Forklift Mast Chains

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

Construction and Features

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 particular features such as high tensile strength for each section area, that enables the design of smaller machines. There are B- and A+ kind chains in this series and both the AL6 and BL6 Series have the same pitch as RS60. Lastly, these chains cannot be driven with 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 contains two outer press fit plates. On the leaf chain, the maximum permissible tension is low and the tensile strength is high. When handling leaf chains it is essential to check with the manufacturer's instruction booklet in order to guarantee the safety factor is outlined and use safety guards all the time. It is a good idea to carry out utmost caution and utilize extra safety measures in applications wherein the consequences of chain failure are severe.

Higher tensile strength is a direct correlation to the utilization of much more plates. In view of the fact that the use of much more plates does not enhance the most allowable tension directly, the number of plates could be restricted. The chains require frequent lubrication in view of the fact that the pins link directly on the plates, producing a very high bearing pressure. Using a SAE 30 or 40 machine oil is often suggested for nearly all applications. If the chain is cycled over one thousand times daily or if the chain speed is over 30m per minute, it will wear extremely quick, even with constant lubrication. Thus, in either of these conditions using RS Roller Chains would be much more suitable.

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

If a chain with a lower safety factor is selected then the stress load in components will become higher. If chains are utilized with corrosive elements, then they could become fatigued and break quite easily. Performing frequent maintenance is really important when operating under these types of conditions.

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