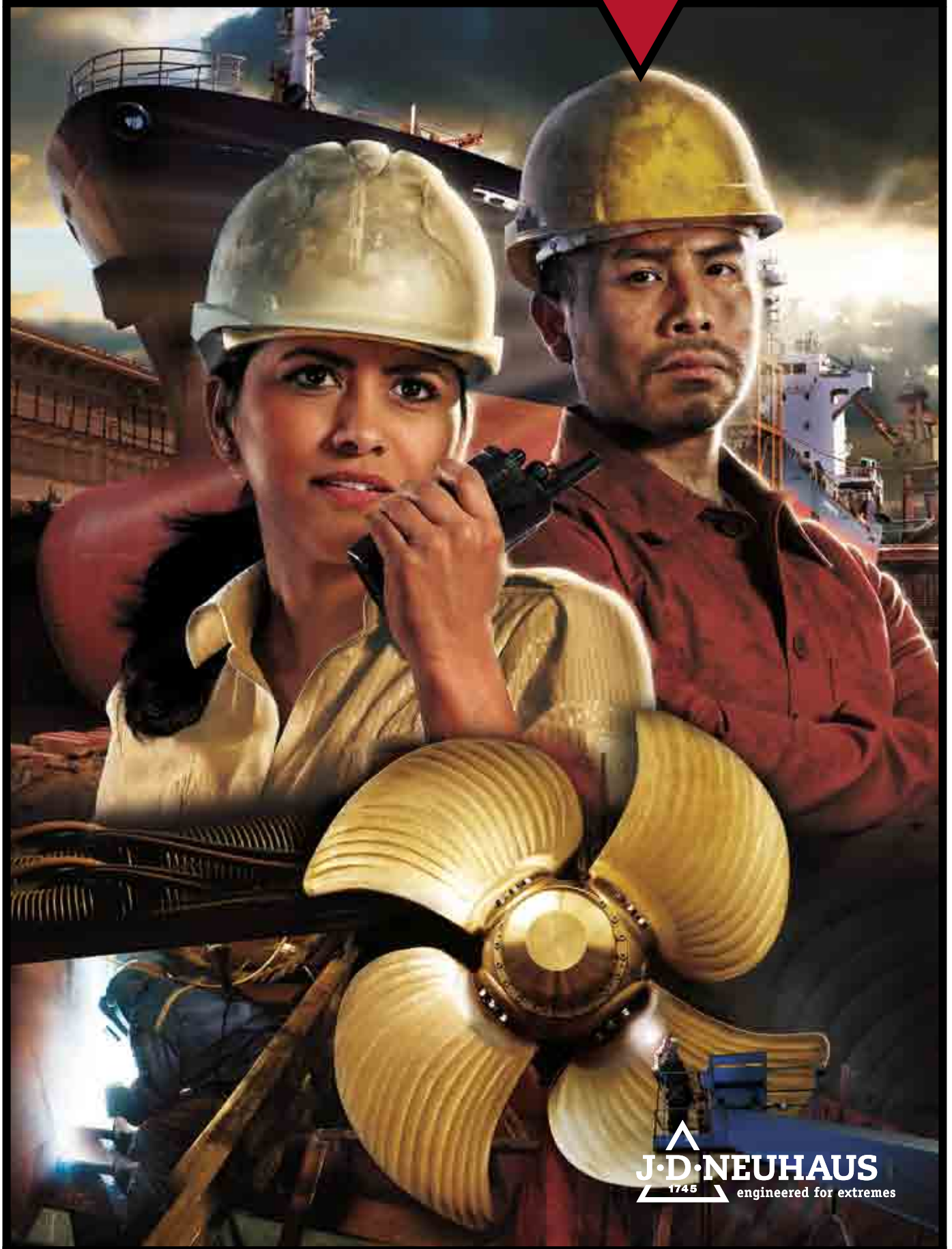


JDN AIR HOISTS

FOR SHIPYARD APPLICATIONS



J·D·NEUHAUS
1745  engineered for extremes

Progress through innovative technology

We have been writing history in the field of hoisting technology for over 265 years and have been responsible for many substantial innovations. Today, J.D. Neuhaus is the global market leader in air and hydraulically operated lifting equipment.

JDN air hoists have been used successfully in the shipyard and offshore industry for decades. They have set new standards in hoisting technology applying individual product solutions for remarkable applications. An example is an order for the US aircraft carrier Enterprise. The 34 ton starboard propeller had to be replaced underwater. This underwater operation was successfully mastered for the first time in the San Francisco Bay using three JDN air hoists, PROFI 50 TI, each with a carrying capacity of 50 tonnes.

Compared with electrical hoists JDN air hoists have a wide application range. This is an advantage in shipbuilding whether used for the installation or disassembly of propellers, drive shafts or general installation work on new ships and maintenance work.



Typical Applications

- Installing and disassembling rudder blades and shafts
- Installing and disassembling propellers
- Installation work in the engine room, e.g. fitting and removing heavy components of the drive machine
- Installing and disassembling the drive shaft
- General installation work

The advantages at a glance

- Very robust and low-maintenance, ideal for shipyard operations.
- Compact design, low weight with easy handling.
- Air pressure 4 bar or 6 bar.
- Easy installation.
- Overload protected motor.
- 100 % duty rating.
- Sensitive positioning of loads when using the relevant controls.

- Nonpolluting by operation with oil-free air.
- Durable due to high quality materials.
- Suitable for use in dusty and damp locations.
- Can be used for oblique hoisting when special safety precautions are observed.
- Insensitive to temperatures ranging from -20°C up to +70°C.
- Suitable for application in hazardous areas as standard.



JDN AIR HOISTS PROFI



Carrying capacities: 250 kg up to 100 t

Air pressure: 4 bar or 6 bar

JDN Air Hoists PROFI Series are very robust and therefore suitable for tough shipyard applications even in continuous working processes. According to your requirements there are various control systems available. For traversing loads different trolley designs meet your particular demands.

Also available as subsea version.

Standard Features

- Sensitive infinitely variable speed control for the precise positioning of loads
- Load chain and hooks manufactured from high quality tempered steels with a breaking strength of five times the nominal load
- No limit switch lever, ideal for work with an incline

- Patented, permanent motor lubrication during operation, using a high-performance grease. No additional motor lubrication required. Ideal for shipyards.

- Suited for application in Hazardous Areas according to EC Directive on Hazardous Locations 94/9/EEC.

As standard:

⊕ II 2 GD IIA T4/II 3 GD IIB T4

With increased spark protection:

⊕ II 2 GD IIC T4

Technical Data

Type		025 TI		05 TI		1 TI		2 TI	
Air pressure	PSI bar	65 4	85 6	65 4	85 6	65 4	85 6	65 4	85 6
Carrying capacity	mt	0.16	0.25	0.32	0.5	0.63	1	1.25	2
Number of chain strands		1		1		1		2	
Lifting speed at full load	ft/min m/min	65.6 20	65.6 20	32.8 10	36.1 11	16.4 5	18 5.5	8.2 2.5	8.9 2.7
Lowering speed at full load	ft/min m/min	124.7 38	124.7 38	55.8 17	55.8 17	32.8 10	36.1 11	16.4 5	18 5.5
Air consumption at full load – lifting	cfm m³/min	24.7 0.7	42.4 1.2	24.7 0.7	42.4 1.2	24.7 0.7	42.4 1.2	24.7 0.7	42.4 1.2
Weight with standard lift, rope control	lbs kg	59.5 27	59.5 27	59.5 27	59.5 27	61.6 27.5	61.7 ¹ 28 ¹	75 ¹ 34 ¹	75 ¹ 34 ¹
Smallest headroom	inch mm	17.7 450		17.7 450		17.7 450		19.6 498	

¹With overload protection

Type		3 TI		6 TI		10 TI		16 TI		20 TI	
Air pressure	PSI bar	65 4	85 6	65 4	85 6	65 4	85 6	65 4	85 6	65 4	85 6
Capacity	mt	3.2		6.3		10		16		20	
Number of chain strands		1		2		2		3		4	
Lifting speed at full load	ft/min m/min	8.2 2.5	16.4 5	3.9 1.2	8.2 2.5	2.6 0.8	5.2 1.6	1.6 0.5	3.3 1	1.3 0.4	2.3 0.7
Lowering speed at full load	ft/min m/min	24.6 7.5	35.4 10.8	11.8 3.6	17.7 5.4	8.2 2.5	11.2 3.4	5.3 1.6	6.9 2.1	3.9 1.2	5.3 1.6
Air consumption at full load – lifting	cfm m³/min	71 2	142 4	71 2	142 4	71 2	142 4	71 2	142 4	71 2	142 4
Weight with standard lift, rope control	lbs kg	189.6 86		242.5 110		343.9 156		529.1 240		627 285	
Smallest headroom	inch mm	23.3 593		26.5 674		32 813		35.4 898		40.6 1030	

Type		25 TI		30 TI		37 TI		40 TI		50 TI		60 TI		75 TI		100 TI	
Air pressure	PSI bar	65 4	85 6	65 4	85 6	65 4	85 6	65 4	85 6	65 4	85 6	65 4	85 6	85 6	85 6	85 6	85 6
Capacity	mt	25		30		37.5		40		50		60		75		100	
Number of chain strands		2		2		3		3		4		4		3		4	
Lifting speed at full load	ft/min m/min	2.5 0.75	4.1 1.25	2 0.6	3.3 1	1.5 0.45	2.5 0.75	1.3 0.4	2.3 0.7	1 0.3	1.8 0.55	0.8 0.25	1.5 0.45	1.7 0.53	1.3 0.4	1.3 0.4	1.3 0.4
Lowering speed at full load	ft/min m/min	4.6 1.4	9.2 2.8	4.6 1.4	9.2 2.8	3.3 1	6.6 2	3.3 1	6.6 2	3 0.9	5.3 1.6	3 0.9	5.3 1.6	4.1 1.25	3.1 0.95	3.1 0.95	3.1 0.95
Air consumption at full load – lifting	cfm m³/min	177 5	230 6.5	177 5	230 6.5	177 5	230 6.5	177 5	230 6.5	177 5	230 6.5	177 5	230 6.5	268 7.6	268 7.6	268 7.6	268 7.6
Weight with standard lift, rope control	lbs kg	1213 550		1213 550		1874 850		1874 850		2072 940		2072 940		3970 1800		4410 2000	
Smallest headroom	inch mm	49.6 1260		49.6 1260		57.9 1470		57.9 1470		58.5 1485		58.5 1485		76 1930		76 1930	



PROFI 100 TI

JDN Trolleys Carrying capacities: up to 20 t

JDN air hoists in trolleys are used on ships for installation work in the machine room.

JDN Trolleys are available for all hoists of the PROFI series:

- As Manual Trolleys (LN) for pushing or pulling the trolleys by hand
- As Reel Chain Trolleys (LH) for moving the trolleys by operating the reel chain mechanism
- As Motorised Trolley (LM) powered by an air motor

Standard features

- Easy to install
- With anti-climb and anti-drop devices
- Robust manufacture requiring little maintenance
- Able to negotiate curves

Options

- Rack and pinion drive
- Locking device
- Spark-resistant package
- Offshore paint
- Energy feeding systems



PROFI 1 TI in
Manual Trolley



PROFI 1 TI in
Reel Chain Trolley



PROFI 2 TI in
Motor Trolley

JDN Low Headroom Trolleys Carrying capacities: from 0.5 t up to 6.3 t

Where headroom is restricted and standard trolleys can't meet the lifting height requirements we recommend JDN Low Headroom Trolleys whereby our air hoists are horizontally mounted.



Low Headroom
Trolley LMF



For use in the ship engine room:
JDN-PROFI 6 TI in a hand chain trolley.

JDN AIR HOISTS MINI/ JDN SUBSEA HOISTS



The JDN mini Series for General Duty Carrying capacities: 125 kg, 250 kg, 500 kg, 980 kg Air pressure: 6 bar

The mini widens the range of applications in the light duty sector as a handy, flexible and universally deployable hoist making it an ideal tool for a wide range of light/medium shipyard applications. For heavier duty applications we recommend the JDN PROFI series.



mini 250



JDN air hoist mini 1000 handling an oil pump.

Standard features

- Price competitive alternative when compared to other types of powered hoists.
- Minimum components for ease of maintenance.
- Wear resistant motor braking system.
- Also suitable for horizontal moving of loads.
- Extremely sensitive lever control with emergency shut-off valve.
- Insensitive to temperatures ranging from -20° C up to +50° C.
- With chain box as standard.
- Also available with manual trolley.

Technical Data

Type		mini 125	mini 250	mini 500	mini 1000
Air pressure	PSI	85	85	85	85
	bar	6	6	6	6
Capacity	lbs	275	550	1100	2160
	kg	125	250	500	980
Number of chain strands		1	1	1	1
Lifting speed at full load ¹	ft/min	49.5	26	33	16
	m/min	15	8	10	5
Lowering speed at full load	ft/min	99	52	59	33
	m/min	30	16	18	10
Air consumption at full load – lifting	cfm	17.5	17.5	42.5	42.5
	m ³ /min	0.5	0.5	1.2	1.2
Weight with 10 ft / 3 m lift	lbs	21	23.1	46.2	50.6
	kg	9.5	10.5	21	23
Height of lift	ft	10/16/26			
	m	3/5/8			
Length of control at standard lift	ft	6.5/13/20			
	m	2/4/6			
Smallest headroom	inch	12.9	12.9	18.0	18.0
	mm	328	328	458	458

¹ Lifting speed at 2 m length of control. Longer control hoses decrease the lifting speeds.

JDN Subsea Hoists

The ultimate tool for every professional diver

The JDN PROFI Subsea series is available with air or hydraulic drives. As well as a sensitive control system, the PROFI hoists are equipped with an overload protection. PROFI subsea hoists are a versatile and indispensable tool for professional divers and are suitable for horizontal work as well as for oblique pulling.

Advantages

- Air or hydraulic drive
- Infinitely variable speeds can be regulated sensitively
- With overload protection
- Very versatile, also suitable for horizontal and oblique pulling thanks to hook suspension



PROFI 6 TI Subsea

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