

Sockets Information

Full details and safety information about our range of Sockets

Applications

Sockets are used for fastening steel wire rope to a fixed point to which the socket is to be connected. This can be as an anchoring system for tubes or pipes, anchor wires of dredging material, anchor cables of oil platforms, towing cables or for fastening cables in construction purposes such as bridges, roof construction etc.


Sockets are the strongest steel wire rope end fitting and if they are assembled in the proper way they can meet at least the breaking strength of the steel wire rope. In the past melted zinc was poured into the sockets to attach the steel wire rope; nowadays suitable resins have also been developed for this purpose.

Range

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

- Closed spelter sockets;
- Open spelter sockets;
- Open wedge sockets;
- Open swage sockets;
- Closed swage sockets;

Design

 open and closed spelter sockets and open wedge sockets are made from cast high tensile steel. Upon request forged sockets can be supplied. Materials used are usually ZG35 CrMo , ZG42CrMo and ZG16Mn but this should be checked at time of order if specific details are required.

Swage sockets are drop forged from special bar quality carbon steel C-1035 and spheroidized annealed to be suitable for cold swaging.

Finish

 open and closed spelter sockets and open wedge sockets are galvanised. Painted sockets can be supplied upon request.

Certification

Upon request, all sockets can be supplied with a works certificate , material certificate and a proof load test certificate. All sockets, with the exception of the swage sockets, are marked with the batch number which refers to the supplied certificate.

Instructions for use

1) Open spelter sockets – closed spelter sockets

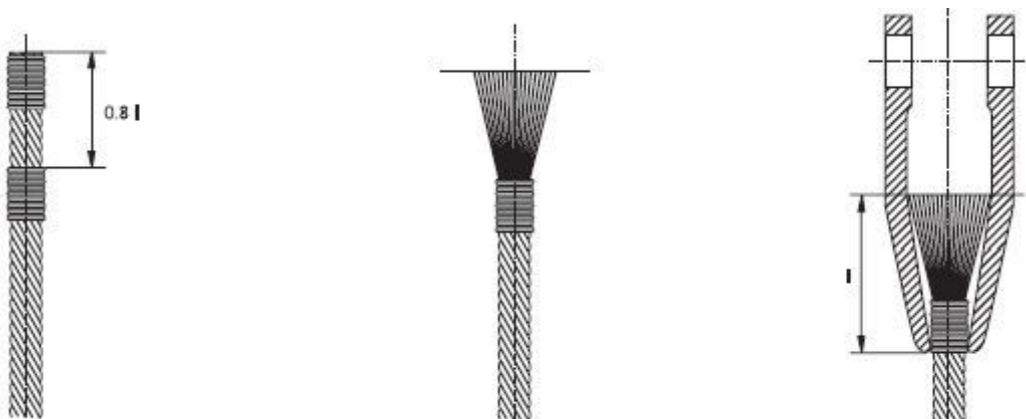



Figure 1

- brooming is done after the wire rope has been placed into the socket
- when using resins always exactly follow the instructions given by the manufacturer of the resins
- socketing is only to be carried out by specialists from a certified sling shop

2) Open wedge sockets

The wedge and body act as a vice which grips the wire rope and locks it in place.  OT wedge sockets may be used within the range of wire rope diameters as shown in the table further on in the catalogue.

When using open wedge sockets the following precautions should be taken:

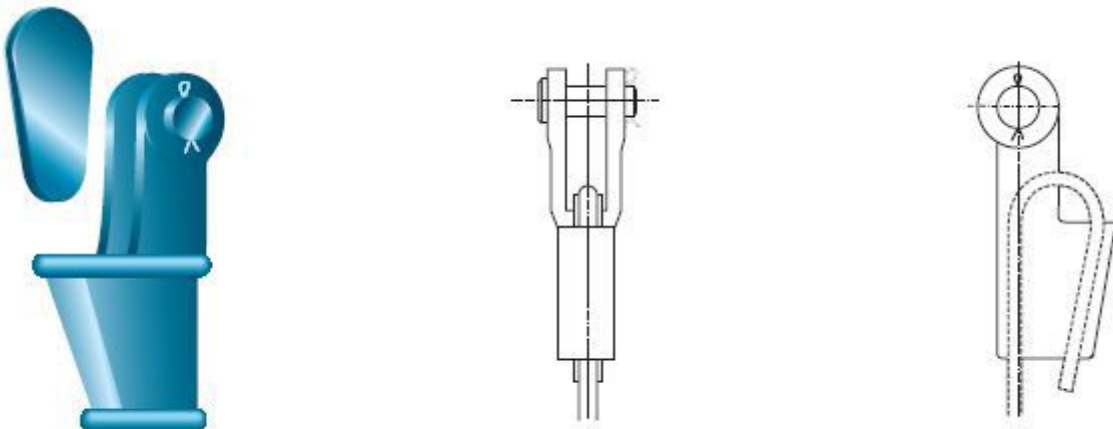


Figure 2

- before use always inspect the socket, the wedge and the pin
- use only with standard 6-8 strand wire rope
- always be sure that socket and wedge have the correct size for the wire rope diameter
- the loaded part of the steel wire rope should be mounted in the centre line of the pin
- when installing the wire rope, always pre-load the wedge with the wire rope in place
- never weld the tail on standard wire rope; the tail should have a length of at least 6 times the wire rope diameter with a minimum of 150 mm, secure the dead end of the rope with a wire rope clip as shown in figure 3
- before applying the first load always use a hammer to seat the wedge and rope as deep as possible into the socket
- check the assembly regularly to re-tighten or re-position if necessary
- never side-load the wedge socket as it has not been designed for that purpose
- load may slip if the connection is not properly installed
- the efficiency of a wire rope - wedge socket connection is 80% of the minimum breaking load of the wire but limited to the minimum breaking load of the socket
- only use the original wedge supplied by the manufacturer of the socket and be sure it is suitable for the diameter of the rope used

match

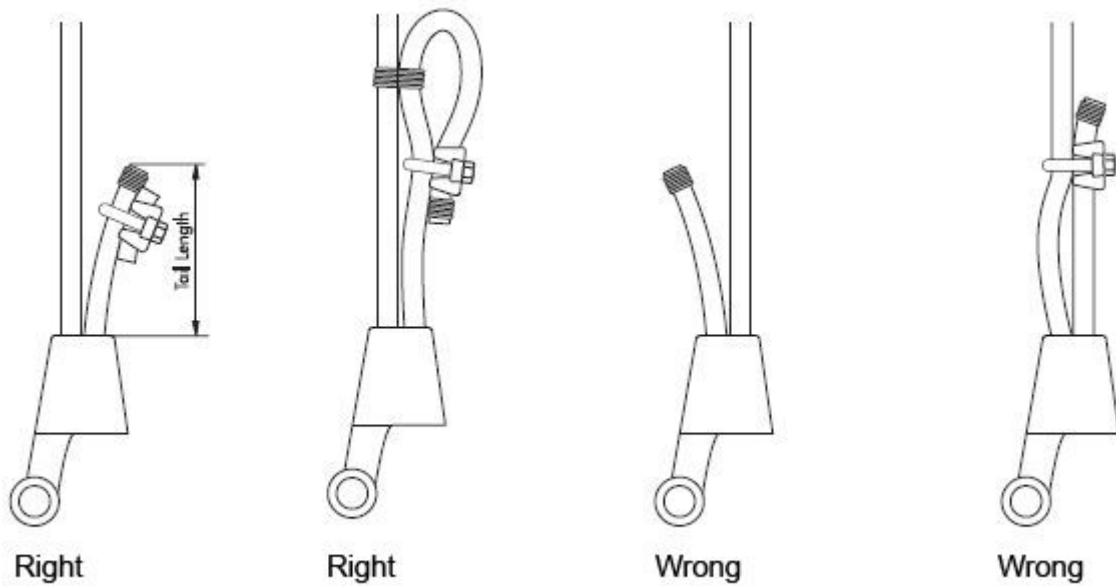


Figure 3

3) Swage sockets

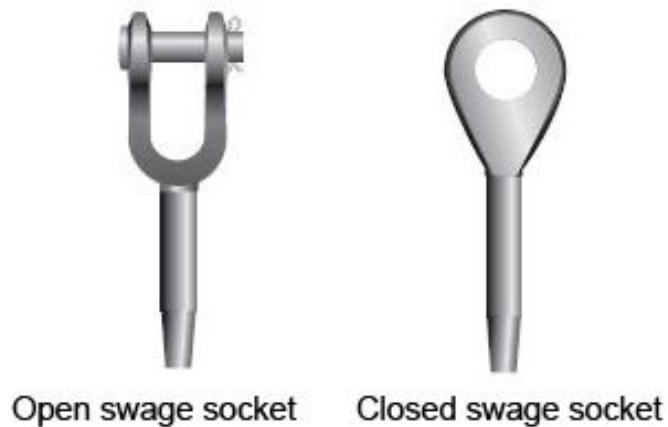


Figure 4

- swage sockets are recommended for use on 6 x 19 or 6 x 37 IWRC regular lay ropes
- mark the rope to indicate the proper length of rope to be inserted into the socket (figure 5)
- insert the rope into the socket and swage the socket with the specified dies (figure 5)
- all slings terminated with swage sockets must be proof loaded
- always swage under supervision of a specialist from a certified sling shop

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 material structure.

Inspection should take place at least every six months and even more frequently when the sockets are used in severe operating conditions.

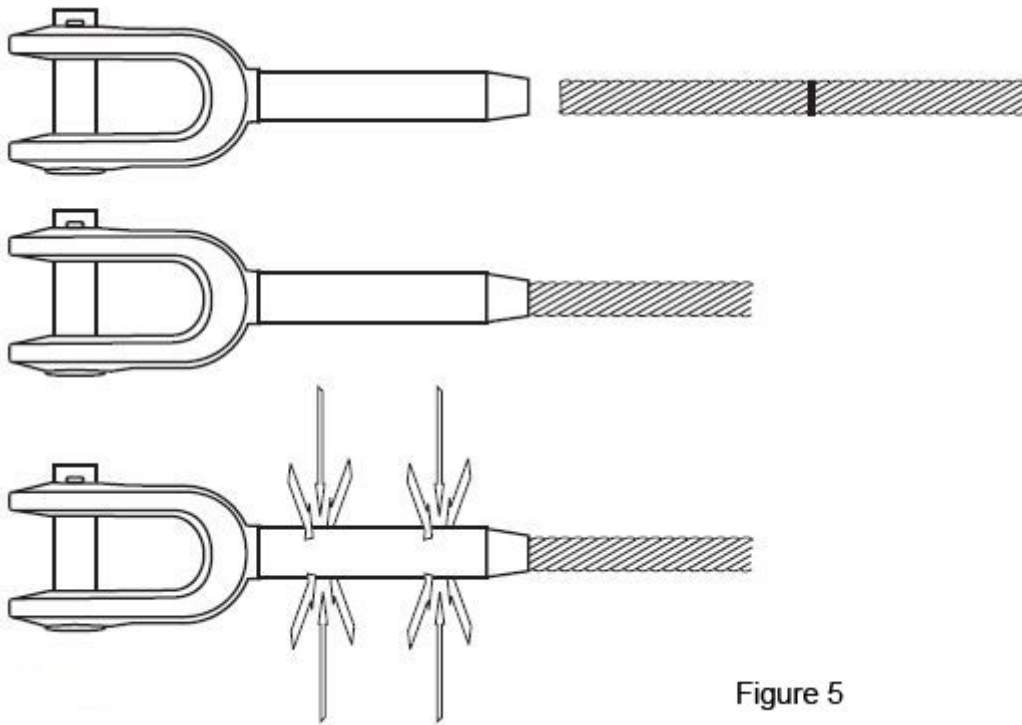


Figure 5