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NORTHERN STRANDS

REGINA
125 HENDERSON DRIVE
REGINA SK S4N 6A8
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CHAIN SLINGS

Grade 80 Chain Slings

Working Load Limits In Pounds*

SIZE OF CHAIN		TYPES OR C	DOUBLE BRANCH TYPE D					
INCHES	MM.	POUNDS LIFT WHEN USED SINGLE	POUNDS LIFT WHEN USED AT 60° ANGLE	POUNDS LIFT WHEN USED AT 45° ANGLE	POUNDS LIFT WHEN USED AT 30° ANGLE	TRIPLE/QUAD 60° ANGLE	TRIPLE/QUAD 45° ANGLE	TRIPLE/QUAD 30° ANGLE
7/32"	5.5	2100	3600	3000	2100	5450	4450	3150
9/32"	7.0	3500	6100	4900	3500	9100	7400	5200
3/8"	10.0	7100	12300	10000	7100	18400	15100	10600
1/2"	13.0	12000	20800	17000	12000	31200	25500	18000
5/8"	16.0	18100	31300	12600	18100	47000	38400	27100
3/4"	20.0	28300	49000	40000	28300	73500	60000	42400
7/8"	22.0	34200	59200	48400	34200	88900	72500	51300
1"	26.0	47700	82600	67400	47700	123900	101200	71500
1 1/4"	32.0	72300	125200	102200	72300	187800	153400	108400

NOTE: DESIGN FACTOR = 4 : 1 WARNING: DO NOT EXCEED RATED CAPACITIES

Grade 100 Chain Slings

Working Load Limits In Pounds*

SIZE OF CHAIN		TYPES OR C	DOUBLE BRANCH TYPE D					
INCHES	MM.	POUNDS LIFT WHEN USED SINGLE	POUNDS LIFT WHEN USED AT 60° ANGLE	POUNDS LIFT WHEN USED AT 45° ANGLE	POUNDS LIFT WHEN USED AT 30° ANGLE	TRIPLE/QUAD 60° ANGLE	TRIPLE/QUAD 45° ANGLE	TRIPLE/QUAD 30° ANGLE
7/32"	5.5	2700	4700	3800	2700	7000	5700	4000
9/32"	7.0	4300	7400	6100	4300	11200	9100	6400
3/8"	10.0	8800	15200	12400	8800	22900	18700	13200
1/2"	13.0	15000	26000	21200	15000	39000	31800	22500
5/8"	16.0	22600	39100	32000	22600	58700	47900	33900
3/4"	20.0	35300	61100	49900	35300	91700	74900	53000
7/8"	22.0	42700	74000	60400	42700	110900	90600	64000
1"	26.0	59700	103400	84400	59700	155100	126000	89550
1 1/4"	32.0	90400	156600	127800	90400	234900	191700	135600

NOTE: DESIGN FACTOR = 4 : 1 WARNING: DO NOT EXCEED RATED CAPACITIES

Use, Care & Inspection of Grade 80 and Grade 100 Chain Slings

The life and strength of Grade 80 and Grade 100 Chain slings depend on proper use, maintenance and inspection. Read the enclosed information carefully and refer to ANSI B30.9 and OSHA regulations for additional information.

Use

Observing the following precautions when using chain slings will help protect both operators 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:
   - Rapid 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, knotting and kinking subjects links to undesirable loading which decreases the working load limit of the sling.
   - Conditions other than that 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 limit.
3. Free all twists, knots and kinks.
4. Center load in hook(s). Hook latches must not support load.
5. Avoid sudden jerks when lifting and lowering.
6. Balance all loads, avoid tipping of loads.
7. Use pads around sharp corners.
8. Don't drop load on chairs.
9. Select attachments such as hooks or rings for use with chain to match the size and working load limit of the chain.
10. Use only GR. 80 and 100 Alloy Chain.

† *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 of lift) • Serial Number

Care

Chain slings require proper care as follows:

1. Store slings on an 'A' Frame in a clean, dry place.
2. Avoid corrosion. Oil chains before prolonged storage.
3. Never alter the thermal treatment of GR. 80 and 100 chain by heating.
4. Do not plate or change surface finish of sling. Contact Northern Strands 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. Northern Strands will supply sling record cards or sheets as requested.

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

1. Twists or bends.
2. Nicks or gouge.
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.

NOTE:

Northern Strands and Manufacturer assume no responsibility for the misuse or misapplication of any of its products. Products are provided with the express understanding that the purchaser and/or user are 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 load (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 abuse.

WIRE ROPE SLING

RATED CAPACITY IN POUNDS

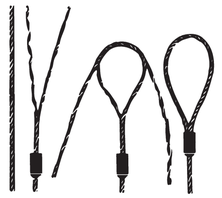
				Basket and 2 Leg Bridles			3 Leg Bridles				Eye Dimensions (Approximate)	
				30°	45°	60°		30°	45°	60°		
Diam.	Vertical	Choker Hitch	Vertical Basket	30°	45°	60°	Vertical	30°	45°	60°	Width Inches A	Length Inches B
1/4	1120	820	2200	1120	1580	1940	3400	1680	2400	3000	2	4
5/16	1740	1280	3400	1740	2400	3000	5200	2600	3600	4600	2-1/2	5
3/8	2400	1840	5000	2400	3600	4400	7400	3800	5200	6400	3	6
7/16	3400	2400	6800	3400	4800	5800	10200	5000	7200	8800	3-1/2	7
1/2	4400	3200	8800	4400	6200	7600	13200	6600	9200	11400	4	8
9/16	5600	4000	11000	5600	7800	9600	16600	8200	11600	14400	4-1/2	9
5/8	6800	5000	13600	6800	9600	11800	20000	10200	14400	17600	5	10
3/4	9800	7200	19400	9800	13800	16800	30000	14600	20000	26000	6	12
7/8	13200	9600	26000	13200	18600	22000	40000	19800	28000	34000	7	14
1	17000	12600	34000	17000	24000	30000	52000	26000	36000	44000	8	16
1-1/8	20000	15800	42000	20000	30000	36000	62000	32000	44000	54000	9	18
1-1/4	26000	19400	52000	26000	36000	44000	78000	38000	54000	66000	10	20
1-3/8	30000	24000	62000	30000	44000	54000	92000	46000	66000	80000	11	22
1-1/2	36000	28000	74000	36000	52000	64000	110000	54000	78000	96000	12	24
1-5/8	42000	32000	86000	42000	60000	74000	128000	64000	90000	110000	13	26
1-3/4	50000	38000	98000	50000	70000	86000	148000	74000	104000	128000	14	28
2	64000	48000	128000	64000	90000	110000	190000	96000	136000	166000	16	32
2-1/4	78000	60000	154000	78000	110000	134000	232000	116000	164000	202000	18	36
2-1/2	94000	74000	188000	94000	134000	164000	282000	142000	200000	246000	20	40
2-3/4	114000	88000	226000	114000	160000	196000	340000	170000	240000	294000	22	44
3	134000	104000	266000	134000	188000	230000	400000	200000	282000	346000	24	48

NOTE: DESIGN FACTOR = 5 : 1 WARNING: DO NOT EXCEED RATED CAPACITIES

Rated capacities basket hitch based on D/d ratio of 25
Rated capacities based on pin diameter no larger than natural eye width or less than the nominal sling diameter
Horizontal sling angles less than 30 degrees shall not be used
Rated capacities shown apply only to 6 x 19 and 6 x 37 Improved Plow Steel IWRC classification wire rope

WARNING!

Wire Rope WILL FAIL if worn-out, overloaded, misused, damaged, improperly maintained or abused. Wire rope failure may cause serious injury or death! Protect yourself and others. ALWAYS INSPECT wire rope for WEAR, DAMAGE or ABUSE BEFORE USE. NEVER USE wire rope that is WORN-OUT, DAMAGED or ABUSED, NEVER OVERLOAD a wire rope. INFORM YOURSELF: Read and understand manufacturer's literature or "Wire Rope and Wire Rope Sling Safety Bulletin". REFER TO APPLICABLE CODES, STANDARDS and REGULATIONS for INSPECTION REQUIREMENTS and REMOVAL CRITERIA •
*For additional information or the BULLETIN, ask your employer or wire rope supplier.



Flemish Eye Splice

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SYNTHETIC SLINGS

WEB SLINGS (POLYESTER OR NYLON)

	Web Width	Single Ply Sling No.	Rated Capacities in LBS. Vertical	Choker	Basket	Web Width	Double Ply Sling No.	Rated Capacities in LBS. Vertical	Choker	Basket
TYPE 3 Flat Eyes / REACH / TYPE 4 Twisted Eyes	1"	EE1 901	1600	1200	3200	1"	EE2 901	3200	2400	6400
	2"	EE1 902	3200	2400	6400	2"	EE2 902	6400	4800	12800
	3"	EE1 903	4800	3600	9600	3"	EE2 903	8600	6500	17200
	4"	EE1 904	6400	4800	12800	4"	EE2 904	11500	8600	23000
	5"	EE1 905	8000	6000	16000	5"	EE2 905	13600	10200	27200
	6"	EE1 906	9600	7200	19200	6"	EE2 906	16300	12200	32600
	8"	EE1 908	12800	10240	25600	8"	EE2 908	20480	16834	40960
	10"	EE1 910	16000	12800	32000	10"	EE2 910	24000	19200	48000
	12"	EE1 912	19200	15360	38400	12"	EE2 912	26880	21504	53760
TYPE 5 Endless Slings / REACH	1"	EN1 901	3200	2500	6400	1"	EN2 901	6100	4900	12200
	2"	EN1 902	6400	5000	12800	2"	EN2 902	12200	9800	24400
	3"	EN1 903	8600	6900	17200	3"	EN2 903	16300	13000	32600
	4"	EN1 904	11500	9200	23000	4"	EN2 904	20700	16500	41400
	5"	EN1 905	13600	10900	27200	5"	EN2 905	24500	19600	49000
	6"	EN1 906	16300	13000	32600	6"	EN2 906	28600	23000	57200

NOTE: DESIGN FACTOR = 5 : 1 WARNING: DO NOT EXCEED RATED CAPACITIES

POLYESTER ROUND SLINGS

Table I: Rated Capacity for Polyester Round slings

Round sling Size / #		Vertical	Choker	Vertical Basket	45° Basket
	Color*	Pounds	Pounds	Pounds	Pounds
NS3	Purple	3000	2400	6000	4242
NS4	Black	4000	3200	8000	5656
NS6	Green	6000	4800	12000	8484
NS9	Yellow	9000	7200	18000	12726
NS12	Tan	12000	9600	24000	16968
NS14	Red	14000	11200	28000	19796
NS17	Orange	17000	13600	34000	24038
NS23	Blue	23000	18400	46000	32522
NS26	Orange	26000	20800	52000	36764
NS32	Grey	32000	25600	64000	45248
NS40	Orange	40000	32000	80000	56560
NS54	Brown	54000	43200	108000	76356
NS68	Olive	68000	54400	136000	98980
NS90	Black	90000	72000	180000	127260

NOTE: DESIGN FACTOR = 5 : 1 WARNING: DO NOT EXCEED RATED CAPACITIES

FOR LARGER CAPACITIES PLEASE INQUIRE

* **Caution:** Color Code and rated capacities may vary among manufacturers. Always check the identification tag to determine if the polyester round sling rated capacity is applicable for the lift.

INSPECTION/REMOVAL CRITERIA

SLING SHALL BE REMOVED FROM SERVICE IF ANY DEFECTS SUCH AS THE FOLLOWING ARE VISIBLE:

A Acid or alkali.
B Melting, charring or weld splatter on any part of the sling.
C Holes, tears, cuts, abrasive wear, or snags that expose the lead carrying yarns.
D Broken or worn stitching in cover.
E Fittings that are permanently attached to the sling are damaged, stretched or distorted in any way.
F Knots in any part of the sling.
H If sling identification tag is missing or unreadable.
I Evidence of heat damage.
J Evidence of field welding, weld splatter or ground contacts.