Mast Chain

Mast Chains - Leaf Chains comprise different functions and are regulated by ANSI. They are intended for tension linkage, lift truck masts and for low-speed pulling, and as balancers between head and counterweight in some machine tools. Leaf chains are sometimes even referred to as Balance Chains.

Construction and Features

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

Selection and Handling

In roller chains, the link plates maintain a higher fatigue resistance due to the compressive stress of press fits, yet the leaf chain just contains two outer press fit plates. On the leaf chain, the most acceptable tension is low and the tensile strength is high. Whenever 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 carry out utmost caution and utilize extra safety measures in applications where the consequences of chain failure are serious.

Higher tensile strength is a direct correlation to the use of a lot more plates. For the reason that the use of more plates does not improve the utmost acceptable tension directly, the number of plates could be limited. The chains require frequent lubrication as the pins link directly on the plates, generating a very high bearing pressure. Utilizing a SAE 30 or 40 machine oil is frequently advised for most applications. If the chain is cycled over one thousand times day after day or if the chain speed is more than 30m per minute, it would wear extremely fast, even with continual lubrication. Hence, in either of these situations utilizing RS Roller Chains would be more suitable.

The AL-type of chains must only be used under certain situations such as if wear is really not a huge issue, if there are no shock loads, the number of cycles does not go beyond a hundred on a daily basis. The BL-type will be better suited under other conditions.

If a chain using a lower safety factor is selected then the stress load in parts would become higher. If chains are utilized with corrosive elements, then they may become fatigued and break rather easily. Doing frequent maintenance is essential when operating under these kinds 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 also called Clevis pins are made by manufacturers but usually, the user supplies the clevis. An improperly constructed clevis could decrease the working life of the chain. The strands must be finished to length by the producer. Refer to the ANSI standard or contact the producer.