

Heavy vehicle specialist certificate

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

Plate number (optional)	VIN/chassis number 7A9B20015N2023220
Make DOMETT	Component being certified: Chassis <input type="checkbox"/> Load anchorage <input type="checkbox"/>
Model (optional) B2001	Log bolsters <input type="checkbox"/> Towing connection <input checked="" type="checkbox"/> Brakes
Certification category HVEK	SRT <input type="checkbox"/> PSV stability <input type="checkbox"/> PSV rollover <input type="checkbox"/>
	Swept path <input type="checkbox"/> PBS <input type="checkbox"/>

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.
 2AFT CURTAINSIDE **RSS ON TYRE: 355 50 R22.5**
 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) 16 Tonnes GVM
General drawing number(s) N/A	8 Tonnes (Front brake mass) 8 Tonnes (Rear brake mass)

Supporting documents
 BRAKE RULE CERTIFICATE JH220824
 BRAKE CALCULATION # TP52571

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 **842367**

Date **03.10.2022** Number **842367**

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	480 102 080 0
Production date	2022-08-08	Serial number	897042082000G
Serial number (modulator)	000000557500		
Fingerprint Customer EOL / Customer Development / Flash Program	W503643 / 2022-10-03 ; 00000000 / 0000-00-00 ; 000000000 / 0000-00-00		

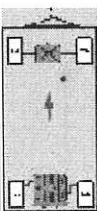
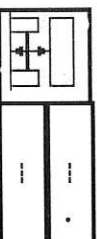
WABCO

TRAILER EBS-E

GVWS/ADR TUEH TB 2007 - 019.00
TDB0678

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS		
TYPE	2AFT CURTAINSIDE		
VEHICLE IDENT. NUMBER CHAISSÉ NUMÉRIER NUMERO DE CHASSIS	7A9B20015N2023220		
BREMSENRECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP52571A		
POLYADRIENZEHN, c-d e-f POLYADRIENZEHN, c-d e-f DENTS ROUE DEVENTE c-d e-f	90	90	ABS System ABS-System systeme ABS
RSS RSS RSS			4S/3M
Einfachachslung Simple axle Monte simple			Lenkachs Steuerung axle Essieu vireur
Zwillingsachslung Twin axle Monte jumelle	X		Kopfkritisches Fahrzeug Critical Trailer Vehicule critique

Subsystems I/O 24N



ACQUIS ESBIU	pM (bar)				pZ	TR (dan)	PZ							
	6.5	6.5	0.8	2.0										
1	2100	1.0	2.9	8000	5.1	0.4	1.5	6.6	-	20	65	69	489	4646
2	1920	0.9	2.3	8000	5.1	0.3	1.7	5.5	-	14 / 16	64	69	483	3200
3	0	---	---	---	---	---	---	---	---	---	---	---	---	---
4	0	---	---	---	---	---	---	---	---	---	---	---	---	---
5	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.	7A9B20015N2023220
Vehicle type	2AFT CURTAINSIDE	Odometer reading	0.0 km
Next service	0 km	Trip reading	0.0 km
Tester	Chris Clarke	Signature	
Date	2022-10-03 1:49:07 pm		

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

distribution: DOMETT TRAILLERS
 7A9B20015N2023220
 SODC: JH220824
 LT400: CJC 842367

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 (V6.18.07.12).
 -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 recommend to do a braking harmonisation!
 WABCOBrake V6.18.07.12 db 31.08.2018

vehicle manufacturer: DOMETT TRAILLERS
 trailer model : ZAF7 CURTAINSIDE
 trailer type : 2-axle-full-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS E
 TRISTOP 2: T.14/24 [TSE1416HTLD ACTUALLY FITTED -
 SEE PAGE 6 FOR PERFORMANCE DATA]
 355/50 R 22,5

axle 1 + 2 : SAF, SBW 1937, TDB 0678 ECE,

		<u>unladen</u>	<u>laden</u>
total mass	P in kg	4020	16000
axle 1	P1 in kg	2100	8000
axle 2	P2 in kg	1920	8000
wheel base	E in mm	6300 -	6400
centre of gravity height	h in mm		1070

	<u>axle 1</u>	<u>axle 2</u>
no. of combined axles	1	1
no. of brake chambers per axle line	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	69	69
brake factor	23.03	23.03
dyn. rolling radius	449	449
dyn. rolling radius	449	449
threshold torque	6.0	6.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar	2.5	2.5
chamber pressure(rdyn max)pH at z=22,5%bar	2.5	2.5
chamber press.(servo)pcha at pm6,5bar	6.6	5.5
piston force	7687	5287
brake force(rdyn min)T lad. at pm6,5bar N	54644	37635
brake force(rdyn max)T lad. at pm6,5bar N	54644	37635
Brake force incl. 1 % rolling resistance	54.7	45.3

braking rate z laden 0.588 for rdyn min
 z = sum (TR)/PRmax 0.588 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: 480 102 0.. 0 WABCO

EBS trailer modulator

brake cylinder: Meritor 1424HTLD64

test type III (zIII = 0.30)

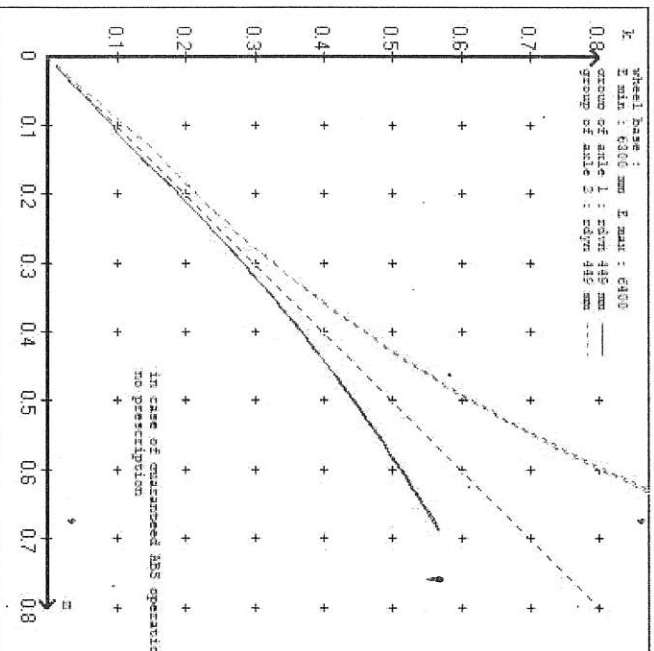
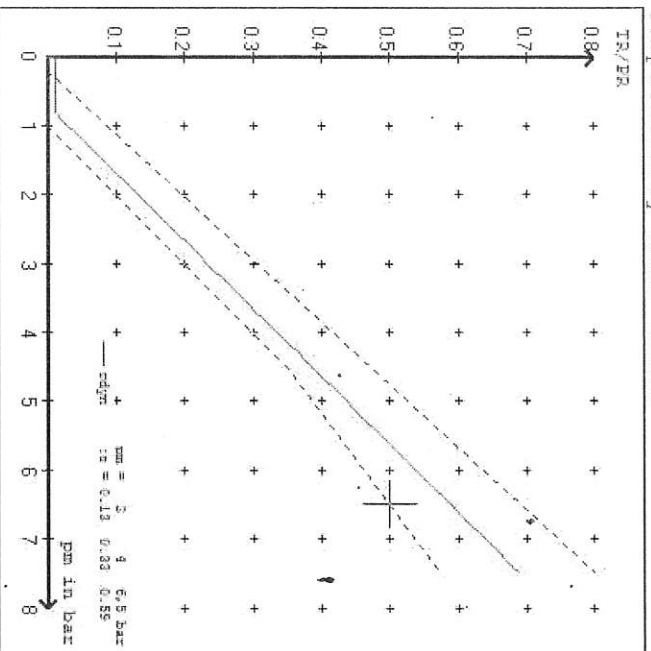
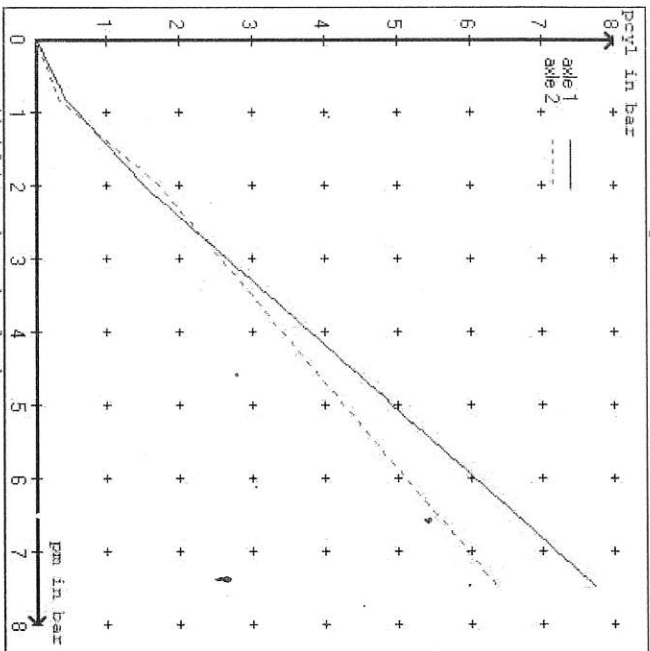
at pm 3.7 bar => for rdyn min : axle1 axle2

test type III (zIII = 0.06) pcha in bar : 3.4 3.1

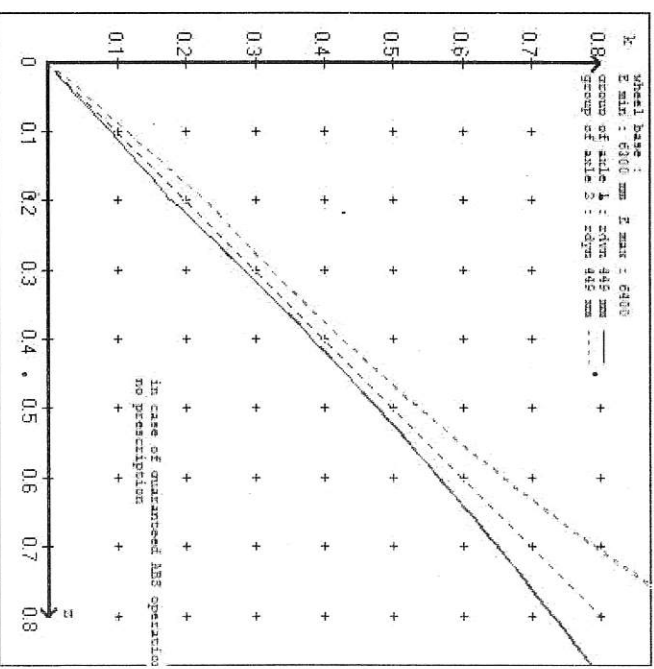
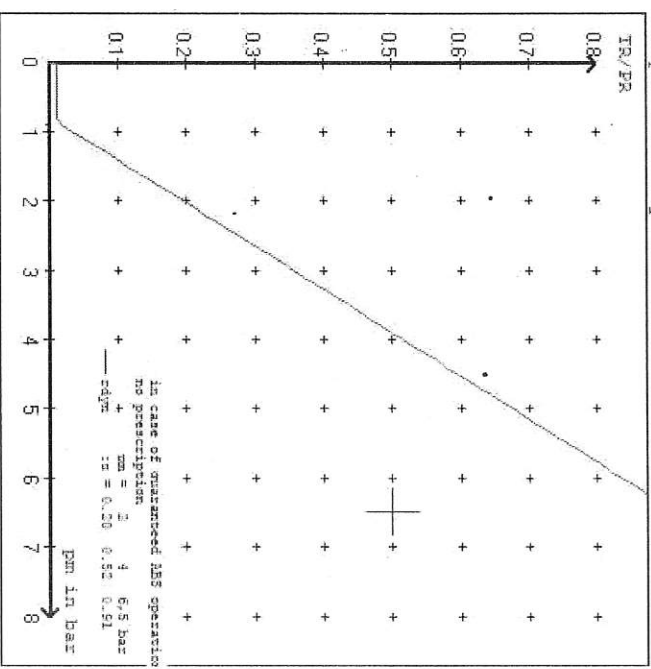
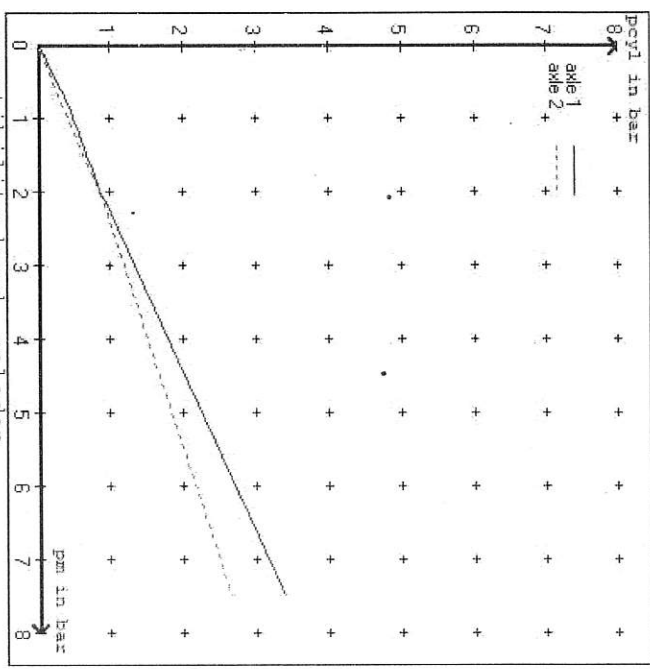
at pm 1.3 bar => for rdyn min : axle1 axle2

pcha in bar : 0.9 0.9

brake chamber pressure laden



brake chamber pressure unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : ZAFI CURTAINSIDE
 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 :
 971 002 ... 0 WABCO EBS emergency 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

vehicle manufacturer: DOMETT TRAILERS
 trailer model : ZAFI CURTAINSIDE
 trailer type : 2-axle-full-trailer
 brake calculation no. : TP 52571A

tire circumference main axle : 2825 for rdyn max
 tire circumference auxilliary axle : 2825 for rdyn max

assignment pm / deceleration z: pm 0.8 bar z = 0.010
 2.0 bar z = 0.132
 (Laden condition) 6.5 bar z = 0.590

axle	control pressure pm		brake pr. unladen	control pressure pm		brake pr. laden		
	axle load unladen	bellow pr. unladen		axle load laden	bellow pr. laden	0.8	2.0	6.5
1	2100	to be	2.9	8000	0.4	1.5	6.6	
2	1920	entered by	2.3	8000	0.3	1.7	5.5	
3	0	the vehicle	0,0	0	0,0	0,0	0,0	
4	0	manufact.	0,0	0	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	pcyl	axle load	pcyl
2100	2.9	1920	2.3
2600	3.2	2420	2.6
3100	3.5	2920	2.8
3600	3.8	3420	3.1
4100	4.2	3920	3.4
4600	4.5	4420	3.6
5100	4.8	4920	3.9
5600	5.1	5420	4.1
8000	6.6	8000	5.5

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

axle 1 : reference axle: SAF
 test report :
 axle 2 : reference axle: SAF
 test report :

SBW 1937
 TDB 0678 ECE
 SBW 1937
 TDB 0678 ECE

brake lining: Jurid 539
 date : 20130927 27.09.2013
 brake lining: Jurid 539
 date : 20130927 27.09.2013

calc. verif. of residual (hot) braking force type III
 (item 4.2.1 of appendix 2 to annex 11)
 axle 1 (rdyn 449 mm) T = 26.5 % Fe
 axle 2 (rdyn 449 mm) T = 20.6 % 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 = 56 mm) S = 48 mm

average thrust output in N at pm = 6,5 bar (however max. pcha = 7,0 bar)
 axle1 ThA = 7687 N
 axle2 ThA = 5287 N

calc. residual (hot) braking force in N
 (item 4.3.1.4 of appendix 2 to annex 11)
 axle 1 (rdyn 449 mm) T = 44631 N
 axle 2 (rdyn 449 mm) T = 30815 N

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

required braking rate
 (items 1.5.3 and 1.7.2 to annex 11)

axle 1 (rdyn 449 mm) T = 44631 N
 axle 2 (rdyn 449 mm) T = 30815 N

basic test type.III
 of subject (calculated)
 trailer (E) residual
 (hot)braking
 0.59 0.48

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

required braking rate
 (items 1.5.3 and 1.7.2 to annex 11)

spring parking brake

no of TRISTOP-actuators per axle	line KDZ	axle 2
TRISTOP-actuator type		2
Lever length	LBh in mm	T.14/16
stat. tyre radius	rstat max in mm	69
		432
at a stroke of	S in mm	30
min. force of spring brake	TFZ in N	6160
sp.brake chamber no Meritor.....		4
release pressure	plus in bar	4.8

calculation:

ratio until road 3.6827
 $iFb = 1Bh * E\eta + C * rBt / (rBn * rstat)$
 for rstat in mm 432
 brake force of spring br. Tf in N 44731
 $Tf = (TFz * KDZ - 2 * Co / 1Bh) * iFb$
 braking rate zf laden 0.295
 $zf = \text{sum}(Tf) / P + 0,01$

Test of the frictional connection required by the parking brake

minimum wheelbase/minimum supporting width min Ef necessary
 to fulfil the regulations

$$\text{min Ef} = E * (1 - PR/P + zferf * h/E) / (1 - zferf / (fzul * nf/ng))$$

min Ef =	4546 mm	for E =	6300 mm
=====			
min Ef =	4611 mm	for E =	6400 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	2075 mm height of center of gravity - laden
PR	8000 kg maximum bogie mass - laden
P	16000 kg maximum total mass - laden
nf	1 no. of axle(s) with TRISTOP spring brake actuators
ng	1 no. of bogie axle(s)

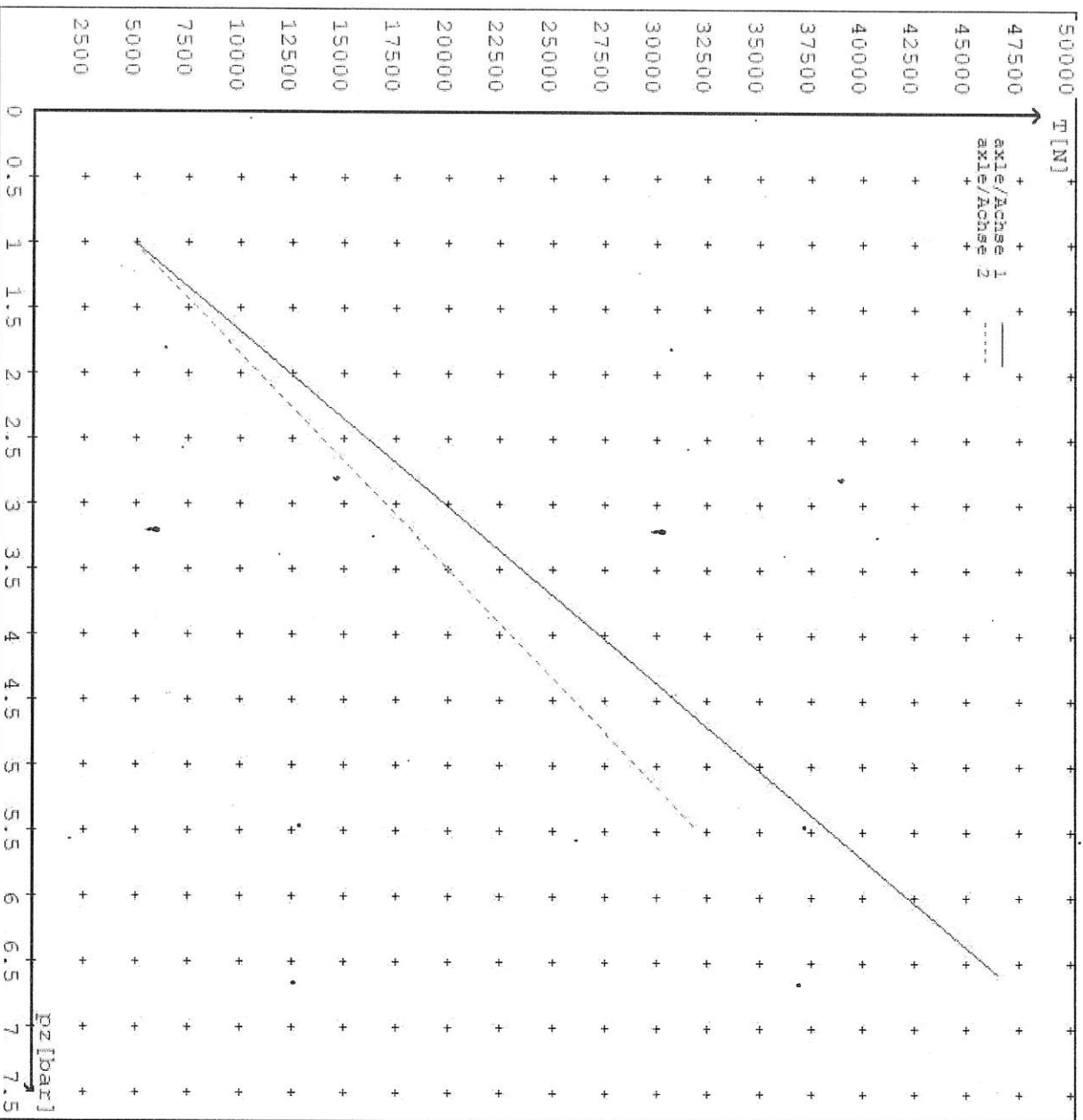
reference values

reference values for z = 50% for max rdyn: 449 mm

	pz [bar]	T [N]	T [N]
axle 1	1.0	4892	
	6.6	46466	
axle 2	1.0		4832
	5.5		32003

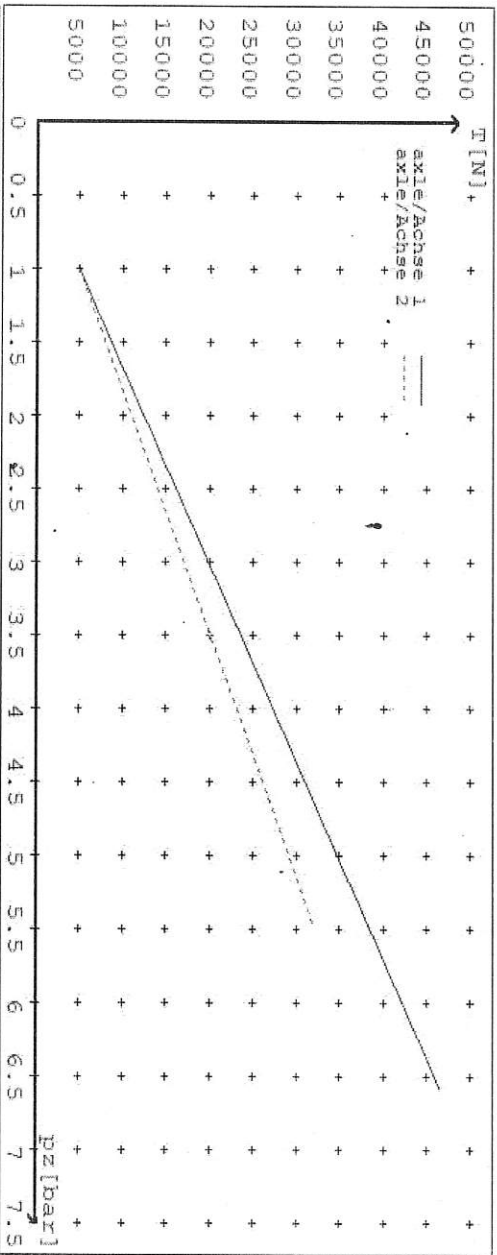
VIN - no.:

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



reference values for z = 0.5
 Angabe der Referenzwerte für z = 0.5
 brake calculation no: TP 52571A date 27.09.2022
 Bremsberechnung Nr: TP 52571A vom 27.09.2022

For max rdyn: 449 mm
 für max rdyn: 449 mm



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



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

CLIENT

MANUFACTURER: DOMETT TRAILERS
ADDRESS: TAURIKURA DRIVE, TAURANGA 3110
FLEET: HYUNDAI

VEHICLE DETAILS

VEHICLE TYPE: ZAFT CURTAINSIDE **CERT #:** JH220824
YEAR: 2022 **CALCULATION #:** TP52571
MAKE: DOMETT **REGO:** N/A
MODEL: B2001 **LT400 #:** 842367
CHASSIS #: 2220 **ORDER #:** 9092
VIN #: 7A9B20015N2023220

GVM: 16 **PRIME MOVER:** EBS / EUROPEAN
LOAD CONFIGURATION: MIXED FREIGHT

GROUP RATINGS: **FRONT** **REAR**
 8 8

WHEEL BASE: 6.35
UNLADEN COG *m* **MAX HEIGHT** *m* **HEIGHT DECK** *m*
 1.07 4.3 1.155

COG: 2.076
TARE: **FRONT** **REAR** **TOTAL**
 2.1 1.92 4.02

TYRE SIZE: **FRONT** **REAR**
 355 50 R22.5 355 50 R22.5

ROLLING CIRCUMFERENCE: 2860
AXLE SPACING: N/A

BRAKE & AXLE DETAILS

AXLE:	SAF	MODEL	SAF-B19	TEST REPORT	TDB0678
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
	4				N/A

CHAMBER AND VALVING DETAILS

	AXLE 1	AXLE 2	
CHAMBERS:			
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	

	MAKE:	PART NUMBER:	PM PRESS. kPa
BRAKE VALVES:	WABCO	480 102 08. 0 (MV)	80 kPa
ECU PART #:	WABCO	480 207 202 0 (12V)	80 kPa
3RD MODULATOR #:	YES		
ANTI-COMPOUNDING:	SEALCO_SBR	971 002 900 0	
SPRING BRAKE RELAY:	WABCO-PREV	971 002 900 0	
YARD RELEASE VALVE:	N/A	N/A	
INLINE RELAY FITTED:			
ECU DIRECTION:	<input checked="" type="checkbox"/> FRONT	<input type="checkbox"/> REAR	FRONT FRICTION: μ 0.5

SUBSYSTEMS:

SMARTBOARD OPT-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:	*SEE NOTES	*SEE NOTES
OTHER VALVES:	N/A	N/A
RIDE HEIGHT <i>mm</i> :	310	310
HANGER HEIGHT <i>mm</i> :	250	250
PEDESTAL HEIGHT <i>mm</i> :	100	100
LIFTAXLE:	N/A	N/A
TIPPING DUMP SWITCH:	N/A	N/A
LIFTAXLE VALVE:	N/A	N/A
PRESSURE LIMITING:	N/A	N/A

AIR TANKS

AIR TANKS STANDARD:	SAE J10A / EN286-2	
	FRONT	REAR
BRAKE TANK SIZE: L	25	25
AUXILLARY TANK SIZE: L	N/A	25
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:	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>
NORMAL LEVEL:	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>
LOWER LEVEL:	<input type="text" value="N/A"/>	<input type="text" value="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:


NOTES AND SPECIAL CONDITIONS

HCV NOT SPECIFIED IN THE DATA PROVIDED.
FILES RECEIVED: 29.06.2022
FILES CREATED & SENT TO CIC: 27.09.2022
FILES RETURNED AS COMPLETE: .. / .. / 2022
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, SCHEDULE 5.

DATE: 3/10/2022

SIGNED: 

CERTIFIER NAME & ID: CHRIS CLARKE CIC

SODC BY: JOHN HRST JEH

PHONE (BUS): 09-980-7300

FAX:

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