



| BLIND BOLT ASSEMBLY | | | ① BB422 CORE BOLT | | | | | | | BB438 SLEEVE | | | | | ① BB415G and BB415GA EXPANDER | | | | SUGGESTED HOLE PREPARATION | | PROTRUSION AFTER INSTALLATION | | INSTALLATION PRESSURE (psi) | | MECH. PROPERTIES OF ASSEMBLY LBS. MIN. | | | |
|---------------------|------------------|-------------------|-------------------|----------------|----------------|--------------|----------|-------------|-------------------|---------------------|--------------------|------------------------|--------------------------|---------------------|-------------------------------|------|-------------|---------------------|----------------------------|-------------|-------------------------------|-------------------|-----------------------------|----------------------------|----------------------------------------|--------|--------------|--|
| FIRST DASH NUMBER | NOMINAL DIAMETER | FIRST DASH NUMBER | RECESS | A DIA. | D DIA. | H | T (REF.) | THREAD | FIRST DASH NUMBER | A ₁ DIA. | B GRIP RANGE 0-1/2 | B GRIP RANGE 1/2-1 1/2 | B GRIP RANGE 1 1/2-1 3/4 | D ₁ DIA. | H ₁ | Z | DASH NUMBER | D ₂ DIA. | L (LENGTH) | THREAD | J HOLE DIA. | CORE BOLT TORQUE | P | D ₂ DIA. (REF.) | BG1750 | BG2500 | DOUBLE SHEAR | |
| -5 | 5/32 | -5 | Phillips | .1879 .1831 | .1120 .1100 | .032 .029 | .274 | 4-40UNJC-3A | -5 | .530 .510 | .210 | .225 | — | .1645 .1640 | .038 .005 | .009 | -5 | .162 | .153 | 4-40UNJC-3B | .168 .164 | 8 10 IN. LBS. | .208 | .210 | | | 4,000 | |
| -6 | 3/16 | -6 | Phillips | .2289 .2241 | .1240 .1220 | .045 .042 | .304 | 5-40UNJC-3A | -6 | .620 .600 | .250 | .265 | .330 | .1990 .1895 | .044 .005 | .009 | -6 | .194 | .184 | 5-40UNJC-3B | .194 .190 | 10 14 IN. LBS. | .239 | .253 | | | 5,500 | |
| -8 | 1/4 | -8 | Phillips | .2922 .2874 | .1650 .1630 | .054 .051 | .397 | 8-32UNJC-3A | -8 | .805 .785 | .315 | .330 | .370 | .2600 .2595 | .010 .005 | .010 | -8 | .255 | .245 | 8-32UNJC-3B | .254 .250 | 20 30 IN. LBS. | .316 | .335 | | 700 | 9,500 | |

BB422 CORE BOLT

GENERAL NOTES:

- Concentricity: Head to "D" diameter within .005 TIR.
- Complete threads shall begin within two thread pitches maximum. Two thread pitch maximum may consist of incomplete thread and extrusion angle.
- "H" is dimensioned from maximum "D" diameter.

MATERIAL: A-286 high temperature alloy per AMS5731 or AMS5737.
HEAT TREAT: 95,000 psi shear minimum at room temperature.
CODE: First dash number of core bolt indicates sleeve nominal diameter in 32nds. Second dash number indicates mean assembly grip length (thickness of work) in 16ths.
EXAMPLE: BB422-6-12 = 3/16 nominal sleeve diameter, 3/4 mean assembly grip length.

BB438 SLEEVE

GENERAL NOTES:

- Concentricity: Hole to "D₁" diameter within .005 TIR. "D₁" diameter to head within .005 TIR.
- "H₁" is dimensioned from maximum "D₁" diameter.

① **MATERIAL:** Type A-286 per AMS5731 and AMS5737.
CODE: First dash number indicates nominal diameter of sleeve in 32nds. Second dash number indicates mean assembly grip length (thickness of work) in 16ths.
EXAMPLE: BB438-6-12 = 3/16 nominal sleeve diameter, 3/4 mean assembly grip length.

① **BB415G and BB415GA EXPANDER**

GENERAL NOTES:

- Threads per MIL-S-8879.

MATERIAL: A-286 stainless steel per Spec. AMS5731.
HEAT TREAT: 110,000 psi shear minimum.
① **FINISH:** BB415G = Silver plate per AMS2410.
BB415GA = Silver plate per AMS2411.
CODE: Dash number indicates diameter of Blind Bolt assembly in 32nds.
① **EXAMPLE:** BB415G-6 = 3/16 nominal diameter Blind Bolt Assembly.

BB441 BOLT ASSEMBLY

CODE: First dash number indicates nominal diameter of Blind Bolt Assembly in 32nds. Second dash number indicates mean assembly grip length (thickness of work) in 16ths.
① **EXAMPLE:** BB441-6-12
└─ 3/4 Mean Assembly Grip Length
└─ 3/16 Nominal Diameter Blind Bolt Assembly
└─ Blind Bolt Assembly which includes:
BB422 Core Bolt, BB438 Sleeve, and BB415G EXPANDER
BB441GA-6-12 = AS EXAMPLE EXCEPT WITH EXPANDER BB415GA

U.S. Patent 2,959,999. Foreign patents issued and pending.

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| BLIND BOLT™ ASSEMBLY | | | | | |
| 156° COUNTERSUNK 3.5D SHEAR HEAD A-286 ALLOY HONEYCOMB APPLICATION | | | | | |
| DRAWN | DATE | APPROVED | DATE | REVISION | DRAWING NUMBER |
| | | <i>Shirley T. Anderson</i> | 9-28-71 | ① | D. P. S. 9/15/77 BB441 |