

QUAD-TILL  
&  
QUAD LITE  
(2012)

3m-6m Machines  
OPERATOR MANUAL

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## **Safety**

This manual contains basic advice which should be observed during setting-up, operation and maintenance. Therefore, this operating manual must be read by the personnel concerned prior to starting up, using the machine and be available at all times.

If safety instructions are not complied with, then this can lead to the risk of injury to yourself and others as well as damage to the environment or the machine. Non-compliance to the safety instructions can also lead to claims for damages becoming invalid.

## **Qualification and Training**

- Ensure that only reliable, authorised personnel work on or with the machine. Statutory minimum age limits must be observed.
- Employ only trained or instructed staff; the individual responsibilities of the personnel concerning operation, setting up, maintenance and repair must be clearly established.
- Define the machine operators' responsibilities – also with regard to observing traffic regulations. The operator must have the authority to refuse any instructions issued by third parties, which contravene safety.
- Persons undergoing training and instruction or taking part in a general training course should not be allowed to work on or with the machine unless they are under the constant supervision of an experienced person.
- The use of spare parts, accessories and ancillary equipment not supplied and/or not approved by Philip Watkins Ltd could have detrimental effects to the construction of the Philip Watkins Ltd machine or on its functions and hence impair the active and/or passive driving and/or operating safety (accident prevention).
- Philip Watkins Ltd shall not be responsible for any damage caused by the use of spare parts, accessories and ancillary equipment not supplied and/or approved by Philip Watkins Ltd.
- Conversions of or modifications to the machine may only be carried out after consultation with Philip Watkins Ltd.

## **General Safety**

- Warning signs and other notices on the machine provide important information for the safe operation. Observing them will serve your safety
- Before starting work, make yourself familiar with all the equipment and control as well as their functions
- The user should wear close-fitting clothing
- Keep the machine and in particular the bearings clean to avoid risk of fire
- Check around the machine before moving off or starting up (watch out for children!). Make sure you have adequate all-round visibility.
- Always match your speed to the local conditions. Avoid sudden turning manoeuvres when driving uphill or downhill or when travelling across a slope.
- Observe the respective regulations when using public roads.
- Take into account the wide overhang and or the sideways force acting on the machine when turning or negotiating curves.

### **Special Safety Instructions**

- Take extreme care when hitching up or unhitching machine to/from the tractor.
- Never allow person to stand between tractor and the machine unless the tractor is secured against rolling away by means of parking brake and/or wheel chocks.
- During transport, secure wings with straps and axle with ram stops.
- Never stand or work beneath suspended loads.
- When making adjustments to the machine care should be taken not to trap any body parts in moving or pivoting parts.

### **Maintenance**

The packer bearings should be greased every day until old grease is seen coming out of bearing and after washing off.

The disc bearings should be greased every 20hrs approx 7 pumps or until old grease is forced out and after washing off.

After 2012 disc bearings are a sealed unit.

The condition of the subsoil legs, the points and the discs should be regularly monitored in order to maintain the most efficient use of the machine.

The condition and position of the packer scrapers should also be observed in order to prevent soil building up on the pack. Ensure the scrapers are not touching the pack though, as this will add rolling resistance as well as causing premature wear of the packer.

### **Auto Reset**

Grease points can be found on all rams on auto reset machines. These require one pump of grease every 20 hours. Exposed chrome ram rode should also be greased weekly to prevent these valuable parts from rusting and causing costly oil leaks.

### **Winter Storage**

When machines are to be parked up for the winter period, correct storage techniques are an important part of protecting the machine to ensure a hassle free season. When the machine has finished work it should be cleaned down and washed off to remove all traces of soil.

Following washing off, the packer bearings should be greased and the disc bearings should be greased until old grease is forced out. Other grease points are located on all rams on auto reset machines and these should receive two or three pumps of grease.

When the machine is parked up a note should be made of what wearing parts require replacing ready for the next seasons work. The wearing parts can then be ordered in time ready for the next seasons work to avoid delays when the machine is required earlier than expected!

## **Spares**

When ordering replacement parts please have your serial number, part name and quantities at hand. Please email your order to [info@philipwatkins.co.uk](mailto:info@philipwatkins.co.uk).

## **General Usage**

80mm ø towing frame (if equipped) lock arms sideways for travel. Set tractor arms to desired height using draught if required but ensure the arms cannot move too far on their own so it doesn't affect working depth.

This machine is designed to travel in a straight line while working elements are soil engaged, however you may negotiate slight curves around headlands.

The front discs are aimed at working 40 to 60mm deep and usually the 2<sup>nd</sup> row of discs will run about 20 to 25mm deeper than the 1<sup>st</sup> row. Adjust disc depth via drawbar ram spacers or 3 point linkage and rear depth with threaded adjusters (spanner in toolbox).

## **QUAD-TILL with subsoil legs**

- Sub soil legs will run 175 to approx 375mm deep and are adjusted via a pin on each leg. **DO NOT LINE HOLES UP WITH FINGER!!**
- Set hyd auto reset leg pressure by opening tap at front of chassis then lift machine fully up on wheels to increase pressure to full then close tap and lower machine to ground and put spool valve in float then carefully open tap to release to desired pressure. Pressure should be set as low as possible between 100PSI and 1200PSI to keep legs in work in normal conditions.
- VF tines are adjusted for depth via the spacers on their lift rams.
- The level board position is set with spaces on their lift rams.
- DD rings will normally run slightly tilted back. They can be tilted further back in damp or soft soils to avoid bulldozing.

## **QUAD-LITE**

- Tines will run at approx 50mm to 250mm deep.
- Adjust tine depth with hydraulics and set max working depth with spacers on both rams.
- Adjust the level of the tine frame with top link at each side. Levelling discs are adjusted with manual winders.

Harrow bar (if equipped) is plumbed into the drawbar circuit (wheels on QUAD-LITE) and will lift it when turning at headland. If it is not needed lift it up and turn tap off at front of chassis (if not needed for a long period of time it may be better to remove it and place in storage). Angle of harrow can be adjusted with the bolts on the bracket.

Seeder unit (if fitted) please refer to seeder instructions.

## **Folding/Unfolding**

Before folding ensure the following

1. No persons are near the machine
2. No object are sat on the machine
3. wheel rams fully extended
4. drawbar rams set so chassis is level
5. subsoil legs in down position
6. level board in down position
7. you can now fold the machine

When travelling always use the safety straps and ram stops and leave spool valves in neutral (NOT FLOAT).

## **Turning at end of field**

As you approach your headland

1. lift drawbar to top
2. if working deep with tines/legs you may need to lift them up
3. lift wheels to top
4. turn round in a loop and ensure you are in a straight line as you lower machine
5. lower drawbar
6. lower wheels till clear of floor
7. lower tines/legs

If fitted with front depth wheels they are designed to carry a small amount of weight and stop the machine rocking sideways.

The machine is equipped with bolt on brackets at the end of the fold rams, these are used to level the machine wings in work. Simply add or remove spacers to get wings level (always tighten bolts after adjustment).