

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

Vehicle registration (optional) _____ VIN/chassis number **7A9E25019L2023017**

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

Model (optional) **E2501 H** 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.
5AFT LIVESTOCK RSS ON TYRE: 215 75 R17.5
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) **32 Tonnes GVM**

General drawing number(s) **N/A** **16 Tonne (Front brake mass)**
19 Tonne (Rear brake mass)

Supporting documents
BRAKE RULE CERTIFICATE JH210210
BRAKE CALCULATION # TP52172

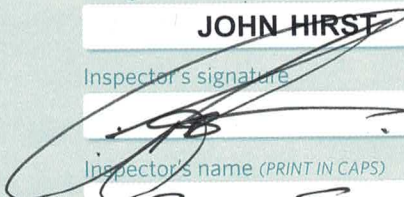
Special conditions (optional)
WARNING LAMP MUST ILLUMINATE WHEN IGNITION IS SWITCHED ON & THEN
EXTINGUISH IMMEDIATELY OR WHEN VEHICLE SPEED EXCEEDS 7 KM/H

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 JEH**

Inspector's signature 

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

Date **15-Feb-21** Number **770296**

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 71/320/EEC, last amended by 98/12/EC and 2006/96/EC

distribution: DOMETT TRAILERS
7A9E25019L2023017
SODC: JH210210
LT400: CJC 770296

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 : 5AFT STOCK
trailer type : 5-axle-full-trailer
remarks : air / hydraulic / VA suspension
EC w.o.annexVII
WABCO TRAILER - EBS E
TRISTOP 3+4: T.14/24 [TSE1416HTLD64 ACTUALLY FITTED - SEE PAGE 6 FOR PERFORMANCE DATA]
215/75 R 17,5 - 235/75 R 17,5

axle 1 + 2 + 3 + 4 + 5 : IMT, WABCO PAN-17, 361-037-08 ECE [40.195.090],

		<u>unladen</u>	<u>laden</u>
total mass	P in kg	10350	35050
axle 1	P1 in kg	2400	8000
axle 2	P2 in kg	2400	8000
axle 3	P3 in kg	1850	6350
axle 4	P4 in kg	1850	6350
axle 5	P5 in kg	1850	6350
wheel base	E in mm	7350 - 7450	
centre of gravity height	h in mm	1466	2255

		<u>axle 1</u>	<u>axle 2</u>	<u>axle 3</u>	<u>axle 4</u>	<u>axle 5</u>
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		BZ 122.1	BZ 122.1	BZ 119.6	BZ 119.6	BZ 122.1
brake chamber manufacturer		Meritor	Meritor	Meritor	Meritor	Meritor
chamber size		20.	20.	T.14/24	T.14/24	14.
lever length	lBh in mm	69	69	69	69	69
brake factor	[-]	17.60	17.60	17.60	17.60	17.60
dyn. rolling radius	rdyn min in mm	373	373	373	373	373
dyn. rolling radius	rdyn max in mm	387	387	387	387	387
threshold torque	Co Nm	4.2	4.2	4.2	4.2	4.2

calculation:					
chamber pressure(rdyn min)pH at z=22,5%bar		2.6	2.6	2.3	2.3
chamber pressure(rdyn max)pH at z=22,5%bar		2.6	2.6	2.3	2.3
chamber press.(servo)pcha at pm6,5bar bar		6.7	6.7	5.1	5.1
piston force ThA at pm6,5bar N		7810	7810	4886	4886
brake force(rdyn min)T lad. at pm6,5bar N		51541	51541	32228	32228
brake force(rdyn max)T lad. at pm6,5bar N		49705	49705	31084	31084
Brake force incl. 1 % rolling resistance proportion	%	22.3	22.3	18.5	18.5

braking rate z laden 0.581 for rdyn min
z = sum (TR)/PRmax 0.560 for rdyn max

Trailer may only be operated in combination with trucks/tractors with ISO 7638 supply (5 or 7 polar).

axle 4:

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

brake cylinder: Meritor 1424HTLD64

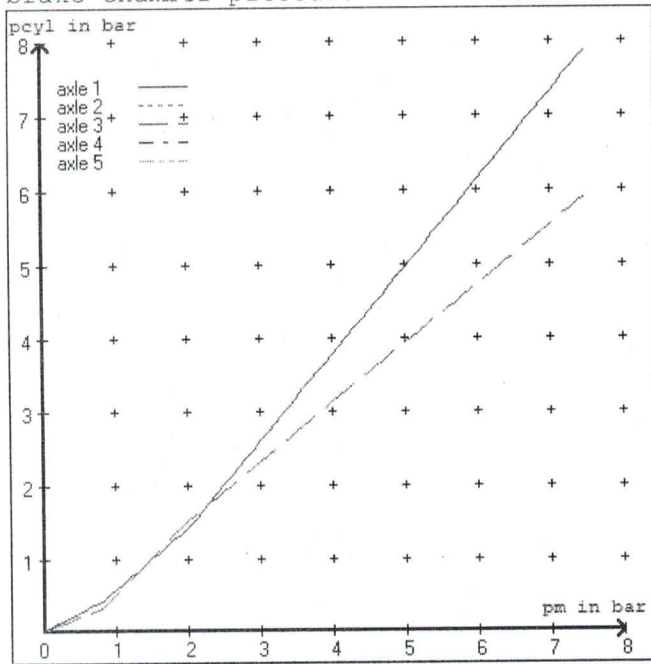
axle 5:

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

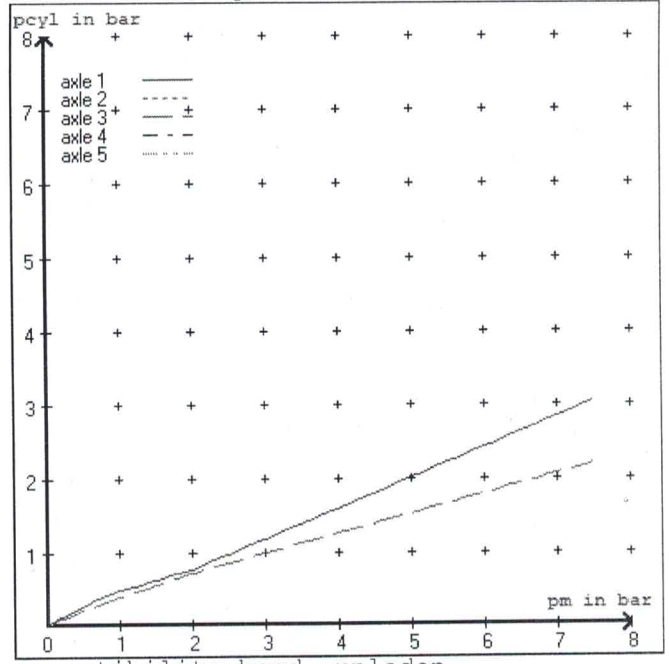
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.7 bar =>	pcha in bar :	3.4	3.4	2.9	2.9	2.9	2.9
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 1.3 bar =>	pcha in bar :	0.8	0.8	0.8	0.8	0.8	0.8

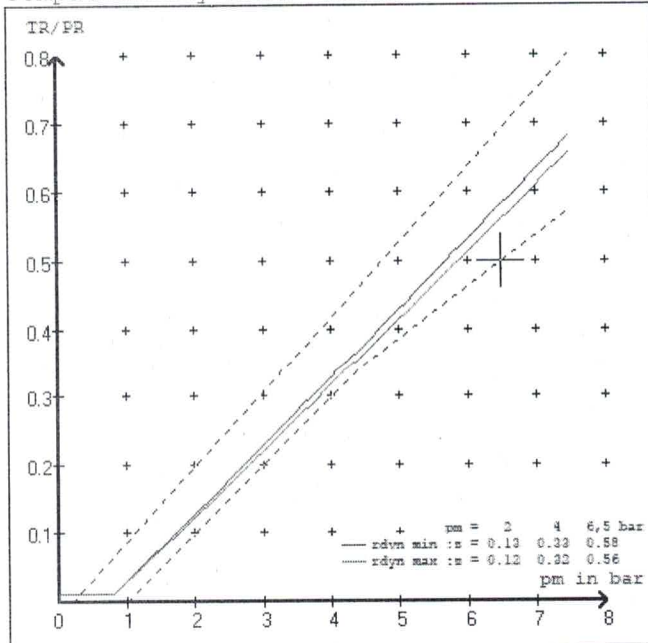
brake chamber pressure laden



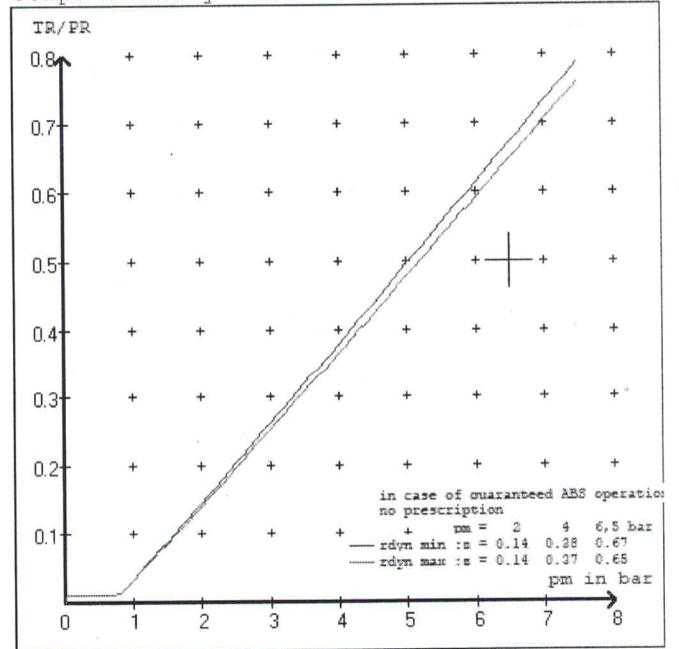
brake chamber pressure unladen



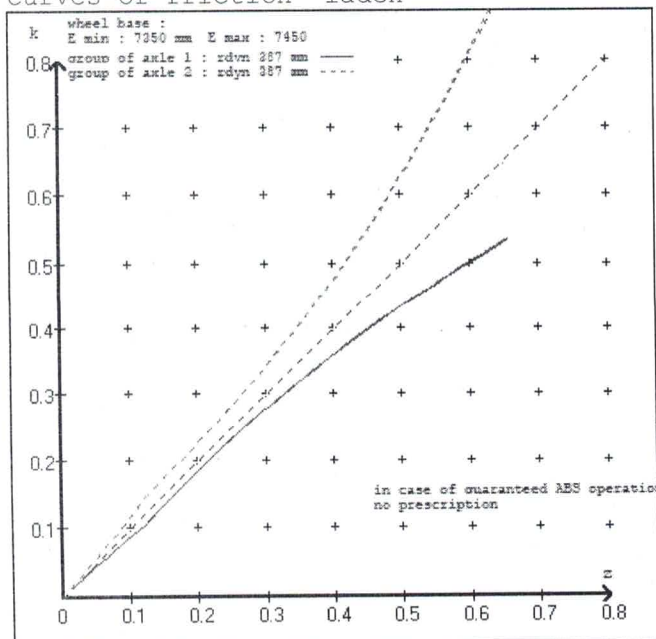
compatibility band laden



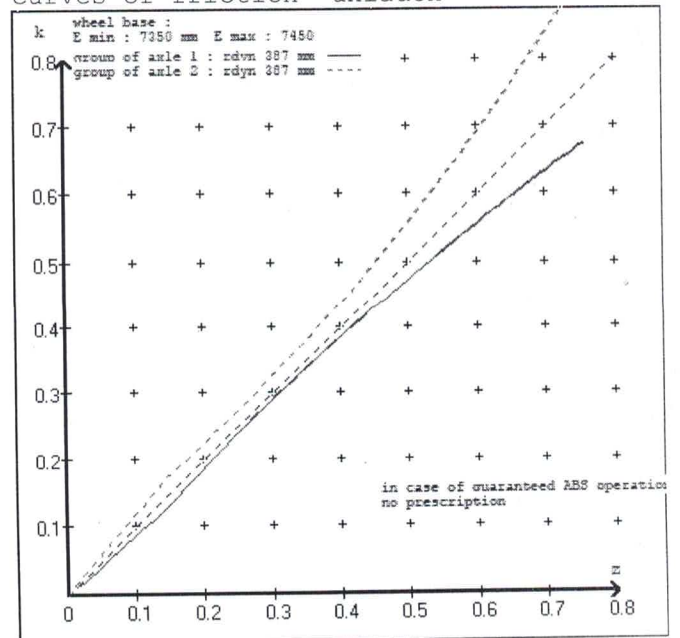
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT STOCK
 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 :
 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 : 5AFT STOCK
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 52172A

tire circumference main axle : 2425 for rdyn max
 tire circumference auxiliary axle : 2425 for rdyn max

assignment pm / deceleration z: pm 0.8 bar z = 0.010
 (laden condition) 2.0 bar z = 0.128
 6.5 bar z = 0.570

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	2400	to be	2.6	8000	to be	0.4	1.4	6.7	
2	2400	entered by the vehicle manufact.	2.6	8000	entered by the vehicle manufact.	0.4	1.4	6.7	
3	1850		1.9	6350		0.3	1.5	5.1	
4	1850		1.9	6350		0.3	1.5	5.1	
5	1850		1.9	6350		0.3	1.5	5.1	

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
2400 2.6	2400 2.6	1850 1.9	1850 1.9	1850 1.9
2900 3.0	2900 3.0	2350 2.3	2350 2.3	2350 2.3
3400 3.3	3400 3.3	2850 2.6	2850 2.6	2850 2.6
3900 3.7	3900 3.7	3350 3.0	3350 3.0	3350 3.0
4400 4.1	4400 4.1	3850 3.3	3850 3.3	3850 3.3
4900 4.4	4900 4.4	4350 3.7	4350 3.7	4350 3.7
5400 4.8	5400 4.8	4850 4.0	4850 4.0	4850 4.0
5900 5.2	5900 5.2	5350 4.4	5350 4.4	5350 4.4
8000 6.7	8000 6.7	6350 5.1	6350 5.1	6350 5.1

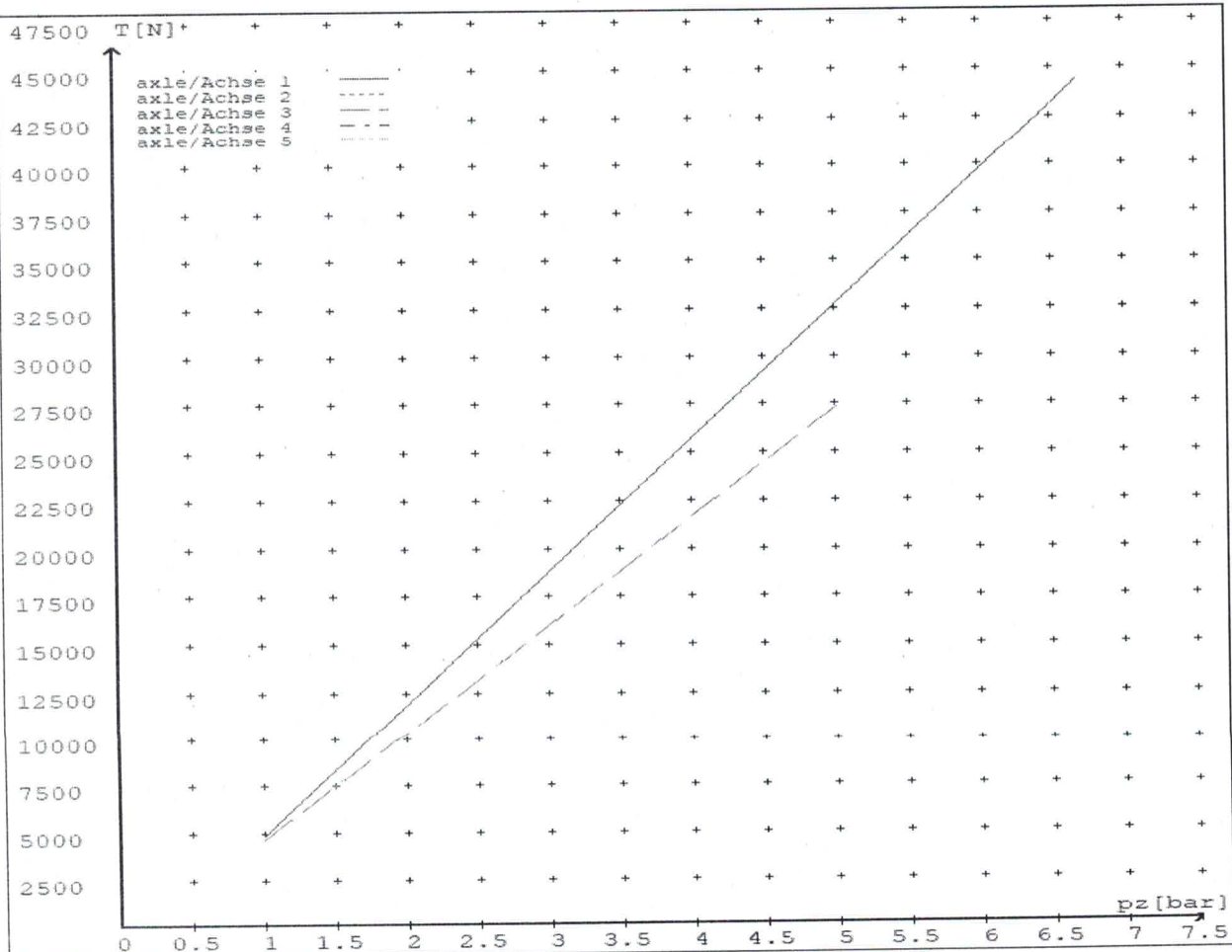
reference values

reference values for z = 50% for max rdyn: 387 mm

	pz [bar]	T [N]	T [N]
axle 1	1.0	4801	
	6.7	44379	
axle 2	1.0	4801	
	6.7	44379	
axle 3	1.0		4600
	5.1		27754
axle 4	1.0		4600
	5.1		27754
axle 5	1.0		4600
	5.1		27754

VIN - no.:

	Axle(s) / Achse(n)				
	20./	20./	T.14/24	T.14/24	14./
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)					
Maximum stroke smax = ...mm maximaler Hub smax =mm	65	65	64	64	64
Lever length =mm Hebellänge =mm	69.4	69.4	69.4	69.4	69.4



reference values for $z = 0.5$

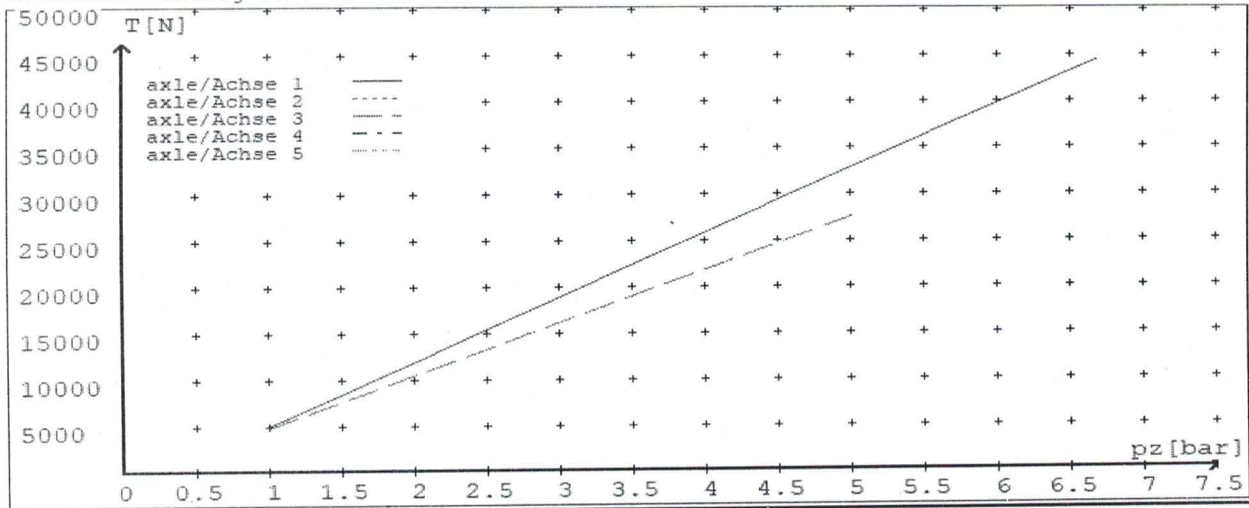
for max rdyn: 387 mm

Angabe der Referenzwerte für $z = 0.5$

für max rdyn: 387 mm

brake calculation no: TP 52172A date 08.11.2020

Bremsberechnung Nr: TP 52172A vom 08.11.2020



	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	69.4	69.4	69.4	69.4	69.4

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

(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 32015/5, 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.

(p.p.)

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:	STOCKLINES

VEHICLE DETAILS

VEHICLE TYPE:	5AFT LIVESTOCK	CERT #:	JH210210
YEAR:	2021	CALCULATION #:	TP52172
MAKE:	DOMETT	REGO #:	N/A
MODEL:	E2501 H	LT400 #:	770296
CHASSIS #:	2017	ORDER #:	7748
VIN #:	7A9E25019L2023017		
GVM: t	32	PRIME MOVER:	EBS / EUROPEAN
LOAD CONFIGURATION:	UNIFORM DENSITY		
GROUP RATINGS: t	FRONT	REAR	
	16	19	
WHEEL BASE: m	7.405		
	UNLADEN COG m	MAX HEIGHT m	HEIGHT DECK m
	1.466	4.3	0.96
COG: m	2.255		
	FRONT	REAR	TOTAL
TARE: t	4.8	5.5	10.3
	FRONT	REAR	
TYRE SIZE:	215 75 R17.5	215 75 R17.5	
ROLLING CIRCUMFERENCE: mm	2344	2344	
AXLE SPACING: m	1.31	2.51	

BRAKE & AXLE DETAILS

	MAKE	MODEL	TEST REPORT
AXLE:	IMT	PAN 17 DISC	WABCO
POLE WHEEL FRONT:	80	POLE WHEEL REAR:	80
LINING MATERIAL:	JURID 539	BRAKE FACTOR:	17.6
SENSED AXLES:	2 + 4	NOTES:	
SERIAL NUMBERS:	1	N/A	U24/2904E3
	2	N/A	U24/2904E3
	3	N/A	U24/2904E3
	4	N/A	U24/2904E3
	5	N/A	U24/2904E3

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: <i>mm</i>	65	64	64
TEST REPORT #:	BC 0041.0 Jul '07	BC0143.0	BZ 122.1 Sep '00
SPRINGBRAKE FORCE: <i>kN</i>	N/A	6.16	N/A
HOLDOFF PRESSURE: <i>Bar</i>	N/A	4.8	N/A
FOUNDATION BRAKE:	WABCO PAN 17	WABCO PAN 17	WABCO PAN 17
LEVER LENGTH: <i>mm</i>	69	69	69
BRAKE VALVES:	MAKE:	PART NUMBER:	PM PRESS. <i>kPa</i>
ECU PART #:	WABCO	480 102 020 0 (12v)	80 kPa
3RD MODULATOR #:	WABCO	480 207 202 0 (12V)	80 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:	<input checked="" type="checkbox"/> FRONT	<input type="checkbox"/> REAR	FRONT FRICTION: μ 0.465

SUBSYSTEMS:

- SMARTBOARD OPTI-LINK CAN ROUTER 446 122 050 0
 ELEX 446 122 070 0 TAILGUARD

SUSPENSION

	FRONT	REAR
SUSPENSION TYPE:	ELECTRONIC	ELECTRONIC
MAKE:	SAF_AIRSPRING	SAF_AIRSPRING
MODEL:	SAF_MODULAR	SAF_MODULAR
BELLOW SIZE:	2618, 300mm	2618, 300mm
HEIGHT CONTROL VALVE:	441 050 100 0	441 050 100 0
OTHER VALVES:	463 090 500 0 (eTASC)	463 090 500 0 (eTASC)
RIDE HEIGHT mm :	240	240
HANGER HEIGHT mm :	290	290
PEDESTAL HEIGHT mm :	40	40
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 + 25
AUXILLARY TANK SIZE: L	N/A	46 + 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:	1322/1314	290/310
NORMAL LEVEL:	1266/1251	240/240
LOWER LEVEL:	1202/1238	170/219

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:	230	240	415

NOTES AND SPECIAL CONDITIONS

FILES RECEIVED 23.09.20

FILES CREATED AND SENT TO CJC 15.02.21

REASON FOR CERTIFICATION: NEW TRAILER

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: 15/02/2021

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