SERVICE MANUAL

MOBILE ELEVATING WORK PLATFORM
S1530E, S1930E, S2032E,
S2046E, S2632E, S2646E,
S3246E, S4046E, S4550E

EN - 9813/8200 - ISSUE 3 - 11/2017

This manual contains original instructions, verified by the manufacturer (or their authorized representative).

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Foreword

The Operator's Manual

⚠

You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator's Manual. You must understand and follow the instructions in the Operator's Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

Do not operate the machine without an Operator's Manual, or if there is anything on the machine you do not understand.

Treat the Operator's Manual as part of the machine. Keep it clean and in good condition. Replace the Operator's Manual immediately if it is lost, damaged or becomes unreadable.

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01 - Machine

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03 - Safety

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06 - Body and Framework

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Description	Data
Platform lowering time (loaded)	40–45s
Platform lowering time (no load)	53 ± 5s
Solid Tyre dimensions	380mm x 125mm
Hydraulic oil tank capacity	14L
Hydraulic system tank capacity	22L
Hydraulic system pressure	240bar (3,478.2psi)
Drive	2WD
Steer mode	Front wheel
Brake	On 2 rear wheels
Braking distance (level ground)	0.6 ± 0.3m

(1) The machine travel speed may vary with ambient temperatures.
(2) The machine travel speed (platform raised) must not exceed the 1km/h (0.6mph) or 36s to travel 10m.

(For: S4550E)

Below mentioned technical data is applicable for fully charged machines at ambient temperature, 10–30°C (50.0–86.0°F).

Table 12.

Description	Data
Maximum platform height	13.8m
Maximum working height	15.8m
Extension outreach	0.9m
Overall length (stowed)	2.76m
Overall width (stowed)	1.25m
Overall height (stowed, guardrail folded)	2.2m
Overall height (stowed, guardrail unfolded)	2.6m
Overall weight	3,366kg
Platform size (L x W x H)	2.64m x 1.25m x 1.1m
Load capacity	227kg
Maximum platform occupants (outdoor)	Not permitted
Maximum platform occupants (indoor)	2
Maximum allowable side force (indoor)	400N
Maximum allowable side force (outdoor)	Not permitted
Maximum allowable wind speed (outdoor)	0m/s (Indoor Only)
Maximum allowable slope (front/back)	3°
Maximum allowable slope (side/side)	1.5°
Ground clearance (raised)	0.1m
Wheelbase	2.22m
Turning radius (outside)	2.56m
Turning radius (inside)	0m
Gradeability	25%
Maximum driving speed, Hare mode (Platform stowed)[1]	3km/h (1.9mph), 12 ± 1s to travel 10m
Maximum driving speed, Tortoise mode (Platform stowed)[1]	1.8km/h (1.1mph), 21 ± 2s to travel 10m
Maximum driving speed (Platform raised)[1, 2]	0.8km/h (0.5mph), 45 ± 4s to travel 10m
Platform raising time (loaded)	75–85s
Platform raising time (no load)	74 ± 7s

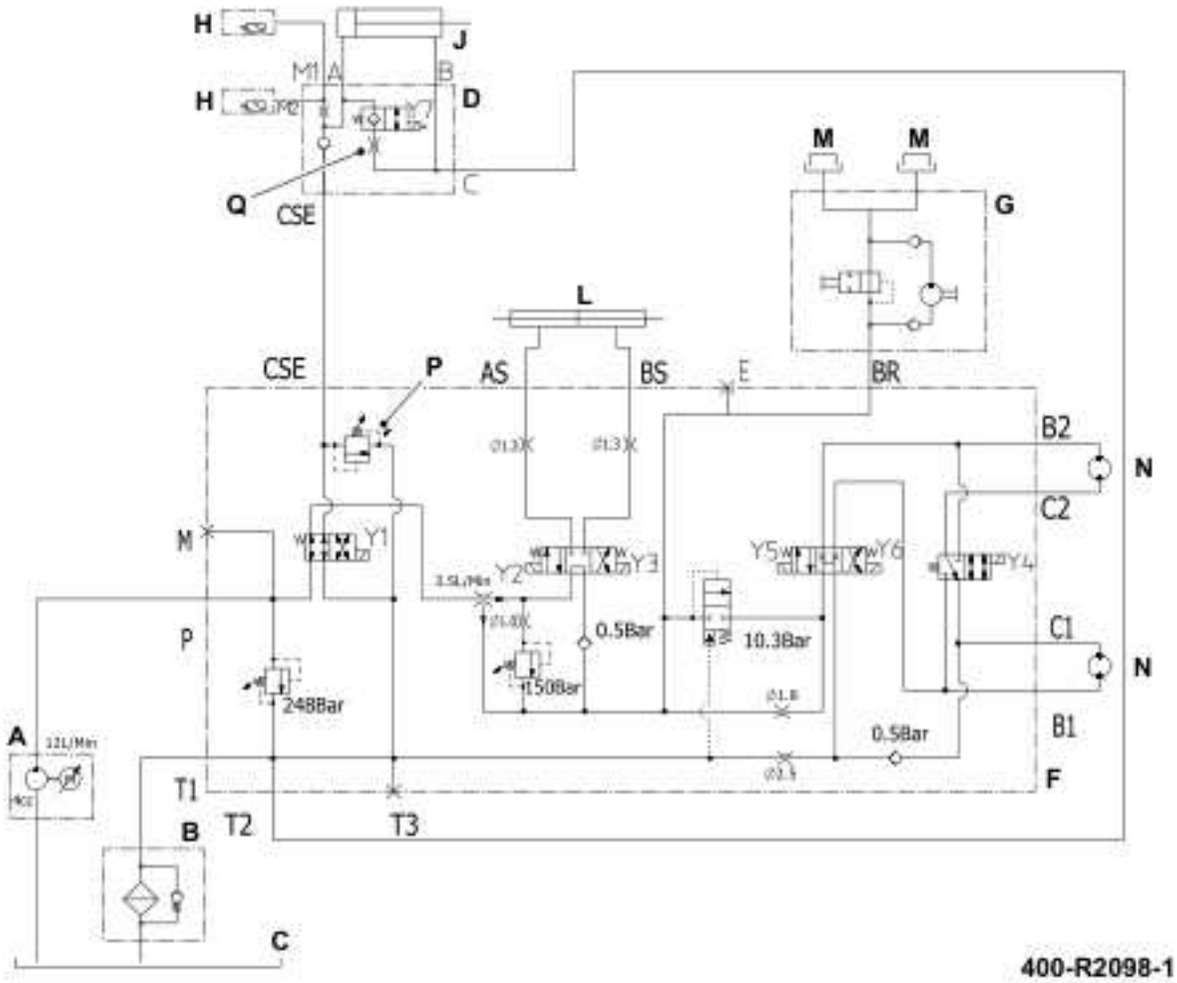
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Table 38.

Machine Model	Lift ARV (P)	Lowering Restrictor (Q)
S1530E	150bar (2,173.9psi)	0.9mm
S1930E	200bar (2,898.5psi)	0.9mm

(For: S2032E, S2046E, S2632E, S2646E)

Figure 77. Hydraulic schematic - 400/R2098 (Sheet 1 of 1)



A Hydraulic pump
B Hydraulic return oil filter
C Hydraulic tank
D Lower lift cylinder control valve
F Main control valve
G Manual brake release valve
H Pressure sensor
J Lower lift cylinder ram
L Steering cylinder ram
M Brake
N Wheel drive motor
P Lift ARV
Q Lowering restrictor

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Fault-Finding

For: S1530E, S1930E, S2032E, S2046E, S2632E, S2646E, S3246E, S4046E, S4550E, Lead Acid Battery ..... Page 33-9
For: S1530E, S1930E, S2032E, S2046E, S2646E, Lithium Iron Phosphate Battery ..... Page 33-9

(For: S1530E, S1930E, S2032E, S2046E, S2632E, S2646E, S3246E, S4046E, S4550E, Lead Acid Battery)

Fault

Battery fault — Table 59. — Page 33-9
General Relay Fault — Table 60. — Page 33-9
Electrical Wiring — Table 61. — Page 33-9

Table 59. Battery fault

Cause	Remedy
Battery Voltage	Switch on the ignition key and check the battery voltage with a multimeter. If the battery voltage is below specified value, charge the batteries. Refer to: PIL 33-03-00.
Battery connection fault	Check the condition of the electrical wires to the battery.
	Check for signs of corrosion or contamination on the battery terminals. Clean the battery terminals. Repair as necessary.
Battery charge circuit fault	Make sure that the AC (Alternating Current) supply to the battery charger is ON. Check the connections to the battery charger.
	If no fault is found raise a Techweb Helpdesk call.

Table 60. General Relay Fault

Cause	Remedy
Relay supply voltage fault	Check the condition of the primary and secondary fuses.
	If relay supply voltage is found fault, proceed to 'Relay connection faulty'.
	If relay supply voltage is OK, raise Techweb Helpdesk Call.
Relay connection faulty	Check the condition of relay to harness connection.
	Repair/replace as necessary.

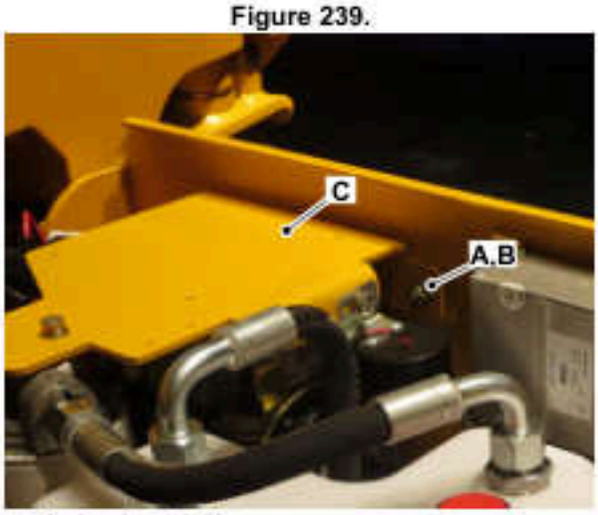
Table 61. Electrical Wiring

Cause	Remedy
Wiring fault	Check the harness continuity and electrical insulation, repair or replace as necessary.

(For: S1530E, S1930E, S2032E, S2046E, S2646E, Lithium Iron Phosphate Battery)

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Figure 239.

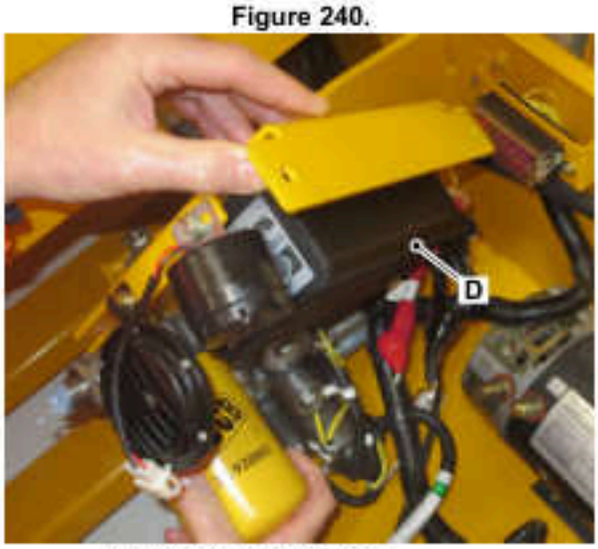


A Locknut (x2)
B Bolts (x2)
C Mounting bracket

8. Carefully move the mounting bracket assembly to reveal the motor controller ECU.

   8.1. Take care not to pull or stretch the electrical harness or hydraulic hoses.

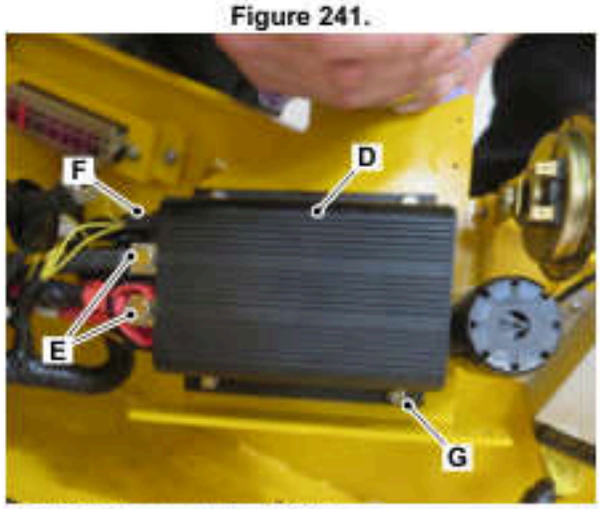
Figure 240.



D Motor controller ECU

9. Disconnect the electrical connectors from the motor controller ECU.
10. Remove the setscrews (x4).
11. Remove the motor controller ECU from the machine.

Figure 241.



D Motor controller ECU
E Battery leads
F Electrical connectors
G Setscrews (x4)

Install

1. The installation procedure is the opposite of the removal procedure.

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00 - General

Remove and Install

For: S2032E, S2046E, S2632E, S2646E, S3246E, S4046E, S4550E ..... Page 06-29
For: S1530E, S1930E ..... Page 06-29

(For: S2032E, S2046E, S2632E, S2646E, S3246E, S4046E, S4550E)

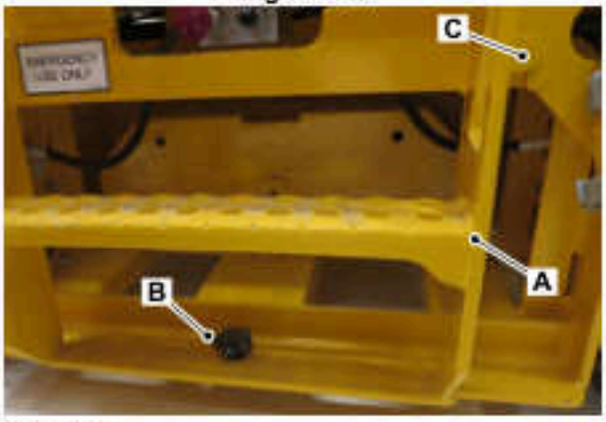
Remove

1. Make the machine safe with the platform lowered.

   Refer to: PIL 01-03-27.

2. Remove the quick release handle.
3. Lift the ladder upwards to release from the fixing points (x2).
4. Remove the ladder.

Figure 31.



A Ladder
B Quick release handle
C Fixing points

Install

1. The installation procedure is the opposite of the removal procedure.

(For: S1530E, S1930E)

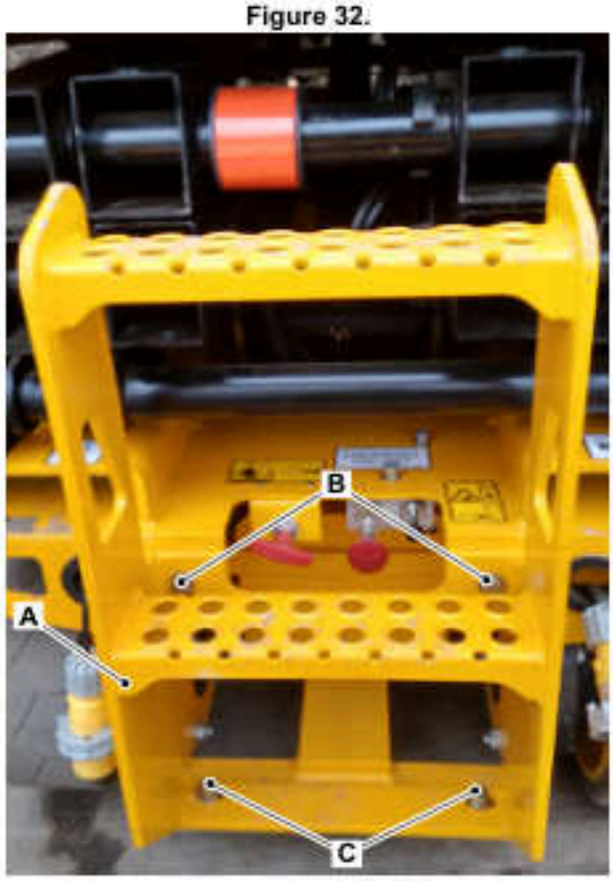
Remove

1. Make the machine safe with the platform lowered.

   Refer to: PIL 01-03-27.

2. Support the ladder with a suitable lifting equipment.
3. Remove the bolt 1 (x2).
4. Remove the bolt 2 (x2).
5. Remove the ladder away from the machine.

Figure 32.



A Ladder
B Bolt 1
C Bolt 2

Install

1. The installation procedure is the opposite of the removal procedure.

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