



## Tiger Twin Hook Air Hoist

### Main Features

- TAH21M 2.0t/2.0t configuration
- TAH33M 3.0t/3.0t and 3.0t/6.0t configurations
- Two chain falls with hooks for alternate working
- Various hook options – standard, closed eye, grab and self-locking
- Integral load limiter
- Especially suitable for horizontal pulling
- Reliable, fast, efficient, quiet and lightweight
- Greater than 5:1 factor of safety
- Certified for ATEX Category 3 – normal safety

Originally designed for mining applications and suitable for both pulling and lifting operations. Now deployed globally in various marine and industrial applications. The hoist uses a balanced motor with our integral load limiter working on both sides. This dual action gives overload protection in both directions for lifting and pulling. They comply with the requirements of SANS 1638, EN14492-2 and ASME B30.16. Our manufacturing facility producing the hoists is ISO9001 certified.

### Advantages of Air Hoists

Air-powered hoists are ideal for tasks that require rapid lifting speeds and constant use. These hoists are powered by a compressed air feed, making them a great alternative to electric hoists when there are no power sources available. Another key benefit of air hoists is their 100% duty cycle - significantly higher than most electric hoists. For example, an electric chain hoist that has a 25% duty cycle can be operated continuously for a maximum of 15 minutes in a one-hour period. Hoists that are powered by a compressed air feed do not have this limitation; they can remain in constant use until the job is done.

### Load Limiter

Integral differential pressure load limiting valve automatically prevents the operator lifting a load of more than 125% of the working load limit. Load limiter is 100% repeatable at all working pressures and does not wear or generate damaging heat.

### Precise Control

Lever control, pilot pendant control and direct pendant control offer variable speed control. Accurate and precise positioning of loads is standard for both toggle and pendant control models. Various lock out options available.

### Fail Safe Disc Brake

Non-asbestos self-adjusting disc brake is applied automatically when the air supply to the hoist is shut off. The brake is self-adjusting for the life of the brake and can hold more than 125% of the working load limit.

### Integral Silencer

The exhaust air silencer is built into the hoist gearbox housing and limits the noise level to below 83dB(A).

### Load Chain

Grade 8 load chain ensures stringent high speed duty cycles can be met. The load chain is in accordance with the requirements of SANS/ISO 3077 and EN818-7 Appendix B.

### Sealed Gearbox

The sealed planetary gearbox ensures that the most stringent duty cycles can be met. The gears are heat treated and mounted on high strength, low friction bearings.

### Ease of Maintenance

The modular design of the hoist allows easy access to internal components such as the motor, gearbox, brake and load limiter. Common parts are used throughout the range.



## Vane Motor

Assisted vane lifting ensures maximum starting torque when starting under load.

## ATEX

Manufactured in accordance with ATEX Directive 2014/34/EU and Machinery Directive 2006/42/EC and suitable for ATEX Category 3 – normal safety. Our products are assigned as follows: ATEX marking: : Ex II 3 GD c IIB T4 IIIB T135°C. Suitable for gas and dust hazardous areas: Zone 2 (gas) and Zone 22 (dust). Unlike electrically operated hoists, the air driving pneumatic air hoists doesn't produce any sparks making them suitable for application in explosion-hazardous areas.

## Hook options

Various hook options – standard, closed eye, grab and self-locking



Standard



Closed eye



Grab



Self-locking



3t/6t with toggle control

## Pendant control options

Our air hoists are supplied with our variable control E/stop pendant and the option of our twist grip E/stop pendant which gives perfect control in both directions. Toggle control available as an option.



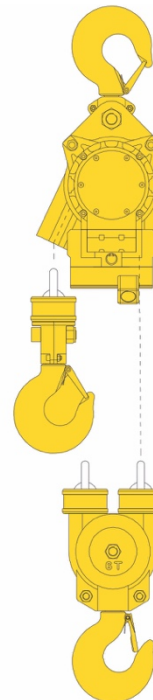
E/stop



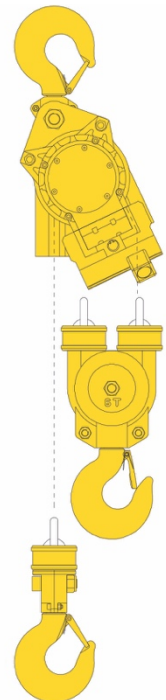
Twist grip E/stop



Toggle control



LOAD



LOAD

## Air Line Filter Regulator Lubricators (FRL)

### Main Features

- Filters an air line from water and contaminants
- Regulates air pressure
- Lubricates the air line
- Body material: Aluminium die-cast
- Bowl material: Polycarbonate

### Using a FRL with a Tiger Air Hoist

All Tiger pneumatic hoists and winches must operate with a FRL unit. Tiger industrial air hoists are designed for, and proven in, many industries including mining, shipyards, offshore construction and power stations. They are also used for industrial and general engineering applications such as automotive plants, foundries, and heat treatment plants. The hoists operate at air pressures of between 4 and 6 bar and they comply with the requirements of ASME B30.16 and EN14492-2.

The FRL unit should have inlet and outlet ports at least as large as the inlet on the hoist motor. Install the airline lubricator as close to the air inlet on the hoist motor as possible. The use of a pressure regulator is also recommended since it allows for constant pendant control sensitivity and hoist performance.

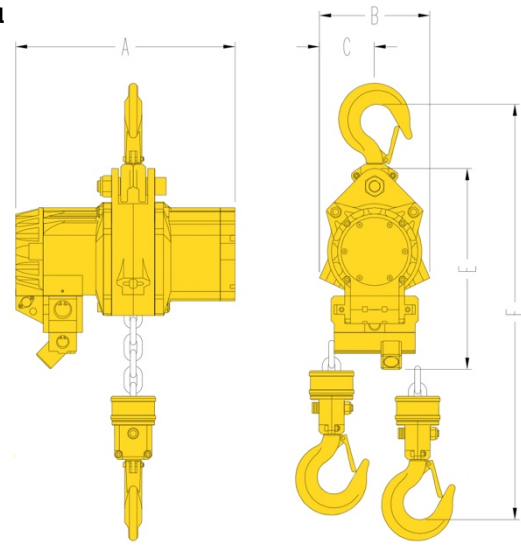
The air line lubricator must be installed no more than 3m from the hoist and should be set to deliver a minimum of 1 to 3 drops per minute when the hoist is running at full speed. The recommended lubricant is a light oil i.e. ISO VG10. Do not use automotive type detergent oil as these oils will delaminate the motor vanes and cause motor failure. The air supply must be shut off before filling airline lubricator.

Dirt or grit entering the hoist motor will cause severe damage to the internal components. Tiger recommend the installation of a 10-micron airline filter as close as possible to the hoist. The filter should be emptied and cleaned weekly to prevent excessive pressure drops due to constriction of the filter element.

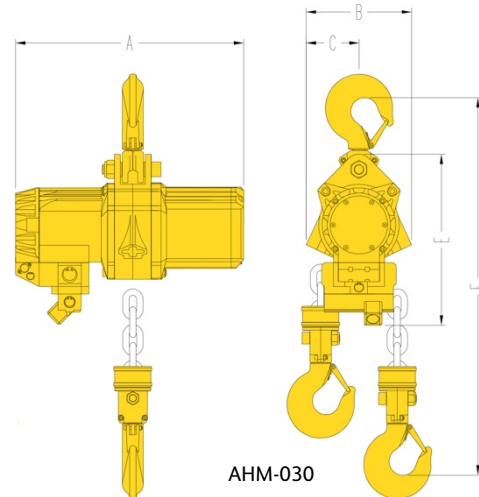


**Technical Data**

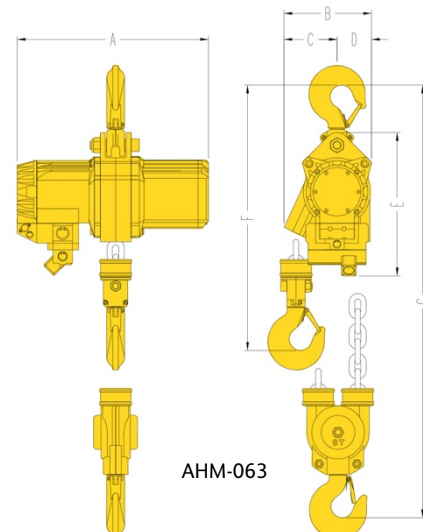
	AHM-021	AHM-030	AHM-063	
Lifting Capacity (tonne)	2.0/2.0	3.0/3.0	3.0/6.0	
Falls of Chain	1/1	1/1	1/2 <sup>#</sup>	
Chain Size (mm)	10 x 28	13 x 36	13 x 36	
Total Weight (kg) *	66.0	82.0	102.0	
Full Load Lifting Speed (m/min) @ 6 bar	4.7	4.9	4.9/2.4	
Full Load Lifting Speed (m/min) @ 4 bar	2.6	3.2	3.2/1.6	
No Load Lifting Speed (m/min) @ 6 bar	7.0	6.4	6.4/3.2	
Full Load Lowering Speed (m/min) @ 6 bar	7.5	7.0	7.0/3.5	
No Load Lowering Speed (m/min) @ 6 bar	5.9	5.4	5.4/2.7	
Air Consumption (m <sup>3</sup> /min) @ 6 bar	2.6	4.0	4.0	
Air Consumption (m <sup>3</sup> /min) @ 4 bar	1.7	2.6	2.6	
Air Connection	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>	
Supply Hose (Inside Ø) (mm)	19	25	25	
Sound Level (dB(A)):	83	83	83	
Dimensions (mm)	A	382	466	466
	B	192	215	215
	C	96	108	130
	D	-	-	85
	E	345	345	345
Min	F	537	548	599
Min	G	-	-	689



AHM-021



AHM-030



AHM-063

\* Weight is for 3m HOL, E/Stop pendant control (2m) J-hooks

<sup>#</sup>An extra metre of chain will give 1m extra HOL on the 3t side and 0.5m extra HOL on the 6t (2 fall) side

Due to our policy of continual product development, dimensions, weights and specifications may change without prior notice. Please check with your Tiger sales team when ordering.

### Tiger Air Line Filter Regulator Lubricators (FRL) Technical Data

Part code	A-08-B
Combination	UF/R + L
Description	Air filter/regulator lubricator
Port connections	3/4" BSP
Max air flow @6Bar (ANR)	7940 L/min
Mass	2145 g
Pressure range	0.5 – 10 Bar
Proof pressure	15 Bar
Ambient temperature range	-10°C - 60°C

