

Forklift Mast Chain

Mast Chains - Leaf Chains have different applications and are regulated by ANSI. They are designed 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 at times even referred to 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 lacing of the links and the pitch. The chains have certain features like for instance high tensile strength for each section area, which allows the design of smaller mechanisms. There are A- and B- kind chains in this series and both the AL6 and BL6 Series include the same pitch as RS60. Finally, these chains cannot be driven with 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 just contains two outer press fit plates. On the leaf chain, the most permissible tension is low and the tensile strength is high. While handling leaf chains it is essential to consult the manufacturer's instruction booklet to be able to guarantee the safety factor is outlined and use safety measures at all times. It is a better idea to apply extreme caution and use extra safety guards in functions wherein the consequences of chain failure are serious.

Utilizing much more plates in the lacing causes the higher tensile strength. Because this does not enhance the maximum allowable tension directly, the number of plates utilized may be restricted. The chains require regular lubrication in view of the fact that the pins link directly on the plates, producing an extremely high bearing pressure. Making use of a SAE 30 or 40 machine oil is often advised for nearly all applications. If the chain is cycled more than 1000 times every day or if the chain speed is more than 30m per minute, it would wear really fast, even with constant lubrication. Hence, in either of these conditions using RS Roller Chains would be more suitable.

The AL-type of chains must only be utilized under certain situations like for example when wear is not a huge problem, if there are no shock loads, the number of cycles does not exceed 100 daily. The BL-type would be better suited under other situations.

If a chain with a lower safety factor is selected then the stress load in components would become higher. If chains are used with corrosive elements, then they can become fatigued and break rather easily. Doing regular maintenance is really vital if operating under these kinds 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 constructed by manufacturers but often, the user provides the clevis. A wrongly constructed clevis can reduce the working life of the chain. The strands must be finished to length by the manufacturer. Check the ANSI standard or get in touch with the producer.