LANTEC | LW Series Winches

A MODULAR LINE OF HYDRAULIC WINCHES

Line pulls from
12,000 lb to 300,000 lb

LANTEC
Winch & Gear Inc.

GEAR DRIVES
WINCHES & HOISTS
BRAKES & CLUTCHES

Driven to Excellence

LANTEC | LW Series Winches

A MODULAR LINE OF HYDRAULIC WINCHES

This catalogue contains detailed sales information on the LANTEC LW Series Winches. With 20 basic models, a modular design, customizable drums and flexible input options, LANTEC LW Winches suit many applications.

modula

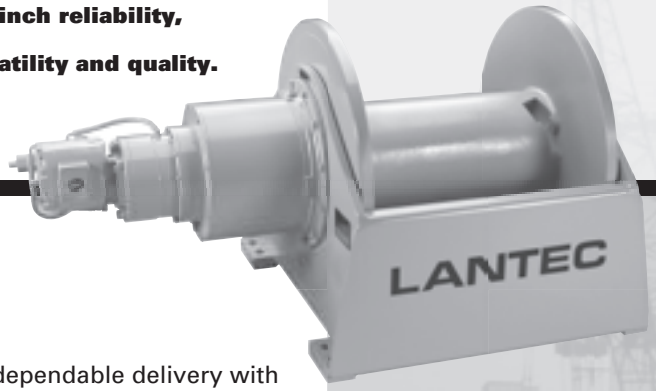
reliability versatility quality

Experience

LANTEC ... Recognized worldwide for providing highly dependable winches, hoists, and planetary drives for the most demanding applications. Over forty years of technical know-how and application experience are brought together with state-of-the-art manufacturing techniques to produce the ultimate in winch reliability, versatility and quality.

Reliability

Our low warranty cost is the envy of the winch industry and is a testament to our rugged, reliable design.



lift
lower
pull
position

Fast, dependable delivery with competitive pricing. LANTEC is responding to our customer needs for minimal inventory and ever shorter lead times.

LANTEC Winch & Gear is a part of TWG, a global leader in standard and engineered winch, gearbox and load information systems.

construction

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technical description

The LANTEC LW Series Winches are a modular construction consisting of:

Cable Drum Steel cable drum running on rolling bearings. Cable is anchored to the drum using a convenient spiral-ferrule type cable anchor.

Winch Base High strength fabricated steel base for flexible design and maximum rigidity.

Drive Module Pre-packaged two-, three- or four-stage, high-efficiency planetary drive with hardened steel internal gears and case carburized sun and planet gears. Planet gears run on rolling bearings which are replaceable independent of the gear itself. Sun gears float to ensure balanced load distribution.

Brake Module Multi-disc, wet friction brake is spring force applied, hydraulic pressure released. Overrunning clutch is large diameter, high capacity, sprag type. Brake module is standard with SAE C or D motor mount. Optional motor mounts are available.

Hydraulic Motor Standard motor is a durable gear motor designed specifically for winching applications with improved starting torque characteristics. LW Series Winches can be fitted with other motor types including 2-speed gear motors, axial and radial piston motors, and motors for low power systems.

Brake Valve Industry's most stable and reliable counterbalance valve attached directly to the hydraulic motor.

LANTEC LW Series Winches house the planetary reduction gearing and friction brake externally to the drum barrel providing for a very versatile design with the ultimate in performance flexibility.

For applications that require drums with a large D:d ratio (First layer pitch diameter : Cable diameter) and physical compactness consider the LANTEC LH Series Hoists, with the planetary reduction gearing and friction brake housed inside the drum barrel. A wide range of models and drum sizes are available. Please see separate brochure.

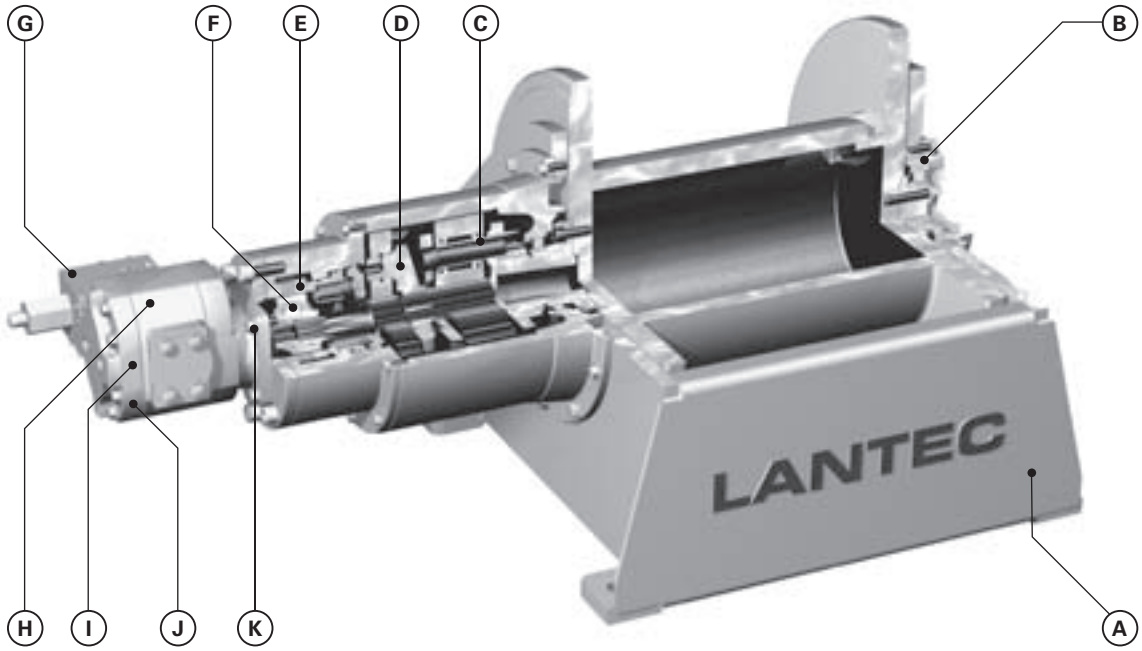
LANTEC LW Series Winches are suitable for most crane and lifting applications as well as pulling and positioning. They are available with single drives or dual drives. Dual drives have two motors, two brakes, and two drive modules, for high-horsepower capability.

brake operation

When winching in, the Multi-disc Brake remains applied with the hydraulic motor driving directly into the gear reduction, through an overrunning clutch. When winching stops, the overrunning clutch locks the input shaft to the already applied Multi-disc Brake ensuring no slippage of the load. When powering out, the hydraulic motor is pressurized for the opposite rotation. This pressure is also applied to the Multi-disc Brake, releasing it fully. The Brake Valve then controls the speed of the load in response to the operator demand. When the operator intends to stop, the main control valve is moved to neutral, the pressure diminishes, the Brake Valve closes to stop the load, and the Multi-disc Brake applies as a "parking" brake to positively hold the load.

Features

Typical LW Series Winch



A	High strength fabricated steel base
B	High capacity rolling bearings for long, trouble-free life with minimum maintenance
C	Planet gear rolling bearings, replaceable independent of the gear itself for lower cost rebuilds
D	High-efficiency planetary gearing for optimum performance
E	Multi-disc Brake — spring force applied and hydraulic pressure released for positive load holding
F	Large diameter, high-capacity, sprag type, overrunning clutch for reliable engagement and long life
G	Brake Valve for controlled load movement and high energy transfer rate
H	Standard gear motor for durability
I	Optional 2-speed gear motor for faster “light-load” speeds
J	Optional high-efficiency piston motors to match high-pressure hydraulic systems and achieve optimum winch performance
K	SAE C or D motor mounts to accept a wide variety of motors

features

Many Options and Accessories are available to meet your most demanding applications. Refer to page 10.

Cable Drum Capacities

This chart shows the estimated gross cable capacity (feet) of the drum, assuming proper spooling.

Capacities shown assume a full drum, with the top layer of cable not exceeding the flange diameter. No allowance has been made for "free flange" or "free board" which may be dictated by codes or rules relevant to the application. No allowance has been made for "dead" wraps (mandatory minimum of 3 "dead" wraps of cable to be left on the drum at all times).

LANTEC is pleased to provide a layer-by-layer drum capacity chart upon request.

cable drum capacities

Drum Dimensions (in)				**Nominal Wire Rope Diameter** (in)													
Drum Number	Barrel Diameter	Flange Diameter	Between Flanges	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/4	2 1/2
081	8	18	10	681	436	262	185											
082	8	18	16	1,089	697	419	296											
083	8	18	24	1,634	1,046	628	444											
084	8	24	10	1,340	779	541	428											
085	8	24	16	2,145	1,247	866	684											
086	8	24	24	3,217	1,870	1,299	1,026											
101	10	24	10	1,246	778	526	407	312	234									
102	10	24	16	1,994	1,244	842	651	499	374									
103	10	24	24	2,991	1,866	1,263	977	748	561									
104	10	30	14	2,932	1,877	1,255	904	733	495									
105	10	30	20	4,189	2,681	1,793	1,292	1,047	707									
106	10	30	30	6,283	4,021	2,689	1,938	1,571	1,061									
121	12	26	14		1,218	825	637	488	367	268								
122	12	26	20		1,739	1,178	910	696	524	382								
123	12	26	30		2,609	1,767	1,364	1,045	785	573								
124	12	32	14		2,064	1,382	996	806	547	516								
125	12	32	20		2,949	1,974	1,423	1,152	782	737								
126	12	32	30		4,423	2,961	2,135	1,728	1,173	1,106								
141	14	28	14		1,347	913	704	539	406	297	278	196						
142	14	28	20		1,924	1,304	1,005	770	579	424	398	279						
143	14	28	30		2,886	1,956	1,508	1,155	869	636	596	419						
144	14	36	14		2,455	1,676	1,232	1,008	707	563	533	419						
145	14	36	20		3,507	2,395	1,759	1,440	1,011	804	762	599						
146	14	36	30		5,261	3,592	2,639	2,160	1,516	1,206	1,142	898						
161	16	32	14			1,148	900	704	545	413	305	287	203	193				
162	16	32	20			1,641	1,286	1,005	778	591	436	410	290	275				
163	16	32	30			2,461	1,929	1,508	1,167	886	653	615	435	413				
164	16	40	20			3,128	2,130	1,759	1,268	1,027	823	782	617	476				
165	16	40	30			4,691	3,194	2,639	1,902	1,541	1,234	1,173	926	714				
166	16	40	40			6,255	4,259	3,519	2,537	2,055	1,645	1,564	1,235	952				
181	18	34	20				1,394	1,089	843	641	474	445	316	299	285	272		
182	18	34	30				2,090	1,634	1,265	961	710	668	474	449	427	408		
183	18	34	40				2,787	2,178	1,686	1,282	947	890	632	598	570	545		
184	18	42	20				2,285	1,885	1,361	1,103	884	838	663	512	490	471		
185	18	42	30				3,428	2,827	2,042	1,654	1,325	1,257	994	767	735	707		
186	18	42	40				4,570	3,770	2,723	2,205	1,767	1,676	1,325	1,023	980	943		
201	20	36	20				1,501	1,173	908	691	512	480	342	323	307	293	187	
202	20	36	30				2,252	1,759	1,362	1,037	768	720	512	485	461	440	280	
203	20	36	40				3,003	2,346	1,816	1,382	1,023	960	683	646	614	586	374	
204	20	44	20				2,441	2,011	1,454	1,178	944	894	708	548	524	503	364	
205	20	44	30				3,661	3,016	2,182	1,767	1,417	1,340	1,062	821	785	754	545	
206	20	44	40				4,881	4,021	2,909	2,356	1,889	1,787	1,415	1,095	1,047	1,005	727	
241	24	40	20						1,039	792	588	550	393	371	352	335	215	198
242	24	40	30						1,558	1,188	882	825	590	557	528	503	322	297
243	24	40	40						2,077	1,583	1,176	1,100	786	742	704	670	429	396
244	24	48	20						1,641	1,329	1,066	1,005	798	619	591	566	410	285
245	24	48	30						2,461	1,993	1,599	1,508	1,197	929	886	848	615	427
246	24	48	40						3,281	2,658	2,133	2,011	1,596	1,239	1,181	1,131	820	570
301	30	48	24								1,049	980	737	696	503	478	436	283
302	30	48	36								1,573	1,470	1,106	1,044	754	716	654	424
303	30	48	48								2,097	1,960	1,474	1,391	1,005	955	871	566
304	30	60	24								1,999	1,885	1,553	1,264	1,206	968	729	679
305	30	60	36								2,999	2,827	2,329	1,896	1,810	1,451	1,093	1,018
306	30	60	48								3,998	3,770	3,106	2,528	2,413	1,935	1,458	1,357
361	36	54	24										853	803	583	553	503	328
362	36	54	36										1,280	1,205	875	829	754	492
363	36	54	48										1,706	1,607	1,166	1,106	1,005	656
364	36	66	24										1,762	1,436	1,367	1,100	829	769
365	36	66	36										2,643	2,154	2,051	1,649	1,244	1,154
366	36	66	48										3,523	2,872	2,734	2,199	1,659	1,538
421	42	60	36											1,367	995	943	855	560
422	42	60	48											1,822	1,327	1,257	1,139	746
423	42	60	60											2,278	1,659	1,571	1,424	933
424	42	72	36											2,413	2,292	1,847	1,395	1,289
425	42	72	48											3,217	3,056	2,463	1,860	1,719
426	42	72	60											4,021	3,820	3,079	2,325	2,149
481	48	66	36													1,056	955	628
482	48	66	54													1,583	1,433	942
483	48	66	72													2,111	1,910	1,255
484	48	78	36													2,045	1,546	1,425
485	48	78	54													3,068	2,319	2,138
486	48	78	72													4,090	3,091	2,850

Estimated Gross Cable Capacity (ft)

Consult Factory

Not Available

In addition to this list, virtually any drum size is available.

Consult LANTEC for recommendation of a cost-effective solution.

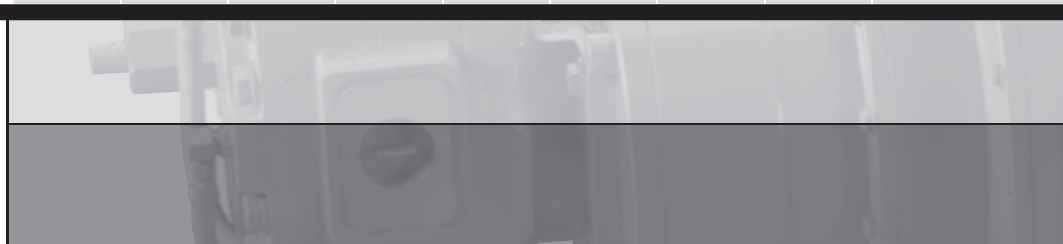
Performance
LWS Series – Single Drive

This table shows the basic performance data and limitations based on the standard gear ratio and motor for each model. Considering the wide variety of winch sizes, gear ratios, hydraulic motor characteristics and hydraulic system performance, the winch selection process can become complex.

Model	Drum Size			Line Pull (Maximum)			Line Speed (Maximum Allowable)			Line Speed (Maximum with Standard Motor)		
	Drum Number	Barrel Diameter	Flange Diameter	1st Layer	Mid Layer	Top Layer	1st Layer	Mid Layer	Top Layer	1st Layer	Mid Layer	Top Layer
		in	*in*	*lb*	*lb*	*lb*	*fpm*	*fpm*	*fpm*	*fpm*	*fpm*	*fpm*
LWS100	**08X**	8	24	23,200	16,100	9,000	312	558	803	268	479	690
	12X	12	32	16,100	11,400	6,600	450	774	1,097	387	665	943
	16X	16	40	12,300	8,800	5,200	589	990	1,391	506	851	1,196
LWS160	**08X**	8	24	35,100	24,600	14,000	207	363	518	177	311	445
	12X	12	32	24,400	17,300	10,200	297	504	710	255	433	610
	16X	16	40	18,700	13,400	8,000	387	645	902	332	554	775
LWS240	**10X**	10	30	41,900	29,200	16,500	169	300	431	145	258	370
	14X	14	36	31,000	22,300	13,500	229	378	527	197	325	453
	18X	18	42	24,600	18,000	11,400	288	456	623	248	392	535
LWS330	**12X**	12	32	52,100	37,400	22,600	136	226	315	117	194	270
	16X	16	40	40,100	28,900	17,700	177	289	401	152	249	345
	20X	20	44	32,400	24,200	16,000	219	331	443	188	285	381
LWS430	**12X**	12	32	64,600	46,600	28,500	110	180	249	94	154	214
	16X	16	40	49,900	36,100	22,300	142	230	318	122	198	273
	20X	20	44	40,400	30,300	20,200	176	264	352	151	227	302
LWS570	**14X**	14	36	73,600	53,600	33,500	96	154	212	83	133	182
	18X	18	42	58,700	43,500	28,200	121	186	251	104	160	216
	24X	24	48	44,900	34,700	24,400	158	225	291	136	193	250
LWS800	**14X**	14	36	104,100	76,500	48,900	68	107	145	59	92	125
	18X	18	42	83,300	62,200	41,100	85	129	173	73	111	148
	24X	24	48	63,900	49,700	35,500	111	156	200	95	134	172
LWS1200	**16X**	16	40	134,900	100,300	65,600	52	79	106	44	68	91
	20X	20	44	111,300	84,900	58,400	62	91	119	54	78	102
	30X	30	60	76,600	59,100	41,600	91	129	167	78	111	144
LWS1700	**18X**	18	42	175,600	134,000	92,400	40	58	75	34	50	65
	24X	24	48	136,400	107,700	78,900	51	70	88	44	60	76
	36X	36	66	94,000	74,800	55,500	74	100	125	64	86	108
LWS2200	**20X**	20	44	200,000	155,000	110,000	35	49	63	30	42	54
	30X	30	60	138,600	108,300	77,900	50	70	89	43	60	77
	42X	42	72	101,100	82,500	63,800	69	89	109	59	77	94

performance

LANTEC reserves the right to revise performance figures without prior notice due to further development and technical improvements.



LANTEC recommends allowing our Sales & Application Engineering professionals to assist in determining the winch model and options that satisfy your most demanding applications. LANTEC will be pleased to supply a detailed specification sheet specifically for your application.

Basic Output Data			Basic Input Data			Hydraulic Supply Required with Standard Motor						
Drum Torque Maximum	Drum Speed Maximum Allowable	Drum Speed Maximum with Standard Motor	Standard Gear Ratio	Input Torque Maximum Allowable	Input Speed Maximum Allowable	Standard Motor Maximum Speed	Standard Motor Displacement	Required Pressure (Run)	Required Pressure (Start)	Flow Required at Maximum Speed	Minimum Flow Required for Smooth Performance	Recommended Minimum Flow
lb-in	*rpm*	*rpm*		*lb-in*	*rpm*	*rpm*	*in^3*	*psi(d)*	*psi(d)*	*gpm*	*gpm*	*gpm*
101,500	136	117	23.49	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
101,500	136	117	23.49	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
101,500	136	117	23.49	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
155,600	89	76	36.00	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
155,600	89	76	36.00	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
155,600	89	76	36.00	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
230,600	59	50	54.46	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
230,600	59	50	54.46	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
230,600	59	50	54.46	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
338,400	40	34	79.91	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
338,400	40	34	79.91	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
338,400	40	34	79.91	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
424,000	32	27	100.10	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
424,000	32	27	100.10	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
424,000	32	27	100.10	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
561,000	24	21	132.55	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
561,000	24	21	132.55	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
561,000	24	21	132.55	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
807,000	17	14	190.59	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
807,000	17	14	190.59	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
807,000	17	14	190.59	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
1,197,000	11	10	288.29	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
1,197,000	11	10	288.29	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
1,197,000	11	10	288.29	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
1,756,000	8	7	423.03	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
1,756,000	8	7	423.03	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
1,756,000	8	7	423.03	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
2,200,000	6	5	529.94	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
2,200,000	6	5	529.94	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50
2,200,000	6	5	529.94	4,500	3,200	2,750	12.3	2,500	2,870	150	28	50

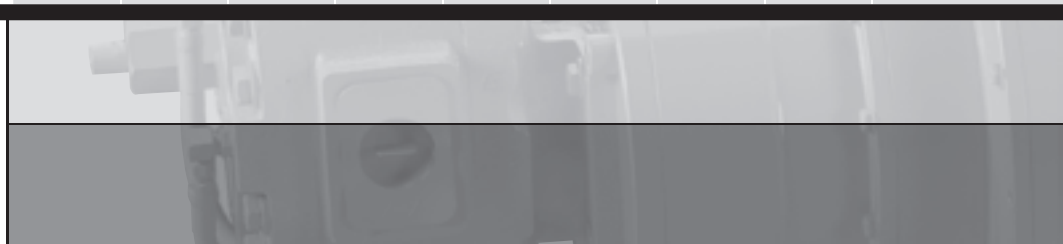
Performance
LWD Series – Dual Drive

This table shows the basic performance data and limitations based on the standard gear ratio and motor for each model. Considering the wide variety of winch sizes, gear ratios, hydraulic motor characteristics and hydraulic system performance, the winch selection process can become complex.

Model	Drum Size			Line Pull (Maximum)			Line Speed (Maximum Allowable)			Line Speed (Maximum with Standard Motor)		
	Drum Number	Barrel Diameter	Flange Diameter	1st Layer	Mid Layer	Top Layer	1st Layer	Mid Layer	Top Layer	1st Layer	Mid Layer	Top Layer
		in	*in*	*lb*	*lb*	*lb*	*fpm*	*fpm*	*fpm*	*fpm*	*fpm*	*fpm*
LWD200	**10X**	10	30	37,300	25,900	14,400	388	698	1,008	333	600	866
	14X	14	36	27,500	19,700	11,800	526	878	1,230	452	755	1,057
	18X	18	42	21,700	15,900	10,000	669	1,057	1,444	575	908	1,241
LWD310	**12X**	12	32	47,800	34,300	20,700	303	501	698	260	430	600
	16X	16	40	36,900	26,600	16,300	393	642	890	337	551	765
	20X	20	44	29,800	22,300	14,700	486	735	983	417	631	845
LWD460	**12X**	12	32	69,600	50,500	31,300	204	329	454	175	283	390
	16X	16	40	53,800	39,100	24,400	263	422	581	226	363	499
	20X	20	44	43,900	33,000	22,000	323	485	646	278	417	555
LWD680	**14X**	14	36	88,100	64,400	40,700	161	255	349	139	220	300
	18X	18	42	70,300	52,300	34,300	202	308	414	173	265	356
	24X	24	48	53,900	41,800	29,600	263	372	480	226	319	412
LWD850	**14X**	14	36	109,400	80,400	51,400	130	203	276	111	174	237
	18X	18	42	87,500	65,400	43,200	162	245	328	139	211	282
	24X	24	48	67,200	52,300	37,300	211	296	381	182	255	327
LWD1100	**16X**	16	40	127,400	94,300	61,100	111	172	232	96	148	200
	20X	20	44	104,500	79,700	54,800	136	198	259	117	170	223
	30X	30	60	71,900	55,500	39,100	198	281	363	170	241	312
LWD1600	**18X**	18	42	162,400	123,400	84,400	87	128	168	75	110	144
	24X	24	48	126,000	99,100	72,100	113	155	197	97	133	169
	36X	36	66	86,400	68,700	51,000	164	221	278	141	190	239
LWD2400	**24X**	24	48	184,100	146,500	108,800	76	102	128	65	88	110
	36X	36	66	127,200	101,800	76,300	109	146	182	94	126	157
	48X	48	78	96,900	80,300	63,600	143	181	219	123	156	188
LWD3500	**24X**	24	48	265,100	214,200	163,300	52	69	85	45	59	73
	36X	36	66	184,800	149,100	113,300	75	99	123	65	86	106
	48X	48	78	141,200	117,800	94,300	99	124	148	85	106	127
LWD4400	**30X**	30	60	270,700	215,400	160,000	51	69	87	44	60	75
	42X	42	72	200,000	164,700	129,400	70	89	107	60	76	92
	48X	48	78	176,000	147,500	118,900	79	98	117	68	85	101

performance

LANTEC reserves the right to revise performance figures without prior notice due to further development and technical improvements.



LANTEC recommends allowing our Sales & Application Engineering professionals to assist in determining the winch model and options that satisfy your most demanding applications. LANTEC will be pleased to supply a detailed specification sheet specifically for your application.

Basic Output Data			Basic Input Data			Hydraulic Supply Required with Standard Motor						
Drum Torque Maximum	Drum Speed Maximum Allowable	Drum Speed Maximum with Standard Motor	Standard Gear Ratio	Input Torque Maximum Allowable	Input Speed Maximum Allowable	Standard Motor Maximum Speed	Standard Motor Displacement	Required Pressure (Run)	Required Pressure (Start)	Flow Required at Maximum Speed	Minimum Flow Required for Smooth Performance	Recommended Minimum Flow
lb-in	*rpm*	*rpm*		*lb-in*	*rpm*	*rpm*	*in^3*	*psi(d)*	*psi(d)*	*gpm*	*gpm*	*gpm*
203,000	136	117	23.49	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
203,000	136	117	23.49	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
203,000	136	117	23.49	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
311,000	89	76	36.00	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
311,000	89	76	36.00	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
311,000	89	76	36.00	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
461,000	59	50	54.46	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
461,000	59	50	54.46	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
461,000	59	50	54.46	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
677,000	40	34	79.91	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
677,000	40	34	79.91	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
677,000	40	34	79.91	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
848,000	32	27	100.10	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
848,000	32	27	100.10	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
848,000	32	27	100.10	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
1,123,000	24	21	132.55	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
1,123,000	24	21	132.55	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
1,123,000	24	21	132.55	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
1,614,000	17	14	190.59	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
1,614,000	17	14	190.59	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
1,614,000	17	14	190.59	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
2,393,000	11	10	288.29	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
2,393,000	11	10	288.29	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
2,393,000	11	10	288.29	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
3,512,000	8	7	423.03	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
3,512,000	8	7	423.03	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
3,512,000	8	7	423.03	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
4,399,000	6	5	529.94	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
4,399,000	6	5	529.94	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100
4,399,000	6	5	529.94	4,500	3,200	2,750	12.3	2,500	2,870	300	56	100

Dimensional Data
LWS Series – Single Drive

The dimensions shown are for general information. Only a detailed Certified Installation Drawing, specific to your winch, should be used for final installation dimensions. Certified Installation Drawings are available from LANTEC upon request.

Model	Minimum Flange Diameter	Overall Height	Overall Width	Overall Length	Drum Centerline to Motor End	Drum Axis to Mounting Pads	Base Length
	B	D	E	F	G	H	J
	All dimensions are in inches.						
LWS100	16	B + 1 7/8	B + 5 3/8	C + 41 1/8	C/2 + 34 1/2	B/2 + 1 7/8	C + 13 1/8
LWS160	17 1/4	B + 1 7/8	B + 5 3/8	C + 41 5/8	C/2 + 35 1/8	B/2 + 1 7/8	C + 13 1/8
LWS240	19 1/4	B + 1 7/8	B + 5 3/8	C + 45	C/2 + 38 3/8	B/2 + 1 7/8	C + 13 1/8
LWS330	22	B + 2 1/4	B + 6 1/2	C + 45 3/4	C/2 + 39 1/8	B/2 + 2 1/4	C + 13 1/8
LWS430	22	B + 2 1/4	B + 6 1/2	C + 45 3/4	C/2 + 39 1/8	B/2 + 2 1/4	C + 13 1/8
LWS570	22	B + 2 1/4	B + 6 1/2	C + 49 7/8	C/2 + 43 1/4	B/2 + 2 1/4	C + 13 1/8
LWS800	26 1/4	B + 2 1/4	B + 6 1/2	C + 51 1/8	C/2 + 44 3/8	B/2 + 2 1/4	C + 13 1/2
LWS1200	30 1/2	B + 2 1/4	B + 7 1/2	C + 56 3/8	C/2 + 49 3/8	B/2 + 2 1/4	C + 14
LWS1700	34 1/2	B + 2 1/4	B + 7 1/2	C + 57 5/8	C/2 + 50 5/8	B/2 + 2 1/4	C + 14
LWS2200	34 1/2	B + 2 1/4	B + 7 1/2	C + 60 7/8	C/2 + 53 3/8	B/2 + 2 1/4	C + 15

To Determine Winch Dimensions

FIRST

Use the Cable Capacity Chart on page 3 to select the …

Barrel Diameter (**A**)

Flange Diameter (**B**)
(subject to the minimum per table above)

Drum Length Between Flanges (**C**)

SECOND

Use the formula in the table above to calculate the approximate winch dimensions.

B = Drum Flange Diameter

C = Drum Length Between Flanges

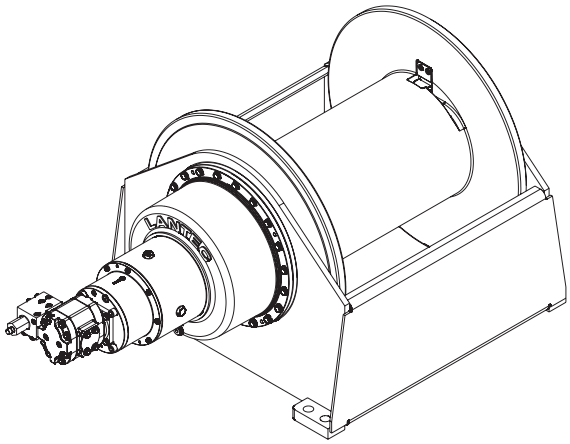
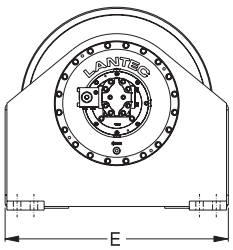
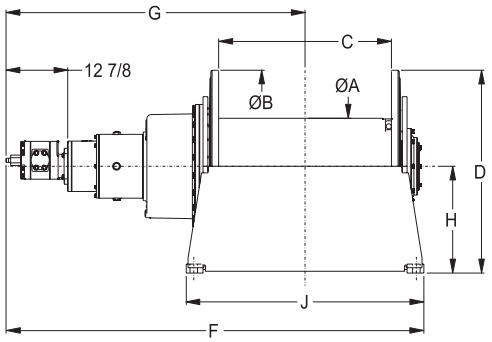


Diagram LWS Series





single drive

Specifications subject to change without notice and without incurring obligation. Rely only on a Certified Installation Drawing for accurate and current dimensions.

Dimensional Data
LWD Series – Dual Drive

The dimensions shown are for general information. Only a detailed Certified Installation Drawing, specific to your winch, should be used for final installation dimensions. Certified Installation Drawings are available from LANTEC upon request.

Model	Minimum Flange Diameter	Overall Height	Overall Width	Overall Length	Drum Centerline to Motor End	Drum Axis to Mounting Pads	Base Length
	B	**D**	**E**	**F**	**G**	**H**	**J**
	All dimensions are in inches.						
LWD200	16	B + 1 7/8	B + 5 3/8	C + 69	C/2 + 34 1/2	B/2 + 1 7/8	C + 13 1/8
LWD310	17 1/4	B + 1 7/8	B + 5 3/8	C + 70 1/4	C/2 + 35 1/8	B/2 + 1 7/8	C + 13 1/8
LWD460	19 1/4	B + 1 7/8	B + 5 3/8	C + 76 3/4	C/2 + 38 3/8	B/2 + 1 7/8	C + 13 1/8
LWD680	22	B + 2 1/4	B + 6 1/2	C + 78 1/4	C/2 + 39 1/8	B/2 + 2 1/4	C + 13 1/8
LWD850	22	B + 2 1/4	B + 6 1/2	C + 78 1/4	C/2 + 39 1/8	B/2 + 2 1/4	C + 13 1/8
LWD1100	22	B + 2 1/4	B + 6 1/2	C + 86 1/2	C/2 + 43 1/4	B/2 + 2 1/4	C + 13 1/8
LWD1600	26 1/4	B + 2 1/4	B + 6 1/2	C + 88 3/4	C/2 + 44 3/8	B/2 + 2 1/4	C + 13 1/2
LWD2400	30 1/2	B + 2 1/4	B + 7 1/2	C + 98 3/4	C/2 + 49 3/8	B/2 + 2 1/4	C + 14
LWD3500	34 1/2	B + 2 1/4	B + 7 1/2	C + 101 1/4	C/2 + 50 5/8	B/2 + 2 1/4	C + 14
LWD4400	34 1/2	B + 2 1/4	B + 7 1/2	C + 106 3/4	C/2 + 53 3/8	B/2 + 2 1/4	C + 15

To Determine Winch Dimensions

FIRST

Use the Cable Capacity Chart on page 3 to select the …

Barrel Diameter (A)

Flange Diameter (B)
(subject to the minimum per table above)

Drum Length Between Flanges (C)

SECOND

Use the formula in the table above to calculate the approximate winch dimensions.

B = Drum Flange Diameter

C = Drum Length Between Flanges

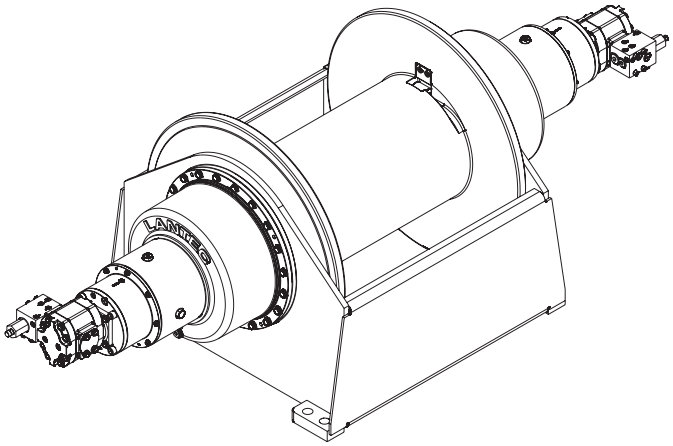
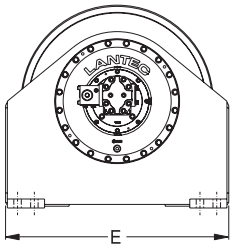
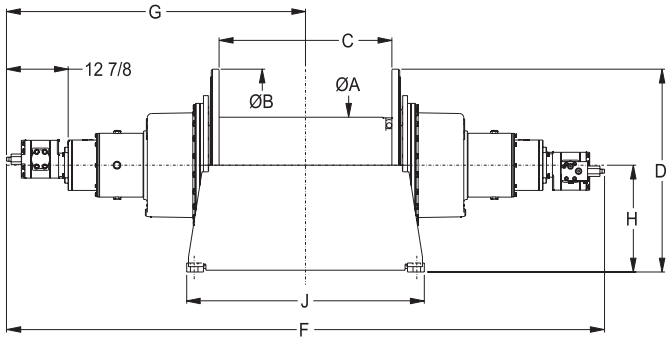


Diagram LWD Series





dual drive

Specifications subject to change without notice and without incurring obligation. Rely only on a Certified Installation Drawing for accurate and current dimensions.

Options & Accessories

LANTEC LW Series Winches are available with a wide variety of optional configurations and accessories to create the winch that meets all your needs.

options & accessories

Drum Configurations Beyond the range of standard drums, LANTEC offers:

- Alternate drum sizes quickly and efficiently manufactured to match your cable storage requirements
- Special cable anchoring methods including synthetic rope anchoring
- Multiple cable anchors for multiple cable or "On-Off" applications
- Drum divider for multiple cable applications
- Grooved drums with spiral grooving
- LeBus® parallel groove drum sleeves

Optional Gear Ratios LANTEC offers optional gear ratios to permit the most economical matching of performance requirements with the available hydraulic power and motor selection.

Hydraulic Motor LANTEC supplies the winch with a hydraulic motor that matches the customer's hydraulic system to provide optimum performance. Winches are also available without motors for customers who prefer to supply their own.

Motor Mounting Configurations LANTEC provides either an SAE C or D motor mount. Other motor mounting configurations are available to support most hydraulic motors including DIN and ISO standards.

Ratchet & Pawl LANTEC offers a spring engaged, hydraulic pressure released ratchet and pawl package. Manual operation is also available.

Multi-disc Brake LANTEC includes a standard multi-disc, friction brake with a sprag type, overrunning clutch for optimum performance in most applications. The brake is available without the overrunning clutch for applications requiring a brake effective in both directions, such as slewing, vanging or positioning.

Drum Brake LANTEC offers a band brake acting directly on the drum. Band brakes are available with a variety of actuator types and in "marine duty" configurations.

Levelwind LANTEC provides a powered levelwind device to assist in proper cable spooling for applications with a large fleet angle.

Drum Pressure Roller LANTEC provides a roller, forced into contact with the cable on the drum by adjustable springs to help prevent "birdsnesting" and assist with cable spooling. This option is also available with sensors indicating top and bottom layer conditions.

Encoder Drive LANTEC offers a light duty output shaft for driving a rotary encoder to monitor winch drum speed and/or position.

Motor Selection

motor selection

Standard Motor

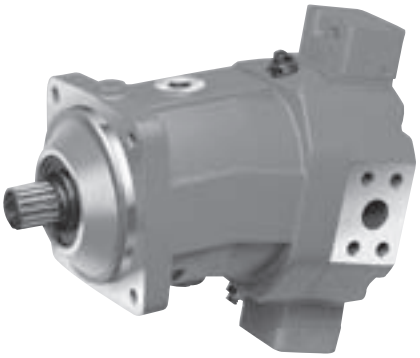
Electric Motor

2-Speed Motor

Radial Piston – Fixed and Variable Displacement

Piston – Fixed Displacement

Piston – Variable Displacement



LANTEC LW Series Winches utilize a heavy-duty gear type motor designed with performance characteristics specifically suited to winch applications. This is a time proven and very durable hydraulic motor well suited to most applications.

For high-pressure hydraulic systems employing piston pumps and high-grade system components, we offer LW Series Winches with SAE C or D motor mounting configurations.

LANTEC can supply the winch with a variety of motor types and sizes to best match your system configuration and performance needs.

Some equipment manufacturers prefer to retain complete system responsibility. Therefore, we also offer the LW Series Winch shipped from the factory without a motor. This allows the customer to supply the Motor and Brake Valve that best suits the application.

LANTEC Sales & Application Engineering professionals are pleased to assist customers with appropriate motor selection.

Parts
Service
Installation

parts

LANTEC stocks all wear parts for quick shipment to any location world wide. Expedited parts service is available for same day shipment if ordered by 11:00 am (PST).

Our Parts professionals work hard to ensure you receive the correct parts for your winch. When a winch serial number is provided with your order we crosscheck to ensure you have ordered the right parts for the job.

service

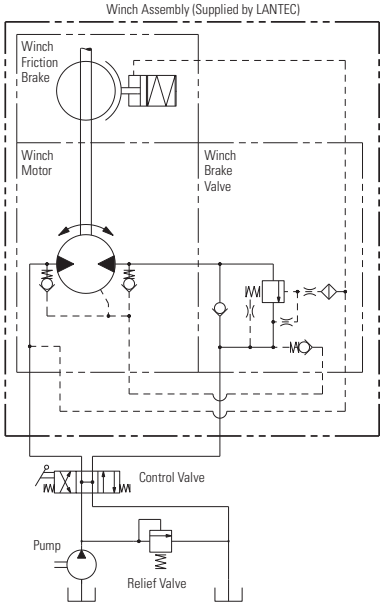
LANTEC provides in-factory service and rebuild of your winch including visual inspection, magnetic particle inspection, rebuilding, testing, recertification and recoating.

Factory Authorized Service Centers are conveniently located with factory-trained service personnel to perform troubleshooting, inspection and service.

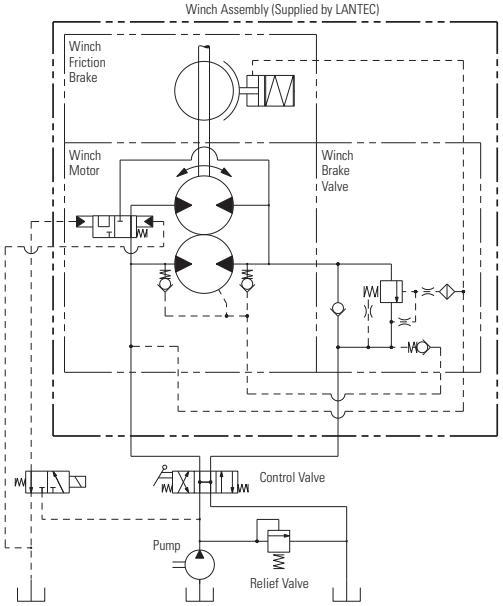
installation

LANTEC LW Series Winches must be installed in strict accordance with our written installation instructions. The winch must be connected to a suitable hydraulic power supply. Caution: these circuit examples are for illustration purposes only and may not contain all components required for full system function.

Typical Hydraulic Circuit for Standard Motor



Typical Hydraulic Circuit for 2-Speed Motor



Application Data Sheet

Maximum Line Pull Required	What is the maximum line pull required at the drum for the application? This should take into account the basic payload weight, cable weight, tackle weight, parts of line, sheave efficiency, load dynamics, load acceleration/deceleration time, etc.		☐ lb ☐ ton ☐ kg ☐ tonne
Condition for Maximum Pull Requirement	Is this maximum line pull required on the top layer, mid (mean) layer, or first layer?	☐ 1st Layer ☐ Mid Layer ☐ Top Layer	◂ Check One
Line Speed Required	What is the line speed required at the drum for the application? This should take into account the parts of line.		☐ fpm ☐ m/min
Condition for Line Speed Requirement	Is this line speed required on the top layer, mid (mean) layer, or first layer?	☐ 1st Layer ☐ Mid Layer ☐ Top Layer	◂ Check One
Cable (Wire Rope) Size	Select the appropriate cable size for the application. This selection should consider the maximum load and the factor of safety, which may be dictated by codes or rules relevant to the application.		☐ in ☐ mm
Length of Cable on Drum	Determine the total length of cable to be held on the drum. This should take into account the parts of line in the cable system, the total load travel requirement and over-travel margin. In addition, the cable length on the drum must include the mandatory minimum 3 "dead" wraps of cable to be left on the drum at all times (to supplement the cable termination system and minimize the possibility of reverse wrapping the cable on the drum).		☐ ft ☐ m
Minimum Drum Barrel Diameter	Determine the minimum allowable drum barrel diameter. This is often dictated by codes or rules relevant to the application and often expressed as a "Minimum D:d Ratio", that is, the ratio of first layer pitch diameter to cable diameter. This ratio affects cable bending stress and wear; generally the larger the D:d ratio the longer the cable life will be. LANTEC recommends a minimum of 14:1 for most applications.		☐ in ☐ mm
Hydraulic Power Supply	If the hydraulic system is predetermined, we will use this data to help select the gear ratio and motor size to best suit the performance requirements. If the hydraulic system is not predetermined, then we will advise the requirements based upon optimized selection of gear ratio and motor size.	_____	☐ gpm ☐ lpm _____ ☐ psi ☐ bar
Preferred Hydraulic Motor Type	To be indicated if there is a preference.	☐ Gear ☐ Piston	◂ Check One
Distance to Fixed Sheave	The distance from the cable drum axis to the axis of the first, non-floating sheave. This distance will be used to determine the cable drum width that will ensure proper cable spooling. The shorter the distance the narrower the drum must be.		☐ ft ☐ m

Application Type	Describe General Application
	_____
	_____
	_____
	_____
	_____

Considering the wide variety of winch sizes, gear ratios, hydraulic motor characteristics and hydraulic system performance, the winch selection process can become complex. LANTEC recommends allowing our Sales & Application Engineering professionals to assist in determining the winch model and options that satisfy your most demanding applications. **For assistance in determining a winch for your application, please copy and fill out this Application Data Sheet and fax to LANTEC at 604-530-2889.**

LANTEC | LH Series Hoists

LANTEC LH Series Hoists are a family of hoists specifically designed for crane applications. With Line Pulls from 12,000 to 72,000 lbs, there's an LH Hoist to suit the most demanding application. Many models have mounting dimensions directly interchangeable with competitive brands.

Please contact LANTEC for more information.

LANTEC | Planetary Drives

LANTEC Planetary Drives are manufactured to meet your application. Current designs include output torques from 10,000 to 500,000 lb-ft. A long history of successful projects assures you of high quality and dependability.

Please contact LANTEC for more information.

LANTEC | Electric Winches

Many of our winch models readily accept electric motors. Today's modern electric drives are well suited for use on winches. If your application requires electric drives, let LANTEC show you our economical solutions.

Please contact LANTEC for more information.

LANTEC | Custom Winches

LANTEC has been designing custom winches for over 40 years. This tremendous experience allows us to assist you in designing and manufacturing the ideal winch for your most demanding projects.

TWG POWER to Move the World™

A DOVER COMPANY

PROUDLY DISTRIBUTED BY

LANTEC
Winch & Gear Inc.

5827 Production Way
Langley, BC V3A 4N5
Canada

Tel (604) 530-0737
Fax (604) 530-2889

sales@lantecgear.com
www.lantecgear.com

20040 0604