

Forklift Mast Chains

Forklift Mast Chain - Leaf Chains have several functions and are regulated by ANSI. They are intended for forklift masts, for low-speed pulling and tension linkage, and as balancers between head and counterweight in some machine tools. Leaf chains are sometimes also referred to as Balance Chains.

Construction and Features

Constructed of a simple pin construction and link plate, steel leaf chains is identified by a number which refers to the pitch and the lacing of the links. The chains have particular features such as high tensile strength per section area, that allows the design of smaller devices. There are A- and B- kind chains in this particular series and both the AL6 and BL6 Series include the same pitch as RS60. Lastly, these chains cannot be powered with sprockets.

Selection and Handling

Comparably, in roller chains, all of the link plates have higher fatigue resistance due to the compressive stress of press fits, whereas in leaf chains, only two outer plates are press fit. The tensile strength of leaf chains is high and the utmost allowable tension is low. If handling leaf chains it is essential to check with the manufacturer's guidebook so as to ensure the safety factor is outlined and use safety guards always. It is a great idea to apply utmost caution and use extra safety measures in applications where the consequences of chain failure are serious.

Higher tensile strength is a direct correlation to the use of more plates. In view of the fact that the use of more plates does not enhance the maximum acceptable tension directly, the number of plates can be limited. The chains require regular lubrication since the pins link directly on the plates, producing a really high bearing pressure. Using a SAE 30 or 40 machine oil is often advised for nearly all applications. If the chain is cycled over one thousand times on a daily basis or if the chain speed is more than 30m per minute, it will wear extremely fast, even with continual lubrication. Hence, in either of these conditions the use of RS Roller Chains would be a lot more suitable.

The AL-type of chains must only be used under certain situations like for example when wear is not a big issue, if there are no shock loads, the number of cycles does not exceed one hundred each day. The BL-type will be better suited under other situations.

If a chain utilizing a lower safety factor is chosen then the stress load in components would become higher. If chains are utilized with corrosive elements, then they may become fatigued and break somewhat easily. Doing regular maintenance is essential if operating under these types of conditions.

The kind of end link of the chain, whether it is an outer link or inner link, determines the shape of the clevis. Clevis connectors or also called Clevis pins are constructed by manufacturers but normally, the user provides the clevis. An improperly made clevis can decrease the working life of the chain. The strands should be finished to length by the manufacturer. Refer to the ANSI standard or phone the maker.