

# HYDRAULIC CYLINDERS

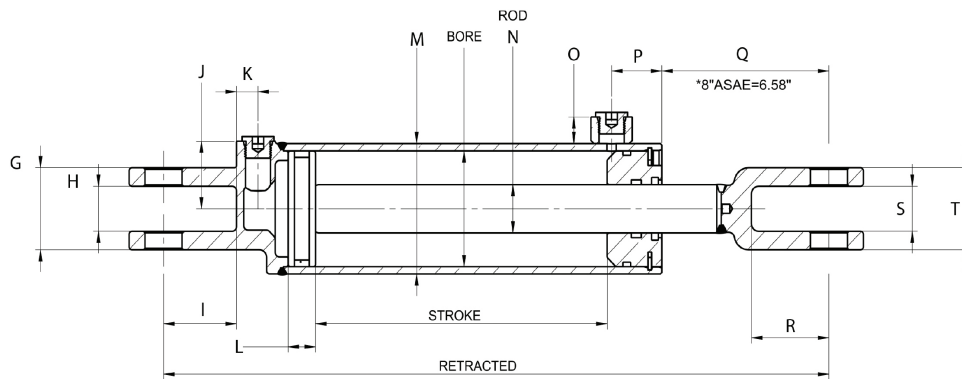
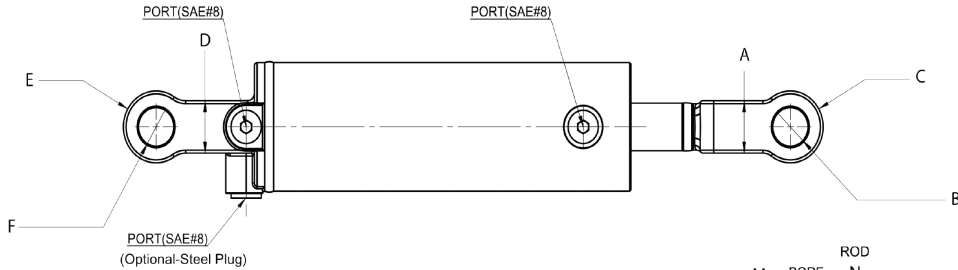
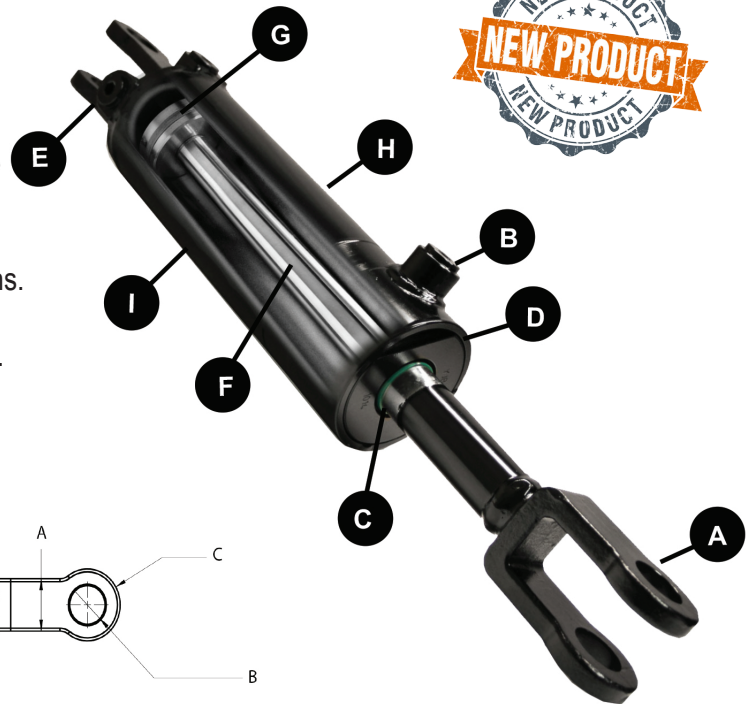


## NEW ALTERNATIVE TO TIE-ROD CYLINDERS

### CHIEF™ AT WELDED CYLINDERS Featuring Snap-ring & Screw In-glands

This welded cylinder features a snap ring on the rod-end gland for easy field repair. Unlike a tie-rod, there are no bolts, simply remove the snap-ring and you're ready to replace the seals. This cylinder line is designed with a 1.5:1 safety factor for construction and agricultural applications. This cylinder provides value pricing without sacrificing quality. Each cylinder undergoes rigorous testing to ensure maximum reliability and performance.

- A. Rugged ductile iron welded clevis design.
- B. Standard SAE #8 3/4-16 ports.
- C. 3000 PSI seal kits for extended life.
- D. Retainer ring (snap ring) head design reduces downtime and allows for quick and easy service.
- E. Optional SAE #8 third port location (for 90-degree use)
- F. Hard chrome-plated rod for the most extreme applications.
- G. Precision welded piston.
- H. 1.5:1 Safety factor with 20,000 cycles endurance testing.
- I. Gloss black paint finish.



DIMENSIONAL DATA IN INCHES ( FOLLOWED BY MM)

| BORE           | A            | B               | C             | D            | E             | F               | G             | H               | I              | J               | K            | L               | M              | N               | O               | P            | Q               | R            | S               | T             |
|----------------|--------------|-----------------|---------------|--------------|---------------|-----------------|---------------|-----------------|----------------|-----------------|--------------|-----------------|----------------|-----------------|-----------------|--------------|-----------------|--------------|-----------------|---------------|
| [3.00]<br>76.2 | [1.38]<br>35 | [1.016]<br>25.8 | [0.94]<br>R24 | [1.38]<br>35 | [0.94]<br>R24 | [1.016]<br>25.8 | [2.126]<br>54 | [1.165]<br>29.6 | [2.00]<br>50.8 | [1.75]<br>44.45 | [0.59]<br>15 | [0.75]<br>19.05 | [3.38]<br>85.8 | [1.25]<br>31.75 | [0.69]<br>17.53 | [1.38]<br>35 | [4.58]<br>116.4 | [2.13]<br>54 | [1.165]<br>29.6 | [2.126]<br>54 |

### CHIEF™ AT WELDED CYLINDERS

2" to 3" bore sizes have a welded clevis and screw in gland.  
 3.5" to 4" bore sizes have a threaded clevis and retaining ring gland (similar to Chief WX). • 3000 PS • Burst pressure tested to 6,000 PSI • 20,000 cycle endurance test • Hallite seals on the rod and wiper • O-ring boss ports (SAE ports with UNF threads).



| Part No. | Bore | Stroke   | Rod Dia. | Retracted | Extended | Column Load (lbs.) | Port Size | Pin Size | Weight |
|----------|------|----------|----------|-----------|----------|--------------------|-----------|----------|--------|
| 297068   | 2.0  | 4.0      | 1.125    | 14.25     | 18.25    | 9420               | SAE 8     | 1.00     | 10.8   |
| 297069   | 2.0  | 6.0      | 1.125    | 16.25     | 22.25    | 9420               | SAE 8     | 1.00     | 12.1   |
| 297070   | 2.0  | 8.0      | 1.125    | 18.25     | 26.25    | 9420               | SAE 8     | 1.00     | 13.4   |
| 297071   | 2.0  | 8.0 ASAE | 1.125    | 20.25     | 28.25    | 9420               | SAE 8     | 1.00     | 14.1   |
| 297072   | 2.0  | 10.0     | 1.125    | 20.25     | 30.25    | 9420               | SAE 8     | 1.00     | 14.8   |
| 297073   | 2.0  | 12.0     | 1.125    | 22.25     | 34.25    | 9420               | SAE 8     | 1.00     | 16.1   |
| 297074   | 2.0  | 14.0     | 1.125    | 24.25     | 38.25    | 9420               | SAE 8     | 1.00     | 17.4   |
| 297075   | 2.0  | 16.0     | 1.125    | 26.25     | 42.25    | 9420               | SAE 8     | 1.00     | 18.7   |
| 297076   | 2.0  | 18.0     | 1.125    | 28.25     | 46.25    | 8140               | SAE 8     | 1.00     | 20.1   |
| 297077   | 2.0  | 20.0     | 1.125    | 30.25     | 50.25    | 6910               | SAE 8     | 1.00     | 21.4   |
| 297079   | 2.0  | 24.0     | 1.125    | 34.25     | 58.25    | 5160               | SAE 8     | 1.00     | 24     |
| 297082   | 2.0  | 30.0     | 1.125    | 40.25     | 70.25    | 3560               | SAE 8     | 1.00     | 28     |
| 297085   | 2.0  | 36.0     | 1.125    | 46.25     | 82.25    | 2610               | SAE 8     | 1.00     | 32     |
| 297091   | 2.0  | 48.0     | 1.125    | 58.25     | 106.25   | 1570               | SAE 8     | 1.00     | 39.9   |
| 297092   | 2.5  | 4.0      | 1.125    | 14.25     | 18.25    | 14720              | SAE 8     | 1.00     | 11.9   |
| 297093   | 2.5  | 6.0      | 1.125    | 16.25     | 22.25    | 14720              | SAE 8     | 1.00     | 13.7   |
| 297094   | 2.5  | 8.0      | 1.125    | 18.25     | 26.25    | 14720              | SAE 8     | 1.00     | 15.4   |
| 297095   | 2.5  | 8.0 ASAE | 1.125    | 20.25     | 28.25    | 14720              | SAE 8     | 1.00     | 16.1   |
| 297096   | 2.5  | 10.0     | 1.125    | 20.25     | 30.25    | 14720              | SAE 8     | 1.00     | 17.2   |
| 297097   | 2.5  | 12.0     | 1.125    | 22.25     | 34.25    | 14720              | SAE 8     | 1.00     | 19     |
| 297098   | 2.5  | 14.0     | 1.125    | 24.25     | 38.25    | 12070              | SAE 8     | 1.00     | 20.7   |
| 297099   | 2.5  | 16.0     | 1.125    | 26.25     | 42.25    | 9930               | SAE 8     | 1.00     | 22.5   |
| 297100   | 2.5  | 18.0     | 1.125    | 28.25     | 46.25    | 8310               | SAE 8     | 1.00     | 24     |
| 297101   | 2.5  | 20.0     | 1.125    | 30.25     | 50.25    | 7050               | SAE 8     | 1.00     | 25.8   |
| 297103   | 2.5  | 24.0     | 1.125    | 34.25     | 58.25    | 5270               | SAE 8     | 1.00     | 29.3   |
| 297106   | 2.5  | 30.0     | 1.25     | 40.25     | 70.25    | 5480               | SAE 8     | 1.00     | 36.6   |
| 297109   | 2.5  | 36.0     | 1.25     | 46.25     | 82.25    | 4010               | SAE 8     | 1.00     | 42.1   |
| 297115   | 2.5  | 48.0     | 1.25     | 58.25     | 106.25   | 2410               | SAE 8     | 1.00     | 53.4   |
| 297118   | 3.0  | 4.0      | 1.25     | 14.25     | 18.25    | 21200              | SAE 8     | 1.00     | 15.2   |
| 297119   | 3.0  | 6.0      | 1.25     | 16.25     | 22.25    | 21200              | SAE 8     | 1.00     | 17.2   |
| 297120   | 3.0  | 8.0      | 1.25     | 18.25     | 26.25    | 21200              | SAE 8     | 1.00     | 19     |
| 297121   | 3.0  | 8.0 ASAE | 1.25     | 20.25     | 28.25    | 21200              | SAE 8     | 1.00     | 19.8   |
| 297122   | 3.0  | 10.0     | 1.25     | 20.25     | 30.25    | 21200              | SAE 8     | 1.00     | 20.7   |
| 297123   | 3.0  | 12.0     | 1.25     | 22.25     | 34.25    | 21200              | SAE 8     | 1.00     | 22.7   |
| 297124   | 3.0  | 14.0     | 1.25     | 24.25     | 38.25    | 18530              | SAE 8     | 1.00     | 24.5   |

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| Part No. | Bore | Stroke   | Rod Dia.   | Retracted | Extended | Column Load (lbs.) | Port Size | Pin Size | Weight |
|----------|------|----------|------------|-----------|----------|--------------------|-----------|----------|--------|
| 297125   | 3.0  | 16.0     | 1.25       | 26.25     | 42.25    | 15240              | SAE 8     | 1.00     | 26.2   |
| 297126   | 3.0  | 18.0     | 1.25       | 28.25     | 46.25    | 12750              | SAE 8     | 1.00     | 28     |
| 297127   | 3.0  | 20.0     | 1.25       | 30.25     | 50.25    | 10820              | SAE 8     | 1.00     | 30     |
| 297129   | 3.0  | 24.0     | 1.25       | 34.25     | 58.25    | 8080               | SAE 8     | 1.00     | 33.5   |
| 297130   | 3.0  | 30.0     | 1.5        | 40.25     | 70.25    | 11300              | SAE 8     | 1.00     | 44.3   |
| 297132   | 3.0  | 36.0     | 1.5        | 46.25     | 82.25    | 8270               | SAE 8     | 1.00     | 50.9   |
| 297141   | 3.0  | 48.0     | 1.5        | 58.25     | 106.25   | 4970               | SAE 8     | 1.00     | 64.2   |
| 297144   | 3.5  | 4.0      | 1.375 IHCP | 14.25     | 18.25    | 28860              | SAE 8     | 1.00     | 21.8   |
| 297145   | 3.5  | 6.0      | 1.375 IHCP | 16.25     | 22.25    | 28860              | SAE 8     | 1.00     | 23.8   |
| 297146   | 3.5  | 8.0      | 1.375 IHCP | 18.25     | 26.25    | 28860              | SAE 8     | 1.00     | 26     |
| 297147   | 3.5  | 8.0 ASAE | 1.375 IHCP | 20.25     | 28.25    | 28860              | SAE 8     | 1.00     | 26.5   |
| 297148   | 3.5  | 10.0     | 1.375 IHCP | 20.25     | 30.25    | 28860              | SAE 8     | 1.00     | 28.2   |
| 297149   | 3.5  | 12.0     | 1.375 IHCP | 22.25     | 34.25    | 28860              | SAE 8     | 1.00     | 30.2   |
| 297150   | 3.5  | 14.0     | 1.375 IHCP | 24.25     | 38.25    | 27590              | SAE 8     | 1.00     | 32.4   |
| 297151   | 3.5  | 16.0     | 1.375 IHCP | 26.25     | 42.25    | 22650              | SAE 8     | 1.00     | 34.6   |
| 297153   | 3.5  | 18.0     | 1.375 IHCP | 28.25     | 46.25    | 18920              | SAE 8     | 1.00     | 36.6   |
| 297154   | 3.5  | 20.0     | 1.375 IHCP | 30.25     | 50.25    | 16050              | SAE 8     | 1.00     | 38.8   |
| 297156   | 3.5  | 24.0     | 1.375 IHCP | 34.25     | 58.25    | 11960              | SAE 8     | 1.00     | 43     |
| 297159   | 3.5  | 30.0     | 1.375 IHCP | 40.25     | 70.25    | 8240               | SAE 8     | 1.00     | 49.4   |
| 297162   | 3.5  | 36.0     | 1.375 IHCP | 46.25     | 82.25    | 6020               | SAE 8     | 1.00     | 55.8   |
| 297168   | 3.5  | 48.0     | 1.375 IHCP | 58.25     | 106.25   | 3610               | SAE 8     | 1.00     | 68.6   |
| 297170   | 4.0  | 4.0      | 1.375 IHCP | 14.25     | 18.25    | 37700              | SAE 8     | 1.00     | 25.1   |
| 297171   | 4.0  | 6.0      | 1.375 IHCP | 16.25     | 22.25    | 37700              | SAE 8     | 1.00     | 27.6   |
| 297172   | 4.0  | 8.0      | 1.375 IHCP | 18.25     | 26.25    | 37700              | SAE 8     | 1.00     | 29.8   |
| 297173   | 4.0  | 8.0 ASAE | 1.375 IHCP | 20.25     | 28.25    | 37700              | SAE 8     | 1.00     | 30.9   |
| 297174   | 4.0  | 10.0     | 1.375 IHCP | 20.25     | 30.25    | 37700              | SAE 8     | 1.00     | 32     |
| 297175   | 4.0  | 12.0     | 1.375 IHCP | 22.25     | 34.25    | 34560              | SAE 8     | 1.00     | 34.4   |
| 297176   | 4.0  | 14.0     | 1.375 IHCP | 24.25     | 38.25    | 27770              | SAE 8     | 1.00     | 36.6   |
| 297177   | 4.0  | 16.0     | 1.375 IHCP | 26.25     | 42.25    | 22800              | SAE 8     | 1.00     | 39     |
| 297179   | 4.0  | 18.0     | 1.375 IHCP | 28.25     | 46.25    | 19050              | SAE 8     | 1.00     | 41.2   |
| 297180   | 4.0  | 20.0     | 1.375 IHCP | 30.25     | 50.25    | 16160              | SAE 8     | 1.00     | 43.4   |
| 297182   | 4.0  | 24.0     | 1.375 IHCP | 34.25     | 58.25    | 12040              | SAE 8     | 1.00     | 48.1   |
| 297185   | 4.0  | 30.0     | 1.5 IHCP   | 40.25     | 70.25    | 11680              | SAE 8     | 1.00     | 57.3   |
| 297188   | 4.0  | 36.0     | 1.5 IHCP   | 46.25     | 82.25    | 8530               | SAE 8     | 1.00     | 64.6   |
| 297194   | 4.0  | 48.0     | 1.5 IHCP   | 58.25     | 106.25   | 5120               | SAE 8     | 1.00     | 79.4   |

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