LANTEC | LH Series Hoists

A MODULAR LINE OF HYDRAULIC HOISTS

Line pulls from
15,000 lb to 72,000 lb

LANTEC
Winch & Gear Inc.

GEAR DRIVES
WINCHES & HOISTS
BRAKES & CLUTCHES

Driven to Excellence

LANTEC | LH Series Hoists

A MODULAR LINE OF HYDRAULIC HOISTS

This catalogue contains detailed sales information on the LANTEC LH Series Hoists. With more than 10 basic models, a modular design and flexible input options, LANTEC LH Series Hoists suit many applications.

modula

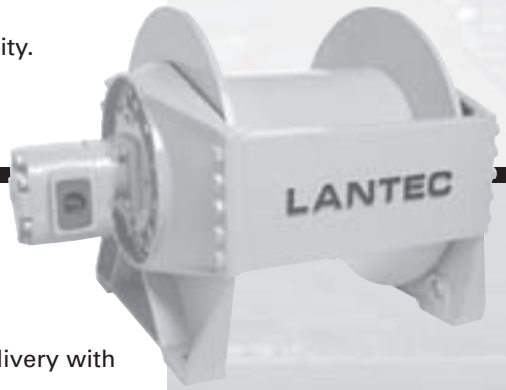
reliability versatility quality

Experience

LANTEC.... Recognized worldwide for providing highly dependable 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 hoist reliability, versatility and quality.

Reliability

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



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

technical description

The LANTEC LH Series Hoists are a compact modular construction consisting of:

Cable Drum Steel cable drum running on rolling bearings. Drum seals run on corrosion resistant seats. Cable is anchored to the drum using the industry accepted method of a wedge and a tapered pocket. Drum includes a "No-Spill" oil change feature for clean and fast oil changes without special tools.

Hoist Base High-strength nodular iron base components designed for maximum rigidity and easy assembly.

Drive Module Pre-packaged two- or three-stage, high-efficiency planetary drive with hardened 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 hoisting applications with improved starting torque characteristics. LH Series Hoists 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 LH Series Hoists house the planetary reduction gearing and friction brake within the large diameter drum barrel providing for a very compact design and long cable life. This series is suitable for most crane and lifting applications requiring at least an 18:1 D:d ratio (First layer pitch diameter: Cable diameter).

For applications that DO NOT require drums with a large D:d ratio consider the more economical LANTEC LW Series Winches available with smaller drum barrels and the planetary reduction gearing and friction brake located external to the drum. A wide range of models and drum sizes are available. Please see separate brochure.

LANTEC LH Series Hoists are available with single or dual drives. Dual drives have two motors, two brakes, and two drive modules, for high-horsepower capability.

brake operation

When hoisting, the Multi-disc Brake remains applied with the hydraulic motor driving directly into the gear reduction, through an overrunning clutch. When hoisting stops, the overrunning clutch locks the input shaft to the already applied Multi-disc Brake ensuring no backdrop of the load. When lowering, the hydraulic motor is pressurized for the lowering rotation. This pressure is also applied to the Multi-disc Brake, releasing it fully. The Brake Valve then controls load lowering in response to operator demand. When the operator intends to stop, the main control valve is moved to neutral, the lowering 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.

While LANTEC LH Series Hoists are generally NOT intended for personnel handling, special configurations are available for use on offshore cranes operated under the provisions of American Petroleum Institute (API) Specification 2C. Please consult factory.

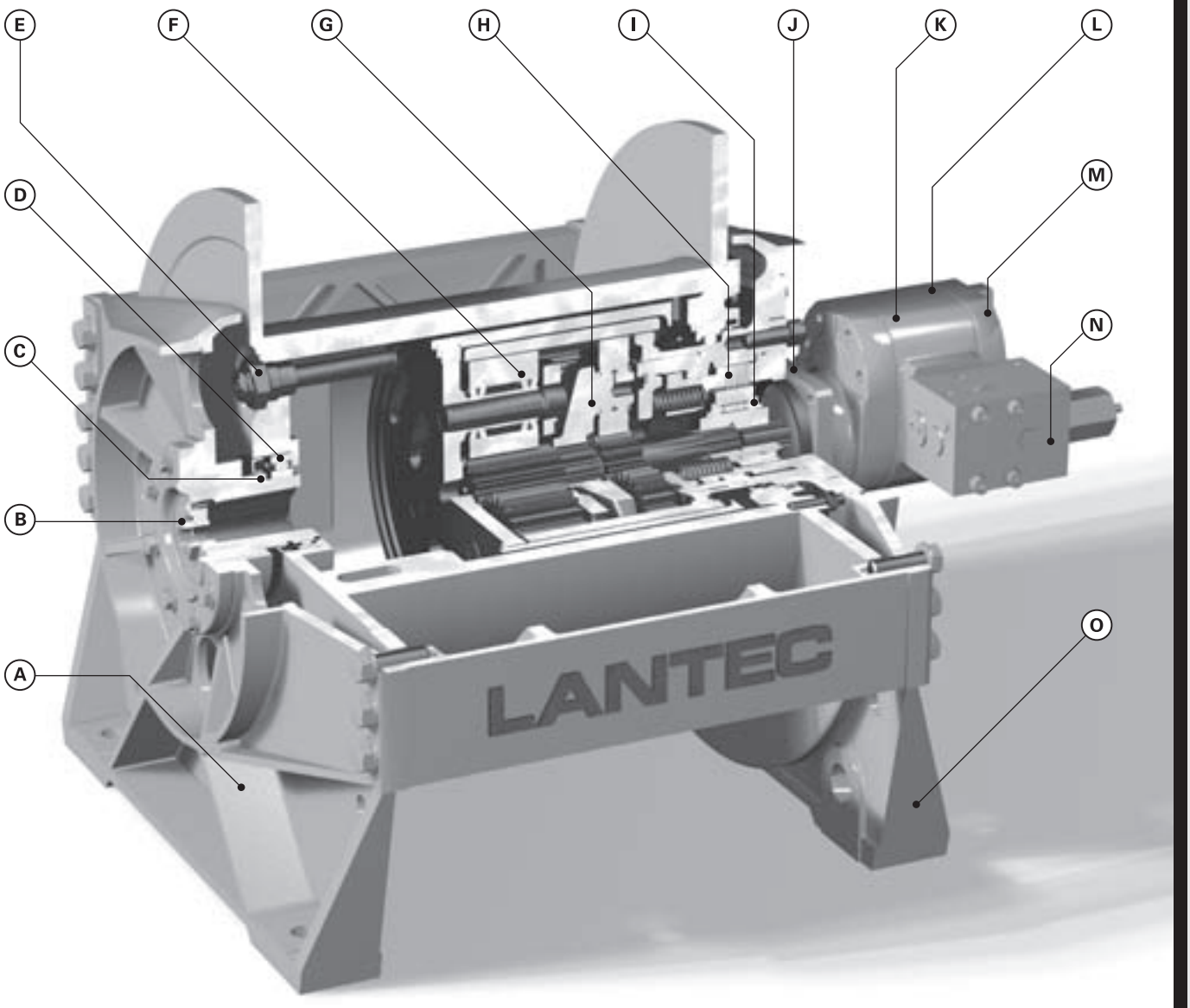
Features

Typical LH Series Hoist

	Features
A	High-strength nodular iron base components
B	Oil level sight gauge for reliable and convenient fluid level monitoring
C	Corrosion resistant seal running surfaces for marine duty dependability
D	High-capacity rolling bearings for long, trouble-free life with minimum maintenance
E	Built-in "No-Spill" oil drain system for clean and fast oil changes — no special tools required
F	Planet gear rolling bearings replaceable independent of the gear itself for lower cost rebuilds
G	High-efficiency planetary gearing for optimum performance
H	Multi-disc Brake — spring force applied and hydraulic pressure released for positive load holding
I	Large diameter, high-capacity, sprag type, overrunning clutch for reliable engagement and long life
J	SAE C or D motor mounts to accept a wide variety of motors
K	Standard gear motor for durability
L	Optional 2-speed gear motor for faster "light-load" speeds
M	Optional high-efficiency piston motors to match high-pressure hydraulic systems and achieve optimum hoist performance
N	Brake Valve for controlled lowering and high energy transfer rate
O	Many models have mounting dimensions directly interchangeable with competitive brands

features

Many Options and Accessories are available to meet your most demanding applications. Refer to page 4.


E
F
G
H
I
J
K
L
M
N
D
C
B
A
O
LANTEC

Options & Accessories

LANTEC LH Series Hoists are available with a wide variety of optional configurations and accessories to create the hoist that meets all your needs.

options & accessories

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

- Alternate drum sizes to match your cable storage requirements
- Additional 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 motor performance.

Hydraulic Motor LANTEC supplies the hoist with a hydraulic motor that matches the customer's hydraulic system to provide optimum performance. Hoists 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. Ratchet and pawl kits for field installation are also available.

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

Drum Brake LANTEC offers a friction brake acting directly on the drum.

Drum Pressure Roller LANTEC provides a roller, forced into contact with the cable on the drum by adjustable springs to assist with proper 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 hoist drum speed and/or position.

Coatings LANTEC provides Marine Epoxy and other special coatings.

personnel handling rating

While LANTEC LH Series Hoists are generally NOT intended for personnel handling, special configurations are available for use on offshore cranes operated under the provisions of American Petroleum Institute (API) Specification 2C. Please consult factory.

® LeBus and the Grooved Sleeve design are Registered Trademarks of LeBus International Inc.

Cable Drum Capacities

This chart shows the estimated gross cable capacity (feet) of the drum, assuming proper spooling. No allowance has been made for "dead" wraps (mandatory minimum of 5 "dead" wraps of cable to be left on the drum at all times).

Allowance has been made for "free flange" or "free board" according to API-2C requiring that the flange extend a minimum of 1/2" over the top layer of rope at all times.

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

cable drum capacities

Model	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
LHS100	01	13.00	23.00	17.00	1,402	866	623						
	02	13.00	23.00	23.00	1,897	1,172	843						
LHS110	01	11.50	20.00	16.00	880	613	426						
	02	11.50	20.00	20.25	1,113	776	539						
LHS160	01	16.00	27.50	20.00		1,407	1,038	763					
	02	16.00	27.50	32.00		2,252	1,662	1,221					
LHS170	01	15.00	23.00	17.00		645	427	376					
	02	15.00	23.00	23.00		873	578	509					
LHS240	01	18.00	33.00	24.38			1,894	1,458	1,116				
	02	18.00	33.00	38.62			3,002	2,310	1,769				
LHS330	01	20.00	33.00	23.88				1,082	975	712			
	02	20.00	33.00	38.13				1,728	1,557	1,137			
	03	22.00	33.00	23.88				942	844	589	540		
	04	22.00	33.00	38.13				1,504	1,348	941	862		
	05	22.00	33.00	56.00				2,210	1,979	1,381	1,267		
LHS430	01	20.00	33.00	23.88					975	712			
	02	20.00	33.00	38.13					1,557	1,137			
	03	22.00	33.00	23.88					844	589	540		
	04	22.00	33.00	38.13					1,348	941	862		
	05	22.00	33.00	56.00					1,979	1,381	1,267		
LHD200	01	15.00	23.00	23.63		897	594	523	334				
	02	14.00	27.50	23.88		2,026	1,334	1,007	750				
	03	14.00	27.50	30.88		2,619	1,725	1,302	970				
	04	14.00	33.00	30.00		4,002	2,890	2,042	1,626				
	05	14.00	33.00	37.25		4,970	3,589	2,536	2,019				
LHD310	01	17.00	23.00	24.50			494	275	244	220			
	02	18.00	27.50	24.88			944	640	573	371			
	03	18.00	27.50	30.88			1,172	795	711	461			
	04	18.00	33.00	30.00			2,333	1,795	1,374	1,037			
	05	18.00	33.00	37.25			2,896	2,229	1,707	1,287			
LHD450	01	20.00	27.50	37.25				756	673	386	351		
	02	20.00	27.50	55.13				1,120	996	571	520		
	03	18.00	33.00	32.13				1,923	1,472	1,110	816		
	04	18.00	33.00	36.63				2,192	1,678	1,266	930		
	05	18.00	33.00	54.50				3,261	2,497	1,883	1,384		
LHD670	01	22.00	33.00	36.38					1,286	897	823	543	
	02	22.00	33.00	54.25					1,917	1,338	1,227	810	
	03	22.00	38.00	31.38					1,668	1,260	1,163	863	
	04	22.00	38.00	35.88					1,907	1,440	1,330	986	
	05	22.00	38.00	53.75					2,857	2,158	1,993	1,478	
LHD840	01	22.00	33.00	36.38						897	823	543	505
	02	22.00	38.00	35.88						1,440	1,330	986	924
	03	22.00	42.00	35.63						2,056	1,606	1,231	1,157
	04	22.00	42.00	53.50						3,088	2,412	1,849	1,737
	05	22.00	46.00	35.38						2,738	2,217	1,778	1,405

Important Note: Some drum and cable combinations may not meet an 18:1 D:d requirement.

Estimated Gross Cable Capacity (ft)

Consult Factory

Not Available

Performance

This table shows the basic hoist performance data and limitations based on the standard gear ratio and motor for each model. Considering the wide variety of hoist sizes, gear ratios, hydraulic motor characteristics and hydraulic system performance, the hoist 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*
Single Drive												
LHS100	**01 & 02**	13.00	23.00	15,000	12,200	9,400	481	624	767	414	537	659
LHS110	**01 & 02**	11.50	20.00	16,700	13,900	11,000	432	544	655	372	468	563
LHS160	**01 & 02**	16.00	27.50	18,700	15,500	12,300	387	489	591	332	420	507
LHS170	**01 & 02**	15.00	23.00	19,800	17,600	15,400	367	419	471	315	360	405
LHS240	**01 & 02**	18.00	33.00	24,100	19,400	14,700	294	388	482	253	334	414
LHS330	**01 & 02**	20.00	33.00	32,000	27,300	22,600	222	269	315	190	230	270
	03, 04, 05	22.00	33.00	26,200	25,800	22,400	243	280	317	209	241	273
LHS430	**01 & 02**	20.00	33.00	40,000	33,600	27,100	178	220	262	153	189	225
	03, 04, 05	22.00	33.00	36,500	31,800	27,100	194	228	262	167	196	225
Dual Drive												
LHD200	**01**	15.00	23.00	25,800	22,900	20,000	562	642	722	483	552	621
	02 & 03	14.00	27.50	27,500	21,800	16,100	526	714	901	452	613	774
	04 & 05	14.00	33.00	27,500	20,300	13,000	526	821	1,115	452	705	958
LHD310	**01**	17.00	23.00	34,800	33,300	31,700	416	437	457	357	375	392
	02 & 03	18.00	27.50	33,000	29,400	25,800	439	500	561	377	430	482
	04 & 05	18.00	33.00	33,000	26,500	20,000	439	582	724	377	500	622
LHD450	**01 & 02**	20.00	27.50	43,100	39,700	36,200	329	361	392	283	310	337
	03, 04, 05	18.00	33.00	47,700	38,500	29,200	298	392	486	256	337	417
LHD670	**01 & 02**	22.00	33.00	57,800	51,300	44,700	246	282	317	211	242	273
	03, 04, 05	22.00	38.00	57,800	48,400	38,900	246	306	365	211	263	314
LHD840	**01**	22.00	33.00	72,200	63,400	54,600	197	229	260	169	196	223
	02	22.00	38.00	72,200	59,600	47,000	197	250	302	169	215	260
	03 & 04	22.00	42.00	72,200	58,100	43,900	197	260	323	169	224	278
	05	22.00	46.00	72,200	55,500	38,800	197	282	366	169	242	314

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 hoist 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	Pressure Required (Run)	Pressure Required (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	12.30	2,500	2,870	150	28	50
101,500	136	117	23.49	4,500	3,200	2,750	12.30	2,500	2,870	150	28	50
155,600	89	76	36.00	4,500	3,200	2,750	12.30	2,500	2,870	150	28	50
155,600	89	76	36.00	4,500	3,200	2,750	12.30	2,500	2,870	150	28	50
226,400	60	51	53.46	4,500	3,200	2,750	12.30	2,500	2,870	150	28	50
334,200	41	35	78.91	4,500	3,200	2,750	12.30	2,500	2,870	150	28	50
334,200	41	35	78.91	4,500	3,200	2,750	12.30	2,500	2,870	150	28	50
419,700	32	28	99.10	4,500	3,200	2,750	12.30	2,500	2,870	150	28	50
419,700	32	28	99.10	4,500	3,200	2,750	12.30	2,500	2,870	150	28	50
203,000	136	117	23.49	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
203,000	136	117	23.49	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
203,000	136	117	23.49	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
311,200	89	76	36.00	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
311,200	89	76	36.00	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
311,200	89	76	36.00	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
452,800	60	51	53.46	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
452,800	60	51	53.46	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
668,400	41	35	78.91	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
668,400	41	35	78.91	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
839,400	32	28	99.10	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
839,400	32	28	99.10	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
839,400	32	28	99.10	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100
839,400	32	28	99.10	4,500	3,200	2,750	12.30	2,500	2,870	300	56	100

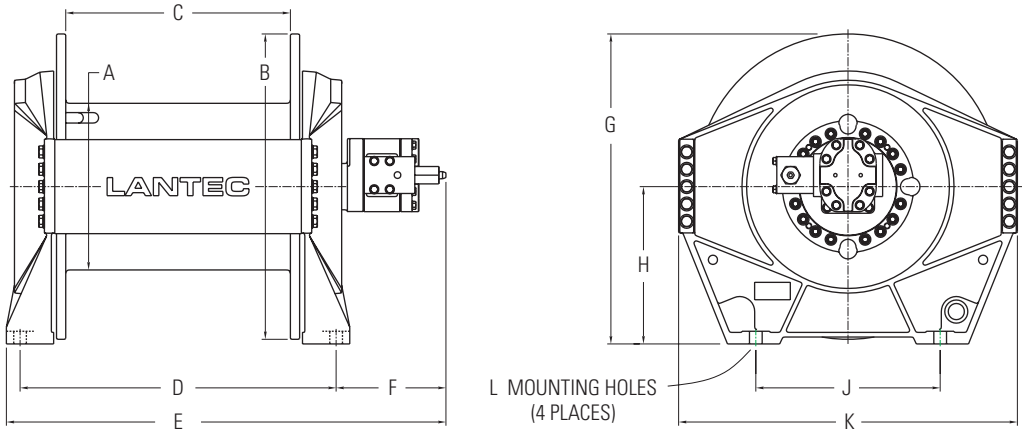
Dimensional Data
LHS Series – Single Drive

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

Many models have mounting dimensions directly interchangeable with competitive brands.

Model	Drum Number	Barrel Diameter	Flange Diameter	Between Flanges	Mounting Holes	Length	Mounting Offest	Height	Height to Center	Mounting Holes	Width	Mounting Hole Diameter
		A	B	C	D	E	F	G	H	J	K	L
LHS Series – Single Drive						*All dimensions are in inches.*						
LHS100	**01**	13.00	23.00	17.00	23.50	38.26	13.51	23.50	12.00	14.75	27.00	1.31
	02	13.00	23.00	32.00	29.50	44.26	13.51	23.50	12.00	14.75	27.00	1.31
LHS110	**01**	11.50	20.00	16.00	21.50	36.50	13.81	20.50	10.50	13.25	24.00	1.06
	02	11.50	20.00	20.25	25.75	40.75	13.81	20.50	10.50	13.25	24.00	1.06
LHS160	**01**	16.00	27.50	20.00	26.38	40.83	13.14	28.00	14.25	21.00	31.50	1.06
	02	16.00	27.50	32.00	38.38	52.83	13.14	28.00	14.25	21.00	31.50	1.06
LHS170	**01**	15.00	23.00	17.00	23.50	38.26	13.51	23.50	12.00	14.75	27.00	1.31
	02	15.00	23.00	23.00	29.50	44.26	13.51	23.50	12.00	14.75	27.00	1.31
LHS240	**01**	18.00	33.00	24.36	34.29	47.72	11.93	33.50	17.00	20.00	37.00	1.38
	02	18.00	33.00	38.61	48.54	62.00	11.93	33.50	17.00	20.00	37.00	1.38
LHS330	**01**	20.00	33.00	23.88	34.29	47.72	11.93	33.50	17.00	20.00	37.00	1.38
	02	20.00	33.00	38.18	48.54	62.00	11.93	33.50	17.00	20.00	37.00	1.38
	03	22.00	33.00	23.88	34.29	47.72	11.93	33.50	17.00	20.00	37.00	1.38
	04	22.00	33.00	38.13	48.54	62.00	11.93	33.50	17.00	20.00	37.00	1.38
	05	22.00	33.00	56.00	66.41	79.84	11.93	33.50	17.00	20.00	37.00	1.38
LHS430	**01**	20.00	33.00	23.88	34.29	47.72	11.93	33.50	17.00	20.00	37.00	1.38
	02	20.00	33.00	38.18	48.54	62.00	11.93	33.50	17.00	20.00	37.00	1.38
	03	22.00	33.00	23.88	34.29	47.72	11.93	33.50	17.00	20.00	37.00	1.38
	04	22.00	33.00	38.13	48.54	62.00	11.93	33.50	17.00	20.00	37.00	1.38
	05	22.00	33.00	56.00	66.41	79.84	11.93	33.50	17.00	20.00	37.00	1.38

Diagram LHS 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.

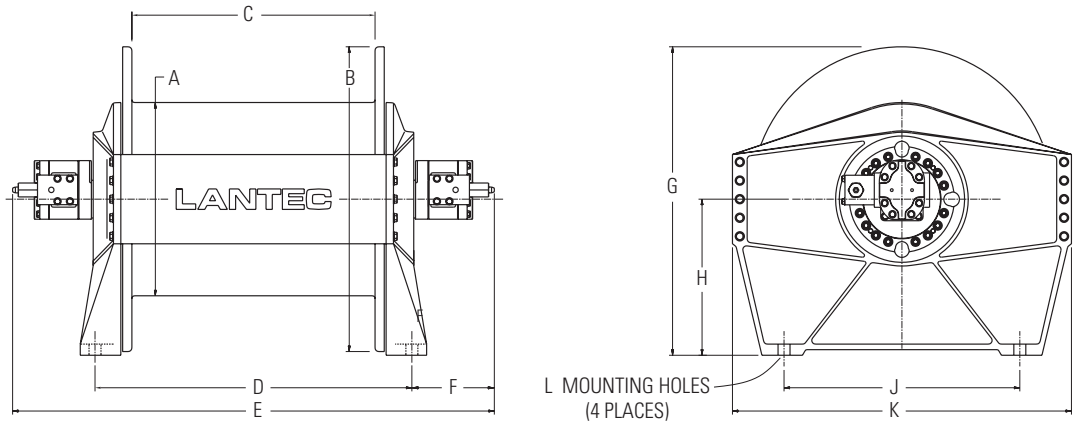
Dimensions E and F are based on the Standard Motor. Length will vary with optional motors.

Dimensional Data
LHD Series – Dual Drive

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

Model	Drum Number	Barrel Diameter	Flange Diameter	Between Flanges	Mounting Holes	Length	Mounting Offest	Height	Height to Center	Mounting Holes	Width	Mounting Hole Diameter
		A	B	C	D	E	F	G	H	J	K	L
LHS Series – Dual Drive						*All dimensions are in inches.*						
LHS200	**01**	15.00	23.00	23.63	33.13	57.85	12.36	23.38	11.88	14.75	27.00	1.06
	02	14.00	27.50	23.88	32.75	56.97	12.11	28.00	14.25	21.00	31.25	1.06
	03	14.00	27.50	30.88	39.75	63.97	12.11	28.00	14.25	21.00	31.25	1.06
	04	14.00	33.00	30.00	37.40	59.20	10.90	33.50	17.00	20.00	36.75	1.38
	05	14.00	33.00	37.25	44.65	66.45	10.90	33.50	17.00	20.00	36.75	1.38
LHS310	**01**	17.00	23.00	24.50	33.88	58.10	12.11	25.75	14.25	21.00	31.25	1.06
	02	18.00	27.50	24.88	34.25	58.47	12.11	28.00	14.25	21.00	31.25	1.31
	03	18.00	27.50	30.88	40.25	64.47	12.11	28.00	14.25	21.00	31.25	1.06
	04	18.00	33.00	30.00	41.79	63.59	10.90	33.50	17.00	20.00	36.75	1.38
	05	18.00	33.00	37.25	49.04	70.84	10.90	33.50	17.00	20.00	36.75	1.38
LHS450	**01**	20.00	27.50	37.25	51.75	77.61	12.93	29.75	16.00		34.50	1.38
	02	20.00	27.50	55.13	69.63	95.49	12.93	29.75	16.00	8 Bolts	34.50	1.38
	03	18.00	33.00	32.13	46.63	72.49	12.93	35.25	18.75	Consult	40.00	1.38
	04	18.00	33.00	36.63	51.13	76.99	12.93	35.25	18.75	Factory	40.00	1.38
	05	18.00	33.00	54.50	69.00	94.86	12.93	35.25	18.75		40.00	1.38
LHS670	**01**	22.00	33.00	36.38	50.88	76.74	12.93	35.25	18.75		40.00	1.38
	02	22.00	33.00	54.25	68.75	94.61	12.93	35.25	18.75	8 Bolts	40.00	1.38
	03	22.00	38.00	31.38	45.88	71.74	12.93	40.25	21.25	Consult	45.00	1.38
	04	22.00	38.00	35.88	50.38	76.24	12.93	40.25	21.25	Factory	45.00	1.38
	05	22.00	38.00	53.75	68.25	94.11	12.93	40.25	21.25		45.00	1.38
LHS840	**01**	22.00	33.00	36.38	50.41	72.21	10.90	33.50	17.00	20.00	36.75	1.38
	02	22.00	38.00	35.88	50.88	76.74	12.93	40.25	21.25		45.00	1.38
	03	22.00	42.00	35.63	51.63	77.49	12.93	46.25	25.25	8 Bolts	49.00	1.38
	04	22.00	42.00	53.50	69.50	95.36	12.93	46.25	25.25	Consult	49.00	1.38
	05	22.00	46.00	35.38	51.38	77.24	12.93	52.25	29.25	Factory	53.00	1.38

Diagram LHS 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.

Dimensions E and F are based on the Standard Motor. Length will vary with optional motors.

Motor Selection

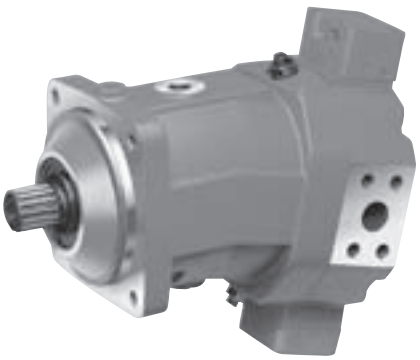
motor selection

Standard Motor

2-Speed Motor

Piston – Fixed Displacement

Piston – Variable Displacement



LANTEC LH Series Hoists utilize a gear motor designed for performance characteristics specifically suited to hoist applications. This is a time-proven and very durable hydraulic motor suited to most applications.

For high-pressure hydraulic systems on mobile or offshore cranes and equipment employing piston pumps and high-grade system components, we offer LH Series Hoists with SAE C or D motor mounting configurations.

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

Some crane and equipment manufacturers prefer to retain complete system responsibility. Therefore, we also offer the LH Series Hoist 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.

Model Code Description

Model Code Example

LHS160A-36.00-01-16.00-27.50-20.00-CC-C4-14C-G-12.30-B-X

The above code is an example of the alpha-numeric designation given to an LH Series Hoist that has certain specifications. This is broken down below to explain the meaning of each designation and to describe the various possible specifications for the LH Series Hoist.

	Basic						Drum						Motor						Options
MODEL CODE EXAMPLE	L	H	S	160	A	- 36.00	-	01	- 16.00	- 27.50	- 20.00	- CC	- C4	- 14C	- G	- 12.30	- B	-	X

"L" Series Hoist L

Gears Internal to Drum H

Single Motor Input S

Dual Motor Input D

Basic Size

Basic Size	Gear Ratio	
100	23.49	Std
110	23.49	Std
160	36.00	Std
	30.38	Opt
170	36.00	Std
	30.38	Opt
240	53.46	Std
	60.60	Opt
	48.17	Opt
330	78.91	Std
	99.10	Opt
	87.49	Opt
	69.64	Opt
	62.79	Opt
430	99.10	Std
	87.49	Opt
	78.91	Opt
	69.64	Opt
	62.79	Opt

Basic Size

Basic Size	Gear Ratio	
200	23.49	Std
310	36.00	Std
	30.38	Opt
450	53.46	Std
	60.60	Opt
	48.17	Opt
670	78.91	Std
	99.10	Opt
	87.49	Opt
	69.64	Opt
	62.79	Opt
840	99.10	Std
	87.49	Opt
	78.91	Opt
	69.64	Opt
	62.79	Opt

Design Version Designator
Original A

Drum Rotation – Hoisting

Counter Clockwise as Viewed from Motor End	CC Std
Clockwise as Viewed from Motor End	CW

Drum Number

Drum Number if Designated	
No Drum Number Designated	X

Drum Barrel Diameter 00.00 in

Drum Flange Diameter 00.00 in

Between Flanges 00.00 in

Motor Flange Type

SAE B 2-Bolt (SAE J744 ID 101-2)	B2
SAE B 4-Bolt (SAE J744 ID 101-4)	B4
SAE C 2-Bolt (SAE J744 ID 127-2)	C2
SAE C 4-Bolt (SAE J744 ID 127-4)	C4
SAE D 2-Bolt (SAE J744 ID 152-2)	D2
SAE D 4-Bolt (SAE J744 ID 152-4)	D4

Motor Shaft Type

13 Tooth 16/32 (SAE J744 ID 22-4)	13B
15 Tooth 16/32 (SAE J744 ID 25-4)	15B
14 Tooth 12/24 (SAE J744 ID 32-4)	14C
17 Tooth 12/24 (SAE J744 ID 38-4)	17C
13 Tooth 8/16 (SAE J744 ID 44-4)	13D

Motor Type

No Motor	X
Gear Motor	G
2-Speed Gear Motor	M
Piston Motor	P
Vane Motor	V
Geroter/Geroler Motor	R

Motor Displacement

No Motor	X
Motor Displacement (cu in)	00.00

Brake Valve

No Brake Valve	X
1.50" Port	B
Special	S

Optional Equipment
Separate each entry by dash

No Options	X
Grooved Drum	GD
Ratchet & Pawl	RP
Drum Brake – Spring Applied / Hyd Release	DB
Drum Pressure Roller	DR
Encoder Drive	ED
LANTEC Standard Coating – Enamel	<Blank>
Machinery Primer Only	CP
Marine Epoxy	CM
Personnel Handling – Offshore Crane Applications ONLY Includes configuration for testing and inspection per API-2C	API

model code

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 hoist. When a hoist serial number is provided with your order, we cross-check to ensure you have ordered the right parts for the job.

service

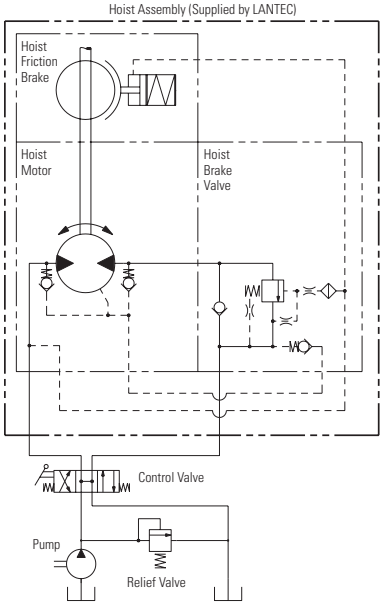
LANTEC provides in-factory service of your hoist including visual inspection, magnetic particle inspection, re-certification, rebuild, testing and re-coating.

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

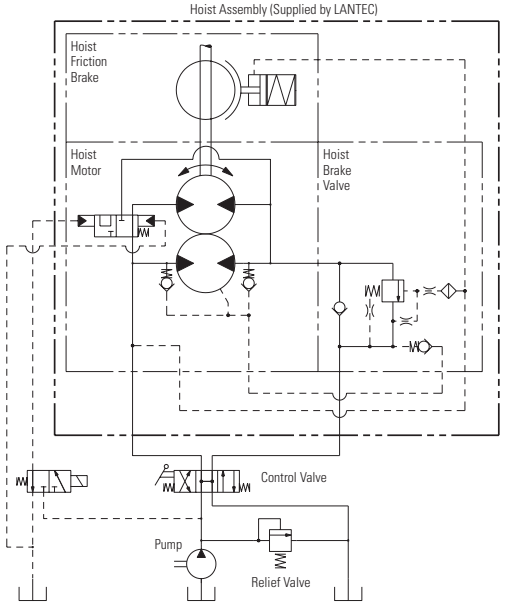
installation

LANTEC LH Series Hoists must be installed in strict accordance with our written installation instructions. The hoist must be connected to a suitable hydraulic power supply. Caution: these circuits 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? This varies between applications, however most crane hoists require the maximum pull capability on all layers, thus the top layer is specified in that case.	☐ 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 5 "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. A ratio of 18:1 is typical for crane 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 hoist sizes, gear ratios, hydraulic motor characteristics and hydraulic system performance, the hoist selection process can become complex. LANTEC recommends allowing our Sales & Application Engineering professionals to assist in determining the hoist model and options that satisfy your most demanding applications. **For assistance in determining a hoist for your application, please copy and fill out this Application Data Sheet and fax to LANTEC at 604-530-2889.**

LANTEC | LW Series Winches

LANTEC LW Series Winches are a family of winches specifically designed with flexibility in mind. With Line Pulls from 15,000 to 300,000 lbs, there's an LW Winch tailored to suit the most demanding application. Virtually any Line Pull, Line Speed and Cable Drum can be offered to meet your specifications or application requirements. *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.
Please contact LANTEC for more information.

TWG POWER to Move the World

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

20010 1102