

Mast Chain

Mast Chains - Leaf Chains have various applications and are regulated by ANSI. They are intended for tension linkage, forklift masts and for low-speed pulling, and as balancers between counterweight and head in some machine devices. Leaf chains are at times even referred to as Balance Chains.

Features and Construction

Constructed of a simple link plate and pin construction, steel leaf chains is identified by a number that refers to the lacing of the links and the pitch. The chains have certain features like high tensile strength per section area, which allows the design of smaller mechanisms. There are B- and A+ type chains in this particular series and both the AL6 and BL6 Series have the same pitch as RS60. Finally, these chains cannot be powered using 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 just has two outer press fit plates. On the leaf chain, the maximum permissible tension is low and the tensile strength is high. When handling leaf chains it is essential to confer with the manufacturer's catalogue in order to ensure the safety factor is outlined and use safety measures always. It is a better idea to apply utmost care and utilize extra safety guards in functions where the consequences of chain failure are severe.

Using much more plates in the lacing leads to the higher tensile strength. Since this does not enhance the maximum permissible tension directly, the number of plates used may be restricted. The chains require frequent lubrication since the pins link directly on the plates, generating an extremely high bearing pressure. Making use of a SAE 30 or 40 machine oil is frequently advised for most applications. If the chain is cycled over 1000 times on a daily basis or if the chain speed is over 30m for each minute, it would wear really quick, even with continuous lubrication. Hence, in either of these conditions using RS Roller Chains will be a lot more suitable.

AL type chains are just to be used under certain situations like for instance where there are no shock loads or if wear is not really a huge concern. Make positive that the number of cycles does not go beyond one hundred day after day. The BL-type will be better suited under various conditions.

The stress load in parts will become higher if a chain utilizing a lower safety factor is selected. If the chain is even used amongst corrosive situations, it can easily fatigue and break really fast. Performing regular maintenance is essential when operating under these types of situations.

The outer link or inner link type of end link on the chain would determine the shape of the clevis. Clevis connectors or Clevis pins are constructed by manufacturers, but the user usually provides the clevis. An improperly made clevis can decrease the working life of the chain. The strands must be finished to length by the manufacturer. Check the ANSI standard or contact the manufacturer.