snorkel

S2755BE
S2255BE
S2755RT
S2255RT



Diesel
Bi-Energy 24V DC

OPERATION MANUAL

Serial Numbers:
S2255RT-07-000100
S2755RT-07-000100 and after

Part Number 14047-1
August 2018 (Rev B)
Version 4, 5 & 6

MidWestTech | Snorkel S2755BE, S2255BE, S2755RT, S2255RT Scissor Lift Operation Ma... Order the manual at mid-west-tech.com >

Table of Contents

Electrical Hazard

Electrical Hazard Warning 2

Introduction

Standard S3970RT/S3370RT/S2770RT Version III .3
Options 3
Operation Manual 3
Photographs 3
Safety Alerts 3
Operation 4
Maintenance 4
Responsibilities of Parties 4
Product Warranty 5
Additional Information 5

1. Safety

Safe Operation 1-1
Electrocution Hazards 1-1
Pre-start Inspection 1-1
Workplace Inspection and Practices 1-1
Operation 1-2
Tipover and Falling Hazards 1-2
General Safety Precautions 1-3
Hydraulic System Precautions 1-3
Fire / Explosion Prevention 1-3
Engine and Fuel Handling Precautions 1-3
Batteries 1-4
Safety Placards and Decals 1-4
Safety Placards and Decals Location 1-4

2. Safety Devices

Safety Device Information 2-1
Emergency Stop Switches 2-1
At platform control box 2-1
At ground control box 2-1
Alarms 2-1
Lowering 2-1
High temperature 2-2
Low oil pressure 2-2
Alternator not charging 2-2
Drive (reverse) 2-2
Drive (forward) 2-2
Load Sensing System 2-2
Level sensor 2-2
Primary Fall Restraint System 2-2
Safety Prop 2-3
Swinging Gate 2-3
Safety Control 2-3
Bubble Level 2-3
Operator Horn 2-3
Stabilisers (Option) 2-4
Rough Terrain Scissor Interlock Tests 2-4
Enable switch 2-4
RCD / ELCB AC Outlet (Option) 2-4
Flashing Light 2-5
Fall Restraint Lanyard Anchor Points (Option) . . . 2-5

3. Specifications

General Specifications Standard Machine S3970RT 3-1
General Specifications Standard Machine S3370RT 3-2
General Specifications Standard Machine S2770RT 3-3
Engine Data 3-4
DF752 (option) 3-4
D902 3-4
Machine Component Identification 3-5

4. Gauges

EZCal LCD Display 4-1
Water 4-1
Alternator 4-1
Oil Pressure 4-1
Hours 4-1
Work time 4-1
Total time 4-1
Engine Oil 4-1
Hydraulic Oil Level 4-1
Bubble level 4-2

5. Automatic Shut-offs and Circuit Breakers

Automatic Shut-offs 5-1
Level sensor 5-1
Engine Temperature 5-1
Engine oil pressure 5-1
Platform height vs drive speed 5-1
Dynamic brakes 5-1
Alternator not charging 5-1
Load sensing system 5-1
Stabilisers 5-2
Fuses 5-2
RCD / ELCB outlet (option) 5-2

6. Controls

Controls 6-1
Hydraulic Compartment 6-1
Ground Control Box 6-1
Platform Control Box 6-2

7. Daily Inspection and Maintenance

Daily Inspection and Maintenance Table 7-1
Rough Terrain Scissor Interlock Tests 7-2
Stabiliser locked out when platform not elevated test 7-2

MidWestTech | Snorkel S2755BE, S2255BE, S2755RT, S2255RT Scissor Lift Operatio... Order the manual at mid-west-tech.com >

Table of Contents

Elevation locked out when axles not stowed test 7-2
Elevation locked out when tilted test 7-2
Fuel Level 7-3
Fuel filter (diesel engines only) 7-3
Fuel Leaks 7-3
Engine Oil 7-3
Engine Coolant 7-4
Radiator Cap 7-4
Swinging Gate 7-4
Wiring Harnesses and Connectors 7-4
Battery Terminals 7-5
Battery fluid level 7-5
Hydraulic Oil Tank 7-5
Hydraulic tank cap 7-5
Hydraulic oil level 7-5
Hydraulic Oil Leaks 7-5
Tires and Wheels 7-6
Bolts and Fasteners 7-6
Structural Damage and Welds 7-6
Primary Fall Restraint System 7-7
Bubble Level 7-7
Guides, Rollers and Slides 7-7
Ground Controls 7-7
Flashing Light 7-8
Platform Controls 7-8
Emergency Lowering 7-8
RCD / ELCB (Option) 7-9
Safety Prop 7-9
Fall Restraint Lanyard Anchor Points (Option) . . . 7-9
Non-Slip Tread Grip 7-9
Wrist Support 7-9
Operator Manual 7-9
Placards and Decals 7-10

8. Operation

Operating Procedures 8-1
Control Stations 8-1
Emergency Stopping 8-1
Operation Considerations 8-1
Operating From The Ground Control Box 8-2
Raising the platform 8-2
Operating From The Platform Control Box 8-2
Driving 8-4
Variable maximum drive speed 8-4
Ramp off 8-4
Raising the platform 8-5
Stabilisers 8-5
Operating The Stabilisers Manually 8-6
To set the stabilisers 8-6
To raise the stabilisers 8-6
Operating The Auto Level System 8-7
Setting the stabilisers automatically 8-7
Raising the stabilisers automatically 8-7
The Risk of Operating Scissor Lifts on Outriggers on Ramps and Slopes 8-7
Extending The Multi-Position Platform 8-8

9. Emergency Operation

Emergency Operation Procedures 9-1
Emergency Stop 9-1
Emergency Bleed Down 9-1
Pushing / Towing 9-2

10. Stowing and Transporting

Stowing 10-1
To lock the machine 10-1
Transporting 10-1
Trailering 10-1
Securing to a transport vehicle 10-2
Towing 10-3
Lifting 10-3
Pushing 10-3
Winching procedure 10-3
Long Term Storage 10-3

11. Options

Bi-Energy Option 11-1
DC motor 11-1
DC motor operation 11-1
Master battery isolator switches 11-1
Batteries 11-2
Battery charger 11-2
Batteries - general maintenance 11-3
Batteries - charging 11-3
Gasoline / LPG Fuel Option 11-3
Fuel level 11-3
LPG tank gauges and fuel level 11-3
Operating From The Ground Control Box 11-4
Operating From The Platform Control Box 11-5
RCD / ELCB Outlet 11-6
Fall Restraint Lanyard Anchor Points (Option) . . 11-6
Electrical Outlet 11-7
Non-Marking Tyres 11-7
Alternative Power Options 11-7
Stabilisers 11-7

12. Fire Fighting and Chemical Containment

Hazardous Components 12-1
Antifreeze (UN 1993) 12-1
Battery lead / acid (UN 2794) 12-1
Diesel fuel (NA 1993) 12-1
Foam in tyres 12-2
Gasoline (UN 1203) 12-2
Hydraulic oil (UN 1270) 12-3
Liquefied petroleum gas (UN 1075) 12-3
Motor oil (UN 1270) 12-3

MidWestTech | Snorkel S2755BE, S2255BE, S2755RT, S2255RT Scissor Lift Operatio... Order the manual at mid-west-tech.com >

3. Specifications

■ General Specifications, Standard Machine S2755RT

SPECIFICATIONS		S2755RT	
Nominal working height	Wheels	9.9m	32' 6"
	Stabilisers	10.4m	34' 1"
Platform floor height	Wheels	7.9m	25' 11"
	Stabilisers	8.4m	27' 7"
Roll out deck size		1200mm	47"
Drive speed	Below 2.4m	0 to 7kph	0 to 4.3mph
	Above 2.4m	0 to 0.5kph	0 to 0.31mph
Safe working load (Roll out deck NOT extended)	Main deck	300kg	661lbs
Safe working load (Roll out deck extended)	Main deck	180kg	397lbs
	Roll out deck	120kg	265lbs
Platform size		2.73 x 1.4m	8' 11" x 4' 7"
Stowed height	Hand rails up	2.5m	8' 3"
	Hand rails folded down	1.75m	5' 8"
Overall length		3.3m	11' 0"
Overall width		1.45m	4' 9"
Gradeability		35%	
Lift time		24-29 seconds	
Lower time		40-42 seconds	
Turning radius	Inner	2.5m	8.2'
	Outer	4.75m	15.6'
Power source		Diesel engine	
Maximum wind speed	12.5m/s	45km/h	28mph
Insulation rating		Nil	
Tyres	Poly filled loader lug	23" x 8.9" x 12"	
Overall weight		2750kg	6062.7lbs
Ground clearance	Minimum	170mm	7"
	Mid cabinet	260mm	10.2"
Maximum sound level at platform		86db	
Maximum outrigger load		1470kg	3240lbs
Maximum wheel load		1470kg	3240lbs
Maximum chassis inclination		2/4 degrees	
Maximum manual force		200N Outdoors, 400N Indoors	

MidWestTech | Snorkel S2755BE, S2255BE, S2755RT, S2255RT Scissor Lift Operatio... Order the manual at mid-west-tech.com >

At the start of each work day (or 8 hour shift), the machine qualified operator must perform the Daily Inspection Maintenance (or Pre-Operation Inspection as it is sometimes referred to), as listed in the table below.

The purpose of the Daily Inspection and Maintenance is to keep the S3970RT / S3370RT / S2770RT in proper working condition and to detect signs of malfunction at the earliest possible time.

This chapter shows how to perform the inspection and maintenance required for each item in the daily inspection and maintenance table. The machine should be in the stowed position and the Master Key Switch set to OFF before you begin this inspection.

Defective parts and/or equipment malfunctions jeopardize the safety of the operator and other personnel and can cause damage to the machine.

⚠ DANGER

The potential for an accident increases when operating a machine that is damaged or malfunctioning. Death or serious injury can result from such accidents. Do not operate a machine that is damaged or malfunctioning.

■ Daily Inspection and Maintenance Table

Item	Service Required
Rough terrain scissor interlock tests	Perform the tests to ensure the system is functioning
Fuel level	Visually inspect
Fuel filter	Visually inspect (condition)
Fuel leaks	Visually inspect (hoses and connections etc)
Engine oil	Check oil level (between dipstick lines)
Engine coolant	Check fluid level
Air filter	Check condition
Radiator cap	Visually inspect (installation)
Swinging gate	Visually inspect (installation, operation)
Wiring harnesses and connectors	Visually inspect (installation, operation)
Battery terminals	Visually inspect (no corrosion)
Battery fluid level	Visually inspect (covers plates)
Hydraulic tank cap	Visually inspect installation)
Hydraulic oil level	Check fluid level (at line on side of tank)
Hydraulic oil leaks	Visually inspect (hoses,tubes)
Tires and wheels	Visually inspect (condition)
Bolts and fasteners	Visually inspect (looseness)
Structural damage and welds	Visually inspect (welds, cracks, dents)
Guardrails	Visually inspect (condition)
Lanyard anchorages (option)	Visually inspect (condition)
Bubble level on platform	Visually inspect (condition)
Guides, rollers and slides	Visually inspect (condition)
Non slip tread grip	Visually inspect (condition)
Wrist support	Visually inspect (condition)
Placards, decals, and Operators Manual	Visually inspect (installation and condition)
Interlocks	Check operation
START THE ENGINE FROM THE GROUND CONTROL BOX	
Charging system	Check condition (gauge)
Ground controls	Actuate and visually inspect for operation
Emergency lowering	Check operation (causes correct motion)
Platform controls	Actuate and visually inspect for operation
Flashing light	Visually check (operation)
RCD / ELCB (option)	Check operation
Safety prop	Check operation

MidWestTech | Snorkel S2755BE, S2255BE, S2755RT, S2255RT Scissor Lift Operatio... Order the manual at mid-west-tech.com >

■ Troubleshooting

All of the actions described in this chapter may be performed by the machine operator, a trained and qualified service technician is not required.

The first column of the following charts lists some common problems encountered by the operators.

The second column lists some of the causes for each problem. The third column lists remedies.

⚠ CAUTION

Any problem that cannot be fixed by actions listed below should be referred to a trained and qualified service technician.

☐ Operator troubleshooting chart

Problem	Cause	Remedy
Engine will not start.	Battery switch set to off.	Turn battery switch to on.
	Emergency Stop switch(es) not on.	Set the ground control Emergency Stop switch to on (up). Also, if you are trying to start at the platform control box you should pull the Emergency Stop switch, at the platform control box, until it pops out (on).
	Key switch set to off.	Set the Key switch to on (the bar symbol).
	Ground/Platform Selector switch set to wrong location.	If you are trying to start from the ground control box, set the Ground/Platform selector to ground (down). If you are trying to start from the platform, set the selector to platform (up).
	Circuit Breaker tripped.	Push the circuit breaker in.
	Out of fuel.	**DANGER:** **Keep flames and lit tobacco away from open fuel tanks.** Remove the cap from the diesel tank to see if there is fuel. Check the gauge(s) on top of the LP tank(s). If you are using LP gas, be sure the valve on top of the tank is open.
	Clogged air filter.	Visually check the air filter gauge.
	Engine oil too thick for ambient temperature.	Check engine oil chart in "Specifications" chapter 3 for correct oil weight.
Stabilisers inoperative	Platform not completely down.	Completely lower the platform.
All systems sluggish.	Hydraulic oil is too thick.	Check for correct grade of Hydraulic Oil. Allow time for machine to warm up.
Machine will not drive forward or reverse.	Free-wheeling valve is open.	Close the free-wheeling valve.

MidWestTech | Snorkel S2755BE, S2255BE, S2755RT, S2255RT Scissor Lift Operatio... Order the manual at mid-west-tech.com >

FRONT END OF SR

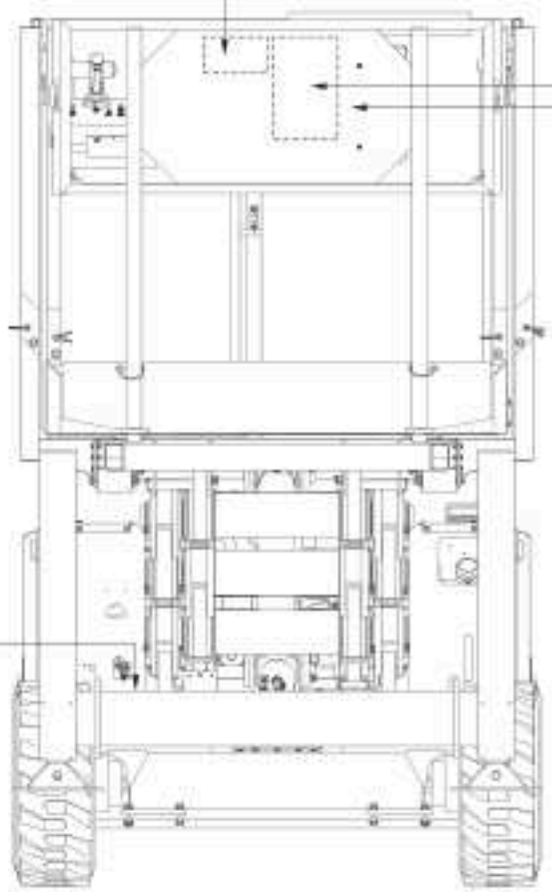


Australia Only



New Zealand Only





ALL DECALS ON REVERSE SIDE OF PANEL

On Top Of Chassis Member



MidWestTech | Snorkel S2755BE, S2255BE, S2755RT, S2255RT Scissor Lift Operatio... Order the manual at mid-west-tech.com >