Forklift Mast Chains

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

Features and Construction

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

Handling and Selection

Comparably, in roller chains, all of the link plates maintain higher fatigue resistance because of the compressive stress of press fits, whereas in leaf chains, just two outer plates are press fit. The tensile strength of leaf chains is high and the most acceptable tension is low. If handling leaf chains it is essential to check with the manufacturer's instruction manual in order to guarantee the safety factor is outlined and utilize safety guards always. It is a great idea to carry out utmost caution and use extra safety guards in applications wherein the consequences of chain failure are serious.

Utilizing more plates in the lacing causes the higher tensile strength. Since this does not improve the maximum allowable tension directly, the number of plates utilized can be restricted. The chains need 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 often advised for the majority of applications. If the chain is cycled over one thousand times in a day or if the chain speed is more than 30m for each minute, it would wear very rapidly, even with constant lubrication. Thus, in either of these conditions utilizing RS Roller Chains will be a lot more suitable.

AL type chains are just to be used under particular situations such as where there are no shock loads or when wear is not a big concern. Make certain that the number of cycles does not exceed 100 day after day. The BL-type will be better suited under other situations.

If a chain with a lower safety factor is chosen then the stress load in parts will become higher. If chains are used with corrosive elements, then they may become fatigued and break quite easily. Performing regular maintenance is important when operating under these types of situations.

The kind of end link of the chain, whether it is an outer link or inner link, determines the shape of the clevis. Clevis connectors or otherwise called Clevis pins are constructed by manufacturers but often, the user supplies the clevis. A wrongly constructed clevis could decrease the working life of the chain. The strands must be finished to length by the producer. Check the ANSI standard or contact the maker.