

Restoring Compressor Reliability Through Rapid Cylinder Rehabilitation in Ivory Coast



The Challenge

For many years, CPI has equipped Ingersoll Rand compressors operating on a DHC unit in Ivory Coast, supplying critical components such as Piston/Rider Rings, Packing Cases, Piston Rods and Valves.

However, these compressors were frequently subject to unplanned corrective maintenance. Limited routine maintenance practices, combined with sub optimal operating conditions of the compression units, led to repeated reliability issues, reduced availability and increased maintenance costs.

The Solution

In December 2025, a lubrication failure resulted in rapid degradation of the Packings and Piston/Rider Rings. This failure escalated quickly, causing direct contact between the piston and the first stage liner. The liner suffered significant damage, including deep scratches and severe marking across the active surface area, requiring immediate technical intervention.



Given the excessively long lead times for supplying a new cylinder liner (shirt), the customer requested an alternative solution to minimise downtime. CPI responded by proposing and executing on site re machining of the existing liner, complemented by the supply of two new sets of Piston/Rider Rings adapted to the restored cylinder diameter.



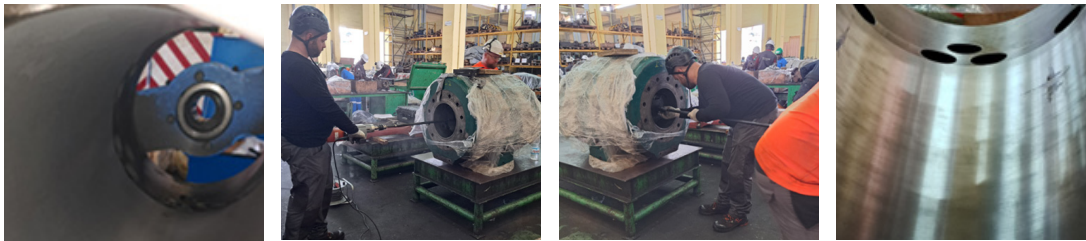
In addition, the scope of work was expanded at the customer's request to include honing of three connecting rod ends, restoring critical interfaces and improving overall mechanical integrity.

Through careful planning and rapid mobilisation of specialised technical expertise, CPI successfully reconditioned the first stage cylinder ensuring the compressor was back into production within the timeframe required by the customer.

This intervention significantly reinforced CPI's reputation with both the client and its local subcontractors, demonstrating CPI's ability to deliver a technically reliable and fast on site solution in Ivory Coast—even under challenging supply chain and logistical constraints.

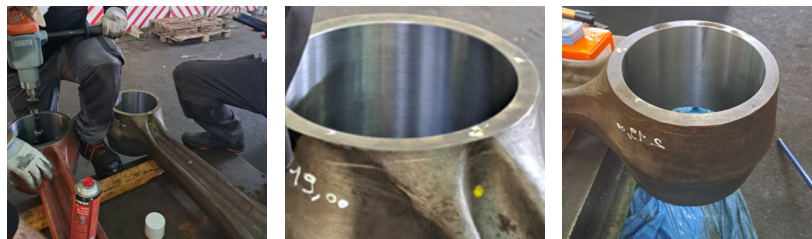


The re machining activities were performed by CPI France at our customer's premises, in Ivory Coast



Final honing operations brought the liner surface finish into full compliance with CPI's specified roughness requirements for this type of application.

Machining operations eliminated deep scoring and surface defects on the liner's active area, restoring its functional integrity.



Final honing of the connecting rods achieved the recommended roughness, removing minor machining marks and restoring the quality of the functional surfaces.

The Result

CPI successfully reconditioned the first stage cylinder and returned the compressor back into production within the timeframe required by the customer.

This operation further strengthened CPI's reputation with both the client and its subcontractors, demonstrating its ability to deliver a technically reliable and rapid solution on site in Ivory Coast.