

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) JOHN CLARKSON	ID JCC
--	------------------

Vehicle registration (optional)	VIN/chassis number 7A9E20017H1023615										
Make DOMETT	Component being certified: <table border="0"> <tr> <td><input type="checkbox"/> Chassis</td> <td><input type="checkbox"/> Load anchorage</td> </tr> <tr> <td><input type="checkbox"/> Log bolsters</td> <td><input checked="" type="checkbox"/> Brakes</td> </tr> <tr> <td><input type="checkbox"/> SRT</td> <td><input type="checkbox"/> PSV stability</td> </tr> <tr> <td><input type="checkbox"/> Swept path</td> <td><input type="checkbox"/> PSV rollover</td> </tr> <tr> <td></td> <td><input type="checkbox"/> PBS</td> </tr> </table>	<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
<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										
Model (optional)											
Certification category HVEK											

Description of work

CERTIFY TO SCHEDULE 5 OF LTR 32015/4

RSS ON: TWIN TYRES / ~~SUPER SINGLES~~ SIZE = 265 70 R 19.5

Code/standard/rule certified to LTR 32015/4	Component load rating(s) 33 Tonnes GVM (35 Tonnes (Group ratings))
General drawing number(s) N/A	

Supporting documents

BRAKE CODE CERTIFICATE JH170705

BRAKE CALCULATION # TP51615

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 [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)

Inspector's signature

Inspector's name (PRINT IN CAPS) **JOHN CLARKSON** ID number **JCC**

Date **4-Jul-17** Number **571535**

CoF vehicle inspector ID	CoF vehicle inspector signature	Date
--------------------------	---------------------------------	------

All fields are mandatory unless otherwise stated.

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

CERTIFICATE NO. JH170705

CUSOMER NAME DOMETT TRAILERS LTD

CUSTOMER ORDER NO. 4848 DATE RECEIVED 4-Jul-17

VEHICLE TYPE CURTAINSIDE

VIN/ CHASSIS NO. 7 A 9 E 2 0 0 1 7 H 1 0 2 3 6 1 5

BRIEF SPECIFICATION AS CERTIFIED TO SCHEDULE 5

<u>BRAKE VALVES</u>	<u>MAKE</u>	<u>TYPE</u>
PRIMARY RELAY	WABCO	480 102 080 0
SECONDARY RELAY	WABCO	480 207 202 0
YARD RELEASE VALVE	WABCO	971 002 900 0
PARK BRAKE VALVE	WABCO	971 002 900 0
<u>SUSP. VALVES [WABCO]</u>	<u>FRONT</u>	<u>REAR</u>
CONTROL	441 044 101 0	N/A
DISTANCE SENSOR	464 008 011 0	441 050 100 0

OTHER VALVES:

MAKE: WABCO	TYPE: 461 513 002 0	SETTING: 5.5 Bar
MAKE: WABCO	TYPE: 472 195 052 0	SETTING: LIFT AXLE (12V)
MAKE: WABCO	TYPE: 463 090 500 0	SETTING: eTASC
MAKE: WABCO	TYPE: 446 192 110 0	SETTING: SMARTBOARD

BRAKE CHAMBERS:**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

OR**BRAKE CALIPER:**

SBW1937

SBW1937

SBW1937

FRICTION MATERIAL: OEM AFTERMARKET**LINING BRAND****AXLE 1 & 2****AXLE 3 & 4****AXLE 5**

WABCO 230

WABCO 230

WABCO 230

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

265 70 R 19.5

265 70 R 19.5

BRAKE CALCULATION #:

TP51615

COMMENTS:

EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 #

SALES ORDER #:

SO858027

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 BRAKE CALCULATION TP51589: $z = .335 @ 112318 (N)$ FOR 35,000 Kgs GVMFRONT FRICTION (μ) = 0.48

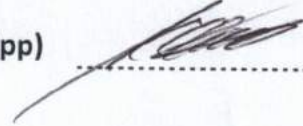
MANOEUVRE ASSIST FOR OFF-HIGHWAY USE.

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 32015/4, SCHEDULE 5.

DATE: 4-Jul-17

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 32015/4 SCHEDULE 5.

DATE:

SIGNED:

NAME:

CERTIFIERS ID:

POSITION:

PHONE (BUS):

FAX (BUS):

COMMENTS:

.....
.....
.....
.....

(Cnr Kerrs & Ash Road, Wiri. PO Box 98 971, Manukau City 2241, NZ)

Statement of Design Compliance**S.O.D.C. number: JH170705**For Heavy vehicle brake specification
(Schedule 5) of HV Brake Rule 32015/4**Vehicle details:**

Make:	DOMETT TRAILERS
Model:	E2001 PH
VIN#:	7A9E20017H1023615
Chassis#:	1615
GCM (kgs):	N/A
GVM (kgs):	33,000
Wheelbase (mm):	7800 - 8200
Axle test report #:	AT0185 (HENDRICKSON DISC – AANL ZMD)
Type:	5AFT DISC BRAKE

Component Details:

	Front	Rear
Lever length (mm):	69	69
Brake chamber size:	TSE:20HSCLD64	TSE:1416HTLD64 [14HSCLD64]
Tyre size:	265 70 R 19.5	265 70 R 19.5

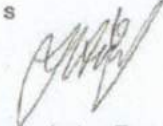
Drawing number: (for component reference)	1615
Brake calculation#:	TP 51615
Brake system:	WABCO TEBS-E (Multi-volt) ECU FACING FORWARDS

I declare that I am a Heavy Vehicle Specialist Certifier – Engineer and I hold a current valid appointment. I certify that this vehicle component design and this certification comply in all respects with the Land Transport Rule:

***Vehicle Standards Compliance 2002;** my Deed of Appointment and applicable requirements. To the best of my knowledge the information contained in this certificate is true and correct.*

Date: 04 July 2017

s


Name: John Hirst (HVEK)**Certifier ID:** JEH

I, John Hirst, certify that the braking system has been assembled and programmed*) to the requirements of this Design Certificate.

Signed:

Dated: 10-7-2017

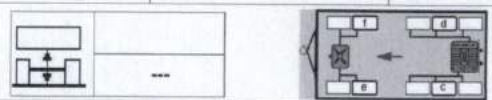
*) Programmed according to WABCO's End of Line protocol requirements where applicable and that the air suspension parameter pressures suit the suspension design & air bellow size.

WABCO START-UP LOG

System	Trailer EBS-E	WABCO part number	480 102 084 0
Production date	2016-12-06	Serial number	437003398500H
Serial number (modulator)	000000001957		
Fingerprint Customer EOL / Customer Development / Flash Program	W511297 / 2017-07-07 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

WABCO TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.00
AT0185

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS			GIO	Pin1	Pin3	Pin4
TYP TYPE TYPE	5AFT CURTAINSIDE			1	TAV1	MH	TAV1
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9E20017H1023615			2	eTASC	---	eTASC
BREMSBERECHNUNG-NR. BRAKE CALCULATION NO. CALCUL. DE FREINAGE NO.	TP51615A			3	ALS2	ALS2	---
POLRADZÄHNEZAHL o-d e-f POLE WHEEL TEETH o-d e-f DENTS ROUE DENTEE o-d e-f	100	100	ABS-System ABS-System Système ABS	4	---	---	LS1
			4S/3M	5	DIAG	DIAG	DIAG
RSS RSS RSS	Einfachbereifung Single Tire Monte simple	Lenkachse Steering axle Essieu vireur		6	24V-O1	---	---
	Zwillingsbereifung Twin Tire Monte jumelle	Kipprittiges Fahrzeug Critical Trailer Véhicule critique	X	7	---	---	---
Subsystems	SB	I/O	24N				


ACHSE AXLE ESSIEU	pm (bar)		6.5	pm (bar)		0.6	2.0	---	6.5	TYP TYPE	(mm)	(mm)	(bar)		
	H (kg)	⊗	⊗	H (kg)	⊗	⊗	pz	1.0	Pz						
1	1600	0.8	2.0	8000	5.1	0.4	1.4	---	5.7	-	20	65	69	514	4228
2	1600	0.8	2.0	8000	5.1	0.4	1.4	---	5.7	-	20	65	69	514	4228
3	1300	0.6	1.7	6400	3.8	0.3	1.6	---	4.8	-	14 / 16	64	69	495	2937
4	1300	0.6	1.7	6400	3.8	0.3	1.6	---	4.8	-	14 / 16	64	69	495	2937
5	1300	0.6	1.7	6400	3.8	0.3	1.6	---	4.8	1	14	64	69	495	2937

TEBS-E

Diagnostic memory	OK	Warning lamp control	OK
Parameter setting	carried out	Stop light supply	Not tested
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 TRAILERS	Vehicle ident. no	7A9E20017H1023615
Vehicle type	5AFT CURTAINSIDE	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tester	John Clarkson	Signature 	
Date	2017-07-07 10:31:35 a.m.		

WABCO START-UP LOG

Vehicle ident. no

7A9E20017H1023615

Configuration of the lifting axle valves

Lifting axle 1	LACV	Lifting axle 2	LACV
----------------	------	----------------	------

Braking pressures

Predominance CAN	0.0	Predominance pm	0.0
------------------	-----	-----------------	-----

Distance Axles / Tread width

Tread width	2.04	Second axle - Additional axle	5.9
Coupling head - First axle	2.4	Additional axle - Fourth axle	1.3
First axle - Second axle	1.3	Fourth axle - Fifth axle	1.3

Diverse

- X Warning lamp goes out after 2 seconds (ECE-R13)
- Warning lamp goes out at $v > 7$ km/h

- Indicate service moment via lamp

Service interval (km) 0

Tire circumference

Tire circumference Axle c-d	2650
Tire circumference Axle e-f	2650

CAN messages

- X EBS23 Standard
- EBS23 group bit
- EBS22 no output of total axle load
- RGE22 no output for single axle loads
- X Support 12V CAN Bus

TEBS function selection

Standard functions

- Speed switch1 (ISS1)
- Speed switch2 (ISS2)
- Lifting axle control1 (ILS1)
- Lifting axle control2 (ILS2)
- X External axle load sensor e-f (ALS2)
- Traction help (TH)
- Lifting axle forced lowering (FL)
- Wear final value (LWI)
- X Diagnosis / Telematic system GIO5 (DIAG)
- Road finisher brake / Trailer extending control (FB)
- X Stop light supply (24N)
- Unloading level (D-SW)
- Normal level 4 (FN4-SW)

Special functions

- Traction help with res. press. maint. (TH+)
- X OptiTurn / OptiLoad (MH)
- OptiTurn / OptiLoad plus (MH+)
- External axle load sensor c-d (ALS1)
- Second ext. axle load sensor c-d (S-ALS1)
- External desired pressure sensor (DPS)
- ABS active signal (RSS-O)
- RSS active signal (RSS-O)
- Speed signal (V-S)
- X Steady positive voltage 1 (24V-O1)
- Steady positive voltage 2 (24V-O2)
- Tilt alert (Tilt warning) (TW)
- Steering axle lock (SAC)

- Demand pressure sensor on R/R (DPS-RR)
- Output emergency brake light (EBA)
- Trailer Safety Brake (TSB)
- Generic Operating Hour Counter (GOHC)
- ELM (ELM)
- External ECAS (eECAS)
- Bounce Control (relaxation function) (TR-SW)
- Brake release function (BR-SW)
- Lifting/Lowering button (LF-SW/LW-SW)
- Normal level button (NL-SW)
- Shut-off switch Level control (LC-SW)
- Freely configurable digital function (FKD-I)
 - with output (FKD-O)
- Freely configurable analogue function (FKA-I)
 - with output (FKA-O)
- Freely configurable function 1 (FCF1)
- Freely configurable function 2 (FCF2)
- Immobilizer (IM)
 - Output for buzzer (IM-SU)
- Forklift operation (FLC)

Subsystems

- IVTM (IVTM)
- Remote control unit (RCU)
- Control box (RCB)
- X SmartBoard (SB)
- Telematic system (TS)
- Electronic Extension Module (ELEX)

WABCO

START-UP LOG

Vehicle ident. no		7A9E20017H1023615					
ISS	On (km/h)	Off (km/h)	Level inverted	RTR Pulse	Cable break detection	Light	Valve
ISS 1	15	10	-	X	-	-	X
ISS 2	15	10	-	X	-	-	X
Automatic lifting axle control							
	Lift (Bar)	Lower (Bar)	Lift (km/h)	Lifting axle function (OptiTurn/OptiLoad) interrupted with parking brake engaged			X
Lifting axle 1	0.4	3.8	0	Lower with ignition off			X
Lifting axle 2	0.0			Tag axle residual pressure control			-
				Residual pressure Tag axle (bar)			0.5
Lifting axle control with OptiLoad or Forklift recognition							
Raise lifting axle 1 (bar)	0.0	Raise lifting axle 2 (bar)	0.0	X	Mechanical switch		
Lower lifting axle 1 (bar)	0.0	Lower lifting axle 2 (bar)	0.0	-	Proximity switch		
Forced lowering lifting axle							
X Button	- Switch			- Activation via SmartBoard			
				X All lifting axles		- Only 2nd lifting axle	
Automatic wheelbase control Switch level detection							
- +24v only		- Ground only		X	Ground and +24v		
- Continuous actuation							
Traction help							
		- Traction help automatic with curve detection				- Only partial-/full-load	
		- Traction help with ignition on					
		Terminate at (km/h)	Pressure limitation (bar)	Duration (s)			
Traction help		30	0.0	0			
- Off-road traction help		30	0.0	0			
Activation	X Button		- Button and brake			- Only brake	
OptiTurn							
- Underspeed		- Curve detection with partial/full load	Terminate at (km/h)	15			
- Curve detection		- Via SmartBoard	Pressure limitation (bar)	4.4			
OptiLoad							
Start (km/h)	0	Activate with	Automatic at speed				
Pressure limitation (bar)	0.0		only at partial-/full-load				
2nd lifting axle characteristic	-		Manually via button				
Level control							
Speed at which adjustment to normal level is triggered automatically (RTR)	5	X	Dead-man switch (continuous button actuation)				
	- Normal level 2	- Normal level 3	Normal level 4/unloading level				
Front axle	0	0	0				
Rear axle	0	0	0				
Speed on (km/h)		60					
Speed off (km/h)		40	10				
Activation via	- Smartboard	- Remote control unit	- Smartboard				
- Separate lifting/lowering left/right via remote control unit							
- Level control shut-off via SmartBoard							
Unloading level switch	X Mechanical	- Proximity switch	- Proximity switch with separate switch				

WABCO

START-UP LOG

Vehicle ident. no

7A9E20017H1023615

ECAS special parameter

Control delay	
Control delay when stationary (s)	1
Control delay when driving (s)	60
Control delay at stand-by (s)	15
Stop time for normal level control with lift/lower button (s)	2.0

Lowering

Lower onto buffer	-
Lower to lower calibrated level	X

Stand-by operation

Trailer battery installed	-
Activation of stand-by-mode	
- By pressing Stop button	
X Automatically with ignition off	
Tolerance in Stand-by (mm)	20
Stand-by time (h/min)	0/00

Plausibility

Limit plausibility check during the lowering process at the front axle (mm)	20
Limit plausibility check during the lowering process at the rear axle (mm)	20
Period plausibility check (s)	30

Green ECAS warning lamp

Installed	-	as LED	-
Behaviour upon faults			
Flashes 4 times after ignition on	-		
Flashes permanently	X		

Tolerances

Tolerance front axle (mm)	10
Tolerance rear axle (mm)	10
Permissible right/left deviation rear axle (mm)	20
Maximum deviation right/left or front/rear outside the levels during the lifting/lowering process (s)	50

Lifting axle offset

Lifting axle offset	-
Reference of normal level	
To the lowest normal level	-
To the currently selected normal level	X
Normal level height increase when lifting axle is raised (mm)	0
Normal level height increase with traction help/OptiTurn/OptiLoad (mm)	0

ECAS with eTASC / Rotary slide valve

After ignition, actual level is the same as nominal level	-
No level control at a standstill	-
Manual lifting / lowering (eTASC)	X

Other functions

Tire deflection compensation (25mm when fully laden)	-
Front (mm)	25
Rear (mm)	25
Normal level control with reduction in bellows pressure differences (only ECAS 2 point control)	-
Permissible bellows pressure	12.0
Vehicle speed up to which manual height changes are permitted (km/h)	10

Immobilizer

Buzzer output	X permanent	- periodic
Connected Components	X Valve (buzzer)	- Light
Emergency release function		-
Unlock only with engaged parking brake		X

Proximity switch

Switching threshold (uA)	600
--------------------------	-----

Steering axle lock

as of speed	30	After reverse driving, disable up to speed (km/h)	10
Level inverted	-	Activation via switch	-
with raised lifting axle	X	Reverse detection via Electronic Extension Module	X

WABCO

START-UP LOG

Vehicle ident. no

7A9E20017H1023615

Road finisher brake / Trailer Extending Control

- Without load-dependent braking pressure (LSV) Pressure test pm (bar) 1.5
- Pressure adjustment with hand brake lever Function active until (km/h) 10
- Actuation only via SmartBoard (no switch required)

Switch

X Mechanical switch

- Proximity switch

- Proximity switch and separate switch

- Road finisher brake, Deactivation unloading level during road finisher operation

- Trailer Extending Control, only brake rear aggregate

Level recognition

X Ground only

- +24v only (with resistance cable)

Trailer Safety Brake

- Tank truck/Container truck X Tipper

Input signal Proximity switch

Pressure 3.0

- Function can be deactivated with SmartBoard or Trailer Remote Control

- Display via separate warning lamp

Emergency brake light output

- Actuation permanent

- LED installed

X Actuation periodic

3 Frequency (Hz)

Bounce Control

- Actuation only via SmartBoard (no push-button required)

Brake release function

- Actuation only via SmartBoard

- For wood hauling trailers up to 5 km/h

Freely configurable digital function (GIO-FKD)

Function name

Input

If switch

and speed

- opens

X greater than

X closes

- less than

15 km/h

Function

after (s)

180

- Switch output

- Invert output

- Save event

Connected Components

X Valve

- Light

Duration of function

for (s)

180

or until speed

30 km/h

X exceeds

- drops below

Freely configurable analogue function (GIO-FKA)

Function name

Input

When input voltage

and speed

Voltage

3.5

X exceeds

X greater than

- drops below

- less than

15 km/h

Function

after (s)

180

- Switch output

- Invert output

- Save event

Connected Components

X Valve

- Light

Duration of function

for (s)

180

or until speed

30 km/h

X exceeds

- drops below

Connected Components

	Valve	Light	Cable break detection	no stand-by mode
ABS active signal	X	-	X	
RSS active signal	X	-	X	
Steady positive voltage 1			-	-
Steady positive voltage 2			X	-
Speed signal			X	

WABCO START-UP LOG

Vehicle ident. no

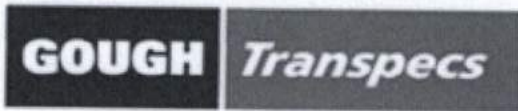
7A9E20017H1023615

Operating Hour Counter

Service name		-	Display with ABS light
Service interval	0	-	Display via external signal light
Input signal	Internal signal	X	Service interval can be reset
Signal name	---	-	Service interval alterable
Conditions	Active	Threshold value (V)	3.5

Tilt alert (Tilt warning)

Maximum permissible tilt angle (degree)	2	Connected Components
		X Valve
- Display only via SmartBoard (no output required!)		- Light



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.).....
(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 32015/3, 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)

NOTICE TO VEHICLE OPERATOR


WABCO Park Release Emergency Valve
(PREV)

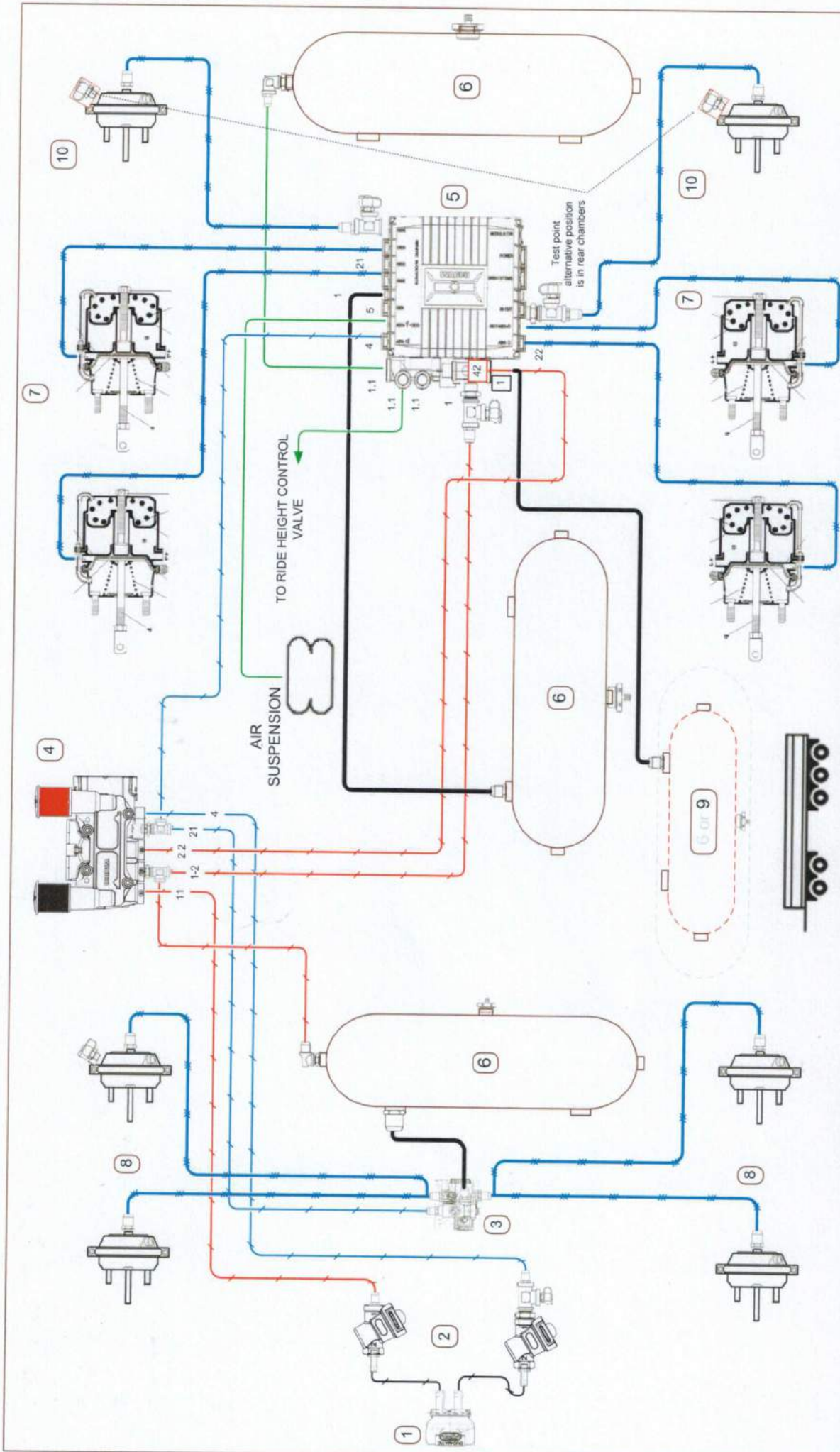
This trailer is equipped with a WABCO PREV
Part # 971 002 900 0

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 32015/3.

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.

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

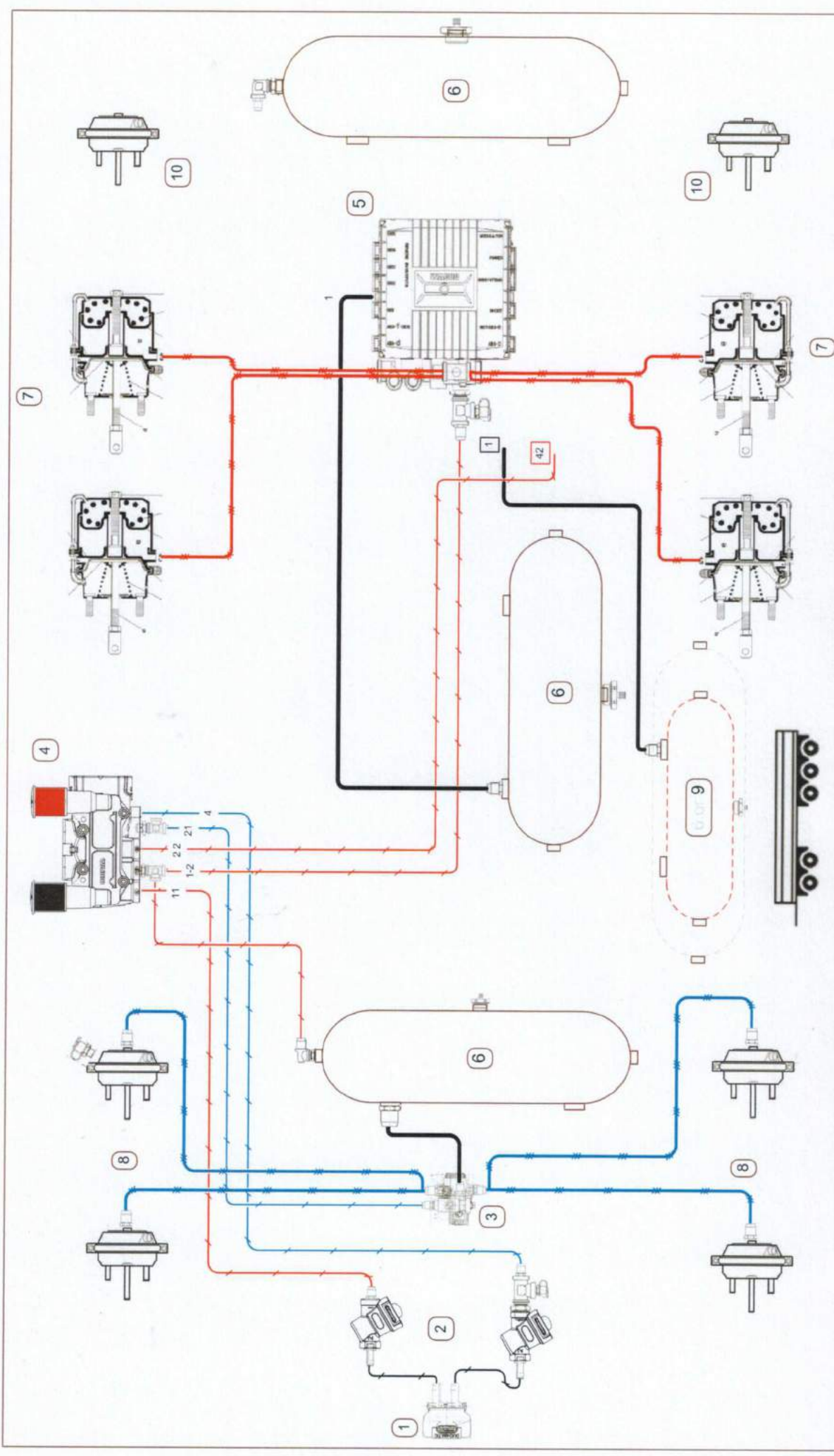


ITEM		QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	452 804 001 0	Wabco Duo-Matic coupling	9	1	14HSCLD64	24.5 Ltr Air Tank	3/8" Rubber	3/8" Rubber
2	2	432 500 020 0	Wabco control line filter	10	2		TSE Service brake chamber	3/8" Rubber	3/8" Rubber
3	1	480 207 202 0	Wabco EBS 3" modulator	11				1/2" Rubber	1/2" Rubber
4	1	971 002 900 0	Wabco PREV	12				15mm Nylon	15mm Nylon
5	1	480 102 080 0	Wabco TEBS - E (premium) 46 Ltr Air tank					12mm Nylon	12mm Nylon
6	3							8mm Nylon	8mm Nylon
7	4	1416HTLD64	TSE Spring brake chamber					8mm Nylon	8mm Nylon
8	4	20HSCLD65	TSE Service brake chamber					8mm Nylon	8mm Nylon

DOMETT TRAILERS

5 AXLE FULL TRAILER

SIZE	A4	SPEC REFERENCE	1615	MODEL NUMBER	DOM5AXFULL/DIEBS	REV	1
SCALE		SERVICE LINES					



ITEM		QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	452 804 001 0	Wabco Duo-Matic coupler	9	1			24.5 Ltr Air Tank	3/8" Rubber
2	2	432 500 020 0	Wabco control line filter	10	2	14HSCLD64		TSE Service brake chamber	3/8" Rubber
3	1	480 207 202 0	Wabco EBS 3rd modulator	11					1/2" Rubber
4	1	971 002 900 0	Wabco PREV	12					15mm Nylon
5	1	480 102 080 0	Wabco TEBS - E (premium)						12mm Nylon
6	3		46 Ltr Air tank						8mm Nylon
7	4	1416HTLD64	TSE Spring brake chamber						8mm Nylon
8	4	20HSCLD65	TSE Service brake chamber						8mm Nylon

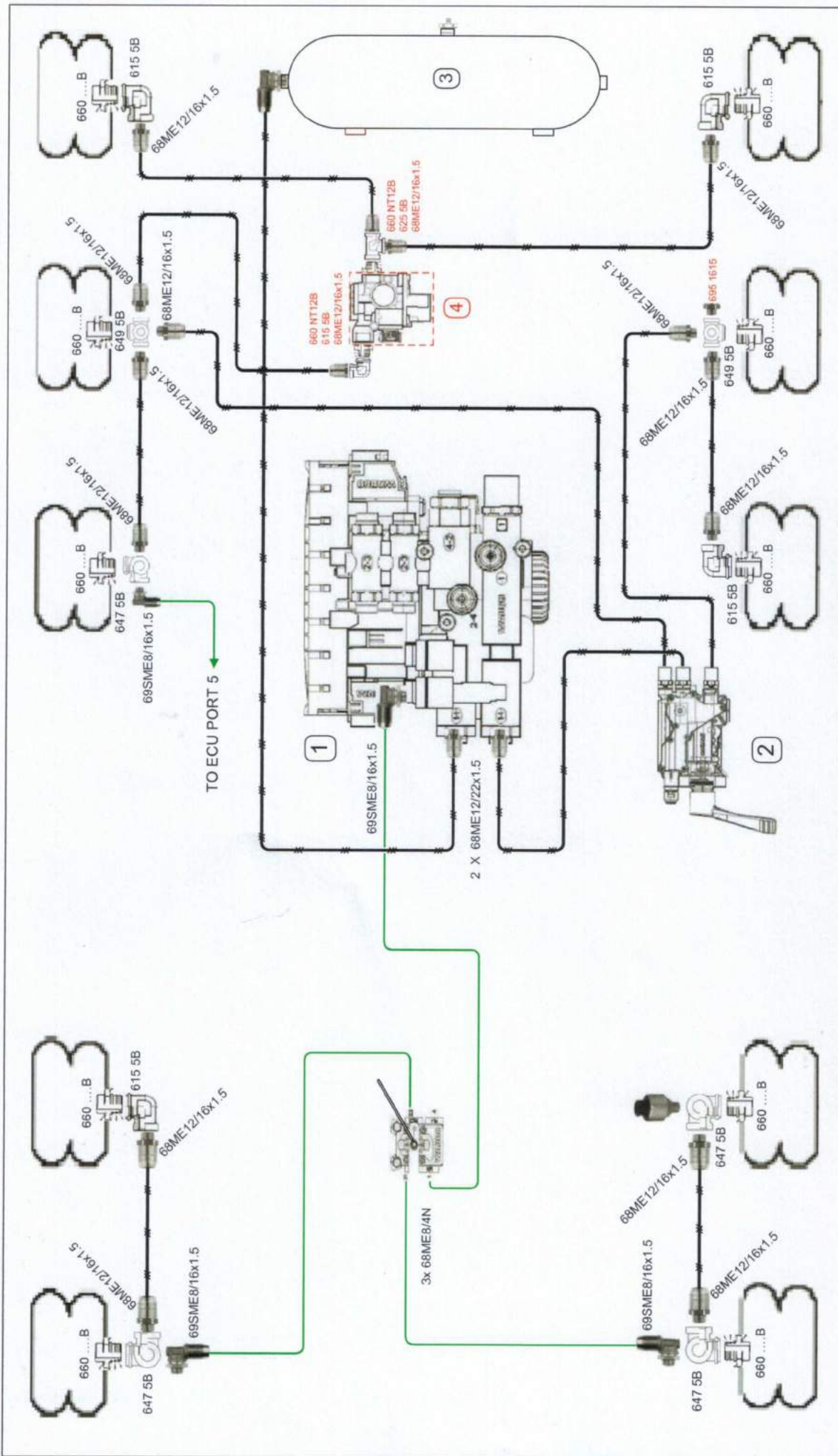
DOMETT TRAILERS

5 AXLE FULL TRAILER

GOUGH Transpecs

WABCO
 Copyright Transpecs 2010
 All rights reserved

SIZE: A4
 SCALE: 1:1
 SPEC REFERENCE: 1615
 MODEL NUMBER: DOM5AXFULLDIEBS
 PARK LINES: 1
 REV: 1

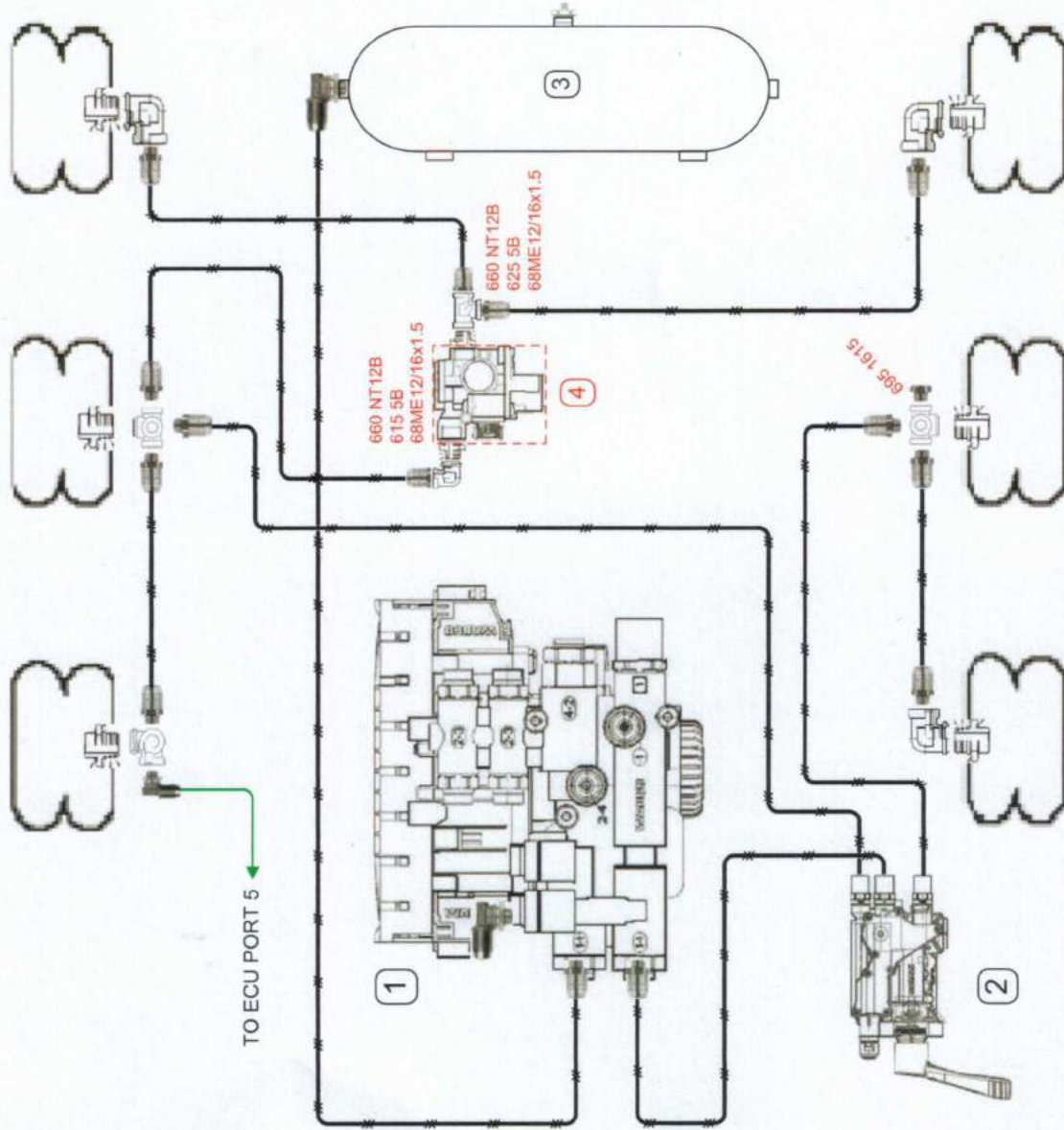


ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	480 102 060 0	WABCO TEBE E (IN BRAKE KIT)					3/8" Rubber
2	1	463 090 500 0	e-TASC VALVE					3/8" Rubber
3	1		AIR TANK					12mm Nylon
4	1	472 195 062 0	TAG AXLE VALVE					15mm Nylon
								12mm Nylon
								8mm Nylon
								8mm Nylon

<p>GOUGH Transpacs</p> <p>WABCO</p> <p>Copyright Transpacs 2016 All rights reserved</p>		<p>eTASC 1 Point control with Manoeuvre Assist 'Add-on' kit</p>		<p>DATE 12.05.17</p>
ITEM	SYSTEM	ASSY/NIT NUMBER	ECAS/MAAOK	
	103	J HIRST	E & OE	
PAGE NO.				

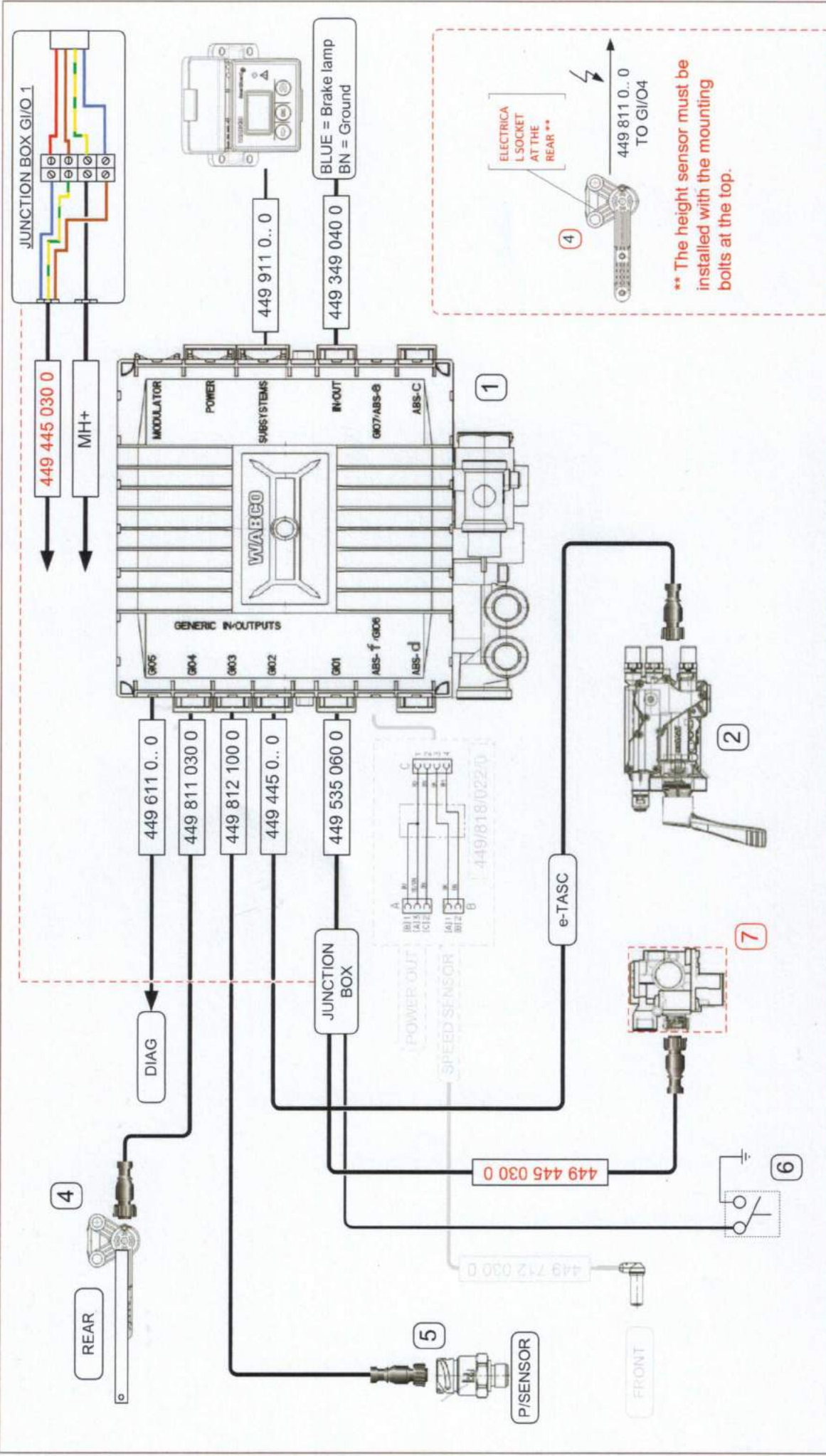
ECAS/MAAOK

- 1x 472 192 052 0
- 1x 449 445 030 0
- 2x 660 NT12B
- 1x 615 5B
- 1x 625 5B
- 2x 68ME12/16x1.5
- 1x 695 1615



ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION	PIPING LEGEND:
1	1	480 102 080 0	WABCO TEBBS E (IN BRAKE KIT)					3/8" Rubber
2	1	463 090 500 0	e-TASC VALVE					3/8" Rubber
3	1		AIR TANK					12mm Nylon
4	1	472 195 052 0	TAG AXLE VALVE					15mm Nylon
								12mm Nylon
								8mm Nylon
								8mm Nylon
								8mm Nylon

<p>eTASC 1 Point control with Manoeuvre Assist 'Add-on' kit</p>		<p>ASSY/PART NUMBER ECAS/MAAOK</p>	<p>DATE 12.05.17</p>
<p>ITEM</p>	<p>SYSTEM</p>	<p>23</p>	<p>J HIRST E & OE</p>
<p>PAGE NO.</p>	<p>Copyright Transpaccs 2010 All rights reserved</p>		



THE INSTALLATION POSITION OF THE FITTINGS IN THE AIR BAG IS FOR DEMONSTRATION PURPOSES ONLY. THE TRAILER MANUFACTURER CAN ALTER THE POSITION TO SUIT TRAILER / SUSPENSION DESIGN.

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	480 102 080 0	WABCO TEBS E (PREMIUM)
2	1	463 090 500 0	eTASC
4	1	463 050 100 0	ECAS HEIGHT SENSOR
5	1	441 044 101 0	AIR BAG PRESSURE SENSOR
6	1		MOMENTARY SWITCH
7	1	472 156 052 0	TAG AXLE VALVE

eTASC 1 Point control with Manoeuvre Assist 'Add-on' kit

ASSEMBLY NUMBER: ECAS/MAAOK

DATE: 12.05.17

PAGE NO: 33

J. HIRST

E & OE

WABCO

TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.0X
AT0185

HERSTELLER MANUFACTURER CONSTRUCTEUR		DOMETT TRAILERS				GIO		Pin1		Pin3		Pin4	
TYP TYPE		5AFT CURTAINSIDE				1		TAV1		MH		TAV1	
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS		7A9E20017H1023615				2		eTASC		---		eTASC	
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.		TP51615A				3		ALS2		ALS2		---	
POLRADZÄHNEZAHN c-d e-f POLE WHEEL TEETH c-d e-f DENTS ROUE DENTÉE c-d e-f		100		100		4		---		---		LS1	
ABS-System ABS-System Systeme ABS		4S/3M				5		DIAG		DIAG		DIAG	
RSS RSS		Einfachbereifung Single Tire Monte simple		Lenkachse Steering axle Essieu virage		6		24V-O1		---		---	
Zwillingsbereifung Twin Tire Monte jumele		X		Kippkritisches Fahrzeug Critical Trailer Vehicule critique		7		---		---		---	
Subsystems		SB		I/O		24N							

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

ACHSE AXLE ESSIEU	pm (bar)		6.5	pm (bar)		0.6	2.0	---	6.5	TYP TYPE	(mm)	(mm)	(bar)		
	H (kg)	8	6.5	H (kg)	8	0.6	2.0	---	6.5				1.0	Pz	
	H (kg)	8	6.5	H (kg)	8	0.6	2.0	---	6.5	pz			TR (daN)		
1	1600	0.8	2.0	8000	5.1	0.4	1.4	---	5.7	-	20	65	69	514	4228
2	1600	0.8	2.0	8000	5.1	0.4	1.4	---	5.7	-	20	65	69	514	4228
3	1300	0.6	1.7	6400	3.8	0.3	1.6	---	4.8	-	14 / 16	64	69	495	2937
4	1300	0.6	1.7	6400	3.8	0.3	1.6	---	4.8	-	14 / 16	64	69	495	2937
5	1300	0.6	1.7	6400	3.8	0.3	1.6	---	4.8	1	14	64	69	495	2937

GOUGH

Transpecs

P.O.Box 98-971

South Auckland Mail Centre

John Hirst (JEH)

DATE: 4-Jul-17 BRAKE SYSTEM: WABCO T - EBS E

CERT. NO: JH170705 BRAKE CALCULATION #: TP51615

VIN / CHASSIS: 7 A 9 E 2 0 0 1 7 H 1 0 2 3 6 1 5

	Make	Model	Max stroke (mm)
BRAKE CHAMBERS Ax 1 & 2	TSE	20HSCLD65	65
BRAKE CHAMBERS Ax 3 & 4	TSE	1416HTLD64	64
BRAKE CHAMBERS Ax 5	TSE	14HSCLD64	64
SLACK LENGTH FRONT (mm):	69	TYRE SIZE FRONT:	265 70 R 19.5
SLACK LENGTH REAR (mm):	69	TYRE SIZE REAR:	265 70 R 19.5

THIS VEHICLE COMPLIES WITH THE NZ

HEAVY VEHICLE BRAKE RULE 32015/4, SCHEDULE 5

LINING MATERIAL FRONT: WABCO 230

LINING MATERIAL REAR: WABCO 230

GOUGH *Transpecs*

P.O.Box 98-971

South Auckland Mail Centre

John Hirst (JEH)

DATE: **4-Jul-17** BRAKE SYSTEM: **WABCO T- EBS E**
 CERT. NO: **JH170705** BRAKE CALCULATION #: **TP51615**
 VIN / CHASSIS: **7A9E20017H1023615**

	Make	Model	Max stroke (mm)
BRAKE CHAMBERS Ax 1 & 2	TSE	20HSCLD65	65
BRAKE CHAMBERS Ax 3 & 4	TSE	1416HTLD64	64
BRAKE CHAMBERS Ax 5	TSE	14HSCLD64	64
SLACK LENGTH FRONT (mm):	69	TYRE SIZE FRONT:	265 70 R 19.5
SLACK LENGTH REAR (mm):	69	TYRE SIZE REAR:	265 70 R 19.5

THIS VEHICLE COMPLIES WITH THE NZ
 HEAVY VEHICLE BRAKE RULE 32015/4, SCHEDULE 5

LINING MATERIAL FRONT: **WABCO 230**
 LINING MATERIAL REAR: **WABCO 230**

WABCO		TRAILER EBS-E				GGVS/ADR TUEH TB 2007 - 019.0X AT0185								
HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS					GIO	Pin1	Pin3	Pin4					
TYP TYPE TYPE	5AFT CURTAINSIDE					1	TAV1	MH	TAV1					
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9E20017H1023615					2	eTASC	---	eTASC					
BREMSENRECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP51615A					3	ALS2	ALS2	---					
POLRADZÄHREZAHL c-d e-f POLE WHEEL TEETH c-d e-f DENTS ROUE DENTÉE c-d e-f	100	100	ABS-System ABS-System Système ABS	4S/3M	4	---	---	LS1						
RSS Entlastbarerlegung Single Tire Monte simple			Lerkechase Steering axle Essieu virer		5	DIAG	DIAG	DIAG						
Zweitragbarerlegung Twin Tire Monte jumele	X		Kipptisches Fahrzeug Critical Trailer Vehicule critique		6	24V-O1	---	---						
Subsystems	SB	I/O	24N		7	---	---	---						
	pm (bar)		6.5	pm (bar)		0.6	2.0	---	6.5					
ACHSE AXLE ESSEU	H (kg)			H (kg)					pz	TYR TYPE	(mm)	(mm)	(bar)	Pz
													1.0	TR (daN)
1	1600	0.8	2.0	8000	5.1	0.4	1.4	---	5.7	-	20	65	69	514 4228
2	1600	0.8	2.0	8000	5.1	0.4	1.4	---	5.7	-	20	65	69	514 4228
3	1300	0.6	1.7	6400	3.8	0.3	1.6	---	4.8	-	14 / 16	64	69	495 2937
4	1300	0.6	1.7	6400	3.8	0.3	1.6	---	4.8	-	14 / 16	64	69	495 2937
5	1300	0.6	1.7	6400	3.8	0.3	1.6	---	4.8	1	14	64	69	495 2937

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

distribution: DOMETT TRAILERS
 7A9E20017H1023615
 SODC: JH170705
 LT400: JCC 571535

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 (V6.14.04.20).
 -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 CURTAINSIDE
 trailer type : 5-axle-full-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS
 TRISTOP 3+4: T.14/24 [TSE1416HTLD64 ACTUALLY FITTED - SEE PAGE 7 FOR PERFORMANCE DATA]
 265/70 R 19,5

axle 1 + 2 + 3 + 4 + 5 : HENDRICKSON, SBW 1937, AT0185,

		<u>unladen</u>	<u>laden</u>
total mass	P in kg	7100	35200
axle 1	P1 in kg	1600	8000
axle 2	P2 in kg	1600	8000
axle 3	P3 in kg	1300	6400
axle 4	P4 in kg	1300	6400
axle 5	P5 in kg	1300	6400
wheel base	E in mm	7800 - 8200	
centre of gravity height	h in mm	1090	2098

		<u>axle 1</u>	<u>axle 2</u>	<u>axle 3</u>	<u>axle 4</u>	<u>axle 5</u>
		manually	manually	manually	manually	manually
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	[-]	23.49	23.49	23.49	23.49	23.49
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	2.1	2.1	2.1	2.1	2.1	
chamber pressure(rdyn max)pH at z=22,5%bar	2.1	2.1	2.1	2.1	2.1	
chamber press.(servo)pcha at pm6,5bar bar	5.7	5.7	4.8	4.8	4.8	
piston force ThA at pm6,5bar N	6578	6578	4586	4586	4586	
brake force(rdyn min)T lad. at pm6,5bar N	50826	50826	35307	35307	35307	
brake force(rdyn max)T lad. at pm6,5bar N	50826	50826	35307	35307	35307	
brake force within 1 % rolling friction proportion	%	22.3	22.3	18.5	18.5	18.5

braking rate z laden 0.601 for rdyn min
 z = sum (TR)/PRmax 0.601 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:

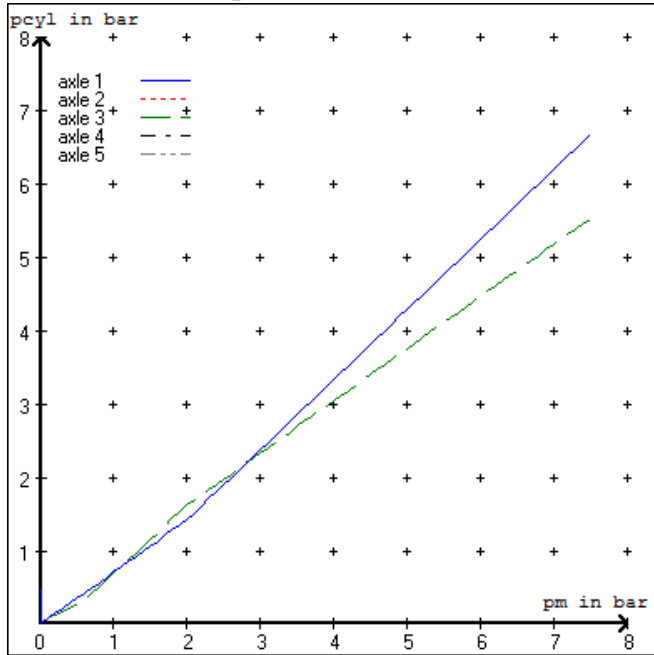
valve 1: 971 002 ... 0 WABCO
EBS emergency valve

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

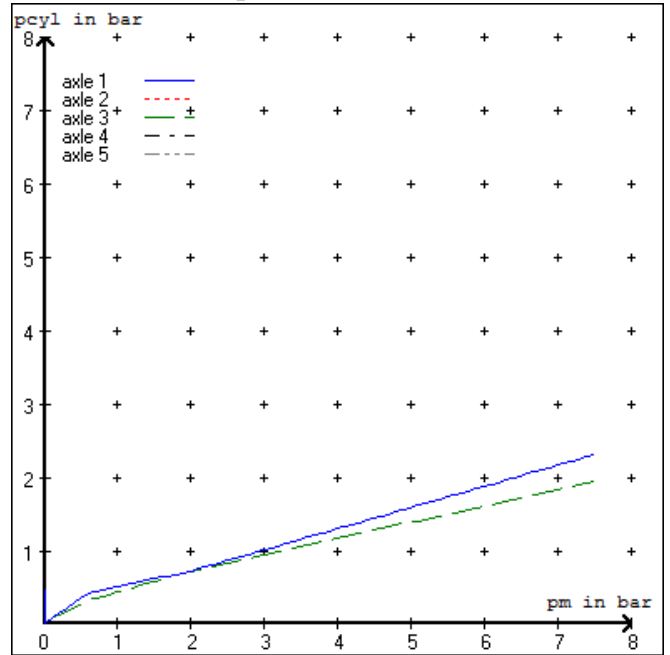
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.5 bar =>	pcha in bar :	2.8	2.8	2.7	2.7	2.7	2.7
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 1.1 bar =>	pcha in bar :	0.8	0.8	0.8	0.8	0.8	0.8

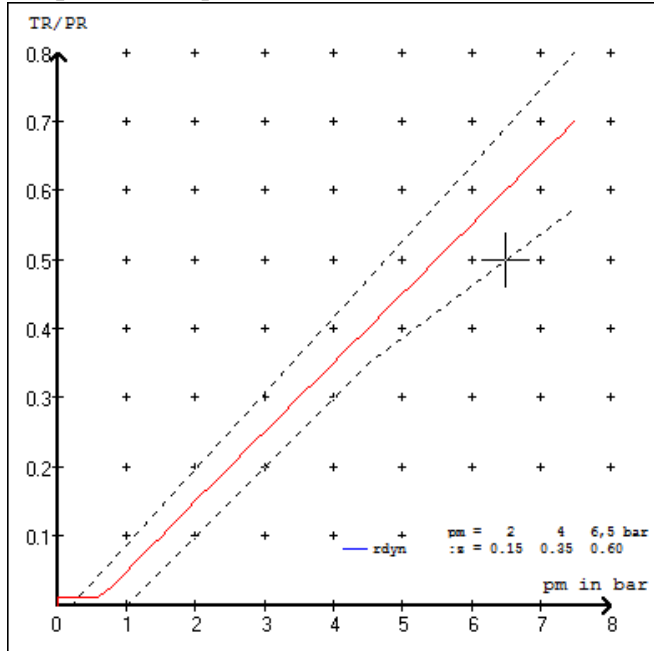
brake chamber pressure laden



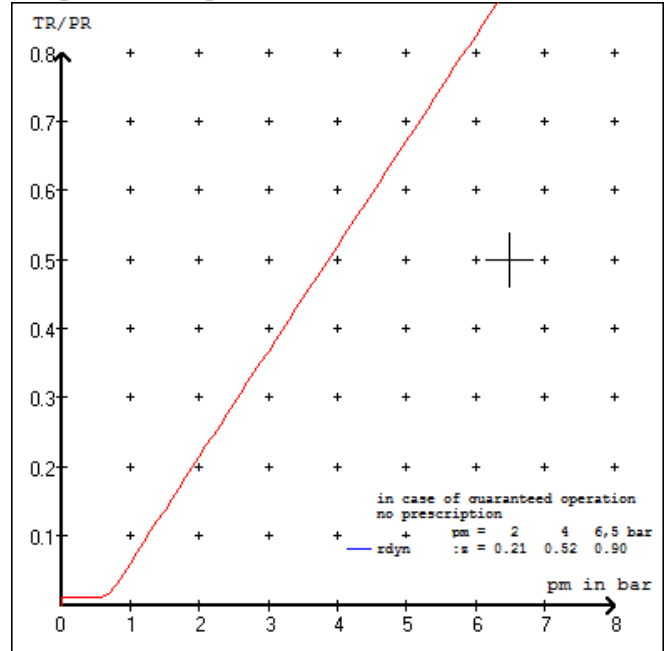
brake chamber pressure unladen



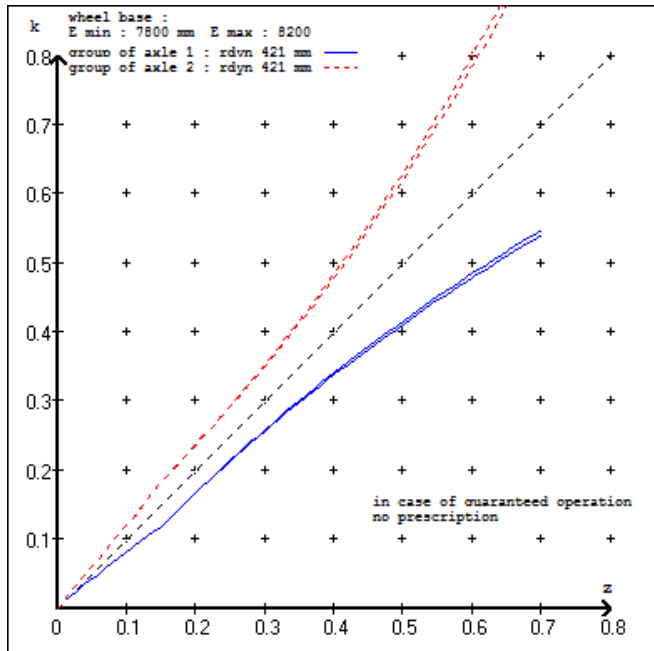
compatibility band laden



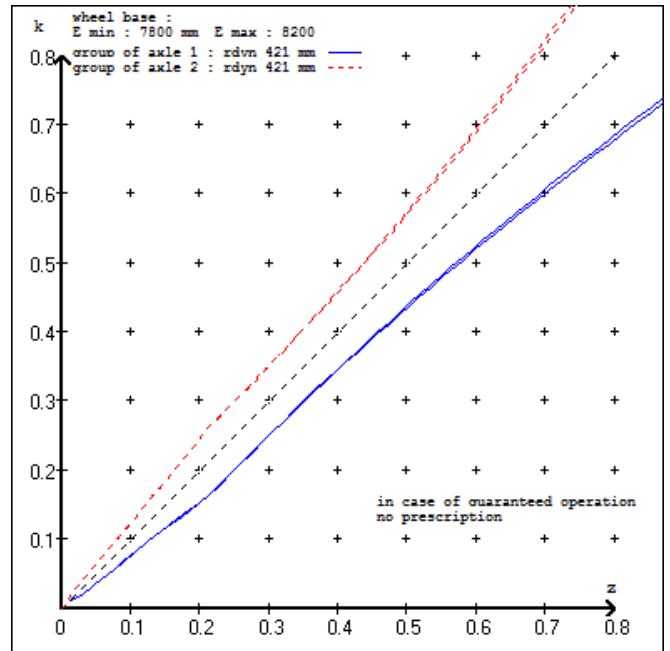
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT CURTAINSIDE
 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 CURTAINSIDE
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 51615A

tire circumference main axle : 2650 for rdyn max
 tire circumference auxiliary axle : 2650 for rdyn max

assignment pm / deceleration z: pm 0.6 bar z = 0.010
 (laden condition) 2.0 bar z = 0.150
 6.5 bar z = 0.600

control pressure pm			6,5	control pressure pm			0.6	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	2.0	8000	to be	0.4	1.4	5.7	
2	1600	entered by the vehicle manufact.	2.0	8000	entered by the vehicle manufact.	0.4	1.4	5.7	
3	1300		1.7	6400		0.3	1.6	4.8	
4	1300		1.7	6400		0.3	1.6	4.8	
5	1300		1.7	6400		0.3	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.

=====

axle 1	axle 2	axle 3	axle 4	axle 5
axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1
1600	1600	1300	1300	1300
2100	2100	1800	1800	1800
2600	2600	2300	2300	2300
3100	3100	2800	2800	2800
3600	3600	3300	3300	3300
4100	4100	3800	3800	3800
4600	4600	4300	4300	4300
5100	5100	4800	4800	4800
8000	8000	6400	6400	6400

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

axle 1 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017
axle 2 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017
axle 3 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017
axle 4 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017
axle 5 : reference axle: HENDRICKSONSBW 1937	brake lining: WABCO 230
test report : AT0185	date : 02.03.2017

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 = 18.8 % Fe
axle 4	(rdyn 421 mm)	T = 18.8 % Fe
axle 5	(rdyn 421 mm)	T = 18.8 % Fe

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

axle 1	(sp = 58 mm)	s = 48 mm
axle 2	(sp = 58 mm)	s = 48 mm
axle 3	(sp = 56 mm)	s = 48 mm
axle 4	(sp = 56 mm)	s = 48 mm
axle 5	(sp = 56 mm)	s = 48 mm

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

axle1	ThA = 6578 N
axle2	ThA = 6578 N
axle3	ThA = 4586 N
axle4	ThA = 4586 N
axle5	ThA = 4586 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 = 40650 N
axle 2	(rdyn 421 mm)	T = 40650 N
axle 3	(rdyn 421 mm)	T = 28257 N
axle 4	(rdyn 421 mm)	T = 28257 N
axle 5	(rdyn 421 mm)	T = 28257 N

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

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

0.60 0.48

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 = 40650 N
axle 2	(rdyn 421 mm)	T = 40650 N
axle 3	(rdyn 421 mm)	T = 28257 N
axle 4	(rdyn 421 mm)	T = 28257 N
axle 5	(rdyn 421 mm)	T = 28257 N

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

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

0.60 0.48

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

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

spring parking brake

	<u>axle 3</u>	<u>axle 4</u>
no of TRISTOP-actuators per axle line KDZ	2	2
TRISTOP-actuator type	T.14/16	T.14/16
lever length lBh in mm	69	69
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	6200	6200
sp.brake chamber no Meritor.....	4	4
release pressure pLs in bar	4.5	4.5

calculation:

ratio until road	4.0466	4.0466
iFb = lBh*Eta*C*rBt/(rBn*rstat)		
for rstat in mm	401	401
brake force of spring br. Tf in N	49151	49151
Tf = (TFZ*KDZ-2*Co/lBh)*iFb		
braking rate zf laden	0.295	
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

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

min Ef = 5922 mm for E = 7800 mm

=====

min Ef = 6196 mm for E = 8200 mm

=====

- 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 = 2098 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)

axle manufacturer	axle 1 + 2 + 3 + 4 + 5		
type of brake	HENDRICKSON		
type of axle	SBW 1937		
	SBW 1937		
	AT0185		
test report of characteristic value			
adm. stat. axle load	Pstat	in kg	9000
tested axle load	Pe	in kg	10200
max. adm. tyre radius	Rezul	in mm	999
adm. cam. torque (6,5 bar)	Czul	in Nm	640
lining area per brake	AB	in cm ²	292
no. of brake cylinder		-	2
brakefactor (SB) Bf		-	23.49
brakefactor (PB) Bf		-	23.49
threshold torque (Co,dec)	Mo	in Nm	6
date			
	02.03.2017		
brake lining	WABCO 230		
cam torque	Ce	in Nm	638
brake force	TeIII	in daN	4649
stroke	seIII	in mm	48
tested tyre radius	Re	in mm	520
tested lever length	le	in mm	69
threshold torque (Co,e)		in Nm	5

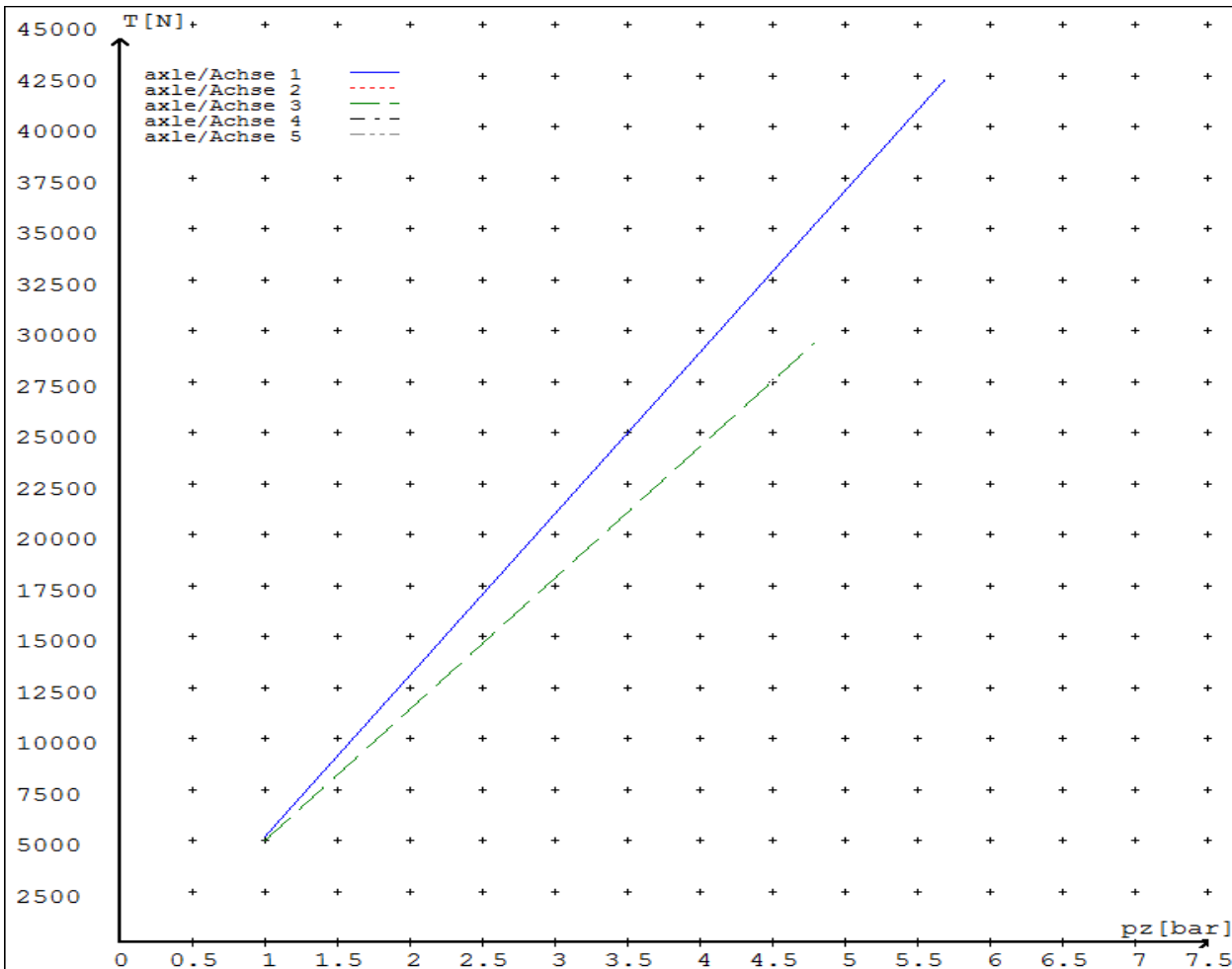
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0	5150	
	5.7	42285	
axle 2	1.0	5150	
	5.7	42285	
axle 3	1.0		4955
	4.8		29374
axle 4	1.0		4955
	4.8		29374
axle 5	1.0		4955
	4.8		29374

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



reference values for $z = 0.5$

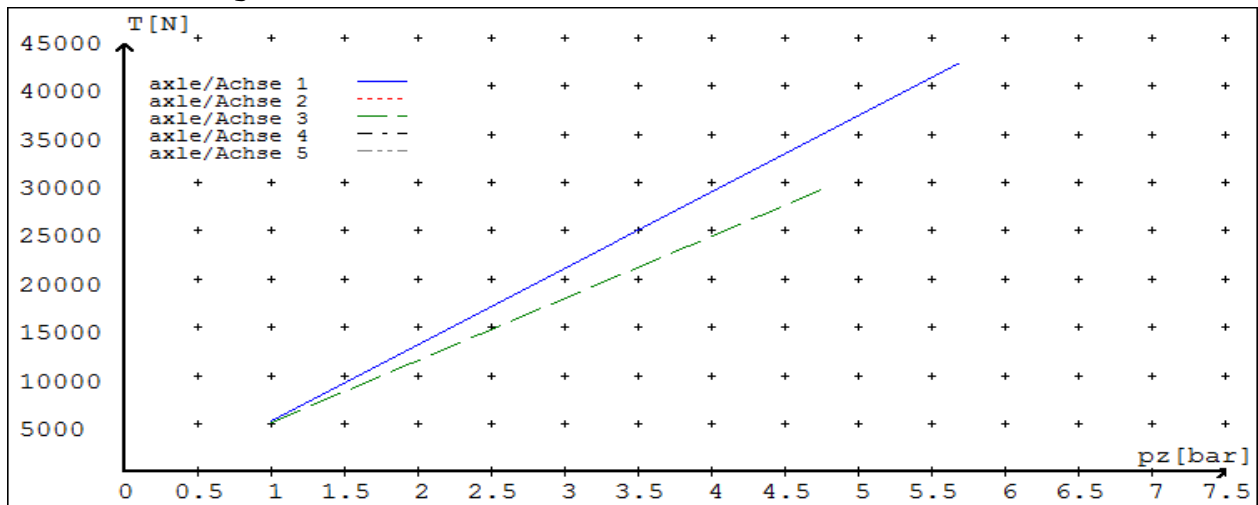
Angabe der Referenzwerte für $z = 0.5$

for max r_{dyn}: 421 mm

für max r_{dyn}: 421 mm

brake calculation no: TP 51615A date 04.07.2017

Bremsberechnung Nr: TP 51615A vom 04.07.2017



	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 32015/4.

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 32015/4. 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.).....
(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 32015/4, 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)

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 32015/4.

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.

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