WAKA KOTAHI NZ TRANSPORT AGENCY

Heavy vehicle specialist certificate

Must be presented to a CoF (heavy) inspecting organisation if not entered into LANDATA

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

ID: C J C

Plate number *(optional)*:

VIN/chassis number: 7A9D10016M2023057

Make: DOMETT

Model *(optional)*: D1001

Certification category: HVEK

Component being certified:

- [ ] Chassis
- [ ] Load anchorage
- [ ] Log bolsters
- [ ] Towing connection
- [X] Brakes
- [ ] 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.
4A FULL TANKER **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): 26 Tonnes GVM
15 Tonnes (Front group rating)
15 Tonnes (Rear group ratings)

General drawing number(s): N/A

Supporting documents

BRAKE RULE CERTIFICATE LC210601
BRAKE CALCULATION # 20211 SAF 4A WPC

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)*: LANCE CAWTE L P C

Inspector's signature:

Inspector's name *(PRINT IN CAPS)*: CHRIS CLARKE

ID number: C J C

Date: 01-Jun-21

Number: 786397

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**	480 102 064 0
Production date	2020-12-18	**Serial number**	436080845100N
Serial number (modulator)	000000539706		
Fingerprint Customer EOL / Customer Development / Flash Program	W503643 / 2021-06-01 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

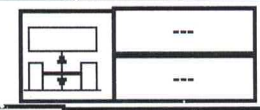
WABCO TRAILER EBS-E

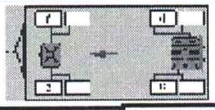
GGVS/ADR TUEH TB 2007 - 019.00
TDB 0870

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT
TYP TYPE TYPE	4A TANKER, D1001
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9D10016M2023057
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	2021 SAF 4A WPC

POLRADZÄHNEZAHL 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 Véhicule critique	
Subsystems	---		I/O	24N	

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





	pm (bar)		6.5	pm (bar)		0.8	2.0	---	6.5		TYP TYPE	(mm)	(mm)	(bar) 1.0 TR (daN)	Pz
ACHSE AXLE ESSIEU									pz						
1	1400	0.5	1.5	7500	4.7	0.4	1.3	---	5.5	-	20	65	76	534	4241
2	1400	0.5	1.5	7500	4.7	0.4	1.3	---	5.5	-	20	65	76	534	4241
3	1200	0.4	1.2	7500	4.7	0.4	1.5	---	4.6	-	16 / 16	63	76	496	3115
4	1200	0.4	1.2	7500	4.7	0.4	1.5	---	4.6	-	16 / 16	63	76	496	3115
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	**Vehicle ident. no**	7A9D10016M2023057
Vehicle type	4A TANKER, D1001	**Odometer reading**	9.0 km
next Service	0 km	**Trip reading**	9.0 km
Tester	Chris Clarke	**Signature**	
Date	2021-06-01 2:06:35 PM		

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

distribution: DOMETT
2021 SAF 4A WPC

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
trailer model : 4A TANKER, D1001
trailer type : 4-axle-full-trailer
remarks : air / hydraulic / VA suspension
WABCO TRAILER - EBS
TRISTOP 3+4: 16/16
265/70 R 19,5

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

		unladen	laden
total mass	P in kg	5200	30000
axle 1	P1 in kg	1400	7500
axle 2	P2 in kg	1400	7500
axle 3	P3 in kg	1200	7500
axle 4	P4 in kg	1200	7500
wheel base	E in mm	5070 - 5070	
centre of gravity height	h in mm	700	1534

		axle 1	axle 2	axle 3	axle 4
no. of combined axles		1	1	1	1
no. of brake chambers per axle line	KDZ	2	2	2	2
The power output corresponds to		BZ 122.1	BZ 122.1BC	0006.0BC	0006.0
brake chamber manufacturer		Meritor	Meritor	WABCO	WABCO
chamber size		20.	20.	16/16	16/16
lever length	lBh in mm	76	76	76	76
brake factor	[-]	22.37	22.37	22.37	22.37
dyn. rolling radius	rdyn min in mm	421	421	421	421
dyn. rolling radius	rdyn max in mm	421	421	421	421
threshold torque	Co Nm	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
chamber pressure(rdyn max)pH at z=22,5%bar		2.1	2.1	2.1	2.1
chamber press.(servo)pcha at pm6,5bar	bar	5.5	5.5	4.6	4.6
piston force	ThA at pm6,5bar N	6332	6332	4648	4648
brake force(rdyn min)T lad. at pm6,5bar	N	51239	51239	37636	37636
brake force(rdyn max)T lad. at pm6,5bar	N	51239	51239	37636	37636
Brake force incl. 1 % rolling resistance proportion	%	26.5	26.5	23.5	23.5

braking rate z laden 0.604 for rdyn min
z = sum (TR)/PRmax 0.604 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 WABCO
EBS trailer modulator

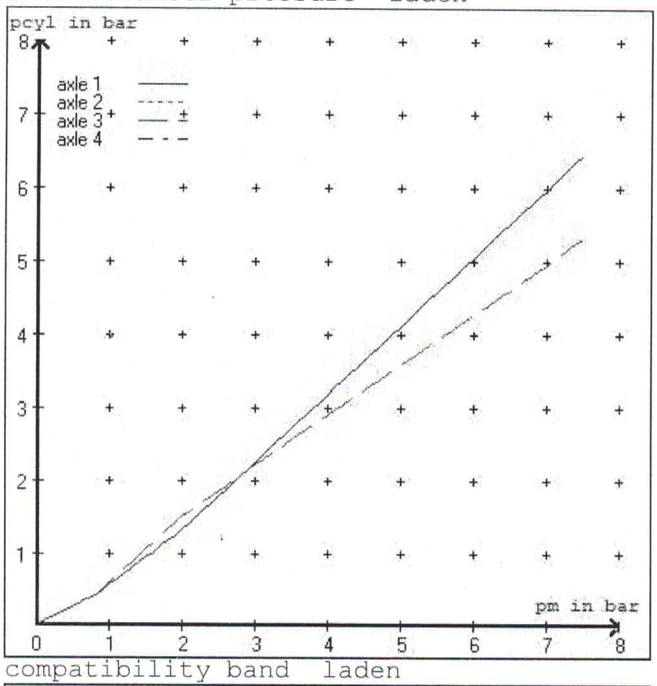
brake cylinder: WABCO 925 464 4.. 0 / 925 484 96. 0

axle 4:
valve 1: 480 102 ... 0 WABCO
EBS trailer modulator

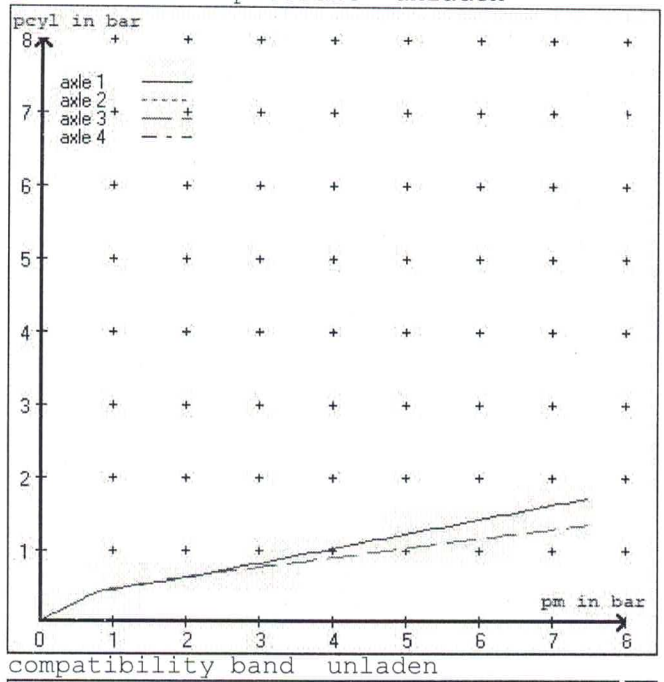
brake cylinder: WABCO 925 464 4.. 0 / 925 484 96. 0

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4
at pm 3.6 bar =>	pcha in bar :	2.8	2.8	2.6	2.6
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4
at pm 1.3 bar =>	pcha in bar :	0.8	0.8	0.9	0.9

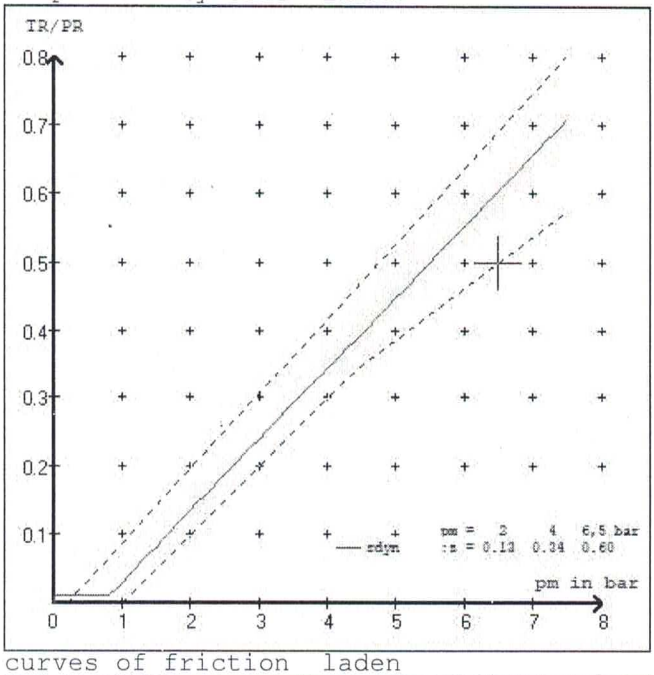
brake chamber pressure laden



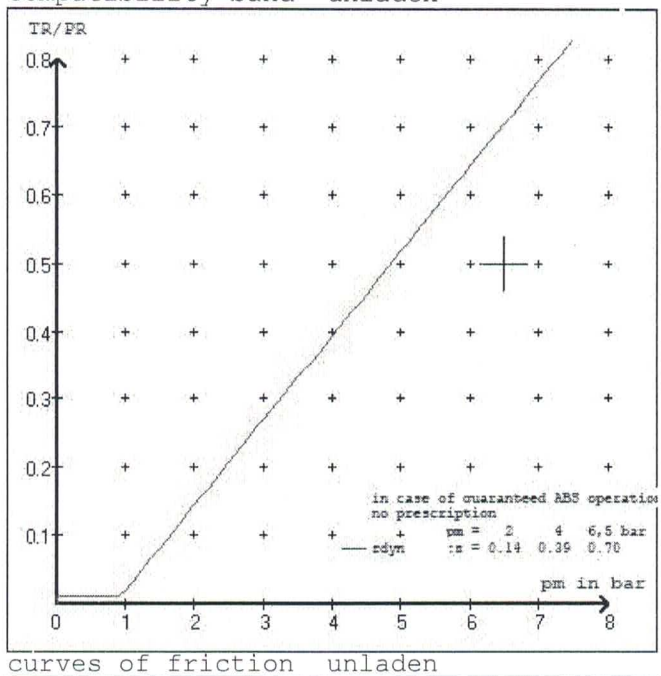
brake chamber pressure unladen



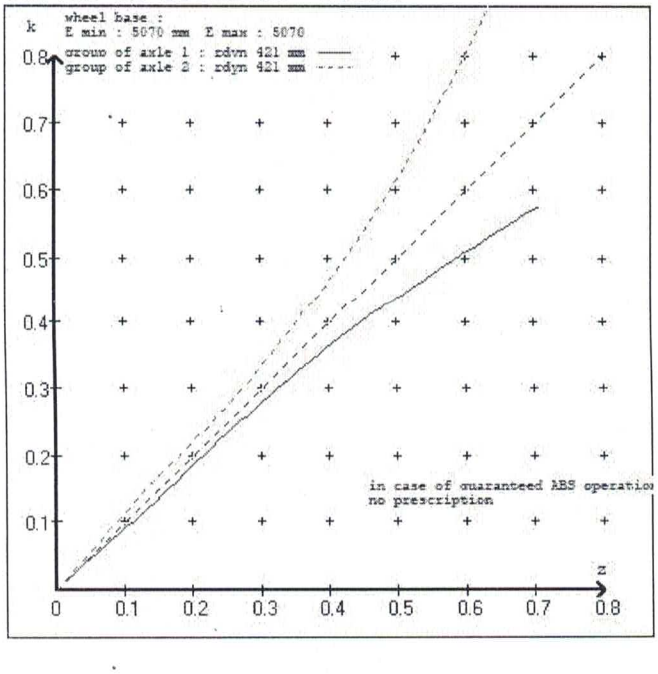
compatibility band laden



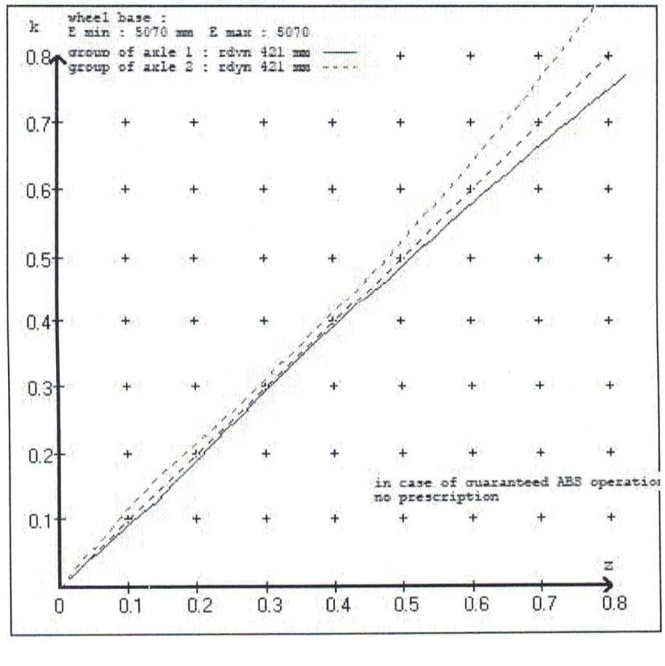
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT
trailer model : 4A TANKER, D1001
trailer type : 4-axle-full-trailer

brake chamber and lever length :

axle 1 :	2 x type/diameter	20.	(Meritor)	lever length 76 mm
axle 2 :	2 x type/diameter	20.	(Meritor)	lever length 76 mm
axle 3 :	2 x type/diameter	16/16	(WABCO)	lever length 76 mm
axle 4 :	2 x type/diameter	16/16	(WABCO)	lever length 76 mm

brake diagram :

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
trailer model : 4A TANKER, D1001
trailer type : 4-axle-full-trailer
brake calculation no. : TP 20211A

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	7500	to be	0.4	1.3	5.5
2	1400	entered by	1.5	7500	entered by	0.4	1.3	5.5
3	1200	the vehicle	1.2	7500	the vehicle	0.4	1.5	4.6
4	1200	manufact.	1.2	7500	manufact.	0.4	1.5	4.6
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 3		axle 4	
axle load	pcyl	axle load	pcyl	axle load	pcyl	axle load	pcyl
1400	1.5	1400	1.5	1200	1.2	1200	1.2
1900	1.8	1900	1.8	1700	1.5	1700	1.5
2400	2.2	2400	2.2	2200	1.7	2200	1.7
2900	2.5	2900	2.5	2700	2.0	2700	2.0
3400	2.8	3400	2.8	3200	2.3	3200	2.3
3900	3.1	3900	3.1	3700	2.5	3700	2.5
4400	3.5	4400	3.5	4200	2.8	4200	2.8
4900	3.8	4900	3.8	4700	3.1	4700	3.1
7500	5.5	7500	5.5	7500	4.6	7500	4.6

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

axle 1 :	reference axle: SAF	SBS 1937	brake lining:	SAF 437
	test report :	TDB 0870 ECE	date :	20131111
axle 2 :	reference axle: SAF	SBS 1937	brake lining:	SAF 437
	test report :	TDB 0870 ECE	date :	20131111
axle 3 :	reference axle: SAF	SBS 1937	brake lining:	SAF 437
	test report :	TDB 0870 ECE	date :	20131111
axle 4 :	reference axle: SAF	SBS 1937	brake lining:	SAF 437
	test report :	TDB 0870 ECE	date :	20131111

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 = 24.1 % Fe
axle 2	(rdyn 421 mm)	T = 24.1 % Fe
axle 3	(rdyn 421 mm)	T = 20.0 % Fe
axle 4	(rdyn 421 mm)	T = 20.0 % Fe

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

axle 1	(sp = 58 mm)	s = 47 mm
axle 2	(sp = 58 mm)	s = 47 mm
axle 3	(sp = 50 mm)	s = 47 mm
axle 4	(sp = 50 mm)	s = 47 mm

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

axle1	ThA = 6332 N
axle2	ThA = 6332 N
axle3	ThA = 4648 N
axle4	ThA = 4648 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 = 38993 N
axle 2	(rdyn 421 mm)	T = 38993 N
axle 3	(rdyn 421 mm)	T = 28649 N
axle 4	(rdyn 421 mm)	T = 28649 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	0.46
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 = 38993 N
axle 2	(rdyn 421 mm)	T = 38993 N
axle 3	(rdyn 421 mm)	T = 28649 N
axle 4	(rdyn 421 mm)	T = 28649 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	0.46
required braking rate (items 1.5.3 and 1.7.2 to annex 11)		>= 0,4 and >= 0,6*E (0.36)

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

axle 1 :	reference axle: SAF	SBS 1937	brake lining:	SAF 607
	test report :	TDB 0870 ECE	date :	2014520
axle 2 :	reference axle: SAF	SBS 1937	brake lining:	SAF 607
	test report :	TDB 0870 ECE	date :	2014520
axle 3 :	reference axle: SAF	SBS 1937	brake lining:	SAF 607
	test report :	TDB 0870 ECE	date :	2014520
axle 4 :	reference axle: SAF	SBS 1937	brake lining:	SAF 607
	test report :	TDB 0870 ECE	date :	2014520

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 = 24.1 % Fe
axle 2	(rdyn 421 mm)	T = 24.1 % Fe
axle 3	(rdyn 421 mm)	T = 20.0 % Fe
axle 4	(rdyn 421 mm)	T = 20.0 % Fe

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

axle 1	(sp = 58 mm)	s = 46 mm
axle 2	(sp = 58 mm)	s = 46 mm
axle 3	(sp = 50 mm)	s = 46 mm
axle 4	(sp = 50 mm)	s = 46 mm

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

axle1	ThA = 6332 N
axle2	ThA = 6332 N
axle3	ThA = 4648 N
axle4	ThA = 4648 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 = 40838 N
axle 2	(rdyn 421 mm)	T = 40838 N
axle 3	(rdyn 421 mm)	T = 29995 N
axle 4	(rdyn 421 mm)	T = 29995 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 = 40838 N
axle 2	(rdyn 421 mm)	T = 40838 N
axle 3	(rdyn 421 mm)	T = 29995 N
axle 4	(rdyn 421 mm)	T = 29995 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)

spring parking brake

		axle 3	axle 4
no of TRISTOP-actuators per axle line	KDZ	2	2
TRISTOP-actuator type		16/16	16/16
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	6282	6282
sp.brake chamber no 925		464 4.. 0	464 4.. 0
sp.brake chamber no 925		484 96. 0	484 96. 0
release pressure	pLs in bar	5.0	5.0

calculation:

ratio until road		4.2397	4.2397
iFb = lBh*Eta*Ç*rBt/(rBn*rstat)			
	for rstat in mm	401	401
brake force of spring br. Tf	in N	52598	52598
Tf = (TFZ*KDZ-2*Co/lBh)*iFb			
braking rate	zf laden	0.367	
zf = 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

min Ef = E * (1 - PR/P + zferf * h/E) / (1 - zferf / (fzul * nf/ng))

min Ef = 3627 mm for E = 5070 mm
==========
min Ef = 3627 mm for E = 5070 mm
==========

min Ef	=		minimum distance between front axle(s) (trailer) or support (semitrailer) 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	=	1534 mm	height of center of gravity - laden
PR	=	15000 kg	maximum bogie mass - laden
P	=	30000 kg	maximum total mass - laden
nf	=	2	no. of axle(s) with TRISTOP spring brake actuators
ng	=	2	no. of bogie axle(s)

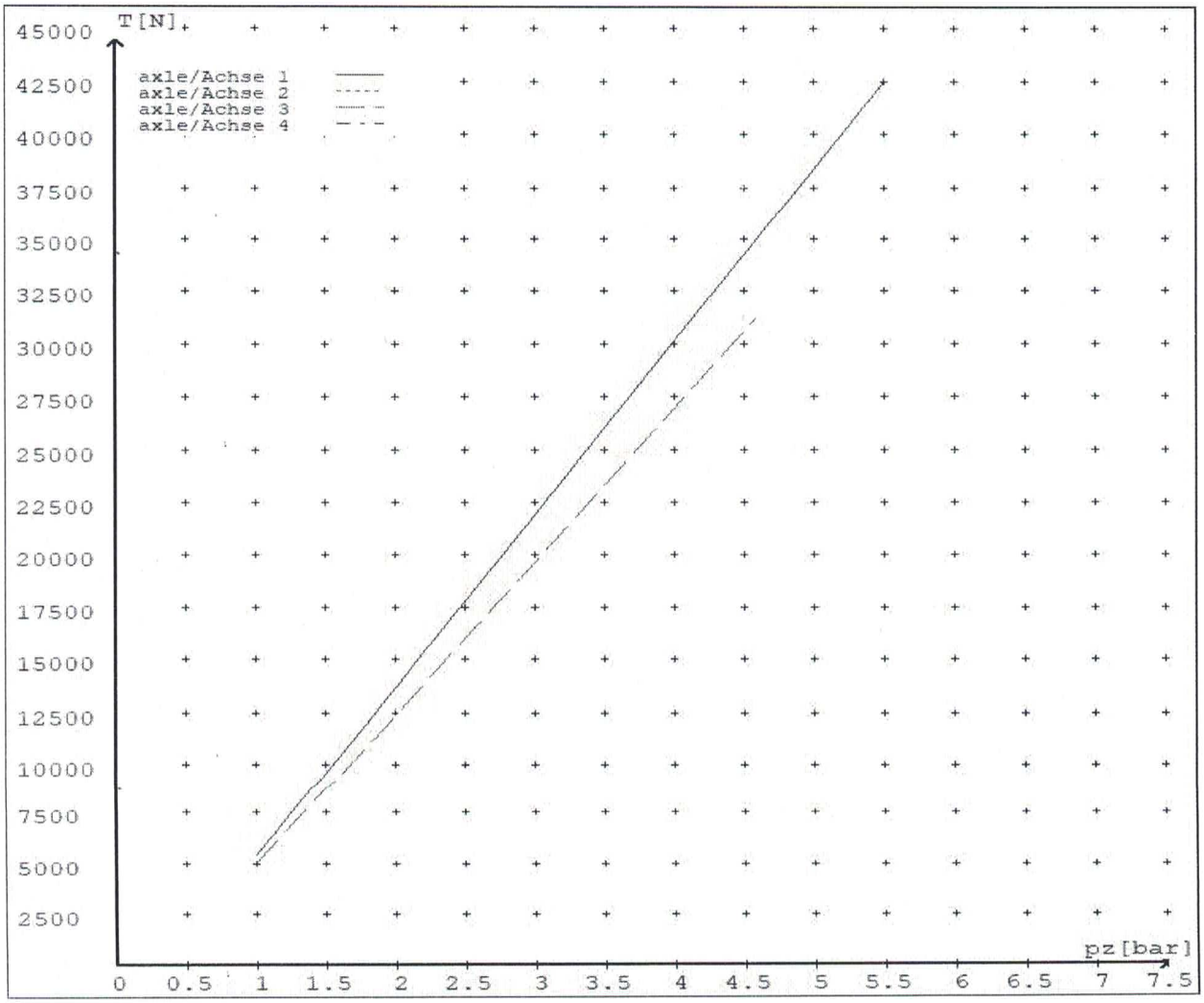
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0 5.5	5350 42416	
axle 2	1.0 5.5	5350 42416	
axle 3	1.0 4.6		4969 31156
axle 4	1.0 4.6		4969 31156

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	20./	16/16	16/16	/
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	65	65	63	63	
Lever length = ...mm Hebellänge = ...mm	76	76	76	76	

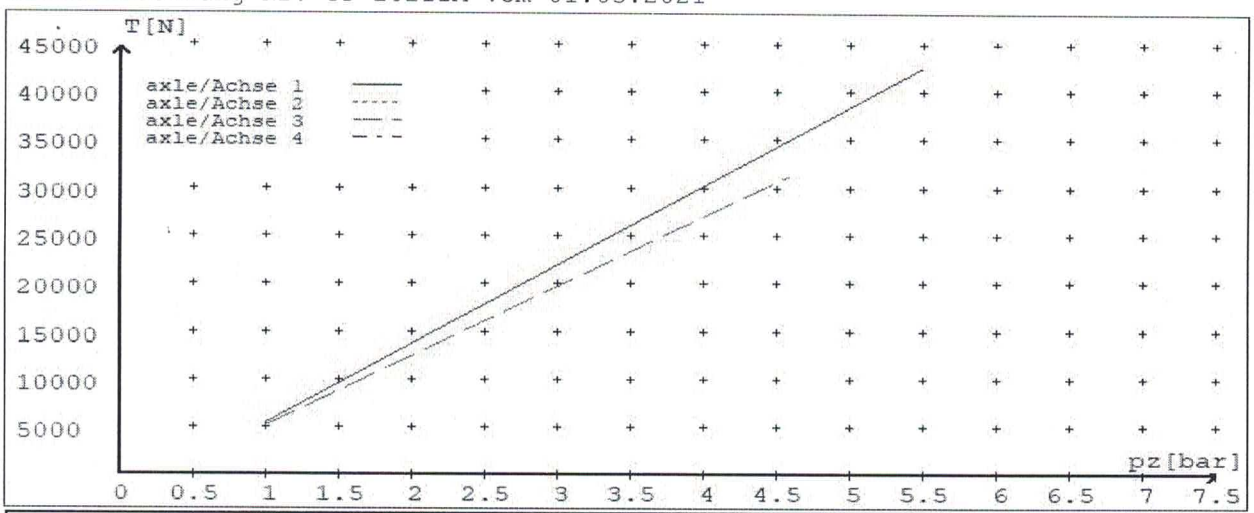


Print on WABCO no. 899 200 922 4 (only possible with laser printers!)

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 20211A date 01.03.2021
Bremsberechnung Nr: TP 20211A vom 01.03.2021



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	20./	16/16	16/16	/
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	65	65	63	63	
Lever length = ...mm Hebellänge = ...mm	76	76	76	76	

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:	FONTERRA

VEHICLE DETAILS

VEHICLE TYPE:	4A FULL TANKER	**CERT #:**	LC210601
YEAR:	2021	**CALCULATION #:**	20211 SAF 4A WPC
MAKE:	DOMETT	**REGO:**	
MODEL:	D1001	**LT400 #:**	786397
CHASSIS #:	2057	**ORDER #:**	8016
VIN #:	7A9D10016M2023057		
GVM: *t*	26	**PRIME MOVER:**	EBS / EUROPEAN
LOAD CONFIGURATION:	UNIFORM DENSITY		

	FRONT	REAR
GROUP RATINGS: *t*	15	15
WHEEL BASE: *m*	5.07	

	UNLADEN COG *m*	MAX HEIGHT *m*	HEIGHT DECK *m*
	0.7	2.485	1
COG: *m*	1.534		

	FRONT	REAR	TOTAL
TARE: *t*	2.8	2.4	5.2

	FRONT	REAR
TYRE SIZE:	265 70 R19.5	265 70 R19.5
ROLLING CIRCUMFERENCE: *MM*	2645	2645
AXLE SPACING: *m*	1.3	1.3

BRAKE & AXLE DETAILS

	MAKE	MODEL	TEST REPORT
AXLE:	SAF	SAF-ZI9S	TDB0870
POLE WHEEL FRONT:	90	**POLE WHEEL REAR:**	90
LINING MATERIAL:	SAF 607	**BRAKE FACTOR:**	22.37
SENSED AXLES:	1 + 3		**NOTES:**
SERIAL NUMBERS:	1		
	2		
	3		
	4		

CHAMBER AND VALVING DETAILS

CHAMBERS:	**AXLE 1 & 2**	**AXLE 3 & 4**	
BRAND:	TSE_CHAMBERS	WABCO_CHAMBERS	
SIZE:	20HSCLD	1616 (925/464/461/0)	
STROKE: *mm*	65	63	
TEST REPORT #:	BC 0041.0 Jul '07	BC 0006.0	
SPRING BRAKE FORCE: *kN*	N/A	6.28	
HOLDOFF PRESSURE: *Bar*	N/A	5	
FOUNDATION BRAKE:	SAF SBS1918	SAF SBS1918	
LEVER LENGTH: *mm*	76	76	
BRAKE VALVES:	**MAKE:**	**PART NUMBER:**	**PM PRESS.** *kPa*
ECU PART #:	WABCO	480 102 064 0 (24V)	80 kPa
3RD MODULATOR #:	WABCO	480 207 001 0 (24V)	80 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:	☑ FRONT ☐ REAR	**FRONT FRICTION: μ**	0.51

SUBSYSTEMS: ☐ SMARTBOARD ☐ OPTI-LINK ☐ CAN ROUTER 446 122 050 0

☐ ELEX 446 122 070 0 ☐ TAILGUARD

SUSPENSION

	FRONT	REAR
SUSPENSION TYPE:	PNEUMATIC	PNEUMATIC
MAKE:	SAF_AIRSPRING	SAF_AIRSPRING
MODEL:	SAF_INTRA	SAF_INTRA
BELLOW SIZE:	2619, 300mm	2619, 300mm
HEIGHT CONTROL VALVE:	464 008 011 0	464 008 011 0
OTHER VALVES:	Norgren 3042402	Norgren 3042402
RIDE HEIGHT *MM*:	250	250
HANGER HEIGHT *MM*:		
PEDESTAL HEIGHT *MM*:		
LIFTAXLE:		N/A
TIPPING DUMP SWITCH:		PNEUMATIC
LIFT AXLE VALVE:		N/A
PRESSURE LIMITING:		N/A

AIR TANKS

AIR TANKS STANDARD: SAE J10A / EN286-2

	FRONT	REAR
BRAKE TANK SIZE: *L*	12113p, 46L	12113p, 46L
AUXILIARY TANK SIZE: *L*		12113p, 46L
PRESSURE PROTECTION:	WABCO PEM: 461 513 002 0	

AIR LINES

TEST POINTS:

CONTROL LINE:	FILTER X 1	**TANK:**	ECU X 1
REAR CHAMBER:	ECU X 2	**FRONT CHAMBER:**	LEFT 1st 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:	260	270	295

NOTES AND SPECIAL CONDITIONS

15/2/2021 Received drawings and build list.

1/3/2021 Compile information carry out calculation and ECU file. Send for peer review.

3/3/2021 modify and correct files. Complete draft files for all trailers.

Norgren, 3042402, 3/2 way manual valve

1/6/2021 Complete file and SODC and send.

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: 1/06/2021

SIGNED: 

CERTIFIER NAME & ID: **CHRIS CLARKE** **C J C**

SODC BY: **LANCE CAWTE** **L P C**

PHONE (BUS): 09-980-7300

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