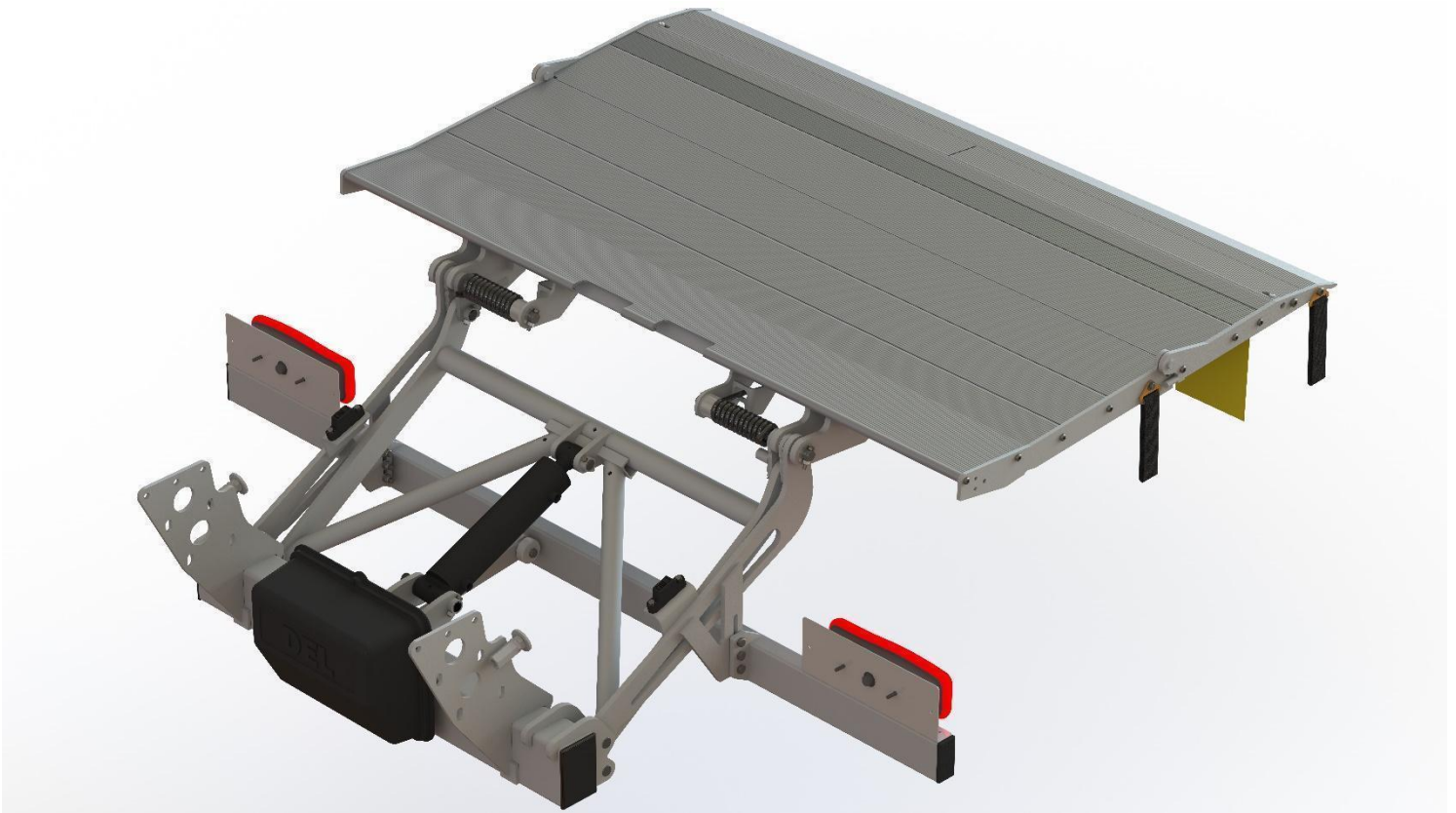


OPERATORS / MAINTENANCE MANUAL

TUCKUNDER TAIL LIFTS



UK
CA
CE

INTRODUCTION

This manual covers the operation and maintenance of the Tuckunder tail lift range. The procedures detailed in this manual must be understood before the tail lift is used. The manual should be kept with the vehicle and records of regular maintenance must be entered in the spaces provided to form a service record for the lift.

CONTENTS

OPERATORS MANUAL	PAGE
1. Warranty.....	4
2. Operating systems.....	8
3. Safety features.....	9
4. Warning decals.....	10
5. Intended and unsafe uses.....	13
6. Safety procedure.....	14
7. Working area.....	15
8. Opening and closing procedure.....	16
9. Operating procedure.....	18
MAINTENANCE MANUAL	
10. Safety information.....	21
11. Maintenance Procedure.....	21
12. Record of major repairs.....	30
13. Fault Finding	31
14. Diagrams- Wiring and Hydraulic.....	33
15. Warranty Registration form.....	36

BLANK PAGE

1. WARRANTY

The lift you have purchased is one of the DEL range of tail lifts. We are pleased you have chosen DEL and would like to ensure that you have the best service throughout the life of the lift.

Our lifts are covered by a 12-month warranty against faulty parts or assembly, subject to our conditions below and our normal conditions of sale. To obtain details of your nearest service centre, plus updated information of the DEL range please complete and return the enclosed registration form.

Product Warranty Terms and Conditions

Date of Issue: April 8th 2022

Scope: This document replaces all previous documents issued and is effective from the date of issue. Unless otherwise agreed in writing the following terms and conditions will apply.

Hiab UK Ltd (herein referred to as DEL) withhold the right to revise these terms and conditions without prior notice at any time in the future.

1. General Terms and Conditions

1.1 DEL warrants its Customer and/or End User of its products, provided it has received payment in full for the goods, that it will repair/replace, either at the factory or through one of its approved Service Agents, without charge, any original part of any DEL product found to be faulty within twelve months of installation or within fifteen months after the date of dispatch from the factory, whichever is the shortest, which is proven to the satisfaction of DEL to be defective.

1.2 Warranty covers failure of DEL products and does not include installation (unless fitted by DEL) or Del Approved Agent, of the product or any part of the product associated with the installation. This is solely at DEL's discretion.

1.3 To substantiate the claim DEL will want clear product identification (the serial number), may require proof of purchase, may want to inspect the product on its Customer's premises and may insist that the defective product be returned to DEL (at DEL's cost).

1.4 In the event repairs are required to a DEL product "in the field", DEL will authorise its own engineers or instruct (with a relevant authorisation number) one of its approved Service Agents to carry out the necessary work and will pay the Service Agent directly. In the event that the Customer or End User is willing and capable of carrying out the repair work themselves, costs must be agreed in advance and a pre-authorisation number must be obtained from DEL.

1.5 If during the warranty period, the DEL product is rejected by the bodybuilder/DEL product fitter, as being not fit for purpose due to poor workmanship, sub-standard performance or other quality defects, DEL will replace or repair the DEL product either on site or at another location. Costs covered by DEL would include any removal and refitting of the DEL product to the vehicle, additional transportation and labour plus materials to replace/repair.

1.6 In the event the DEL product is not accepted by the Customer because the wrong specification was ordered or because the End User changed his mind after DEL product build, DEL will endeavour to take the DEL product back into stock but reserve the right to apply a handling charge and to recover all of its transportation costs. In addition a product devaluation charge will be applicable, the value of which will be dependent on the condition and age of the DEL product and upon whether the DEL product is a “special” or a standard DEL product.

1.7 The warranty will be invalid if any of the following (but not limited to) is shown to have happened: accidental damage, product overload, operator error/abuse, product not installed properly, product not serviced (and greased) regularly.

1.8 The warranty will be invalid if the cause of the breakdown (or other problem) is found to be the result of a defect with another part of the vehicle e.g. a vehicle electrical fault.

1.9 The warranty will be invalid if it is established that DEL has not received payment in full for the DEL product, e.g. if the goods have been stolen or if DEL’s customer has been unable or unwilling to pay for the goods.

1.10 The warranty will be invalid if it is shown that the problem/failure has been caused (or contributed to) by non-DEL parts, which were fitted during an earlier service.

1.11 The warranty will be invalid if the failure is shown to have been caused by any unauthorised modifications to the DEL product. DEL approved modifications must always be in writing.

1.12 On no account will DEL accept consequential losses of any description. These include but are not limited to: handling charges, replacement vehicle hire, delivery penalty clause, loss of business opportunity.

1.13 Because DEL’s service network covers all of the UK, the warranty applies only to DEL products which have been purchased in the UK and which remain on the mainland.

1.14 If during the warranty period, DEL replacement parts have been fitted; these replacement parts will have a further 12 months warranty for both parts and labour.

1.15 Warranty consideration will only be given providing the customer and Service Agent follow the correct warranty procedure. The customer must contact DEL prior to carrying out any work for authorisation or contact DEL or a DEL approved Service Agent if they require breakdown assistance. DEL Service Agents must adhere to the Service Level Agreement they have signed with DEL (Service Agents see Service Agent SLA).

1.16 Any breakdown at any location found not to be covered by DEL warranty, regardless of fault, will be chargeable to the company that called the job in to DEL. Calling a breakdown into DEL or a DEL Service Agent will be taken as acceptance of this condition.

1.17 No warranty will be given for any failure due to chemical corrosion and physical erosion.

1.18 No warranty will be given for any failure caused by Fire, Theft, Freezing, Riot or Explosion.

1.19 No warranty will be given for failure caused by Lightning, Earthquake, Windstorm, Hail, Water, or Flood.

1.20 No warranty will be given for any part of a Wanderlead Control Assembly.

1.21 Although DEL will always endeavour to repair/replace parts putting the product back to its original condition, this does not include repainting any part of the product that has been painted after being supplied. Galvanised/Plated parts will be replaced wherever possible, but DEL reserves the right to replace parts using non galvanised/plated parts on occasion, but with a minimum of a primer finish.

2. Customer Responsibility

2.1 The customer is responsible for the maintenance of the product as specified in this Operation and Maintenance Handbook issued with the product at point of sale. It is the customer's responsibility to ensure that all operators have read, understood and adhere to the details given in this booklet. If this booklet is not available, a copy is available from DEL's website to download free of charge (visit: www.del-uk.com).

2.2 In addition to regularly greasing the product (see point 2.1); it is the customer's responsibility to replace grease/lubricant that has been removed from the product due to washing/cleaning the vehicle and/or product. This includes products that are on contract maintenance.

2.3 The customer must retain all service documentation, including weight tests and Statutory Thorough Examinations (STE), which must be available upon request to validate any warranty claim. Failure to maintain the product may invalidate the warranty. This is solely at DEL's discretion.

2.4 The customer is responsible for ensuring the product is being used for its intended purpose only, and has been operated in accordance with the issued instructions.

2.5 In the event of failure, the customer must:

- Use all reasonable means to protect the product from further damage.
- Notify DEL Service Department as soon as possible.
- Present where requested, proof of warranty coverage and tail lift service history.
- Use only genuine DEL Parts.

3. Additional Specific Standard Warranty Exclusions

In addition to the above terms and conditions the following warranty exclusions will apply. Please note that some of these exclusions are product specific and therefore may not be relevant to all products.

3.1 First Year Exclusions:

- Minor adjustments such as (but not limited to), pressure adjustment, flow adjustment.
- Any form of maintenance such as (but not limited to) lubrication, oil replacement.
- The following parts are excluded after 12 weeks from the start of the warrantable period (see point 1.1): bulbs, fuses, electrical connections.

4. Additional Specific Extended Warranty Exclusions

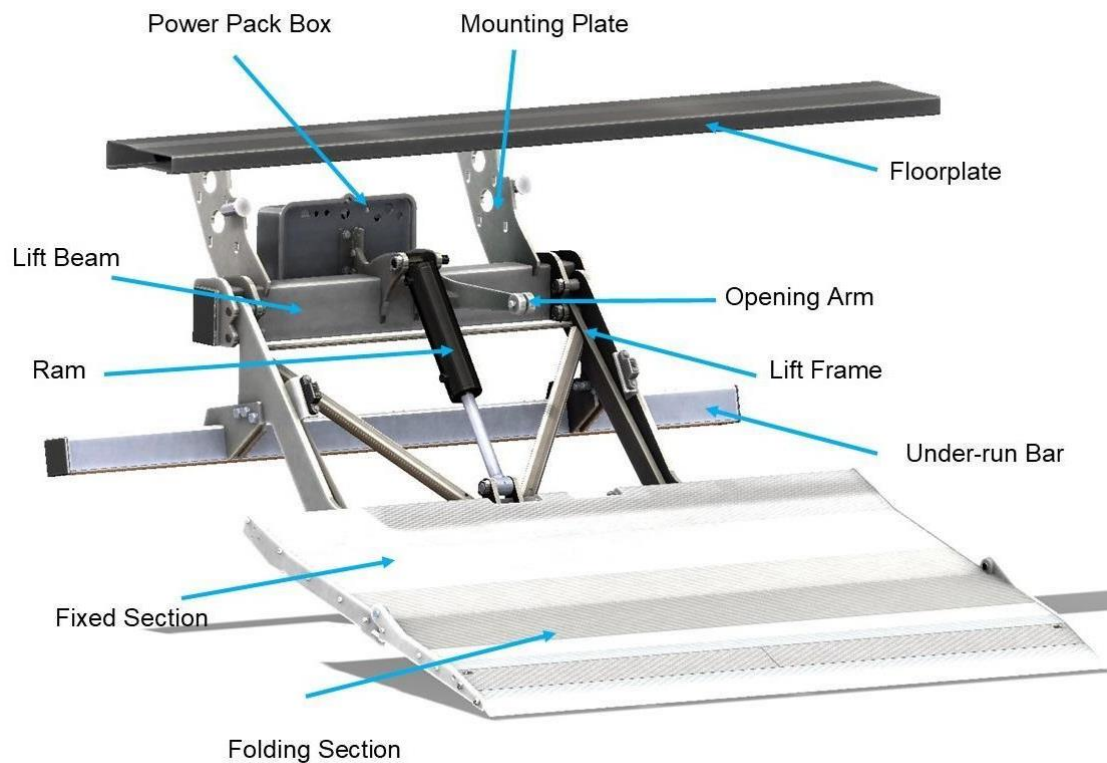
In addition to the above terms and conditions the following warranty exclusions will apply to products purchased with extended warranty and/or put on Contract Maintenance with extended warranty. Please note that some of these exclusions are product specific and therefore may not be relevant to all products.

4.1 Second / Third Year exclusions:

- Hydraulic hoses.
- All hydraulic fittings, including loose fittings.
- All electrical wiring, including loose connections.
- All maintenance replacement parts such as (but not limited to) bushes, bearings, rollers, pins.
- Wear and tear on any part.
- All non-standard electrical lift options such as (but not limited to) flashing lights, warning buzzers.
- Chain stretch / Wear.
- Torsion bar failure or loss of torsion.

2. OPERATING SYSTEMS

The tail lift is powered from the vehicle battery. A wire is taken from the battery positive to the power pack starter switch and the hand control, these circuits are protected by in-line fuses. The up button on the hand control provides power to the starter switch, which operates the powerpack motor. This pumps high-pressure hydraulic fluid to retract the ram. On release of the up button the fluid is held in the ram due to a non-return valve which locks the ram in position therefore holding the platform stationary. Pushing the down button powers the lowering solenoid, which allows the hydraulic fluid back from the ram to the power pack reservoir. When not in use the platform is folded in upon itself and 'tucks away' under the rear of the vehicle. A lock valve is used to hold the ram in position and keep the platform securely stowed under the vehicle against its stop.



3. SAFETY FEATURES

Before operating the tail lift be sure to understand the safety devices fitted, and ensure that they are in good working order by following the regular maintenance program.

CIRCUIT BREAKERS

Fuses protect the electrical circuits. In the case of any electrical fault they will protect the tail lift from any damage to its electrical systems. It is possible to disconnect the electrical supply by removing the fuse.

LIFTING LOADS – RELIEF VALVE

The power pack is equipped with a pressure relief valve that ensures a gross overload of the lift, which may damage critical parts, cannot be raised. This valve is factory set.

LOWERING LOADS – FLOW REGULATOR

The returning oil from the ram passes through a flow regulator valve, ensuring the platform lowers at a controlled speed irrespective of the load.

Note – The platform must not be overloaded on lowering as this will cause permanent damage to the lift operation.

CART STOP (Kick up stops)

Platforms may be equipped with Cart Stops which can be deployed to ensure that loads cannot roll/fall from the loading edge of the platform whilst lifting or lowering.

CONTROLLERS

The press buttons are shielded to prevent accidental operation by other objects hitting the control box. The control boxes themselves are mounted in a steel protective cover.

PLATFORM

The platform has a rough, anti-skid surface, which ensures that the platform is not slippery in most weather conditions.

LOCK VALVE

When the platform is stationary, the rams are locked in position with a solenoid lock valve. Should any hydraulic failure occur, the platform will remain in its stationary position.

4. WARNING DECALS

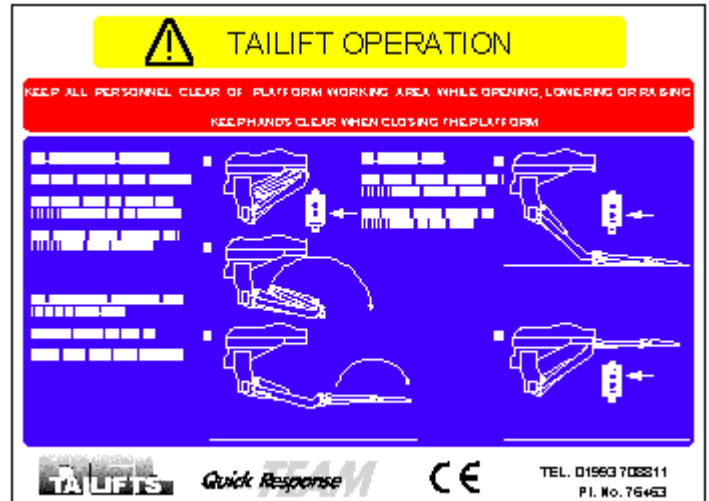
Be sure you understand the warning decals, and check they are present and legible in regular inspections. If any are missing, contact DEL service to obtain replacements.

TAIL LIFT OPERATION

LOCATION

Above control box at eye level

Ensure you understand the operating instructions. Keep all personnel away from the lift during operation. Be aware of the area around the lift and stop operating if anyone enters it. Ensure the area is clear of obstructions before use.

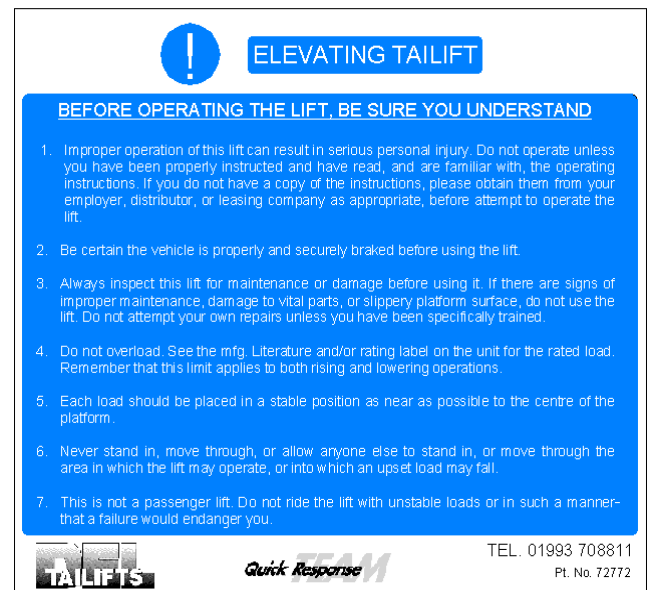


ELEVATING TAILIFT

LOCATION

Located next to the control box

Be sure you understand before using the lift.

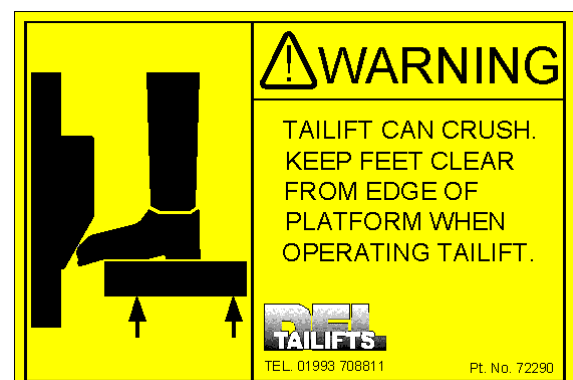


WARNING

LOCATION

Located on the rear of the body, where it can be seen whilst using the lift

Tailift can crush. Keep feet away from the edge of the platform during lifting.



FLAG

LOCATION

Located on the underside of the platform at both ends.

Increases the visibility of the platform when in its operating position.



WARNING

LOCATION

Next to the control box

Do not exceed the safe working load of the lift. Overloading may cause serious injury.

Ensure the loads are evenly distributed across the platform centred at 0.5m from the edge of the platform.



KEEP FEET CLEAR

LOCATION

The edge of both sides of the platform

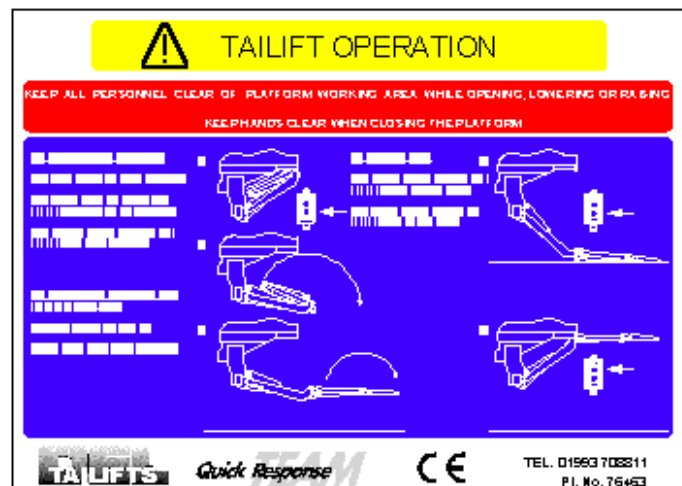
Platform can crush. Keep feet clear of the edge of the platform.



TAILIFT OPERATION

LOCATION

Located next to the control box.

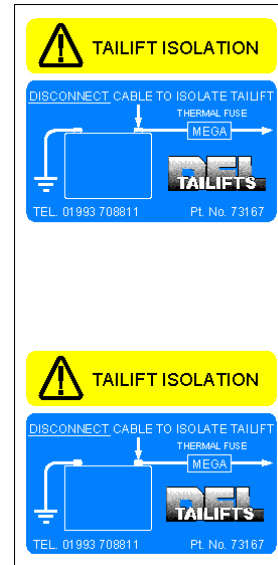


TAILIFT ISOLATION

LOCATION

Located around the live cable from the battery

Be sure to isolate the power supply before removing cover.

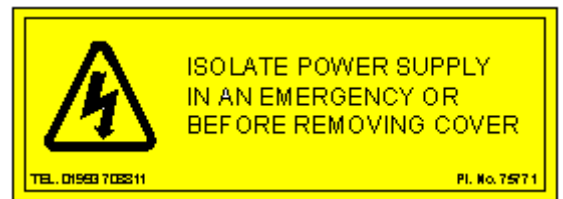


ISOLATE POWER SUPPLY

LOCATION

Located on the power pack box lid.

Be sure to isolate the power supply before removing the cover.



IMPORTANT

Before use, the lift should be inspected to check that all warning decals are present and legible, if not contact DEL Service for replacements.



INTENDED USES

The DA range of lift is intended for: -

- Lifting of loads vertically from the ground to vehicle bed height and vice-versa.
- Lifting of the load and the operator only, where the operator has been trained to use the lift following all safety procedures.
- Lifting of loads no heavier than the safe working load of the lift fitted.



UNSAFE USES

The following are unsafe practices which may damage the lift and cause risk of personnel injury: -

- Driving a forklift onto the platform.
- Using the lift as a jack.
- Using the platform as a step to the truck bed.
- Lifting unstable/wheeled loads without special precautions.
- Use as a passenger lift.
- Driving the vehicle with the platform open.
- Using the platform as a link bridge or for loading onto a dock.

6. SAFETY PROCEDURE

Before operating the lift be sure to understand the following instructions: -

1. Read and be familiar with the safety instructions and warning decals before operating the lift.
2. Be sure the vehicle is on level ground, securely braked and there is adequate lighting in the working area.
3. Inspect the lift for lack of maintenance or damage. If there are any signs of damage do not use the lift or attempt repairs unless you have been specifically trained.
4. Clear the working area of any obstructions.
5. Do not overload the lift. Note that the safe working load of the lift applies to both lifting and lowering operations.
6. Make sure the centre of the load is placed as near to the 500mm centre of SWL as possible. Note that the platform is not a level ride and if wheeled loads are lifted ensure these are securely braked and that available safety devices are used (ie. cart stops).
7. Make sure that, whenever you intend to ride the platform, you leave enough room to stand without risk of falling.
8. Do not 'jerk' the lift by pressing the up/down buttons too quickly as this might result in the load becoming unstable.
9. Make sure the platform is securely stowed before driving the vehicle.

7. WORKING AREA

The push button controls are located in such a position to give: -

- A good view of the working and surrounding areas.
- A secure position away from passing traffic

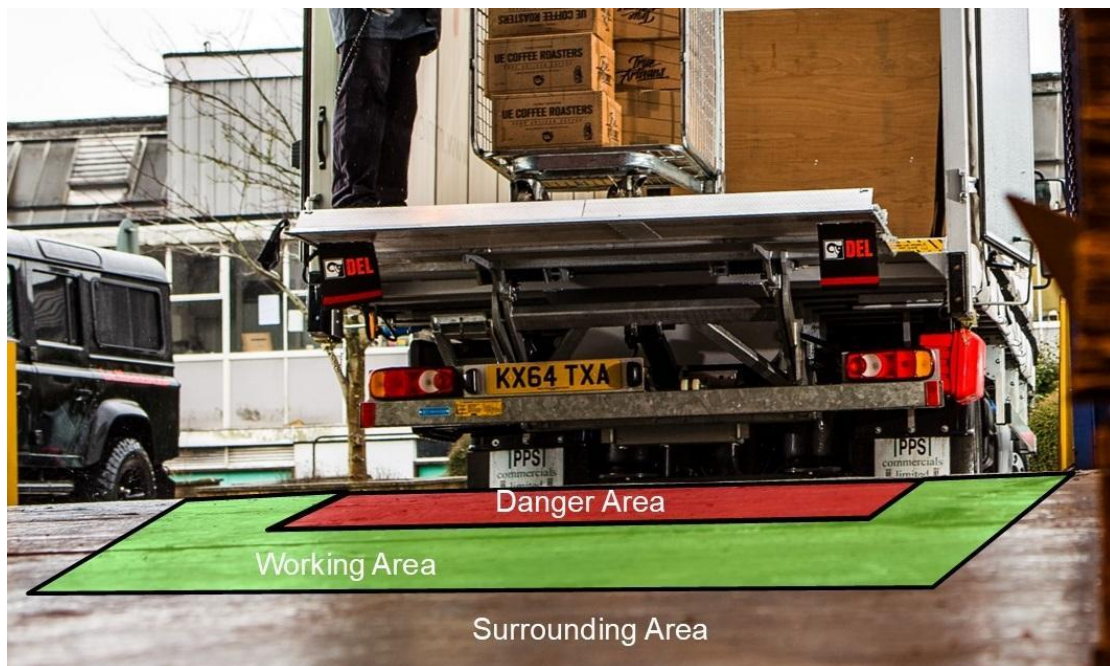
The position of the controls should not be changed.

NOTE

The Danger Zone is the area in which the platform travels, and under no circumstances should this be entered while the platform is in its operating position.

The Working Area is the area around the platform in which the operator can stand while the platform is in its operating position. If anyone other than the operator enters this area while the lift is in use, any lifting or lowering operation which is being performed must be stopped.

Surrounding Area is the area around the working area. The operator should be aware of the surrounding area and look for potential hazards.

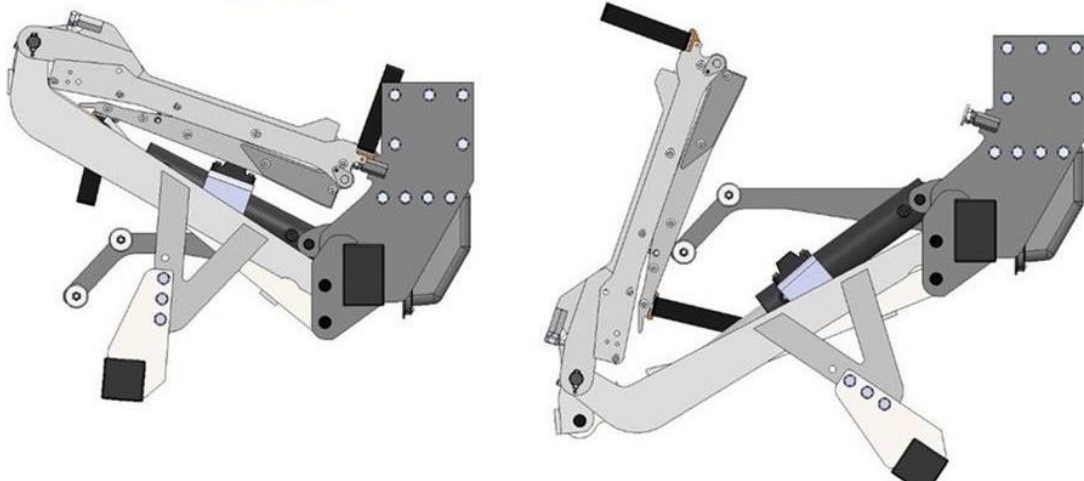


8. OPENING PROCEDURE

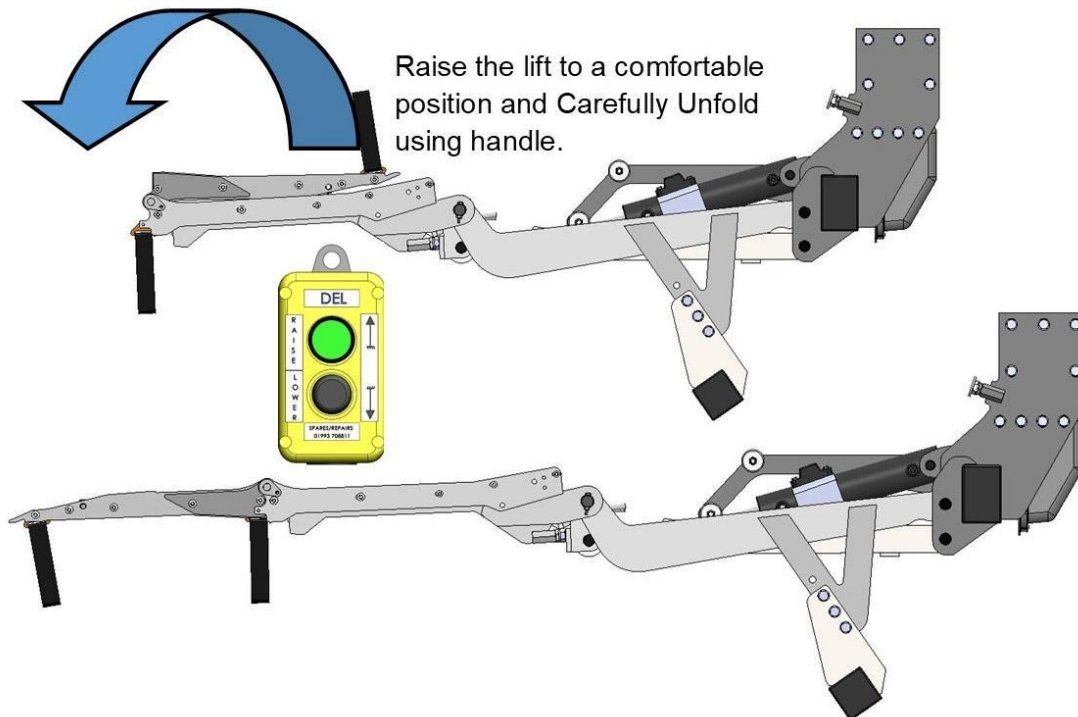
1. Ensure that the working area is clear from any obstructions.
2. Plug in the wanderlead control or Turn on Cab switch to Activate controller.
3. Standing clear of the platform, on the near side of the vehicle, press the down button on the control, until the platform comes to the ground.



Press the down button to lower platform from the stowed position to the ground.



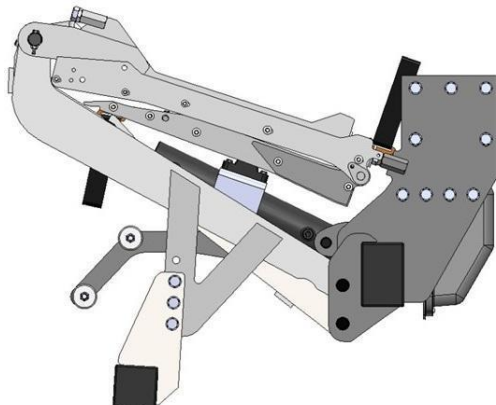
4. Using the platform handle or strap, which is located on the nearside of the platform, pull open the main section of the platform until it reaches the horizontal position. The opening of this section is spring assisted.
5. Press the up button to raise the platform to a comfortable level before unfolding the ramp section to give the complete platform area.



6. The platform is now fully open and should be used following the operation procedure.

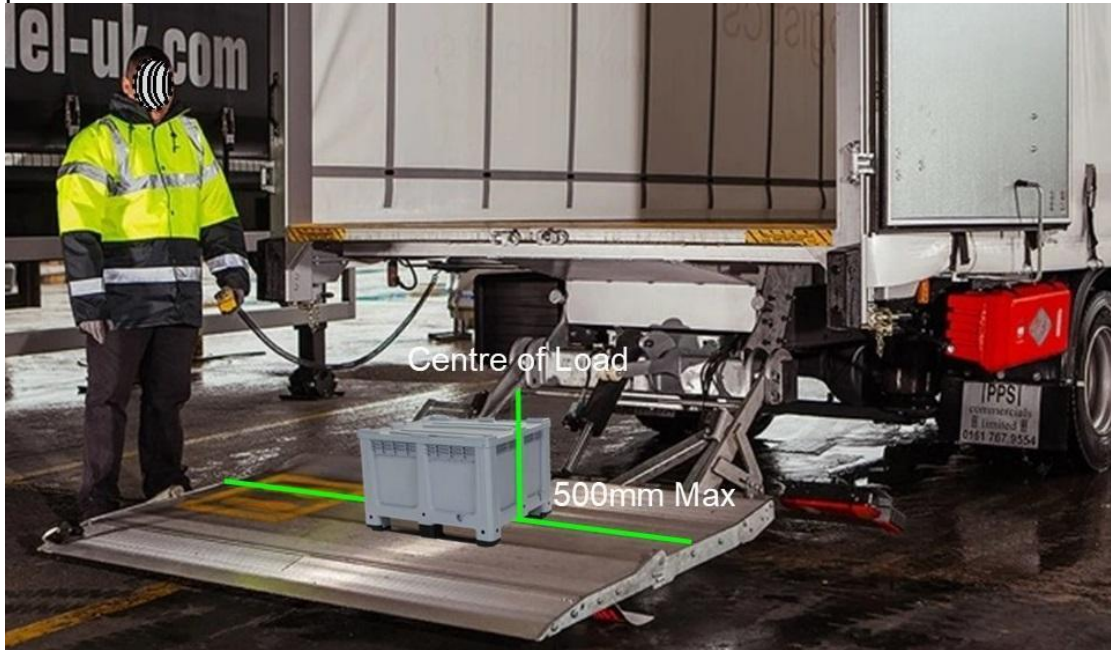
CLOSING PROCEDURE

1. Lower the platform to a comfortable height before folding the ramp section onto the main section of the platform.
2. Lower the platform fully until it reaches the ground.
3. Fold the main platform section until it reaches the roller arm.
4. Press the up button on the control until the platform reaches its stop.
5. Un-plug the wanderlead control or Turn off the Cab Switch.
6. Ensure that the platform is securely in its stowed position before driving the vehicle.



9. OPERATING PROCEDURE

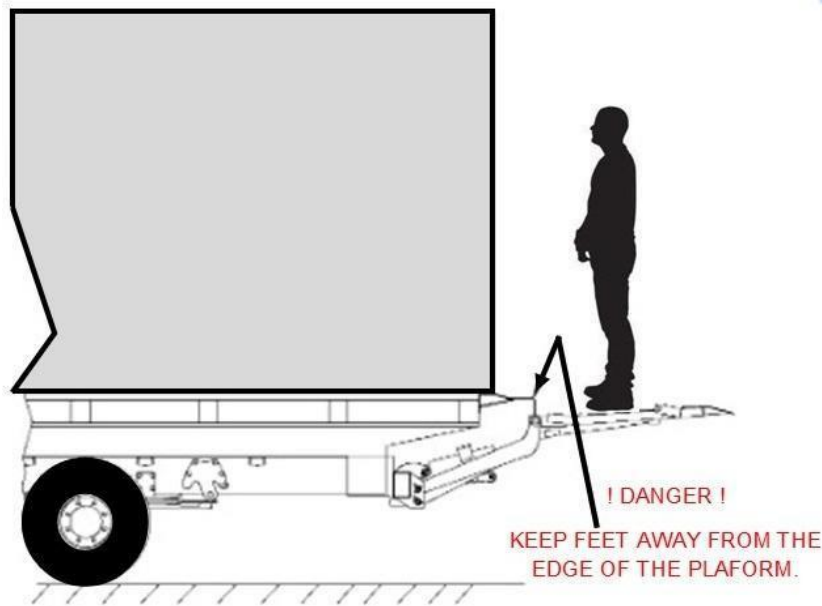
1. Open the platform using the method detailed previously.
2. Evenly distribute the load on the platform as close to the 500mm max as possible from the rear of the vehicle.



3. The platform is not a level ride so make sure that wheeled loads are securely braked. Ensure that all safety devices are used e.g. the cart stops are in the open position. Whilst riding the lift, make sure the marked area for the operator is free of obstructions.

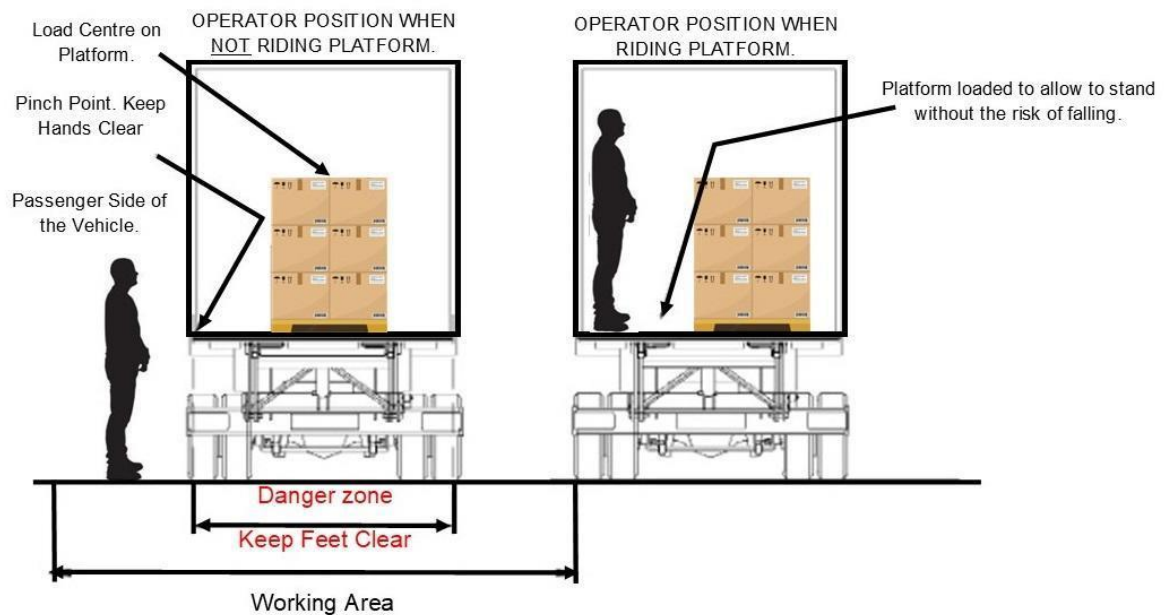


- Power the lift up, keeping feet away from the edge of the platform.



- When the platform reaches bed height, release the control button. Holding the control button on when the platform has reached its stop can damage the lift.
- When loading from the vehicle onto the platform, ensure that the safe working load of the lift is not exceeded as the overload may damage the unsupported platform.
- When closing the platform, ensure that it is securely stowed following the [closing procedure, page 17.](#)

OPERATORS POSITION



**DEL IS A CARGOTEC BRAND**

MAINTENANCE MANUAL

INTRODUCTION

Low maintenance requirements are an important benefit of the DEL tail lift. There is a minimum of moving parts and no cables to fray. However, low maintenance does not mean NO MAINTENANCE – Attention to the simple monthly, seasonal and yearly program should ensure years of safe, trouble free work from your DEL tail lift.

IMPORTANT

The “duty holder” (owner/user /operator) of the tail lift has a legal responsibility to ensure that the lift is safe to use at all times. These duties and responsibilities are documented in some detail in the LOLER 1998 and PUWER 1998 Regulations. Del has produced a document to provide advice to “duty holders” (tail lift owners and users) to assist them to comply with Government Health & Safety Regulations. It also provides useful information for service engineers. This document (procedure No. 4002.1) is available on request.

10. SAFETY INFORMATION

SPRINGS

There are springs located at each side of the platform where it meets the lift frame. These assist the operator to open and close the platform. There is a significant force on these springs when the platform is in its open and closed position, and ***care must be taken to ensure they are in a relaxed state before any maintenance is carried out on them or parts they are connected to.***

HYDRAULIC SYSTEM

The hydraulic system uses high operating pressures and as such should be treated with caution. Never work on the lift while the system is under pressure, always lower the platform onto the ground before any maintenance of the system.

WARNING – High-pressure ejection of hydraulic fluid can cause serious injury. A ram in operation/under pressure has a large amount of stored energy.

11. MAINTENANCE PROCEDURE

1. Before carrying out a service the tail lift should be cleaned and inspected. We also recommend that it receives a Thorough Examination, just prior to the service. If the service engineer is shown a copy of a very recent *Thorough Examination* Report (within the last 7 days), and if they accept that the *Thorough Examination* has been completed by a “competent person”, they may decide not to repeat some or all of the checks in the service.
2. The service schedule gives details of regular service procedures. All of the procedures should be carried out at each service except the hydraulic oil change which only needs to be done every 24 months. The appropriate part of the service record should be completed after each service.
3. Where major repairs are needed (see next page); the additional service sheets should be completed. The post installation tests which refer to the replaced part need to be repeated i.e. if the power pack is replaced, the overload, drift and operating speed tests need to be repeated.

USAGE

The maintenance schedule for Tuckunder lifts is given below. The time scale for the schedule is given below

Light use - An average of about 20 cycles per day at loads well below the safe working load of the lift - Service twice per year.

Normal use – An average of about 30 cycles per day at loads mostly below the safe working load – Service 3 times per year

Heavy use – An average of about 40 cycles or more per day at loads on or close to the safe working load – Service 4 times per year

The times given for the schedule are taken from the date of installation.

The need for regular, preventative maintenance is essential to the working life of the lift.

ACCIDENT OR BREAKDOWN

In the event of an accident or breakdown, if the tail lift cannot be repaired immediately it must be put out of operation and secured against unauthorised use. Contact DEL Service for assistance. 01993 708811.

MAJOR ALTERATIONS/REPAIRS

In the case of a major repair the service report (see page 30) should be completed. After such repair the tests after installation should be carried out to ensure the lift is set up and operating correctly and safely after the repair. A major repair is classed as one which involves the replacement of parts due to failure or malfunction.

REPLACEMENT PARTS

A complete list of service replacement parts can be obtained by contacting DEL Service.



DAILY INSPECTIONS

At the beginning of each shift or working day that the equipment is in use the following routine inspections should be carried out, by the trained and authorised person who will use the equipment (usually the truck driver). There is no need to keep any records of the inspection but if any faults or defects are found they must be communicated to the business manager/owner. This routine inspection, done at the depot, should normally take no more than a few minutes and could eliminate a lot of time and effort later in the day. If in any doubt the equipment should not be used until any serious defect has been dealt with. This may mean involving a “competent person” to inspect the lift.

- With the tail lift in the stowed position, visually inspect for physical damage, loose fittings and oil leaks.
- Press the DOWN BUTTON to lower the platform to a suitable height. Fully open the platform and ensure the effort required is OK.
- Check that the two warning flags are in place on the platform, if not ask for them to be ordered immediately.
- Check that all the warning decals are in the correct place.
- Check that the DEL plate is visible indicating the SWL.
- Visually check the surface of the platform, ensure it is undamaged and not slippery.
- Check that the Cart Stops (if fitted) are operational and undamaged.
- Lower the opened platform fully to the ground and then raise it fully to ensure it comes up to bed height. The movement should be smooth and without “unusual” noise.
- Lower the platform to a suitable height, fold back the front section and then fully close the platform. Ensure the effort required is OK.
- Push the UP BUTTON to bring the folded tail lift to the park position.

The user should inform their business manager/owner of any problems. The business manager is responsible for ensuring proper action is taken. It is not essential to log the outcome of these inspections but it is sensible to note any faults found and later comment when the fault has been put right.

TAIL LIFT SERVICE RECORD

Vehicle reg No..... Tail lift Model.....
Lift Serial No..... Date of Manufacture.....

Service 1 (4 Months)

Date.....
Company.....
Address.....
Signed.....
Pint Name.....
Comments.....
.....
.....

Service 2 (8 Months)

Date.....
Company.....
Address.....
Signed.....
Pint Name.....
Comments.....
.....
.....

Service 3 (12 Months)

Date.....
Company.....
Address.....
Signed.....
Pint Name.....
Comments.....
.....
.....

Service 4 (16 Months)

Date.....
Company.....
Address.....
Signed.....
Pint Name.....
Comments.....
.....
.....

Service 5 (20 Months)

Date.....
Company.....
Address.....
Signed.....
Pint Name.....
Comments.....
.....
.....

Service 6 (24 Months)

Date.....
Power pack hydraulic oil changed?.....Y/N
Company.....
Address.....
Signed.....
Pint Name.....
Comments.....
.....
.....

Service 7 (28 Months)

Date.....
Company.....
Address.....
Signed.....
Pint Name.....
Comments.....
.....
.....

Service 8 (32 Months)

Date.....
Company.....
Address.....
Signed.....
Pint Name.....
Comments.....
.....
.....

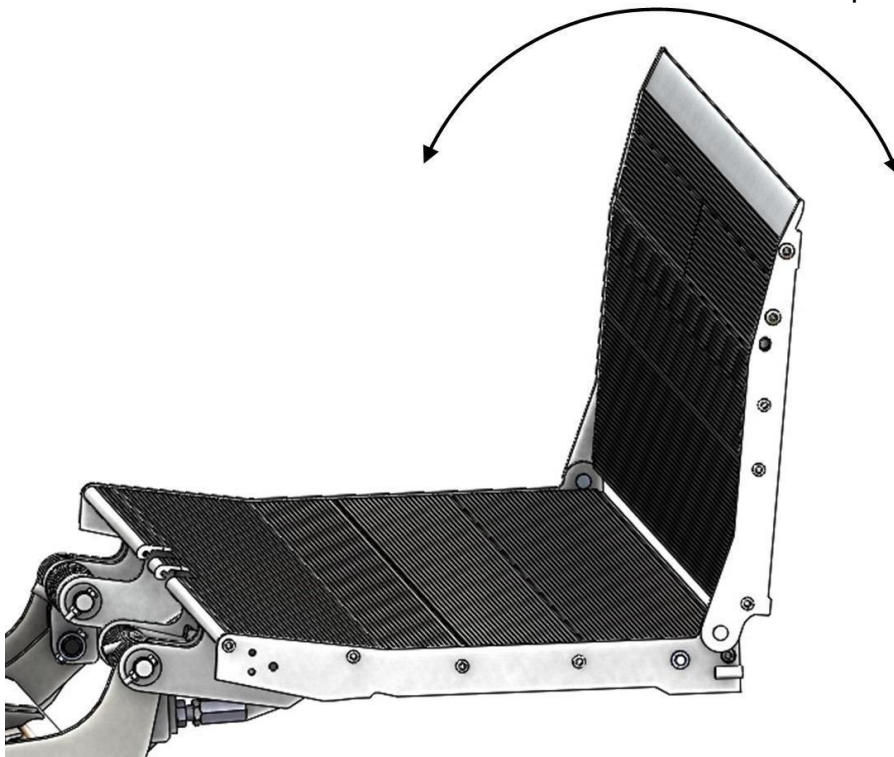
Service 9 (36 Months)

Date.....
Company.....
Address.....
Signed.....
Pint Name.....
Comments.....
.....
.....

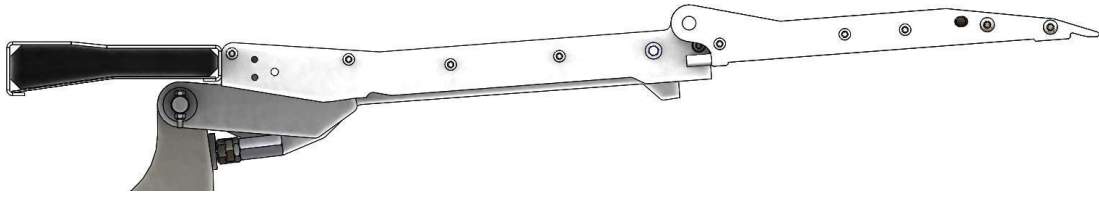
Tail Lift SERVICE SCHEDULE

The following service points must be carried out at each service, with the exception of the hydraulic oil change which must be done every 24 months.

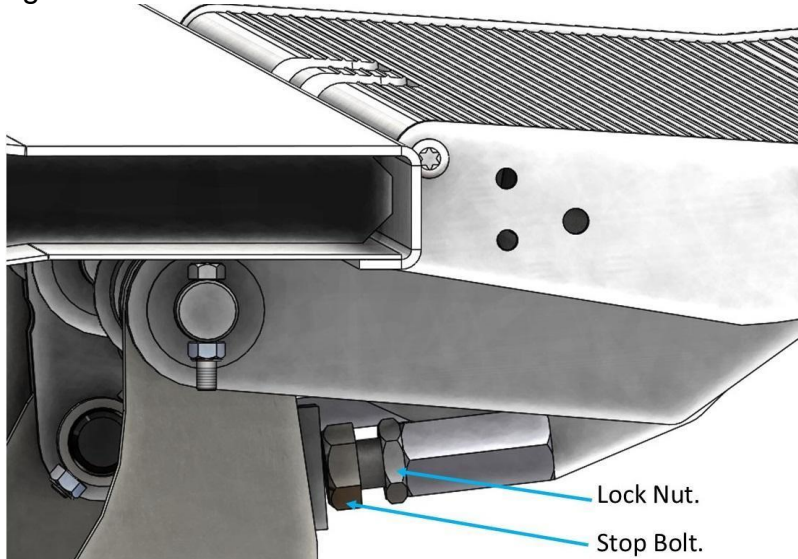
1. Check that all decals and warning flags are in place. (see installation or operators manual for decal locations)
2. Check that the vehicle chassis is sound and that the mounting plates are securely bolted to the chassis and welded to the tail lift beam (see bolt torque settings in installation manual)
3. Check the condition of all switch controls. Are all buttons intact, the casing, control box (if fitted) and battery cables undamaged. Check that there are no loose wires.
4. Carefully lower the tail lift to a suitable height. Pull open the platform and unfold the front section. Check that the effort required is OK.



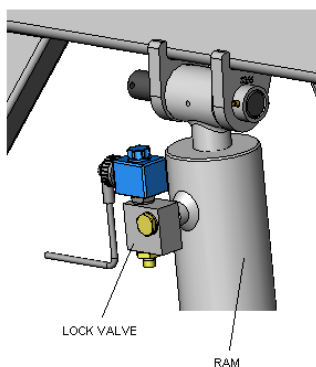
5. Check that the platform is not damaged and that its surface is non-slip. Also check the action and condition of any Cart Stops which may be fitted
6. Lower the platform to the ground then immediately raise it back to bed level. Release finger from button and check movement stops immediately (both up and down). Check if the movement is smooth with no grinding noises or unusual motor or pump noises
7. Check that the tail lift comes up to bed height and that the platform is slightly inclined towards the truck (to prevent goods rolling off the platform).



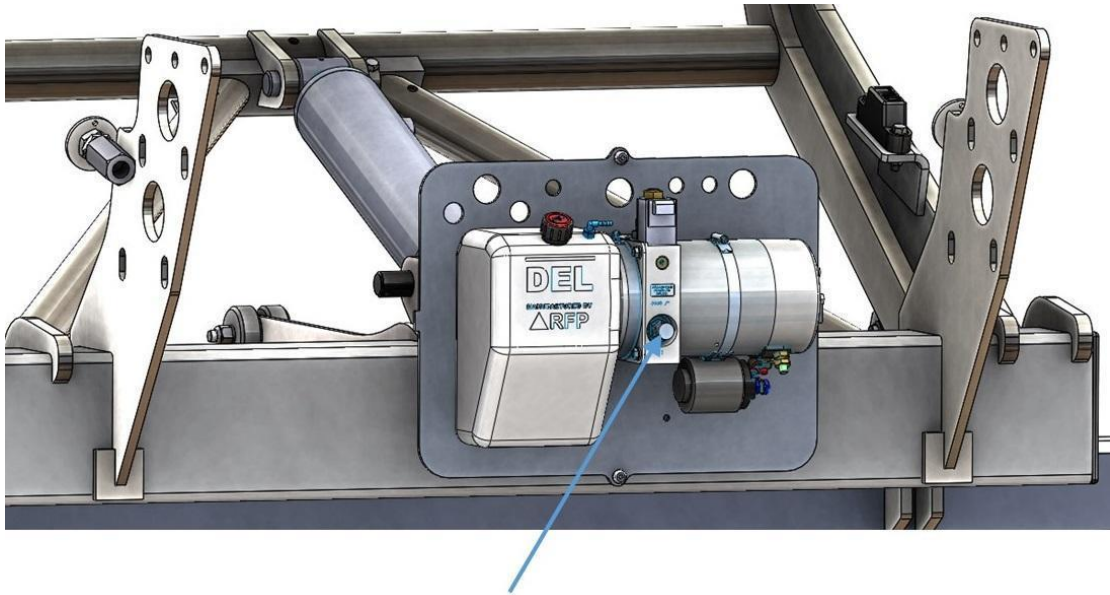
If needed, adjust the platform stop bolts ensuring that the lock nuts are fully tightened.



8. Measure the gap between the edge of the platform and the “Floor plate” (Rear Bearer). If more than 10 mm the bushes may be worn. Replace all worn bushes. Ensure that the platform and lift frame are securely supported before removing any pivot pins. Check pins for wear and replace if necessary.
9. Fully lower the platform from bed height to ground and record the time taken in seconds. The lowering speed should not be greater than 150mm per second. (Time taken is bedheight specific). The movement should be smooth.
10. With the platform on the ground, check that all hydraulic hoses and fittings are tight and that there is no evidence of oil leaks. If necessary tighten or replace any loose fittings or hoses.
11. Check all hose connections to the RAM. Check that the Lock/Check Valve is secure.

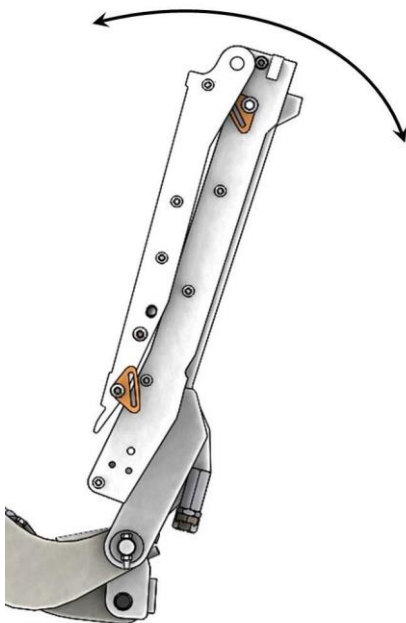


12. With the platform on the ground, take the cover off the powerpack box, and check the oil level in the tank. If the oil level is below the max mark, top up using Dextron 2 or Total ATF. Check that the tamper proof cap is still intact on the Pressure Relief Valve or that the valve may only be adjusted with a special tool. If there is any doubt about the pressure setting, a full load test should be planned at which the pressure should be set to the correct level and the tamper proof device re-fitted. Check that all the electrical connections are secure before refitting the box cover.



Relief Valve .

13. Check that the effort required to close the fixed part of the platform is ok. Inspect the torsion springs and spray with WD40.



14. Inspect all welds for cracks.
15. Change the hydraulic fluid (every 24 months). With the platform on the ground, remove the power pack box cover. Disconnect the hose(s) where they connect to the ram lock valve and place the open ends in a container to catch the hydraulic fluid. **Caution. Use Extreme care !!.** **Using short sharp pushes,** press the up button to drain the tank. It may not be possible to completely drain the oil from the tank as a small amount of oil will be below the suction pipe in the tank. Reconnect the hose(s) onto the lock valve before filling the tank with new oil (Dextron 2 ATF or Total ATF is recommended). Prime the pump by pressing the raise and lower buttons simultaneously. Raise and lower the platform a couple of times and check for any oil leaks. With the platform on the ground, check that the oil level is up to the max mark before refitting the powerpack box cover.

12. RECORD OF MAJOR REPAIRS

DATE.....

FAULT.....

.....

.....

CLAIMED UNDER WARRANTY YES/NO?

PARTS PURCHASED.....

.....

.....

TESTS COMPLETED ON PARTS FITTED.....

.....

REPAIRED BY.....

COMPANY NAME & ADDRESS.....

.....

.....

DATE.....

FAULT.....

.....

.....

CLAIMED UNDER WARRANTY YES/NO?

PARTS PURCHASED.....

.....

.....

TESTS COMPLETED ON PARTS FITTED.....

.....

REPAIRED BY.....

COMPANY NAME & ADDRESS.....

.....

13. HYDRAULIC/ELECTRICAL/MECHANICAL FAULT FINDING CHART

FAULT

REASON

Will not Lift - Motor not running

- Fuse blown
- Check power to motor
- Check starter switch
- Check wiring to starter switch
- Faulty earth
- Faulty push button
- Seized pump

Motor runs fast

- Pump scored and slipping
- Solenoid valve contaminated
- Relief valve contaminated or not set high enough
- Ram seal or rod scored
- Coupling between pump and motor broken
- No oil/low oil level

Motor runs slowly

- Bad electrical connection to Battery or earth
- Battery flat
- Motor bushes worn
- Hydraulic line blocked, hose Collapsed, flow control closed Or incorrectly fitted
- Wrong size of pump fitted
- Mechanical damage to tail lift
- Suction filter blocked

Lift will not lift load

- Relief valve setting too low or part load or contaminated
- Pump scored
- Oil too thin
- Low oil level
- Solenoid valve contaminated

Lift will not lower

- Solenoid wire or coil failure
- Electrical push button failure in switch or wiring
- Mechanical damage

Lift lowers slowly

- Oil too thick
- Collapsed hose or blocked Hydraulics line
- Solenoid valve jamming or incorrectly set by manufacturer
- Flow control blocked or incorrectly
- Set or fitted.

Lift creeps down

- Solenoid valve leaking
- Check valve leaking
- Oil leak
- Pipe leaking
- Ram seal leaking

Lift only raising partially

- Not enough oil
- Suction filter blocked
- Tank filter breather blocked
- Mechanical damage
- Relief valve set too low

Pump unit noisy

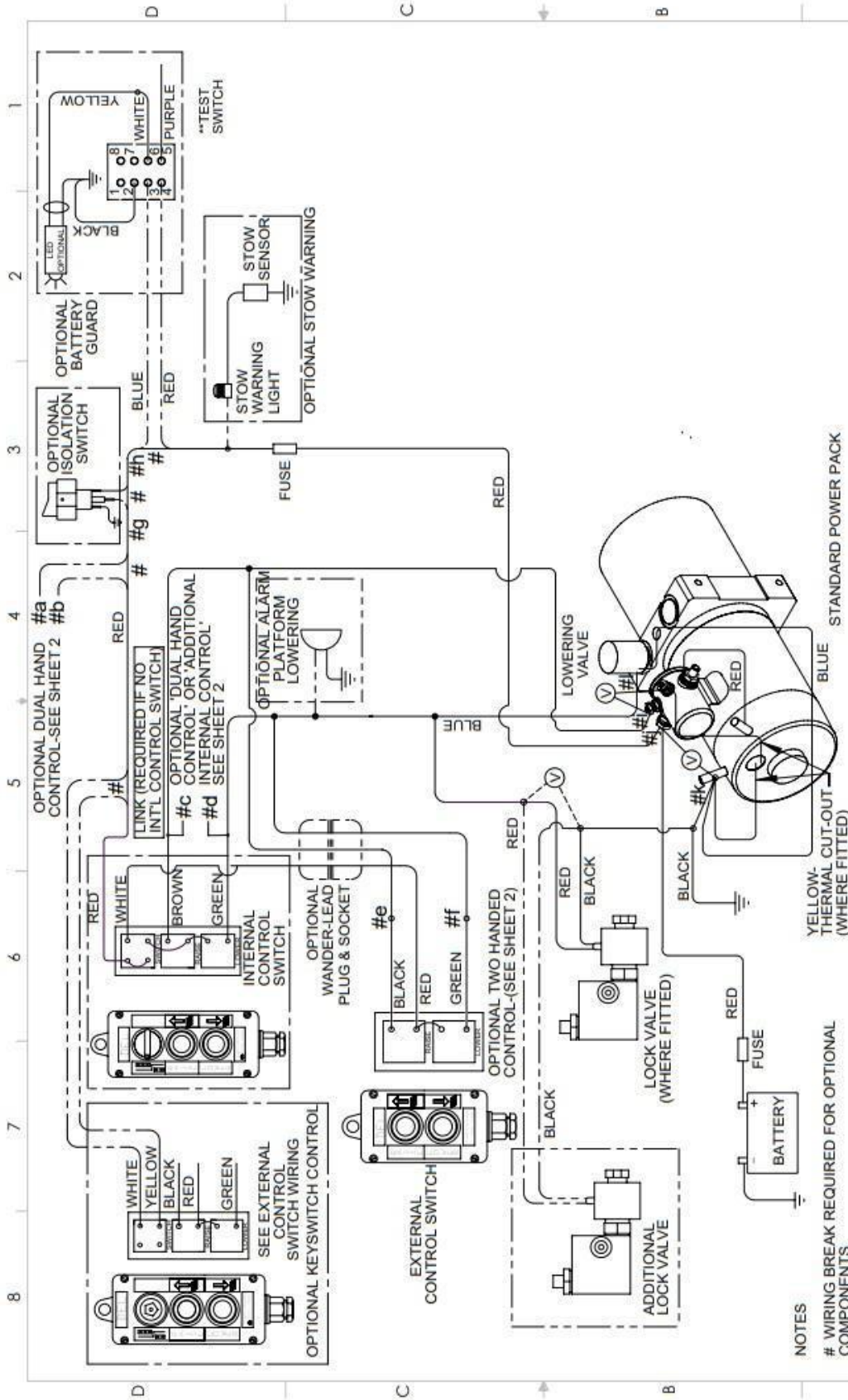
- Oil too thick
- Not enough oil
- Suction filter blocked
- Relief valve not set high enough
- Motor bearing or bushes worn

CHECK PROCEDURES

- Tools
- Pressure gauge
 - Multi-meter
 - Earth strap

(1) Ensure a good electrical supply to the motor and control switches, a good earth is also essential.

(2) Check hydraulic pressure when lifting an empty load, full load and at relief valve setting. Relief pressure should be approximately 10% higher than maximum pressure when lifting Safe Working Load (SWL).



- NOTES**
- # WIRING BREAK REQUIRED FOR OPTIONAL COMPONENTS
 - ** TEST SWITCH CONNECT TO EARTH TO SIMULATE LOW VOLTAGE CHECK
 - *** BEEP INHIBIT OPTIONAL TO MUTE AUDIBLE WARNING
 - ⊕ DENOTES A VARIATOR

DEL EQUIPMENT (UK) Ltd.
 BDG 1, WINDRUSH PARK RD.
 WINDRUSH INDUSTRIAL PARK,
 WINDRUSH, COXWOLD, YORKS. YO29 7HA.
 151993 708811 F708787

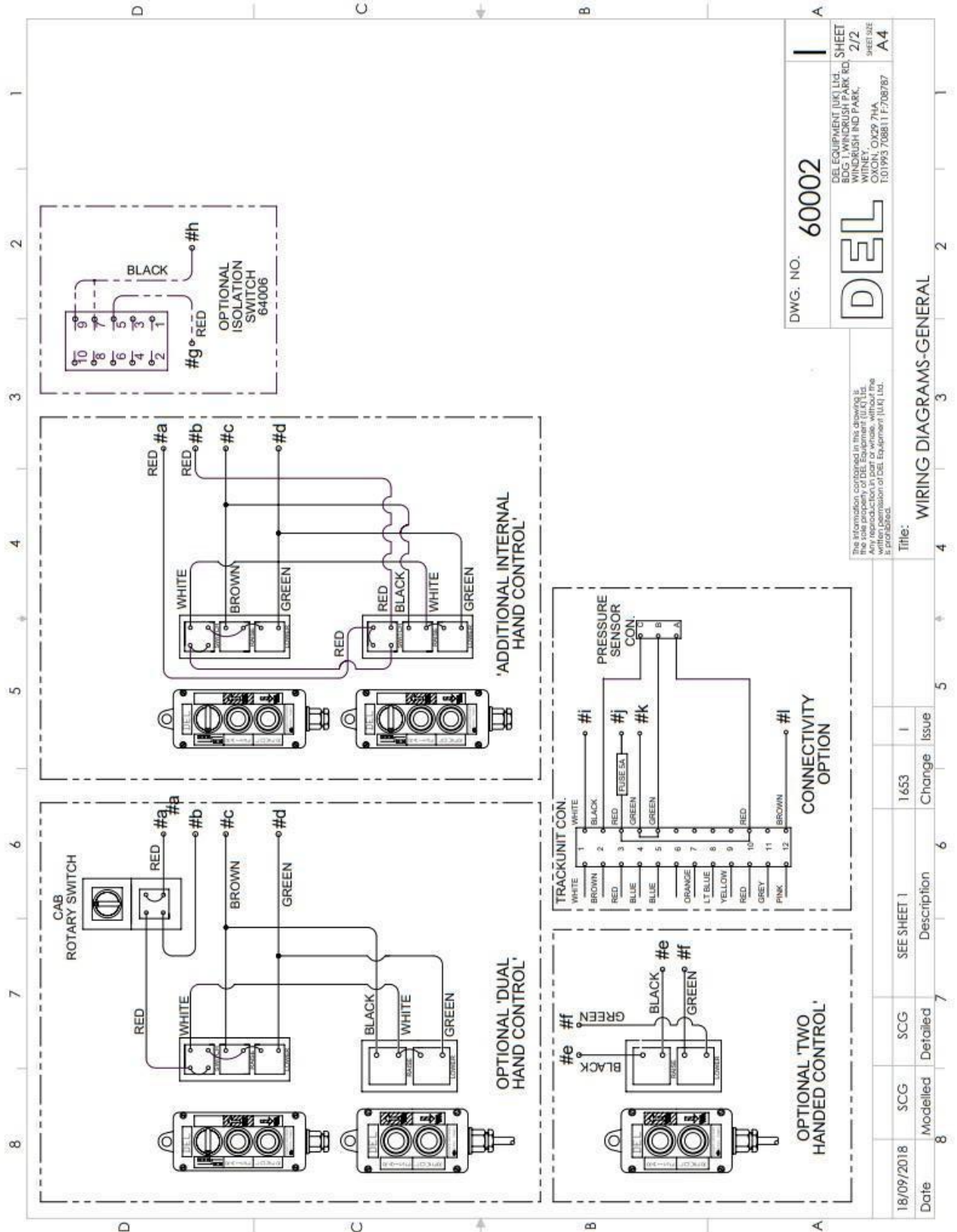
DWG. NO.	60002
SHEET	1/2
SHEET SIZE	A4

DEL

The information contained in this drawing is the property of DEL Equipment (UK) Ltd. Any reproduction in part or whole, without the written permission of DEL Equipment (UK) Ltd. is prohibited.

Title: **WIRING DIAGRAMS-GENERAL**

Date	Modelled	Detailed	Description	Change	Issue
18/09/2018	SCG	SCG	CONNECTIVITY OPTION ADDED	1	1
			SMART START REMOVED		



DWG. NO. **60002**

DEL

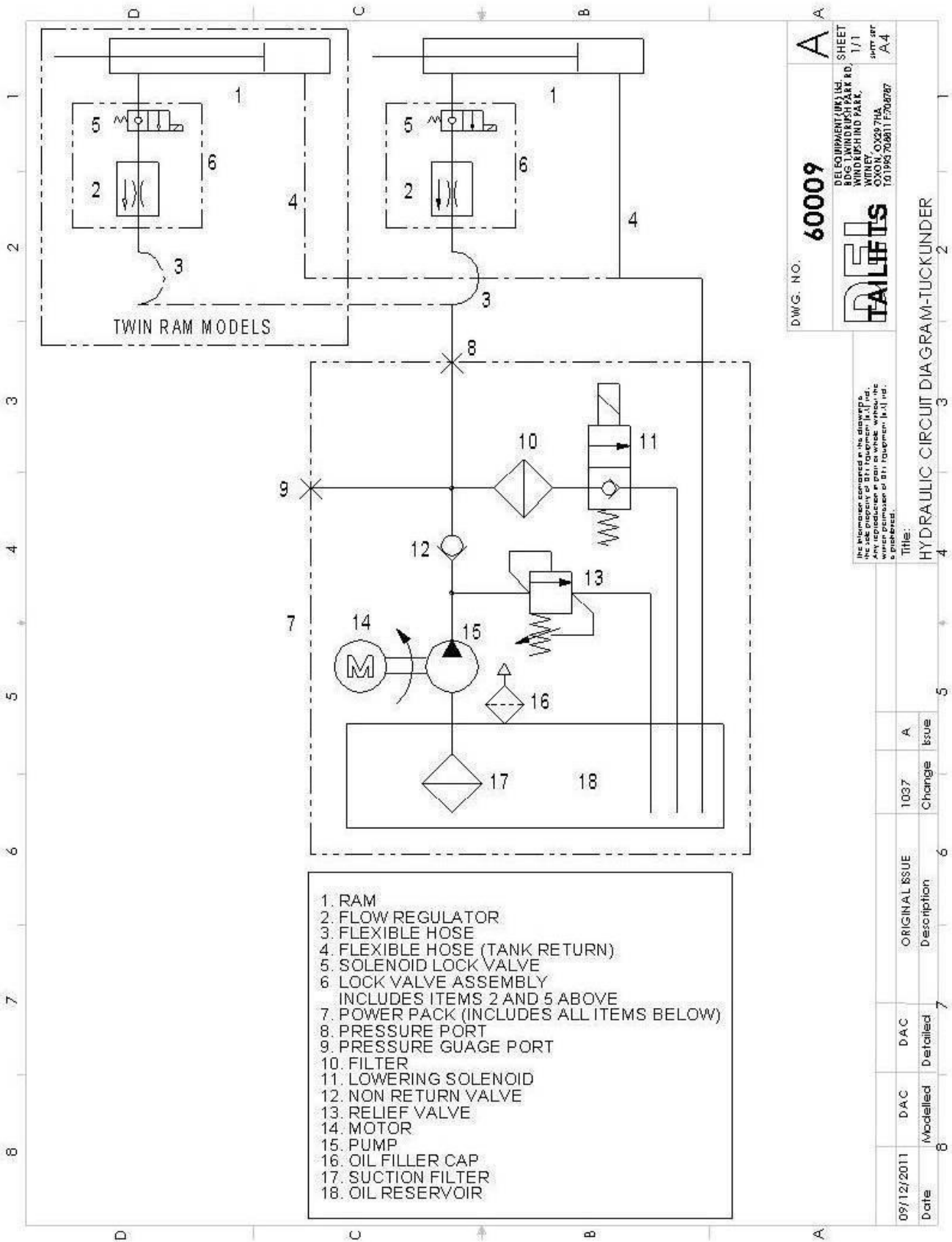
DEL EQUIPMENT (UK) LTD.
BDG 1, WINCRUSH PARK RD,
WINCRUSH IND PARK,
CROFTON, OX29 7HA,
T:01993 708811 F:708787

SHEET **2/2**
SHEET SIZE **A4**

The information contained in this document is the property of DEL Equipment (UK) Ltd. Any reproduction in part or whole, without the written permission of DEL Equipment (UK) Ltd, is prohibited.

Title: **WIRING DIAGRAMS-GENERAL**

Date	Modeller	SCG	SCG	SEE SHEET 1	Description	Change	Issue
18/09/2018	SCG	SCG	1653	1			



DWG. NO. **60009**

DE EQUIPMENT (UK) LTD
 WINDLESHAM RD.
 WITNEY,
 OXON, OX29 7HA
 Tel: 01993 705811 Fax: 01993 705807

TAL Lifts

SHEET 1/1
 10mm A4

The Manufacturer accepts no responsibility for the use of this manual in any way. Any reproduction or use of this manual without the written permission of the Manufacturer is strictly prohibited.

Title: HYDRAULIC CIRCUIT DIAGRAM-TUCKUNDER

Hiab UK Ltd,
 Cargotec Industrial Park, Ellesmere,
 SY12 9JW,
 Tel +44 (0) 1993 708811,
 E-Mail: Sales@del-uk.com.
www.hiab.com



DEL WARRANTY REGISTRATION FORM

REGISTER YOUR DEL tail lift AND OBTAIN UPDATED
 INFORMATION ON THE DEL RANGE

PLEASE PRINT CLEARLY.

1. Purchasers name:
2. Address:
 Town
 County:
 Postcode: Tel No:
3. Form completed by: Position:
4. Type of business:
5. Model purchased: Serial No:
6. Truck make/model/reg.
7. Date purchased:
8. Purchased from:
9. Lift installed by:
10. Were you satisfied with the installation of this unit?
11. Were all warning decals affixed to the tail lift?
12. Number of tail lifts you now operate?
 Of these, how many are DEL units?
 What other makes of tail lift do you own?
13. Was this purchase a replacement?
14. Why did you select a DEL tail lift?
 - Owned a DEL unit previously
 - Dealer recommended it
 - Colleague recommended it
 - Advertisement (Name of magazine)
 - Received literature in post
 - Price
 - Other (Please specify)
15. Are you planning to buy additional lifts within the next six months?

Thank you for completing this registration form. Once completed please return the form to DEL at the address above.

Hiab UK Ltd,

Cargotec Industrial Park,

Ellesmere,

SY12 9JW.

Tel.: +44 (0) 1993 708811

E-mail: sales@del-uk.com | hiab.com

