

NORTHERN STRANDS

CHAIN SLINGS

WIRE ROPE SLINGS

SYNTHETIC SLINGS

GRADE 80 CHAIN SLINGS

WORKING LOAD LIMITS IN POUNDS*									
SIZE OF CHAIN		TYPES OR C	DOUBLE BRANCH TYPE D				TRIPLE/QUAD		
INCHES	MM.		60°	45°	30°	60°	45°	30°	
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				TRIPLE/QUAD		
INCHES	MM.		60°	45°	30°	60°	45°	30°	
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 SLINGS DEPEND ON PROPER USE, MAINTENANCE AND INSPECTION. REFER TO ASME B30.9 AND OSHA REGULATIONS FOR ADDITIONAL INFORMATION. ALWAYS REFER TO ASME B30.9 IN REGARDS TO PROPER INSPECTION AND REJECTION CRITERIA FOR SLINGS.

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 CHAINS.
 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 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 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 REMOVED FROM SERVICE UNTIL PROPERLY REPAIRED.

NOTE:

NORTHERN STRANDS ASSUMES 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) 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.

RATED CAPACITY IN POUNDS													
DIA.	BASKET AND 2 LEG BRIDLES			3 LEG BRIDLES			EYE DIMENSIONS (APPROXIMATE)						
	VERTICAL	CHOKER HITCH	VERTICAL BASKET	30°	45°	60°	VERTICAL	30°	45°	60°	WIDTH INCHES	LENGTH INCHES	
1/4"	1300	960	2600	1300	1820	2200	3800	1940	2800	3400	2	4	
3/8"	2000	1480	4000	2000	2800	3400	6000	3000	4200	5200	2 1/2	5	
1/2"	3800	2800	7800	3800	5400	6800	11600	5800	8200	10000	3 1/2	7	
5/8"	5000	3800	10200	5000	7200	8800	15200	7600	10800	13200	4	8	
3/4"	6400	4800	12800	6400	9000	11000	19200	9600	13600	16600	4 1/2	9	
7/8"	7800	5800	15600	7800	11000	13600	24000	11800	16600	20000	5	10	
1"	11200	8200	22000	11200	15800	19400	34000	16800	24000	30000	6	12	
1 1/4"	15200	11200	30000	15200	22000	26000	46000	22000	32000	40000	7	14	
1 1/2"	19600	14400	40000	19600	28000	34000	58000	30000	42000	52000	8	16	
1 3/4"	24000	18200	48000	24000	34000	42000	72000	36000	52000	62000	9	18	
2"	30000	22000	60000	30000	42000	52000	88000	44000	62000	76000	10	20	
2 1/4"	36000	26000	72000	36000	50000	62000	106000	58000	76000	92000	11	22	
2 1/2"	42000	32000	84000	42000	60000	74000	126000	64000	90000	110000	12	24	
2 3/4"	48000	36000	98000	48000	70000	84000	146000	74000	104000	126000	13	26	
3"	56000	42000	114000	56000	80000	98000	170000	84000	120000	148000	14	28	
3 1/4"	74000	56000	146000	74000	104000	126000	220000	110000	156000	190000	16	32	
3 1/2"	88000	70000	178000	88000	126000	154000	266000	134000	188000	232000	18	36	
3 3/4"	108000	84000	218000	108000	154000	188000	326000	164000	230000	282000	20	40	
4"	130000	102000	260000	130000	184000	226000	390000	194000	276000	338000	22	44	
4 1/4"	154000	120000	306000	154000	216000	266000	460000	230000	324000	398000	24	48	

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

RATED CAPACITIES BASKET HITCH BASED ON D/D RATIO OF 25/1.

RATED CAPACITIES BASED ON PIN DIAMETER NO LARGER THAN 1/2 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 EXTRA IMPROVED PLOW STEEL (EIPS) IWRC CLASSIFICATION WIRE ROPE.

ALWAYS REFER TO ASME B30.9 IN REGARDS TO PROPER INSPECTION AND REJECTION CRITERIA FOR SLINGS.

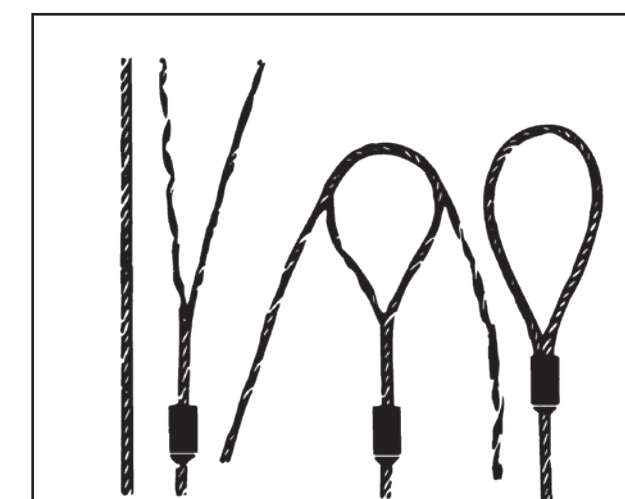
WARNING!

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

CALL US ABOUT ALL YOUR MATERIAL HANDLING & RIGGING NEEDS

SASKATOON
3235 Millar Ave
Saskatoon, SK S7K 5Y3
306-242-7073
sales@northernstrands.com

REGINA
125 Henderson Drive
Regina, SK S4N 5W4
306-352-7073
regina@northernstrands.com

ESTERHAZY
816 Park Ave
Esterhazy, SK S0A 0X0
306-745-4640
cgriffin@northernstrands.com

WEB SLINGS (POLYESTER OR NYLON)										
	WEB WIDTH	SINGLE PLY SLING NO.	RATED CAPACITIES IN LBS.			WEB WIDTH	DOUBLE PLY SLING NO.	RATED CAPACITIES IN LBS.		
			VERTICAL	CHOKER	BASKET			VERTICAL	CHOKER	BASKET
TYPE 3 Flat Eyes	1"	EE1 901	1600	1280	3200	1"	EE2 901	3100	2480	6200
	2"	EE1 902	3100	2480	6200	2"	EE2 902	6200	4960	12400
	3"	EE1 903	4700	3760	9400	3"	EE2 903	8800	7040	17600
	4"	EE1 904	6200	4960	12400	4"	EE2 904	11000	8800	22000
	5"	EE1 905	7800	6240	15600	5"	EE2 905	13700	10960	27400
	6"	EE1 906	9300	7440	18600	6"	EE2 906	16500	13200	33000
TYPE 4 Twisted Eyes	8"	EE1 908	11750	9400	23500	8"	EE2 908	22750	18200	45500
	10"	EE1 910	14700	11760	29400	10"	EE2 910	28400	22720	56800
	12"	EE1 912	17650	14120	35300	12"	EE2 912	34100	27280	68200
	1"	EN1 901	3200	2550	6400	1"	EN2 901	6200	4950	12400
	2"	EN1 902	6200	4950	12400	2"	EN2 902	12400	9900	24800
	3"	EN1 903	9400	7500	18800	3"	EN2 903	17600	14050	35200
TYPE 5 Endless Slings	4"	EN1 904	12400	9900	24800	4"	EN2 904	22000	17600	44000
	5"	EN1 905	15600	12450	31200	5"	EN2 905	27400	21900	54800
	6"	EN1 906	18600	14850	37200	6"	EN2 906	33000	26400	66000

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 / #	COLOR*	VERTICAL	CHOKER	VERTICAL BASKET	45° BASKET
		POUNDS	POUNDS	POUNDS	POUNDS
NS3	Purple	3000	2400	6000	4200
NS4	Black	4000	3200	8000	5600
NS6	Green	6000	4800	12000	8400
NS9	Yellow	9000	7200	18000	12600
NS12	Tan	12000	9600	24000	16800
NS14	Red	14000	11200	28000	19600
NS17	Orange	17000	13600	34000	23800
NS23	Blue	23000	18400	46000	32200
NS26	Orange	26000	20800	52000	36400
NS32	Grey	32000	25600	64000	44800
NS40	Orange	40000	32000	80000	56000
NSS4	Brown	54000	43200	108000	75600
NS68	Olive	68000	54400	136000	95200
NS90	Black	90000	72000	180000	126000

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: