

The latest generation of Weatherford's high-performance *QuickCut* casing exit system is now anchored by the innovative high-expansion MultiCatch™ whipstock anchor to provide a high-performance, single-trip re-entry system that can save time and reduce installation costs and risks.

The simple, yet versatile, *MultiCatch* anchor increases standard catch ranges by two to three casing sizes and is mechanically or hydraulically actuated from a single component. The anchor's robust design delivers the enhanced radial anchoring capability required for increased milling performance in highly compressive formations. The *MultiCatch* device can anchor and interchange with all Weatherford concave assemblies with or without the shear-release option.

The casing-catch range and aggressive single-trip lead-mill geometry make this the most versatile, efficient, and cost-effective re-entry system available today.

Applications

- Sidetracks
- · High- and low-side casing exits
- · Casing exits through multiple strings of casing
- · Wells with multiple string weights or wellbore restrictions
- · Extended-reach-drilling (ERD) wells with high-casing-wall loss
- · Brownfield wells for accessing bypassed or behind-pipe reserves
- Horizontal installations or wells with high dogleg severity (DLS)
- Multilateral installations in which retrieval is critical

| | *Anchor Type | | | | | | | |
|-----------------------------|----------------------------|--------------------------|--|--|--|--|--|--|
| Retrievable or Permanent | Hydraulic or Mechanical | Sealing or Nonsealing | | | | | | |
| Retrievable | Mechanical | Nonsealing | | | | | | |
| Retrievable | Hydraulic | Nonsealing | | | | | | |





Features, Advantages and Benefits

- Functionality is not dependent on, or limited by, exact casing ID. One size anchor can catch multiple sizes of casing, reducing the risk associated with wellbore obstructions or restrictions.
- Aggressive lead-mill geometry provides full-gauge windows and ratholes with single-trip efficiency, reducing rig time and costs.
- Unique lug technology protects the whipstock during cut-out and accurately directs the lead mill into the casing wall.
- The 3° single-angle concave generates a smooth transition from the parent bore into the lateral section, eliminating downtime caused by transition problems.
- Casing exits can be created independently of the hole azimuth, making high- and low-side exits possible up to 9 5/8-in. casing.

- The single-anchor platform can be actuated mechanically or hydraulically to enable complete well control while circulating, logging, or conducting measurement-while-drilling orientation. In addition, hydraulic actuation removes the need for a false bottom, saving the cost of bridge plug installation.
- The MultiCatch[™] anchor is interchangeable with all Weatherford concave profiles in all casing configurations, providing operational flexibility.
- The multiple methods of retrieval possible with this system are vitally important for multilateral installations, in which retrieval success is imperative.
- This system may include a QuickChange™ shear disconnection, providing debris management as well as the capability to change from one anchor type to another.



Specifications

Milling Assemblies

| Casing OD (in./mm) | Casing Weight (lb/ft, <i>kg/m</i>) | Concave OD (in./mm) | Lead Mill OD (in./mm) | Lead Mill Pilot OD (in./mm) | Flex Mill OD (in./mm) | Lead Mill Connection Type (in.) | Flex Mill Connection Box × Pin (in.) | MultiCatch™ Anchor OD (in./mm) |
|--------------------------|---|---------------------------|-----------------------------|-----------------------------------|-----------------------------|--|---|--------------------------------------|
| 4-1/2 | 9.5 to 11.6 14.2 to 17.3 13.5 | | 3-7/8 98.4 3-3/4 | 3 | 3-7/8 98.4 3-3/4 | 2-3/8 Reg box | 2-3/8 Reg box x 2-3/8 Reg pin | 3-1/2 |
| 114.3 | 20.1 15.1 | 3-1/2 88.9 | 95.3 3.70 | 76.2 | 95.3 3.70 | | | 88.9 |
| | 22.5 18.0 26.8 | | 94.0 4-1/8 104.8 | | 94.0 4-1/8 104.8 | | 2-3/8 Reg box | |
| 5 127.0 | 23.2 34.6 | 3-1/2 88.9 | 3-7/8 98.4 | 3 76.2 | 3-7/8 98.4 | 2-3/8 Reg box | 2-3/8 Reg pin | 3-1/2 88.9 |
| | 14.0 20.9 | 4-1/2 | 4-7/8 123.8 | 3-3/4 | 4-7/8 123.8 | 2-7/8 | 2-7/8 AOH box | |
| 5-1/2 139.7 | 15.5 to 17.0 23.1 to 25.3 | 114.3 | 4-3/4 120.7 | 95.3 | 4-3/4 120.7 | Reg box | 2-7/8 Reg pin | 3-1/2 88.9 |
| | 20.0 29.8 | 4-1/4 108.0 | 4-5/8 117.5 | 3-3/8 58.7 | 4-5/8 117.5 | 2-7/8 Pac box | 2-7/8 AOH box × 2-7/8 Pac pin | |
| | 23.0 34.3 | | 4-1/2 114.3 | | 4-1/2 114.3 | | | |
| 5-3/4 146.1 | 17.6 to 21.5 26.2 to 32.0 | 4-1/2 1143 | 4-7/8 123.8 | 3-3/4 95.3 | 4-7/8 123.8 | 2-7/8 Reg box | 2-7/8 AOH box × 2-7/8 Pac pin | 3-1/2 88.9 |
| | 17 25.3 | 5-1/2 | 6 152.4 | 4-5/8 | 6 152.4 | 3-1/2 Reg box | 3-1/2 IF box × 3-1/2 Reg pin | |
| 6-5/8 168.2 | 20 29.8 | 139.7 | 5-7/8 149.2 | 117.5 | 5-7/8 149.2 | | | 5-1/4 |
| | 28 41.7 | 5-1/4 | 5-5/8 142.9 | 3-7/8 | 5-5/8 142.9 | | | 133.4 |
| | 32 47.7 | 133.4 | 5-1/2 139.7 | 98.4 | 5-1/2 139.7 | | | |



Specifications (continued)

Milling Assemblies

| Casing OD (in./mm) | Casing Weight (lb/ft, <i>kg/m</i>) | Concave OD (in./mm) | Lead Mill OD (in./mm) | Lead Mill Pilot OD (in./mm) | Flex Mill OD (in./mm) | Lead Mill Connection Type (in.) | Flex Mill Connection Box × Pin (in.) | MultiCatch™ Anchor OD (in./mm) |
|--------------------------|---|---------------------------|-----------------------------|-----------------------------------|-----------------------------|--|---|--------------------------------------|
| | 20.0 29.8 | | 6-1/4 158.8 | 5 | 6-1/4 158.8 | | 3-1/2 IF box × 3-1/2 Reg pin | 5-1/4 133.4 |
| | 23.0 to 26.0 34.3 to 38.8 | | 6-1/8 155.6 | 127.0 | 6-1/8 155.6 | 3-1/2 Reg box | | |
| 7 177.8 | 29.0 43.2 | 5-1/2 139.7 | 6 152.4 | | 6 152.4 | | | |
| | 32.0 to 35.0 47.7 to 52.1 | | 5-7/8 149.2 | 4-5/8 117.5 | 5-7/8 149.2 | | | |
| | 38.0 56.6 | | 5-3/4 146.1 | | 5-3/4 146.1 | | | |
| | 24.0 35.8 | 6-1/4 158.8 | 6-7/8 174.6 | 5-3/8 136.5 | 6-7/8 174.6 | 3-1/2 Reg box | 3-1/2 IF box x 3-1/2 Reg pin | 5-1/4 133.4 |
| 7-5/8 | 26.4 to 29.7 39.3 to 44.3 | | 6-3/4 171.5 | | 6-3/4 171.5 | | | |
| 193.7 | 33.7 50.2 | 6 152.4 | 6-5/8 168.3 | 5-1/8 | 6-5/8 168.3 | | | |
| | 39.0 58.1 | | 6-1/2 165.1 | 130.2 | 6-1/2 165.1 | | | |
| | 24.0 35.8 | | 7.875 200 | | 7.875 200 | 4 FH | 4-1/2 XH box × 4 FH pin | 7 177.8 |
| | 28.0 <i>41.8</i> | | | | | | | |
| 8-5/8 219.1 | 29.35 <i>4</i> 3.7 | 7 | 7.750 | 6.125 | 7.750 | | | |
| | 32.4 48.3 | 177.8 | 196.8 | 155.5 | 196.8 | | | |
| | 36.0 53.6 | | 7.625 | | 7.625 | | | |
| | 38.0 56.6 | | 193.6 | | 193.6 | | | |



Specifications (continued)

Milling Assemblies

| Casing OD (in./mm) | Casing Weight (lb/ft, <i>kg/m</i>) | Concave OD (in./mm) | Lead Mill OD (in./mm) | Lead Mill Pilot OD (in./mm) | Flex Mill OD (in./mm) | Lead Mill Connection Type (in.) | Flex Mill Connection Box × Pin (in.) | MultiCatch™ Anchor OD (in./mm) | |
|--------------------------|---|---------------------------|-----------------------------|-----------------------------------|-----------------------------|--|---|--------------------------------------|--|
| | 32.3 48.1 | | 8-7/8 225.4 | | 8-7/8 225.4 | | 4-1/2 IF box x 4-1/2 Reg pin | | |
| | 36.0 53.6 | | 8-3/4 222.3 | 7 177.8 | 8-3/4 222.3 | 4-1/2 Reg box | | 7 177.8 | |
| 9-5/8 244.5 | 40.0 59.6 | 8 203.2 | 8-5/8 219.1 | | 8-5/8 219.1 | | | | |
| | 43.5 to 53.5 64.8 to 79.7 | | 8-1/2 215.9 | 6-3/8 161.9 | 8-1/2 215.9 | | | | |
| | 58.4 87.0 | | 8-1/4 209.6 | | 8-1/4 209.6 | | | | |
| 13-3/8 339.7 | 48.0 to 72.0 SD 71.5 to 107.3 SD | 11-1/2 292.1 | 12-1/4 311.2 | 10 254.0 | 12-1/4 311.2 | 6-5/8 Reg box | 6-5/8 Reg box × 6-5/8 Reg pin | 10 254.0 | |
| 16 406.4 | 55.0 to 84.0 82.0 to 125.2 | 14 355.6 | 14-3/4 374.7 | 12-1/4 311.2 | 14-3/4 374.7 | | | | |
| 18-5/8 | 78.0 to 94.5 116.2 to 140.8 | | 17-1/2 444.5 | | 17-1/2 444.5 | 7-5/8 Reg box | 7-5/8 Reg box × 7-5/8 Reg pin | 14 | |
| 473.1 | 96.5 to 138.0 143.8 to 205.6 | 17 <i>431.</i> 8 | 17 431.8 | 14-1/4 361.95 | 17 431.8 | | | 355.6 | |
| 20 508.0 | 90.0 to 187.0 134.1 to 278.6 | | 17-1/2 <i>444.</i> 5 | | 17-1/2 444.5 | | | | |



Specifications (continued)

Anchor Assemblies

| | | | MultiCatch™ Anchor | | | | | | | |
|-------------------------|---------------------------------|-----------------------------|---------------------------|--|----------------------------------|--|---|--------------------------------------|-------------------------------------|--|
| C | asing | | | | | Running | Running Length | | Overpull | |
| OD (in./ <i>mm</i>) | Weight (lb/ft, <i>kg/m</i>) | Whipstock OD (in./mm) | Running OD (in./mm) | Maximum Torque (ft-lb/ <i>N</i> • <i>m</i>) | Mechanical Shear (lbf/daN) | With QuickChange [™] Sub (ft/ <i>m</i>) | Without QuickChange Sub (ft/m) | To Release Anchor (lbf/daN) | To Shear Concave (lbf/daN) | |
| 4-1/2 114.3 | 9.5 to 15.1 14.2 to 22.5 | 3-1/2 | | 5,000 6,779 | 3,900 1,735 | 4.9 1.5 | 3.2 1.0 | 10,000 <i>4,448</i> | 60,000 26,688 | |
| 5 127.0 | 18.0 to 23.2 26.8 to 34.6 | 88.9 | | | | | | | | |
| 5-1/2 | 14.0 to 17.0 20.9 to 25.3 | 4-1/2 114.3 | 3-1/2 88.9 | | | | | | | |
| 139.7 | 20.0 to 23.0 29.8 to 34.3 | 4-1/4 108.0 | | | | | | | | |
| 5-3/4 146.1 | 17.6 to 21.5 26.2 to 32.0 | 4-1/2 114.3 | | | | | | | | |
| 6-5/8 | 17.0 to 20.0 25.3 to 29.8 | 5-1/2 139.7 | | 10,000 13,558 | 13,500 6,005 | 6.5 2.0 | 4.4 1.3 | 14,000 6,227 | 100,000 44,480 | |
| 168.3 | 24.0 to 32.0 35.8 to 47.7 | 5-1/4 133.3 | | | | | | | | |
| 7 | 17.0 to 35.0 25.3 to 52.2 | 5-1/2 | 5-1/4 | | | | | | | |
| 177.8 | 38.0 56.6 | 139.7 | 133.3 | | | | | | | |
| 7-5/8 | 20.0 to 29.7 29.8 to 44.3 | 6-1/4 158.7 | | | | | | | | |
| 193.7 | 33.7 to 39.0 50.2 to 58.1 | 6 152.4 | | | | | | | | |



Specifications (continued)

Anchor Assemblies

| | | | MultiCatch [™] Anchor | | | | | | | | |
|-------------------------|-------------------------------------|-----------------------------|--------------------------------|--|----------------------------------|--|---|------------------------|-------------------------------------|--|--|
| Casing | | | | | | Running | Overpull | | | | |
| OD (in./ <i>mm</i>) | Weight (lb/ft, <i>kg/m</i>) | Whipstock OD (in./mm) | Running OD (in./mm) | Maximum Torque (ft-lb/ <i>N</i> • <i>m</i>) | Mechanical Shear (lbf/daN) | With QuickChange [™] Sub (ft/ <i>m</i>) | Without QuickChange Sub (ft/m) | Anchor | To Shear Concave (lbf/daN) | | |
| 8-5/8 219.1 | 24.0 to 38.0 35.8 to 56.6 | 7 177.8 | | | | | | | | | |
| 9-5/8 244.5 | 32.3 to 58.4 48.1 to 87.0 | 8 203.2 | 7 177.8 | 20,000 27,116 | 13,500 6,005 | 7.7 2.3 | 6.1 1.9 | 18,000 <i>8,006</i> | 125,000 <i>55,600</i> | | |
| 10-3/4 273.1 | 32.8 to 65.7 48.9 to 97.9 | 9 228.6 | | | | | | | | | |
| 11-3/4 298.5 | 38.0 to 60.0 56.6 to 89.4 | 10 254.0 | 10 | 20,000 27,116 | 13,500 6,005 | 11.9 3.6 | 9.1 2.8 | 20,000 8,896 | 150,000 66,720 | | |
| 13-3/8 339.7 | 48.0 to 72.0 SD 71.5 to 107.3 SD | 11-1/2 292.1 | 254.0 | | | | | | | | |
| 16 <i>406.4</i> | 55.0 to 84.0 82.0 to 125.2 | 14 355.6 | | 85,000 115,245 | 25,000 11,120 | | N/A* | 30,000 13,344 | | | |
| 18-5/8 <i>473.1</i> | 78.0 to 94.5 116.2 to 140.8 | 17 | 14 355.6 | | | 14.6 <i>4</i> .5 | | | 150,000 <i>66,720</i> | | |
| 20 508.0 | 90.0 to 187.0 134.1 to 278.6 | 431.8 | | | | | | | | | |

^{*}No QuickChange feature. Shear-out is integral to the anchor body.



Set (milling)



Unset (running in)