NZ TRANSPORT AGENCY
WAKA KOTAHI

# Heavy vehicle specialist certificate

Must be presented to a CoF (heavy) inspecting organisation if not entered into LANDATA

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

ID: CJC

Vehicle registration *(optional)*:

VIN/chassis number: 7A9E20015L1023962

Make: DOMETT

Component being certified:

- [ ] Chassis
- [ ] Load anchorage
- [ ] Log bolsters
- [ ] Towing connection
- [X] Brakes
- [ ] SRT
- [ ] PSV stability
- [ ] PSV rollover
- [ ] Swept path
- [ ] PBS

Model *(optional)*: E2001 PH

Certification category: HVEK

Description of work

CERTIFY TO SCHED 5 OF LTR 32015/5: NZ HEAVY VEHICLE BRAKE SPECIFICATION
CARRY OUT BRAKE CALCULATIONS, INSPECTION AND ECU END OF LINE PROTOCOL.
5AFT CURTAINSIDE RSS ACTIVE ON TYRE: 265 70 R19.5
BRAKE CHAMBERS FRONT: 20HSCLD
BRAKE CHAMBERS REAR: 1416HTLD 14HSCLD

Code/standard/rule certified to: LTR 32015/5

Component load rating(s)
33 Tonnes GVM
16 Tonnes (Front group ratings)
19 Tonnes (Rear group ratings)

General drawing number(s): N/A

Supporting documents
BRAKE RULE CERTIFICATE JH200510
BRAKE CALCULATION # TP52045

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: 26-May-20

Number: 742246

CoF vehicle inspector ID *(if applicable)*:

CoF vehicle inspector signature *(if applicable)*:

Date:

**All fields are mandatory unless otherwise stated.**

# WABCO START-UP LOG

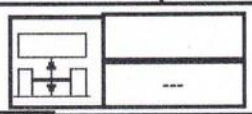
| | | | |
|---|---|---|---|
| **System** | Trailer EBS-E | **WABCO part number** | 480 102 084 0 |
| **Production date** | 2019-09-06 | **Serial number** | 437007997000N |
| **Serial number (modulator)** | 000000501734 | | |
| Fingerprint Customer EOL / Customer Development / Flash Program | W503643 / 2020-05-26 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00 | | |

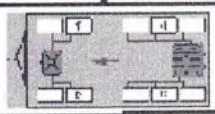
## WABCO TRAILER EBS-E

GGVS/ADR TUEH TB 2007 - 019.00
ATRP0185

| | | | | |
|---|---|---|---|---|
| HERSTELLER MANUFACTURER CONSTRUCTEUR | DOMETT TRAILERS | | | |
| TYP TYPE TYPE | 5AFT CURTAINSIDE | | | |
| VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS | 7A9E20015L1023962 | | | |
| BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO. | TP52045A | | | |
| POLRADZÄHNEZAHL 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 |
| RSS Einfachbereifung Single Tire Monte simple | | Lenkachse Steering axle Essieu vireur | | |
| RSS RSS Zwillingsbereifung Twin Tire Monte jumelée | X | Kippkritisches Fahrzeug Critical Trailer Véhicule critique | | |
| Subsystems | SB | I/O | 24N | |

| GIO | Pin1 | Pin3 | Pin4 |
|---|---|---|---|
| 1 | TAV1 | MH | TAV1 |
| 2 | eTASC | --- | eTASC |
| 3 | ALS2 | ALS2 | --- |
| 4 | --- | --- | LS1 |
| 5 | DIAG | DIAG | DIAG |
| 6 | 24V-O1 | --- | --- |
| 7 | --- | --- | --- |



| | pm (bar) | | | pm (bar) | | | | | | | TYP TYPE | (mm) | (mm) | (bar) 1.0 TR (daN) | Pz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACHSE AXLE ESSIEU | | | | | | | | | pz | | | | | | |
| 1 | 1600 | 0.6 | 2.0 | 8000 | 4.7 | 0.4 | 1.4 | --- | 5.7 | - | 20 | 65 | 69 | 518 | 4256 |
| 2 | 1600 | 0.6 | 2.0 | 8000 | 4.7 | 0.4 | 1.4 | --- | 5.7 | - | 20 | 65 | 69 | 518 | 4256 |
| 3 | 1300 | 0.4 | 1.7 | 6350 | 3.5 | 0.3 | 1.6 | --- | 4.7 | - | 14 / 16 | 64 | 69 | 498 | 2891 |
| 4 | 1300 | 0.4 | 1.7 | 6350 | 3.5 | 0.3 | 1.6 | --- | 4.7 | - | 14 / 16 | 64 | 69 | 498 | 2891 |
| 5 | 1300 | 0.4 | 1.7 | 6350 | 3.5 | 0.3 | 1.6 | --- | 4.7 | 1 | 14 | 64 | 69 | 498 | 2891 |

### TEBS-E

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

### Electronic Extension Module

| | | | |
|---|---|---|---|
| **Diagnostic memory** | Not tested | **Signal outputs** | Not tested |
| **TailGUARDlight** | Not tested | **TailGUARD** | Not tested |

| | | | |
|---|---|---|---|
| **Manufacturer** | DOMETT TRAILERS | **Vehicle ident. no** | 7A9E20015L1023962 |
| **Vehicle type** | 5AFT CURTAINSIDE | **Odometer reading** | 4.5 km |
| **next Service** | 0 km | **Trip reading** | 4.5 km |
| **Tester** | Chris Clarke | | |
| **Date** | 2020-05-26 1:25:28 PM | **Signature** | |

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

distribution: DOMETT TRAILERS
7A9E20015L1023962
SODC: JH200510
LT400: CJC 742246

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 (V6.18.07.12).
-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 V6.18.07.12 db 31.08.2018

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, ATRP0185,

| | | unladen | laden |
|---|---|---|---|
| total mass | P in kg | 7100 | 35050 |
| axle 1 | P1 in kg | 1600 | 8000 |
| axle 2 | P2 in kg | 1600 | 8000 |
| axle 3 | P3 in kg | 1300 | 6350 |
| axle 4 | P4 in kg | 1300 | 6350 |
| axle 5 | P5 in kg | 1300 | 6350 |
| wheel base | E in mm | 7800 - 8200 | |
| centre of gravity height | h in mm | 675 | 2100 |

| | | axle 1 | axle 2 | axle 3 | axle 4 | axle 5 |
|---|---|---|---|---|---|---|
| | | 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 | 4.7 | 4.7 | 4.7 |
| piston force ThA at pm6,5bar | N | 6578 | 6578 | 4485 | 4485 | 4485 |
| brake force(rdyn min)T lad. at pm6,5bar | N | 50826 | 50826 | 34530 | 34530 | 34530 |
| brake force(rdyn max)T lad. at pm6,5bar | N | 50826 | 50826 | 34530 | 34530 | 34530 |
| Brake force incl. 1 % rolling resistance proportion | % | 22.3 | 22.3 | 18.5 | 18.5 | 18.5 |

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

0.597 for rdyn min
0.597 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

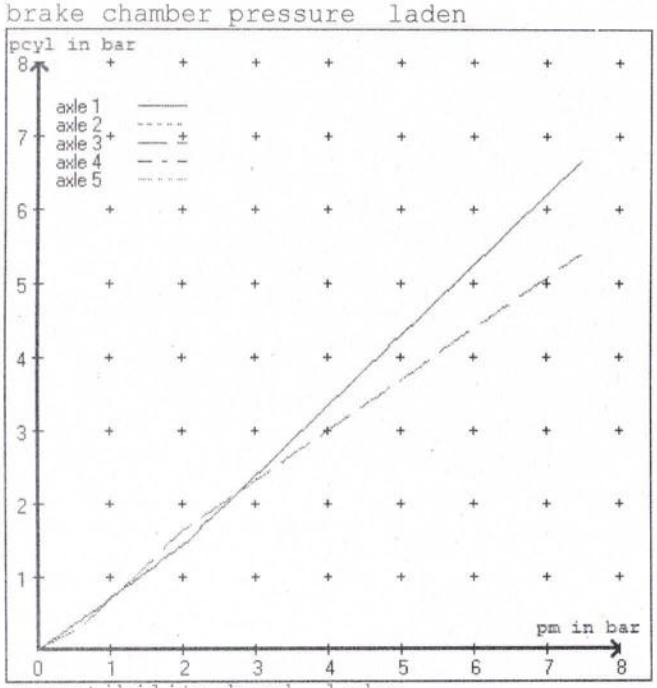
axle 5:
valve 1: 971 002 ... 0 WABCO
EBS emergency valve

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

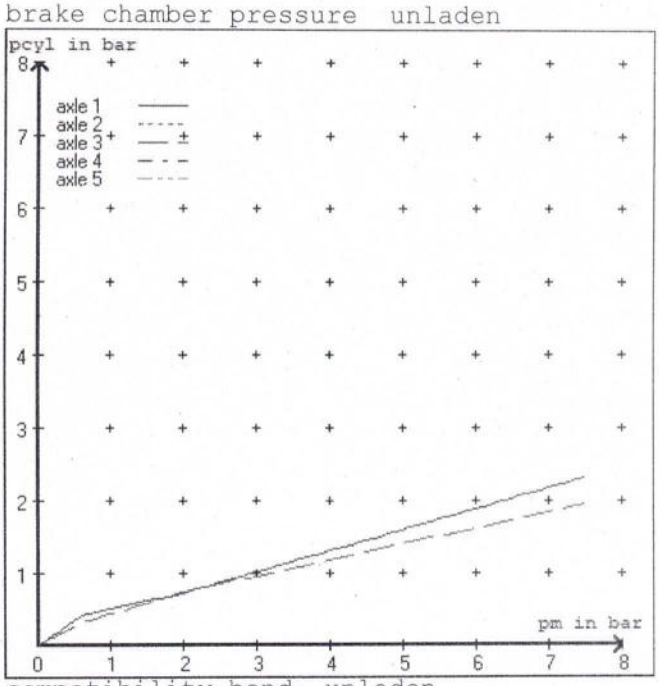
brake cylinder: Meritor 14HSCLD64

| | | | | | | |
|---|---|---|---|---|---|---|
| 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 | 2.6 | 2.6 | 2.6 |
| 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 |

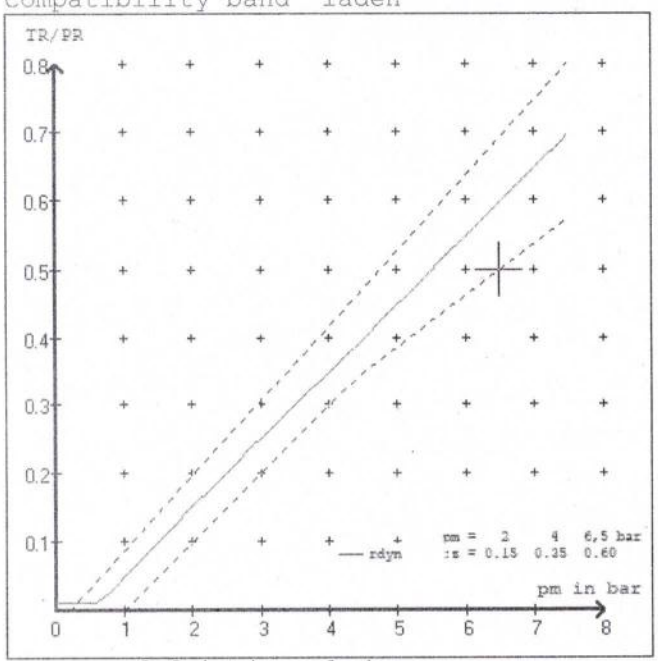
brake chamber pressure laden



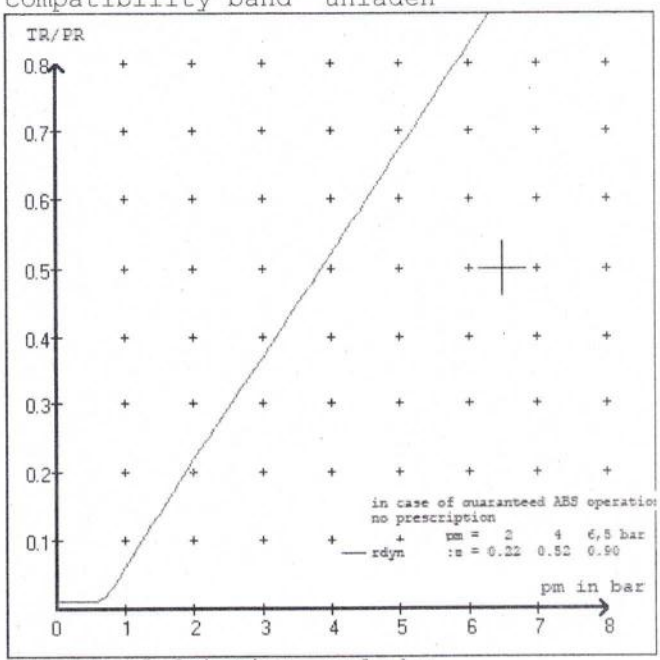

brake chamber pressure unladen



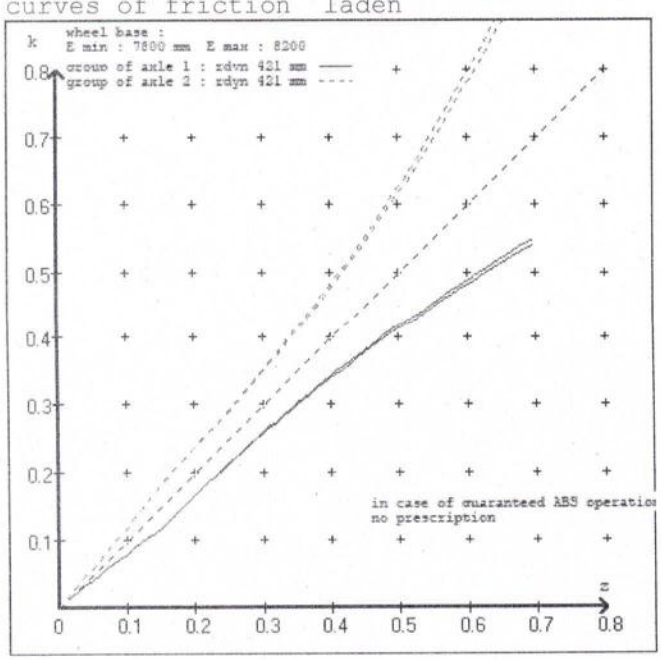

compatibility band laden



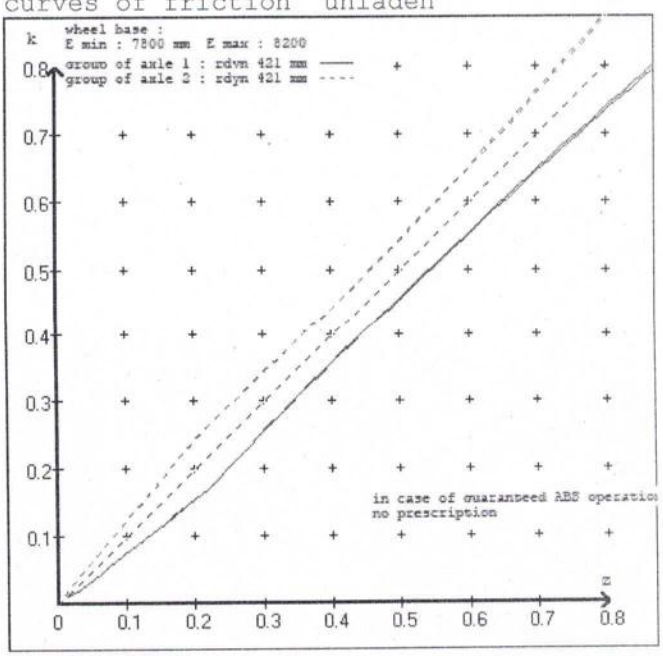

compatibility band unladen




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 52045A

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 entered by the vehicle manufact. | 2.0 | 8000 | to be entered by the vehicle manufact. | 0.4 | 1.4 | 5.7 |
| 2 | 1600 | | 2.0 | 8000 | | 0.4 | 1.4 | 5.7 |
| 3 | 1300 | | 1.7 | 6350 | | 0.3 | 1.6 | 4.7 |
| 4 | 1300 | | 1.7 | 6350 | | 0.3 | 1.6 | 4.7 |
| 5 | 1300 | | 1.7 | 6350 | | 0.3 | 1.6 | 4.7 |

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 | pcyl | axle load | pcyl | axle load | pcyl | axle load | pcyl | axle load | pcyl |
| 1600 | 2.0 | 1600 | 2.0 | 1300 | 1.7 | 1300 | 1.7 | 1300 | 1.7 |
| 2100 | 2.3 | 2100 | 2.3 | 1800 | 2.0 | 1800 | 2.0 | 1800 | 2.0 |
| 2600 | 2.6 | 2600 | 2.6 | 2300 | 2.3 | 2300 | 2.3 | 2300 | 2.3 |
| 3100 | 2.9 | 3100 | 2.9 | 2800 | 2.6 | 2800 | 2.6 | 2800 | 2.6 |
| 3600 | 3.2 | 3600 | 3.2 | 3300 | 2.9 | 3300 | 2.9 | 3300 | 2.9 |
| 4100 | 3.4 | 4100 | 3.4 | 3800 | 3.2 | 3800 | 3.2 | 3800 | 3.2 |
| 4600 | 3.7 | 4600 | 3.7 | 4300 | 3.5 | 4300 | 3.5 | 4300 | 3.5 |
| 5100 | 4.0 | 5100 | 4.0 | 4800 | 3.8 | 4800 | 3.8 | 4800 | 3.8 |
| 8000 | 5.7 | 8000 | 5.7 | 6350 | 4.7 | 6350 | 4.7 | 6350 | 4.7 |

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 : | ATRP0185 | date : 02.03.2017 |
| axle 2 : | reference axle: | HENDRICKSONSBW 1937 | brake lining: WABCO 230 |
| | test report : | ATRP0185 | date : 02.03.2017 |
| axle 3 : | reference axle: | HENDRICKSONSBW 1937 | brake lining: WABCO 230 |
| | test report : | ATRP0185 | date : 02.03.2017 |
| axle 4 : | reference axle: | HENDRICKSONSBW 1937 | brake lining: WABCO 230 |
| | test report : | ATRP0185 | date : 02.03.2017 |
| axle 5 : | reference axle: | HENDRICKSONSBW 1937 | brake lining: WABCO 230 |
| | test report : | ATRP0185 | 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 = 23.7 % Fe |
| axle 2 | (rdyn 421 mm) | T = 23.7 % Fe |
| axle 3 | (rdyn 421 mm) | T = 18.6 % Fe |
| axle 4 | (rdyn 421 mm) | T = 18.6 % Fe |
| axle 5 | (rdyn 421 mm) | T = 18.6 % 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 = 4485 N |
| axle4 | ThA = 4485 N |
| axle5 | ThA = 4485 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 = 27637 N |
| axle 4 | (rdyn 421 mm) | T = 27637 N |
| axle 5 | (rdyn 421 mm) | T = 27637 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 | 0.48 |
| 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 = 27637 N |
| axle 4 | (rdyn 421 mm) | T = 27637 N |
| axle 5 | (rdyn 421 mm) | T = 27637 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 | 0.48 |
| 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

| | | axle 3 | axle 4 |
|---|---|---|---|
| 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 | 6160 | 6160 |
| 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 | 0.296 | |
| 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

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

min Ef = 5945 mm for E = 7800 mm
==========
min Ef = 6221 mm for E = 8200 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 | = | 2100 mm | height of center of gravity - laden |
| PR | = | 19050 kg | maximum bogie mass - laden |
| P | = | 35050 kg | maximum total mass - laden |
| nf | = | 2 | no. of axle(s) with TRISTOP spring brake actuators |
| ng | = | 3 | no. of bogie axle(s) |

| | | | |
|---|---|---|---|
| | | | axle 1 + 2 + 3 + 4 + 5 |
| axle manufacturer | | | HENDRICKSON |
| type of brake | | | SBW 1937 |
| type of axle | | | SBW 1937 |
| | | | ATRP0185 |
| 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 cm² | 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 |

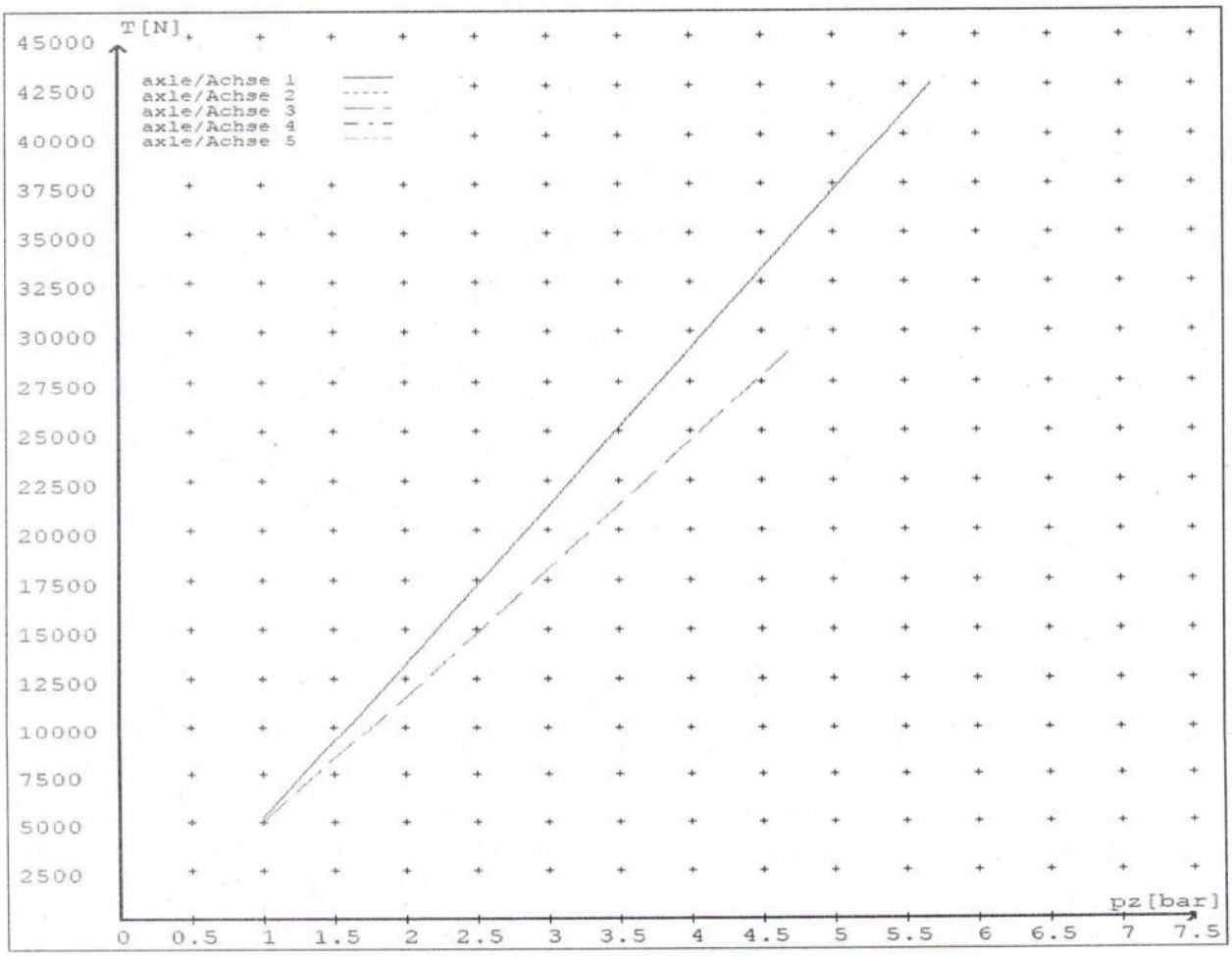
**reference values**

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

| | pz [bar] | T [N] | T [N] |
|---|---|---|---|
| axle 1 | 1.0<br>5.7 | 5184<br>42568 | |
| axle 2 | 1.0<br>5.7 | 5184<br>42568 | |
| axle 3 | 1.0<br>4.7 | | 4984<br>28920 |
| axle 4 | 1.0<br>4.7 | | 4984<br>28920 |
| axle 5 | 1.0<br>4.7 | | 4984<br>28920 |

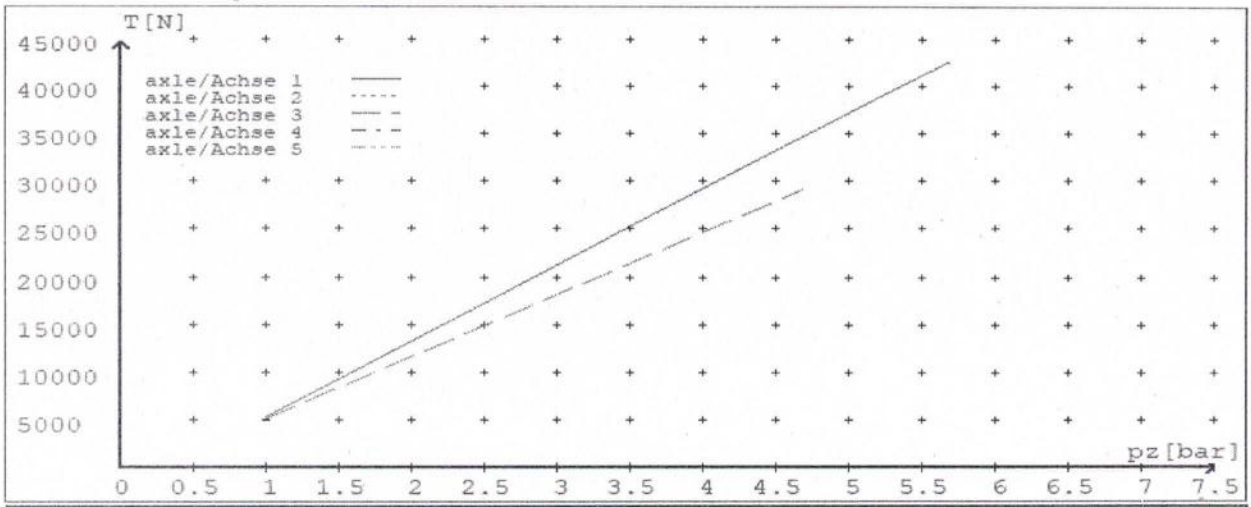
VIN - no.:

| | Axle(s) / Achse(n) | | | | |
|---|---|---|---|---|---|
| brake cylinder type (service / parking)<br>Bremszylinder Typ (Betrieb / Fest) | 20./ | 20./ | T.14/24 | T.14/24 | 14./ |
| Maximum stroke smax = ...mm<br>maximaler Hub smax = ....mm | 65 | 65 | 64 | 64 | 64 |
| Lever length = ....mm<br>Hebellänge = ....mm | 69.08 | 69.08 | 69.08 | 69.08 | 69.08 |



Print on WABCO no. 899 200 922 4 (only possible with laser printers!)

**reference values for z = 0.5** **for max rdyn: 421 mm**
Angabe der Referenzwerte für z = 0.5 für max rdyn: 421 mm
**brake calculation no: TP 52045A date 10.03.2020**
Bremsberechnung Nr: TP 52045A vom 10.03.2020




| | Axle(s) / Achse(n) | | | | |
|---|---|---|---|---|---|
| brake cylinder type (service / parking)<br>Bremszylinder Typ (Betrieb / Fest) | 20./ | 20./ | T.14/24 | T.14/24 | 14./ |
| Maximum stroke smax = ...mm<br>maximaler Hub smax = ....mm | 65 | 65 | 64 | 64 | 64 |
| Lever length = ....mm<br>Hebellänge = ....mm | 69.08 | 69.08 | 69.08 | 69.08 | 69.08 |

# NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015-5
# WORKSHEET, PROCEDURE DOCUMENTATION SHEET
# & CONFIRMATION OF COMPLIANCE

## CLIENT

| | |
|---|---|
| **MANUFACTURER:** | DOMETT TRAILERS |
| **ADDRESS:** | TAURIKURA DRIVE, TAURANGA 3173 |
| **FLEET:** | BOOTHS TRANSPORT |

## VEHICLE DETAILS

| | | | |
|---|---|---|---|
| **VEHICLE TYPE:** | 5AFT CURTAINSIDE | **CERT #:** | JH200510 |
| **YEAR:** | 2020 | **CALCULATION #:** | TP52045 |
| **MAKE:** | DOMETT | **REGO:** | N/A |
| **MODEL:** | E2001 PH | **LT400 #:** | 742246 |
| **CHASSIS #:** | 1962 | **ORDER #:** | 7216 |
| **VIN #:** | 7A9E20015L1023962 | | |
| **GVM:** *t* | 33 | **PRIME MOVER:** | NORTH AMERICAN |
| **LOAD CONFIGURATION:** | MIXED FREIGHT | | |

| | FRONT | REAR |
|---|---|---|
| **GROUP RATINGS:** *t* | 16 | 19 |
| **WHEEL BASE:** *m* | 8.18 | |

| | UNLADEN COG (m) | MAX HEIGHT (m) | HEIGHT DECK (m) |
|---|---|---|---|
| | 0.675 | 4.3 | 1.09 |
| **COG:** *m* | 2.008 | | |

| | FRONT | REAR | TOTAL |
|---|---|---|---|
| **TARE:** *t* | 3.2 | 3.9 | 7.1 |

| | FRONT | REAR |
|---|---|---|
| **TYRE SIZE:** | 265 70 R19.5 | 265 70 R19.5 |
| **ROLLING CIRCUMFERENCE:** *mm* | 2645 | 2645 |
| **AXLE SPACING:** *m* | 1.31 | 2.51 |

## BRAKE & AXLE DETAILS

| | MAKE | MODEL | TEST REPORT |
|---|---|---|---|
| **AXLE:** | HENDRICKSON | HND-PAN 19 DISC | ATRP0185 |
| **POLE WHEEL FRONT:** | 100 | **POLE WHEEL REAR:** | 100 |
| **LINING MATERIAL:** | WABCO 230 | **BRAKE FACTOR:** | 23.49 |
| **SENSED AXLES:** | 2 + 4 | | |

| **SERIAL NUMBERS:** | |
|---|---|
| 1 | N/A |
| 2 | N/A |
| 3 | N/A |
| 4 | N/A |
| 5 | N/A |

## CHAMBER AND VALVING DETAILS

| **CHAMBERS:** | **AXLE 1 & 2** | **AXLE 3 & 4** | **AXLE 5** |
|---|---|---|---|
| **BRAND:** | TSE_CHAMBERS | TSE_CHAMBERS | TSE_CHAMBERS |
| **SIZE:** | 20HSCLD | 1416HTLD | 14HSCLD |
| **STROKE:** *mm* | 65 | 64 | 64 |
| **TEST REPORT #:** | BC 0041.0 Jul '07 | BC0143.0 | BZ 122.1 Sep '00 |
| **SPRINGBRAKE FORCE:** *kN* | N/A | 6.16 | N/A |
| **HOLDOFF PRESSURE:** *Bar* | N/A | 4.5 | N/A |
| **FOUNDATION BRAKE:** | WABCO PAN19 | WABCO PAN19 | WABCO PAN19 |
| **LEVER LENGTH:** *mm* | 69 | 69 | 69 |

| **BRAKE VALVES:** | **MAKE:** | **PART NUMBER:** | **PM PRESS.** *kPa* |
|---|---|---|---|
| **ECU PART #:** | WABCO | 480 102 08. 0 (MV) | 60 kPa |
| **3RD MODULATOR #:** | WABCO | 480 207 202 0 (12V) | 60 kPa |
| **ANTI-COMPOUNDING:** | YES | **ELEX:** | N/A |
| **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 | **FRONT FRICTION: μ** | 0.48 |
| **SMARTBOARD/OPTILINK:** | ☐ SMARTBOARD | ☐ OPTI-LINK | | |



## SUSPENSION

| | FRONT | REAR |
|---|---|---|
| **SUSPENSION TYPE:** | PNEUMATIC | ELECTRONIC |
| **MAKE:** | HENDRICKSON_AIR | HENDRICKSON_AIR |
| **MODEL:** | HENDRICKSON_INTRAX | HENDRICKSON_INTRAX |
| **BELLOW SIZE:** | HND SHOCKLESS | HND SHOCKLESS |
| **HEIGHT CONTROL VALVE:** | 464 008 011 0 | 441 050 100 0 |
| **OTHER VALVES:** | N/A | N/A |
| **RIDE HEIGHT *mm* :** | 255 | 255 |
| **HANGER HEIGHT *mm* :** | 200 | 200 |
| **PEDESTAL HEIGHT *mm* :** | 40 | 40 |
| **LIFTAXLE:** | | N/A |
| **TIPPING DUMP SWITCH:** | | N/A |
| **LIFTAXLE VALVE:** | | N/A |

## AIR TANKS

**AIR TANKS STANDARD:** SAE J10A / EN286-2

| | FRONT | REAR |
|---|---|---|
| **BRAKE TANK SIZE: *L*** | 46 | 46 + 25 |
| **AUXILLARY TANK SIZE: *L*** | N/A | 46 |
| **PRESSURE PROTECTION:** | WABCO PEM: 461 513 002 0 | |

## AIR LINES

**TEST POINTS:**

| | | | |
|---|---|---|---|
| **CONTROL LINE:** | X 1 | **TANK:** | X 1 |
| **REAR CHAMBER:** | X 2 | **FRONT CHAMBER:** | X 1 |
| **DUOMATIC COLOUR CODED:** | YES | | |

## ELECTRONIC HEIGHT SENSOR CALIBRATION

| | TIMER TICKS [F/R] | MILLIMETRE [F / R] |
|---|---|---|
| UPPER LEVEL: | 1328 | 315 |
| NORMAL LEVEL: | 1289 | 255 |
| LOWER LEVEL: | 1247 | 185 |

## CHECKS AT COMMISSION OF VEHICLE

CHAMBER BUNGS REMOVED: ☑ VALVE MOUNTING: ☑

ECU BLANKING PLUGS CHECKED: ☑

| RESPONSE TIME: | MODULATOR 2.1 | MODULATOR 2.2 | RELAY VALVE |
|---|---|---|---|
| ms: | 190 | 200 | 350 |

## NOTES AND SPECIAL CONDITIONS

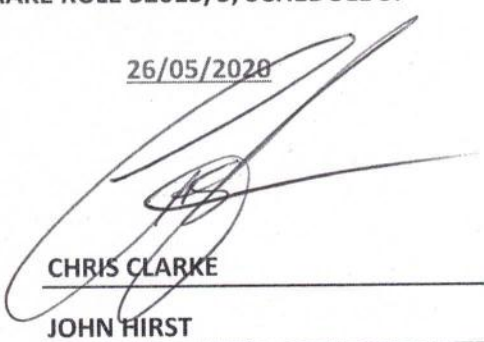
CERTIFY NEW TRAILER

*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 VECHLE BRAKE RULE 32015/5, SCHEDULE 5.**

DATE: 26/05/2020

SIGNED:



CERTIFIER NAME & ID: CHRIS CLARKE CJC

SODC BY: JOHN HIRST JEH

PHONE (BUS): 09-980-7300

FAX:

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

GOUGH Transpecs

# 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 32015/5.*

*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 32015/5. 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)

GOUGH Transpecs

# *NOTICE TO VEHICLE OPERATOR*

This trailer is equipped with an **E**lectronic **B**rake **S**ystem.

To comply with the New Zealand Heavy Vehicle Brake Rule 32015/5, 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
(IEH HVEK)
(09 980 7300)

GOUGH | Transpecs

# *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 32015/5.

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)