

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

CHRIS CLARKE

ID

CJC

Plate number (optional)

VIN/chassis number

7A9D5002XT2023560

Make

DOMETT

Component being certified:

☐ Chassis

☐ Load anchorage

Model (optional)

D5002
☐ Log bolster attachment

☐ Towing connection

☒ Brakes

Certification category

HVEK
☐ SRT

☐ PSV stability

☐ PSV rollover

☐ Swept path

☐ PBS

Description of work

CERTIFY TO SCHEDULE 5 OF LTR 32015: NZ HEAVY VEHICLE BRAKE SPECIFICATION.

CARRY OUT BRAKE CALCULATIONS, INSPECTION AND ECU END OF LINE PROTOCOL.

4AS SKELETAL

RSS ON TYRE: 355 50 R22.5

FOR SYSTEM ARCHITECTURE, PLEASE REFER TO PDS WORKSHEET & SCHEMATIC.

REASON FOR CERTIFICATION: NEW TRAILER BUILD

Code/standard/rule certified to

LTR 32015

Component load rating(s)

42 Tonnes GVM

General drawing number(s)

N/A
26 Tonnes (Rear brake mass)

Supporting documents

BRAKE RULE CERTIFICATE

JH260716

BRAKE CALCULATION #

TP53154

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)

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)

CHRIS CLARKE

ID number

CJC

Date

23-Jul-26

Serial number (includes letter)

H 26517

CoF vehicle inspector ID (if applicable)

CoF vehicle inspector signature (if applicable)

Date

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

distribution: DOMETT TRAILERS
 7A9D5002XT2023560
 SoDC: JH260716
 LT400: CJC H26517

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 (V6.18.07.12).
 -the functional characteristics of our products
 as well as the data of the brake out of the test
 approvals of the axle manufacturers, and
 -the other vehicle data included in the brake calculation.
 Please check whether these data correspond to the actual vehicle data.
 Our conditions of delivery apply (particularly section 9.0).
 In any case we commend to do a braking harmonisation!
 WABCO Brake V6.18.07.12 db 13.10.2020

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

axle 1 + 2 + 3 + 4 : SAF, SBS1918, TDB 0878 ECE,

		<u>unladen</u>		<u>laden</u>	
total mass	P in kg	5000	- 6000	42000	- 44000
king-pin	PS kg	1000	- 2000	16000	- 18000
axle 1	P1 in kg		1000		6500
axle 2	P2 in kg		1000		6500
axle 3	P3 in kg		1000		6500
axle 4	P4 in kg		1000		6500
total axle mass	PR in kg		4000		26000
wheel base	E in mm	9200	- 9910		
centre of gravity height	h in mm		650		2470
K-factor		Kv min	2.2162	Kc min	1.0214
K-factor		Kv max	2.2411	Kc max	1.0544

	<u>axle 1</u>	<u>axle 2</u>	<u>axle 3</u>	<u>axle 4</u>
no. of combined axles	1	1	1	1
no. of brake chambers per axle line KDZ	2	2	2	2
The power output corresponds to	BZ 119.6	BZ 119.6	BZ 122.1	BZ 122.1
brake chamber manufacturer	Meritor	Meritor	Meritor	Meritor
chamber size	T.14/24	T.14/24	14.	14.
lever length	1Bh in mm	76	76	76
brake factor	[-]	22.37	22.37	22.37
dyn. rolling radius	rdyn min in mm	449	449	449
dyn. rolling radius	rdyn max in mm	449	449	449
threshold torque	Co Nm	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
chamber pressure(rdyn max)pH at z=22,5%bar	2.1	2.1	2.1	2.1
chamber press.(servo)pcha at pm6,5bar bar	5.3	5.3	5.3	5.3
piston force ThA at pm6,5bar N	5087	5087	5087	5087
brake force(rdyn min)T lad. at pm6,5bar N	38560	38560	38560	38560
brake force(rdyn max)T lad. at pm6,5bar N	38560	38560	38560	38560
Brake force incl. 1 % rolling resistance proportion %	25.0	25.0	25.0	25.0

braking rate z laden 0.605 for rdyn min
 z = sum (TR)/PRmax 0.605 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
EBS emergency valve

WABCO

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

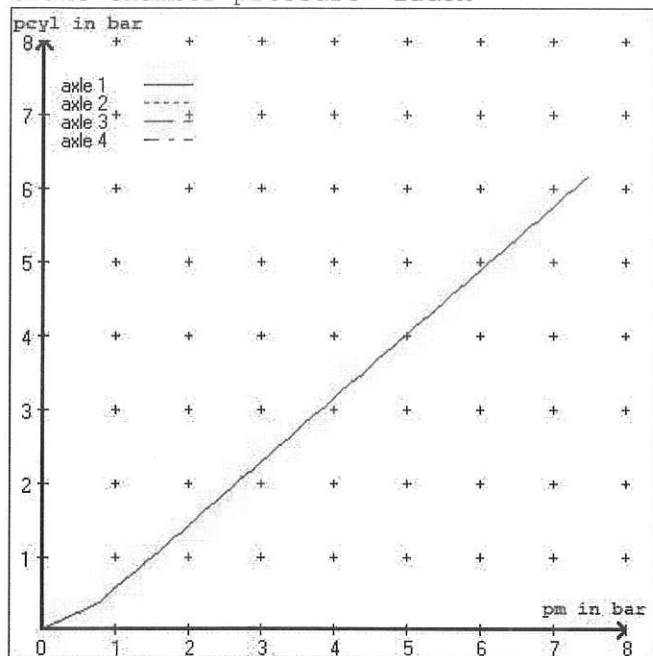
WABCO

or 480 207 2.. 0

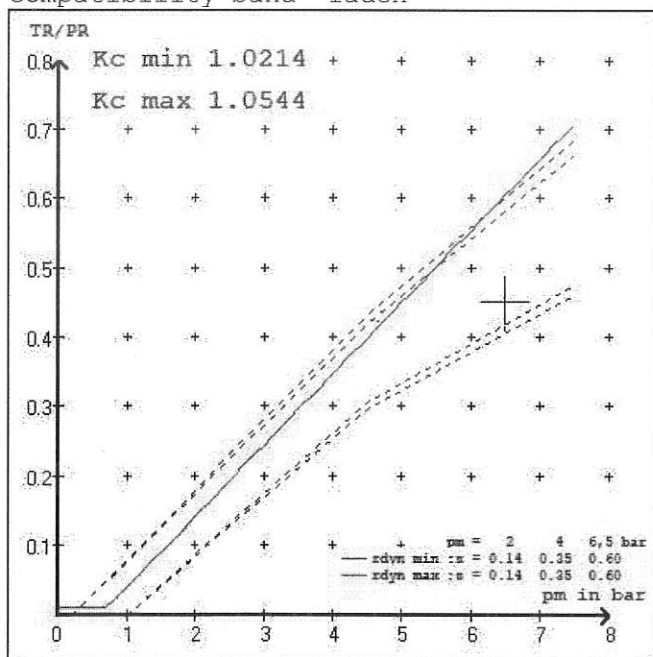
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4
at pm 3.5 bar =>	pcha in bar :	2.7	2.7	2.7	2.7
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4
at pm 1.2 bar =>	pcha in bar :	0.7	0.7	0.7	0.7

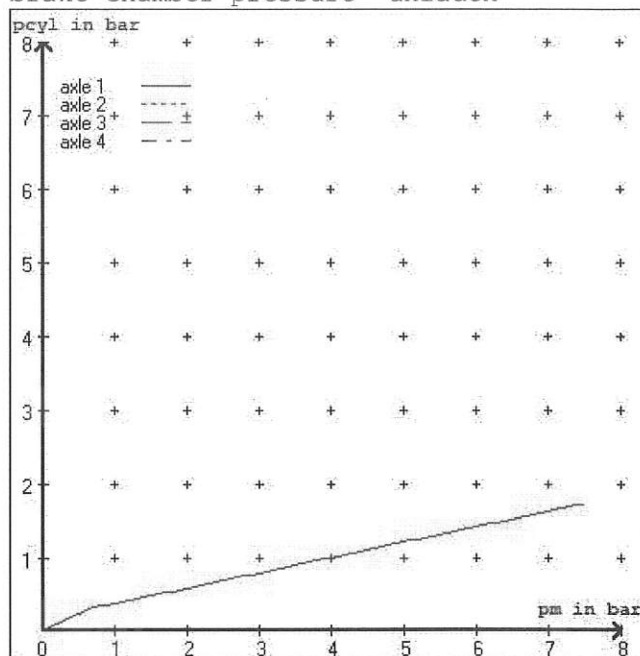
brake chamber pressure laden



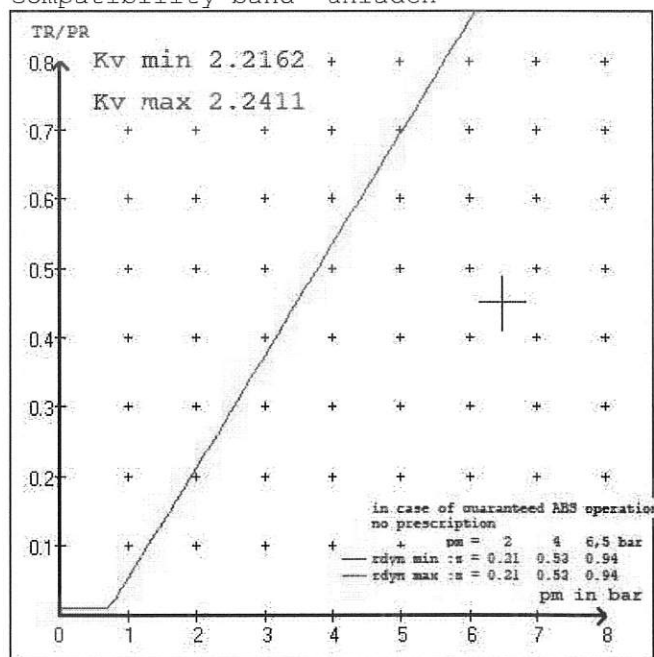
compatibility band laden



brake chamber pressure unladen



compatibility band unladen



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

brake chamber and lever length :

axle 1 : 2 x type/diameter T.14/24 (Meritor) lever length 76 mm
 axle 2 : 2 x type/diameter T.14/24 (Meritor) lever length 76 mm
 axle 3 : 2 x type/diameter 14. (Meritor) lever length 76 mm
 axle 4 : 2 x type/diameter 14. (Meritor) lever length 76 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 SKELTAL
 trailer type : 4-axle-semi-trailer
 brake calculation no. : TP 53154S

tire circumference main axle : 2825 for rdyn max
 tire circumference auxiliary axle : 2825 for rdyn max

assignment pm / deceleration z: pm 0.7 bar z = 0.010
 (laden condition) 2.0 bar z = 0.142
 6.5 bar z = 0.600

control pressure pm			6,5	control pressure pm			0.7	2.0	6.5
axle	axle load unladen	bellow pr. unladen	brake pr. unladen	axle load laden	bellow pr. laden	brake pr. laden			
1	1000	to be entered by the vehicle manufact.	1.5	6500	to be entered by the vehicle manufact.	0.3	1.4	5.3	
2	1000		1.5	6500		0.3	1.4	5.3	
3	1000		1.5	6500		0.3	1.4	5.3	
4	1000		1.5	6500		0.3	1.4	5.3	
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
1000 1.5	1000 1.5	1000 1.5	1000 1.5
1500 1.8	1500 1.8	1500 1.8	1500 1.8
2000 2.2	2000 2.2	2000 2.2	2000 2.2
2500 2.5	2500 2.5	2500 2.5	2500 2.5
3000 2.9	3000 2.9	3000 2.9	3000 2.9
3500 3.2	3500 3.2	3500 3.2	3500 3.2
4000 3.6	4000 3.6	4000 3.6	4000 3.6
4500 3.9	4500 3.9	4500 3.9	4500 3.9
6500 5.3	6500 5.3	6500 5.3	6500 5.3

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

axle 1 : reference axle: SAF	SBS1937	brake lining: SAF 607
test report :	TDB 0878 ECE	date : 20150626
axle 2 : reference axle: SAF	SBS1937	brake lining: SAF 607
test report :	TDB 0878 ECE	date : 20150626
axle 3 : reference axle: SAF	SBS1937	brake lining: SAF 607
test report :	TDB 0878 ECE	date : 20150626
axle 4 : reference axle: SAF	SBS1937	brake lining: SAF 607
test report :	TDB 0878 ECE	date : 20150626

calc. verif. of residual (hot) braking force type III
(item 4.2.1 of appendix 2 to annex 11)

axle 1	(rdyn 449 mm)	T = 19.1 % Fe
axle 2	(rdyn 449 mm)	T = 19.1 % Fe
axle 3	(rdyn 449 mm)	T = 19.1 % Fe
axle 4	(rdyn 449 mm)	T = 19.1 % Fe

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

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

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

axle1	ThA = 5087 N
axle2	ThA = 5087 N
axle3	ThA = 5087 N
axle4	ThA = 5087 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 = 26492 N
axle 2	(rdyn 449 mm)	T = 26492 N
axle 3	(rdyn 449 mm)	T = 26492 N
axle 4	(rdyn 449 mm)	T = 26492 N

basic test	type III
of subject	(calculated)
trailer (E)	residual
	(hot)braking
	0.42

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

0.60

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 = 26492 N
axle 2	(rdyn 449 mm)	T = 26492 N
axle 3	(rdyn 449 mm)	T = 26492 N
axle 4	(rdyn 449 mm)	T = 26492 N

basic test	type III
of subject	(calculated)
trailer (E)	residual
	(hot)braking
	0.42

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

0.60

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	76	76
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	3.9355	3.9355
iFb = lBh*Eta*C*rBt/(rBn*rstat)		
for rstat in mm	432	432
brake force of spring br. Tf in N	47864	47864
Tf = (TFZ*KDZ-2*Co/lBh)*iFb		
braking rate	0.385	
zf = sum (Tf)/P + 0,01		
zf laden		

Test of the frictional connection required by the parking brake

Min. wheelbase/min. supporting width (theoretical proof / no ECE regulation!):
In the event of non-compliance, carry out a practical test or use the procedure
described in ECE / Appendix 20.

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

$$\min E_f = 7651 \text{ mm} \quad \text{for} \quad E = 9200 \text{ mm}$$

$$\min E_f = 8179 \text{ mm} \quad \text{for} \quad E = 9910 \text{ mm}$$

min Ef =		minimum distance between front axle(s) (trailer) or support (semitraile)
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	=	2470 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)

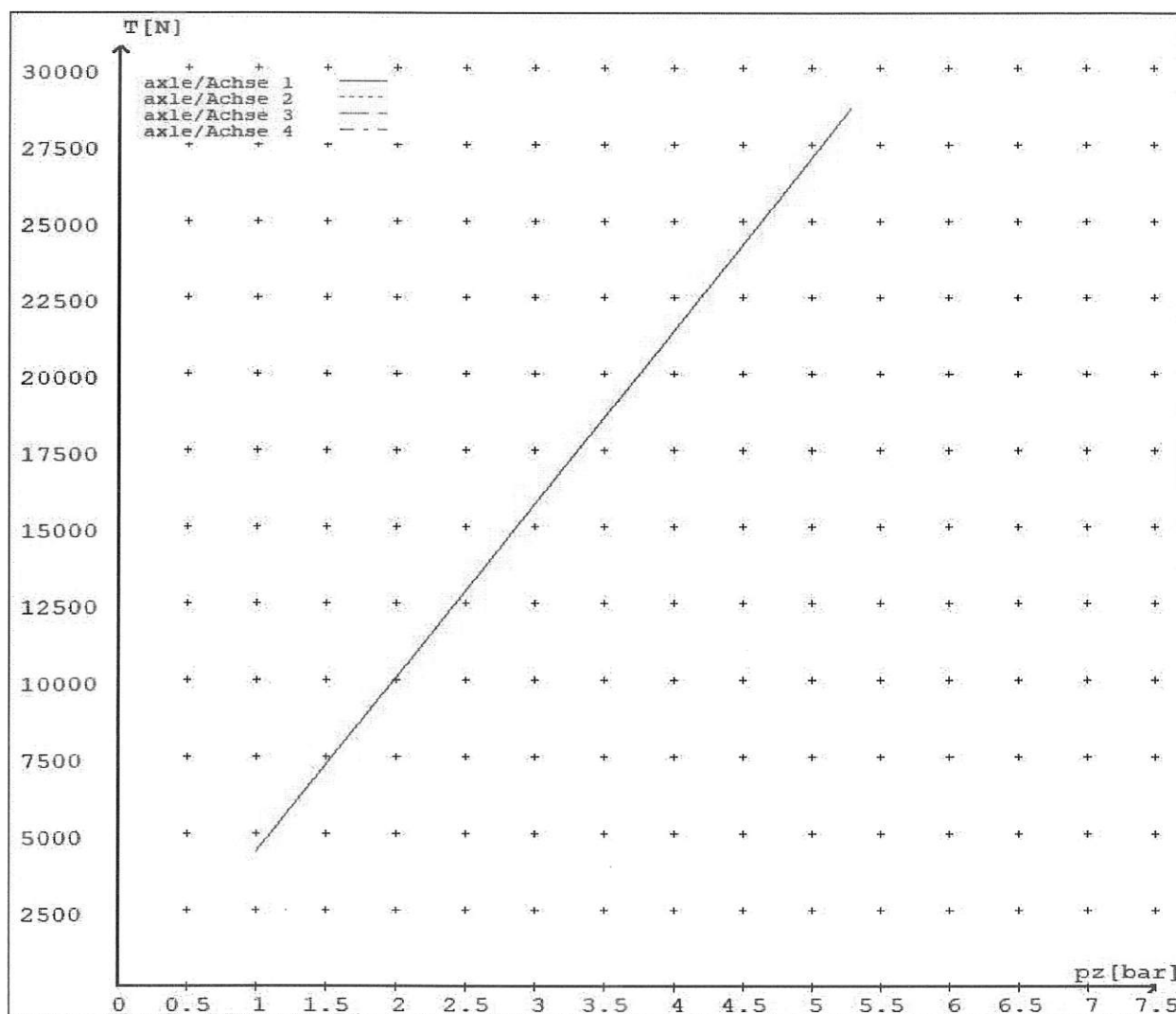
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0 5.3	4412 28681	
axle 2	1.0 5.3	4412 28681	
axle 3	1.0 5.3	4412 28681	
axle 4	1.0 5.3		4412 28681

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	76	76	76	76	





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

CLIENT

MANUFACTURER:	DOMETT TRAILERS
ADDRESS:	TAURIKURA DRIVE, TAURANGA 3110
FLEET:	SPEC BUILD

VEHICLE DETAILS

VEHICLE TYPE:	4AS SKELETAL	CERT #:	JH260716
YEAR:	2026	CALCULATION #:	TP53154
MAKE:	DOMETT	REGO #:	N/A
MODEL:	D5002	LT400 #:	
CHASSIS #:	2560	ORDER #:	11138
VIN #:	7A9D5002XT2023560		
GVM: <i>t</i>	42	PRIME MOVER:	UNKNOWN
LOAD CONFIGURATION:	UNIFORM DENSITY		
GROUP RATINGS: <i>t</i>	FRONT	REAR	
	16	26	
WHEEL BASE: <i>m</i>	9.2		
	UNLADEN COG <i>m</i>	MAX HEIGHT <i>m</i>	HEIGHT DECK <i>m</i>
	0.65	4.3	1.325
COG: <i>m</i>	2.471		
	FRONT	REAR	TOTAL
TARE: <i>t</i>	1.45	4.1	5.55
		REAR	
TYRE SIZE:		355 50 R22.5	
ROLLING CIRCUMFERENCE: <i>mm</i>		2860	
AXLE SPACING: <i>m</i>		4	

BRAKE & AXLE DETAILS

AXLE:	MAKE SAF	MODEL SAF-ZI9S	TEST REPORT TDB0878
STEER AXLE[S]:	YES	POLE WHEEL:	90
LINING MATERIAL:	SAF 607	BRAKE FACTOR:	22.37
SENSED AXLES:	# 2 + # 4	NOTES:	
SERIAL NUMBERS:	1		NG-IU25-BI9-19S
	2		NG-IU25-BI9-19S
	3		NG-IU25-BI9-19S
	4		NG-IU25-BILL9-19S

CHAMBER AND VALVING DETAILS

CHAMBERS:	AXLE 1 & 2	AXLE 3 & 4
BRAND:	TSE_CHAMBERS	TSE_CHAMBERS
SIZE:	1416HTLD	14HSCLD
STROKE: mm	64	64
TEST REPORT #:	BC0143.0	BC 0127.0
SPRINGBRAKE FORCE: kN	6.16	N/A
HOLDOFF PRESSURE: Bar	4.8	N/A
FOUNDATION BRAKE:	SAF SBS1918	SAF SBS1918
LEVER LENGTH: mm	76	76
BRAKE VALVES:	MAKE:	PART NUMBER:
ECU PART #:	WABCO	480 102 08. 0 (MV)
3RD MODULATOR #:	WABCO	480 207 202 0 (12V)
ANTI-COMPOUNDING:	YES	
SPRING BRAKE RELAY:	WABCO_PREV	971 002 900 0
YARD RELEASE VALVE:	WABCO-PREV	971 002 900 0
INLINE RELAY FITTED:	N/A	N/A
ECU DIRECTION:	☒ FRONT	☐ REAR
SUBSYSTEMS:	☒ SMARTBOARD	☐ OPTI-LINK
	☐ ELEX 446 122 070 0	☐ CAN ROUTER 446 122 050 0
		☐ TAILGUARD

SUSPENSION

	REAR
SUSPENSION TYPE:	ELECTRONIC
MAKE:	SAF_AIRSPRING
MODEL:	SAF_INTRA
BELLOW SIZE:	2619, 300mm
HEIGHT CONTROL VALVE:	441 050 100 0
OTHER VALVES:	463 090 500 0 (eTASC)
RIDE HEIGHT <i>mm</i> :	250
HANGER HEIGHT <i>mm</i> :	200
PEDESTAL HEIGHT <i>mm</i> :	5
LIFTAXLE:	N/A
DUMP SWITCH:	N/A
LIFTAXLE VALVE:	N/A

AIR TANKS

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

AIR LINES

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

HEAVY VEHICLE BRAKES - 32015 (TRAILER)☒ SCHEDULE 5☐ SCHEDULE 4☐ SECTION 6☐ APPROVED STD**CHECKS AT COMMISSION OF VEHICLE**

CHAMBER BUNGS REMOVED:



VALVE MOUNTING:



ECU BLANKING PLUGS CHECKED:



DUOMATIC DRILLED:



RESPONSE TIME:

MODULATOR 2.1

MODULATOR 2.2

RELAY VALVE

ms:

NOTES, SKETCHES AND SPECIAL CONDITIONS

FILES RECEIVED: 07.01.2026

FILES CREATED: 17.07.2026

FILES SENT TO CJC (SoDC): 17.07.2026

INCLUDES DDM/RSK: SCHEMATIC AVAILABLE IN CERTIFICATION FILE

FILES RETURNED AS COMPLETE:

REASON FOR CERTIFICATION: NEW TRAILER BUILD

I UNDERSTAND AND DECLARE THAT I AM THE CERTIFIER IDENTIFIED BELOW AND HOLD A CURRENT VALID APPOINTMENT. I CERTIFY THAT AT THE TIME OF INSPECTION THE ABOVE MENTIONED VEHICLE COMPONENT DESIGN AND THIS CERTIFICATION COMPLIES IN ALL RESPECTS WITH THE LAND TRANSPORT RULE VEHICLE STANDARDS COMPLIANCE 2002 AND MY NOTICE OF APPOINTMENT. TO THE BEST OF MY KNOWLEDGE THE INFORMATION CONTAINED IN THIS CERTIFICATE IS TRUE AND CORRECT.

NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015, SCHEDULE 5.

DATE:

23/07/2026

SIGNED:

CERTIFIER NAME & ID:

CHRIS CLARKE

CJC

SODC BY:

JOHN HIRST

JEH

PHONE (BUS):

09-980-7300

POSTAL ADDRESS:

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