## Mast Chain

Mast Chains - Leaf Chains consist of different functions and are regulated by ANSI. They are used for tension linkage, lift truck masts and for low-speed pulling, and as balancers between counterweight and head in several machine tools. Leaf chains are at times even referred to as Balance Chains.

Features and Construction

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 for instance high tensile strength per section area, which enables the design of smaller mechanisms. There are B- and A+ type chains in this series and both the BL6 and AL6 Series comprise the same pitch as RS60. Finally, these chains cannot be powered using sprockets.

Selection and Handling

In roller chains, the link plates have a higher fatigue resistance because of the compressive stress of press fits, yet the leaf chain only contains two outer press fit plates. On the leaf chain, the most permissible tension is low and the tensile strength is high. If handling leaf chains it is important to check with the manufacturer's handbook so as to ensure the safety factor is outlined and use safety guards at all times. It is a better idea to apply utmost caution and utilize extra safety measures in functions wherein the consequences of chain failure are serious.

Higher tensile strength is a direct correlation to the utilization of much more plates. Because the use of a lot more plates does not improve the most permissible tension directly, the number of plates could be limited. The chains need regular lubrication because the pins link directly on the plates, generating a really high bearing pressure. Using a SAE 30 or 40 machine oil is frequently suggested for most applications. If the chain is cycled more than one thousand times day by day or if the chain speed is more than 30m for every minute, it will wear really quick, even with continuous lubrication. Thus, in either of these situations utilizing RS Roller Chains would be much more suitable.

AL type chains are only to be utilized under certain conditions such as where there are no shock loads or if wear is not really a big concern. Be certain that the number of cycles does not go over one hundred every day. The BL-type would be better suited under other conditions.

If a chain with a lower safety factor is selected then the stress load in components will become higher. If chains are used with corrosive elements, then they may become fatigued and break somewhat easily. Performing regular maintenance is really essential when operating under these kinds of situations.

The type of end link of the chain, whether it is an outer link or inner link, determines the shape of the clevis. Clevis connectors or otherwise called Clevis pins are made by manufacturers but often, the user provides the clevis. A wrongly made clevis can decrease the working life of the chain. The strands should be finished to length by the producer. Refer to the ANSI standard or contact the producer.