Mast Chain

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

Construction and Features

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

Handling and Selection

Comparably, in roller chains, all of the link plates have higher fatigue resistance due to the compressive stress of press fits, while in leaf chains, only two outer plates are press fit. The tensile strength of leaf chains is high and the most allowable tension is low. While handling leaf chains it is important to confer with the manufacturer's guidebook in order to guarantee the safety factor is outlined and use safety measures always. It is a better idea to carry out extreme caution and use extra safety measures in applications wherein the consequences of chain failure are severe.

Utilizing a lot more plates in the lacing causes the higher tensile strength. In view of the fact that this does not improve the maximum permissible tension directly, the number of plates utilized could be limited. The chains require regular lubrication as the pins link directly on the plates, generating a really high bearing pressure. Utilizing a SAE 30 or 40 machine oil is normally suggested for most applications. If the chain is cycled over 1000 times each day or if the chain speed is over 30m per minute, it will wear very rapidly, even with constant lubrication. Thus, in either of these situations the use of RS Roller Chains will be a lot more suitable.

The AL-type of chains should just be used under particular conditions like when wear is not a huge concern, when there are no shock loads, the number of cycles does not exceed a hundred on a daily basis. The BL-type would be better suited under various situations.

The stress load in components would become higher if a chain using a lower safety factor is selected. If the chain is even used amongst corrosive situations, it could easily fatigue and break very fast. Doing frequent maintenance is really important when operating under these kinds of conditions.

The outer link or inner link kind of end link on the chain would determine the shape of the clevis. Clevis connectors or also known as Clevis pins are made by manufacturers, but the user normally provides the clevis. A wrongly constructed clevis can lessen the working life of the chain. The strands must be finished to length by the producer. Check the ANSI standard or phone the producer.