

# Turnbuckles



**Full details and safety information about our range of Stainless Steel AISI 316 Products.**

## APPLICATIONS

Turnbuckles are normally used for rigging or tensioning of wires, ropes, rods etc. Turnbuckles are designed for straight or in-line rigging, tensioning or lashing only.

## RANGE

George Taylor offers a wide range of turnbuckles, i.e.:

- Load rated turnbuckles (meet the performance requirements of ASTM F1145-92 formerly US Fed Spec FF-T--791).
- Open body rigging screws generally to the commercial standard DIN1480.
- Drop forged open body straining screws;
- Closed body rigging screws.
- Special turnbuckles for lashing (hamburgers).

## DESIGN

Turnbuckles are manufactured to meet the performance ASTM F1145-92 formerly U.S. Fed. Spec.FF-T-791 and have a safety factor of 5 to 1. The turnbuckles are drop forged.

Turnbuckles can be equipped with the following end fittings: eye/eye, hook/hook, hook/eye, jaw/jaw and jaw/eye. All parts are interchangeable, locking nuts are supplied with all sizes.

The forged jaw ends are fitted with bolts and nuts on sizes 3/8" up to and including 5/8", sizes 3/4" up to and including 2 3/4" are equipped with pins and cotters.

Rigging screws generally to DIN 1480 are available with welding ends and in hook/eye, eye/eye, hook/hook and jaw/jaw combinations.

Closed body rigging screws are available in jaw/jaw, jaw/eye and eye/eye combinations.

## **FINISH**

Load rated Turnbuckles and closed body rigging screws are hot dipped galvanised. Rigging screws according to DIN 1480 and straining screws are electro-galvanised whereas lashing turnbuckles are self coloured or can be painted upon request.

## **CERTIFICATION**

Upon request, Turnbuckles and closed body rigging screws can be supplied with a works certificate or a proof load test certificate.

## **INSTRUCTIONS FOR USE**

Turnbuckles must be used for straight or in-line pulling only.

Special attention should be paid to prevent overloading.

While tensioning, the forces on the turnbuckle must not be such that any deformation occurs. In case of deformation, the tension should be decreased immediately and deformed parts should be replaced. Should extreme circumstances or shock loading be applicable this must be taken into account when selecting the correct products to be used for the application.

Closed body rigging screws and commercial open body rigging screws are used for tensioning wires and ropes for minor loads (i.e. rope railings). The WLL values are only indicative, and these products are not suitable for bearing constructions.

For the rigging of wires, ropes, rods etc., turnbuckles and turnbuckles according to DIN 1480 with forged eyes or with welding ends are to be used.

The Working Load Limit (WLL) should be applied in a straight pull only and overloading is not permitted. Nor should side loads be applied, as the products have not been designed for this purpose.

It is required that the products are regularly inspected and that the inspection should take place in accordance with the safety standards given in the country of use. This is required because the products in use may be affected by wear, misuse, overloading etc. with a consequence of deformation and alteration of the steel structure.

## **SAFE USE OF TURNBUCKLES**

Turnbuckles should be inspected before use to insure that:

- the threads of the body and the end fittings are of the same type;
- the threads of the body and the end fittings are undamaged;
- the body and end fittings are not distorted or unduly worn;
- the body and end fittings are free from nicks, gouges and cracks.

Furthermore, it must be ensured that the end fittings are correctly screwed into the body. Always use the locking nuts supplied to prevent the turnbuckles from unscrewing.

Never replace an end fitting, other than the one designed for the purpose, as it may not be suitable for the loads imposed.

## **ARE GT TURNBUCKLES SUITABLE FOR LIFTING APPLICATIONS**

Our GT turnbuckles are suitable for lifting applications. These items have a proof load equal to 2 x WLL and MBL equal to 5 x WLL. Of course the 'instructions for use' above should be respected at all times.

It is not permitted to adjust the length of the turnbuckle as it's under full load. Tensioning below the WLL is permitted. It is advisable first to adjust roughly the length of the turnbuckle and then load the turnbuckles to a certain tension. The tension may not exceed the full capacity (WLL). It is not permitted to lift a load by tensioning (rotating the body) the turnbuckle, as shown in the picture to the right.