Mast Chains

Mast Chains - Leaf Chains comprise various functions and are regulated by ANSI. They are utilized for tension linkage, lift truck masts and for low-speed pulling, and as balancers between head and counterweight in several machine devices. Leaf chains are occasionally also called Balance Chains.

Features and Construction

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

Selection and Handling

In roller chains, the link plates have a higher fatigue resistance due to the compressive tension of press fits, yet the leaf chain only has two outer press fit plates. On the leaf chain, the most permissible tension is low and the tensile strength is high. Whenever handling leaf chains it is important to consult the manufacturer's handbook to be able to guarantee the safety factor is outlined and use safety measures all the time. It is a good idea to apply utmost care and use extra safety guards in functions wherein the consequences of chain failure are severe.

Utilizing more plates in the lacing results in the higher tensile strength. Because this does not improve the most permissible tension directly, the number of plates used may be restricted. The chains need regular lubrication as the pins link directly on the plates, producing a very high bearing pressure. Using a SAE 30 or 40 machine oil is normally suggested for nearly all applications. If the chain is cycled over one thousand times day after day or if the chain speed is more than 30m for each minute, it would wear really quick, even with continuous lubrication. Hence, in either of these conditions utilizing RS Roller Chains would be more suitable.

The AL-type of chains should just be utilized under certain situations like for example when wear is really not a huge issue, if 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 different conditions.

If a chain utilizing a lower safety factor is selected then the stress load in components would become higher. If chains are used with corrosive elements, then they may become fatigued and break rather easily. Performing regular maintenance is vital if operating under these types of situations.

The kind of end link of the chain, whether it is an inner link or outer link, determines the shape of the clevis. Clevis connectors or likewise called Clevis pins are constructed by manufacturers but often, the user provides the clevis. A wrongly constructed clevis can reduce the working life of the chain. The strands must be finished to length by the manufacturer. Refer to the ANSI standard or call the maker.