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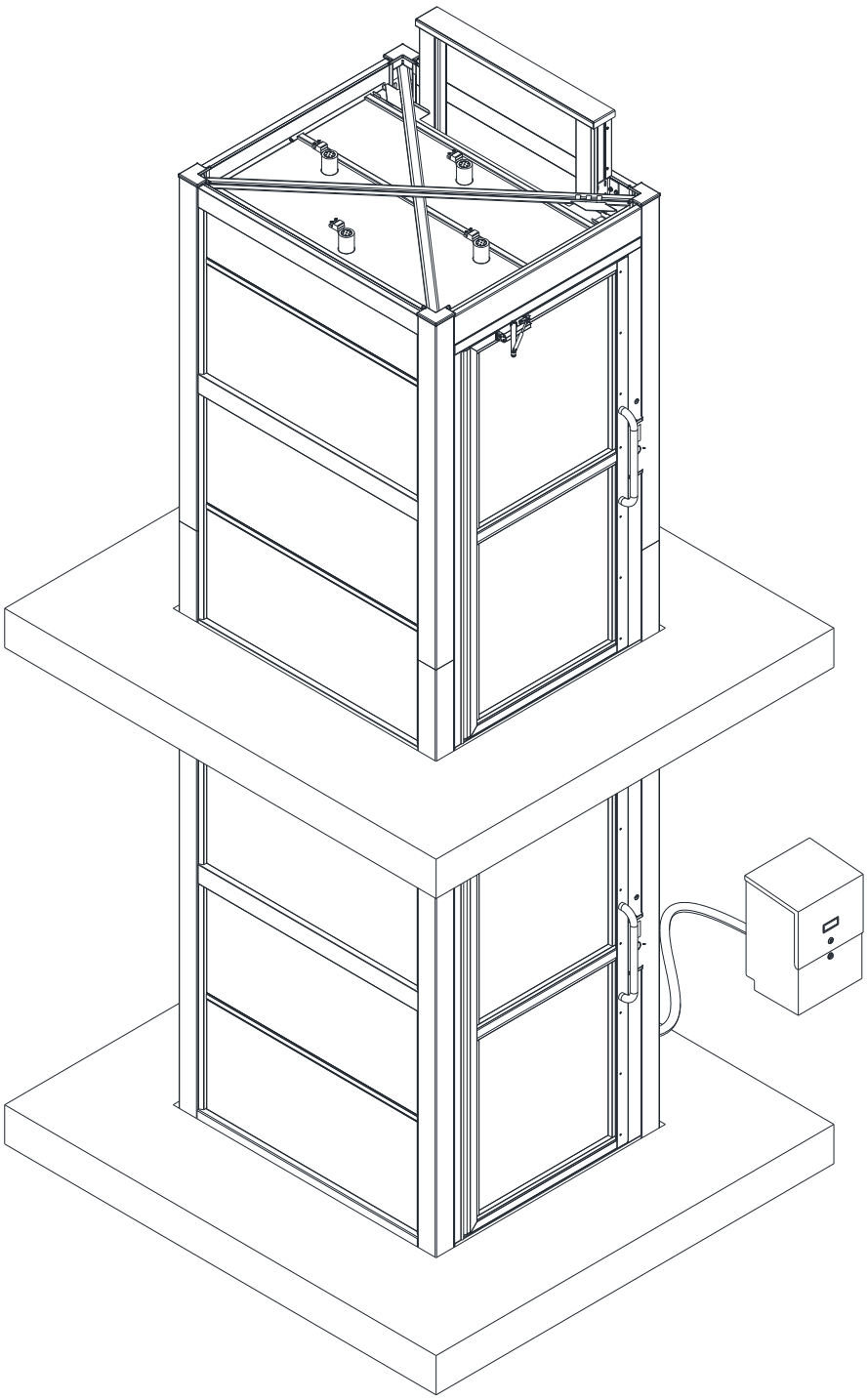
Stannah

MIDILIFT SL
MAINTENANCE SCHEDULE



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1 Introduction

The following schedule details the recommended periodic maintenance program for the Stannah Midilift SL vertical platform lift. This schedule has been designed for use by approved engineers/technicians who have completed the recognized product training course.

2 Safety

The Midilift SL must be isolated from the mains electrical supply before the removal of any covers prior to commencing the maintenance program.
Ensure that the scotch device (used to mechanically hold the platform in the raised position) is located into the guide rail prior to undertaking maintenance under the platform.

3 Cleaning

It is recommended that an anti-static foam cleaner be used for cleaning the surfaces of the Midilift SL enclosure and panel covers.

4 Spares

Any components found damaged, leaking, unduly worn, or outside of specification during routine servicing or maintenance must be replaced with new parts.

Replacement parts can be purchased from the Stannah Lifts Spares Department.

When ordering spares, the lift number included on the data plate will be required to aid in identifying the correct part for a particular lift.

5 Servicing

General inspection and routine maintenance

Key to corrective action:
* Check/adjust/tighten if required.
R Replace components if worn, damaged, leaking or is outside of specification.
CL Clean using recommended product (see Section 3).

Mechanical Maintenance

Item	Check	Work Method	Nominal setting/values	Corrective Action
1	Lift Structure	Check structure is secured to upper threshold and to wall on guide side		*
2	Doors	Check doors open and close correctly and door locks operate properly. Check lock bolts are fixed correctly.	Adjust if reqd.	*
3	Carriage Safety Edge	Whilst raising the platform, check the safety edge stops the lift when pressed at each end and in the middle. The edge should reset when force is removed.	Adjust if reqd.	*
4	Platform Safety Edge	Whilst raising the platform, check the safety edge stops the lift when pressed on all sides of the platform. The edge should reset when the force is removed.	Adjust if reqd.	*
5	Door zone, limit and ultimate limit ramps	Check ramps are tightly secured to the guide rails and are in the correct relative positions for the operation of the switches.	Adjust if reqd. Minor adjustments of door & stop switches can be made on the carriage	*
6	Trailing cable and energy chain	Check for cuts/abrasions, kinked or twisted cables and free movement of energy chain		R
7	Rollers	Check rollers are in good order and are correctly secured to the carriage		R
8	Guides	Check the aluminium guides for any signs of cracking, paying particular attention to the guide flanges and the kicker roller running surfaces.		R
9	Ram	Check for leaks and damage to the ram		R
10	Hydraulic hose	Check hose for signs of damage, cuts and abrasions		R
11	Oil Level	Check oil level in the pump unit and top up if required. **Check with the lift at the lowest lower level**.	For the recommended oil specification, refer to pump unit label.	R
12	Pump unit	Check pump unit is securely fixed in position and that the lid is place and can be locked. Check for any leaks during operation and for any signs of damage		* R
13	Covers	Check all covers are in good repair and are securely fixed in place. Check all plastic plugs are in place on the guide covers		* R
14	Dirt and Debris	Check within the pit for any loose debris and rubbish. Check also between the platform and safety edge.		* CL
15	Platform level	Check platform is level at floor levels.	Adjust if reqd.	*

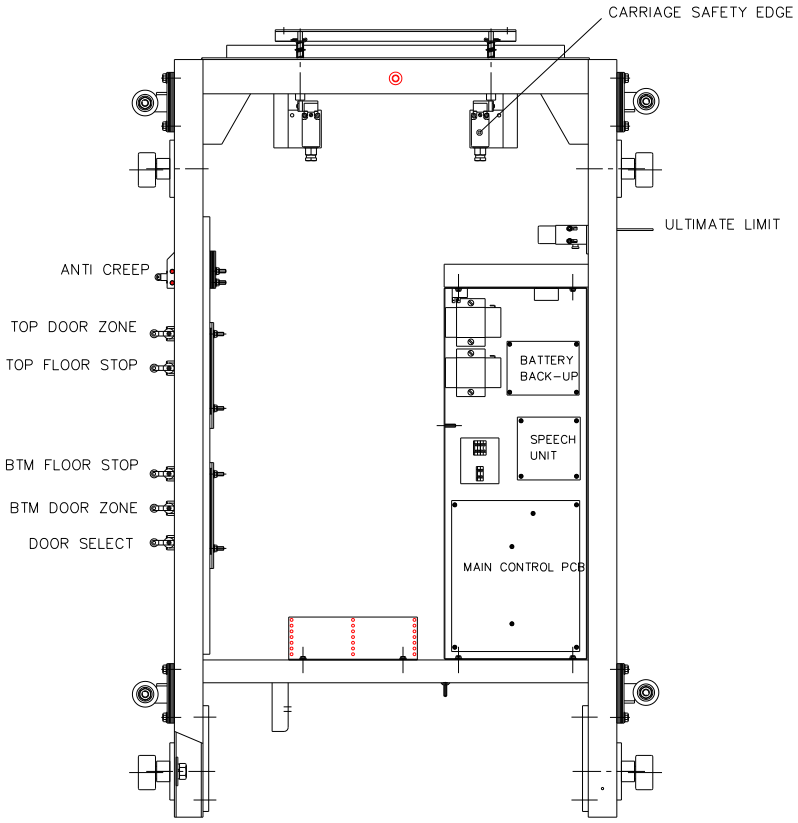
16	Overall Condition	Inspect and report the overall condition of the lift structure, carriage and platform.		* CL

Electrical Maintenance Testing

Item	Check	Work method	Nominal settings/values	Corrective action
1	Control voltage.	Measure between **G1** (positive) and **B-** (negative) terminals.	Specification = 24VDC to 30VDC.	Check that mains supply voltage is 230VAC, + 10%, -6%.
2	Battery back-up operation.	Ensure that the lift operates correctly when on battery back-up.	On battery back-up supply it must be possible to lower the lift and open the door.	**R**
3	Platform and landing controls.	Check that all landing and carriage controls operate correctly, particularly the **STOP** and **ALARM** push buttons.	All controls are operational.	***** **R**
4	Pit stop switch.	Ensure that, when activated, the Pit stop switch disables lift movement.	Lift is completely inoperable.	***** **R**
5	Car logo light.	Ensure that logo light is operational.		***** **R**
6	Pause time.	Ensure that there is a delay from when either a call or send input is received before the platform begins to travel or changes direction.	Specification = 1 second (minimum) 3 seconds (maximum).	***** **R**
7	Door solenoid time.	Ensure that the door solenoid remains energized for a pre-set time whenever a door open command is placed.	Specification = 5 seconds.	***** **R**
8	Journey time.	Ensure that the journey timer is correctly set.	Specification = Time taken to travel from lower landing to upper landing + 10 seconds.	***** **R**
9	Ultimate limit switch.	Ensure that, when activated, the ultimate limit switch disables all lift controls.	Lift is completely inoperable.	***** **R**
10	Beak contacts.	Ensure that, when either door is open, the lift will not travel in either direction.	Lift will not travel when door is open.	***** **R**
11	Overall Condition	Check and report the overall condition of all wiring and connectors		***** **R**

6 Switch Positions

Typical 2-Stop Lift Carriage



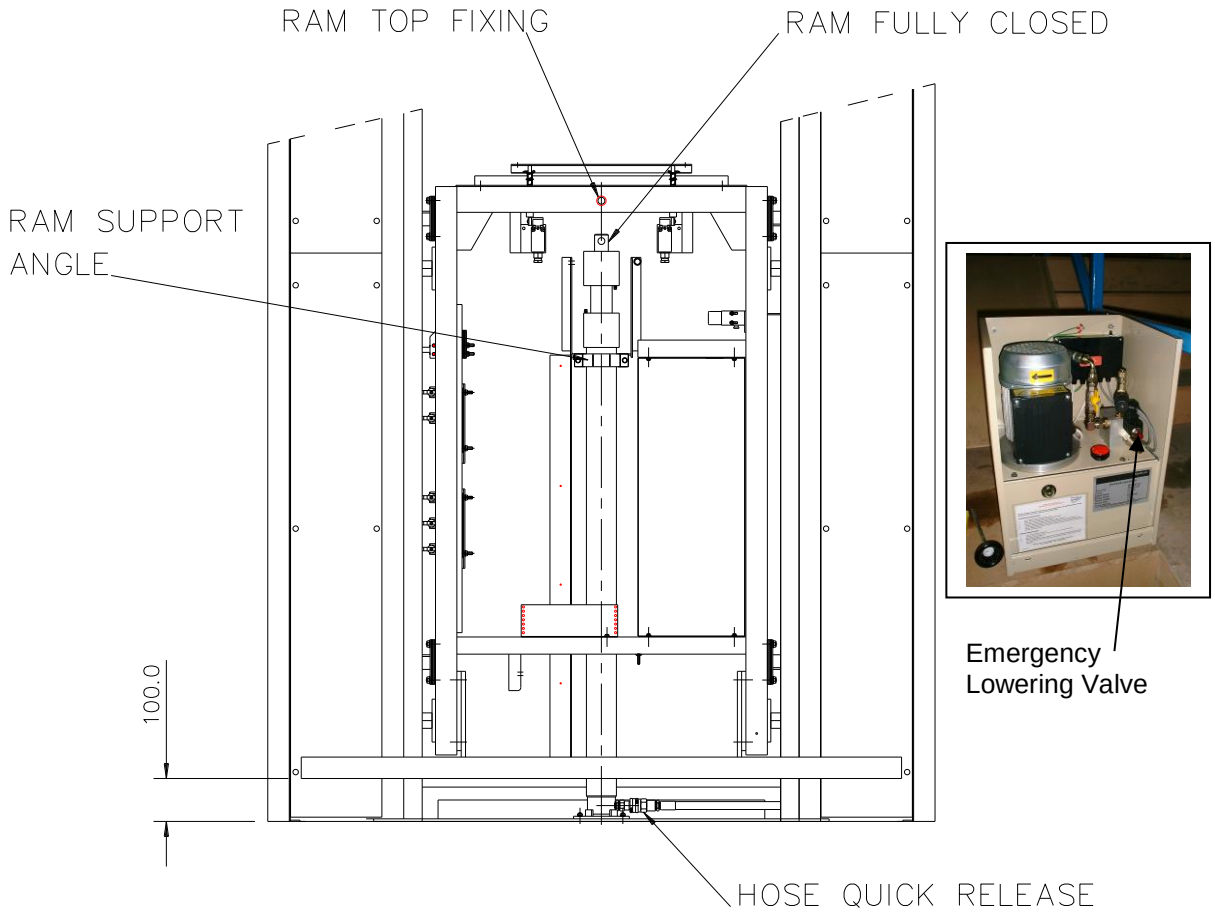
7 Hydraulics

7.1 Ram Removal Guidance

- Raise the platform up and place blocks of about 150mm high under the platform by using the emergency release key to open the door. Refer to safe pit working procedure.
- Lower the platform onto the blocks.
- Remove carriage safety edge and front cover.
- Remove ram top fixing screw (M10 skt cap hd)
- Hold open the emergency lowering valve. Pull down on the ram until it is fully retracted.
- Disengage the quick release coupling on the hose.
- Remove ram support angle.
- Pull the ram forward to clear the carriage and lift out the ram.
  Care to be taken due to the weight of the ram.

Replace the ram using reverse procedure. Run the lift up and down to check operation.

Note: If the ram is replaced, it must be ensured that the rupture valve is operating correctly (see Section 7.2).



7.2 Rupture Valve Operation and Adjustment.

Due to product variation, specific rupture valve settings are not detailed below. Values may be obtained from the Midilift SL installation guide or test and commissioning documents for a specific lift. However, obtained values must only be used as a guide. Emphasis must be on the correct operation of the rupture valve as follows:

1. The rupture valve shall be tripped at the latest when the speed reaches a value equal to rated speed downwards v_d plus 0,15 m/s. (ref EN81-41:2010, 5.4.10.12.1). Where this condition is not met, the rupture valve gap must be reduced.

2. It should also be ensured that the rupture valve does not trip when the lift is running normally and with rated load on the platform. Where this is not achieved, the gap may be increased. However, the first condition must be given priority.

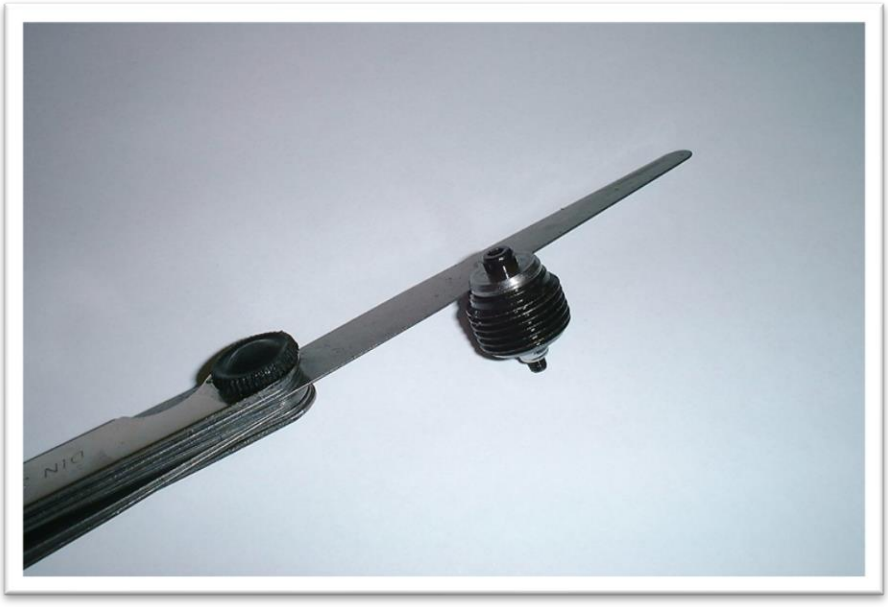
Adjustment of the rupture valve gap is achieved as follows:

1. Remove the ram with reference to Section 7.1.

2. With the ram laid on the floor, remove the fittings from the base of the ram.

3. Remove the rupture valve from inside the ram. This can be done by inserting pins into the holes of the valve and turning. The valve is usually only finger tight.

4. Using feeler gauges, check the gap of the valve and adjust accordingly.



Notes:

- The gap tends not to be uniform around the valve, so an average should be taken.
- Where adjustment is required, the gap should be adjusted in 0.1mm increments until the correct operation is achieved.

5. Refit the valve into the base of the ram and screw in until finger tight. – DO NOT OVER-TIGHTEN.

6. Replace the fittings and reinstall the ram.
7. Run lift up and down a few times before checking the rupture valve operates as detailed above.

7.3 Recommended Procedure to Change the hydraulic oil

1. Call the lift to the bottom floor level.
2. Switch off the mains electrical supply to the lift.
3. Locate the powerpack enclosure and remove the lid.
4. With the lift at the bottom floor level, pull the emergency lowering knob on the powerpack to release any pressure in the system.
5. Close the main shut-off valve on the manifold of the powerpack.
6. No drain plug is fitted in the pump unit so the oil must be pumped or siphoned out into a suitable container.
7. Fill the oil tank to the required level with hydraulic oil. For the recommended oil specification, refer to pump unit label.
8. Disconnect the hydraulic hose at the base of the hydraulic ram. This is a self-sealing quick release coupling.
9. Open the main shut-off valve on the powerpack manifold.
10. Switch on the mains power supply to the lift.
11. Prime the hose with new oil by fitting a spare male quick release fitting and running the pump motor for a few seconds until clean, air free oil flows from the hose into a bucket.
12. Reconnect the quick release coupling to the base of the hydraulic ram ensuring it is fully engaged.
13. Run the lift several times ensuring that there are no leaks from the hydraulic system.
14. Replace the lid on the powerpack enclosure.

Note: It is not necessary to replace the hydraulic oil in the ram.

8 Working in the pit

8.1 Lift travel above 610mm

1. To gain access beneath the platform, first raise the platform up to the top floor level.

2. Turn the lift off at the main switch.

3. Open the lower door using the emergency release key and release the lock so that it returns to the de-energised position.
   This will prevent the door from closing properly – **CHECK THIS BEFORE ENTERING THE LIFT SHAFT.**

4. By using the rod located in pit area or by leaning in (if door is located on prop side), move catch up to allow pit prop to fall into position. This will activate a micro switch which is in series with the stop switch.

5. Enter pit and press the pit stop switch.

6. Before leaving the pit reset the Stop switch by twisting clockwise to release.

7. Once out of the pit use the rod to push the prop back into the upright position making sure it ‘clicks’ into the catch. If the door is located on the prop side lean in and pull the prop back into the upright position.

8. Relock the door using the emergency release key.

9. Check the lift operation.
10.

8.2 Lift travel below 610mm

For lift travels between 515mm and 610mm complete steps 1 to 3 as above, then:

1. Remove carriage panel (COP).

2. **Standing on the platform**, use the rod located in pit area or screwdriver, move catch up to allow pit prop to fall into position. This will activate a micro switch which is in series with the stop switch.

3. Complete steps 5 to 6 as above.

4. Once out of the pit **stand back on platform**, use the rod or screwdriver to push the prop back into the upright position making sure it ‘clicks’ into the catch.

5. Refit carriage panel (COP).

6. Complete steps 8 to 9 as above.

For lift travels below 515mm **DO NOT ENTER PIT FROM BELOW**, if access needs to be gained then:

1. Remove carriage panel (COP).
2. Remove floor plates x 2.
3. Press pit stop switch.
4. Stand through platform frame to undertake work.
5. Once work is complete reset Stop switch by twisting clockwise to release.
6. Replace floor plates and carriage panel.
7. Relock the door using the emergency release key.
8. Check the lift operation.

9 Document history

Date	Details	Section	Name
18.01.23	1. Document history added. 2. Section numbers and table of contents added. 3. Item 8 to check aluminium guides added to mechanical service items. 4. List of recommended spares and switch part numbers removed. 5. Reference to Shell Tellus T37 oil removed. 6. Rupture valve gap no longer specified. Emphasis now on rupture valve operation.	9 All 5 5 & 6 5 & 7.3 7.2	R. Lark