

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

Vehicle registration (optional) _____ VIN/chassis number **7A9D15023J1023802**

Make **DOMETT** Component being certified: Chassis Load anchorage

Model (optional) _____ Log bolsters Towing connection Brakes

Certification category **HVEK** SRT PSV stability PSV rollover

Swept path PBS

Description of work

CERTIFY TO SCHEDULE 5 OF LTR 32015/4

NEW ZEALAND HEAVY VEHICLE BRAKE SPECIFICATION.

RSS ON: TWIN / SINGLE TYRE. TYRE SIZE = 355 50 R 22.5

Code/standard/rule certified to **LTR 32015/4** Component load rating(s) **42 Tonnes GVM**

General drawing number(s) **N/A** **26 Tonnes (Group ratings)**

Supporting documents

BRAKE CODE CERTIFICATE JH190224

BRAKE CALCULATION # TP51861

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) _____

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) **RON PRATT** ID number **TRSP**

Date **15-Feb-19** Number **666949**

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

All fields are mandatory unless otherwise stated.

Statement of Design Compliance

S.O.D.C. number: JH190224
For Heavy Vehicle Brake Specification
(Schedule 5) of HV Brake Rule 32015/4


Vehicle details:

Make: DOMETT
Model: D1502
Chassis#: 1802
Vin#: 7A9D15023J1023802
GVM (Tonne): 42
Wheelbase (m): 9.2
Axle test report #: TDB0678
Axle type: SAF-Z19W-S
Suspension & Air bag \varnothing (mm): SAF_INTRA 2619, 300mm
Trailer type: 4AS FLATDECK

Component Details:

	AXLE 1 & 2	AXLE 3	AXLE 4
Lever length (mm):	69	69	69
Brake chamber size:	1416HTLD	14HSCLD	14HSCLD
Tyre size:	355 50 R 22.5		
Drawing number: (for component reference)	1802		
Brake calculation#:	TP51861	LT400# 666949 RP	

I declare that I am a Heavy Vehicle Specialist Certifier – Engineer and I hold a current valid appointment. certify that this vehicle component design and this certification comply in all respects with the Land Transport Vehicle Standards Compliance 2002; My Deed of Appointment and applicable requirements. To the best of n knowledge the information contained in this certificate is true and correct.

Date: 15/02/2019 **Name:** JOHN HIRST **SIGNED:** 

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

Signed: R S Pratt  **Dated:** 18/02/2019

*) Programmed according to WABCO's End of Line protocol requirements where applicable and th and components correspond to the attached PDS worksheet.



l
t Rule:
ny



e vehicle

**NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015-4
WORKSHEET, PROCEDURE DOCUMENTATION SHEET
& CONFIRMATION OF COMPLIANCE**

CLIENT

MANUFACTURER:

DOMETT TRAILERS .

ADDRESS:

TAURIKO, TAURANGA 3110

FLEET:

NOT SPECIFIED

VEHICLE DETAILS

VEHICLE TYPE:

4AS FLATDECK

CERT #:

JH190224

YEAR:

2019

CALCULATION #:

TP51861

MAKE:

DOMETT

REGO:

N/A

MODEL:

D1502

LT400 #:

666949 RP

CHASSIS #:

1802

ORDER NUMBER:

5992

VIN #:

7A9D15023J1023802

GVM: TONNES

42

PRIME MOVER:

NORTH AMERICAN

LOAD CONFIGURATION:

MIXED FREIGHT

GROUP RATINGS: TONNES

FRONT

REAR

16

26

WHEEL BASE: METRES

9.2

UNLADEN COG

MAX HEIGHT

HEIGHT DECK

0.75

4.3

1.375

COG: METRES

2.172

TARE: TONNES

FRONT

REAR

TOTAL

1.85

5.4

7.25

TYRE SIZE:

355 50 R 22.5

ROLLING CIRCUMFERENCE: MM

2825

AXLE SPACING: METRES

4

BRAKE & AXLE DETAILS

	MAKE	MODEL	TEST REPORT
AXLE:	SAF	SAF-Z19W-S	TDB0678
POLEWHEEL TEETH #:	90	STEER AXLE[S]:	YES
LINING MATERIAL:	JURID 539	BRAKE FACTOR:	23.03
SENSED AXLES:	2 + 4		
SERIAL NUMBERS:	1		
	2		
	3		
	4		
	5	N/A	

CHAMBER AND VALVING DETAILS

CHAMBERS:	AXLE 1 & 2	AXLE 3	AXLE 4
BRAND:	TSE_CHAMBERS	TSE_CHAMBERS	TSE_CHAMBERS
SIZE:	1416HTLD	14HSCLD	14HSCLD
STROKE: <i>MILLIMETRES</i>	64	64	64
TEST REPORT #:	TSE derived	BZ 122.1 Sep '00	BZ 122.1 Sep '00
SPRINGBRAKE FORCE: <i>kN</i>	6.16	N/A	N/A
HOLDOFF PRESSURE: <i>kPa</i>	4.8	N/A	N/A
FOUNDATION BRAKE:	WABCO PAN19	WABCO PAN19	WABCO PAN19
LEVER LENGTH: <i>MILLIMETRES</i>	69	69	69
BRAKE VALVES:	MAKE:	PART NUMBER:	PM PRESSURE:
ECU PART #:	WABCO	480 102 08. 0	60 kPa
3RD MODULATOR #:	WABCO	480 207 202 0	60 kPa
ANTI-COMPOUNDING:	YES		
SPRING BRAKE RELAY:	WABCO PREV	971 002 900 0	
YARD RELEASE VALVE:	WABCO PREV	971 002 900 0	
TRACTOR PROTECTION:	N/A	N/A	

ECU DIRECTION:

FRONT

REAR

SMARTBOARD/OPTILINK:

SMARTBOARD

OPTI-LINK

SUSPENSION

		REAR
SUSPENSION TYPE:		PNEUMATIC
MAKE:		SAF_AIRSPRING
MODEL:		SAF_INTRA
BELLOW SIZE:		2619, 300mm
HEIGHT CONTROL VALVE:		441 050 100 0
OTHER VALVES:	216050	472 102 040 0
RIDE HEIGHT <i>MM</i> :		280-320
HANGER HEIGHT <i>MM</i> :		250
PEDESTAL HEIGHT <i>MM</i> :		50
LIFTAXLE:		N/A
TIPPING DUMP SWITCH:		N/A
LIFTAXLE VALVE:		N/A

AIR TANKS

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

AIR LINES

TEST POINTS:	
CONTROL LINE:	X 1
FIXED AXLE CHAMBERS:	X 2
STEER AXLE CHAMBER:	X 1

TANK:

X 1

ELECTRONIC HEIGHT SENSOR CALIBRATION

	TIMER TICKS	MILLIMETRE
UPPER LEVEL:		
NORMAL LEVEL:		280-320
LOWER LEVEL:		

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 AND SPECIAL CONDITIONS


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 /4, SCHEDULE 5.

DATE: 15/02/2019

SIGNED: 

CERTIFIER NAME & ID: JOHN HIRST JEH

SODC BY: RON PRATT TRSP 

PHONE (BUS): 09-980-7300

FAX:

POSTAL ADDRESS:

**P.O. Box 98-971, Manukau 2241
New Zealand**

Service Bulletin

Wabco Welding Warning

From: John Hirst, OE Braking Product Manager
Ref: JH-TSL-091115

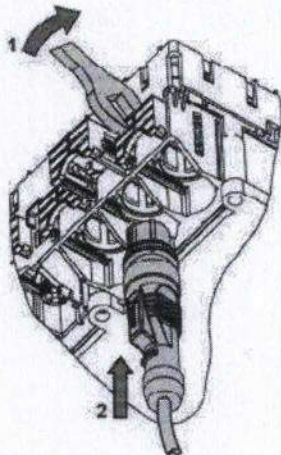
Date: 9 November 2015

NB: Any sort of arc welding can cause damage to an ECU fitted to a trailer. The inverter that we supply is also susceptible to damage from welding arcs.

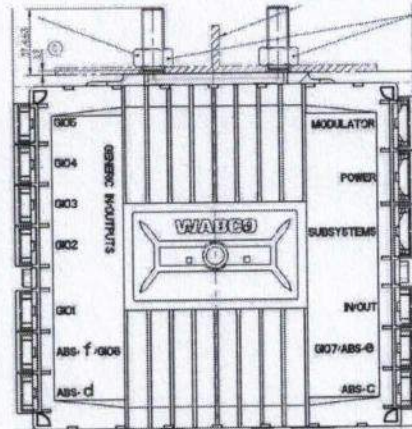
Prevention is less costly than the cure.

Please follow the following recommendation from Wabco for all ABS and EBS models:

1. Remove all the main power cables and diagnostic cables from the ECU as they have non interchangeable connections.
2. Leave the sensor cables that are plugged into the ECU and disconnect them at the wheel end. This will cover the protection against welding, and at the same time will prevent mixing them up at the ECU end.



Above: Wabco TEBS E Modulator – Plugs and dismantling of cables and protective caps.



Above: Diagram of a Wabco ECU.



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.

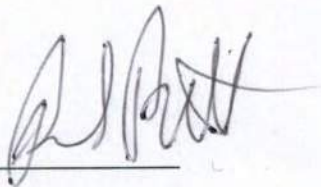
The trailer ABS/EBS warning light on the towing vehicle dashboard must illuminate when the ignition is switched on and extinguish when the vehicle is in motion.

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.

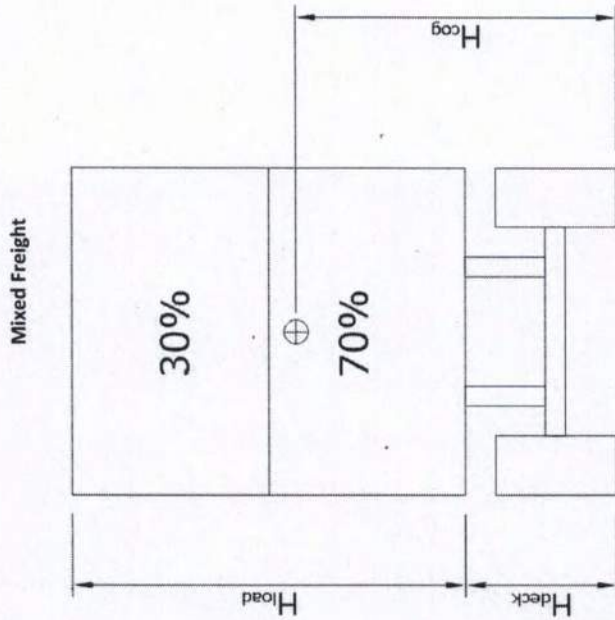
If you are unsure of any aspect relating to this instruction please contact either the vehicle manufacturer or myself.

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



VIN #: 7A9D15023J1023802

Tare CoG	0.75	GVM	26000
		Tare mass	5400
Payload CoG		Payload mass	20600
H_{deck}	1.375	Freight option	0.4
H_{load}	2.925	- mixed freight - 0.4	
H_{cog}	2.545	- uniform density - 0.5	
Combined CoG	2.172		



MIXED FREIGHT 0.4
 UNIFORM DENSITY 0.5

$$H_{cog} = 0.4H_{load} + H_{deck}$$

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Transpecs

P.O.Box 98-971

South Auckland Mail Centre

GOUGH



JOHN HIRST

JEH

SODC ENDORSED BY: TRSP

DATE:

15-Feb-19

BRAKE SYSTEM: WABCO EBS - E

CERTIFICATE #:

JH190224

BRAKE CALCULATION #: TP51861

VIN / CHASSIS #:

7A9D15023J1023802

BRAKE CHAMBERS

Make

Max stroke (mm)

AXLE 1 & 2

TSE_CHAMBERS

1416HTLD

64

AXLE 3

TSE_CHAMBERS

14HSCLD

64

AXLE 4

TSE_CHAMBERS

14HSCLD

64

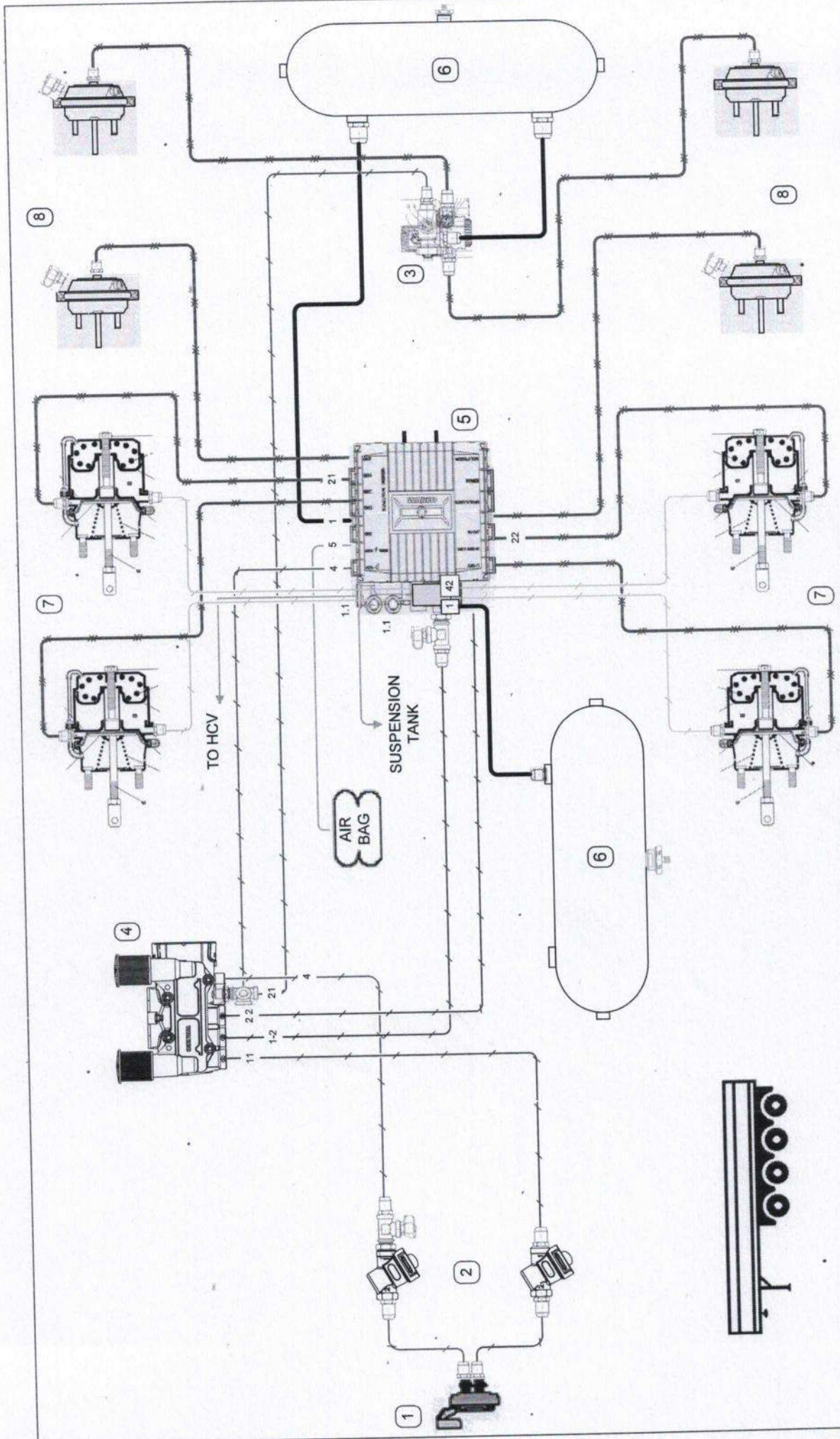
LEVER LENGTH REAR (mm): 69

TYRE SIZE REAR: 355 50 R 22.5

THIS VEHICLE COMPLIES WITH THE NZ

HEAVY VEHICLE BRAKE RULE 32015/4, SCHEDULE 5

LINING MATERIAL REAR: JURID 539



PIPING LEGEND:

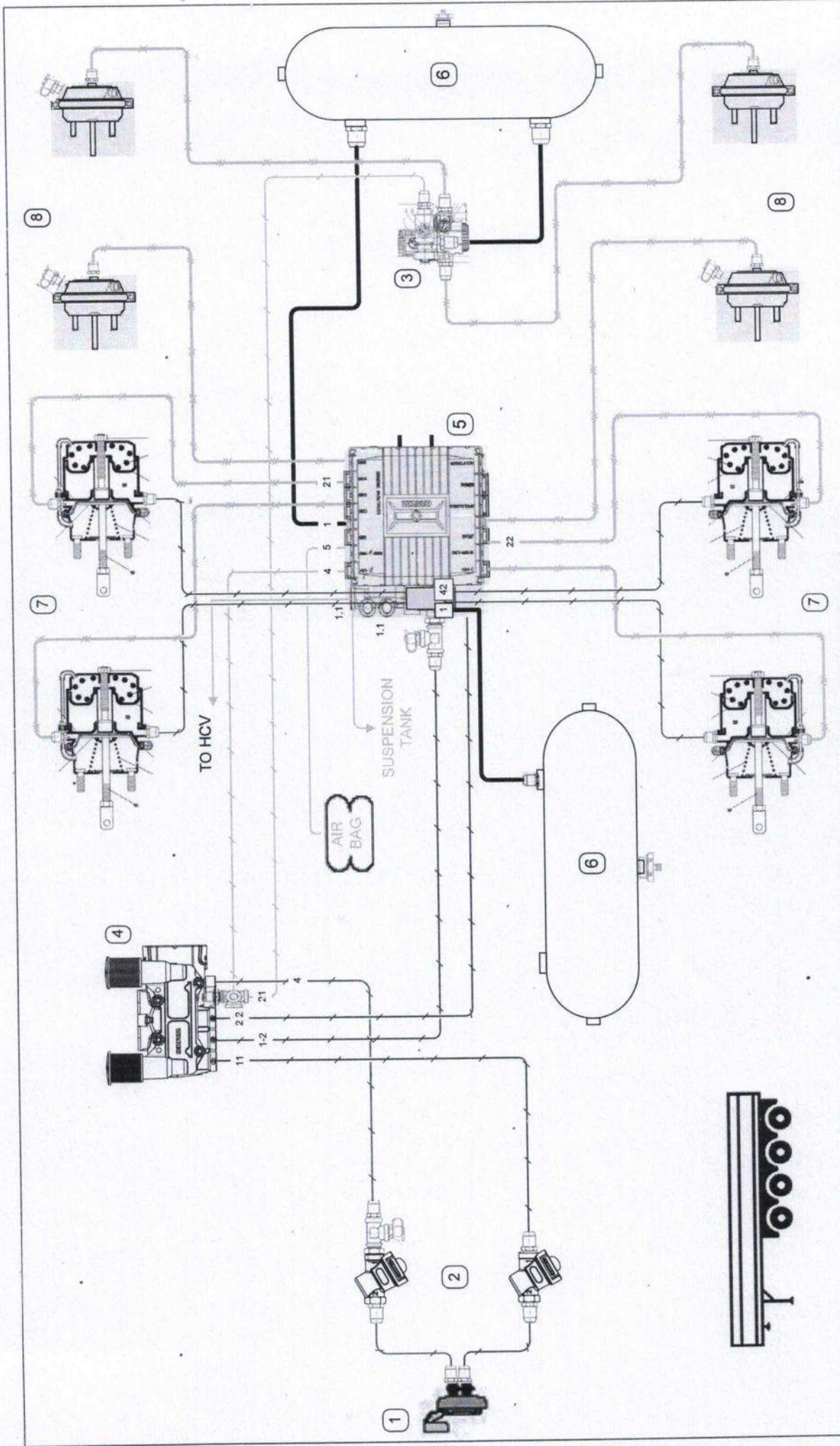
---	3/8" Rubber
---	3/8" Rubber
---	1/2" Rubber
---	15mm Nylon
---	12mm Nylon
---	8mm Nylon
---	8mm Nylon
---	8mm Nylon

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	452 802 000 S	WABCO DUOMATIC SEMTRA
2	2	432 500 020 0	WABCO FILTER
3	1	480 207 202 0	WABCO 3 RD MODULATOR
4	1	971 002 900 0	WABCO PREV
5	1	480 102 08. 0	WABCO EBS ECU
6	3	97A3104600	Minimum 46 Ltr AIR TANK
7	4	1416HTLD64	TSE SPRING BRAKE CHAMBER
8	4	14HSLD64	TSE SERVICE BRAKE CHAMBER

DOMETT

**EBS 4 AXLE SEMI DISC
[SERVICE BRAKE LINES]**

ITEM	DRAWING NUMBER	ASSY/RIT NUMBER	DATE
	1802	DOMQUAD/D/EBS	
PAGE NO:	1/3	J HIRST	E & OE



PIPING LEGEND:

	3/8" Rubber
	1/2" Rubber
	15mm Nylon
	12mm Nylon
	8mm Nylon
	8mm Nylon

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	452 802 000 S	WABCO DIOMATIC SEMITRA
2	2	432 500 020 0	WABCO FILTER
3	1	480 207 202 0	WABCO 3 RD MODULATOR
4	1	971 002 900 0	WABCO PREV
5	1	480 102 08 0	WABCO EBS ECU
6	3	97A3104600	Minimum 48 Ltr AIR TANK
7	4	1418HTLD64	TSE SPRING BRAKE CHAMBER
8	4	14HSLD64	TSE SERVICE BRAKE CHAMBER

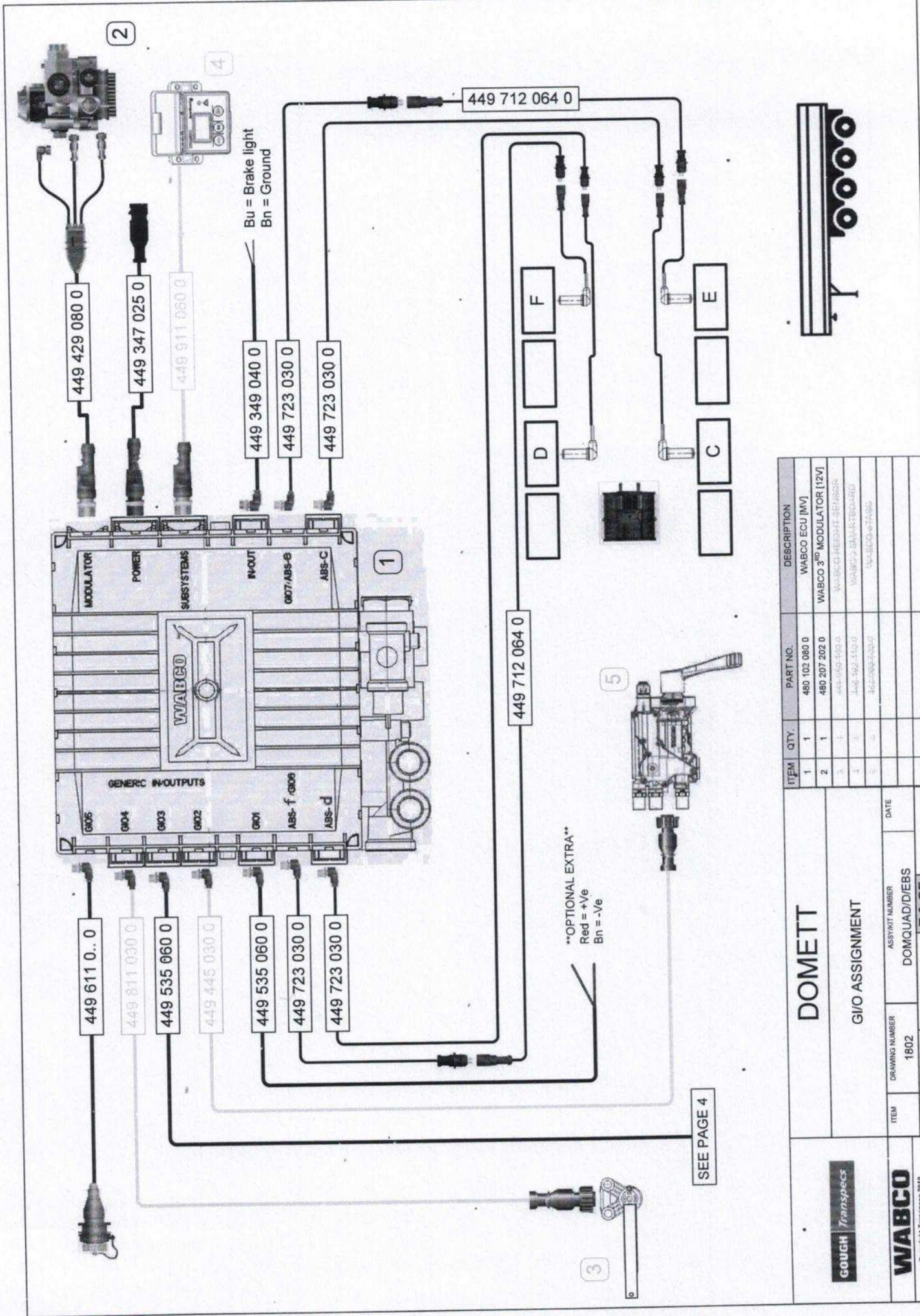
DOMETT

EBS 4 AXLE SEMI DISC
[PARK BRAKE LINES]

ITEM	DRAWING NUMBER	ASSY/RIT NUMBER	DATE
	1802	DOMQUAD/D/EBS	
PAGE NO.	36	J HIRST	E & OE

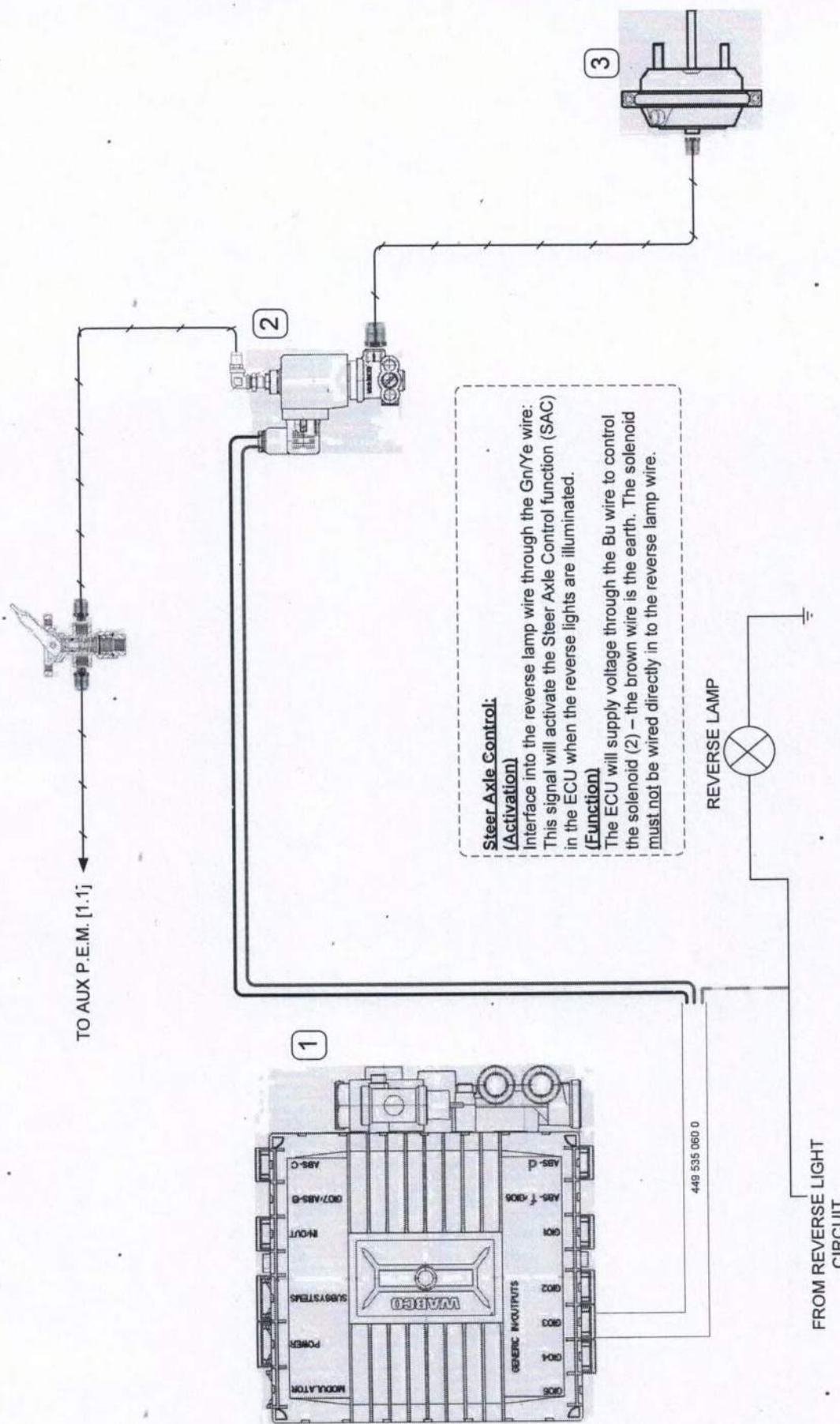
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ITEM	QTY.	PART NO.	DESCRIPTION
1	1	480 102 080 0	WABCO ECU INV
2	1	480 207 202 0	WABCO 3 rd MODULATOR (12V)
3	1	444 959 400 A	WABCO REEFSH SET/RSR
4	1	449 723 030 0	WABCO 3 rd ABS-RECS-ABS
5	1	449 712 064 0	WABCO 3 rd ABS

DOMETT		DATE	
		ASSY/KIT NUMBER	
G/IO ASSIGNMENT		DOMQUAD/D/EBS	
ITEM	DRAWING NUMBER	J HRST	E & OE
	1802		
PAGE NO.	36		



PIPING LEGEND:

—	8mm Nylon
—	8mm Nylon
—	8mm Nylon
—	6mm Nylon
—	6mm Nylon
—	6mm Nylon

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	480 102 080 0	WABCO TEBSE
2	1	472 102 040 0	WABCO N.O. SOLENOID
3	1		AXLE LOCK CYLINDER
5			
6			
7			
8			

DOMETT

REVERSE LOCK

ASS'Y/RT NUMBER
DOMQUAD/DIEBS

DATE

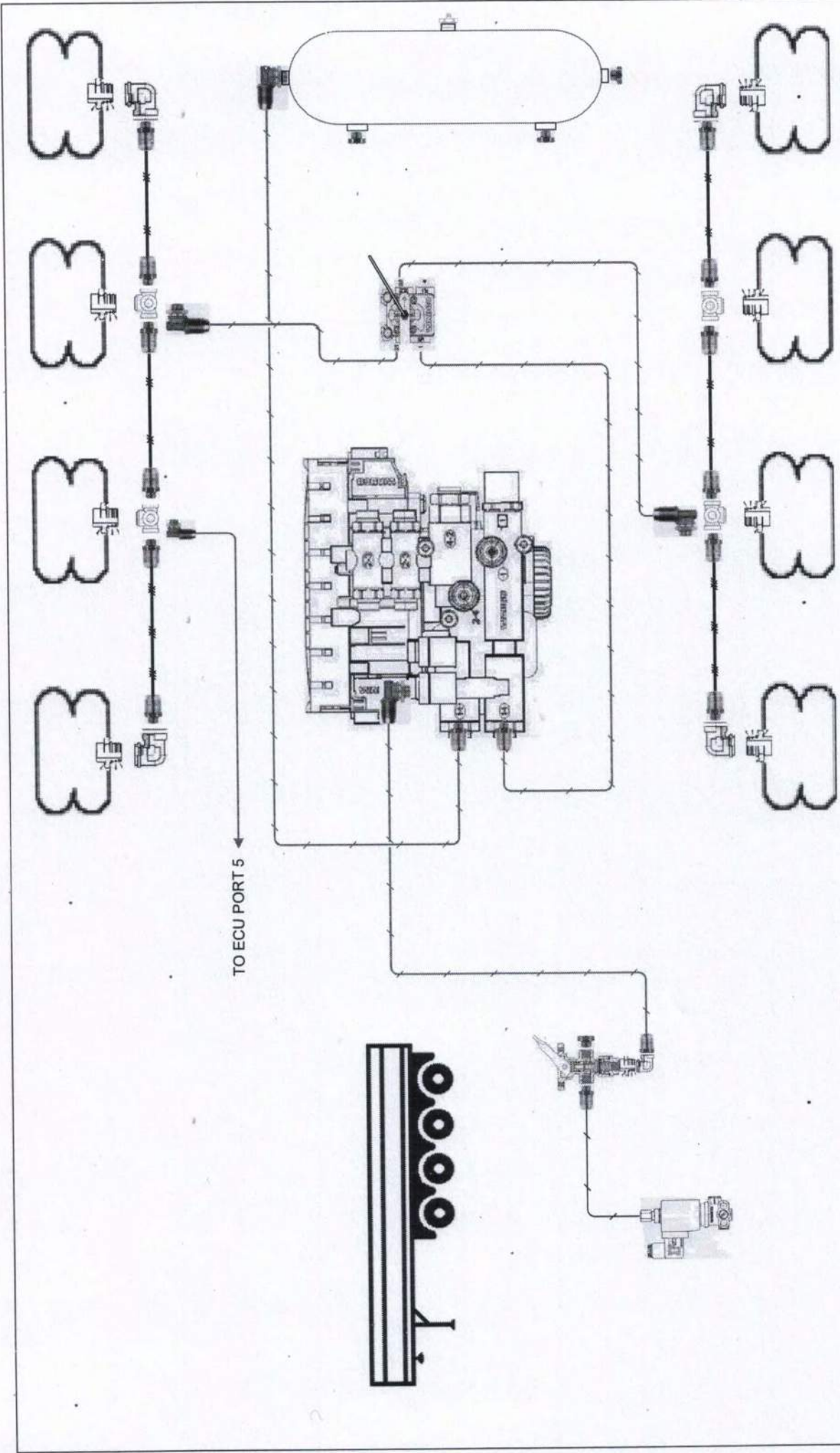
ITEM DRAWING NUMBER 1802

PAGE NO. 45

J HIRST E & OE

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PIPING LEGEND:

12mm Nylon	—
15mm Nylon	—
8mm Nylon	—
8mm Nylon	—
8mm Nylon	—

DOMETT

SUSPENSION SCHEMATIC

ITEM	DRAWING NUMBER	ASSY/KIT NUMBER	DATE
	1802	DOMQUAD/D/EBS	
PAGE NO.	5/5	J. HIRST	E & OE

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WABCO START-UP LOG

System	Trailer EBS-E	WABCO part number	480 102 080 0
Production date	2018-08-25	Serial number	437006182300D
Serial number (modulator)	000000580368		
Fingerprint Customer EOL / Customer Development / Flash Program	W033869 / 2019-02-18 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

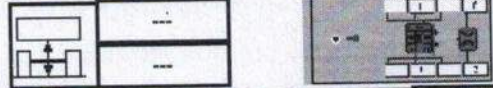
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TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.00
TDB0678

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS		
TYP TYPE TYPE	4AS FLATDECK		
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9D15023J1023802		
BREMSENRECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP51861S		
POLRADZÄHNEZAHL 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
RSS RSS RSS	Einfachbereifung Single Tire Monte simple	Lenkachse Steering axle Essieu avant	X
	Zwillingsbereifung Twin Tire Monte jumelée	Kippkritisches Fahrzeug Critical Trailer Véhicule critique	X
Subsystems	SB	I/O	24N

GIO	Pin1	Pin3	Pin4
1	24V-O1	---	---
2	---	---	---
3	---	RDL	SAC
4	---	---	---
5	DIAG	DIAG	DIAG
6	---	---	---
7	---	---	---



ACHSE AXLE ESSIEU	pm (bar)		6.5		pm (bar)		0.6		2.0		---		6.5		TYP TYPE	(mm)	(mm)	(bar)	
	+	-	+	-	+	-	+	-	+	-	+	-	+	-				1.0	Pz
1	1350	0.5	2.0	6500	4.0	0.3	1.6	---	5.6	-	14 / 16	64	69	415	2869				
2	1350	0.5	2.0	6500	4.0	0.3	1.6	---	5.6	-	14 / 16	64	69	415	2869				
3	1350	0.5	2.0	6500	4.0	0.3	1.6	---	5.6	-	14	64	69	415	2869				
4	1350	0.5	2.0	6500	4.0	0.3	1.6	---	5.6	-	14	64	69	415	2869				
5	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---				

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	7A9D15023J1023802
Vehicle type	4AS FLATDECK	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tester		Signature	
Date	2019-02-18 4:15:41 PM		

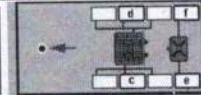
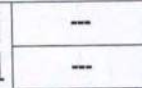
WABCO

TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.0X
TDB0678

HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT TRAILERS		
TYP TYPE	4AS FLATDECK		
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9D15023J1023802		
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP51861S		
POLRADZAHNEZAHL 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
RSS RSS RSS	Einfachbereifung Single Tire Monte simple	Lenkachse Steering axle Essieu vireur	X
	Zwillingsbereifung Twin Tire Monte jumelée	Kippkritisches Fahrzeug Critical Trailer Véhicule critique	
Subsystems	SB	I/O	24N

GIO	Pin1	Pin3	Pin4
1	24V-O1	---	---
2	---	---	---
3	---	RDL	SAC
4	---	---	---
5	DIAG	DIAG	DIAG
6	---	---	---
7	---	---	---



ACHSE AXLE ESSIEU	pm (bar)		6.5	pm (bar)		0.6	2.0	---	6.5	TYP TYPE	(mm)	(mm)	(bar)		
	↓ (kg)	⊗	⊗	↓ (kg)	⊗	⊗	pz	1.0	Pz						
1	1350	0.5	2.0	6500	4.0	0.3	1.6	---	5.6	-	14 / 16	64	69	415	2869
2	1350	0.5	2.0	6500	4.0	0.3	1.6	---	5.6	-	14 / 16	64	69	415	2869
3	1350	0.5	2.0	6500	4.0	0.3	1.6	---	5.6	-	14	64	69	415	2869
4	1350	0.5	2.0	6500	4.0	0.3	1.6	---	5.6	-	14	64	69	415	2869
5	0	---	---	0	---	---	---	---	---	-	---	---	---	---	---

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

distribution: DOMETT TRAILERS
 7A9D15023J1023802
 SODC: JH190224
 LT400: TRSP 666949.....

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!
 WABCO Brake V6.14.04.20 db 03.11.2017

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 4AS FLATDECK
 trailer type : 4-axle-semi-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS E
 TRISTOP 1+2: T.14/24 [TSE1416HTLD64 ACTUALLY FITTED
 -SEE PAGE 7 FOR PERFORMANCE DATA]
 355/50 R 22,5

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

		unladen		laden	
total mass	P in kg	7000	- 8000	42000	- 44000
king-pin	PS kg	1600	- 2600	16000	- 18000
axle 1	P1 in kg		1350		6500
axle 2	P2 in kg		1350		6500
axle 3	P3 in kg		1350		6500
axle 4	P4 in kg		1350		6500
total axle mass	PR in kg		5400		26000
wheel base	E in mm	9200	- 9840		
centre of gravity height	h in mm		750		2200
K-factor		Kv min	2.1104	Kc min	1.0691
K-factor		Kv max	2.1274	Kc max	1.0948

		axle 1	axle 2	axle 3	axle 4
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 within 1 % rolling friction 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:

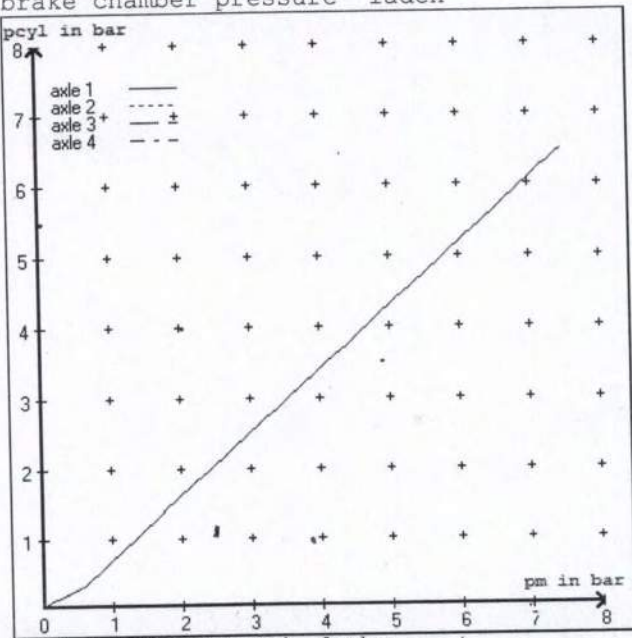
valve 1: 971 002 ... 0 WABCO
EBS emergency valve

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

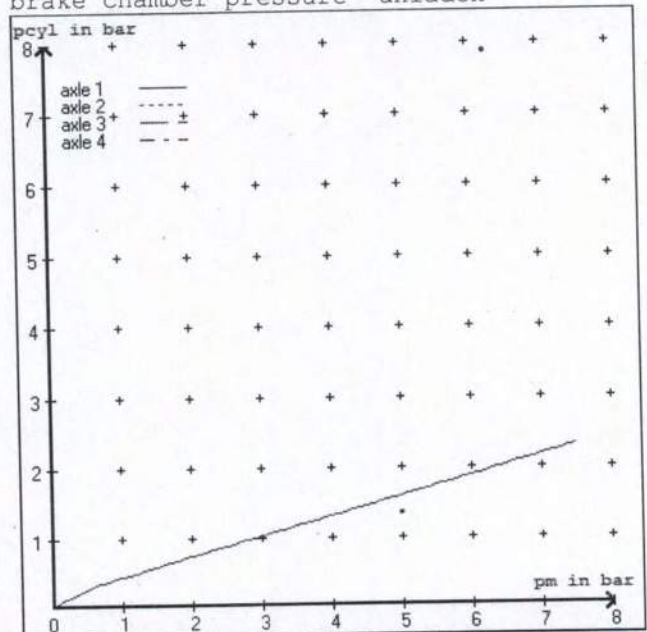
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	
at pm 3.5 bar =>	pcha in bar :	2.9	2.9	2.9	2.9	2.9
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	
at pm 1.1 bar =>	pcha in bar :	0.8	0.8	0.8	0.8	0.8

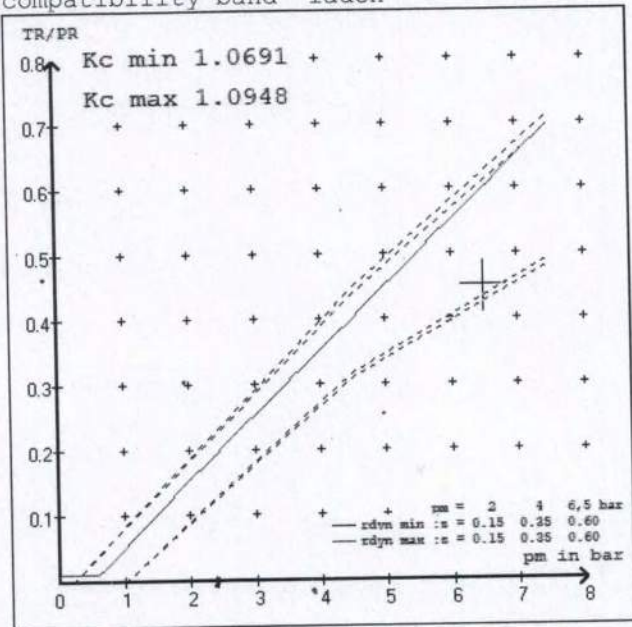
brake chamber pressure laden



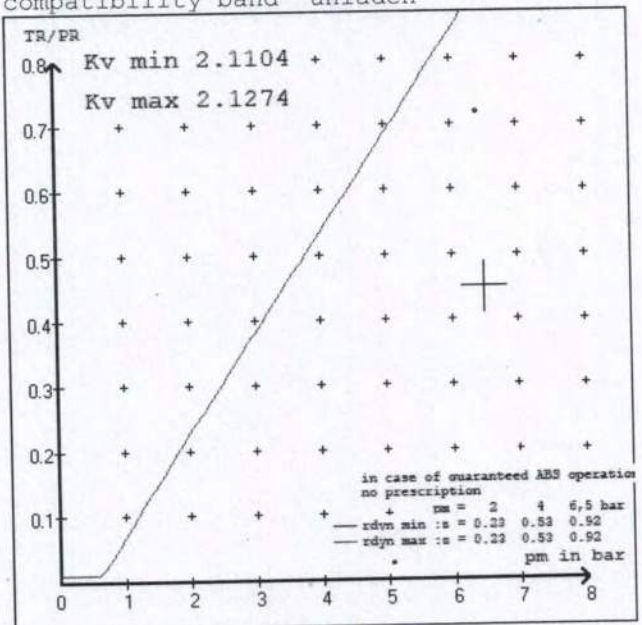
brake chamber pressure unladen



compatibility band laden



compatibility band unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 4AS FLATDECK
 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

=====

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 4AS FLATDECK
 trailer type : 4-axle-semi-trailer
 brake calculation no. : TP 51861S

tire circumference main axle : 2825 for rdyn max
 tire circumference auxiliary axle : 2825 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	1350	to be	2.0	6500	to be	0.3	1.6	5.6	
2	1350	entered by the vehicle manufact.	2.0	6500	entered by the vehicle manufact.	0.3	1.6	5.6	
3	1350		2.0	6500		0.3	1.6	5.6	
4	1350		2.0	6500		0.3	1.6	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.

axle 1		axle 2		axle 3		axle 4	
axle load	pcyl	axle load	pcyl	axle load	pcyl	axle load	pcyl
1350	2.0	1350	2.0	1350	2.0	1350	2.0
1850	2.3	1850	2.3	1850	2.3	1850	2.3
2350	2.7	2350	2.7	2350	2.7	2350	2.7
2850	3.0	2850	3.0	2850	3.0	2850	3.0
3350	3.4	3350	3.4	3350	3.4	3350	3.4
3850	3.7	3850	3.7	3850	3.7	3850	3.7
4350	4.1	4350	4.1	4350	4.1	4350	4.1
4850	4.4	4850	4.4	4850	4.4	4850	4.4
6500	5.6	6500	5.6	6500	5.6	6500	5.6

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 27.09.2013
axle 2 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0678 ECE	date : 20130927 27.09.2013
axle 3 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0678 ECE	date : 20130927 27.09.2013
axle 4 : reference axle: SAF	SBW 1937	brake lining: Jurid 539
test report :	TDB 0678 ECE	date : 20130927 27.09.2013

calc. verific. 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 of subject trailer (E) type III (calculated) residual (hot)braking

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.60	0.49
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 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 of subject trailer (E) type III (calculated) residual (hot)braking

braking rate of the vehicle (item 4.3.2 to appendix 2 to annex 11)	0.60	0.49
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 1</u>	<u>axle 2</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	432	432
at a stroke of	s in mm	30	30
min. force of spring brake	TFZ in N	6160	6160
sp.brake chamber no Meritor.....		4	4
release pressure	pLs in bar	4.8	4.8

calculation:

ratio until road		3.6827	3.6827
iFb = lBh*Eta*C*rBt/(rBn*rstat)			
	for rstat in mm	432	432
brake force of spring br. Tf in N		44730	44730
Tf = (TFZ*KDZ-2*Co/lBh)*iFb			
braking rate	zf laden	0.361	
zf =			

Test of the frictional connection required by the parking brake

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

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

$$\min Ef = 7563 \text{ mm} \quad \text{for } E = 9200 \text{ mm}$$

$$\min Ef = 8039 \text{ mm} \quad \text{for } E = 9840 \text{ mm}$$

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 = 2200 mm height of center of gravity - laden

PR = 26000 kg maximum bogie mass - laden

P = 44000 kg maximum total mass - laden

nf = 2 no. of axle(s) with TRISTOP spring brake actuators.

ng = 4 no. of bogie axle(s)

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	

