



Fatigue Investigation and Development of Structural Maintenance Program Antone Hydraulic Dredge, Dutra Dredging

This barge-mounted Liebherr 998 hydraulic excavator experienced significant fatigue cracking during normal operations.

Liftech provided the following engineering services to mitigate the failure problem:

- 1) Reviewed the existing structural details and then monitored the manufacturer's modification of unacceptable fatigue details.
- 2) Developed a testing program to determine the magnitude of the problem.

3) Developed a structural maintenance program that included inspection and repair guidelines as well as a permanent monitoring system to track the fatigue damage occurring within the structure.

Reference:
The Dutra Group
San Rafael, California