

Forklift Mast Chains

Mast Chains - Leaf Chains consist of several functions and are regulated by ANSI. They are designed for tension linkage, forklift masts and for low-speed pulling, and as balancers between counterweight and head in some machine tools. Leaf chains are at times even known as Balance Chains.

Construction and Features

Leaf chains are steel chains with a simple link plate and pin construction. The chain number refers to the lacing of the links and the pitch. The chains have particular features like for example high tensile strength per section area, which allows the design of smaller mechanisms. There are B- and A+ kind chains in this series and both the BL6 and AL6 Series include the same pitch as RS60. Finally, these chains cannot be driven utilizing sprockets.

Selection and Handling

Comparably, in roller chains, all of the link plates maintain higher fatigue resistance because of the compressive stress of press fits, while in leaf chains, only two outer plates are press fit. The tensile strength of leaf chains is high and the most permissible tension is low. Whenever handling leaf chains it is vital to check with the manufacturer's catalogue in order to guarantee the safety factor is outlined and use safety measures all the time. It is a better idea to carry out utmost caution and utilize extra safety guards in functions wherein the consequences of chain failure are severe.

Higher tensile strength is a direct correlation to the utilization of more plates. In view of the fact that the use of much more plates does not improve the utmost allowable tension directly, the number of plates can be limited. The chains require regular lubrication as the pins link directly on the plates, producing a really high bearing pressure. Using a SAE 30 or 40 machine oil is normally suggested for the majority of applications. If the chain is cycled over 1000 times every day or if the chain speed is over 30m for each minute, it would wear really rapidly, even with constant lubrication. Therefore, in either of these situations using RS Roller Chains will be more suitable.

The AL-type of chains should only be used under particular situations like when wear is not a big problem, if there are no shock loads, the number of cycles does not go over 100 day by day. The BL-type will be better suited under different conditions.

If a chain utilizing a lower safety factor is selected then the stress load in components will become higher. If chains are utilized with corrosive elements, then they may become fatigued and break quite easily. Performing regular maintenance is really vital if operating under these kinds of conditions.

The inner link or outer link type of end link on the chain will determine the shape of the clevis. Clevis connectors or Clevis pins are constructed by manufacturers, but the user typically supplies the clevis. An improperly made clevis can reduce the working life of the chain. The strands should be finished to length by the manufacturer. Refer to the ANSI standard or get in touch with the manufacturer.