





Office: **Rotterdam, Neth.**Date: **18 October 2010**

This certificate is issued to client **Rob Heijkoop Trading B.V.** at **Dordrecht, Neth.** to certify that the undersigned surveyor to this Society did, at their request, attend the works of their subcontractor on **05 October 2010**, to examine the under-noted used diesel engine component, as follows:

One (1) Previously Used Re-Ground Solid Crankshaft

Particulars: Six-throw crankshaft stated intended for diesel engine type **Wärtsilä 6R22**, found with identity marks of Society **Lloyds STU 0600118 + LR + place/date ULM06 and CH21016, 42CrMo4 & 12596**.

All main journals ($\varnothing 199.5$ mm.) and crankpins ($\varnothing 179.5$ mm.) ground down to standard undersize, as reported **0.5 mm.** and, with respective surface hardness of average **53 HRC** in way.

Non-destructive examination of crankshaft, performed and reported by subcontractor, stated same to be free of surface-breaking defects*. Subcontractor's protocol of crankshaft scantlings and shaft run-out respectively, confirmed by sample check at random and, workmanship found good and of adequate standard*.

Crankshaft has been examined in the condition with fitted camshaft spur gear and crank web counterweights.

Upon request, in conjunction with this certificate, subcontractor's protocol dated **16-Sep-2010** should be made available for review and refers.

For identification, subject crankshaft hard stamped additionally with marks **ROT1016352 + 10(PVB)10**, indicating examination per this certificate only.

* Calibration status of measuring equipment confirmed, with records maintained at client's works.

Order No.: **PO 50722**C.F.G. van den Bleek
Surveyor to Lloyd's Register OMA

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