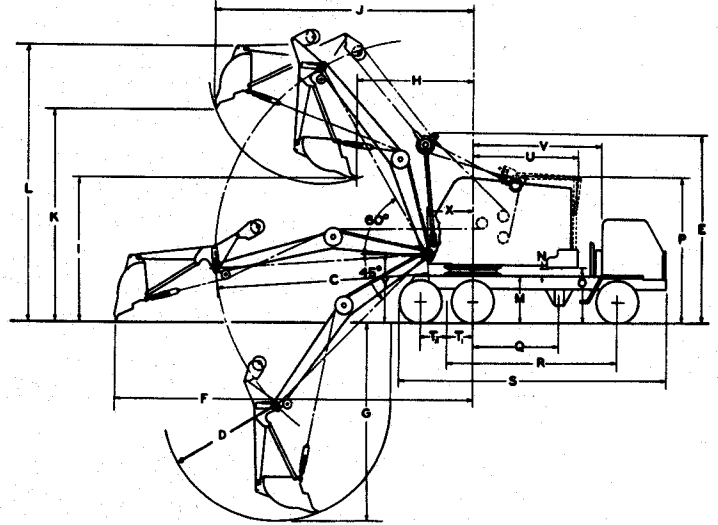
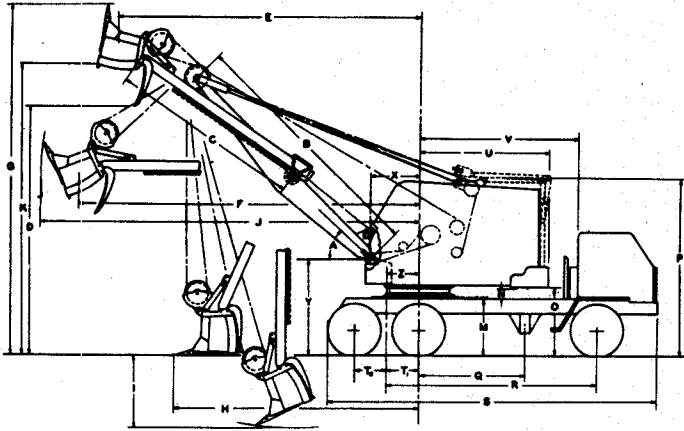


**LINK-BELT  
SPEEDER**

# Clearances - Specifications - Working Ranges HC-58 Zephyrcrane Shovel and Hoe

(Supersedes Flysheet CRF1028—11-56)

\* Indicates revisions or additions to flysheet dated 11-56



## SHOVEL WORKING RANGES

Dipper Capacity, Cubic Yards (Struck Measure) -----	1/2
B—Boom Length, Center to Center of Pins -----	16' 0"
Effective Boom Length (Center of Boom Foot Pin To Cable Pitch Line of Peak Sheave) -----	16' 9"
C—Dipper Stick Length, Effective -----	12' 3"
Dipper Stick Length, Over-all -----	13' 0"

BOOM ANGLE	A	60°	55°	50°	45°	40°
Maximum Dumping Height	D	18' 10"	17' 10"	16' 8"	15' 7"	14' 3"
Dumping Radius Max. Height	E	15' 10"	17' 2"	18' 4"	19' 4"	20' 4"
Maximum Dumping Radius	F	19' 9"	20' 4"	20' 10"	21' 3"	21' 9"
Maximum Cutting Height	G	25' 8"	24' 6"	23' 4"	22' 0"	20' 6"
Maximum Clean-Up Radius	H	14' 3"	14' 7"	14' 10"	15' 1"	15' 3"
Maximum Digging Depth	I	3' 6"	4' 0"	4' 5"	4' 11"	5' 3"
Maximum Cutting Radius	J	22' 7"	23' 1"	23' 7"	24' 1"	24' 6"
Boom Clearance Height	K	20' 8"	19' 11"	19' 2"	18' 2"	17' 2"

Radius of Boom Hinge Pin	X	3' 1"
Height of Boom Hinge Pin	Y	6' 0"

## GENERAL DIMENSIONS COMMON TO BOTH SHOVEL AND HOE

Over-all Width of Tires		8' 0"
Over-all Width with Outriggers Extended		12' 0"
Over-all Height, Top of Ring Gear Plate	M	3' 8"
Clearance Between Truck and Counterweight "A"	N	7"
Ground Clearance under Counterweight "A"	O	4' 4"
Over-all Height, Retractable Gantry Lowered	P	11' 5"
Over-all Height, Retractable Gantry Raised		14' 1"
Over-all Height, Low Gantry		11' 2"
Center Line Rotation to Front Outrigger Center	Q	6' 9"
Truck Wheelbase	R	13' 4"
Over-all Truck Length (Rear Outrigger Removed)	S	20' 11"
Center Rear Axle to Pivot of Bogie	T1	2' 0"
Center Rear Axle to Pivot of Bogie	T2	2' 1"
Tailswing (Counterweight "A")	U	8' 3"
Center Line Rotation to Back of Truck Cab	V	10' 1"
Center Line Rotation to Rear Axle Bogie	T1	2' 0"

## BRIEF CARRIER SPECIFICATIONS

Heavy-duty all-welded frame, 9:00x20, 10-ply tires; single tires on front axle. 6x4 drive and 4-wheel hydraulic brakes. 10 speeds forward; 2 speeds reverse. Road speeds up to 45 m.p.h. International BD308 engine stripped develops 150 maximum brake horsepower at 3600 r.p.m. Turning radius right and left 28'. Removable front and rear sliding outriggers.

## HOE WORKING RANGES

Bucket Capacity, Cubic Feet		15
Bucket Cutting Width		36"
Boom Length	C	16' 6"
Average Sweep Radius	D	8' 10"
Height of Hoe Mast	E	14' 7"
Maximum Digging Radius	F	28' 0"
Maximum Digging Depth <sup>①</sup>	G	15' 5"
Radius Beginning of Dump	H	9' 2"
Ground Clearance Beginning Dump	I	11' 3"
Clearance Radius End of Dump	J	20' 0"
Ground Clearance End of Dump	K	16' 6"
Over-all Height End of Dump	L	21' 6"
Radius of Boom Hinge Pin	X	3' 7"
Height of Boom Hinge Pin	Y	5' 4"

<sup>①</sup>Dimension "G" shows maximum digging depth with 45° boom. The maximum "effective" digging depth will vary according to the type of soil and excavation.

## \* HOE LIFTING CAPACITIES

These are maximum lifting capacities (based on cable strength) for the HC-58 Hoe when used for laying pipe. Two part hoist line used.

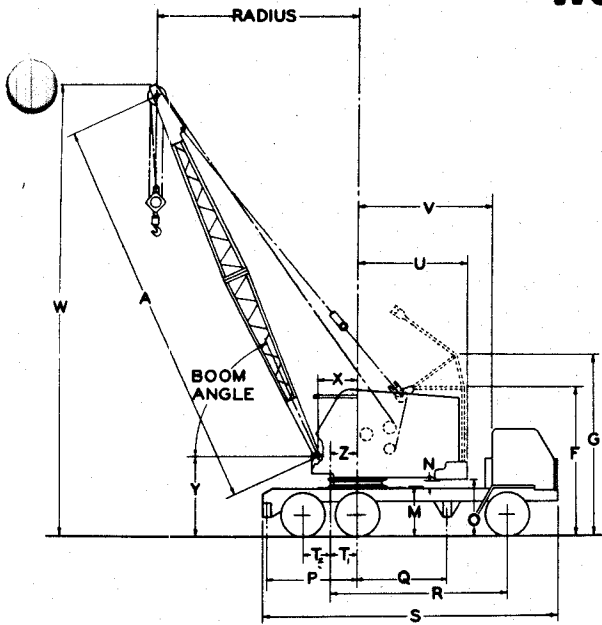
BOOM RADIUS <sup>②</sup>	LIFTING CAPACITIES
12'	9,300 lbs.
15'	7,600 lbs.
20'	4,700 lbs.

<sup>②</sup>Radius is measured from machine centerline of rotation to centerline of boom peak shaft. Capacities are based upon the hoe arm being in a vertical position.

## WEIGHTS, LINE SPEEDS AND PULLS

	Complete Machine	Shovel	Hoe
*Approximate working weight with low gantry and counter-weight "A"	37,400 lbs.	36,500 lbs.	
Hoist line speed, 1-part line	134 f.p.m.	162 f.p.m.	
Hoist line pull @ 134 f.p.m.			
hoist speed	12,000 lbs.		
Crowd speed	101 f.p.m.		
Retract speed	146 f.p.m.		
Inhaul speed, 1-part line		134 f.p.m.	
Inhaul line pull @ 134 f.p.m.			
inhaul speed		12,400 lbs.	
Swing speed	4.9 r.p.m.	4.9 r.p.m.	

# Clearances-Specifications- Working Ranges HC-58 Zephyrcrane



GENERAL DIMENSIONS		
Basic Boom Length	A	30' 0"
Over-all Height, Retractable Gantry Lowered	F	11' 5"
Over-all Height, Retractable Gantry Raised	G	14' 1"
Over-all Height, Low Gantry		11' 2"
Over-all Height, Top of Ring Gear Plate	M	3' 8"
Clearance between Truck & Counterweight "A"	N	7"
Clearance between Truck & Counterweight "AB"		4"
Ground Clearance under Counterweight "A"	O	4' 3"
Ground Clearance under Counterweight "AB"		4' 0"
Center Line Rotation to Rear Outrigger Center	P	6' 10"
Center Line Rotation to Front Outrigger Center	Q	6' 9"
Truck Wheelbase	R	13' 4"
Over-all Length of Truck (With Rear Outrigger)	S	22' 4"
Over-all Width (Over Tires)		8' 0"
Center Rear Axle to Pivot of Bogie	T1	2' 0"
Center Rear Axle to Pivot of Bogie	T2	2' 1"
Tailswing (Counterweight "A" or "AB")	U	8' 3"
Center Line Rotation to Back of Truck Cab	V	10' 1"
Radius of Boom Hinge Pin	X	3' 1"
Height of Boom Hinge Pin	Y	5' 0"
Center Line Rotation to Rear Axle Bogie	Z	2' 0"

LIFTING CAPACITIES WITH COUNTERWEIGHT "A" AND LOW OR RETRACTABLE HIGH GANTRY											
30' BOOM						35' BOOM					
R	B	W	With Outriggers Side or Rear	Without Outriggers Side	Without Outriggers Rear	B	W	With Outriggers Side or Rear	Without Outriggers Side	Without Outriggers Rear	R
10	77°	35' 1"	25,000	12,700	16,400	79°	40' 1"	24,900	12,600	16,300	10
12	73°	34' 6"	19,800	9,900	13,000	75°	39' 8"	19,700	9,800	12,900	12
15	67°	33' 4"	14,600	7,300	9,800	70°	38' 10"	14,500	7,200	9,700	15
20	56°	30' 8"	10,300	5,000	6,800	61°	36' 6"	10,200	4,900	6,700	20
25	43°	26' 4"	8,000	3,700	5,200	51°	33' 2"	7,900	3,600	5,100	25
30	26°	19' 0"	6,200	2,900	4,100	40°	28' 2"	6,100	2,800	4,000	30
35						24°	20' 1"	4,900	2,200	3,200	35
40' BOOM						50' BOOM <sup>①②</sup>					
R	B	W	With Outriggers Side or Rear	Without Outriggers Side	Without Outriggers Rear	B	W	With Outriggers Side or Rear	Without Outriggers Side	Without Outriggers Rear	R
10	80°	45' 3"	24,800	12,500	16,200	80°	54' 11"	19,400	9,500	12,600	10
12	77°	44' 10"	19,600	9,700	12,800	76°	54' 6"	14,200	6,900	9,400	12
15	73°	44' 1"	14,400	7,100	9,600	76°	54' 6"	14,200	6,900	9,400	15
20	65°	42' 1"	10,100	4,800	6,600	70°	52' 11"	9,900	4,600	6,400	20
25	57°	39' 3"	7,800	3,500	5,000	64°	50' 10"	7,600	3,300	4,800	25
30	48°	35' 5"	6,000	2,700	3,900	57°	48' 0"	5,800	2,500	3,700	30
35	37°	29' 11"	4,800	2,100	3,100	50°	44' 4"	4,600	1,900	2,900	35
40	22°	21' 2"	4,100	1,700	2,600	42°	39' 7"	3,900	1,500	2,400	40
45						33°	33' 1"	3,200	1,100	2,000	45
50						20°	23' 2"	2,800	900	1,600	50
60' BOOM <sup>①②</sup>						70' BOOM <sup>①②</sup>					
R	B	W	With Outriggers Side or Rear	Without Outriggers Side	Without Outriggers Rear	B	W	With Outriggers Side or Rear	Without Outriggers Side	Without Outriggers Rear	R
15	79°	64' 7"	14,000	6,700	9,200	76°	73' 9"	9,500	4,200	6,000	15
20	74°	63' 5"	9,700	4,400	6,200	72°	73' 4"	7,200	2,900	4,400	20
25	69°	61' 8"	7,400	3,100	4,600	67°	70' 6"	5,400	2,100	3,300	25
30	63°	59' 7"	5,600	2,300	3,500	64°	68' 9"	4,200	1,500	2,500	30
35	58°	56' 8"	4,400	1,700	2,700	58°	65' 5"	3,500	1,100	2,000	35
40	52°	53' 1"	3,700	1,300	2,200	53°	62' 0"	2,800	700	1,600	40
45	46°	48' 8"	3,000	900	1,800	48°	57' 11"	2,400	500	1,200	45
50	38°	43' 3"	2,600	700	1,400	36°	46' 9"	1,600	100	700	50
60	19°	25' 2"	1,800	300	900	17°	26' 5"	1,100		400	60
70											70

R—Radius in feet.

B—Boom angle in degrees.

W—Ground to centerline boom head shaft.

Lifting capacities shown are not more than 85% of minimum tipping loads with machine standing on firm level ground. Allowances must be made on the above lifting capacities if either one or both outrigger boxes are removed.

① Retractable high gantry recommended for booms over 40 feet long.

② Lifting crane service only.

When figuring bucket or magnet capacities, use the capacities shown in the column, "Without Outriggers—Side." For normal dragline work, on firm level ground, the capacities shown in the above lifting capacity table should not be exceeded; for clamshell, lifting magnet and similar work, where the outward swing of the load in rotation adds to the load imposed on the machine, these capacities should be reduced by at least 20%. Weight of bucket or magnet plus load should not exceed the resulting net capacity at the maximum desired operating radius, or the following, whichever is least—dragline 4,000 lbs. — clamshell or magnet 5,000 lbs. These are maximum values and allowance must be made for soft or uneven footing, bucket suction and other unfavorable conditions. Boom length for average dragline, clamshell, magnet or similar work, should not exceed 40 feet.

# Lifting Capacities HC-58 Zephyrcrane

LIFTING CAPACITIES WITH COUNTERWEIGHT "AB" AND LOW OR RETRACTABLE HIGH GANTRY											
30' BOOM						35' BOOM					
R	B	W	With Outriggers Side or Rear	Without Outriggers		B	W	With Outriggers Side or Rear	Without Outriggers		R
				Side	Rear				Side	Rear	
10	77°	35' 1"	25,000	15,000	17,900	79°	40' 1"	24,900	14,900	17,800	10
12	73°	34' 6"	19,800	11,600	14,200	75°	39' 8"	19,700	11,500	14,100	12
15	67°	33' 4"	15,000	8,600	10,600	70°	38' 10"	14,900	8,500	10,500	15
20	56°	30' 8"	10,700	5,900	7,400	61°	36' 6"	10,600	5,800	7,300	20
25	43°	26' 4"	8,400	4,400	5,600	51°	33' 2"	8,300	4,300	5,500	25
30	26°	19' 0"	6,500	3,500	4,500	40°	28' 2"	6,400	3,400	4,400	30
35						24°	20' 1"	5,300	2,700	3,600	35
40' BOOM						50' BOOM <sup>①②</sup>					
R	B	W	With Outriggers Side or Rear	Without Outriggers		B	W	With Outriggers Side or Rear	Without Outriggers		R
				Side	Rear				Side	Rear	
10	80°	45' 3"	24,800	14,800	17,700	80°	54' 11"	19,400	11,200	13,800	10
12	77°	44' 10"	19,600	11,400	14,000	76°	54' 6"	14,600	8,200	10,200	12
15	73°	44' 1"	14,800	8,400	10,400	70°	52' 11"	10,300	5,500	7,000	15
20	65°	42' 1"	10,500	5,700	7,200	64°	50' 10"	8,000	4,000	5,200	20
25	57°	39' 3"	8,200	4,200	5,400	57°	48' 0"	6,100	3,100	4,100	25
30	48°	35' 5"	6,300	3,300	4,300	50°	44' 4"	5,000	2,400	3,300	30
35	37°	29' 11"	5,200	2,600	3,500	42°	39' 7"	4,100	2,000	2,700	35
40	22°	21' 2"	4,300	2,200	2,900	33°	33' 1"	3,400	1,600	2,200	40
45						20°	23' 2"	2,900	1,300	1,900	45
50											50
60' BOOM <sup>①②</sup>						70' BOOM <sup>①②</sup>					
R	B	W	With Outriggers Side or Rear	Without Outriggers		B	W	With Outriggers Side or Rear	Without Outriggers		R
				Side	Rear				Side	Rear	
15	79°	64' 7"	14,400	8,000	10,000	76°	73' 9"	9,900	5,100	6,600	15
20	74°	63' 5"	10,100	5,300	6,800	72°	73' 4"	7,600	3,600	4,800	20
25	69°	61' 8"	7,800	3,800	5,000	67°	70' 6"	5,700	2,700	3,700	25
30	63°	59' 7"	5,900	2,900	3,900	64°	68' 9"	4,600	2,000	2,900	30
35	58°	56' 8"	4,800	2,200	3,100	58°	65' 5"	3,700	1,600	2,300	35
40	52°	53' 1"	3,900	1,800	2,500	53°	62' 0"	3,000	1,200	1,800	40
45	46°	48' 8"	3,200	1,400	2,000	48°	57' 11"	2,500	900	1,500	45
50	38°	43' 3"	2,700	1,100	1,700	36°	46' 9"	1,600	400	900	50
60	19°	25' 2"	1,800	600	1,100	17°	26' 5"	1,100	100	500	60
70											70

R—Radius in feet. B—Boom angle in degrees. W—Ground to centerline boom head shaft.  
 Lifting capacities shown are not more than 85% of minimum tipping loads with machine standing on firm level ground. Allowances must be made on the above lifting capacities if either one or both outrigger boxes are removed.  
 ① Retractable high gantry recommended for booms over 40 feet long. ② Lifting crane service only.

When figuring bucket or magnet capacities, use the capacities shown in the column, "Without Outriggers—Side." For normal dragline work, on firm level ground, the capacities shown in the above lifting capacity table should not be exceeded; for clamshell, lifting magnet and similar work, where the outward swing of the load in rotation adds to the load imposed on the machine, these capacities should be reduced by at least 20%. Weight of bucket or magnet plus load should not exceed the resulting net capacity at the maximum desired operating radius, or the following, whichever is least—dragline 4,000 lbs. — clamshell or magnet 5,000 lbs. These are maximum values and allowance must be made for soft or uneven footing, bucket suction and other unfavorable conditions. Boom length for average dragline, clamshell, magnet or similar work, should not exceed 40 feet.

## BRIEF SPECIFICATIONS

### LIFTING CRANE AND CLAMSHELL

Approximate working weight with 30' boom, low gantry, counterweight "A", no bucket, hookblock, or tagline winder ..... 33,850 lbs.  
 Crane hoist line speed, 1-part line ..... 134 f.p.m.  
 Crane hoist line pull @ 134 f.p.m. line speed (front drum) ... 12,400 lbs.  
 (rear drum) ... 12,000 lbs.  
 Closing (or Holding) line speed, 1-part line ..... 162 f.p.m.  
 Closing (or Holding) line pull @ 162 f.p.m. line speed (front drum) ... 10,200 lbs.  
 (rear drum) ... 9,950 lbs.  
 Swing Speed ..... 4.9 r.p.m.

### DRAGLINE

Approximate working weight with 30' boom, low gantry, counterweight "A", no bucket ..... 34,150 lbs.  
 Inhaul speed, 1-part line ..... 134 f.p.m.  
 Inhaul line pull @ 134 f.p.m. line speed ..... 12,400 lbs.  
 Hoist line speed, 1-part line ..... 162 f.p.m.  
 Hoist line pull @ 162 f.p.m. line speed ..... 9,950 lbs.  
 Swing speed ..... 4.9 r.p.m.

WE ARE CONSTANTLY IMPROVING OUR PRODUCTS AND THEREFORE RESERVE THE RIGHT TO CHANGE DESIGNS AND SPECIFICATIONS

For Certified Dimensions, Consult Factory  
 LINK-BELT SPEEDER CORPORATION — CEDAR RAPIDS, IOWA

LINK-BELT SPEEDER CORPORATION  
Cedar Rapids, Iowa

January 28, 1955

MODEL HC-58 LIFTING CRANE CAPACITIES

30' BOOM								
R	COUNTERWEIGHT "A"				COUNTERWEIGHT "AB"			
	WITH OUTRIGGERS		WITHOUT OUTRIGGERS		WITH OUTRIGGERS		WITHOUT OUTRIGGERS	
	SIDE	REAR	SIDE	REAR	SIDE	REAR	SIDE	REAR
10	25,000	25,000	12,700	16,400	25,000	25,000	15,000	18,500
12	19,400	19,800	9,900	13,000	19,800	19,800	11,650	14,700
15	14,500	15,000	7,300	9,800	15,000	15,000	8,650	11,100
20	10,000	10,700	5,000	6,850	10,700	10,700	5,950	7,750
25	7,350	8,400	3,700	5,200	8,400	8,400	4,450	5,900
30	5,750	6,550	2,900	4,100	6,550	6,550	3,500	4,700

40' BOOM								
R	COUNTERWEIGHT "A"				COUNTERWEIGHT "AB"			
	WITH OUTRIGGERS		WITHOUT OUTRIGGERS		WITH OUTRIGGERS		WITHOUT OUTRIGGERS	
	SIDE	REAR	SIDE	REAR	SIDE	REAR	SIDE	REAR
10	24,800	24,800	12,500	16,200	24,800	24,800	11,800	18,300
12	19,200	19,600	9,700	12,800	19,600	19,600	11,450	11,450
15	14,300	14,800	7,100	9,600	14,800	14,800	8,450	10,900
20	9,800	10,500	4,800	6,650	10,500	10,500	5,750	7,550
25	7,150	8,200	3,500	5,000	8,200	8,200	4,250	5,700
30	5,550	6,350	2,700	3,900	6,350	6,350	3,300	4,500
35	4,500	5,200	2,100	3,150	5,200	5,200	2,650	3,650
40	3,750	4,300	1,700	2,600	4,300	4,300	2,150	3,050

50' BOOM								
R	COUNTERWEIGHT "A"				COUNTERWEIGHT "AB"			
	WITH OUTRIGGERS		WITHOUT OUTRIGGERS		WITH OUTRIGGERS		WITHOUT OUTRIGGERS	
	SIDE	REAR	SIDE	REAR	SIDE	REAR	SIDE	REAR
12	19,000	19,400	9,500	12,600	19,400	19,400	11,250	14,300
15	14,100	14,600	6,900	9,400	14,600	14,600	8,250	10,700
20	9,600	10,300	4,600	6,450	10,300	10,300	5,550	7,350
25	6,950	8,000	3,300	4,800	8,000	8,000	4,050	5,500
30	5,350	6,150	2,500	3,700	6,150	6,150	3,100	4,300
35	4,300	5,000	1,900	2,950	5,000	5,000	2,450	3,450
40	3,550	4,100	1,500	2,400	4,100	4,100	1,950	2,850
45	2,950	3,450	1,150	2,000	3,450	3,450	1,600	2,350
50	2,500	2,950	900	1,650	2,950	2,950	1,300	2,000

60' BOOM*								
	COUNTERWEIGHT "A"				COUNTERWEIGHT "AB"			
	WITH OUTRIGGERS		WITHOUT OUTRIGGERS		WITH OUTRIGGERS		WITHOUT OUTRIGGERS	
	SIDE	REAR	SIDE	REAR	SIDE	REAR	SIDE	REAR
15	13,900	11,400	6,700	9,200	11,400	11,400	8,050	10,500
20	9,400	10,100	4,400	6,250	10,100	10,100	5,350	7,150
25	6,750	7,800	3,100	4,600	7,800	7,800	3,850	5,300
30	5,150	5,950	2,300	3,500	5,950	5,950	2,900	4,100
35	4,100	4,800	1,700	2,750	4,800	4,800	2,250	3,250
40	3,350	3,900	1,300	2,200	3,900	3,900	1,750	2,650
45	2,750	3,250	950	1,800	3,250	3,250	1,400	2,150
50	2,300	2,750	700	1,450	2,750	2,750	1,100	1,800
55	1,900	2,200	500	1,200	2,200	2,200	850	1,500
60	1,600	1,750	350	950	1,750	1,750	650	1,200

70' BOOM*								
R	COUNTERWEIGHT "A"				COUNTERWEIGHT "AB"			
	WITH OUTRIGGERS		WITHOUT OUTRIGGERS		WITH OUTRIGGERS		WITHOUT OUTRIGGERS	
	SIDE	REAR	SIDE	REAR	SIDE	REAR	SIDE	REAR
20	9,200	9,900	4,200	6,050	9,900	9,900	5,150	6,950
25	6,550	7,600	2,900	4,400	7,600	7,600	3,650	5,100
30	4,950	5,750	2,100	3,300	5,750	5,750	2,700	3,900
35	3,900	4,600	1,500	2,550	4,600	4,600	2,050	3,050
40	3,150	3,700	1,100	2,000	3,700	3,700	1,550	2,450
45	2,550	3,050	750	1,600	3,050	3,050	1,200	1,950
50	2,100	2,550	500	1,250	2,550	2,550	900	1,600
55	1,700	2,000	300	1,000	2,000	2,000	650	1,300
60	1,400	1,550	150	750	1,550	1,550	450	1,050
65	1,150	1,250	---	600	1,250	1,250	300	850
70	950	1,000	---	400	1,000	1,000	150	650

R = Radius in feet. All capacities shown are in pounds based on 85% of minimum tipping loads with machine standing on firm level ground.

\* Retractable gantry recommended for booms over 50' long.

For general clamshell, lifting magnet, or similar work, capacities as shown on standard lifting capacity table should be reduced at least 20%. Weight of bucket or magnet plus load should not exceed the resulting net rated capacity at the maximum desired operating radius, or the following, whichever is least: in clamshell or magnet work, 5,000#; in dragline work, 4,000#. These loads are maximum values for this service, and allowances must be made when operating under unfavorable conditions. Boom length for dragline, clamshell, magnet, or similar work should not exceed 40 feet.

WE ARE CONSTANTLY IMPROVING OUR PRODUCTS AND THEREFORE  
RESERVE THE RIGHT TO CHANGE DESIGNS AND SPECIFICATIONS

For Certified Dimensions, Consult Factory Link-Belt Speeder Corporation-Cedar Rapids, Iowa