

Mast Chain

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

Features and Construction

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

Selection and Handling

In roller chains, the link plates have a higher fatigue resistance because of the compressive tension of press fits, yet the leaf chain only contains two outer press fit plates. On the leaf chain, the maximum allowable tension is low and the tensile strength is high. Whenever handling leaf chains it is essential to confer with the manufacturer's manual to be able to ensure the safety factor is outlined and utilize safety guards all the time. It is a good idea to apply extreme caution and utilize extra safety measures in applications where the consequences of chain failure are severe.

Using a lot more plates in the lacing results in the higher tensile strength. As this does not improve the utmost allowable tension directly, the number of plates utilized can be limited. The chains require frequent lubrication because the pins link directly on the plates, producing a really high bearing pressure. Using a SAE 30 or 40 machine oil is normally suggested for most applications. If the chain is cycled over one thousand times on a daily basis or if the chain speed is over 30m for every minute, it will wear really quick, even with continual lubrication. Thus, in either of these situations the use of RS Roller Chains will be more suitable.

The AL-type of chains must only be used under certain situations like for example if wear is not a big problem, if there are no shock loads, the number of cycles does not exceed a hundred daily. The BL-type would be better suited under various situations.

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

The outer link or inner link type of end link on the chain would determine the shape of the clevis. Clevis connectors or likewise known as Clevis pins are constructed by manufacturers, but the user usually provides the clevis. A wrongly made 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 phone the manufacturer.