

Mast Chains

Mast Chains - Leaf Chains have various functions and are regulated by ANSI. They are intended for tension linkage, lift truck masts and for low-speed pulling, and as balancers between counterweight and head in some machine gadgets. Leaf chains are occasionally also called 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 high tensile strength per section area, that enables the design of smaller mechanisms. There are A- and B- type chains in this series and both the BL6 and AL6 Series have the same pitch as RS60. Finally, these chains cannot be powered utilizing sprockets.

Selection and Handling

In roller chains, the link plates have a higher fatigue resistance due to the compressive tension of press fits, yet the leaf chain just contains two outer press fit plates. On the leaf chain, the most acceptable tension is low and the tensile strength is high. Whenever handling leaf chains it is important to check with the manufacturer's handbook so as to guarantee the safety factor is outlined and utilize safety guards at all times. It is a good idea to exercise extreme caution and utilize extra safety guards in functions where the consequences of chain failure are severe.

Higher tensile strength is a direct correlation to the utilization of much more plates. Since the use of much more plates does not improve the most permissible tension directly, the number of plates can be limited. The chains need regular lubrication in view of the fact that the pins link directly on the plates, producing an extremely high bearing pressure. Making use of a SAE 30 or 40 machine oil is frequently suggested for most applications. If the chain is cycled more than one thousand times daily or if the chain speed is over 30m per minute, it would wear very rapidly, even with continuous lubrication. So, in either of these conditions using RS Roller Chains would be more suitable.

AL type chains are just to be utilized under certain situations like for instance where there are no shock loads or when wear is not a huge issue. Be certain that the number of cycles does not exceed one hundred daily. The BL-type will be better suited under different situations.

If a chain using a lower safety factor is chosen then the stress load in parts would become higher. If chains are utilized with corrosive elements, then they may become fatigued and break quite easily. Doing frequent maintenance is essential if operating under these types 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 Clevis pins are constructed by manufacturers but normally, the user supplies the clevis. A wrongly constructed clevis can reduce the working life of the chain. The strands must be finished to length by the manufacturer. Check the ANSI standard or call the producer.