



Clamped 16” SDV Sealed with Clock Spring Contour Composite Repair

1 Repair Area

16” Shut Down Valve suffering a through wall defect was sealed with a leak sealing clamp. Clamped area failed and required an immediate solution to avoid oil from seeping through.

A composite repair was engineered to cover all 360° of the clamp to encapsulate the SDV.



2 Filling & Fairing of Anomaly/Defect

1. Leak sealing paste injected into clamp to reduce/ stop seepage to allow the repair to be executed.
2. Surface prepared to SA 2½ (S clamp and valve).
3. Leak Stop putty applied on interface area between the clamp and valve body.
4. Clock Spring Contour composite applied to encapsulate the full configuration of the clamp and valve body.



3 Final repair

Painted area.



6 Design Criteria

Operating Pressure	: 240PSI
Operating Temperature	: 130°F
Defect Type	: Leaks
Size	: 16”
Material	: Cast Steel for Clamp and A-106
Defect Analysis	: Seepage from the interface area between the clamp and valve body
Life time	: 5 Years