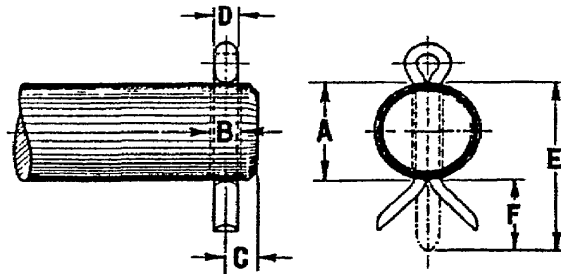


Recommended Design Criteria for Cotters (Size-Drilling-Location)

Archived 2025 (1 Page)



All Dimensions are listed in inches

| SIZE OF PIN – SHAFT OR BOLT | | | | | COTTER REQUIRED | | | | | |
|-----------------------------|-------------------------|--------------------|-------------------------|---------|--------------------|-----------------|--------------------|----------------|---------------------------------------|---|
| A | B | | C | | D | | | E | F | |
| | Diameter of Cotter Hole | | Location of Cotter Hole | | Diameter of Cotter | | | | | |
| | | | | | | Actual | | | | |
| Diameter | Drill # or Size | Decimal Equivalent | Maximum (Recommended) | Minimum | Nominal | A.S.&W. Gauge # | Decimal Equivalent | Length (Total) | Length over Diameter of Shaft (E - A) | Clearance Between Hole and Cotter (B-D) |
| 1/8 | | | 3/32 | 5/64 | | | | | | |
| 3/16 | 49 | 0.073 | 1/8 | 3/32 | 1/16 | 16 | 0.063 | 3/8 | 3/16 | 0.010 |
| 1/4 | 49 | 0.073 | 1/8 | 3/32 | 1/16 | 16 | 0.063 | 1/2 | 1/4 | 0.010 |
| 5/16 | 29 | 0.136 | 3/16 | 5/32 | 1/8 | 11 | 0.121 | 3/4 | 7/16 | 0.015 |
| 3/8 | 29 | 0.136 | 3/16 | 5/32 | 1/8 | 11 | 0.121 | 3/4 | 3/8 | 0.015 |
| 7/16 | 29 | 0.136 | 3/16 | 5/32 | 1/8 | 11 | 0.121 | 3/4 | 5/16 | 0.015 |
| 1/2 | 8 | 0.199 | 1/4 | 3/16 | 3/16 | 7 | 0.177 | 1 | 1/2 | 0.022 |
| 5/8 | 8 | 0.199 | 1/4 | 3/16 | 3/16 | 7 | 0.177 | 1 1/4 | 5/8 | 0.022 |
| 3/4 | 8 | 0.199 | 1/4 | 3/16 | 3/16 | 7 | 0.177 | 1 1/4 | 1/2 | 0.022 |
| 7/8 | 8 | 0.199 | 1/4 | 3/16 | 3/16 | 7 | 0.177 | 1 1/2 | 5/8 | 0.022 |
| 1 | 1/4 | 0.250 | 3/8 | 5/16 | 1/4 | 4 | 0.225 | 1 3/4 | 3/4 | 0.025 |
| 1 1/8 | 1/4 | 0.250 | 3/8 | 5/16 | 1/4 | 4 | 0.225 | 1 3/4 | 5/8 | 0.025 |
| 1 1/4 | 1/4 | 0.250 | 3/8 | 5/16 | 1/4 | 4 | 0.225 | 2 | 3/4 | 0.025 |
| 1 3/8 | 5/16 | 0.313 | 1/2 | 3/8 | 5/16 | 1 | 0.283 | 2 | 5/8 | 0.030 |
| 1 1/2 | 5/16 | 0.313 | 1/2 | 3/8 | 5/16 | 1 | 0.283 | 2 1/2 | 1 | 0.030 |
| 1 3/4 | 5/16 | 0.313 | 1/2 | 3/8 | 5/16 | 1 | 0.283 | 2 3/4 | 1 | 0.030 |
| 2 | 25/64 | 0.390 | 5/8 | 1/2 | 3/8 | 3/0 | 0.363 | 3 | 1 | 0.027 |
| 2 1/4 | 25/64 | 0.390 | 5/8 | 1/2 | 3/8 | 3/0 | 0.363 | 3 1/4 | 1 | 0.027 |
| 2 1/2 | 15/32 | 0.469 | 3/4 | 5/8 | 7/16 | 5/0 | 0.43 | 3 3/4 | 1 1/4 | 0.039 |
| 2 3/4 | 15/32 | 0.469 | 3/4 | 5/8 | 7/16 | 5/0 | 0.43 | 4 | 1 1/4 | 0.039 |
| 3 | 1/2 | 0.500 | 7/8 | 3/4 | 1/2 | 6/0 | 0.46 | 5 | 2 | 0.040 |
| 3 1/4 | 1/2 | 0.500 | 7/8 | 3/4 | 1/2 | 6/0 | 0.46 | 5 | 1 3/4 | 0.040 |
| 3 1/2 | 5/8 | 0.625 | 1 | 7/8 | 5/8 | | 0.59 | 6 | 2 1/2 | 0.035 |
| 3 3/4 | 5/8 | 0.625 | 1 | 7/8 | 5/8 | | 0.59 | 6 | 2 1/4 | 0.035 |