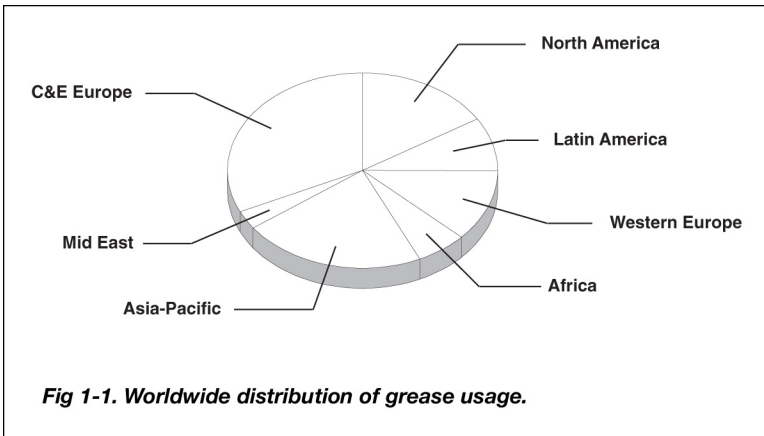


GREASE USAGE AND TRENDS

Worldwide grease usage patterns are not static, nor is the technology of product development to meet changing and increasingly stringent application and environmental requirements. These influences and trends can be expected to intensify in the foreseeable future. The result is an increasing use of higher quality, higher priced products and a corresponding reduction in the use of lower price/performance greases.

WORLDWIDE USAGE

Central and Eastern Europe account for the majority of worldwide grease usage, Fig. 1-1, followed by Asia-Pacific, North America, Western Europe, Central and South America, Africa and the Middle East. A significant difference in the types of products used exists among these regions. Western Europe and North America typically require higher quality products than do Central and Eastern European users. Africa uses specialized products (such as greases for mining equipment) and the use of polyurea products predominates in Asia.



Throughout the world, industrial applications account for most of the grease used, Fig. 1-2. Of this, railroad, general manufacturing, steel production and mining predominate, Fig. 1-3. Among automotive applications, trucks and buses account for the majority of grease used, followed by agricultural/construction equipment and passenger cars, Fig 1-4. UK) designation