

Service Bulletin

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Engine type **2, 3 and 4**

Subject **New P7N1 spark plug
Optimising the spark plug range**



SB-101 | June 23, 2016

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Service Bulletin SB-101 refers to a new spark plug called the P7N1, which in future will be used on Type 2, 3 and 4 engines as the replacement for the P1, P2, P4.77, P4.78, P7.1V5 and P7.1V6 spark plugs. As well as the advantage of uniformity across the product range, the newly-developed spark plug can also increase service life up to 25% longer than its predecessor models. A matching adjustment tool for the electrode gap optimises every spark plug service.

In addition, the type P3V5N1 spark plug used up till now will be replaced by the already-existing spark plug type P3V3N1.

AFFECTED ENGINES / SCOPE OF THIS BULLETIN

All Type 2, 3, and 4 engines where P1, P2, P3V3N1, P3V5N1, P4.77, P4.78, P7.1V5 and P7.1V6 spark plugs can be used. Details of this can be found in the Inspection and Maintenance Work IW 0309 M0 "Spark plugs" and the Technical Instructions TA 1530-0192 "P3 spark plugs" and TA 1530-0193 "P7N1 spark plugs".

DESCRIPTION OF THE CONTENT / PURPOSE OF THIS BULLETIN

The new P7N1 spark plug is a further development of the spark plugs currently used. The increase in size of the electrode surface means that more material is available for erosion, which can increase the service life of the spark plug by 25% compared to the spark plugs previously used. The geometry was also modified to improve the stability of the central electrode.

The adjustment tool (part no. 1233810) developed jointly with the P7N1 spark plug allows the electrode gap to be adjusted more easily with the aid of a distance piece. This ensures that the opposite members of each electrode pair are adjusted simultaneously.



Figure 1: Comparison of a P7 spark plug (left) with a P7N1 (right)



Figure 2: Adjusting the P7N1 spark plug with the adjustment tool 1233810

The spark plugs P3V3N1 and P3V5N1 have been combined into one spark plug type, the P3V3N1, for reasons of simplification of production.



REQUIRED MEASURES

The new P7N1 spark plug should be introduced step by step after any existing stocks of old spark plug types have been used up. Old-type spark plugs can be installed mixed with the new spark plugs. No parameter changes compared to the previous versions need to be undertaken before installing P7N1 spark plugs.

The P3V3N1 spark plug can be used in all applications where the P3V5N1 is used without having to make any matching changes in the engine parameters.

RELEVANT PART NUMBERS

The following Table illustrates the changes in the spark plug range for the engine types 2, 3, and 4.

PREVIOUS TYPE 2/3/4 ENGINE SPARK PLUG RANGE (UP TO 2016)		NEW TYPE 2/3/4 ENGINE SPARK PLUG RANGE (AS FROM 2016)	
Part number (singly / 4-pack)	Type	Type	Part number (singly / 4-pack)
227149 / ---	JES P1	P7N1	1233804 / 1233808
190441 / ---	JES P2		
301675 / 314322	P4.77		
301676 / 340051	P4.78		
341015 / 351000	P7.1V5		
382194 / 382195	P7.1V6		
462199 / 462203	P3V3N1	P3V3N1	462199 / 462203
639753 / 639754	P3V5N1		

Table 01: Spark plug range for engine types 2, 3 and 4

RECOMMENDATION for converting to the new P7N1 spark plug:

Please order the adjustment tool 1233810 (see TA 1530-0193) in good time as well!

RELEVANT DOCUMENTS

When working on GE Jenbacher modules, all applicable local regulations must of course be observed in addition to our documentation. We would particularly like to emphasise observation of the following documents in connection with this Service Bulletin:

- Technical Instruction TA 1100-0111: General conditions – Operation and maintenance
- Technical Instruction TA 1530-0192: P3 spark plugs
- Technical Instruction TA 1530-0193: P7N1 spark plugs
- Technical Instruction TA 2300-0005: Safety regulations
- Inspection and Maintenance Work IW 0309 M0: Spark plugs

REVISION CODE

INDEX	DATE	DESCRIPTION / REVISION SUMMARY
01	Jun. 23, 2016	First version of this document

Table 02: Revision history