## Mast Chains

Mast Chain - Leaf Chains consist of various applications and are regulated by ANSI. They are used for forklift masts, for low-speed pulling and tension linkage, and as balancers between head and counterweight in some machine devices. Leaf chains are at times also known as Balance Chains.

Features and Construction

Constructed of a simple link plate and pin construction, steel leaf chains is identified by a number which refers to the pitch and the lacing of the links. The chains have particular features like high tensile strength per section area, which enables the design of smaller devices. There are A- and B- kind chains in this particular series and both the AL6 and BL6 Series have the same pitch as RS60. Finally, these chains cannot be powered utilizing sprockets.

Selection and Handling

Comparably, in roller chains, all of the link plates maintain higher fatigue resistance because of the compressive stress of press fits, whereas in leaf chains, just two outer plates are press fit. The tensile strength of leaf chains is high and the most allowable tension is low. Whenever handling leaf chains it is essential to consult the manufacturer's handbook in order to ensure the safety factor is outlined and use safety guards at all times. It is a better idea to apply utmost care and use extra safety guards in applications wherein the consequences of chain failure are severe.

Using much more plates in the lacing causes the higher tensile strength. Since this does not improve the most acceptable tension directly, the number of plates used can be limited. The chains need regular lubrication because the pins link directly on the plates, producing a really high bearing pressure. Making use of a SAE 30 or 40 machine oil is normally advised for the majority of applications. If the chain is cycled over 1000 times daily or if the chain speed is more than 30m for every minute, it will wear very rapidly, even with constant lubrication. Hence, in either of these conditions using RS Roller Chains will be more suitable.

The AL-type of chains must just be utilized under certain situations like for instance when wear is not a huge concern, if there are no shock loads, the number of cycles does not exceed a hundred on a daily basis. 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 quite easily. Doing regular maintenance is essential if operating under these kinds of conditions.

The inner link or outer link type of end link on the chain would determine the shape of the clevis. Clevis connectors or also known as Clevis pins are made by manufacturers, but the user typically provides the clevis. A wrongly made clevis can decrease the working life of the chain. The strands must be finished to length by the producer. Refer to the ANSI standard or get in touch with the producer.