



S-29020/34/181(3)/A/2015/EHQ  
भारत सरकार/Government of India  
श्रम एवं रोजगार मंत्रालय  
Ministry of Labour & Employment  
खान सुरक्षा महानिदेशालय/  
Directorate General of Mines Safety

**Regd. Airmail**



No. 614/2216 /EHQ, Dhanbad, dated the

10-11-2016

From  
Director General of Mines Safety  
Directorate General of Mines Safety,  
P.O & Distt: Dhanbad - 826 016

To  
Mr Stuart Craig - General Manager Diesel  
M/s. VLI Diesel Pty Ltd  
Suite 1903 Level 19, 31 Market Street,  
Sydney NSW 2000.

Sub:- DGMS approval under Regulation 181(3) of the Coal Mines Regulations, 1957 for Flameproof and Intrinsically Safe electrical equipment to be associated with Drifrunner Underground Man Transporter, Model: G-Series, as mentioned in Annexure-B manufactured by M/s. VLI Diesel Pty Ltd, Sydney for use in belowground coal mines in India under Regulation 181(3) of the Coal Mines Regulations, 1957.

Ref: Test certificate as per Annexure-B.

IDENTIFICATION MARK  
DGMS APPROVAL No. 717 OF 2016

Dear Sir,

Based on the test reports under reference and performance report received from M/s. Eastern Coalfields Limited, Sanctoria, Dishergarh, Ditt: Burdwan, approval is hereby accorded to Flameproof and Intrinsically Safe electrical equipment to be associated with Drifrunner Underground Man Transporter, Model: G-Series as mentioned in Annexure-B for use in belowground Coal Mines in India for a period of **five (05) years from the date of issue of this letter**, subject to compliance with the conditions stipulated in the Annexure-A.

The application for renewal should be made at least **three (03) months** before the date of expiry of the approval.

Yours faithfully,

  
(Rahul Guha)

Encl: Annexure

Director General of Mines Safety

ANNEXURE-A

DGMS APPROVAL no. 717 of 2016 issued vide Directorate's letter no. 614/2216/EHQ dated 10-11-2016

Conditions for DGMS approval under Regulation 181(3) of the Coal Mines Regulations, 1957 for Flameproof and Intrinsically Safe electrical equipment to be associated with Driftrunner Underground Man Transporter, Model: G-Series, as mentioned in Annexure-B manufactured by M/s. VLI Diesel Pty Ltd, Sydney for use in belowground coal mines in India.

1. Every Driftrunner Underground Man Transporter shall carry conspicuously in a permanent manner the aforesaid identification mark, i.e. "DGMS APPROVAL No. 717 of 2016 approved by Directorate's letter No. 614/2216/EHQ dated 10-11-2016"

In addition, every machine shall also carry permanently this Directorate's approval mark as below:



2. The maintenance schedules, competent persons, testing and records of the Diesel Engine of Drift Runner shall conform to standard AS/NZS 3584.3:2012.
3. The exhaust emissions of the diesel engine shall be recorded periodically by the user and the same shall be analysed at any government approved or NABL accredited laboratory at least once in three (03) months or 500 hours of engine operation whichever is earlier conforming to the standard AS/NZS 3584.2:2012. These reports shall be kept available in the mine office.
4. Periodical testing of the brakes with load shall be conducted by a competent person as per the standard MGD39 and the same shall be recorded in a separate bound paged book.
5. Noise survey, Whole body Vibration survey (Operator and Passenger seats) and Stability test of the equipment conforming to any internationally accepted standard shall be conducted once in a year or 2000 hrs of engine operation by any government approved or NABL accredited laboratory and the report of the same shall be kept available at the mine office.
6. The general arrangement drawing of the equipment shall conform to the drawings submitted in the application and any modifications on the equipment or diesel engine in particular, shall not be carried out without prior approval of this Directorate.

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7. The relevant provisions of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 and Australian Standard AS/NZS 3584.2:2003 for flameproof diesel engine & code of practice for use of mobile diesel powered transport equipment shall be complied with regards to the installation, operation and maintenance of the equipment.
8. The quantity of air for circulation in a district where diesel operated equipment is used, shall be not less than 0.06 m<sup>3</sup>/s per KW of the machine or 3.5 m<sup>3</sup>/s whichever is greater. There should be a continuous monitoring system on the vehicle for Methane gas and such system shall give warning if the percentage of Methane exceeds 1 and shall shut off the engine the moment the percentage of methane is 1.25.
9. The diesel powered vehicle shall not be operated
  - (a) if concentration of noxious gases at the exhaust of diesel engine exceeds as per the standard AS/NZS:3584.2.
  - b) whenever the ventilation is interrupted.
10. The relevant provisions of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 shall be complied with in all matter relating to the installation, operation and maintenance of the equipment.
11. All covers, doors/access covers of the electrical equipment mounted on the machine, the opening/removal of which may expose live internal conductors, shall have warning instructions, either by raised lettering or by other suitable means against such opening/removal of covers, doors and access covers without isolating supply of energy to the equipment from its source.
12. The plug and socket assembly affixed to the motors/panel, if provided, will be so interlocked as to prevent removal of plug from the socket while alive.
13. Any parts required for replacement for maintenance of the equipment/engine which are directly or indirectly connected to the flameproof features thereof, shall be supplied by the manufacturer as and when required.
14. The electrical equipments associated with the machine shall be checked by Electrical Supervisor of the mine for their respective flameproofness at least once in each shift and the findings thereof shall be entered into a bound-paged book maintained for that matter which shall be duly signed by the Electrical Supervisor with the date inserted thereunder.
15. The user shall furnish the performance report of the equipment directly to this Directorate after one (01) year of actual use.
16. (a) The user shall be supplied the copy of this approval letter, the test report from the testing laboratory with the lab certified drawings , an extract of the condition & special conditions, maintenance schedule, if any, recommended by the testing laboratory in their test report(s) so as to maintain safety features of apparatus/equipment.

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- (b) The user shall also be provided a copy of factory test report along with drawings, instruction manual on the installation, operation and maintenance of the equipment and spares parts catalogue at the time of delivery of the equipment.
17. The electrical and mechanical personnel who may be entrusted with the responsibility for the use, maintenance and operation of the machine shall be given adequate training.
  18. The users in consultation with the manufacturer, shall frame a code of practice to provide the guidance of persons employed for installation, operation and maintenance of Driftrunner Underground Man Transporter, Model: G-Series and associated equipments, as well as to provide safety, health, convenience and discipline of persons so employed.
  19. Technical assistance shall be provided by the supplier at the time of initial installation. The supplier shall also maintain close contact with the users to get themselves fully apprised of any difficulty that may be faced by the user with regard to the use, maintenance and operation of the equipment.
  20. All fire resistant high pressure hydraulic hoses and fire resistant hydraulic fluids used in the equipment shall comply with the general order No. DGMS/Mech/Technical Cir.(Approval)/04 dated 13.02.2015 and general order No. DGMS/Mech/Technical Cir.(Approval)/02 dated 13.02.2015 respectively issued by this Directorate.
  21. The electrical cables shall comply with the parameters and guidelines prescribed in the general order No. DGMS/Tech. Circular (Electrical) Approval/12 dated 25.05.2015 and amendment of general order No. DGMS/Tech. Circular (Electrical) Approval/1 dated 19.02.2016 issued by this Directorate..
  22. The Audio Visual Alarm used in the machine shall conform to the standards and parameters as prescribed in the DGMS Tech. Circular (Electrical), Approval No. 21 dated 05.10.2015.
  23. The permission to use the above said equipment shall be obtained under Regulation, 181(1) of CMR 1957 from the concerned Zonal Office of this Directorate under intimation to this office.
  24. If there occurs any revision of standards applicable to the product/equipment , the manufacturer shall get the product/equipment tested as per revised standards and submit test reports to the customer for information and to this Directorate for further approval/renewal.
  25. While seeking renewal of approval, valid BIS license in the case of Indian manufacturers and in case of foreign manufacturers QAR/QAN for the associated flameproof / weatherproof / intrinsically safe apparatus, as may be applicable, shall be submitted.

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26. The cable entry devices, threaded adaptors and stopping plugs shall be suitable for the equipment and be considered as a part of equipment (not a component). The cable entry device and cabling methods used shall be suitable for their intended duty and for the special type of cable used in mining. Such cable entry devices shall be duly certified as per relevant IS/IEC standards.
27. The test certificates as per latest IS/IEC standards for Flameproof Multi-purpose Enclosure manufactured by M/s. ATF Mining Electrics Pty. Ltd., Australia & Flameproof Alternator manufactured by M/s. Mining Repairs, Australia and valid QAR/QAN for the items shall be submitted within a period of three months from the date of issue of this letter.
28. The approval is accorded for a period of **five (05) years from the date of issue of this letter.**
29. At the time of applying for renewal, details of supply with name of mines, purchase order and date shall be furnished with the application.
30. The application for renewal shall be made at least three months before the date of expiry of the approval.
31. Any modification/alteration to the machine that might be considered necessary at a later date in the interest of safety or/and efficient handling, operation, maintenance and maneuverability of the machine shall be carried out upon being so directed.
32. If at any time any of the conditions subject to which this approval has been granted, is violated or not complied with, this approval shall be deemed to have been revoked with immediate effect.
33. The above approval may be amended or withdrawn at any time, if considered so necessary in the interest of safety and is being issued without prejudice to any other provisions of law which may be or may become applicable at any time.


  
(Rahul Guha)

Director General of Mines Safety

## Annexure-B

List of Flameproof and Intrinsically Safe electrical equipment associated with Drifrunner Underground Man Transporter manufactured by M/s. VLI Diesel Pty Ltd, Sydney for use in belowground coal mines in India under Regulation 181(3) of the Coal Mines Regulations, 1957 issued by Directorate's letter no. 614/2216 /EHQ, dated 10-11-2016

SI No.	Item	Manufacturer Name	Test Certificate No.	Report No.
1	Flameproof Diesel Engine Model No. 1006-6	M/s. Perkins	30708 dated 25.11.2008	30708 dated 25.11.2008
2	MTL Barrier Isolator Interfaces	M/s. Cooper Electrical Australia Limited, Australia	IECEX ITA 08.0009X	GB/BAS/Ex tr08.0064/00 (report to be submitted - see clause 9)
3	Asco Solenoid	M/s. Ascomation Pty Ltd., Australia	IECEX TSA 14.0012X	AU/TSA/ExTR14.0038 /00 (report to be submitted - see clause 9)
4	LED Head Lights, FSH Series	M/s. SETCO Australia Pty. Ltd., Australia	IECEX ITA 12.0004X	AU/ITA/ExTR 12.0008/00, 01,02,03
5	Instrument Housing/Hour meter, FSH Series	M/s. SETCO Australia Pty. Ltd., Australia	IECEX ITA 12.0004X	AU/ITA/ExTR 12.0008/00, 01,02,03
6	Series 178 FLP Multi-purpose Enclosure	M/s. ATF Mining Electrics Pty. Ltd., Australia	IECEX SIM 05.0005X	AU/SIM/05/0004
7.	Gas Guard CH <sub>4</sub> Sensor	M/s. Ampcontrol Pty Ltd., Australia	Baseefa09AT EX 0204X	09(C)0334 (report to be submitted - see clause 9)
8.	Flameproof Alternator	M/s. Mining Repairs, Australia	IECEX TSA 06.0041X	AU/TSA/ExTR06.0056 /00

  
 (Rahul Guha)  
 Director General of Mines Safety