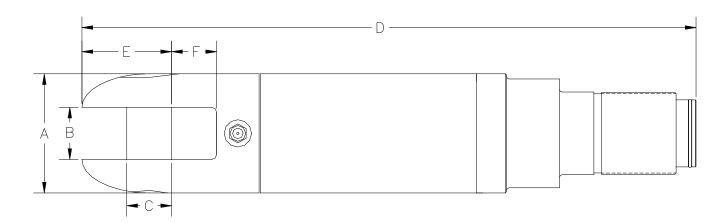
## **OPERATING SPECIFICATIONS**

# DCD Design & Manufacturing Ltd.

### SERIES 00503 DUB-LITE® SWIVEL STYLE 7

1. The swivel is specifically designed for directional drilling applications. It is intended for coupling reamers with hex collar fittings to the utility being pulled back. The swivel permits rotation of the drill pipe while protecting the utility from twisting.



| Part Number   | Safe<br>Working<br>Limit | Ultimate<br>Load        | Thread                       | A                  | В                       | С                      | D                        | E                      | F                       | Net<br>Weight         |
|---------------|--------------------------|-------------------------|------------------------------|--------------------|-------------------------|------------------------|--------------------------|------------------------|-------------------------|-----------------------|
|               | 10,000 lb                | 30,000 lb               | 2" IF                        | 2-1/2"             | 7/8"                    | 3/4"                   | 11-5/16"                 | 1-1/2"                 | 3/4"                    | 9.9 lb                |
| 00503-705-21M | 44 kN                    | 133 kN                  | <b>4</b> IF                  | 64 mm              | 22 mm                   | 19 mm                  | 287 mm                   | 38 mm                  | 19 mm                   | 4.5 kg                |
|               | 20,000 lb                | 60,000 lb               | 2" IF                        | 2-1/2"             | 1"                      | 7/8"                   | 12-11 /16"               | 1-3/4"                 | 7/8"                    | 12.6 lb               |
| 00503-710-21M | 89 kN                    | 267 kN                  | 2 11                         | 64 mm              | 25 mm                   | 22 mm                  | 322 mm                   | 44 mm                  | 22 mm                   | 5.7 kg                |
|               | 20,000 lb                | 60,000 lb               | 2-3/8"                       | 3-1/4"             | 1"                      | 7/8"                   | 13-7/8"                  | 1-3/4"                 | 7/8"                    | 13lb                  |
| 00503-710-23M | 89 kN                    | 267 kN                  | REG                          | 64 mm              | 25 mm                   | 22 mm                  | 352 mm                   | 44 mm                  | 22 mm                   | 5.9kg                 |
|               | 30,000 lb                | 90,000 lb               | 2-3/8"                       | 3-1/4"             | 1-5/16"                 | 1-1/8"                 | 15"                      | 2-1/4"                 | 1-1/8"                  | 20.8 lb               |
| 00503-715-23M | 133 kN                   | 400 kN                  | REG                          | 82.6 mm            | 33 mm                   | 29 mm                  | 381 mm                   | 57 mm                  | 29 mm                   | 9.4 kg                |
|               | 40,000 lb                | 120,000 lb              | 2-3/8"                       | 4-3/4"             | 1-3/4"                  | 1-1/8"                 | 17-1/2"                  | 2-1/16"                | 1-7/16"                 | 55 lb                 |
| 00503-720-23M | 178 kN                   | 534 kN                  | REG                          | 121 mm             | 44 mm                   | 29 mm                  | 445 mm                   | 52 mm                  | 36 mm                   | 25 kg                 |
|               | 60,000 lb                | 180,000 lb              | 2-7/8" IF                    | 5-3/4"             | 1-3/4"                  | 1-3/8"                 | 19-9/16"                 | 2-1/2"                 | 1-7/16"                 | 88 lb                 |
| 00503-730-27M | 267 kN                   | 800 kN                  | 2-1/0 IF                     | 95.3 mm            | 44 mm                   | 35 mm                  | 497 mm                   | 63 mm                  | 36 mm                   | 40 kg                 |
|               | 90,000 lb                | 270,000 lb              | 2-7/8" IF                    | 6"                 | 1-3/4"                  | 1-3/8"                 | 20-3/4"                  | 2-1/2"                 | 1-7/16"                 | 100 lb                |
| 00503-745-27M | 400 kN                   | 1200 kN                 | 2-1/0 IF                     | 152 mm             | 44 mm                   | 35 mm                  | 527 mm                   | 63 mm                  | 36 mm                   | 45 kg                 |
| 00503-715V    | <b>30,000 lb</b> 133 kN  | <b>90,000 lb</b> 400 kN | 2.06"-8<br>Starter<br>Thread | <b>3"</b><br>76 mm | <b>1-5/16"</b><br>33 mm | <b>1-1/8"</b><br>29 mm | <b>15-3/8"</b><br>391 mm | <b>2-1/4"</b><br>57 mm | <b>1-1/8</b> "<br>29 mm | <b>19.4 lb</b> 8.8 kg |

Dimensions and weights subject to change without notice.

Tolerances for dimensions on cast parts (B, D, E, F) are ±1/16" of the stated value.

The **Safe Working Limit** is calculated using a 3:1 safety factor based on the ultimate load.

The **Ultimate Load** is the tensile loading required to separate the swivel into two or more parts.

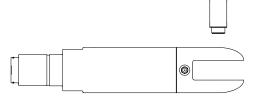
## **OPERATING INSTRUCTIONS**





## **OPERATION**

- 1. Unscrew the clevis pins and remove from the swivel using the hex key provided.
- 2. Insert the items you want to attach into the clevis ends. Re-insert the clevis pins and ensure they are tightened down securely.



#### SAFETY

The DUB-Lite® swivel is designed to operate only within its specified safe working limit (see *Operating Specifications*). Operation of the DUB Lite® swivel at loads in excess of its safe working limit will void the warranty as that may cause permanent bearing damage even though separation due to failure will not occur until the specified ultimate load is reached.



Rotating parts can cause death or serious injury! Stay well clear. Do not wear loose clothing.



Make sure that all components of the pulling system are able to withstand the maximum pulling loads. Components not rated for the pull force may break and release the stored energy of the pull. Never use a worn, defective or incomplete component.



**Be prepared for the unexpected.** Always use recognized safety practices and wear recognized safety equipment.



Replace worn or damaged clevis pins with only DCD parts. The Clevis Pin is designed specifically for this application. It is manufactured and heat treated in a manner to satisfy both design requirements and claimed capacities. Use of any other product as a replacement part will void the warranty and may result in property damage, severe bodily harm, or death to operators or persons nearby. In any instances, the DCD warranty will be avoided and DCD will accept no responsibility for product failure or personal injury.



**Do not modify or dismantle the DUB-Lite® swivel.** It has been assembled, and inspected and is only covered by a warranty in its "as shipped" form. Any attempt to dismantle or modify the swivel will result in the warranty becoming void.

# **OPERATING INSTRUCTIONS**

#### SERVICE



After each use, while the machine is still rotating, use a water hose to wash all dirt from the split line groove. Pour oil into the groove and rotate the swivel a couple of turns to protect the seal from drying out.



Assess the condition of the swivel checking for wear and external damage. Check for axial and radial play in the bearings. Replace worn or bent clevis pins.



Lubricate the swivel with **lithium-based grease** containing an extreme pressure (EP) additive (the swivel has been factory lubricated with **Renolit S2TX** grease). Do not mix with calcium or other based greases. Use a hand-operated grease gun with slow pumping action. Lack of proper lubrication will shorten the life of the bearings.



A replacement part kit containing bearings and seals is available for the DUB-Lite® swivel. Replacement of parts should only be done using this kit and must be installed as per instructions included with the kit. Use of this kit will not extend product warranty unless factory installed. Call the factory toll free at **1-888-794-8357** for factory rebuild service.

