Mast Chains

Mast Chains - Utilized in various applications, leaf chains are regulated by ANSI. They could be utilized for forklift masts, as balancers between counterweight and heads in some machine tools, and for tension linkage and low-speed pulling. Leaf chains are at times also known as Balance Chains.

Features and Construction

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

Handling and Selection

In roller chains, the link plates maintain a higher fatigue resistance due to the compressive stress of press fits, yet the leaf chain just has two outer press fit plates. On the leaf chain, the most permissible tension is low and the tensile strength is high. Whenever handling leaf chains it is important to check with the manufacturer's manual in order to guarantee the safety factor is outlined and utilize safety guards at all times. It is a better idea to exercise utmost caution and utilize extra safety guards in functions where the consequences of chain failure are serious.

Using more plates in the lacing results in the higher tensile strength. Since this does not enhance the most allowable tension directly, the number of plates used may be restricted. The chains require frequent lubrication in view of the fact that the pins link directly on the plates, generating a very high bearing pressure. Using a SAE 30 or 40 machine oil is frequently suggested for nearly all applications. If the chain is cycled over 1000 times day by day or if the chain speed is over 30m for every minute, it will wear really rapidly, even with continuous lubrication. Therefore, in either of these conditions the use of RS Roller Chains would be a lot more suitable.

AL type chains are only to be used under certain situations like for instance where there are no shock loads or if wear is not a huge issue. Be positive that the number of cycles does not go over a hundred per day. The BL-type would be better suited under different conditions.

The stress load in components would become higher if a chain with a lower safety factor is chosen. If the chain is even used among corrosive situations, it could easily fatigue and break really quick. Performing frequent maintenance is vital if operating under these types of conditions.

The type of end link of the chain, whether it is an outer link or inner link, determines the shape of the clevis. Clevis connectors or Clevis pins are constructed by manufacturers but normally, the user provides the clevis. A wrongly constructed clevis could lessen the working life of the chain. The strands must be finished to length by the producer. Refer to the ANSI standard or call the producer.