2021 EQUIPMENT SELECTION GUIDE

AUGER BORING

Company	Model	Type Drive	Weight (lbs)	Boring Diameter (in)	Pit Size (ft)	Total Thrust (lbs)
American Augers	24/30-150	mechanical	4,142	4 - 30	10 x 33	150,000
	36-600	mechanical	5,100	12 - 36	14 x 36	600,000
	36/42-600E	mechanical	9,337	12 - 42	14 x 36	600,000
	48/54-900	mechanical	6,150	24 - 54	14 x 37	900,000
	60-1200	mechanical	8,900	24 - 60	16 x 37	1,200,000
	72-1200	mechanical	12,000	24 - 72	16 x 37	1,200,000
Barbco	24 - 150	mechanical	4,900	4 - 24	8 x 34	157,000
	30 - 250	mechanical	5,573	4 - 30	8 x 34	213,000
	36 - 500	mechanical	9,800	4 - 36	8 x 34	500,000
	36 - 650	mechanical	10,500	4 - 36	8 x 34	738,000
	42 - 650	mechanical	11,500	4 - 42	8 x 34	738,000
	48 - 950	mechanical	14,000	12 - 48	8 x 34	950,000
	60 - 1000	mechanical	16,000	12 - 60	10 x 34	1,106,000
	60 - 1200	mechanical	21,000	24 - 60	10 x 34	1,166,000
	72 - 1200	mechanical	22,500	24 - 72	10 x 34	1,166,000
	72 - 1800	mechanical	24,000	24 - 72	10 x 36	1,822,000
	84 - 1800	mechanical	27,000	24 - 84	10 x 36	1,822,000
	84 - 2200	mechanical	39,000	24 - 84	12 x 36	2,622,000
	96 - 2600	mechanical	45,000	36 - 96	12 x 36	2,622,000
Bohrtec	BM150D	hydraulic	1,433	11	5x5	56,200
	BM400	hydraulic	5,511	24	7x7	224,800
	BM400S	hydraulic	5,732	24	7x7	281,000
	BM500S	hydraulic	12,125	40	11x11	450,000
	BM400LS	hydraulic	6,393	38.5	7x8*	337,000
	BM600LS	hydraulic	12,345	47	9x12*	540,000
	BM800L	hydraulic	19,841	63	10x14*	708,000
	BM800LS	hydraulic	22,046	63	10x14*	708,000
	BM400LSC	hydraulic	8,598	37.8	8x7*	450,000
	BM600LSC	hydraulic	13,668	50.4	8x8*	562,000
	*plus pipe length					
Bor-It Mfg.	12H*	hydraulic	960	2 -12	3 x 9	30,000
	20D*	mechanical	2,200	4 - 20	4 x 28	51,500
	24**	mechanical	4,200	8 - 24	6 x 31	100,000
	30**	mechanical	6,500	12 - 30	7 x 31	200,000
	36**	mechanical	7,800	12 - 36	8 x 31	300,000
	42**	mechanical	14,000	12 - 42	10 x 35	500,000
	48**	mechanical	19,000	24 - 48	10 x 35	753,000
	54**	mechanical	23,000	24 - 54	10 x 35	1,000,000
	60**	mechanical	23,800	24 - 60	10 x 35	1,200,000
McLaughlin	McL-12HB Zipper	hydraulic	320	3-10	7	24,500
	McL 24C	mechanical	6,000	4-24	30	98,000
	McL 36/42C	mechanical	14,500	12-42	30	400,000
	McL 175 Work Horse	mechanical	36,000 split	16-42	32	800,000
	McL 225 Work Horse	mechanical	43,000 split	16-66	32	1,200,000
The Robbins Company	ABM 36-630	mechanical	20,000*	12 - 36	12 x 35	630,000
	ABM 48-950	mechanical	23,000*	12 - 48	12 x 35	950,000
	AMB 60-1270	mechanical	35,000*	24 - 60	16 x 38	1,270,000
	ABM 72-1500	mechanical	45,000*	24 - 72	16 x 38	1,500,000

BORING—HARD ROCK ATTACHMENTS

Company	Model	Casing Diameter (in)	Hex Size (in)	No. Cutters	Cutter Size (in)	Torque (ft/lbs)	Thrust Range (lbs)
Akkerman	RBU 24	24	4	9	6.5	as required	50,000
	RBU 30	30	4	9	6.5	as required	50,000
	RBU 36	36	4	11	6.5	as required	68,000
	RBU 42	42	5	16	6.5	as required	90,000
American Augers	24RH	24	4	9	6.5	7,800	94,995
	30RH	30	4	11	6.5	11,900	116,105
	36RH	36	4	13	6.5	16,900	137,215
	42RH	42	5	14	6.5	25,800	168,880
	48RH	48	5	19	6.5	32,900	200,545
Bohrtec	FS324 (13")	13	6	n/a	n/a	14,750	337,000
	FS406 (16")	16	6	n/a	n/a	14,750	337,000
	FS508 (20")	20	8	n/a	n/a	22,120	540,000
	FS609 (24")	24	8	n/a	n/a	22,120	540,000
	FS813 (32")	32	8	n/a	n/a	66,400	708,000
	FS914 (36")	36	8	n/a	n/a	66,400	708,000
Herrenknecht	AVN800B rock	37.8	n/a	5	12.5	40,566	200,080
	TBM 1200 rock	58.66	n/a	14	11	123,910	404.656
	TBM 1600 rock	76.38	n/a	17	13	304,613	494,580
	TBM 2000 rock	98.43	n/a	19	13	737,562	539,542
	TBM 2200 rock	106.3	n/a	20	14	816,480	539,542
	TBM 2500 rock	118.11	n/a	21	14	1,348,600	629,465
McLaughlin	SRS 30	30	5	12		20,000	175,000
	SRS 36	36	5	12		20,000	175,000
	SRS 42	42	5	12		25,000	225,000
	SRS 48	48	5	12		30,000	250,000
	SRS 60	60	5	12		50,000	350,000
The Robbins Company	SBUA-24	24	3 (4" opt)	9	6.5	5,800/7,800	45,000/90,000
	SBUA-30	30	4	9	6.5	5,800/7,800	45,000/90,000
	SBUA-36	36	4	13	6.5, 9.5	12,600/16,900	65,000/130,000
	SBUA-42	42	4	16	6.5, 9.5	19,300/25,800	85,000/170,000
	SBUA-48	48	5 (4" opt)	19	6.5, 9.5, 11.5	24,600/32,900	95,000/190,000
	SBUA-54	54	5 (4" opt)	21	6.5, 9.5, 11.5	30,600/40,900	105,000/210,000
	SBUA-60	60	5	14	6.5, 9.5, 11.5	38,200/50,900	187,500/350,000
	SBUA-66	66	5	15	11.5	47,100/62,800	200,000/375,000
	SBUA-72	72	5	16	11.5, 14	64,100/79,800	225,000/400,000
	SBU-M 48	50	N/A	19	6.5	N/A	190,000
	SBU-M 54	56	N/A	21	6.5	N/A	210,000
	SBU-M 60	62	N/A	14	11.5	N/A	350,000
	SBU-M 66	68	N/A	15	11.5	N/A	375,000
	SBU-M 72	74	N/A	16	11.5	N/A	400,000
	SBU-M 78	80	N/A	16	14	N/A	640,000
	SBU-RC 36	38	N/A	13	6.5	N/A	130,000

NOTE: Front steer (FS) is not designed with cutters, but is a rock attachment with integraged down-the-hole hammer. Drill bit diameter=casing diameter plus overcut.

BACKHOE LOADERS

Company	Model	Operating Weight (lbs)	Max. Reach (height to pin)	Maximum Dig Depth	HP
Case	580N EP	15,810	18' 6"	15'	68
	580N	16,589	18' 4"	14' 9"	83
	580 Super N	17,269	18' 2"	14' 6"	95
	580 Super N WT	20,077	18' 3"	14' 6"	95
	590 Super N	20,532	19' 7"	15' 6"	108
Caterpillar	415	20,257	11' 5"	14' 0"	70
	415F2	15,207	11' 11"	14' 3"	68
	416	21,050	11' 5"	14' 0"	86
	416F2	15,207	11' 11"	14' 3"	87
	420	21,515	11' 5"	14' 0"	92
	420 XE	21,515	11' 5"	14' 0"	92
	420F2	17,033	11' 11"	14' 4"	93
	420F2 IT	17,732	11' 11"	14' 4"	93
	430	22,355	11' 5"	15' 2"	107
	430F2	18,364	13'	15' 4"	108
	440	21,544	11' 11"	15' 6"	104
	450	24,039	12'	17'	131
John Deere	310L	14,669	17' 9"	14' 1"	93
	310L EP	13,822	17' 9"	14' 1"	69
	310SL	15,872	18' 1"	14' 3"	99
	310SL HL	16,571	18' 8"	15' 1"	110
	315SL	17,554	17' 10"	13' 5"	99
	410L	17,786	19' 9"	15' 11"	113
	710L	25,588	22' 5"	17' 3"	148
Kubota	B26TLB	4,001	94.5	99.8"	24.3
	L47TLB	7,205	113.9	121"	47.1
	M62TLB	8,925	126.1	169.8"	63
	Operating Weight = loader, backhoe & ROPS/FOPS; HP=gross horsepower				
New Holland	B95C	16,416	14' 9"	14' 4"	97
	B95C TC	18,443	14' 9"	14' 4"	97
	B110C	16,526	14' 9"	15' 3"	110

CABLE LAYING EQUIPMENT

Company	Model	HP	Operating Weight (lbs)	Max. Installation Depth (in)	Max. Reel Capacity (lbs)
BRON	150	225	36,500	60	8,000
	250	300	57,000	72	20,000
	450	440	81,000	88	38,000
	550	540	84,000	88	38,200
Ditch Witch	100SX	13.5	720	12	n/a
	410SX	49.6	3,910	26	n/a
	RT45	49	5,375	63	n/a
	RT55	62	12,000	62	1,500
	RT80	74	20,370	92	2,000

CABLE LAYING EQUIPMENT (cont.)

Company	Model	HP	Operating Weight (lbs)	Max. Installation Depth (in)	Max. Reel Capacity (lbs)
Ditch Witch	RT80 Quad	74	19,100	62	n/a
	RT105	107	22,000	97	n/a
	RT120	121	19,300	97	2,500
	RT120 Quad	121	26,200	93	3,000
	RT125	121	22,000	97	2,500
	RT125 Quad	121	27,200	93	3,000
	VP30	31	1,993	12	n/a
	Zahn Plow	27	1,290	18	n/a
Felling Trailers	FT-14 R	8	2,900	12	*
	*capacity for up to 120" reel				
Slabach Enterprises	PR-85	6.5	1,900	12	up to 120" reel
Toro	Pro Sneak 365	35.5	2,770	36	300
Vermeer	PTX40	46.8	2,740	42	500
	PTX42	46.8	3,240	42	500
	PTX44	46.8	2,940	42	500
	RTX450	49	4,575	60	500
	RTX550	65/67	7,800	60	2,000
	RTX750	74	9,330	60	2,000
	RTX1250i2	127	16,160	72	5,000
	XTS1250i2	127	20,215	48	5,000
	SPX25	25	1,600	12	150

CABLE PLOWS

Company	Model	HP	Max. Depth (in)	Plow Offset Range (in)	Approximate Weight (lb)
BRON	V65	50 - 75	38	42	2,100
	V75-1	75 - 130	42	48	3,200
	V75-2	120 - 150	48	51	4,200
	V100	130 - 164	60	60	6,400
	HS X-1	75 - 120	42	48	2,600
	HS-I	170 - 250	66	66	8,700
	HS-II	280 - 350	72	65	11,200
	HS-III	320 - 500	78	72	14,750
	HS-IIIR	N/A72	138	21,500	
Ditch Witch	(see listing under Cable Laying Equipment)				
Toro	(see listing under Cable Laying Equipment)				
Vermeer	(see listing under Cable Laying Equipment)				

COMPACT TRACK LOADERS

Company	Model	HP	Operating Weight (lbs)	Rated Operating Capacity (lbs)	Machine Length (in)	Machine Height (in)	Machine Width (in)
Bobcat	T450	58.2	6,148	1,400	126.6	77.8	55
	T550	62.9	7,557	1,995	133	77.8	67
	T590	62.9	7,822	2,100	133	77.8	67
	T595	70.5	8,055	2,200	133	77.8	67
	T64	64.9	8,727	2,300	134.9	80.5	67
	T66	70.5	8,927	2,450	134.9	80.5	67
	T76	70.5	10,250	2,900	147.1	81.8	72.9
	T740	70.9	10,127	3,200	141.6	81.3	78
	T770	88.2	10,515	3,475	141.6	81.3	78
	T870	95.9	12,925	3,650	153.9	83.6	82.8
	NOTE: Net HP; Rated Capacity = 35% tipping load; Length = with standard bucket; Width = without attachment						
Case	TR270B	68	8,270	2,700	129.1"	78.7	65.9
	TR310B	68	8,880	3,100	129.1"	78.7	74.3
	TR340B	84	10,000	3,400	143.5"	80.4	76.0
	TV370B	68	9,630	3,700	146.2"	80.4	76.0
	TV450B	84	10,610	4,500	148.6"	80.4	76.0"
Caterpillar	239D3	67.1	7,434	1,530	127.3	143.5	66.0
	249D3	67.1	7,831	1,740	127.3	150.8	66.0
	259D3	74.3	8,987	2,010	137.3	154.1	66.0
	279D3	74.3	10,095	2,220	146.2	159.5	78.0
	289D3	74.3	10,688	2,890	146.2	158.1	78.0
	299D3	98	11,464	3,480	154.7	158.7	76.0
	299D3 XE	110	11,756	3,560	154.7	158.7	76.0
	299D3 XE Land Management	110	12,764	4,340	154.7	158.7	78.0
John Deere	317G	65	8,423	2,125	137.4	78.5	65.1
	325G	74	9,500	2,590	136.3	81.1	71.5
	331G	91.2	11,900	3,100	146	86.7	78.9
	333G	100	12,100	3,700	146.0	86.7	80.7
Kubota	SVL65-2	62.5	8,035	3,000	136.4	79.9	65.2
	SVL75-2	68.8	9,039	3,285	140.8	82	68
	SVL97-2	87.0	11,299	4,572	154.6	83.3	72.2
	Horsepower is net; Operating Weight includes 175-pound operator weight; Operating Capacity is 50%; Machine Height is to top of ROPS						
New Holland	C227	70	8,200	2,700	105.1	78.7	65.9
	C232	76	9,630	3,200	117.8	80.4	76
	C234	84	10,000	3,400	118.7	80.4	76
	C237	68	9,945	3,700	117.6	80.4	76
	C245	84	10,610	4,500	120.2	80.4	76

CRAWLER DOZERS/TRACTORS

Company	Model	HP	Operating Weight (lbs)	Blade Capacity (cu yds)
Case	650L LT	74	16,250	1.69
	650L LGP	74	17,550	2.15
	650L WT	74	16,800	2.0
	650M LT	68	15,803	1.58
	650M LGP	68	16,405	2.15
	650M WT	68	16,839	2
	750M LT	92	20,040	1.69
	750M WT	92	20,679	2.00
	750M LGP	92	21,180	2.22
	850M LT	112	21,560	2.35
	850M WT	112	22,330	2.53
	850M LGP	112	22,830	2.62
	1150M LT	127.4	31,134	3.75
	1150M WT	127.4	32,174	4.16
	1150M LGP	127.4	32,637	4.16
	1650M WT	150	38,650	5.28
	1650M XLT	150	37,750	4.28
	1650M LGP	150	39,550	5.28
	2050M LT	214	44,563	7.29
	2050M WT	214	46,891	7.15
	2050M XLT	214	45,414	7.15
	2050M LGP	214	48,773	7.12
Caterpillar	D1	80	17,855	2.17
	D2	92	18,382	2.42
	D3	104	20,639	3.06
	D3K2 Mulcher LGP	80	24,698	N/A
	D4	130	29,258	4.26
	D4 LGP	130	29,258	4.98
	D5	170	37,875	5.6
	D5 LGP	170	42,263	5.1
	D6	215	48,500	7.5
	D6 LGP (30 in.)	215	50,130	7.6
	D6 LGP (36 in.)	215	52,615	5
	D6 XE	215	48,500	7.5
	D6 XE LGP (30 in.)	215	50,130	7.6
	D6 XE LGP (36 in.)	215	52,615	5
	D6 WH	215	52,166	14.6
	D6 WH LGP (30 in.)	215	52,751	16.1
	D6 WH LGP (36 in.)	215	55,674	12.3
	D6 XE WH	215	52,166	14.6
	D6 XE WH LGP (30 in.)	215	52,751	16.1
	D6 XE WH LGP (36 in.)	215	55,674	12.3
	D7	265	65,644	9.70
	D7 LGP	265	63,220	8.10
	D7 Waste Handler	265	62,035	23.20
	D8T	354	87,600	13.4
	D8T LGP	354	83,200	13.4
	D8T WH	354	87,400	13.4
	D8T WH LGP	354	92,300	13.4
	D9	452	110,225	17.8
	D9T	410	94,265	17.7
	D10T2	600	139,010	24.2
	D11T	850	208,589	45
	D11T CD	850	220,385	57
John Deere	450K	80	17,510-18,752	2.1–2.6
	550K	92	19,758-21,000	2.4–2.6
	650K	104	21,320-22,343	2.5–2.9
	650K Smart Grade	104	21,320-22,343	2.5–2.9
	700L	135	30,900-32,088	4.4–5.1
	700L Smart Grade	135	30,900-32,088	4.4–5.1
	750L	175	37,569-40,040	5.2–6.0
	750L Smart Grade	175	37,569-40,040	5.2–6.0
	850L	225	47,578-51,365	5.2–8.0
	850L Smart Grade	225	47,578–51,365	5.2–8.0
	850L Waste Handler	225	54,086–54,353	12.9–15.3
	950K	265–280	65,300-73,700	8.6–11.2
	950K Smart Grade	265–280	65,300-73,700	8.6–11.2
	950K Waste Handler	265	71,250–75,150	18.4–22.2
	1050K	350	94,300-95,000	9.0–14.7
	1050K Waste Handler	350	102,700–103,300	27.6–29.8
Komatsu	D37EX-24	89	19,842	2.5
	D37PX-24	89	20,503	2.79
	D39EX-24	105	21,891	2.89
	D39PX-24	105	22,817	3.14
	D39EXi-24	105	21,848	2.89
	D39PXi-24	105	23,148	3.14
	D51PX-24	131	31,438	4.4
	D51EX-24	131	30,821	3.5
	D51PXi-24	131	31,438	4.4
	D51EXi-24	131	30,380	3.5
	D61PX-24	168	42,902	4.98
	D61EX-24	168	40,830	4.41
	D61PXi-24	168	43,167	4.98
	D61EXi-24	168	41,094	4.41
	D65WX-18	217	50,618	7.7
	D65EX-18	217	46,892	7.3
	D65PX-18	217	50,331	4.8
	D65PXi-18	217	50,331	4.8
	D65EXi-18	217	46,892	7.3
	D65EX-18 WH	217	50,259	14.8
	D65PX-18 WH	217	53,136	15.1
	D65WX-18 WH	217	53,350	17.2
	D71EX-24	237	49824	5.8
	D71EXi-24	237	50045	5.8
	D71PX-24	237	50927	6.56

CRAWLER DOZERS/TRACTORS (cont.)

Company	Model	HP	Operating Weight (lbs)	Blade Capacity (cu yds)
Komatsu	D71PXi-24	237	51147	6.56
	D85PX-18	264	63,800	7.7
	D85EX-18	264	68,165	9.4
	D85PXi-18	264	65,080	7.7
	D85EXi-18	264	67,439	9.4
	D85PX-18 WH	264	70,702	15.4
	D85EX-18 WH	264	69,922	18.4
	D155AX-8	354	89,300	15.6
	D155AXi-8	354	90,610	12.3
	D155AX-8 WH	354	95,000	27
	D155PX-8	354	92,800	12.9
	D375A-8	748	16,3340	28.8
	D475A-5E0	890	238,960	45
LiuGong N. America	TD-8S LT	94	22,046	6-Way 2.4
	TD-8S LGP	94	22,707	6-Way 2.6
	TD-9S LT	113	24,251	6-Way 2.9
	TD-9S LGP	113	24,912	6-Way 3.1
	TD-15R	201	44,864	Semi-U 7.45
	TD-20R	248	53,660	Semi-U 9.2
	TD-25R	375	90,720	Semi-U 12.5
	TD-R40R	528	149,252	Semi-U 24.3

DIRECTIONAL DRILLING RIGS, MINI (Under 50,000 pounds pullback)

Company	Model	Type Drive	Weight (lbs)	Boring Diameter Range (in)	Torque (ft/lbs)	Pullback (lbs)
Barbco	BD25P	rack & pinion	27,000	varies	1,800	24,000
	BD25HP	rack & pinion	30,000	varies	4,500	30,000
	BD40HP	rack & pinion	35,000	varies	6,000	40,000
Ditch Witch	JT5	rack & pinion	3,690	varies	550	5,000
	JT10	rack & pinion	7,380 (w/pipe)	varies	1,100	10,000
	JT20	rack & pinion	11,890	varies	2,200	20,000
	JT20XP	rack & pinion	11,890	varies	2,500	20,000
	JT24	rack & pinion	14,850	varies	3,000	24,000
	JT28	rack & pinion	21,360	varies	4,200	28,000
	JT30	rack & pinion	17,080	varies	4,000	30,000
	JT30AT	rack & pinion	17,660	varies	4,000, 800 (inner)	30,000
	JT40	rack & pinion	20,500	varies	5,500	40,000
	AT32	rack & pinion	19,220	varies	4,200	32,000
	AT40	rack & pinion	21,600	varies	5,500, 2,000 (inner)	40,000
	NOTE: Operating weight varies depending on selected options					
McLaughlin	McL 10H (5')	hydraulic	1,100	3 - 12	1,030	13,250
	McL 10H (7')	hydraulic	1,100	3-12	1,030	13,250
TT Technologies	Grundopit K		1,510	2.5	626	8,925
	Grundopit PS60	chain	992	varies	553	13,489
	Grundodrill 5X	rack & pinion	7,200	varies	1,200	11,000
	Grundodrill 18 CS		33,510	6.5	7,375	40,000
Vermeer	D8x12	rack & pinion	6,600	N/A	1,200	7,850
	D10x15 S3	rack & pinion	7,200		1,500	10,000
	D20x22 S3	rack & pinion	10,850	N/A	2,250	19,550
	D23x30 S3	rack & pinion	14,080	N/A	3,000 (2.38") 2,600 (2.06")	24,000
	D23x30DR S3	rack & pinion	16,500	n/a	3,000	24,000
	D24x40 S3	rack & pinion	20,700		4,200	28,000
	D40x55 S3	rack & pinion	23,380	N/A	5,500 (2.38") 5,000 (2.06")	40,000
	D40X55DR S3	rack & pinion	31,500	N/A	5,500	40,000

DIRECTIONAL DRILLING RIGS, MID (50,000–100,000 pounds pullback)

Company	Model	Type Drive	Weight (lbs)	Boring Diameter Range (in)	Torque (ft/lbs)	Pullback (lbs)
American Augers	DD-110	rack & pinion	42,000	varies	15,000	110,000
	DD-240T	rack & pinion	84,600	varies	43,900	240,000
Barbco	BD60HP	rack & pinion	37,500	varies	12,500	60,000
	BD80HP	rack & pinion	38,000	varies	15,000	80,000
	BD95	rack & pinion	38,000	varies	17,500	93,000
Ditch Witch	JT60	rack & pinion	31,080	varies	9,000	60,000
	JT60AT	rack & pinion	31,080	varies	9,000, 2,000 (inner)	60,000
	JT100	rack & pinion	47,770	varies	12,000	100,000
	JT100AT	rack & pinion	50,740	varies	12,000, 2000 (inner)	100,000
Vermeer	D60X90 S3	rack & pinion	39,300	N/A	9,000	60,000
	D100x140 S3 15' rod	rack & pinion	50,500 - 58,600	N/A	14,000	100,000
	D100x140 S3 20' rod	rack & pinion	50,500 - 58,600	N/A	14,000	100,000
	D220x300 S3	rack & pinion	74,000	N/A	30,750	242,100
	D220x500 S3	rack & pinion	84,800	n/a	52,600	240,400

DIRECTIONAL DRILLING RIGS, MAXI (over 100,000 pounds pullback)

Company	Model	Type Drive	Weight (lbs)	Torque (ft/lbs)	Pullback (lbs)
American Augers	DD-440T	rack & pinion	90,260	60,000	440,000
	DD-660RS	rack & pinion	100,300	80,000	660,000
	DD-1100RS	rack & pinion	106,300	100,000	1,100,000
Barbco	BD120	rack & pinion	48,500	20,500	120,000
	BD150	rack & pinion	50,500	30,000	150,000
	BD200	rack & pinion	62,250	35,000	200,000
	BD250	rack & pinion	66,500	45,000	250,000
	BD380	rack & pinion	87,760	60,000	380,000
	BD500	rack & pinion	134,000	80,000	500,000
	BD750	rack & pinion	140,000	80,000	750,000
	BD1000	rack & pinion	140,000	100,000	1,000,000
	TriBor 30	hydraulic	28,000	33,741	186,532
	TriBor 36	hydraulic	32,000	60,056	375,107
	TriBor 48	hydraulic	40,280	80,620	592,191
Herrenknecht	HK80CK	rack & pinion	66,150	44,250	180,000
	HK100C	rack & pinion	67,900	44,500	224,800
	HK150C	rack & pinion	74,000	51,650	337,000
	HK250C	rack & pinion	89,300	66,400	562,000
	HK250C High Torque	rack & pinion	91,500	88,500	562,000
	HK150T	rack & pinion	57,300	51,650	337,000
	HK250T	rack & pinion	63,940	66,400	562,000
	HK500T High Torque	rack & pinion	110,000	132,000	1,125,000
	HK400T	rack & pinion	96,000	88,500	882,000
	HK400T High Torque	rack & pinion	107,000	103,300	882,000
	HK500T	rack & pinion	99,200	103,300	1,125,000
	HK500T High Torque	rack & pinion	110,000	147,500	1,125,000
	HK600T	rack & pinion	112,500	147,500	1,323,000
	HK400M	rack & pinion	94,800	88,500	882,000
	HK500M	rack & pinion	103,600	103,300	1,125,000
	HK600M	rack & pinion	108,000	147,500	1,323,000
Vermeer	D330x500	rack & pinion	90,000	50,000	340,000
	D500x500	rack & pinion	82,000	50,000	500,000
	D750x900	rack & pinion	101,000	102,500	768,000
	D1000x900	rack & pinion	101,000	102,500	1,000,000
	D1320x900	rack & pinion	101,000	102,500	1,360,000

EXCAVATORS, COMPACT (under 25,000 pounds)

Company	Model	Operating Weight (lbs)	HP	Bucket Capacity (cu yds)	Max. Digging Depth	Max. Reach (height to pin)	Machine Width
Bobcat	418	2,593	9.9	0.54	6'	10' 2"	2' 3"-3' 6"
	E10	2,593	9.9	0.3-1.5	6'	10.2'	28" - 43"
	E20	4,306	13.3	0.5-3.1	8.5'	14'	29" - 54"
	E26	6,489	23.7	1.3-7.1	9.5'	16'	61"
	E32	7,340	24.1	1.6-7.1	10.2'	16.3'	61"
	E35	7,699	24.1	1.6-7.1	10.2'	17.2'	69"
	E42	9,830	42	1.6- 8.6	10.4'	17.3'	72.8"
	E45	10,077	39.5	2.7 - 9.3	10.8'	18.6'	77.2"
	E50	11,357	49	2.1-8.6	11.4'	19.4'	77.2"
	E55	12,004	45.7	2.1-11	12.9'	20'	77.2"
	E63	13,779	59.4	2.1-11	13.5'	20.4'	78"
	E85	18,977	65	5.6-15.5	15.5'	23.6'	87"
Case	CX75C SR	16,200	55	0.21 - 0.59	13' 7"	20' 7"	7' 7"
	CX80C	18,800	55	0.24 - 0.59	13' 9"	22' 9"	7' 7"
	CX17C	3,910	16	0.04	7' 3"	10' 8"	4' 3"
	CX26C	5,520	23	0.07	7' 11"	12' 4"	4' 11"
	CX30C	6,020	24.8	0.08	8' 2"	14' 10"	5' 1"
	CX33C	7,110	24	0.09	9' 11"	14' 3"	5' 1"
	CX37C	7,990	24	0.11	10' 3"	14' 11"	5' 9"
	CX57C	12,050	65	0.18	12' 6"	17'	6' 4"
	CX60C	12,940	63	0.18	11' 9"	16' 8"	6' 6"
Caterpillar	300.9D	2,250	13	0.02 - 0.04	5' 8"	9' 11"	2' 5" - 2' 10"
	300.9D VPS	2,400	13	0.02 - 0.04	5' 8"	9' 11"	2' 5" - 2' 10"
	301.5	3,880	19.2	0.6 - 3.11	8' 4"	12' 9"	3' 3" - 4' 3"
	301.7 CR	4,045	19.2	0.6 - 3.11	8' 4"	13' 4"	3' 3" - 4' 3"
	301.8	4,464	19.2	0.6 - 3.11	8' 5"	13'	3' 3" - 4' 3"
	302 CR	4,850	19.2	0.97 - 6.11	8' 5"	13' 10"	3' 7" - 4' 7"
	302.7D	6,500	20.7	0.04 - 0.23	8' 10"	15' 4"	5' 2"
	303E CR	7,780	23.5	0.06 - 0.3	9'	15' 9"	5' 1"
	303.5E2	8,540	23.5	0.06 - 0.3	10' 5"	17' 5"	5' 10"
	304E2 CR	8,980	40.2	0.06 - 0.3	11' 2"	17' 11"	6' 4"
	305E2 CR	11,645	40.2	0.08 - 0.43	12'	19'	6' 6"
	305.5E2 CR	12,250	44.1	0.08 - 0.43	12' 8"	19' 9"	6' 6"
	306 CR	15,766	55.9	3.4 - 18.4	13' 6"	21' 5"	6' 6"
	307.5	18,152	55.9	3.4 - 18.4	15' 3"	21' 11"	7' 3"
	308 CR	20,678	70.3	3.4 - 18.4	15' 3"	24' 6"	7' 7"
	308 CR VAB	20,906	70.3	3.4 - 18.4	11' 5"	25' 5"	7' 7"
	309 CR	21,091	69.5	3.40-18.4	15'3"	22'1 0"	8'1"
	309 CR (Long Undercarriage)	20,731	70.3	3.4 - 18.4	15' 3"	24' 6"	8' 1"
	309 CR VAB	21,054	70.3	3.4 - 18.4	11' 5"	25' 5"	8' 1"
	310	22,447	70.3	6.4 - 19.2	17' 1"	24' 8"	8' 1"

EXCAVATORS, COMPACT (cont.)

Company	Model	Operating Weight (lbs)	HP	Bucket Capacity (cu yds)	Max. Digging Depth	Max. Reach (height to pin)	Machine Width
Doosan	DX35-5	8,193	33.5	0.13	10' 2"	17' 1"	69"
	DX42-5K	10,114	42	0.14	10' 4"	17' 2"	72"
	DX50-5K	11,486	49.7	0.20	11' 4"	19' 5"	77"
	DX62R-3	13,779	59	0.08 – 0.38	13' 6"	20' 11"	77"
	DX63-3	13,779	59	0.08 – 0.38	13' 6"	20' 5"	77"
	DX85R-3	18,960	59	0.13 – 0.53	15' 6"	23' 11"	90"
	NOTE: Maximum Reach is based on reach at ground level.						
Hitachi	ZX17U-5	3,790	14.5	0.02 - 0.05	7' 2"	12' 6"	3' 3"
	ZX26U-5	6,110	20	0.05 - 0.16	8' 6"	15' 2"	4' 11"
	ZX30U-5	6,850	23	0.05 - 0.16	9' 2"	13' 1"	5' 1"
	ZX35U-5	7,760	23.3	0.05 - 0.22	11' 4"	18' 11"	5' 9"
	ZX50U-5	10,560	35.9	0.08 - 0.31	12' 7"	20' 6"	6' 7"
	ZX60USB-5	13,547	53	0.12 - 0.46	13' 6"	21' 6"	6' 7"
	ZX75US-5	17,952	56.9	0.31 - 0.64	15' 1"	22' 2"	7' 7"
	ZX 85USB-5	19,244	56.9	0.4 - 0.66	14' 1"	24' 9"	7' 3"
Hyundai	R17Z-9A	3,920	15.8	0.05	7' 2"	12' 7"	3' 2"-4' 2"
	R25Z-9AK	5,360/5,690*	23.2	0.09	7' 11"	14' 8"	4' 11"
	R30Z-9AK	6,380/6,625*	23.2	0.10	8' 2"	15' 3"	5' 1"
	R35Z-9A	7,800/8,470*	23.7	0.14	10' 3"	17' 5"	5' 9"
	R55-9A	12,570	65.1	0.24	12' 6"	20' 2"	6' 7"
	R60CR-9A	13,450	63	0.24	11' 9"	20' 2"	6' 7"
	R80CR-9A	19,290	65.1	0.37	13' 7"	22' 10"	7' 7"
	*canopy/cab						
John Deere	17G	3,790	14.5	0.03	7' 2"	12' 6"	4' 2"
	26G	5,780–6,110	20	0.03	8' 6"	15' 2"	4' 11"
	30G	6,850–7,220	23	0.03	9' 2"	16' 1"	5' 1"
	35G	7,760–8,135	23.3	0.14	10'	17'1"	5' 9"
	50G	10,560–10,847	35.9	0.21	11' 7"	19' 7"	6' 7"
	60G	13,250–13,620	53	0.25	12' 4"	20' 5"	6' 7"
Kobelco	SK17SR-5E	3,671	14.5	0.065	7' 3"	12' 2"	4' 2"
	SK25SR-6E	5,644	19.7	0.105	9' 2"	15' 3"	4' 11"
	SK30SR-6E	7,320	23.1	0.118	9' 2"	16' 6"	5' 1"
	SK35SR-6E	8,555	23.1	0.14	11'	18' 6"	5' 7"
	SK45SRX-6E	10,300	37.4	0.18	11' 3"	18' 8"	6' 5"
	SK55SRX-6E	11,860	37.4	0.20	12' 10"	20'	6' 5"
	SK75SR-7	18,700	70	0.14–0.46	15'	22' 2"	8'
	SK85CS-7	20,100	70	0.14–0.46	14' 7"	24' 1"	8'
Komatsu	PC30MR-5	6,836	24.4	0.21	9' 1"	16' 7"	5' 1"
	PC35MR-5	8,324	24.4	0.24	11' 4"	18' 6"	5' 9"
	PC45MR-5	11,001	38	0.21	11' 11"	19' 10"	6' 5"
	PC55MR-5	11,618	38	0.24	12' 4"	20' 4"	6' 5"
	PC78US-11	17,813	68	.26	15' 5"	22' 8"	7' 8"
	PC88MR-11	19,224	68	.26	15' 0"	24' 1"	7' 7"
Kubota	K008-3T4	2,200	10.1	0.3 - 0.78	5' 8"	9' 11"	2' 10"
	U17	3,703	15.2	0.49 - 1.5	7' 8"	12' 8.4"	4' 1"
	KX018-4	3,747	15.2	0.49 - 1.5	7' 7"	12' 9"	4' 3.2"
	U27-4	5,625	20	0.49 - 3.4	9' 3.6"	15' 4"	4' 11"
	KX71-3S	6,305	24.4	1.9 - 4.2	9' 9"	16'	4' 11"
	KX033-4	7,420	23.9	1.9 - 6.6	10' 6"	16' 10"	5' 1"
	KX033-4 Angle Blade	7,781	23.9	1.9 - 6.6	10' 6"	16' 10"	5' 1"
	KX033-4 Extendable Dipper Arm	8,221	23.9	1.9 - 6.6	12' 2"	17' 10"	5' 1"
	U35-4	8,129	23.9	1.9 - 4.25	9' 10.8"	16' 1.3"	5' 6.9"
	U35-4 Angle Blade	8,129	23.9	1.9 - 4.25	9' 8.9"	16' 11.3"	5' 6.9"
	KX040-4	9,195	40.9	1.9 - 6.6	11' 3.6"	17' 10.8"	5' 6.9"
	KX040-4 Angle Blade	9,545	40.9	1.9 - 6.6	11' 2.6"	17' 9"	5' 6.9"
	KX040-4 6-in-1 Blade	9,900	40.9	1.9 - 6.6	11' 2.6"	17' 9"	5' 6.9"
	U48-5	10,850 lbs	40.4	3.0 - 8	10 ' 8"	18' 4"	6' 5"
	U48-5 Angle Blade	11,300 lbs	40.4	3.0 - 8	10' 8".	18' 4"	6' 5"
	U55-5	12, 250 lbs	47.6	3.0 - 8	11' 11"	19' 7"	6'5"
	U55-5 Angle Blade	12,725 lbs	47.6	3.0 - 8	11' 11"	19' 7"	6'5"
	KX057-5	12,350 lbs	47.6	3.0 - 8	12' 9"	20' 1"	6' 5"
	KX057-5 Angle Blade	12,820 lbs	47.6	3.0 - 8	12' 9"	20' 1"	6' 5"
	KX080-4S	18,560	62.3	6.5 - 13.5	15' 1"	23' 6.3"	7' 2.6"
	KX080-4S Angle Blade	19,456	62.3	6.5 - 13.5	15' 1"	23' 6.3"	7' 2.6"
	NOTE: Bucket Capacity=SAE heaped min-max; Max.Reach=at grade/ground level; Machine Width=transport width						
LiuGong N. America	9035ZTS	8,510	23.2	0.14	11' 3"	15' 11"	5' 7"
	909ECR	18,960	59	0.37	14' 11"	23' 10"	7' 10"
New Holland	E17C	3,910	15.8	0.05	7' 3"	12' 10"	3' 3"
	E26C	5,850	23.2	0.09	7' 11"	14' 8"	4' 11"
	E30C	6636	23.2	0.1	8' 2 "	15' 3"	5' 1"
	E33C	7,396	23.7	0.12	9' 11"	17'	5' 1"
	E37C	8,300	23.7	0.14	10' 3"	17' 5"	5' 9"
	E57C	12,050	65.1	0.23	12' 6"	20' 2"	6' 4"
	E60C	12,940	63	0.23	11' 9"	20' 2"	6' 6"
Volvo	ECR18E	3,748	16	0.02 - 0.07	7' 4"	12' 10"	4' 5"
	EC20E	4,322	16	0.04 - 0.1	7' 6"	13' 1"	4' 5"
	ECR25D	5,490 - 5,737	21	0.04 - 0.16	9' 9"	15' 1"	4' 11"
	ECR25 Electric	6,019	n/a	0.04-0.14	9' 1"		5' 1"
	EC27D	6,019	21	0.04 - 0.16	10' 2"	15' 4"	5' 1"
	EC35D	7,782 - 8,686	25	0.07 - 0.2	11' 11"	17' 5"	5' 10"
	ECR40D	8,554 - 9,833	25	0.07 - 0.2	12' 3"	18' 8"	5' 10"
	ECR50F	11,133	42	0.15	12' 4"		6' 7"
	ECR58F	12,875	48	0.15	12' 4"		6' 7"
	EC60E	12,700 - 15,440	59	0.09 - 0.35	13' 1"	20' 6"	6' 4"
	EW60E	11,360 - 12,900	63	0.09 - 0.35	10' 10"	19' 1"	6' 1"
	ECR88D	18,959 - 20,944	55	0.1 - 0.44	14' 10"	23' 7"	8'

EXCAVATORS, LARGE (over 25,000 pounds)

Company	Model	Operating Weight (lbs)	HP	Bucket Capacity (cu yd)	Max. Digging Depth	Max. Reach (height to pin)
Bobcat	E145	34,987	113	11.3-37.5	19.6'	27.9'
	NOTE: HP is net #; Bucket Capacity is heaped.					
Case	CX130D	30,140	102	0.32 - 1.12	18' 3"	26' 10"
	CX145C SR	31,967	100	0.43 - 1.02	19' 8"	28' 2"
	CX160D	34,400	112	0.32 - 1.12	19' 11"	30' 4"
	CX210D	48,973	160	0.55 - 1.76	21'	31' 11"
	CX250D	56,909	177	0.68 - 1.90	22' 8"	33' 2"
	CX300D	67,271	207	0.72 - 2.42	23' 4"	34' 5"
	CX350D	82,483	268	0.88 - 2.72	24' 1"	36'
	CX245D SR	56,900	160	0.65 - 1.2	20' 1"	30' 1"
	CX490D	109,300	362	2.03 - 3.37	25' 4"	38' 6"
	CX750D	158,300	460	2.47 - 5.91	27' 7"	42' 11"
	CX750D ME	159,600	460	2.47 - 5.91	24' 2"	37' 11"
Caterpillar	311F	30,600	70	0.27 - 1	18' 4"	26' 7"
	313	30,400	108	0.69	19.8'	29.4'
	313 GC	30,400	73	0.69	19.8'	29.4'
	315	34,000	108	0.69	19' 7"	28' 6"
	316F	38,801	113	0.46 - 1.19	21' 7"	30' 5"
	317	40,200	130	0.99	21' 0"	29.6'
	317 GC	38,100	119	0.99	21' 0"	29.6'
	318F	41,670	117	0.46 - 1.19	21' 7"	30' 1"
	320	49,600	162	0.61 - 2.09	21' 9"	32'
	320 GC	48,281	121	0.61 - 2.09	21' 9"	32'
	323	55,336	162	0.61 - 2.09	21' 9"	32'
	325	49,604	172	0.72 - 2.08	22' 0"	32' 1"
	325F	57,115	161	0.72 - 2.08	22' 0"	32' 1"
	326	57,100	201	0.68 - 2.46	22' 5"	33' 2"
	326F	64,831	203	0.68 - 2.46	22' 4"	33' 2"
	330	68,100	272	2.3	23.8	35.1
	330 GC	67,460	204	2.01	23.8	35.1
	335F	83,703	200	0.68 - 2.58	22' 11"	34' 11"
	335	77,000	273	2.01	23' 0"	35' 0"
	336	81,900	311	2.97	26.9	38' 5"
	336 GC	80,500	273	2.46	27	38' 6"
	349	105,200	424	4.03	25' 1"	38' 6"
	352F	117,500	396	1.2 - 5	26' 5"	39' 9"
	352	110,500	424	3.61	23' 2"	37' 0"
	374	158,200	484	4.32	28' 1"	43' 2"
	395	207,300	542	6.8	31' 11"	48' 4"
Doosan	DX225LC-5	52,086	162	0.59 - 1.41	21' 7"	31' 10"
	DX225LC-5 SLR	55,731	162	0.27 - 0.82	38' 2"	50'
	DX235LCR-5	56,019	181	0.59 - 1.41	21' 10"	31' 7"
	DX255LC-5	57,752	185	0.61 – 1.45	22' 4"	32' 9"
	DX300LC-5	68,764	267	0.69 – 2.09	26'	34' 6"
	DX300LC-5 SLR	72,462	267	0.27 – 0.84	45' 2"	57'
	DX350LC-5	80,654	313	1.06 - 2.46	24' 8"	35' 11"
	DX420LC-5	94,799	338	1.5 - 3.23	25' 4"	37'
	DX490LC-5	112,206	373	2 - 3.81	25' 6"	38' 11"
	DX530LC-5	116,576	373	2 - 3.81	24'	37' 6"
	DX530LC-5 SLR	117,112	373	0.67 - 1.84	49' 7"	63' 9"
	DX800LC-7	181,000	539	5.1	27' 10"	42' 9"
	NOTE: Maximum Reach is based on reach at ground level; SLR = super-long reach					
Hitachi	ZX130-6	26,674	101	0.47 - 0.99	19' 11"	28' 5"
	ZX135US-6	32,820	101	0.47 - 0.99	19' 7"	28' 7"
	ZX160LC-6	39,024	116	0.47 - 1.17	21' 4"	30' 1"
	ZX180LC-6	44,317	116	0.51 - 1.31	23' 2"	32' 1"
	ZX210-6	48,438	160	0.9 - 1.29	21' 4"	30' 4"
	ZX210LC-6	47,402	160	0.9 - 1.29	21' 4"	30' 4"
	ZX245USLC-6	56,830	159	0.51 - 1.55	21' 9"	32' 6"
	ZX250LC-6	56,136	177	1 - 1.9	25'	35' 3"
	ZX300LC-6	64,924	249	0.9 - 1.6	25' 10"	36' 5"
	ZX345USLC-6	78,710	249	1.2 - 2.1	24'10"	37'7"
	ZX350LC-6	77,598	271	1.3 -2.78	26' 10"	38' 3"
	ZX380LC-6	82,515	271	1.3 -2.78	26' 10"	38' 3"
	ZX470LC-6	110,804	362	1.8 - 4.2	27' 2"	40' 3"
	ZX670LC-6	154,103	463	1.7 - 6.6	30'	44' 8"
	ZX870LC-6	188,716	512	2 - 7.6	31' 5"	48'
	EX1200-7	253,352	760	6.8	30' 9"	50' 4"
	EX1200-7 Shovel	260,146	760	7.7 - 8.5	15' 8"	N/A
	EX1900-6	423,280	1,039	5.7	26' 10"	48' 6"
	EX1900-6 Shovel	421,075	1,039	19.6	19' 5"	n/a
	EX2600-7	566,588	1,500	22.2	27' 1"	52' 8"
	EX2600-7 Shovel	570,997	1,500	19.6 - 21.6	12' 3"	n/a
	EX3600-7	815,710	1,944	28.8	28' 4"	59' 10"
	EX3600-7 Shovel	813,506	1,944	28.8	14' 3"	51' 5"
	EX5600-7	1,210,338	3,000	44.5	28' 11"	63' 8"
	EX5600-67 Shovel	1,199,315	3,000	35.3 - 38	15' 9"	n/a
	EX8000-6 Shovel	1,787,900	3,880	52.3	13' 5"	n/a

EXCAVATORS, LARGE (cont.)

Company	Model	Operating Weight (lbs)	HP	Bucket Capacity (cu yd)	Max. Digging Depth	Max. Reach
Hyundai	HX130LCR	29,750	71	0.52	18' 4"	27' 0"
	HX140L	32,044	116	0.76	19' 10"	28' 10"
	HX145LCR	33,420	116	0.68	18' 1"	27' 3"
	HX160L	41,513	128	0.92	21' 6"	31'
	HX180L	42,955	128	0.99	21' 6"	31'
	HX220L	51,500	173	1.2	22' 1"	32' 9"
	HX220LR	54,720	173	0.68	38' 7"	50'
	HX235LCR	54,140	173	1.05	22'	32' 6"
	HX260L	58,860	179	1.41	23'	34'
	HX300L	69,780	230	1.66	24' 3"	35' 6"
	HX300LR	72,910	230	0.68	48' 7"	60' 9"
	HX330L	77,270	270	1.88	24' 2"	36' 7"
	HX380L	88,890	344	2.12	24' 8"	36' 7"
	HX480L	112,520	424	2.87	25' 6"	39' 6"
	HX520L	118,340	424	2.87	25'	39' 6"
	HX900L	204,760 - 206,570	615	5.60	31' 6"	48' 1"
John Deere	75G	17,952	56.9	0.37	15' 1"	22' 8"
	85G	19,244	56.9	0.37	14' 10"	25' 3"
	130G	29,531 - 30,573	98	0.65	19' 19"	28' 9"
	135G	31,500 - 33,920	101	0.65	20'	29' 2"
	160G LC	39,526	122	0.78	21' 4"	30' 7"
	200G	45,789	144.8	1.34	23'2"	32'7"
	210G/210G LC	51,061 - 52,097	159	1.19	21' 11"	32' 7"
	245G LC	56,830	159	1.43	21' 8"	33' 4"
	250G LC	56,100	188	1.38	25'	35' 10"
	300G LC	69,223	223	1.88	25' 10"	37'
	345G LC	78,710	249	1.63	24' 10"	37' 7"
	350G LC	79,655	271	2.41	26' 10"	38' 11"
	380G LC	84,234	271	2.3	26' 10"	38' 11"
	470G LC	112,916	367	3.06	27' 2"	41'
	470G LC ME	112,916	367	3.06	20' 5"	35' 8"
	670G LC	154,103	463	4.04	30'	45' 5"
	670G LC ME	154,103	463	4.04	23' 4"	38' 9"
	870G LC	188,716	512	4.57	31' 5"	48' 11"
	870G LC ME	188,716	532	4.57	23' 5"	40' 6"
Kobelco	SK130LC-11	32,800	96	0.30 - 0.88	19' 7"	28' 3"
	SK140SRLC-7	32,800	105	0.30 - 0.88	19' 7"	28' 5"
	SK140SRLC-7 Offset Boom	33,700	105	0.30 - 0.88	17' 2"	25' 3"
	ED160-7 Blade Runner	36,200	105	0.30 - 0.88	19"	28' 3"
	SK170LC-10	38,800	127	0.6 - 1.0	21' 3"	30' 6"
	SK210LC-10	49,400	160	0.63 - 1.80	22'	31' 11"
	SK210HLC-10 Hybrid	52,500	160	0.63 - 1.80	22'	31' 11"
	SK230SRLC-5	56,400	160	0.63 - 1.80	21' 7"	31' 3"
	SK260LC-10	59,300	178	0.875 - 2.25	23'	33' 3"
	SK270SRLC-5	60,000	160	0.63 - 1.80	21' 9"	31' 9"
	SK300LC-10	68,800	252	0.875 - 1.875	23' 7"	35'
	SK350LC-10	83,300	270	0.875 - 2.75	24' 10"	36' 3"
	SK390LC-10	83,600	270	0.875 - 2.75	23' 1"	36' 1"
	SK500LC-10	114,000	369	1.50 - 4.26	25' 7"	38' 10"
	SK850LC-10	185,700	510	1.78 - 8.50	31' 10"	46' 11"
	SK210LC-10 High & Wide	56,700	160	0.63 - 1.80	20' 10"	31' 8"
	SK260LC-10 High & Wide	63,100	178	0.875 - 2.25	21' 10"	30' 9"
	SK300LC-10 High & Wide	73,600	252	0.875 - 1.875	22' 7"	34' 10"
	SK500LC-10 High & Wide	124,800	369	1.50 - 4.26	24' 6"	38' 7"
	SK500LC-10 Mass	118,000	369	5.0 - 6.0	21' 3"	34' 11"
	SK210LC-10 Long Reach	52,200	160	0.60	39' 5"	51' 7"
	SK260LC-10 Long Reach	62,000	178	0.60	48' 4"	60' 6"
	SK300LC-10 Long Reach	77,473	252	0.62	48' 10"	62' 9"
Komatsu	PC130-11	28,219	97.3	1.0	18'1"	27'2"
	PC138USLC-11	37,547	97.3	1.0	19'4"	28'7"
	PC170LC-11 (Standard)	40,277	121	1.24	19' 7"	29'5"
	PC170LC-11 (Heavy)	42,657	121	1.24	20'6"	30'4"
	HB215LC-3	48,175	139	1.57	21' 9"	32'5"
	PC210LCi-11	51,588	165	1.57	21' 9"	32'5"
	PC210LC-11	53,882	165	1.57	21' 9"	32'5"
	PC240LC-11	56,380	177	1.85	23'5"	34'9"
	PC238USLC-11	55,660	165	1.57	21' 9"	32'5"
	PC290LCi-11	72,091	186	2.12	22' 8"	35'9"
	PC290LC-11	72,091	196	2.12	22' 8"	35'9"
	PC360LCi-11	79,807	257	2.56	23' 11"	39'1"
	PC360LC-11	80,320	257	2.56	24' 3"	39'1"
	HB365LC-3	80,909	269	2.56	26'10"	39'1"
	PC390LCi-11	89,940	257	2.91	23' 10"	39'0"
	PC390LC-11	89,940	257	2.91	23' 10"	39'0"
	PC490LC-11	107,850	359	4.15	25' 5"	43'10"
	PC490LCi-11	107,850	359	4.15	25' 5"	41'3"
	PC490LC-11 (Var. Gauge)	110,220	359	4.15	25' 5"	43'10"
	PC650LC-11	145,284	436	4.98	33'7"	48'0"
	PC650LC-11 SE	146,390	436	7	23'2"	37'9"
	PC800LC-8	188,670	487	5.93	34'9"	51'4"
	PC1250LC-11	272,600	758	9.5	38'0"	57'3"
	PC1250SP-11	265,900	758	10.9	25'11"	46'2"
	PC2000-11	445,054	1046	15.7	30' 4"	51'9"

NOTE: Bucket digging and arm (stick) forces - Normal digging forces are listed, or boost values are shown.

EXCAVATORS, LARGE (cont.)

Company	Model	Operating Weight (lbs)	HP	Bucket Capacity (cu yd)	Max. Digging Depth	Max. Reach
Liebherr	R914Compact	36,000	122	0.42–1.05	19'	29' 4"
	R918	49,000	163	0.72–1.50	20'	30' 2"
	R920Compact	42,880	150	0.40–1.25	19'	29' 4"
	R922	50,930	161	0.72–1.96	22' 2"	32' 5"
	R924	55,460	173	0.72–2.16	22' 2"	32' 5"
	R926Comact	57,760	173	0.72–1.96	21' 6"	31'
	R926	59,530	201	1.50–2.29	22' 10"	32' 10"
	R930	68,120	241	1.63–2.81	24' 1"	34' 9"
	R934	77,820	268	1.31–3.27	24' 3"	35' 11"
	R936Compact	75,840	255	1.31–2.81	23' 7"	35' 9"
	R938	85,770	295	2.48–3.92	24' 11"	36' 8"
	R945	95,800	295	2.62–3.92	24' 11"	36' 8"
	R956	124,000	335	2.16–4.58	29' 10"	43' 10"
	R966	155,540	429	2.16–7.19	32' 4"	47' 1"
	R976	194,450	536	2.62–8.89	34' 9"	51' 2"
LiuGong N. America	915E	35,935	113	0.47	19' 3"	28' 6"
	922E	51,522	160	1.3	21' 6"	32' 5"
	925E	56,218	173	1.6	22' 9"	33' 11"
	930E	71,650	209	1.8	23' 9"	34' 11"
	936E	80,689	280	2.09	24' 1"	35' 9"
	950E	105,822	378	2.9	25' 9"	35' 5"
Volvo	EC140E	28,880 - 35,620	121	0.33-1.01	19' 7"	29'
	ECR145E	31,770 - 36,790	121	0.33 - 1.07	20' 2"	29' 5"
	EC160E	36,266 - 45,592	148	0.39 - 1.26	21' 3"	30' 2"
	EC200E	44,974 - 54,388	154	0.36 - 1.44	22' 3"	32' 9"
	EC220E	45,350 - 55,360	173	0.63 - 1.88	20' 8"	31' 9"
	ECR235E	52,250 - 61,440	173	0.47 - 1.88	20' 2"	29' 5"
	EC250E	56,430 - 63,790	215	0.7 - 2	23' 2"	33' 4"
	EC300E	64,720 - 72,260	241	0.7 - 2	24' 1"	34' 7"
	EC300E Hybrid	67,869	240	0.72 - 2.69	23' 5"	34' 6"
	ECR355E	75,200 - 83,800	241	1.24 - 2.69	22' 4"	34' 7"
	EC350E	78,940 - 92,760	303	1.1 - 2.5	24' 11"	36' 2"
	EC380E	83,330 - 94,800	303	1.09 - 3.31	26' 6"	37' 9"
	EC380E HR	111,900	307	–	21' 4"	40' 5"
	EC480E	100,310 - 117,510	373	2.03 - 4.32	24' 6"	38'
	EC480E HR	140,038	380	–	23' 0"	43' 0"
	EC750E	162,040 - 166,008	516	4.3 - 6.7	25' 4"	40' 5"
	EC750E HR	227,138	526	–	22' 6"	47' 1"
	EC950F	205,123	603	5.1 - 9.16	27' 4"	43' 3"

EXCAVATORS, WHEELED

Company	Model	Operating Weight (lbs)	HP	Bucket Capacity (cu yds)	Max. Digging Depth	Max. Reach	Travel Speed (mph)
Caterpillar	M314	39,683	148	0.78	17' 4"	28' 5"	23
	M315F	36,971	150	0.26 - 1.31	18' 3"	28' 8"	19
	M316F	36,102	141	0.46 - 1.90	20' 0"	30' 10"	22
	M317F	40,896	150	0.26 - 1.31	19' 3"	29' 11"	19
	M318	43,980	174	1.19	18' 4"	29' 5"	22
	M318F	40,587	169	0.46 - 1.90	20' 0"	30' 10"	22
	M319	43,982 lbs.	174	1.19	18' 10"	30' 4"	
	M320	46,740 lbs.	174	1.28	20' 9"	30' 6"	
	M320F	43,982	169	0.50 - 1.65	20' 9"	31' 5"	22
	M322F	48,722	169	0.50 - 1.65	21' 10"	33' 5"	19
Doosan	DX140W-5	34,203	124	0.3 - 0.77	14' 8"	24' 2"	23
	DX190W-5	43,431	168	0.5 - 1.22	18' 9"	29' 8"	22
	DX210W-5	47,179	186	0.67 - 1.67	20' 6"	31' 10"	22
	NOTE: Maximum reach is based on reach at ground level.						
Hitachi	ZX190W-6*	44,530	173	0.5 - 1.5	19' 2"	31' 5"	21.7
	ZX190W-6	45,300	173	0.5 - 1.5	19' 5"	31' 1"	21.7
	*mono-block boom						
Hyundai	R55W-9A	12,240	65.1	0.24	11' 6"	20' 2"	18.6
	HW140	30,600	149	0.93	15' 11"	26'	24.2
	HW180	39,240	171	1.37	19' 5"	30' 3"	21.7
	HW210	46,740	174	1.75	20' 11"	32' 8"	21.7
	HW250MH	57,540 - 60630	174	0.78	13' 9" - 15' 5"	34' 1" - 35' 1"	21.7
John Deere	190G W with Monoblock Boom	43,431	173	1.81	19' 2''	31' 5''	21.7
	190G W with 2-Piece Boom	44,533	173	1.81	19' 5''	31' 1''	21.7
Liebherr	A914	36,900	141	0.22-1.14	18' 3"	29' 2"	23
	A918	41,200	161	0.22-1.37	19' 8"	30' 6"	23
	A920	45,900	173	0.72-1.57	20' 6"	31' 10"	23
	A924	56,900	188	0.72-2.16	22'	33' 8"	15
Volvo	EW60E	11,360-12,900	63	0.09 - 0.35	10' 10"	19' 9"	12.4
	EWR130E	28,440-31,747	121	0.95	16'9"	24'4"	21.7
	EWR150E	33,951 - 39,462	141	0.95	18' 10"	29' 11"	21.7
	EW160E	35,714 - 40,124	156	1.02	20' 5"	31' 6"	21.7
	EWR170E	39,573 - 42,329	154	0.9	20' 8"	31' 9"	21.7
	EW180E	40,124 - 44,753	175	1.14	21'	33' 3"	21.7
	EW200E MH	48,500	173	N/A	N/A	33'	12.4
	EW220E	48,898	173	1.3	20' 8.4"	33' 3.6"	18.6
	EW240E MH	57,320	173	----	10' 5"	36' 1"`	12.4

GROUND PENETRATING RADAR

Company	Model	Frequency	Display Type	Depth (ft.)	Max. Survey Length	GPS	Battery Life (hours)	Unit Weight (lbs)
GSSI	UtilityScanPro	270 MHx	10.4"*	18	unlimited	no**	3***	86.5
	UtilityScanPro	400 MHz	10.4"*	12	unlimited	no**	3***	60 - 79****
	UtilityScanPro	300/800 MHz	10.4"*	16	unlimited	no**	3***	70
	UtilityScanPro	350 MHz-HyperStacking	10.4"*	35	unlimited	no**	3***	60-69****
	UtilityScan	350 MHz-HyperStacking	B2 ToughPad	35	unlimited	yes	Tablet = 10; GPR = 7	34
	UtilityScan	350 MHz-HyperStacking	Consumer Grade Tablet	35	unlimited	yes	Tablet = 3; GPR = 7	34
	UtilityScan DF	300/800 MHz	G1 ToughPad	16	unlimited	no**	8	51 or 66****
	UtiilityScan HS	350 MHz-HyperStacking	G1 ToughPad	35	unlimited	no**	8	50 or 65****
	*enhanced LED display with internal high brightness; **supports external GPS; ***user replaceable battery; ****cart dependent							
Guideline Geo Inc.	MALA Easy Locator HDR (Paint/Mark)	450Mhz HDR	11" Wired (non-touch)	25*	Unlimited	Yes**	2.5-10 ***	26.5-50 ****
	MALA Easy Locator PRO HDR (3D,Save files,MALA Vision)	450Mhz HDR	11" Wired (non-touch)	25' *	Unlimited	Yes**	2.5-10 ***	45-55****
	MALA Easy Locator PRO HDR WideRange	80-950Mhz HDR	11" Wired (non-touch) Split Screen	15'-30' *	Unlimited	Yes**	2.5-10 ***	57-65lbs ****
	MALA GX750 WiFi or Wired	750Mhz HDR	11"Wired or Samsung 10" Wireless	15'*	Unlimited	Yes**	2.5-10***	20-50lbs ****
	MALA GX450 WiFi or Wired	450Mhz HDR	11"Wired or Samsung 10" Wireless	25'*	Unlimited	Yes**	2.5-10***	45-55lbs ****
	MALA GX160 WiFi or Wired	160Mhz HDR	11"Wired or Samsung 10" Wireless	40'*	Unlimited	Yes**	2.5-10***	40-65lbs ****
	MALA GX80 WiFi or Wired	80Mhz HDR	11"Wired or Samsung 10" Wireless	80'*	Unlimited	Yes**	2.5-10***	55lbs
	MALA Vision Cloud Based Post Processing (FREE)	NONE	Tablet or Computer	ANY	ANY	YES	NONE	NONE
	*-All GPR depth penetration depends on soil conditions ** Internal or External RTK *** 1-4 Batteries **** Cart Dependent							
Radiodetection/SPX	RD1100	250 MHz Ultra Wide Band	8" Touch Screen	27	3,000'	yes	4-6	48
	RD1500	250 MHz Ultra Wide Band	8" Touch Screen	27	3,000'	yes	4-6	48
Sensors and Software	Noggin 250	250 MHz	8" Touch Screen	328*	unlimited**	yes***	6	49
	Noggin Ultra 100	100 MHz	8" Touch Screen	656*	unlimited**	yes***	6	58
	LMX100	250 MHz	8" Touch Screen	26	unlimited**	yes	6	48
	LMX200	250 MHz	8" Touch Screen	26	unlimited**	yes***	6	48
	Conquest	1,000 MHz	8" Touch Screen	3	unlimited**	no	6	9.8
	FINDAR	500 MHz	8" Touch Screen	10	unlimited**	yes***	6	41
	*max display depth **projects contain multiple lines for unlimited survey length ***built-in internal, also supports external GPS							
Subsite Electronics	2550 GR	250MHz/700MHz	Intel Core	19/8	unlimited	yes	GPR = 10	73.9
US Radar	Seeker Spr 100	100	10.4"*	100	unlimited	yes	5hr x 2	50
	Seeker Spr 250	250	10.4"*	50	unlimited	yes	5hr x 2	90
	Seeker Spr 270	270	10.4" *	48	unlimited	yes	5hr x 2	90
	Seeker Spr 400	400	10.4" *	16	unlimited	yes	5hr x 2	90
	Seeker Spr 500	500	10.4" *	15	unlimited	yes	5hr x 2	90
	Seeker Spr 900	900	10.4" *	6.5	unlimited	yes	5hr x 2	50
	Seeker Spr 1000	1,000	10.4" *	6	unlimited	yes	5hr x 2	50
	Seeker Spr 2000	2,000	10.4" *	2	unlimited	yes	5hr x 2	50
	Q5C	500/400 MHz	10.1" *	15	unlimited	yes	5hr x 2	50
	Quantum Imager	200/400/900 MHz	10.4" *	30	unlimited	yes	5hr x 2	70
	*Full Color Daylight Readable Touchscreen; **Handheld Full Color Daylight Readable Touchscreen							

KEYHOLE EQUIPMENT

Company	Model	Core Diameter (in)	Core Depth (in)	Power Source (hydraulic/gas)	Mounting Option
SIMCO	255PTC	2 - 18	36+	hydraulic	medium pickup/truck w/flat bed, trailer w/25hp Kubota diesel
Utilicor Technologies	Series 500 Heavy Duty Coring Unit	2 - 24	30	PTO/hydraulic	medium duty truck
	MD-300 Multi-Directional Coring Unit Minicor-3 Skid Steer Coring Attachment	2 - 24	30	PTO/hydraulic	medium duty truck
	Minicor-3 Skid Steer Coring Attachment	2-24	30	auxiliary hydraulic	skid steer
	MC-450 Skid Steer Coring Attachment	2 - 18	30	auxiliary hydraulic	mini track loader/skid steer
	MPX-SS Multi-Platform Coring Unit	2 - 24	30	26 HP EFI gas / hydraulic	trailer/pickup truck/flat deck
	ROVER Self-Propelled and Towable Coring Unit	2 - 24	30	26 HP EFI gas / hydraulic	towable & self-propelled
Vermeer	CS418B	4-18	12	25-hp Kohler ECH740 Command Pro EFI	trailer

LOCATORS (WALKOVER and UTILITY)

Company	Model	Type	Operating Voltage	Battery Life (hours)	Audio Output Frequency (kHz)	Weight (lbs)	Operating Temp. (°F)	Overall Length (in)
DCI (W)	DigiTrak Falcon F5	Receiver	Lithium Ion	8 - 12	0.3 - 45	8.5	-4 to 140	15
	DigiTrak Falcon F2	Receiver	Lithium Ion	10 - 14	4.5 - 45	7.6	-4 to 140	15
	DigiTrak Falcon F1	Receiver	Lithium Ion	5 - 7	9 - 13.5	7.6	-4 to 140	15
	DigiTrak Aurora	Remote	12 - 28 VDC	N/A	N/A	6.4	-4 to 140	11.5
	DigiTrak Aurora	Remote	12 - 28 VDC	N/A	N/A	4.3	-4 to 140	9.8
	DigiTrak FCD	Remote	NiMH	8 - 12	N/A	4.5	-4 to 140	8.5
	FTR5p	Transmitter	2 Cell	20	0.3 - 18	1.7	-4 to 140	15
	FTR5Lp	Transmitter	Lithium Ion	70	0.3 - 18	2	-4 to 140	19
	FT5p	Transmitter	2 Cell	20	4.5 - 45	1.7	-4 to 220	15
	FT5Lp	Transmitter	Lithium Ion	40	4.5 - 45	2	-4 to 220	19
	FTR5S	Transmitter	123 - 3v Lithium	12	0.3 - 18	1.4	-4 to 220	8
	FT2	Transmitter	2 Cell	20	4.5 - 45	1.7	-4 to 220	15
	FT2s	Transmitter	123 Lithium	12	4.5 - 45	0.5	-4 to 220	8
	FT1	Transmitter	2 Cell	20	9 - 13.5	1.7	-4 to 220	15
	FT1s	Transmitter	123 Lithium	12	9 - 13.5	0.5	-4 to 220	8
	F5Dpx	Transmitter	2 Cell	20	12, 19	1.7	-4 to 220	15
	F5DLpx	Transmitter	Lithium Ion	20	12, 19	2	-4 to 220	19
	F5Dp	Transmitter	2 Cell	20	12, 1.3	1.7	-4 to 220	15
	F5D 19/12	Transmitter	2 Cell	20	12, 19	1.7	-4 to 220	15
	F5D 12/1.3	Transmitter	2 Cell	20	12, 1.3	1.7	-4 to 220	15
	FX 12	Transmitter	2 Cell	20	12	1.7	-4 to 220	15
	FX 19	Transmitter	2 Cell	20	19	1.7	-4 to 220	15
	FC	Transmitter	12 -28 VDC	N/A	12	1.9	-4 to 220	19
	FXL 12	Transmitter	Lithium Ion	40	12	2	-4 to 220	19
	FXL 19	Transmitter	Lithium Ion	40	19	2	-4 to 220	19
	FS	Transmitter	1 - AA	10	12	0.5	-4 to 220	8
	ST 12	Transmitter	2 Cell	20	12	1.7	-4 to 220	15
	SES	Transmitter	1 - AA	10	12	0.5	-4 to 180	8
	EDF	Transmitter	2 Cell	10	12, 1.5	1.4	-4 to 220	15
	ET	Transmitter	2 Cell	20	12	1.4	-4 to 220	15

LOCATORS (WALKOVER and UTILITY) (cont.)

Company	Model	Type	Operating Voltage	Battery Life (hours)	Audio Output Frequency (kHz)	Weight (lbs)	Operating Temp. (°F)	Overall Length (in)
Heath Consultants (U)	Sure-Lock All Pro	Transmitter	lead acid 6 VCD, 7 AH	10-100	8.1, 81, 480	8	-25 to 150	9.25
	Sure-Lock All Pro	Receiver	6 AA-alkaline	90-120	8.1, 81, 480	4.4	-25 to 150	30.5
	Sure-Lock Utility Pro	Transmitter	6 D-alkaline	110-190	81	4	-25 to 150	8.1
	Sure-Lock Utility Pro	Receiver	6 AA-alkaline	90-120	81	4.4	-25 to 150	30.5
	Magna-Lock	Magnetic	6 1.5V AA	100		3	0 to 120	24
	Split-Lock	Transmitter	4 C-alkaline	50	126	3.5	-5 to 158	8.5
	Split-Lock	Receiver	4 C-alkaline	50	126	3.5	-5 to 158	8.5
	vLoc Pro2	Receiver	6 AA or Lithium Ion	12 or 40	Configurable 16 Hz to 200	4.6	-4 - 122	26
	vLoc ML2+	Receiver	6 AA or Lithium Ion	6 or 20	Configurable 16 Hz to 200	5.95	-4 - 122	26
	vLoc 5STx	Transmitter	8 D-cells; Optional NiMH	5-15; 6-30	Configurable 16 Hz to 200	12.75	-4 - 122	14
	vLoc 10STx	Transmitter	12 D-cells; Optional NiMH	4-25; 7-60	Configurable 16 Hz to 200	15.05	-4 - 122	18
McLaughlin (U)	Vision LX	Pipe/Cable RX/TX	Akaline batteries	20	512 Hz, 850 Hz, 9.5, 38, 80 Khz,	4.7	-4 - 122	26"
	Vision FLX2	Fault finder RX/TX	Akaline batteries	20	512 Hz, 0.5, 38, 80 Khz	4.7	-4 - 122	26"
Radiodetection	RD5100 H2O	Receiver	Li-ion/2x Alkaline D-Cells	35/13	83 (D-Cells)	4.0 (Li-Ion) / 4.2	14-122	25
	RD5100S	Receiver	Li-ion/2x Alkaline D-Cells	35/13	512/640Hz,8,33,65	4.0 (Li-Ion) / 4.2 (D-Cells)	14-122	25
	RD5100H2O+	Receiver	Li-ion/2x Alkaline D-Cells	35/13	4kCD,8,9.8,33,65,83,131,200	4.0 (Li-Ion) / 4.2 (D-Cells)	14-122	25
	RD8100 PXL	Reciever	Li-ion/2x Alkaline D-Cells	35/13	577Hz,640Hz,870Hz,940Hz, 4,8,33,65,83,131,200	4.0 /4.2	-4 to 122	25.5
	RD8100 PXLG	Reciever	Li-ion/2x Alkaline D-Cells	3513	577Hz,640Hz,870Hz,940Hz, 4,8,33,65,83,131,200	4.0 /4.2	-4 to 122	25.5
	RD8100 PDL	Reciever	Li-ion/2x Alkaline D-Cells	35/13	ELF (98/128Hz),512Hz,570Hz,577Hz,640Hz,760Hz,870Hz,920Hz, 940Hz,8,9.8,33,65,83,131,200	4.0 /4.2	-4 to 122	25.5
	RD8100 PDLG	Reciever	Li-ion/2x Alkaline D-Cells	35/13	ELF (98/128Hz),512Hz,570Hz,577Hz,640Hz,760Hz,870Hz,920Hz, 940Hz,8,9.8,33,65,83,131,200	4.0 /4.2	-4 to 122	25.5
	RD8100 PTL	Reciever	Li-ion/2x Alkaline D-Cells	35/13	ELF (98/128Hz),512Hz,570Hz,577Hz,640Hz,760Hz,870Hz,940Hz, 1090Hz,1450Hz,8,8440Hz,9.8,33,65,82,83,131,200	4.0 /4.2	-4 to 122	25.5
	RD8100 PTLG	Reciever	Li-ion/2x Alkaline D-Cells	35/13	ELF (98/128Hz),512Hz,570Hz,577Hz,640Hz,760Hz,870Hz,940Hz, 1090Hz,1450Hz,8,8440Hz,9.8,33,65,82,83,131,200	4.0 /4.2	-4 to 122	25.5
	RD7100 SL	Reciever	Li-ion/2x Alkaline D-Cells	35/13	8,33,65,83	4.0 /4.2	-4 to 122	25.5
	RD7100 DL	Reciever	Li-ion/2x Alkaline D-Cells	35/13	512Hz,640Hz,8,33,65	4.0 /4.2	-4 to 122	25.5
	RD7100 DLG	Reciever	Li-ion/2x Alkaline D-Cells	35/13	512Hz,640Hz,8,33,65	4.0/4.2	-4 to 122	25.5
	RD7100 PL	Reciever	Li-ion/2x Alkaline D-Cells	35/13	512Hz,640Hz,8,33,65	4.0/4.2	-4 to 122	25.5
	RD7100 PLG	Reciever	Li-ion/2x Alkaline D-Cells	35/13	512Hz,640Hz,8,33,65	4.0/4.2	-4 to 122	25.5
	RD7100 TL	Reciever	Li-ion/2x Alkaline D-Cells	35/13	512Hz,640Hz,8,33,65,131,200	4.0/4.2	-4 to 122	25.5
	RD7100 TLG	Reciever	Li-ion/2x Alkaline D-Cells	35/13	512Hz,640Hz,8,33,65,131,200	4.0/4.2	-4 to 122	25.5
	1W	Transmitter	Li-ion/4x Alkaline D-Cells	20/8	83	3.5	14-122	13.75
	10W	Transmitter	Li-ion/8x Alkaline D-Cells	8/4	163Hz, 208Hz, 273Hz, 340Hz, 400Hz, 440Hz, 460Hz, 480Hz, 484Hz, 491Hz, 512Hz, 560Hz, 570Hz, 577Hz, 584Hz, 624Hz, 640Hz, 760Hz, 815Hz, 870Hz, 920Hz, 940Hz, 982Hz, 1090Hz, 1450Hz, 4, 8, 8.44, 9.8, 33, 65, 82, 83, 131, 200	8.3 (Li-Ion) / 8.6 (D-Cells)	14-122	13.75
	TX-1	Transmitter	Li-ion/8x Alkaline D-Cells	8/4	512Hz,570Hz,577Hz,640Hz,760Hz,870Hz,920Hz,940Hz, 8,9.8,33,65,83,131,200	8.3/8.6	14-122	13.75
	TX-5	Transmitter	Li-ion/8x Alkaline D-Cells	8/4	512Hz,570Hz,577Hz,640Hz,760Hz,870Hz,920Hz,940Hz, 8,9.8,33,66,83,131,200	8.3/8.6	14-122	13.75
	TX-5B	Transmitter	Li-ion/8x Alkaline D-Cells	8/4	512Hz,570Hz,577Hz,640Hz,760Hz,870Hz,920Hz,940Hz, 8,9.8,33,65,83,131,200	8.3/8.6	14-122	13.75
	TX-10	Transmitter	Li-ion/8x Alkaline D-Cells	8/4	512Hz,570Hz,577Hz,640Hz,760Hz,870Hz,920Hz..940Hz, 8,9.8,33,65,83,131,200	8.3/8.6	14-122	13.75
	TX-10B	Transmitter	Li-ion/8x Alkaline D-Cells	8/4	165-1000Hz,512Hz,570Hz,577Hz,640Hz,760Hz,870Hz,920Hz, 940Hz,1090Hz,1450Hz,4096Hz,8,8440Hz,9.8,33,65,82,83, 131,200	8.3/8.6	14-122	13.75
Schonstedt (U)	MPC-Rex	Magnetic + Receiver & Transmitter	1 9V; 1 9V; NiMH (12V)		512 Hz, 33 kHz, 82 kHz	2.4; 2.8; 3.4	-4 - 140	28 & 26
	Rex	Receiver & Transmitter	1 9V; NiMH (12V)		512 Hz, 33 kHz, 82 kHz	2.8; 3.4	-4 - 140	28
	XT-512	Sonde Receiver	1 9V	12	n/a	2.8	-4 - 140	28
	Maggie	Magnetic	1 9V	24	n/a	2.6	-13 - 140	
	Spot	Magnetic	1 9V	24	n/a	2	-13 - 140	42
	GA-92XTd	Magnetic	1 9V	24	n/a	2.4	-13 - 140	26
	GA-72Cd	Magnetic	2 9V	60	n/a	2.5	-13 - 140	35
	GA-52Cx	Magnetic	2 9V	40	n/a	2.5	-13 - 140	42
Subsite Electronics (U)	830R	Receiver	2 C-cell alkaline	75	83	5.1	4 to 122	12.1
	830T	Transmitter	6 C-cell alkaline	150	83	4.6	4 to 122	11.1
	M17+	Beacon Transmitter	3.6V Lithium 2 C-Cell	70	1.9-46	2	-4 to 221	17.8
	Marksman+	Receiver	1 Lithium-ion Rechargeable	16	1.9-46	7	-4 to 122	29.1
	UtiliGuard	Receiver	D-cell selectable alkaline	30	0.05-200	4.8	4 to 122	27.2
	UtiliGuard 2	Receiver	D-cell selectible alkaline	30	0.05-200	4.8	4-122	27.2
	UtiliGuard	Transmitter	D-cell selectable alkaline	100	0.256-200	7.7	4 to 122	12
	TK Recon 1	Receiver	4 C-cell alkaline, NiMH*	10-16	29	9	-4 to 122	30
	TK Recon 2	Receiver	4 C-cell alkaline, NiMH*	10-16	12, 29	9	-4 to 122	30
	TK Recon 4	Receiver	4 C-cell alkaline, NiMH*	10-16	1.5, 12, 20, 29	9	-4 to 122	30
	Commander 7	Remote	12V DC	N/A	N/A	2	-4 to 140	6
	TD Recon	Remote	12V DC	N/A	N/A	2	-4 to 140	7
	TDR Recon	Remote	12V DC	N/A	N/A	2	-4 to 140	7
	15T1	Beacon Transmitter	3.6V lithium 2 C-cell	60 16	29	2	-4 to 221	15
	15T3	Beacon Transmitter	3.6V lithium 2 C-cell	60 16	12,20,29	2	-4 to 221	15
	17T1	Beacon Transmitter	3.6V lithium 2 C-cell	60 16	29	2	-4 to 221	17.8
	17T1H	Beacon Transmitter	3.6V lithium 2 C-cell	60 16	29	2	-4 to 221	17.8
	17T4	Beacon Transmitter	3.6V lithium 2 C-cell	60 16	1.5, 12 20, 29	2	-4 to 221	17.8
	17T4G	Beacon Transmitter	3.6V lithium 2 C-cell	60 16	1.5, 12 20, 29	2	-4 to 221	17.8
	19T3	Beacon Transmitter	3.6V lithium 2 C-cell	60 16	12,20,29	2	-4 to 221	15
	*Rechargeable or Inspired Energy NB2038 Li ion rechargeable.							
Vermeer (U)	Verifier G3	Pipe/Cable RX/TX	Alkaline	18	512 Hz, 850 Hz, 9.5, 38, 80 Khz	4.7	-4-122	26

Microtunneling/Pilot Tube

Company	Model	Type Drive	Weight (lbs)	Boring Diameter Range (in)	Max. Bore Length (ft)	Pit Size	Total Thrust (t)
Akkerman	TBM 48SC	hydraulic	12,500	48-52	varies	12x20	400
	TBM 420	hydraulic	14,000	51-55	varies	12x20	400
	TBM 480	hydraulic	14,500	58-62	varies	12x20	400
	TBM 540	hydraulic	16,500	65-69	varies	12x20	800
	TBM 600	hydraulic	23,000	72-76	varies	12x20	800
	TBM 660	hydraulic	24,000	79-83	varies	12x20	800
	TBM 720	hydraulic	29,000	86-90	varies	12x20	1,200
	TBM 780	hydraulic	40,000	93-100	varies	12x20	1,200
	EBS 840	hydraulic	33,400	100	varies	20x30	1,200
	EBS 960	hydraulic	3,600	114	varies	20x30	1,200
	EBS 1080	hydraulic	50,500	127	varies	20x30	1,200
	EBS1200	hydraulic	53,000	144	varies	20x30	1,200
	EBS 1440	hydraulic	60,000	168	varies	20x30	1,200
	MTBM SL30C	electric	13,000	30-38	varies	10x14	400
	MTBM SL34C	electric	16,000	34-42	varies	10x14	400
	MTBM SL36C	electric	18,500	36-44	varies	10x14	400
	MTBM SL44C	electric	21,500	44-52	varies	10x14	400
	MTBM SL46C	electric	23,500	48-56	varies	10x14	800
	MTBM SL51C	electric	25,500	51-59	varies	10x14	800
	MTBM SL60C	electric	36,000	60-72	varies	12x14	1,200
	MTBM SL74C	electric	42,000	74-102	varies	12x14	1,200
	MTBM SL72P	electric	varies	72+	varies	varies	1,200
	MTBM SL86P	electric	varies	86+	varies	varies	1,200
	MTBM SL100P	electric	varies	100+	varies	varies	1,200
	MTBM SL114P	electric	varies	114+	varies	varies	1,200
	GBM 240A	4,500	4.25 - 24	400+	10x10		100
	GBM 308A	6,000	4.25 - 28.5	400+	8x8		100
	GBM 339A	6,600	4.25 - 31.5	400+	9x9		100
	GBM 4800 Series	13,000	4.25 - 48	400+	12x12		265
Bohrtec	BM150D	hydraulic	1,433	4 - 11	varies	5x5	25
	BM400	hydraulic	5,511	4 - 24	varies	7x7	100
	BM400S	hydraulic	5,732	4 - 24	varies	7x7	125
	BM500S	hydraulic	12,125	4 - 40	varies	11x11	200
	BM400LS	hydraulic	6,393	4 - 38.5	varies	7x8*	150
	BM600LS	hydraulic	12,345	4 - 47	varies	9x12*	200
	BM800L	hydraulic	19,841	4 - 63	varies	10x14*	315
	BM800LS	hydraulic	22,046	4 - 63	varies	10x14*	315
Bohrtec	BM400LSC	hydraulic	8,598	4 - 37.8	varies	8x7*	200
	BM600LSC	hydraulic	13,668	4 - 50.4	varies	8x8*	250
	*plus pipe length						
Herrenknecht	AVN250	hydraulic	varies	14.29 - 16.34	varies	2M	115
	AVN300	hydraulic	varies	16.34 - 22.24	varies	3M	260
	AVN400	hydraulic	varies	22.24 - 26.18	varies	3M	260
	AVN500	hydraulic	varies	26.18 - 30.12	varies	3M	260
	AVN600	hydraulic	varies	30.12 - 34.45	varies	3M	260
	AVN700	hydraulic	varies	34.45 - 38.38	varies	3.2M	260
	AVN800B	hydraulic	varies	38.38 - 43.70	varies	3.2M	260
	AVN800A	hydraulic	varies	43.70 - 50.98	varies	4.5 x 3.5M	340
	AVN1000	hydraulic	varies	50.98 - 60.63	varies	4.5 x 3.5M	340
	AVN1200	hydraulic	varies	57.11 - 72.44	varies	5 x 4M	510
	AVN1500	hydraulic	varies	72.44 - 77.17	varies	5 x 4M	510
	AVN1600 (D)	hydraulic	varies	74.01 - 85.04	varies	5.5 x 4.5M	850
	AVN1800 (D)	hydraulic	varies	84.25 - 98.43	varies	6 x 4.5M	850
	AVN2000 (D)	hydraulic	varies	94.49 - 118.11	varies	6 x 4.5M	850 - 1,400
	AVN2200 (D)	hydraulic	varies	100.3 - 125.98	varies	varies	1,220 - 1,400
	AVN2400 (D)	hydraulic	varies	118.11 - 141.73	varies	varies	1,220 - 2,100
	EPB1400	hydraulic	varies	66.92 - 70.08	varies	varies	610 - 700
	EPB1500	hydraulic	varies	70.08 - 76.38	varies	varies	610 - 700
	EPB1600	hydraulic	varies	76.38 - 85.04	varies	varies	610 - 700
	EPB1800	hydraulic	varies	84.25 - 98.43	varies	varies	1,220 - 1,400
	EPB2000	hydraulic	varies	94.49 - 118.11	varies	varies	1,220 - 1,400
	EPB2200	hydraulic	varies	106.3 - 125.98	varies	varies	1,220 - 1,400
	EPB2400	hydraulic	varies	118.11 - 141.73	varies	varies	1,220 - 1,400
	AVN800B (rock)	hydraulic	varies	37.8 - 42.91	varies	varies	260
	TBM 1200 (rock)	hydraulic	varies	58.66 - 66.93	varies	varies	610 - 700
	TBM 1600 (rock)	hydraulic	varies	76.38 - 85.04	varies	varies	610 - 700
	TBM 2000 (rock)	hydraulic	varies	94.49 - 118.11	varies	varies	1,220 - 1,400
	TBM 2200 (rock)	hydraulic	varies	106.3 - 125.98	varies	varies	1,220 - 1,400
	TBM 2500 (rock)	hydraulic	varies	118.11 - 141.73	varies	varies	1,220 - 1,400
	Note: (D) Slurry machines available with D-Mode/pressure compensation by air cushion in the working chamber						
McLaughlin	OTS16	hydraulic	1,200	16"	varies	72" L	N/A
	OTS20	hydraulic	2,100	20"	varies	72" L	N/A
	OTS24	hydraulic	2,300	24"	varies	72" L	N/A
	OTS30	hydraulic	4,200	30"	varies	72" L	N/A
	OTS36	hydraulic	5,300	36"	varies	72" L	N/A
	OTS42	hydraulic	6,250	42"	varies	72" L	N/A
	OTS48	hydraulic	7,000	48"	varies	72" L	N/A
	OTS54	hydraulic	7,800	54"	varies	72" L	N/A
	OTS60	hydraulic	8,350	60"	varies	72" L	N/A

MUD SYSTEMS, HDD

Company	Model	Mud Storage Capacity (gal)	Mud Cleaning Capacity (gpm)	Pump Type	Mixing Method	Screens	Desander, Desilter Cones	Mounting Option (skid/trailer)
American Augers	M-200D*	3,000	200	centrifugal	jets	yes	yes	both
	M-300D*	3,100	300	centrifugal	jets	yes	yes	both
	M-500PD*	6,000	500	tri-plex	jets	yes	yes	rockover
	MCD-1000*	10,000	1,000	centrifugal		yes	yes	rockover
	P600**	N/A	N/A	tri-plex	N/A	N/A	N/A	skid
	P750**	N/A	N/A	quintiplex	N/A	N/A	N/A	skid
	*cleaning systems; **mud pumps							
Ditch Witch	MR90	450	90	centrifugal	venturi	2	yes	both
Elgin Separation Systems	KEMTRON 100HD2	500	65 - 130	centrifugal	venturi/recirculation	yes	1 to 2 (4")	both
	KEMTRON 200HD2	1,000	195	centrifugal	venturi/recirculation	yes	3 (4")	both
	KEMTRON 400HD2	2,350	400	centrifugal	venturi/recirculation	yes	6 (4")	both
	KEMTRON 600HD2	4,500	600	centrifugal	venturi/recirculation	yes	8 (4")	both
	KEMTRON 1000HDX	6,000	1,000	centrifugal	venturi/recirculation	yes	10 (5"), 2(12")	both
	KEMTRON 1500HDX	9,000	1,500	centrifugal	venturi/recirculation	yes	18 (5") , 3 (10")	both
Herrenknecht	Separation HKS100	5,280	440	centrifugal	n/a	yes	yes	20' container
	Separation HKS150	5,280	660	centrifugal	n/a	yes	yes	20' container
	Separation HKS300	5,280	1320	centrifugal	n/a	yes	yes	20' container
	Separation HKS FineStage	5,280	1760	centrifugal	n/a	yes	yes	20' container
	HK Mud Mixing Unit	5,020	mixing: 240	centrifugal	jet/venturi	n/a	n/a	20' container
	HK Transfer Tank	7,660	transfer: 1060	centrifugal	jet/venturi	n/a	n/a	20'container
	High Pressure Mud Pump 925 GPM	n/a	n/a	tri-plex	n/a	n/a	n/a	20' container
	High Pressure Mud Pump 740 GPM	n/a	n/a	tri-plex	n/a	n/a	n/a	20' container
McLaughlin	McL-230P	230	N/A	high pressure reciprocating	agitator	no	no	skid
Mud Technology	MCT-450	2,400	450+	centrifugal	jet	yes	yes	both
	MCT-550	3,300	500+	centrifugal	jet	yes	yes	both
	MCT-750	3,300	800+	cetrifugal	jet	yes	yes	both
	MCT-800	5,000	800+	centrifugal	jet	yes	yes	both
	MCT-1000	6,500	1000+	centrifugal	jet	yes	yes	both
	MCT-1500	6,500	1500+	centrifugal	jet	yes	yes	both
	MCT-2000	6,500	2000+	centrifugal	jet	yes	yes	both
	MPCT-800	5,130	800+	triplex	jet	yes	yes	trailer
	MPCT-1000	7,000	1000+	triplex	jet	yes	yes	trailer
	MPCT-1500	6,270	1500+	triplex	jet	yes	yes	trailer
	MTP-475	N/A	N/A	triplex	N/A	N/A	N/A	skid
	MTPEWS-440	N/A	N/A	triplex	N/A	N/A	N/A	skid
	MTPEWS-446	N/A	N/A	triplex	N/A	N/A	N/A	skid
	RST 1200	1,200	400+	centrifugal	jet	yes	yes	trailer
	RST 1400	1,400	400+	centrifugal	jet	yes	yes	trailer
	TP 7.5		500+	trash pump				
	TP 10		625+	trash pump				
	TP 15		700+	trash pump				
	TP 20		800+	trash pump				

MUD SYSTEMS, HDD (cont.)

Company	Model	Mud Storage Capacity (gal)	Mud Cleaning Capacity (gpm)	Pump Type	Mixing Method	Screens	Desander, Desilter Cones	Mounting Option (skid/trailer)
TT Technologies	DS225	225	N/A	diaphragm	centrifugal pump	N/A	N/A	skid
	DS500	500	N/A	piston	tank propeller	N/A	N/A	skid
	DS1000	1,000	N/A	piston	tank propeller	N/A	N/A	skid
	GS225 Combo	225	N/A	diaphragm	tank propeller	N/A	N/A	skid
	GS225	225	N/A	diaphragm	centrifugal pump	N/A	N/A	skid
Triflo International	MFS350s	350	50-125	centrifugal	venturi/recirculation	yes	2 (4")*	skidded
	MFS750s	750	250	centrifugal	venturi/recirculation	yes	4 (4")*	skidded
	MFS1500s	1500	250	centrifugal	venturi/recirculation	yes	4 (4")*	skidded
	MFS3000s	3000	500	centrifugal	venturi/recirculation	yes	8 (4")*	skidded
	MFS3500s	3500	600	centrifugal	venturi/recirculation	yes	10 (4")*	skidded
	MFS4000sg	4000	600	centrifugal	venturi/recirculation	yes	10 (4")*	skidded
	MFS6000s	6000	750	centrifugal	venturi/recirculation	yes	12 (4")*	skidded
	MFS8000s	8000	1000	centrifugal	venturi/recirculation	yes	2 (10"); 16 (4")*	skidded
	MFS2500c	2500	500	centrifugal	venturi/recirculation	yes	8 (4")*	containerized
	MFS1500ti	1500	250	centrifugal	venturi/recirculation	yes	4 (4")*	trailer integrated
	MFS3000ti	3800	500	centrifugal	venturi/recirculation	yes	8 (4")*	trailer integrated
	MFS8000r	8000	1000	centrifugal	venturi/recirculation	yes	2 (10"); 16 (4")*	rockover
	*single manifold hydro cyclones							
Tulsa Rig Iron	MCS-330	2,200	240+	centrifugal	venturi/jet	yes	yes	trailer
	MCS-355	3,000	350+	centrifugal	venturi/jet	yes	yes	both
	MCS-365	3,712	400+	centrifugal	venturi/jet	yes	yes	trailer
	MCS-425	4,900	400+	centrifugal	venturi/jet	yes	yes	trailer
	MCS-750	9,000	1,000+	centrifugal	venturi/jet	yes	yes	rockover
	MCS-1000	6,400	700+	triplex	venturi/jet	yes	yes	rockover
	TT-100			Triplex				Skid
	TT-150			Triplex				Skid
	TT-250			Triplex				Skid
	TT-540			Triplex				Skid
	TT-560			Triplex				Skid
	TT-660			Triplex				Skid
	TT-680			Triplex				Skid
Vermeer	MX125	300 or 500	n/a	centrifugal	venturi/recirculation	n/a	n/a	modular
	MX300	750 or 1,000	n/a	centrifugal	venturi/recirculation	n/a	n/a	modular
	R250C	8,361	250	centrifugal	venturi/recirculation	yes	yes	trailer
	R600T	7,729	600	centrifugal	venturi/reciculation	yes	yes	trailer

MUD SYSTEMS, Pipe Jacking/TBM/SBM/Microtunneling/Pilot Tube

Company	Model	Mud Storage Capacity (gal)	Mud Cleaning Capacity (gpm)	Pump Type	Mixing Method	Screens	Desander, Desilter Cones	Mounting Option (skid/trailer)
Herrenknecht AG	Separation HKS100	5280	440	centrifugal	n/a	yes	yes	20ft container
	Separation HKS150	5280	660	centrifugal	n/a	yes	yes	20ft container
	Separation HKS300	5280	1320	centrifugal	n/a	yes	yes	20ft container
	Separation HKS FineStage	5280	1760	centrifugal	n/a	yes	yes	20ft container
	Separation HKS500	5280	2200	centrifugal	n/a	yes	yes	20ft container
	HK 8m³ Mixing Unit	2100	mixing: 105	centrifugal	jet/venturi	n/a	n/a	20ft container
	HK Mud Mixing Unit	5020	mixing: 240	centrifugal	jet/venturi	n/a	n/a	20ft container

PIERCING TOOLS

Company	Model	Type Drive	Weight (lbs)	Boring Diameter Range (in)	Max. Bore Length (ft)	Pit Size (ft)	Cycles/ Minute
Footage Tools	U215	pneumatic	25	2	75	3x6	600
	U262	pneumatic	56	2.5	100	3x6	425
	U300	pneumatic	75	3	150	3x6	425
	U400	pneumatic	108	4	150	3 x 6	400
HammerHead Trenchless	2" AH PP BL SW	pneumatic	19	2	75	1 x 2.7	714
	2" RH SR	pneumatic	28	2.06	75	1 x 3.5	470
	2" RH PP BL	pneumatic	24	2.06	75	1 x 3	515
	2" AH PP BL	pneumatic	24	2	75	1 x 3	515
	2.5" CAT PP DF	pneumatic	50	2.64	100	1 x 3	385
	2.5" AH PP DF	pneumatic	50	2.64	100	2 x 4	385
	2.5" RH PP DF	pneumatic	50	2.64	100	4 X 7.6	385
	2.5" RH SR	pneumatic	50	2.64	100	4 X 7.6	385
	2.5" RH PP SW DF	pneumatic	31	2.64	75	4 X 7.6	600
	3" CAT PP DF	pneumatic	69	76.00	150	4 X 7.6	370
	3" AH PP DF	pneumatic	67	76.00	150	4 X 7.6	370
	3" RH PP DF	pneumatic	67	76.00	150	4 X 7.6	370
	3" RH SR	pneumatic	67	3.00	150	4 X 7.6	370
	3" RH PP SW DF	pneumatic	50	3.00	75	4 X 7.6	484
	3.5" CAT PP DF	pneumatic	71	3.50	150	5 X 7.6	370
	3.5" RH PP DF	pneumatic	71	3.50	150	5 X 7.6	370
	4" RH PP DF	pneumatic	131	3.88	150	6 X 7.6	317
	4" CAT PP DF	pneumatic	148	3.96	150	6 X 7.6	330
	4" RH SR	pneumatic	136	3.88	150	6 X 7.6	370
	4.38" CAT PP DF	pneumatic	102	4.38	150	7 X 7.6	315
	5.125" SR	pneumatic	214	5.25	150	8 X 7.6	333
	5.125" CAT PP DF	pneumatic	257.4	5.13	150	8 X 7.6	362
	5.125 PP DF	pneumatic	244.8	5.13	150	8 X 7.6	334
	5.75" SR	pneumatic	305	5.88	150	8 X 7.6	300
Hudco	HP200	pneumatic	28	2	75	1 x 4	500
	HP200Q	pneumatic	28	2	75	1 x 4	500
	HP310	pneumatic	78	3.1	150	2 x 5	500
	HP310Q	pneumatic	78	3.1	150	2 x 5	500
	HP300SS	pneumatic	50	3	75	1 x 4	600
	HP312	pneumatic	78	3.1	150	2 x 5	500
	HP400	pneumatic	136	4	200	2 x 6	400
	HP400Q	pneumatic	136	4	200	2 x 6	400
TT Technologies	P45 Grundomat 1-3/4	pneumatic	20	1-3/4	75	1 x 3.5	580
	P55 Grundomat 2	pneumatic	31	2	75	1 x 3.5	480
	P65 Grundomat 2-1/2	pneumatic	55	2-1/2	100	2 x 4	460
	P65-PK Grundomat	pneumatic	41	2-1/2	100	2 x 3.5	640
	P75 Grundomat 3	pneumatic	70	3	150	2 x 5	400
	P75-PK Grundomat 3	pneumatic	62	3	100	2 x 4	460
	P85 Grundomat 3-1/3	pneumatic	101	3-1/3	150	2 x 5	390
	P85-PK Grundomat 3-1/3	pneumatic	88	3-1/3	100	2 x 4	480
	P95 Grundomat 3-3/4	pneumatic	143	3-3/4	200	2 x 5	320
	P95-PK Grundomat 3-3/4	pneumatic	123	3-3/4	150	2 x 5	360
	P100 Grundomat 4	pneumatic	148	4	200+	2 x 5.5	320
	P100-PK Grundomat 4	pneumatic	124	4	200	2 x 5	400
	P110 Grundomat 4-1/4	pneumatic	215	4-1/4	200+	2 x 5.5	325
	P130 Grundomat 5	pneumatic	258	5	300+	2 x 6	340
	P145 Grundomat 5-3/4	pneumatic	370	5-3/4	300+	2 x 7	310
	P160 Grundomat 6-1/4	pneumatic	437	6-1/4	300+	2 x 7	320
	P180 Grundomat 8	pneumatic	573	7	300+	2 x 8	280
Vermeer MV Solutions	Hole Hammer VHH200	pneumatic	28	2	75	1 x 3-1/2	480
	Hole Hammer VHH200RT	pneumatic	25	2	75	1 x 3-1/2	480
	Hole Hammer VHH250	pneumatic	44	2-1/2	100	2 x 4	460
	Hole Hammer VHH250RT	pneumatic	45	2-1/2	100	2 x 4	460
	Hole Hammer VHH300	pneumatic	71	3	100	2 x 5	400
	Hole Hammer VHH300RT	pneumatic	72	3	100	2 x 5	400
	Hole Hammer VHH330	pneumatic	87	3-1/3	100	2 x 5	400

PIERCING TOOLS (cont.)

Company	Model	Type Drive	Weight (lbs)	Boring Diameter Range (in)	Max. Bore Length (ft)	Pit Size (ft)	Cycles/ Minute
Vermeer MV Solutions	Hole Hammer VH330RT	pneumatic	87	3-1/3	100	2 x 5	400
	Hole Hammer VPT200	pneumatic	28	2	75	1 x 4	470
	Hole Hammer VPT250	pneumatic	58	2-5/8	100	2 x 4-1/4	385
	Hole Hammer VPT250 Short	pneumatic	41	2-5/8	75	2 x 3-1/2	385
	Hole Hammer VPT250RT	pneumatic	57	2-5/8	100	2 x 4-1/2	385
	Hole Hammer VPT300	pneumatic	76	3	100	2 x 5	370
	Hole Hammer VPT300RT	pneumatic	74	3	100	2 x 5	370
	Hole Hammer VPT400	pneumatic	136	3-7/8	100	2 x 6	370
	Hole Hammer VPT500	pneumatic	214	5-1/8	100	3 x 8	333

PIPE FUSION

Company	Model	Input Voltage Required	Min. Power Required	Pipe Diameter Range (in)	Wheel/ Track
GF Piping Systems	MSA	120VAC/240VAC	15 Amp	1/2- 24	n/a
	Electro Plus	120VAC	15 Amp	1/2 - 12	n/a
	IR-63, 110, 225, 315	120/240VAC	15-20 Amp	1/2 - 12	n/a
	TM-160, 315, 400, 630	120/240VAC	0.5-11KW	2 - 24	n/a
	SG-125	120/240VAC	1.2KW	1/2 - 5	n/a
Integrity Fusion Products	I Fuse 105	240 VAC	7 KW	1/2 IPS - 48 IPS	no
	IFuse 60	120 V	5 KW	1/2 IPS-16 DIPS	no
McElroy	Mini-Mc	100 - 120V, 50/60Hz, 1Ph 200 - 240V, 50/60Hz, 1Ph	300 Watts	1/2 CTS - 1 IPS	no
	1LC (locking cam)	100 - 120V, 50/60HZ, 1Ph 200 - 240V, 50/60Hz, 1Ph	100 Watts	1/2 CTS - 1 IPS	no
	2LC (locking cam)	100 - 120V, 50/60Hz, 1Ph 200 - 240V, 50/60Hz, 1Ph wheel cart	800 Watts	1/2 CTS - 2" IPS	opt
	2CU (combination unit)	100 - 120V, 50/60Hz, 1Ph 200 - 240V, 50/60Hz, 1Ph	800 Watts	1/2 CTS - 2 IPS	no
	Acrobat 180	120V, 60Hz, 1 Ph 220-240V, 50/60Hz, 1 Ph	1.2 KW	2" IPS - 6" DPS	no
	Acrobat 250	110-120V, 50/60Hz, 1 Ph 220-240V, 50/60Hz, 1 Ph	1.75 KW 3 KW	63 mm - 250 mm	no
	Acrobat 315	110-120V, 60Hz, 1 Ph 220-240V, 60Hz, 1 Ph	1.85 KW 3 KW	200 mm - 315 mm	
	Pit Bull 14	100 - 120V, 50/60Hz, 1Ph 200 - 240V, 50/60Hz, 1Ph	3 KVA, 2.5 KW	1 IPS - 4 DIPS	opt wheel cart
	Pit Bull 26	100 - 120V, 50/60Hz, 1Ph 220 - 240V, 50/60Hz, 1Ph	3 KVA, 2.5 KW	2 IPS - 6 DIPS	opt wheel cart
	Pit Bull 28	220 - 240V, 50/60Hz, 1Ph	1.75 KW	2 IPS - 8 DIPS	no
	DynaMc 28 HP (hand pump)	100 - 120V, 50/60Hz, 1Ph 220 - 240V, 50/60Hz, 1Ph	3 KVA, 2.9 KW	2 IPS - 8 DIPS	no
	DynaMc 28 EP (electric pump)	100 - 120V, 50/60Hz, 1Ph 220 - 240V, 50/60Hz, 1Ph	3 KVA, 2.9 KW	2 IPS - 8 DIPS	no
	Rolling 28	100V, 50/60Hz, 1Ph 110V, 50Hz, 1Ph 120V, 60Hz, 1Ph 208 - 240V, 60Hz, 1Ph	4.1 KVA, 3.7 KW 3.4 KVA, 3.2 KW 3.5 KVA, 3.2 KW	2 IPS - 8 DIPS	wheel
	Rolling 28 HP	120V, 50/60Hz, 1Ph	3.28 KVA, 3 KW		wheel
	TracStar 28	on-board generator	self-contained	2 IPS - 8 DIPS diesel	track
	Pit Bull 250	240V, 60Hz, 1Ph/220 - 240V, 50/60Hz, 3Ph	3 KW	63mm - 250mm	no
	DynaMc 250 HP (hand pump)	220 - 240V, 50/60Hz, 1Ph	4.2 KVA, 4.2 KW	63mm - 250mm	no
	DynaMc 250 EP (electric pump)	100 - 120V, 50/60Hz, 1Ph 220 - 240V, 50/60Hz, 1Ph	4.2 KVA, 4.2 KW	63mm - 250mm	no
	DynaMC 250 Auto	100 - 120V, 50/60Hz, 1Ph 220 - 240V, 50/60Hz, 1Ph	3 KVA, 3 KW	63mm - 250mm	no
	Rolling 250	220 - 240V, 50Hz, 1Ph	5.2 KVA, 4.8 KW	63mm - 250mm	wheel
	TracStar 250	on-board generator	self-contained	63mm - 250mm diesel	track
	Pit Bull 412	240V, 50/60Hz, 1Ph	3 KW	4 IPS - 12 DIPS	no
	DynaMc 412 HP (hand pump)	220 - 240V, 50/60Hz, 1Ph	4.2 KVA, 4.2 KW	4 IPS - 12 DIPS	no
	DynaMc 412 EP (electric pump)	100 - 120V, 50/60Hz, 1Ph 220 - 240V, 50/60Hz, 1Ph	4.2 KVA, 4.2 KW	4 IPS - 12 DIPS	no
	DynaMc 412 Auto	110 - 200V, 50/60Hz, 1Ph 220 - 240V, 50/60Hz, 1Ph	3 KVA, 3 KW	4 IPS - 12 DIPS	no
	Rolling 412	220 - 240V, 50/60Hz, 3Ph on-board generator	6.2 KVA, 5.8 KW self-contained gas	4 IPS - 12 DIPS	wheel
	TracStar 412	on-board generator	self-contained	4 IPS - 12 DIPS diesel	track
	Pit Bull 618	220 - 240V, 50/60Hz, 1Ph	3 KW	6 IPS - 18 OD	no

PIPE FUSION (cont.)

Company	Model	Input Voltage Required	Min. Power Required	Pipe Diameter Range (in)	Wheel/ Track
McElroy	Rolling 618	220 - 240V, 50/60Hz, 3Ph on-board generator	8.0 KVA, 7.4 KW self-contained gas	6 IPS - 18 OD	wheel
	TracStar 618	on-board generator	self-contained	6 IPS - 18 OD diesel	track
	Pit Bull 500	240V, 50/60Hz, 1Ph	4 KW	180mm - 500mm	no
	TracStar 500	on-board generator	self-contained	180mm - 500mm diesel	track
	MegaMc 824	220 - 240V, 50/60Hz, 3Ph	29.8 KVA, 28.1 KW	8 IPS - 24 OD	wheel
	TracStar 630	on-board generator	self-contained	8 IPS - 24 OD diesel	track
	MegaMc 1236	220 - 240V, 50/60Hz, 3Ph	39.4 KVA, 37.7 KW	12 IPS - 36 OD	wheel
	TracStar 900	on-board generator	self-contained	12 IPS - 36 OD diesel	track
	TracStar 1200	on-board generator	self-contained	16 OD - 48 OD diesel	track
	MegaMc 1648	220 - 240V, 50/60Hz, 3Ph	45 KVA, 43.8 KW	16 OD - 48 OD	wheel
	MegaMc 2065	220 - 240V, 50/60Hz, 3Ph 380 - 415V, 50Hz, 3Ph	50 KVA, 48.8 KW 65 KVA, 61 KW	20 OD - 65 OD	wheel
	MegaMc 1600	220 - 240V, 50/60Hz, 3Ph 380 - 415V, 50Hz, 3Ph	65 KVA, 61 KW	500mm - 1,600mm 20 OD - 65 OD	wheel
	Talon 2000	on-board generator	self-contained diesel	54 OD - 2,000 mm OD	track

PIPE JACKING/TBM/SBU

Company	Model	Type Drive	Weight (lbs)	Boring Diameter Range (in)	Max. Bore Length (ft)	Pit Size	Total Thrust (t)
Akkerman	TBM 48SC	hydraulic	12,500	48-52	varies	12x20	400
	TBM 420	hydraulic	14,000	51-55	varies	12x20	400
	TBM 480	hydraulic	14,500	58-62	varies	12x20	400
	TBM 540	hydraulic	16,500	65-69	varies	12x20	800
	TBM 600	hydraulic	23,000	72-76	varies	12x20	800
	TBM 660	hydraulic	24,000	79-83	varies	12x20	800
	TBM 720	hydraulic	29,000	86-90	varies	12x20	1,200
	TBM 780	hydraulic	40,000	93-100	varies	12x20	1,200
	EBS 840	hydraulic	33,400	100	varies	20x30	1,200
	EBS 960	hydraulic	3,600	114	varies	20x30	1,200
	EBS 1080	hydraulic	50,500	127	varies	20x30	1,200
	EBS1200	hydraulic	53,000	144	varies	20x30	1,200
	EBS 1440	hydraulic	60,000	168	varies	20x30	1,200
	MTBM SL30C	electric	13,000	30-38	varies	10x14	400
	MTBM SL34C	electric	16,000	34-42	varies	10x14	400
	MTBM SL36C	electric	18,500	36-44	varies	10x14	400
	MTBM SL44C	electric	21,500	44-52	varies	10x14	400
	MTBM SL46C	electric	23,500	48-56	varies	10x14	800
	MTBM SL51C	electric	25,500	51-59	varies	10x14	800
	MTBM SL60C	electric	36,000	60-72	varies	12x14	1,200
	MTBM SL74C	electric	42,000	74-102	varies	12x14	1,200
	MTBM SL72P	electric	varies	72+	varies	varies	1,200
	MTBM SL86P	electric	varies	86+	varies	varies	1,200
	MTBM SL100P	electric	varies	100+	varies	varies	1,200
	MTBM SL114P	electric	varies	114+	varies	varies	1,200
	GBM 240A	4,500	4.25 - 24	400+	10x10		100
	GBM 308A	6,000	4.25 - 28.5	400+	8x8		100
	GBM 339A	6,600	4.25 - 31.5	400+	9x9		100
	GBM 4800 Series	13,000	4.25 - 48	400+	12x12		265
Bohrtec	BM150D	hydraulic	1,433	4 - 11	varies	5x5	25
	BM400	hydraulic	5,511	4 - 24	varies	7x7	100
	BM400S	hydraulic	5,732	4 - 24	varies	7x7	125
	BM500S	hydraulic	12,125	4 - 40	varies	11x11	200
	BM400LS	hydraulic	6,393	4 - 38.5	varies	7x8*	150
	BM600LS	hydraulic	12,345	4 - 47	varies	9x12*	200
	BM800L	hydraulic	19,841	4 - 63	varies	10x14*	315
	BM800LS	hydraulic	22,046	4 - 63	varies	10x14*	315
	BM400LSC	hydraulic	8,598	4 - 37.8	varies	8x7*	200
	BM600LSC	hydraulic	13,668	4 - 50.4	varies	8x8*	250
	*plus pipe length						
Herrenknecht	AVN250	hydraulic	varies	14.29 - 16.34	varies	2M	115
	AVN300	hydraulic	varies	16.34 - 22.24	varies	3M	260
	AVN400	hydraulic	varies	22.24 - 26.18	varies	3M	260
	AVN500	hydraulic	varies	26.18 - 30.12	varies	3M	260
	AVN600	hydraulic	varies	30.12 - 34.45	varies	3M	260
	AVN700	hydraulic	varies	34.45 - 38.38	varies	3.2M	260
	AVN800B	hydraulic	varies	38.38 - 43.70	varies	3.2M	260
	AVN800A	hydraulic	varies	43.70 - 50.98	varies	4.5 x 3.5M	340
	AVN1000	hydraulic	varies	50.98 - 60.63	varies	4.5 x 3.5M	340
	AVN1200	hydraulic	varies	57.11 - 72.44	varies	5 x 4M	510
	AVN1500	hydraulic	varies	72.44 - 77.17	varies	5 x 4M	510
	AVN1600 (D)	hydraulic	varies	74.01 - 85.04	varies	5.5 x 4.5M	850
	AVN1800 (D)	hydraulic	varies	84.25 - 98.43	varies	6 x 4.5M	850
	AVN2000 (D)	hydraulic	varies	94.49 - 118.11	varies	6 x 4.5M	850-1,400
	AVN2200 (D)	hydraulic	varies	100.3 - 125.98	varies	varies	1,220-1,400
	AVN2400 (D)	hydraulic	varies	118.11 - 141.73	varies	varies	1,220-2,100

PIPE JACKING/TBM/SBU (cont.)

Company	Model	Type Drive	Weight (lbs)	Boring Diameter Range (in)	Max. Bore Length (ft)	Pit Size	Total Thrust (t)
Herrenknecht	EPB1400	hydraulic	varies	66.92 - 70.08	varies	varies	610-700
	EPB1500	hydraulic	varies	70.08 - 76.38	varies	varies	610-700
	EPB1600	hydraulic	varies	76.38 - 85.04	varies	varies	610-700
	EPB1800	hydraulic	varies	84.25 - 98.43	varies	varies	1,220-1,400
	EPB2000	hydraulic	varies	94.49 - 118.11	varies	varies	1,220-1,400
	EPB2200	hydraulic	varies	106.3 - 125.98	varies	varies	1,220-1,400
	EPB2400	hydraulic	varies	118.11 - 141.73	varies	varies	1,220-1,400
	AVN800B (rock)	hydraulic	varies	37.8 - 42.91	varies	varies	260
	TBM 1200 (rock)	hydraulic	varies	58.66 - 66.93	varies	varies	610-700
	TBM 1600 (rock)	hydraulic	varies	76.38 - 85.04	varies	varies	610-700
	TBM 2000 (rock)	hydraulic	varies	94.49 - 118.11	varies	varies	1,220-1,400
	TBM 2200 (rock)	hydraulic	varies	106.3 - 125.98	varies	varies	1,220-1,400
	TBM 2500 (rock)	hydraulic	varies	118.11 - 141.73	varies	varies	1,220-2,100
	Note: (D) Slurry machines available with D-Mode/pressure compensation by air cushion in the working chamber						
Robbins Company	DN250	electric	varies	14.5	varies	varies	147T
	DN300	electric	varies	16.2	varies	varies	147T
	DN400	electric	varies	22.24	varies	varies	196T
	DN450	electric	varies	24.22	varies	varies	196T
	DN500	electric	varies	26.18	varies	varies	294T
	DN600	electric	varies	30.71	varies	varies	294T
	DN800	electric	varies	43.7	varies	varies	392T
	DN900	electric	varies	47.64	varies	varies	392T
	DN1,000	electric	varies	50.98	varies	varies	392T
	DN1,200	electric	varies	59.25	varies	varies	588T
	DN1,350	electric	varies	65.35	varies	varies	588T
	DN1,500	electric	varies	71.26	varies	varies	588T
	DN1,600	electric	varies	75.98	varies	varies	784T
	DN1,800	electric	varies	84.65	varies	varies	784T
	DN2,000	electric	varies	95.47	varies	varies	784T
	DN2,200	electric	varies	107.28	varies	varies	1,176T
	DN2,400	electric	varies	119.1	varies	varies	1,176T
	DN2,600	electric	varies	123.11	varies	varies	1,176T
	DN3,000	electric	varies	142.72	varies	varies	1,568T

PIPELAYERS

Company	Model	HP	Operating Weight (lbs)	Lifting Capacity (lbs)
Caterpillar	PL61	125	37,480	40,000
	PL72	211	68,945	90,000
	PL83	310	106,807	160,000
	PL87	366	120,119	214,000
Midwestern Manufacturing	M10R-JD410K/CAT 420E	107/89	18,000	10,000
	M16R-JD544L/CAT 938M	124/149	26,500	16,000
	M33R-JD744K/CAT 980M	304/318	45,000	33,000
	M510C-JD450J/CAT D4K2	70/92	23,000	10,000
	M515C-JD550K/CAT D4K2	85/92	24,000	15,000
	M520C-JD650K/CAT D5K2	01/104	26,000	20,000
	M540C-JD700K/D6K2	125	42,000	40,000
	M40C-JD700L PL40	125	42,000	40,000
	M540CK-CAT D6K	125	40,000	40,000
	M550C-CAT D6M	150	50,000	50,000
	M560C-JD750K	165	48,000	60,000
	M572C-CAT D6T	205	65,000	90,000
	M100C-JD850L PL	205	70,000	100,000
	M583C-CAT D8R	305	105,000	140,000
	M170C-JD1050K PL170	335	78,700	170,000
	M220C-JD1050K PL220	350	82,079	220,000
	M594C-CAT D9H	410	128,500	200,000
	561MMC-CAT 561*	105	35,000	40,000
	571MMC-CAT 571*	200	50,800	60,000
	572MMC-CAT 572*	200	61,300	90,000
	583MMC-CAT 583*	300	90,300	140,000
	583R MMC-CAT 583R*	300	90,300	140,000
	594MMC-CAT 594*	410	123,600	200,000
	*hydraulic conversion kits			
Volvo	PL3005E	241	77,228	121,000
	PL4809E	381	129,191	242,508

PIPE LIFTING/HANDLING

Company	Model	Capacity (lbs)	Pipe Diameter (in)	Dimensions (beam)	Weight (lbs)	Carrier Type
LaValley Industries	DHLT	10,000	4.5-9	84 x 37 x 54	2,137	excavator
	DHS	20,000	4-24	83 x 35 x 49	2,200	excavator
	DH4	30,000	4-20	33 x 37 x 63	2,900	excavator
	DH5HP	30,000	4-24	93 x 76 x 70"	3,246	excavator
	DHL	40,000	20-42	112 x 40 x 68"	3,650	excavator
	DHXL	50,000	30-56	117 x 40 x 70"	4,177	excavator

PIPE LIFTING/HANDLING (cont.)

Company	Model	Capacity (lbs)	Pipe Diameter (in)	Dimensions (beam)	Weight (lbs)	Carrier Type
Vacuworx	MC 3	6,600	4 - 12	59"x 65.5"x 18.5"	1,183	hydraulic excavator, crane, pipelayer, wheel/track loader
	MC 5	11,000	4 - 18	64.5"x 65.5"x 20"	1,828	hydraulic excavator, crane, pipelayer, wheel/track loader
	RC 10	22,000	4 - unlimited	103"x 77"x 21"	2,132	hydraulic excavator, crane, pipelayer, wheel/track loader
	RC 12	26,400	4 - unlimited	103"x 77"x 21"	2,132	hydraulic excavator, crane, pipelayer, wheel/track loader
	RC 16	35,200	4 - unlimited	103"x 74"x 22"	2,397	hydraulic excavator, crane, pipelayer, wheel/track loader
	RC 20	44,000	4 - unlimited	103"x 76.5"x 21"	2,560	hydraulic excavator, crane, pipelayer, wheel/track loader
	RC 25	55,000	4 - unlimited	103"x 76.5"x 21	2,560	hydraulic excavator, crane, pipelayer, wheel/track loader

PIPE RAMMING

Company	Model	Type Drive	Weight (lbs)	Boring Diameter Range (in)	Max. Bore Length (ft)	Surface Launch (ft)
HammerHead Trenchless	4" RH SR	air	136	2 – 4	300	2 X 5
	5.125" SR	air	214	4 – 8	300	2 X 5
	5.50" SR	air	170	2 – 4	300	2 X 5
	5.75" SR	air	305	6 – 12	300	3 X 30
	7" AR	air	511	8 – 20	300	3 X 30
	8" AR	air	900	8 – 24	300	3 X 30
	12" AR	air	1,568	12 – 30	300	3 X 30
	16" AR	air	2,701	16 – 48	300	3 X 30
	20" AR	air	5,750	20 – 54	300	3 X 30
	26" XPR	air	12,500	24 – 84	300	3 X 40
	34" AR	air	27,500	36 – 180	300	3 X 40
TT Technologies	Mini-Atlas	air	132	2 - 8	50	3 x 20
	Titan	air	302	8 - 15	80	3 x 30
	Mini-Olympus	air	385	4 - 16	80	3 x 30
	Olympus	air	507	8 - 20	115	3 x 30
	PCG180 Reversible	air	490	8 - 20	115	
	Hercules	air	811	12 - 20	130	3 x 30
	HV220 Reversible	air	945	12 - 20	130	3 x 30
	Mini-Gigant	air	1,014	8 - 24	115	3 x 20
	Gigant	air	1,356	15 - 32	165	3 x 30
	PCG210	air	866	10 - 20	150	3 x 30
	PCG270 Reversible	air	1,540	15 - 32	165	3 x 30
	Koloss	air	2,601	20 - 48	230	3 x 30
	Goliath	air	5,434	24 - 56	265	3 x 30
	Goliath Reversible	air	5,434	24 - 56	265	
	Taurus	air	10,580	56 - 78	265	3 x 30
	Apollo	air	25,000	56 - 122	300	3 x 30

SKID STEER LOADERS (mini crawlers/all-surface locators)

Company	Model	HP	Operating Weight (lbs)	Lift Capacity (lbs)	Max. Reach (height to pin) (in)	Bucket Capacity (cu ft)
Bobcat	S70	23.5	2,892	760	94.5	4.7
	S450	49	5,027	1,300	109.5	10.8
	S550	61	6,213	1,750	114.5	14
	S570	61	6,480	1,950	119	14
	S590	66	6,593	2,100	119	14
	S595	74	6,793	2,200	119	14
	S64	68	6,974	2,300	120	16.9
	S66	74	7,154	2,400	120	16.9
	S76	74	8,615	2,900	128.3	18.5
	S740	74	8,794	3,100	132	15.4
	S770	92	9,314	3,350	132	15.4
	S850	100	10,237	3,950	144	16.7
	A770	92	9,623	3,325	132	15.4
	NOTE: HP = gross hp; Lift Capacity = 50% tipping load					
Case	SR160B	57	5,645	1,600	112	11.3-23.3
	SR175B	64	6,270	1,750	122	11.3-23.3
	SV185B	57	6,270	1,850	120	13.1 - 27.5
	SR210B	68	6,970	2,100	123	13.1 - 27.5
	SR240B	68	7,400	2,400	125.1	14.1 - 27.5
	SR270B	84	8,117	2,700	125.1	14.1 - 27.5
	SV280B	68	7,665	2,800	130	14.1 - 27.5
	SV340B	84	9,100	3,400	130	14.1 - 27.5

SKID STEER LOADERS (mini crawlers/all-surface locators) (cont.)

Company	Model	HP	Operating Weight (lbs)	Lift Capacity (lbs)	Max. Reach (height to pin) (in)	Bucket Capacity (cu ft)
Caterpillar	226D3	67.1	5,849	1,550	110.9"	12.7
	232D3	67.1	6,514	1,990	118.1"	12.7
	236D3	74.3	6,567	1,800	122.9	14.0
	242D3	74.3	7,138	2,200	121.1"	14.0
	246D3	74.3	7,478	2,200	124.2"	15.4
	262D3	74.3	8,296	2,700	124.9"	15.4
	272D3	98	9,133	3,450	127.6"	15.4
	272D3 XE	110	9,573	3,700	128.6	16.7
Ditch Witch	SK600	24.8	2,418	600	76	varies
	SK800	24.8	2,920	911	83	varies
	SK1050	37.0	3,435	1,062	83	varies
	SK1550	43.5	3,990	1,558	94.5	varies
	SK3000	58.9	7,600	3,102	118.0	varies
John Deere	312GR	51	5,905	1,550	115.1	12.3-16.2
	314G	51	6,140	1,760	120	12.3-16.2
	316GR	65	6,180	1,750	115.1	12.3-16.2
	318G	65	6,542	1,945	120	12.3-16.2
	320G	69	7,150	2,190	122.2	15.8 - 21.6
	324G	74	7,700	2,690	126	15.8 - 21.6
	330G	91.2	9,900	3,000	132	16 - 53.9
	332G	100	10,000	3,600	132	17.8 - 53.9
Kubota	SSV65	64	6,790	1,950@ 50%	121.5	14.5
	SSV75	74.3	8,157	2,690@ 50%	128.3	15.8
	NOTE: Bucket Capacity based on short lip with cutting edge					
LiuGong N. America	385B	72	8,250	2,300	129	17.8
New Holland	L213	46	5,070	1,300	18.5	11.5 - 23.7
	L216	57	5,510	1,600	18.5	11.5 - 23.7
	L218	57	6,230	1,800	30.8	15.2 - 27.9
	L220	64	6,470	2,200	29.8	15.2 - 27.9
	L221	74	6,970	2,100	20.3	16.7 - 27.9
	L228	68	8,245	2,800	32.3	16.7 - 27.9
	L234	84	8,900	3,400	30.7	18.4 - 27.9
Vermeer	S450TX	24.8	2,300	500	72	4-6
	CTX50	25	2,100	600	72	4-6
	S925TX (Diesel)	24.5	3,350	925	85.5	4-6
	S925TX (Gas)	40	3,350	925	85.5	4-6
	CTX100	40	3,400	1,035	88	4-6
	CTX160	40	3,850	1,600 (SAE)	88.75	10
Volvo	MC70C	56	6,355	1,550	118.1	0.47 - 0.64
	MC85C	56	6,724	1,753	118.1	0.51 - 0.75
	MC100C	73.8	6,885	2,114	118	0.51 - 0.75
	MC105C	73.8	7,253	2,112	118	0.51 - 0.75
	MC110D	73.6	8,214	2,526	126	0.56 - 0.86
	MC115D	73.6	8,680	2,723	126	0.56 - 0.86
	MC135D	73.8	9,288	3,186	126	0.56 - 0.86
	NOTE: Bucket Capacity is cubic yards.					

TRACK TRENCHERS, CHAIN

Company	Model	HP	Max. Dig Depth (in)	Max. Dig Width (in)	Operating Weight (lbs)
Ditch Witch	C12X	11.7	24	6	1,360
	C16X	16	36	6	1,895
	C24X	22	36	6	1,915
	C30X	31	48	6	2,100
	RT45	49	63	12	5,375
	RT55	62	62	12	12,000
	RT80	74	92	24	20,370
	RT80 Quad	74	62	24	19,100
	RT105	107	97	24	22,000
	RT120	121	97	24	19,300
	RT120 Quad	121	93	24	26,200
	RT125	121	97	24	22,000
	RT125 Quad	121	93	24	27,200
	R300 Zahn 2wd	30	36	8	1,048
	R300 Zahn 4wd	30	48	12	1,290
	ST37X	37	36	16	4,110
Tesmec USA	TRS-775**	220	96	24	43,000
	TRS-885**	205	60	18	46,000
	TRS-975**	300	120	36	70,000
	TRS-985**	335	72	24	78,000
	TRS-1150**	440	144	36	117,000
	TRS-1150XHD**	440	168	42	116,000
	TRS1075**	335	120	36	90,000
	TRS-1085**	335	96	28	95,000
	TRS-1100**	385	144	36	110,000
	TRS-1175XHD**	440	144	42	147,000
	TRS-1475**	630	192	48	240,000
	TRS-1675**	800	288	72	275,000
	M3*	350	144	40	135,000
	M5*	440	168	42	161,000
	*mechanical design; **hydraulic design				

TRACK TRENCHERS, CHAIN (cont.)

Company	Model	HP	Max. Dig Depth (in)	Max. Dig Width (in)	Operating Weight (lbs)
Toro	Pro Sneak 365	35.5	36	6	2,770
	TRX-16	16	48	6	1,114
	TRX-250	24.5	48	8	1,104
	TRX-300	26.5	48	8	1,114
Trencor	T1060	350	144	36	85,000
	T1360	440	142	42	148,000
	T1460	630	240	54	185,000
	T1660	800	300	60	250,000
	T1760	950	360	72	325,000
Vermeer	PTX40	46.8	42	6	2,740
	PTX42	46.8	42	16	3,240
	PTX44	46.8	42	6	2,940
	RTX130	13	36	6	1,140
	RTX150	20.5	36	6	1,170
	RTX250	25	48	8	1,550
	RTX450	49	60	12	6,205
	RTX550	65/67	60	12	7,800
	RTX750	74	60	12	9,330
	RTX1250i2	127	72	12	16,160
	T555 III	185	96	24	36,500
	T558 III	185	72	24	52,000
	T655 III	250	96	26	59,500
	T755 III	275	120	36	82,000
	T855 III	350	144	36	94,000
	T955 III	415	144	42	109,000
	T1055 III	415	168	42	124,000
	T1155 III	540	192	42	170,000
	T1255 III	600	216	48	205,000

TRACK TRENCHERS, QUAD

Company	Model	HP	Max. Dig Depth (in)	Max. Dig Width (in)	Operating Weight (lbs)
Ditch Witch	RT80 Quad	74	93	24	19,100
	RT120 Quad	121	93	24	26,200
	RT125 Quad	121	93	24	27,200
Vermeer	RTX450	49	60	12	6,205
	RTX550	65/67	60	12	7,800
	RTX750	74	60	12	9,330
	RTX1250i2	127	72	12	16,160

TRENCHERS, ROCKSAW

Company	Model	HP	Max. Digging Depth (in)	Max. Digging Width (in)	Operating Weight (lbs)
Tesmec USA	TRS-975	300	48	12	68,000
	TRS-1075	335	48	12	90,000
	TRS-1100	385	54	14	105,000
	TRS-1275	540	60	16	150,000
Vermeer	RTX550	65/67	60	12	7,800
	RTX1250i2	127	72	12	16,160
	RTX750	74	60	12	5,900
	T555III	185	96	24	36,500
	T855III	350	144	36	94,00

TRENCHERS, RUBBER TIRE

Company	Model	HP	Max. Digging Depth (in)	Max. Digging Width (in)	Operating Weight (lbs)
Ditch Witch	C14	13.5	24	6	1,191
	C16	16	36	6	1,528
	RT45	49	63	12	5,375
	RT55	62	62	12	12,000
	RT80	74	92	24	20,370
	RT105	107	97	24	22,000
	RT120	121	97	24	19,300
	RT125	121	97	24	22,000
Vermeer	PTX40	46.8	42	6	2,740
	PTX42	46.8	42	6	3,240
	PTX44	46.8	42	6	2,940
	RTX450	49	60	12	4,507
	RTX550	65/67	60	12	5,600
	RTX750	74	60	12	5,900
	RTX1250i2	127	72	12	16,160

TRENCHERS, WHEEL

Company	Model	HP	Max. Digging Depth (in)	Max. Digging Width (in)	Operating Weight (lbs)
Buckeye	7200	350	7' 4"	24"	50,000
	9200 RT	400	7' 4"	30"	57,500
	9200 Magnum Tracked	400	8'	30"	90,000
	9200 T	550	9'	48"	12,000
Ditch Witch	C14	13.5	24	6	1,191
	C16	16	36	6	1,528
	RT45	49	63	12	5.375
	RT55	62	62	12	12,000
	RT80	74	92	12	20,370
	RT80 Quad	74	62	24	19,100
	RT105	107	97	24	22,000
Ditch Witch	RT120	121	97	24	19,300
	RT120 Quad	121	93	24	26,200
	RT125	121	97	24	22,000
	RT125 Quad	121	93	24	27,200
	ST37X	37	36	16	4,110
Tesmec USA	TRS-1075	335	96	40	90,000
	TRS-1175XHD	440	108	54	147,000
	TRS-1375	540	108	66	175,000
	TRS-1575	630	120	72	242,000
	TRS-1675	800	120	93	275,000
Trencor	T1060	375	144	36	90,000 - 110,000
	T13-48/509	509	192	48	127,000-173,000
	T14-54/617	617	240	54	236,000-278,000
	T1660	801	288	60	240,000-320,000
	T1760	950	360	72	246,000-326,000

VACUUM EXCAVATORS

Company	Model	Air/ Water	HP	Capacity (gal)	Compressor (cfm/psi)	Vacuum (cfm/Hg)	Mounting Option
AmeriVac Group	MV700		300	650 / 1,250	3,000	16"	truck
	MV700T		300	1,300 / 1,250	3,000	16"	truck
	MV1000TW		300	1,300 / 1,250	3,000	16"	truck
	MV1000TD		300	650 / 1,900	3,200	16"	truck
	MV1400		370	1,300 / 2,500	3,200	16"	truck
	NOTE: Capacity shows water / debris values						
Ditch Witch	FX20	water	25.0	150	N/A	543/15	trailer
	FX25	water	31	500	N/A	543/15	trailer
	FX30	water	24.8	500	n/a	500/15	trailer
	FX50	water	49	1,200	N/A	1,027/16	trailer
	FXT50	both	49	500/800	10 Series: 200/200 12 Series: 300/250	1,020/15"	truck
	FX65	water	74	1,200	n/a	1,215/16	trailer
	FXT65	both	74	500/800	10 Series: 200/200 12 Series: 300/250	1,027/16	truck
	HX30	water	24.8	500/800	n/a	512	trailer
	HX30G	water	31.0	500/800	n/a	36	trailer
	HX50	water	50	500/800	n/a	1,005	trailer
	HX75	water	75	500/800	n/a	1315	trailer
	MV800	water	31	800	n/a	36	trailer
Hi-Vac/X-Vac	X-8	air/water	370	600/8 Yards	200/200	4000/27"	truck
	X-12	n/a	450	1,150/12Yards	N/A	5250/27"	truck
	X-13	air/water	450	1,150/13 Yards	200/200	5800/27"	truck
	X-15	n/a	450	1,700/15 Yards	N/A	5250/27"	truck
Hi-Vac/Aquatech	D-6	air/water	350	600/6 Yards	200/200	5000/18"	Truck
	D-10	air/water	350	1100/10 Yards	200/200	4000/27"	Truck
Ox Equipment	MTS Dino 4.5	air /dry suction	505	5.8 cu. yd.	360cfm /185psi	24,000 cfm	truck
	MTS Dino 4.5 LT	air /dry suction	505	5.8 cu. yd.	360cfm /185psi	24,000 cfm	truck
	MTS Dino 4.5 High Rail	air /dry suction	505	5.8 cu. yd.	360cfm /185psi	24,000 cfm	truck
	MTS Dino 8	air /dry suction	505	10.5 cu. yd.	360cfm /185psi	24,000 cfm	truck
	MTS Dino 12	air /dry suction	505	16 cu. yd.	360cfm /185psi	24,000 cfm	truck
	MTS City Dino	air /dry suction	350	4.5 cu. Yd	320cfm/116psi	11,000 cfm	truck
Ring-O-Matic	FT150	water	25	150		600/15	skid/trailer/truck
	FT150 VLX	water	31	150		600/15	skid/trailer/truck
	275 VLX	water	31	250		600/15	skid/trailer/truck
	350 VLX	water	31	350		600/15	skid/trailer/truck
	550 VLX	water	31	550		600/15	skid/trailer/truck
	850 VLX	water	31	800		600/15	skid/trailer/truck
	1000 VLX	water	31	1,000		600/15	skid/trailer/truck
	1300 VLX	water	31	1,300		600/15	skid/trailer/truck
	275VX	water	24.8/49/60/64	250		600/15	skid/trailer/truck
	350VX	water	24.8/49/60/64	350		600/15	skid/trailer/truck
	550VX	water	24.8/49/60/64	550		600/15	skid/trailer/truck
	850VX	water	24.8/49/60/64	800		600/15	skid/trailer/truck
	1000VX	water	24.8/49/60/64	1,000		600/15	skid/trailer/truck
	1300VX	water	24.8/49/60/64	1,300		600/15	skid/trailer/truck
	350VX HI CFM	both	49/60/64/74	350	150/185	1,000/15	skid/trailer/truck
	550VX HI CFM	both	49/60/64/74	550	150/185	1,000/15	skid/trailer/truck
	850VX HI CFM	both	49/60/64/74	800	150/185	1,000/15	skid/trailer/truck
	1000VX HI CFM	both	49/60/64/74	1,000	150/185	1,000/15	skid/trailer/truck
	1300VX HI CFM	both	49/60/64/74	1,300	150/185	1,000/15	skid/trailer/truck
	1600VX HI CFM	both	49/60/64/74	1,600	150/185	1,000/15	skid/truck
	2000VX HI CFM	both	49/60/64/74	2,000	150/185	1,000/15	skid/truck
	550 Vac Extreme	both	110	550	150/185	1,700/14	skid/trailer/truck
	850 Vac Extreme	both	110	800	150/185	1,700/14	skid/trailer/truck
	1000 Vac Extreme	both	110	1,000	150/185	1,700/14	skid/trailer/truck
	1300 Vac Extreme	both	110	1,300	150/185	1,700/14	skid/truck
	1600 Vac Extreme	both	110	1,600	150/185	1,700/14	skid/truck
	2000 Vac Extreme	both	110	2,000	150/185	1,700/14	skid/truck
	2600 Vac Extreme	both	110	2,600	150/185	1,700/14	skid/truck
	3000 Vac Extreme	both	110	3,000	150/185	1,700/14	skid/truck
	1000 Vac Extreme II	water	110	1,000		2,500/13	skid/truck
	1300 Vac Extreme II	water	110	1,300		2,500/13	skid/truck
	1600 Vac Extreme II	water	110	1,600		2,500/13	skid/truck
	2000 Vac Extreme II	water	110	2,000		2,500/13	skid/truck
	2600 Vac Extreme II	water	110	2,600		2,500/13	skid/truck
	3000 Vac Extreme II	water	110	3,000		2,500/13	skid/truck
	1000 Vac Extreme III	water	147	1,000		3,000/12	skid/truck
	1300 Vac Extreme III	water	147	1,300		3,000/12	skid/truck
	1600 Vac Extreme III	water	147	1,600		3,000/12	skid/truck
	2000 Vac Extreme III	water	147	2,000		3,000/12	skid/truck
	2600 Vac Extreme III	water	147	2,600		3,000/12	skid/truck
	3000 Vac Extreme III	water	147	3,000		3,000/12	skid/truck

VACUUM EXCAVATORS (cont.)

Company	Model	Air/ Water	HP	Capacity (gal)	Compressor (cfm/psi)	Vacuum (cfm/Hg)	Mounting Option
Super Products	Mud Dog 1200	both	425	1,500	6,000	28"	truck
	Mud Dog 1600	both	485	2,000	6,000	28"	truck
	Camel 1200 (HDX)	water	370	1,500	3,500 - 6,000	18" - 27"	truck
Utiliscope	VE-75		80	75	850	23"	N/A
	MV-300		80	300	850	23"	N/A
	MV-560		80	560	850	23"	N/A
	MV-800		80	800	850	23"	N/A
	MV-1200		80	1,200	850	23"	N/A
Vacmasters	System 1000	both	68	300, 500 & 800	100/150	850/ 15"	truck/trailer
	System3000	both	99	300	165/185	1,220 / 15"	truck
	System4000	both	155	450, 800	300/220	1,220 / 16"	truck
	System 5000	both	173	500, 700	300/220	1,700 / 16"	truck
	Ssytem 6000	both	250	950	350/250	2,220 / 16"	truck
Vactor	HXX-PD	both	430	1,300*/12/15 yard**	185/150	5,250/28"	chassis
	HXX QuietPak	both	500	1,300*/12/15 yard**	185/150	6,200/28"	chassis
	HXX-824	both	380	1,300*/12/15 yard**	185/150	5,000/18"	chassis
	HXX-FN	both	380	1,300*/12/15 yard**	185/150	N/A	chassis
	HXX-Prodigy	both	300	600*/6 yard**	185/150	3,200/16"	chassis
	*water; **debris						
Vermeer	ECO 25-100G	water	24	100	n/a	575/15	skid
	VX50	water	49	500, 800, 1200	n/a	1,025/15	trailer
	VX75	both	74	500, 800, 1200	n/a	1,200/15	trailer
	ECO 50	water	49	500, 800	n/a	1,025/15	truck
	ECO 75	both	74	500, 800, 1200	n/a	1,200/15	truck
	MEGA VAC VXT8 PTO	water	350	1,600	n/a	3,200/18" Hg	truck
	EV 150 G	water	27 gas	150	n/a	580	skid/trailer
	LP Mini 373	water	27 gas	300	n/a	580	skid/trailer
	LP 573 XDT	water	24 diesel	500	n/a	580	trailer
	LP 573 SDT	water	49 diesel	500	n/a	1,000	trailer
	LP 573 SGT	water	38 gas	500	n/a	1,000	trailer
	LP 873 XDT	water	24 diesel	800	n/a	580	trailer
	LP 873 SDT	water	49 diesel	800	n/a	1,000	skid/trailer
	LP 873 SGT	water	38 gas	800	n/a	1,000	trailer
	LP 1273 XDT	water	24 diesel	1,200	n/a	580	trailer
	LP 1273 SDT	water	49 diesel	1,200	n/a	1,000	trailer
	LP 1273 SGT	water	38 gas	1,200	n/a	1,000	trailer
	CV 570 GT	water	27 gas	500	n/a	580	trailer
	CV 870 GT	water	27 gas	800	n/a	580	trailer
	CV 1270 GT	water	27 gas	1,200	n/a	580	trailer
	CV 570 SGT	water	38 gas	500	n/a	1,000	trailer
	CV 870 SGT	water	38 gas	800	n/a	1,000	trailer
	CV 1270 SGT	water	38 gas	1,200	n/a	1,000	trailer
	CV 573 SGT	water	38 gas	500	n/a	1,000	trailer
	CV 873 SGT	water	38 gas	800	n/a	1,000	skid/trailer
	MC 573 SDT	water	74 diesel	500	n/a	1,000	trailer
	MC 873 SDT	water	74 diesel	800	n/a	1,000	trailer
	MC 12735 DT	water	74 diesel	1,200	n/a	1,000	trailer
	AIR 573 SDT	both	74 diesel	500	185@160	1,000	trailer
	AIR 873 SDT	both	74 diesel	800	185@160	1,000	trailer
	CS 500 GT	n/a	27 gas	500	n/a	580	trailer
	CS 1200 GT	n/a	27 gas	800	n/a	580	trailer
	HTV 873 PTO	water	300 HP PTO	800	n/a	1,000	truck
	VXP VXP500	water	430	8 cu yd	n/a	4,800	truck
	VXP VXT600	water	505	11/16 cu yd	n/a	6,400	truck

WHEEL LOADERS

Company	Model	HP	Operating Weight (lbs)	Standard Bucket (cu yds)	Tip Load (lbs)	Travel Speed (Fwd/Rev) (mph)
Case	521G	131	24,203	2.1 - 4	17,062	22.3 / 14.1
	521G XT	131	25,404	2.1 - 4	16,767	22.3 / 14.1
	521G XR	131	24,485	2.1 - 4	17,276	22.3 / 14.1
	621G	162	28,159	2.5 - 4.5	24,715	24 / 15.6
	621G XT	162	29.076	2.5 - 4.5	19,587	24 / 15.6
	621G XR	162	29,332	2.5 - 4.5	20,709	24 / 15.6
	721G	179	32,492	2.6 - 5.5	27,355	25 / 19.3
	721G XT	179	33,392	2.6 - 5.5	23,624	25 / 19.3
	721G XR	179	32,851	2.6 - 5.5	23,078	25 / 19.3
	821G	211	40,057	3 - 6	33,583	24.9 / 17.2
	821G XR	211	40,648	3 - 6	26,828	24.9 / 17.2
	921G	242	45,070	3 - 6	38,941	25 / 17.2
	921G XR	242	45,651	3 - 6	31,222	25 / 17.2
	1021G	296	55,282	4.5 - 6.5	45,444	23.6 / 16.5
	1021G XR	296	58,711	4.5 - 6.5	38,219	23.6 / 16.5
	1121G	320	61,650	4.5 - 7	49,094	23.2 / 15.8
	1121G XR	320	63,443	4.5 - 7	43,234	23.2 / 15.8
Caterpillar	903D	74	9,392	0.8 - 1.3	5,070	10
	906M	74	12,331	1.0 - 1.6	7,507	6 / 6
	907M	74	9,666	1.0 - 1.6	7,716	6 / 6
	908M	74	14,026	1.2 - 2.0	8,311	6 / 6
	910	100	17,893	1.7 - 2.5	13,237	25 / 25
	910M	92	17,838	1.7 - 2.5	13,237	25 / 25
	914	110	19,103	1.7 - 2.5	11,845	25 / 25
	914M	92	19,262	1.7 - 2.5	11,845	25 / 25
	918M	112	20,869	1.7 - 2.5	13,578	25 / 25

WHEEL LOADERS (cont.)

Company	Model	HP	Operating Weight (lbs)	Standard Bucket (cu yds)	Tip Load (lbs)	Travel Speed (Fwd/Rev) (mph)
Caterpillar	918M High Lift	115	21,682	1.7 - 2.5	12,439	25 / 25
	920	121	21,742	1.7 - 2.5	12,439	25 / 25
	926M	153	28,770	2.5 - 5.0	19,383	25 / 25
	926M High Lift	153	29,383	2.5 - 5.0	19,383	25 / 25
	930M	164	30,876	2.7 - 5.5	21,928	25 / 25
	930M High Lift	164	31,390	2.7 - 5.5	21,928	25 / 25
	938M	188	36,216	3.3 - 6.5	26,097	25 / 25
	938M High Lift	188	35,995	3.3 - 6.5	26,097	25 / 25
	950M	230	42,357	3.3 - 12.0	28,144	24.9 / 16.0
	962M	250	44,491	3.3 - 12.0	29,877	24.9 / 16.0
	966M	276	51,176	4.19 - 9.68	36,711	24.9 / 24.9
	966M High Lift	276	51,716	4.19 - 9.68	36,711	24.9 / 24.9
	966M XE	298	51,176	4.19 - 9.68	36,711	24.4 / 17.1
	966M XE High Lift	298	51,176	4.19 - 9.68	36,711	24.4 / 17.1
	972M	299	54,871	4.19 - 13.00	40,779	24.9 / 24.9
	972M High Lift	299	54,871	4.19 - 13.00	40,779	24.9 / 24.9
	972M XE	311	54,871	4.19 - 13.00	40,779	24.4 / 17.1
	972M XE High Lift	311	54,871	4.19 - 13.00	40,779	24.4 / 17.1
	980	393	66,877	5.25 - 19.0	43,432	24.5 / 24.5
	980 XE	393	66,877	5.25 - 19.0	43,432	24.5 / 24.5
	980M	386	66,337	5.25 - 16.0	49,897	24.9 / 24.9
	980M High Lift	386	66,337	5.25 - 16.0	49,897	24.9 / 24.9
	982M	398	78,402	6.0 - 15.75	54,640	23.3 / 24.9
	982	404	78,264	6.25 - 22.5	46,526	23.3 / 24.5
	982 XE	404	78,264	6.25 - 22.5	46,526	23.3 / 24.5
	986K	373	98,806	6.5 - 13.5	63,404	24 / 25.4
	986K High Lift	373	98,806	6.5 - 13.5	63,404	24 / 25.4

WHEEL LOADERS (cont.)

Company	Model	HP	Operating Weight (lbs)	Standard Bucket (cu yds)	Tip Load (lbs)	Travel Speed (Fwd/Rev) (mph)
Caterpillar	988K	541	112,574	6.2 - 17.0	75,506	24.4 / 15.8
	988K High Lift	541	112,574	6.2 - 17.0	75,506	24.4 / 15.8
	988K XE	541	116,362	6.2 - 17.0	86,941	21.6 / 14.4
	990K	699	179,233	9.7 - 19.5	108,644	15.2 / 16.4
	990K High Lift	699	179,233	9.7 - 19.5	108,644	15.2 / 16.4
	992	814	233,430	15.0 - 32.0	136,365	14.2 / 15.4
	992K	814	220,089	14.0 - 25.0	136,365	14.2 / 15.4
	992K High Lift	814	220,089	14.0 - 25.0	136,365	14.2 / 15.4
	993K	1,024	292,748	16.0 - 31.0	183,563	14.1 / 15.6
	993K High Lift	1,024	292,748	16.0 - 31.0	183,563	14.1 / 15.6
	994K	1,739	529,149	25.0 - 52.0	346,263	15.2 / 16.8
	994K High Lift	1,739	529,149	25.0 - 52.0	346,263	15.2 / 16.8
	NOTE: Travel Speed=forward/reverse					
Doosan	DL200-5	142	25,794	2.6	21,076 / 18,618	24 / 12
	DL200HL-5	142	26,566	2.6	17,957 / 15,851	24 / 12
	DL200TC-5	142	26,224	2.6	18,827 / 16,623	24 / 12
	DL220-5	160	27,381	3.0	21,231 / 18,750	24.2 / 15.8
	DL220HL-5	160	28,296	3.0	19,412 / 17,141	24.2 / 15.8
	DL250-5	172	30,115	3.3	23,997 / 21,186	23.5 / 15.0
	DL250HL-5	172	31,129	3.3	21,440 / 18,927	23.5 / 15.0
	DL250TC-5	172	31,592	3.3	20,470 / 18,078	23.5 / 15.0
	DL280-5	172	34,262	3.7	26,486 / 23,389	22.1 / 15
	DL280HL-5	172	35,168	3.5	22,273 / 19,667	22.1 / 15
	DL300-5	275	41,502	4.2	33,061 / 29,194	22.4 / 16.8
	DL300HL-5	275	42,441	4.2	26,918 / 23,766	22.4 / 16.8
	DL350-5	275	43,790	4.8	34,260 / 31,224	22.4 / 16.8
	DL350HL-5	275	44,790	4.8	27,470 / 24,251	22.4 / 17.1
	DL420-5	345	50,783	5.5	40,257 / 35,550	22.4 / 11.5
	DL420HL-5	345	51,919	5.5	32,320 / 28,550	22.4 / 11.5
	DL450-5	345	56,868	6.3	45,228 / 39,937	22.4 / 16.4
	DL450HL-5	345	57,618	6.3	42,902 / 37,875	22.4 / 16.4
	DL550-5	380	69,897	7.5	53,175 / 46,947	22.4 / 16.1
	DL550HL-5	380	71,617	7.5	43,453 / 38,371	22.4 / 16.1
	DL580-5	380	79,433	10.3	65,455 / 57,805	22.4 / 16.1
	NOTE: HL = high lift; Tip Load = straight frame/full turn					
Hyundai	HL940	156	29,542	3	19,842	24.9
	HL940TM	156	29,980	3	16,310	24.9
	HL940XT	156	29,542	3	15,610	24.9
	HL955	197	33,995	3.7	23,766	23.9
	HL955TM	197	34,390	3.5	19,510	23.9
	HL955XT	197	34,780	3.7	18,075	23.9
	HL960	222	42,825	4.3	30,049	24.5
	HL960XT	222	43,211	4.3	24,030	24.5
	HL960HD	222	44,092	4.3	29,705	24.2
	HL960HDXT	222	43,940	4.3	24,570	24.2
	HL965	269	44,313	4.7	30,810	23.2
	HL965XT	269	46,209	4.7	25,395	23.2
	HL970	308	52,909	5.5	36,729	24.9
	HL970XT	308	53,352	5.5	30,534	24.9
	HL975	331	58,420	6.3	40,455	22.7
	HL975XT	331	60,175	6.3	37,015	22.7
	HL980	376	69,600	7.3	48,700	22.7
	HL980XT	376	69,887	7.3	42,329	22.7
John Deere	204L	61	11,806	1.0–1.4	7,231	12.0/12.0
	244L	71	12,258	1.0–1.4	8,157	23.5/23.5
	304L	65	12,778	1.0–2.1	8,091	12.0/12.0
	324L	71	14,110-14,716	1.0–2.1	9,766	23.5/23.5
	344L	103	19,533 - 20,393	2.0–2.6	11,795	24.9/24.9
	444L Z-Bar	124	25,814 - 27,368	2.5–4.0	14,689–17,047	21.9/15.3
	444L High-Lift	124	25,116 - 27,670	2.5–4.0	12,254–14,386	21.9/15.3
	524L Z-Bar	152	28,931 - 30,359	2.75–4.0	17,391–19,742	24.8/16.8
	524L High-Lift	152	29,412 - 30,841	2.75–4.0	14,436–16,526	24.8/16.8
	524L High-Lift Plus	152	29,667 - 31,097	2.5–4.0	13,150–15,123	24.8/16.8
	524LTool Carrier	152	29,520 - 30,004	2.75–4.0	15,880–16,541	24.8/16.8
	544L Z-Bar	166	30,520 - 32,000	3.0–4.5	18,736–21,281	24.8/18.3
	544L High-Lift	166	30,847 - 32,277	2.75–4.0	16,293–18,460	24.8/18.3
	544L High-Lift Plus	166	31,257 - 32,827	2.5–4.0	14,040 - 16,336	24.8/18.3
	624L Z-Bar	192	34,715 - 36,365	3.5–5.25	22,690 - 25,218	24.8/19.0
	624L High-Lift	192	35,171 - 36,641	3.25–4.5	19,158-21,153	24.8/19.0
	624L High-Lift Plus	192	35,703 - 37,714	3.0–4.0	17,581 - 19,483	24.8/19.0
	624L Tool Carrier	192	35,140 - 35,556	3.5–4.5	21,912 - 22,031	24.8/19.0
	624L Waste Handler	192	40,067 - 41,220	3.1–4.6	13,856 - 20,370	24.8/19.0

WHEEL LOADERS (cont.)

Company	Model	HP	Operating Weight (lbs)	Standard Bucket (cu yds)	Tip Load (lbs)	Travel Speed (Fwd/Rev) (mph)
John Deere	644L Z-Bar	249	41,246 - 42,307	4.0–4.5	26,854–28,631	24.9/16.2
	644L High-Lift	249	41,653 - 42,913	4.0–4.25	21,426–23,540	24.9/16.2
	644L Hybrid Z-Bar	231	41,571 - 42,632	4.0 - 4.5	26,168–27,925	24.9 / 24.9
	644L Hybrid High-Lift	231	42,369–43,430	4.0–4.25	22,085–23,639	24.9/24.9
	644L Waste Handler	249	49,130 - 50,330	3.8 - 5.4	20,614 - 24,653	24.9/24.9
	724L Z-Bar	268	43,707 - 44,830	4.5 - 5.0	29,530–31,315	24.9/16.2
	724L High-Lift	268	43,971 - 45,103	4.25 - 4.75	24,572–26,168	24.9/16.2
	724L Waste Handler	268	50,369 - 51,518	3.8 - 5.4	20,614 - 24,653 [MC doesn't have; suggest "N/A"]	24.9/16.2
	744L Z-Bar	316	55,872 - 57,962	5.0 - 5.85	34,317–37,902	24.9/17.4
	744L High-Lift	316	57,086 - 58,713	5.0 - 5.25	27,295–29,848	24.9/17.4
	744L Waste Handler	316	65,958 - 67,865	4.6 - 6.1	22,682 - 29,808 [MC doesn't have; suggest "N/A"]	24.9/17.4
	824L Z-Bar	343	60,645 - 62,439	5.0 - 6.75	34,866–38,592	24.9/18.0
	824L High-Lift	343	61,498 - 62,891	5.75 - 6.0	29,851–32,221	24.9/18.0
	844L	417	74,831 - 76,670	6.3 - 8.0	44,930–50,358	24.9/15.5
	844L Aggregate Handler	429	80,050 - 80,318	9.3 - 9.8	50,642–51,661	24.9/15.3
	944K	536	119,607 - 124,614	8.5 - 10.0	64,445 - 75,288	24.2/24.2
Komatsu	WA200-8	126	25,827	2.6	19,235	23.6 / 23.6
	WA200-8 High Lift	126	26,180	2.2	15,598	23.6 / 23.6
	WA270-8	149	28,396	3	22,774	23.6 / 23.6
	WA270-8 High Lift	149	28,462	2.5	18,854	23.6 / 23.6
	WA320-8	165	34,128	3.7	25,353	23.6 / 23.6
	WA320-8 High Lift	165	34,568	3.0	20,227	23.6 / 23.6
	WA380-8	191	40,686	4.3	34,039	23.3 / 23.3
	WA380-8 High Lift	191	41,932	3.8	26,577	23.3 / 23.3
	WA470-8	272	53,352	5.5	44,688	23.8 / 24.2
	WA470-8 High Lift	272	55,579	5.0	36,376	23.8 / 24.2
	WA475-10	290	56,240	5.8	45,283	23.6/17.4
	WA475-10 High Lift	290	60,848	5.0	39,926	23.6/17.4
	WA480-8	299	56,262	6.0	41,998	24.0 / 24.2
	WA500-8	353	77,250	7.6	60,142	23.2 / 23.6
	WA500-8 High Lift	353	76,897	5.9	50,861	23.2 / 23.6
	WA600-8	529	124,473	9.2	83,855	21.0 / 23.0
	WA800-8	854	254,700	15	157,631	14.0 / 14.1
	WA900-8	899	256,618	17	158,380	14.5 / 15.0
	WA900-8 High Lift	899	257,324	15	144,667	14.5 / 15.0
	Model=preliminary specs; final specs not available at press time. Bucket linkage type = Parallel (P); Parallel w/bellcrank (PB); "Parallel and Z-Bar (PZ); Torque parallel (TP); Z-Bar (Z). Transmission type = Automatic (Auto); Automatic multi-mode (Auto/MM); Automatic with manual shift (Auto/MS); Hydrostatic (HS); Power shift (PS).					
Kubota	R430	47.6	7,758	0.5	5,335	12.4 / 12.4
	R540	51	9,888	0.85	6,437	12.4/12.4
	R640	64	11,177	0.94	7,452	12.4/12.4
LiuGong N. America	835H	131	24,240	2.5	16,425	241/14.9
	848H	175	33,420	3.5	21,418	275/15.7
	856H	225	39,240	4.2	24,250	23.7/14.9
	890H	370	67,900	7.1	45,415	23.7/16.5
	877H	331	54,013	5.5	35,450	24.18/17.6
New Holland	W50C	55	11,272	1.31	8,351	12 / 12
	W50C TC	55	10,913	1.05	7,994	12 / 12
	W80C	70	13,303	1.7	9,877	9 / 9
	W80C HS	70	13,303	1.7	9,877	21 / 21
Volvo	L20H	64.4	9,877	0.9	6,614	24.9
	L25H	64.4	10,847	1.1	7,496	19
	L25 Electric	N/A	11,023	1.2	7,275	16 / 10
	L30G	74	12,125	1.3	8,488	19
	L35G	74	13,448	1.6	10,913	19
	L45H	100.5	19,114	1.83	11,662	12
	L50H	116.7	20,944	2.1	12,676	12
	L60H	167	24,251 - 29,983	2.1 - 6.5	16,820	28.5
	L70H	173	27,556 - 34,172	2.4 - 8.4	18,740	27.3
	L90H	186	31,968 - 38,140	2.7 - 9.2	21,400	27.3
	L110H	259	39,680 - 45,635	3.2 - 12.4	24,720	24.9
	L120H	276	45,635 - 47,620	3.4 - 12.4	27,850	24.9
	L150H	295	53,130 - 56,440	4.4 - 18.3	35,210	23.6
	L180H	330	59,525 - 62,610	4.8 - 20.9	41,580	23.6
	L180HHL	330	77,020 - 83,860		18,960	23.6
	L220H	367	68,780 - 72,970	5.6 - 20.9	46,110	22.7
	L260H	416	74,957 - 85,980	6.9 - 13.3	56,590	22.7
	L350H	532	110,231 - 123,459	8.1 - 16.6	76,677	22.2

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