

YANMAR SERVICE NEWS

Subject	Starting Test for the Engines with Air-Starter Re-established	No. : 18-2-G-09-004-L Date: 2018.09
Engine Models	6EY18, 6EY22, 6EY26, 8EY26	Use Marine Main & Aux.; Industrial
		Engine Nos. _____

In the starting test for the engines which are started with air-starter, the starter pinion tended to repeat meshing and disengagement, which caused the pinion gear and ring gear to be damaged.

Upon survey on the cause of this failure, we found that the starter pinion could repeat meshing and disengagement when the engine was started for the starting test with the air tank pressure under 0.9MPa and the starter inlet pressure under 0.25MPa.

When conducting the starting test for the engines with TDI air-starter, in particular, since the minimum service pressure is set at 0.27MPa (40 PSD), take care not to cause the service pressure to drop under 0.27MPa, possibly due to starting pressure drop, etc.

This event, however, will not be caused excepting for the engine starting test since the regular engine starting cannot be made under 1.47MPa, which is the air tank pressure alarm point.

The possibility of the pinion gear and ring gear being damaged due to this event is low, but we recommend that the starting test be implemented as follows for using the engine continuously at ease:

■Starting Test Method

Before implementing the starting test, check the regulatory starting times and the min. starting pressure specified in the completion drawing, product specifications, etc. and take care not to implement the starting test for more than the regulatory times and under the minimum starting pressure specified. When the minimum starting pressure is not available to you, set the minimum starting pressure at 1.18MPa for implementing the starting test.

An example of test starting of “remote starting” for “marine auxiliary engines” for your reference is as follows:

1. Use the air reservoir and implement remote starting for the regulatory times.

The air reservoir capacity and the initial pressure are as follows:

Air reservoir capacity: 300 L Initial pressure: 2.45-2.94 MPa

Regulatory times: 3 times (6 times in the case of one main engine unit)

2. Adjust the air reservoir pressure to the minimum starting pressure and implement the remote starting.

Min. starting pressure: 1.18MPa

3. Measurement Items for the Starting Test:

Measure the following 4 items at the starting test:

- ①Ambient temperature before the test , ②Cooling water temp. before the test,
③LO temperature before the test, and ④Pressure before & after each test

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