

(By U. S. Standards of Weights and Measures).

MANUFACTURER	SIZE	LINE	WEIGHT		LENGTH OVERALL		WIDTH OVERALL LESS BLADE		
			SHIPPING (APPROX.)		With Tr. Pole	Without Pole			
			Hand Controls	Power Controls					
● CATERPILLAR TRACTOR CO.	No. 66.....	1	10440 Lb.	10900 Lb.	31'-7½"	21'-0"	9'-8"		
	No. 44.....	2	7540 Lb.	7830 Lb.	28'-3"	18'-0"	8'-10"		
	No. 33.....	3	5950 Lb.	X.....	26'-2"	16'-4"	7'-9"		
	No. 22.....	4	3470 Lb.	3660 (e)	22'-3"	14'-2"	7'-0"		
	No. 4 Hi-Way Patrol.....	5	1650 Lb.	X.....	19'-7"	11'-8"	5'-11"		
	Trailer Patrol.....	6	5920 Lb. (a)	5760 Lb. (a)	23'-6"	16'-4"	8'-2"		
● J. D. ADAMS COMPANY	No. 125.....	7	X.....	10332 Lb.	33'-0"		9'-8"		
	No. 124.....	8	9793 Lb.	X.....	33'-0"		9'-8"		
	No. 105.....	9	X.....	8075 Lb.	30'-7"		8'-7"		
	No. 104.....	10	7570 Lb.	X.....	30'-7"		8'-7"		
	No. 84.....	11	5858 Lb.	X.....	27'-7"		8'-0"		
	No. 72.....	12	3500 Lb.	X.....	25'-1"		6'-7"		
	No. 11.....	13	2080 Lb.	X.....	19'-6"		5'-10"		
	No. 41 Patrol.....	14	1445 Lb.	X.....	19'-1"		6'-6"		
● ALLIS-CHALMERS MFG. CO.	No. 112.....	15	X.....	12000 Lb.	31'-8"	20'-1"	10'-6"		
	No. 110.....	16	X.....	9000 Lb.	29'-9"	18'-10"	8'-11½"		
	No. 10.....	17	7790 Lb.	X.....	30'-9"	20'-2"	8'-7¼"		
	No. 8.....	18	5700 Lb.	X.....	27'-10"	18'-1"	7'-9"		
● AUSTIN-WESTERN ROAD MCHY. CO.	No. 12.....	19	X.....	12200 Lb.	31'-9"	22'-0"	10'-7"		
	No. 11.....	20	9700 Lb.	10100 Lb.	30'-1"	20'-9"	9'-4½"		
	No. 10.....	21	7400 Lb.	8200 Lb.	28'-1¾"	18'-8"	9'-0"		
	No. 8.....	22	5800 Lb.	X.....	25'-7"	16'-3"	8'-4"		
	Standard.....	23	3500 Lb.	X.....	24'-9"		7'-0"		
	No. 1 Patrol.....	24	1600 Lb.	X.....		11'-8"	6'-8½"		
● THE GALION IRON WKS. & MFG. CO.	No. 14.....	25	X.....	12500 Lb.	33'-0"		9'-10"		
	No. 120.....	26	X.....	10530 Lb.	29'-6"	21'-2"	9'-8"		
	No. 12.....	27	X.....	10600 Lb.	30'-6"		9'-8"		
	No. 112.....	28	10100 Lb.	X.....	30'-6"		9'-8"		
	No. 10.....	29	X.....	7435 Lb.	28'-0"		8'-1"		
	No. 110.....	30	7500 Lb.	X.....	27'-3"		9'-3"		
	No. 88.....	31	5800 Lb.	X.....	26'-2"		7'-9"		
	No. 70.....	32	3650 Lb.	X.....	22'-10"		7'-5½"		
	Pony Patrol Grader.....	33	1395 Lb.	X.....	11'-4"		6'-5"		
● W. A. RIDDELL CORP.	Model DP-10.....	34	X.....	8360					
	Model G.....	35	7450 Lb.	X.....					
● ROME GRADER AND MACHINERY CORPORATION	No. 70.....	36	12300 Lb.	X.....					
	No. 71.....	37	10500 Lb.	X.....					
	No. 72.....	38	7350 Lb.	X.....					
	No. 73.....	39	5750 Lb.	X.....					
	No. 74.....	40	4510 Lb.	X.....					
	No. 75.....	41	3875 Lb.	X.....					
	No. 40 Quick Hitch.....	42	4500 Lb.	X.....					
(By Metric System of Weights and Measures and British Imp. Gals.)			No. 66.....	43	4740 Kg.	4940 Kg.	9.65 M.	6.40 M.	2.95 M.
● CATERPILLAR TRACTOR CO.	No. 44.....	44	3420 Kg.	3550 Kg.	8.62 M.	5.49 M.	2.69 M.		
	No. 33.....	45	2700 Kg.	X.....	7.98 M.	4.98 M.	2.36 M.		
	No. 22.....	46	1574 Kg.	1660 (e)	6.78 M.	4.32 M.	2.13 M.		
	No. 4 Hi-Way Patrol.....	47	748 Kg.	X.....	5.97 M.	3.56 M.	1.80 M.		
	Trailer Patrol.....	48	2685 Kg.(a)	2613 Kg. (a)	7.16 M.	4.98 M.	2.49 M.		

NOTE: (.....) signifies information not available when this form printed.

(.....X.....) signifies information not available because of grader design.

(a) With auxiliary rear controls.

(b) Power wheel leaning arrangement available for hand controlled machines.

BLADE GRADER

WEIGHT SHIPPING (APPROX.)		LENGTH OVERALL		WIDTH OVERALL LESS BLADE	HEIGHT OVERALL	WHEEL BASE	TREAD		CONTROLS
Hand Controls	Power Controls	With Tr. Pole	Without Pole				Front	Rear	
10440 Lb.	10900 Lb.	31'-7½"	21'-0"	9'-8"	7'-5"	17'-9"	5'-5"	8'-6"	Power or Hand
7540 Lb.	7830 Lb.	28'-3"	18'-0"	8'-10"	7'-0"	15'-0"	4'-8"	7'-8"	Power or Hand
5950 Lb.	X	26'-2"	16'-4"	7'-9"	6'-9"	13'-6"	4'-6"	6'-8½"	Hand
3470 Lb.	3660 (e)	22'-3"	14'-2"	7'-0"	5'-5"	11'-6"	4'-0"	6'-0"	Power (e) or Hand
1650 Lb.	X	19'-7"	11'-8"	5'-11"	5'-1½"	9'-7"	3'-2"	5'-3"	Hand
5920 Lb. (a)	5760 Lb. (a)	23'-6"	16'-4"	8'-2"	7'-6"	13'-6"	4'-4"	7'-0"	Power or Hand
X	10332 Lb.	33'-0"		9'-8"	8'-3"	17'-10"	5'-3"	8'-6"	Power
9793 Lb.	X	33'-0"		9'-8"	8'-3"	17'-10"	5'-3"	8'-6"	Hand
X	8075 Lb.	30'-7"		8'-7"	7'-7"	15'-5"	4'-10"	8'-0"	Power
7570 Lb.	X	30'-7"		8'-7"	7'-7"	15'-5"	4'-10"	8'-0"	Hand
5858 Lb.	X	27'-7"		8'-0"	7'-2"	13'-10"	4'-5"	7'-0"	Hand
3500 Lb.	X	25'-1"		6'-7"	7'-5"	11'-3"	3'-11"	6'-1"	Hand
2080 Lb.	X	19'-6"		5'-10"	6'-0"	9'-5"	3'-7"	5'-0"	Hand
1445 Lb.	X	19'-1"		6'-6"	5'-11"	9'-0"	3'-6"	5'-7"	Hand
X	12000 Lb.	31'-8"	20'-1"	10'-6"	7'-11"	17'-7"	5'-6"	8'-6"	Power
X	9000 Lb.	29'-9"	18'-10"	8'-11½"	7'-9"	15'-8"	5'-1"	7'-9"	Power
7790 Lb.	X	30'-9"	20'-2"	8'-7¼"	7'-0"	16'-3"	5'-2"	7'-6"	Hand
5700 Lb.	X	27'-10"	18'-1"	7'-9"	6'-6"	13'-6"	4'-8"	6'-8"	Hand
X	12200 Lb.	31'-9"	22'-0"	10'-7"	7'-7"	18'-9"	6'-0"	8'-9"	Power
9700 Lb.	10100 Lb.	30'-1"	20'-9"	9'-4½"	7'-3" P. C. 7'-8" H. C.	17'-6"	6'-2"	8'-6"	Power & Hand (b)
7400 Lb.	8200 Lb.	28'-1¾"	18'-8"	9'-0"	6'-8" P. C. 7'-11" H. C.	15'-7"	5'-4"	7'-8"	Power & Hand (b)
5800 Lb.	X	25'-7"	16'-3"	8'-4"	7'-3½"	13'-6"	4'-9"	7'-3"	Hand
3500 Lb.	X	24'-9"		7'-0"	6'-7"	11'-11"	4'-3"	4'-3" to 6'-5"	Hand
1600 Lb.	X		11'-8"	6'-8½"		9'-0"	3'-2"	6'-0"	Hand (d)
X	12500 Lb.	33'-0"		9'-10"	8'-1"	20'-4"	5'-8"	8'-6"	Power
X	10530 Lb.	29'-6"	21'-2"	9'-8"	8'-2"	17'-10"	5'-7"	8'-6"	Power
X	10600 Lb.	30'-6"		9'-8"	7'-7"	18'-10"	5'-7"	8'-6"	Power
10100 Lb.	X	30'-6"		9'-8"	8'-3"	18'-10"	5'-7"	8'-6"	Hand
X	7435 Lb.	28'-0"		8'-1"	7'-1"	16'-6"	4'-10"	7'-6"	Power
7500 Lb.	X	27'-3"		9'-3"	7'-10"	16'-6"	4'-10"	8'-0"	Hand
5800 Lb.	X	26'-2"		7'-9"	7'-5"	14'-6"	4'-4"	6'-6¾"	Hand
3650 Lb.	X	22'-10"		7'-5½"	6'-9"	13'-4"	4'-2"	6'-4"	Hand
1395 Lb.	X	11'-4"		6'-5"	5'-8"	9'-2"	3'-8"	5'-6"	Hand
X	8360								Power
7450 Lb.	X					15'-3"	4'-5"	7'-4"	Hand
12300 Lb.	X					18'-6" (c)	5'-5"	9'-5"	Hand
10500 Lb.	X					16'-3" (c)	5'-5"	8'-7"	Hand
7350 Lb.	X					15'-6" (c)	4'-6"	7'-8"	Hand
5750 Lb.	X					13'-6" (c)	4'-6"	7'-6"	Hand
4510 Lb.	X					13'-4"	4'-6"	7'-6"	Hand
3875 Lb.	X					11'-10" (c)	3'-8"	6'-6½"	Hand
4500 Lb.	X					13'-6"	3'-8"	7'-9"	Hand
4740 Kg.	4940 Kg.	9.65 M.	6.40 M.	2.95 M.	2.26 M.	5.41 M.	1.65 M.	2.59 M.	Power or Hand
3420 Kg.	3550 Kg.	8.62 M.	5.49 M.	2.69 M.	2.13 M.	4.58 M.	1.42 M.	2.34 M.	Power or Hand
2700 Kg.	X	7.98 M.	4.98 M.	2.36 M.	2.06 M.	4.11 M.	1.37 M.	2.05 M.	Hand
1574 Kg.	1660 (e)	6.78 M.	4.32 M.	2.13 M.	1.65 M.	3.51 M.	1.22 M.	1.83 M.	Power (e) or Hand
748 Kg.	X	5.97 M.	3.56 M.	1.80 M.	1.56 M.	2.92 M.	.97 M.	1.60 M.	Hand
2685 Kg.(a)	2613 Kg. (a)	7.16 M.	4.98 M.	2.49 M.	2.29 M.	4.11 M.	1.32 M.	2.13 M.	Power or Hand

(a) With auxiliary rear controls.

(b) Power wheel leaning arrangement available for hand controlled machines.

(c) Also available as "Scarifier Model" with longer wheel base.

(d) Circle reverse by hand from ground.

(e) Power controlled trailer model.

COMPARATIVE SPECIFICATIONS

	BLADE ASSEMBLY						BLADE RANGE						LINE
	Length	Width	Thickness	Beams Size	Beams Material	Reinforcement Size	Lift Above Ground	Side Shift	No. Pitch Positions	Angle Bank Cutting	Reach Bank Cutting (g)	Shoulder Reach (h)	
	12'-0"	24"	5/8"	6"x1 3/8"	Structural Steel	6"x4"x3/4" Angle	18"	3'-6"	13	90°	12'-0"	7'-0"	1
	10'-0"	20"	1 1/8"	5'-1 1/4"	Structural Steel	3"x2"x1/2" Angle	17"	3'-4"	11	90°	10'-0"	6'-8"	2
	8'-0"	17 1/2"	1 1/2"	5"x1"	Structural Steel	4"x3"x1/2" Angle	15"	3'-0"	15	90°	8'-0"	4'-8 1/2"	3
	8'-0"	17"	3/8"	4"x3/8"	Rolled Steel	2 1/2"x2 1/2"x1/2" Angle	13"	3'-0"	10	70°	7'-6"	3'-3"	4
	8'-0"	16 1/2"	1 1/8"	3"x1"	H. C. Steel	3"x2 1/2"x3/8" Angle	11"	10"	14	X	X	X	5
	12'-0"	17 1/2"	1 1/2"	4 1/2"x1 1/8"	H. C. Steel	5"x3"x1/2" Angle	12"	17 1/2"	15	X	X	X	6
	12'-0"	23"	5/8"	7"x1 1/4"	H. C. Steel	6"x3 1/2"x1/2" Angle	17"	4'-9"	8	90°	12'-0"	7'-6"	7
	12'-0"	23"	5/8"	7"x1 1/4"	H. C. Steel	6"x3 1/2"x1/2" Angle	17"	4'-9"	8	90°	12'-0"	7'-6"	8
	10'-0"	21"	1 1/8"	6"x1 1/4"	H. C. Steel	5"x3"x3/8" Angle	16"	3'-10"	8	90°	10'-0"	6'-0"	9
	10'-0"	21"	1 1/8"	6"x1 1/4"	H. C. Steel	5"x3"x3/8" Angle	16"	3'-10"	8	90°	10'-0"	6'-0"	10
	8'-0"	18"	1 1/2"	6"x1"	H. C. Steel	5"x3"x3/8" Angle	15"	3'-4 1/2"	7	90°	8'-0"	4'-3"	11
	7'-0"	18"	3/8"	5"x3/4"	H. C. Steel	5"x3"x3/8" Angle	11 1/2"	32 1/2"	7	66°	Approx. 5'-0"		12
	6'-6"	13"	1 1/8"	4 1/2"x5/8"	H. C. Steel	3"x3"x3/8" Angle	7 1/2"	X	7	X	X		13
	8'-0"	13"	1 1/8"	4"x5/8"	H. C. Steel	3"x2 1/2"x1/2" Angle	8"	X	7	X	X		14
	12'-0"	23"	5/8"	7"x1 1/4"	H. C. Steel	5"x5"x1/2"	18"	5'-6"	5	90°	12'-0"	6'-11"	15
	10'-0"	20"	3/8"	6"x1 1/8"	H. C. Steel	5"x5"x3/8"	16"	4'-2"	5	90°	10'-0"	5'-5"	16
	10'-0"	19 3/4"	1 1/8"	5"x1 1/4"	Str. Steel	4"x3"x1/2" Angle	15"	3'-9 1/2"	2 1/2" Arm Adjustment	50°	7'-8"	6'-5"	17
	8'-0"	18 1/2"	1 1/2"	5"x1 1/8"	Str. Steel	5"x3"x3/8" Angle	13"	3'-4"	2 1/2" Arm Adjustment	60°	6'-11"	4'-0"	18
	12'-0"	25"	3/4"	Built up	Rolled Steel	90 Lb. R. R. Rail	14"	24" (f)	6	73°	10'-10"	2'-8 1/4"	19
	12'-0"	21 3/4"	5/8"	Built up	Rolled Steel	3/8"x3 1/2"x5" bulb angle	17"	24" (f)	6	73°	10'-10"	2'-10 1/2"	20
	10'-0"	19 3/8"	5/8"	Built up	Rolled Steel	3/8"x3 1/2"x5" bulb angle	17"	17 1/2" (f)	3	Over 70°	8'-5"	2'-6 7/8"	21
	8'-0"	19 3/8"	1 1/2"	Built up	Rolled Steel	3/8"x3 1/2"x5" bulb angle	13"	20"	11	Over 70°	6'-3"	1'-9 3/8"	22
	7'-0"	17"	3/8"	1 3/4" to 2 3/4"	H. C. Steel	2"x3"x3/8" Angle	12 3/4"	12"	20°	X	X		23
	8'-0"	13"	3/8"		Rolled Steel	Angle		10 5/8"	3	X	X		24
	12'-0"	24"	1 1/8"	8"x1 3/8"	H. C. Steel	5"x3 1/2"x3/8" H. C. Steel	18"	27 1/2"	Adj'ble	60°	10'-0"		25
	12'-0"	20"	5/8"	7"x1 1/4"	H. C. Steel	6"x3 1/2"x5/8" H. C. Steel	16"	28"	4	80°	12'-0"	6'-1"	26
	12'-0"	20"	5/8"	7"x1 1/4"	H. C. Steel	6"x3 1/2"x5/8" H. C. Steel	17"	27"	Adj'ble	65°			27
	12'-0"	20"	5/8"	7"x1 1/4"	H. C. Steel	6"x3 1/2"x5/8" H. C. Steel	17"	30"	Adj'ble	80°			28
	10'-0"	21"	5/8"	6"x1"	H. C. Steel	5"x3"x1/2" H. C. Steel	15"	22 1/2"	Adj'ble	80°			29
	10'-0"	20"	5/8"	6"x1"	H. C. Steel	5"x3"x1/2" H. C. Steel	15"	24"	Adj'ble	80°			30
	8'-0"	18"	1 1/2"	R. R. Rail	Rolled Steel	2 1/2"x2 1/2"x1/2" H. C. Steel	15"	30"	3	60°			31
	7'-0"	14"	3/8"	R. R. Rail	Rolled Steel	3"x2"x3/8" H. C. Steel	16 1/2"	27"	3	X	X		32
	8'-0"	15"	1 1/8"	4 1/2"x5/8"	H. C. Steel	3"x2 1/2"x1 1/8" H. C. Steel	12 1/2"	12 Pos.	3	X	X		33
	10'-0"	20"	5/8"		Rolled Steel	7"x3 1/2"x1/2" Angle							34
	10'-0"	20"	5/8"	5"x1 1/4"	Rolled Steel	7"x3 1/2"x1/2" Angle	13 1/2"	22"					35
	12'-0"	25"	5/8"		Rolled Steel		14"	24"					36
	12'-0"	25"	5/8"		Rolled Steel		14"	24"					37
	10'-0"	22"	1 1/2"		Rolled Steel		16"	24"					38
	8'-0"	22"	1 1/2"		Rolled Steel		15 1/2"	21"					39
	8'-0"	18"	1 1/2"		Rolled Steel		16"	21"					40
	7'-0"	18"	3/8"		Rolled Steel		15"	16"					41
	10'-0"	22"	1 1/2"		Rolled Steel			21"					42
	3.66 M.	60.96 cm	1.59 cm	15.24 cm x 3.49 cm	Structural Steel	15.24 cm x 10.16 cm x 1.59 cm	45.75 cm	1.07 M.	13	90°	3.66 M.	2.13 M.	43
	3.05 M.	50.80 cm	1.43 cm	12.71 cm x 3.49 cm	Structural Steel	10.16 cm x 5.08 cm x .95 cm	43.18 cm	1.02 M.	11	90°	3.05 M.	2.03 M.	44
	2.44 M.	44.45 cm	1.27 cm	12.70 cm x 2.54 cm	Structural Steel	10.16 cm x 7.62 cm x 1.27 cm	38.10 cm	.91 M.	15	90°	2.44 M.	1.44 M.	45
	2.44 M.	43.18 cm	.95 cm	10.16 cm x 2.22 cm	H. C. Steel	8.89 cm x 6.35 cm x 1.27 cm	33.02 cm	.91 M.	10	70°	2.29 M.	.99 M.	46
	2.44 M.	41.91 cm	.79 cm	7.62 cm x 2.54 cm	H. C. Steel	7.62 cm x 6.35 cm x .95 cm	27.94 cm	.25 M.	14	X	X	X	47
	3.66 M.	44.45 cm	1.27 cm	11.43 cm x 2.86 cm	H. C. Steel	12.70 cm x 7.62 cm x 1.27 cm	30.48 cm	.44 M.	15	X	X	X	48

(f) Hand power side shift.

(g) Vertical height.

(h) Measured from outside of rear wheel with blade at 90° to road bed.

BLADE GRADER

BLADE PRESSURE		CIRCLE						
Without Scarifier	With Scarifier	Diameter	Section	Size	Material	Center to Kingbolt	Wt. Circle, Blade and Drawbar Ass.	Lock Pin Diameter
10880 Lb.-P. C.	11220 Lbs.-P. C.	5'-4"	Angle	6"x6"x $\frac{7}{8}$ "	Structural Steel	8'-8"	3275 Lb.	1 $\frac{1}{4}$ "
10100 Lb.-H. C.	10640 Lbs.-H. C.	4'-6"	Angle	5"x5"x $\frac{3}{4}$ "	Structural Steel	7'-4"	2105 Lb.	1 $\frac{1}{8}$ "
7740 Lb.-P. C.	8200 Lbs.-P. C.	4'-1"	Angle	5"x4"x $\frac{3}{4}$ "	Structural Steel	6'-7 $\frac{1}{2}$ "	1315 Lb.	1 $\frac{1}{8}$ "
7140 Lb.-H. C.	7630 Lbs.-H. C.	3'-6"	Angle	4"x4"x $\frac{5}{8}$ "	Structural Steel	5'-9"	885 Lb.	1 $\frac{1}{8}$ "
5690 Lb.	6140 Lb.	3'- $\frac{1}{2}$ "	"T"	3"x3 $\frac{1}{2}$ "x $\frac{3}{8}$ "	Structural Steel	4'-8"	550 Lb.	$\frac{3}{4}$ "
3239 Lb.	3565 Lb.	4'-1"	Angle	5"x4"x $\frac{3}{4}$ "	Structural Steel	6'-9"	1556 Lb.	1 $\frac{1}{8}$ "
1550 Lb.	X	5'-3"	Angle	6"x4"x1"	H. C. Steel	8'-6"	3009 Lb.	X
5465 Lb.	5826 Lb.	5'-3"	Angle	6"x4"x1"	H. C. Steel	8'-6"	3015 Lb.	X
10050 Lb.	10950 Lb.	4'-6 $\frac{1}{4}$ "	Angle	5"x4"x $\frac{7}{8}$ "	H. C. Steel	7'-6"	2095 Lb.	X
9500 Lb.	9900 Lb.	4'-6 $\frac{1}{4}$ "	Angle	5"x4"x $\frac{7}{8}$ "	H. C. Steel	7'-6"	2106 Lb.	X
7800 Lb.	8350 Lb.	4'-6 $\frac{1}{4}$ "	Angle	5"x4"x $\frac{7}{8}$ "	H. C. Steel	6'-10"	1580 Lb.	X
7050 Lb.	7400 Lb.	3'-1"	Angle and Bar (a)	3 $\frac{1}{2}$ "x2 $\frac{1}{2}$ "x $\frac{1}{2}$ " Angle	H. C. Steel	5'-6"	910 Lb.	1 $\frac{1}{4}$ " O.D.
5700 Lb.	6100 Lb.	2'-7"	Angle and Bar (a)	2 $\frac{1}{2}$ "x2 $\frac{1}{2}$ "x $\frac{1}{2}$ " Angle	H. C. Steel	4'-9"	704 Lb.	$\frac{3}{4}$ " O.D.
3100 Lb.	2225 Lb.	2'-7"	Channel	3"-4 Lb. Channel	H. C. Steel	4'-9"	594 Lb.	$\frac{3}{4}$ " O.D.
2025 Lb.		5'-3"	Angle	6"x4"x1"	H. C. Steel	8'-8 $\frac{1}{2}$ "		X
1400 Lb.		4'-7 $\frac{3}{4}$ "	Angle	5"x4"x $\frac{7}{8}$ "	H. C. Steel	7'-10"		X
		4'-7 $\frac{3}{4}$ "	Spl. Rolled	3 $\frac{3}{4}$ "x5"	SAE 1040	7'-6"	1955 Lb.	X
7300 Lb.	7680 Lb.	4'-4"	Angle	5"x4"x $\frac{7}{8}$ "	Structural Steel	6'-7"	1515 Lb.	1 $\frac{1}{8}$ "
5440 Lb.	6080 Lb.	5'-6"	Cast		Cast Steel	9'-13 $\frac{1}{8}$ "	3665 Lb.	5 tooth steel casting
		5'-2"	Angle	5"x5"x1"	Forged Steel	8'-8"	2835 Lb.-P. C.	5 tooth steel casting
9650 Lb.-P. C.	10450 Lb.-P. C.	4'-0"	Cast		Cast Steel	7'-0"	2660 Lb.-H. C.	3 tooth steel casting
9210 Lb.-H. C.	10010 Lb.-H. C.	4'-6" O. D.	"T"	5"x4"x $\frac{1}{2}$ "	Structural Steel	6'-8 $\frac{1}{2}$ "	2080 Lb.-P. C.	4 tooth steel casting
8040 Lb.-P. C.	8532 Lb.-P. C.	3'-6" O. D.	"T"	3 $\frac{1}{2}$ "x3 $\frac{1}{2}$ "x $\frac{3}{8}$ "	Structural Steel	5'-6"	1905 Lb.-H. C.	Rev. Steel
7065 Lb.-H. C.	7557 Lb.-H. C.		Channel	5"	Structural Steel		Approx. 600 Lbs.	
5415 Lb.	5895 Lb.	6'-3" Semi-Circle	Bar Semi-Circle	8"x1 $\frac{3}{8}$ " Semi-Circle	H.C. steel semi-circle			1"x2"
		4'-6" Reversing	Bar Semi-Circle	7'-1 $\frac{1}{4}$ "	Mall. iron rev. circle			
		5'-10" Semi-Circle	Bar Semi-Circle	7"x1 $\frac{1}{4}$ "	H. C. Steel	8'-9"		
		2'-8" Reversing	Bar Semi-Circle	7"x1 $\frac{1}{4}$ "	H. C. Steel			1"x2"
		5'-10" Semi-Circle	R. R. Rail	7"x1 $\frac{1}{4}$ "	H. C. Steel			1"x2"
		2'-8" Reversing	Semi-Circle	6"x1"	H. C. Steel			1 $\frac{1}{4}$ " Sq.
		5'-7" Semi-Circle	Bar Semi-Circle	6"x1"	H. C. Steel			1 $\frac{1}{4}$ " Sq.
		5'-10" Reversing	Bar Semi-Circle					
		5'-7" Semi-Circle	R. R. Rail					
		5'-10" Reversing	Semi-Circle					
		4'-2" Reversing	R. R. Rail					
		4'-2" Reversing	Semi-Circle					
		3'-4"	Bar	4 $\frac{1}{2}$ "x5 $\frac{1}{8}$ "	SAE 1045	4'-9"	1400 Lb.	1 $\frac{1}{8}$ "x1 $\frac{3}{8}$ "
								1" Sq.
								$\frac{3}{4}$ "
			Angle		Structural Steel			1"x2" tapered
		4'-0"	Angle		Structural Steel			1"x2" tapered
		8'-6"	Bar Semi-Circle		Structural Steel			
		7'-0"	Bar Semi-Circle		Structural Steel			
		5'-6"	Bar Semi-Circle		Structural Steel			
		5'-6"	Bar Semi-Circle		Structural Steel			
		4'-6"	Bar Semi-Circle		Structural Steel			
		4'-5"	Bar Semi-Circle		Structural Steel			
		5'-6"	Bar Semi-Circle		Structural Steel			
4930 Kg.-P. C.	5085 Kg.-H. C.	1.62 M.	Angle	15.24 cm x 15.24 cm x 2.22 cm	Structural Steel	2.64 M.	1485 Kg.	3.18 cm
4580 Kg.-H. C.	4830 Kg.-P. C.	1.37 M.	Angle	12.71 cm x 12.71 cm x 1.90 cm	Structural Steel	2.24 M.	955 Kg.	2.86 cm
3515 Kg.-P. C.	3720 Kg.-H. C.	1.24 M.	Angle	12.70 cm x 10.16 cm x 1.91 cm	Structural Steel	2.02 M.	555 Kg.	2.86 cm
3245 Kg.-H. C.	3470 Kg.-P. C.	1.07 M.	Angle	10.16 cm x 10.16 cm x 1.59 cm	Structural Steel	1.75 M.	401 Kg.	2.86 cm
2480 Kg.	2780 Kg.	.93 M.	"T"	7.62 cm x 8.89 cm x .95 cm	Structural Steel	1.42 M.	249 Kg.	1.91 cm
1514 Kg.	1663 Kg.	1.24 M.	Angle	12.70 cm x 10.16 cm x 1.91 cm	Structural Steel	2.06 M.	706 Kg.	2.70 cm
703 Kg.	X							
2479 Kg.	2643 Kg.							

(a) Bar semi-circle and angle reversing circle.

COMPARATIVE SPECIFICATIONS

LINE	DRAWBAR (c)					FRAME				LINE
	Size	Shape	KINGBOLT			Shape	Size	Weight	Clearance	
			Shape	Diameter	Length					
	5½"x3½"x½"	Built Up	Steel Ball	3" at neck	13½"	Built up	11"x9½"	67 Lb. Ft.	5'-3"	1
	4½"x3½"x½"	Two Members	Steel Ball	2½" at neck	12½"	Built up	11"x8½"	56.4 Lb. Ft.	4'-9"	2
	4½"x3"x½"	Built Up	Steel Ball	2½" at neck	12½"	Built up	10"x7½"	43 Lb. Ft.	4'-5½"	3
	4"x3½"x1½"x½"	Two Members	Steel Tubing	2½" O.D. wall	20"	Built up	4½"x3"	15.4 Lb. Ft.	3'-10"	4
	3½"x2½"x1½"	Bulb Angle	Solid Round	1¼"	13"	Channel	4"	6¼ Lb. Ft.	3'-2"	5
	4½"x3½"x½"	Reinforc'd Angle	Solid Round	1½"	30½"	Ship Channel	7"	18.6 Lb. Ft.	3'-7"	6
	Two Angles 6"x6"x1"	Welded Box	Steel Ball	4" at neck	11½"	Welded Box	Two 9" Ship Channels	23.9 Lb. Ft. Each	5'-3"	7
	Two Angles 6"x6"x1"	Welded Box	Steel Ball	4" at neck	11½"	Welded Box	Two 9" Ship Channels	23.9 Lb. Ft. Each	5'-3"	8
	Two Angles 6"x6"x½"	Welded Box	Steel Ball	3½" at neck	10½"	Welded Box	Two 8" Ship Channels	21.5 Lb. Ft. Each	4'-10"	9
	Two Angles 6"x6"x½"	Welded Box	Steel Ball	3½" at neck	10½"	Welded Box	Two 8" Ship Channels	21.5 Lb. Ft. Each	4'-10"	10
	Two Angles 5"x5"x½"	Welded Box	Steel Ball	3½" at neck	10½"	Welded box	Two 7" Ship Channels	15.6 Lb. Ft. Each	4'-7½"	11
	4"	I-Beam	Steel Tubing	2½" O.D.	11½"	I-Beam	5"	10 Lb. Ft.	3'-11"	12
	4"x3"x½"	Angle	Steel Ball	3" at neck	15¼"	Pipes and Angles	1½" Pipe 3"x3½"x½" ang.			13
	4"x3"x½"	Angle	Solid	¾" O.D.	5¾"	Pipes and Angles	3"x3½"x½" ang.			14
	8" Double	Ex. Str. Pipe	Steel Ball	4" O.D.		Welded Pipe & Ship Channels	10" Pipe	54.7 Lb. Ft.	5'-7"	15
	7"	Ex. Str. Pipe	Steel Ball	4" O.D.		Welded Pipe & Ship Channels	9" Pipe	48.7 Lb. Ft.	5'-1"	16
	6"-15.3 Lb. Ft.	Ship Channel	Steel Ball	X	X	Channel and Trussed Angles	4"x3"x½" upper 4"x3"x½" lower 4"x2½"x½" up'r 4"x2½"x½" low	Section Modulus 19	4'-11½"	17
	6"-15.3 Lb. Ft.	Ship Channel	Steel Ball	X	X	Channel and Trussed Angles		Section Modulus 10.7	4'-4"	18
	6½"-34.6 Lb. Ft.	Z-Bar		3¼"	17¾"	Welded Box	12"	30 Lb. Ft.	5'-4"	19
	6"x3½"x1½"	Z-Bar		3¼"	20"-P. C. 16"-H. C.	Welded Box	10"	25 Lb. Ft.	5'-0"	20
	5"x3½"x1½"	Z-Bar		2¾"	14"-P. C. 10½"-H. C.	Welded Box	9"	20 Lb. Ft.	4'-8½"	21
	3½"x4½"x3¼"	Z-Bar	Steel Tube	2½"	9½"	Welded Box	7"	17¼ Lb. Ft.	4'-¾"	22
	3½"x3½"x½"	"T"	Tubing	2" O.D.		"T"	5"x4"x½"	15.3 Lb. Ft.	4'-0"	23
	4"x5½"	Bar	Solid Round			"T"	3¼"x3½"x½"			24
	8"x6"x¾"	Angle	Steel Tubing	4"		Ship Channel	10"	28.5 Lb. Ft.	5'-2"	25
	8"x6"x¾"	Angle	Steel Tubing	3½"		Channel	9"	25 Lb. Ft.	5'-7"	26
	8"x6"x¾"	Angle	Steel Tubing Case Hardened	3½"		Channel	9"	25 Lb. Ft.	5'-1"	27
	8"x6"x¾"	Angle	Steel Tubing Case Hardened	3½"		I-Beam	9"	25 Lb. Ft.	5'-1"	28
	5"x3"x¾"	Angle	Steel Tubing Case Hardened	3½"		Channel	7"	19¾ Lb. Ft.	4'-7"	29
	5"x3"x¾"	Angle	Steel Tubing Case Hardened	3½"		Channel	7"	19¾ Lb. Ft.	4'-7"	30
	4"x3"x¾"	Angle	Cast Steel	3"	11¾"	I-Beam	6"	17¼ Lb. Ft.	4'-0"	31
	4"x3"x¾"	Angle	Steel Tubing	2½"		Angle	5"x3"x¾"	9.8 Lb. Ft.	3'-10"	32
	4"x3"x½"	Angle	Solid Round	1"	7½"	Channel	4"	6¼ Lb. Ft.	3'-3"	33
		Tubular				Welded Pipe				34
	8"	Channel				Welded Pipe	8½" O.D. 7½" I.D.			35
		Reinforc'd Angle				I-Beam	9"	30 Lb. Ft.	5'-2"	36
		Reinforc'd Angle				I-Beam	8"	23 Lb. Ft.	5'-0"	37
		Reinforc'd Angle				I-Beam	7"	20 Lb. Ft.	4'-6"	38
		Reinforc'd Angle				I-Beam	6"	17¼ Lb. Ft.	4'-1"	39
		Reinforc'd Angle				I-Beam	6"	14¾ Lb. Ft.	3'-11"	40
		Reinforc'd Angle				I-Beam	5"	12¼ Lb. Ft.	3'-9"	41
		Reinforc'd Angle				I-Beam	6"	14¾ Lb. Ft.	4'-6"	42
	13.98 cm x 8.89 cm x 1.27 cm	Built Up	Steel Ball	7.62 cm	34.30 cm	Built up	24.44 cm x 27.94 cm	99.60 Kg. M.	1.60 M.	43
	11.43 cm x 8.89 cm x 1.11 cm	Two Members	Steel Ball	6.35 cm	31.45 cm	Built up	27.94 cm x 21.60 cm	83.80 Kg. M.	1.45 M.	44
	11.10 cm x 7.62 cm x .95 cm	Built Up	Steel Ball	6.35 cm	31.45 cm	Built up	25.40 cm x 19.04 cm	63.95 Kg. M.	1.37 M.	45
	10.16 cm x 8.89 cm x 3.81 cm x .95 cm	Two Members	Steel Tubing	6.99 cm 1.59 cm	50.80 cm	Built up	12.38 cm x 7.62 cm	22.90 Kg. M.	1.17 M.	46
	8.89 cm x 6.35 cm x .79 cm	Bulb Angle	Solid Round	3.18 cm	33.02 cm	Channel	10.16 cm	9.28 Kg. M.	.97 M.	47
	10.32 cm x 7.94 cm x 1.27 cm	Reinforc'd Angle	Solid Round	4.92 cm	77.47 cm	Ship Channel	17.78 cm	27.65 Kg. M.	1.09 M.	48

(b) Frame leanable at 28 degrees to right, 26 degrees to left.

(c) Structural steel is generally used in the fabrication of circle drawbars.

BLADE GRADER

LIFTING MECHANISM									
Design	Gears Material	Worms Material	LIFTING SHAFT				Lifting Crank Mat.	LIFTING LINK	
			Diameter	Material	Bearings Front	Bearings Rear		Diameter	Material
Worm and gear	Bronze	Steel	2 1/8"	H.T. Steel	Bronze	Self-Aligning Ball	Steel Forging	1 7/8" Link 2 5/8" Tube	H.C. Steel
Worm and gear	Bronze	Steel	2 3/8"	H.T. Steel	Bronze	Self-Aligning Ball	Steel Forging	1 3/4" Link 2 1/2" Tube	H.C. Steel
Worm and gear	Grey Iron	Steel	2 3/8"	H.T. Steel	Bronze	Ball	Steel Forging	1 5/8" Link 2 1/4" Tube	H.C. Steel
Worm and gear	Steel Forging	Bronze	1 3/4"	H.T. Steel	Bronze	Bronze	Steel Forging	1 1/2"	H.C. Steel
Worm and gear	Grey Iron	Steel	1 3/8"	Steel	Plain	Plain	Steel	1"	Steel
Screw & Nut	Bronze Nut	Steel Screw	X	X	X	X	X	2 1/4" Screw	Steel Screw
Worm and gear	Forged Steel	Semi-Steel	2 3/4"	Alloy Steel	Ball and Socket	Mach. Finished	Alloy Steel	1 1/2" Square	Forged H.C. Steel
Worm and gear	Forged Steel	Semi-Steel	2 3/4"	Alloy Steel	Ball and Socket	Mach. Finished	Alloy Steel	1 1/2" Square	Forged H.C. Steel
Worm and gear	Forged Steel	Semi-Steel	2 3/8"	Alloy Steel	Ball and Socket	Mach. Finished	Alloy Steel	1 1/4" Square	Forged H.C. Steel
Worm and gear	Forged Steel	Semi-Steel	2 3/8"	Alloy Steel	Ball and Socket	Mach. Finished	Alloy Steel	1 3/4" Square	Forged H.C. Steel
Worm and gear	Forged Steel	Semi-Steel	2 1/4"	Alloy Steel	Ball and Socket	Mach. Finished	Alloy Steel	1 1/4" Square	Forged H.C. Steel
Worm and gear	Forged Steel	Semi-Steel	1 3/4"	H.C. Steel	Ball and Socket	Mach. Finished	H.C. Steel	1 1/4" Square	Forged Steel
Worm and gear	Forged Steel	Semi-Steel	X	X	X	X	H.C. Steel	1" Square	Forged Steel
Worm and gear	Grey Iron	Grey Iron	X	X	X	X	Structural	1" Square	Forged Steel
Worm and gear	Forged Steel	Ni. Cast Iron	3 1/4"	H.T. Steel	Mach. Finished	C.I. Bushings	Steel Forging	1 5/8" Dia.	Forged Steel
Worm and gear	Forged Steel	Ni. Cast Iron	2 3/4"	H.T. Steel	Mach. Finished	C.I. Bushings	Steel Forging	1 5/8" Dia.	Forged Steel
Worm and gear	Cast Steel	Bronze	2 3/4"	Alloy Steel	Hi-Pressure Bronze	Hi-Pressure Bronze	Cast Steel	1 1/2"	Steel
Worm and gear	Cast Steel	Bronze	2 3/8"	Alloy Steel	Hi-Pressure Bronze	Hi-Pressure Bronze	Str. Steel	1 1/2"	Steel
Hydraulic Worm & gear-H.C.	Bronze for H.C.	Steel for H.C.	X	X	X	X	Cast Steel	1 3/4" shaft 2 1/2" tube	Steel
Hydraulic P.C.	Bronze for H.C.	Steel for H.C.	2 5/8"	H.C. Rolled steel	Roller for H.C.	Roller for H.C.	Cast Steel	1 3/4" shaft 2 1/2" tube	Steel
Worm & gear-H.C.	Bronze for H.C.	Steel for H.C.	2 1/4"	H.C. Rolled steel	Roller for H.C.	Roller for H.C.	Cast Steel	1 3/4" shaft 2 1/2" tube	Steel
Hydraulic P.C.	Bronze for H.C.	Steel for H.C.	2 1/4"	H.C. Rolled steel	Roller for H.C.	Roller for H.C.	Cast Steel	1 3/4" shaft 2 1/2" tube	Steel
Worm and gear	Air Furnace Iron	Steel	2 1/4"	H.C. Rolled steel	Roller for H.C.	Roller for H.C.	Cast Steel	1 3/4" shaft 2 1/2" tube	Steel
Worm and gear	Open worm and gear	Mal'ble Iron	1 1/8"		Plain	Plain	Cast Steel	1 1/4"	Steel
	Cast Steel	Cast Steel	X	X	X	X	Roller Steel		Steel
Hydraulic	X	X		Rolled Steel	Tapered Roller	Tapered Roller	H.C. Steel		Steel
Hydraulic	X	X	X	X	X	X	X		Steel
Hydraulic	X	X	3"	H.C. Steel	Bronze	Bronze	H.C. Steel	2 1/4" Shaft 2 1/2" Tube	Steel
Worm and gear	Nickel Iron	Steel	2 1/2"	H.C. Steel	Bronze	Bronze	H.C. Steel	2 1/4" Shaft 2 1/2" Tube	Steel
Hydraulic	X	X	2 1/2"	H.C. Steel	Mach. Finished	Mach. Finished	H.C. Steel	1 1/2" Shaft 2" Tube	Steel
Worm and gear	Nickel Iron	Steel	2 1/2"	H.C. Steel	Mach. Finished	Mach. Finished	H.C. Steel	1 1/2" shaft 2" tube	Steel
Worm and gear	Nickel Iron	Steel	2 1/4"	H.C. Steel	Mach. Finished	Mach. Finished	H.C. Steel		Steel
Worm and gear	Nickel Iron	Steel	1 3/4"	H.C. Steel	Mach. Finished	Mach. Finished	H.C. Steel	1 7/8"	Steel
Screw	X	X	X	X	X	X	Cast Steel	1 7/8"	Steel
Spur Gears		X	Gear Rotated Sleeve Member on Tubular Frame				Cast Steel		Steel
Spur Gears		X	Gear Rotated Sleeve Member on Tubular Frame				Cast Steel		Steel
Worm and gear	Cast Steel	Steel Forging		H.C. Steel	Mach. Finished		Rolled Steel		Steel
Worm and gear	Cast Steel	Steel Forging		H.C. Steel	Mach. Finished		Rolled Steel		Steel
Worm and gear	Cast Steel	Steel Forging		H.C. Steel	Mach. Finished		Rolled Steel		Steel
Worm and gear	Cast Steel	Steel Forging		H.C. Steel	Mach. Finished		Rolled Steel		Steel
Worm and gear	Cast Steel	Steel Forging		H.C. Steel	Mach. Finished		Rolled Steel		Steel
Worm and gear	Cast Steel	Steel Forging		H.C. Steel	Mach. Finished		Rolled Steel		Steel
Worm and gear	Cast Steel	Steel Forging		H.C. Steel	Mach. Finished		Rolled Steel		Steel
Worm and gear	Bronze	Steel	6.51 cm	H.T. Steel	Bronze	Self-Aligning ball	Steel Forging	4.76 cm Link 6.67 cm Tube	H.C. Steel
Worm and gear	Bronze	Steel	6.04 cm	H.T. Steel	Bronze	Self-Aligning ball	Steel Forging	4.13 cm Link 6.04 cm Tube	H.C. Steel
Worm and gear	Grey Iron	Steel	5.55 cm	H.T. Steel	Bronze	Ball	Steel Forging	4.13 cm Link 5.72 cm Tube	H.C. Steel
Worm and gear	Steel Forging	Bronze	4.45 cm	H.T. Steel	Bronze	Bronze	Steel Forging	3.81 cm	H.C. Steel
Worm and gear	Grey Iron	Steel	3.49 cm	Steel	Plain	Plain	Steel	2.54 cm	Steel
Screw & Nut	Bronze Nut	Steel Screw	X	X	X	X	X	2.25 cm	Steel Screw

COMPARATIVE SPECIFICATIONS

	LIFTING MECHANISM				OPERATOR'S PLATFORM				LINE
	LIFTING LINK (a)	Compensating Springs	HANDWHEELS		Size H. C.	Size P. C.	Height H. C.	Height P. C.	
	Construction		Diameter	Distance Between					
	Telescoping	Yes for H. C.	43"	23½"	40"x29"	28"x31"	3'-1½"	3'-6"	1
	Telescoping	Yes for H. C.	40"	22"	35"x25"	26"x23½"	3'-0"	3'-0"	2
	Telescoping	Yes	37¼"	21½"	31"x27"	X	33"	X	3
	Telescoping Left Solid Right	No	34"	20"	26"x25"	X	26"	X	4
	Solid Round	No	24"	18½"	29"x27"	X	17½"	X	5
	Screw	Yes for H. C.	X	X	3'-3"x20"	X	31"	X	6
	Left link adj. for 2 lengths	X	X	X	X	3'-11½"x24"	X	45½"	7
	Left link adj. for 2 lengths	Yes	4'-0"	27"	Max. Dim. 3'-11½"x3'-8"	X	45½"	X	8
	Left link adj. for 2 lengths	X	X	X	X	3'-4½"x24"	X	43½"	9
	Left link adj. for 2 lengths	Yes	3'-6"	28"	Max. Dim. 3'-4½"x3'-8"	X	43½"	X	10
	Left link adj. for 2 lengths	Yes	3'-0"	28"	43"x36"	X	36"	X	11
	Left link adj. for 2 lengths	Yes	3'-0"	21"	42"x30½"	X	40"	X	12
	Solid Bar	Yes	2'-1"	7½"	24"x12"	X	19½"	X	13
	Solid Bar	No	21"	7"	24"x12"	X	16½"	X	14
	Telescoping	X	X	X	X	23½"x38"	X	47"	15
	Telescoping	X	X	X	X	23½"x38"	X	43"	16
	Solid Bar	Yes	3'-2"	30"	28"x51"	X	41"	X	17
	Solid Bar	Yes	3'-2"	33"	33"x3'-9"	X	31"	X	18
	Telescoping	X	X	X	X	3'-2"x3'-8"	X	3'-4"	19
	Telescoping	Yes for H. C.	42"	25½"	25"x4'-5"	25"x4'-5"	34"	3'-1"	20
	Telescoping	Yes for H. C.	42"	23½"	25"x4'-5"	25"x4'-5"	33½"	33½"	21
	Telescoping	Yes	36"	25½"	24"x3'-1"	X	30½"	X	22
	One Piece	No	36"	21½"	24"x28"	X	33"	X	23
	One Piece	No	25"			X		X	24
	Telescoping	X	X	X	X	4'-2½"x3'-4"	X	3'-8"	25
	Cylinder & Piston	X	X	X	X	32"x39"	X	4'-1"	26
	Telescoping	X	X	X	X	32"x18"	X	4'-1"	27
	Telescoping	Yes	40"	24"	32"x18"	X	4'-1"	X	28
	Telescoping	X	X	X	X	3'-6"x18"	X	3'-9"	29
	Telescoping	Yes	40"	23"	3'-6"x18"	X	3'-8"	X	30
	Telescoping	Yes	34"	22"	3'-2"x17"	X	34"	X	31
	One Piece	Yes	34"	20¼"	31"x25"	X	32"	X	32
	One Piece	No	17"	31¼"	24"x26"	X	25¾"	X	33
	Telescoping	X	X	X	X		X		34
	Telescoping	Yes	42"	29"		X		X	35
	One Piece	Yes	44"			X		X	36
	One Piece	Yes	40"			X		X	37
	One Piece	Yes	36"			X		X	38
	One Piece	Yes	36"			X		X	39
	One Piece	Yes	36"			X		X	40
	One Piece		30"			X		X	41
	One Piece					X		X	42
	Telescoping	Yes for H. C.	1.09 M.	59.75 cm	101.6 cm x 73.7 cm	71.2 cm x 78.8 cm	.95 M.	1.07 M.	43
	Telescoping	Yes for H. C.	1.02 M.	55.90 cm	88.9 cm x 63.5 cm	66.1 cm x 59.7 cm	.91 M.	.91 M.	44
	Telescoping	Yes	.95 M.	54.60 cm	78.8 cm x 68.5 cm	X	.84 M.	X	45
	Telescoping Left Solid Right	No	.86 M.	50.80 cm	66.04 cm x 63.50 cm	X	.66 M.	X	46
	Solid Round	No	.61 M.	46.99 cm	73.66 cm x 68.58 cm	X	.44 M.	X	47
	Screw	Yes for H. C.	X	X	99.06 cm x 50.80 cm	X	.79 M.	X	48

a) All manufacturers use split bearings and shims for wear take up on this member—also ball and socket connections.

BLADE GRADER

FRONT AXLE

REAR AXLE

Construction	Material	Size	Length	Spindle Diam.	Spindle Material	Construct'n	Material	Size	Length	Side Shift	Spindle Diam.	Spindle Material
Built up	2 steel angles	5"x3 1/2"x1/2"	6'-6 1/2"	2 1/2"	Forged H.T. chro-nickel steel	Built up	H-beam and angles	6'-2 1/2"x2"x1/2"	9'-7 1/2"	3'-4"	2 1/2"	Forged H.T. chro-nickel steel
Built up	2 steel angles	3 1/2"x3 1/2"x1/2"	5'-10"	2 1/8"	Forged H.T. Carbon steel	Built up	H-beam and angles	5'-2 1/2"x2"x3/8"	8'-10"	3'-0"	2 1/8"	Forged H.T. Carbon steel
Built up	2 steel angles	4"x3 1/2"x3/8"	5'-5"	2"	Forged H.T. Carbon steel	Built up	H-beam and angles	4'-2"x2"x3/8"	7'-8"	27"	2"	Forged H.T. Carbon steel
Built up	2 steel angles	4"x3 1/2"x3/8"	4'-10"	1 7/8"	Forged H.T. Carbon steel	Built up	Rolled steel	3 1/2" sq. box	6'-9"	24"	1 7/8"	Forged H.T. Carbon steel
Solid round	H.C. steel	1 5/8"	3'-10"	1 5/8"	H.C. steel	Solid Square	H.C. steel	1 5/8"	5'-11"	24"	1 5/8"	H.C. steel
Solid round	Chro-Nickel steel	2 1/8"	5'-5"	2"	Chro-nickel steel	Solid Square	H.C. steel	3"	8'-2"	26"	2"	H.C. steel
Built up	2 steel angles	4"x3"x1/2" (a)	6'-3 1/2"	2 1/2"	H.C. steel	Built up	2 Steel Angles	5"x3"x1/2" (a)	9'-6 1/2"	3'-6"	2 1/2"	H.C. steel
Built up	2 steel angles	4"x3"x1/2" (a)	6'-3 1/2"	2 1/2"	H.C. steel	Built up	2 Steel Angles	5"x3"x1/2" (a)	9'-6 1/2"	3'-6"	2 1/2"	H.C. steel
Built up	2 steel angles	4"x3"x1 1/8"	5'-9 1/2"	2 1/4"	H.C. steel	Built up	2 Steel Angles	4"x3"x1 1/8"	8'-11 1/2"	3'-5"	2 1/4"	H.C. steel
Built up	2 steel angles	4"x3"x1 1/8"	5'-9 1/2"	2 1/4"	H.C. steel	Built up	2 Steel Angles	4"x3"x1 1/8"	8'-11 1/2"	3'-5"	2 1/4"	H.C. steel
Built up	2 steel angles	4"x3"x3/8"	5'-3 1/2"	2"	H.C. steel	Built up	2 Steel Angles	4"x3"x3/8"	7'-10 1/2"	33"	2"	H.C. steel
Built up	2 steel angles	3"x2 1/2"x5/8"	4'-8 1/8"	1 5/8"	H.C. steel pres'd into cast shanks	Built up	Angles	3 1/2"x2 1/2"x5/8"	6'-9 5/8"	29"	1 5/8"	H.C. steel pres'd into cast shanks
Built up	2 steel angles	3"x2"x1 1/8"	4'-3 5/8"	1 5/8"	H.C. steel pres'd into cast shanks	Built up	Angles	3"x2"x1 1/8"	5'-9 5/8"	25"	1 5/8"	H.C. steel pres'd into cast shanks
Solid round	Steel Bar	1 5/8"	4'-2 3/4"	1 5/8"	H.C. steel	Built up	Angles	3"x2"x1 1/8"	6'-4 1/2"	25"	1 5/8"	H.C. steel
Built up	2 Angles and Plate	4"x3"x5/8"	6'-6"	2 1/2"	H.T. Alloy steel pres'd into cast Shank	Built up	Std. Pipe and Angles	2 1/2"x2 1/2"x3/8"	9'-6"	3'-0"		H.T. Alloy steel pres'd into cast Shank
Built up	2 Angles and Plate	4"x3"x1/2"	6'-1"	2 1/4"	"	Built up	Std. Pipe and Angles	2 1/2"x2 1/2"x3/8"	8'-9"	2'-8"		"
Box type	Channels and plates	5"x 9 Lb. Ft.	6'-1"	2"	"	Box type	Channels and plates	6"x13.3 Lb. Ft.	8'-5"	28"	2"	"
Box type	Channels and plates	5"x9 Lb. Ft.	5'-5"	2"	"	Box type	Channels and plates	6"x13 Lb. Ft.	7'-9 1/2"	21"	2"	"
Cast steel	Casting		7'-6"	3"	H.C. steel	Built up	H.C. steel angles	5"x4"x3/4"	10'-3"	33"	3"	H.C. steel
Cast steel-P.C.	Casting-P.C.		7'-5"	2 1/8"	H.C. steel	Built up	H.C. steel angles	5"x3"x5/8"	9'-9"	34 1/2" P.C.	2 5/8"	H.C. steel
Built up-H.C.	H.C. ang.-H.C.	4"x3"x3/8"	6'-6 1/2"	2 1/2"	H.C. steel	Built up	H.C. steel angles	5"x3"x5/8"	8'-10 1/2"	31 1/2" P.C.	2 1/2"	H.C. steel
Cast steel-P.C.	Casting-P.C.	4"x3"x3/8"	5'-9 1/4"	2 1/8"	H.C. steel	Built up	H.C. angles	4"x3"x1/2"	7'-5 1/4"	32"	2 1/8"	H.C. steel
Built up-H.C.	H.C. ang.-H.C.	3"x2 1/2"x3/8"				Built up	Cast and Rolled Steel	2 1/2" Sq. Axles		Telescopic By loose 's screw		
Square shaft	Rolled steel	3 1/2"x2 1/2"x3				Built up	Rolled steel					
Built up	H.C. angles	5"x3"x1/2"		2 1/8"	H.C. steel	Built up	H.C. angles	6"x4"x3/4"		34"	2 1/8"	H.C. steel
Built up	H.C. angles	4"x3"x1/2"	6'-9"	2 1/2"	H.C. steel	Built up	H.C. angles	5"x3"x3/4"	9'-8"	35"	2 1/2"	H.C. steel
Built up	H.C. angles	4"x3"x1/2"	6'-9"	2 1/2"	H.C. steel	Built up	H.C. angles	5"x3"x3/4"	9'-8"	35"	2 1/2"	H.C. steel
Built up	H.C. angles	4"x3"x1/2"		2 1/2"	H.C. steel	Built up	H.C. angles	5"x3"x3/4"		35"	2 1/2"	H.C. steel
Built up	H.C. angles	3 1/2"x2 1/2"x1/2"		2 1/2"	H.C. steel	Built up	H.C. angles	4"x3"x1/2"		31 1/8"	2 1/2"	H.C. steel
Built up	H.C. angles	3 1/2"x2 1/2"x1/2"		2 1/2"	H.C. steel	Built up	H.C. angles	4"x3"x1/2"		3'-2"	2 1/2"	H.C. steel
Built up	H.C. angles	3 1/2"x2 1/2"x1/2"	3'-1 1/4"	2 1/2"	H.C. steel	Built up	H.C. angles	4"x3"x1/2"	5'-4"	26 3/4"	2 1/2"	H.C. steel
Built up	H.C. angles	3 1/2"x2 1/2"x1/2"	3'-4"	1 1/8"	H.C. steel	Built up	H.C. angles	4"x3"x3/8"	5'-6"	30"	1 1/8"	H.C. steel
Round shaft	H.T. Alloy Steel	1 1/2"	4'-7"	Bearing 1 1/2"x7 1/2"	H.C. steel	Solid	H.T. Alloy Steel	1 1/2"	6'-5"	24"	Bearing 1 1/2"x7 1/2"	H.C. steel
Built up					H.C. steel	Built up				3'-0"		H.C. steel
Built up	Angles				H.C. steel	Built up	Angles			3'-0"		H.C. steel
Casting	Steel				Cast steel	Sq. Shaft	H.C. steel	4"		3'-9"		H.C. steel
Casting	Steel				Cast steel	Sq. Shaft	H.C. steel	3 1/2"		3'-1 1/2"		H.C. steel
Casting	Steel				Cast steel	Sq. Shaft	H.C. steel	3"		35"		H.C. steel
Casting	Steel				Cast steel	Sq. Shaft	H.C. steel	2 3/4"		33"		H.C. steel
Casting	Steel				Cast steel	Sq. Shaft	H.C. steel	2 3/4"		33"		H.C. steel
Casting	Steel				Cast steel	Sq. Shaft	H.C. steel	2 1/4"		33"		H.C. steel
Casting	Steel				Cast steel	Sq. Shaft	H.C. steel			3'-5"		H.C. steel
Built up	2 steel angles	12.70x8.89x1.27	1.99 M.	6.35 cm	Forged H.T. chro-nickel steel	Built up	H-beam and angles	15.24cmx6.35cm	2.93 M.	1.02 M.	6.35 cm	Forged H.T. chro-nickel steel
Built up	2 steel angles	7.62x6.35x.95	1.78 M.	5.40 cm	Forged H.T. Carbon steel	Built up	H-beam and angles	12.70cmx6.35cm	2.69 M.	.91 M.	5.40 cm	Forged H.T. Carbon steel
Built up	2 steel angles	10.16x7.62x.95	1.65 M.	5.08 cm	Forged H.T. Carbon steel	Built up	H-beam and angles	10.16cmx5.08cm	2.34 M.	.69 M.	5.08 cm	Forged H.T. Carbon steel
Built up	2 steel angles	10.16x7.62x.95	1.47 M.	4.76 cm	Forged H.T. Carbon steel	Built up	Rolled steel	8.89 cm	2.06 M.	.61 M.	4.76 cm	Forged H.T. Carbon steel
Solid round	H.C. Steel	4.13 cm	1.17 M.	3.49 cm	H.C. steel	Solid Square	H.C. steel	4.13 cm	1.80 M.	.61 M.	3.49 cm	H.C. steel
Solid round	Chro-Nickel Steel	5.87 cm	1.65 M.	5.08 cm	Chro-nickel steel	Solid Square	H.C. steel	7.62 cm	2.49 M.	.66 M.	5.08 cm	H.C. steel

(a) Reinforced.

COMPARATIVE SPECIFICATIONS

	FRONT WHEELS								LINE
	Type	Diameter	Bearings (c)	TIRES			Number Spokes	Diameter Spokes	
				Type	Width	Thickness			
	Leaning	34"	Tapered Roller	Steel	8"	5/8"	18	7/8"	1
	Leaning	32"	Tapered Roller	Steel	6"	5/8"	16	3/4"	2
	Leaning	30"	Tapered Roller	Steel	5"	1/2"	14	3/4"	3
	Leaning	28"	Tapered Roller	Steel	4"	1/2"	14	5/8"	4
	Straight	22"	Tapered Roller	Steel	3"	1/2"	12	5/8"	5
	Straight	29"	Tapered Roller	Solid Rubber	5"	X	14	3/4"	6
	Leaning	36"	Tapered Roller	Steel-Grooved	8"	5/8"	18	3/4"	7
	Leaning	36"	Tapered Roller	Steel-Grooved	8"	5/8"	18	3/4"	8
	Leaning	34"	Tapered Roller	Steel-Grooved	6"	5/8"	16	5/8"	9
	Leaning	34"	Tapered Roller	Steel-Grooved	6"	5/8"	16	5/8"	10
	Leaning	32"	Tapered Roller	Steel-Grooved	5"	1/2"	14	5/8"	11
	Leaning	30"	Hyatt	Steel	4"	1/2"	14	1 1/8"	12
	Leaning	24"	Hyatt	Steel	4"	3/8"	12	1/2"	13
	Straight	24"	Hyatt	Steel	4"	3/8"	12	1/2"	14
	Leaning	38"	Tapered Roller	Steel	8"	5/8"	18	7/8"	15
	Leaning	36"	Tapered Roller	Steel	6"	5/8"	16	3/4"	16
	Leaning	32"	Tapered Roller	Steel	6"	5/8"	16	5/8"	17
	Leaning	29"	Tapered Roller	Steel	6"	5/8"	14	5/8"	18
	Leaning	34"	Tapered Roller	Steel	9"	5/8"	16	7/8"	19
	Leaning	34"	Tapered Roller	Steel	7"	5/8"	18	3/4"	20
	Leaning	32"	Tapered Roller	Steel	6"	1/2"	14	3/4"	21
	Leaning	30"	Tapered Roller	Steel	5"	5/8"	14	3/4"	22
	Leaning	30"	Tapered Roller	Steel	4"	3/8"	18	1 1/8"	23
	Straight	24"	Plain	Steel	3"	1 1/8"	10		24
	Leaning	40"	Timken	Steel	8"	5/8"	20	7/8"	25
	Leaning	36"	Timken	Steel	7"	5/8"	18	3/4"	26
	Leaning	36"	Timken	Steel	7"	5/8"	18	3/4"	27
	Leaning	36"	Timken	Steel	7"	5/8"	18	3/4"	28
	Leaning	34"	Timken	Steel	6"	1 1/8"	14	3/4"	29
	Leaning	34"	Timken	Steel	6"	1 1/8"	14	3/4"	30
	Leaning	34"	Timken	Steel	5"	1 1/8"	14	3/4"	31
	Leaning	34"	Timken	Steel	4"	1/2"	14	5/8"	32
	Straight	26"	Plain	Steel	4"	3/8"	12	1 1/8"	33
	Leaning	32"	Tapered Roller	Steel	6"	1/2"	16		34
	Leaning	32"	Tapered Roller	Steel	6"	1/2"	16		35
	Leaning (b)	36"	Timken	Steel	8"		Disc	X	36
	Leaning (b)	36"	Timken	Steel	7"		Disc	X	37
	Leaning (b)	30"	Timken	Steel	6"		Disc	X	38
	Leaning (b)	30"	Timken	Steel	5"		Disc	X	39
	Leaning (b)	26"	Timken	Steel	4"		Disc	X	40
	Leaning (b)	26"	Timken	Steel	4"		Disc	X	41
	Straight	30"	Timken	Steel	4"		Disc	X	42
	Leaning	.86 M.	Tapered Roller	Steel	20.32 cm	1.59 cm	18	2.22 cm	43
	Leaning	.81 M.	Tapered Roller	Steel	15.24 cm	1.59 cm	16	1.91 cm	44
	Leaning	.76 M.	Tapered Roller	Steel	12.70 cm	1.27 cm	14	1.91 cm	45
	Leaning	.71 M.	Tapered Roller	Steel	10.16 cm	1.27 cm	14	1.59 cm	46
	Straight	.56 M.	Tapered Roller	Steel	7.62 cm	1.27 cm	12	1.59 cm	47
	Straight	.74 M.	Tapered Roller	Solid Rubber	12.70 cm	X	14	1.91 cm	48

b) Also available with straight wheels.

(c) All manufacturers use dust-proof hubs on front and rear wheels.

BLADE GRADER

REAR WHEELS

Type	Diameter	Bearings (b)	TIRES			Number Spokes	Diameter Spokes
			Type	Width	Thickness		
Leaning	44"	Tapered Roller	Steel	8"	5/8"	24	7/8"
Leaning	40"	Tapered Roller	Steel	6"	5/8"	18	3/4"
Leaning	40"	Tapered Roller	Steel	5"	1/2"	18	3/4"
Leaning	36"	Tapered Roller	Steel	4"	1/2"	16	5/8"
Straight	28"	Tapered Roller	Steel	3"	1/2"	12	5/8"
Straight	40"	Tapered Roller	Solid Rubber	5"	X	18	3/4"
Leaning	44"	Tapered Roller	Steel-Grooved	8"	5/8"	22	3/4"
Leaning	44"	Tapered Roller	Steel-Grooved	8"	5/8"	22	3/4"
Leaning	40"	Tapered Roller	Steel-Grooved	6"	5/8"	20	5/8"
Leaning	40"	Tapered Roller	Steel-Grooved	6"	5/8"	20	5/8"
Leaning	36"	Tapered Roller	Steel-Grooved	5"	1/2"	18	5/8"
Leaning	36"	Hyatt	Steel	4"	1/2"	16	1 1/8"
Leaning	30"	Hyatt	Steel	4"	3/8"	14	1 1/2"
Straight	30"	Hyatt	Steel	4"	3/8"	14	1 1/2"
Leaning	38"	Tapered Roller	Steel	8"	5/8"	18	7/8"
Leaning	36"	Tapered Roller	Steel	6"	5/8"	16	3/4"
Leaning	42"	Tapered Roller	Steel	6"	5/8"	20	5/8"
Leaning	39"	Tapered Roller	Steel	6"	5/8"	18	5/8"
Leaning	44"	Tapered Roller	Steel	9"	5/8"	22	7/8"
Leaning	44"	Tapered Roller	Steel	7"	5/8"	22	3/4"
Leaning	42"	Tapered Roller	Steel	6"	1/2"	18	3/4"
Leaning	36"	Tapered Roller	Steel	5"	5/8"	18	3/4"
Leaning	36"	Tapered Roller	Steel	4"	3/8"	20	1 3/8"
Straight	40"	Plain	Steel	3"	1 1/8"	16	
Leaning	50"	Timken	Steel	8"	5/8"	22	7/8"
Leaning	44"	Timken	Steel	8"	5/8"	20	7/8"
Leaning	44"	Timken	Steel	8"	5/8"	20	7/8"
Leaning	44"	Timken	Steel	8"	5/8"	20	7/8"
Leaning	44"	Timken	Steel	6"	1 1/8"	16	3/4"
Leaning	44"	Timken	Steel	6"	1 1/8"	16	3/4"
Leaning	44"	Timken	Steel	6"	1 1/8"	16	3/4"
Leaning	40"	Timken	Steel	4"	1 1/2"	16	5/8"
Straight	26"	Plain	Steel	4"	3/8"	12	1 1/8"
Leaning	40"	Tapered Roller	Steel	6"	1 1/2"	20	
Leaning	40"	Tapered Roller	Steel	6"	1 1/2"	20	
Leaning (a)	48"	Timken	Steel	8"		Disc	X
Leaning (a)	48"	Timken	Steel	7"		Disc	X
Leaning (a)	40"	Timken	Steel	6"		Disc	X
Leaning (a)	40"	Timken	Steel	5"		Disc	X
Leaning (a)	34"	Timken	Steel	4"		Disc	X
Leaning (a)	34"	Timken	Steel	4"		Disc	X
Straight	40"	Timken	Steel	4"		Disc	X
Leaning	1.12 M.	Tapered Roller	Steel	20.32 cm	1.59 cm	24	2.22 cm
Leaning	1.02 M.	Tapered Roller	Steel	15.24 cm	1.59 cm	18	1.91 cm
Leaning	1.02 M.	Tapered Roller	Steel	12.70 cm	1.27 cm	18	1.91 cm
Leaning	.91 M.	Tapered Roller	Steel	10.16 M.	1.27 cm	16	1.59 cm
Straight	.71 M.	Tapered Roller	Steel	7.62 cm	1.27 cm	12	1.59 cm
Straight	1.02 M.	Tapered Roller	Solid Rubber	12.70 cm	X	18	1.91 cm

(a) Available also with straight wheels.

(b) All manufacturers use dust-proof hubs on front and rear wheels.

COMPARATIVE SPECIFICATIONS

	SCARIFIER								
	Weight H. C.	Weight P. C.	Block Material	Block Length	Swath Width	TEETH			
						Number	Size	Spacing	
	1710 Lb.	1680 Lb.	Cast Steel	4'-4½"	4'-3"	11	3"x1¼"	4½"	1
	1475 Lb.	1425 Lb.	Cast Steel	3'-9½"	3'-8"	11	3"x1"	4¼"	2
	1100 Lb.	X	Cast Steel	3'-10¼"	3'-7"	11	2½"x1"	4¼"	3
	750 Lb.	X	Cast Steel	3'-5"	35"	9	2½"x1"	4¼"	4
	X	X	X	X	X	X	X	X	5
	1070 Lb. (b)	1070 Lb. (b)	Cast Steel	3'-7"	3'-5"	9	2½"x1"	5"	6
	X	1700 Lb.	2 Welded 8"x8"x½" Angles	53"	4'-1¼"	9	3½"x1¼"	6"	7
	1700 Lb.	X	2 Welded 8"x8"x½" Angles	53"	4'-1¼"	9	3½"x1¼"	6"	8
	X	1255 Lb.	2 Welded 6"x6"x½" Angles	44"	3'-1"	7	3"x1"	6"	9
	1255 Lb.	X	2 Welded 6"x6"x½" Angles	44"	3'-1"	7	3"x1"	6"	10
	960 Lb.	X	2 Welded 6"x4"x½" Angles	44"	3'-¾"	7	2½"x¾"	6"	11
	305 Lb.	X	2 Welded 6"x6"x½" Angles	40"	26"	6	2½"x¾"	5"	12
	220 Lb.	X	4"x4"x¾" Angle	54"	4'-2"	10	1¼"x1¼"	5½"	13
	X	X	X	X	X	X	X	X	14
	X	1306 Lb.	Welded Angles		4'-1"	9	3"x1"	6"	15
	X	1112 Lb.	Welded Angles		3'-1"	7	3"x1"	6"	16
	1000 Lb.	X	Cast Steel	4'-6"	3'-7"	11	3"x1"	4¼"	17
	935 Lb.	X	Cast Steel	4'-1"	3'-7½"	11	3"x1"	4¼"	18
	X	1635 Lb.	Cast Steel	4'-3"	3'-5½"	5	3"x1½"	10"	19
	1600 Lb.	1635 Lb.	Cast Steel	4'-3"	3'-5½"	5	3"x1½"	10"	20
	985 Lb.	985 Lb.	Cast Steel	3'-11"	3'-4"	5	2½"x1¼"	9½"	21
	960 Lb.	X	Cast Steel	3'-8"	3'-4⅞"	9	2½"x⅞"	5"	22
	500 Lb.	X							23
	X	X	X	X	X	X	X	X	24
	X	1800 Lb.	Welded Steel	4'-6"		9	3½"x1"		25
	X	1500 Lb.	Welded Steel	4'-6"	4'-0"	11	3"x1"	4.8"	26
	X	1400 Lb.	Welded Steel	4'-6"	4'-1"	11	3"x1"	5"	27
	1400 Lb.	X	Welded Steel	4'-6"	4'-1"	11	3"x1"	5"	28
	X	1125 Lb.	Welded Steel	4'-6"	4'-1"	11	3"x1"	5"	29
	1125 Lb.	X	Welded Steel	4'-6"	4'-1"	11	3"x1"	5"	30
	1035 Lb.	X	Welded Steel	4'-6"	4'-1"	11	3"x1"	5"	31
	360 Lb. (c)	X	Struct. Steel						32
	X	X	X	X	X	X	X	X	33
	X	1500 Lb.	Welded Steel				3½"x1"	4"	34
	1000 Lb.	X	Welded Steel		2'-9"	9	3½"x1"	4"	35
	X	X	X	X	X	X	X	X	36
	X	X	X	X	X	X	X	X	37
	1075 Lb.	X	Cast Steel		3'-7"	7	2½"x1"		38
	X	X	X	X	X	X	X	X	39
	725 Lb.	X	Cast Steel		3'-7"	7	2½"x1"		40
	X	X	X	X	X	X	X	X	41
	X	X	X	X	X	X	X	X	42
	776 Kg.	760 Kg.	Cast Steel	1.33 M.	1.30 M.	11	7.62 cm x 3.18 cm	12.55 cm	43
	670 Kg.	650 Kg.	Cast Steel	1.16 M.	1.12 M.	11	7.62 cm x 2.64 cm	10.80 cm	44
	499 Kg.	X	Cast Steel	1.17 M.	1.09 M.	11	6.35 cm x 2.54 cm	10.80 cm	45
	340 Kg.	X	Cast Steel	1.04 M.	.89 M.	9	6.35 cm x 2.54 cm	10.80 cm	46
	X	X	X	X	X	X	X	X	47
	485 Kg. (b)	485 Kg. (b)	Cast Steel	1.09 M.	1.04 M.	9	6.35 cm x 2.54 cm	12.70 cm	48

(b) With auxiliary rear controls.

(c) Used in place of moldboard.

BLADE GRADER COMPARATIVE SPECIFICATIONS

SCARIFIER							BACKSLOPER WT.		LINE
Lifting Links Dia.	Drawbar Size	Lift Above Ground	Pitch Positions	Center Tooth to Kingbolt	Pressure Max.	Controls Design	Flat Bottom Type	V-Bottom Type	
2 3/8"	5 1/2" x 1 1/4"	10 1/2"	5	35"	8000 Lb. P. C. 7960 Lb. H. C.	Worm and Gear	753 Lb.	X	1
2 1/4"	5" x 1 1/4"	14"	5	32"	6000 Lb. P. C. 6050 Lb. H. C.	Worm and Gear	490 Lb.	X	2
1 11/16"	4 1/2" x 1 1/8"	12"	4	32 1/4"	4760 Lb.	Worm and Gear	445 Lb.	X	3
1 1/2"	5" x 1 1/4"	10"	6	32"	3061 Lb.	Worm and Gear	X	X	4
X	X	X	X	X	X	X	X	X	5
2"	4 1/2" x 1 1/8"	9"	4	31"	4365 Lb.	Worm and Gear	X	X	6
1 1/2" Square	7" x 1 1/4"	17 1/2"	1	36"	8100 Lb.	Worm and Gear			7
1 1/2" Square	7" x 1 1/4"	17 1/2"	1	36"	8100 Lb.	Worm and Gear			8
1 1/2" Square	6" x 1 1/4"	14"	1	30"	5800 Lb.	Worm and Gear			9
1 1/2" Square	6" x 1 1/4"	14"	1	30"	5800 Lb.	Worm and Gear			10
1 1/4" Square	6" x 1"	9"	1	33"	4200 Lb.	Worm and Gear			11
Replaces Blade Attaches to Blade Beams	4-3" x 3/4" bars Attach to Circle		1			Same as Blade	2D-316 Lb.	220 Lb.	12
X	X	X	X	X	X	Same as Blade	2D-124 Lb.	X	13
							X	X	14
1 5/8"	6" x 1 1/2"	24"	1			Worm and Gear			15
1 5/8"	6" x 1 1/2"	20"	1			Worm and Gear			16
2" Alloy	5" x 1 1/2" H.C.	10"	4	3'-8"	5700 Lb.	Worm and Gear	X	X	17
2" Alloy	5" x 1 1/2" H.C.	9"	4	3'-6"	4360 Lb.	Worm and Gear	X	X	18
2"	6" x 1 1/2"	12"	2	46"	8430 Lb.	Hydraulic	475 Lb. (a)	400 Lb.	19
2"	6" x 1 1/2"	12"	2	46"	7150 Lb. H. C. 7400 Lb. P. C.	Worm and Gear for H. C.	475 Lb. (a)	400 Lb.	20
1 1/2"	5" x 1 1/4"	12"	2	40"	5180 Lb. H. C. 5820 Lb. P. C.	Worm and Gear for H. C.	400 Lb. (a)	325 Lb.	21
1 1/2"	6" x 1 1/8"	8"	1	32"	4300 Lb.	Worm and Gear	300 Lb. (a)	250 Lb.	22
							275 Lb. (a)	225 Lb.	23
X	X	X	X	X	X	X	X	X	24
			2			Hydraulic	700 Lb.	450 Lb.	25
			2			Hydraulic	600 Lb.		26
	6" x 1 1/4"		2			Hydraulic	725 Lb.	380 Lb.	27
	6" x 1 1/4"		2			Worm and Gear	725 Lb.	380 Lb.	28
	6" x 1 1/4"		2			Hydraulic	489 Lb.	290 Lb.	29
	6" x 1 1/4"		2			Worm and Gear	489 Lb.	390 Lb.	30
						Worm and Gear	460 Lb.	285 Lb.	31
							311 Lb.	220 Lb.	32
							X	X	33
						Worm and Gear	760 Lb.	380 Lb.	34
						Worm and Gear	475 Lb.	290 Lb.	35
X	X	X	X	X	X	X		425 Lb.	36
X	X	X	X	X	X	X		425 Lb.	37
	5" x 1"					Worm and Gear		350 Lb.	38
X	X	X	X	X	X	X		270 Lb.	39
	5" x 1"					Worm and Gear		270 Lb.	40
X	X	X	X	X	X	X		175 Lb.	41
X	X	X	X	X	X	X		X	42
6.04 cm	13.98 cm x 3.18 cm	26.7 cm	5	.89 M.	3630 Kg. P. C. 3610 Kg. H. C.	Worm and Gear	329 Kg.		43
5.72 cm	12.70 cm x 3.18 cm	35.6 cm	5	.81 M.	2800 Kg. P. C. 2790 Kg. H. C.	Worm and Gear	222 Kg.		44
4.92 cm	11.43 cm x 2.86 cm	30.5 cm	4	.82 M.	2160 Kg.	Worm and Gear	202 Kg.	X	45
3.81 cm	10.16 cm x 2.22 cm	25.40 cm	6	.81 M.	1390 Kg.	Worm and Gear	X	X	46
X	X	X	X	X	X	X	X	X	47
5.08 cm	11.43 cm x 2.86 cm	22.86 cm	4	.79 M.	1980 Kg.	Worm and Gear	X	X	48

(a) Combination "V" and flat bottom.

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BLADE GRADERS

LINE	LIST PRICE F. O. B. FACTORY		FACTORY LOCATION	ATTACHMENTS INCLUDED AS STANDARD EQUIPMENT										
	H. C.	P. C.		Blade Length	Blade Thick- ness	End Bits	Steel Wheels	Rubber Tired Wheels	St'r'ble Tractor Pole	Adj'ble Tractor Pole	Stub Tractor Pole	Horse Pole	Roller Bear- ings	Auxil. Rear Control
1	1,785.00	2,285.00	PEORIA, ILL.	12'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
2	1,400.00	1,850.00	" "	10'	9/16"	Yes	Yes	X	Yes	X	X	X	Yes	X
3	1,100.00	X	" "	8'	1 1/2"	Yes	Yes	X	Yes	X	X	X	Yes	X
4	710.00	760.00(b)	" "	8'	3/8"	Yes	Yes	X	X	Yes	X	X	Yes	X
5	270.00	X	" "	8'	1/2"	X	Yes	X	X	Yes	X	X	Yes	X
6	600.00	575.00	" "	12'	1 1/2"	X	X	Yes	X	Yes	X	X	Yes	Yes
7	X	\$2,390.00	INDIANAPOLIS, IND.	12'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
8	\$1,890.00	X	" "	12'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
9	X	1,910.00	" "	10'	9/16"	Yes	Yes	X	Yes	X	X	X	Yes	X
10	1,440.00	X	" "	10'	9/16"	Yes	Yes	X	Yes	X	X	X	Yes	X
11	1,175.00	X	" "	8'	1 1/2"	Yes	Yes	X	Yes	X	X	X	Yes	X
12	700.00	X	" "	7'	3/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
13	385.00	X	" "	6 1/2'	5/8"	X	Yes	X	Yes	X	X	X	Yes	X
14	250.00	X	" "	8'	5/8"	X	Yes	X	X	X	X	Yes	Yes	X
15	X	2,495.00	LA PORTE, IND.	12'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
16	X	1,995.00	" "	10'	9/16"	Yes	Yes	X	Yes	X	X	X	Yes	X
17	995.00 (c)	X	" "	10'	9/16"	Yes	Yes	X	Yes	X	X	X	Yes	X
18	795.00 (c)	X	" "	8'	1 1/2"	Yes	Yes	X	Yes	X	X	X	Yes	X
19	X	2,250.00	AURORA, ILL.	12'	3/4"	Yes	Yes	X	Yes	X	X	X	Yes	X
20	1,750.00	2,150.00	" "	12'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
21	1,400.00	1,850.00	" "	10'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
22	1,100.00	X	" "	8'	1 1/2"	Yes	Yes	X	Yes	X	X	X	Yes	X
23	710.00	X	" "	7'	3/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
24	225.00	X	" "	8'	3/8"	X	Yes	X	X	X	X	Yes	X	X
25	X	2,350.00	GALION, OHIO	12'	1 1/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
26	X	X	" "	12'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
27	X	2,090.00	" "	12'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
28	1,660.00	X	" "	12'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
29	X	1,680.00	" "	10'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
30	1,250.00	X	" "	10'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
31	1,015.00	X	" "	8'	1 1/2"	Yes	Yes	X	Yes	X	X	X	Yes	X
32	645.00	X	" "	7'	3/8"	X	Yes	X	Yes	X	X	X	Yes	X
33	220.00	X	" "	8'	5/8"	X	Yes	X	X	X	X	Yes	X	X
34	X	1,845.00	BUCYRUS, OHIO	10'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
35	1,350.00	X	" "	10'	5/8"	Yes	Yes	X	Yes	X	X	X	Yes	X
36	2,275.00	X	ROME, N. Y.	12'	5/8"	Yes	Yes	X	(a)	X	X	X	Yes	X
37	1,975.00	X	" "	12'	5/8"	Yes	Yes	X	(a)	X	X	X	Yes	X
38	1,425.00	X	" "	10'	1 1/2"	Yes	Yes	X	(a)	X	X	X	Yes	X
39	1,100.00	X	" "	8'	1 1/2"	Yes	Yes	X	(a)	X	X	X	Yes	X
40	995.00	X	" "	7'	1 1/2"	X	Yes	X	(a)	X	X	X	Yes	X
41	850.00	X	" "	7'	3/8"	X	Yes	X	(a)	X	X	X	Yes	X
42	820.00	X	" "	10'	1 1/2"	X	Yes	X	X	X	Yes	X	Yes	X

(a) Steers through knuckles.
(b) Power controlled trailer model.
(c) Price limited to present stock.

X—Attachments available at extra cost or not available because of grader design.

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