

## **EXHIBIT A: INVESTIGATION OF SOME DAMAGED PARTS FROM THE FISHING VESSEL "UTVIK SENIOR" – SCOPE OF WORK.**

Reference is made to previous contacts.

The Investigation Commission, appointed to re-examine the loss of the fishing vessel "Utvik Senior", has recovered the vessels main engine including propeller and propeller shafting and some other parts from the sea bottom, with the aim to carry out investigations to find the cause for the loss of "Utvik Senior".

We hereby confirm the appointment of The Test House (Cambridge) Ltd to carry out a closer examination of the damaged parts as a part of these investigations. The objective is to clarify the circumstances for the accident. Main part of the work is to be carried out by David Ellin personally.

### **Tasks:**

1. Carry out a desktop study based on:
  - a. A short technical description of the vessel and the engine, including drawings and service manual for the engine.
  - b. A description of the damaged parts together with photos and videos.
  - c. The results from a laboratory tests of some of the damaged parts
2. Carry out necessary cleaning and preservation of the damaged parts, to ensure the quality of the examination.
3. Examine the damages on the parts described in the table enclosed. Carry out a quality assurance of the description (see 1b) based on the results from the examination. The result from this quality assurance to be a separate part of the report.
4. If the damage appears to be a fracture, please describe the type of fracture.
5. In the case of a fracture and deformation, please indicate the direction and size of the load causing these damages. Please also evaluate if the damages could have been made by impact from the sea bottom.
6. Evaluate the engines direction of rotation and propeller pitch to confirm the direction of the propeller thrust (forward or aft).
7. Carry out an external investigation of the engine and the other parts to reveal other damages of interest. Further examination of these damages to be agreed on by the Commission in writing.

The report from the examination should include procedures and methods used to preserve the damaged parts and to collect data. Where load values and directions are given, the report should also include a brief description of the calculations carried out, ref to point 4 in the task list.

Photos and other documentation used in your examination should be enclosed.

The rationale, assumptions and methods used to reach any partial or final conclusion of the report should be described in detail.

The final delivery should include 6-six copies of the reports and enclosures, and a CD with the report and enclosures (Word format).

The hourly rate for the examination is £75, exclusive VAT. The total budget for the examination is £15.600, excluding travel expenses. The travel expenses are to be charged according to standard Norwegian Governmental rates. Expenses beyond the total budget have to be accepted by the Commission in writing.

We assume delivery of your report no later than 30<sup>th</sup> May 2003. Your Contract partner will be The Department of Justice in Norway. Invoices have to be sent to the Department with copies to the Commission.

Admission to the damaged parts – confidentiality:

Information and details about the damaged parts must be treated confidential.

The Commission will document its findings in a report to the Department of Justice. This report will be published. To avoid needless speculations in the media, we assume that you will not give any information and/or comments to the media during and after the examination, if the Commission does not clarify it.

We assume that any observation relevant for the Commission is reported to us.

If you have any questions to the mandate, please do not hesitate to contact Brit Ankill or Bård Meek-Hansen.

Enclosure:

- List of damaged parts to be examined
- A short technical description of the vessel and the engine, including drawings and service manual for the engine.
- A description of the damaged parts together with photos and videos.
- The results from a laboratory tests of some of the damaged parts.

**EXHIBIT B: DESCRIPTION OF THE DAMAGED PARTS.**

| No | Parts   | Damage/characteristics  |
|----|---|---|
| 1  | Main engine   |   |
| b  | - Power take-off (PTO) housing in front of engine.                | Starboard side of PTO housing missing.  |
| d  | - chain, camshaft drive   | Chain broken, parts missing   |
| g  | - starboard side, engine block                                    | Charge air receiver and cooler are missing. Aft end of starboard engine block damaged. Side plates deformed.  |
| h  | - cover for the aft end of the camshaft drive                     | Cover and bolts missing.  |
| 19 | Turbocharger (only the exhaust turbine)                           | Compressor housing missing, parts of the flange connecting the turbine and compressor is broken.<br>Compressor rotor missing. Shafting intact. At the compressor end, the bearing and bearing housing are still in place. |
| 2  | Main engine foundation  |   |
| a  | - front end   | Starboard side damaged  |
| b  | - transverse frames   | All on starboard side bended upwards, bolts bended.   |
| 3  | Propeller (cp)  | One propeller blade heavily bended, one propeller blade can be rotated backwards and forwards, blades heavily damaged.  |
| 4a | Keel  | Aft part of the keel damaged  |
| 5  | Rudder  | Aft and lower part of the rudder blade bended nearly 180°   |
| 6  | Rudder shaft  | Bended, broken off the flange   |
| 8c | Base plate for the pipes to the trawl winch, “dekksgjennomføring” | Base plate heavily bended, pipes damaged  |
| 12 | Pulley  | Bearing pedestal broken   |
| 24 | Base plate - chain stopper, bollard                               | Base plate torn off and bended.   |