Mast Chain

Forklift Mast Chains - Leaf Chains comprise various applications and are regulated by ANSI. They are designed for tension linkage, lift truck masts and for low-speed pulling, and as balancers between head and counterweight in some machine gadgets. Leaf chains are sometimes likewise known as Balance Chains.

Features and Construction

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

Selection and Handling

Comparably, in roller chains, all of the link plates have higher fatigue resistance because of 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 maximum allowable tension is low. While handling leaf chains it is vital to check with the manufacturer's instruction booklet in order to guarantee the safety factor is outlined and use safety guards at all times. It is a great idea to exercise utmost care and use extra safety guards in functions where the consequences of chain failure are severe.

Using much more plates in the lacing causes the higher tensile strength. Since this does not enhance the maximum acceptable tension directly, the number of plates utilized may be restricted. The chains need regular lubrication since the pins link directly on the plates, generating a very high bearing pressure. Using a SAE 30 or 40 machine oil is frequently advised for most applications. If the chain is cycled more than 1000 times every day or if the chain speed is over 30m per minute, it would wear very fast, even with continuous lubrication. Hence, in either of these conditions using RS Roller Chains would be much more suitable.

The AL-type of chains must only be used under certain situations like for example when wear is really not a big issue, when there are no shock loads, the number of cycles does not go over 100 day by day. The BL-type would be better suited under other conditions.

If a chain with a lower safety factor is chosen then the stress load in parts will become higher. If chains are utilized with corrosive elements, then they can become fatigued and break quite easily. Performing frequent maintenance is important when operating under these types of conditions.

The outer link or inner 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 usually supplies the clevis. An improperly made clevis could decrease the working life of the chain. The strands must be finished to length by the maker. Refer to the ANSI standard or call the manufacturer.