



Bakke™ Heavy-Duty Ball Operated Release Tool

Patented

The *Bakke* Heavy-Duty Ball Operated Release Tool provides a safe and reliable means of disconnecting from the tool string.

To activate the release mechanism, a trip ball will need to be pumped down. The ball will force a piston forward. Shear pins in the piston will shear at a pre-set pressure, depending on the amount of shear pins installed. The piston moving forward will allow the slips to expand and the tool will release when pull force is applied. In the event that anticipated lost circulation might occur, the tool can be delivered with a burst disc feature which would assist in re-establishing circulation for a successful shearing/separation function.

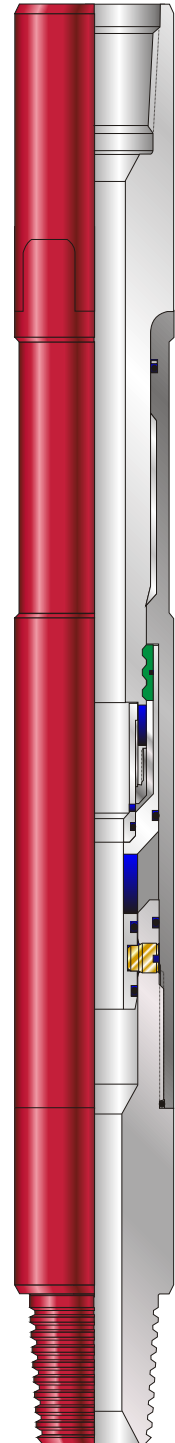
The shear pins will not see any load before the ball is dropped. The shear pins are also isolated from the circulating fluid and will therefore not be affected if e.g. acids are pumped through the tool.

Features

- Enhanced bending support
- Full torque through capabilities, heavy duty rotation lock designed to withstand vibration and high torque
- No load on shear pins while in operation; shear pins and piston designed to withstand severe vibration and jarring
- Full flow after disconnect
- Ball will be carried out of well with tool after disconnect
- Both Internal profile and external fish neck available when disconnected

Benefits

- Dual fishing / retrieval catch options of bottom sub section
- Minimal tool obstructions left in hole after disconnecting
- Vibration, torque, and bending support design and shear pins isolated from flow reduces chances of premature disconnect taking place





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Applications

- Used in conjunction with, jars, vibration tools and impact tools
- Tool can be used in motor milling and drilling operations
- Tool can be used in a deploy and release application of a downhole assembly

Specifications

| Tool OD (in./mm) | Minimum ID (in./mm) | Makeup Length (in./mm) | Minimum Yield (lb/kg) | Ultimate Tensile (lb/kg) | Maximum Torque (ft-lbs, N•m) | Maximum Release Ball Size (in./mm) | Bakke Assembly Number |
|---------------------|------------------------|---------------------------|--------------------------|-----------------------------|---------------------------------|---------------------------------------|-----------------------|
| 1-11/16 42.90 | 0.50 12.70 | 13.00 330.20 | 41,000 18,597 | 47,500 21,546 | 430 583 | 9/16 14.29 | 2D4205 |
| 1-3/4 44.50 | 0.50 12.70 | 13.15 334.01 | 50,000 22,680 | 59,000 26,762 | 540 732 | 9/16 14.29 | 2D4204 |
| 2-1/8 54.00 | 0.67 17.02 | 15.40 391.16 | 54,000 24,494 | 61,900 28,077 | 1,150 1,559 | 3/4 19.05 | 2D5205 |
| 2-1/4 57.20 | 1.79 45.47 | 14.70 373.38 | 76,300 34,609 | 87,800 39,825 | 1,150 1,559 | 7/8 22.23 | 2D5206 |
| 2-1/2 63.50 | 0.94 23.88 | 15.30 388.62 | 79,000 35,834 | 91,000 41,277 | 1,400 1,898 | 1 25.40 | 2D6209 |
| 2-7/8 73.00 | 1.06 26.92 | 21.50 546.10 | 129,000 58,513 | 148,000 67,132 | 2,590 3,512 | 1-1/8 28.58 | 2D7208 |
| 3-1/8 79.40 | 1.06 26.92 | 23.00 584.20 | 129,000 58,513 | 148,000 67,132 | 3,300 4,474 | 1-1/8 28.58 | 2D7203 |
| 3-1/2 88.90 | 1.30 33.02 | 28.00 711.20 | 163,000 73,936 | 187,000 84,822 | 3,740 5,071 | 1-1/2 38.10 | 2D8202 |
| 4-3/4 120.70 | 1.93 49.02 | 32.50 825.50 | 331,000 150,139 | 381,000 172,819 | 13,000 17,626 | 2 50.80 | 2D9205 |

All specifications are based on tools made with 120,000 PSI material.
All tool sizes are made with standard internal and external *Bakke* profile.