



Technical Bulletin / Safety Alert

Unique ID No: DES2017-TBSA- 03 **Rev:** 1

Subject: DES Control Systems – Safety Critical Components – Identification & recommended maximum preplacement Intervals

Date: 17th February 2020

Applicable to: All VLI JUG-A-0, Driftrunner & Brumby Vehicles and Diesel Engine Systems (DES) MDR074246DES, MDR114991DES, MDR090376DES & MDR124827DES,

Details of Revision: 0 – Original Issue.
1 – Updated P/N's. & Added the AS/NZS 3584.3:2012 clause on Page 2.

Note: Minimum PPE required to carry out any inspections contained in this TBSA shall be protective clothing & footwear, safety glasses, hearing protection & any site specific requirements. A JSA or equivalent should be carried out prior to performing these tasks.

Description:

1.0 Identification of Genuine VLI Parts

VLI is frequently asked to investigate the failure cause of safety critical and key DES components. On many occasions the failed parts are found to be supplied by 'others' and not by VLI. Many of these parts are lacking key OEM modifications or manufacturing elements. In order to help our Customers both ensure they are receiving genuine parts and in the case of failure investigation allow VLI to quickly identify genuine from non-genuine parts, the following methods will be used:-

1. Serial numbers will be etched, stamped or engraved to larger items. Repaired serviced & coded items will be updated and tracked via this method.
2. Data Dots, containing VLI's name will be applied to smaller items that are impractical to physically mark and are generally replaced and not repaired.

2.0 Component Life Cycle

The maximum replacement intervals recommended by VLI for the listed safety critical component have been reviewed (**DES2015–TBSA-02** now superseded) and the amended as follows. Additional maintenance and/or replacement schedules maybe required due to increased duty cycle, severe environmental conditions or altered maintenance schedules. These factors should be considered and assessed on a case by case basis.

All parts contained in the below lists will have VLI Serial numbers or VLI Data Dot identification.

Recommendations:

VLI draws attention to the following clause from AS/NZS 3584.3:2012:

“3.2.7.3 Engine shutdown systems

All safety critical components that are essential to the operation of the automatic shutdown system or emergency stop system shall be replaced or overhauled at intervals recommended by the manufacturer. Where there is no recommendation from the manufacturer, all such components shall be overhauled or replaced as specified for Code D, unless stated otherwise by a competent person.”

The attached tables define the safety critical components that form part of the DES control systems for VLI design approved and design registered diesel engine systems (DES) and provide a recommended frequency for overhaul / replacement.

The recommendations provided by VLI must be reviewed and assessed for each operation and specific end user requirements.

Please ensure this document is circulated to all relevant personnel within your organisation.

Should you have any further queries please contact your VLI Representative.

MDR074246DES & MDR114991DES

DESCRIPTION	PART No.	MAXIMUM OVERHAUL / REPLACEMENT INTERVAL
CHECK VALVE	0601-10022	3,000hrs
REGULATOR - SAFETY CIRCUIT	0601-50025	3,000hrs
FLOW RESTRICTOR - SAFETY CIRCUIT	0601-50027	3,000hrs
ELECTRICAL SHUTDOWN SOLENOID	0601-50028	3,000hrs
THERMAL SENSOR	0601-10051	3 Monthly
COOLANT LOSS VALVE	0601-10058	3,000hrs
ENGINE OIL PRESSURE SHUTDOWN VALVE	0601-50041	3,000hrs
HYDRAULIC OIL LEVEL SHUTDOWN VALVE	0302-10037	3,000hrs
START OVERRIDE PILOT VALVE	0601-10064	3,000hrs
ENGINE SHUTDOWN CYLINDER	0601-50047	3,000hrs
START OVERRIDE FLOW CONTROL	0601-50027	3,000hrs
EMERGENCY STRANGLER VALVE <i>(replaced with 0102-60133)</i>	0102-50025	2,000hrs
EMERGENCY STRANGLER VALVE <i>(newer style)</i>	0102-60133	2,000hrs
RTD	0704-50002	3,000hrs
METHANE ENGINE SHUTDOWN SYSTEM	0704-50001	Subject to statutory electrical inspections
METHANE SENSOR HEAD	0704-50004	Subject to calibration testing
EMERGENCY STOP VALVE	9-04160103	3,000hrs
EMERGENCT STOP SYSTEM PILOT VALVE	0601-10064	3,000hrs
SHUTDOWN FLOAT VALVE <i>(MDR074246DES)</i>	0104-50036	3,000hrs
SHUTDOWN FLOAT VALVE <i>(MDR114991DES)</i>	0104-60067	3,000hrs
METHANE SENSOR BYPASS SWITCH	0704-50018	3,000hrs
EXHAUST CONDITIONER ASSY	0104-60019	3,000hrs
EXHAUST INLET TUBE MDR	0104-50016	3,000hrs
EXHAUST LINK PIPE JUG-A-0 V2 MDR	0104-50008	3,000hrs
EXHAUST LINK PIPE MDR	0104-60022	3,000hrs
EXHAUST MANIFOLD INCLUDING COVER MDR	0104-60020	3,000hrs
EXHAUST MANIFOLD JUG-A-0 V2 MDR	0104-50001	3,000hrs
ASSEMBLY - EXHAUST SCRUBBER MDR	0104-50018	3,000hrs
ELEMENT - FLAMETRAP ASSEMBLY	0102-50199	3,000hrs
ELEMENT - FLAMETRAP	0102-10027	3,000hrs
SUPERCHARGER RDS SENSOR MDR	0704-50016	3,000hrs

MDR090376DES

DESCRIPTION	PART No.	MAXIMUM OVERHAUL / REPLACEMENT INTERVAL
CYLINDER - FUEL SHUT OFF	9-04160114	3,000hrs
VALVE - THERMAL SENSOR	9-04160116 or 9-1416006-004	3 Monthly
VALVE - OIL PRESSURE SHUTDOWN	9-04160117	3,000hrs
VALVE - COOLANT LOSS	9-02161118	3,000hrs
VALVE - REGULATOR	9-04160131	3,000hrs
VALVE - FLOW CONTROL	9-04160132	3,000hrs
VALVE - LOW WATER SHUTDOWN	5-04100506	3,000hrs
METHANE ENGINE SHUTDOWN SYSTEM	N/A	Subject to statutory electrical inspections
METHANE SENSOR HEAD	N/A	Subject to calibration testing
VALVE – PILOT	9-04166401	3,000hrs
VALVE - EMERGENCY ENGINE SHUTDOWN	9-02161104	3,000hrs
STRANGLER VALVE Type 1 (newer style)	6-0411073-001	2,000hrs
STRANGLER VALVE Type 2 (newer style)	6-0411072-001	2,000hrs
VALVE - THERMAL SENSOR	5-04107301 or 9-1416006-003	3 Monthly
VALVE - THERMAL SENSOR	5-04167101	3 Monthly
VALVE - PRESSURE RELIEF	9-04061401	3,000hrs
VALVE - THERMAL SENSOR	5-04167401 or 9-1416006-002	3 Monthly
VALVE - PRESSURE RELIEF	5-04167501	3,000hrs
EXHAUST PIPE MDR	5-04112601	3,000hrs
PNEUMATIC PILOT OIL D.C.V. (DUMP VALVE)	5-04202901	3,000hrs
CYCLONIC EXHAUST CONDITIONER SCRUB MDR	5-04280101	3,000hrs
ELEMENT ASSEMBLY - PURIFIER MDR	5-04280123	3,000hrs
ELEMENT - FLAMETRAP, ASSEMBLY	6-04113901	3,000hrs
SERVICE BRAKE UNIT (MASTER CYLINDER)	9-02201101	3,000hrs
AUTOMATIC EMERGENCY SHUTDOWN TRIP DEVICE	9-04116802	3,000hrs
VALVE - FOOT BRAKE	9-04160113	3,000hrs
VALVE - PARK/EMERG. BRAKE	9-04160103	3,000hrs
VALVE - EMERGENCY SHUTDOWN SYSTEM PILOT	9-04160122	3,000hrs
VALVE - CHECK	9-04160127	3,000hrs
VALVE - 3/2 ROLLER (DOOR INTERLOCK)	9-04160135	3,000hrs
PNEUMATIC PILOT OIL D.C.V. (DUMP VALVE)	9-04205617	3,000hrs

MDR124827DES

<u>DESCRIPTION</u>	<u>PART No.</u>	<u>MAXIMUM OVERHAUL / REPLACEMENT INTERVAL</u>
VALVE - FLOW CONTROL	0601-50027	3,000hrs
VALVE - EMERGENCY SHUTDOWN SYSTEM	9-1416004-001	3,000hrs
VALVE – PILOT	9-04160122	3,000hrs
VALVE - STRANGLER	0102-50025	2,000hrs
REGULATOR	9-04160131	3,000hrs
VALVE - FLOW CONTROL	0601-50027	3,000hrs
METHANE ENGINE SHUTDOWN SYSTEM	N/A	Subject to statutory electrical inspections
METHANE SENSOR HEAD	N/A	Subject to calibration testing
SWITCH - METHANE BYPASS	N/A	3,000hrs
VALVE - FLOW CONTROL	0601-50027	3,000hrs
THERMAL SENSOR	9-04160116	3 Monthly
THERMAL SENSOR	5-04107301	3 Monthly
THERMAL SENSOR	9-1416006-001	3 Monthly
VALVE - SHUTDOWN FLOAT	5-1416007-001	3,000hrs
CYLINDER - ENGINE SHUTDOWN	9-1416008-001	3,000hrs
VALVE – PILOT	9-04160122	3,000hrs
VALVE - ENGINE OIL PRESSURE SHUTDOWN	9-04160117	3,000hrs
VALVE - COOLANT LOSS SHUTDOWN	9-02161118	3,000hrs
VALVE - LOW BOOST SHUTDOWN	9-02161118	3,000hrs
VALVE – CHECK	9-04160127	3,000hrs
EXHAUST MANIFOLD	5-14100201	3,000hrs
ADAPTOR EXTENSION	5-14100301	3,000hrs
WELDMENT - CYCLONIC EXHAUST CONDITIONER	5-14100401	3,000hrs
EXHAUST CONDITIONER OUTLET	5-14100501	3,000hrs
INLET MANIFOLD JO5C ENGINE (VLI SPEC)	5-1411019-001	3,000hrs
FLAMETRAP ELEMENT - FLANGE MOUNT	5-1411021-001	3,000hrs
VALVE - SHUTDOWN FLOAT VALVE	5-1416007-001	3,000hrs
ASSEMBLY - EXHAUST SEPARATION TANK	6-14111101	3,000hrs