Mast Chains

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

Construction and Features

Leaf chains are actually 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 for example high tensile strength for each section area, that enables the design of smaller machines. There are B- and A+ type chains in this series and both the BL6 and AL6 Series have the same pitch as RS60. Finally, these chains cannot be driven using sprockets.

Selection and Handling

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 acceptable tension is low and the tensile strength is high. If handling leaf chains it is important to check with the manufacturer's catalogue in order to ensure the safety factor is outlined and use safety guards all the time. It is a great idea to exercise extreme caution and use extra safety guards in functions where the consequences of chain failure are serious.

Higher tensile strength is a direct correlation to the utilization of a lot more plates. Because the use of much more plates does not improve the most permissible tension directly, the number of plates can be restricted. The chains require frequent lubrication in view of the fact that the pins link directly on the plates, generating a really high bearing pressure. Making use of a SAE 30 or 40 machine oil is often suggested for nearly all applications. If the chain is cycled more than one thousand times day after day or if the chain speed is more than 30m for every minute, it would wear extremely fast, even with continuous lubrication. Therefore, in either of these situations using RS Roller Chains would be much more suitable.

The AL-type of chains must just be used under particular situations such as when wear is really not a big problem, if there are no shock loads, the number of cycles does not go beyond 100 on a daily basis. The BL-type will be better suited under various situations.

If a chain with a lower safety factor is selected then the stress load in parts will become higher. If chains are used with corrosive elements, then they can become fatigued and break somewhat easily. Performing frequent maintenance is really essential if operating under these kinds of situations.

The inner link or outer link kind of end link on the chain will determine the shape of the clevis. Clevis connectors or likewise known as Clevis pins are made by manufacturers, but the user usually provides the clevis. A wrongly made clevis could reduce the working life of the chain. The strands must be finished to length by the producer. Check the ANSI standard or phone the producer.