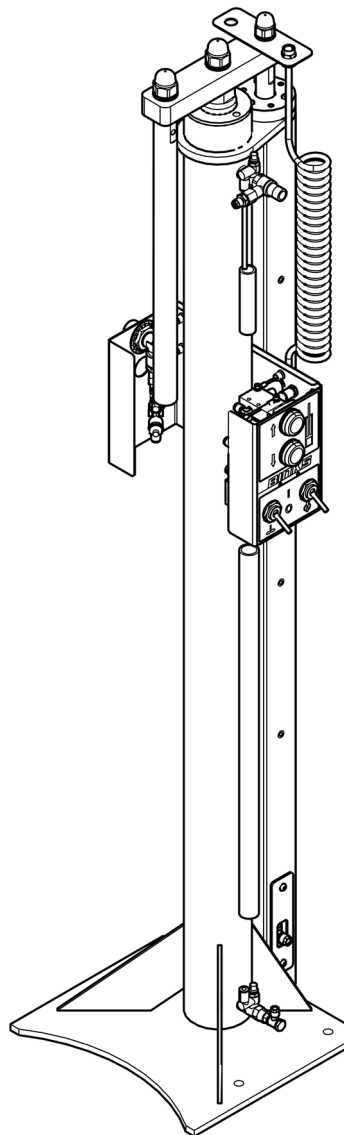


BINKS®

DE-12, DE-15 Pneumatic Drum Elevator



IMPORTANT! DO NOT DESTROY

It is the Customer's responsibility to have all operators and service personnel read and understand this manual.

Contact your local Carlisle Fluid Technologies representative for additional copies of this manual.

READ ALL INSTRUCTIONS BEFORE OPERATING THIS PRODUCT

Product Description / Object of Declaration:	Pneumatic Elevator 104112, 104153, 104154, 104155, DE-05, DE-10, DE-12, DE-15.	EN
This Product is designed for use with:	Solvent and Water based materials	
Suitable for use in hazardous area:	Zone 1 / Zone 2	
Protection Level:	II 2 G X T4	
Notified body details and role:	Element Materials Technology (0891) Lodging of Technical file	
This Declaration of conformity / incorporation is issued under the sole responsibility of the manufacturer:	Carlisle Fluid Technologies UK Ltd, Ringwood Road, Bournemouth, BH11 9LH. UK	

EU Declaration of Conformity



This Declaration of conformity / incorporation is issued under the sole responsibility of the manufacturer:

Machinery Directive 2006/42/EC

ATEX Directive 2014/34/EU

by complying with the following statutory documents and harmonized standards:

EN ISO 12100:2010 Safety of Machinery - General Principles for Design

EN ISO 4414:2010 Pneumatic Fluid Power - General Rules and safety requirements

EN 1127-1:2011 Explosive atmospheres - Explosion prevention - Basic concepts

EN 13463-1:2009 Non electrical equipment for use in potentially explosive atmospheres - Basic methods and requirements

EN 13463-5:2011 Non electrical equipment for use in potentially explosive atmospheres - Protection by constructional safety "c"

Providing all conditions of safe use / installation stated within the product manuals have been complied with and also installed in accordance with any applicable local codes of practice.



Signed for and on behalf of Carlisle Fluid
Technologies UK Ltd:

D Smith

Director of Sales (EMEA)

6/12/17

Bournemouth, BH11 9LH, UK

 WARNING	 CAUTION	NOTE
Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.	Hazards or unsafe practices which could result in minor personal injury, product or property damage	Important installation, operation or maintenance information.

 **WARNING**

Read the following warnings before using this equipment.



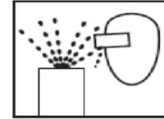
READ THE MANUAL. Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.



AUTOMATIC EQUIPMENT. Automatic equipment may start suddenly without warning.



WEAR SAFETY GLASSES. Failure to wear safety glasses with side shields could result in serious eye injury or blindness.



PROJECTILE HAZARD. You may be injured by venting liquids or gases that are released under pressure, or flying debris.



DE-ENERGIZE, DE-PRESSURISE, DISCONNECT AND LOCK OUT ALL POWER SOURCES DURING MAINTENANCE. Failure to de-energize, disconnect and lock out all power supplies before performing equipment maintenance could cause serious injury or death.



KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY.



NOISE LEVELS. The A-weighted sound level of pumping and spray equipment may exceed 85 dB(A) depending on equipment settings. Actual noise levels are available on request. It is recommended that ear protection is worn at all times while equipment is in use.



PRESSURE RELIEF PROCEDURE. Always follow the pressure relief procedure in the equipment instruction manual.



INSPECT THE EQUIPMENT DAILY. Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.



OPERATOR TRAINING. All personnel must be trained before operating finishing equipment.



EQUIPMENT MISUSE HAZARD. Equipment misuse can cause the equipment to rupture, malfunction or start unexpectedly and result in serious injury.



PACEMAKER WARNING. You are in the presence of magnetic fields which may interfere with the operation of certain pacemakers.



HIGH PRESSURE CONSIDERATION. High pressure can cause serious injury. Relieve all pressure before servicing. Spray from the gun, hose leaks or ruptured components can inject fluid into your body and cause extremely serious injury.



KEEP EQUIPMENT GUARDS IN PLACE. Do not operate the equipment if the safety devices have been removed.



STATIC CHARGE. Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.



NEVER MODIFY THE EQUIPMENT. Do not modify the equipment unless the manufacturer provides written approval.



PROP 65 WARNING. WARNING: This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.



PINCH POINT HAZARD. Moving parts can crush and cut. Pinch points are any areas where there are moving parts.

IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EQUIPMENT.

SPECIFICATION	
	Stroke: DE-12=1250mm [49.2"] DE-15=1500mm [59"]
	Minimum air inlet pressure: 3 bar [44 psi]
	Maximum air inlet pressure: 7 bar [100 psi]
A	Air inlet connection: G1/2" BSPP Female
B	Maximum Load: 30 Kg [66lb's]
C	Maximum Load Distance: 1000mm [39.4"]
	Maximum operating speed: 0.1m/s [4"/s]
	Up/Down controls: Included
	Agitator controls: Optional
	Pump controls: Optional
	Recommended air quality ISO 8573.1 Class 3.3.2 #: Dirt: 5 µm Water: -20°C@7 bar [940 ppm] Oil: 0.1mg/m ³ Non Lubricated
	Noise Level @ 7 bar [100 psi]: <70 dBA Leq
D	Earth connection resistance: <1Ω
	Weight: DE-12 = 65 Kg [143lb's] DE-15 = 71 Kg [156.5lb's]
	Temperature range: 0 - 40 °C [32 - 104 °F]

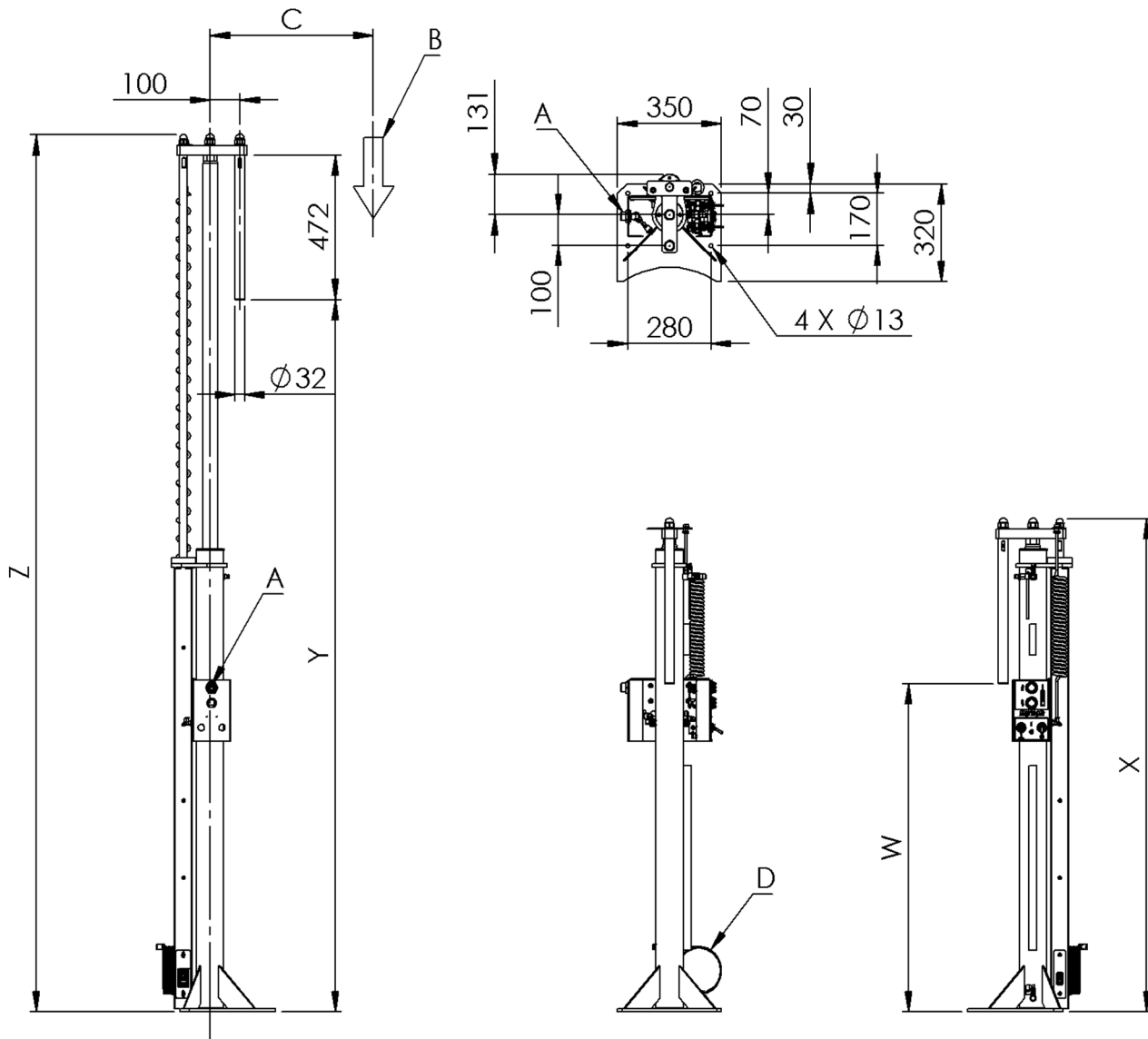
INTENDED USE

The pneumatic elevator is designed for raising and lowering a drum/tank cover which has equipment mounted to it, such as a pump, agitator or suction tube, generally for use in the painting industry.

This allows the drum/tank to be changed in the raised position. It is for professional trained users only.

INSTALLATION

Dimensions in mm [inches]



RH Controls shown

	Dimension			
	W	X	Y	Z
DE-12	1068mm [42"]	1608mm [63.5"]	2318mm [91.5"]	2858mm [113"]
DE-15	1318mm [52"]	1858mm [73.5"]	2818mm [111"]	3358mm [132.5"]

PRIOR TO USE**WARNING**

Attach the elevator base securely to a flat and level concrete floor, using 4 x M12 anchor bolts, each with an applied tensile load of 6.1kN minimum.

For further fixing advice, please refer to the following documents:

BS 8539:2012 - Code of practice for the selection and installation of post-installed anchors in concrete and masonry

BS EN 206:2013 - Concrete - specification, performance, production and conformity

EN 1992-4:2016 - Design of fastening for use in concrete

CEO Guidance Note - ETAs for anchors used in construction

Attach flexible hoses to all connections.

Connect a filtered and regulated air supply to the air connection.

Include a pressure relieving isolation valve.

Locate within 2m [80"].

Operate the elevator at a low pressure for the first time and adjust speed of operation as specified.

Ensure maximum load and position are not exceeded.

Ensure the drum can be located in the correct position consistently, preferably with a location fixture.

The drum/tank cover position should be set with the elevator fully down.

Set the position on the Ø32 mounting bar so there is a small clearance with the top of the drum/tank.

ATEX SPECIAL CONDITIONS FOR SAFE USE**WARNING**

The elevator must be earthed at all times.

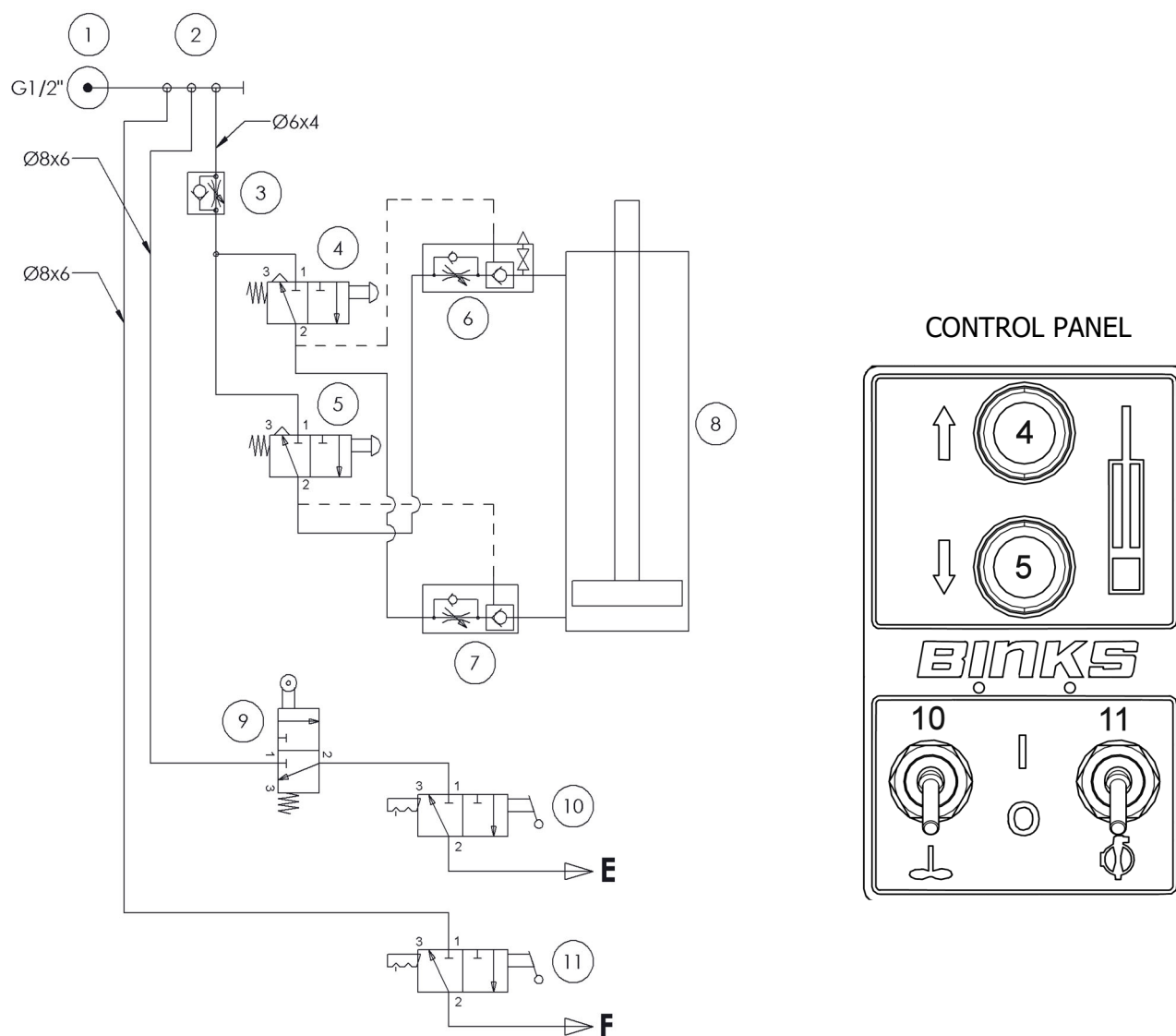
A resistance $<1\Omega$ when measuring with an ohm-meter at the earth point

Earth connection, Binks Part No. DEK-22

Metallic parts maintain earth continuity by either direct contact, toothed washers or earth cables.

After maintenance, ensure continuity is present to earth of $<1\text{ Ohm}$

PNEUMATIC DIAGRAM



ITEM	DESCRIPTION	COMMENTS
1	Air supply	
2	Manifold	
3	Up/Down speed controller	
4	Up pushbutton valve	
5	Down pushbutton valve	
6	Up speed controller, check valve and pressure relief switch	
7	Down speed controller and check valve	
8	Double acting cylinder	
9	Agitator interlock valve	If fitted
10	Agitator on/off valve	If fitted
11	Pump on/off valve	If fitted
E	To Agitator	If fitted
F	To Pump	If fitted

OPERATION AND ADJUSTMENT - (REFER TO DIAGRAM ON P7)

Up/Down speed:

Initial speed -

The starting speed of up/down can be adjusted using valve '3' (located on inlet manifold), to increase or decrease the speed.

See speed recommendation P4.

The remaining stroke speed is set using:

Up stroke - valve '6'

Down stroke - valve '7'.

Up/Down position:

The unit should be in the fully down position when equipment mounted to it is in use.

To raise the elevator, press the top control panel pushbutton '4', the position can be stopped at any point.

To lower the elevator, press the bottom control panel pushbutton '5', the position can be stopped at any point.

NOTE

The valve '7' prevents downwards movement, unless it receives a signal from valve '5', preventing the elevator dropping even if the hoses are disconnected accidentally.



CAUTION

The elevator should not be used as a permanent support.
Ensure personnel are clear of the elevator and operator has a clear view before operating.

Agitator air control:

Toggle the valve '10' in the up position to turn air onto the agitator, valve '9' will only allow air to flow if the elevator is in the down position.

The down position turns the air off.

Pump air control:

Toggle the valve '11' in the up position to turn air onto the agitator, the down position turns the air off.



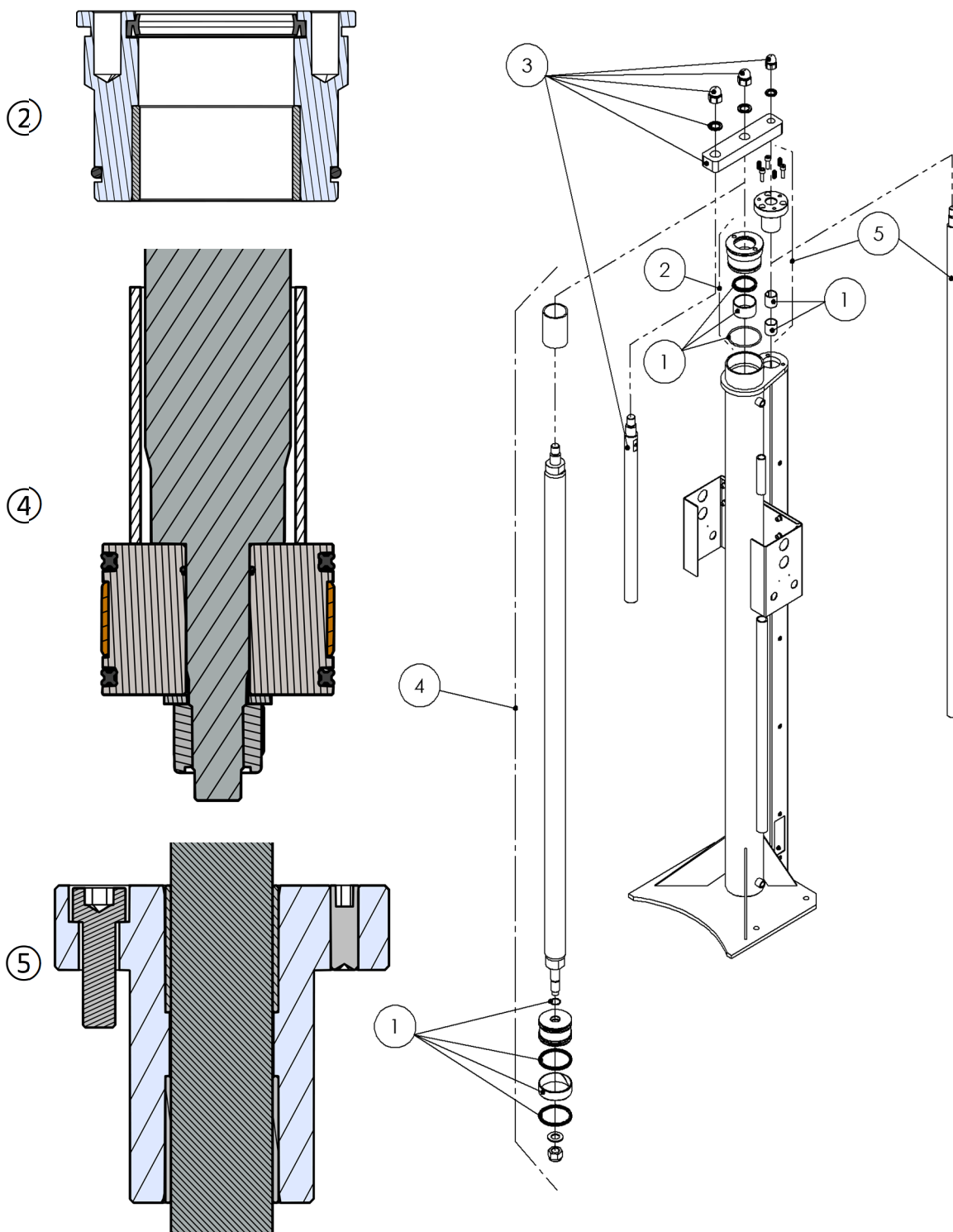
WARNING

Valves '6' & '7' lock air pressure in the upper and lower sections of the cylinder.

Before undertaking any maintenance, drive the elevator down with pushbutton '5' and press pressure relief switch on valve '6' until all air has been exhausted from the cylinder.

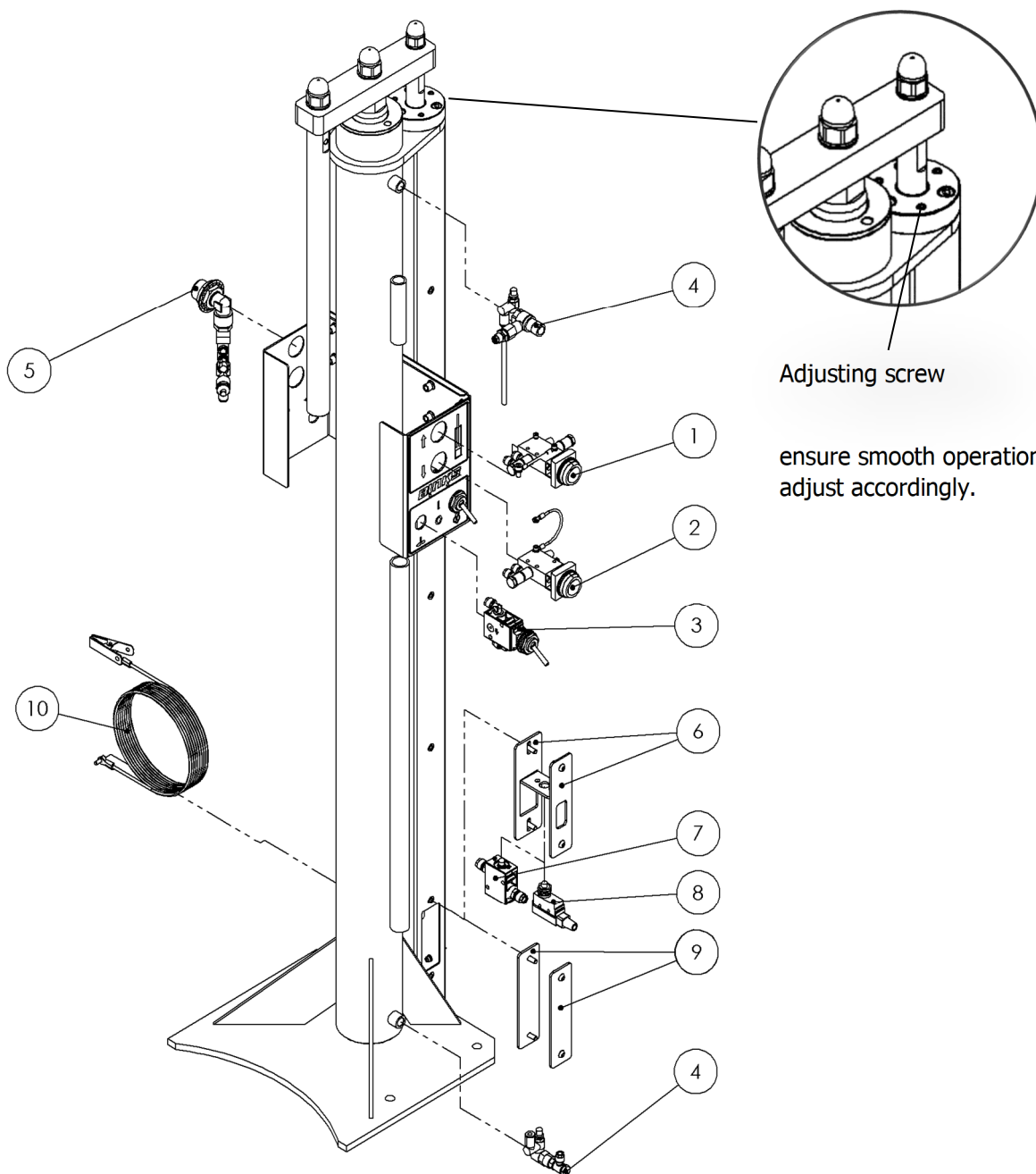
SPARE PARTS

ITEM	PART NO.		DESCRIPTION
	DE-12	DE-15	
1	DEK-05		Seal and bearing kit
2	DEK-04		Cylinder cap - Complete kit
3	DEK-03		Mounting bar kit
4	DEK-12	DEK-13	Piston rod - Complete kit
5	DEK-16	DEK-17	Anti-rotation - Complete kit



SPARE PARTS

ITEM	PART NO.	DESCRIPTION
1	DEK-30	Valve & fittings (up/green)
2	DEK-31	Valve & fittings (down/red)
3	DEK-32	Valve & fittings (agitator or pump)
4	DEK-33	Cylinder speed controllers
5	DEK-34	Inlet manifold & speed controller
6	DEK-20	Mounting brackets
7	DEK-36	Agitator valve (pneumatic)
8	DEK-37	Agitator switch (electric)
9	DEK-21	Cover plates
10	DEK-22	Earth cable




Adjusting screw

ensure smooth operation and adjust accordingly.

MAINTENANCE

Key - Maintenance symbols

 = Order for dis-assembly
(Reverse for assembly)


 = Grease
(AGMD-010)

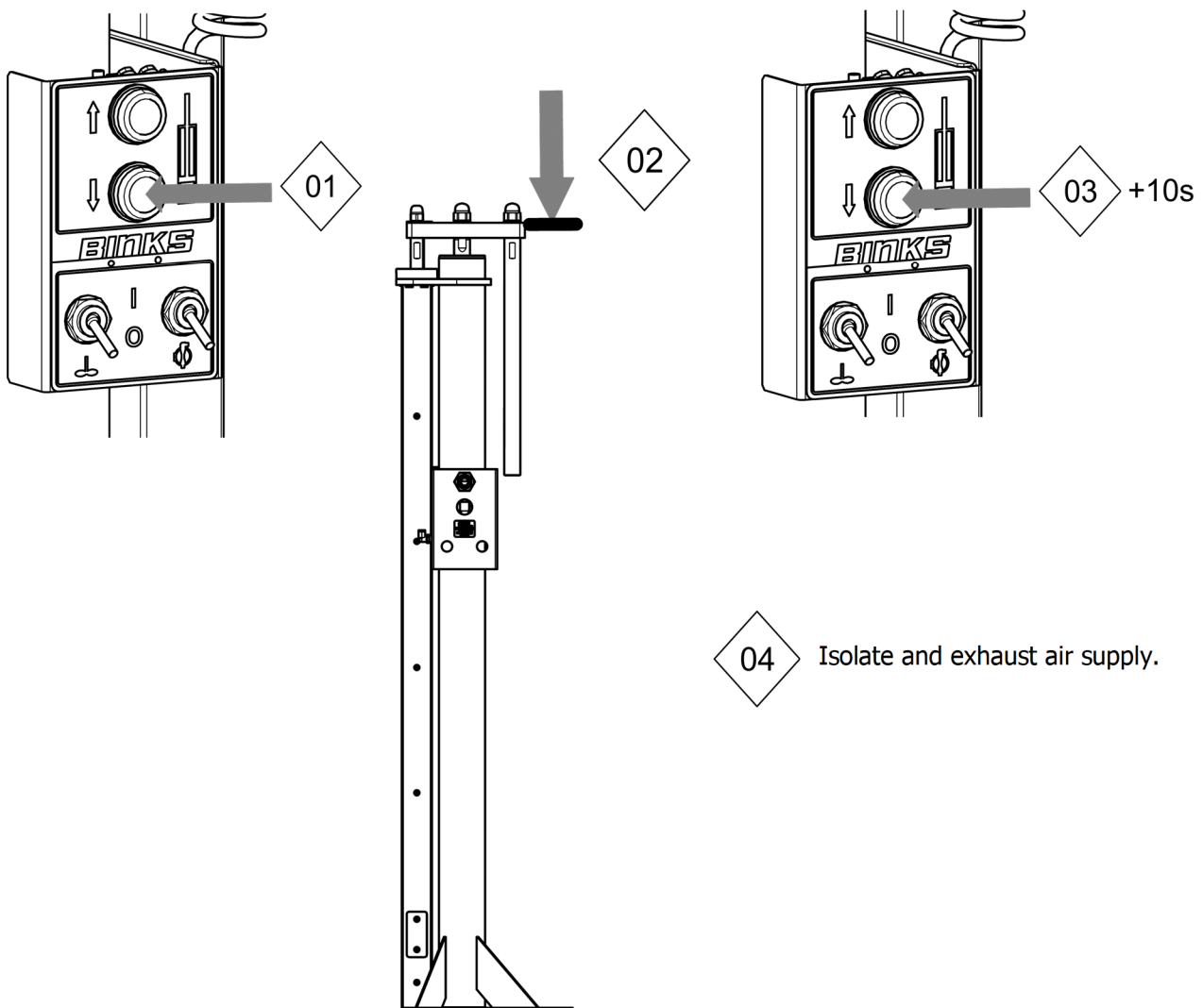
Fig. 1 = refer to figure

13MM = Spanner or socket size

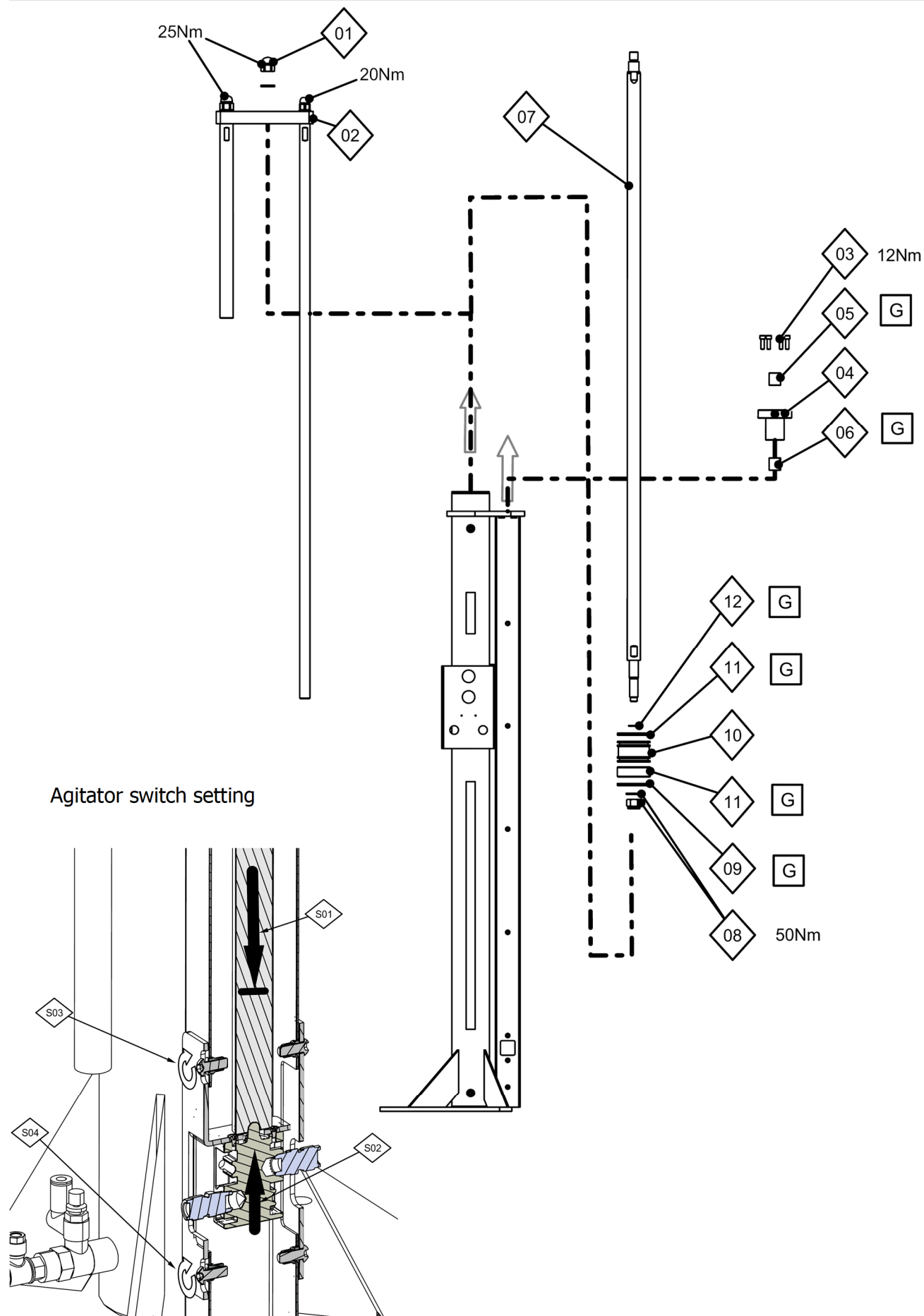
8 Nm = Torque

Prior to carrying out any maintenance;
ensure the elevator is in the down position and all air is exhausted from the cylinder, prior to the air supply being isolated and pressure relieved.

Follow the procedure below.



MAINTENANCE



MAINTENANCE SCHEDULE

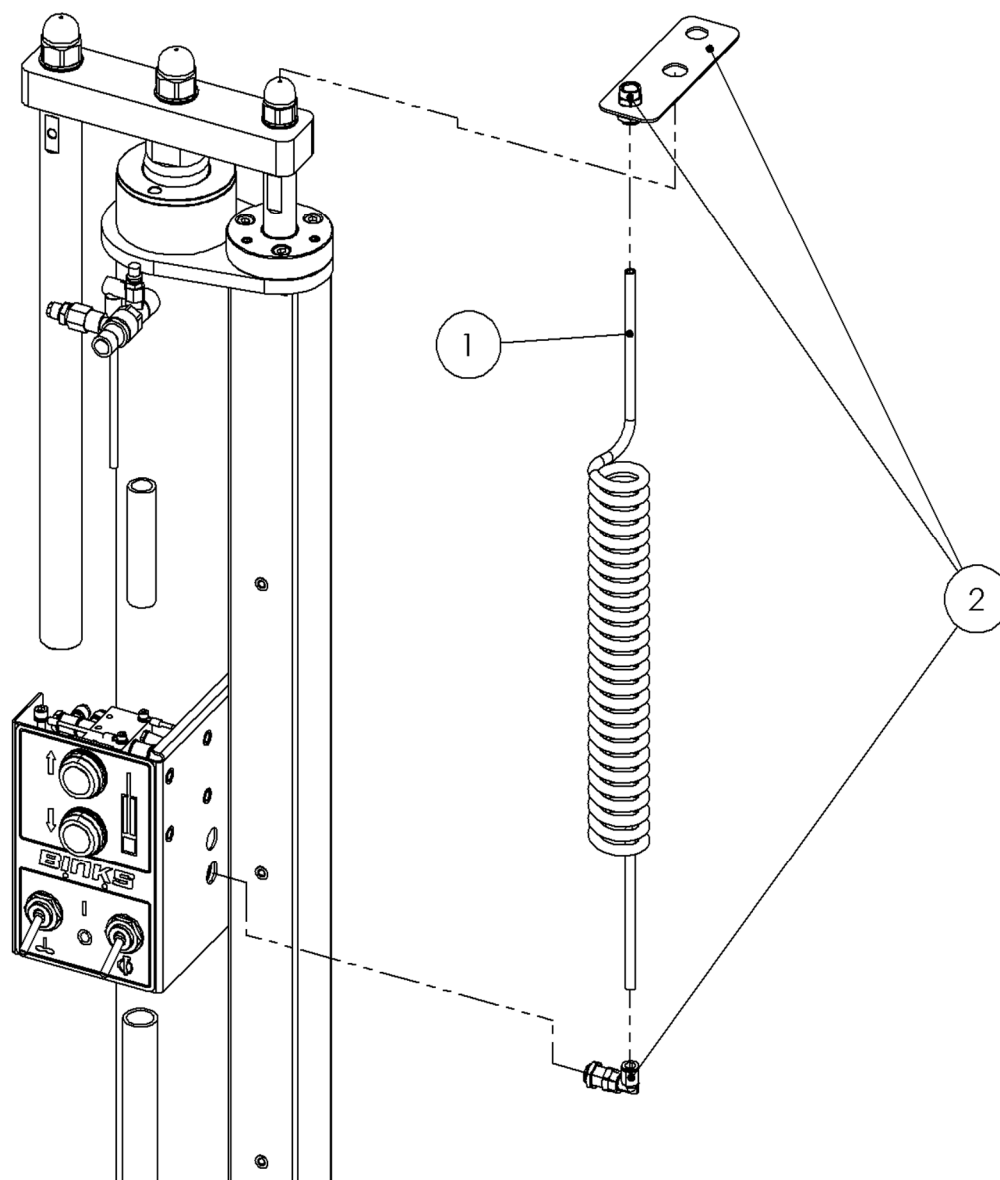
TYPICAL PERIOD	RECOMMENDED OPERATION
Monthly	<ul style="list-style-type: none"> - Check for air leaks - check all parts are fixed securely - ensure smooth operation and adjust accordingly.
6 Months	<ul style="list-style-type: none"> - Lubricate piston rod - Lubricate anti-rotation rod - Check for any excessive mechanical noise
12 Months	<ul style="list-style-type: none"> - Inspect bearings and seals, replace as required - Lubricate all bearings and seals - Check tightness of mounting bar fasteners - Check rods for scoring

FAULT FINDING

SYMPTOM	POSSIBLE CAUSE	REMEDY
Up stroke speed incorrect/erratic	<ul style="list-style-type: none"> a) Inlet manifold speed controller incorrectly set b) Cylinder top speed controller incorrectly set 	<ul style="list-style-type: none"> a) Adjust to set initial speed b) Adjust to set remaining stroke
Down stroke speed incorrect/erratic	<ul style="list-style-type: none"> a) Inlet manifold speed controller incorrectly set b) Cylinder bottom speed controller incorrectly set 	<ul style="list-style-type: none"> a) Adjust to set initial speed b) Adjust to set remaining stroke
Excessive movement of elevator/items	<ul style="list-style-type: none"> a) Loose fastenings b) Worn bearings and/or seals 	<ul style="list-style-type: none"> a) Tighten all fastenings b) Replace worn parts

ACCESSORIES

ITEM	PART NO.		DESCRIPTION
	DE-12	DE-15	
1	DEK-42	DEK-43	Coil hose
2	DEK-44		Bracket & fittings



NOTES

REV	DESCRIPTION	DATE	CHANGE NO.
R1.0	INTRODUCED	04/04/2018	M14901
R1.1	FOR SERIAL NUMBER >81286	28/05/2019	M15249
R1.2	PAGE 10 IMAGE ADDED OF ADJUSTING SCREW LOCATIONS	14/10/2020	M15659

WARRANTY POLICY

This product is covered by Carlisle Fluid Technologies' materials and workmanship limited warranty. The use of any parts or accessories, from a source other than Carlisle Fluid Technologies, will void all warranties. Failure to reasonably follow any maintenance guidance provided, may invalidate any warranty.

For specific warranty information please contact Carlisle Fluid Technologies.

Carlisle Fluid Technologies is a global leader in innovative finishing technologies. Carlisle Fluid Technologies reserves the right to modify equipment specifications without prior notice.

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Region	Industrial / Automotive	Automotive Refinishing
Americas	Tel: 1-888-992-4657 Fax: 1-888-246-5732	Tel: 1-800-445-3988 Fax: 1-800-445-6643
Europe, Africa, Middle East, India		Tel: +44 (0)1202 571 111 Fax: +44 (0)1202 573 488
China		Tel: +8621-3373 0108 Fax: +8621-3373 0308
Japan		Tel: +81 45 785 6421 Fax: +81 45 785 6517
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