Mast Chain

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

Features and Construction

Made 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 certain features like for example high tensile strength per section area, that allows the design of smaller machines. There are B- and A+ kind chains in this series and both the BL6 and AL6 Series contain the same pitch as RS60. Finally, these chains cannot be driven utilizing sprockets.

Handling and Selection

In roller chains, the link plates maintain a higher fatigue resistance because of the compressive tension of press fits, yet the leaf chain just has two outer press fit plates. On the leaf chain, the maximum permissible tension is low and the tensile strength is high. If handling leaf chains it is important to consult the manufacturer's manual in order to guarantee the safety factor is outlined and utilize safety guards at all times. It is a great idea to apply utmost caution and utilize extra safety measures in functions where the consequences of chain failure are serious.

Using more plates in the lacing leads to the higher tensile strength. In view of the fact that this does not enhance the maximum acceptable tension directly, the number of plates utilized could be restricted. The chains require regular lubrication in view of the fact that the pins link directly on the plates, generating a really high bearing pressure. Making use of a SAE 30 or 40 machine oil is often advised for nearly all applications. If the chain is cycled over 1000 times each day or if the chain speed is over 30m per minute, it would wear extremely quick, even with constant lubrication. Therefore, in either of these conditions the use of RS Roller Chains would be a lot more suitable.

The AL-type of chains must just be used under certain situations like if wear is not a big problem, if there are no shock loads, the number of cycles does not go beyond one hundred day by day. The BL-type would be better suited under different conditions.

If a chain utilizing a lower safety factor is selected then the stress load in parts will become higher. If chains are used with corrosive elements, then they can become fatigued and break quite easily. Doing frequent maintenance is really important if operating under these types of conditions.

The outer link or inner link type of end link on the chain will 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. An improperly constructed clevis can decrease the working life of the chain. The strands must be finished to length by the maker. Refer to the ANSI standard or call the maker.