

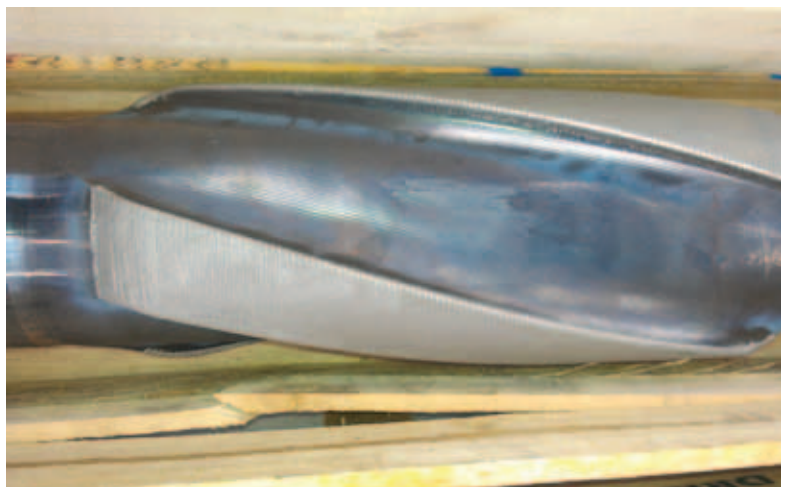


LaserBond® clad drill stabiliser extends life by three times.

Drill stabilisers are a special mechanical drilling tool used in mining and oil and gas industries. They form part of the drill string to prevent unintentional side tracking and reduce vibration (rod rattle) in the drill string, thus ensuring a higher quality hole. When they are laser clad with appropriate metallurgy they extend life by 3 – 5 times.

The Problem:

To perform its duty, the stabiliser must rub against the wall of the hole to provide stability to the drill string, and ensure the accelerated drill cuttings are passing through the flutes. They are exposed to extreme wear and have previously been manufactured from high strength steel - often hard-faced to provide some wear resistance. In harsh ground conditions long hole drilling operators often need to pull the drill string mid hole to change worn stabilisers. This is a significant cost in terms of labour, downtime and general machine wear and tear. As drilling is often in remote areas, maintenance or repair of these tools is not easily accessible thereby imposing further cost of parts and transport to operators.



LaserBond cladding applied to a fluted stabiliser can extend life 3 - 5 times.

After benefits and feedback

The Solution

LaserBond has at its disposal a large range of surface engineering technologies and works with OEM suppliers to develop and manufacture parts at its facilities which offer the best performance for duty. LaserBond® cladding is ideal for highly stressed drill string components such as stabilisers and reamer bodies that must endure aggressive impact and erosion conditions in the drill hole. In other situations dominated by low impact abrasion, such as these pins from drilling reamers, HP-HVOF coating is more suitable.



LaserBond cladding of the main reamer body reduces wear from erosion of the high velocity drilling cuttings which accelerate through the narrow annulus of the reaming unit.

Key Benefits

- Stabilisers have a very low wear rate which maintains the drill string stability for longer periods.
- Increased drilling time through reducing the number of rod pulls to replace stabilisers or reamers.
- Reduced maintenance costs to repair and refurbish stabilisers or reamers.
- Quality of hole is improved by running longer which creates a truer bore without ledges and distortions.
- Lower cost per metre of hole.



Reamer pins are machined, heat treated and HP-HVOF clad to provide high quality and economic products suited for abrasive duty.

Feedback

The customer commented: LaserBond's re-engineering of the drill stabiliser and reamer is an innovation in surface engineering that significantly reduced wear and has given us more productive drilling time.

About LaserBond

LaserBond Limited is an Australian engineering company specialising in surface reclamation and engineering, precision machining and fabrication. LaserBond manufactures, repairs, reclaims and enhances the performance of high wear, critical metal components in a range of capital intensive industries including mining, minerals processing, energy, agricultural, transport, steel, aluminium, marine and manufacturing sectors.