Case Study

**PROBLEM:**
Premalube Extreme Heat Shield
Poor Lubrication of Walking Beam Furnace Discharge Table Rolls The discharge table rolls are affected by extreme temperatures because of their close proximity to the discharge doors of the furnace. The furnace internal temperature is 1280ºC and when the doors open to extract a slab out of the furnace, the table roll bearings and associated lubrication lines and hoses are exposed to these high temperatures. Previous grease usage for the 20 table roll bearings was 2000Kg/yr.

As well as high grease usage high maintenance costs were required to rectify blockages and change hoses every maintenance day. As a result of inadequate grease they experienced on average two table roll bearing failures per year. As they were over greasing to keep the Mill moving there was associated cleanup costs to remove the excess grease from the surrounding equipment. Regular spot fires on these table rolls were also experienced because of the excess grease.

**SOLUTION:**
BlueScope Steel HSM now uses Premalube Extreme Heat Shield on the Walking Beam Furnace Discharge Table Rolls. Over a 6 month period grease usage was reduced from 2000Kg/year to just 200Kg/year. Bearings were inspected each down day to ensure adequate grease.

**RESULT:**
No blockages have been experienced, no bearing failures have occurred, no fires have been experienced, and they have reduced cleaning costs.

**Type of Business:** Steel Making HSM  
**City:** Wollongong, New South Wales  
**Country:** Australia

**Marketing Manager:** Chris Nixon  
**Sales Rep:** Vijay Eyunni
## Lubemaster Case Study

### Premalube Extreme Heat Shield

<table>
<thead>
<tr>
<th>Grease Type</th>
<th>Cost of Grease/Year</th>
<th>Cleaning Cost/Year</th>
<th>Maintenance Cost of Grease System/Year</th>
<th>Cost to replace Failed Table Rolls/Year</th>
<th>Cost of Lost Production due to Down Time/Year</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous Castrol Product</td>
<td>2000kg = $17 000</td>
<td>$5000</td>
<td>$65000</td>
<td>2 Failures = $50000</td>
<td>$180000</td>
<td>$317 000</td>
</tr>
<tr>
<td>Premalube Extreme Heat Shield</td>
<td>200KG = $10 000</td>
<td>$1000</td>
<td>$20000</td>
<td>0 Failures = $0</td>
<td>$0</td>
<td>$31 000</td>
</tr>
</tbody>
</table>

Savings: $317 000 - $31 000 = $286 000/Year