



ALLOY CHAIN PROPERTIES

Federal regulations require the use of Alloy Chain for lifting and hoisting applications. We offer a full line of Grade 100 and limited items in Grade 80 chain which is produced from heat treatable alloy steel in conformance with ASTM specifications. Its typical mechanical properties provide for a tensile strength of 125,000 psi minimum and a minimum elongation of 20%. Strength and hardness of the alloy chain material are important factors, but are not the only criteria for selection. Acceptable alloy chain material also must have toughness, must be resistant to shock loading, and must possess sufficient ductility to provide ample visual evidence of damage caused by excessive over loading.

* Your state may or may not have specific regulations limiting the use of certain grades of chain. Contact your D.O.T. or State Towing Regulations Board.

REMOVAL CRITERIA FOR ALLOY CHAIN SLINGS:

An alloy steel chain sling shall be removed from service if conditions such as the following are present:

1. missing or illegible sling tag
2. cracks or breaks
3. excessive wear, nicks or gouges. Minimum thickness on chain links shall not be below the values listed in the TABLE OF WEAR.
4. stretched chain links or components
5. bent, twisted or deformed chain links or components
6. evidence of heat damage
7. excessive pitting or corrosion
8. lack of ability of chain or components to hinge (articulate) freely
9. weld splatter

TABLE OF WEAR	
<p>IF CHAIN IS WORN TO LESS THAN THE MINIMUM ALLOWABLE THICKNESS (T), REMOVE THE CHAIN FROM SERVICE.</p>	

SPECIFICATIONS					
SIZE OF CHAIN		MATERIAL DIAMETER		MINIMUM ALLOWABLE THICKNESS	
				(T)	
INCHES	MM	GRADE 80	GRADE 100	GRADE 80	GRADE 100
1/4	7	.0274	0.279		0.239
3/8	10	0.392	0.404		0.342
1/2	13	0.510	0.529		0.443
5/8	16	0.630	0.625		0.546
3/4	20	0.781		0.687	
7/8	22	0.906		0.750	
1	26	1.032		0.887	
1-1/4	32	1.250		1.091	