



AEROSPACE RECOMMENDED PRACTICE

ARP4162™

REV. B

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Reaffirmed 2011-07
Revised 2017-03

Superseding ARP4162A

(R) Balancing Machine Proving Rotors

RATIONALE

SAE Document ARP4162 is being revised from current to update references to other documents, incorporate dimensional corrections to the vertical Class 250 80-pound proving rotor, corrections to various trial mass dimensions and weights, and revise the interface bolt circle of the horizontal Class 1000 150-pound proving rotor. The proposed changes serve to refresh and update ARP4162 to reflect how this document is currently used within the Aerospace Industry.

1. SCOPE

This SAE Aerospace Recommended Practice (ARP) specifies a series of balancing machine proving rotors and related test weights as directly required for the evaluation of gas turbine rotor balancing machines.

1.1 Purpose

Provides the recommended design for the construction of balancing machine proving rotors.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

ARP4048	Balancing Machines - Description and Evaluation Horizontal, Two-Plane, Hard-Bearing Type for Gas Turbine Rotors
ARP4050	Balancing Machines - Description and Evaluation Vertical, Two-Plane, Hard-Bearing Type for Gas Turbine Rotors

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ARP4163 Balancing Machines: Tooling Design Criteria

ARP5323 Balancing Machines - Description and Evaluation Vertical, Single-Plane, Hard-Bearing Type for Gas Turbine Rotors

3. DETAIL REQUIREMENTS

3.1 All proving rotors and related test masses required per ARP5323, ARP4048, or ARP4050 shall be as specified in Appendix A.

3.1.1 Figure A1 to A4 – Horizontal Proving Rotors

3.1.2 Figure A5 to A7 – Vertical Proving Rotors

3.1.3 Figure A8 – Additional Notes

3.2 The user procurement specification shall clearly indicate type and weight class of proving rotor (e.g., Class V-25 Proving Rotor).

4. NOTES

4.1 Unless otherwise specified, all dimensions are in inches, rotor weights are in pounds, and test masses are in ounces.

4.2 Revision Indicator

A change bar (I) located in the left margin is for the convenience of the user in locating areas where technical revisions, not editorial changes, have been made to the previous issue of this document. An (R) symbol to the left of the document title indicates a complete revision of the document, including technical revisions. Change bars and (R) are not used in original publications, nor in documents that contain editorial changes only.

PREPARED BY SAE SUBCOMMITTEE EG-1A, BALANCING
OF COMMITTEE EG-1, AEROSPACE PROPULSION SYSTEMS SUPPORT EQUIPMENT

SAE PROVING ROTOR – HORIZONTAL

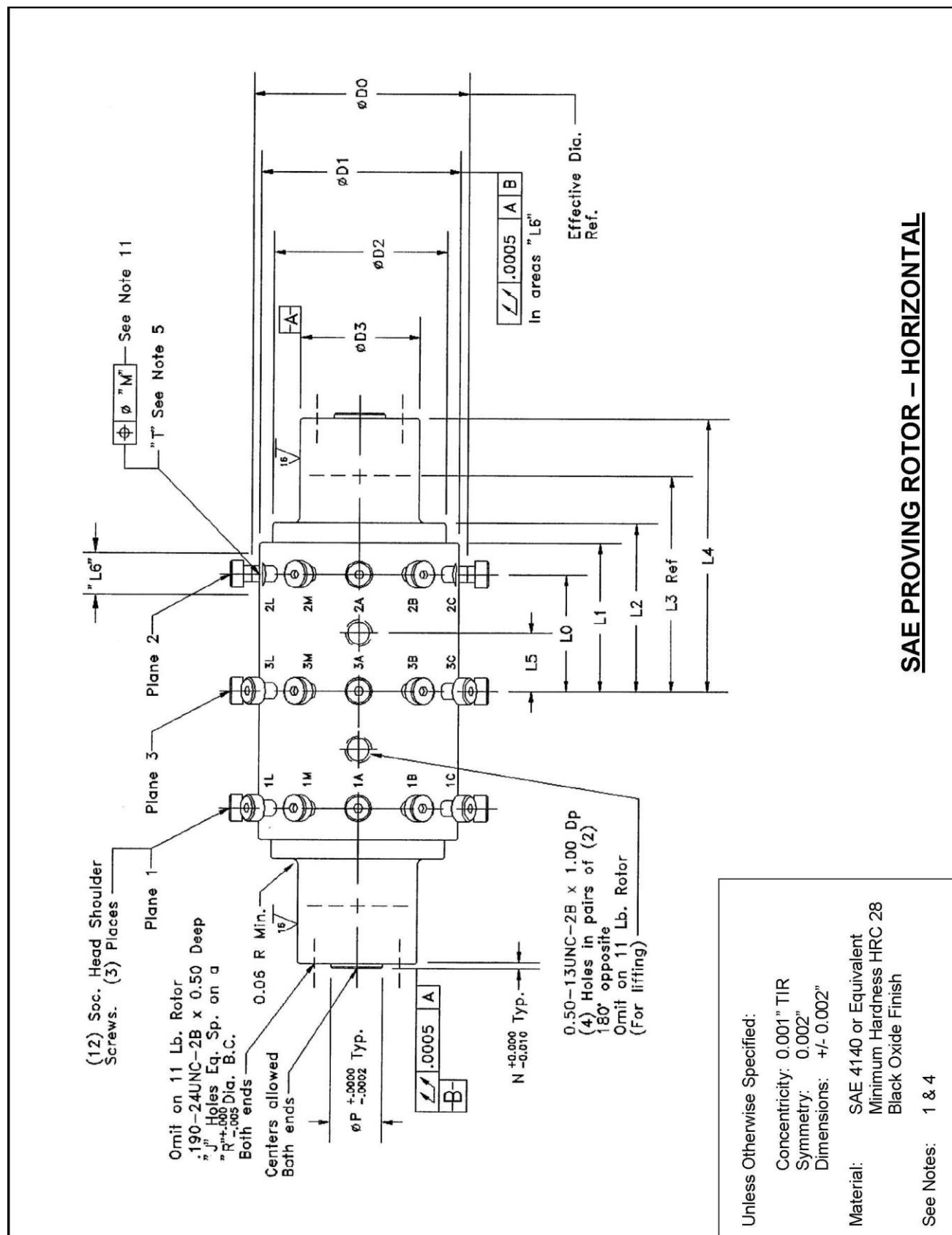


Figure A1