NZ TRANSPORT AGENCY
WAKA KOTAHI

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: CJC

Plate number *(optional)*:

VIN/chassis number: 7A9D15011T2023589

Make: DOMETT

Model *(optional)*: D1501

Certification category: HVEK

Component being certified:

- [ ] Chassis
- [ ] Load anchorage
- [ ] Log bolster attachment
- [ ] Towing connection
- [X] Brakes
- [ ] SRT
- [ ] PSV stability
- [ ] PSV rollover
- [ ] Swept path
- [ ] PBS

Description of work

CERTIFY TO SCHEDULE 5 OF LTR 32015: NZ HEAVY VEHICLE BRAKE SPECIFICATION.
CARRY OUT BRAKE CALCULATIONS, INSPECTION AND ECU END OF LINE PROTOCOL.
4AFT PLATFORM **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): 30 Tonnes GVM
16 Tonne (Front brake mass)
16 Tonne (Rear brake mass)

General drawing number(s): N/A

Supporting documents

BRAKE RULE CERTIFICATE JH261014
BRAKE CALCULATION # TP53189

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)*: JOHN HIRST J E H

Inspector's signature:

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

Date: 20-Oct-26

Serial number (includes letter): H 22397

CoF vehicle inspector ID *(if applicable)*:

CoF vehicle inspector signature *(if applicable)*:

Date:

Te Kāwanatanga o Aotearoa
New Zealand Government

All fields are mandatory unless otherwise stated.

Form ID: LT400

Version No. 05/26

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

distribution: DOMETT TRAILERS
7A9D15011T2023589
SoDC: JH261014
LT400: CJC H22397

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 13.10.2020

vehicle manufacturer: DOMETT TRAILERS
trailer model : 4AFT PLATFORM
trailer type : 4-axle-full-trailer
remarks : air / hydraulic / VA suspension
WABCO TRAILER - EBS
TRISTOP 3+4: 16/24
265/70 R 19,5
THE FRONT CHAMBERS ARE HALDEX [T20 125 200 ..]

axle 1 + 2 + 3 + 4 : Assali Stefen, K, 361-071-04 ECE Re 432,

		unladen	laden
total mass	P in kg	5200	32000
axle 1	P1 in kg	1400	8000
axle 2	P2 in kg	1400	8000
axle 3	P3 in kg	1200	8000
axle 4	P4 in kg	1200	8000
wheel base	E in mm	5500 - 5600	
centre of gravity height	h in mm	770	2100

		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	0165.2BC	0165.2
brake chamber manufacturer		Meritor	Meritor	Haldex	Haldex
chamber size		20.	20.	16/24	16/24
lever length	lBh in mm	74	74	74	74
brake factor	[-]	20.26	20.26	20.26	20.26
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	7.0	7.0	7.0	7.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar		2.7	2.7	2.4	2.4
chamber pressure(rdyn max)pH at z=22,5%bar		2.7	2.7	2.4	2.4
chamber press.(servo)pcha at pm6,5bar	bar	6.8	6.8	4.8	4.8
piston force ThA at pm6,5bar	N	7934	7934	4573	4573
brake force(rdyn min)T lad. at pm6,5bar	N	56616	56616	32681	32681
brake force(rdyn max)T lad. at pm6,5bar	N	56616	56616	32681	32681
Brake force incl. 1 % rolling resistance proportion	%	27.3	27.3	22.7	22.7

braking rate z laden 0.569 for rdyn min
z = sum (TR)/PRmax 0.569 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: Haldex 135 1624 ... / 175 1624...

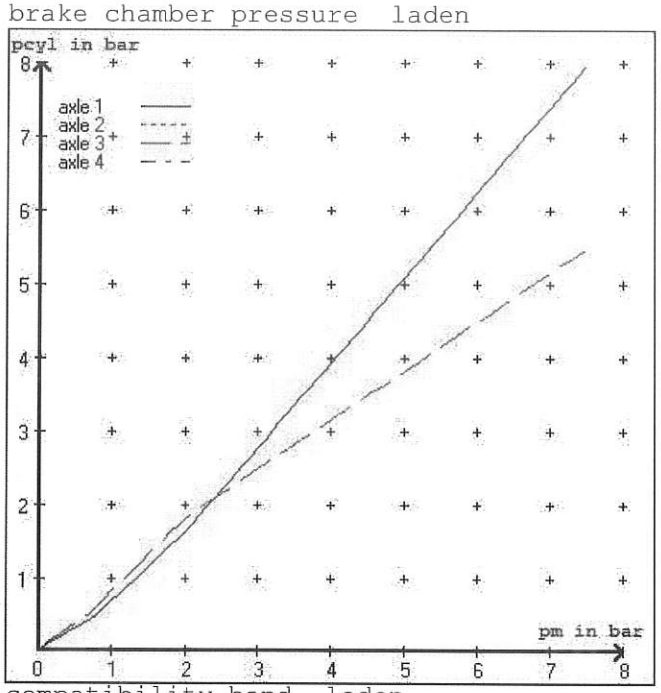
axle 4:
valve 1: 971 002 ... 0 WABCO
EBS emergency valve

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

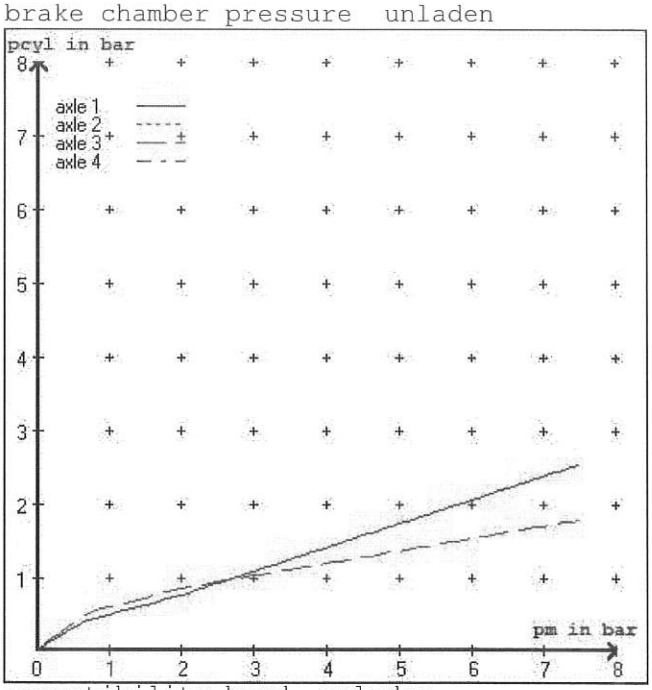
brake cylinder: Haldex 135 1624 ... / 175 1624...

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4
at pm 3.7 bar =>	pcha in bar :	3.6	3.6	2.9	2.9
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4
at pm 1.2 bar =>	pcha in bar :	0.9	0.9	1.0	1.0

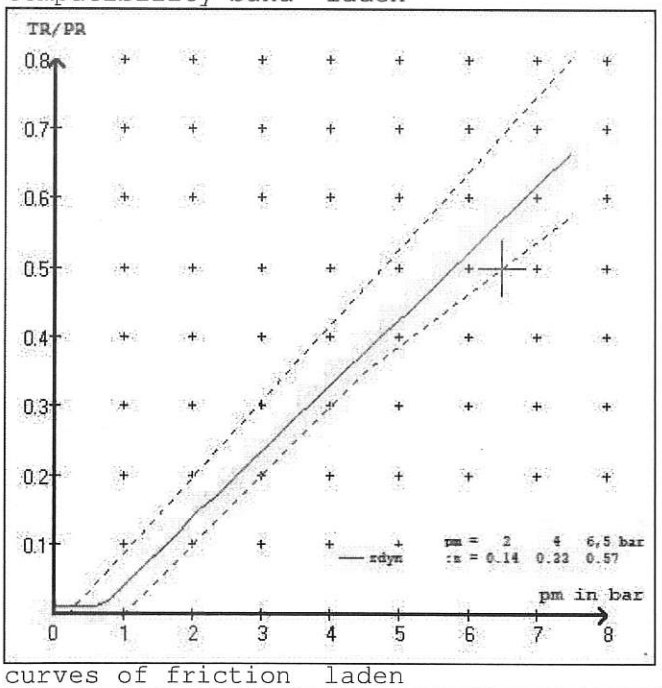
brake chamber pressure laden



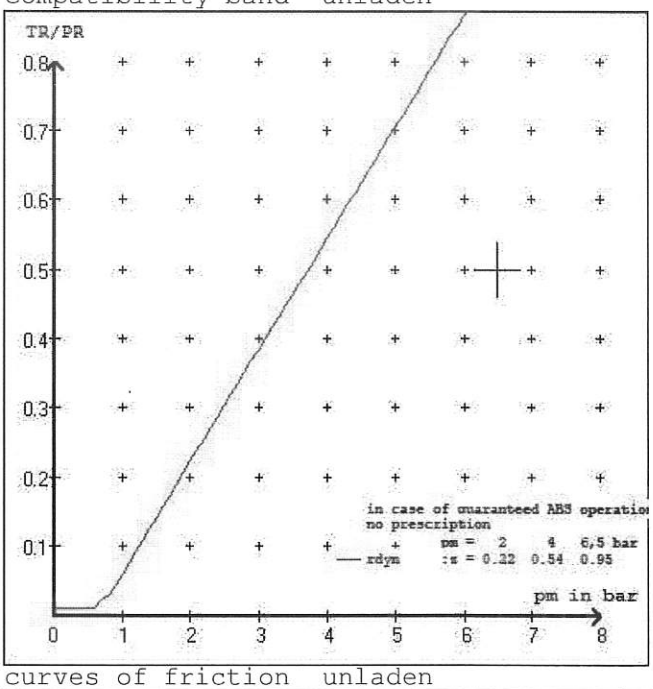
brake chamber pressure unladen



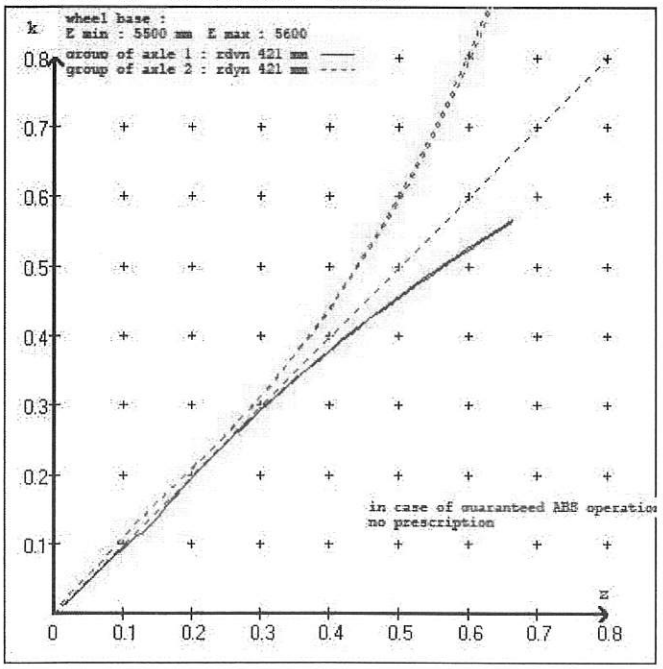
compatibility band laden



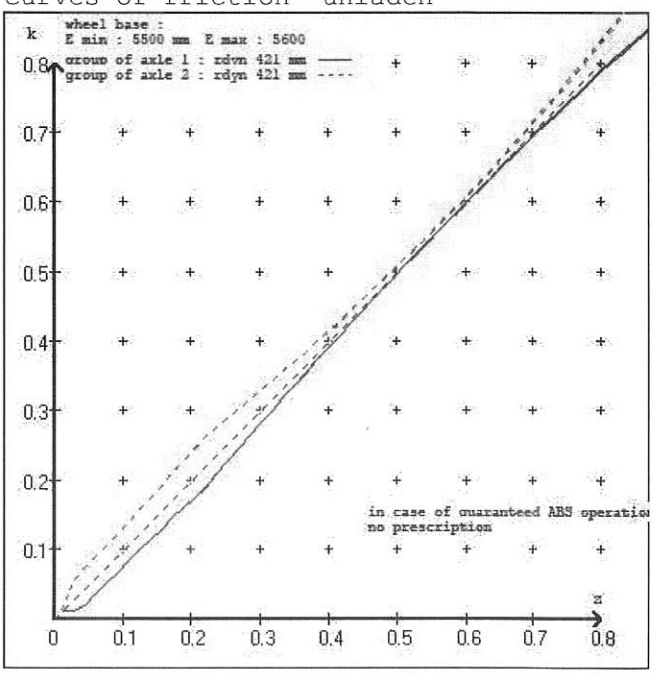
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS
trailer model : 4AFT PLATFORM
trailer type : 4-axle-full-trailer

brake chamber and lever length :
axle 1 : 2 x type/diameter 20. (Meritor) lever length 74 mm
axle 2 : 2 x type/diameter 20. (Meritor) lever length 74 mm
axle 3 : 2 x type/diameter 16/24 (Haldex) lever length 74 mm
axle 4 : 2 x type/diameter 16/24 (Haldex) lever length 74 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 : 4AFT PLATFORM
trailer type : 4-axle-full-trailer
brake calculation no. : TP 53189A

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 = 0.136
6.5 bar z = 0.570

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 entered by the vehicle manufact.	2.2	8000	to be entered by the vehicle manufact.	0.4	1.6	6.8
2	1400		2.2	8000		0.4	1.6	6.8
3	1200		1.6	8000		0.5	1.8	4.8
4	1200		1.6	8000		0.5	1.8	4.8
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	2.2	1400	2.2	1200	1.6	1200	1.6
1900	2.5	1900	2.5	1700	1.8	1700	1.8
2400	2.9	2400	2.9	2200	2.1	2200	2.1
2900	3.2	2900	3.2	2700	2.3	2700	2.3
3400	3.6	3400	3.6	3200	2.5	3200	2.5
3900	3.9	3900	3.9	3700	2.8	3700	2.8
4400	4.3	4400	4.3	4200	3.0	4200	3.0
4900	4.6	4900	4.6	4700	3.2	4700	3.2
8000	6.8	8000	6.8	8000	4.8	8000	4.8

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

axle 1 : reference axle: Assali StefTM or LM or LCen		brake lining: ROR 8616 AF (M13)
test report :	361-071-04 ECE Re 432	date : GA310709
axle 2 : reference axle: Assali StefTM or LM or LCen		brake lining: ROR 8616 AF (M13)
test report :	361-071-04 ECE Re 432	date : GA310709
axle 3 : reference axle: Assali StefTM or LM or LCen		brake lining: ROR 8616 AF (M13)
test report :	361-071-04 ECE Re 432	date : GA310709
axle 4 : reference axle: Assali StefTM or LM or LCen		brake lining: ROR 8616 AF (M13)
test report :	361-071-04 ECE Re 432	date : GA310709

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 = 26.1 % Fe
axle 2	(rdyn 421 mm)	T = 26.1 % Fe
axle 3	(rdyn 421 mm)	T = 17.6 % Fe
axle 4	(rdyn 421 mm)	T = 17.6 % Fe

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

axle 1	(sp = 58 mm)	s = 38 mm
axle 2	(sp = 58 mm)	s = 38 mm
axle 3	(sp = 50 mm)	s = 38 mm
axle 4	(sp = 50 mm)	s = 38 mm

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

axle1	ThA = 7934 N
axle2	ThA = 7934 N
axle3	ThA = 4573 N
axle4	ThA = 4573 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 = 48513 N
axle 2	(rdyn 421 mm)	T = 48513 N
axle 3	(rdyn 421 mm)	T = 28058 N
axle 4	(rdyn 421 mm)	T = 28058 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)	0.57	0.49
required braking rate (items 1.5.3 and 1.7.2 to annex 11)		>= 0,4 and >= 0,6*E (0.34)

axle 1	(rdyn 421 mm)	T = 48513 N
axle 2	(rdyn 421 mm)	T = 48513 N
axle 3	(rdyn 421 mm)	T = 28058 N
axle 4	(rdyn 421 mm)	T = 28058 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)	0.57	0.49
required braking rate (items 1.5.3 and 1.7.2 to annex 11)		>= 0,4 and >= 0,6*E (0.34)

spring parking brake

		axle 3	axle 4
no of TRISTOP-actuators per axle line	KDZ	2	2
TRISTOP-actuator type		16/24	16/24
lever length	lBh in mm	74	74
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	6003	6003
sp.brake chamber no Haldex		135 162	135 162
sp.brake chamber no Haldex		175 162	175 162
release pressure	pLs in bar	5.2	5.2

calculation:

ratio until road		3.7388	3.7388
iFb = lBh*Eta*C*rBt/(rBn*rstat)			
	for rstat in mm	401	401
brake force of spring br. Tf	in N	44180	44180
Tf = (TFZ*KDZ-2*Co/lBh)*iFb			
braking rate	zf laden	0.291	
zf = sum (Tf)/P + 0,01			

Test of the frictional connection required by the parking brake

Min. wheelbase/min. supporting width (theoretical proof / no ECE regulation!):
In the event of non-compliance, carry out a practical test or use the procedure described in ECE / Appendix 20.

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

min Ef = 4036 mm for E = 5500 mm
==========
min Ef = 4101 mm for E = 5600 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	=	2100 mm	height of center of gravity - laden
PR	=	16000 kg	maximum bogie mass - laden
P	=	32000 kg	maximum total mass - laden
nf	=	2	no. of axle(s) with TRISTOP spring brake actuators
ng	=	2	no. of bogie axle(s)

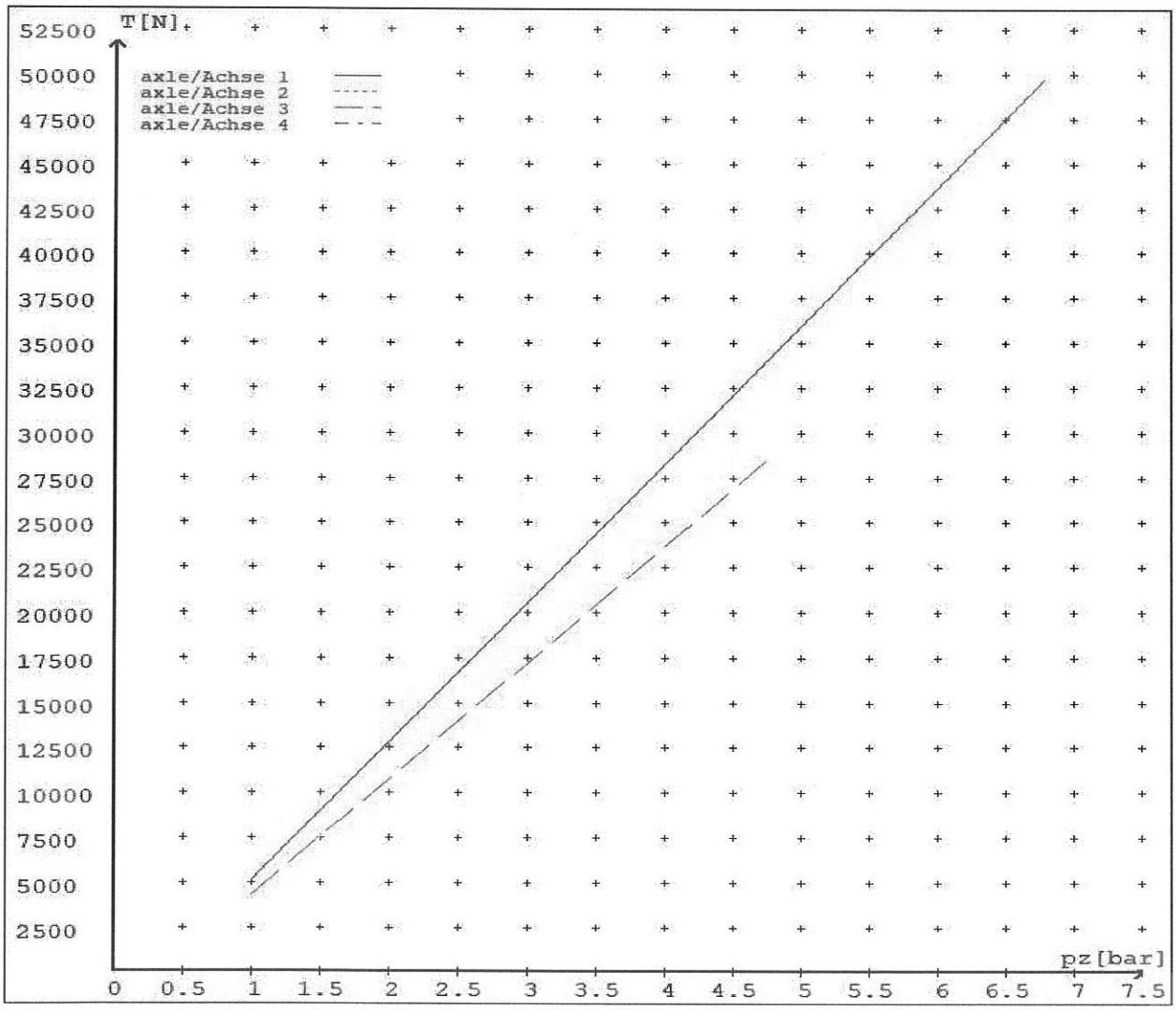
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0 6.8	5029 49751	
axle 2	1.0 6.8	5029 49751	
axle 3	1.0 4.8		4222 28718
axle 4	1.0 4.8		4222 28718

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	20./	16/24	16/24	/
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	65	65	65	65	
Lever length = ...mm Hebellänge = ...mm	74	74	74	74	



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

CLIENT

MANUFACTURER:	DOMETT TRAILERS
ADDRESS:	TAURIKURA DRIVE, TAURANGA 3110
FLEET:	T R GROUP

VEHICLE DETAILS

VEHICLE TYPE:	4AFT PLATFORM	**CERT #:**	JH261014
YEAR:	2026	**CALCULATION #:**	TP53189
MAKE:	DOMETT	**REGO #:**	N/A
MODEL:	D1501	**LT400 #:**	H22397
CHASSIS #:	2589	**ORDER #:**	11614
VIN #:	7A9D15011T2023589		
GVM: *t*	30	**PRIME MOVER:**	UNKNOWN
LOAD CONFIGURATION:	MIXED FREIGHT		

	FRONT	REAR
GROUP RATINGS: *t*	16	16
WHEEL BASE: *m*	5.55	

	UNLADEN COG *m*	MAX HEIGHT *m*	HEIGHT DECK *m*
	0.77	4.3	1.1
COG: *m*	2.101		

	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*	1.31	1.31

BRAKE & AXLE DETAILS

	MAKE	MODEL	TEST REPORT
AXLE:	ROR_ASSALI_STEFEN	ROR-CS9 I DISC	361-071-04
POLE WHEEL FRONT:	90	**POLE WHEEL REAR:**	90
LINING MATERIAL:	ROR 8616	**BRAKE FACTOR:**	20.26
SENSED AXLES:	2 + 4		**NOTES:**
SERIAL NUMBERS: 1	N/A		ROR CS9L
2	N/A		ROR CS9L
3	N/A		ROR CS9L
4	N/A		ROR CS9L
5	N/A		N/A

CHAMBER AND VALVING DETAILS

CHAMBERS:	**AXLE 1 & 2**	**AXLE 3**	**AXLE 4**
BRAND:	HALDEX_CHAMBERS	HALDEX_CHAMBERS	HALDEX_CHAMBERS
SIZE:	20, (125 200)	1624 (135/175 1624)	1624 (135/175 1624)
STROKE: *mm*	66	65	65
TEST REPORT #:	BC0175.0	BC0165.0	BC0165.0
SPRINGBRAKE FORCE: *kN*	N/A	6.003	6.003
HOLDOFF PRESSURE: *Bar*	N/A	5.2	5.2
FOUNDATION BRAKE:	MERITOR	MERITOR	MERITOR
LEVER LENGTH: *mm*	74	74	74
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:	WABCO_PREV	971 002 900 0	
YARD RELEASE VALVE:	WABCO-PREV	971 002 900 0	
INLINE RELAY FITTED:	N/A	N/A	

ECU DIRECTION: ☑ FRONT ☐ REAR **FRONT FRICTION: μ** 0.5

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

☐ ELEX 446 122 070 0 ☐ TAILGUARD

SUSPENSION

	FRONT	REAR
SUSPENSION TYPE:	PNEUMATIC	PNEUMATIC
MAKE:	ROR_AIRSPRING	ROR_AIRSPRING
MODEL:	ROR_INTRA	ROR_INTRA
BELLOW SIZE:	CS9I	CS9I
HEIGHT CONTROL VALVE:	HALDEX 90554950	HALDEX 90554950
OTHER VALVES:	N/A	N/A
RIDE HEIGHT *mm* :	270	270
HANGER HEIGHT *mm* :	250	250
PEDESTAL HEIGHT *mm* :	75	75
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: *L*	46	46
AUXILLARY TANK SIZE: *L*	N/A	46
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		

HEAVY VEHICLE BRAKE RULE - 32015

☐ SCHEDULE 4 ☑ SCHEDULE 5 ☐ SECTION 6 ☐ APPROVED STD

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:			

NOTES, SKETCHES AND SPECIAL CONDITIONS

FILES RECEIVED: 21.09.2026 **FILES CREATED: 07.10.2026**

FILES ENCRYPTED & SENT: 20.10.20246

REQUEST A COPY OF THE TARE WEIGHT DOCKET ☑

FILES RETURNED AS COMPLETE:

REASON FOR CERTIFICATION: NEW TRAILER BUILD

I declare I am a Heavy Vehicle Specialist Certifier – Engineer and I hold a current valid appointment as an inspecting organisation and vehicle inspector. I certify that the vehicle component design and certification specified in this Procedure Document Sheet complies in all respects with applicable requirements for the aspect at the time of certification. I also certify that I have carried out my inspection and certification activities in accordance with the conditions and requirements of my appointment. To the best of my knowledge the information contained in this document is true and correct.

NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015, SCHEDULE 5.

DATE: 20/10/2026

SIGNED:

CERTIFIER NAME & ID: CHRIS CLARKE CJC

SODC BY: JOHN HIRST JEH

PHONE (BUS): 09-980-7300

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