

# 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)

CHRIS CLARKE

ID  
CJC

Vehicle registration (optional)

VIN/chassis number

**7 A 9 E 1 0 0 1 4 H 1 0 2 3 5 8 8**

Make

**DOMETT**

Model (optional)

Certification category

**HVEK**

Component being certified:

Chassis

Load anchorage

Log bolsters

Towing connection

Brakes

SRT

PSV stability

PSV rollover

Swept path

PBS

Description of work

**CERTIFY TO HEAVY VEHICLE BRAKE RULE 32015/4.  
 NEW ZEALAND HEAVY VEHICLE BRAKE SPECIFICATION.  
 FULL TANKER TRAILER**

Code/standard/rule certified to

**SCHEDULE 5**

Component load rating(s)

**GVM 30,000 Kgs**

General drawing number(s)

**N/A**

**BRAKES 35,200 Kgs**

Supporting documents

**BRAKE CODE CERTIFICATE LC170614**

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)

**UNTIL MODIFIED or CHANGE OF USE**

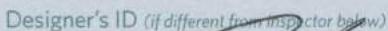
**or**

Hubodometer reading (whichever comes first)

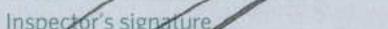
## Declaration

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

**C JJC**

Date

**9-Jun-17**

Number

**599701**

CoF vehicle inspector ID

CoF vehicle inspector signature

Date

All fields are mandatory unless otherwise stated.

distribution: DOMETTS  
 2017, 5A, SAF,  
 NEW TANKER  
 SAF CALIPERS  
 WABCO CHAMBERS

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 recommend to do a braking harmonisation!  
 WABCOBrake V6.14.04.20 db 20.04.2016

vehicle manufacturer: DOMETTS  
 trailer model : 2017 5A TANKER, E1001 SAF  
 trailer type : 5-axle-full-trailer  
 remarks : air / hydraulic / VA suspension  
 EC w.o. annexVII  
 WABCO TRAILER - EBS  
 TRISTOP 3+4: 16/16  
 265/70 R 19,5

axle 1 + 2 + 3 + 4 + 5 : SAF, SBS 1918, TDB 0870 ext01 ECE,

		<u>unladen</u>	<u>laden</u>
total mass	P in kg	6100	35200
axle 1	P1 in kg	1400	8000
axle 2	P2 in kg	1400	8000
axle 3	P3 in kg	1100	6400
axle 4	P4 in kg	1100	6400
axle 5	P5 in kg	1100	6400
wheel base	E in mm	5700 - 5700	
centre of gravity height	h in mm	900	1524

		<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 122.1BC	0006.0BC	0006.0BC	0001.0
brake chamber manufacturer		Meritor	Meritor	WABCO	WABCO	WABCO
chamber size		18.	18.	16/16	16/16	16
lever length	1Bh in mm	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	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	2.2	2.2	2.0	2.0	2.0
chamber pressure(rdyn max)pH at z=22,5%bar	2.2	2.2	2.0	2.0	2.0
chamber press.(servo)pcha at pm6,5bar bar	5.9	5.9	4.3	4.3	4.3
piston force ThA at pm6,5bar N	6285	6285	4321	4321	4321
brake force(rdyn min)T lad. at pm6,5bar N	50904	50904	34892	34892	34892
brake force(rdyn max)T lad. at pm6,5bar N	50904	50904	34892	34892	34892
brake force within 1 % rolling friction proportion	%	20.4	20.4	19.7	19.7
					19.7

braking rate z laden  
 z = sum (TR)/PRmax

0.598 for rdyn min  
 0.598 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 18HSCLD64

axle 2:

valve 1: 480 207 0.. 0 WABCO or 480 207 2.. 0  
EBS relay valve

brake cylinder: Meritor 18HSCLD64

axle 3:

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

brake cylinder: WABCO 925 464 4.. 0 / 925 484 96. 0

axle 4:

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

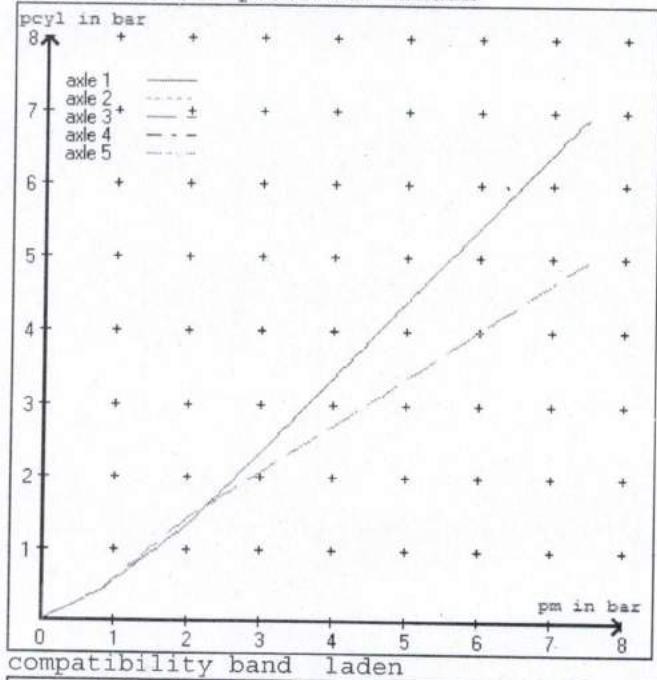
brake cylinder: WABCO 925 464 4.. 0 / 925 484 96. 0

axle 5:

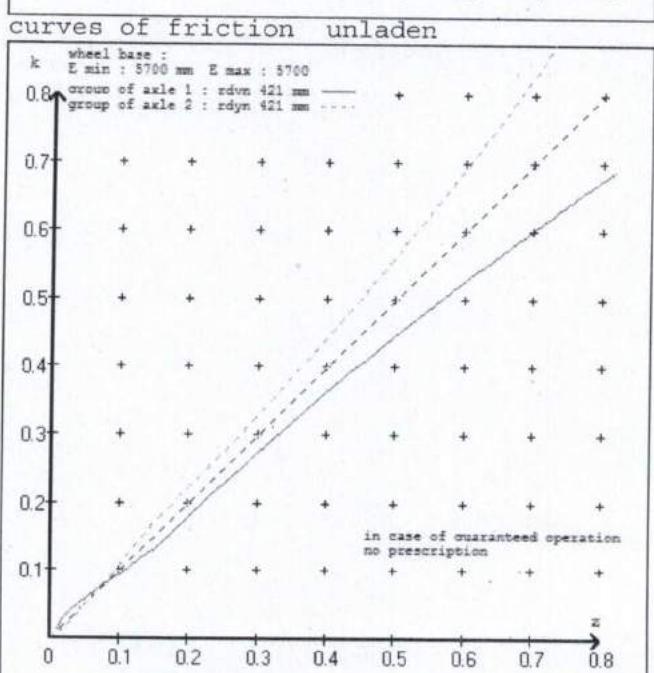
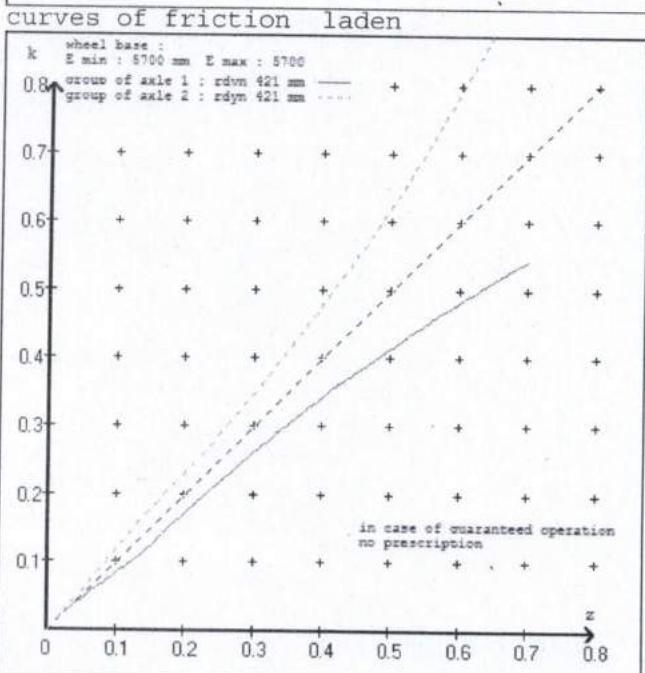
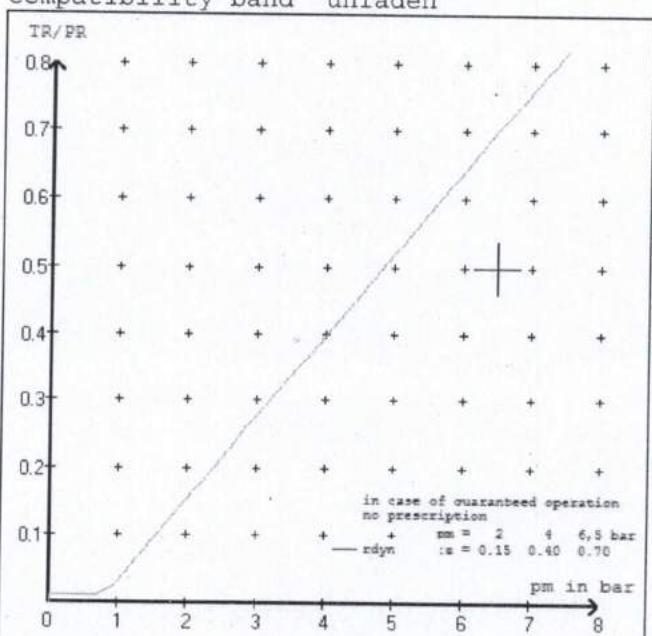
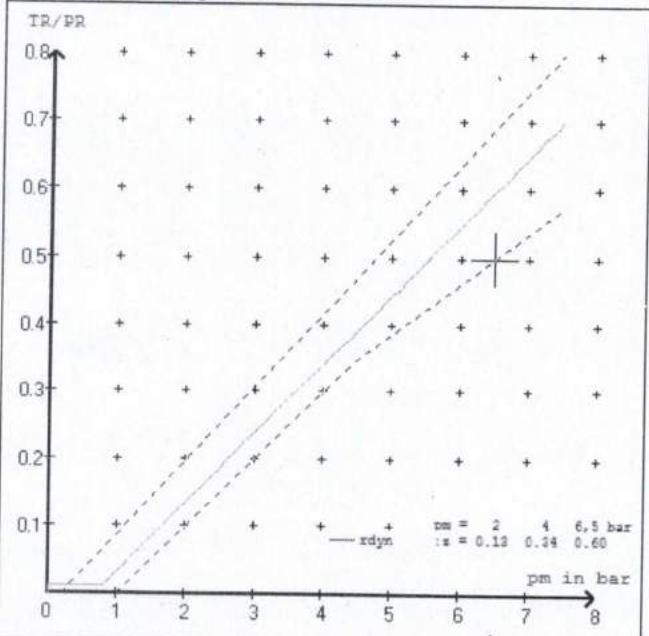
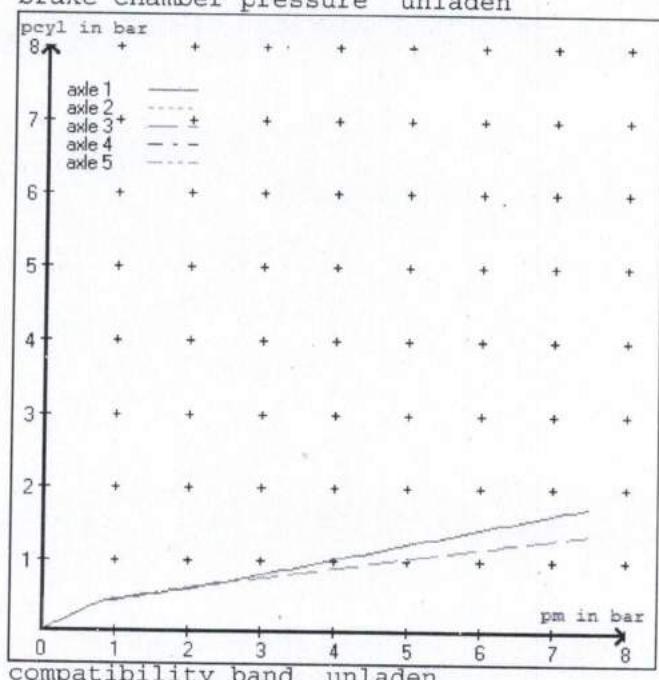
valve 1: 480 102 0.. 0 WABCO  
EBS trailer modulator

brake cylinder: WABCO 423 504 003 0 / 423 504 76x 0

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 2.4 2.4 2.4  
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



brake chamber pressure unladen



vehicle manufacturer: DOMETTS  
 trailer model : 2017 5A TANKER, E1001 SAF  
 trailer type : 5-axle-full-trailer

brake chamber and lever length :

axle 1 :	2 x type/diameter	18.	(Meritor)	lever length 76 mm
axle 2 :	2 x type/diameter	18.	(Meritor)	lever length 76 mm
axle 3 :	2 x type/diameter	16/16	(WABCO)	lever length 76 mm
axle 4 :	2 x type/diameter	16/16	(WABCO)	lever length 76 mm
axle 5 :	2 x type/diameter	16	(WABCO)	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

=====

vehicle manufacturer: DOMETTS  
 trailer model : 2017 5A TANKER, E1001 SAF  
 trailer type : 5-axle-full-trailer  
 brake calculation no. : TP 2017A

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	1400	to be entered by the vehicle manufact.	1.5	8000	to be entered by the vehicle manufact.	0.4	1.3	5.9	
2	1400		1.5	8000		0.4	1.3	5.9	
3	1100		1.2	6400		0.4	1.4	4.3	
4	1100		1.2	6400		0.4	1.4	4.3	
5	1100		1.2	6400		0.4	1.4	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.

=====

axle 1 axle load pcyl	axle 2 axle load pcyl	axle 3 axle load pcyl	axle 4 axle load pcyl	axle 5 axle load pcyl
1400	1.5	1100	1.2	1100
1900	1.8	1600	1.5	1600
2400	2.2	2100	1.8	2100
2900	2.5	2600	2.1	2600
3400	2.8	3100	2.4	3100
3900	3.2	3600	2.7	3600
4400	3.5	4100	3.0	4100
4900	3.8	4600	3.2	4600
8000	5.9	6400	4.3	6400

		axle 3	axle 4
no of TRISTOP-actuators per axle line KDZ		2	2
TRISTOP-actuator type		16/16	16/16
lever length	1Bh in mm	76	76
stat. tyre radius	rstat max in mm	401	401
at a stroke of	s in mm	30	30
min. force of spring brake	TFZ in N	6282	6282
sp.brake chamber no 925 ... .		464 4.. 0	464 4.. 0
sp.brake chamber no 925 ... .		484 96. 0	484 96. 0
release pressure	pLs in bar	5.0	5.0

calculation:

ratio until road		4.2397	4.2397
iFb = 1Bh*Eta*C*rBt/(rBn*rstat)			
for rstat in mm		401	401
brake force of spring br. Tf in N		52598	52598
Tf = (TFZ*KDZ-2*Co/1Bh)*iFb			
braking rate	zf laden	0.315	
zf = sum (Tf)/P + 0,01			

Test of the frictional connection required by the parking brake

minimum wheelbase/minimum supporting width min Ef necessary  
 to fulfil the regulations

$$\text{min Ef} = E * (1 - PR/P + zferf * h/E) / (1 - zferf / (fzul * nf/ng))$$

$$\begin{aligned} \text{min Ef} &= 4325 \text{ mm} \quad \text{for } E = 5700 \text{ mm} \\ \hline \text{min Ef} &= 4325 \text{ mm} \quad \text{for } E = 5700 \text{ mm} \end{aligned}$$

min Ef = minimum distance between front axle(s) (trailer) or support (semitrailer)  
 and the rear axle(s) (resultant of the bogie)  
 E = wheel base  
 fzul = 0.80 maximum permissible frictional connection required  
 zferf = 0.18 maximum required braking ratio of the parking brake  
 h = 1524 mm height of center of gravity - laden  
 PR = 19200 kg maximum bogie mass - laden  
 P = 35200 kg maximum total mass - laden  
 nf = 2 no. of axle(s) with TRISTOP spring brake actuators  
 ng = 3 no. of bogie axle(s)

## reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5336	
	5.9	42562	
axle 2	1.0	5336	
	5.9	42562	
axle 3	1.0		4928
	4.3		29174
axle 4	1.0		4928
	4.3		29174
axle 5	1.0		4928
	4.3		29174

VIN - no.:

	Axe(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	18./	18./	16/16	16/16	16/
Maximum stroke smax = ...mm maximaler Hub smax = ...mm	64	64	63	63	61
Lever length = ...mm Hebellänge = ...mm	76	76	76	76	76



reference values for z = 0.5

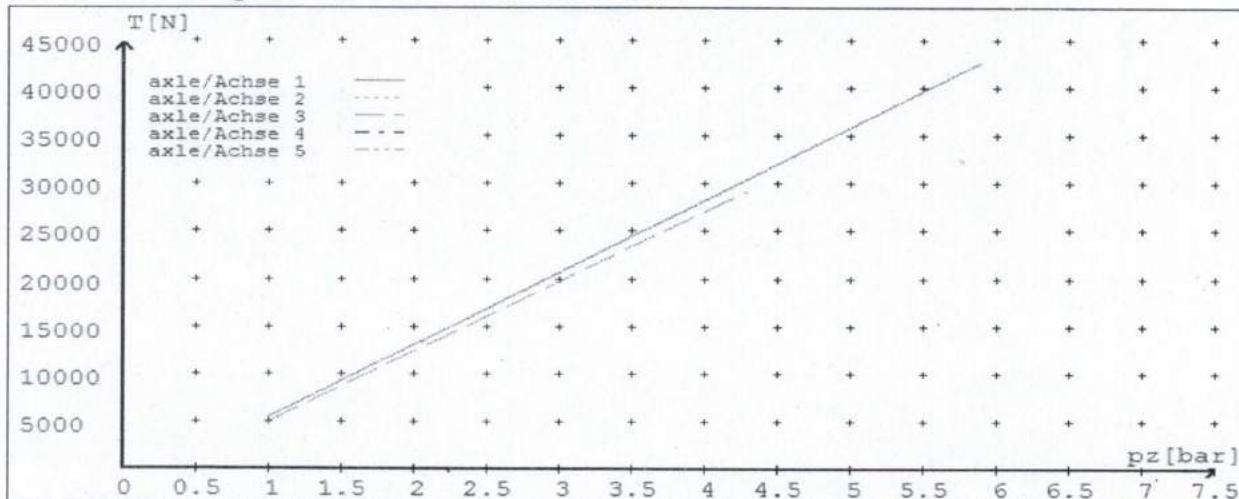
for max rdyn: 421 mm

Angabe der Referenzwerte für z = 0.5

für max rdyn: 421 mm

brake calculation no: TP 2017A date 24.05.2017

Bremsberechnung Nr: TP 2017A vom 24.05.2017



	Axe(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	18./	18./	16/16	16/16	16/
Maximum stroke smax = ... mm maximaler Hub smax = ... mm	64	64	63	63	61
Lever length = ... mm Hebellänge = ... mm	76	76	76	76	76

**WABCO****START-UP LOG**

System	Trailer EBS-E	WABCO part number	480 102 064 0
Production date	2017-02-07	Serial number	436031066500J
Serial number (modulator)	000000142163		
Fingerprint Customer EOL / Customer Development / Flash Program	W503643 / 2017-06-29 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

WABCO		TRAILER EBS-E		GGVS/ADR TUEH TB 2007 - 019.00 TDB0870						
MANUFACTURER CONSTRUCTEUR	DOMETT T&T				GPIO	Pin1	Pin3	Pin4		
TYPE TYPE	5AFT TANKER				1	ILS1	---	ILS1		
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9E10014H1023588				2	eTASC	---	eTASC		
BREMSBERECHNUNGS NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP2017 SAF NEW WABCO				3	ALS2	ALS2	---		
POLARDÄHNEZAHL c-d   e-f POLE WHEEL TEETH c-d   e-f DENTS ROUE DENTÉE c-d   e-f	90	90	ABS-System ABS-System Système ABS	4S/3M	4	---	---	LS1		
RSS Einfachbereifung Single Tire Monte simple			Lenkachse Steering axle Essieu Vireur		5	DIAG	DIAG	DIAG		
RSS Zwillingsbereifung Twin Tire Monte jumelle	X		Kippkritisches Fahrzeug Critical Trailer Véhicule critique		6	---	---	---		
RSS Subsystems ---		I/O	24N		7	---	---	---		
	pm (bar)	6.5	pm (bar)	0.8	2.0	---	6.5	(bar)		
ACHSE AXLE ESSEL	H	B	O	H	B	O		1.0 Pz		
1	1400	0.5	1.5	8000	5.1	0.4	1.3			
2	1400	0.5	1.5	8000	5.1	0.4	1.3			
3	1100	0.3	1.2	6400	3.9	0.4	1.4			
4	1100	0.3	1.2	6400	3.9	0.4	1.4			
5	1100	0.3	1.2	6400	3.9	0.4	1.4			

**TEBS-E**

Diagnostic memory	OK	Warning lamp control	OK
Parameter setting	carried out	Stop light supply	OK
EBS pressure test	OK	Lifting axle test	Not tested
Redundancy test	OK	ECAS height sensor calibration	Not tested
ABS sensor assignment	OK	Height sensor axle load	Not tested
RTR test	Not tested	Leak test	Not tested
Immobilizer test	Not tested	Signal outputs	Not tested
Signal inputs	Not tested	Tag axle test	Not tested

**Electronic Extension Module**

Diagnostic memory	Not tested	Signal outputs	Not tested
TailGUARDlight	Not tested	TailGUARD	Not tested
Manufacturer	DOMETT T&T	Vehicle ident. no	7A9E10014H1023588
Vehicle type	5AFT TANKER	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tester	Chris Clarke		
Date	2017-06-29 1:17:17 p.m.	Signature	

HEAVY VEHICLE BRAKE RULE  
32015/4 WORKSHEET  
PROCEDURE DOCUMENTATION SHEET- (PDS)  
&  
CONFIRMATION OF COMPLIANCE

CERTIFICATE NO:

LC170614

CUSTOMER NAME:

DOMETT TRAILERS

CUSTOMER ORDER NO:

4733

DATE RECEIVED:

13/02/2017

VEHICLE TYPE:

FULL TANKER

VIN / CHASSIS NO:

7A9E10014H1023588

**BRIEF SPECIFICATION AS CERTIFIED TO SCHEDULE 5**

BRAKE VALVES:	MAKE	TYPE
PRIMARY RELAY:	WABCO	480 102 064 0
SECONDARY RELAY:	WABCO	480 207 001 0
SPRING BRAKE RELAY:	SEALCO	110701
PARK BRAKE VALVE:	SEALCO	17600B

LOCKED RATIO:

MAKE:

SETTING:

**OTHER VALVES****OTHER VALVES**

MAKE:	<input type="text"/>	TYPE	<input type="text"/>	SETTING	<input type="text"/>
MAKE:	<input type="text"/>	TYPE	<input type="text"/>	SETTING	<input type="text"/>
MAKE:	<input type="text"/>	TYPE	<input type="text"/>	SETTING	<input type="text"/>
MAKE:	<input type="text"/>	TYPE	<input type="text"/>	SETTING	<input type="text"/>

**BRAKE CHAMBERS**

	FRONT	REAR	5TH
MAKE:	TSE	WABCO	WABCO
SIZE:	18HSCLD65	16/16, 925/464/461/0	16, 423/504/003/0
STROKE: MM	65mm	63mm	61mm
SLACK LENGTH: MM	DISC	DISC	DISC

**BRAKE CALIPERS****BRAKE CALIPERS:**

SAF

**FRICITION MATERIAL:** OEM Aftermarket**LINING BRAND****LINING BRAND**

FRONT	REAR
SAF 607	SAF 607

**OTHERS****TYRES:** FRONT REAR

265/70R 19.5

265/70R 19.5

**COMMENTS**EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 #

0

**NOTES:**

PACKING SLIP NO. \_\_\_\_\_ PROCESS TIME \_\_\_\_\_

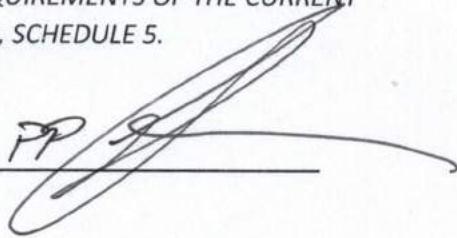
## CONFIRMATION OF COMPLIANCE

I CONFIRM THAT THE VEHICLE IDENTIFIED IN PAGES 1 AND 2 OF THIS CONFIRMATION OF COMPLIANCE COMPLIES WITH ALL RELEVANT REQUIREMENTS OF THE CURRENT NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015/4, SCHEDULE 5.

DATE:

9/06/2017

SIGNED:



NAME & ID:

LANCE CAWTE (LPC)

PHONE (BUS):

09 980 7300

FAX (BUS):

03 3083277

POSTAL ADDRESS:

TRANSPORT SPECIALTIES LTD

PO BOX 98-971,

MANUKAU CITY,

AUCKLAND 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 RELEVANT REQUIREMENTS OF THE CURRENT NEW ZEALAND HEAVY BRAKE RULE 32015/4 SCHEDULE 5.

DATE:

SIGNED:

NAME:

\_\_\_\_\_

CERTIFIERS ID:

POSITION:

PHONE (BUS):

FAX (BUS):

COMMENTS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_