

## Mast Chains

Mast Chains - Utilized in various applications, leaf chains are regulated by ANSI. They could be used for forklift masts, as balancers between counterweight and heads in several machine tools, and for low-speed pulling and tension linkage. Leaf chains are at times even called Balance Chains.

### Construction and Features

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

### Handling and Selection

Comparably, in roller chains, all of the link plates maintain 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 maximum allowable tension is low. When handling leaf chains it is essential to consult the manufacturer's guidebook in order to ensure the safety factor is outlined and utilize safety measures at all times. It is a good idea to exercise utmost care and utilize 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. Because this does not improve the most permissible tension directly, the number of plates utilized could be limited. The chains require frequent lubrication because the pins link directly on the plates, producing a really high bearing pressure. Utilizing a SAE 30 or 40 machine oil is frequently suggested for most applications. If the chain is cycled more than 1000 times in a day or if the chain speed is over 30m for every minute, it will wear really rapidly, even with constant lubrication. Therefore, in either of these conditions using RS Roller Chains would be more suitable.

AL type chains are only to be used under certain situations like for example where there are no shock loads or if wear is not really a huge problem. Make certain that the number of cycles does not go over 100 every day. The BL-type would be better suited under other situations.

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

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 constructed by manufacturers but normally, the user provides the clevis. A wrongly constructed clevis could decrease the working life of the chain. The strands must be finished to length by the producer. Check the ANSI standard or phone the maker.