

## Forklift Mast Chains

Mast Chains - Leaf Chains have different functions 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 certain machine tools. Leaf chains are sometimes also called Balance Chains.

### Features and Construction

Leaf chains are actually steel chains with a simple pin construction and link plate. The chain number refers to the lacing of the links and the pitch. The chains have particular features like for instance high tensile strength per section area, which enables the design of smaller machines. There are A- and B- type chains in this particular series and both the AL6 and BL6 Series have the same pitch as RS60. Finally, these chains cannot be driven using sprockets.

### Handling and Selection

In roller chains, the link plates maintain a higher fatigue resistance because of the compressive tension of press fits, yet the leaf chain only contains two outer press fit plates. On the leaf chain, the maximum permissible tension is low and the tensile strength is high. If handling leaf chains it is important to confer with the manufacturer's guidebook to be able to guarantee the safety factor is outlined and utilize safety measures always. It is a great idea to apply extreme caution and use extra safety measures in functions where the consequences of chain failure are serious.

Higher tensile strength is a direct correlation to the utilization of much more plates. In view of the fact that the use of a lot more plates does not improve the maximum permissible 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 frequently suggested for nearly all applications. If the chain is cycled more than 1000 times day after day or if the chain speed is more than 30m per minute, it would wear very fast, even with continuous lubrication. Thus, in either of these conditions using RS Roller Chains would be much more suitable.

AL type chains are only to be utilized under certain conditions such as 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 every day. The BL-type would be better suited under other conditions.

If a chain utilizing a lower safety factor is chosen then the stress load in components will become higher. If chains are used with corrosive elements, then they could become fatigued and break rather easily. Performing regular maintenance is essential when operating under these types of situations.

The inner link or outer link kind of end link on the chain will determine the shape of the clevis. Clevis connectors or Clevis pins are constructed by manufacturers, but the user typically supplies the clevis. An improperly made clevis could lessen the working life of the chain. The strands should be finished to length by the producer. Check the ANSI standard or contact the manufacturer.