



YOUNGMAN

INNOVATIVE **WORK AT HEIGHT** SOLUTIONS

Boss X3

Single person micro
powered access platform

**MAINTENANCE
MANUAL**

Edition March 2009



EN 280

IPX4



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SECTION 1 – DESCRIPTION, SPECIFICATION AND OPERATION

1.1 INTRODUCTION

This Maintenance Manual provides the necessary information to enable maintenance of the BoSS X3 single person micro powered access platform to be undertaken. Maintenance engineers should read and understand all the information contained in this manual before carrying out work on the BoSS X3.

Additional copies of this Maintenance Manual may be obtained from Youngman Group Ltd., please see contact details in section 1.3 on this page. The manual is also available to download from our website at youngmangroup.com.

1.2 INTENDED USE

The BoSS X3 has been designed to comply with the safety requirements of the European Machinery, Low Voltage and Electromagnetic Compatibility Directives and in accordance with the European Standard EN 280 Mobile Elevating Work Platforms – Design calculations – Stability criteria – Construction – Safety – Examinations and tests.

The BoSS X3 is intended to lift one person, plus essential tools and materials, to enable work to be undertaken at height. The BoSS X3 is designed for indoor use only and must be used on level ground which is able to support the weight of the machine and its maximum safe working load. Typical applications include maintenance, cleaning, painting, fit out work etc. at varying heights above ground level.

WARNING

The user must obtain the guidance and written approval of Youngman Group Ltd in the event of any special working methods or conditions which are outside those specified in this section.

1.3 MODIFICATIONS

No modifications shall be made to this machine unless Youngman Group Ltd. has given full written approval. If in doubt please contact us for advice:

Youngman Group Ltd.
The Causeway
Maldon
Essex
CM9 4LJ
United Kingdom

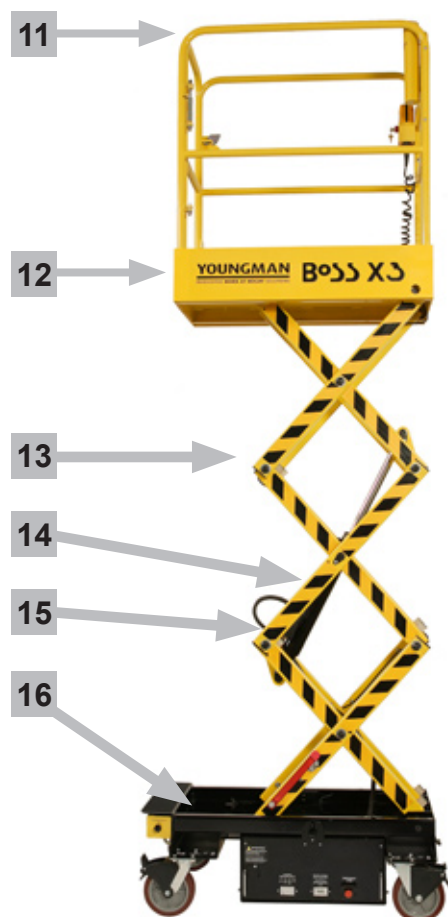
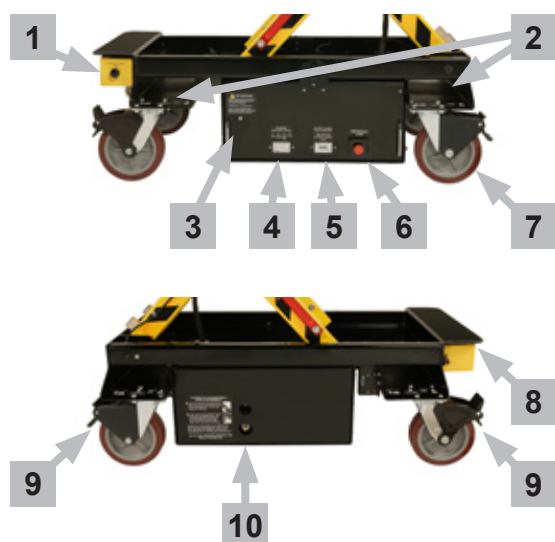
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1.4 TERMINOLOGY

- 1 Charging cables and guardrail tools tray
- 2 Forklift access and transit strap points
- 3 Battery charging connection point
- 4 Battery charging indicator
- 5 Battery charge level indicator
- 6 Base unit emergency stop
- 7 Smooth roll castors with non marking tyres
- 8 Step up to platform
- 9 Brakes
- 10 Emergency lowering release valve
- 11 Guardrails
- 12 Work Platform
- 13 Scissor assembly
- 14 Hydraulic ram
- 15 Pressure loss valve
- 16 Chassis
- 17 Handset control unit
- 18 Instructions for Use storage tube
- 19 Access gate



1.5 TECHNICAL DATA

Safe Working Load – 240 kilograms
equivalent to – 1 person plus 160 kilograms of tools
and materials

Maximum Platform Height – 2.55 metres
Maximum Safe Working Height – 4.55 metres

Platform Length – 1.05 metres
Platform Width – 0.57 metres
Platform Guardrail Height – 1.1 metres
Toeboard Height – 0.15 metres

Maximum allowable manual force – 200 Newtons
Maximum allowable wind speed – 0 metres/second
Maximum allowable chassis inclination - 1.5°

Electrical current – 12 volt DC
Motor – 1.2kW
Battery – 12v/100Ah
Battery charger – universal 110 and 240 volts AC –
automatic

Hydraulic system:
Maximum hydraulic pressure – 250 bar
Reservoir capacity – 2 litres

Function speeds:
Ascent time - 12 seconds (80kg) - 14 seconds (240kg)
Descent time - 13 seconds (80kg) - 12 seconds (240kg)

Maximum number of lifts and descents on one
charge >430 (80kg)/ >225 (240kg)

Maximum overall length (brakes not
deployed) – 1.28 metres
Overall height (stowed) – 1.8 metres

Overall mass of unit excluding rated load – 349
kilograms
Maximum wheel load – 450 kilograms
Maximum point loading per castor - 150 kilograms

Ground clearance – 0.05 metres

1.6 BATTERY ISOLATION

The BoSS X3 is provided with a key operated switch
which is used to isolate the battery and therefore the
electrical system, preventing unauthorised use.

To enable the electrical system, insert the key and
turn clockwise, as shown below making sure the red
emergency stop button is fully released.

Ensure that when the machine is not in use, the
emergency stop button is depressed and the key
removed.



1.7 BATTERY CHARGING

A battery charge level indicator is fitted to the BoSS X3 as shown in the photographs below. When the battery is fully charged the segment at the far right hand side of the display will be illuminated red, as shown in figure 1 below. When the second segment from the left is illuminated, as shown in figure 2 below, it is time to put the BoSS X3 on charge

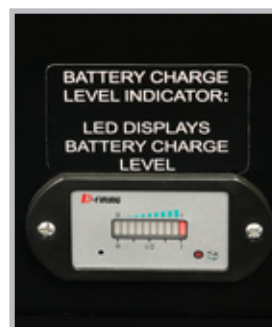


Figure 1



Figure 2

The BoSS X3 is fitted with an integral battery
charger.

1.7 BATTERY CHARGING - CONTINUED

To charge the battery, follow the steps below:

- a. Depress the emergency stop button on the handset control unit and remove the key.
- b. Remove the cover from the charging connection point, as shown in figure 2 below.



Figure 1



Figure 2

- c. Connect either the 240 volt or 110 volt lead (dependent on the mains supply) to the BoSS X3 charging connection point. These cables are to be found in the charging cable and guardrail tools tray under the step up to the platform.
- d. Connect the mains lead to a suitable power supply (either 110 volt or 240 volt)
- e. Whilst the battery is charging to 80% of capacity the second light will be flashing as shown in figure 1 below and when the charging of the remaining 20% is underway the third light will begin flashing as indicated in figure 2 below.



Figure 1

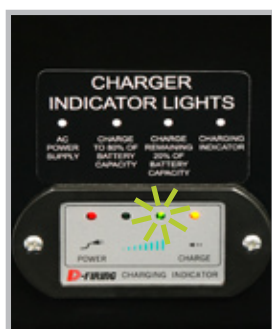


Figure 2

- f. When the battery is fully charged all four lights will illuminate after approximately 10 hours.

1.8 EMERGENCY LOWERING

In the unlikely event of a power failure of the BoSS X3 the platform can be lowered manually by use of the following procedure.

1. Turn the finger screw on the pressure loss valve anticlockwise until it will not turn any further as shown in figure 1.
2. Then, turn the emergency valve on the base unit anticlockwise until the platform begins to descend, as shown in figure 2. If you need to stop the descent simply turn this valve clockwise again.

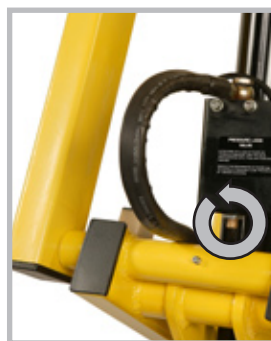


Figure 1



Figure 2

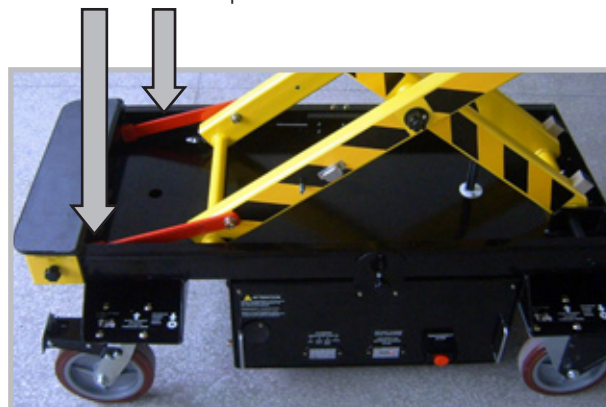
WARNING

Always ensure someone other than the operator is trained to perform this rescue.

SECTION 2 – SAFETY DURING MAINTENANCE

When carrying out maintenance on the BoSS X3 with the platform elevated, always ensure that the maintenance props are deployed as shown in the picture below.

Maintenance Props



SECTION 3 SERVICE ENGINEER ATTRIBUTES

The BoSS X3 service engineer should:

- a.** be physically fit;
- b.** appear to be comfortable working at height when taken up in the work platform of a MEWP;
- c.** have a responsible attitude;
- d.** demonstrate an ability to learn;
- e.** be able to communicate clearly with other personnel on site;
- f.** be able to identify equipment;
- g.** be able to demonstrate an understanding of and apply the information contained in this Maintenance Manual;
- h.** be able to demonstrate that they can diagnose, rectify and record faults;
- i.** be able to demonstrate an understanding and knowledge of how to carry out inspections (other than thorough examinations) and can make recommendations for the continued use of the equipment;
- j.** be able to demonstrate an understanding of and apply company procedures;
- k.** be able to demonstrate that they can operate the equipment safely;
- l.** be able to demonstrate that they can carry out functional checks and setting procedures;
- m.** be able to demonstrate knowledge of how to record all maintenance work carried out;
- n.** be able to demonstrate the required knowledge and expertise of the BoSS X3 for service and maintenance purposes;
- o.** be undergoing a form of Continuous Professional Development.

SECTION 4 COMPETENT PERSON FOR THOROUGH EXAMINATION ATTRIBUTES

The competent person carrying out a thorough inspection of the BoSS X3 should:

- a.** be physically fit;
- b.** appear to be comfortable working at height when taken up in the work platform of a MEWP
- c.** have a responsible attitude;
- d.** demonstrate an ability to learn;
- e.** be able to communicate clearly with other personnel on site;
- f.** comply with EN 45004;
- g.** be capable of detecting defects or weaknesses in the BoSS X3 for the purpose of the thorough examination;
- h.** have sufficient knowledge and experience to assess the importance of defects or weaknesses in the BoSS X3 and identifying what actions need to be taken in order to rectify them. In particular they should be able to:
 - i.** verify that the BoSS X3 is operating as it is intended to in accordance with the Instructions for Use;
 - ii.** identify defects or weaknesses which could compromise the use of the BoSS X3;
 - iii.** specify the appropriate timescales within which identified defects or weaknesses need to be rectified;
 - iv.** establish that defects identified in the previous report of thorough examination have received attention;
 - v.** assess the correct function of all safety devices;
 - vi.** check that warning notices are correctly fixed and legible; and where necessary specify any limitations to the use of the BoSS X3;
 - vii.** carry out any testing required as part of the thorough examination;
 - viii.** report on the findings of the thorough examination.

SECTION 5 PERIODICAL MAINTENANCE AND CHECKS

The following checks should be undertaken at the intervals shown:

	Daily/pre-use	Monthly	6 monthly	Annually
Inspect structure	●	●	●	●
Check condition of castellated scissor nuts and split pins retainers	●	●	●	●
Inspect platform	●	●	●	●
Check condition of castors including tyres	●	●	●	●
Check castor brake function	●	●	●	●
Inspect hydraulic circuit for oil leaks	●	●	●	●
Check condition of hydraulic hose	●	●	●	●
Check condition of electrical cables	●	●	●	●
Check platform raise & lower functions including descent delay	●	●	●	●
Inspect 2.55m and 1.85m limit switches	●	●	●	●
Inspect all safety labelling and plates	●	●	●	●
Check handset emergency stop	●	●	●	●
Check base unit emergency stop	●	●	●	●
Check emergency lowering function	●	●	●	●
Check electrical connectors		●	●	●
Check hydraulic oil level		●	●	●
Grease scissor nipples		●	●	●
Grease castor nipples		●	●	●
Check all castor nuts are fully tightened		●	●	●
Check operation of descent alarm		●	●	●
Check operation of tilt sensor and alarm		●	●	●
Check integrity and tightness of all visible fixings eg screws, nuts and bolts			●	●
Replace hydraulic oil				●

Prior to the first use of the BoSS X3 all daily/pre-use checks should be undertaken.

If the BoSS X3 has been out of service for any length of time the six monthly checks referred to in the table above should be undertaken by an authorised and suitably trained person.

The Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) require that lifting equipment for lifting persons must be THOROUGHLY EXAMINED every six months.

Following any maintenance on the BoSS X3, a full test of the functionality should be undertaken to ensure the correct operation of the machine.

It is essential that only Youngman approved replacement parts are used when maintaining and servicing the BoSS X3. Failure to do so may

result in an unsafe machine. Details on how to order replacement parts can be found by visiting youngmangroup.com or by calling +44 (0) 1621 745900.

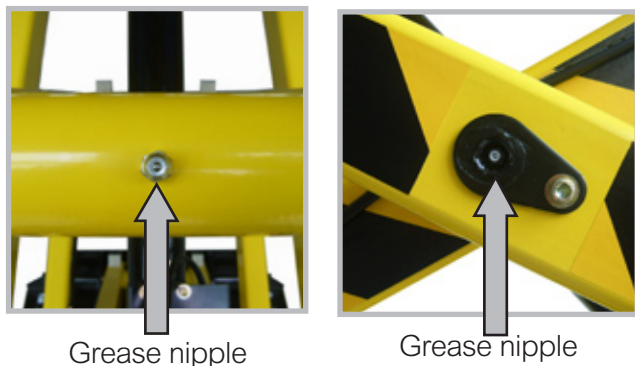
You will need to provide our parts distributor with:

- Name of model ie BoSS X3
- Serial number to be found on the machine plate attached to the chassis of the machine
- Year of construction
- Date of purchase of machine
- Part number from this Maintenance Manual
- Description from this Maintenance Manual
- Quantity required
- Company invoice address
- Delivery address and contact number at this address
- Desired method of shipment

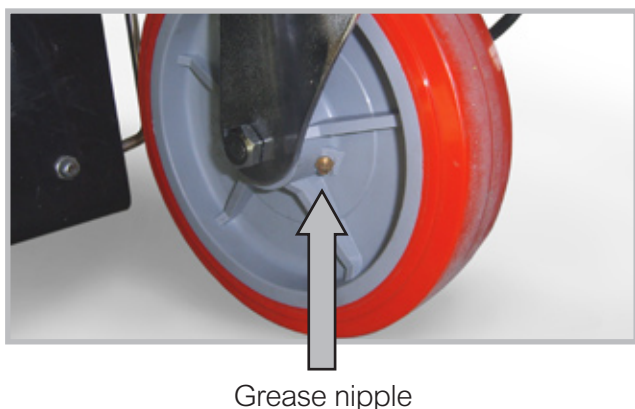
Lubrication

The recommended lubricant for use with the BoSS X3 is standard machine grease and the lubrication points are shown in the pictures below.

Scissors



Castors



Hydraulic oil

The hydraulic oil used to top up the reservoir of the BoSS X3 or when a complete oil change is required should be a VG 46 fully inhibited hydraulic oil manufactured in accordance with DIN 51524 Part 2.

VG 46 Hydraulic Oil

Appearance	Amber coloured oil
Relative density at 15 °C	0.87-0.89
Kinematic viscosity at 40 °C	41.4-50.6 cSt
Flash point (open cup) (°C)	>180
Pour point (°C)	-12

The hydraulic oil level should be topped up monthly. Following removal of the cap to the hydraulic reservoir, the oil as specified above should be poured from a small jug into the reservoir until the oil covers the aluminium plate just inside the reservoir, see figure 1 below, and the cap replaced.

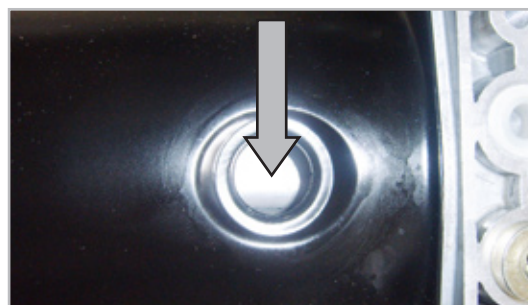


Figure 1

WARNING

Do not overfill the hydraulic oil reservoir and take care not to spill the oil on any of the surrounding machine components.

The hydraulic oil is changed as follows:

- 1 Remove the tank by unbolting the bolts shown in figure 2 below and separating the tank from the pump body

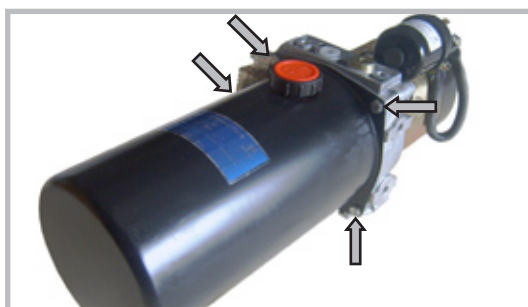
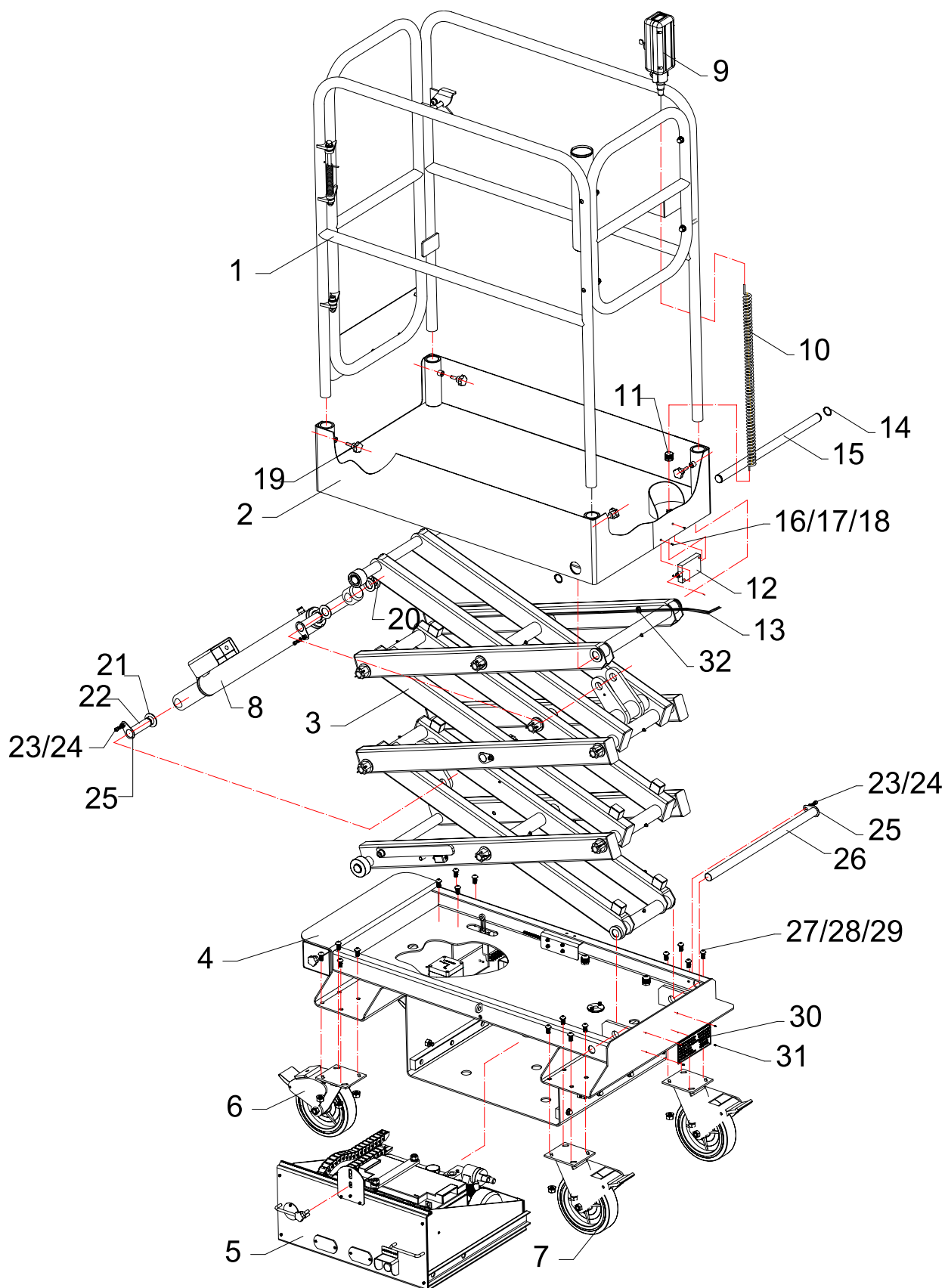


Figure 2

- 2 Remove the cap from the tank
- 3 The hydraulic fluid should then be drained from the tank and disposed of at an approved centre
- 4 Re attach the tank to the pump body
- 5 Refill with oil as specified above taking care not to overfill
- 6 Replace the cap

SECTION 6 – EXPLODED DRAWINGS AND PARTS LIST

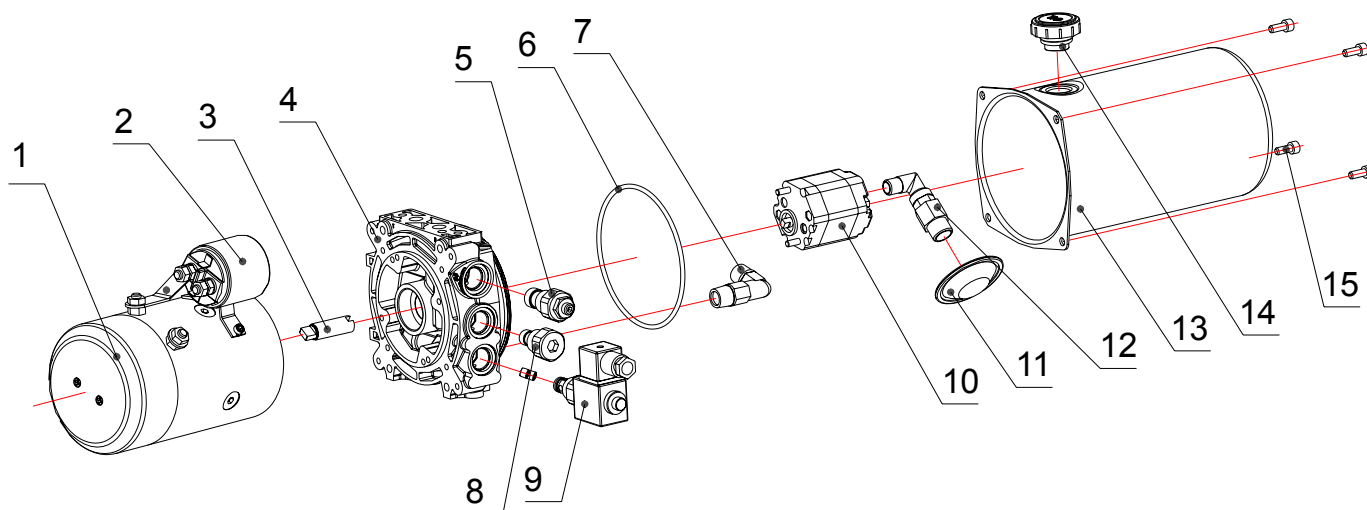
BoSS X3 Assembly



BoSS X3 Assembly

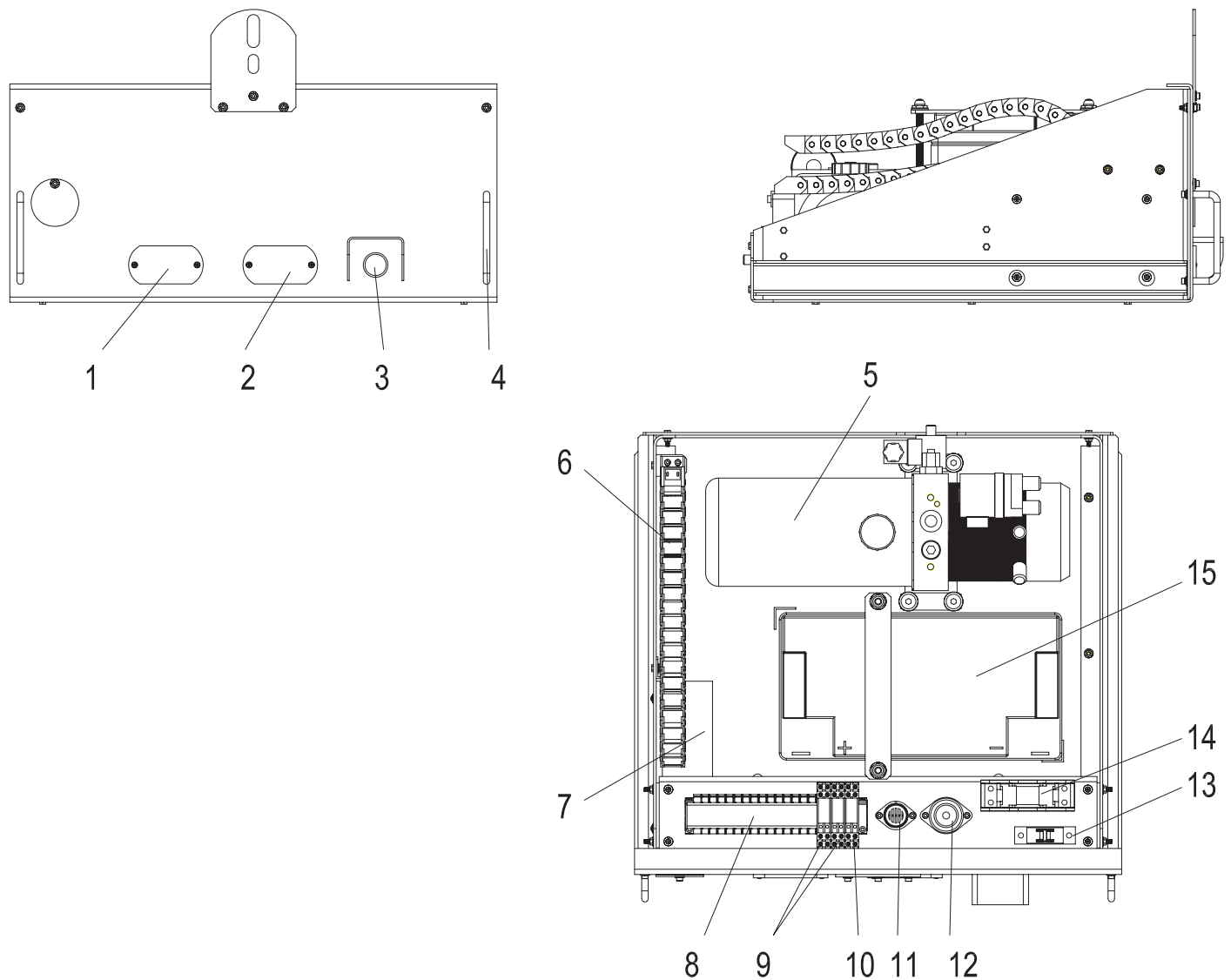
Item Ref	BoSS X3 Part No.	Description	Qty.
1	300-160101001-1	Guardrail assembly	1
2	300-160103001-1	Platform assembly	1
3	300-160105001-1	Scissor assembly	1
4	300-160111001-1	Chassis assembly	1
5	300-160103005-1	Drawer assembly	1
6	300-160112056-1	Braked fixed castor	2
7	300-160112055-1	Braked Swivel castor	2
8	300-160108001-1	Cylinder assembly	1
9	300-160102013-1	Handset controller	1
10	300-160102012-1	Curly cable	1
11	300-160112037-1	Cable gland	1
12	300-160104010-1	Waterproof cable connector box	1
13	300-160112094-1	Main cable loom	1
14	300-160107031-1	Φ25 snap ring	2
15	300-160104007-1	Platform fixed axis pin	1
16	300-160104011-1	M3x25mm screw	2
17	300-160104012-1	M3 washer	2
18	300-160104014-1	M3 nylon nut	2
19	300-160104001-1	M8 screw	5
20	300-160107031-1	Φ25 snap ring	2
21	300-160107025-1	Φ25.5*Φ43*2.5 spacer	4
22	300-160107015-1	Ram assembly pin	2
23	300-160112070-1	M6x16mm socket head screw	2
24	300-160112076-1	M6 washer	2
25	300-160107032-1	Scissor fixed head pin	11
26	300-160112015-1	Base fixed axis pin	1
27	300-160112061-1	Pan Head screw M10x20mm	16
28	300-160112062-1	Washer M10	16
29	300-160112064-1	Nut M10	16
30	300-160115001-1	Serial plate	1
31	300-160112095-1	Φ3 rivet	4
32	300-160107027-1	Cable clip	8

Power Pack Assembly



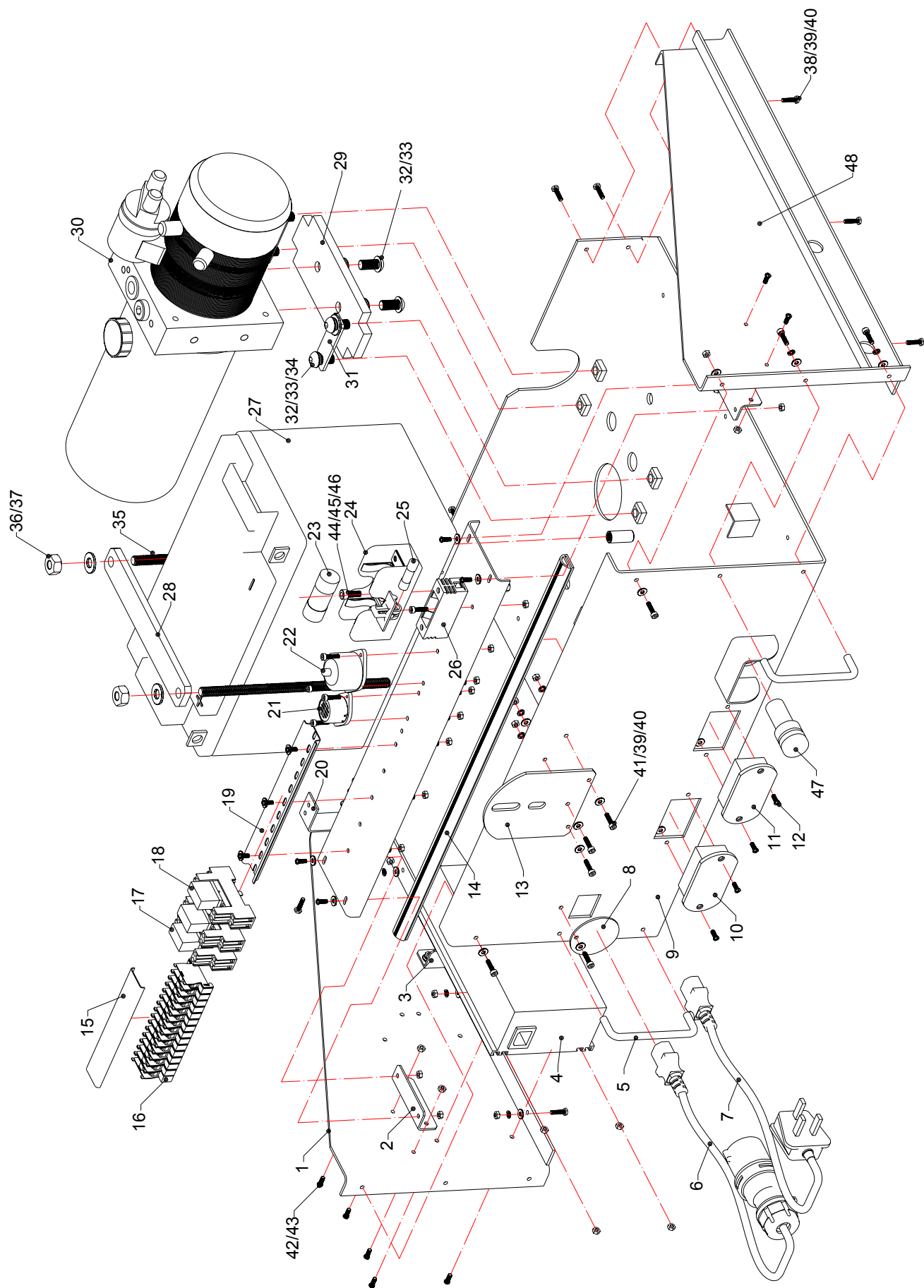
Item Ref	BoSS X3 Part No.	Description	Qty.
1	300-160110001-1	Motor	1
2	300-160110002-1	Motor contactor	1
3	300-160110003-1	Coupling	1
4	300-160110004-1	Centre block	1
5	300-160110005-1	Relief valve	1
6	300-160110006-1	O-ring	1
7	300-160110007-1	Return pipe	1
8	300-160110008-1	Check valve	1
9	300-160110009-1	Solenoid & emergency release valve	1
10	300-160110010-1	Pump	1
11	300-160110011-1	Suction filter	1
12	300-160110012-1	Suction pipe	1
13	300-160110013-1	Tank	1
14	300-160110014-1	Filler Cap	1
15	300-160110015-1	Screw	4

Base Unit Drawer Schematic



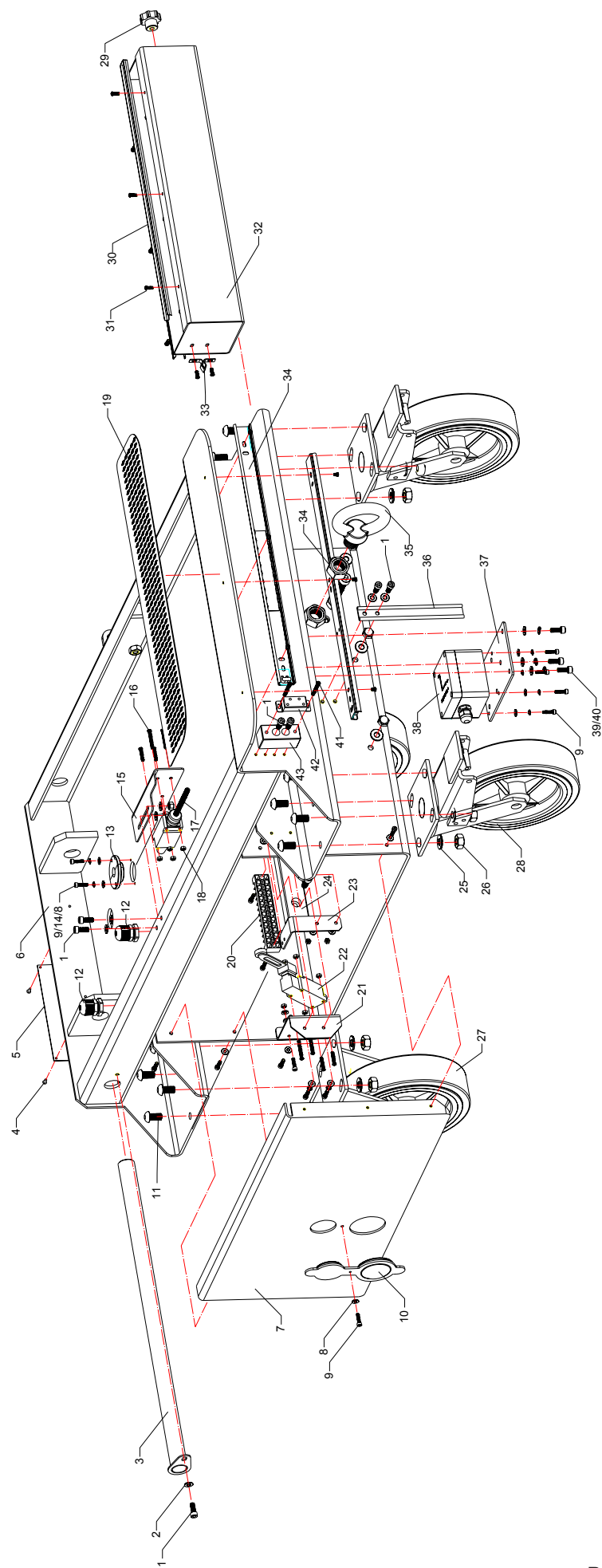
Item Ref	BoSS X3 Prt No.	Description	Qty.
1	300-160112060-1	Battery charger indicator	1
2	300-160112048-1	Battery level indicator	1
3	300-160112049-1	Emergency stop	1
4	300-160112008-1	Handle	2
5	300-160112057-1	Power pack	1
6	300-160112050-1	Cable track	1
7	300-160112059-1	Battery charger	1
8	300-160112042-1	Electric terminal strip	1
9	300-160112044-1	Relay 5A	2
10	300-160112044-1	Relay 16A	1
11	300-160112047-1	Descent alarm	1
12	300-160112046-1	Tilt alarm	1
13	300-160112089-1	5A Fuse	1
14	300-160112088-1	100A Fuse	1
15	300-160112058-1	Battery	1

Base Unit Drawer Assembly



Base Unit Drawer Assembly

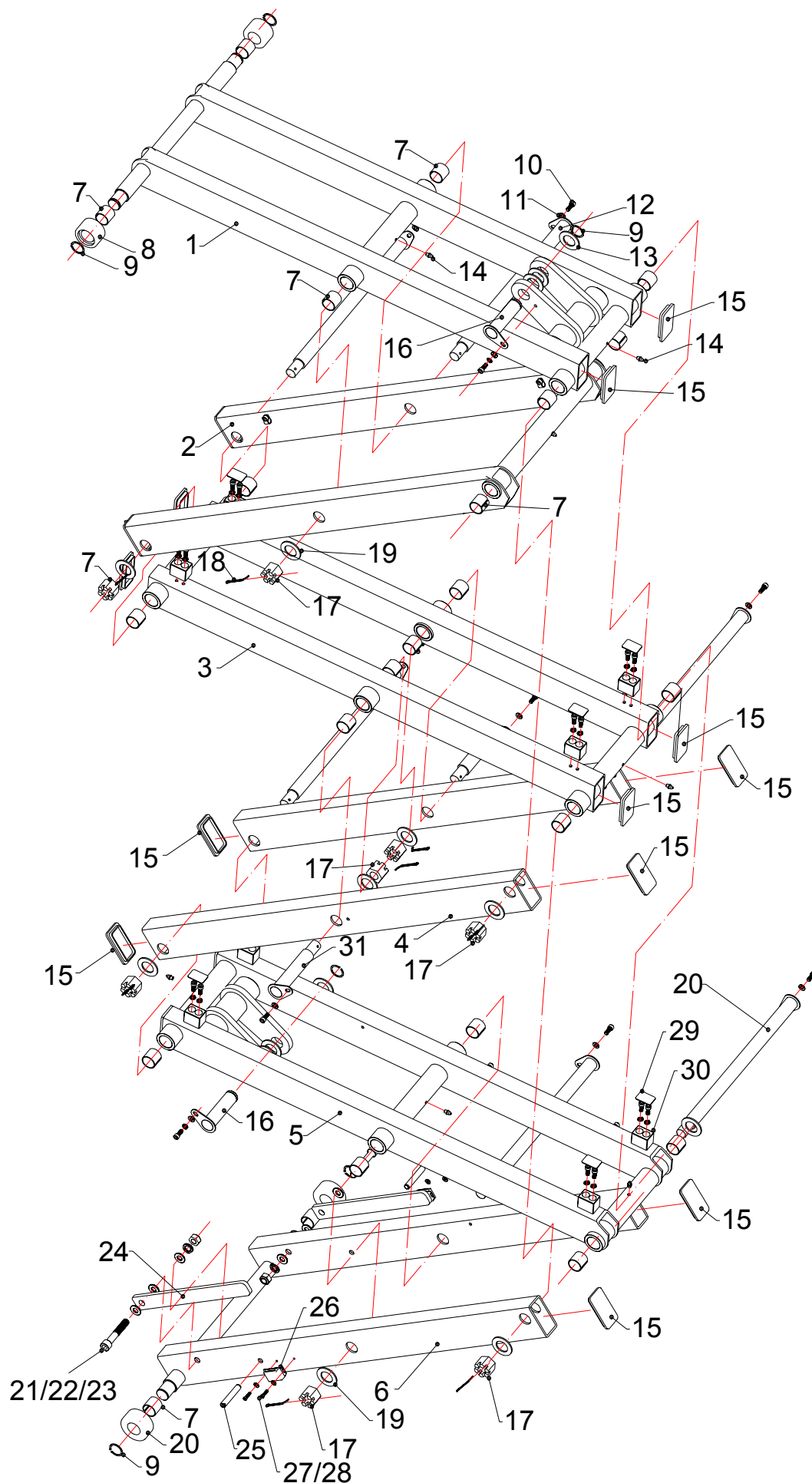
Item Ref	BoSS X3 Part No.	Description	Qty.
1	300-160112009-1	Left side drawer plate	1
2	300-160112028-1	Electrical parts fixed plate	2
3	300-160112032-1	Charger fixed plate	1
4	300-160112059-1	Battery charger	1
5	300-160112008-1	Drawer handle	2
6	300-160112082-1	110v charging cable	1
7	300-160112081-1	240v charging cable (UK type shown in diagram)	1
8	300-160112031-1	Charging point access protector	1
9	300-160112006-1	Drawer base and front plate	1
10	300-160112060-1	Battery charger indicator	1
11	300-160112048-1	Battery charge level indicator	1
12	300-160102021-1	Cross pan head screw M4 x 10mm	4
13	300-160112029-1	Padlock upright plate	1
14	300-160112007-1	Rubber seal on top of drawer	1
15	300-160112043-1	Transparent connector strip cover	1
16	300-160112042-1	Electronic connector strip	1
17	300-160112044-1	Relay 5A	2
18	300-160112044-1	Relay 16A	1
19	300-160112045-1	Clip rail	1
20	300-160112034-1	Cable track plate	1
21	300-160112047-1	Descent alarm	1
22	300-160112046-1	Tilt sensor alarm	1
23	300-160112088-1	Fuse 100A	1
24	300-160112038-1	100A fuse holder	1
25	300-160112089-1	Fuse 5A	1
26	300-160112039-1	5A fuse holder	1
27	300-160112058-1	Battery	1
28	300-160112026-1	Battery retainer bar	1
29	300-160112024-1	Mounting plate for power pack	1
30	300-160112057-1	Power pack	1
31	300-160112025-1	Anchors for power pack mounting plate	2
32	300-160112061-1	Pan head screw M10 x 20mm	4
33	300-160112063-1	Spring washer M10	4
34	300-160112062-1	Washer M10	4
35	300-160112079-1	Battery retainer rod	2
36	300-160112067-1	Washer M8	2
37	300-160102031-1	Nut M8	2
38	300-160112092-1	Cross pan head screw M4 x 16mm	10
39	300-160112076-1	Washer M4	10
40	300-160112078-1	Nut M4	10
41	300-160112073-1	Hexagon screw M4 x 16mm	16
42	300-160102021-1	Cross pan head screw M4 x 10mm	4
43	300-160112078-1	Nut M4	22
44	300-160112070-1	Hexagon screw M6 x 16mm	6
45	300-160112071-1	Washer M6	6
46	300-160112093-1	Nut M6	1
47	300-160112049-1	Emergency stop button	1
48	300-160112054-1	Right side drawer plate	1



Base Unit Assembly

Item Ref	BoSS X3 Part No.	Description	Qty.
1	300-160112070-1	Hexagon screw M6 x 16mm	6
2	300-160112072-1	Spring washer M6	6
3	300-160112015-1	Base fixed axis pin	1
4	300-160112095-1	Φ3 rivet	4
5	300-160115001-1	Serial plate	1
6	300-160111001-1	Base assembly	1
7	300-160112012-1	Base back plate	1
8	300-160112076-1	Washer M4	12
9	300-160112073-1	Hexagon screw M4x16mm	8
10	300-160112007-1	Waterproof cover	1
11	300-160112061-1	Pan head screw M10 x 20mm	16
12	300-160112037-1	Cable gland	2
13	300-160109014-1	Fixed clip for oil pipe	1
14	300-160112077-1	Spring washer M4	8
15	300-160112010-1	2.55m limit switch mounting plate	1
16	300-160112091-1	Cross pan head screw M4 x 30mm	4
17	300-160112036-1	2.55m limit switch	1
18	300-160112078-1	Nut M4	4
19	300-160112004-1	Slip resistant plate	1
20	300-160112090-1	Cable track	1
21	300-160112075-1	1.85m limit switch mounting plate	1
22	300-160112085-1	1.85 limit switch	1
23	300-160112084-1	Cable track assembly plate	1
24	300-160112013-1	Drawer nylon rail	2
25	300-160112062-1	Washer M10	16
26	300-160112064-1	Nut M10	16
27	300-160112056-1	Braked fixed castor	2
28	300-160112055-1	Braked swivel castor	2
29	300-160112023-1	Knob	1
30	300-160112022-1	Charging cables drawer runner-1	2
31	300-160102021-1	Cross pan head screw M4 x 10mm	6
32	300-160112020-1	Charging cables drawer	1
33	300-160112021-1	Charging cables drawer clip -1	1
34	300-160112022-1	Charging cables drawer runner-2	2
35	300-160112019-1	Winch eye	1
36	300-160112051-1	Anti static strip	1
37	300-160112017-1	Assembly plate for tilt sensor	1
38	300-160112040-1	Tilt sensor	1
39	300-160112096-1	Screw M6 x 10mm	3
40	300-160112071-1	Washer M6	3
41	300-160112097-1	Cross pan head screw M4 x 35mm	2
42	300-160112021-1	Charging cables drawer clip-2	1
43	300-160112067-1	Charging cable clip-2 block	1

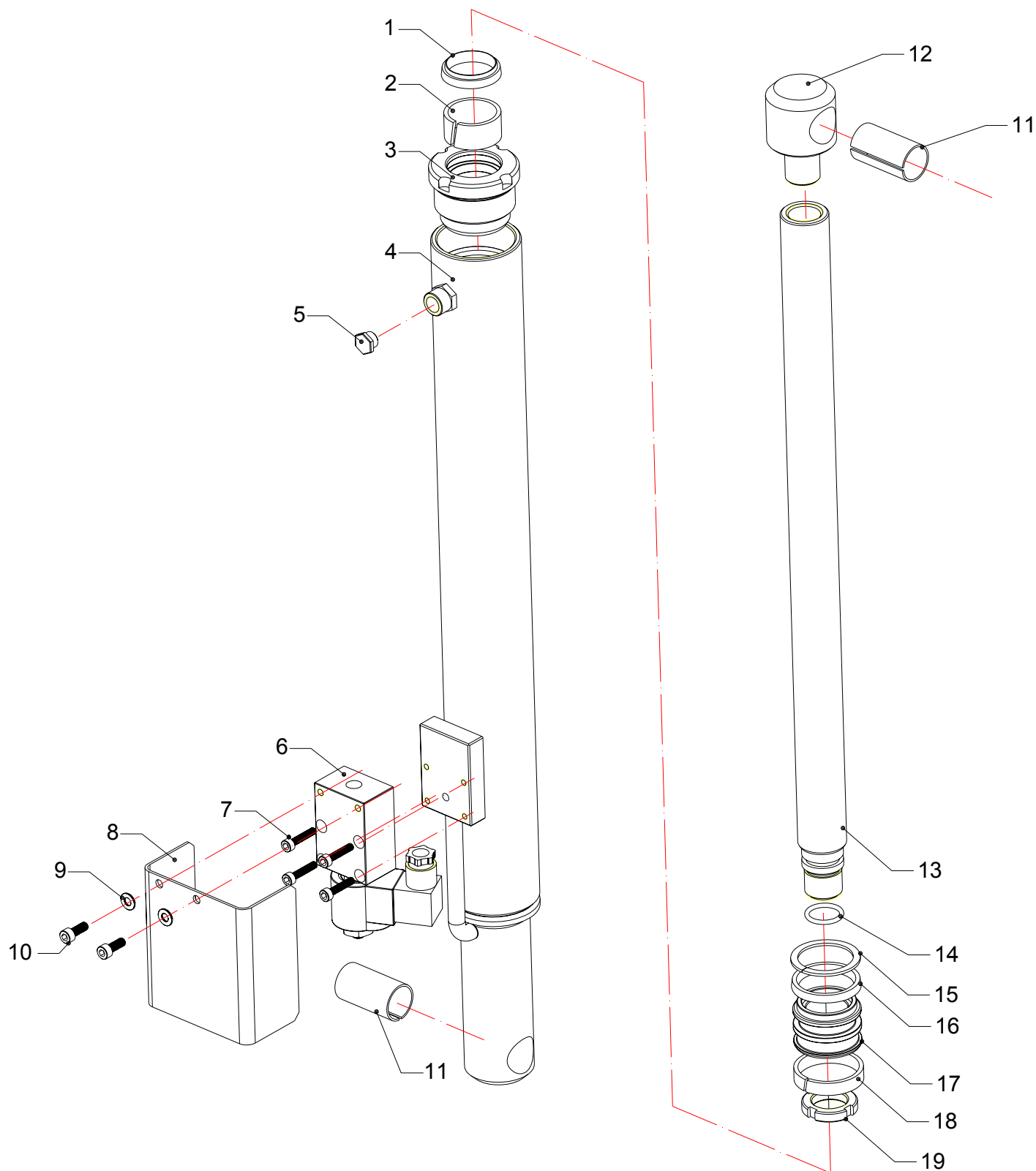
Scissors Assembly



Scissors Assembly

Item Ref	BoSS X3 Part No.	Description	Qty.
1	300-160106005-1	Third inside scissor sub-assembly	1
2	300-160106006-1	Third outside scissor sub-assembly	1
3	300-160106003-1	Second inside scissor sub-assembly	1
4	300-160106004-1	Second outside scissor sub-assembly	1
5	300-160106001-1	First inside scissor sub-assembly	1
6	300-160106002-1	First outside scissor sub-assembly	1
7	300-160107009-1	Scissor bush	24
8	300-160107011-1	Platform roller	2
9	300-160107031-1	Snap ring	4
10	300-160112070-1	Screw M6 x 16mm	10
11	300-160112071-1	Washer M6	10
12	300-160107017-1	Scissor long axis pin	6
13	300-160107025-1	Washer $\Phi 25.5 \times \Phi 43$	16
14	300-160107019-1	Scissor grease nipples	8
15	300-160107016-1	Scissor black end caps	16
16	300-160107015-1	Cylinder mounting pin	2
17	300-160107024-1	Castellated scissor nuts	8
18	300-160107026-1	Spilt pin	8
19	300-160107025-1	Washer $\Phi 25.5 \times \Phi 43$	10
20	300-160107010-1	Base roller	2
21	300-160107020-1	Screw M12 x 70mm	2
22	300-160107021-1	Washer M12	6
23	300-160107023-1	Nyloc nut M12	2
24	300-160107012-1	Maintenance prop	2
25	300-160107030-1	Maintenance prop pivot pin	2
26	300-160107014-1	Magnet	2
27	300-160112073-1	Screw M4 x 16mm	4
28	300-160112076-1	Washer M4	4
29	300-160107028-1	Scissor pad cover	8
30	300-160107008-1	Scissor pads	8
31	300-160107018-1	Scissor short axis pin	2

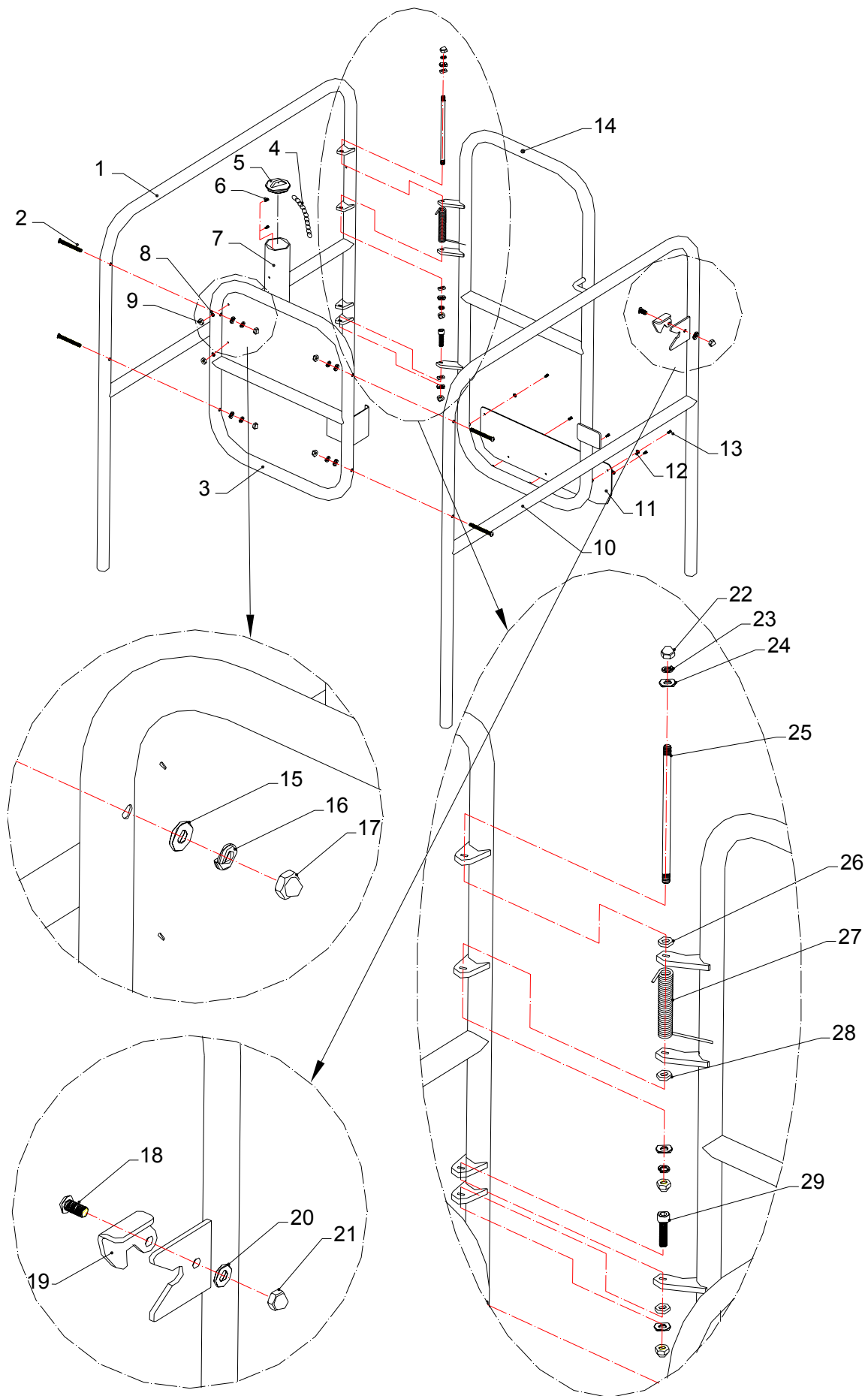
Hydraulic Cylinder Assembly



Hydraulic Cylinder Assembly

Item Ref	BoSS X3 Part No.	Description	Qty.
1	300-160109019-1	Wiper seal	1
2	300-160109018-1	Wearing ring	1
3	300-160109006-1	Tube cap	1
4	300-160109009-1	Cylinder tube	1
5	300-160109008-1	Breather	1
6	300-160109021-1	Pressure loss valve	1
7	300-160101027-1	Screw M5 x 25mm	4
8	300-160101024-1	Pressure loss valve protection plate	1
9	300-160112071-1	Washer M6	2
10	300-160112070-1	Screw M6 x 16mm	2
11	300-160109002-1	Bush	2
12	300-160109001-1	Cylinder head	1
13	300160109003-1	Seal rod	1
14	300-160109015-1	O-ring	1
15	300-160109020-1	Seal washer	1
16	300-160109016-1	U type oil seal	1
17	300-160109004-1	Seal	1
18	300-160109017-1	Wearing ring	1
19	300-160109005-1	Circle nut	1

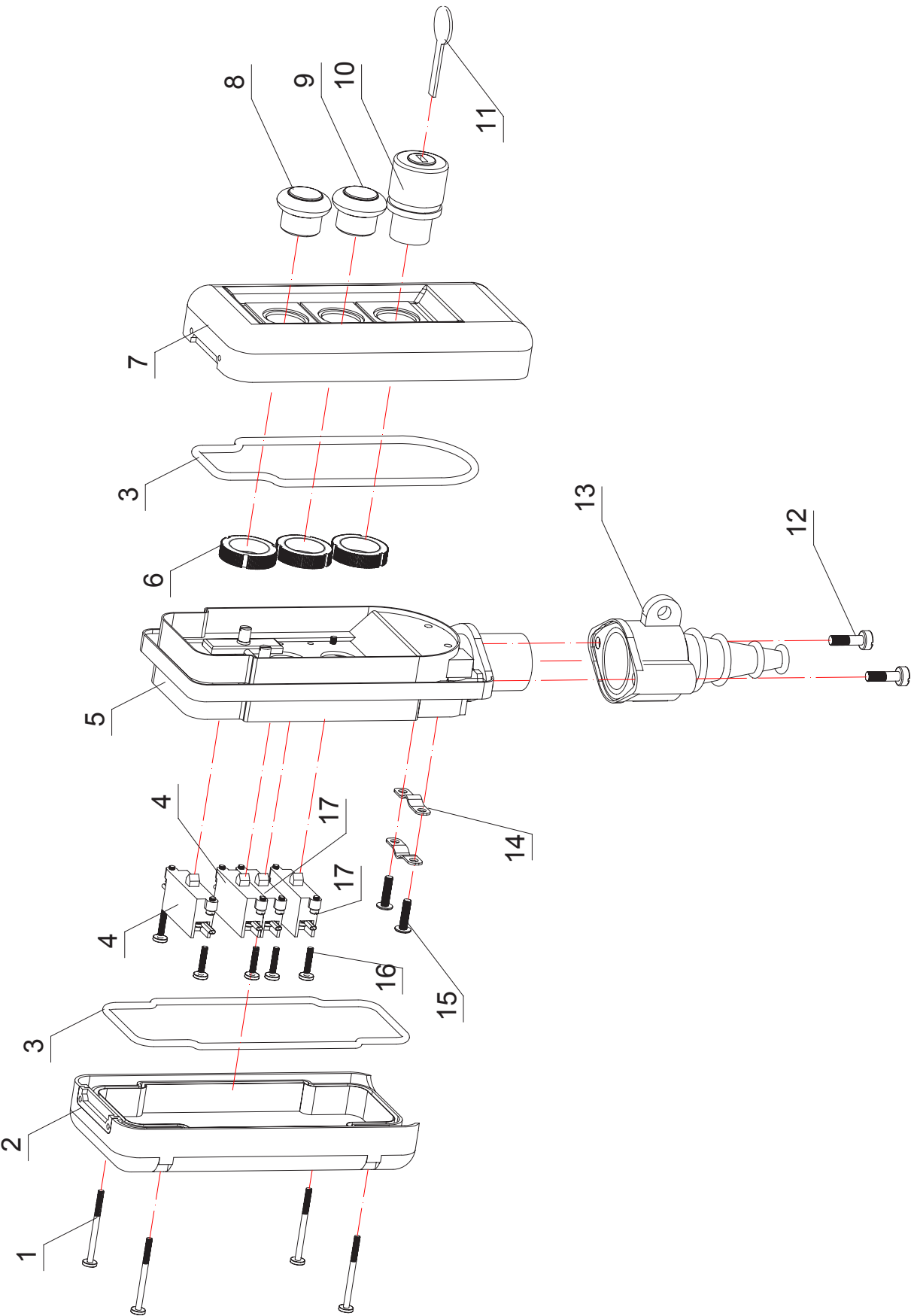
Guardrail Assembly



Guardrail Assembly

Item Ref	BoSS X3 Part No.	Description	Qty.
1	300-160102001-1	Left guardrail	1
2	300-160102018-1	Pan head screw M8 x 75mm	4
3	300-160102002-1	Back guardrail	1
4	300-160102019-1	Instruction tube cap chain	1
5	300-160102007-1	Instruction tube cap	1
6	300-160102021-1	Cross pan head screw M4 x 10mm	2
7	300-160102006-1	Instruction Tube	1
8	300-160112076-1	Washer M4	2
9	300-160112078-1	Nut M4	2
10	300-160102035-1	Right guardrail	1
11	300-160102005-1	Gate toeboard	1
12	300-160112076-1	Washer M4	5
13	300-160102021-1	Screw M4 x 10mm	5
14	300-160102004-1	Gate	1
15	300-160112067-1	Washer M8	4
16	300-160112068-1	Spring washer M8	4
17	300-160102031-1	Nut M8	4
18	300-160112061-1	Pan head screw M10 x 20mm	1
19	300-160102010-1	Gate latch	1
20	300-160112062-1	Washer M10	1
21	300-160112064-1	Nut M10	1
22	300-160112064-1	Nut M10	2
23	300-160112063-1	Spring washer M10	2
24	300-160112062-1	Washer M10	3
25	300-160102022-1	Gate hinge pin	1
26	300-160102024-1	Gate nylon washer	2
27	300-160102011-1	Torsion spring	1
28	300-160102024-1	Gate nylon washer	1
29	300-160102020-1	Screw M10 x 40mm	1

Handset Controller Assembly



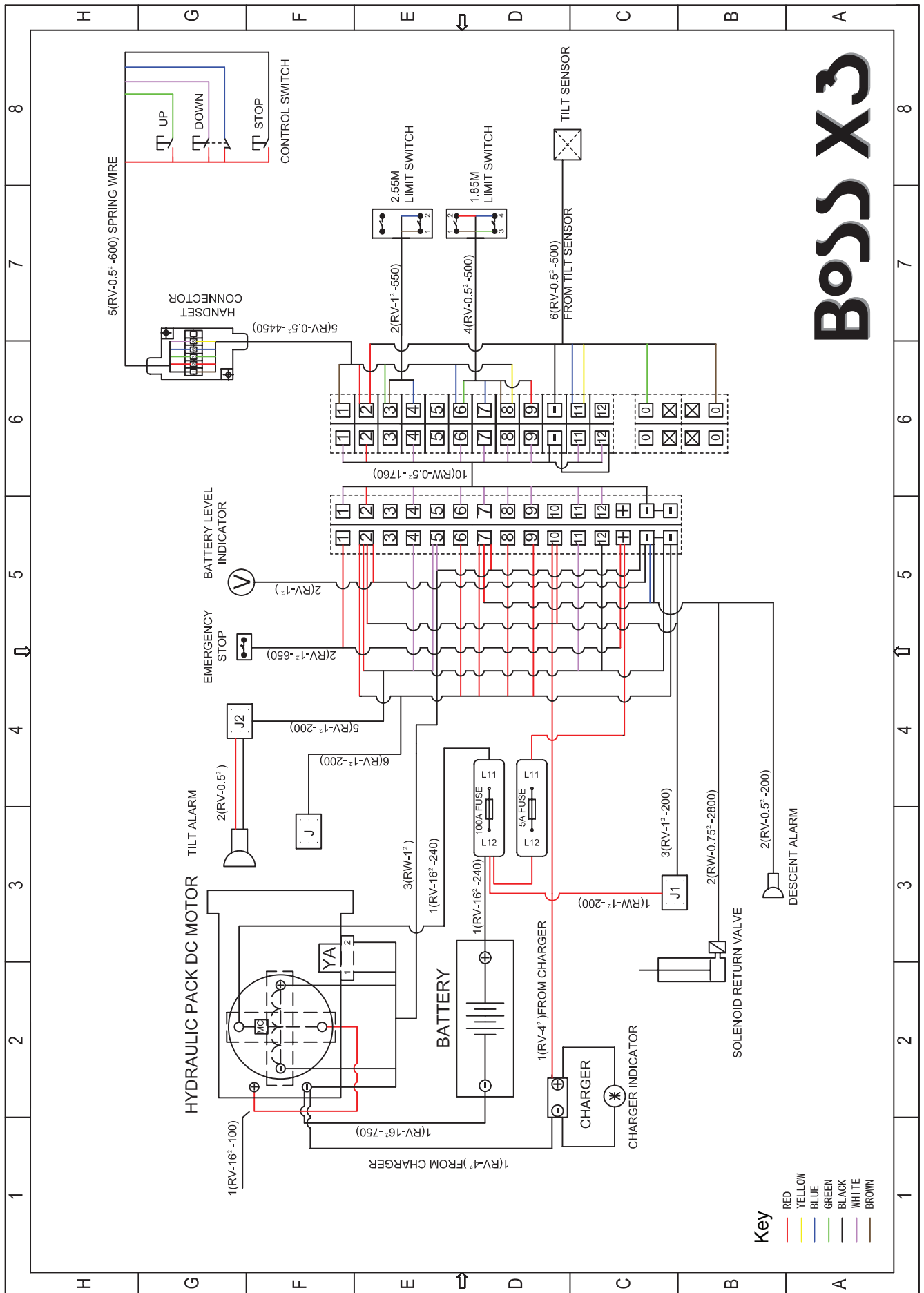
Handset Controller Assembly

Item Ref	BoSS X3 Prt No.	Description	Qty.
1	300-160113001-1	M3.5*40mm Screw	4
2	300-160113002-1	Back plate	1
3	300-160113003-1	Waterproof rubber seal	2
4	300-160113004-1	Normally open switch	2
5	300-160113005-1	Main body	1
6	300-160113006-1	Button nuts	3
7	300-160113007-1	Front plate	1
8	300-160113008-1	Ascent button	1
9	300-160113009-1	Descent button	1
10	300-160113010-1	Emergency stop button	1
11	300-160113011-1	Key	2
12	300-160113012-1	M4 screw	1
13	300-160113013-1	Waterproof cover	2
14	300-160113014-1	Cable clip	2
15	300-160113015-1	M3 screw	8
16	300-160113016-1	M3.5 screw	8
17	300-160113017-1	Normally closed switch	2

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SECTION 9 TILT SENSOR

The tilt sensor is programmed to trigger if the lateral or longitudinal angle of the chassis of the BoSS X3 exceeds 1.5° . This applies to the tilt sensor built into the machine and any replacement tilt sensor supplied by Youngman or our approved parts distributor.

Should a replacement tilt sensor be fitted to the BoSS X3 it must be calibrated to $0 - 0.02^{\circ}$ once fitted to the chassis and with the chassis level on both the lateral and longitudinal axis as determined by the use of a suitable inclinometer. Once the level is achieved the two points on the zero connector block (see figures 1 and 2 below) should be bridged with a piece of wire for three seconds (see figure 3) and the sensor will then be calibrated to $0 - 0.02^{\circ}$. The machine must be switched on during this calibration but the platform must not be raised.



Figure 1

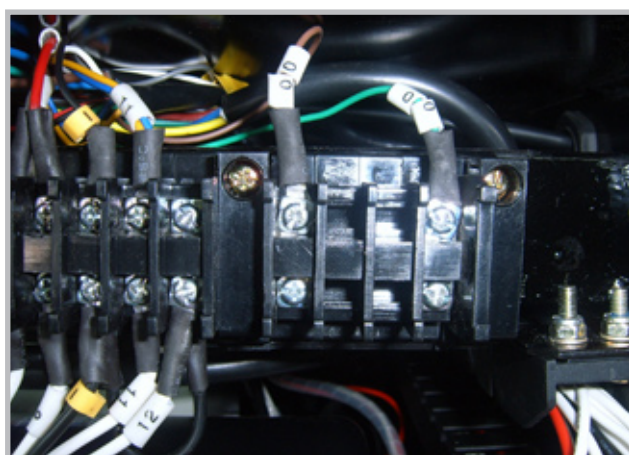


Figure 2

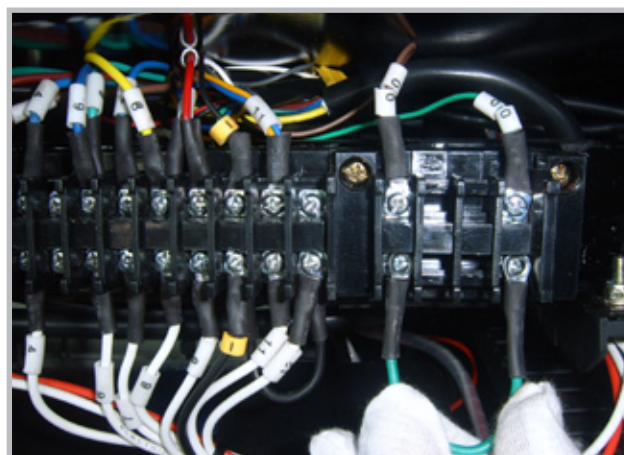
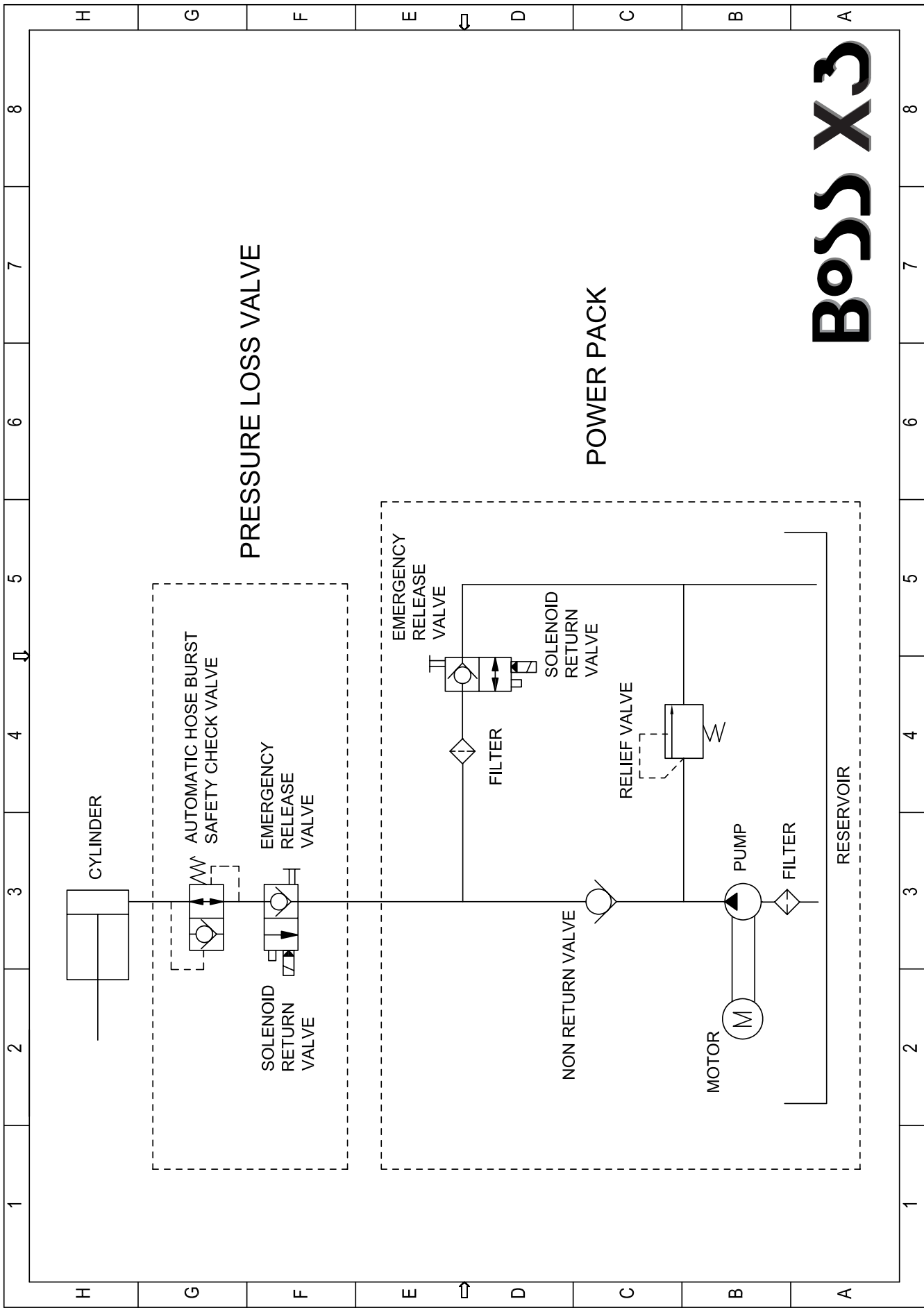


Figure 3

WARNING

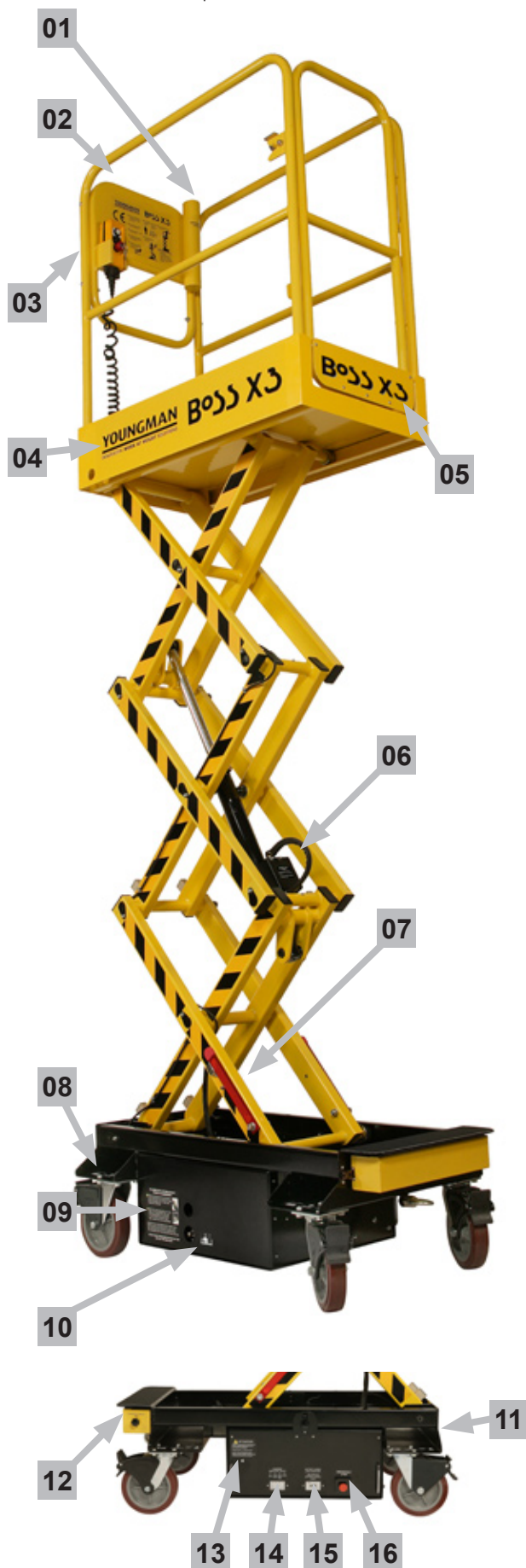
Failure to correctly calibrate the tilt sensor will result in a failure of the tilt sensor to operate normally and could result in the serious injury or death of any subsequent operator of the BoSS X3.

BOSS X3



SECTION 11 – MACHINE LABELLING

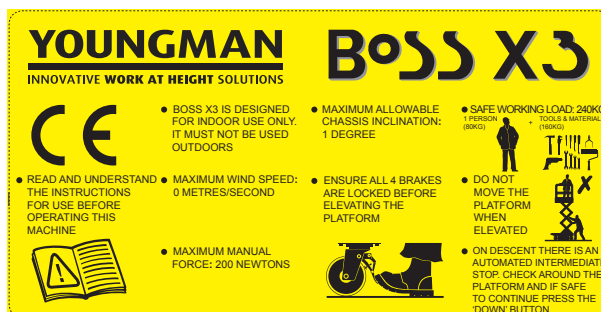
See below for the correct location of the BoSS X3 labels and machine plate



01 Part No: 300-160119008-1

INSTRUCTIONS FOR USE

02 Part No: 300-160119015-1



03 Part No: 300-160119014-1
Located on the reverse of the guardrail safety plate.

YOUNGMAN INNOVATIVE WORK AT HEIGHT SOLUTIONS BoSS X3

04 Part No: 300-160119011-1

YOUNGMAN INNOVATIVE WORK AT HEIGHT SOLUTIONS BoSS X3

05 Part No: 300-160119012-1

BoSS X3

06 Part No: 300-160119010-1

PRESSURE LOSS VALVE

IN THE EVENT OF A LOSS OF POWER OR HYDRAULIC PRESSURE TURN THE VALVE ANTICLOCKWISE UNTIL IT WILL NOT TURN ANY FURTHER.

PRIOR TO THE RESTORATION OF POWER AND OR HYDRAULIC PRESSURE CLOSE THIS VALVE BY TURNING CLOCKWISE.

07 Part No: 300-160119009-1

ENSURE BOTH MAINTENANCE PROPS ARE IN POSITION BEFORE UNDERTAKING MAINTENANCE ON THE RAISED PLATFORM.

08 Part No: 300-160119007-1
Located on all four forklift and transit strap points



09 Part No: 300-160119006-1

TO LOWER THE PLATFORM WITHOUT POWER IN AN EMERGENCY

1 TURN THE VALVE ON THE PRESSURE LOSS VALVE ON THE HYDRAULIC RAM ANTICLOCKWISE UNTIL IT WILL NOT TURN ANY FURTHER



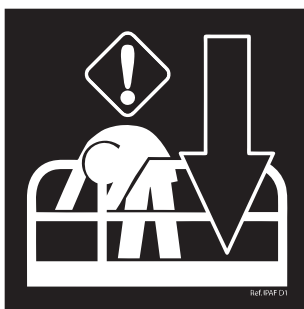
2 TURN THE VALVE ADJACENT TO THIS LABEL ANTICLOCKWISE UNTIL THE PLATFORM BEGINS TO DESCEND. TO STOP THE PLATFORM AT ANY TIME, TURN THE VALVE CLOCKWISE.



PRIOR TO THE RESTORATION OF POWER TURN BOTH VALVES CLOCKWISE UNTIL FULLY TIGHT AND THEN USE THE HANDSET CONTROLLER IN ACCORDANCE WITH THE INSTRUCTIONS FOR USE.

DO NOT USE A PRESSURE WASHER ON THIS SIDE OF THE BASE UNIT UNLESS BOTH RUBBER PLUGS ARE IN POSITION

10 Part No: 300-160119016-1



11 Located on the end of the chassis as indicated on the page opposite.



Please note that this is unique to each machine

12 Part No: 300-160119003-1

CHARGING CABLES TRAY

13 Part No: 300-160119005-1



ATTENTION

PRESS THE EMERGENCY STOP BUTTON ON THE HANDSET AND REMOVE THE KEY PRIOR TO CHARGING.

POWER SUPPLY: 110 OR 240 VOLTS.

SELECT THE APPROPRIATE CABLE FROM THE TRAY UNDER THE PLATFORM ACCESS STEP AND PLUG IN BELOW.

14 Part No: 300-160119004-1

CHARGER INDICATOR LIGHTS



AC
POWER
SUPPLY



CHARGE
TO 80% OF
BATTERY
CAPACITY



CHARGE
REMAINING
20% OF
BATTERY
CAPACITY



CHARGING
INDICATOR

15 Part No: 300-160119002-1

BATTERY CHARGE LEVEL INDICATOR:

LED DISPLAYS
BATTERY CHARGE
LEVEL

16 Part No: 300-160119013-1

EMERGENCY
STOP

SECTION 12 - STORAGE

The BoSS X3 should be stored inside in a secure, clean and dry environment, the emergency stop on the handset depressed and the key removed. The protective cover should then be placed over the machine. It should not be stored outside.

When the BoSS X3 is parked the brakes must be applied and if the machine has to be parked on a gradient the castors must be chocked. The BoSS X3 must not be stored where the air temperature exceeds 50°C or falls below -20°C.

SECTION 13 - TROUBLESHOOTING

Problem	Cause	Repair
Platform does not raise (motor not running)	Faulty wiring	Check the wiring referring to the electrical schematic and wiring diagram
	Battery is disconnected	Reconnect the battery
	Battery charge is insufficient	Charge the battery
	Tilt sensor has been triggered	Reduce operating angle to 1.50° or less
Platform does not raise (motor running)	Faulty adjustment of relief valve	Adjust relief valve
	Faulty hydraulic pump	Replace pump
	Insufficient hydraulic oil	Add hydraulic oil
Platform creeps (uncontrolled lowering)	Oil leakage in power pack	Replace lowering valve
	Oil leakage from hydraulic circuit	Check hydraulic circuit and repair
Oil leaking from cylinder	Faulty sealing	Replace sealing
Oil leaking from piping or joint	Insufficient tightening or seal in valid	Tighten joint or replace seal
Oil leaking from air breather	Excessive quantity of oil	Reduce oil quantity

SECTION 14 DISPOSAL

At the end of its life the BoSS X3 should be taken to a licenced centre for recycling.

Report of a Thorough Examination**Reference: "Lifting Operations and Lifting Equipment Regulations 1998"
Regulation 10 Schedule 1**

1. Company: _____
Address: _____

2. Site address (if different from above): _____

3. **Equipment** _____
Manufacturer: _____
Model: _____
Serial number: _____
Year of manufacture: _____

4. (a) Date of last thorough examination: _____
(b) Date of this thorough examination: _____
5. Safe working load: _____
6. Is this the first thorough examination since assembly? **YES / NO**
7. a(2) Is it in accordance with an examination scheme? **YES / NO**
(4) OR is it due to exceptional circumstances eg major repair? **YES / NO**
b Is it safe to operate? **YES / NO**
8. (a) Description of defect or defective part: _____
(b) Details of repair required: _____
(c) Details of a dangerous or potentially dangerous defect: _____
(d) Details of load test
Safe Working Load: _____
Overload: _____
Other observations and recommendations: _____
(e) Date next thorough examination due: _____
9. Engineers name: _____
Engineers CAP number: _____
Engineers signature: _____
Employed by: _____
10. Clients appointed representative: _____
Clients appointed representative signature: _____
11. Date of this report: _____

YOUNGMAN

INNOVATIVE **WORK AT HEIGHT** SOLUTIONS



Member

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