LACLEDE

LC

CHAIN

ISO 9001 CERTIFIED

RIGGERS POCKET GUIDE

YOUR GUIDE TO LIFTING SMARTER & SAFER

G80 SLING CHART

CHAIN SIZE (IN)	SINGLE & DOUBLE								
									
	LBS	KGS	LBS	KGS	LBS	KGS	LBS	KGS	MM
9/32	3,500	1,600	6,100	2,750	4,900	2,250	3,500	1,600	7
5/16	4,500	2,000	7,800	3,550	6,400	2,900	4,500	2,000	8
3/8	7,100	3,200	12,300	5,500	10,000	4,500	7,100	3,200	10
1/2	12,000	5,400	20,800	9,450	17,000	7,700	12,000	5,400	13
5/8	18,100	8,200	31,300	14,200	25,600	11,600	18,100	8,200	16
3/4	28,300	12,800	49,000	22,250	40,000	18,150	28,300	12,800	20
7/8	34,200	15,500	59,200	26,850	48,400	21,900	34,200	15,500	22
1	47,700	21,600	82,600	37,500	67,400	30,600	47,700	21,600	26

SLING LENGTH: LOAD WIDTH RATIO (APPROX.)
ANGLE = SL : W
60° = 1 : 1 | 45° = .75 : 1 | 30° = .60 : 1

WARNING: Refer to hoist & rigging equipment manufacturers' specifications for proper applications and limitations.

G80 SLING CHART

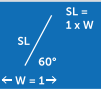
CHAI N SIZE (IN)	TRIPLE & QUADRUPLE						
							
	LBS	KGS	LBS	KGS	LBS	KGS	MM
9/32	9,100	4,150	7,400	3,400	5,200	2,400	7
5/16	11,700	5,350	9,500	4,350	6,800	3,100	8
3/8	18,400	8,300	15,100	6,800	10,600	4,800	10
1/2	31,200	14,150	25,500	11,550	18,000	8,200	13
5/8	47,000	21,300	38,400	17,400	27,100	12,300	16
3/4	73,500	33,400	60,000	27,250	42,400	19,300	20
7/8	88,900	40,250	72,500	32,900	51,300	23,250	22
1	123,900	56,250	101,200	45,950	71,500	32,500	26

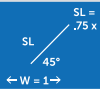
NOTE: The rigger should remember that when lifting a rigid load with four legs, it is quite common for only three legs to actually pick up the load. We should regard the forth leg as a stabilizer for load control purposes and not for capacity.

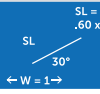
G100 SLING CHART

CHAIN SIZE (IN)	SINGLE & DOUBLE								
									
	LBS	KGS	LBS	KGS	LBS	KGS	LBS	KGS	MM
9/32	4,300	1,950	7,400	3,400	6,100	2,750	4,300	1,950	7
5/16	5,700	2,600	9,900	4,500	8,100	3,700	5,700	2,600	8
3/8	8,800	4,000	15,200	6,950	12,400	5,650	8,800	4,000	10
1/2	15,000	6,800	26,000	11,800	21,200	9,600	15,000	6,800	13
5/8	22,600	10,300	39,100	17,750	32,000	14,500	22,600	10,300	16
3/4	35,300	16,000	61,100	27,700	49,900	22,650	35,300	16,000	20
7/8	42,700	19,400	74,000	33,500	60,400	27,350	42,700	19,400	22

SLING LENGTH: LOAD WIDTH RATIO (APPROX.)
ANGLE = SL : W
60° = 1 : 1 | 45° = .75 : 1 | 30° = .60 : 1







G100 SLING CHART

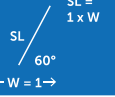
CHAIN SIZE (IN)	TRIPLE & QUADRUPLE						
							
	LBS	KGS	LBS	KGS	LBS	KGS	MM
9/32	11,200	5,050	9,100	4,150	6,400	2,950	7
5/16	14,800	6,750	12,100	5,500	8,500	3,900	8
3/8	22,900	10,400	18,700	8,500	13,200	6,000	10
1/2	39,000	17,650	31,800	14,450	22,500	10,200	13
5/8	58,700	26,650	47,900	21,750	33,900	15,400	16
3/4	91,700	41,550	74,900	33,950	53,000	24,000	20
7/8	110,900	50,250	90,600	41,050	64,000	29,050	22

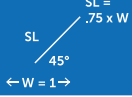
NOTE: The rigger should remember that when lifting a rigid load with four legs, it is quite common for only three legs to actually pick up the load. We should regard the forth leg as a stabilizer for load control purposes and not for capacity.

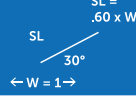
G120 SLING CHART

CHAIN SIZE (IN)	SINGLE & DOUBLE								
									
	LBS	KGS	LBS	KGS	LBS	KGS	LBS	KGS	MM
9/32	5,200	2,400	9,000	4,100	7,400	3,300	5,200	2,400	7
5/16	6,900	3,100	12,000	5,400	9,800	4,400	6,900	3,100	8
3/8	10,600	4,800	18,300	8,300	15,000	6,800	10,600	4,800	10
1/2	18,000	8,200	31,200	14,150	25,500	11,500	18,000	8,200	13

SLING LENGTH: LOAD WIDTH RATIO (APPROX.)
ANGLE = SL : W
60° = 1 : 1 | 45° = .75 : 1 | 30° = .60 : 1







WARNING: Refer to hoist & rigging equipment manufacturers' specifications for proper applications and limitations.

G120 SLING CHART

CHAIN SIZE (IN)	TRIPLE & QUADRUPLE						
							
	LBS	KGS	LBS	KGS	LBS	KGS	MM
9/32	13,500	6,100	11,000	5,000	7,800	3,500	7
5/16	17,900	8,100	14,600	6,600	10,350	4,700	8
3/8	27,500	12,500	22,500	10,200	15,900	7,200	10
1/2	46,800	21,200	38,200	17,300	27,000	12,200	13

NOTE: The rigger should remember that when lifting a rigid load with four legs, it is quite common for only three legs to actally pick up the load. We should regard the forth leg as a stabilizer for load control purposes and not for capacity.

CHAIN WEAR CHART

CHAIN SIZE		MIN. ALLOW. DIA. (")	
IN	MM	G80/G100	G120
9/32	7	0.239	0.259
5/16	8	0.273	0.298
3/8	10	0.342	0.361
1/2	13	0.443	0.472
5/8	16	0.546	-
3/4	20	0.687	-
7/8	22	0.750	-
1	26	0.887	-

EFFECTS OF HEAT ON WORKING LOAD LIMIT

TEMP		REDUCTION OF WORKING LOAD LIMIT WHILE AT TEMP		PERMANENT REDUCTION OF WORKING LOAD LIMIT AFTER EXPOSURE TO TEMP	
°F	°C	G80	G100/G120	G80	G100/G120
BELOW 400	BELOW 204	NONE	NONE	NONE	NONE
400	204	10%	15%	NONE	NONE
500	260	15%	25%	NONE	5%
600	316	20%	30%	5%	15%
700	371	30%	40%	10%	20%
800	427	40%	50%	15%	25%
900	482	50%	60%	20%	30%
1,000	538	60%	70%	25%	35%
OVER 1,000	OVER 538	OSHA 1910.184 requires all slings exposed to temperatures over 1,000°F to be removed from service			

INSPECTION CRITERIA

G80 / G100 / G120

- Sling reach and/or localized elongation of chain links
- Proper chain grade markings
- Nicks
- Gouges
- Metal loss due to abrasion
- Tag/Tag information verified
- Bent links
- Distorted chain links, couplers or end fittings
- Heat damage from weld spatter or a furnace-type exposure
- Corrosion or severe pitting
- Component hinge-ability

RIGGERS CHECKLIST

RIGGERS PROCEDURES

- Load Weight
- Center-of-Gravity
- Pick Points (Structurally OK?)
- Hitch Type
- Sling Type & Capacity
- Head Height
- Hoist Capacity
- Rigging Inspection
- Obstructions, Limitations, Clearances, Electrical
- Tag-lines, Communications, Pre-lift Mtg., Person-in-Charge
- Hoist Inspection
- Lift Procedures if Critical Lift
- Perform Lift

HANDLING TIPS

- Review
- Never exceed Working Load Limits
- Do not tip load hooks
- Remove all twists, knots & kinks before lifting
- Avoid jerking or creating shock loads
- Use pads to cover sharp corners
- Do not drop or rest loads on chain
- Balance loads evenly to avoid excessive forces on chain
- Keep hands, feet & other body parts from between slings & load
- Do not field repair a chain sling
- Destroy a chain sling beyond use if it's not repairable

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GET IN TOUCH

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