required braking rate	>= 0,4 and
(items 1.5.3 and 1.7.2 to annex 11)	>= 0,6*E (0.35)

axle 1	(rdyn 421 mm)	T = 45399 N
axle 2	(rdyn 421 mm)	T = 22513 N

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

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.59	0.46
---	------	------

required braking rate	>= 0,4 and
(items 1.5.3 and 1.7.2 to annex 11)	>= 0,6*E (0.35)

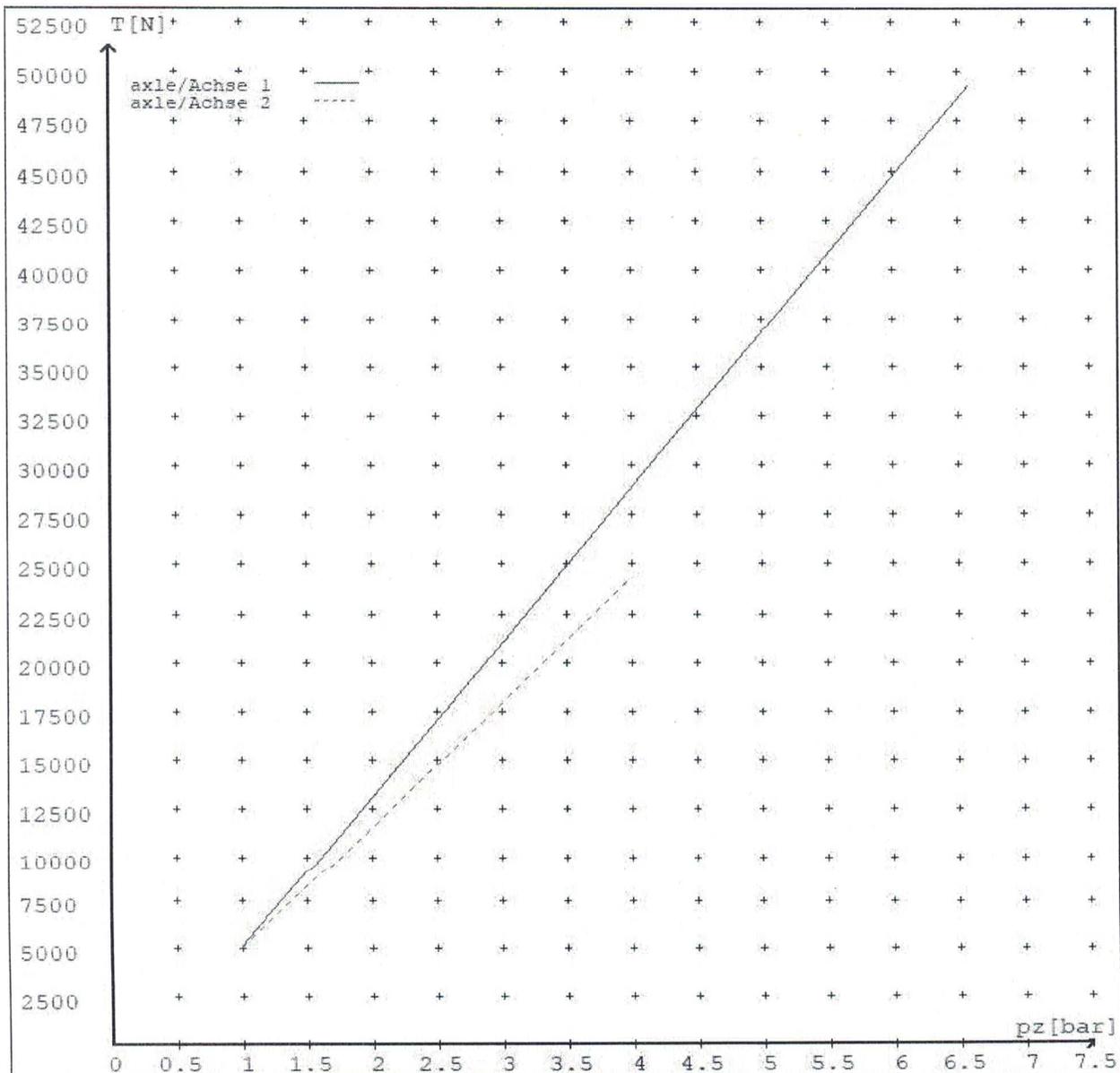
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5114	
	6.6	49303	
axle 2	1.0		5050
	4.0		24303

VIN - no.:

	Axle(s) / Achse(n)			
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	T.14/24	/	/
Maximum stroke smax = ...mm maximaler Hub smax =mm	65	64		
Lever length =mm Hebellänge =mm	69.08	69.08		



reference values for $z = 0.5$

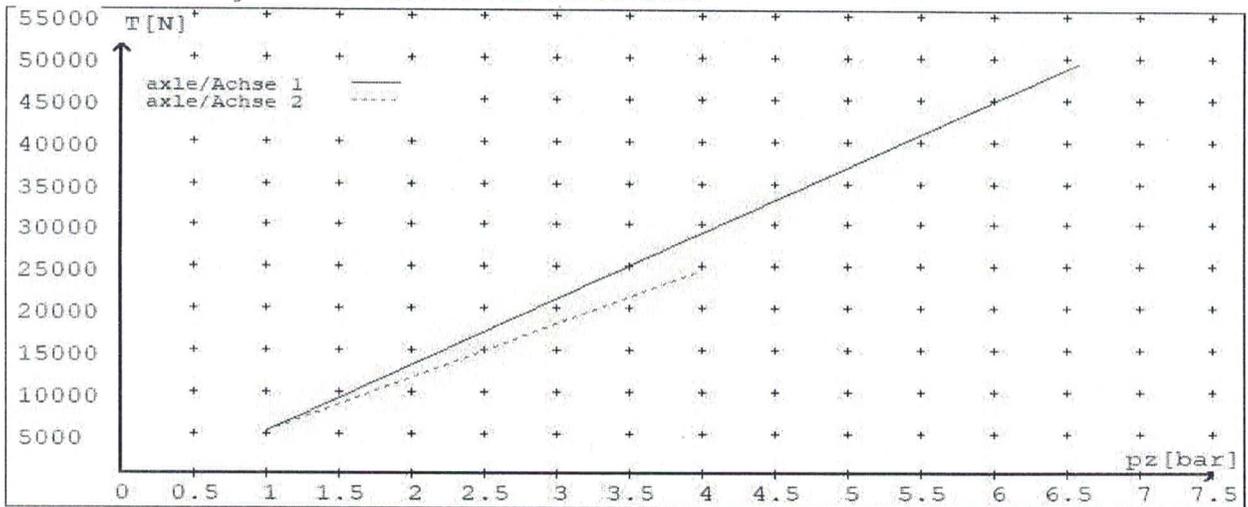
for max rdyn: 421 mm

Angabe der Referenzwerte für $z = 0.5$

für max rdyn: 421 mm

brake calculation no: TP 52386A date 01.11.2021

Bremsberechnung Nr: TP 52386A vom 01.11.2021



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	T.14/24	/	/	/
Maximum stroke $s_{max} = \dots$ mm maximaler Hub $s_{max} = \dots$ mm	65	64			
Lever length = \dots mm Hebellänge = \dots mm	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 32015/5.

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 32015/5. 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

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 32015/5, 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.

J E Hirst
(JEH HVEK)
(09 980 7300)



**NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015-5
WORKSHEET, PROCEDURE DOCUMENTATION SHEET
& CONFIRMATION OF COMPLIANCE**

CLIENT

MANUFACTURER:	DOMETT TRAILERS
ADDRESS:	TAURIKURA DRIVE, TAURANGA 3110
FLEET:	MORGAN SPREADING

VEHICLE DETAILS

VEHICLE TYPE:	2AFT BULK SPREADER	CERT #:	JH211102
YEAR:	2021	CALCULATION #:	TP52386
MAKE:	DOMETT	REGO:	N/A
MODEL:	B7001	LT400 #:	805176
CHASSIS #:	2125	ORDER #:	8284
VIN #:	7A9B70010M2023125		
GVM: t	15	PRIME MOVER:	UNKNOWN
LOAD CONFIGURATION:	UNIFORM DENSITY		
GROUP RATINGS: t	FRONT	REAR	
	7.5	7.5	
WHEEL BASE: m	3.3		
	UNLADEN COG m	MAX HEIGHT m	HEIGHT DECK m
	1	2.38	1.28
COG: m	1.587		
	FRONT	REAR	TOTAL
TARE: t	2.2	2.2	4.4
	FRONT	REAR	
TYRE SIZE:	265 70 R19.5	265 70 R19.5	
ROLLING CIRCUMFERENCE: mm	2645	2645	
AXLE SPACING: m	N/A	N/A	

BRAKE & AXLE DETAILS

AXLE:	MAKE SAF	MODEL SAF-ZI9W	TEST REPORT TDB0749
POLE WHEEL FRONT:	90	POLE WHEEL REAR:	90
LINING MATERIAL:	JURID 539	BRAKE FACTOR:	23.03
SENSED AXLES:	#1 & #2	NOTES:	
SERIAL NUMBERS:	1		ZI9-19W
	2		ZI9-19W
	3	N/A	N/A
	4	N/A	N/A

CHAMBER AND VALVING DETAILS

CHAMBERS:	AXLE 1	AXLE 2	
BRAND:	TSE_CHAMBERS	TSE_CHAMBERS	
SIZE:	20HSCLD	1416HTLD	
STROKE: mm	65	64	
TEST REPORT #:	BC 0041.0 Jul '07	BC0143.0	
SPRINGBRAKE FORCE: kN	N/A	6.16	
HOLDOFF PRESSURE: Bar	N/A	4.8	
FOUNDATION BRAKE:	WABCO PAN19	WABCO PAN19	
LEVER LENGTH: mm	69	69	
BRAKE VALVES:	MAKE:	PART NUMBER:	PM PRESS. kPa
ECU PART #:	WABCO	480 102 08. 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	FRONT FRICTION: μ	0.505
SUBSYSTEMS:	<input type="checkbox"/> SMARTBOARD <input type="checkbox"/> OPTI-LINK <input type="checkbox"/> CAN ROUTER 446 122 050 0	<input type="checkbox"/> ELEX 446 122 070 0 <input type="checkbox"/> TAILGUARD	

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:	*SEE NOTES	*SEE NOTES
OTHER VALVES:	N/A	N/A
RIDE HEIGHT <i>mm</i> :	390	240
HANGER HEIGHT <i>mm</i> :	250	290
PEDESTAL HEIGHT <i>mm</i> :	N/A	70
LIFTAXLE:		N/A
TIPPING DUMP SWITCH:		N/A
LIFTAXLE VALVE:		N/A
PRESSURE LIMITING:		N/A

AIR TANKS

AIR TANKS STANDARD:	SAE J10A / EN286-2	
	FRONT	REAR
BRAKE TANK SIZE: <i>L</i>	25	25
AUXILLARY TANK SIZE: <i>L</i>	N/A	20
PRESSURE PROTECTION:	WABCO PEM: 461 513 002 0	

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:	N/A	N/A
NORMAL LEVEL:	N/A	N/A
LOWER LEVEL:	N/A	N/A

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:	150	160	255

NOTES AND SPECIAL CONDITIONS

HCV NOT SPECIFIED IN THE DATA PROVIDED.

FILES RECEIVED: 29.10.2021

FILES CREATED & SENT TO CJC: 01.11.2021

FILES RETURNED AS COMPLETE: .. / .. / 2021

REASON FOR CERTIFICATION: NEW TRAILER BUILD

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 32015/5, SCHEDULE 5

DATE: 1/11/2021

SIGNED:

CERTIFIER NAME & ID: CHRIS CLARKE CJC

SODC BY: JOHN HIRST JEH

PHONE (BUS): 09-980-7300

FAX:

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