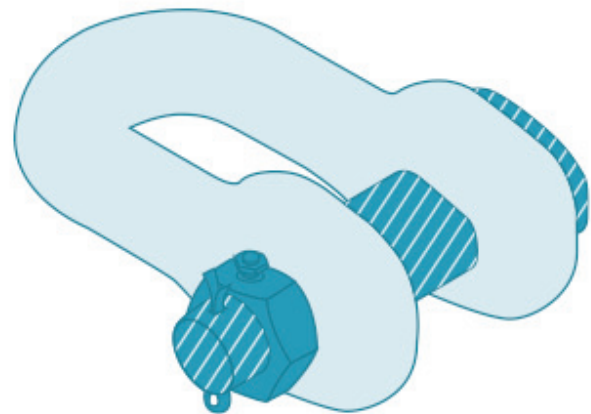


# D-TYPE JOINING SHACKLE

## SHACKLES

### 1 OVERVIEW

Since its foundation back in 1987 Feubo have been forging their own specification of offshore shackles. These shackles are entirely made in Germany using only material of Western European Origin. Joining shackles are generally used to connect two lengths of chain fitted with an end link. The Feubo Joining Shackles are available in diameters up to 300mm. These shackles are forged from high quality steel and are bent to preserve the grain flow of the base material. Where some other manufactures punch the pin holes in the shackles we CNC machine these, this process ensures that the fit, orientation and loading of the shackle pin is true and even giving these parts a superior breaking strength. This product can also be supplied with Long Term Mooring (LTM) approval.



### 2 FEATURES

- ❑ Available Up To 300mm Diameter
- ❑ Preservation of Grain Flow
- ❑ Holes Machined Not Punched
- ❑ LTM Versions Available
- ❑ Standard Sizes from 14mm to 152mm
- ❑ Qualities Grade 3 to Grade 4

### 3 PRODUCT SPECIFICATIONS

#### MACHINERY AND EQUIPMENT USED IN PRODUCTION:

- ❑ DNC Controlled CNC Machines
- ❑ Karl Deutsch Magnetic Particle Crack Detection Benches
- ❑ DNV Approved Testing Facility
- ❑ Karl Deutsch Ultrasonic Flaw Detector
- ❑ Advanced Design Software

#### ASSURED QUALITY AND TESTING:

- ❑ All Critical Components Optimised Using Finite Element Analysis (FEA)
- ❑ Automated Heat Treatment
- ❑ Realistic Fatigue Analysis
- ❑ No Recorded In-Service Failures
- ❑ Side Load Simulations
- ❑ Advanced MPI and Ultrasonic Testing