WAKA KOTAHI
NZ TRANSPORT AGENCY

# 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**

Plate number *(optional)*:

VIN/chassis number: **7A9E25018M2023107**

Make: **DOMETT**

Model *(optional)*: **E2501 H**

Certification category: **HVEK**

Component being certified:

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

Description of work

CERTIFY TO SCHEDULE 5 OF LTR 32015/5: NZ HEAVY VEHICLE BRAKE SPECIFICATION.
CARRY OUT BRAKE CALCULATIONS, INSPECTION AND ECU END OF LINE PROTOCOL.
5AFT LIVESTOCK **RSS ON TYRE:** 265 70 R19.5
FOR SYSTEM ARCHITECTURE, PLEASE REFER TO PDS WORKSHEET & SCHEMATIC.
**REASON FOR CERTIFICATION:** NEW TRAILER BUILD

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

Component load rating(s): 32 Tonnes GVM; 16 Tonne (Front brake mass); 19 Tonne (Rear brake mass)

General drawing number(s): N/A

Supporting documents

BRAKE RULE CERTIFICATE CJC217316
BRAKE CALCULATION # DT2023084

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: 02.09.2021 Number: 795316

CoF vehicle inspector ID *(if applicable)*:

CoF vehicle inspector signature *(if applicable)*:

Date:

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

# HALDEX EBS/ABS END OF LINE TEST REPORT

| | |
|---|---|
| ECU Configuration | 4S : 3M Front Remote, Rear Master ECU Right |
| Vehicle Ident Number | 7A9E25018M2023107 |
| Brake Calculation | DT2023107 |
| Manufacturer | DOMETT TRAILERS |
| ECU Serial Number | 083039_99 |
| Software | E732 |
| Odometer (km) | 0 |
| Date (DD/MM/YY) | 02/09/21 |
| Time | 12:37 |
| CAN Hub | Not Fitted |

| Wheel Scale | Rdyn (mm) | No. Of Teeth |
|---|---|---|
| S1A/S1B | 418 | 90 |
| S2A/S2B | 418 | 90 |

| Sensor Tests | | | Not Applicable |
|---|---|---|---|
| S1A | S1B | S2A | S2B |
| - | - | - | - |

| Sensor-Modulator Tests | | | Passed |
|---|---|---|---|
| S1A | S1B | S2A | S2B |
| Passed | Passed | Passed | Passed |

| Push Through Tests | | Passed |
|---|---|---|
| P21 | P22 | P23 |
| 6.9 | 6.9 | 7.0 |

| EBS Pressure Tests | | | | | | Passed | |
|---|---|---|---|---|---|---|---|
| | INPUTS | | OUTPUTS | | Results | | |
| | MASTER | REMOTE | MASTER | REMOTE | P21 | P22 | P23 |
| Unladen Suspension | 0.4 | 0.6 | | | | | |
| Laden Suspension | 4.0 | 4.6 | | | | | |
| P0 | 0.2 | 0.3 | | | | | |
| PD | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.9 |
| PP1 [U] | | | | | - | - | - |
| PP1 [L] | - | - | - | - | - | - | - |
| PP2 [U] | | | | | - | - | - |
| PP2 [L] | - | - | - | - | - | - | - |
| PP3 [U] | 6.5 | 6.5 | 1.9 | 2.6 | 2.0 | 1.8 | 2.5 |
| PP3 [L] | 6.5 | 6.5 | 5.1 | 6.7 | 5.2 | 5.2 | 6.4 |
| P Limit | | | - | - | | | |

| Options | | | | |
|---|---|---|---|---|
| | | REV | Axle Load Sum | |

| Auxiliary Tests | | | Passed |
|---|---|---|---|
| Lamp | | On / Off | Passed |
| Aux 1 | No Aux | | - |
| Aux 2 Red | No Aux | | - |
| Aux 2 Yel | No Aux | | - |
| Aux 3 Red | No Aux | | - |
| Aux 3 Yel | No Aux | | - |
| Aux 4 | No Aux | | - |
| Aux 5 | No Aux | | - |
| Lat Acc Internal | Fitted | | Passed |
| 24N | | | - |

| Leak Test | | Not Applicable | |
|---|---|---|---|
| Pressure Drop | - | Time Period | - |

| EB+ Soft Docking | | | Not Applicable |
|---|---|---|---|
| Channels | Sensors | Offset ( 0 ... 60 ) | |
| Yellow Channel | - | - | Not Applicable |
| Green Channel | - | - | Not Applicable |
| Beeper | Not Applicable | Lights | Not Applicable |

| Notes |
|---|
| |

| Operator's Name | Chris Clarke |
|---|---|
| Signature | |

Calculation in accordance with ECE Regulation 13 (11 Series) and EEC Directive 71/320 EEC (2002/78/EC) based on nominal component and environment parameters using Knorr-Bremse Braking System Designer software (version 18.0x).

Results based on vehicle data and components as defined by the Braking System Designer program user. No liability assumed by Knorr-Bremse regarding the use of non-Knorr-Bremse product data.

**Customer:** DOMETT

**Vehicle:** 7A9E25018M2023107

**Project:** 5AFT STOCK TRAILER

## Vehicle

| | | |
|---|---|---|
| **Type** | | **2x3 Drawbar trailer** |
| **Calculated effective wheelbase [m]** | | **6.21** |
| **Laden (max.) mass [kg]** | | **35050.00** |
| **Laden (max.) front axle group load [kg]** | | **16000.00** |
| **Laden vertical position of CoG [m]** | | **2.28** |
| **Unladen (min.) mass [kg]** | | **5959.00** |
| **Unladen (min.) front axle group load [kg]** | | **2740.00** |
| **Unladen vertical position of CoG [m]** | | **1.42** |
| **Laden/unladen front air spring press.** | **[bar]** | **-/-** |
| **Laden/unladen rear air spring press.** | **[bar]** | **-/-** |

## Axles

| | | Axle 1 | Axle 2 | Axle 3 | Axle 4 | Axle 5 |
|---|---|---|---|---|---|---|
| **Axle distances [m]** | | - | <----- 1.31 -----> | <----- 4.30 -----> | <----- 1.25 -----> | <----- 1.25 -----> |
| **Axle loads [kg]** | **Laden** | 8000 | 8000 | 6350 | 6350 | 6350 |
| | **Unladen** | 1370 | 1370 | 1073 | 1073 | 1073 |
| **Axle type** | | ASSALI STEFEN 361-0071-04-FBKV | ASSALI STEFEN 361-0071-04-FBKV | ASSALI STEFEN 361-0071-04-FBKV | ASSALI STEFEN 361-0071-04-FBKV | ASSALI STEFEN 361-0071-04-FBKV |
| **Tyre size** | | 265/70 R 19.5 | 265/70 R 19.5 | 265/70 R 19.5 | 265/70 R 19.5 | 265/70 R 19.5 |
| **Dyn. tyre radius [mm]** | | 421 | 421 | 421 | 421 | 421 |
| **Stat. tyre radius [mm]** | | 401 | 401 | 401 | 401 | 401 |
| **Brake size or radius [mm]** | | 377x45 Disc | 377x45 Disc | 377x45 Disc | 377x45 Disc | 377x45 Disc |
| **and Brake type** | | ELSA 195 LE | ELSA 195 LE | ELSA 195 LE | ELSA 195 LE | ELSA 195 LE |
| **Actuator numb./axle & size** | | 2 x 20 | 2 x 20 | 2 x - | 2 x - | 2 x - |
| **Actuator force at** | **6.5 bar [N]** | 7564 | 7564 | 6324 | 6324 | 6324 |
| **Slack adjuster length [mm]** | | - | - | - | - | - |
| **Thresh.mom.[Nm] or force[N]** | | 94.60 | 94.60 | 94.60 | 94.60 | 94.60 |
| **Brake Factor by Annex 19** | | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 |
| **Discbrake lever length [mm]** | | 74 | 74 | 74 | 74 | 74 |
| **Int.br.factor (C*) & Mech.eff.(Eta)** | | - - | - - | - - | - - | - - |
| **Int.br.factor x Mech.eff.(C* x Eta)** | | - | - | - | - | - |
| **S-Cam radius [mm] or mech.ratio or wedge angle[-]** | | - | - | - | - | - |
| **Friction material** | | ROR 8616 AF | ROR 8616 AF | ROR 8616 AF | ROR 8616 AF | ROR 8616 AF |
| **Cam shaft length [mm]** | | - | - | - | - | - |

**Calculation pressure [bar]:** 6.5

**Database version:** 18.1.71

Warning! This brake calculation has been produced using information from a source not controlled by Knorr-Bremse. The results produced by this calculation are therefore dependent upon the accuracy of this information and Knorr-Bremse does not take responsiblity for any resulting errors.

## System components

| No. | Name | Type | Characteristics |
|---|---|---|---|
| 1 | Coupling head | KU1... | - |
| 2 | Brake Chamber 20" stroke: 65 | ROR | BZ 122.1 15/09/2000 |
| 3 | Brake Chamber 20" stroke: 65 | ROR | BZ 122.1 15/09/2000 |
| 4 | Trailer EBS G2.x | ES206./9. | Sensors on axle 3 |
| 5 | Brake Chamber 20" stroke: 65 | ROR | BZ 122.1 15/09/2000 |
| 6 | Brake Chamber 20" stroke: 65 | ROR | BZ 122.1 15/09/2000 |
| 7 | Electronic Module Premium/Advanced | ES2071/72 | - |
| 8 | Spring Brake Actuator - | User data | - |
| 9 | Spring Brake Actuator - | User data | - |
| 10 | Spring Brake Actuator - | User data | - |
| 11 | Spring Brake Actuator - | User data | - |
| 12 | Spring Brake Actuator - | User data | - |
| 13 | Spring Brake Actuator - | User data | - |

## Axle identifiers

| Axle | Axle identifier | Brake identifier | Axle load ident. | Test report identifier | Suffix | Test code |
|---|---|---|---|---|---|---|
| Axle 1 | | ID2-ELSA 195 LE | ID3-11000 | ID4-361 0071 04 FBKV | 06 | |
| Axle 2 | | ID2-ELSA 195 LE | ID3-11000 | ID4-361 0071 04 FBKV | 06 | |
| Axle 3 | | ID2-ELSA 195 LE | ID3-11000 | ID4-361 0071 04 FBKV | 06 | |
| Axle 4 | | ID2-ELSA 195 LE | ID3-11000 | ID4-361 0071 04 FBKV | 06 | |
| Axle 5 | | ID2-ELSA 195 LE | ID3-11000 | ID4-361 0071 04 FBKV | 06 | |

**Calculation pressure [bar]:** 6.5

**Database version:** 18.1.71

| **Service brake** | Laden vehicle | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coupling head pres. [bar] | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 |
| Deceleration [m/s^2] | 0.00 | 0.32 | 0.84 | 1.36 | 1.88 | 2.40 | 2.93 | 3.45 | 3.97 | 4.49 | 5.01 | 5.53 | 6.05 | 6.58 | 7.10 |
| Braking rate [%] | 0.00 | 3.25 | 8.57 | 13.88 | 19.20 | 24.51 | 29.83 | 35.14 | 40.46 | 45.77 | 51.09 | 56.40 | 61.71 | 67.03 | 72.34 |
| Axle 1 actuator pres. [bar] | 0.2 | 0.76 | 1.3 | 1.84 | 2.38 | 2.92 | 3.46 | 4 | 4.54 | 5.08 | 5.62 | 6.16 | 6.7 | 7.24 | 7.78 |
| Axle 1 braking torque [kNm] | 0.00 | 1.21 | 3.20 | 5.19 | 7.19 | 9.18 | 11.17 | 13.17 | 15.16 | 17.16 | 19.15 | 21.14 | 23.13 | 25.13 | 27.12 |
| Axle 1 braking force [kN] | 0.00 | 2.87 | 7.60 | 12.34 | 17.07 | 21.80 | 26.54 | 31.28 | 36.01 | 40.75 | 45.49 | 50.22 | 54.95 | 59.69 | 64.42 |
| Axle 1 adhesion utilised | 0.00 | 0.04 | 0.09 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.52 |
| Axle 2 actuator pres. [bar] | 0.2 | 0.76 | 1.3 | 1.84 | 2.38 | 2.92 | 3.46 | 4 | 4.54 | 5.08 | 5.62 | 6.16 | 6.7 | 7.24 | 7.78 |
| Axle 2 braking torque [kNm] | 0.00 | 1.21 | 3.20 | 5.19 | 7.19 | 9.18 | 11.17 | 13.17 | 15.16 | 17.16 | 19.15 | 21.14 | 23.13 | 25.13 | 27.12 |
| Axle 2 braking force [kN] | 0.00 | 2.87 | 7.60 | 12.34 | 17.07 | 21.80 | 26.54 | 31.28 | 36.01 | 40.75 | 45.49 | 50.22 | 54.95 | 59.69 | 64.42 |
| Axle 2 adhesion utilised | 0.00 | 0.04 | 0.09 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.52 |
| Axle 3 actuator pres. [bar] | 0.2 | 0.7 | 1.1 | 1.5 | 1.9 | 2.3 | 2.7 | 3.1 | 3.5 | 3.9 | 4.3 | 4.7 | 5.1 | 5.5 | 5.9 |
| Axle 3 braking torque [kNm] | 0.00 | 0.77 | 2.00 | 3.24 | 4.47 | 5.71 | 6.94 | 8.18 | 9.41 | 10.65 | 11.88 | 13.12 | 14.35 | 15.59 | 16.83 |
| Axle 3 braking force [kN] | 0.00 | 1.82 | 4.75 | 7.69 | 10.62 | 13.56 | 16.49 | 19.43 | 22.36 | 25.29 | 28.23 | 31.16 | 34.10 | 37.03 | 39.97 |
| Axle 3 adhesion utilised | 0.00 | 0.03 | 0.08 | 0.14 | 0.20 | 0.26 | 0.33 | 0.41 | 0.49 | 0.59 | 0.69 | 0.81 | 0.94 | 1.09 | 1.25 |
| Axle 4 actuator pres. [bar] | 0.2 | 0.7 | 1.1 | 1.5 | 1.9 | 2.3 | 2.7 | 3.1 | 3.5 | 3.9 | 4.3 | 4.7 | 5.1 | 5.5 | 5.9 |
| Axle 4 braking torque [kNm] | 0.00 | 0.77 | 2.00 | 3.24 | 4.47 | 5.71 | 6.94 | 8.18 | 9.41 | 10.65 | 11.88 | 13.12 | 14.35 | 15.59 | 16.83 |
| Axle 4 braking force [kN] | 0.00 | 1.82 | 4.75 | 7.69 | 10.62 | 13.56 | 16.49 | 19.43 | 22.36 | 25.29 | 28.23 | 31.16 | 34.10 | 37.03 | 39.97 |
| Axle 4 adhesion utilised | 0.00 | 0.03 | 0.08 | 0.14 | 0.20 | 0.26 | 0.33 | 0.41 | 0.49 | 0.59 | 0.69 | 0.81 | 0.94 | 1.09 | 1.25 |
| Axle 5 actuator pres. [bar] | 0.2 | 0.7 | 1.1 | 1.5 | 1.9 | 2.3 | 2.7 | 3.1 | 3.5 | 3.9 | 4.3 | 4.7 | 5.1 | 5.5 | 5.9 |
| Axle 5 braking torque [kNm] | 0.00 | 0.77 | 2.00 | 3.24 | 4.47 | 5.71 | 6.94 | 8.18 | 9.41 | 10.65 | 11.88 | 13.12 | 14.35 | 15.59 | 16.83 |
| Axle 5 braking force [kN] | 0.00 | 1.82 | 4.75 | 7.69 | 10.62 | 13.56 | 16.49 | 19.43 | 22.36 | 25.29 | 28.23 | 31.16 | 34.10 | 37.03 | 39.97 |
| Axle 5 adhesion utilised | 0.00 | 0.03 | 0.08 | 0.14 | 0.20 | 0.26 | 0.33 | 0.41 | 0.49 | 0.59 | 0.69 | 0.81 | 0.94 | 1.09 | 1.25 |

**Service brake** Unladen vehicle

| Coupling head pres. [bar] | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Deceleration [m/s^2] | 0.00 | 0.49 | 1.25 | 2.01 | 2.77 | 3.53 | 4.29 | 5.05 | 5.81 | 6.56 | 7.33 | 8.08 | 8.84 | 9.60 | 10.36 |
| Braking rate [%] | 0.00 | 5.03 | 12.77 | 20.51 | 28.24 | 35.95 | 43.73 | 51.46 | 59.18 | 66.91 | 74.69 | 82.40 | 90.13 | 97.87 | 105.58 |
| Axle 1 actuator pres. [bar] | 0.2 | 0.52 | 0.66 | 0.79 | 0.92 | 1.06 | 1.19 | 1.33 | 1.46 | 1.6 | 1.73 | 1.87 | 2 | 2.13 | 2.27 |
| Axle 1 braking torque [kNm] | 0.00 | 0.31 | 0.80 | 1.30 | 1.80 | 2.30 | 2.79 | 3.29 | 3.79 | 4.28 | 4.78 | 5.28 | 5.77 | 6.27 | 6.77 |
| Axle 1 braking force [kN] | 0.00 | 0.73 | 1.91 | 3.09 | 4.28 | 5.45 | 6.63 | 7.82 | 8.99 | 10.17 | 11.36 | 12.53 | 13.71 | 14.90 | 16.07 |
| Axle 1 adhesion utilised | 0.00 | 0.05 | 0.13 | 0.21 | 0.28 | 0.34 | 0.41 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.75 | 0.78 |
| Axle 2 actuator pres. [bar] | 0.2 | 0.52 | 0.66 | 0.79 | 0.92 | 1.06 | 1.19 | 1.33 | 1.46 | 1.6 | 1.73 | 1.87 | 2 | 2.13 | 2.27 |
| Axle 2 braking torque [kNm] | 0.00 | 0.31 | 0.80 | 1.30 | 1.80 | 2.30 | 2.79 | 3.29 | 3.79 | 4.28 | 4.78 | 5.28 | 5.77 | 6.27 | 6.77 |
| Axle 2 braking force [kN] | 0.00 | 0.73 | 1.91 | 3.09 | 4.28 | 5.45 | 6.63 | 7.82 | 8.99 | 10.17 | 11.36 | 12.53 | 13.71 | 14.90 | 16.07 |
| Axle 2 adhesion utilised | 0.00 | 0.05 | 0.13 | 0.21 | 0.28 | 0.34 | 0.41 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.75 | 0.78 |
| Axle 3 actuator pres. [bar] | 0.2 | 0.52 | 0.62 | 0.72 | 0.81 | 0.91 | 1.01 | 1.11 | 1.21 | 1.31 | 1.4 | 1.5 | 1.6 | 1.7 | 1.8 |
| Axle 3 braking torque [kNm] | 0.00 | 0.21 | 0.51 | 0.81 | 1.12 | 1.42 | 1.73 | 2.03 | 2.33 | 2.63 | 2.94 | 3.24 | 3.55 | 3.85 | 4.15 |
| Axle 3 braking force [kN] | 0.00 | 0.49 | 1.21 | 1.93 | 2.65 | 3.37 | 4.10 | 4.82 | 5.54 | 6.26 | 6.98 | 7.70 | 8.42 | 9.14 | 9.86 |
| Axle 3 adhesion utilised | 0.00 | 0.05 | 0.12 | 0.20 | 0.29 | 0.38 | 0.48 | 0.59 | 0.70 | 0.83 | 0.97 | 1.12 | 1.29 | 1.48 | 1.69 |
| Axle 4 actuator pres. [bar] | 0.2 | 0.52 | 0.62 | 0.72 | 0.81 | 0.91 | 1.01 | 1.11 | 1.21 | 1.31 | 1.4 | 1.5 | 1.6 | 1.7 | 1.8 |
| Axle 4 braking torque [kNm] | 0.00 | 0.21 | 0.51 | 0.81 | 1.12 | 1.42 | 1.73 | 2.03 | 2.33 | 2.63 | 2.94 | 3.24 | 3.55 | 3.85 | 4.15 |
| Axle 4 braking force [kN] | 0.00 | 0.49 | 1.21 | 1.93 | 2.65 | 3.37 | 4.10 | 4.82 | 5.54 | 6.26 | 6.98 | 7.70 | 8.42 | 9.14 | 9.86 |
| Axle 4 adhesion utilised | 0.00 | 0.05 | 0.12 | 0.20 | 0.29 | 0.38 | 0.48 | 0.59 | 0.70 | 0.83 | 0.97 | 1.12 | 1.29 | 1.48 | 1.69 |
| Axle 5 actuator pres. [bar] | 0.2 | 0.52 | 0.62 | 0.72 | 0.81 | 0.91 | 1.01 | 1.11 | 1.21 | 1.31 | 1.4 | 1.5 | 1.6 | 1.7 | 1.8 |
| Axle 5 braking torque [kNm] | 0.00 | 0.21 | 0.51 | 0.81 | 1.12 | 1.42 | 1.73 | 2.03 | 2.33 | 2.63 | 2.94 | 3.24 | 3.55 | 3.85 | 4.15 |
| Axle 5 braking force [kN] | 0.00 | 0.49 | 1.21 | 1.93 | 2.65 | 3.37 | 4.10 | 4.82 | 5.54 | 6.26 | 6.98 | 7.70 | 8.42 | 9.14 | 9.86 |
| Axle 5 adhesion utilised | 0.00 | 0.05 | 0.12 | 0.20 | 0.29 | 0.38 | 0.48 | 0.59 | 0.70 | 0.83 | 0.97 | 1.12 | 1.29 | 1.48 | 1.69 |

**Calculation pressure [bar]:** 6.5

**Database version:** 18.1.71

## Miscellaneous

**Coupling head pressure where z = 22.5% ( laden case )**

Pressure[bar] 2.8

**Brake chamber pressure where z = 22.5% ( laden case )**

Pressure[bar] Axle1 : 2.81 Axle2 : 2.81 Axle3 : 2.22 Axle4 : 2.22 Axle5 : 2.22

**Automatic braking performance ( laden case ) at 6.5 bar**

Deceleration [m/s^2] : 3.60 Braking rate [%] 36.7

**Vehicle performance in case of a load sensing device control failure ( laden case ) at 6.5 bar**

| **Front axle group** | **Rear axle group** |
|---|---|
| Deceleration [m/s^2] : 6.05 | Deceleration [m/s^2] : 6.05 |
| Braking rate [%] 61.7 | Braking rate [%] 61.7 |

## Parking brake

Laden vehicle

| Maximum slope [%]: | Up | Down |
|---|---|---|
| | **-43.0** | **34.4** |

| Spring force [N] | maximum: | at 18%: |
|---|---|---|
| Axle 1 | - | - |
| Axle 2 | - | - |
| Axle 3 | 6003 | 2660 |
| Axle 4 | 6003 | 2660 |
| Axle 5 | 6003 | 2660 |

## Trailer EBS parameters

| Coupling head pressure [bar] | Brake chamber pressure [bar] | |
|---|---|---|
| 0.7 | 0.46 | |
| | **Unladen** | **Laden** |
| **1.6** | 0.64 | 1.18 |
| **6.5** | 1.6 | 5.1 |
| **Low-range comp. at 1.6 bar** | 0 | 0 |
| **High-range comp. at 4.5 bar** | 0 | 0 |

| Air suspension | Unladen | Laden |
|---|---|---|
| **Axle boogie load [kg]** | 3219 | 19050 |
| **voltages [V]** | - | - |
| **pressures [bar]** defined by vehicle manufacturer | To be defined! | To be defined! |

**Pressure limitation [bar]** -

**3rd modulator logic is LS characteristic**

**Slip differential [%]** - **from** - **[bar]**

## Axle and Tyre information

**Number of axles:** 5

**Dynamic tyre radius [cm]:** 42.1

## EMS/EMP parameters:

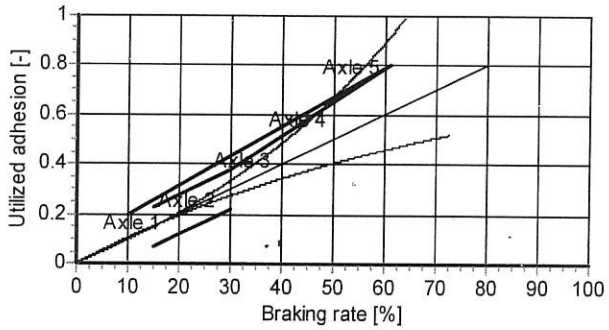
| Coupling head pressure [bar] | Brake chamber pressure [bar] | |
|---|---|---|
| 0.7 | 0.44 | |
| | **Unladen** | **Laden** |
| **1.6** | 0.68 | 1.41 |
| **6.5** | 2 | 6.7 |
| **Low-range comp. at 1.6 bar** | 0 | 0 |
| **High-range comp. at 4.5 bar** | 0 | 0 |

| Air suspension | Unladen | Laden |
|---|---|---|
| **Axle boogie load [kg]** | 2740 | 16000 |
| **voltages [V]** | - | - |
| **pressures [bar]** | To be defined! | To be defined! |

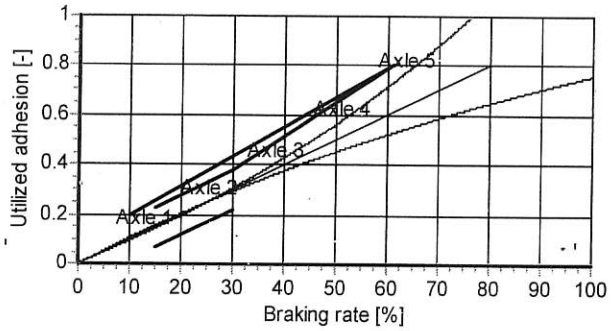
**Calculation pressure [bar]:** 6.5

**Database version:** 18.1.71

## Laden vehicle - adhesion utilisation

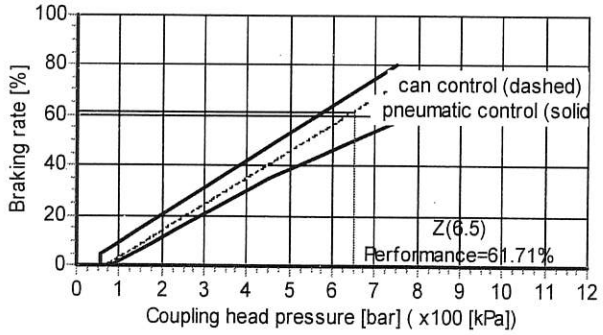



## Unladen vehicle - adhesion utilisation

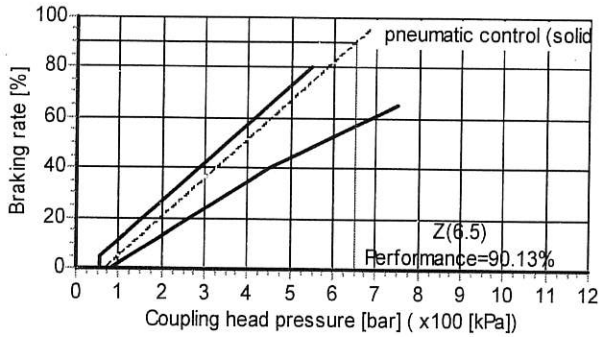



The Compatibility characteristic is based on New Zealand Regulations. (With hydraulic brakes to be fulfilled.) The Compatibility characteristic is based on New Zealand Regulations. (With hydraulic brakes to be fulfilled.)

## Laden vehicle - compatibility with Pneumatic and CAN control




## Unladen vehicle - compatibility with Pneumatic and CAN control




**Calculation pressure [bar]:** 6.5

**Database version:** 18.1.71

# GENESE LTD

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

**CLIENT**

| | |
|---|---|
| **MANUFACTURER:** | DOMETT TRAILERS |
| **ADDRESS:** | TAURIKURA DRIVE, TAURANGA 3110 |
| **FLEET:** | |

**VEHICLE DETAILS**

| | | | |
|---|---|---|---|
| **VEHICLE TYPE:** | 5AFT LIVESTOCK | **CERT #:** | CJC217316 |
| **YEAR:** | 2021 | **CALCULATION #:** | DT2023084 |
| **MAKE:** | DOMETT | **REGO #:** | N/A |
| **MODEL:** | E2501 H | **LT400 #:** | 795316 |
| **CHASSIS #:** | 2107 | **ORDER #:** | 8352 |
| **VIN #:** | 7A9E25018M2023107 | | |
| **GVM:** *t* | 32 | **PRIME MOVER:** | EBS / EUROPEAN |
| **LOAD CONFIGURATION:** | UNIFORM DENSITY | | |

| | FRONT | REAR | |
|---|---|---|---|
| **GROUP RATINGS:** *t* | 16 | 19 | |
| **WHEEL BASE:** *m* | 6.215 | | |
| | **UNLADEN COG** *m* | **MAX HEIGHT** *m* | **HEIGHT DECK** *m* |
| | 1.466 | 4.3 | 1.05 |
| **COG:** *m* | 2.280 | | |
| | **FRONT** | **REAR** | **TOTAL** |
| **TARE:** t | 4.82 | 5.63 | 10.45 |
| | **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:** | ROR_ASSALI_STEFEN | ROR-CS9 I DISC | 361-071-04 |
| **POLE WHEEL FRONT:** | 90 | **POLE WHEEL REAR:** | 90 |
| **LINING MATERIAL:** | ROR 8616 | **BRAKE FACTOR:** | 20.26 |
| **SENSED AXLES:** | 2 + 4 | | **NOTES:** |
| **SERIAL NUMBERS:** 1 | N/A | | ROR CS9L |
| 2 | N/A | | ROR CS9L |
| 3 | N/A | | ROR CS9L |
| 4 | N/A | | ROR CS9L |
| 5 | N/A | | ROR CS9L |

## CHAMBER AND VALVING DETAILS

| **CHAMBERS:** | **AXLE 1 & 2** | **AXLE 3 & 4** | **AXLE 5** |
|---|---|---|---|
| **BRAND:** | TSE_CHAMBERS | HALDEX_CHAMBERS | HALDEX_CHAMBERS |
| **SIZE:** | 20HSCLD | 1624 (135 1624) | 16, (125 160) |
| **STROKE:** *mm* | 65 | 65 | 65 |
| **TEST REPORT #:** | BC 0041.0 Jul '07 | BC0165.0 | BC0169.0 |
| **SPRINGBRAKE FORCE:** *kN* | N/A | 6.003 | N/A |
| **HOLDOFF PRESSURE:** *Bar* | N/A | 5.2 | N/A |
| **FOUNDATION BRAKE:** | MERITOR | MERITOR | MERITOR |
| **LEVER LENGTH:** *mm* | 74 | 74 | 74 |

| **BRAKE VALVES:** | **MAKE:** | **PART NUMBER:** | **PM PRESS.** *kPa* |
|---|---|---|---|
| **ECU PART #:** | HALDEX | | 80 kPa |
| **3RD MODULATOR #:** | HALDEX | | 80 kPa |
| **ANTI-COMPOUNDING:** | YES | | |
| **SPRING BRAKE RELAY:** | *SEE NOTES | 110701 | |
| **YARD RELEASE VALVE:** | SEALCO_YR | 17600B | |
| **INLINE RELAY FITTED:** | N/A | N/A | |

**ECU DIRECTION:** ☑ FRONT ☐ REAR **FRONT FRICTION: μ** 0.49

**SUBSYSTEMS:** ☐ SMARTBOARD ☐ OPTI-LINK ☐ CAN ROUTER 446 122 050 0

☐ ELEX 446 122 070 0 ☐ TAILGUARD

## SUSPENSION

| | FRONT | REAR |
|---|---|---|
| **SUSPENSION TYPE:** | PNEUMATIC | PNEUMATIC |
| **MAKE:** | ROR_AIRSPRING | ROR_AIRSPRING |
| **MODEL:** | ROR_INTRA | ROR_INTRA |
| **BELLOW SIZE:** | CS9I | CS9I |
| **HEIGHT CONTROL VALVE:** | HALDEX 90554950 | HALDEX 90554950 |
| **OTHER VALVES:** | N/A | N/A |
| **RIDE HEIGHT *mm* :** | 280 | 280 |
| **HANGER HEIGHT *mm* :** | 250 | 250 |
| **PEDESTAL HEIGHT *mm* :** | 75 | 75 |
| **LIFTAXLE:** | | N/A |
| **TIPPING DUMP SWITCH:** | | N/A |
| **LIFTAXLE VALVE:** | | N/A |
| **PRESSURE LIMITING:** | | 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:** | OTHER BRAND 2/3 VALVE | |

## 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:** | N/A | N/A |
| **NORMAL LEVEL:** | N/A | N/A |
| **LOWER LEVEL:** | N/A | N/A |

## 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:** | | | |

## NOTES AND SPECIAL CONDITIONS

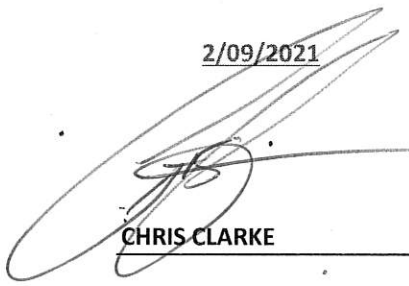
**REASON FOR CERTIFICATION:** NEW TRAILER BUILD

*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 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:** 2/09/2021

**SIGNED:**



**CERTIFIER NAME & ID:** CHRIS CLARKE CJC

**SODC BY:**

**PHONE (BUS):** 09-980-7300

**FAX:**

**POSTAL ADDRESS:** 385 HAUTAPU ROAD, RD3, HAMILTON
New Zealand