

## DIESEL ENGINE SYSTEM APPROVALS

DATE OF APPROVAL	FILE NUMBER	APPROVAL NUMBER	APPROVAL HOLDER	DESCRIPTION OF APPROVAL	TYPE OF APPROVAL	AUTHORISED BY
19-Dec-03	C90/0776	MDA DES 32/2	Dealquip NSW Pty Ltd	Diesel Engine System (DES) on a Dealquip NSW Pty Ltd Kubota 2203 engine as specified by DES 32. This supplementary approval allows the use of the alternative exhaust gasket material.	Supplementary	GJ
5-Sep-03	C03/0043	MDA DES 030043/3	VA Eimco Australia Pty Ltd	Type approval for the diesel engine system (DES) on a VA Eimco Australia Pty Ltd, 220 LHD machine with a caterpillar 3216 direct injection, turbo assisted (DITA) engine rated at 150kW with wet exhaust system per the listed documents	Temporary Type	GJ
27-Aug-03	C03/0043	MDA DES 030043/2	VA Eimco Australia Pty Ltd	Diesel Engine System (DES) as specified by MDA DES 030043. This supplementary approval allows the: 1) trial period, as specified in MDA DES 30043, to be extended by two months until 31st October 2003, 2) VA Eimco 220 LHD machine, serial number 220-RO7280, to be used at Dartbrook Underground Coal Mine for the completion of the trial period.	Supplementary	GJ
25-Jul-03	C99/0210	MDA DES 16012/1	Anderson Industrial	Diesel Engine System (DES) as specified by MDA DES 16012 as per the documents listed. This supplementary approval allows the installation of a particular filter assembly and associated changes to the engine shutdown system.	Supplementary	GJ
24-Jul-03	C03/0043	MDA DES 030043/1	VA Eimco Australia Pty Ltd	Diesel Engine System (DES) as specified by MDA DES 030043. This supplementary approval allows the VA Eimco 220 LHD machine, serial number 220-RO7280, to be used at Dendrobium coal mine for the completion of the trial period as specified in MDA DES 030043.	Supplementary	GJ
14-Jul-03	C99/0749	MDA DES 5033/1	DBT Diesel Pty Ltd	Diesel Engine System (DES) of a DETROIT 6V92 Direct Injection, Turbo Assisted (DITA) and supercharged engine as specified by MDA DES 5033 and as per the listed documents. Includes modifications to the DES exhaust, safety shutdown circuit and system compliance to AS/NZS 3584.2-2003	Supplementary	GJ
14-Jul-03	C02/0199	MDA DES 020199/3	DBT Diesel Pty Ltd	Type approval for the Diesel Engine System on a DBT Diesel Pty Ltd LHD machine with a Caterpillar 3126 Direct Injection, Turbo Assisted (DITA) engine rated at 230 hp with dry exhaust system as per the documents listed.	Type	GJ
9-May-03	C03/0043	MDA DES 030043	VA Eimco Australia Pty Ltd	Type approval for the diesel engine system on a VA Eimco Australia, Pty Ltd, 220 LHD machine with a Caterpillar 3216 Direct Injection, Turbo Assisted (DITA) engine rated at 150 kW with wet exhaust system per the listed documents.	Type	GJ
11-Mar-03	C02/0199	MDA DES 020199/2	DBT Diesel Pty Ltd	Diesel Engine System as specified by MDA DES 020199. This supplementary approval allows: a) The use of machine FBL10 serial No. 5003 fitted with engine serial No. 9Z020199, and b) The temporary type approval to be extended for a six month period ending 31 August 2003. At that time the approval will be automatically revoked.	Supplementary	GJ
17-Feb-03	C03/0043	MDA DES 030043	VA Eimco Australia Pty Ltd	Temporary type approval for the diesel engine system on a VA Eimco Australia, Pty Ltd, 220 LHD machine with a Caterpillar 3216 Direct Injection, Turbo Assisted (DITA) engine rated at 150 kW with wet exhaust system per the listed documents.	Type	GJ

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26-Sep-02	C02/0199	MDA DES 020199/1	DBT Diesel Pty Ltd	Diesel Engine System as specified by MDA DES 020199 per the listed documents. Includes splitting the radiator into two separate cooling circuits one for the engine and one for the exhaust heat exchanger. Plus the addition of a coolant loss valve and test valve in the pneumatic shutdown circuit.	Supplementary	GJ
20-Aug-02	C90/0776	MDA DES 32/1	Dealquip Australia Pty Ltd	Diesel Engine System as specified by MDA DES 32 as per the listed documents. Includes a new wet exhaust scrubber for Kubota 2203 engine, which complies with AS 3584-1991 & AS/NZS 3584.2 - DRAFT 2002.	Supplementary	GJ
15-Aug-02	X86/6042	MDA DES 17/2	Boart Longyear	Diesel Engine System as specified by MDA DES 17, as per the listed documents. Includes alterations to the existing scrubber to include dual element exhaust filters fitted after the existing exhaust conditioner.	Supplementary	GJ
22-May-02	C02/0199	MDA DES 020199	DBT Diesel Pty Ltd	Temporary type approval for the diesel engine system on an FBL 10 LHD machine with a Caterpillar 3216 Direct Injection, Turbo Assisted (DITA) engine rated at 230 HP and dry exhaust system per the listed documents.	Temporary Type	GJ
10-May-02	X86/6042	MDA DES 17/1	Boart Longyear	Diesel Engine System as specified by MDA DES 17 as per the listed documents. Includes the modification of the exhaust scrubber to include an additional inspection cover.	Supplementary	GJ
14-Jan-02	C91/0095	MDA DES 33/1	VA Eimco Australia Pty Ltd	Additional Conditions to: Eimco 130, 913-6, some 915 LHD's; Eimco 936; Jeffrey Ramcars fitted with DES 33 exhaust systems; ANI Ruwolt UPV vehicles; any other vehicles fitted with Caterpillar 3306 PCNA engine and Eimco wet scrubber system compliant with AS 3584-1991.	Supplementary	GJ
5-Dec-01	C01/0415	MDA DES 15009/3	Vale Statutory and Mining Services Pty Ltd	Domino Diesel Engine System DES 15009 as per the listed documents. This supplementary approval allows the repositioning of the floats on the scrubber to complement Supplementary Approval for machine layout.	Supplementary	GJ
9-Nov-01	C00/0606	MDA DES 5041/1	Anderson Industries (QLD)	Approval to allow the original 12 month trial of the diesel engine system MDA DES 5041 to be completed.	Supplementary	GJ
29-Oct-01	C95/0251	MDA DES 15009/2	PJ Berriman & Co Pty Ltd	Domino Diesel Engine System MDA DES 15009. This supplementary approval allows the replacement of the pilot low water valve with a float type low water valve. The variation includes the approved PJB conditioner internal low water valve and low water test valve system. It includes the modifications to the low water valve system and exhaust conditioner as per the listed documents.	Supplementary	GJ
13-Jul-01	M82/7298	MDA DES 4 Issue 04	Boart Longyear	Supplementary Approval for Caterpillar 3306 PCNA diesel engine system to include the optional fitment of a water-cooled exhaust pipe part no. 7051972-700 Revision Original.	Supplementary	GJ
25-May-01	C95/0251	MDA DES 15009	PJ Berriman & Co Pty Ltd	Supplementary Approval to include use of an alternative dual low water valve system and modified exhaust conditioner with bolted construction to the existing engine system approval MDA DES 15009.	Supplementary	GJ

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25-May-01	C01/0205	MDA DES 15000	PJ Berriman & Co Pty Ltd	Caterpillar 3304PCNA indirect injection naturally aspirated, four (4) cycle, four (4) cylinder in-line vertically orientated, 6.8 litre diesel engine system as shown on arrangement drawing CF002401 Issue 1 and in accordance with the attached schedule.	Type	RR
24-May-01	C91/0095	MDA DES 33	VA Eimco Australia Pty Ltd	Supplementary Approval for Caterpillar 3306 PCNA diesel engine system to include:- exhaust conditioner: 1) relocation of one top chamber shutdown sensor or shutdown float to bottom chamber 2) option of two different positions for remaining top shutdown sensor or shutdown float 3) use of a new design water make up valve assembly 4) increased water gallery size between top and bottom chambers and provision for cleaning of this gallery. 5) increase hole size between bottom chamber and bowl of exhaust conditioner. 6) fitting of access port at top of exhaust conditioner by use of one of 2 options. 7) fitting of larger access to top and bottom chambers. 8) use of exhaust temperature sensor with 0.8mm wall thickness stainless steel sheath. Supplementary Approval safety circuit: 9) addition of an optional start button override valve which will eliminate coolant loss override if button is held in. other changes: 10) removal of 3.2mm graphoil gasket thickness on approval drawing.	Supplementary	RR
19-Mar-01	C00/1627	MDA DES 9037	Helensburgh Coal Pty Ltd	Perkins 6.247 naturally aspirated, size six (6) cylinder in-line vertically orientated, 4.05 litre diesel engine system.	Type	RR
28-Feb-01	C97/0760	MDA DES 15021/1	DBT Australia LAD Pty Ltd	Supplementary Approval to include the removal of the Eimsafe shutdown system and replace this with an engine oil - air system on the existing engine system approval MDA DES 15021 Issue M 5013-1.	Supplementary	GJ
16-Dec-00	C99/1011	MDA DES 9029	PJ Berriman & Co Pty Ltd	Supplementary Approval for Caterpillar 3504/PERKINS 1004-4 diesel injection naturally aspirated, four cycle, four cylinder in-line vertically orientated, 4 litre diesel engine system as shown on arrangement drawing PJB0080 sheet 1 and in accordance with the attached schedule.	Supplementary	LR
17-Oct-00	C97/0164	MDA DES 15016/1	Specialized Mining Vehicles Pty Ltd	Supplementary Approval to MWM D916-6 PCNA Diesel engine system to include the option of use of an alternative safety circuit.	Supplementary	RR
6-Oct-00	C97/0522	MDA DES 15024	VA Eimco Australia Pty Ltd	Supplementary Approval for Caterpillar 3306 PCNA DST Diesel engine system to include the options of:- 1) adjustment of static fuel rack setting to 4mm, and 2) use of a different radiator and fan, and 3) use of commercial low emission diesel fuel, 4) modified shutdown system to prevent coolant loss shutdown over-ride and 5) use of alternate gasket material.	Supplementary	RR
29-Sep-00	C96/0142	MDA DES 13023	PJ Berriman & Co Pty Ltd	Supplementary Approval for Exhaust Filter on DES 13023 to include drawings updated with changes to show installation of exhaust filter.	Supplementary	RR

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11-Sep-00	C00/0606	MDA DES 5041	Anderson Industries (QLD)	Flameproof Diesel Engine System. Caterpillar 3306 DINA Arrangement No. 3Q6852 6 cylinder in line 4 cycle 10.5 litre diesel engine system fitted with Anderson Industries flameproof components, air operated shutdown system, high profile air intake, Elgin catalytic purifier Model No. AZ29 and wet type exhaust scrubber as shown on arrangement drawing 1-152-02 Issue D and in accordance with attached schedule.	Temporary Type	RR
8-May-00	C99/1011	MDA DES 9029	PJ Berriman & Co Pty Ltd	Caterpillar 3504/Perkins 10004-4 direct injection naturally aspirated, four (4) cycle, four (4) cylinder in-line vertically orientated, 4 litre diesel engine system as shown on arrangement drawing PJB0080 sheet 1 and in accordance with the attached schedule.	Type	LR
29-Nov-99	C99/0750	MDA DES 5035	Seneca Australia Pty Ltd	DES type Approval of the Fireproof 350 hp Detroit 6V92 diesel engine as per the listed drawing.	Type	RR
17-Sep-99	C91/0095	MDA DES 33	ANI Engineering Pty Ltd	Supplementary Approval of the Flameproof 150 hp Caterpillar 3306 PCNA 92 diesel engine to include an alternative exhaust manifold, alternative downpipe and Ex.ia shutdown system as per the listed drawing.	Supplementary	LR
18-Jun-99	C99/0210	MDA DES 16012	Anderson Industries (Qld) Pty Ltd	Primary approval for caterpillar 3306PCNA diesel engine system with wet type exhaust conditioning system	Type	D Ng