

Repair, Manufacturing and Fitment  
of:

VOITH VARIABLE-SPEED COUPLING  
For 565 Tons / Hr BOILER FEED PUMP

A project by: Shahsons Pakistan (Pvt.) Ltd.  
FOR: Northern Power Generation Company Ltd. (NPGCL)

# Core Components of the Job

- Repair
- Manufacturing
- Assembly

# Core Components of the job

## 3-Assembly



## Repair of Cast Iron Components

Our specifically developed procedures have revolutionised the repair of cracked, broken and eroded Cast Iron Components - Cylinder Heads, Turbo Casings, Engine Blocks, Exhaust Manifolds to name a few - serving the Marine, power, sugar and Automotive Sectors. Our procedure is applied to a wide variety of broken and cracked Industrial Parts and Machinery, and Engine Castings.



## 1-Repair

Hydraulic Coupling for Boiler Feed Pump  
Northern Power Generation Company Limited



## 2-Manufacturing





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Hydraulic Coupling for Boiler Feed Pump  
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# Hydraulic Coupling

Damaged Lower Casing





# Damaged Lower Casing

Bearing Housing Damaged





# Damaged Lower Casing

Crack in the Block





# Damaged Lower Casing

Broken and Cracked



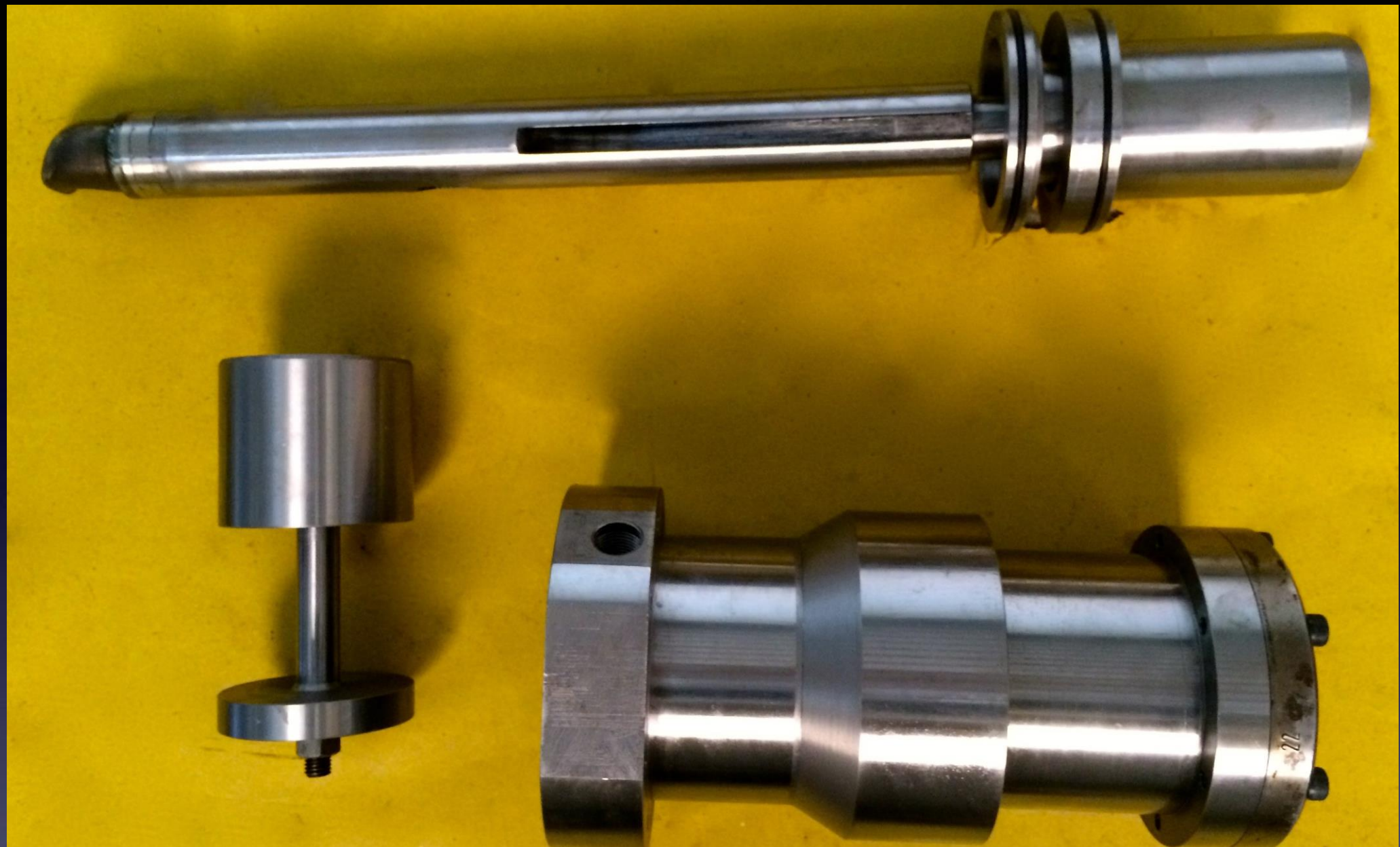
Lower Casing  
Repaired





# White Metal Bearings

Centrifugally Cast using HOYT R11 Material  
Directly Imported from ECKA Granules of Germany



# Scoop Tube Parts

Manufactured From Alloy Steel

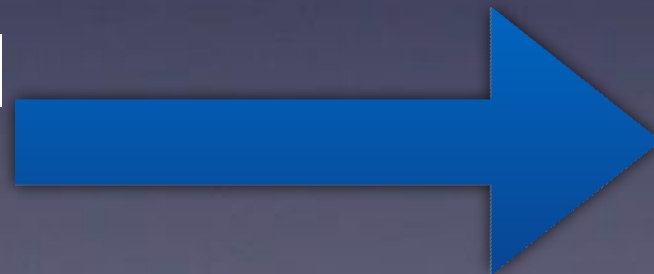


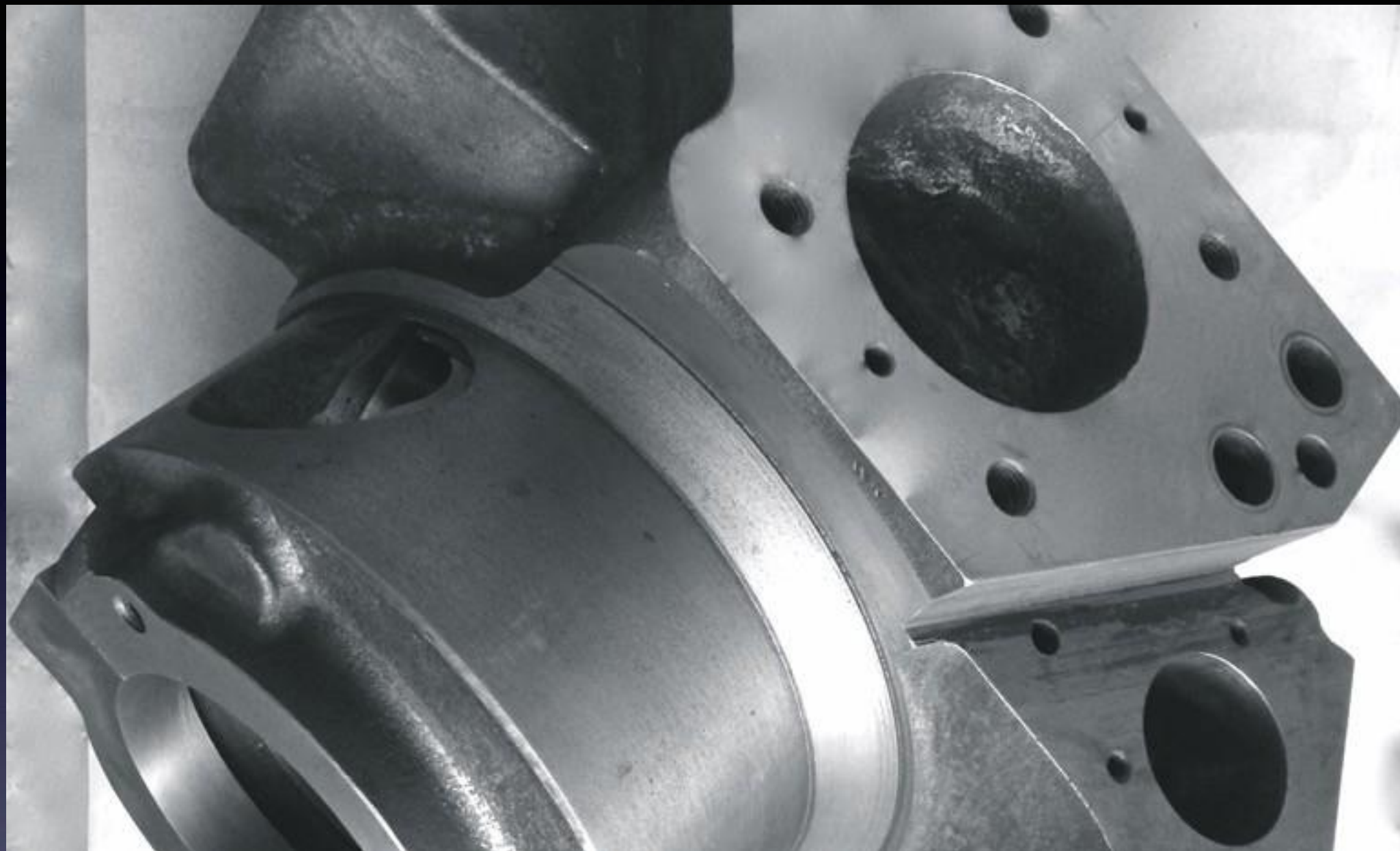
Scoop Tube  
Nozzle &  
Sleeve



# Repair

Spindle Control  
Valve Assembly





# Bearing Cap

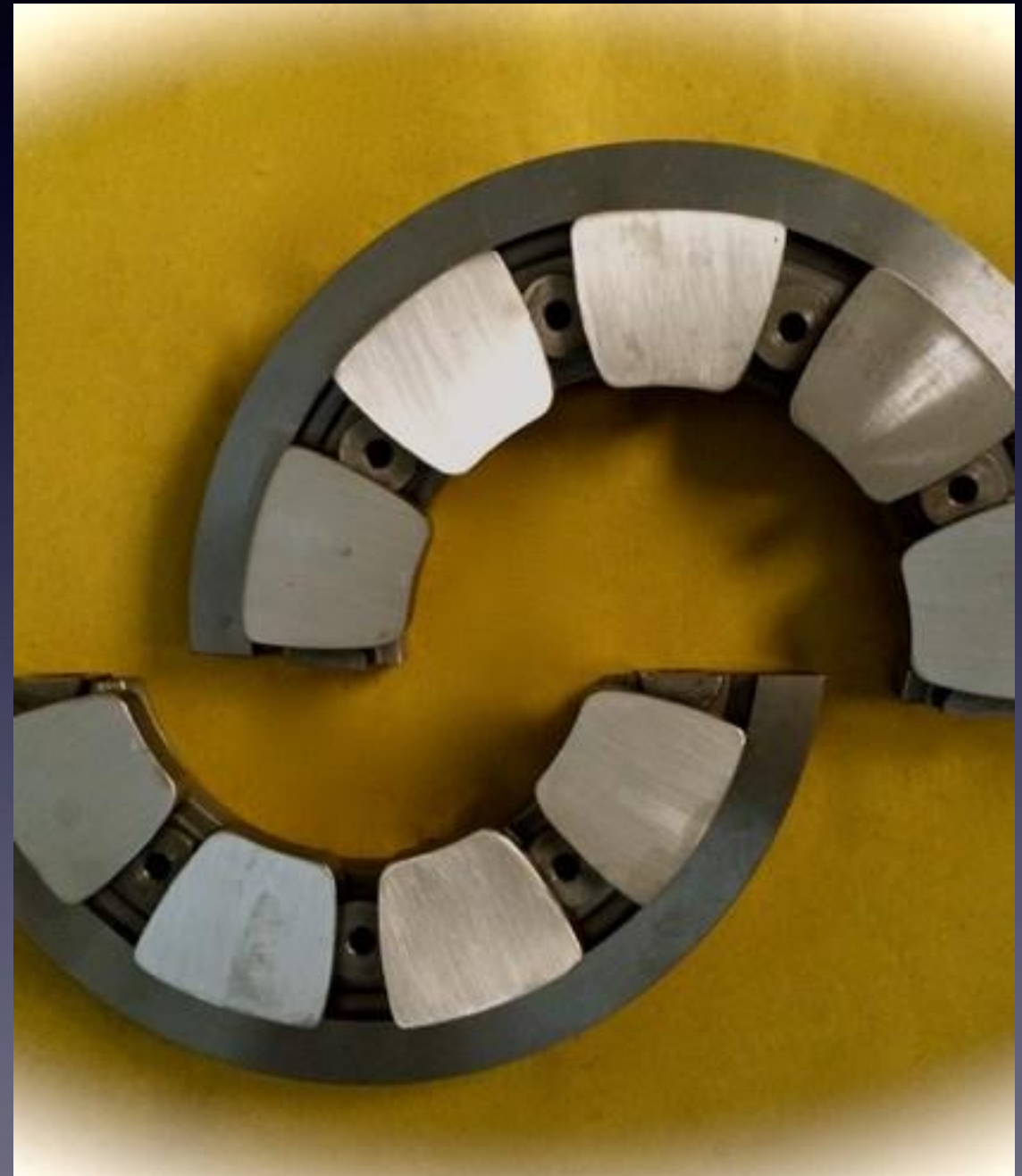
Alloyed Cast Iron Casting & Precision Machining



# Thrust Pads

SHAH SONS is capable of manufacturing or repairing all BABBITTED tilt pad thrust assemblies.

This capability has enabled us to make this impossible task a possibility.





# High Speed Gears

Manufactured using High Tensile Gear Steel  
(Moly, Chrome, Manganese Alloy)



# Parts Manufactured / Repaired







# Final Assembly

Saved NPGCL Millions of Rupees