

Mast Chain

Mast Chains - Leaf Chains have different applications and are regulated by ANSI. They are used for tension linkage, forklift masts and for low-speed pulling, and as balancers between counterweight and head in some machine devices. Leaf chains are occasionally also referred to as Balance Chains.

Construction and Features

Constructed of a simple pin construction and link plate, steel leaf chains is identified by a number which refers to the lacing of the links and the pitch. The chains have particular features like for example 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. Lastly, these chains cannot be driven with sprockets.

Selection and Handling

Comparably, in roller chains, all of the link plates maintain higher fatigue resistance due to 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 utmost allowable tension is low. Whenever handling leaf chains it is vital to check with the manufacturer's guidebook so as to ensure the safety factor is outlined and utilize safety measures all the time. It is a better idea to exercise extreme caution and use extra safety guards in applications wherein the consequences of chain failure are serious.

Utilizing much more plates in the lacing causes the higher tensile strength. As this does not enhance the utmost acceptable tension directly, the number of plates used can be limited. The chains require regular lubrication for the reason that the pins link directly on the plates, producing a very high bearing pressure. Using a SAE 30 or 40 machine oil is normally advised for nearly all applications. If the chain is cycled over one thousand times on a daily basis or if the chain speed is more than 30m for every minute, it would wear very quick, even with constant lubrication. Thus, in either of these conditions the use of RS Roller Chains would be much more suitable.

The AL-type of chains must just be utilized under particular situations like if wear is really not a huge concern, when there are no shock loads, the number of cycles does not go over a hundred daily. The BL-type would be better suited under different 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 may become fatigued and break quite easily. Doing regular maintenance is really essential if operating under these types of conditions.

The type of end link of the chain, whether it is an inner link or outer link, determines the shape of the clevis. Clevis connectors or Clevis pins are made by manufacturers but usually, the user provides the clevis. An improperly made clevis can lessen the working life of the chain. The strands should be finished to length by the producer. Check the ANSI standard or get in touch with the maker.