



# Application Data

## Worm Gears

*To raise or lower blades (or scarfing devices) on road graders*

### Description

The profile picture of the grader shows 2 gear housings. These gear boxes when operated, permit raising or lowering of the working blade or scarfing attachment. The Ampco gears run against steel spiral gears with a hardness exceeding Rockwell 50C. A fine micro-inch finish exists on the steel, and constant lubrication is present.

### Material

AMPCO® 18.23 Centrifugally cast, heat treated and finish machined

### Advantages

Toughness and the ability to absorb abnormal shock loads and still retain good mating ability, wear and abrasion resistance, are required in this type of application. AMPCO 18.23 is a combination of balanced physical properties, high yield and shear strength, good hardness and impact resistance (Charpy or Izod) and adequate elongation, which have resulted in excellent performance for over 15 years.

Previously used alloys were hardened steel, which galled and a hard bronze which did not possess sufficient impact resistance and other physical properties to prevent tooth fractures. Field maintenance of this type of equipment is a prime consideration to the user, whether it be a contractor or municipality. Proven performance often is the deciding issue.

