Forklift Mast Chains

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

Features and Construction

Made of a simple pin construction and link plate, steel leaf chains is identified by a number which refers to the lacing of the links and the pitch. The chains have specific features such as high tensile strength per section area, which allows the design of smaller devices. There are A- and B- kind chains in this particular series and both the AL6 and BL6 Series contain the same pitch as RS60. Finally, these chains cannot be powered utilizing sprockets.

Selection and Handling

In roller chains, the link plates have a higher fatigue resistance because of the compressive stress of press fits, yet the leaf chain only has two outer press fit plates. On the leaf chain, the most permissible tension is low and the tensile strength is high. When handling leaf chains it is important to consult the manufacturer's catalogue to be able to guarantee the safety factor is outlined and use safety measures always. It is a better idea to carry out utmost care and utilize extra safety guards in functions wherein the consequences of chain failure are serious.

Higher tensile strength is a direct correlation to the utilization of more plates. In view of the fact that the use of more plates does not enhance the utmost permissible tension directly, the number of plates may be restricted. The chains require regular lubrication as the pins link directly on the plates, generating an extremely high bearing pressure. Utilizing a SAE 30 or 40 machine oil is often advised for most applications. If the chain is cycled more than 1000 times each day or if the chain speed is more than 30m for every minute, it will wear very rapidly, even with continuous lubrication. Hence, in either of these situations the use of RS Roller Chains would be a lot more suitable.

AL type chains are just to be utilized under particular situations like for example where there are no shock loads or if wear is not really a big problem. Be certain that the number of cycles does not go beyond a hundred per day. The BL-type would be better suited under different conditions.

If a chain with a lower safety factor is chosen then the stress load in parts would become higher. If chains are utilized with corrosive elements, then they can become fatigued and break somewhat easily. Doing frequent maintenance is essential when operating under these kinds of situations.

The kind of end link of the chain, whether it is an inner link or outer link, determines the shape of the clevis. Clevis connectors or otherwise called Clevis pins are made by manufacturers but normally, the user provides the clevis. A wrongly constructed clevis can decrease the working life of the chain. The strands should be finished to length by the maker. Refer to the ANSI standard or contact the maker.