

Mast Chains

Mast Chains - Leaf Chains comprise various applications and are regulated by ANSI. They are meant for tension linkage, forklift masts and for low-speed pulling, and as balancers between head and counterweight in several machine devices. Leaf chains are at times even called Balance Chains.

Construction and Features

Leaf chains are steel chains utilizing a simple link plate and pin construction. The chain number refers to the lacing of the links and the pitch. The chains have particular features like high tensile strength per section area, which allows the design of smaller mechanisms. There are A- and B- kind chains in this particular series and both the AL6 and BL6 Series include 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 have higher fatigue resistance due to the compressive stress of press fits, while in leaf chains, only two outer plates are press fit. The tensile strength of leaf chains is high and the most allowable tension is low. When handling leaf chains it is essential to check with the manufacturer's instruction manual in order to guarantee the safety factor is outlined and utilize safety measures all the time. It is a better idea to exercise utmost care and utilize extra safety guards in applications where the consequences of chain failure are severe.

Higher tensile strength is a direct correlation to the use of much more plates. In view of the fact that the use of a lot more plates does not enhance the maximum permissible tension directly, the number of plates could be restricted. The chains require regular lubrication for the reason that the pins link directly on the plates, producing a really high bearing pressure. Utilizing a SAE 30 or 40 machine oil is often advised for most applications. If the chain is cycled over one thousand times daily or if the chain speed is more than 30m for each minute, it will wear very fast, even with continuous lubrication. Therefore, in either of these situations the use of RS Roller Chains would be a lot more suitable.

The AL-type of chains should just be used under particular conditions such as if wear is really not a big issue, when there are no shock loads, the number of cycles does not go over one hundred each day. The BL-type will be better suited under other 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 frequent maintenance is really important if operating under these kinds of situations.

The outer link or inner link type of end link on the chain would determine the shape of the clevis. Clevis connectors or Clevis pins are constructed by manufacturers, but the user typically provides the clevis. A wrongly made clevis can decrease the working life of the chain. The strands should be finished to length by the manufacturer. Check the ANSI standard or phone the manufacturer.