SAE Aerospace
An SAE International Group

AEROSPACE INFORMATION REPORT

SAE AIR26 | REV. A

Issued 1949-05
Revised 1996-08
Reaffirmed 2012-10

Superseding AIR26

Number 70-90, 70L-90, 80-100, and 80L-100 Propeller Shaft Ends Dual Rotation (Propeller Supplied Bearing)

RATIONALE

AIR26A has been reaffirmed to comply with the SAE five-year review policy.

1. SCOPE:

This SAE Aerospace Information Report (AIR) records the dimensions for the No. 70-90, 70L-90, 80-100, and 80L-100 dual rotation propeller shaft ends, which have been deleted from ARP375.

2. REFERENCES:

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

ARP375 Propeller Shaft Ends - Dual Rotation (Propeller Supplied Bearing)

2.2 Other Publications:

AND10152 Shaft Ends - Propeller

3. BACKGROUND:

3.1 ARP375, initially issued November 1, 1948, included dimensions and data for No. 70-90, 70L-90, 80-100, and 80L-100 dual rotation shafts. The 70-90 and 70L-90 shafts were intended for use with engines of 8,000 to 12,000 hp. However, at about this time it became apparent that the 70 and 70L shafts in these combinations were critically loaded due to gyroscopic and 1XP continuous bending moments being encountered in modern high-speed high wing-loading aircraft. Therefore, dimensions for the 80-90 shafts were developed for inclusion in the revised ARP375. Since it appeared that the 70-90, 70L-90, 80-100, and 80L-100 shafts would not be used, it was decided to delete them from ARP375 and include them in an Aerospace Information Report.

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http://www.sae.org/technical/standards/AIR26A

3.2 Although SAE Committee E-21 and P-6 had established the designations 70-90 for the shafts having a P dimension of 23.250 and 70L-90 for the shafts having a P dimension of 29.250, the Air Force and Navy in issuing AND10152, Shaft Ends - Propeller, revision 1, chose to show only the combination with the P dimension of 29.250 and to designate this as 70-90. In view of the previous correspondence, layouts, etc., which showed this combination as the 70L-90, the tables included herein do not agree with AND10152 in this regard, but retain the original designation from ARP375. The above is noted to prevent future confusion concerning these particular shaft designations.

PREPARED BY SAE COMMITTEE E-25,
GENERAL STANDARDS FOR AEROSPACE PROPULSION SYSTEMS

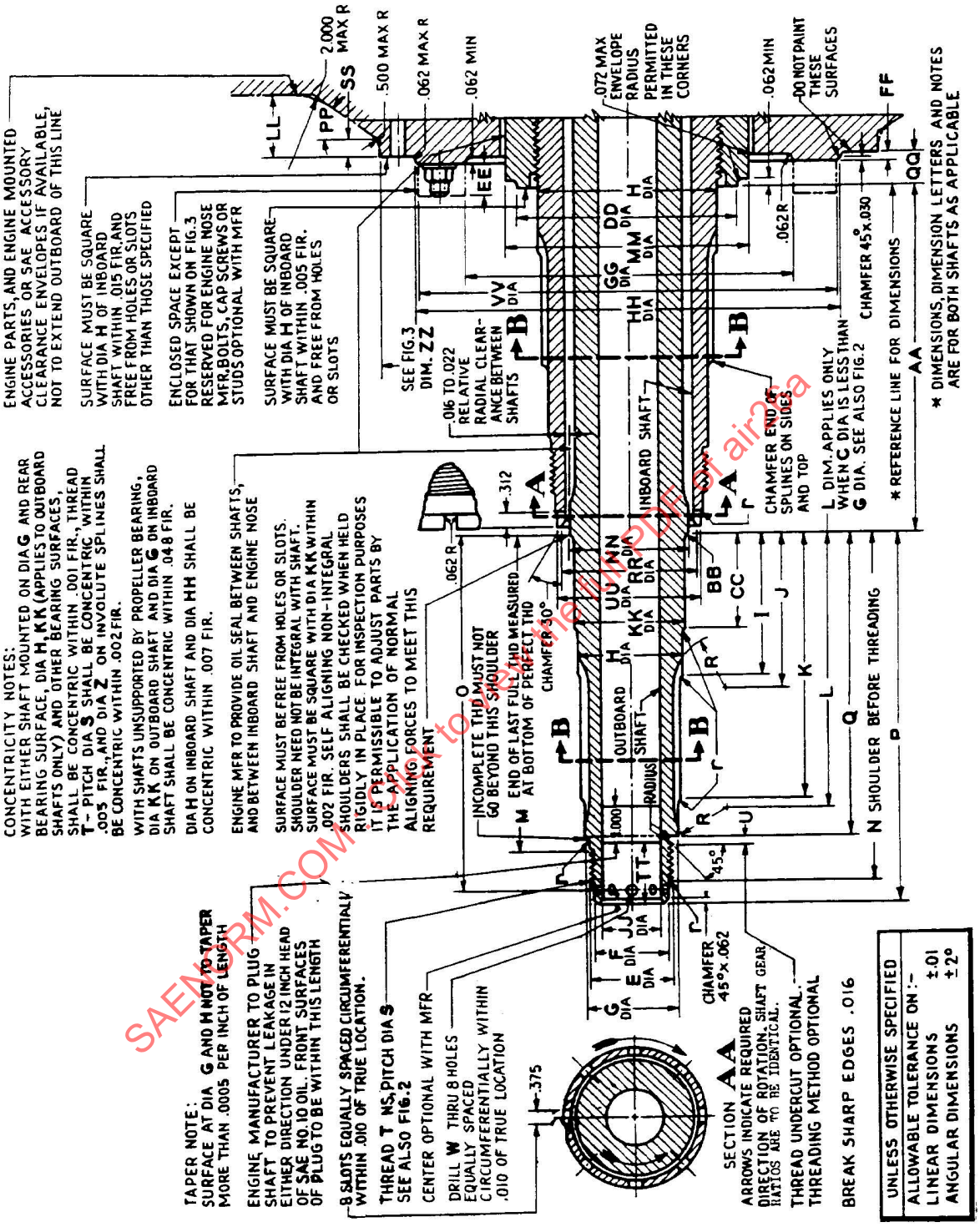

FIGURE 1

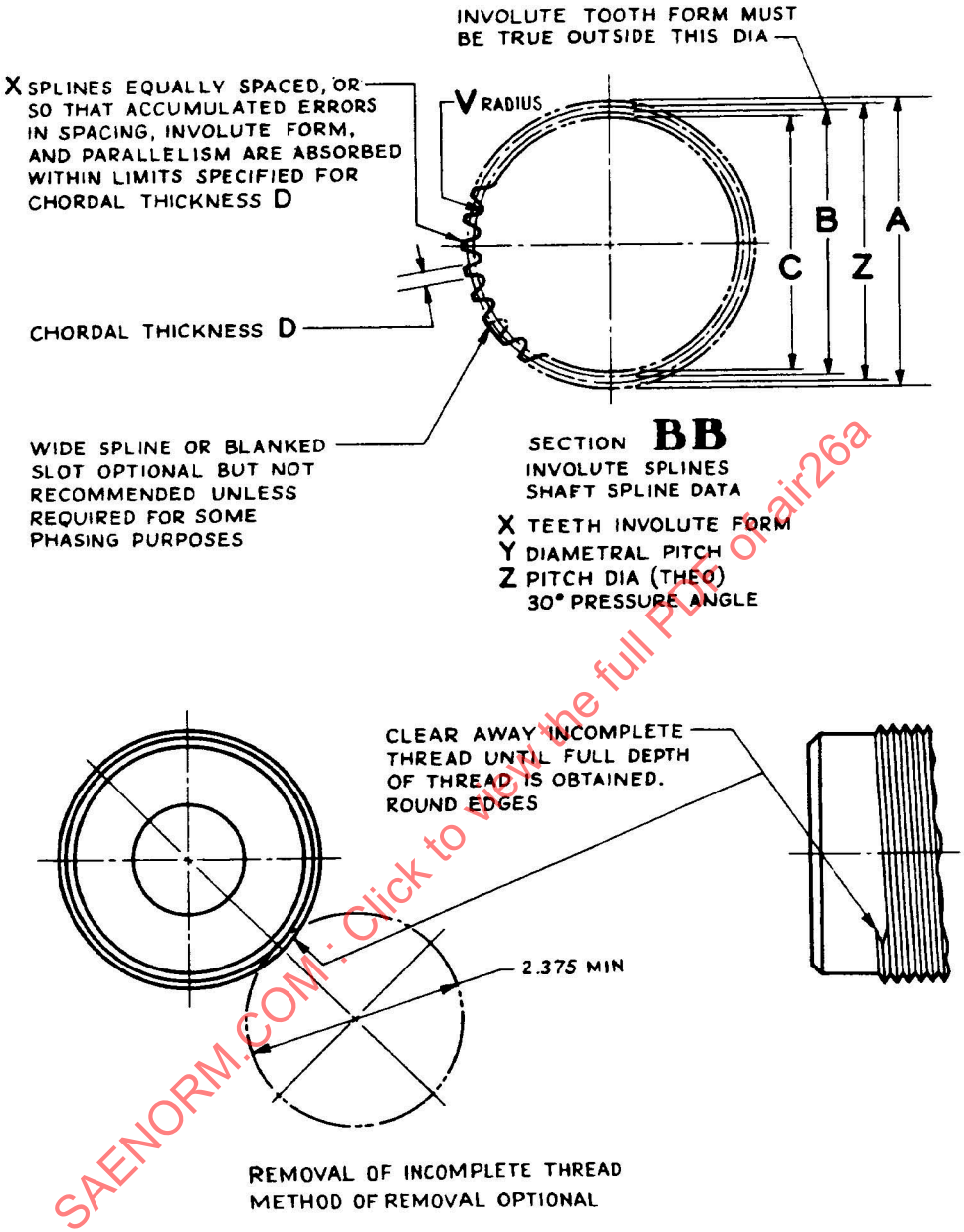

FIGURE 1 (Continued)