

Sea Escape Casino Vessel FT Lauderdale, Florida 2001



Wartsila 8 cyl. diesel generator



The damage was caused by a seized piston.



The piston split at the wrist pin and the connecting rod smashed out the bottom liner bore and cracked the outside water jacket.





The lower liner bore was supposed to look like this

After the crash the entire lower bore was gone



The outside of the water jacket
was also severely damaged



A template was made of the
damaged area



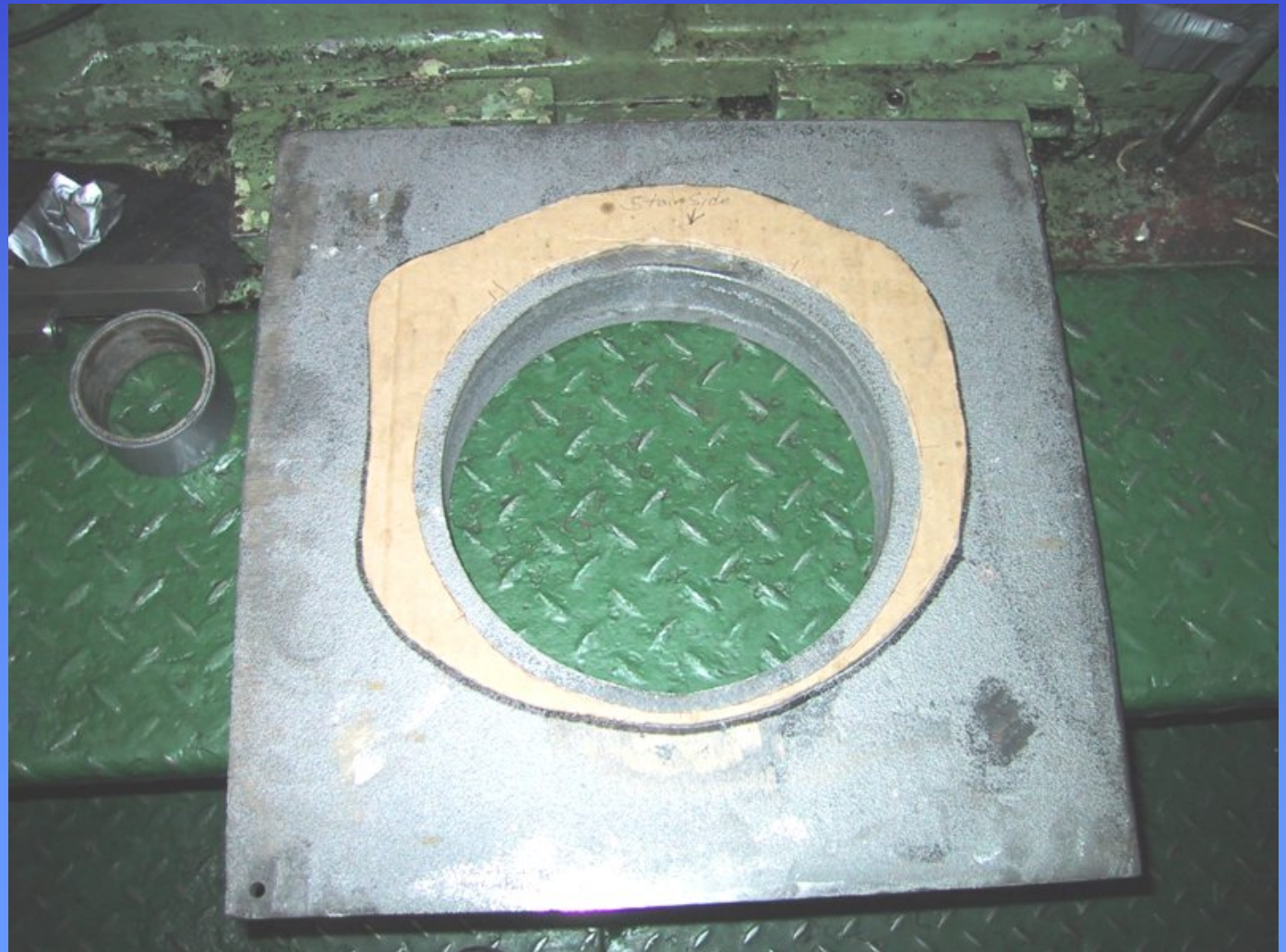
The approximate center of the bore was cut into the template



A new section was cast to cut the replacement piece from



The template was transferred to
the casting



The new replacement pieces was cut from the casting



A few stitching pins were installed into the joint to secure the new piece



The new piece was 24 inches
down from the deck surface



The stitching process begins
around the joint



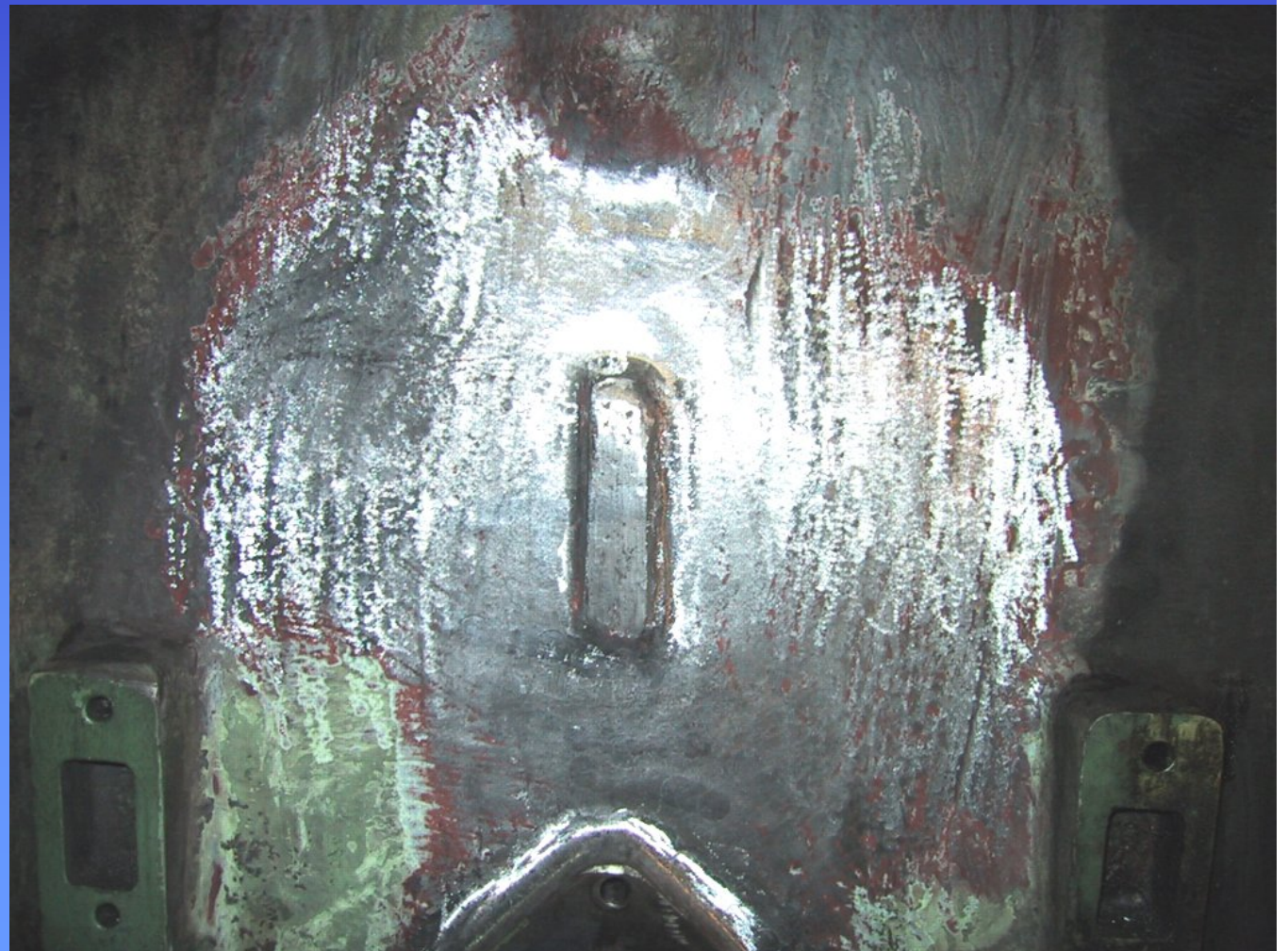
Stitching begins simultaneously
on the outside water jacket



After the CASTMASTER stitching pins are installed, lock hole patterns are drilled across the repairs.



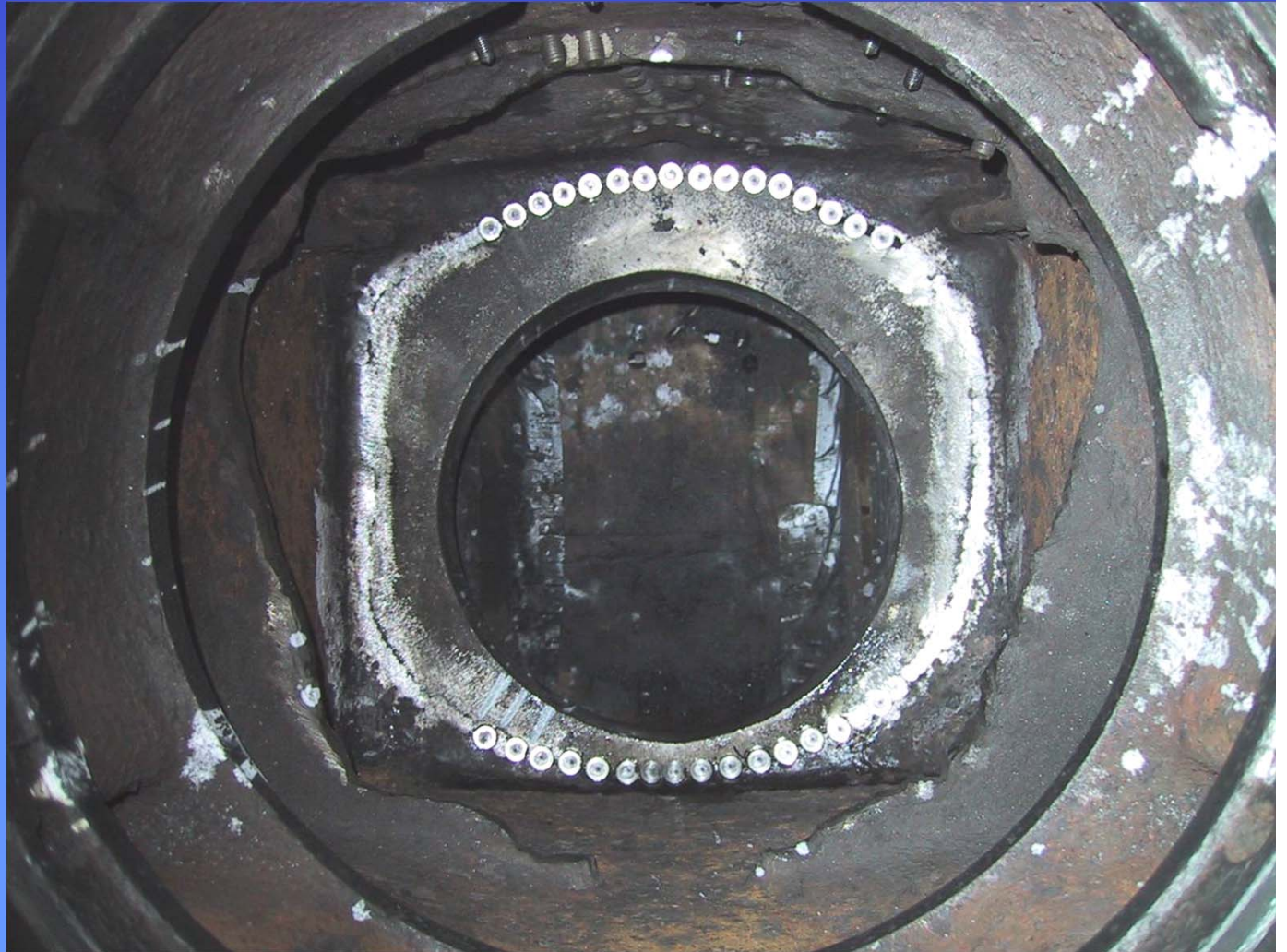
The outside water jacket repairs
are finished



Stitching continues around the
new piece



More stitching pins are installed



The lower liner bore stitching repairs are completed



A portable boring machine is used to machine the lower bore



Cutting the lower bore



View of machining from below



The machine work is finished



A test sleeve is installed and diesel fuel is used to check for leaks

The diesel fuel was left for 24 hours before the final inspection for leaks.

No leaks were found.



The new liner and piston are installed



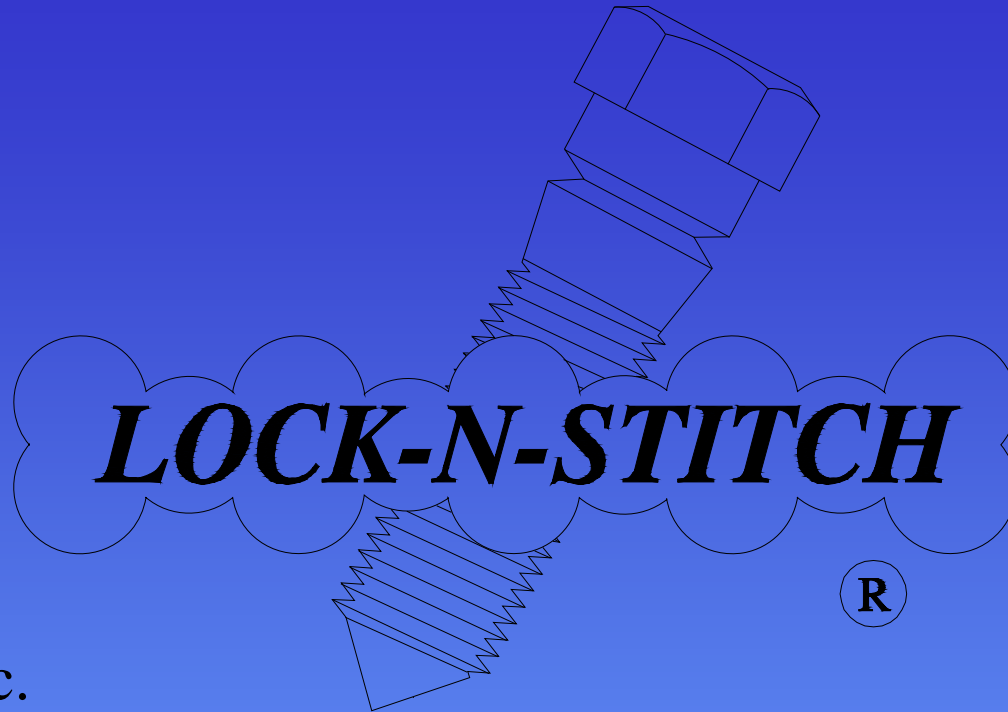
View from the bottom



The engine is reassembled and returned to service



This repair was recommended to
the ship owners and approved by
Bureau Veritas
Class Society



LOCK-N-STITCH Inc.

1015 S. Soderquist Rd

Turlock, CA 95380

800-736-8261

209-632-2345

www.locknstitch.com

Email for technical support

gary@locknstitch.com