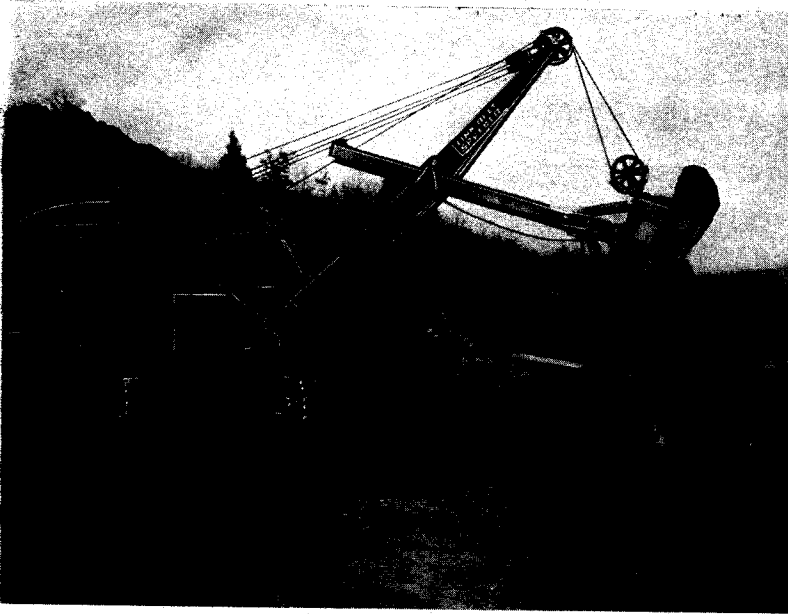


LINK-BELT SPEEDER

MODEL "75"

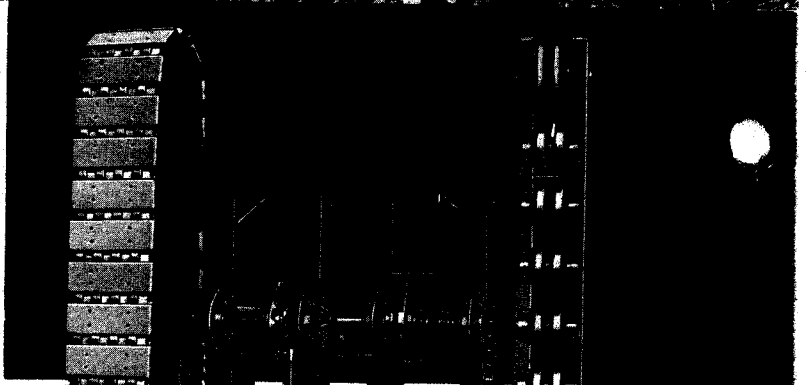


LONGER LIFE—LESS MAINTENANCE

You get ample strength and weight in the Model "75" for hard, continuous excavation work, with extra power and speed for high yardage on every job. All-welded construction has replaced castings. The power plant is a heavy-duty gasoline or Diesel engine. Power is transmitted to the main shaft by a wide, smooth running roller chain drive. Alloy steel, machine-cut spur gears drive the reverse and drum shafts which turn in heavy bronze bearings; the main drive shaft is mounted in self-aligning anti-friction bearings. In order to eliminate side pull, each main drum has been centrally mounted on a separate shaft. External band clutches enable the operator to "feel" the load at all times. This sensitivity, plus external band brakes operated by automotive type pedals, results in perfect control and greatest accuracy in placement. All bands are instantly accessible for adjustment and can be removed easily for relining.

Controls operated from within the cab permit steering in both directions, EITHER GRADUAL or SHARP, regardless of the relative position of cab and lower frame. A positive traction lock, controlled from the cab and engaging in three positions, prevents movement of the crawlers while working, eliminating any necessity for chocks or blocking.

The traction speed of one mile per hour gives plenty of power for heavy going and steep grades, with enough speed for all ordinary conditions.



ALL-WELDED CRAWLER BASE FRAME

There is no chance for warping or weaving in the lower frame, no matter how uneven the ground. A rigid electric-welded crawler base frame maintains perfect balance and alignment. This keeps Link-Belt Speeder's Model "75" crawler action exceptionally smooth and protects the entire machine from twisting or shock.

Note how the close-spaced double flanged track rollers support the complete length of the lower side of the crawlers. Power is conveyed from traction shaft to crawlers by heavy alloy-steel roller chains and sprockets. Illustration shows the lower side of the crawler frame with the oil-tight gear case and one track removed. Note conveniently piped grease connections.



GENERAL INFORMATION ONLY

NON-CLOGGING, PERFECT GUIDING CRAWLER TREADS

The improved, patented design of non-clogging crawlers and drive mechanism assures perfect guidance. Pockets are provided in the drive wheels into which the lugs of the crawler treads engage; the pockets are open on either side, allowing any matter that usually causes clogging to escape. Perfect fit of crawler lugs is thus assured at all times and breakage and distortion of treads reduced to a minimum. Track shoes are completely closed—do not pick up dirt or stones that normally drop down into drive mechanism.

Seven double flanged rollers give maximum bearing surface on the track. Single tracks are furnished in 20" and 24" widths. For exceptionally light ground pressure, double track crawlers can be furnished.

EASILY ADJUSTABLE SHIPPER SHAFT ASSEMBLY

Link-Belt Speeder construction of the shipper shaft assembly incorporates a simple adjustment method by which perfect guidance and contact of the dipper stick against the pinion may be obtained at all times.

Wear-resisting steel rollers mounted on the strong side plates hold the stick firmly against the shaft pinion. All that is needed to make quick and efficient adjustments of existing slack is a wrench. By simply loosening the nuts holding the roller assembly and turning the eccentrically mounted journals, any slack may be taken up in a few minutes. There are no loose wear-plates to renew.

RUGGED ACCESSIBLE UPPER FRAME AND MACHINERY

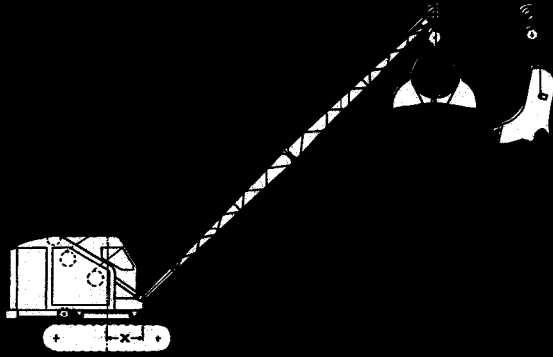
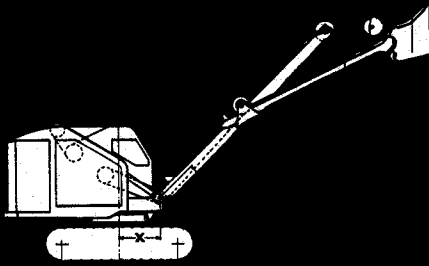
The rugged and simple design of the upper frame assures trouble-free performance and lowest maintenance cost. Every part of the machinery is easily accessible. All spur gears, machined from alloy steel blanks, are wide-faced and have accurately cut teeth. The Model "75" is equipped with a CHAIN CROWD which is self-adjusting to all boom angles and gives maximum digging power under toughest conditions. For crane work perfect control is assured—SAFETY and ACCURACY—by an independent, spur-gear, RAPID SAFETY BOOM-HOIST. The cab of the "75" is extra large and roomy, facilitating any necessary maintenance work. The operator's cab, equipped with shatter-proof glass, is placed far forward, thus giving exceptional visibility. Shovel boom is box-type of all-welded construction, with the shipper shaft bearings welded right onto the boom. Electric starter and lights are standard equipment on gasoline machines. Shovels are equipped with power dipper trip.

IMPROVED DESIGN OF LOWER FRAME

The modern Link-Belt Speeder lower frame is a development of advanced welded design which unites heavy steel plates and girders into a single, well reinforced unit of great strength and resistance to twisting strains. The traveling and steering mechanism is fully enclosed in a steel casing, which can be easily removed for quick access to lower gears and working parts.

A 73" diameter turntable and long, wide crawlers give the Model "75" extra stability on slopes and in heavy digging. Turntable is made of alloy steel with an internal gear. A roller path machined on a bevel permits the use of large, wide-faced conical rollers that revolve without slippage. Upper and lower frames are connected by a heavy, alloy steel center quill with large adjusting nut.

Crawler shoes are abrasion-resisting alloy steel, self-cleaning, lug driven, with close pin centers to assure smooth action. Track adjustment is provided at both ends to maintain correct tension. Exceptional ground clearance enables the "75" to pass over obstacles with out interference.



SHOVEL WORKING RANGES

MODEL 75—17 Ft. Boom, 13 Ft. Stock

TABLE 1

| Boom Angle | 60° | 55° | 50° | 45° | 40° |
|-----------------------------|-----------|--------|--------|---------|--------|
| Clearance Height of Boom | A 20'-3" | 19'-6" | 18'-7" | 17'-7" | 16'-6" |
| Maximum Dumping Height | B 17'-10" | 16'-6" | 15'-6" | 14'-3" | 13'-0" |
| Maximum Dumping Radius | C 20'-0" | 21'-9" | 22'-7" | 23'-3" | 24'-2" |
| Clearance Swing of Boom | D 13'-1" | 14'-2" | 15'-5" | 16'-6" | 17'-6" |
| Digging Depth Below Treads | H 2'-6" | 3'-0" | 3'-6" | 4'-0" | 4'-6" |
| Radius Cut at Tread Level | I 14'-6" | 14'-9" | 15'-3" | 15'-10" | 16'-5" |
| Digging Radius 8' Elevation | J 23'-2" | 24'-0" | 25'-9" | 26'-2" | 26'-6" |
| Maximum Height of Cut | V 23'-8" | 22'-3" | 20'-5" | 18'-10" | 17'-0" |

CLAMSHELL and DRAGLINE BUCKET DATA

TABLE 2

| | Crane | ¾ Yd. Clamshell | ¾ Yd. Dragline |
|--|----------|-----------------|----------------|
| Clearance Height | S = 4'0" | T = 10'0" | U = 11'0" |
| Weight of empty bucket | — | 3,500 lbs. | 1,850 lbs. |
| Weight of bucket and load (Average material) | — | 5,500 lbs. | 4,000 lbs. |

Weights above are based on average material. For more accurate data, add the weights given below to the weight of the empty bucket.

| | ¾ Cu. Yd. | | ¾ Cu. Yd. |
|---------------|-----------|-----------|-----------|
| Earth—wet | 2,100 | Ashes | 635 |
| Sand—dry | 2,000 | Clay | 2,250 |
| Sand—wet | 2,450 | Coal | 1,125 |
| Stone—crushed | 2,100 | Coke | 750 |
| Snow | 675 | Earth—dry | 1,500 |

All weights are in pounds.

CRANE — DRAGLINE — CLAMSHELL

TABLE 3

| Radius of Load | 35 Ft. Boom | | | 40 Ft. Boom | | | 45 Ft. Boom | | |
|----------------|-------------|------------------|-------|-------------|------------------|-------|-------------|------------------|--------|
| | Boom Angle | Lifting Capacity | W | Boom Angle | Lifting Capacity | W | Boom Angle | Lifting Capacity | W |
| 10 ft. | 79° | 23,200 | 39'2" | 81° | 23,000 | 44'3" | — | — | — |
| 12 ft. | 75° | 17,200 | 38'9" | 77° | 17,000 | 44'0" | 79° | 16,800 | 49'0" |
| 15 ft. | 70° | 12,400 | 37'9" | 73° | 12,200 | 43'0" | 75° | 12,000 | 48'2" |
| 20 ft. | 61° | 8,200 | 35'6" | 65° | 8,000 | 41'2" | 68° | 7,800 | 46'6" |
| 25 ft. | 51° | 6,200 | 32'0" | 57° | 6,000 | 38'4" | 61° | 5,800 | 44'2" |
| 30 ft. | 40° | 4,800 | 27'3" | 48° | 4,600 | 34'6" | 54° | 4,400 | 40'10" |
| 35 ft. | 25° | 3,800 | 21'4" | 37° | 3,600 | 29'0" | 45° | 3,400 | 36'7" |
| 40 ft. | — | — | — | 23° | 3,200 | 20'4" | 35° | 3,000 | 30'6" |
| 45 ft. | — | — | — | — | — | — | 22° | 2,600 | 21'2" |

Note: Lifting capacity is based on 75% of tipping load, with machine setting on level, hard ground. Loads over 6,000 lbs. should be handled on a 2 part hoist line.

Deduct clearance height S-T-U as shown in TABLE 2 from W to determine actual operating clearance.

DIMENSIONS

TABLE 4

| | | |
|---------------------------------------|---|---------|
| Rear Radius | E | 8'-10½" |
| Overall Height | F | 10'-3" |
| Ground Clearance of Cab | G | 3'-4" |
| Overall Length of Crawlers | K | 11'-3" |
| Center to Center of Drive Sprockets | L | 8'-9½" |
| Radius of Boom Hinge | X | 3'-8" |
| Height to Boom Hinge | Y | 4'-9½" |
| Width of Tread Shoes—Standard | | 20" |
| Width of Crawler Base with 20" Treads | | 9'-2" |
| Width of Crawler Base with 24" Treads | | 9'-6" |
| Width of Cab | | 8'-0" |
| Truck Frame Clearance | | 1'-3½" |
| Minimum Ground Clearance | | 13" |

BRIEF SPECIFICATIONS

POWER UNIT

Gasoline, 6 cylinder heavy duty industrial engine, rated 72 H.P. at 1400 R.P.M. Electric starter is standard equipment.
Diesel heavy duty industrial type, rated 66 H.P.
Fuel tank capacity 33 gal.

LINE PULLS AND SPEEDS

9½" dia. Drum—10,500 lbs. at 145 ft. per min.
11½" dia. Drum—8,500 lbs. at 180 ft. per min.

CRAWLERS

Travel Speed—1-mile per hour.
Two speed travel on gasoline machines at extra cost.
20" Tracks, ground contact 4220 sq. in.
24" Tracks, ground contact (add 1350 lbs.) 5064 sq. in.

SHOVEL

Boom—17 ft. Dipper Stick—13 ft.
Bucket—SPEEDER Plate Steel—¾ Yd.
Hoist Speed, single line 180 ft. per min.
Crowd Speed 110 F.P.M. Retract speed 154 F.P.M.
Swing speed 5 R.P.M.
Working weight, gasoline, 20" tracks 38,000 lbs.
Working weight, Diesel, 20" tracks 38,700 lbs.

NOTE: Skimmer and piledriver attachments, special tracks for reduced dragline ground pressure, also longer shovel booms and sticks for greater clearance can be furnished.

Link-Belt Speeder Corporation reserves the right to alter these specifications without notice.

DRAGLINE

Boom—35 Ft. Bucket—SPEEDER Standard ¾ Yd.
Hoist speed, single line 180 F.P.M. Inhaul speed 145 F.P.M.
Swing speed 5 R.P.M.
Working weight, gasoline, 20" tracks, with bucket 36,850 lbs.
Working weight, Diesel, 20" tracks, with bucket 37,550 lbs.
Ground pressure, 20" tracks—Gasoline 8.75; Diesel 8.90
Ground pressure, 24" tracks—Gasoline 7.45; Diesel 7.60
Ground pressure is in pounds per square inch.

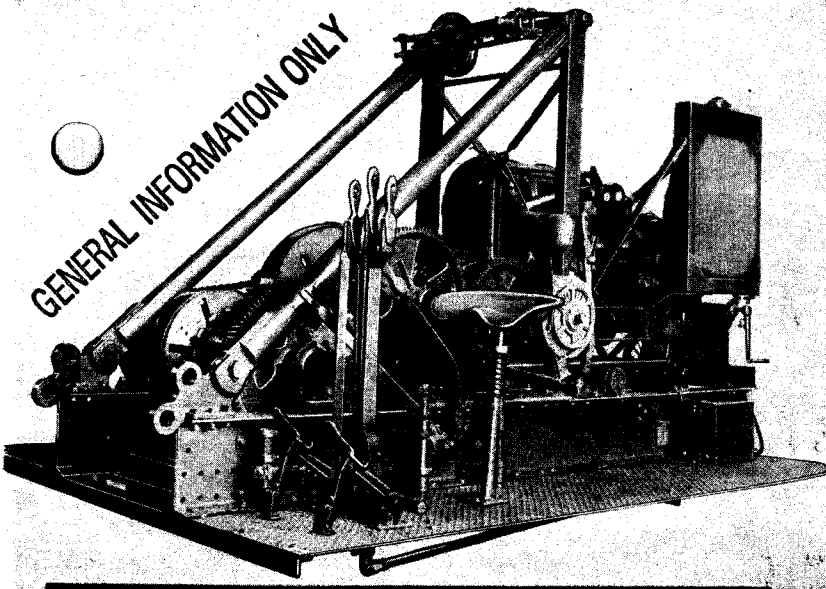
CRANE AND CLAMSHELL

Boom—35 ft.
Hoisting speed, single line 180 F.P.M. Holding line speed 180 F.P.M.
Swing speed 5 R.P.M.
Working weight, gasoline, 20" tracks, without bucket 34,550 lbs.
Working weight, Diesel, 20" tracks, without bucket 35,250 lbs.

TRENCH-HOE

Boom—17 Ft. Width of cut—36 inches.
Standard bucket, solid bottom type 15' 6"
Inhaul speed—standard 80 ft. per min.
Working weight, gasoline, 20" tracks 38,000 lbs.
Working weight, Diesel, 20" tracks 38,700 lbs.

GENERAL INFORMATION ONLY



You get ample strength and weight in the SPEEDER "75," for hard, continuous excavation work with extra power and speed for high yardage on every job. The massive rigidly-designed frame is a frame designed to absorb stresses with a high factor of reserve strength. All shafting is completely protected against distortion or mis-alignment. The upper machinery is all readily accessible for lubrication, inspection, and adjustment.

Power is delivered from the heavy-duty engine through a wide smooth-running chain enclosed and lubricated, and transmitted by machined alloy-steel gears, and mainshafts of SAE 4140 chrome-moly steel, heat treated and ground to size. Alloy steel, machine-cut spur gears drive the reverse and drum shafts which run slowly in heavy bronze bearings; bevel gears on the reverse shaft drive the vertical traction and swing shafts through selective splined jaw clutches.

The operator "feels" his load on the two main drum through large manually-operated external band clutches. Each main drum is on a separate shaft, centrally mounted to eliminate side pull. Clutches and brakes are at opposite ends of the drum, equalizing bearing load and providing ample heat dissipation from the bands. The powerful foot-operated band brakes are provided with positive locking ratchets.

All bands are instantly accessible for adjustment and may be removed easily for relining.

When the SPEEDER "75" is equipped as a shovel, the front drum has a chain-driven reversing clutch for retracting the shovel dipper. For crane or piledriving operation the reversing clutch may be replaced by an auxiliary winch head.

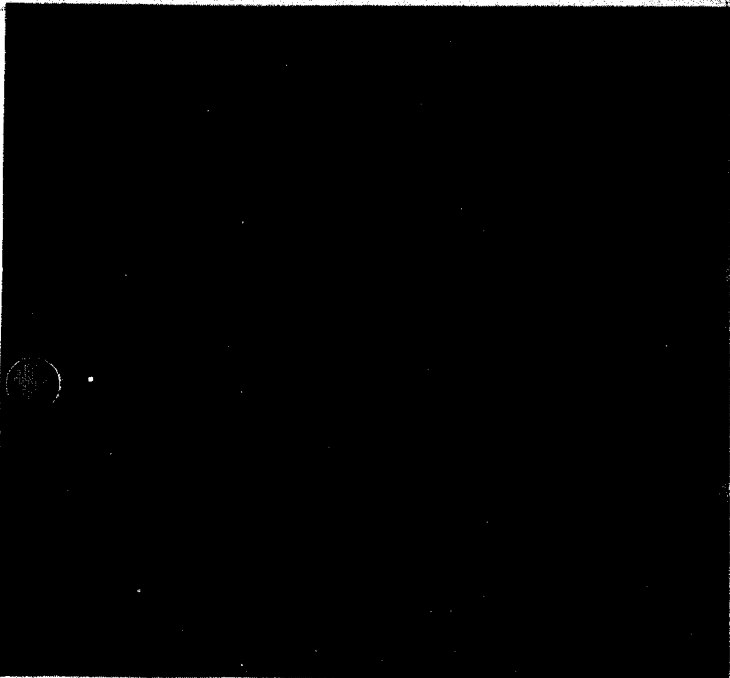
SPEEDER "75's" remarkable stability on slopes, and in heavy digging is based soundly on the large-diameter turntable and long, wide crawlers. The turntable is alloy steel, with internal gear and machined roller path, which is beveled so that the conical rollers revolve without slippage. Rollers are machined from drop-forged alloy steel blanks. The upper and lower frames are connected by a heavy alloy steel center quill, with large adjusting nut. Controls from the operator's position in the cab permit steering in both directions, either gradual or sharp, regardless of the relative position of cab and lower base.

The sturdy rolled-steel base, riveted and electric arc-welded, gives absolute rigidity. A single traction shaft, driven by fully enclosed alloy steel bevel gears, transmits full power to the crawlers by heavy heat-treated roller chains.

Crawler shoes are abrasion-resisting alloy steel, self cleaning, lug driven, with close pin-centers to insure very smooth action. Added stability results from using double-faced track rollers, increasing the effective crawler width. Track adjustment is provided at both ends, to maintain perfect alignment.

A positive traction lock, engaging in three positions, prevents movement of the crawlers while working, eliminating any necessity for chocks or blocking.

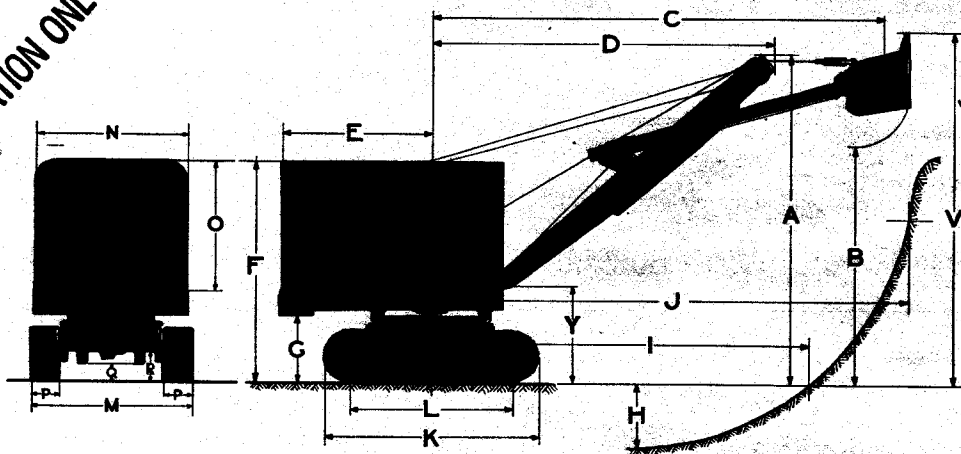
A single traction speed of one mile per hour gives plenty of power for heavy going and steep grades, with enough speed for all ordinary conditions. On the gasoline machine only, a special automotive type 2-speed transmission can be provided; space limitation does not permit this transmission on the Diesel engine.



"75" working on... It lowers... feeding hopper... for batch plant... clamshell bucket.

Speeder "75" Working Ranges and Clearances

GENERAL INFORMATION ONLY

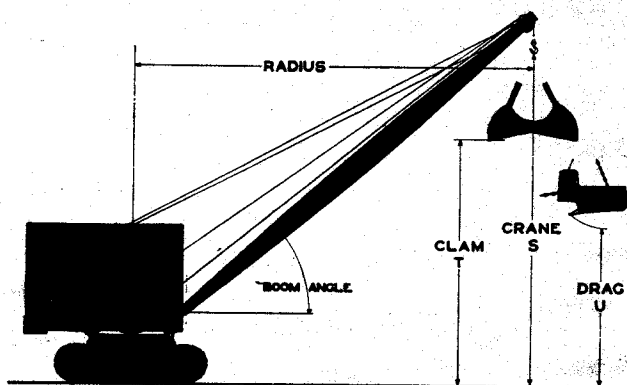


"75" Dimensions

| | | |
|-------------------------------------|---|------------|
| Rear Radius | E | 8' 10" |
| Height to Top of Cab | F | 10' 9" |
| Ground Clearance of Cab | G | 2' 10" |
| Overall Length of Crawlers | K | 11' 3" |
| Center to Center of Drive Sprockets | L | 8' 9" |
| Overall Width, 20" tread shoes | M | 9' 0" |
| Overall Width, 24" tread shoes | M | 9' 4" |
| Width of Cab | N | 8' 0" |
| Height of Cab | O | 6' 2" |
| Width Tread Shoes | P | 20" or 24" |
| Minimum Clearance | Q | 10" |
| Truck Frame Clearance | R | 17" |
| Radius of Hinge Pin | X | 3'2½" |
| Height of Hinge Pin | Y | 4' 6" |

SHOVEL Working Ranges

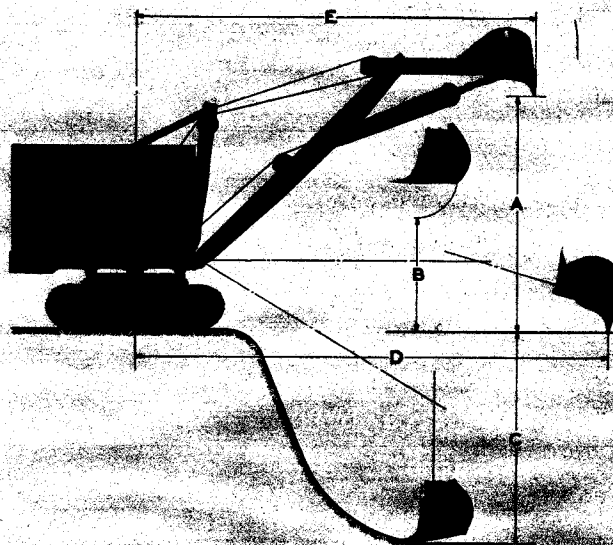
| Boom Angle | 60° | 55° | 50° | 45° | 40° |
|-----------------------------|---------|--------|--------|--------|-------|
| Clearance Height of Boom | A 21'5" | 20' 7" | 19' 6" | 18' 6" | 17'3" |
| Maximum Dumping Height | B 18'0" | 16' 9" | 15' 4" | 14' 0" | 12'3" |
| Maximum Dumping Radius | C 19'6" | 20'10" | 22' 1" | 23' 2" | 24'3" |
| Clearance Swing of Boom | D 13'9" | 15' 2" | 16' 5" | 17' 8" | 18'9" |
| Digging Depth Below Treads | H 3'6" | 3'11" | 4' 4" | 4'10" | 5'6" |
| Radius Cut at Tread Level | I 14'6" | 14' 9" | 15' 3" | 15'10" | 16'5" |
| Digging Radius 8' Elevation | J 23'9" | 24' 6" | 25' 3" | 26' 0" | 26'9" |
| Maximum Height of Cut | V 24'0" | 22' 8" | 20'10" | 19' 3" | 17'5" |



"75" CRANE—35 Ft. Boom

| Angle of Boom | Radius of Load | LIFTING CAPACITY Ratings Based on 75% Tipping Load | CLEARANCES | | |
|---------------|----------------|--|------------|--------|--------|
| | | | S | T | U |
| 77° | 12 Ft. | 14,000 Lbs. | 37' 0" | 30' 0" | — |
| 71° | 15 Ft. | 10,000 Lbs. | 36' 0" | 29' 0" | — |
| 63° | 20 Ft. | 7,500 Lbs. | 34' 0" | 27' 0" | 26' 0" |
| 53° | 25 Ft. | 5,700 Lbs. | 31' 0" | 24' 0" | 23' 0" |
| 42° | 30 Ft. | 4,600 Lbs. | 26' 6" | 19' 6" | 18' 6" |
| 28° | 35 Ft. | 3,500 Lbs. | 19' 9" | 12' 6" | 11' 0" |

NOTE—Crane lifting capacity based on machine setting on hard, level ground.



"75" TRENCH-HOE

OPERATING RANGES

| | 18 Ft. Boom |
|------------------------------------|-------------|
| Clear Dumping Height (Casting) | A 18' 3" |
| Clear Dumping Height (Drop Bottom) | B 8' 9" |
| Maximum Depth of Cut | C 17' 0" |
| Maximum Digging Radius | D 20' 0" |
| Casting Radius (Variable) | E 17' 5" |