

Heavy vehicle specialist inspector's or manufacturing inspecting organisation's name (PRINT IN CAPS) CHRIS CLARKE	ID CJC
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Plate number (optional)	VIN/chassis number 7A9E20013P2023314
Make DOMETT	Component being certified: <input type="checkbox"/> Chassis <input type="checkbox"/> Load anchorage
Model (optional) E2001 PH	<input type="checkbox"/> Log bolsters <input type="checkbox"/> Towing connection <input checked="" type="checkbox"/> Brakes
Certification category HVEK	<input type="checkbox"/> SRT <input type="checkbox"/> PSV stability <input type="checkbox"/> PSV rollover
	<input type="checkbox"/> Swept path <input type="checkbox"/> 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 CURTAINSIDE **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) 32 Tonnes GVM
General drawing number(s) N/A	16 Tonne (Front brake mass)
	19 Tonne (Rear brake mass)

Supporting documents

BRAKE RULE CERTIFICATE	JH230602
BRAKE CALCULATION #	TP52261

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) ID number
CHRIS CLARKE CJC

Date Number
26.06.2023 872843

CoF vehicle inspector ID (if applicable)	CoF vehicle inspector signature (if applicable)	Date
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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
 7A9E20013P2023314
 SoDC: JH230602
 LT400: CJC 872843

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 CURTAINSIDE
 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 T.20 [125 200 ..]

axle 1 + 2 + 3 + 4 + 5 : Assali Stefen, K, 361-071-04 ECE Re 432,

		<u>unladen</u>	<u>laden</u>
total mass	P in kg	7200	35050
axle 1	P1 in kg	1650	8000
axle 2	P2 in kg	1650	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	6600 - 6650	
centre of gravity height	h in mm	1080	2100

	<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 K DZ	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 lBh in mm	74	74	74	74	74
brake factor [-]	20.26	20.26	20.26	20.26	20.26
dyn. rolling radius rdyn min in mm	421	421	421	421	421
dyn. rolling radius rdyn max in mm	421	421	421	421	421
threshold torque Co Nm	7.0	7.0	7.0	7.0	7.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar	2.4	2.4	2.2	2.2	2.2
chamber pressure(rdyn max)pH at z=22,5%bar	2.4	2.4	2.2	2.2	2.2
chamber press.(servo)pcha at pm6,5bar bar	6.6	6.6	4.8	4.8	4.8
piston force ThA at pm6,5bar N	7687	7687	4573	4573	4573
brake force(rdyn min)T lad. at pm6,5bar N	54861	54861	32519	32519	32519
brake force(rdyn max)T lad. at pm6,5bar N	54861	54861	32519	32519	32519
Brake force incl. 1 % rolling resistance proportion %	22.2	22.2	18.5	18.5	18.5

braking rate z laden 0.603 for rdyn min
 z = sum (TR)/PRmax 0.603 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...

axle 5:

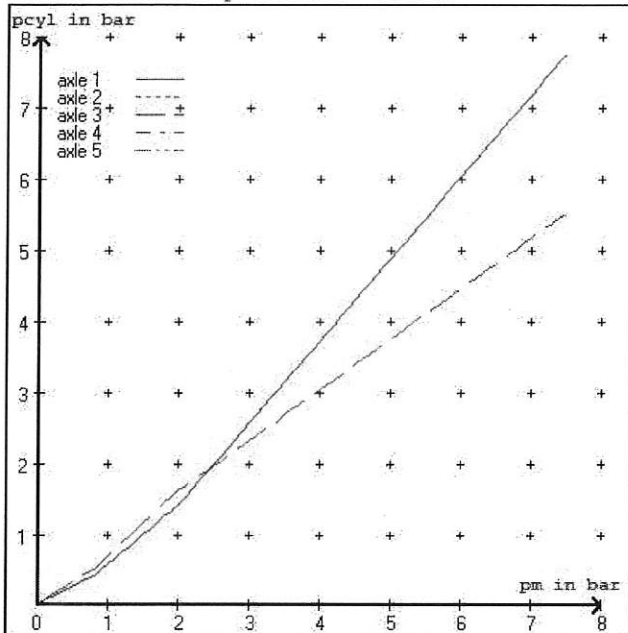
valve 1: 971 002 ... 0 WABCO
 EBS emergency valve

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

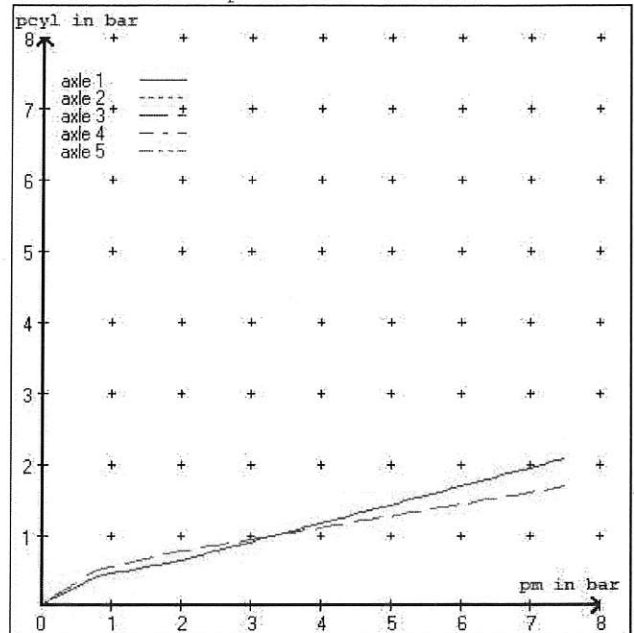
brake cylinder: Haldex 125 160 0.. - 125 160 5.. / 125 160 6.. - 125 160 9..

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.6 bar =>	pcha in bar :	3.3	3.3	2.7	2.7	2.7	
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	0.9	0.9	0.9	

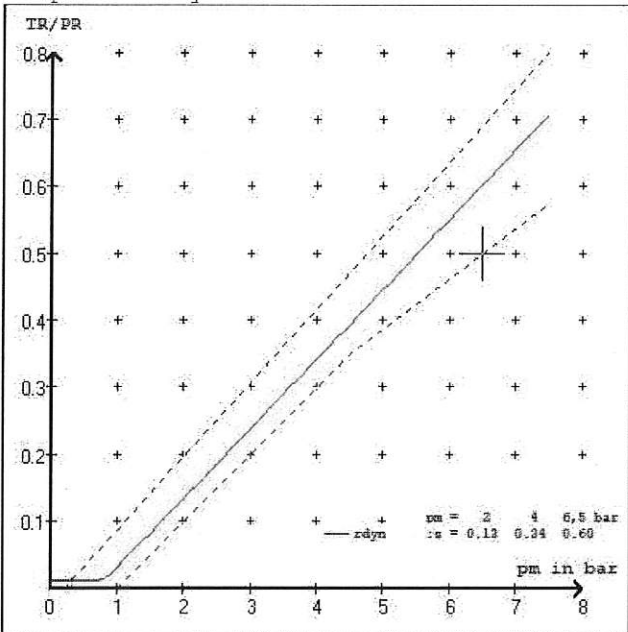
brake chamber pressure laden



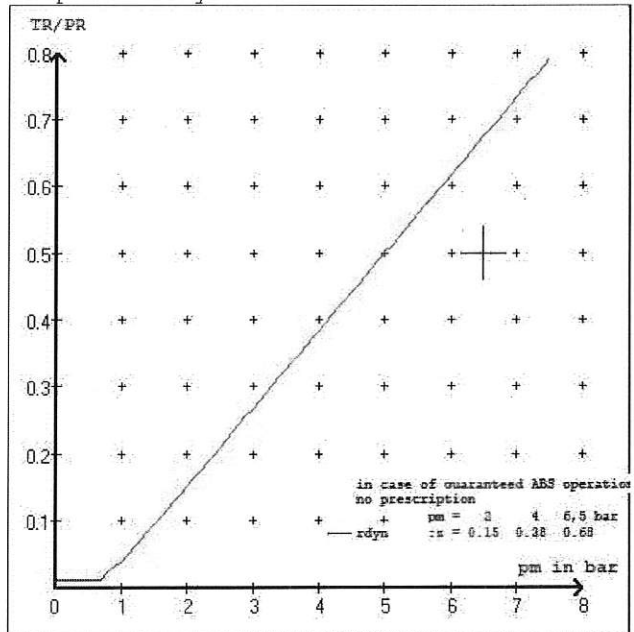
brake chamber pressure unladen



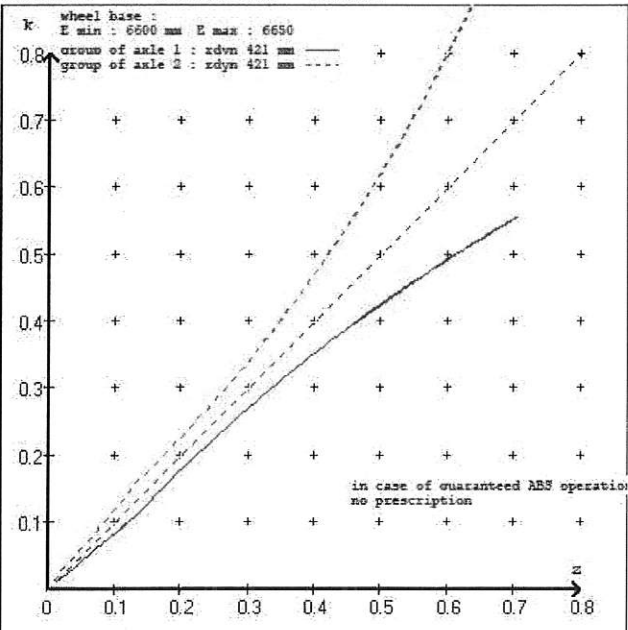
compatibility band laden



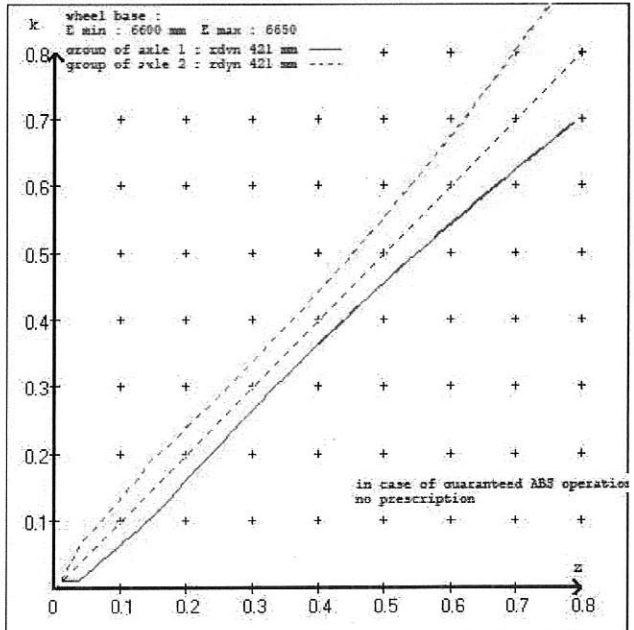
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT CURTAINSIDE
 trailer type : 5-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
 axle 5 : 2 x type/diameter 16" (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

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vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT CURTAINSIDE
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 52261A

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	1650	to be	1.8	8000	to be	0.4	1.4	6.6	
2	1650	entered by the vehicle manufact.	1.8	8000	entered by the vehicle manufact.	0.4	1.4	6.6	
3	1300		1.5	6350		0.5	1.6	4.8	
4	1300		1.5	6350		0.5	1.6	4.8	
5	1300		1.5	6350		0.5	1.6	4.8	

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
1650	1.8	1650	1.8	1300	1.5	1300	1.5	1300	1.5
2150	2.2	2150	2.2	1800	1.8	1800	1.8	1800	1.8
2650	2.6	2650	2.6	2300	2.2	2300	2.2	2300	2.2
3150	2.9	3150	2.9	2800	2.5	2800	2.5	2800	2.5
3650	3.3	3650	3.3	3300	2.8	3300	2.8	3300	2.8
4150	3.7	4150	3.7	3800	3.1	3800	3.1	3800	3.1
4650	4.1	4650	4.1	4300	3.5	4300	3.5	4300	3.5
5150	4.4	5150	4.4	4800	3.8	4800	3.8	4800	3.8
8000	6.6	8000	6.6	6350	4.8	6350	4.8	6350	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
axle 5 : 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 = 23.6 % Fe
axle 2	(rdyn 421 mm)	T = 23.6 % Fe
axle 3	(rdyn 421 mm)	T = 16.1 % Fe
axle 4	(rdyn 421 mm)	T = 16.1 % Fe
axle 5	(rdyn 421 mm)	T = 16.1 % 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
axle 5	(sp = 50 mm)	s = 38 mm

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

axle1	ThA = 7687 N
axle2	ThA = 7687 N
axle3	ThA = 4573 N
axle4	ThA = 4573 N
axle5	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 = 47013 N
axle 2	(rdyn 421 mm)	T = 47013 N
axle 3	(rdyn 421 mm)	T = 27893 N
axle 4	(rdyn 421 mm)	T = 27893 N
axle 5	(rdyn 421 mm)	T = 27893 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
		0.52
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 = 47013 N
axle 2	(rdyn 421 mm)	T = 47013 N
axle 3	(rdyn 421 mm)	T = 27893 N
axle 4	(rdyn 421 mm)	T = 27893 N
axle 5	(rdyn 421 mm)	T = 27893 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
		0.52
required braking rate		>= 0,4 and
(items 1.5.3 and 1.7.2 to annex 11)		>= 0,6*E (0.36)

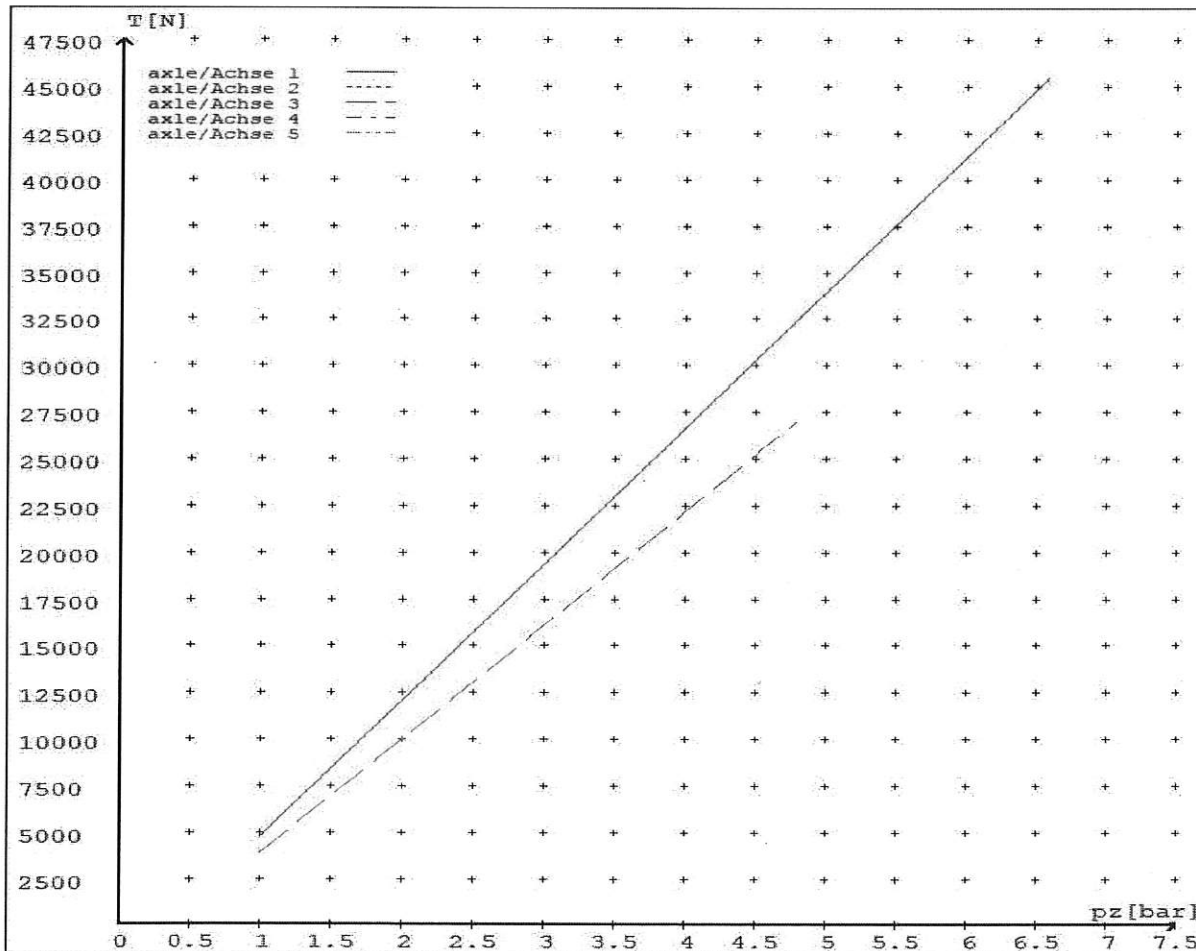
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	4746	
	6.6	45490	
axle 2	1.0	4746	
	6.6	45490	
axle 3	1.0		3850
	4.8		26965
axle 4	1.0		3850
	4.8		26965
axle 5	1.0		3850
	4.8		26965

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	74	74	74	74	74





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 horizontal line.

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



NOTICE TO VEHICLE OPERATOR

WABCO Park Release Emergency Valve **(PREV)**

This trailer is equipped with a WABCO PREV
Part # 971 002 900 0

Application of the park brake via the cab control valve will actuate and apply all service brakes on the trailer. In the event of a leak in the service brake system the Spring Brakes will automatically override and hold the vehicle in compliance to Land Transport Rule: Heavy-vehicle Brakes Rule 32015.

When the vehicle is presented for COF the trailer park brake system is tested by pulling the red actuation knob on the PREV, situated mid way down the chassis rail. The cab control in the prime mover does not have to be applied for this test procedure.

If you are unsure of any aspect relating to this instruction please contact either the vehicle manufacturer or myself.

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:	FITCHETT LINEHAUL

VEHICLE DETAILS

VEHICLE TYPE:	5AFT CURTAINSIDE	CERT #:	JH230602
YEAR:	2023	CALCULATION #:	TP52261
MAKE:	DOMETT	REGO #:	N/A
MODEL:	E2001 PH	LT400 #:	872843
CHASSIS #:	2314	ORDER #:	9545
VIN #:	7A9E20013P2023314		
GVM: t	32	PRIME MOVER:	EBS / EUROPEAN
LOAD CONFIGURATION:	MIXED FREIGHT		
GROUP RATINGS: t	FRONT	REAR	
	16	19	
WHEEL BASE: m	6.605		
	UNLADEN COG m	MAX HEIGHT m	HEIGHT DECK m
	1.08	4.3	1.09
COG: m	2.083		
	FRONT	REAR	TOTAL
TARE: t	3.3	3.9	7.2
	FRONT	REAR	
TYRE SIZE:	265 70 R19.5	265 70 R19.5	
ROLLING CIRCUMFERENCE: mm	2645	2645	
AXLE SPACING: m	1.31	2.7	

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	ROR CS9L

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: <i>mm</i>	66	65	65
TEST REPORT #:	BC0175.0	BC0165.0	BC0169.0
SPRINGBRAKE FORCE: <i>kN</i>	N/A	6.003	N/A
HOLDOFF PRESSURE: <i>Bar</i>	N/A	5.2	N/A
FOUNDATION BRAKE:	MERITOR	MERITOR	MERITOR
LEVER LENGTH: <i>mm</i>	74	74	74
BRAKE VALVES:	MAKE:	PART NUMBER:	PM PRESS. <i>kPa</i>
ECU PART #:	WABCO	480 102 08. 0 (MV)	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	0.49
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	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
RISE HEIGHT <i>mm</i> :	260	260
HANGER HEIGHT <i>mm</i> :	250	250
PEDESTAL HEIGHT <i>mm</i> :	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: <i>L</i>	46	46 + 25
AUXILLARY TANK SIZE: <i>L</i>	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		

