



Application Data

Pivot Arm Bushings

For earth-moving equipment

Description

The unloading arms on trucks hauling overburden at construction sites employ bronze bushings operating with hardened steel shafts. The bushings must withstand heavy loads and absorb impact as the truck body is raised and lowered during dumping.

Material

AMPCO® 18, AMPCO 18-23 and AMPCO 45 aluminum bronze

Advantages

These continuous cast and extruded Ampco alloys, with their high impact resistance and ability to operate under suddenly applied severe intermittent loads with doubtful lubrication, are ideal for this application. The Brinell hardness of the Ampco alloys (approximately 192) mating with the hardened steel shaft (260 HB) results in the ideal difference in hardness - 50 to 75 HB (3000 kg. load). Resistance to abrasion is also of utmost importance due to the conditions under which these trucks must operate.

In the past, sintered bronze and RG7 bronze have been used for this application. Ampco bushings are slightly higher in initial cost. However, service life and user satisfaction because of less maintenance and downtime are important considerations when comparing final cost.

The consistent superiority of Ampco alloys over commercial bronze is due, in part, to the unique distribution of alloy microstructure, often referred to as the "Ampco-Phase." Only Ampco alloys offer this metallurgical advantage.

