

# Heavy vehicle specialist certificate

Must be presented to a CoF (heavy) inspecting organisation  
 Heavy vehicle specialist inspector and inspecting organisation

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

**CHRIS CLARKE** **CJC**

Vehicle registration (optional) VIN/chassis number

**7A9E25017G1023500**

Make **DOMETT**

Model (optional)

Certification category **HVEK**

Component being certified:

<input type="checkbox"/> Chassis	<input type="checkbox"/> Load anchorage
<input type="checkbox"/> Log bolsters	<input checked="" type="checkbox"/> Brakes
<input type="checkbox"/> SRT	<input type="checkbox"/> PSV stability
<input type="checkbox"/> Swept path	<input type="checkbox"/> PSV rollover
	<input type="checkbox"/> PBS

Description of work

**CERTIFY TO SCHEDULE 5 OF LTR 32015/3**

Code/standard/rule certified to **LTR 32015/3** Component load rating(s)

**32 Tonnes GVM**

General drawing number(s) **N/A**

Supporting documents

**BRAKE CODE CERTIFICATE JH160527**

**BRAKE CALCULATION # TP51443**

Special conditions (optional)

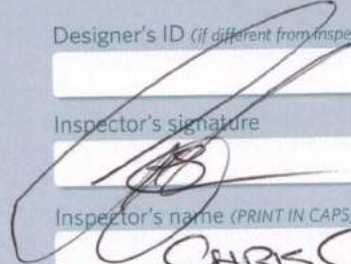
**WARNING LAMP MUST ILLUMINATE WHEN IGNITION IS SWITCHED ON & THEN EXTINGUISH IMMEDIATELY OR WHEN VEHICLE SPEED EXCEEDS 7 KPH**

Certification expiry date (if applicable) **N/A** 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 **CJC**

Date **8-Jun-16** Number **553785**

CoF vehicle inspector ID CoF vehicle inspector signature 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  
 7A9E25017G1023500  
 SODC: JH160527  
 LT400: 533785

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 (V6.14.04.20).  
 -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 V6.14.04.20 db 20.04.2016

vehicle manufacturer: DOMETT TRAILERS  
 trailer model : 5AFT STOCK  
 trailer type : 5-axle-full-trailer  
 remarks : air / hydraulic / VA suspension  
 WABCO TRAILER - EBS  
 TRISTOP 3+4: T.14/24 [TSE1416HTLD ACTUALLY FITTED  
 - SEE PAGE 7 FOR PERFORMANCE DATA]  
 265/70 R 19,5

axle 1 + 2 + 3 + 4 + 5 : SAF, SBW 1937, TDB 0749 ECE,

		unladen	laden
total mass	P in kg	10400	35200
axle 1	P1 in kg	2500	8000
axle 2	P2 in kg	2500	8000
axle 3	P3 in kg	1800	6400
axle 4	P4 in kg	1800	6400
axle 5	P5 in kg	1800	6400
wheel base	E in mm	6490 - 6490	
centre of gravity height	h in mm	1000	2207

		axle 1	axle 2	axle 3	axle 4	axle 5
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	[-]	23.03	23.03	23.03	23.03	23.03
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	6.0	6.0	6.0	6.0	6.0

calculation:

chamber pressure (rdyn min) pH at z=22,5%bar	2.3	2.3	2.0	2.0	2.0
chamber pressure (rdyn max) pH at z=22,5%bar	2.3	2.3	2.0	2.0	2.0
chamber press. (servo) pcha at pm6,5bar bar	6.2	6.2	4.5	4.5	4.5
piston force ThA at pm6,5bar N	7194	7194	4285	4285	4285
brake force (rdyn min) T lad. at pm6,5bar N	54502	54502	32356	32356	32356
brake force (rdyn max) T lad. at pm6,5bar N	54502	54502	32356	32356	32356
brake force within 1 % rolling friction proportion %	22.3	22.3	18.5	18.5	18.5

braking rate z laden 0.597 for rdyn min  
 z = sum (TR)/PRmax 0.597 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: Meritor    1424HTLD64

axle 4:

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

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

brake cylinder: Meritor 1424HTLD64

axle 5:

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

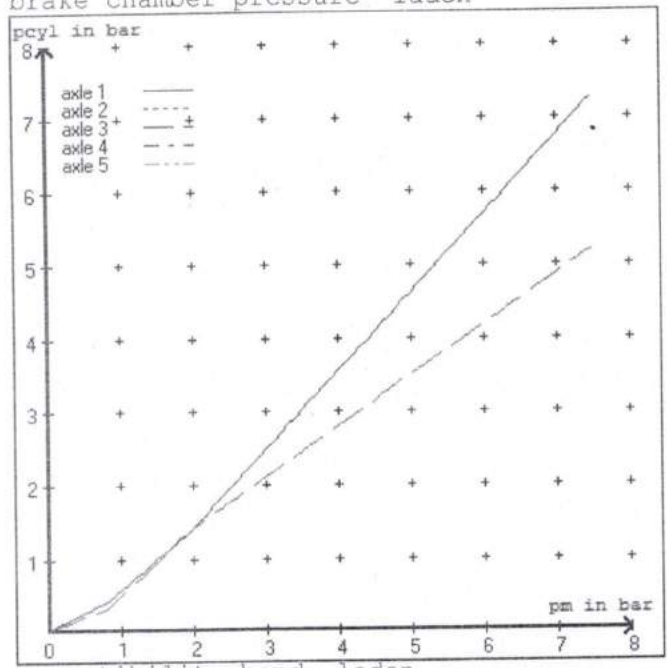
valve 2: 480 102 ... 0 WABCO  
EBS trailer modulator

brake cylinder: Meritor 14HSCLD64

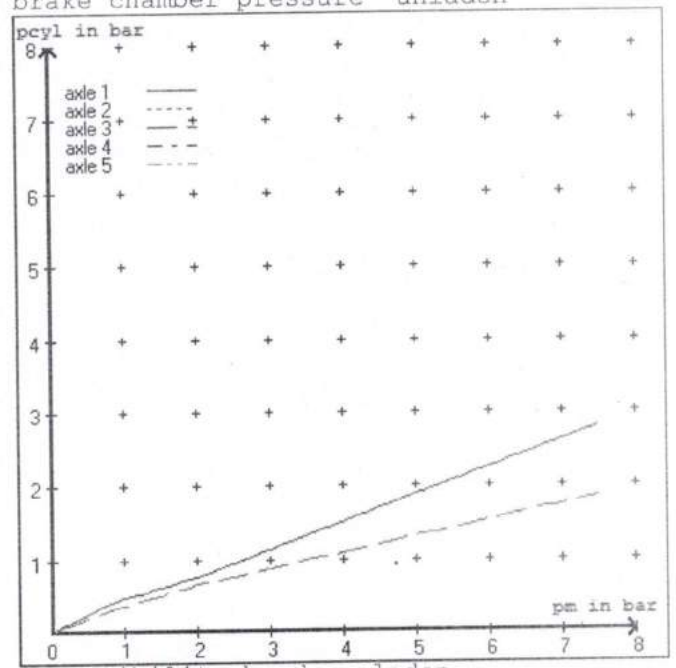
test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.6 bar =>	pcha in bar :	3.1	3.1	2.5	2.5	2.5	2.5
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 1.3 bar =>	pcha in bar :	0.8	0.8	0.8	0.8	0.8	0.8



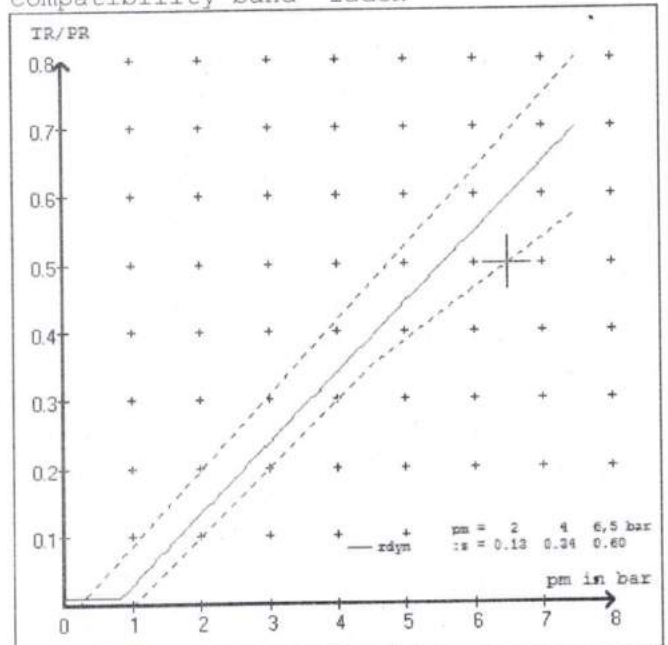
brake chamber pressure laden



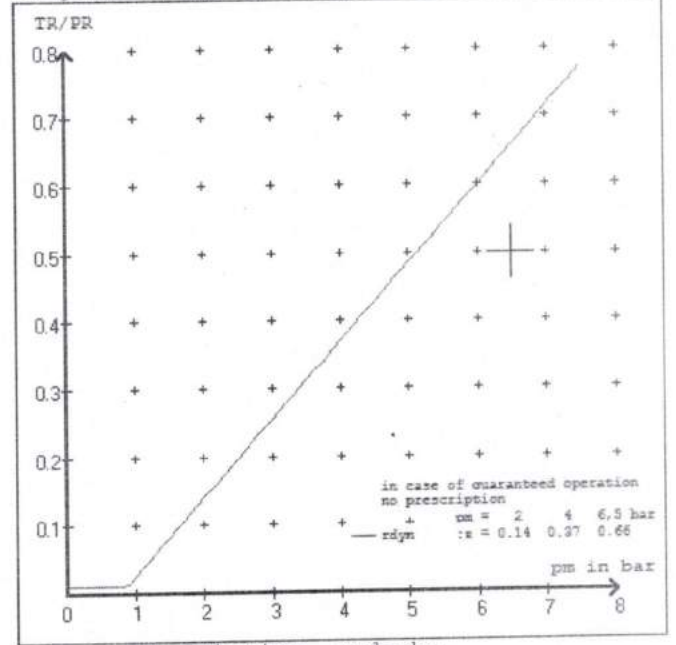
brake chamber pressure unladen



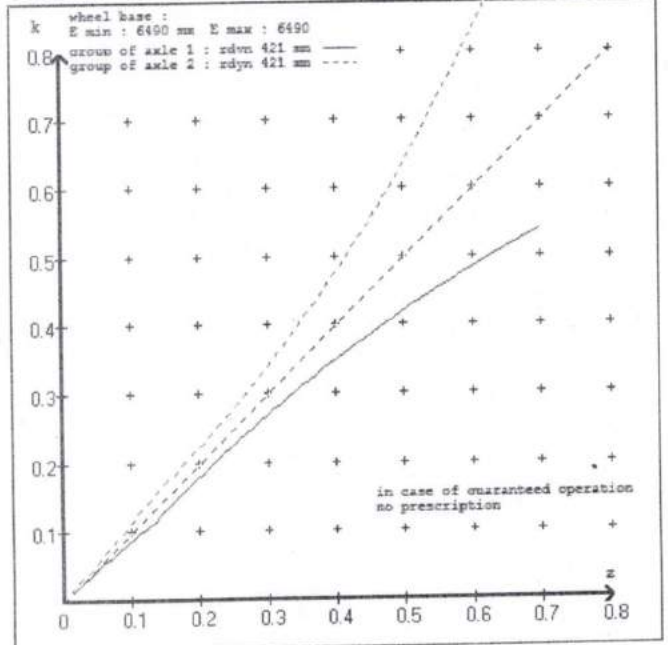
compatibility band laden



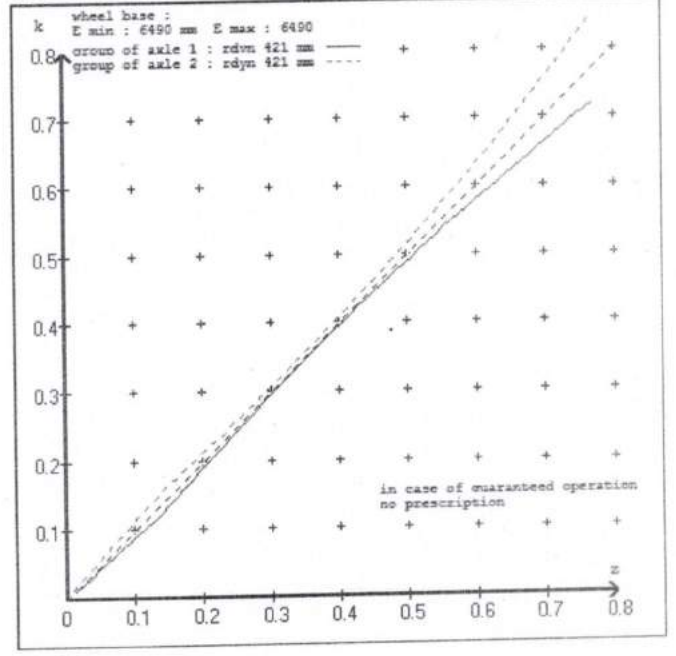
compatibility band unladen



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 :  
 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

vehicle manufacturer: DOMETT TRAILERS  
 trailer model : 5AFT STOCK  
 trailer type : 5-axle-full-trailer  
 brake calculation no. : TP 51443A

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			0.3	2.0	6.5
axle	axle load unladen	bellow pr. unladen	brake pr. unladen	axle load laden	bellow pr. laden	brake pr. laden			
1	2500	to be	2.4	8000	to be	0.4	1.4	6.2	
2	2500	entered by the vehicle manufact.	2.4	8000	entered by the vehicle manufact.	0.4	1.4	6.2	
3	1800		1.6	6400		0.3	1.4	4.5	
4	1800		1.6	6400		0.3	1.4	4.5	
5	1800		1.6	6400		0.3	1.4	4.5	

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 3		axle 4		axle 5	
axle load	pcyl	axle load	pcyl	axle load	pcyl	axle load	pcyl	axle load	pcyl
2500	2.4	2500	2.4	1800	1.6	1800	1.6	1800	1.6
3000	2.7	3000	2.7	2300	1.9	2300	1.9	2300	1.9
3500	3.1	3500	3.1	2800	2.2	2800	2.2	2800	2.2
4000	3.4	4000	3.4	3300	2.5	3300	2.5	3300	2.5
4500	3.8	4500	3.8	3800	2.9	3800	2.9	3800	2.9
5000	4.1	5000	4.1	4300	3.2	4300	3.2	4300	3.2
5500	4.5	5500	4.5	4800	3.5	4800	3.5	4800	3.5
6000	4.8	6000	4.8	5300	3.8	5300	3.8	5300	3.8
8000	6.2	8000	6.2	6400	4.5	6400	4.5	6400	4.5

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 0749 ECE	date : 20130930 30.09.2013
axle 2 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013
axle 3 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013
axle 4 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013
axle 5 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0749 ECE	date : 20130930 30.09.2013

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 = 25.8 % Fe
axle 2	(rdyn 421 mm)	T = 25.8 % Fe
axle 3	(rdyn 421 mm)	T = 17.3 % Fe
axle 4	(rdyn 421 mm)	T = 17.3 % Fe
axle 5	(rdyn 421 mm)	T = 17.3 % Fe

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

axle 1	(sp = 58 mm)	s = 39 mm
axle 2	(sp = 58 mm)	s = 39 mm
axle 3	(sp = 56 mm)	s = 39 mm
axle 4	(sp = 56 mm)	s = 39 mm
axle 5	(sp = 56 mm)	s = 39 mm

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

axle1	ThA = 7194 N
axle2	ThA = 7194 N
axle3	ThA = 4285 N
axle4	ThA = 4285 N
axle5	ThA = 4285 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 = 42560 N
axle 2	(rdyn 421 mm)	T = 42560 N
axle 3	(rdyn 421 mm)	T = 25341 N
axle 4	(rdyn 421 mm)	T = 25341 N
axle 5	(rdyn 421 mm)	T = 25341 N

basic test	type III
of subject	(calculated)
trailer (E)	residual
	(hot)braking
	0.60
	0.47

braking rate of the vehicle  
(item 4.3.2 to appendix 2 to annex 11)

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

>= 0,4 and  
>= 0,6\*E (0.36)

axle 1	(rdyn 421 mm)	T = 42560 N
axle 2	(rdyn 421 mm)	T = 42560 N
axle 3	(rdyn 421 mm)	T = 25341 N
axle 4	(rdyn 421 mm)	T = 25341 N
axle 5	(rdyn 421 mm)	T = 25341 N

basic test	type III
of subject	(calculated)
trailer (E)	residual
	(hot)braking
	0.60
	0.47

braking rate of the vehicle  
(item 4.3.2 to appendix 2 to annex 11)

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

>= 0,4 and  
>= 0,6\*E (0.36)





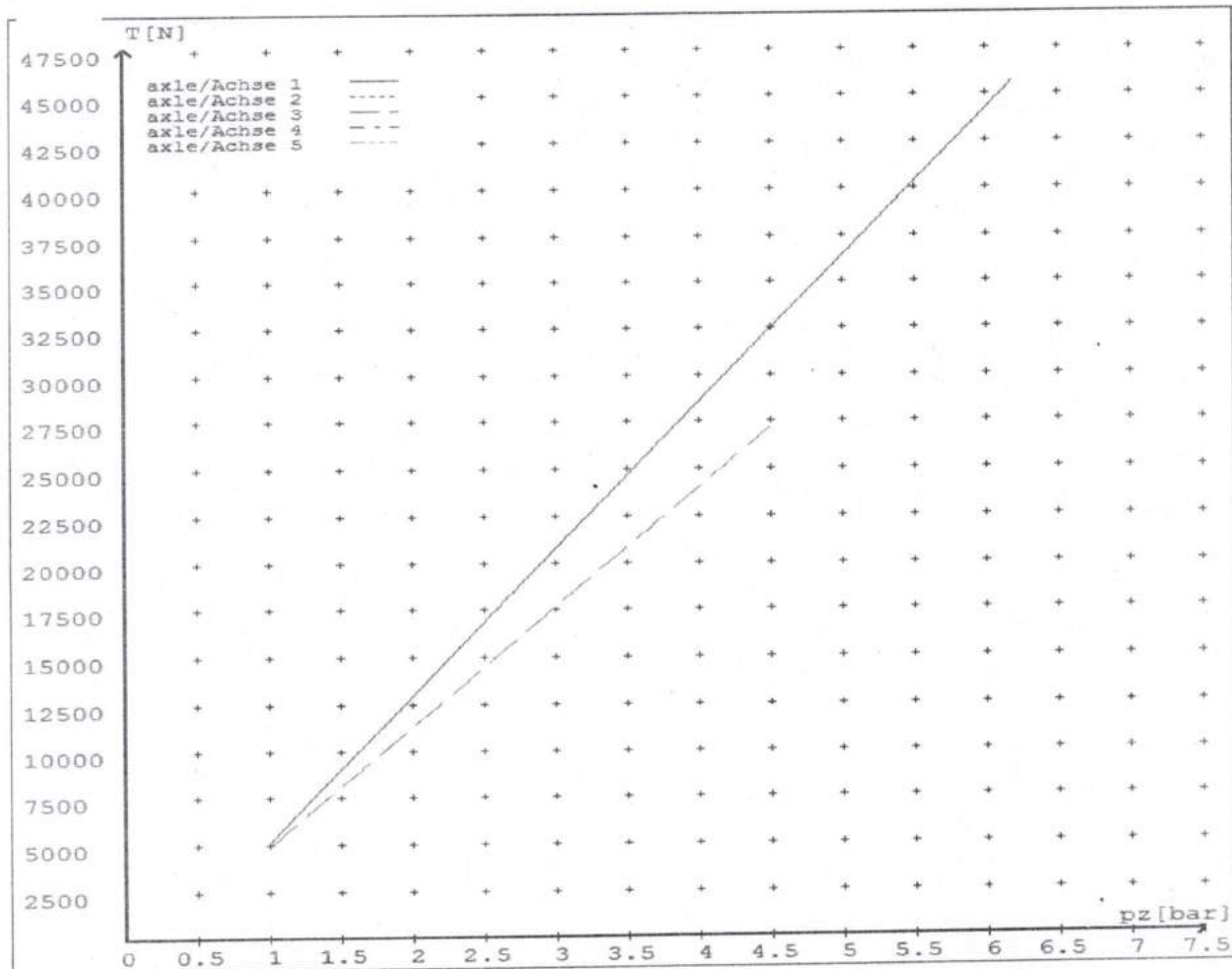
**reference values**

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5095	
	6.2	45647	
axle 2	1.0	5095	
	6.2	45647	
axle 3	1.0		4901
	4.5		27099
axle 4	1.0		4901
	4.5		27099
axle 5	1.0		4901
	4.5		27099

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	20./	20./	T.14/24	T.14/24	14./
Maximum stroke smax = ...mm maximaler Hub smax = ....mm	65	65	64	64	64
Lever length = ....mm Hebellänge = ....mm	69.08	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 32015/3.***

***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 32015/3. 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.).....  
(LHirst (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 32015/3, 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)

**HEAVY VEHICLE BRAKE RULE  
32015/3 WORKSHEET  
(PROCEDURE DOCUMENTATION SHEET-PDS)  
&  
CONFIRMATION OF COMPLIANCE**

CERTIFICATE NO.

JH160527

CUSTOMER NAME

DOMETT TRAILERS

CUSTOMER ORDER NO.

4592

DATE RECEIVED

8-Jun-16

VEHICLE TYPE

LIVESTOCK

VIN/ CHASSIS NO.

7A9E25017G1023500

**BRIEF SPECIFICATION AS CERTIFIED TO SCHEDULE 5**BRAKE VALVESMAKETYPE

PRIMARY RELAY

WABCO

480 102 080 0

SECONDARY RELAY

WABCO

480 207 202 0

YARD RELEASE VALVE

SEALCO

17600B

PARK BRAKE VALVE

SEALCO

110701

LOCKED RATIO:FRONTREAR

MAKE

N/A

N/A

SETTING

N/A

N/A

OTHER VALVES:

MAKE: \_\_\_\_\_ WABCO

TYPE: \_\_\_\_\_ 434 014 000 0

SETTING: \_\_\_\_\_ CHECK VALVE

MAKE: \_\_\_\_\_

TYPE: \_\_\_\_\_

SETTING: \_\_\_\_\_

MAKE: \_\_\_\_\_

TYPE: \_\_\_\_\_

SETTING: \_\_\_\_\_

MAKE: \_\_\_\_\_

TYPE: \_\_\_\_\_

SETTING: \_\_\_\_\_

<u>BRAKE CHAMBERS:</u>	AXLE 1 & 2	AXLE 3 & 4	AXLE 5
MAKE	TSE	TSE	TSE
SIZE	20HSCLD65	1416HTLD64	14HSCLD64
MAX STROKE (mm)	65	64	64
SLACK LENGTH (mm)	69	69	69

DRUM TYPE: N/A N/A N/A

BRAKE CALIPER: WABCO PAN-19 WABCO PAN-19 WABCO PAN-19

FRICITION MATERIAL:  OEM  AFTERMARKET

<u>LINING BRAND</u>	AXLE 1 & 2	AXLE 3 & 4	AXLE 5
	JURID 539	JURID 539	JURID 539

OTHERS:

TYRES: FRONT REAR  
265 70 R 19.5 265 70 R 19.5

BRAKE CALCULATION #: TP51443

**COMMENTS:**

EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 #

SALES ORDER #: SO427224 PROCESS TIME: 1 HOUR

~~TRAILERS EQUIPPED WITH PREV: THE PARK BRAKE PERFORMANCE MUST BE MEASURED BY PULLING THE RED ACTUATION KNOB ON THE PREV VALVE WHEN THE AXLES EQUIPPED WITH SPRING BRAKES ARE IN THE BRAKE ROLLERS. THE PARK BRAKE IN THE CAB MUST NOT BE APPLIED.~~

**NOTES:**

**CHAMBERS & PARK BRAKE PERFORMANCE:**

REFER TO PAGE 7 OF BRAKE CALCULATION-TP51441



## CONFORMATION OF COMPLIANCE

*I CONFIRM THAT THE VEHICLE IDENTIFIED IN PAGES 1 AND 2 OF THIS CONFORMATION OF COMPLIANCE COMPLIES WITH ALL RELEVANT REQUIREMENTS OF THE CURRENT NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015/3, SCHEDULE 5.*

**DATE:** 8-Jun-16

**SIGNED: (pp)**



**NAME & ID:** J HIRST (JEH)

**PHONE (BUS):** 09 980 7300

**FAX (BUS)** 09 980 7306

**POSTAL ADDRESS:**

TRANSPORT SPECIALTIES LTD  
PO BOX 98-971,  
MANUKAU CITY,  
MANUKAU 2241

**POSITION:** BRAKE CERTIFIER HVEK

*I CONFIRM THE BRAKE SYSTEM OF THE VEHICLE IDENTIFIED IN PAGE 1 OF THIS STATEMENT OF COMPLIANCE AS MODIFIED BY MYSELF, CONTINUES TO COMPLY WITH ALL THE RELIVANT REQUIREMENTS OF THE CURRENT NEW ZEALAND HEAVY BRAKE RULE 32015/3 SCHEDULE 5.*

**DATE:**

**SIGNED:**

**NAME:**

**CERTIFIERS ID:**

**POSITION:**

**PHONE (BUS):**

**FAX (BUS):**

**COMMENTS:**

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