

## MODEL 7080 3" I.D. STEERING CYLINDER



This cylinder offers the very latest in design and engineering. It is made entirely of corrosion resistant materials providing long trouble-free service. There is a choice for a balanced or an unbalanced version and is available with a stroke of 7.5", 12" or 16". The cylinder can be ordered with the rod end secured with a cotter pin in place of a jam nut.

**Materials:** Brass tube and piston. Endcaps and bearings are silicon bronze. Piston rod is stainless steel and hard chromed.

**Design Pressure:** 1300 psi (90 bar)

**Weight:** 37 lbs. (16.8 kg) 7½" stroke  
43 lbs. (19.5 kg) 12" stroke  
48 lbs. (21.8 kg) 16" stroke

**Effective Piston Area:** 5.84 in<sup>2</sup> (38 cm<sup>2</sup>)

### ORDERING INFORMATION

B – Balanced cylinder  
U – Unbalanced cylinder  
W – With cotter pin  
7.5 – With 7.5" stroke  
12 – With 12" stroke  
16 – With 16" stroke

Example: Balanced steering cylinder with rod end secured with a jam nut and 12" stroke, the ordering number is **7080-B12**

Note: Other strokes are available on request.

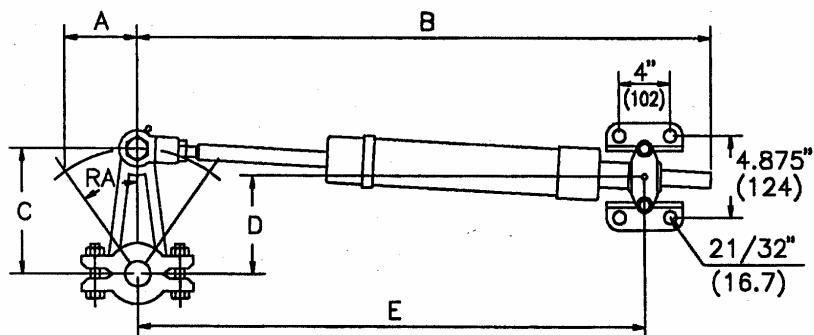
### Balanced Cylinders Rudder angle 35°

| Stroke |     | Torque * |      | Displacement    |                 | A   |     | B    |      | C    |     | D    |     | E    |     |
|--------|-----|----------|------|-----------------|-----------------|-----|-----|------|------|------|-----|------|-----|------|-----|
| in.    | mm  | lb-ft    | kg-m | in <sup>3</sup> | cm <sup>3</sup> | in. | mm  | in.  | mm   | in.  | mm  | in.  | mm  | in.  | mm  |
| 7.5    | 191 | 2605     | 360  | 43.8            | 718             | 3.8 | 95  | 26.8 | 681  | 6.5  | 166 | 5.9  | 151 | 26.3 | 667 |
| 12     | 305 | 4170     | 577  | 70.1            | 1149            | 6.0 | 152 | 35.8 | 910  | 10.5 | 266 | 9.5  | 242 | 33.0 | 838 |
| 16     | 406 | 5560     | 770  | 93.4            | 1531            | 8.0 | 203 | 43.8 | 1113 | 14.0 | 354 | 12.7 | 322 | 39.0 | 991 |

### Rudder angle 45°

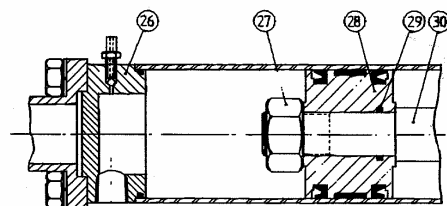
| Torque |     | Stroke |      | Displacement    |                 | A   |     | B    |      | C    |     | D   |     | E    |     |
|--------|-----|--------|------|-----------------|-----------------|-----|-----|------|------|------|-----|-----|-----|------|-----|
| in.    | mm  | lb-ft  | kg-m | in <sup>3</sup> | cm <sup>3</sup> | in. | mm  | in.  | mm   | in.  | mm  | in. | mm  | in.  | mm  |
| 12     | 305 | 2915   | 404  | 70.1            | 1149            | 6   | 152 | 35.8 | 910  | 8.5  | 216 | 7.2 | 184 | 33.0 | 838 |
| 16     | 406 | 3890   | 538  | 93.4            | 1531            | 8   | 203 | 43.8 | 1113 | 11.3 | 287 | 9.6 | 245 | 39.0 | 991 |

\* Torque is based on 1000 psi (69 bar)

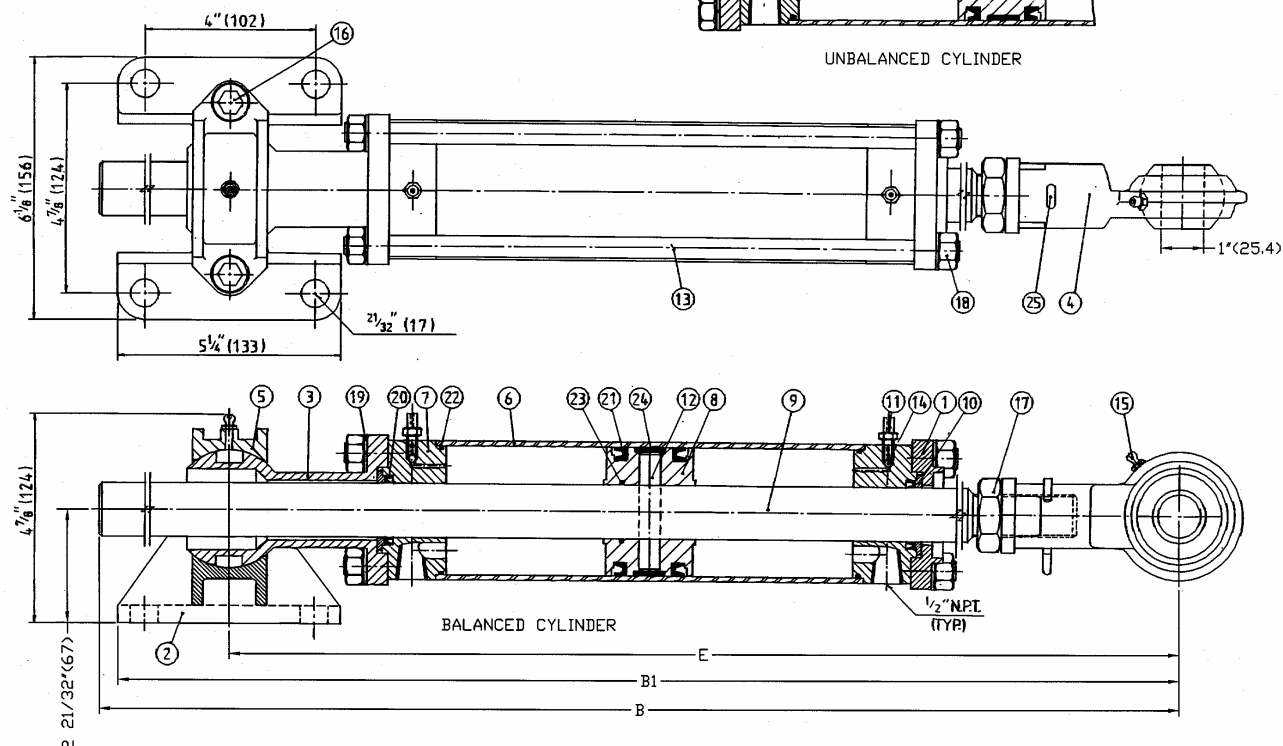


# DIMENSIONS AND PARTS LIST MODEL 7080

| STROKE |     | B     |      | B1    |      | E     |     |
|--------|-----|-------|------|-------|------|-------|-----|
| in     | mm  | in    | mm   | in    | mm   | in    | mm  |
| 7.5    | 191 | 26.82 | 681  | 28.87 | 733  | 26.25 | 667 |
| 16     | 406 | 43.82 | 1113 | 41.62 | 1057 | 39.00 | 991 |



UNBALANCED CYLINDER



All dimensions in inches (mm)

| ITEM | QTY | PART NUMBER | DESCRIPTION      | ITEM | QTY | PART NUMBER | DESCRIPTION       |
|------|-----|-------------|------------------|------|-----|-------------|-------------------|
| 1    | 1   | 7080-0001   | End Cap          | 16   | 2   | 1002-1632   | Socket Head Screw |
| 2    | 1   | 7080-0002   | Trunnion foot    | 17   | 1   | 1022-0269   | Jam Nut           |
| 3    | 1   | 7080-0003   | Trunnion End Cap | 18   | 8   | 1022-0164   | Nut               |
| 4    | 1   | 7080-0004   | Rod End          | 19   | 8   | 1023-0314   | Lock washer       |
| 5    | 1   | 7080-0005   | Trunnion Cap     | 20   | 2   | 1102-2021   | "U" Cup           |
| 6    | 1   | 7080-0006   | Cylinder Tube    | 21   | 2   | 1102-2035   | "U" Cup           |
| 7    | 2   | 7080-0007   | Rod Guide        | 22   | 2   | 1101-0232   | "O" Ring          |
| 8    | 1   | 7080-0008   | Piston           | 23   | 1   | 1101-0218   | "O" Ring          |
| 9    | 1   | 7080-0009   | Piston Rod       | 24   | 1   | 7080-0013   | Wear Ring         |
| 10   | 2   | 7080-0010   | Retaining Washer | 25   | 1   | 1026-1032   | Cotter Pin        |
| 11   | 2   | 7040-0011   | Bleeder Screw    | 26   | 1   | 7080-0107   | Rear End Cap      |
| 12   | 1   | 7080-0012   | Pin              | 27   | 1   | 1022-0169   | Nut               |
| 13   | 4   | 7080-0014   | Tie Rod          | 28   | 1   | 7080-0108   | Piston            |
| 14   | 2   | 1301-0005   | Ball             | 29   | 1   | 1101-0214   | "O" Ring          |
| 15   | 2   | 1501-0301   | Grease Nipple    | 30   | 1   | 7080-0109   | Piston Rod        |