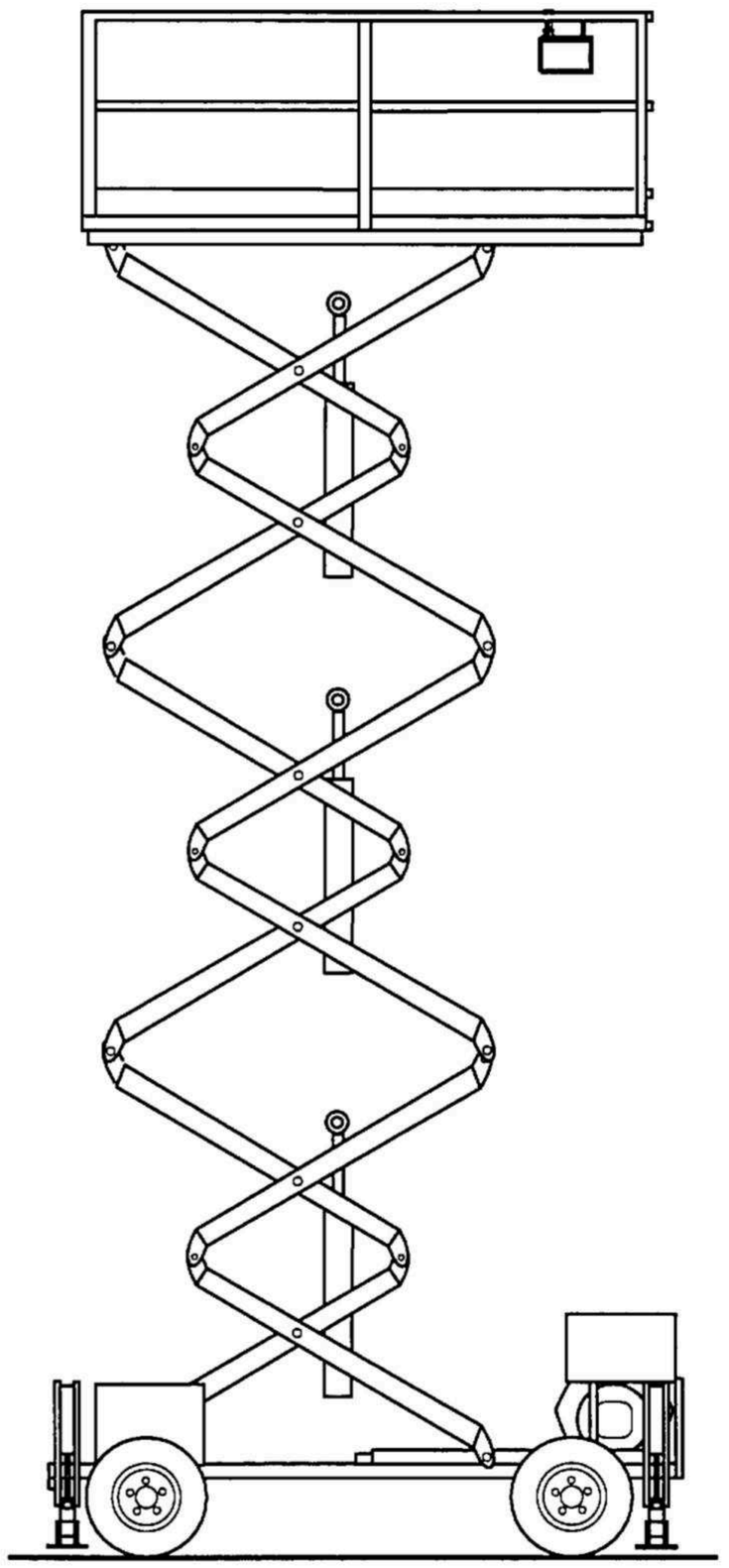
4612 RT SCISSORS

Genie®
A TEREX COMPANY

SERVICE MANUAL



For Service Concerns Only:
Direct Phone Line to Service Department, 8:00 AM to 5:00 PM Central Time, Monday thru Friday.

Phone (414) 355-3181

Art # A00.00902E

Part No. 89-977507 • Rev. "0.1" dated Jan. 1997 •

MidWestTech | Terex Genie 4612RT Scissor Lift Service Manual | Publication 89_977507

Order the manual at mid-west-tech.com >

Table of Contents

Introduction iv
Machine Specifications vi
Primary Machine Components vii
Chassis Components viii
Undercarriage Components ix
Scissors Components x
Platform Components xi
Lubrication Chart xii
Lubrication Diagram xiii

Section 1: Transportation and Emergency Procedures

Transporting the Unit 1-3
- Moving of the Scissors Lift 1-3
- Fork Lifting the Scissors Lift 1-4
- Crane Lifting the Scissors Lift 1-4
- Truck Transport of the Scissors Lift 1-4

Unloading Procedures 1-5
Emergency System and Procedures 1-6
- Emergency Lowering 1-6
- Emergency Procedures 1-6

Section 2: Hydraulic System

Hydraulic Fluid 2-3
- Handling Precautions 2-3
- Fluid Recommendations 2-3
- Hydraulic Fluid Analysis 2-3
- System Flushing Procedure 2-4

Hydraulic System Functional Description 2-5
Hydraulic System Components 2-6
- Hydraulic Fluid Reservoir Assembly 2-6
- Hydraulic Filter 2-6
- Hydraulic Pump 2-6
- Loop Valve 2-6
  - Loop Pressure Relief Valve 2-6
- System Pressure Relief Valve 2-6
- Drive/ Steer System 2-7
  - Directional Drive Valve 2-7
  - Drive Proportional Valve 2-7
  - Motion Control Valve 2-7
  - Freewheel Valve 2-7
  - Hydraulic Drive Motors 2-7
  - Brake Flow Control Valve 2-7
  - Brake Pressure Reducing Valve 2-7
  - Brake Release Pump and Valve 2-7
  - Steer Valve 2-7
  - Steer Cylinder 2-7
- Lift System 2-8
  - Pressure Compensated Flow Control Valve 2-8
  - Lift Valve 2-8
  - Lift Holding Valve (Check Valves) 2-8
  - Lift Flow Control Valve 2-8
  - Lift Pressure Relief Valve 2-8

MidWestTech | Terex Genie 4612RT Scissor Lift Service Manual | Publication 89_977507 Order the manual at mid-west-tech.com >

Table of Contents (Continued)

Section 2: Hydraulic System (Continued)

Lift Cylinder 2-9
Velocity Fuse 2-9
Emergency (Manual) Lowering Valve 2-9
Stabilizer System 2-9
Directional Stabilizer Valve 2-9
Stabilizer Pressure Reducing Valve 2-9
Lock Valve 2-9
Stabilizer Pressure Switch 2-9
Stabilizer Cylinder 2-9
Outrigger System 2-10
Directional Outrigger Valve 2-10
Outrigger Pressure Reducing Valve 2-10
Lock Valve 2-10
Outrigger Pressure Switch 2-10
Outrigger Cylinder 2-10

Section 3: Electrical System

Battery 3-3
Battery Maintenance (in Storage) 3-3
Battery Maintenance (in Use) 3-3
Battery Preventive Maintenance 3-4
Battery Replacement 3-4
Movement Alarm 3-4
Tilt Alarm 3-4
Tilt Alarm Test 3-4
Tilt Alarm Adjustment 3-4
Descent Alarm 3-5
Relay 3-5
Emergency Stop Button 3-5
Electrical and Continuity Checks 3-5

Section 4: Mechanical Components

Mechanical Components 4-3
Chassis 4-3
Tires 4-3
Changing Tires 4-3
Wheels and Lug Nuts 4-3
Steer Cylinder Seal Replacement 4-4
Brake Disassembly 4-5
Brake Assembly 4-5
Drive Motor 4-6
Hoses and Cable 4-6
Platform Removal 4-7
Platform Installation 4-7
Platform Rail Replacement 4-7

October 1995

MidWestTech | Terex Genie 4612RT Scissor Lift Service Manual | Publication 89_977507 Order the manual at mid-west-tech.com >

Table of Contents (Continued)

Section 4: Mechanical Components (Continued)

Traversing Deck Cylinder Removal (Optional) 4-8
Traversing Deck Cylinder Installation (Optional) 4-8
Traversing Deck Cylinder Seal Replacement (Optional) 4-8
Lift Cylinder Removal 4-9
Lift Cylinder Installation 4-9
Lift Cylinder Seal Replacement 4-9
Scissors Arm Assembly 4-10
- Scissors Arm Removal 4-10
- Scissors Arm Installation 4-10
- Scissors Arm Disassembly 4-12
- Scissors Arm Assembly 4-14

Bushing Replacement 4-14
Emergency Hand Pump 4-15
- Hand Pump Replacement 4-15
- Hand Pump O-Ring Replacement 4-15

Section 5: Troubleshooting

General Troubleshooting Tips 5-3
Troubleshooting Chart 5-4

Section 6: Maintenance

General Maintenance Tips 6-3
- Unpowered Raising of Platform 6-4
- First Three Months of Operation 6-4

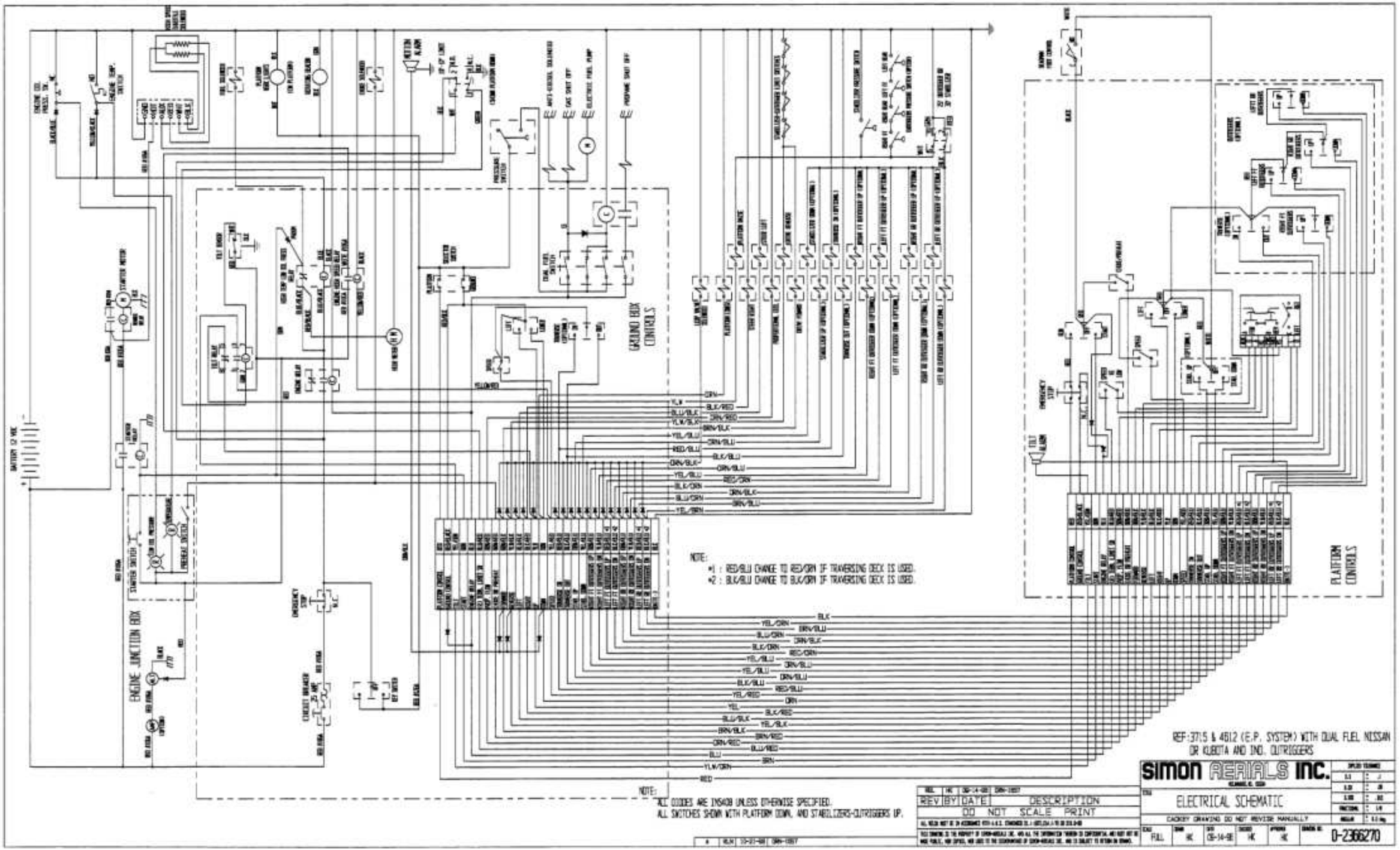
Routine Servicing 6-5
- Shift Service 6-5
- Weekly Service 6-5
- Monthly Service 6-6
- Semi-Annual Service 6-6
- Annual Service 6-6
- Four Year Interval Service 6-7

Shift Operational Checklist 6-8
Weekly Operational Checklist 6-10
Monthly Operational Checklist 6-11
Semi-Annual Operational Checklist 6-13

Index

Appendix

MidWestTech | Terex Genie 4612RT Scissor Lift Service Manual | Publication 89_977507 Order the manual at mid-west-tech.com >



Order the manual at mid-west-tech.com >