

Mast Chains

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

Features and Construction

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

Handling and Selection

Comparably, in roller chains, all of the link plates have higher fatigue resistance because of the compressive stress of press fits, whereas 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. Whenever handling leaf chains it is essential to check with the manufacturer's guidebook to be able to guarantee the safety factor is outlined and use safety measures at all times. It is a good idea to carry out utmost caution and use extra safety measures in functions wherein the consequences of chain failure are serious.

Higher tensile strength is a direct correlation to the use of a lot more plates. In view of the fact that the utilization of much more plates does not improve the utmost allowable tension directly, the number of plates could be limited. The chains require regular lubrication as the pins link directly on the plates, generating a very high bearing pressure. Utilizing a SAE 30 or 40 machine oil is frequently suggested for nearly all applications. If the chain is cycled more than 1000 times on a daily basis or if the chain speed is more than 30m for every minute, it would wear very rapidly, even with continuous lubrication. Hence, in either of these situations utilizing RS Roller Chains would be a lot more suitable.

AL type chains are only to be utilized under certain situations such as where there are no shock loads or if wear is not a big issue. Make certain that the number of cycles does not go over 100 day by day. The BL-type would be better suited under different situations.

If a chain utilizing a lower safety factor is selected then the stress load in parts would become higher. If chains are used with corrosive elements, then they could become fatigued and break quite easily. Doing frequent maintenance is really important 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 otherwise known as Clevis pins are made by manufacturers, but the user normally supplies the clevis. A wrongly made clevis can decrease the working life of the chain. The strands must be finished to length by the manufacturer. Check the ANSI standard or call the manufacturer.