

RE-PF-C-01180.01

21 Sep 2012

Level 15 / 628 Bourke Street  
Melbourne VIC 3000

**Notification of PBS Final Approval**

P 61 3 9236 5000

F 61 3 9642 8922

Applicant Details	Peter Hammel Hercules Engineering (QLD) 19 Clinker Street Darra QLD 4076	Operator	Cook Haul
-------------------	---	----------	-----------

Application Number	V110302 A1	Vehicle Type	Truck and Dog
Load Information	Quarry Products	Length (m)	≤ 19.68
Assessor	Peter Eady	Overall Height (m)	≤ 4.3

Mass Limits	Level 1	Level 2
GML (t)	49.8	55.0
CML (t)	50.5	56.0
HML (t)	50.5	56.5
Bridge Assessment	Tier 1	

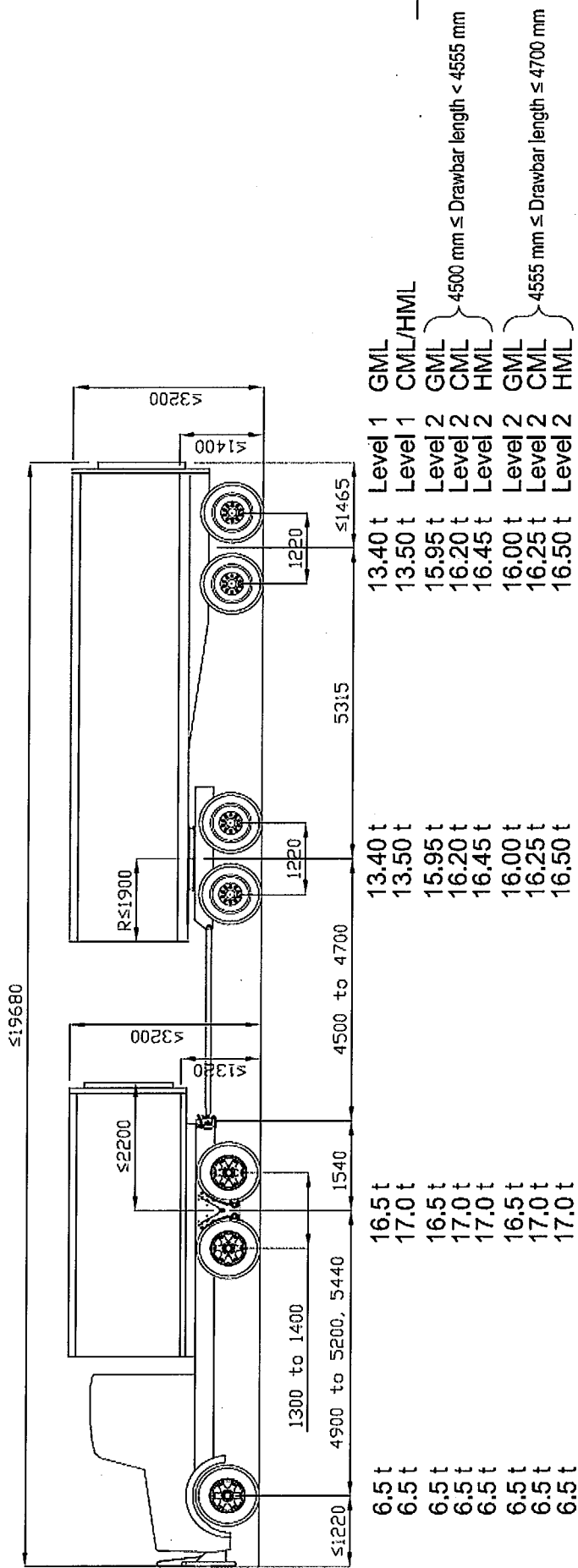
Max Axle Group Masses	Level 1	Level 2
Steer (t)	6.5	6.5
Drive (t)	17.0	17.0
Dolly (t)	13.5	16.5
Tandem Axle (t)	13.5	16.5

That the Panel approves this vehicle combination with the following operating conditions:

- 1 The gross combination mass must not exceed the limits in the "Mass Limits" table and the axle group masses must not exceed the "Axle Group Masses" table.
- 2 Payload must be contained within the height of the bins. Payload Heights (Measured from the ground):
  - Truck: 2.935m
  - Trailer: 2.94m
- 3 Higher Mass Limits (HML) requirements
  - For tandem axles groups, road friendly suspensions
- 4 Concessional Mass Limits (CML) requirements
  - National Heavy Vehicle Accreditation Scheme (NHVAS) – Mass Management Module.
- 5 6.5 tonne Steer axle concession
  - An engine that complies with the engine emission standards of Australian Design Rule (ADR) 80/01 (Euro 4); and
  - Front Underrun Protection Device (FUPD) that complies with UN ECE Regulation 93; and
  - A cabin that complies with the strength requirements of UN ECE Regulation 29
- 6 When the trailer mass exceeds the truck mass, at least 16 tonnes on the drive axle group is required. This clause does not apply for an unladen vehicle.

Exemptions	
ADR	• Rule 43, clause 6.1 (Length)
AVSR	• Clause 69 (Length of combinations)





GCM is limited to 49.8 t at Level 1 GML and 50.5 t at Level 1 CML/HML,  
 GCM is limited to 54.9 t at Level 2 GML, 55.9 t at Level 2 CML and 56.4 t at Level 2 HML (4500 mm ≤ Drawbar length < 4555 mm),  
 GCM is limited to 55.0 t at Level 2 GML, 56.0 t at Level 2 CML and 56.5 t at Level 2 HML (4555 mm ≤ Drawbar length ≤ 4700 mm).  
 Under Level 1, peak payload height is limited to 3040 mm for both truck and trailer  
 Under Level 2, peak payload height is limited to 3200 mm (truck) and 3100 mm (trailer)  
 A 6.5 tonne steer axle mass limit is applicable provided the vehicle complies with the requirements for the 0.5 tonne steer axle mass concession as detailed in Table 1 of Attachment 1 of the accompanying SMART application form. Otherwise, a 6.0 tonne steer axle mass limit should be applied.  
 This drawing was constructed using dimensions supplied by the applicant and used in the application. The drawing does not necessarily represent the vehicle as built, and must not be used as a construction drawing. Do not scale from this drawing.

	ARRB Group Ltd	Tel: (03) 9881 1620	SCALE: NTS REVISION: 01 A3
	Heavy Vehicles	Fax: (03) 9886 3076	
TITLE: Hercules Vehicle E Variation 3 truck and trailer combination PBS APPLICANT: Hercules Engineering Pty Ltd DRAWN BY: P. EADY DATE: 14 Nov, 2011 FILENAME: HV004582-01-D-DWG.pdf		For PBS certification purposes, the acceptable tolerance for any dimensional measurement is considered to be ±1%, or ±20 mm, whichever is the lesser. PBS ASSESSOR: Peter Eady (ARRB Group Ltd) ARRB REF: 004582-01	

**Details of Truck(s) or Prime Mover(s) Inspected**

Make	Western Star
Model	4800FS/2
VIN(s)	5KKJBEDR3DPBY3462
Engine Make / Model	Detroit / DD15 – 560hp / 2510Nm (ADR80/03)
Transmission Make / Model	Eaton Fuller / Roadranger RTLO20918B
Differential Make / Model / FD Ratio	Meritor /RT46-160GP / 4.30:1
Suspension Make / Model (Steer)	Western Star/ Parabolic
Suspension Make / Model (Drive)	Western Star/ Airliner 46K
Tyres Make / Size / Model (Steer)	Michelin / 295-80r22.5 / XZE2+
Tyres Make / Size / Model (Drive)	Continental / 11r22.5 / HDR1
Brakes (Load Proportioning, ABS, ECB, etc)	ABS
Tow Coupling Make / D Rating	Ringfeder / 35,000 kg
Wheelbase (m)	5,005mm
Bin Height (Measured from the ground) (m)	2,935mm
Number of Axles	3
ADR category	NC
GVM (kg)	24,500kg
GCM (kg)	90,500kg

**Details of Trailer(s) Inspected**

Type	Drawbar Trailer
Make	Hercules Engineering
Model	4 Axle Dog Tipper
VIN(s)	6T9T24V97C0AFH132
Suspension Make / Model	TMC / V-series Air Suspension
Tyres Make / Size / Model	Continental / HTR 11r22.5

Drawbar Length (m)	4,700mm
Coupling Make / D Rating	Ballrace BPW DK90-16 / 60,000 kg
Brakes (Load Proportioning, ABS, ECB, etc)	ABS on 2 <sup>nd</sup> & 4 <sup>th</sup> Axles
Wheelbase (m)	5,315mm
Bin Height (Measured from the ground) (m)	2,940mm
Number of Axles	4
ADR category	TD
ATM (kg)	35,000kg

**Details of the Combination(s)**

Overall Length x Width x Height (m)	18,830mm x 2,490mm x 3,240mm "to top bin header"
-------------------------------------	--

**Other Approved Options**

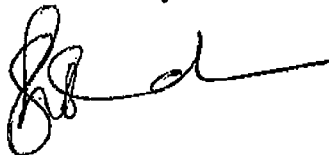
<p>Tyres:  <u>Steer:</u> 295/80R22.5 Bridgestone, Dunlop, Goodyear or Michelin  <u>Drive:</u> 11R22.5 Bridgestone, Dunlop, Goodyear, Continental or Michelin  <u>Trailer:</u> 11R22.5 Bridgestone, Dunlop, Goodyear, Continental or Michelin</p>	<p>Suspension:  <u>Steer:</u> Parabolic or multi-leaf  <u>Drive:</u> Kenworth Airglide 100/200/400/460, HAS 461, Airliner 40K/46K, Mack A1460/AP460, Neway AD246  <u>Trailer:</u> TMC V Series, BPW OM/D36 or AM/D30, Hendrickson HT230T, York Tecair, SAF IO35-2000RZ , SAF IO37-2500RZ</p>
--	--

This letter provides confirmation of PBS final approval.

**You should produce a copy of this letter when applying for access.**

If any further assistance is required in relation to this application feel free to contact the Secretariat.

Yours sincerely



Sri Kannan  
 Secretariat  
 Performance Based Standards (PBS) Review Panel