

**Test Component Specifications**

**TABLE OF CONTENTS**

|     |                                                                        |   |
|-----|------------------------------------------------------------------------|---|
| 1.  | Scope .....                                                            | 1 |
| 2.  | References .....                                                       | 1 |
| 2.1 | Applicable Documents .....                                             | 1 |
|     | Appendix A Brake Assembly Mounting/Dynamometer Stub Axle Fixture ..... | 2 |
|     | Appendix B Component Parts List .....                                  | 3 |
|     | Appendix C Component Sketches (Figures C1 through C12) .....           | 4 |

- 1. Scope**—This SAE Recommended Practice contains the reference information for SAE J1802.
- 2. References**
- 2.1 Applicable Publication**—The following publication forms a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.
- 2.1.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.
- SAE J1802—Brake Block Effectiveness Rating
- 3. Notes**
- 3.1 Marginal Indicia**—The change bar (I) located in the left margin is for the convenience of the user in locating areas where revisions have been made to the previous issue of the report. An (R) symbol to the left of the document title indicates a complete revision of the report.

PREPARED BY THE SAE TRUCK AND BUS FOUNDATION BRAKE SUBCOMMITTEE  
OF THE SAE TRUCK AND BUS BRAKE COMMITTEE

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2003 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER:

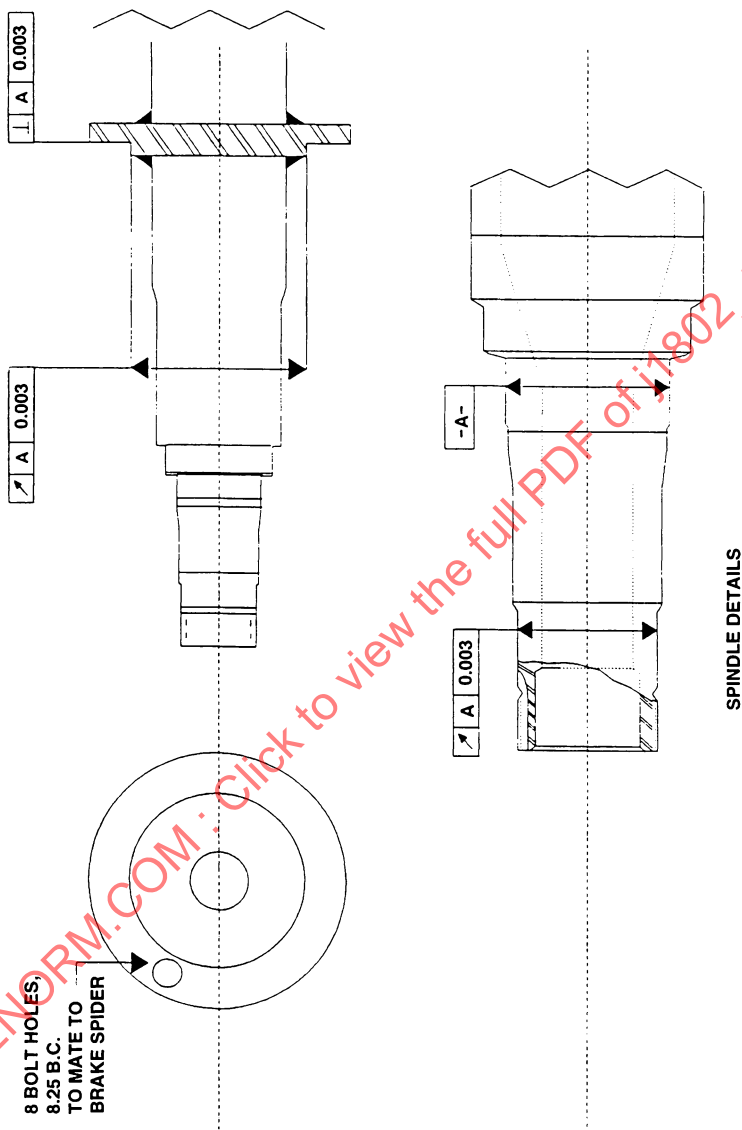
Tel: 877-606-7323 (inside USA and Canada)  
Tel: 724-776-4970 (outside USA)  
Fax: 724-776-0790  
Email: [custsvc@sae.org](mailto:custsvc@sae.org)  
<http://www.sae.org>

SAE WEB ADDRESS:

## APPENDIX A

## BRAKE ASSEMBLY MOUNTING/DYNAMOMETER STUB AXLE FIXTURE

**A.1 Brake Assembly Mounting/Dynamometer Stub Axle Fixture**—See Figure A1.



NOTES: 1 REFERENCE: EATON AXLE 23000 SERIES OR MERITOR R SERIES  
2 AXLE BEAM END FIXTURED TO MATE TO TAIL STOCK. CONFIGURATION OPTIONAL

FIGURE A1—BRAKE ASSEMBLY MOUNTING/DYNAMOMETER STUB AXLE FIXTURE

## APPENDIX B

## COMPONENTS PART LIST

**B.1 Components Part List**—See Table B1.**TABLE B1—COMPONENTS PART LIST<sup>(1)</sup>**

| Component                               | SAE P/N <sup>(2)</sup> | Reference                   |
|-----------------------------------------|------------------------|-----------------------------|
| 1. Brake Drum (See Figure C1)           | RM—                    | Gunitite 3656               |
| 2. Hub (See Figure C2)                  | RM—                    | Gunitite HR-6540            |
| 3. Spider (See Figure C3)               | RM—                    | Meritor A-3211-H-996        |
| 4. Camshaft Bushings (See Figure C3)    | RM—                    | Meritor 1225-N-378          |
| 5. Brake Shoe (See Figure C4)           | RM—                    | Meritor A-3722-D-1959       |
| 6. Brake Shoe Roller (See Figure C4)    | RM—                    | Meritor 1199-U-3765         |
| 7. Anchor Pin (See Figure C5)           | RM—                    | Meritor 1259-R-252          |
| 8. Lining Blocks                        |                        |                             |
| —Cam (See Figure C6)                    | RM—                    | FMSI 4515E                  |
| —Anchor (See Figure C7)                 | RM—                    | FMSI 4515E                  |
| 9. Bracket Assembly (See Figure C3)     | RM—                    | Meritor A7-3299-R-1552      |
| 10. Camshaft (See Figures C8 and C9)    | RM—                    | Eaton 70306                 |
| 11. Air Chamber (See Figure C10)        | RM—                    | Bendix 108492 (Rotochamber) |
| 12. Return Spring (See Figure C11)      | RM—                    | Meritor 2258-R-590          |
| 13. Slack Adjuster (See Figure C12)     | RM—                    | Bendix 278014               |
| 14. Anchor Pin Bushings (See Figure C3) | RM—                    | Meritor 1225-B-496 (Spider) |
|                                         |                        | 1225-F-266 (Shoe)           |
|                                         |                        | 1225-N-352 (Shoe)           |

1. The above material is available directly from SAE and is to be used exclusively for SAE J1802 testing.
2. Reference P/Ns are for reference only and cannot be used for SAE J1802 testing: RM—R/Ns are similar to the reference P/Ns, but are distinctly different due to unique specifications and dimensions.



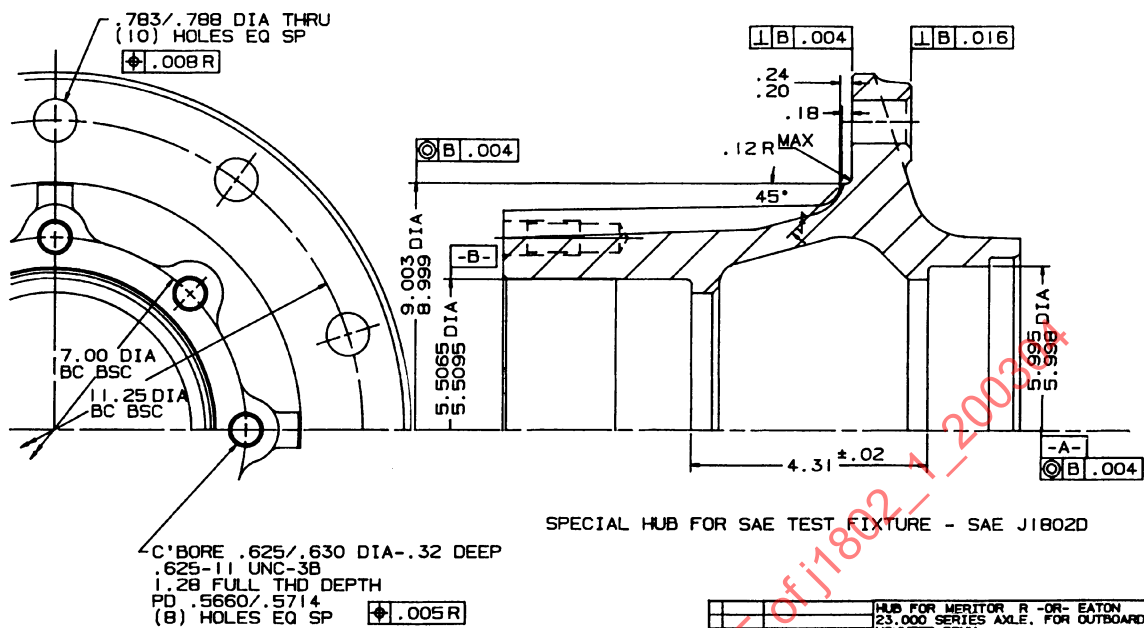
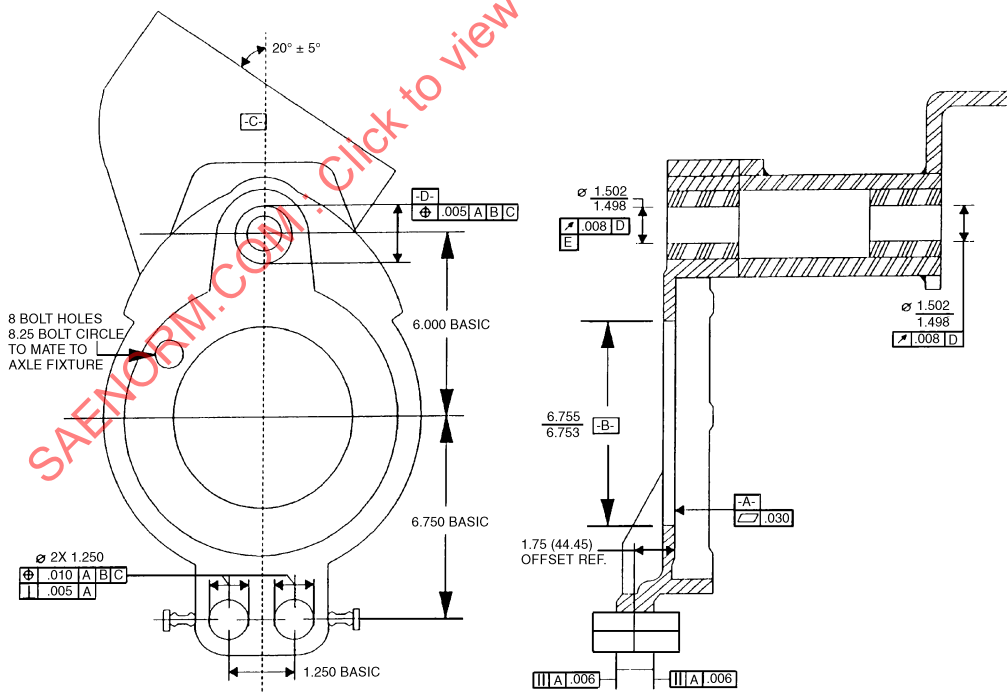


FIGURE C2—HUB



NOTES: <sup>1</sup>SPIDER REFERENCE CASTING MERITOR P/N A-3211-H-996 OR EQUIVALENT  
<sup>2</sup>BRACKET ASSEMBLY REFERENCE MERITOR P/N A7-3299-R-1552 OR EQUIVALENT

FIGURE C3—HUB

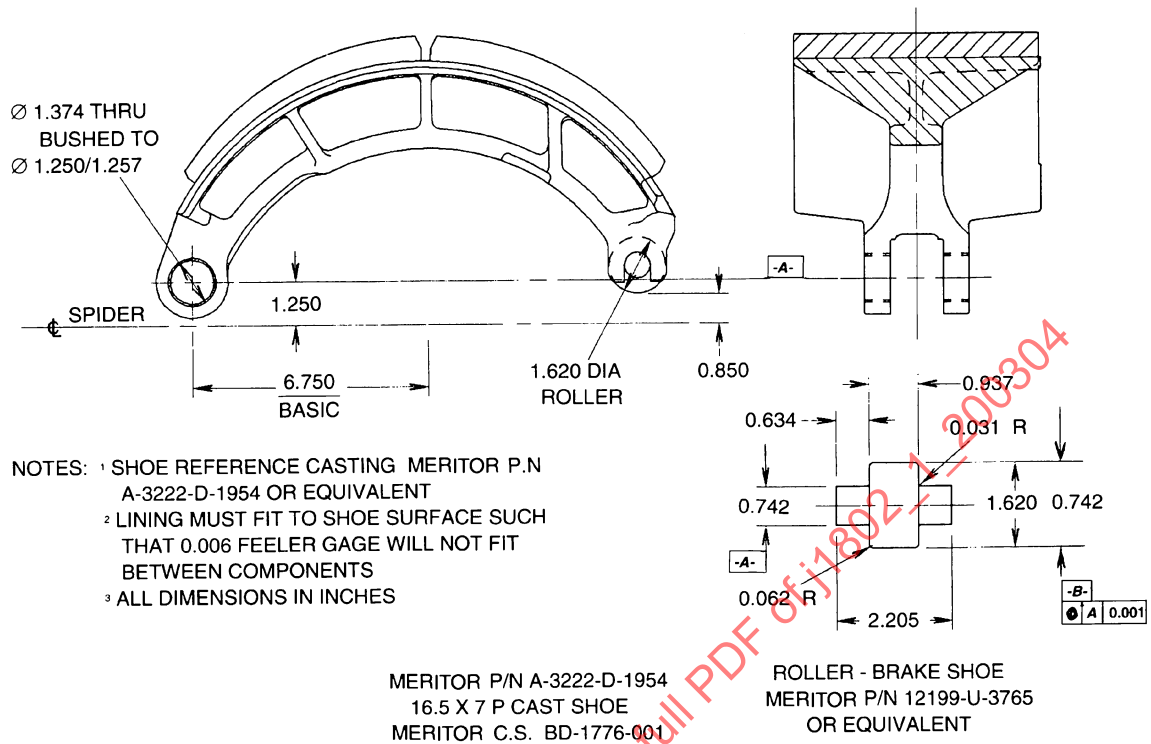


FIGURE C4—BRAKE SHOE AND ROLLER

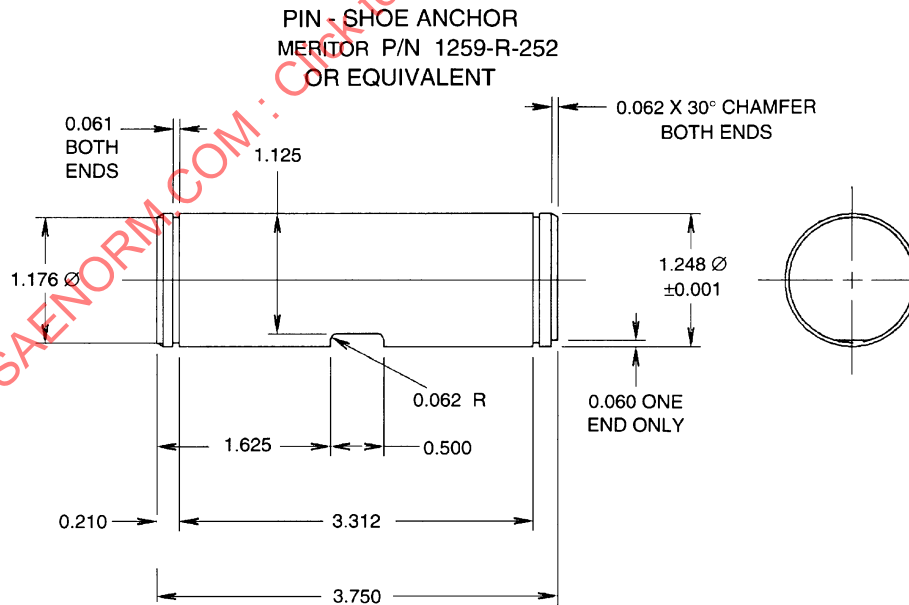


FIGURE C5—ANCHOR PIN

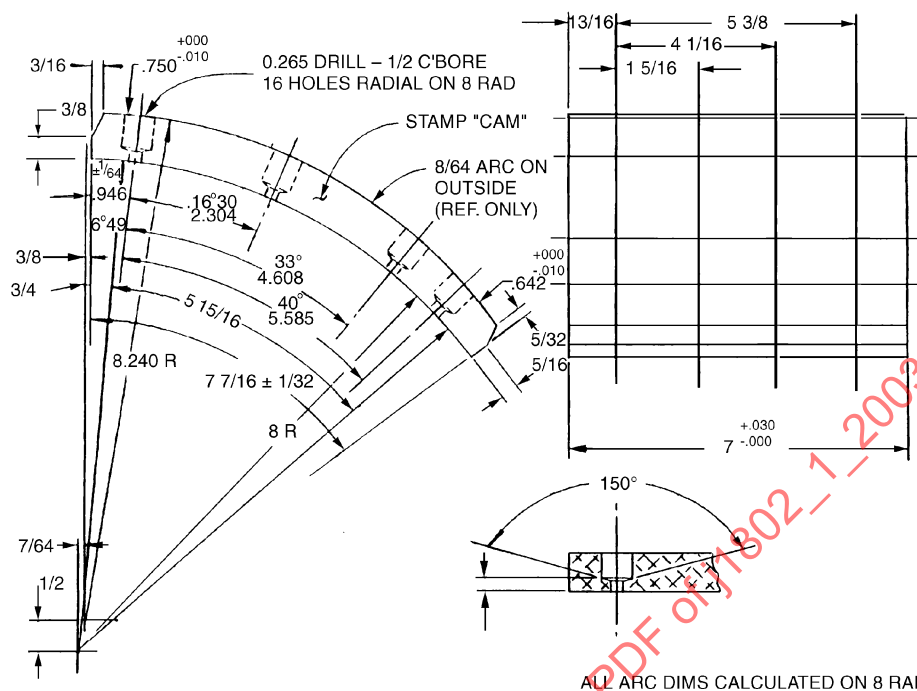


FIGURE C6—BRAKE BLOCK (CAM) FMSI NO. 4515E

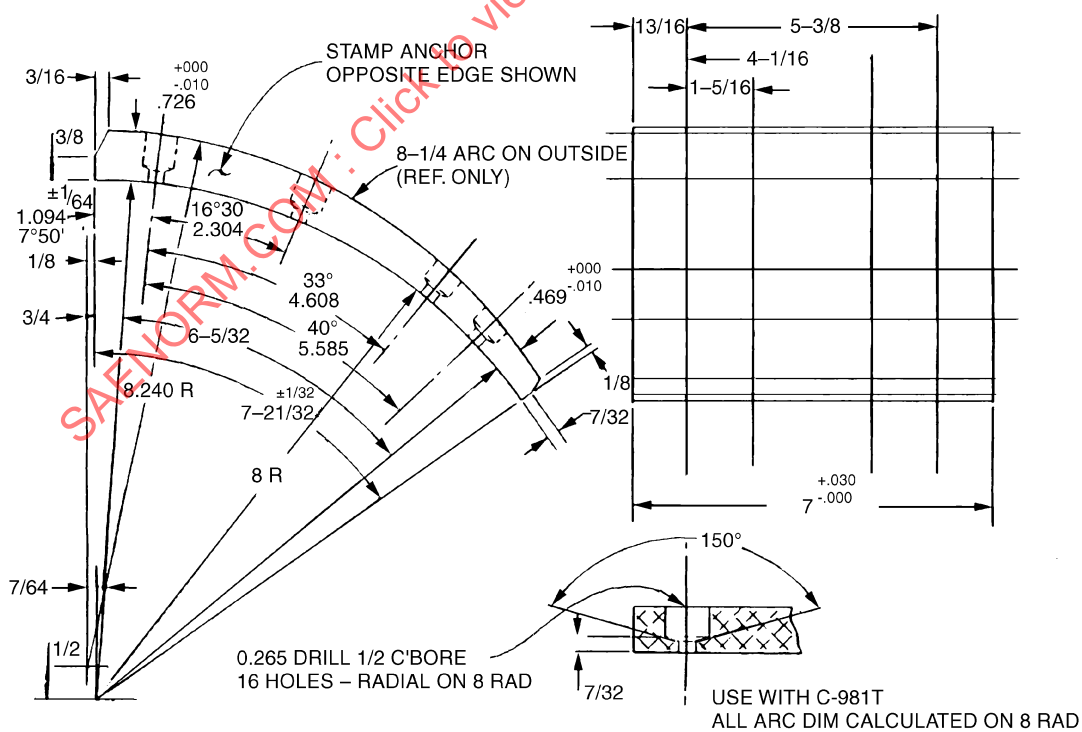


FIGURE C7—BRAKE BLOCK (ANCHOR) FMSI NO. 4515E

FIGURE C8—CAMSHAFT

FIGURE C8—CAMSHAFT

| <div> <div>⊖</div> <div>CAMSHAFT<br/>ROTATION</div> </div> |             | DIM A WITH<br>.625R<br>FOLLOWER |
|------------------------------------------------------------|-------------|---------------------------------|
| LOBE<br>ONE                                                | LOBE<br>TWO |                                 |
| 0                                                          | 180         | 1.186                           |
| 5                                                          | 185         | 1.228                           |
| 10                                                         | 190         | 1.270                           |
| 15                                                         | 195         | 1.313                           |
| 20                                                         | 200         | 1.355                           |
| 25                                                         | 205         | 1.399                           |
| 30                                                         | 210         | 1.442                           |
| 35                                                         | 215         | 1.485                           |
| 40                                                         | 220         | 1.529                           |
| 45                                                         | 225         | 1.573                           |
| 50                                                         | 230         | 1.617                           |
| 55                                                         | 235         | 1.661                           |
| 60                                                         | 240         | 1.705                           |
| 65                                                         | 245         | 1.749                           |
| 70                                                         | 250         | 1.793                           |
| 75                                                         | 255         | 1.838                           |
| 80                                                         | 260         | 1.882                           |
| 85                                                         | 265         | 1.927                           |
| 90                                                         | 270         | 1.972                           |
| 95                                                         | 275         | 2.016                           |
| 100                                                        | 280         | 2.061                           |
| 105                                                        | 285         | 2.106                           |
| 110                                                        | 290         | 2.151                           |
| 115                                                        | 295         | 2.196                           |
| 120                                                        | 300         | 2.241                           |
| 125                                                        | 305         | 2.286                           |
| 130                                                        | 310         | 2.331                           |
| 135                                                        | 315         | 2.376                           |
| 140                                                        | 320         | 2.421                           |
| 145                                                        | 325         | 2.467                           |
| 150                                                        | 330         | 2.512                           |

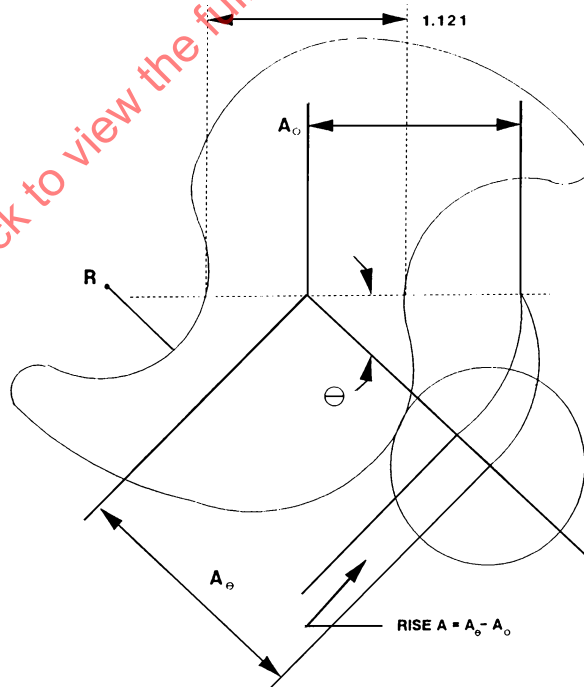


FIGURE C9—CAM PROFILE