

## **RUST REMOVAL AND CORROSION PREVENTION ON LIFTING CHAINS AT THE TRIFERTO FERTILIZER PLANT IN VEENDAM**

### **PARTIES & INDIVIDUALS:**

Jungheinrich Alphen a / d Rijn, Bert Ravenhorst, Purchaser Triferto Veendam. Gerard Scholten, Managing Director, BLP International Hillegom, Rob van Horn, Project Manager.

### **PERIOD:**

Start May 2012 - Present.

### **BACKGROUND:**

Fertilizer causes extreme corrosion and creates premature wear on lifting chains. This causes sticking and rejection of the chains used on trucks at Triferto.

### **OBJECTIVE:**

Apply corrosion protection to keep the chains usable. Rust also needs to be removed from corroded parts without too much work. BLP uses Archoil AR5100 Corrosion Remover and Archoil AR9100AE Nanoborate Workshop Spray (Corrosion inhibitor and friction modifier).

### **ACTION:**

AR5100 is a nano rust remover. By immersing the chain in a bath with AR5100 with a ratio of 0.5L AR5100 to 5L water, the rust is safely and promptly removed from the chain. Prior to treatment, links in the lifting chain were seized. Subsequent treatment with AR9100AE Nanoborate provided excellent lubrication and actively prevents further rust from forming. AR9100 binds with the metal surface at a molecular level and is therefore resistant to extreme conditions. This type of bonding also makes it superior to other lubricants or coatings. The service life of the chain can be extended by a factor of two to three.

### **RESULT:**

Cost of a lifting chain is approximately €280 per meter. A 2 x 3 meter chain will cost a total of €1,680. The treatment for 6 meters of chain: 0.5L AR5100, €35.00 and 1 spray can, 5L AR9100AE, €12,90 = €47,90. With € 47.90 in Archoil products and €400 in workshop costs, it is possible to save € 1.680 per truck per year. Jungheinrich Netherlands has included Archoil AR9100AE in the standard product range for field technicians.

### **PRODUCTS TESTED**

Archoil AR5100 Industrial Rust Remover Concentrate

Archoil AR9100AE Friction Modifier

