

# 鍊條安全決定在於你

## 1 使用適當的鍊條

不可吊舉不平衡荷重物

不可過載



當上升下降時不可急拉或急停



■ 當荷重限制表了解額定荷重

■ 不可束緊的太接近，荷重物一直保持鍊條和水平角度大於30°

■ 任何情況不可使鍊條組和荷重小於30°



假如鍊條扭曲，打結或扭結均不可使用

不可把荷重物摔到鍊條上

使用襯墊在銳角



## 2 檢查

正常的檢查鍊條，並把每一條鍊條之檢查所成記錄，這是非常重要的。以下為檢查程序之建議：檢查以前要清理鍊條以便能看見所有刻痕、記號、磨損、和其它可見的瑕疵。

下列現象表示此鍊條已有瑕疵：

1. 有扭折或彎曲。
2. 有刻痕或孔。
3. 受力點呈現過度磨損。
4. 延伸超過容許限度。
5. 主接環、連接環或其他配件特別是吊鉤內側呈現變形或受損。

任何接環或配件如果有上述之瑕疵，必須用油漆作記號，在適當的修護前不得使用。



Herc-Alloy 800® 鍊條磨損之容許限度在一節鍊條的二端量出其線徑以決定磨損之程度如其線徑低於容許限度則應立即停止使用。

HERC-ALLOY 800 CHAIN SIZE		*MINIMUM THICKNESS ALLOWABLE AT LINK ENDS	
Inches	MM	Inches	MM
7/32	5.5	0.189	4.8
9/32	7.0	0.239	6.1
3/8	10.0	0.342	8.7
1/2	13.0	0.443	11.3
5/8	16.0	0.546	13.7
3/4	20.0	0.687	17.5
7/8	22.0	0.750	19.1
1	26.0	0.887	22.5
1 1/4	32.0	1.091	27.7

\*Applies to Herc-Alloy 800 Chain only

## 3 適當保養

延長儲存前需在鍊條換油



鍊條需存放在A架，清潔，乾的地方



合金鍊，不可加熱處理



# Chain Sling Safety

## CM 800級 吊鍊組

### 安全荷重(英磅)

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## CM Herc-Alloy 800 CHAIN SLINGS

### WORKING LOAD LIMITS IN POUNDS\*

Herc Alloy 800 SIZE OF CHAIN (IN INCHES)	TYPES L OR D NUMBER OF HOOKS AND ANGLE	DOUBLE BRANCH TYPE D						
		NUMBER OF HOOKS AND 90° ANGLE	NUMBER OF HOOKS AND 60° ANGLE	NUMBER OF HOOKS AND 45° ANGLE	NUMBER OF HOOKS AND 30° ANGLE	TRIPLE GORE 90° ANGLE	TRIPLE GORE 60° ANGLE	TRIPLE GORE 45° ANGLE
3/8"	2, 100	3, 600	3, 000	2, 100	5, 500	4, 400	3, 200	
1/2"	3, 500	6, 100	4, 900	3, 500	9, 100	7, 400	5, 200	
5/8"	7, 100	12, 300	10, 000	7, 100	18, 400	15, 100	10, 600	
1"	12, 000	20, 800	17, 000	12, 000	31, 200	25, 500	18, 000	
1 1/4"	18, 100	31, 300	25, 600	18, 100	47, 000	38, 400	27, 100	
1 1/2"	28, 300	49, 000	40, 000	28, 300	73, 500	60, 000	42, 400	
1 3/4"	34, 200	59, 200	48, 400	34, 200	88, 900	72, 500	51, 300	
1"	47, 700	82, 600	67, 400	47, 700	123, 900	101, 200	71, 500	
1 1/2"	72, 300	125, 200	102, 200	72, 300	187, 800	153, 400	108, 400	

Factory assembled HERC-ALLOY 800 chain slings have the "Herc Alloy 800" trademark on serial number tags and on the sling hooks. On chain sizes 9/32" thru 1 1/4" links are alternately embossed with grade symbol "HA-800" and maker's symbol "CM". This data applies to HERC-ALLOY 800 Chain only. Ratings apply to both factory assembled slings and slings assembled with Hammerlock coupling links or Clevehook hooks.

\*WARNING: TO AVOID INJURY DO NOT EXCEED WORKING LOAD LIMIT.

#### Use, Care & Inspection of Herc-Alloy 800 Chain Slings

The life and strength of CM Herc-Alloy 800 Chain Slings depend on proper use, maintenance and inspection. Read the enclosed information carefully and refer also to ANSI B30.9 and OSHA regulations for additional information.

#### WARNING

IMPROPER USE AND CARE OF CHAIN SLINGS CAN RESULT IN BODILY INJURY.

- NEVER EXCEED THE WORKING LOAD LIMIT.
- ALWAYS INSPECT SLING BEFORE EACH USE.
- DO NOT IMPACT LOAD OR JERK THE SLING.
- PROTECT CHAIN FROM SHARP CORNERS AND OBJECTS.
- PROTECT SLINGS FROM CORROSION.

#### Use

Observing the following precautions when using chain slings will help protect both operator and materials:

1. Inspect chain slings before use as indicated in inspection section.
2. Do not exceed working load limit as indicated on sling identification tag. Any of the following factors can lower the load the chain will hold:
  - Rigged load application can produce dangerous overloading.
  - Variation in the angle of the load to the sling. As the angle decreases, the working load of the sling will decrease. Refer to Working Load Limit Chart.
  - Twisting, bending and kinking subjects links to undesirable loading which decreases the working load limit of the sling.
  - Conditions other than those for which slings are intended can reduce the working load limit of the sling. For example, use at elevated temperatures will result in a reduction in working load limit. Refer to CM Catalog IPC-10 - Use of Chain under Heat Conditions.
3. Free all twists, knots and kinks.
4. Center load in hook(s). Hook latches must not support load.
5. Avoid sudden jolts when lifting and lowering.
6. Balance all loads, avoid toppling of loads.
7. Use pads around sharp corners.
8. Don't drop load on chains.
9. Select attachments such as hooks or rings for use with chain in match the size and working load limit of the chain.
10. Use only CM alloy chain and attachments (Grade 80N for overhead lifting). The identification tag is found on the master coupling link of each chain sling and contains the following information:
  - Grade
  - Size
  - Reach
  - Type
  - Working Load Limit (at a specific angle)
  - Serial number

#### Care

Chain slings require proper care as follows:

1. Store slings on or in a frame in a clean dry place.
2. Avoid corrosion. Oil chains before prolonged storage.
3. Never alter the thermal treatment of Herc-Alloy 800 chain by heating.
4. Do not plate or change surface finish of sling. Contact Columbus McKinnon for special requirements.

#### Inspection

It is important to inspect chain slings regularly and to keep a record of each chain inspection. The following is a guide for such an inspection procedure. CM will supply sling record cards or sheets as requested. Ask your CM Distributor.

Before inspecting, clean the chain sling so that marks, cracks, wear and other conditions can be seen. Use a non-acidic caustic solvent. Each chain link and sling component should be individually inspected for the following conditions:

1. Twists or bends.
  2. Nicks or gouges.
  3. Excessive wear at bearing points. Refer to Wear Allowance Chart.
  4. Stretch.
  5. Distorted, worn or damaged master links, coupling links, or attachments, especially spread in throat opening of hooks.
- Each link or component having any condition listed above is to be marked with paint to plainly indicate rejection and eliminated from service until properly repaired.

#### Wear allowances of CM Herc-Alloy 800 chain

Chain size Inches	MM	Min. allowable thickness (T) *	
		Inches	MM
3/8"	9.5	0.185	4.8
1/2"	12.8	0.208	5.3
5/8"	15.9	0.242	6.2
3/4"	19.0	0.283	7.2
1"	25.4	0.360	9.1
1 1/4"	38.1	0.540	13.7
1 1/2"	38.1	0.687	17.5
1 3/4"	44.5	0.750	19.1
2"	50.8	0.887	22.5
2 1/4"	63.5	1.081	27.5

\*Min. T for chain size listed. For Minimum Allowable Thickness (T) for all other sizes, refer to the original technical drawing.  
\*Min. T for attachment as shown.

#### NOTE:

Columbus McKinnon Corporation assumes no responsibility for the misuse or misapplication of any of its products. Products are provided with the engineer's understanding that the purchaser must use them thoroughly familiar with the correct application and proper use. Warnings and definitions are provided as an aid to the user in understanding correct application and proper use. Working Load Limit - Refers to the maximum rated capacity in pounds that shall be applied to the chain sling. Refer to Working Load Limit Chart. The manufacturer does not accept any liability for damages which result from the sling being used in excess of the working load limit or from above.

## 安全產品安全地使用

**CM 安全** — 自覺的確定安全產品需安全的使用, **CM 800級鍊條組**, 出貨前需進行需要的品管控制檢查, 每個吊鍊組, 作2倍保證測試, 登記和一年保證無材料缺陷, 或人為疏忽, 最主要是**CM 800合金鋼吊鍊**的奉命和強度, 依賴使用者檢查保養和安全地使用。



合金鋼800級鍊條



主接環



合金鋼鍊接



合金鋼眼型吊鉤



合金鋼眼型抓鉤



合金鋼滑鉤



合金鋼卡鍊吊鉤和抓鉤