Service Information

No. 0003 com

Date:01.11.13Subject:Inspection Interval of emergency stop function

Engine type: **all** Page 1 of 1

Periodic inspection of the function of the emergency stop

In our current customer documentation, we indicate an interval of 750 operation hours for the periodic inspection of the emergency stop function of the engine. Due to the generally high reliability of the engines and the redundancy of the system, it is extremely unlikely that the emergency stop function of the engine will actually be needed in order to prevent damage to operators or machine. Nevertheless, it is important in such a case that the system is fully functional. Due to the continuously rising safety requirements and the fact that with the current interval, a defect in the system could remain unnoticed for a relatively long time, we are changing the recommendation to a weekly examination in operating instructions for new engines.

The same recommendation applies to engines already in service. Therefore, we are enclosing the respective revised pages from the operating instructions in German and English and kindly ask you to insert these in your operating manuals.

Caterpillar Motoren GmbH & Co. KG, Kiel, Germany • Phone: +49 (0) 431 3995-3197 • Fax: +49 (0) 431 3995-3894 • E-mail: ju_tecservice@cat.com





M20/M25/M32/M43

Stop Piston Inspection / Checking

750 See also: A5.05.07.03.01.nn, C5.05.05.10.50.nn, C5.05.05.45.23.nn Spare parts list: B1.05.05.nn4210, B1.05.05.1.4523, B1.05.07.nn3597 Personnel requirement: 1 Pers./ 0,20 h Personnel qualification: skilled engine hand Operating medium: Heavy fuel and distillate fuel

Activity:

Check the emergency function of the stop piston once per week or latest every 750h.



NOTE

The functional check may only be completed when the engine is stopped for other maintenance or repair work!

Procedure:

- 1. Actuate emergency stop.
- 2. Check the position of the control rods.







NOTE
Check all injection pumps. If individual or one control rod can be forced into the injection pump against the pres- sure of the stop piston, check the stop piston in the respective injection pump and overhaul if necessary (<u>A5.05.07.03.01.nn</u>). If all control rods can be pushed into the injection pump, check the control air lines for leaks or damage.

4. Actuate the "**Reset**" button on the safety system.



M20/M25/M32/M43

750

10

	NOTE
1	The stop piston is reset and the emergency stop system depressurized.
	NOTE
	This document only describes the pneumatic and mechanical release of an engine stop. In connection with this inspection work all of the emergency stop equipment on the engine is to be checked for proper function, see <i>"engine documentation, chapter "Control and Monitoring"</i> <u>C5.05.05.10.50.nn</u> .

- 5. (Fig. 2/T3) Measuring point 6105 (function of the safety system) in the maintenance unit, see *"engine documentation, chapter "Control/Regulation"* <u>C5.05.05.45.23.nn</u>.
- Loosen headless screw (T7). By turning cap (T8) adjust the working pressure on the pressure regulating value to 6 bar. If the shutdown air pressure is decreased below the switching value of 6 bar an alarm "Low shutdown pressure" will be released.
- 7. At an air receiver pressure of **30 bar** adjust the working pressure on the pressure regulating valve to **7.5 bar** by turning cap (T8) and tighten headless screw (T7).





M20/M25/M32/M43

750

10

8. Check the emergency stop by actuating the emergency stop lever (**Fig. 3**/20) on the control stand.

