

Dramatic Temperature Reduction of Bearings

MINING (USA)

DRAGLINES

Castrol Molub-Alloy® 777-2 ES

Benefits: Lower temp, less maintenance time



THE SITUATION

A Marion 8200 dragline operated by a large mining company in Florida was experiencing extremely high working temperature of their Hoist and Drag intermediate open gear drive bearings.

A low viscosity oil was dumped into the bearings on a regular basis due to the grease stiffening in service. Multiple fans were constantly used to keep the temperature down.

BEFORE

- Temperature of the high speed input shaft bearings of Hoist and Drag intermediate open gear drives was **230-240°F**.
- Maintenance time needed to regularly add oil to the bearings and apply cooling fans.

AFTER

- Temperature of the bearings was reduced to **127-135°F**.
- The need for oil additions to the bearings was eliminated.
- Cooling fans were no longer needed.

THE SOLUTION

- The previous lubricant was from Company "W" and being used for both bearings and gears.
- Castrol Molub-Alloy 777-2 ES was recommended as the best grease for use in the bearings.
- Molub-Alloy 777 ES grease is made using a blend of high quality petroleum oils and polymers that produce a tough lubricating film capable of withstanding shock and vibration at high and low bearing speeds.

Castrol Molub-Alloy 777 ES bearing grease is the right lubricant for the very heavy duty service in adverse mining environments.

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CONCLUSION

The bearing temperatures were reduced over 100°F.

Castrol grease performed better than expected.

(Dragline lubrication technician)

Bearing temperatures were reduced by over 100°F, from an average of 235°F down to 131°F.

The result using Molub-Alloy 777 ES was a dramatic reduction in friction & heat, leading to much less maintenance time of the equipment.



Hoist intermediate open gear drive



Drag intermediate open gear drive

OTHER POTENTIAL APPLICATIONS

Castrol Molub-Alloy 777 ES is excellent for bearing lubrication on all mining machines including draglines, shovels, excavators, etc. The high performance formula provides lower temps, less grease usage, and longer bearing life.

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