

Mast Chain

Mast Chains - Leaf Chains comprise different applications and are regulated by ANSI. They are used for tension linkage, lift truck masts and for low-speed pulling, and as balancers between head and counterweight in several machine devices. Leaf chains are occasionally even called Balance Chains.

Features and Construction

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

Handling and Selection

In roller chains, the link plates maintain a higher fatigue resistance due to the compressive stress of press fits, yet the leaf chain just has two outer press fit plates. On the leaf chain, the most allowable tension is low and the tensile strength is high. While handling leaf chains it is essential to confer with the manufacturer's catalogue to be able to ensure the safety factor is outlined and utilize safety measures always. It is a better idea to carry out utmost care and utilize extra safety measures in functions where the consequences of chain failure are severe.

Using much more plates in the lacing causes the higher tensile strength. Since this does not enhance the utmost allowable tension directly, the number of plates utilized could be limited. The chains need frequent lubrication as the pins link directly on the plates, generating an extremely high bearing pressure. Making use of a SAE 30 or 40 machine oil is frequently suggested for the majority of applications. If the chain is cycled more than 1000 times day after day or if the chain speed is more than 30m per minute, it would wear really fast, even with continual lubrication. Hence, in either of these situations the use of RS Roller Chains would be more suitable.

The AL-type of chains must only be used under certain situations like for instance when wear is really not a big issue, if there are no shock loads, the number of cycles does not go beyond 100 daily. The BL-type will be better suited under different conditions.

The stress load in components would become higher if a chain utilizing a lower safety factor is chosen. If the chain is even utilized amongst corrosive situations, it can easily fatigue and break really quick. Performing frequent maintenance is really vital when operating under these types of situations.

The outer link or inner link type of end link on the chain will determine the shape of the clevis. Clevis connectors or Clevis pins are made by manufacturers, but the user usually supplies the clevis. A wrongly made clevis can reduce the working life of the chain. The strands should be finished to length by the maker. Check the ANSI standard or call the producer.