

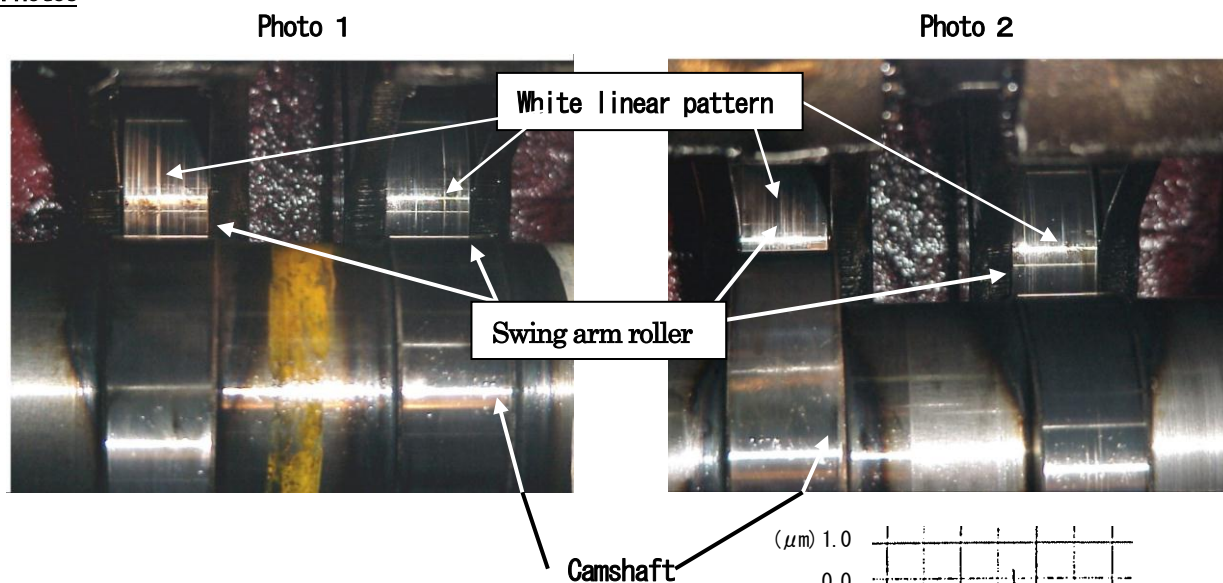
YANMAR SERVICE NEWS

Title	White Linear Pattern on Intake/Exhaust Swing Arm Roller Surface [Rev.1: 6EY18 added]	No. : 02-2-G-07-016 -L Rev. 1 Date: Jul.2002 Revised Date:Jul.2014
Engine Model	6N18, 6N21, 8N21 Series 6EY18	Use Marine Main & Aux. ; Industrial
		Engine Nos. _____

A fine white linear pattern sometimes appears on the intake/exhaust swing arm roller surface, when we inspect it after the test operation of new engines at our plant or onboard or at the site test operation of the field engines.

We noticed this phenomenon for possible trouble and conducted survey with respect to the roller's surface roughness and hardness. As a result, it was verified that the fine white linear pattern represents the breaking-in characteristics of the roller surface. Please note that this phenomenon does not show any abnormality and that there is no problem with the continued use of the rollers. (See the photos below showing the white linear pattern.)

1. Photos



2. Mechanism for the White Linear Pattern Appearance

Although the swing arm roller surface is the specular finish, when we measure the surface of a new swing arm roller with the surface roughness meter, the surface shows the extremely fine uneven surface as shown in Fig.1.

The extremely fine ridges, (the high ridge areas), through the engine's breaking-in operation, become smooth. Thus, the high ridge areas smoothed, appear to be outstanding in a white linear pattern against the background of the specular finished roller face.

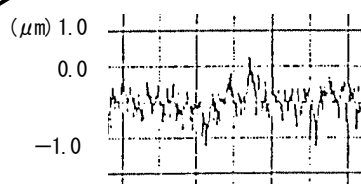


Fig.1 Surface roughness (new part)

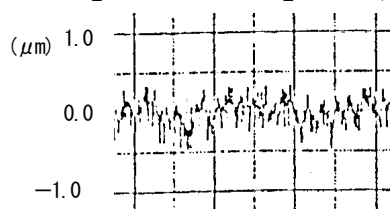


Fig. 2 Surface roughness (used part)

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