

## Mast Chains

Mast Chains - Leaf Chains consist of various applications and are regulated by ANSI. They are designed for low-speed pulling, for tension linkage and lift truck masts, and as balancers between head and counterweight in several machine devices. Leaf chains are sometimes even called Balance Chains.

### Features and Construction

Constructed of a simple pin construction and link plate, steel leaf chains is identified by a number that refers to the pitch and the lacing of the links. The chains have certain features like for example high tensile strength for each section area, which allows the design of smaller mechanisms. There are B- and A+ kind chains in this series and both the BL6 and AL6 Series have the same pitch as RS60. Lastly, these chains cannot be driven utilizing sprockets.

### Handling and Selection

In roller chains, the link plates maintain a higher fatigue resistance due to the compressive tension of press fits, yet the leaf chain just has two outer press fit plates. On the leaf chain, the most permissible tension is low and the tensile strength is high. If handling leaf chains it is essential to confer with the manufacturer's guidebook so as to ensure the safety factor is outlined and utilize safety guards all the time. It is a great idea to exercise extreme caution and utilize extra safety guards in functions where the consequences of chain failure are severe.

Higher tensile strength is a direct correlation to the utilization of much more plates. As the utilization of much more plates does not enhance the most allowable tension directly, the number of plates may be limited. The chains require regular lubrication as the pins link directly on the plates, generating a very high bearing pressure. Making use of a SAE 30 or 40 machine oil is often advised for most applications. If the chain is cycled more than 1000 times day after day or if the chain speed is over 30m per minute, it will wear extremely rapidly, even with constant lubrication. Hence, in either of these situations utilizing RS Roller Chains would be more suitable.

The AL-type of chains should only be used under certain conditions such as when wear is really not a big concern, if there are no shock loads, the number of cycles does not go beyond 100 day after day. The BL-type would be better suited under other situations.

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

The outer link or inner link kind 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 supplies the clevis. An improperly made clevis can lessen the working life of the chain. The strands should be finished to length by the producer. Check the ANSI standard or get in touch with the manufacturer.