

**Borusan Makine ve Güç Sistemleri
Deniz ve Petrol İşleri Departmanı**

GOSB
1500. Sok. No.1501
Posta Kodu. 41400
Gebze / KOCAELİ

Tel. +90 262 679 56 00
Fax +90 262 242 12 56
www.bmgs.com.tr

| | | | |
|------------------|------------------|-----------------------|---------------------|
| WO: | | Report Date: | 08/09/2016 |
| Vessel: | | Engine Model: | MaK 8M32 Crankshaft |
| Customer: | VESMEC MAKİNA | Serial Number: | 605632 |
| Location: | Tuzla/İST | Running Hours: | |

Rapor Genel Açıklaması:

Crankshaft inspection

Inspection of crankshaft had been carried out and below had been witnessed

1. All crank pin and main journals are measured and found in permissible limits
2. No excessive run out had been observed (0,02).
3. All main bearing journals had been observed at -0,50 mm undersize dimension.
4. No:2 crank pin journal had been observed at – 3,00 mm undersize dimension. Rest of journals had been observed at -0,50 mm undersize dimension.
5. NDT examination carried out by MPI with magnaflux device. No any crack had been observed.
6. Hardness test had been carried out to all main and crankpin journals. All results had been found in the limits.



Servis Raporu



| | | CYLINDER NO. | | | | | | | |
|---------------------|----|--------------|--------|--------|--------|--------|--------|--------|--------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| CRANKPIN JOURNAL | A1 | 279,48 | 276,98 | 279,48 | 279,49 | 279,49 | 279,49 | 279,50 | 279,48 |
| | A2 | 279,48 | 276,98 | 279,48 | 279,49 | 279,49 | 279,49 | 279,50 | 279,48 |
| | B1 | 279,49 | 276,97 | 279,49 | 279,48 | 279,49 | 279,49 | 279,50 | 279,49 |
| | B2 | 279,49 | 276,97 | 279,49 | 279,48 | 279,49 | 279,49 | 279,50 | 279,49 |
| | C2 | 279,48 | 276,98 | 279,49 | 279,48 | 279,49 | 279,49 | 279,50 | 279,49 |
| | C3 | 279,48 | 276,98 | 279,49 | 279,48 | 279,49 | 279,49 | 279,50 | 279,49 |

| | | MAIN BEARING NO. | | | | | | | | |
|-----------------|----|------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| MAIN JOURNAL | A1 | 299,50 | 299,50 | 299,47 | 299,49 | 299,49 | 299,49 | 299,47 | 299,49 | 299,50 |
| | A2 | 299,50 | 299,50 | 299,48 | 299,49 | 299,49 | 299,49 | 299,47 | 299,49 | 299,50 |
| | B1 | 299,49 | 299,50 | 299,48 | 299,50 | 299,49 | 299,50 | 299,48 | 299,49 | 299,50 |
| | B2 | 299,49 | 299,50 | 299,48 | 299,50 | 299,49 | 299,50 | 299,48 | 299,49 | 299,50 |
| | C2 | 299,50 | 299,50 | 299,48 | 299,50 | 299,49 | 299,50 | 299,48 | 299,49 | 299,50 |
| | C3 | 299,50 | 299,50 | 299,48 | 299,50 | 299,49 | 299,50 | 299,48 | 299,49 | 299,50 |

References:

- 1) MaK Technical Letter, number 105, dated on Jan 18, 2010
- 2) Engineer's Handbook, dated on 29/02/2012