

## OIL CONDITION MONITORING REPORT SLNS SAYURA

| <b>GEAR BOX PARTICULARS (Information provided by the customer)</b> |                              |
|--|------------------------------|
|  | <b>Stbd Gear Box (No.01)</b> |
| <b>Make :</b>  | Renktack                     |
| <b>Model :</b>   | ASL 69 GMBH                  |
| <b>Sr.No's:</b>  | 641182                       |
| <b>Sampling Date</b>   | 24 Feb 24                    |
| <b>Sampling point :</b>  | Lube oil sump                |
| <b>Sampling Method :</b>   | Extraction                   |
| <b>Type of Lubricant :</b>   | Shell Gaduria S3 40          |
| <b>System Capacity :</b>   | 450 Ltrs                     |

| <b>RUNNING HRS DETAILS (Information provided by the customer)</b> |                              |
|---|------------------------------|
|   | <b>Stbd Gear Box (No.01)</b> |
| <b>Sample ID</b>  | M007877                      |
| <b>Oil Running Hours</b>  | 2000.00                      |
| <b>Total Running Hours of the Machinery</b>                       | 46652.55                     |

### ANALYSIS RESULTS

#### Viscosity

| Description             | ASTM Method | Fresh Oil<br>(As per OEM data sheet) | Uncertainty | Stbd Gear Box<br>(S/I-M007877) |
|-------------------------|-------------|--------------------------------------|-------------|--------------------------------|
| Viscosity @ 40°C (cSt)  | ASTM D 445  | 128.00                               | 0.018 Cst   | 129.48                         |
| Viscosity @ 100°C (cSt) |             | 13.70                                | 0.018 Cst   | 13.92                          |
| Viscosity Index         | ASTM D2270  | 103                                  | N/A         | 104.49                         |

#### Elemental Concentration as per ASTMD 5185 (ppm)

| Element | Maximum<br>Permissible Limit | Fresh Oil Sample | Uncertainty | Stbd Gear Box<br>(S/I-M007877) |
|---------|------------------------------|------------------|-------------|--------------------------------|
| Fe      | 300                          | < 1.000          | 2.191       | 14.842                         |
| Cr      | 15                           | < 1.000          | 1.810       | < 1.000                        |
| Si      | 50                           | < 1.000          | 1.021       | 9.323                          |
| Al      | 30                           | < 1.000          | 1.107       | < 1.000                        |
| Pb      | 1500                         | < 1.000          | 2.918       | 23.605                         |
| Cu      | 250                          | < 1.000          | 1.064       | 17.734                         |
| Sn      | 50                           | < 1.000          | 0.131       | < 1.000                        |
| Ni      | 30                           | < 1.000          | 0.090       | < 1.000                        |

N/A – Not Available

## TREND ANALYSIS WITH PREVIOUS REPORTS

|                           | Fresh Oil Sample              | Stbd Gear Box |             |             |             |             |             |             |             |         |
|---------------------------|-------------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------|
|                           |                               | S/I-M000085   | S/I-M000776 | S/I-M002382 | S/I-M002852 | S/I-M005947 | S/I-M006010 | S/I-M006715 | S/I-M007877 |         |
| <b>Oil Running Hrs</b>    | -                             | 1214.25       | 1849.50     | 3436.45     | 3935.05     | 673.25      | 760.15      | 1214.20     | 2000.00     |         |
| <b>T/R/H of Machinery</b> | -                             | 40867.20      | 41499.25    | 43089.40    | 43587.20    | 45326.20    | 45413.10    | 45867.15    | 46652.55    |         |
| Viscosity @ 40°C (cSt)    | 128.00                        | N/C           | 139.17      | 101.89      | 128.24      | 124.25      | 127.63      | 127.57      | 129.48      |         |
| Viscosity @ 100°C (cSt)   | 13.70                         | N/C           | 14.44       | 12.04       | 13.57       | 13.13       | 13.97       | 13.35       | 13.92       |         |
| Viscosity Index           | 103                           | N/C           | 102.06      | 108.45      | 101.07      | 99.13       | 106.98      | 104.16      | 104.49      |         |
| <b>Element</b>            | <b>Max. Permissible Limit</b> |               |             |             |             |             |             |             |             |         |
| Fe                        | 300                           | < 1.000       | 2.388       | 11.883      | 5.898       | 3.985       | 3.469       | 3.952       | 3.611       | 14.842  |
| Cr                        | 15                            | < 1.000       | < 1.000     | < 1.000     | < 1.000     | < 1.000     | < 1.000     | < 1.000     | < 1.000     | < 1.000 |
| Si                        | 50                            | < 1.000       | 3.608       | 7.611       | 4.162       | 2.302       | 3.534       | 3.589       | 2.965       | 9.323   |
| Al                        | 30                            | < 1.000       | 3.272       | 3.151       | < 1.000     | < 1.000     | < 1.000     | < 1.000     | < 1.000     | < 1.000 |
| Pb                        | 1500                          | < 1.000       | 5.969       | 3.478       | 5.017       | 10.223      | 24.223      | 15.356      | 8.880       | 23.605  |
| Cu                        | 250                           | < 1.000       | 1.395       | 1.578       | < 1.000     | < 1.000     | < 1.000     | 1.004       | 1.229       | 17.734  |
| Sn                        | 50                            | < 1.000       | 1.754       | < 1.000     | < 1.000     | < 1.000     | < 1.000     | < 1.000     | < 1.000     | < 1.000 |
| Ni                        | 30                            | < 1.000       | -           | < 1.000     | < 1.000     | < 1.000     | N/C         | N/C         | N/C         | < 1.000 |

N/A – Not Available

### Wear Metals

#### Stbd Gear Box

