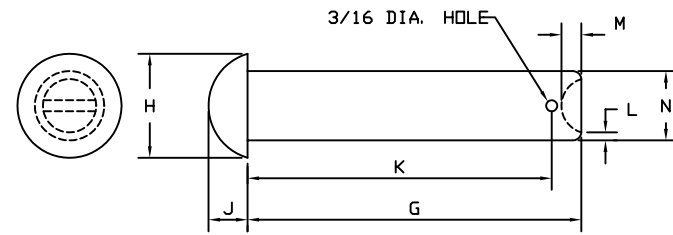


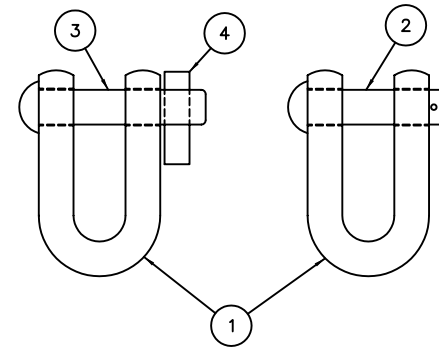
① SHACKLE BODY

|            | A     | B     | C      | D             | E            | F     |
|------------|-------|-------|--------|---------------|--------------|-------|
| 1st CLASS  | 2     | 7-3/4 | 11-7/8 | 7             | 4-1/4        | 2-1/8 |
| 2nd CLASS  | 1-3/4 | 6-7/8 | 10-1/2 | 6-1/4         | 3-3/4        | 1-7/8 |
| 3rd CLASS  | 1-1/2 | 5-1/4 | 8-1/2  | 5-1/4         | 3-1/4        | 1-5/8 |
| 4th CLASS  | 1     | 4-1/8 | 6-1/2  | 4-1/4         | 2-1/2        | 1-1/8 |
| SPECIAL    | 2-1/2 | 9     | 14-1/4 | 11            | 5-1/2        | 2-5/8 |
| TOLERANCES | ±1/16 | ±1/4  | REF.   | +3/16<br>-1/8 | +1/4<br>-1/8 | ±1/32 |



② RIVET PIN

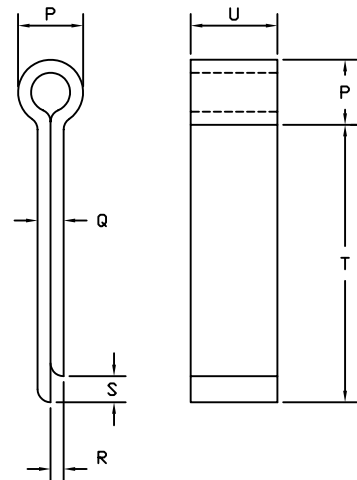
|            | G     | H     | J     | K     | L     | M     | N     |
|------------|-------|-------|-------|-------|-------|-------|-------|
| 1st CLASS  | 8     | 3     | 1-1/8 | 7-1/4 | 3/16  | 3/8   | 2     |
| 2nd CLASS  | 7-1/8 | 2-3/4 | 1     | 6-1/2 | 3/16  | 3/8   | 1-3/4 |
| 3rd CLASS  | 6     | 2-1/2 | 7/8   | 5-1/2 | 3/16  | 1/4   | 1-1/2 |
| 4th CLASS  | 5     | 1-5/8 | 5/8   | 4-1/2 | 1/8   | 1/4   | 1     |
| TOLERANCES | ±1/16 | ±1/16 | ±1/16 | ±1/16 | ±1/32 | ±1/32 | ±1/32 |



SPLIT KEY SHACKLE ASSEMBLY      RIVET PIN SHACKLE ASSEMBLY

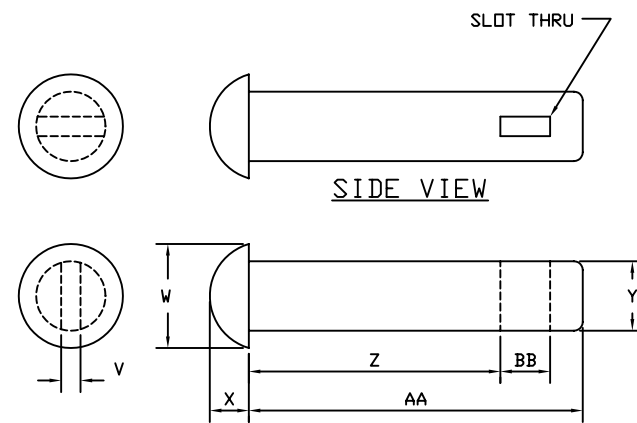
SHACKLE ASSEMBLY

|           | PROOF LOAD | BREAKING LOAD | WEIGHT (APPROX.) |
|-----------|------------|---------------|------------------|
| 1st CLASS | 115,000    | 230,000       | 40               |
| 2nd CLASS | 90,000     | 180,000       | 27               |
| 3rd CLASS | 65,000     | 130,000       | 16               |
| 4th CLASS | 30,000     | 60,000        | 6                |
| SPECIAL   | 180,000    | 360,000       | 75               |



④ SPLIT KEY

|                       | P      | Q     | R     | S     | T     | U     |
|-----------------------|--------|-------|-------|-------|-------|-------|
| 1st, 2nd<br>3rd CLASS | 15/16  | 3/8   | 3/16  | 3/8   | 4     | 1-1/4 |
| 4th CLASS             | 13/16  | 1/4   | 1/8   | 3/8   | 4     | 7/8   |
| SPECIAL               | 1-1/16 | 3/8   | 3/16  | 3/8   | 5     | 1-1/4 |
| TOLERANCES            | ±1/16  | ±1/32 | ±1/64 | ±1/16 | ±1/16 | ±1/32 |



③ SPLIT KEY PIN

|            | V     | W     | X     | Y     | Z      | AA     | BB     |
|------------|-------|-------|-------|-------|--------|--------|--------|
| 1st CLASS  | 9/16  | 3     | 1-1/8 | 2     | 7-1/4  | 9-5/8  | 1-7/16 |
| 2nd CLASS  | 9/16  | 2-3/4 | 1     | 1-3/4 | 6-1/2  | 8-7/8  | 1-7/16 |
| 3rd CLASS  | 9/16  | 2-1/2 | 7/8   | 1-1/2 | 5-1/2  | 7-7/8  | 1-7/16 |
| 4th CLASS  | 7/16  | 1-5/8 | 5/8   | 1     | 4-1/2  | 6-1/8  | 1-1/16 |
| SPECIAL    | 9/16  | 3-1/2 | 1-3/8 | 2-1/2 | 11-1/4 | 13-3/4 | 1-7/16 |
| TOLERANCES | ±1/32 | ±1/16 | ±1/16 | ±1/32 | ±1/16  | ±1/16  | ±1/16  |

BILL OF MATERIALS

| ITEM NO. | NO. REQ. | DESCRIPTION   | MATL.       | REMARKS |
|----------|----------|---------------|-------------|---------|
| 1        | 1        | SHACKLE BODY  | STEEL       |         |
| 2        | 1        | RIVET PIN     | STEEL       |         |
| 3        | 1        | SPLIT KEY PIN | STEEL       |         |
| 4        | 1        | SPLIT KEY     | STAIN STEEL |         |

NOTES:

- THIS DRAWING SUPERCEDES U. S. C. G. DRAWING No. 120987.
- SEE U. S. C. G. CIVIL ENGINEERING SPECIFICATION No. 417 FOR FABRICATION REQUIREMENTS.

| REV.                          | DATE    | APPR. | DESCRIPTION   | BY            |
|-------------------------------|---------|-------|---|---------------|
| D                             | 9-8-92  | SW    | MODIFIED TOLERANCES FOR ITEM 1 AND ADDED SIDE VIEW TO ITEM 3. | S.M.          |
| C                             | 3-14-91 | SW    | REDRAWN USING AUTOCAD   | DAG           |
| B                             | 3-23-88 | SW    | ADDED NOTES 1 & 2. INCREASED PROOF AND BREAKING LOAD VALUES.  | W.D.          |
| A                             | 8-1-86  | SW    | DELETED REFERENCES TO OCEAN ENGINEERING DIVISION.             | W.D.          |
| DESIGNED:                     |         |       | U.S. COAST GUARD HEADQUARTERS                                 |               |
| DRAWN: W. D.                  |         |       | CIVIL ENGINEERING   |               |
| TRACED: D. A. G.              |         |       | SHACKLES (RIVET PIN & SPLIT KEY)                              |               |
| CHECKED:                      |         |       |   |               |
| REVIEWED BY: S.D. Walker      |         |       |   |               |
| PROJECT ENGINEER              |         |       |   |               |
| REVIEWED BY: P. J. Blake      |         |       |   |               |
| G-ECV-3B                      |         |       |   |               |
| REVIEWED BY:                  |         |       | APPROVED: K. D. Usher   | DATE: 3-17-86 |
|                               |         |       | CHIEF OF OCEAN ENGINEERING BRANCH                             |               |
| UNLESS OTHERWISE SPECIFIED:   |         |       | DRAWING NUMBER  |               |
| ALL DIMENSIONS ARE IN INCHES. |         |       | 121079  |               |
| TOLERANCES: DIM. +/1 1/8 IN   |         |       | REV. D  |               |
| ANG. +/- 1 DEG                |         |       | SCALE: NONE SHEET 1 OF 1                                      |               |