

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

Plate number (optional) _____ VIN/chassis number **7A9E15011N2023244**

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

Model (optional) **E1501** 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: NZ HEAVY VEHICLE BRAKE SPECIFICATION.
CARRY OUT BRAKE CALCULATIONS, INSPECTION AND ECU END OF LINE PROTOCOL.
5AFT 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**

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

Supporting documents
BRAKE RULE CERTIFICATE JH230202
BRAKE CALCULATION # TP52592

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 **24.04.2023** Number **864538**

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 UN/ECE-R.13.11

distribution: DOMETT TRAILERS
 7A9E15011N2023244
 SoDC: JH230202
 LT400: CJC 864538

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 commend to do a braking harmonisation!
 WABCO Brake V6.18.07.12 db 31.08.2018

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT PLATFORM
 trailer type : 5-axle-full-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS E
 TRISTOP 3+4: 16/24
 265/70 R 19,5
 THE FRONT CHAMBERS ARE HALDEX [T20. 125 200 00]

axle 1 + 2 + 3 + 4 + 5 : Assali Stefen, R, 361-005-16 ECE,

		<u>unladen</u>	<u>laden</u>
total mass	P in kg	7100	35050
axle 1	P1 in kg	1600	8000
axle 2	P2 in kg	1600	8000
axle 3	P3 in kg	1300	6350
axle 4	P4 in kg	1300	6350
axle 5	P5 in kg	1300	6350
wheel base	E in mm	6630 - 6730	
centre of gravity height	h in mm	1025	2070

	<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	2	2	2	2	2
The power output corresponds to	BZ 122.1	BZ 122.1BC	0165.2BC	0165.2BC	0169.2
brake chamber manufacturer	Meritor	Meritor	Haldex	Haldex	Haldex
chamber size	20.	20.	16/24	16/24	16"
lever length	76	76	76	76	76
brake factor	22.37	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	2.0	2.0	2.0
chamber pressure(rdyn max)pH at z=22,5%bar	2.1	2.1	2.0	2.0	2.0
chamber press.(servo)pcha at pm6,5bar	5.8	5.8	4.3	4.3	4.3
piston force	6702	6702	4058	4058	4058
brake force(rdyn min)T lad. at pm6,5bar	54273	54273	32760	32760	32760
brake force(rdyn max)T lad. at pm6,5bar	54273	54273	32760	32760	32760
Brake force incl. 1 % rolling resistance					
proportion	22.2	22.2	18.5	18.5	18.5

braking rate z laden 0.602 for rdyn min
 z = sum (TR)/PRmax 0.602 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.. 0 WABCO
 EBS trailer modulator

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

axle 4:

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

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

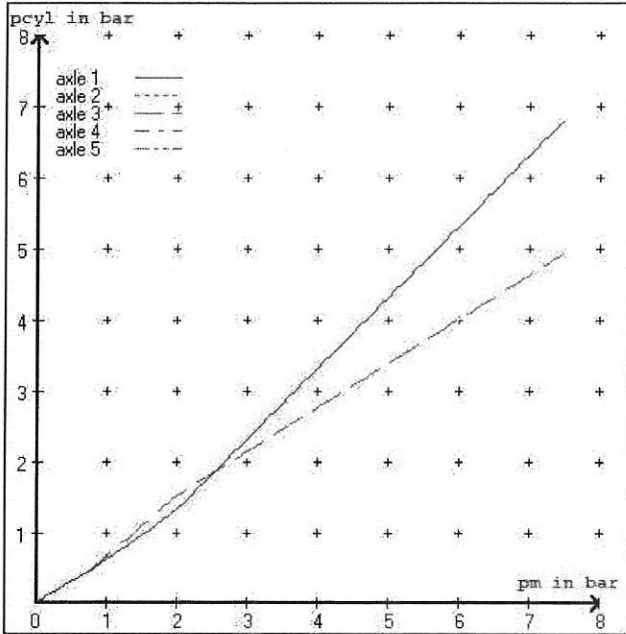
axle 5:

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

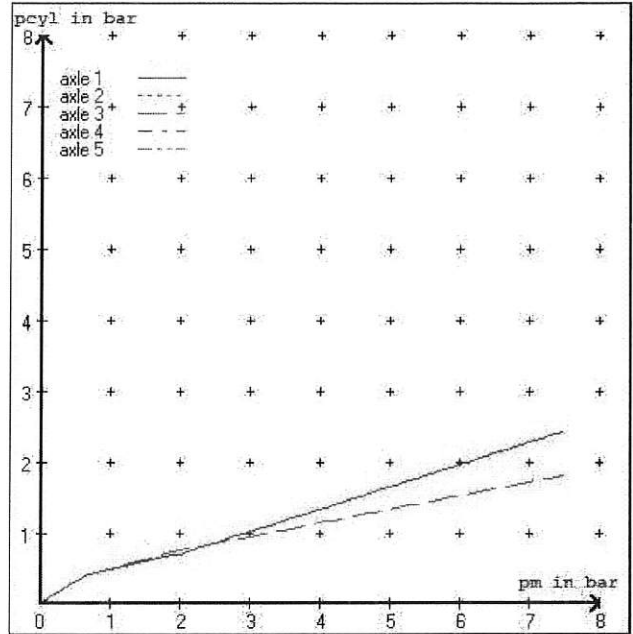
brake cylinder: Haldex 125 160 0.. - 125 160 5.. / 125 160 6.. - 125 160 9..

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.6 bar =>	pcha in bar :	2.9	2.9	2.5	2.5	2.5	2.5
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 1.2 bar =>	pcha in bar :	0.8	0.8	0.9	0.9	0.9	0.9

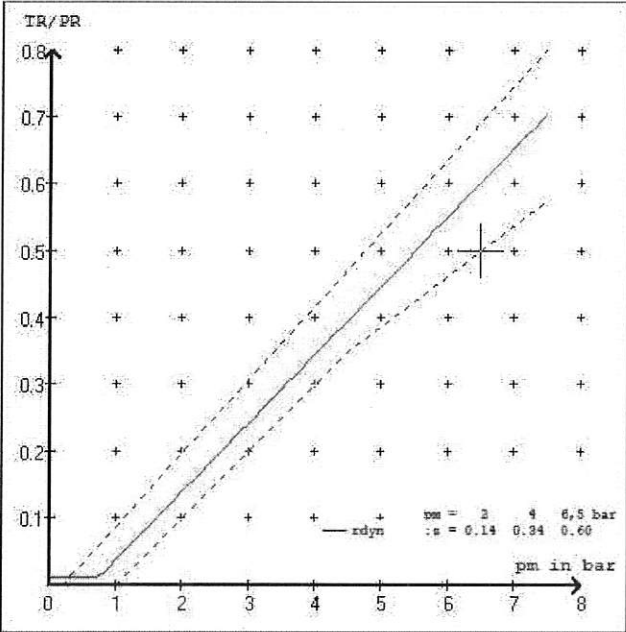
brake chamber pressure laden



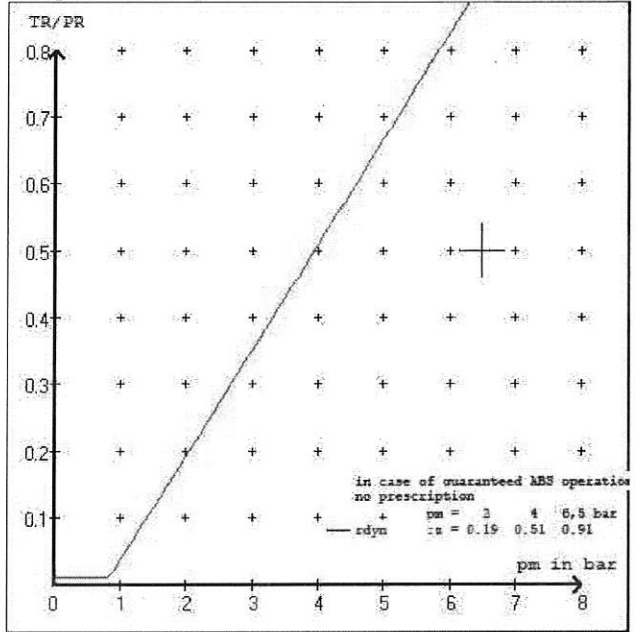
brake chamber pressure unladen



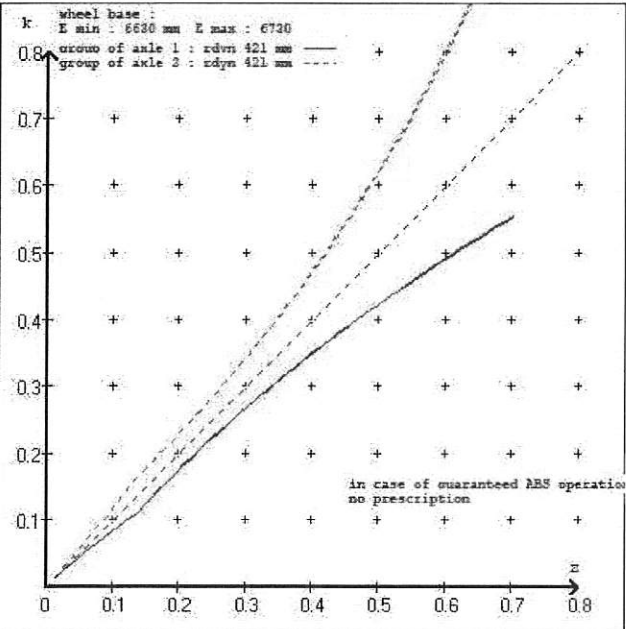
compatibility band laden



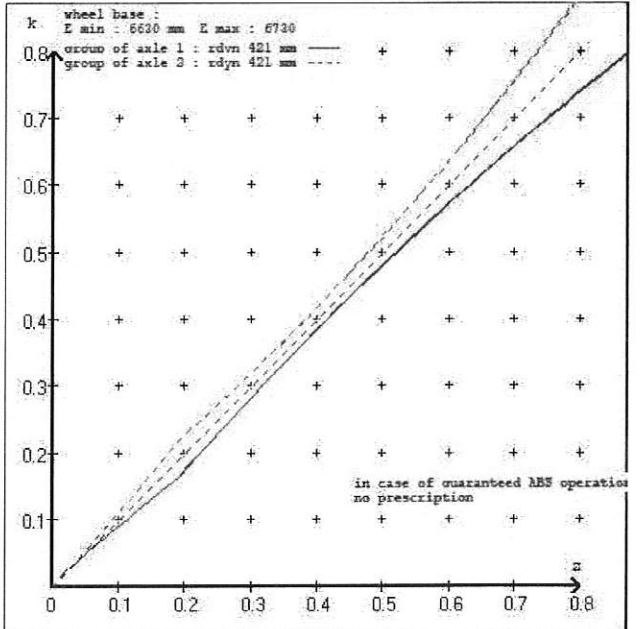
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT PLATFORM
 trailer type : 5-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 16/24 (Haldex) lever length 76 mm
 axle 4 : 2 x type/diameter 16/24 (Haldex) lever length 76 mm
 axle 5 : 2 x type/diameter 16" (Haldex) lever length 76 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 PLATFORM
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 52592A

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 = 0.142
 6.5 bar z = 0.600

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	1600	to be	2.1	8000	to be	0.4	1.3	5.8
2	1600	entered by	2.1	8000	entered by	0.4	1.3	5.8
3	1300	the vehicle	1.6	6350	the vehicle	0.4	1.5	4.3
4	1300	manufact.	1.6	6350	manufact.	0.4	1.5	4.3
5	1300		1.6	6350		0.4	1.5	4.3

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
1600 2.1	1600 2.1	1300 1.6	1300 1.6	1300 1.6
2100 2.4	2100 2.4	1800 1.9	1800 1.9	1800 1.9
2600 2.7	2600 2.7	2300 2.1	2300 2.1	2300 2.1
3100 3.0	3100 3.0	2800 2.4	2800 2.4	2800 2.4
3600 3.3	3600 3.3	3300 2.7	3300 2.7	3300 2.7
4100 3.5	4100 3.5	3800 2.9	3800 2.9	3800 2.9
4600 3.8	4600 3.8	4300 3.2	4300 3.2	4300 3.2
5100 4.1	5100 4.1	4800 3.5	4800 3.5	4800 3.5
8000 5.8	8000 5.8	6350 4.3	6350 4.3	6350 4.3

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

axle 1 : reference axle: Assali StefLM or LC or TMen	brake lining: MAT 5200-215
test report : 361-005-16 ECE	date : HL090216 09.02.2016
axle 2 : reference axle: Assali StefLM or LC or TMen	brake lining: MAT 5200-215
test report : 361-005-16 ECE	date : HL090216 09.02.2016
axle 3 : reference axle: Assali StefLM or LC or TMen	brake lining: MAT 5200-215
test report : 361-005-16 ECE	date : HL090216 09.02.2016
axle 4 : reference axle: Assali StefLM or LC or TMen	brake lining: MAT 5200-215
test report : 361-005-16 ECE	date : HL090216 09.02.2016
axle 5 : reference axle: Assali StefLM or LC or TMen	brake lining: MAT 5200-215
test report : 361-005-16 ECE	date : HL090216 09.02.2016

calc. verific. of residual (hot) braking force type III
(item 4.2.1 of appendix 2 to annex 11)

axle 1	(rdyn 421 mm)	T = 25.1 % Fe
axle 2	(rdyn 421 mm)	T = 25.1 % Fe
axle 3	(rdyn 421 mm)	T = 17.6 % Fe
axle 4	(rdyn 421 mm)	T = 17.6 % Fe
axle 5	(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 = 42 mm
axle 2	(sp = 58 mm)	s = 42 mm
axle 3	(sp = 50 mm)	s = 42 mm
axle 4	(sp = 50 mm)	s = 42 mm
axle 5	(sp = 50 mm)	s = 42 mm

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

axle1	ThA = 6702 N
axle2	ThA = 6702 N
axle3	ThA = 4058 N
axle4	ThA = 4058 N
axle5	ThA = 4058 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 = 39378 N
axle 2	(rdyn 421 mm)	T = 39378 N
axle 3	(rdyn 421 mm)	T = 23814 N
axle 4	(rdyn 421 mm)	T = 23814 N
axle 5	(rdyn 421 mm)	T = 23814 N

	basic test	type III
	of subject	(calculated)
braking rate of the vehicle	trailer (E)	residual
(item 4.3.2 to appendix 2 to annex 11)	0.60	(hot)braking
		0.44
required braking rate		>= 0,4 and
(items 1.5.3 and 1.7.2 to annex 11)		>= 0,6*E (0.36)

axle 1	(rdyn 421 mm)	T = 39378 N
axle 2	(rdyn 421 mm)	T = 39378 N
axle 3	(rdyn 421 mm)	T = 23814 N
axle 4	(rdyn 421 mm)	T = 23814 N
axle 5	(rdyn 421 mm)	T = 23814 N

	basic test	type III
	of subject	(calculated)
braking rate of the vehicle	trailer (E)	residual
(item 4.3.2 to appendix 2 to annex 11)	0.60	(hot)braking
		0.44
required braking rate		>= 0,4 and
(items 1.5.3 and 1.7.2 to annex 11)		>= 0,6*E (0.36)

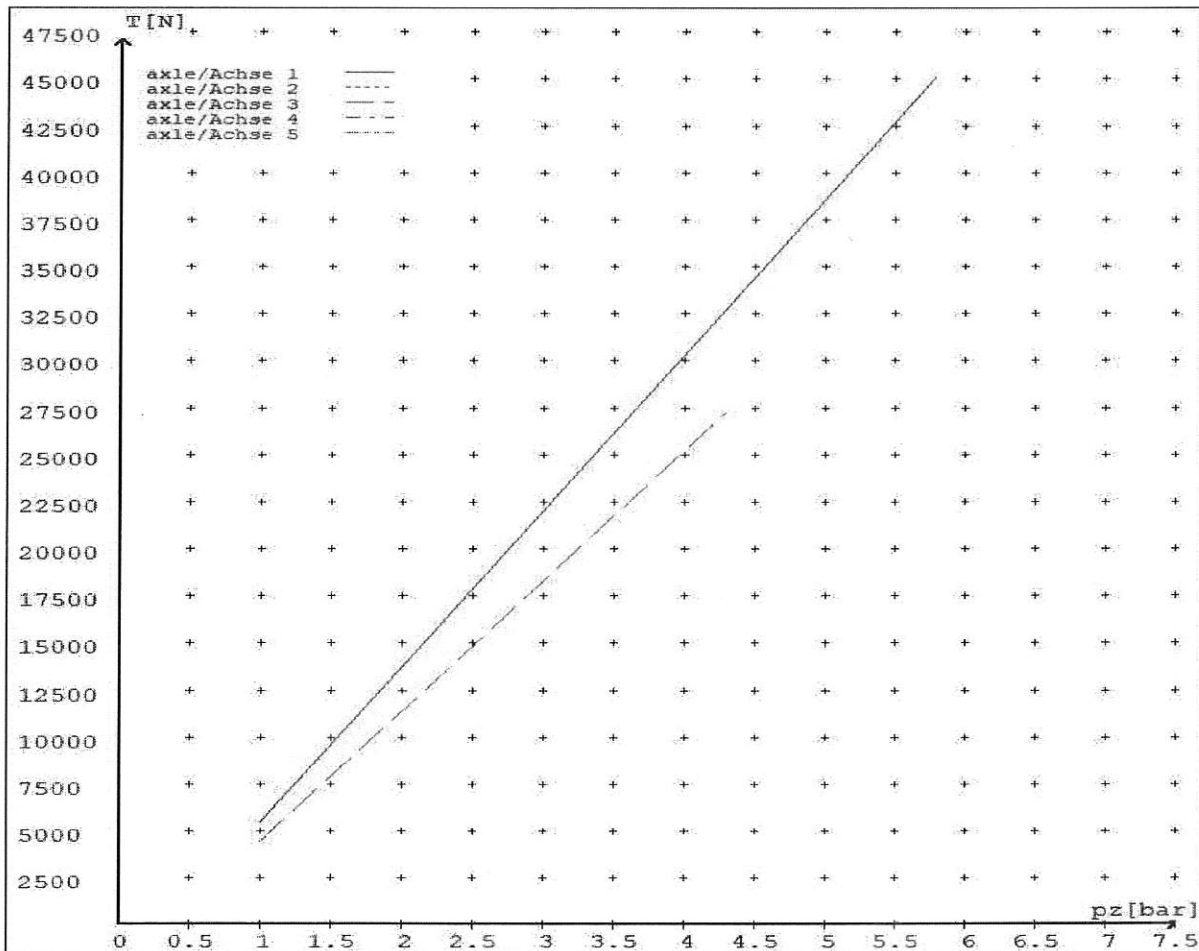
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5408	
	5.8	45077	
axle 2	1.0	5408	
	5.8	45077	
axle 3	1.0		4408
	4.3		27209
axle 4	1.0		4408
	4.3		27209
axle 5	1.0		4408
	4.3		27209

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	20./	16/24	16/24	16"/
Maximum stroke smax = ...mm maximaler Hub smax =mm	65	65	65	65	65
Lever length =mm Hebellänge =mm	76	76	76	76	76





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.

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.

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 Agency if dissatisfied with a Compliance issue. (Refer NZTA Notice Of Appointment Para 47.4) NZTA Helpdesk 0800 108 809

(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, 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.

A handwritten signature in black ink, appearing to read 'J E Hirst', written over a faint dotted line.

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



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

CLIENT

MANUFACTURER:	DOMETT TRAILERS
ADDRESS:	TAURIKURA DRIVE, TAURANGA 3110
FLEET:	MCLEOD HIABS

VEHICLE DETAILS

VEHICLE TYPE:	5AFT PLATFORM	CERT #:	JH230202
YEAR:	2023	CALCULATION #:	TP52592
MAKE:	DOMETT	REGO #:	N/A
MODEL:	E1501	LT400 #:	864538
CHASSIS #:	2244	ORDER #:	9170
VIN #:	7A9E15011N2023244		
GVM: t	30	PRIME MOVER:	UNKNOWN
LOAD CONFIGURATION:	MIXED FREIGHT		
GROUP RATINGS: t	FRONT	REAR	
	16	19	
WHEEL BASE: m	6.68		
	UNLADEN COG m	MAX HEIGHT m	HEIGHT DECK m
	1.025	4.3	1.143
COG: m	2.071		
	FRONT	REAR	TOTAL
TARE: t	3.28	4	7.28
	FRONT	REAR	
TYRE SIZE:	265 70 R19.5	265 70 R19.5	
ROLLING CIRCUMFERENCE: mm	2645	2645	
AXLE SPACING: m	1.31	2.51	

BRAKE & AXLE DETAILS

	MAKE	MODEL	TEST REPORT
AXLE:	ROR_ASSALI_STEFEN	ROR-SL9 TSA	361-005-16
POLE WHEEL FRONT:	90	POLE WHEEL REAR:	90
LINING MATERIAL:	MAT 5200-215	BRAKE FACTOR:	22.37
SENSED AXLES:	2 + 4	NOTES:	
SERIAL NUMBERS:	1	N/A	ROR SL9
	2	N/A	ROR SL9
	3	N/A	ROR SL9
	4	N/A	ROR SL9
	5	N/A	ROR SL9

CHAMBER AND VALVING DETAILS

CHAMBERS:	AXLE 1 & 2	AXLE 3 & 4	AXLE 5
BRAND:	HALDEX_CHAMBERS	HALDEX_CHAMBERS	HALDEX_CHAMBERS
SIZE:	20, (125 200)	1624 (135 1624)	16, (125 160)
STROKE: mm	66	65	65
TEST REPORT #:	BC0175.0	BC0165.0	BC0169.0
SPRINGBRAKE FORCE: kN	N/A	6.003	N/A
HOLDOFF PRESSURE: Bar	N/A	5.2	N/A
FOUNDATION BRAKE:	HALDEX	HALDEX	HALDEX
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:	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	0.49
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	ELECTRONIC
MAKE:	ROR_AIRSPRING	ROR_AIRSPRING
MODEL:	ROR_INTRA	ROR_INTRA
BELLOW SIZE:	SL9 TSA	SL9 TSA
HEIGHT CONTROL VALVE:	HALDEX 90554950	441 050 100 0
OTHER VALVES:	N/A	463 090 500 0 (eTASC)
RIDE HEIGHT <i>mm</i> :	330	330
HANGER HEIGHT <i>mm</i> :	175	175
PEDESTAL HEIGHT <i>mm</i> :	8	8
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>	46	46 + 25
AUXILLARY TANK SIZE: <i>L</i>	N/A	46
PRESSURE PROTECTION:	SEALCO 1300	

AIR LINES

TEST POINTS:

CONTROL LINE:	X 1	TANK:	X 1
REAR CHAMBER:	X 2	FRONT CHAMBER:	X 1
DUOMATIC COLOUR CODED:	YES		

