

Forklift Mast Chains

Mast Chains - Leaf Chains comprise various applications and are regulated by ANSI. They are utilized for low-speed pulling, for tension linkage and forklift masts, and as balancers between head and counterweight in several machine devices. Leaf chains are occasionally also referred to 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 for each section area, which enables the design of smaller devices. There are A- and B- kind chains in this series and both the AL6 and BL6 Series include the same pitch as RS60. Lastly, these chains cannot be driven utilizing sprockets.

Selection and Handling

In roller chains, the link plates maintain a higher fatigue resistance due to the compressive tension of press fits, yet the leaf chain only contains two outer press fit plates. On the leaf chain, the most allowable tension is low and the tensile strength is high. While handling leaf chains it is essential to consult the manufacturer's guidebook in order to ensure the safety factor is outlined and utilize safety measures all the time. It is a better idea to apply extreme care and utilize extra safety guards in applications wherein the consequences of chain failure are severe.

Utilizing much more plates in the lacing causes the higher tensile strength. For the reason that this does not enhance the maximum permissible tension directly, the number of plates used can be limited. The chains require regular lubrication because the pins link directly on the plates, producing an extremely high bearing pressure. Using a SAE 30 or 40 machine oil is normally advised for most applications. If the chain is cycled more than 1000 times on a daily basis or if the chain speed is more than 30m for each minute, it will wear extremely rapidly, even with continuous lubrication. So, in either of these situations the use of RS Roller Chains would be more suitable.

The AL-type of chains should just be utilized under particular conditions like for instance if wear is not a huge problem, if there are no shock loads, the number of cycles does not go over a hundred day by day. The BL-type would be better suited under various conditions.

If a chain utilizing a lower safety factor is chosen then the stress load in components would become higher. If chains are utilized with corrosive elements, then they can become fatigued and break rather easily. Performing frequent maintenance is vital if operating under these types of conditions.

The type 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 often, the user supplies the clevis. An improperly made clevis can decrease the working life of the chain. The strands should be finished to length by the producer. Check the ANSI standard or contact the maker.