

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

Plate number (optional)	VIN/chassis number
	7A9D50022P2023395
Make	Component being certified:
DOMETT	<input type="checkbox"/> Chassis <input type="checkbox"/> Load anchorage
Model (optional)	<input type="checkbox"/> Log bolsters <input type="checkbox"/> Towing connection <input checked="" type="checkbox"/> Brakes
D5002	<input type="checkbox"/> SRT <input type="checkbox"/> PSV stability <input type="checkbox"/> PSV rollover
Certification category	<input type="checkbox"/> Swept path <input type="checkbox"/> PBS
HVEK	

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.

4AS SKELETAL **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	Component load rating(s)
LTR 32015	42 Tonnes GVM
General drawing number(s)	26 Tonnes (Rear brake mass)
N/A	
Supporting documents	
BRAKE RULE CERTIFICATE	JH231140
BRAKE CALCULATION #	TP52777

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)	or	Hubodometer reading (whichever comes first)
N/A [UNLESS MODIFIED]		<input type="text"/>

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) ID number

CHRIS CLARKE **CJC**

Date **28-Nov-23** Number **A 11410**

CoF vehicle inspector ID (if applicable)	CoF vehicle inspector signature (if applicable)	Date

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

distribution: DOMETT TRAILERS
 7A9D50022P2023395
 SoDC: JH231140
 LT400: CJC A11410

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!
 WABCO Brake V6.18.07.12 db 13.10.2020

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 4AS SKELETAL
 trailer type : 4-axle-semi-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS
 TRISTOP 1+2: T.14/24 [TSE1416HTLD ACTUALLY FITTED -
SEE PAGE 7 FOR PERFORMANCE DATA]
 355/50 R 22,5

axle 1 + 2 + 3 + 4 : SAF, SBW 1937, TDB 0678 ECE,

		<u>unladen</u>		<u>laden</u>	
total mass	P in kg	5000	- 6000	42000	- 44000
king-pin	PS kg	200	- 1200	16000	- 18000
axle 1	P1 in kg		1200		6500
axle 2	P2 in kg		1200		6500
axle 3	P3 in kg		1200		6500
axle 4	P4 in kg		1200		6500
total axle mass	PR in kg		4800		26000
wheel base	E in mm	9200	- 9910		
centre of gravity height	h in mm		790		2460
K-factor		Kv min	2.0951	Kc min	1.0232
K-factor		Kv max	2.1149	Kc max	1.0560

		<u>axle 1</u>	<u>axle 2</u>	<u>axle 3</u>	<u>axle 4</u>
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 119.6	BZ 119.6	BZ 122.1	BZ 122.1
brake chamber manufacturer		Meritor	Meritor	Meritor	Meritor
chamber size		T.14/24	T.14/24	14.	14.
lever length	lBh in mm	69	69	69	69
brake factor	[-]	23.03	23.03	23.03	23.03
dyn. rolling radius	rdyn min in mm	449	449	449	449
dyn. rolling radius	rdyn max in mm	449	449	449	449
threshold torque	Co Nm	6.0	6.0	6.0	6.0

calculation:

chamber pressure (rdyn min) pH at z=22,5%bar		2.2	2.2	2.2	2.2
chamber pressure (rdyn max) pH at z=22,5%bar		2.2	2.2	2.2	2.2
chamber press. (servo) pcha at pm6,5bar bar		5.6	5.6	5.6	5.6
piston force ThA at pm6,5bar N		5387	5387	5387	5387
brake force (rdyn min) T lad. at pm6,5bar N		38198	38198	38198	38198
brake force (rdyn max) T lad. at pm6,5bar N		38198	38198	38198	38198
Brake force incl. 1 % rolling resistance proportion	%	25.0	25.0	25.0	25.0

braking rate z laden 0.599 for rdyn min
 z = sum (TR)/PRmax 0.599 for rdyn max

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

brake diagram : 841 701 050 0

maximum pressure: 8.5 bar

axle 1:

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

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

brake cylinder: Meritor 1424HTLD64

axle 2:

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

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

brake cylinder: Meritor 1424HTLD64

axle 3:

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

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

brake cylinder: Meritor 14HSCLD64

axle 4:

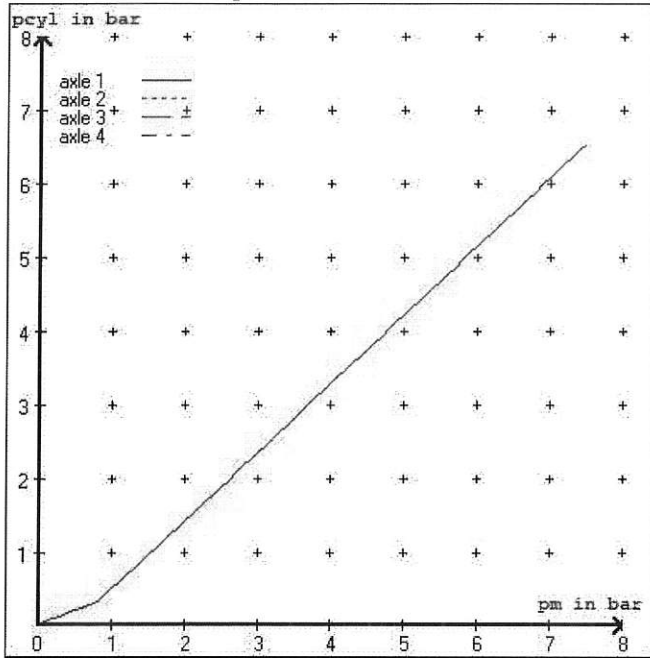
valve 1: 971 002 ... 0 WABCO
 EBS emergency valve

valve 2: 480 207 0.. 0 WABCO or 480 207 2.. 0
 EBS relay valve

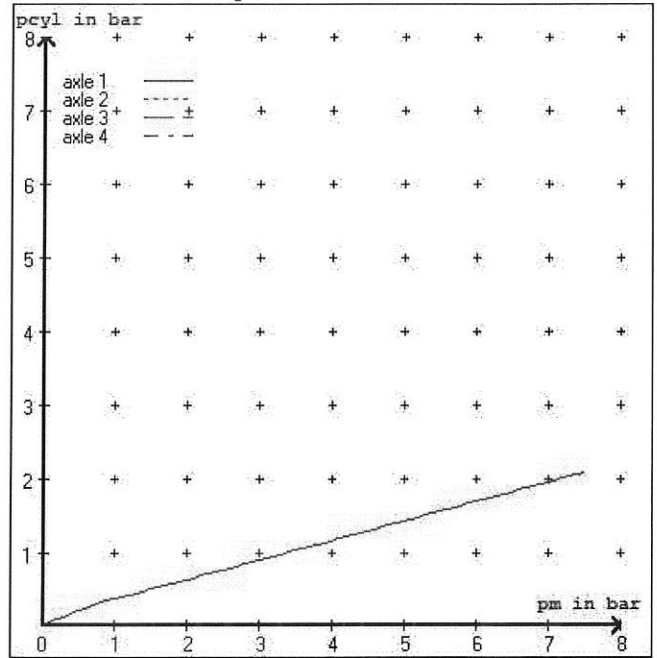
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4
at pm 3.6 bar =>	pcha in bar :	2.9	2.9	2.9	2.9
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4
at pm 1.3 bar =>	pcha in bar :	0.8	0.8	0.8	0.8

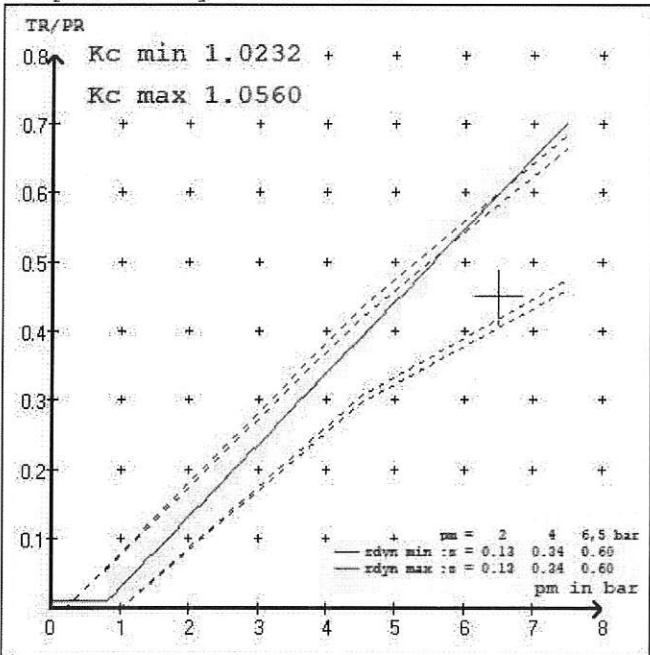
brake chamber pressure laden



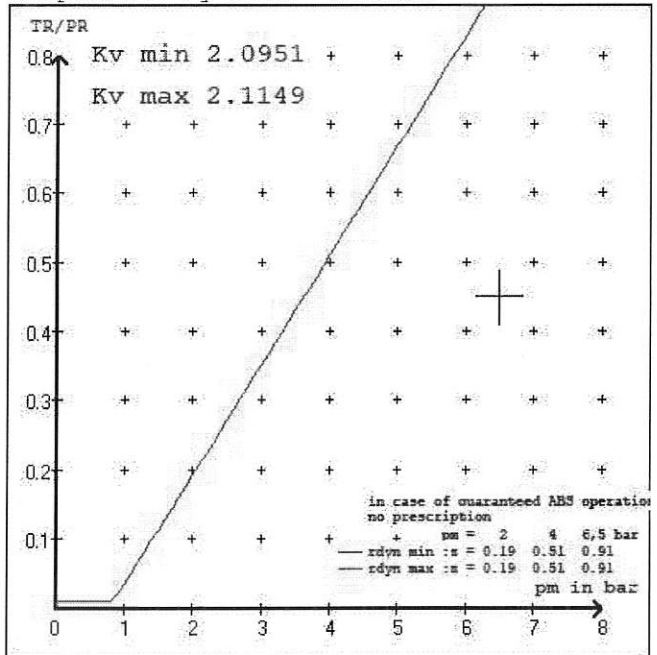
brake chamber pressure unladen



compatibility band laden



compatibility band unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 4AS SKELETAL
 trailer type : 4-axle-semi-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter T.14/24 (Meritor) lever length 69 mm
 axle 2 : 2 x type/diameter T.14/24 (Meritor) lever length 69 mm
 axle 3 : 2 x type/diameter 14. (Meritor) lever length 69 mm
 axle 4 : 2 x type/diameter 14. (Meritor) lever length 69 mm

brake diagram : 841 701 050 0

valve :

971 002 ... 0 WABCO EBS emergency valve
 480 102 ... 0 WABCO EBS trailer modulator
 480 207 0.. 0 WABCO EBS relay valve or 480 207 2.. 0

EBS input data

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vehicle manufacturer: DOMETT TRAILERS
 trailer model : 4AS SKELETAL
 trailer type : 4-axle-semi-trailer
 brake calculation no. : TP 52777S

tire circumference main axle : 2825 for rdyn max
 tire circumference auxiliary axle : 2825 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	1200	to be	1.8	6500	to be	0.3	1.4	5.6	
2	1200	entered by	1.8	6500	entered by	0.3	1.4	5.6	
3	1200	the vehicle	1.8	6500	the vehicle	0.3	1.4	5.6	
4	1200	manufact.	1.8	6500	manufact.	0.3	1.4	5.6	
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.

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axle 1	axle 2	axle 3	axle 4
axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1
1200	1200	1200	1200
1700	1700	1700	1700
2200	2200	2200	2200
2700	2700	2700	2700
3200	3200	3200	3200
3700	3700	3700	3700
4200	4200	4200	4200
4700	4700	4700	4700
6500	6500	6500	6500

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

axle 1 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0678 ECE	date : 20130927
axle 2 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0678 ECE	date : 20130927
axle 3 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0678 ECE	date : 20130927
axle 4 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0678 ECE	date : 20130927

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 = 19.1 % Fe
axle 2	(rdyn 449 mm)	T = 19.1 % Fe
axle 3	(rdyn 449 mm)	T = 19.1 % Fe
axle 4	(rdyn 449 mm)	T = 19.1 % Fe

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

axle 1	(sp = 56 mm)	s = 48 mm
axle 2	(sp = 56 mm)	s = 48 mm
axle 3	(sp = 56 mm)	s = 48 mm
axle 4	(sp = 56 mm)	s = 48 mm

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

axle1	ThA = 5387 N
axle2	ThA = 5387 N
axle3	ThA = 5387 N
axle4	ThA = 5387 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 = 31242 N
axle 2	(rdyn 449 mm)	T = 31242 N
axle 3	(rdyn 449 mm)	T = 31242 N
axle 4	(rdyn 449 mm)	T = 31242 N

basic test	type III
of subject	(calculated)
trailer (E)	residual

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.60	(hot)braking 0.49
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required braking rate (items 1.5.3 and 1.7.2 to annex 11)		>= 0,4 and >= 0,6*E (0.36)
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axle 1	(rdyn 449 mm)	T = 31242 N
axle 2	(rdyn 449 mm)	T = 31242 N
axle 3	(rdyn 449 mm)	T = 31242 N
axle 4	(rdyn 449 mm)	T = 31242 N

basic test	type III
of subject	(calculated)
trailer (E)	residual

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.60	(hot)braking 0.49
---	------	----------------------

required braking rate (items 1.5.3 and 1.7.2 to annex 11)		>= 0,4 and >= 0,6*E (0.36)
--	--	-------------------------------

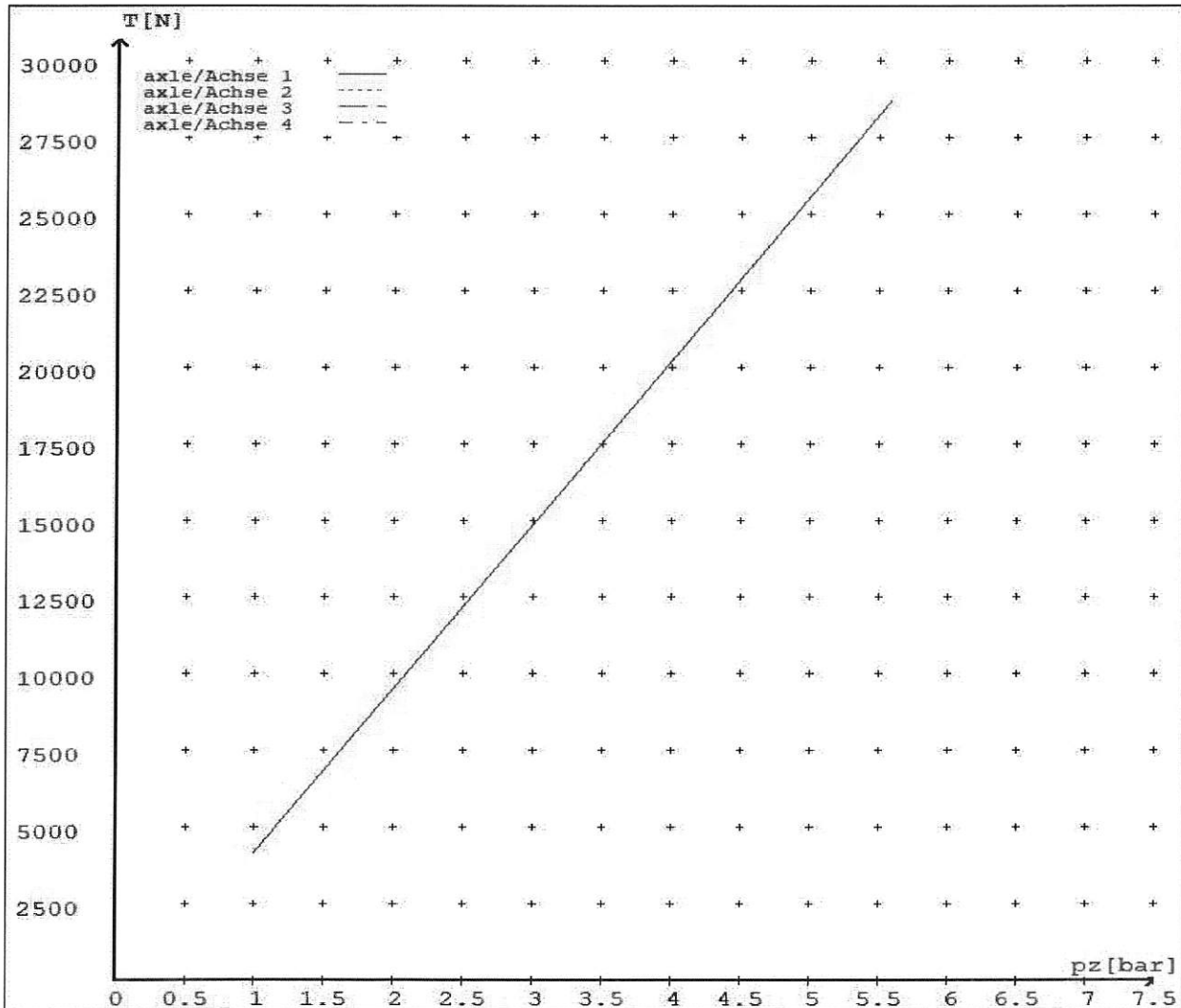
reference values

reference values for z = 45% for max rdyn: 449 mm

	pz [bar]	T [N]	T [N]
axle 1	1.0	4158	
	5.6	28697	
axle 2	1.0	4158	
	5.6	28697	
axle 3	1.0	4158	
	5.6	28697	
axle 4	1.0		4158
	5.6		28697

VIN - no.:

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





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-CODED VEHICLES, THERE MAY BE OPERATIONAL FACTORS WHICH NEED TO BE TAKEN INTO CONSIDERATION.

PLEASE REFER TO THE CERTIFIER FOR FURTHER INFORMATION.

EXCERPT FROM NZ HEAVY VEHICLE BRAKE 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; and*
- (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.*

10.5 Responsibilities of manufacturers and retailers

A person may manufacturer, stock, or offer for sale a brake or its components. Intended for fitting to a vehicle to be used on New Zealand roads, only if that brake or component:

- (a) Complies with this rule; and*
- (b) Does not prevent a repair to a vehicle, its structure, systems, components and equipment from complying with this rule.*

***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 3 working days and a resolution proposed within 20 working days. Resolution of complaints and Warranty issues is subject to Transpecs Warranty policy.

Customers have the right to appeal to the NZ Transport Agency if dissatisfied with a Compliance issue. (refer NZTA Notice Of Appointment Para 47.4)

NZ Transport Agency Helpdesk 0800 699 000 or a form can be found at

Vehicle certification complaints form (VCCPF01) | Waka Kotahi NZ Transport Agency (nzta.govt.nz)



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 the 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.

NB:

If this vehicle is fitted with mechanical (spring) suspension, the load sensing has been adjusted to suit the performance of the original springs. In the event of replacement being required, original equipment springs **must** be fitted to ensure correct ongoing operation.

Fitment of non-genuine springs can affect operation and therefore, compliance.

If you are unsure of your responsibilities and/or obligations, please contact either the vehicle manufacturer or myself.



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 with 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 midway 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 Hirst
(JEH HVEK)



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

CLIENT

MANUFACTURER:	DOMETT TRAILERS
ADDRESS:	TAURIKURA DRIVE, TAURANGA 3110
FLEET:	HILTON HAULAGE LTD

VEHICLE DETAILS

VEHICLE TYPE:	4AS SKELETAL	CERT #:	JH231140
YEAR:	2023	CALCULATION #:	TP52777
MAKE:	DOMETT	REGO #:	N/A
MODEL:	D5002	LT400 #:	A11410
CHASSIS #:	2395	ORDER #:	9766
VIN #:	7A9D50022P2023395		
GVM: <i>t</i>	42	PRIME MOVER:	EBS / EUROPEAN
LOAD CONFIGURATION:	UNIFORM DENSITY		
GROUP RATINGS: <i>t</i>	FRONT	REAR	
	16	26	
WHEEL BASE: <i>m</i>	9.2		
	UNLADEN COG <i>m</i>	MAX HEIGHT <i>m</i>	HEIGHT DECK <i>m</i>
	0.79	4.3	1.375
COG: <i>m</i>	2.456		
	FRONT	REAR	TOTAL
TARE: <i>t</i>	0.75	4.85	5.6
		REAR	
TYRE SIZE:		355 50 R22.5	
ROLLING CIRCUMFERENCE: <i>mm</i>		2860	
AXLE SPACING: <i>m</i>		4	

BRAKE & AXLE DETAILS

	MAKE	MODEL	TEST REPORT
AXLE:	SAF	SAF-BI9	TDB0678
STEER AXLE[S]:	YES	POLE WHEEL:	90
LINING MATERIAL:	JURID 539	BRAKE FACTOR:	23.03
SENSED AXLES:	# 2 + # 4	NOTES:	
SERIAL NUMBERS:	1		NG-IU28-BI9-19W
	2		NG-IU28-BI9-19W
	3		NG-IU28-BI9-19W
	4		NG-IU28-BILL9-19W

CHAMBER AND VALVING DETAILS

CHAMBERS:	AXLE 1 & 2	AXLE 3 & 4	
BRAND:	TSE_CHAMBERS	TSE_CHAMBERS	
SIZE:	1416HTLD	14HSCLD	
STROKE: <i>mm</i>	64	64	
TEST REPORT #:	BC0143.0	BZ 122.1 Sep '00	
SPRINGBRAKE FORCE: <i>kN</i>	6.16	N/A	
HOLDOFF PRESSURE: <i>Bar</i>	4.8	N/A	
FOUNDATION BRAKE:	WABCO PAN19	WABCO PAN19	
LEVER LENGTH: <i>mm</i>	69	69	
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	
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

	REAR
SUSPENSION TYPE:	ELECTRONIC
MAKE:	SAF_AIRSPRING
MODEL:	SAF_INTRA
BELLOW SIZE:	2619, 300mm
HEIGHT CONTROL VALVE:	441 050 100 0
OTHER VALVES:	N/A
RIDE HEIGHT <i>mm</i> :	280
HANGER HEIGHT <i>mm</i> :	200
PEDESTAL HEIGHT <i>mm</i> :	50
LIFTAXLE:	N/A
DUMP SWITCH:	N/A
LIFTAXLE VALVE:	N/A

AIR TANKS

AIR TANKS STANDARD:	SAE J10A / EN286-2
	REAR
BRAKE TANK SIZE: L	46 + 46
AUXILLARY TANK SIZE: L	46
PRESSURE PROTECTION:	WABCO PEM: 461 513 002 0

AIR LINES

TEST POINTS:	
CONTROL LINE:	x1
FIXED AXLE CHAMBERS:	x2
STEER AXLE CHAMBERS:	x1
DUOMATIC COLOUR CODED:	YES
TANK:	X 1

HEAVY VEHICLE BRAKES - 32015 (TRAILER)

SCHEDULE 5

SCHEDULE 4

SECTION 6

APPROVED STD

CHECKS AT COMMISSION OF VEHICLE

CHAMBER BUNGS REMOVED:

VALVE MOUNTING:

ECU BLANKING PLUGS CHECKED:

DUOMATIC DRILLED:

RESPONSE TIME:

MODULATOR 2.1

MODULATOR 2.2

RELAY VALVE

ms:

NOTES, SKETCHES AND SPECIAL CONDITIONS

FILES RECEIVED: 21.09.2023

FILES CREATED: 28.11.2023

FILES SENT TO CJC (SoDC): 28.11.2023

FILES RETURNED AS COMPLETE:

REASON FOR CERTIFICATION: NEW TRAILER BUILD

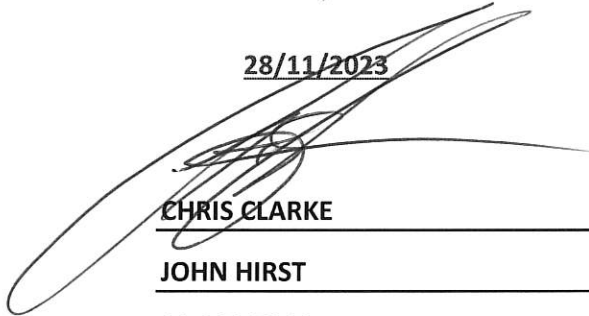
I UNDERSTAND AND DECLARE THAT I AM THE CERTIFIER IDENTIFIED BELOW AND HOLD A CURRENT VALID APPOINTMENT. I CERTIFY THAT AT THE TIME OF INSPECTION THE ABOVE MENTIONED VEHICLE COMPONENT DESIGN AND THIS CERTIFICATION COMPLIES IN ALL RESPECTS WITH THE LAND TRANSPORT RULE VEHICLE STANDARDS COMPLIANCE 2002 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:

28/11/2023

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