

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

Plate number (optional)	VIN/chassis number 7A9D50022T2023570			
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 26 Tonnes (Rear brake mass)
General drawing number(s) N/A	

Supporting documents

BRAKE RULE CERTIFICATE **JH260702**
BRAKE CALCULATION # **TP53054**

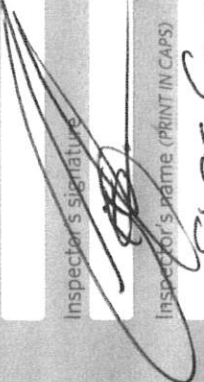
Special conditions (optional)

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) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
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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 22-Jul-26	Serial number (includes letter) H 26518

CoF vehicle inspector ID (if applicable)	CoF vehicle inspector signature (if applicable)	Date
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trailer (full, semi-, centre-axle) with air brake system acc. to UN/ECE-R.13.11

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!
 WABCOBrake V6.16.07.12 db 13.10.2020

distribution: DOMETT TRAILERS
 7A9D50022T2023570
 SoDC: JH260702
 LT400: CJC H26518

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 4AS SKELETAL
 trailer type : 4-axle-semi-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS
 TRISTOP 1+2: 16/24
 355/50 R 22,5

axle 1 + 2 + 3 + 4 : Assali Stefen, K, 361-071-04 ECE Re 432,

	unladen		laden	
total mass	5000	-	42000	-
king-pin	600	-	16000	-
axle 1				
axle 2				
axle 3				
axle 4				
total axle mass				
wheel base	9200	-	9910	
centre of gravity height			680	
K-factor	Kv min	2.1739		Kc min
K-factor	Kv max	2.1968		Kc max
				2485
				1.0187
				1.0520

	axle 1	axle 2	axle 3	axle 4
no. of combined axles	1	1	1	1
no. of brake chambers per axle line	2	2	2	2
The power output corresponds to	BC 0165.2BC	0165.2BC	0169.2BC	0169.2
Brake chamber manufacturer	Haldex	Haldex	Haldex	Haldex
chamber size	16/24	16/24	16"	16"
lever length	74	74	74	74
brake factor	20.26	20.26	20.26	20.26
dyn. rolling radius	449	449	449	449
dyn. rolling radius	449	449	449	449
threshold torque	Co	Nm	7.0	7.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar
 chamber pressure(rdyn max)pH at z=22,5%bar
 chamber press.(servo)pcha at pm6,5bar bar
 piston force ThA at pm6,5bar N
 brake force(rdyn min)T lad. at pm6,5bar N
 brake force(rdyn max)T lad. at pm6,5bar N
 Brake force incl. 1 % rolling resistance
 proportion %

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

0.598 for rdyn min
 0.598 for rdyn max

Trailer may only be operated in combination with trucks/tractors with ISO 7638 supply (5 or 7 polar).

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: Haldex 125 160 0.. - 125 160 5.. / 125 160 6.. - 125 160 9..

test type III (zIII = 0.30) for rdyn min : axle1 axle2 axle3 axle4
at pm 3.6 bar => pcha in bar : 3.1 3.1 3.1 3.1
test type III (zIII = 0.06) for rdyn min : axle1 axle2 axle3 axle4
at pm 1.3 bar => pcha in bar : 0.9 0.9 0.9 0.9

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: Haldex 135 1624 ... / 175 1624...

axle 2:

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

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

brake cylinder: Haldex 135 1624 ... / 175 1624...

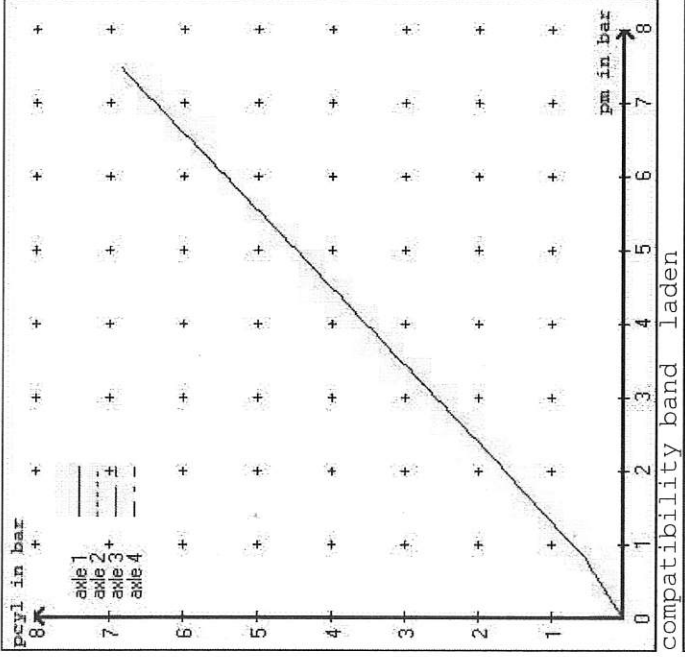
axle 3:

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

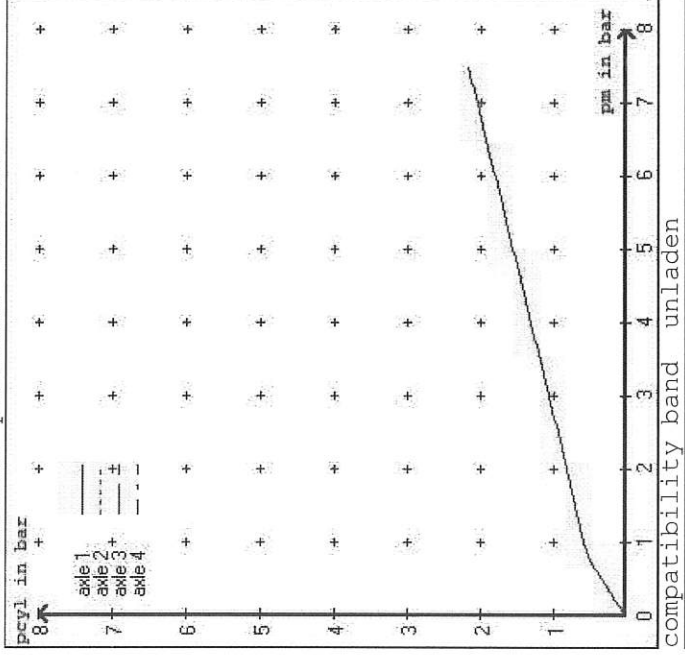
valve 2: 480 102 ... 0 WABCO
EBS trailer modulator

brake cylinder: Haldex 125 160 0.. - 125 160 5.. / 125 160 6.. - 125 160 9..

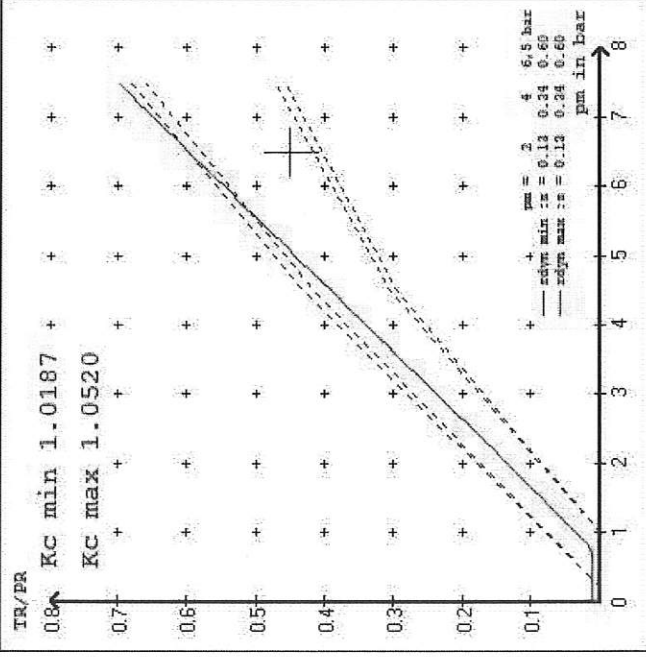
brake chamber pressure laden



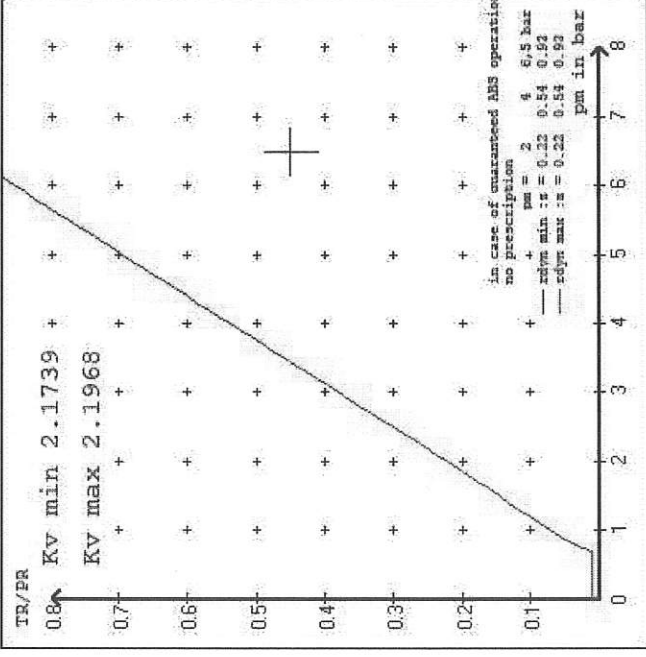
brake chamber pressure unladen



compatibility band laden



compatibility band unladen



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

brake chamber and lever length :

axle 1 :	2 x type/diameter	16/24 (Haldex)	lever length 74 mm
axle 2 :	2 x type/diameter	16/24 (Haldex)	lever length 74 mm
axle 3 :	2 x type/diameter	16" (Haldex)	lever length 74 mm
axle 4 :	2 x type/diameter	16" (Haldex)	lever length 74 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 SKELETAL
 trailer type : 4-axle-semi-trailer
 brake calculation no. : TP 53054S

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

assignment pm / deceleration z: pm 0.8 bar z = 0.010
 2.0 bar z = 0.134
 6.5 bar z = 0.600

axle	control pressure pm		6,5	control pressure pm		0.8	2.0	6.5
	axle load unladen	bellow pr. unladen		axle load laden	bellow pr. laden			
1	1100	to be	1.9	6500	to be	0.5	1.6	5.9
2	1100	entered by	1.9	6500	entered by	0.5	1.6	5.9
3	1100	the vehicle	1.9	6500	the vehicle	0.5	1.6	5.9
4	1100	manufact.	1.9	6500	manufact.	0.5	1.6	5.9
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	axle load	axle load	axle load
1100	1100	1100	1100
1600	1600	1600	1600
2100	2100	2100	2100
2600	2600	2600	2600
3100	3100	3100	3100
3600	3600	3600	3600
4100	4100	4100	4100
4600	4600	4600	4600
5100	5100	5100	5100

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

axle 1 : reference axle: Assali SteftM or LM or LCen	brake lining: ROR 8616 AF (M13)
test report : 361-071-04 ECE Re 432	date : GA310709
axle 2 : reference axle: Assali SteftM or LM or LCen	brake lining: ROR 8616 AF (M13)
test report : 361-071-04 ECE Re 432	date : GA310709
axle 3 : reference axle: Assali SteftM or LM or LCen	brake lining: ROR 8616 AF (M13)
test report : 361-071-04 ECE Re 432	date : GA310709
axle 4 : reference axle: Assali SteftM or LM or LCen	brake lining: ROR 8616 AF (M13)
test report : 361-071-04 ECE Re 432	date : GA310709

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 = 17.7 % Fe
axle 2 (rdyn 449 mm)	T = 17.7 % Fe
axle 3 (rdyn 449 mm)	T = 17.7 % Fe
axle 4 (rdyn 449 mm)	T = 17.7 % Fe

calculated actuator stroke in mm

(item 4.3.1.1 of appendix 2 to annex 11)

axle 1 (sp = 51 mm)	s = 38 mm
axle 2 (sp = 51 mm)	s = 38 mm
axle 3 (sp = 51 mm)	s = 38 mm
axle 4 (sp = 51 mm)	s = 38 mm

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

axle1
axle2
axle3
axle4

ThA = 5706 N
ThA = 5706 N
ThA = 5706 N
ThA = 5706 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 = 32674 N
axle 2 (rdyn 449 mm)	T = 32674 N
axle 3 (rdyn 449 mm)	T = 32674 N
axle 4 (rdyn 449 mm)	T = 32674 N

braking rate of the vehicle

(item 4.3.2 to appendix 2 to annex 11)

required braking rate

(items 1.5.3 and 1.7.2 to annex 11)

basic test of subject trailer (E)	type III (calculated) residual (hot)braking
0.60	0.51
>= 0,4 and	
>= 0,6*E (0.36)	

axle 1 (rdyn 449 mm)	T = 32674 N
axle 2 (rdyn 449 mm)	T = 32674 N
axle 3 (rdyn 449 mm)	T = 32674 N
axle 4 (rdyn 449 mm)	T = 32674 N

braking rate of the vehicle

(item 4.3.2 to appendix 2 to annex 11)

required braking rate

(items 1.5.3 and 1.7.2 to annex 11)

basic test of subject trailer (E)	type III (calculated) residual (hot)braking
0.60	0.51
>= 0,4 and	
>= 0,6*E (0.36)	

spring parking brake

	axle 1	axle 2
no of TRISTOP-actuators per axle line KDZ	2	2
TRISTOP-actuator type	16/24	16/24
lever length	74	74
stat. tyre radius	432	432
at a stroke of		
min. force of spring brake	30	30
sp.brake chamber no Haldex	6003	6003
sp.brake chamber no Haldex	135 162	135 162
sp.brake chamber no Haldex	175 162	175 162
release pressure	5.2	5.2

calculation:

ratio until road	3.4705	3.4705
$iFb = lBh * \eta_a * C * rBt / (rBn * rstat)$		
for rstat in mm	432	432
brake force of spring br. Tf in N	41010	41010
$Tf = (TFZ * KDZ - 2 * Co / lBh) * iFb$		
braking rate		
zf = sum (Tf) / P + 0,01	0.332	

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.

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

min Ef = 7656 mm	for E = 9200 mm
=====	
min Ef = 8184 mm	for E = 9910 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 = 2485 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)

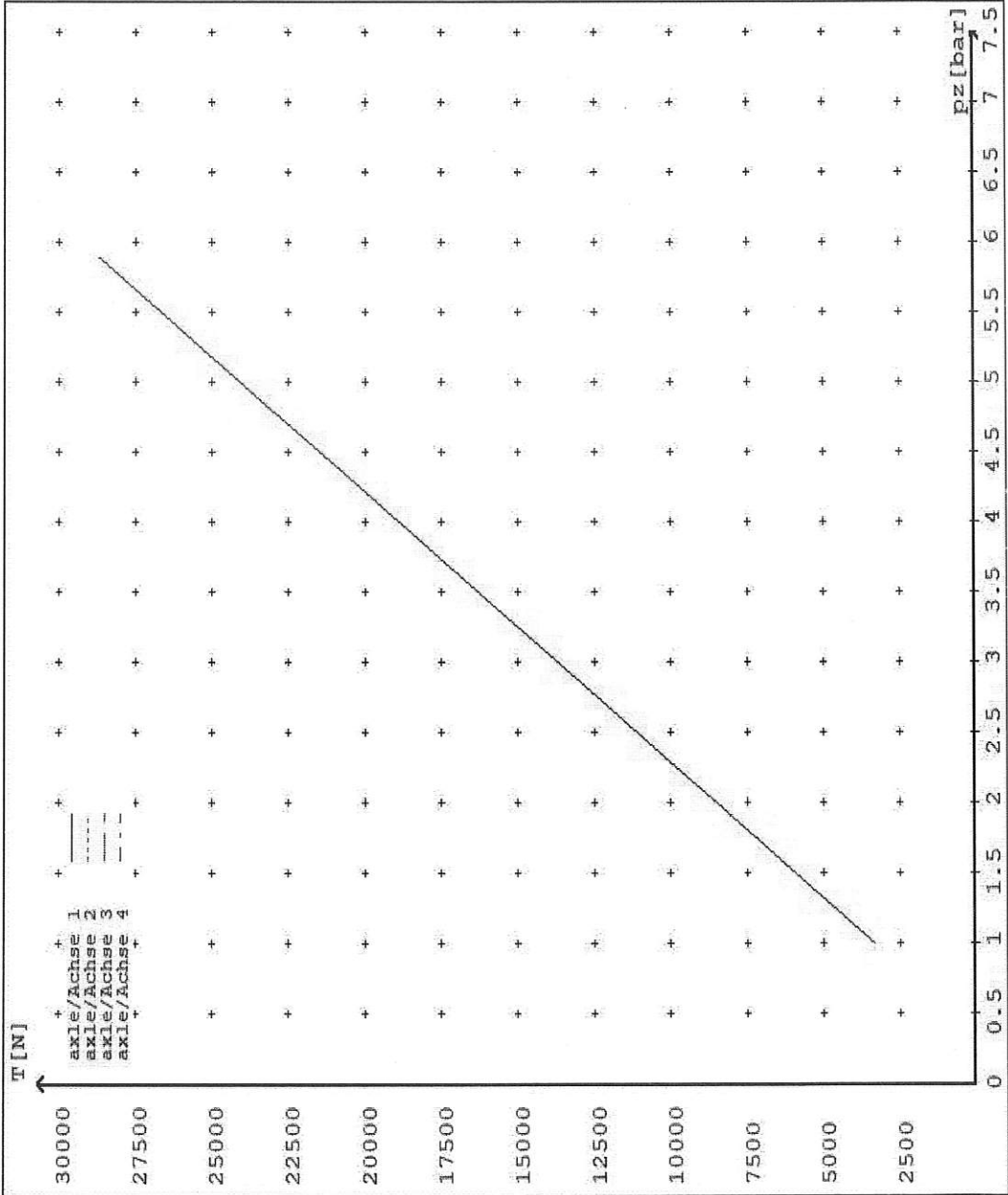
reference values

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

	pz [bar]	T [N]	T [N]
axle 1	1.0 5.9	3316 28679	
axle 2	1.0 5.9	3316 28679	
axle 3	1.0 5.9	3316 28679	
axle 4	1.0 5.9	3316 28679	

VIN - no.:

	Axle(s) / Achse(n)				
	16/24	16/24	16"/	16"/	/
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)					
Maximum stroke smax =mm maximaler Hub smax =mm	65	65	65	65	
Lever length =mm Hebellänge =mm	74	74	74	74	





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

CLIENT

MANUFACTURER:	DOMETT TRAILERS
ADDRESS:	TAURIKURA DRIVE, TAURANGA 3110
FLEET:	NORMAN'S TRANSPORT

VEHICLE DETAILS

VEHICLE TYPE:	4AS SKELETAL	CERT #:	JH260702
YEAR:	2026	CALCULATION #:	TP53054
MAKE:	DOMETT	REGO #:	N/A
MODEL:	D5002	LT400 #:	H26518
CHASSIS #:	2570	ORDER #:	11254
VIN #:	7A9D50022T2023570		
GVM: <i>t</i>	42	PRIME MOVER:	EBS / EUROPEAN

LOAD CONFIGURATION:

GROUP RATINGS: *t*

FRONT	REAR
16	26
9.2	

WHEEL BASE: *m*

UNLADEN COG <i>m</i>	MAX HEIGHT <i>m</i>	HEIGHT DECK <i>m</i>
0.625	4.3	1.4
2.491		

FRONT	REAR	TOTAL
1.15	4.2	5.35

REAR
355 50 R22.5

2860

4

BRAKE & AXLE DETAILS

	MAKE	MODEL	TEST REPORT
AXLE:	ROR_ASSALI_STEFEN	ROR-CS9 I DISC	361-071-04
STEER AXLE[S]:	YES	POLE WHEEL:	90
LINING MATERIAL:	ROR 8616	BRAKE FACTOR:	20.26
SENSED AXLES:	# 2 + # 4	NOTES:	
SERIAL NUMBERS:	1		ROR CS9L
	2		ROR CS9L
	3		ROR CS9L
	4		ROR CS9L

CHAMBER AND VALVING DETAILS

CHAMBERS:	AXLE 1 & 2	AXLE 3 & 4
BRAND:	HALDEX_CHAMBERS	HALDEX_CHAMBERS
SIZE:	1624 (175 1624)	16, (125 160)
STROKE: mm	65	65
TEST REPORT #:	BC0165.2	BC0169.2
SPRINGBRAKE FORCE: kN	6.003	N/A
HOLDOFF PRESSURE: Bar	5.2	N/A
FOUNDATION BRAKE:	MERITOR	MERITOR
LEVER LENGTH: mm	74	74

BRAKE VALVES:	MAKE:	PART NUMBER:	PM PRESS. kPa
ECU PART #:	WABCO	480 102 08. 0 (MV)	80 kPa
3RD MODULATOR #:	WABCO	480 207 202 0 (12V)	80 kPa
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☐ CAN ROUTER 446 122 050 0☐ ELEX 446 122 070 0☐ TAILGUARD

SUSPENSION

SUSPENSION TYPE:

MAKE:

MODEL:

BELLOW SIZE:

HEIGHT CONTROL VALVE:

OTHER VALVES:

RIDE HEIGHT *mm*:

HANGER HEIGHT *mm*:

PEDESTAL HEIGHT *mm*:

LIFTAXLE:

DUMP SWITCH:

LIFTAXLE VALVE:

REAR
PNEUMATIC
ROR_AIRSPRING
ROR_INTRA
CS9I
HALDEX 90554950
N/A
200 (325)
175 (300)
8 (125)
4TH AXLE
N/A
463 084 050 0 (12v)

AIR TANKS

AIR TANKS STANDARD:

SAE J10A / EN286-2
REAR
46 + 46
46
WABCO PEM: 461 513 002 0

BRAKE TANK SIZE: L

AUXILLARY TANK SIZE: L

PRESSURE PROTECTION:

AIR LINES

TEST POINTS:

CONTROL LINE:

FIXED AXLE CHAMBERS:

STEER AXLE CHAMBERS:

DUOMATIC COLOUR CODED:

TANK:

x1
x2
x1
YES
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: 15.05.2026

FILES CREATED: 03.07.2026

FILES SENT TO CJC (SoDC): 21.07.2026

INCLUDES DDM/RLK 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:

22/07/2026

SIGNED:

CERTIFIER NAME & ID:

CHRIS CLARKE

CJC

SODC BY:

JOHN HIRST

JEN

PHONE (BUS):

09-980-7300

POSTAL ADDRESS:

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