Mast Chains

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

Features and Construction

Leaf chains are steel chains using a simple pin construction and link plate. The chain number refers to the lacing of the links and the pitch. The chains have certain features like high tensile strength for each section area, that enables the design of smaller devices. There are A- and B- type chains in this particular series and both the AL6 and BL6 Series comprise the same pitch as RS60. Finally, these chains cannot be powered using sprockets.

Handling and Selection

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. If handling leaf chains it is essential to check with the manufacturer's instruction manual so as to guarantee the safety factor is outlined and use safety guards at all times. It is a good idea to apply extreme caution and utilize extra safety measures in functions where the consequences of chain failure are severe.

Higher tensile strength is a direct correlation to the utilization of more plates. Because the utilization of more plates does not improve the maximum permissible tension directly, the number of plates could be limited. The chains require frequent lubrication because the pins link directly on the plates, generating a very high bearing pressure. Utilizing a SAE 30 or 40 machine oil is normally suggested for most applications. If the chain is cycled more than one thousand times day after day or if the chain speed is over 30m for each minute, it would wear really rapidly, even with continual lubrication. Thus, in either of these situations the use of RS Roller Chains would be more suitable.

The AL-type of chains should just be utilized under certain conditions like for example when wear is really not a big concern, when there are no shock loads, the number of cycles does not go over one hundred a day. The BL-type will be better suited under different situations.

The stress load in parts would become higher if a chain utilizing a lower safety factor is selected. If the chain is even used amongst corrosive situations, it could easily fatigue and break very quick. Doing regular 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 constructed by manufacturers, but the user normally supplies the clevis. An improperly made clevis could decrease the working life of the chain. The strands should be finished to length by the manufacturer. Check the ANSI standard or call the manufacturer.