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Service Technician Instruction	ST-152	29 January 2014

Engine type **2, 3, 4 and 6**

Subject **WIKA A-10000 pressure sensors**
Possible quality defect

Service Technician Instruction ST-152 is intended to notify you of a quality defect with Type A-10000 pressure sensors supplied by WIKA, which only occasionally has any effect.

AFFECTED PARTS/ENGINES / SCOPE OF THIS BULLETIN

The affected (affected by the possible quality defect) sensors supplied by WIKA are used on Types 2, 3, 4 and 6 engines. They are used to measure the pressure of oil, cooling water and the gas-air mixture (boost pressure). The GE part numbers mainly affected are 285283 and 415442.

These part numbers are used by GE for pressure sensors from two different suppliers: the firms of WIKA and TRAFAG. The quality defect only affects WIKA products. The TRAFAG sensors are NOT affected by the fault dealt with here.

GE PART NO.	DESCRIPTION	MEASUREMENT	MANUFACTURER	SERIAL NO.	REMARKS
285283	A-10000 pressure sensor 0...10bar, 4...20mA	Oil pressure Cooling water pressure	WIKA	< 1105L9IV	Fault may occur
			TRAFAG	---	Product OK
415442	A-10000 pressure sensor 0...6bar abs., 4...20mA	Boost pressure	WIKA	< 1105L9IV	Fault may occur
			TRAFAG	---	Product OK

Table 01: Affected components

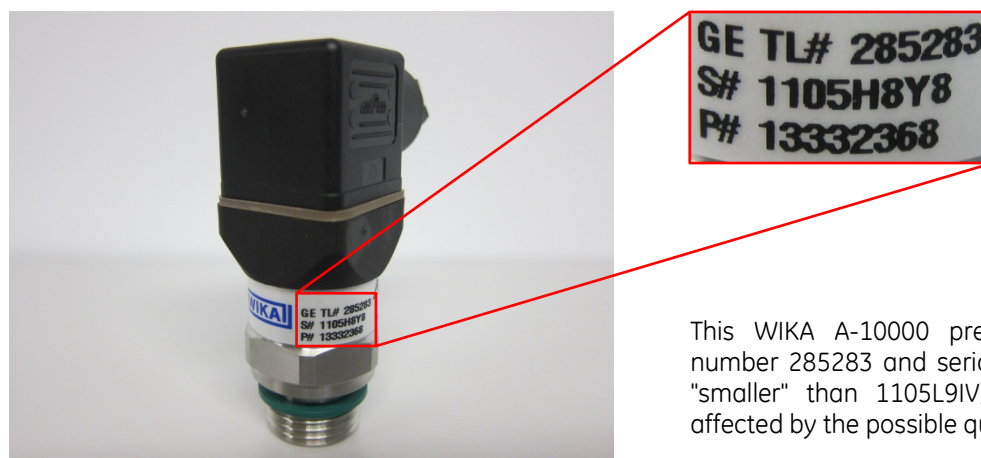


Fig. 01: WIKA A-10000 pressure sensor

This WIKA A-10000 pressure sensor with the part number 285283 and serial number 1105H8Y8 (which is "smaller" than 1105L9IV) is one of the components affected by the possible quality defect.

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NOTES ON THE AFFECTED WIKA SERIAL NUMBERS

Every WIKA pressure sensor has a unique serial number. From the examples in Table 02, these are 8-position alphanumeric codes in consecutive order, similar to multi-digit numbers. Starting with the end position on the right (the "units" position), the letters are counted up from A to Z and the numbers from 0 to 9. When a position reaches its "largest" value with a Z or 9, the next position on the left (tens, hundreds,...) increases by one letter or number and the units position starts at the beginning again, in other words A or 0.

WIKA are unable to pinpoint the start of the quality defect. We know that the smallest serial number confirmed by WIKA as part of a warranty claim is 1103W6EA. The corresponding sensor was manufactured in March 2012.

According to WIKA, the quality defect was rectified from serial number 1105L9IV (delivery date October 2013).

All WIKA parts with serial numbers between 1103W6EA and 1105L9IV are definitely included in the sensors which may be affected by the fault, regardless of their GE part number. The manufacturer regards the probability of sensors older than 1103W6EA (smaller serial numbers) being affected as slight.

SERIAL NO.	AFFECTED BY THE QUALITY DEFECT
... ... 1103W6DX 1103W6DY 1103W6DZ	The probability of the fault occurring with these sensors is slight
1103W6EA	Oldest sensor in which the fault has been confirmed by WIKA
1103W6EB 1103W6EC 1103W6ED 1105L9IS 1105L9IT 1105L9IU	Sensors in which the fault may occur
1105L9IV	First sensor in which the quality defect is rectified
1105L9IW 1105L9IX 1105L9IY	Sensors with these serial numbers are no longer affected

Table 02: Affected WIKA serial numbers

DESCRIPTION OF THE FACTS

Due to a change in the composition of the plastic in the affected WIKA pressure sensors, "evaporation" can occur at the plug connector under high ambient temperatures and moisture conditions, leading to corrosion of the interior of the sensor. The consequence is a faulty measurement signal (analogue value too small) with displayed values being also too small (oil/cooling water/boost pressure) and resultant error messages (e.g. oil pressure minimum, oil pressure measuring signal failure) on the DIA.NE.

This fault generally occurs straight away at initial commissioning.

SOLUTION

WIKA have rectified the quality defect. Sensors after the serial number 1105L9IV are said not to be affected by the problem.

There is NO proactive replacement campaign. Faulty sensors - the oldest case of which we are aware has a production date of March 2012 - are to be dealt with under the usual warranty procedure.

REQUIRED ACTION

When commissioning a plant and after replacing a sensor, pay particular attention to the measured values from the pressure sensor. If these show an unusual pattern, the sensor must be checked (serial number) and replaced as necessary.



ACTION IN THE EVENT OF A FAULT

Replace the sensor. If a WIKA sensor is fitted as the replacement, we recommend always using one with a serial number larger than 1105L9IV on plants with high ambient temperatures and moisture conditions.

In a warranty claim, faulty sensors must be sent back to the following address:

Gebrüder Weiss Gesellschaft m.b.H.
Niederlassung Wörgl

Gewerbepark 9
A-6300 Wörgl, Austria

REVISION CODE

INDEX	DATE	DESCRIPTION / REVISION SUMMARY
01	Jan. 29, 2014	First version of this document

Table 03: Revision history