Mast Chains

Utilized in different applications, leaf chains are regulated by ANSI. They can be used for lift truck masts, as balancers between heads and counterweight in several machine tools, and for tension linkage and low-speed pulling. Leaf chains are sometimes also known as Balance Chains.

Construction and Features

Constructed of a simple pin construction and link plate, steel leaf chains is identified by a number that refers to the pitch and the lacing of the links. The chains have certain features like for instance high tensile strength per section area, which allows the design of smaller mechanisms. There are A- and B- type chains in this particular series and both the AL6 and BL6 Series have 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 have higher fatigue resistance due to the compressive stress of press fits, whereas in leaf chains, just two outer plates are press fit. The tensile strength of leaf chains is high and the utmost permissible tension is low. When handling leaf chains it is important to check with the manufacturer's manual to be able to ensure the safety factor is outlined and use safety measures all the time. It is a good idea to exercise extreme caution and use extra safety measures in functions where the consequences of chain failure are serious.

Using much more plates in the lacing causes the higher tensile strength. As this does not enhance the most acceptable tension directly, the number of plates used may be limited. The chains require frequent lubrication since the pins link directly on the plates, producing an extremely high bearing pressure. Making use of a SAE 30 or 40 machine oil is normally advised for the majority of applications. If the chain is cycled more than 1000 times each day or if the chain speed is over 30m for each minute, it will wear really rapidly, even with continual lubrication. Hence, in either of these conditions utilizing RS Roller Chains will be more suitable.

AL type chains are only to be used under particular situations like where there are no shock loads or when wear is not really a huge issue. Make certain that the number of cycles does not go beyond one hundred day by day. The BL-type will be better suited under various conditions.

If a chain using a lower safety factor is selected then the stress load in parts will become higher. If chains are used with corrosive elements, then they may become fatigued and break rather easily. Performing frequent maintenance is essential if operating under these types of situations.

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