

# Atlas Copco air hoists and trolleys

Safety gets a big lift



*Atlas Copco*

# Explosion-proof operation and stepless control for a smoother safer lift

Atlas Copco air hoists and trolleys are the industry benchmark for fast, precise and reliable lifting of heavy loads – even in cramped and sometimes hostile industrial environments. Compact and lightweight, they are easy to control, survive rough handling and provide heavyweight performance.

## Hooks

We leave nothing to chance – our suspension and load hooks are made of special high grades steel, zinc-plated and blue-chromated. All suspension and load hooks provide full 360° rotation.

## Brake

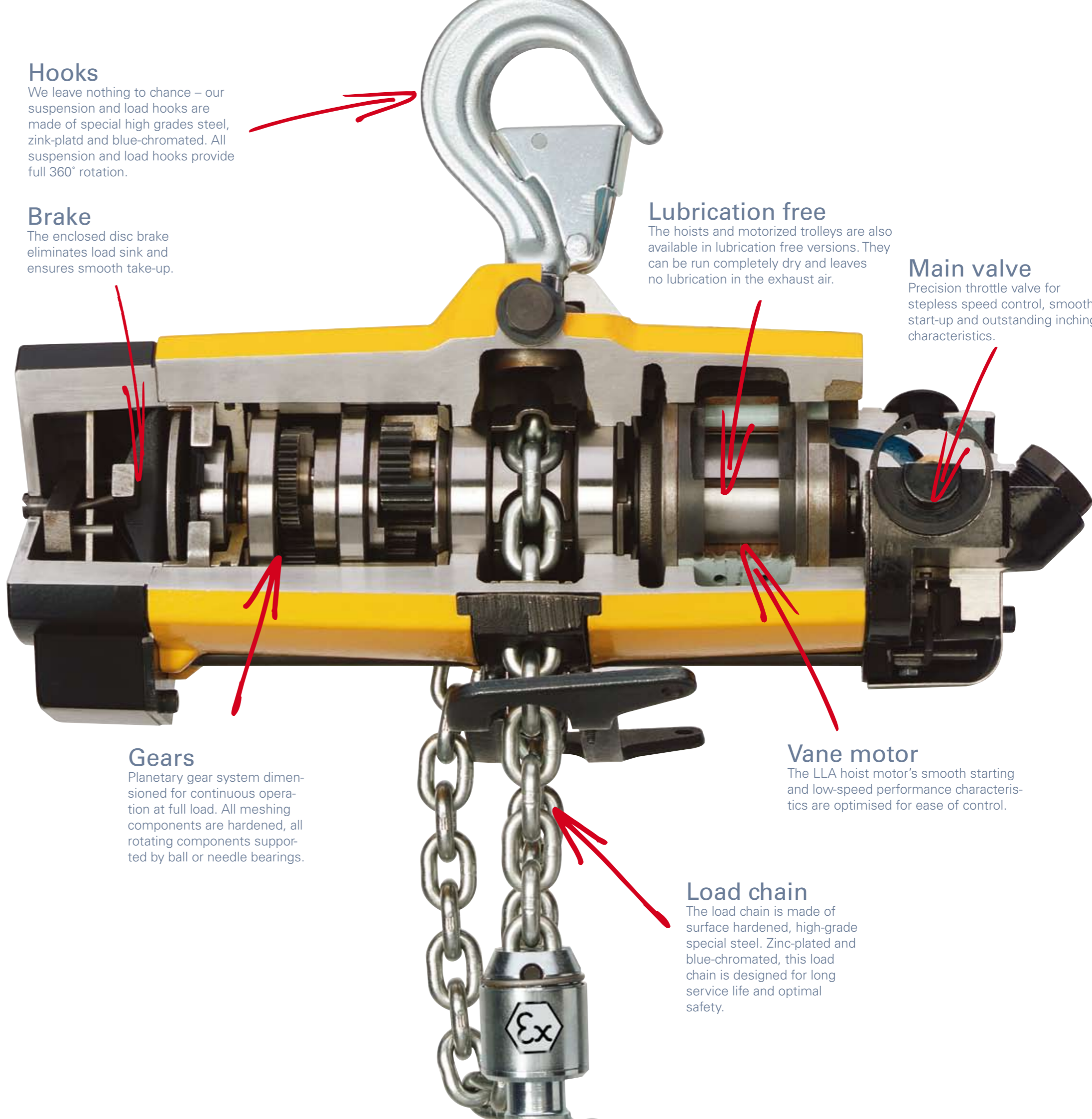
The enclosed disc brake eliminates load sink and ensures smooth take-up.

## Lubrication free

The hoists and motorized trolleys are also available in lubrication free versions. They can be run completely dry and leaves no lubrication in the exhaust air.

## Main valve

Precision throttle valve for stepless speed control, smooth start-up and outstanding inching characteristics.



## Gears

Planetary gear system dimensioned for continuous operation at full load. All meshing components are hardened, all rotating components supported by ball or needle bearings.

## Vane motor

The LLA hoist motor's smooth starting and low-speed performance characteristics are optimised for ease of control.

## Load chain

The load chain is made of surface hardened, high-grade special steel. Zinc-plated and blue-chromated, this load chain is designed for long service life and optimal safety.



### Designed for survival

Powered by air, Atlas Copco's hoists stay cool in the toughest situations. They can be operated continuously at maximum load, with frequent starts and stops, without damage or overheating. They ignore heat, dust and moisture and are highly corrosion resistant. This ensures long life, exceptional reliability and enhanced safety.

### Small is beautiful

Extremely compact and light compared to conventional electrically-powered units, our air hoists are easily installed almost anywhere, even with cramped working conditions and/or low ceilings. Low weight also simplifies removal for maintenance or relocation.

### Lubrication free

The complete Atlas Copco hoist and motorized trolley ranges are also available in lubrication free versions. This range is suitable for applications where a clean environment is a necessity. The hoists can be run completely dry and leaves no lubrication in the exhaust air. Typical industries are food-chemical- and pharmaceutical industries.

### Explosion proof for safe operation

Our air hoists and trolleys are ideal for lift applications in hazardous environments, where sparks or high outer temperatures could ignite explosive gases, vapour or dust. All are certified Explosion-proof, to stringent European standards, in compliance with the EU ATEX Directive. Available in six sizes, they offer lift capacities from 200 kg to 5000 kg. All hoists types are certified to level Ex II 2G T5 II B D100°C.



### Smooth control and precise positioning

Stepless speed control and excellent inching characteristics guarantee a smooth start, while Atlas Copco's patented disc brake mechanism eliminates load sink and ensures smooth take-up.

### "Remote" operation

Choose a chain, pendant or high-precision twist-rod control for operation at a comfortable distance from the suspended load. Pendant controls are available with two-button (hoist or trolley) or four-button (hoist and trolley) handles.

### Explosion-proof trolleys for risk-free mobility

Available in narrow or wide, manual or motorised versions, Atlas Copco hoist trolleys provide the obvious solution to horizontal mobility. Explosion-proofed, flexible and simple to install, they are equally suitable for parallel or tapered I-beams, and easily adjusted to different widths.



### Standard chain control

Standard versions of LLA hoists include a chain control handle.

### "Remote" pendant control

Pendant controls are used to extend the operating area up to ten metres from the hoist. A two-button unit for hoist or trolley control, or four-button unit for hoist and trolley control. Both are equipped with a safety-stop button.



### "Precision" twist-rod control

Twist-rod control offers the highest level of precision. Adjustable length (one to two metres). Special extension rod (up to five metres) also available.



### Chain collectors

Chain collectors in reinforced PVC cloth or sheet steel can be ordered for a range of chain lengths.



### Overload protection device

Can be fitted to avoid unintentional hoist overload. When overloaded, the device automatically reduces motor output. Supplied as standard (except for LLA 1000 U) for lifting capacities of 1000 kg, 2500 kg and 5000 kg. Optional accessory for loads up to 1000 kg.



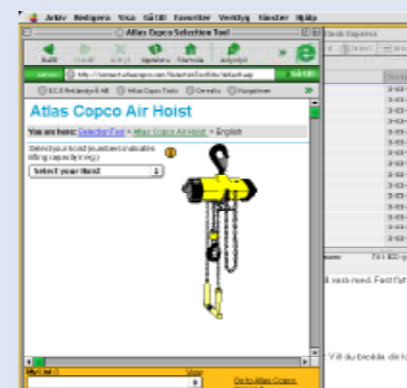
### Safety hook

A safety hook (cannot be opened under load) can be fitted for additional lifting safety.



### Chain stop

A chain stop can be fitted to stop the hoist at a pre-determined position.



### Select your hoist on the web

Choose the right hoist on the Web at [www-1.atlascopco.com/selectiontool](http://www-1.atlascopco.com/selectiontool) or send for our interactive CD (Air Hoist Selection Program).

### ORDERING YOUR HOIST OR TROLLEY WITH FACTORY-FITTED ACCESSORIES

To order your hoist or trolley with accessories factory-fitted, just list the required items and add the order code, 8990 0001 00. Note that air line accessories cannot be ordered assembled to the hoist.

**Example:** To order a 500 kg hoist with motor driven trolley, four-button five-metre long pendant control and a load chain for a ten-metre lift, send the following:

| Order to be sent  | Comments   |
|-------------------|--|
| 1 x 8451 1540 28  | LLA 500 EX Hoist block   |
| 11 x 4310 2293 00 | Load chain for hoist = Required height of lift + 0.5 m (see Technical data for LLA Hoist). |
| 1 x 8451 1520 14  | TLT 1000M Motor driven trolley   |
| 1 x 4310 2263 90  | 4 button handle + hoist actuator   |
| 5 x 4380 0576 94  | Hose set for 4 button pendant control  |
| 1 x 8990 0001 00  | Instruction to assemble above items  |

**OPTIONAL ACCESSORIES, HOISTS**

| Hoist accessories Description     | Ordering No. LLA 200/250/500/1000 EX | Ordering No. LLA 2500/5000 EX |
|-----------------------------------|--------------------------------------|-------------------------------|
| Load chain, zinc plated, per m    | 4310 2293 00                         | 4310 2296 00                  |
| Control chain, zinc plated, per m | 4310 0748 00                         | 4310 0748 00                  |
| <b>2 Button pendant control</b>   |                                      |                               |
| Handle and actuators              | 4310 2261 90                         | 4310 2262 90                  |
| Hose set per m                    | 4380 0576 91                         | 4380 0576 91                  |
| <b>4 Button pendant control</b>   |                                      |                               |
| Handle and actuators              | 4310 2263 90                         | 4310 2264 90                  |
| Hose set per m                    | 4380 0576 94                         | 4380 0576 93                  |
| <b>Twist rod control</b>          |                                      |                               |
| Complete (1.1 – 2.0 m)            | 4310 0774 91                         | 4310 0774 91                  |
| Extension set (+1.1 – 1.9 m)      | 4310 0780 91                         | 4310 0780 91                  |
| Articulating link                 | 4310 0876 91                         | 4310 0876 91                  |
| <b>Chain collectors</b>           |                                      |                               |
| PVC for length of chain           |                                      |                               |
| - 4 m                             | 4310 0742 04                         |                               |
| - 7 m                             | 4310 0742 07                         | 4310 2291 07                  |
| - 12 m                            | 4310 0742 12                         |                               |
| - 18 m                            | 4310 0742 18                         |                               |
| - 25 m                            | 4310 0742 25                         |                               |
| <b>Chain collectors</b>           |                                      |                               |
| Steel for length of chain         |                                      |                               |
| - 12 m                            |                                      | 4310 2102 80                  |
| - 18 m                            |                                      | 4310 2109 80                  |
| <b>Overload protection device</b> |                                      |                               |
| LLA 200 EX / 250 EX               | 4310 0812 83                         |                               |
| LLA 500 EX                        | 4310 0812 84                         |                               |
| LLA 1000 U EX                     | 4310 0812 85                         |                               |
| LLA 1000 / 2500 EX / 5000 EX      | Included as standard                 | Included as standard          |
| <b>Safety hooks, zinc plated</b>  | 4310 0739 01                         |                               |
| <b>Chain stop, zinc plated</b>    | 4310 0740 91                         | 4310 2097 91                  |

Note: For items specified per metre, the required length should be indicated by multiplying the Ordering number by the required length i.e. to order 12 m of load chain for an LLA 250 the order should be 12 x 4310 2293 00. When ordering load chain, follow the recommendations on chain length given in the Technical Data for LLA Hoists.

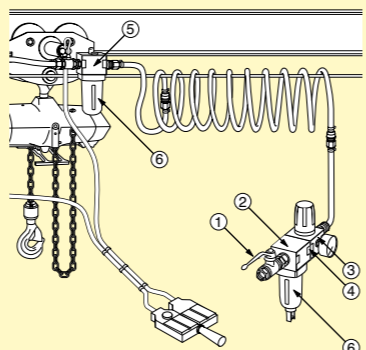
**OPTIONAL ACCESSORIES, TROLLEYS**

| Designation                     | Ordering No. TLT1000 M | Ordering No. TLT3000 M | Ordering No. TLT5000 M |
|---------------------------------|------------------------|------------------------|------------------------|
| Zinc plated control chain per m |                        | 4310 0748 00           | 4310 0748 00           |
| <b>2-button pendant control</b> |                        |                        |                        |
| Handle and actuator only        | 4310 0835 91           | 4310 2262 90           | 4380 2262 90           |
| Hose kit per m                  | 4380 0576 92           | 4380 0576 91           | 4380 0576 91           |

**Air line accessories for hoists and trolleys**

To ensure top performance and long service life from Atlas Copco air hoists and motor driven trolleys, the correct air line accessories should always be used in the installation. All hoists and motor driven trolleys have 1/2" BSP inlet connectors and a standard range of accessories is suitable for all installations.

| Item Description                                 | Length (m) | Connection thread | Designation     | Ordering No.  |
|--|------------|-------------------|-----------------|---------------|
| 1. Ball valve                                    |            | 1/2" BSP Female   | BAL-1A 15       | 8202 0311 29  |
| 2. Air filter                                    |            | 1/2" BSP Female   | MIDI FIL 15C-BE | 9093 0009 01  |
| 3. Air pressure regulator                        |            | 1/2" BSP Female   | MIDI REG 15C-S  | 9093 0009 91  |
| 4. Mounting kit                                  |            |                   | Mounting kit    | 9090 1654 00  |
| 5. Oil fog lubricator                            |            | 1/2" BSP Female   | MIDI DIM 15C-E  | 9093 0011 11  |
| 6. Metal bowl guard                              |            |                   | Bowl guard      | 9090 1717 00  |
| Adaptor for lubricator (for use with hoist only) |            | 1/2" BSP Male     | Adaptor         | 4310 0786 00  |
| Adaptor for exhaust hose                         |            |                   |                 |               |
| - LLA 200/250/500/1000                           |            | 1/2" BSP Female   | Adaptor         | 4310 0788 00  |
| - LLA 1250/2500/5000                             |            | (1" Hose nipple)  | Adaptor         | 4310 2125 00  |
| 1/2" Diameter hose                               | max 10     |                   | PVC 13          | 9093 0038 71* |
| 1/2" Hose nipple                                 |            | 1/2" BSP Male     | Nipple          | 9000 0243 00  |
| 1/2" Hose clamp                                  |            |                   | Hose clamp      | 0347 0122 12  |
| 3/4" Diameter hose                               | max 40     |                   | PVC 20          | 9093 0039 31* |
| 3/4" Hose nipple                                 |            | 1/2" BSP Male     | Nipple          | 4150 0429 00  |
| 3/4" Hose clamp                                  |            |                   | Hose clamp      | 0347 0122 15  |
| 1/2" Diameter spiral hose                        | 0.5-7.5    | 1/2" BSP Male     | SPI 15 S kit    | 4310 2276 90  |



Note: All motor driven trolleys are supplied with items to connect the hoist and trolley to a single air inlet.

\*30 m coil

**TECHNICAL DATA, HOISTS**

| Model                       | Max lifting capacity |      | Lifting speed at full load |        | Chain drops qty | Weight excl chain |       | Chain weight |     | Required chain-length metre | Sound level dB(A) | Air consumption l/s | Hose dia. |      | Hose fitting thread |     | Ordering No. |  |
|-----------------------------|----------------------|------|----------------------------|--------|-----------------|-------------------|-------|--------------|-----|-----------------------------|-------------------|---------------------|-----------|------|---------------------|-----|--------------|--|
|                             | kg                   | ton  | m/min                      | ft/min |                 | kg                | lb    | kg/mlb/ft    | mm  |                             |                   |                     | in        | BSP  |                     |     |              |  |
| LLA 200 EX                  | 200                  | 0.2  | 20.2                       | 66.3   | 1               | 12.7              | 28.0  | 0.9          | 0.6 | Lifting height + 0.5        | 84                | 38                  | 81        | 12.5 | 1/2                 | 1/2 | 8451 1540 02 |  |
| LLA 250 EX                  | 250                  | 0.25 | 18.6                       | 61.0   | 1               | 12.7              | 28.0  | 0.9          | 0.6 | Lifting height + 0.5        | 84                | 37                  | 78        | 12.5 | 1/2                 | 1/2 | 8451 1540 10 |  |
| LLA 500 EX                  | 500                  | 0.5  | 12.6                       | 41.3   | 1               | 12.7              | 28.0  | 0.9          | 0.6 | Lifting height + 0.5        | 83                | 38                  | 81        | 12.5 | 1/2                 | 1/2 | 8451 1540 28 |  |
| LLA 1000 U EX <sup>a</sup>  | 1000                 | 1.0  | 6.3                        | 20.7   | 2               | 14.5              | 32.0  | 0.9          | 0.6 | 2 x Lifting height + 0.5    | 83                | 38                  | 81        | 12.5 | 1/2                 | 1/2 | 8451 1540 69 |  |
| LLA 1000 EX                 | 1000                 | 1.0  | 6.3                        | 20.7   | 2               | 15.0              | 32.0  | 0.9          | 0.6 | 2 x Lifting height + 0.5    | 83                | 38                  | 81        | 12.5 | 1/2                 | 1/2 | 8451 1540 36 |  |
| LLA 2500 EX                 | 2500                 | 2.5  | 3.2                        | 10.5   | 1               | 42.5              | 93.7  | 2.9          | 1.9 | Lifting height + 0.6        | 79                | 40                  | 85        | 20.0 | 3/4                 | 1/2 | 8451 1540 44 |  |
| LLA 5000 EX                 | 5000                 | 5.0  | 1.6                        | 5.2    | 2               | 65.5              | 144.4 | 2.9          | 1.9 | 2 x Lifting height + 0.9    | 79                | 40                  | 85        | 40.0 | 3/4                 | 1/2 | 8451 1540 51 |  |
| <b>Lubrication free</b>     |                      |      |                            |        |                 |                   |       |              |     |                             |                   |                     |           |      |                     |     |              |  |
| LLA 200L EX                 | 200                  | 0.2  | 20.2                       | 66.3   | 1               | 12.7              | 28.0  | 0.9          | 0.6 | Lifting height + 0.5        | 84                | 38                  | 81        | 12.5 | 1/2                 | 1/2 | 8451 1550 09 |  |
| LLA 250L EX                 | 250                  | 0.25 | 18.6                       | 61.0   | 1               | 12.7              | 28.0  | 0.9          | 0.6 | Lifting height + 0.5        | 84                | 37                  | 78        | 12.5 | 1/2                 | 1/2 | 8451 1550 17 |  |
| LLA 500L EX                 | 500                  | 0.5  | 12.6                       | 41.3   | 1               | 12.7              | 28.0  | 0.9          | 0.6 | Lifting height + 0.5        | 83                | 38                  | 81        | 12.5 | 1/2                 | 1/2 | 8451 1550 25 |  |
| LLA 1000L U EX <sup>a</sup> | 1000                 | 1    | 6.3                        | 20.7   | 2               | 14.5              | 32.0  | 0.9          | 0.6 | 2 x Lifting height + 0.5    | 83                | 38                  | 81        | 12.5 | 1/2                 | 1/2 | 8451 1550 66 |  |
| LLA 1000L EX                | 1000                 | 1    | 6.3                        | 20.7   | 2               | 15.0              | 32.0  | 0.9          | 0.6 | 2 x Lifting height + 0.5    | 83                | 38                  | 81        | 12.5 | 1/2                 | 1/2 | 8451 1550 32 |  |
| LLA 2500L EX                | 2500                 | 2.5  | 3.2                        | 10.5   | 1               | 42.5              | 93.7  | 2.9          | 1.9 | Lifting height + 0.6        | 79                | 40                  | 85        | 12.5 | 1/2                 | 1/2 | 8451 1550 41 |  |
| LLA 5000L EX                | 5000                 | 5    | 1.6                        | 5.2    | 2               | 65.5              | 144.4 | 2.9          | 1.9 | 2 x Lifting height + 0.9    | 79                | 40                  | 85        | 12.5 | 1/2                 | 1/2 | 8451 1550 58 |  |

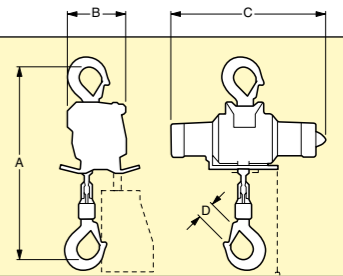
Performance figures are at 6 bar working pressure

NOTE: Load chain and control chain must be ordered separately.

<sup>a</sup> Without overload protection device, not to be used within the European community.

**DIMENSIONS**

| TYPE             | A   |      | B   |     | C   |      | D  |     |
|------------------|-----|------|-----|-----|-----|------|----|-----|
|                  | mm  | in   | mm  | in  | mm  | in   | mm | in  |
| LLA 200 / 250 EX | 377 | 14.8 | 122 | 4.8 | 390 | 15.4 | 29 | 1.1 |
| LLA 500 EX       | 377 | 14.8 | 122 | 4.8 | 390 | 15.4 | 29 | 1.1 |
| LLA 1000 U EX    | 445 | 17.5 | 122 | 4.8 | 390 | 15.4 | 29 | 1.1 |
| LLA 1000 EX      | 495 | 19.4 | 122 | 4.8 | 390 | 15.4 | 29 | 1.1 |
| LLA 2500 EX      | 575 | 22.6 | 212 | 8.3 | 546 | 21.5 | 50 | 2.0 |
| LLA 5000 EX      | 785 | 30.9 | 249 | 9.8 | 546 | 21.5 | 60 | 2.4 |



**TECHNICAL DATA, TROLLEYS**

| Model               | Max capacity |     | Max. speed with full load |        | Air consumption |     | Beam width |          | Curve radius min |      | Weight |       | Ordering No. |
|---------------------|--------------|-----|---------------------------|--------|-----------------|-----|------------|----------|------------------|------|--------|-------|--------------|
|                     | kg           | ton | m/min                     | ft/min | l/s             | cfm | mm         | in       | mm               | in   | kg     | lb    |              |
| <b>Manual</b>       |              |     |                           |        |                 |     |            |          |                  |      |        |       |              |
| TLT 1000 H N        | 1000         | 1   | -                         | -      | -               | -   | 50-160     | 2-6.3    | 1250             | 50   | 9,4    | 21    | 8451 1520 06 |
| TLT 1000 H W        | 1000         | 1   | -                         | -      | -               | -   | 161-280    | 6.3-11   | 1250             | 50   | 10,7   | 23,6  | 8451 1520 63 |
| TLT 3000 H N        | 3000         | 3   | -                         | -      | -               | -   | 74-180     | 2.9-7.1  | 2200             | 86,6 | 31,5   | 69,5  | 8451 1520 55 |
| TLT 3000 H W        | 3000         | 3   | -                         | -      | -               | -   | 181-300    | 7.1-11.8 | 2200             | 86,6 | 34     | 75    | 8451 1520 89 |
| <b>Motor driven</b> |              |     |                           |        |                 |     |            |          |                  |      |        |       |              |
| TLT 1000 M N        | 1000         | 1   | 14                        | 45,9   | 4               | 8,5 | 50-160     | 2-6.3    | 1250             | 50   | 11     | 24    | 8451 1520 14 |
| TLT 1000 M W        | 1000         | 1   | 14                        | 45,9   | 4               | 8,5 | 161-280    | 6.3-11   | 1250             | 50   | 12,3   | 27,1  | 8451 1520 71 |
| TLT 3000 M N        | 3000         | 3   | 17,8                      | 58,4   | 42              | 89  | 74-180     | 2.9-7.1  | 2200             | 86,6 | 48     | 105,8 | 8451 1520 30 |
| TLT 3000 M W        | 3000         | 3   | 17,8                      | 58,4   | 42              | 89  | 181-300    | 7.1-11.8 | 2200             | 86,6 | 51,5   | 113,5 | 8451 1520 97 |
| TLT 5000 M          | 5000         | 5   | 16,2                      | 53,1   | 42              | 89  | 181-300    | 7.1-11.8 | 2500             | 98,4 | 74     | 163,2 | 8451 1520 48 |

Performance figures are at 6 bar working pressure.

<sup>a</sup> Pendant control must be ordered separately.

Motor-driven trolleys have 1/2" BSP connection.

<sup>b</sup> Includes handle for control chain. Control chain must be ordered separately.

12.5 mm 1/2" hose size is recommended for 1000M, 20 mm for 3000 and 5000.

<sup>c</sup> The pendant controls are not spark resistant.

**DIMENSIONS**

| Model               | A  |     | B  |     | C               |                  | D   |     | E   |      | F  |     |
|---------------------|----|-----|----|-----|-----------------|------------------|-----|-----|-----|------|----|-----|
|                     | mm | in  | mm | in  | mm              | in               | mm  | in  | mm  | in   | mm | in  |
| <b>Manual</b>       |    |     |    |     |                 |                  |     |     |     |      |    |     |
| TLT 1000 H N        | 26 | 1,1 | 52 | 2,1 | 212             | 8,3              | -   | -   | 264 | 10,4 | -  | -   |
| TLT 1000 H W        | 26 | 1,1 | 52 | 2,1 | Beam width + 57 | Beam width + 2.3 | -   | -   | 264 | 10,4 | -  | -   |
| TLT 3000 H N        | 35 | 1,4 | 78 | 3,1 | 262             | 10,3             | -   | -   | 384 | 15,2 | -  | -   |
| TLT 3000 H W        | 35 | 1,4 | 78 | 3,1 | Beam width + 89 | Beam width + 3.5 | -   | -   | 384 | 15,2 | -  | -   |
| <b>Motor driven</b> |    |     |    |     |                 |                  |     |     |     |      |    |     |
| TLT 1000 M N        | 24 | 1,0 | 52 | 2,1 | 212             | 8,3              | 225 | 8,9 | 264 | 10,4 | -  | -   |
| TLT 1000 M W        | 24 | 1,0 | 52 | 2,1 | Beam width + 57 | Beam width + 2.3 | 225 | 8,9 | 264 | 10,4 | -  | -   |
| TLT 3000 M N        | 37 | 1,5 | 78 | 3,1 | 262             | 10,3             | 148 | 5,9 | 380 | 15,0 | 94 | 3,7 |
| TLT 3000 M W        | 37 | 1,5 | 78 | 3,1 | Beam width + 89 | Beam width + 3.5 | 148 | 5,9 | 380 | 15,0 | 94 | 3,7 |
| TLT 5000 M          | 41 | 1,6 | 93 | 3,7 | Beam width + 97 | Beam width + 3.8 | 166 | 6,6 | 437 | 17,2 | 59 | 2,4 |

