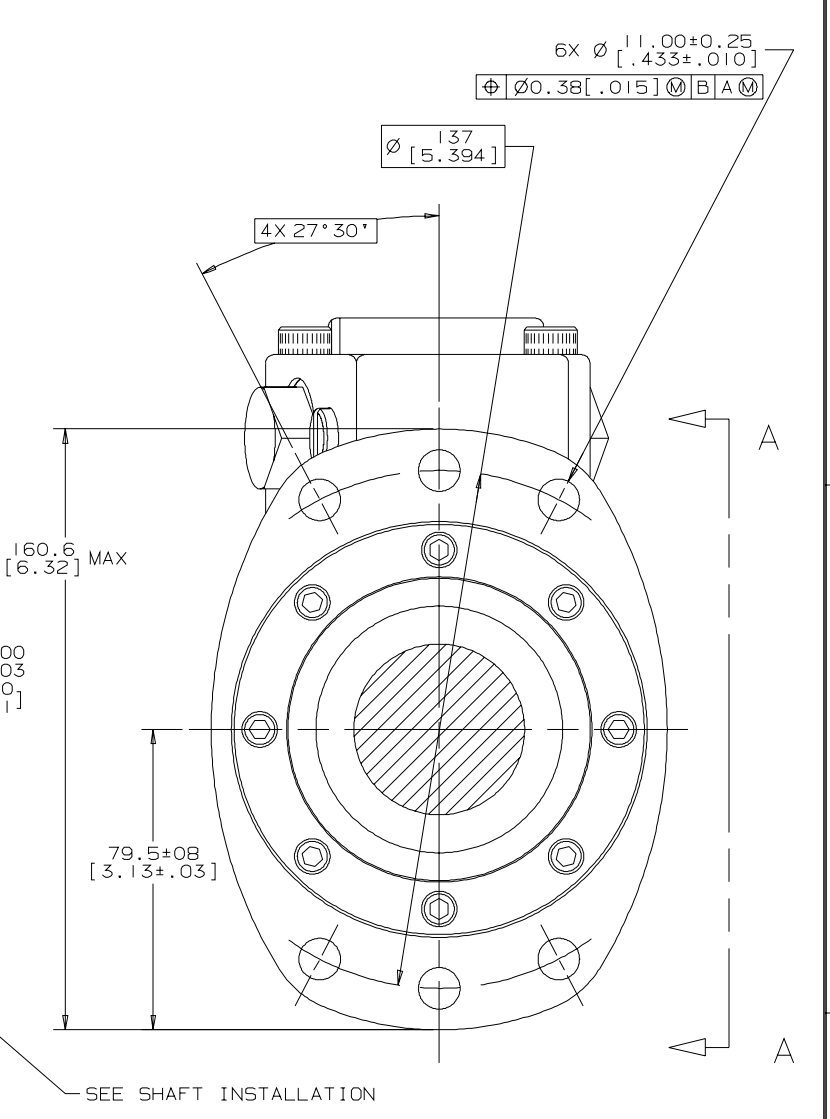
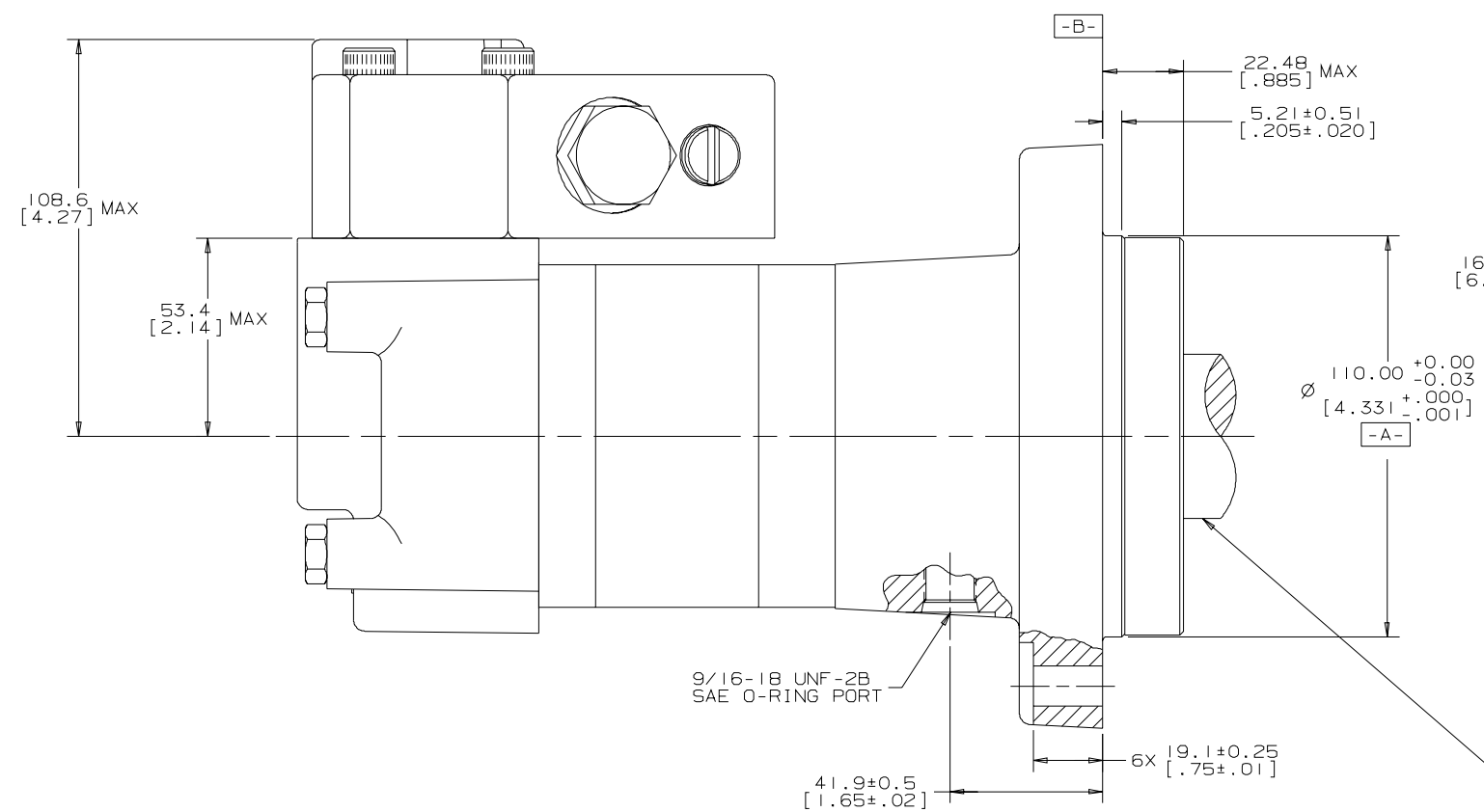
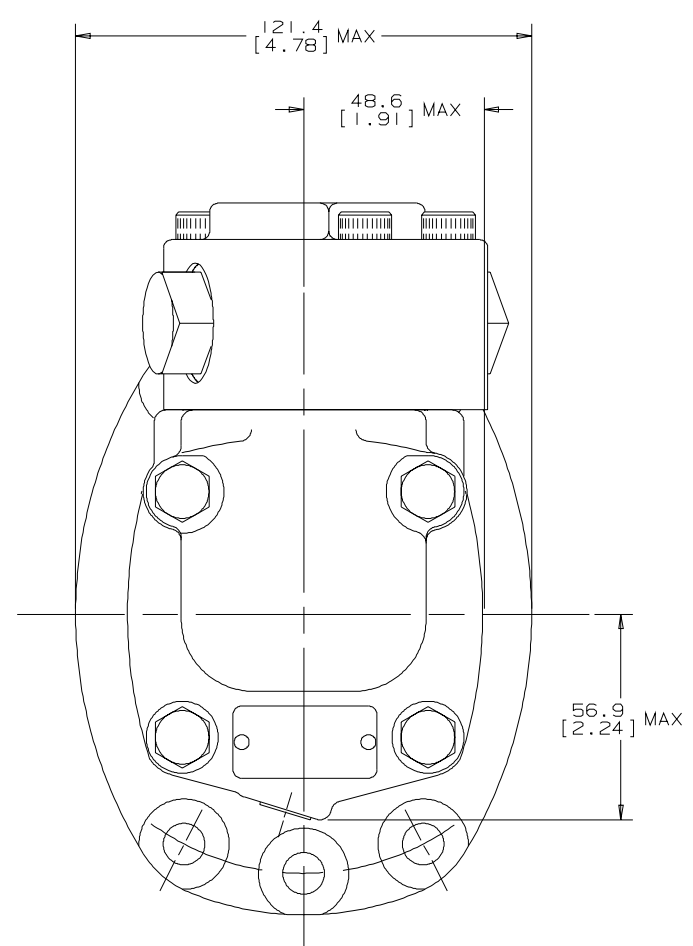
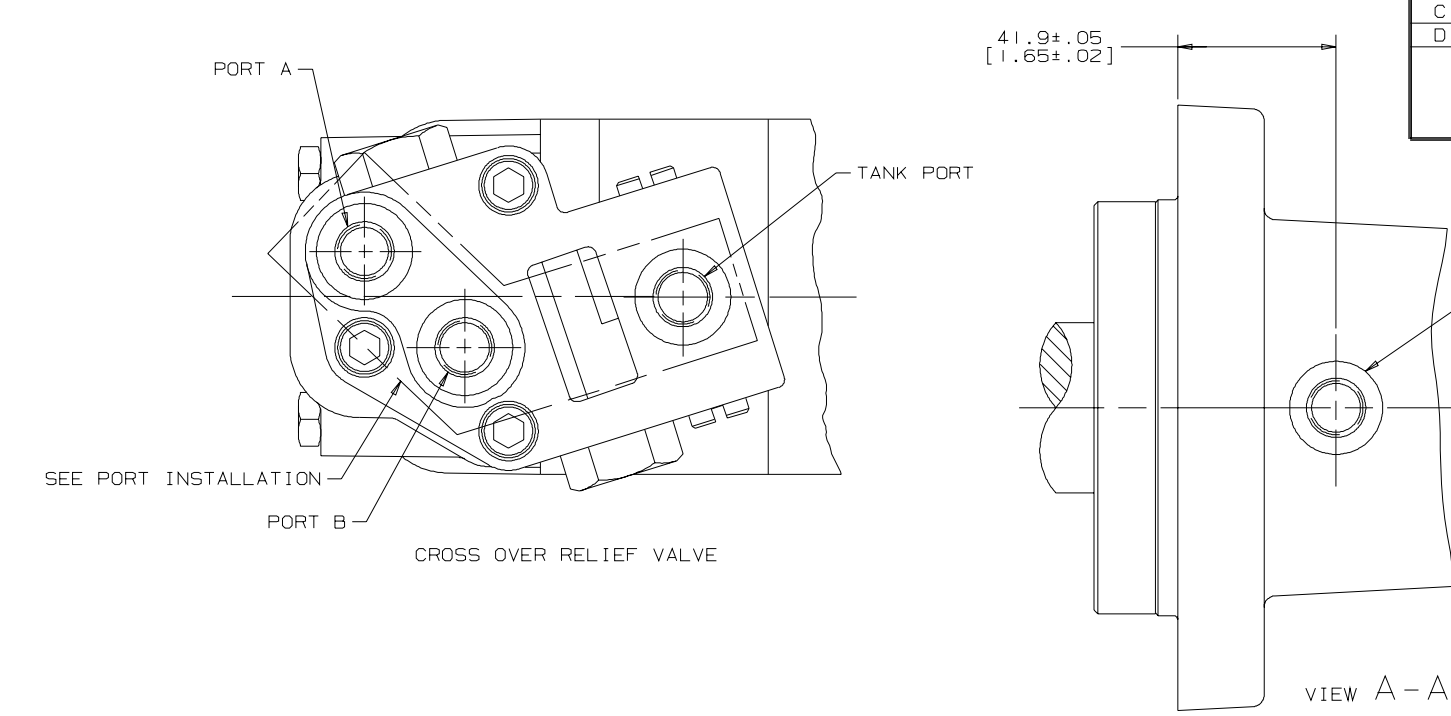


| SYM | REVISION                              | BY  | DATE    | ECN     |
|-----|---------------------------------------|-----|---------|---------|
| A   | RELEASE FOR SAMPLES AND ESTIMATE      | GCB | 6-26-96 | X8850   |
| B   | ENGINEERING RELEASE                   | RAF | 7-2-96  | M15743  |
| C   | (4B) ADDED 9/16 PORT AND RELATED DIMS | RAF | 2-1-00  | M22768A |
| D   | (4A) NOTE 2 WAS MOUNTING TYPE: A      | AGJ | 5/13/02 | 41044   |



NOTE

1 ROTATION:  
 STANDARD: WHEN FACING SHAFT END OF MOTOR, SHAFT TO ROTATE:  
 CLOCKWISE WHEN PORT "A" IS PRESSURIZED  
 COUNTERCLOCKWISE WHEN PORT "B" IS PRESSURIZED

REVERSE: WHEN FACING SHAFT END OF MOTOR, SHAFT TO ROTATE:  
 CLOCKWISE WHEN PORT "B" IS PRESSURIZED  
 COUNTERCLOCKWISE WHEN PORT "A" IS PRESSURIZED

2 MOUNTING TYPE: AA  
 PINION, 6 BOLT: Ø110.0 [4.33] PILOT  
 Ø 11.0 [.43] HOLES ON Ø 137.0 [5.39] BOLT CIRCLE  
 5.2 [.21] PILOT LENGTH

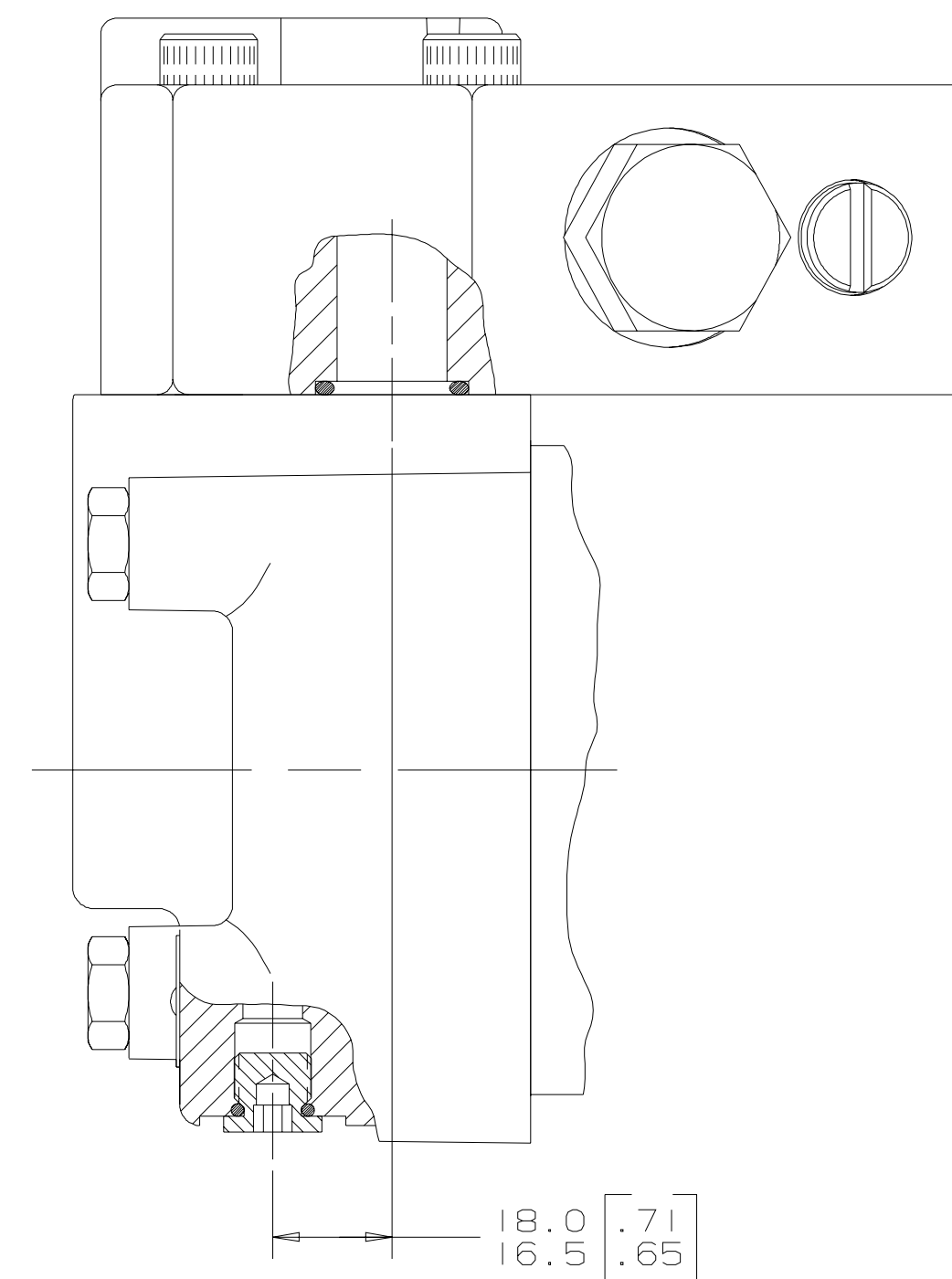
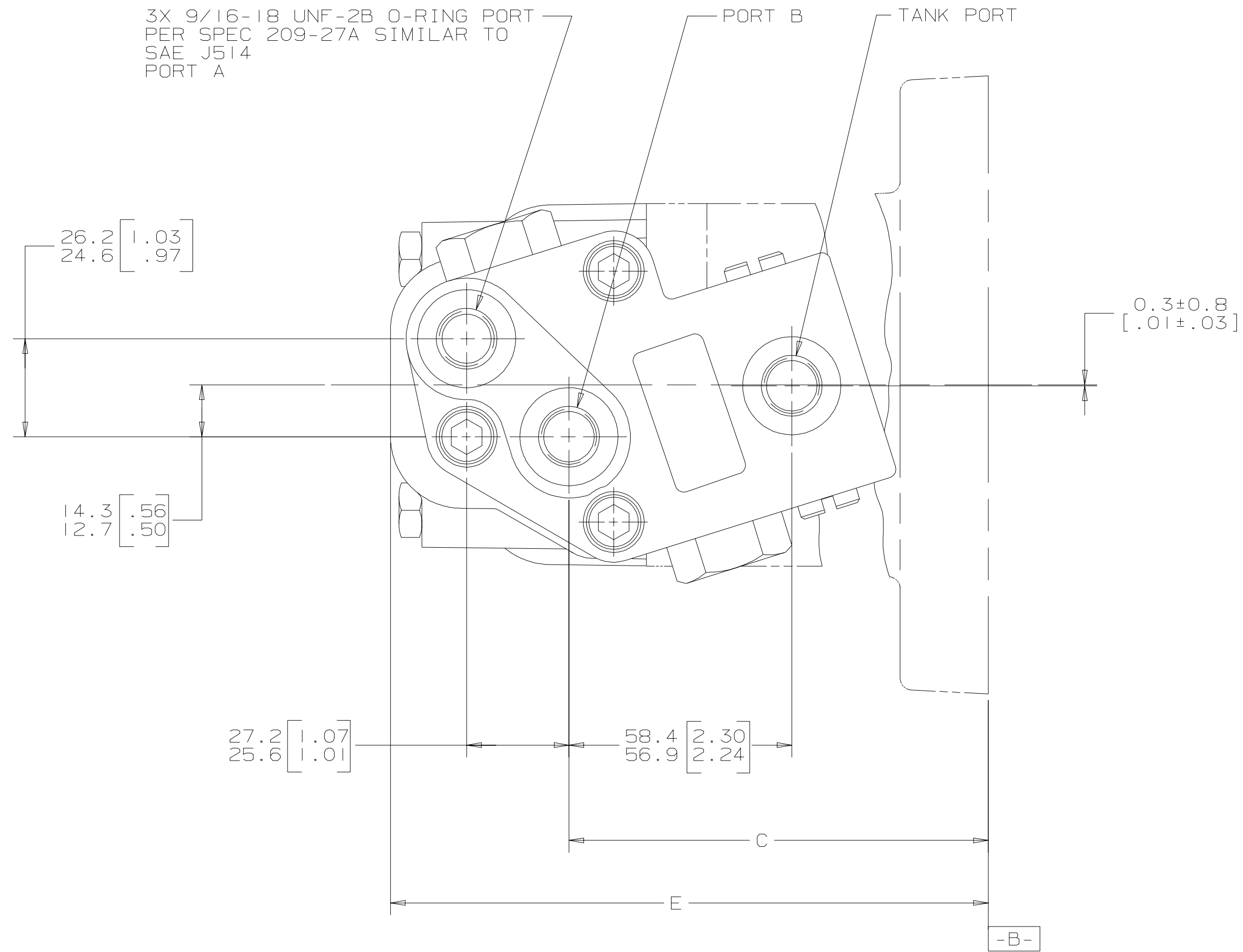
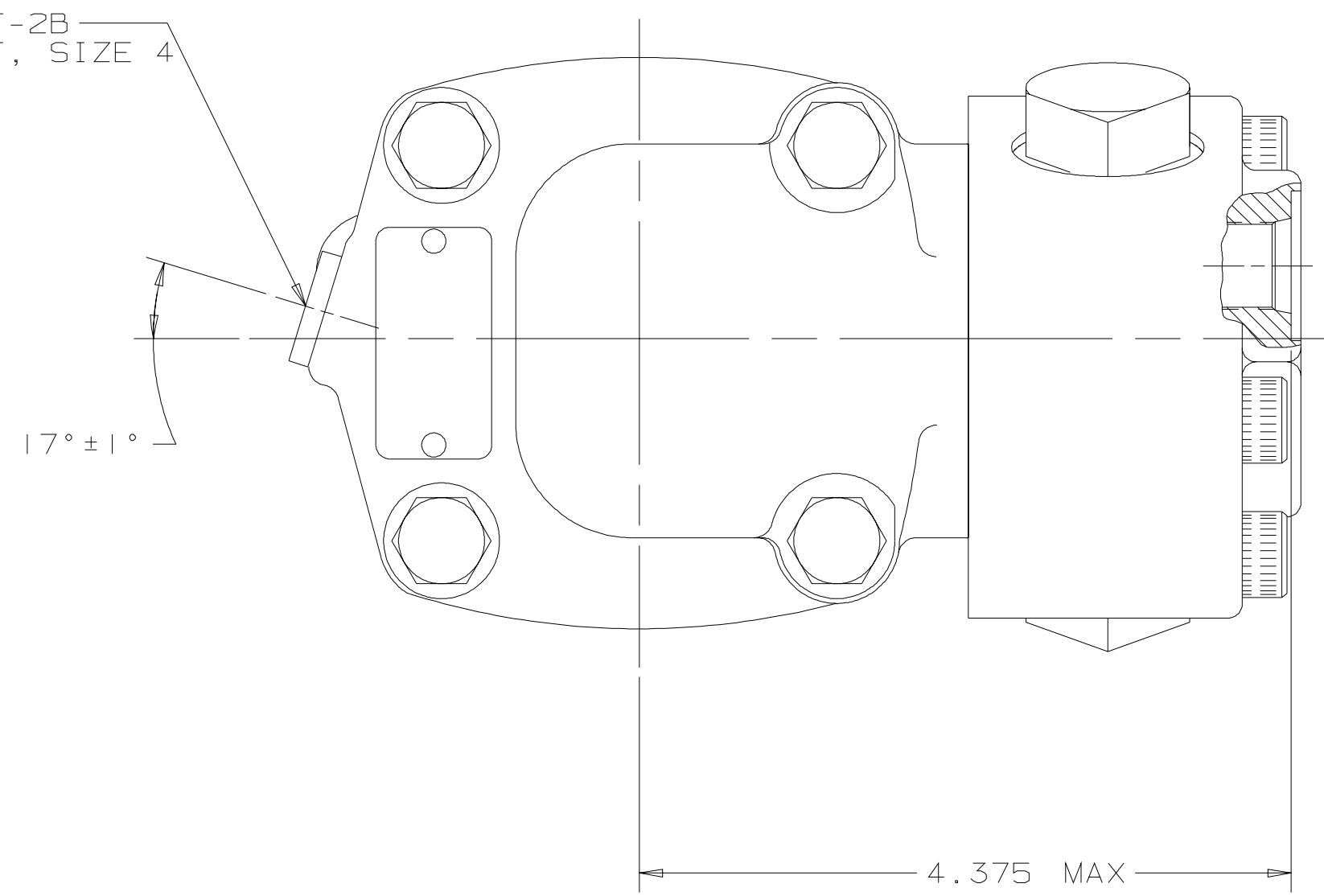
|  |   |  |                        |
|--|---|--|------------------------|
| UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN                             |   | DRAWING BASED ON ANSI Y14.5M-1982  |                        |
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| TOLERANCES   |   |  |                        |
| .x .x .xxx . ONLY  |   |  |                        |
| DRAWN BY/DATE  | GCB 6-26-96                                     | MATERIAL/HEAT TREAT  |                        |
| CHECKED BY/DATE  | RAF 6-27-96                                     | TITLE  | 2000 SERIES MOTOR INST |
| ENGR BY/DATE   | MLB 6-27-96                                     | NUMBER   | A-663-004              |
| METALLURGY BY/DATE   |   | SCALE  | 1/1                    |
| UNSPECIFIED RADI ARE   |   | THIRD ANGLE PROJECTION   |                        |
| UNSPECIFIED DRAFT ANGLES ARE   |   | DO NOT SCALE   |                        |
| DRAWING FORMAT CADD <input type="checkbox"/> MANUAL <input type="checkbox"/> |   | ARITHMETICAL AVERAGE   |                        |

G K S

| MOUNTING TYPE AA |                            |                  |
|------------------|----------------------------|------------------|
| DISP             | C                          | E MAX            |
| 049              | 146.6-149.4<br>[5.77-5.88] | 195.1<br>[7.68]  |
| 062              |                            |                  |
| 080              |                            |                  |
| 096              | 157.5-160.3<br>[6.20-6.31] | 206.0<br>[8.11]  |
| 119              | 164.3-167.1<br>[6.47-6.58] | 212.9<br>[8.38]  |
| 149              | 173.2-176.0<br>[6.82-6.93] | 222.0<br>[8.74]  |
| 187              | 184.7-187.5<br>[7.27-7.38] | 233.2<br>[9.18]  |
| 240              | 211.8-214.9<br>[8.34-8.46] | 260.6<br>[10.26] |
| 298              |                            |                  |

| SYM | REVISION   | BY  | DATE     | ECN     |
|-----|--|-----|----------|---------|
| A   | ENGINEERING RELEASE  | AGJ | 5-26-93  | 22833   |
| B   | (A2)NOTE 1 ADDED ...AND U  | GCB | 8-29-96  | M15817B |
| C   | (8D)ADDED TO TAB 211.8-214.9[8.34-8.46] AND 260.6[10.26]                       | GCB | 10-30-96 | 28821   |
| D   | -1)REVISED MOUNTING TAB CODES -2)NOTE 1 WAS PORT OPTION: K & U -2)ADDED NOTE 2 | AGJ | 5-13-02  | 41044   |
| E   | REVISED DISPLACEMENT FOR TABULATION BLOCKS                                     | RG  | 6-26-06  | 56090   |

7/16-20 UNF-2B  
O-RING PORT, SIZE 4  
CASE DRAIN



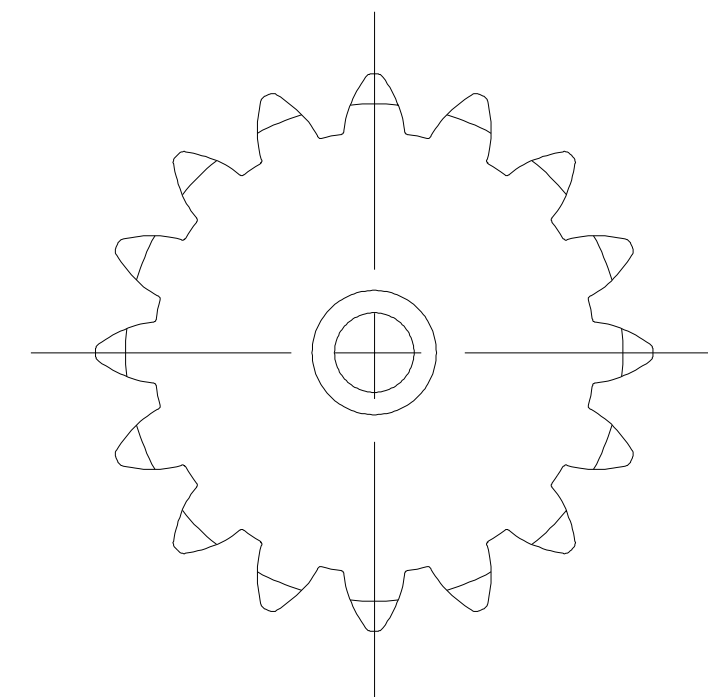
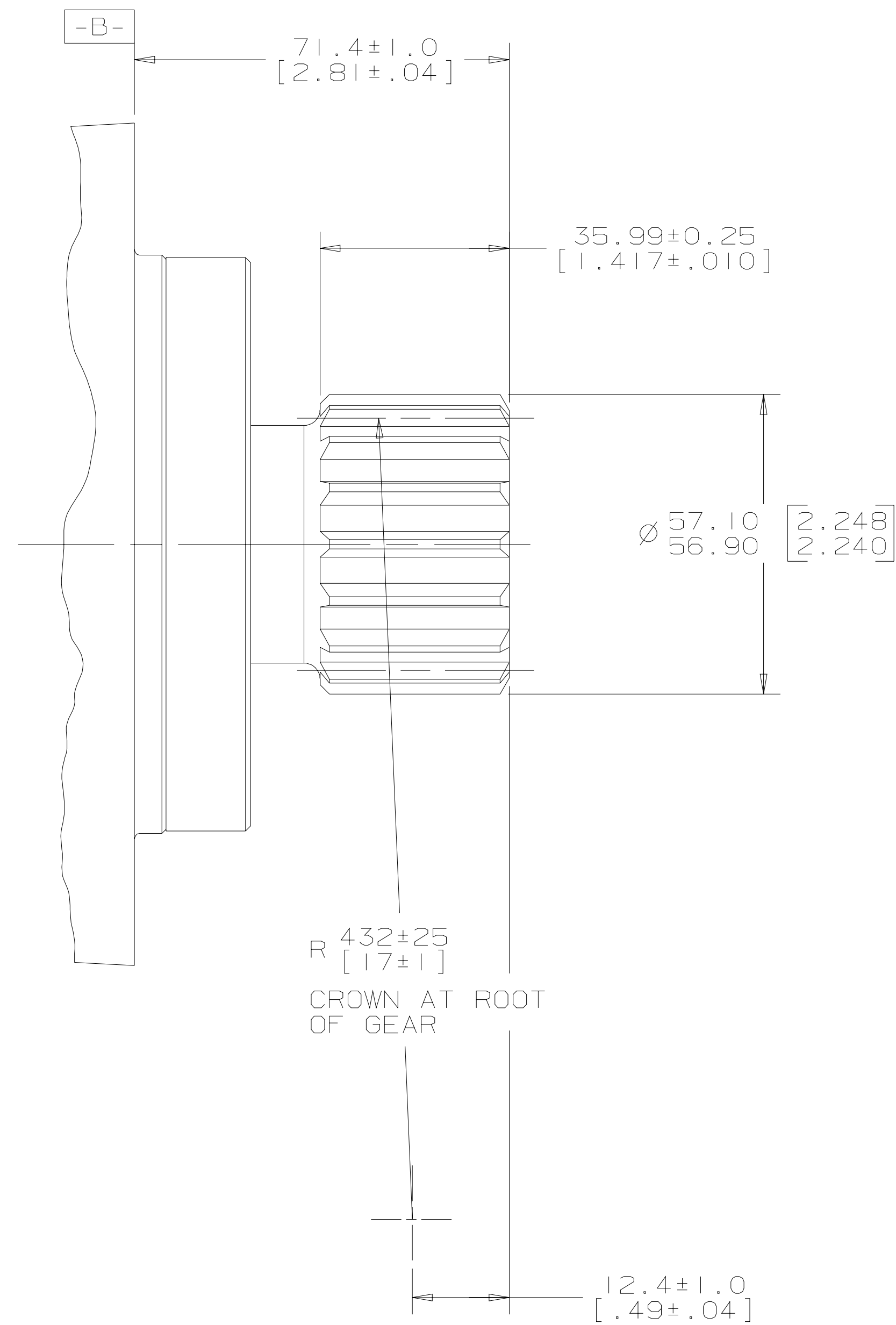
- NOTE
- PORT OPTION: AH
  - CASE FLOW OPTION: 01 OR 07

G K S

|   |   |   |                                     |
|---|---|---|-------------------------------------|
| UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN  |   | DRAWING BASED ON ANSI Y14.5M-1982   |                                     |
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| TOLERANCES  |   |   |                                     |
| .XX +REF  | .XXX +ONLY                                      |   |                                     |
| DRWN BY/DATE  | A. JOHNSON<br>6-10-93                           | MATERIAL/HEAT TREAT   |                                     |
| CHECKED BY/DATE   | SDR 6-24-93                                     |   |                                     |
| UNSPECIFIED RADII ARE   | ENGRD BY/DATE<br>SZ 6-28-93                     | TITLE   | 2000 SERIES MOTOR PORT INSTALLATION |
| UNSPECIFIED DRAFT ANGLES ARE  | METALLURGY BY/DATE                              | NUMBER  | A-673-012                           |
| DRAWING FORMAT<br>CAD <input checked="" type="checkbox"/> MANUAL <input type="checkbox"/> | THIRD ANGLE PROJECTION                          | SCALE   | 1/1                                 |
|   | DO NOT SCALE                                    | ARTHEMETICAL AVERAGE  | SHEET 1 OF 1                        |

| PINION GEAR SPEC (JIS B 1701)                  |                                    |
|--|------------------------------------|
| TOOL   |                                    |
| GEAR PROFILE                                   | ADD MODIFICATION                   |
| TOOTH FORM                                     | FULL DEPTH TOOTH                   |
| MODULE   | 3                                  |
| PRESSURE ANGLE                                 | 20°                                |
| NO. OF TEETH                                   | 16                                 |
| P.C.D.   | 48.000 [1.8898]                    |
| AMOUNT OF ADDENDUM MODIFICATION                | 1.80 [.071]                        |
| OVER-ALL ACROSS A GIVEN NO. OF TEETH (3 TEETH) | 23.953 [.9430]<br>23.853 [.9391]   |
| DIMENSION OVER TWO PINS                        | 58.440 [2.3008]<br>58.247 [2.2932] |
| PIN Ø  | 5.486 [.216]                       |


| REV | DESCRIPTION                        | BY  | DATE    | ECN   |
|-----|------------------------------------|-----|---------|-------|
| A   | ENGINEERING RELEASE                | AGJ | 5-26-93 | 22833 |
| B   | NOTE 1 WAS MOUNTING TYPE: OPTION A | AGJ | 5-13-02 | 41044 |
| C   | NOTE 2 WAS OUTPUT SHAFT: OPTION 79 | PM  | 4-4-06  | 54522 |



NOTE

- 1 MOUNTING TYPE: OPTION AA
- 2 OUTPUT SHAFT: OPTION 30

G S K

| UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN   |   | DRAWING BASED ON ANSI Y14.5M-1982   |   |
|--|---|---|---|
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| TOLERANCES   |   |    |   |
| .x ±----   | .xx ±REF  |   |   |
| .xxx ±ONLY   | ∠ ±----   | DRAWN BY/DATE: A. JOHNSON 3-8-93  | MATERIAL/HEAT TREAT                         |
| UNSPECIFIED RADII ARE  | UNSPECIFIED DRAFT ANGLES ARE                    | CHECKED BY/DATE: SDR 6-24-93  | TITLE: 2000 SERIES MOTOR SHAFT INSTALLATION |
| UNSPECIFIED DRAFT ANGLES ARE   | THIRD ANGLE PROJECTION                          | ENGRG BY/DATE: SJZ 6-28-93  | METALLURGY BY/DATE                          |
| DRAWING FORMAT: CADD <input checked="" type="checkbox"/> MANUAL <input type="checkbox"/> | DO NOT SCALE                                    | MICROINCHES <input type="checkbox"/> MILLIMETERS <input checked="" type="checkbox"/>  | NUMBER: A-681-079                           |
|  |   | 250/  | SCALE: 1/1 SHEET 1 OF 1                     |