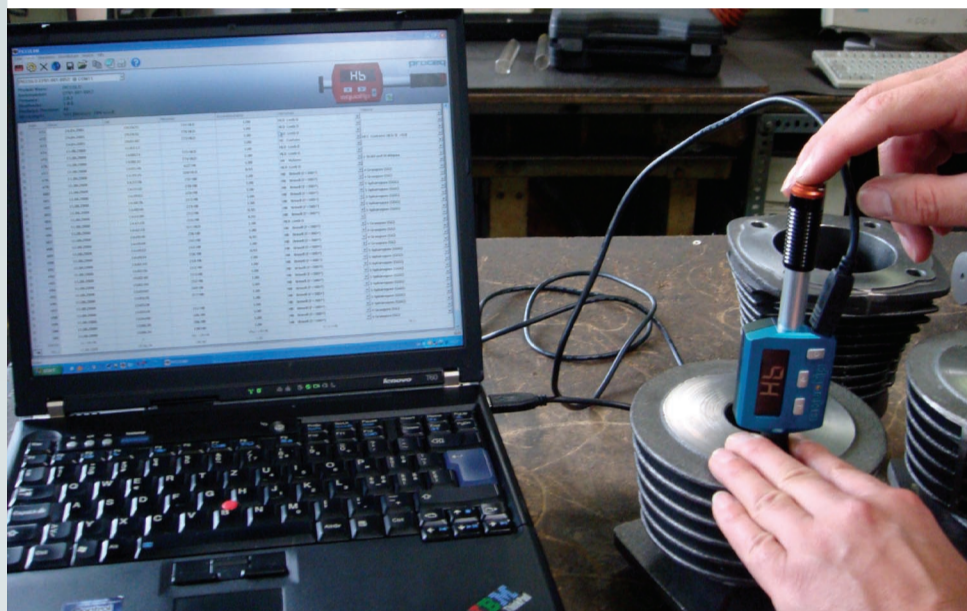


application note



Metal Hardness Testing

BlitzRotary GmbH

Longevity of Piston Compressors. How can Equotip Hardness Testing increase Confidence in the Durability of Hydraulic Auto Lifts?

As the world's leading producer of vehicle lifts, BlitzRotary strives to ensure and maintain the high quality of their products. In order to prevent scuffing which can lead to catastrophic failure of hydraulic lift pistons, it is vital to guarantee smooth surface properties, tight sealing, along with high wear resistance of the piston against the counter-surface of the cylinder bore. Insufficient hardness can significantly reduce the service life of vehicle lifts due to early wearing, leakages or even scuffing of the hydraulic components.

Application

BlitzRotary uses the Equotip Piccolo 2 to non-destructively sample the quality of cast goods received from its suppliers to ensure the required hardness.

2-5% of the incoming goods are tested. In each test location, 5 readings are taken and averaged. If the average result is not within the tolerance range, this indicates that a wrong alloy was used and the parts need to be returned to the supplier.

Due to the complex geometries of the castings, these inspections cannot be conducted with Brinell, Vickers or Rockwell testing machines. Leeb hardness testing, on the contrary, allows obtaining precise values even in locations that are difficult to access or cannot be properly supported. Where required, Leeb results are converted to the traditional hardness scales.

Customer Quote

"The portable hardness tester Equotip Piccolo is particularly suitable for our goods income inspection. It is very easy-to-use and diversely applicable. Data transfer connection with a PC can be established quickly and easily. For applications here at our BlitzRotary plant, the Piccolo is the ideal device."

Mr. J. Hirth, Quality Management, BlitzRotary GmbH (Germany)
- Proceq customer since 2008

Profile

Customer

BlitzRotary goes back to 1925, when the first patent for a pivotable vehicle lift has been granted to Rotary Lift. Today, the company operates worldwide and is the market leader in vehicle-lifts for both cars and trucks. Moreover, BlitzRotary provides a large assortment of garage equipment.

Employees

In Bräunlingen (Germany), the company employs approx. 130 people.

Requirements

- Testing on complex castings
- Simple preparation of the surface for the test
- Easy, portable and quick data collection
- Different hardness scales available
- Data connection to PC

Proceq Product

Equotip Piccolo 2

Benefits to the Customer

- Cost reduction as testing can now be done in-house
- Portable and easy to operate
- Test spot can be prepared easily to enhance surface smoothness
- Display of hardness in all common hardness scales
- Data can be transferred to a PC via Piccolink to analyze the results once returned to the office and conduct statistics

proceq