Mast Chains

Mast Chains - Used in different applications, leaf chains are regulated by ANSI. They could be utilized for lift truck masts, as balancers between heads and counterweight in some machine devices, and for low-speed pulling and tension linkage. Leaf chains are at times even known as Balance Chains.

Construction and Features

Leaf chains are steel chains using 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 example high tensile strength per section area, that allows the design of smaller mechanisms. There are B- and A+ kind chains in this particular series and both the BL6 and AL6 Series have the same pitch as RS60. Lastly, these chains cannot be powered with sprockets.

Selection and Handling

In roller chains, the link plates maintain a higher fatigue resistance because of the compressive tension of press fits, yet the leaf chain only contains two outer press fit plates. On the leaf chain, the maximum acceptable tension is low and the tensile strength is high. While handling leaf chains it is vital to confer with the manufacturer's instruction booklet to be able to guarantee the safety factor is outlined and use safety measures all the time. It is a great idea to carry out utmost care and utilize extra safety measures in applications wherein the consequences of chain failure are severe.

Using much more plates in the lacing leads to the higher tensile strength. Since this does not improve the utmost permissible tension directly, the number of plates used can be restricted. The chains need frequent lubrication for the reason that the pins link directly on the plates, producing an extremely high bearing pressure. Using a SAE 30 or 40 machine oil is often advised for the majority of applications. If the chain is cycled more than 1000 times daily or if the chain speed is more than 30m for each minute, it would wear extremely quick, even with continuous lubrication. Thus, in either of these conditions using RS Roller Chains would be a lot more suitable.

The AL-type of chains should just be used under certain conditions like for instance when wear is not a big problem, if there are no shock loads, the number of cycles does not exceed one hundred a day. The BL-type would be better suited under various situations.

If a chain utilizing a lower safety factor is selected then the stress load in parts would become higher. If chains are utilized with corrosive elements, then they can become fatigued and break somewhat easily. Performing regular maintenance is vital if operating under these kinds of situations.

The type of end link of the chain, whether it is an inner link or outer link, determines the shape of the clevis. Clevis connectors or Clevis pins are constructed by manufacturers but usually, the user provides the clevis. A wrongly constructed clevis can reduce the working life of the chain. The strands must be finished to length by the maker. Check the ANSI standard or get in touch with the maker.