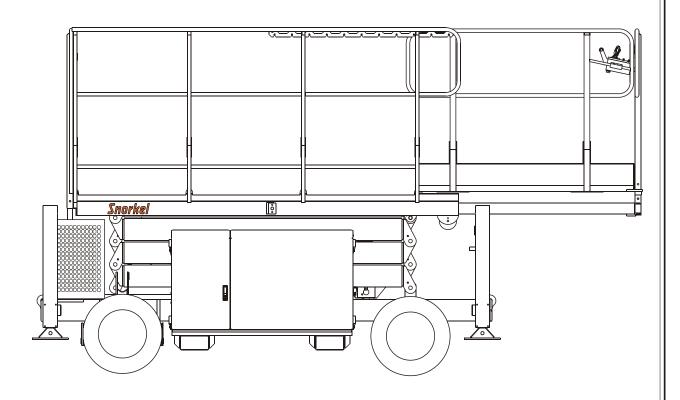
# Snorkel

# Maintenance and Repair Parts Manual

**S**R 2255 **S**R 2755

# Engine Powered Diesel and Battery Electric



P/N 12874B January 2009 Rev B From Serial Number NZ090101 Onwards

# LIMITED WARRANTY

Snorkel warrants each new machine manufactured and sold by it to be free from defects in material and workmanship for a period of one (1) year from date of delivery to a Customer or for one year after the machine has been placed in first service in a Dealer rental fleet, whichever comes first. Any part or parts which, upon examination by the Snorkel Service Department, are found to be defective, will be replaced or repaired, at the sole discretion of Snorkel, through its local Authorized Dealer at no charge.

Snorkel further warrants the structural components; specifically, the mainframe chassis, turntable, booms and scissor arms, of each new machine manufactured by it to be free from defects in material and workmanship for an additional period of four (4) years. Any such part or parts which, upon examination by the Snorkel Service Department, are found to be defective will be replaced or repaired by Snorkel through its local Authorized Dealer at no charge; however, any labor charges incurred as a result of such replacement or repair will be the responsibility of the Customer or Dealer.

The Snorkel Service Department must be notified within forty-eight (48) hours of any possible warranty situation during the applicable warranty period. Personnel performing warranty repair or replacement must obtain specific approval by Snorkel Service Department prior to performing any warranty repair or replacement.

Customer and Dealer shall not be entitled to the benefits of this warranty and Snorkel shall have no obligations hereunder unless the "Pre-Delivery and Inspection Report" has been properly completed and returned to the Snorkel Service Department within ten (10) days after delivery of the Snorkel product to Customer or Dealer's rental fleet. Snorkel must be notified, in writing, within ten (10) days, of any machine sold to a Customer from a Dealer's rental fleet during the warranty period.

At the direction of the Snorkel Service Department, any component part(s) of Snorkel products to be replaced or repaired under this warranty program must be returned freight prepaid to the Snorkel Service Department for inspection. All warranty replacement parts will be shipped freight prepaid (standard ground) from the Snorkel Service Department or from Snorkel's Vendor to Dealer or Customer.

#### REPLACEMENT PARTS WARRANTY

Any replacement or service part made or sold by Snorkel is not subject to the preceding **Limited Warranty** beyond the normal warranty period of the machine upon which the part was installed.

#### THIS WARRANTY EXCLUDES AND SNORKEL DOES NOT WARRANT:

- 1. Engines, motors, tires and batteries which are manufactured by suppliers to Snorkel, who furnish their own warranty. Snorkel will, however, to the extent permitted, pass through any such warranty protection to the Customer or Dealer.
- 2. Any Snorkel product which has been modified or altered outside Snorkel's factory without Snorkel's written approval, if such modification or alteration, in the sole judgment of Snorkel's Engineering and/or Service Departments, adversely affects the stability, reliability or service life of the Snorkel product or any component thereof.
- 3. Any Snorkel product which has been subject to misuse, improper maintenance or accident. "Misuse" includes but is not limited to operation beyond the factory-rated load capacity and speeds. "Improper maintenance" includes but is not limited to failure to follow the recommendations contained in the Snorkel Operation, Maintenance, Repair Parts Manuals. Snorkel is not responsible for normal maintenance, service adjustments and replacements, including but not limited to hydraulic fluid, filters and lubrication.
- 4. Normal wear of any Snorkel component part(s). Normal wear of component parts may vary with the type application or type of environment in which the machine may be used; such as, but not limited to sandblasting applications.
- 5. Any Snorkel product that has come in direct contact with any chemical or abrasive material.
- 6. Incidental or consequential expenses, losses, or damages related to any part or equipment failure, including but not limited to freight cost to transport the machine to a repair facility, downtime of the machine, lost time for workers, lost orders, lost rental revenue, lost profits or increased cost.

This warranty is expressly in lieu of all other warranties, representations or liabilities of Snorkel, either expressed or implied, unless otherwise amended in writing by Snorkel's President, Vice President-Engineering, Vice President-Sales or Vice President-Marketing.

SNORKEL MAKES NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THIS LIMITED WARRANTY. SNORKEL MAKES NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND DISCLAIMS ALL LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO INJURY TO PERSONS OR PROPERTY.

The Customer shall make all warranty claims through its local Authorized Dealer and should contact the Dealer from whom the Snorkel product was purchased for warranty service. Or, if unable to contact the Dealer, contact the Snorkel Service Department for further assistance.

Effective July 1995

# **Table of Contents**

| General Specifications               | Installation and connection                    | 17   |
|--------------------------------------|--|------|
| General Specifications SR2255        | Seal replacement instructions                  | 18   |
| General Specifications SR2755        | Auto Level System Troubleshooting              | 19   |
| Engine Data5                         | Test procedures                                |      |
| Engine Oil Charts                    | Using the EZcal                                | 19   |
| 9                                    | EZcal auto level calibration procedure         | 20   |
|                                      | To order service or repair parts               | 22   |
| Maintenance Information              | ANSI and OSHA compliance                       | 22   |
| About this Manual:7                  | Manuals  | 22   |
| Manual Organization7                 |  |      |
| General Specifications7              |  |      |
| Maintenance7                         | Section 1 Repair Parts                         |      |
| Auto level system7                   | Cabinet assembly                               | 1-2  |
| Repair parts and drawings7           | Cabinet assembly drawing                       | 1-3  |
| Hydraulics7                          | Steer axle assembly drawing                    | 1-4  |
| Electrical7                          | Steer axle assembly                            | 1-5  |
| Options7                             | Articulating axle assembly                     | 1-6  |
| Parts index - Page locator           | Articulating axle assembly drawing             | 1-7  |
| Maintenance and Schematics7          | Control cabinet assembly drawing               | 1-8  |
| Maintenance information              | Control cabinet assembly                       | 1-9  |
| Maintenance schedules8               | Fuel cabinet assembly                          | 1-10 |
| Daily Maintenance9                   | Fuel cabinet assembly drawing                  | 1-11 |
| Pre-operational inspection9          | Engine assembly drawing, Kubota D902           | 1-12 |
| 90 Day or 150 Hour Maintenance       | Engine assembly, Kubota D902                   | 1-13 |
| (Trained Service Technician)         | Cable operated emergency bleed down            | 1-14 |
| Yearly or 500 Hour Maintenance       | Cable operated bleed down drawing              | 1-15 |
| (Trained Service Technician)         | Scissor stack SR2255                           | 1-16 |
| Lubricants                           | Scissor atack drawing, SR2255                  | 1-17 |
| Pressure gun application             | Scissor stack drawing, SR2755                  | 1-18 |
| Lubrication                          | Scissor stack SR2755                           | 1-19 |
| King pins (Item 1)                   | Stabiliser assembly before SN NZ081001         | 1-20 |
| Tie rods (Item 2)                    | Stabiliser assembly drawing                    |      |
| Steer cylinder end (Item 3)          | (Before SN NZ081001)                           | 1-21 |
| Wheel bearings Drive wheels (Item 4) | Stabiliser assembly drawing                    |      |
| Engines (Item 5)                     | (From SN NZ081001)                             |      |
| Hydraulic oil reservoir (Item 6)     | Stabiliser assembly from SN NZ081001           |      |
| Return filter (Item 7)12             | Platform assembly before SN NZ081001           | 1-24 |
| Door hinges and latches (Item 8)     | Platform assembly drawing (Before SN NZ081001) | 1 05 |
| Slide pads (Item 9)                  | ,  | 1-23 |
| Scissor arm bearings (Item 10)       | Platform assembly drawing (From SN NZ081001)   | 1-26 |
| Batteries (Item 11)                  | Platform assembly from SN NZ081001             |      |
| Preventive inspection maintenance    | Engine cabinet assembly                        |      |
| 90 day or 150 hour checklist         | Engine cabinet assembly drawing                |      |
| Torque chart                         | Fuel tank assembly, diesel fuel                |      |
| Servicing STC Fittings               | Upper control box mounting assembly            |      |
| Disconnection                        | Placards and decals installation               |      |
| Inspection                           | Placards and decals drawing                    |      |
|                                      |  |      |

SR2255 & SR2755 – 12874B page 1

# **Table of Contents**

# Section 2. - Hydraulics

| Hose part numbers and colour codes 2-3            |
|---|
| Hydraulic assembly before SN NZ081001 2-4         |
| Hydraulic schematic drawing (Before SN NZ081001)  |
| Hydraulic schematic drawing (From SN NZ081001)2-6 |
| Hydraulic assembly from SN NZ0810012-7            |
| Manifold assembly, main before SN NZ081001 2-8    |
| Manifold assembly drawing Before SN NZ081001. 2-9 |
| Manifold assembly, main, from SN NZ081001 2-10    |
| Manifold assembly drawing from SN NZ081001 . 2-11 |
| Manifold assembly, 4WD before SN NZ0810012-12     |
| Manifold assembly, 4WD from SN NZ081001 2-13      |
| Manifold assembly, stabilisers2-14                |
| Hydraulic oil tank assembly2-15                   |
| Hydraulic oil tank assembly drawing2-16           |
| Steer axle cylinder                               |
| Axle cylinder2-18                                 |
| Main lift cylinder assembly2-19                   |

# Section 3. - Electrical

| Looms  |
|--|
| Electrical schematic drawing, auto level 3-3 |
| Colour coded wiring circuit auto level 3-4   |
| Ground control box assembly drawing 3-6      |
| Ground control box assembly 3-7              |
| Ground box                                   |
| Ground box drawing - sheet 1                 |
| Ground box drawing - sheet 2                 |
| Platform control box assembly3-12            |
| Platform Control Box Assembly drawing        |
| Sheet 1                                      |
| Platform Control Box Assembly drawing        |
| Sheet 2                                      |

# **Section 4. - Options**

| AC outlet at platform, 230 volt    | 4-2 |
|------------------------------------|-----|
| AC outlet at platform 230V drawing | 4-3 |
| Flashing light installation        | 4-4 |
| Fuel gauge ontion                  | 4-5 |

page 2 SR2255 & SR2755 – 12874B

# ■ General Specifications SR2255

| SPECIFICA   | TIONS                  | SR2255           |                |  |
|---|------------------------|------------------|----------------|--|
| Nominal working height                            | Wheels                 | 8.1m             | 26' 7"         |  |
|   | Stabilisers            | 8.5m             | 27' 11 "       |  |
| Platform floor height                             | Wheels                 | 6.1m             | 20'            |  |
|   | Stabilisers            | 6.5m             | 21' 4"         |  |
| Roll out deck size                                |                        | 1200mm           | 47"            |  |
| Drive speed                                       | Below 2.4m             | 0 to 5.2kph      | 0 to 3.3mph    |  |
|   | Above 2.4m             | 0 to 0.64kph     | 0 to 0.4mph    |  |
| Safe working load<br>(Roll out deck NOT extended) | Main deck              | 420kg            | 925lbs         |  |
| Safe working load                                 | Main deck              | 300kg            | 661lbs         |  |
| (Roll out deck extended)                          | Roll out deck          | 120kg            | 265lbs         |  |
| Platform size                                     |                        | 2.73 x 1.4m      | 8' 11" x 4' 7" |  |
| Stowed height                                     | Hand rails up          | 2.35m            | 7' 8"          |  |
|   | Hand rails folded down | 1.55m            | 5' 1"          |  |
| 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'          |  |
| 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                                    |                        | 2360kg           | 5202lbs        |  |
| Ground clearance                                  | Minimum                | 170mm            | 7"             |  |
|   | Mid cabinet            | 260mm            | 10.2"          |  |
| Maximum sound level at platform                   |                        | 860              | db             |  |

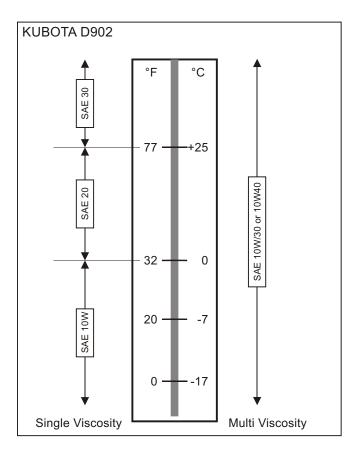
# ■ General Specifications SR2755

| SPECIFICA   | TIONS                  | SR2755        |                |  |
|---|------------------------|---------------|----------------|--|
| 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 0.8kph   | 0 to 0.5mph    |  |
| Safe working load<br>(Roll out deck NOT extended) | Main deck              | 340kg         | 750lbs         |  |
| Safe working load                                 | Main deck              | 220kg         | 485lbs         |  |
| (Roll out deck extended)                          | Roll out deck          | 120kg         | 264lbs         |  |
| 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                                      |                        | 359           | %              |  |
| Lift time   |                        | seconds       |                |  |
| Lower time  |                        | 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     | 9" x 12"       |  |
| Overall weight                                    |                        | kg            | lbs            |  |
| Ground clearance                                  | Minimum                | 170mm         | 7"             |  |
|   | Mid cabinet            | 260mm 10.2"   |                |  |
| Maximum sound level at platfor                    | rm                     | 860           | db             |  |

# **■** Engine Data

| Model               | KUBOTA (diesel)  |
|---------------------|--|
| Model               | D902   |
| Fuel                | Diesel   |
| Fuel Grade          | ASTM Grade 2-D S5000<br>Tier 4 Compliance: Low Sulpher ASTM Grade 2-D S500 centane no. >44<br>(For operating temperature below 32°F (0°C) use "winterised" no. 2-D |
| Coolant             | 50% water + 50% ethylene glycol  |
| Maximum Temperature | 110°C  |
| Oil capacity        | 3.7 L  |
| Oil Grade           | API: Quality better than CD  |
| Oil Weight          | See chart below  |

# **■** Engine Oil Charts



#### ■ About this Manual:

This Maintenance and Repair Parts manual covers current production machines only.

While Snorkel has attempted in every way to confirm that all information in this manual is correct, improvements are being constantly made to the machine that may not be reflected in this manual.

#### **NOTE:**

It is recommended that you record the serial and model number of your machine (see page 22 of this chapter). This information is found on the serial number placard.

# ■ Manual Organization

The Repair Parts Manual consists of six sections with an individual table of contents preceding sections 1 through 4.

Subassemblies and detailed parts are identified by index numbers on the drawings that correspond to the item numbers on the parts listing. When requesting any part, always specify complete part number, description, model and serial number of your unit.

The following is a general description of each section and its contents.

### □ General Specifications

The section immediately preceding, contains information relating to the general specifications of the SR2255 & SR2755.

#### ■ Maintenance

The pages immediately following, contain information as to the maintenance schedules - lubricants and procedures for proper lubrication of the unit.

#### □ Auto level system

The last section in the Maintenance chapter gives guidelines for trouble shooting and calibration of the auto level system

### ☐ Repair parts and drawings

Repair Parts (Section 1), contains parts listings and drawings for general mechanical repair parts of all major installations and subassemblies of the unit.

### ☐ Hydraulics

(Section 2), contains parts listings and drawings of hydraulic components installations including

hydraulic schematics and individual components such as cylinders, controls valves and solenoid operated valves.

#### □ Electrical

Electrical (Section 3), contains listings and drawings of electrical components installations including wiring schematics.

# □ Options

Options (Section 4), contains parts listings and drawings of optional installations.

# □ Parts index - Page locator

The parts index - page locator, identifies the component by name and directs you to the section and page number where you may find information for that part such as its part order number, etc.

#### ■ Maintenance and Schematics

#### ■ Maintenance information

The parts drawings located in the repair parts sections, are designed for use as a guide for proper disassembly of the machine and components as well as for parts replacement. Always refer to the hydraulic system installation drawings and the electrical wiring diagram before removing or disassembling associated parts.

# **ACAUTION**

Do not attempt to disconnect or remove any hydraulic line before reading and understanding all text concerning the system hydraulics. In most cases, disassembly of the machine will be obvious from the drawing.

# **ACAUTION**

DO NOT modify this ariel platform without prior written consent of Snorkel Engineering Department.

Modification may void the warranty, adversely affect stability, or affect the operational characteristics of the ariel platform.

When disassembling or reassembling components, complete the procedural steps in sequence. Always check your work to assure that nothing has been overlooked.

# Maintenance Information

The following list is a gentle reminder when them from unit. This will assure that they are disassembling or assembling the machine.

- ✓ Always be conscious of weight.
- ✓ Never attempt to lift heavy objects without the aid of a mechanical device.
- ✓ Do not allow heavy objects to rest in an unstable condition.
- ✓ Always make sure work platform is in stowed position - blocked or the weight removed by a suitable lifting device before disconnecting the hydraulic hose from the motor/pump unit to the lift cylinder.
- √ When raising a portion of the machine, be sure that adequate blocking is properly positioned - Do not depend on lifting device to hold and secure weight.
- ✓ If a part resists removal, check to see if all fasteners, electrical wiring, hydraulic lines, etc., have been removed or that other parts are not interfering.

Parts should be thoroughly inspected before restoring to service at the time of reassembly. Burrs, nicks or scratches may be removed from machined surfaces by honing or polishing with #600 crocus cloth, followed by a thorough cleaning in an approved cleaning solvent, and blown dry with compressed air. Do not alter the contour of any part. If this operation does not restore the part to a serviceable condition, replace the part.

reassembly. Use new roll pins or cotter pins. Dip all packing rings and seals in hydraulic oil before reassembling in cylinder and manifold installations. Replace any part having imperfect threads. In general, units that have been disassembled can be reassembled by reversing the order of disassembly.

Remember that the service life of a machine can be increased by keeping dirt and foreign materials out of the vital components. Precautions have been taken to safeguard against this; shields, covers, seals and filters are provided to keep air and oil supplies clean; however, these items must be maintained on a scheduled basis in order to function properly.

At any time air or oil lines are disconnected, clean surrounding areas as well as the opening and fittings themselves. As soon as a line or component is disconnected, cap or cover all openings to prevent the entry of dirt or foreign materials.

New parts should remain in their container until they are ready to be used.

Clearly mark or tag hydraulic lines and electrical wiring connections when disconnecting or removing

correctly reinstalled.

Proper assembly is critical to the successful rebuilding of any unit. Carefully inspect any parts which are to be reused. If in doubt, replace.

"SAFETY FIRST" is a good slogan.

Replace any guards and protective devices that have been removed to carry out maintenance and repair work.

#### Maintenance schedules

Snorkel has established a Preventive Maintenance Schedule that includes:

- ✓ Daily Maintenance (Operator's Inspection)
- √ 90 Day or 150 Hour (frequent) Maintenance
- √ Yearly or 500 Hour (annual) Maintenance,

These schedules should ensure the detection of any defective, damaged or improperly secured parts and provide information regarding lubrication and other minor maintenance items.

The Maintenance Schedule following, outlines the requirements of these maintenance checks for each time interval. The Operator's Pre-operational inspection must be performed by a trained operator. All other maintenance and inspections must be performed by a trained service technician only.

Replace all O-rings, seals, and gaskets at Note that the 90 Day or 150 hour (frequent) and yearly or 500 hour (annual) Maintenance, require use of the Preventive Inspection Maintenance Checklist to pinpoint all inspection items. Retain a copy of these forms for your records.

> They also require that all placards and decals on the unit are to be inspected.

> All placards and decals must be in place and legible. Use the placards installation drawing and parts listing in the repair parts section 1 of this manual to check these placards and decals.

> Snorkel recommends that you make additional copies of the Preventive Inspection Maintenance Checklist forms for your use in performing these

# **ADANGER**

Failure to perform the Preventive Maintenance at the intervals outlined in the Maintenance Schedule may result in a unit being operated with a defect that could result in INJURY or DEATH of the unit operator. DO NOT allow a unit to be operated that has been found to be defective.

Repair all defects before returning the unit to service

# ■ Daily Maintenance

# ☐ Pre-operational inspection

(Set the KEY SWITCH to off before starting this inspection).

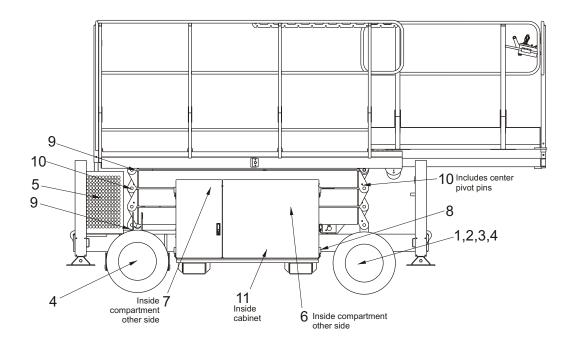
| COMPONENTS                                   | SERVICE REQUIRED                                    |
|--|---|
| Fuel level                                   | Visually inspect                                    |
| Fuel filter (diesel engines only)            | Visually inspect (condition)                        |
| Fuel leaks                                   | Visually inspect (hoses, connections, etc)          |
| Engine oil                                   | Check oil level (between dipstick lines)            |
| Engine coolant                               | Check fluid level and radiator hoses                |
| Radiator cap                                 | Visually inspect (installation)                     |
| Platform entrance gate                       | Visually inspect (installation, operation)          |
| Wiring harness and connectors                | Visually inspect (installation, condition)          |
| Battery terminals                            | Visually inspect (installation)                     |
| Battery fluid level                          | Visually inspect (covers plates)                    |
| Hydraulic oil reservoir 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 & welds                    | Visually inspect (weld cracks, dents)               |
| Platform guardrails                          | Visually inspect (condition)                        |
| Lanyard anchor points (option)               | Visually inspect (condition)                        |
| Bubble level indicator                       | Visually inspect (condition)                        |
| Guides, rollers and slides                   | Visually inspect (condition)                        |
| Non slip tread grip                          | Visually inspect (condition)                        |
| Wrist support                                | Visually inspect (condition)                        |
| Operator manual                              | Visually inspect (that the manual is in the holder) |
| Placards, decals and operators manual        | Visually inspect (installation and condition)       |
| START THE ENGINE FROM THE BASE CONTROL PANEL | . TO CHECK THE FOLLOWING                            |
| Charging system                              | Check condition (gauge)                             |
| Ground controls                              | Actuate and visually inspect for proper operation   |
| Emergency lowering (from the ground)         | Check operation (causes correct motion)             |
| Platform controls                            | Actuate and visually inspect for proper operation   |
| Flashing light                               | Check operation                                     |
| Emergency lowering (from the platform)       | Check operation (causes correct motion)             |
| Air Filter                                   | Check condition (gauge)                             |
| Safety prop                                  | Check operation                                     |
| Parking brakes                               | Check operation                                     |
| Optional items                               | Check operation                                     |

# ■ 90 Day or 150 Hour Maintenance (Trained Service Technician)

| COMPONENTS                                  | SERVICE REQUIRED  | RECOMMENDED LUBRICANT OR FURTHER INSTRUCTIONS     |
|---|---|---|
| Daily maintenance                           | Perform maintenance as per schedule                                 |   |
| Preventive inspection maintenance checklist | Perform inspection, complete form                                   | Retain copy of checklist                          |
| Placards & decals inspection                | Inspect using drawing and parts listing in section 1 (repair parts) | Replace any missing or unreadable decals/placards |
| Door hinges and latches                     | Lubricate   | SAE 10W oil or spray lube                         |
| Tie rods                                    | Check pin keeper and condition                                      | DO NOT lubricate                                  |
| Steer cylinder ends                         | Check pin keeper and condition                                      | DO NOT lubricate                                  |
| Batteries                                   | Check specific gravity  | 1.260/1.275 at 80° F.                             |
| Platform lift capacity                      | Check if platform can lift maximum load                             |   |
| Platform lift/lower speeds                  | Check smooth operation and speeds                                   |   |
| Hydraulic return filter                     | Check condition   | Replace if dirty                                  |
| Engine RPM                                  | Check for proper RPM  | Low = 1750rpm High = 3000rpm                      |
| Engine oil and oil filter                   | Replace per engine manufacturer's interval                          | See engine manufacturer's owners manual           |
| Engine fuel filter                          | Check condition   | Replace every 6 months or if dirty                |
| Slide pads                                  | Check condition   | DO NOT lubricate                                  |
| Scissor arm bearings                        | Check condition   | DO NOT lubricate                                  |

# ■ Yearly or 500 Hour Maintenance (Trained Service Technician)

| COMPONENTS                     | SERVICE REQUIRED                 | RECOMMENDED LUBRICANT OR FURTHER INSTRUCTIONS                                   |
|--------------------------------|----------------------------------|---|
| 90 day or 150 hour maintenance | Perform maintenance per schedule |   |
| Hydraulic oil reservoir        | Clean and replace fluid          | Shell Tellus 32 or similar  |
| Hydraulic return filter        | Replace                          | After 1st. 50 hours, thereafter at recommended interval                         |
| Hydraulic pressures            | Check pressures                  |   |
| Platform controller            | Check operation                  |   |
| Base controls                  | Check operation                  |   |
| Wheel bearings                 | Clean and repack                 | Conoco Super Sta #2<br>Above 32° Mobilgrease CM-P<br>Below 32° Mobilgrease CM-L |



The drawing locates the lubrication points of the SR

#### ■ Lubricants

Specific lubricants as recommended by Snorkel, should be used in maintaining your unit. If in doubt regarding the use of lubricants other than those listed, contact Snorkel.

### □ Pressure gun application

Service all fittings as indicated in the Maintenance Schedule and lubrication drawing. Wipe away all excess lubricant from exposed surfaces. Over lubrication can collect dirt and foreign matter which acts as an abrasive. Lubrication of accessory equipment should be in accordance with the manufacturer's recommendations.

#### NOTE

Any time the work platform is elevated to perform maintenance work, properly position the safety bar as outlined on the safety prop decal.

# **ADANGER**

DO NOT reach through scissors mechanism unless the safety prop is properly positioned.

INJURY or DEATH could occur if the platform is not supported by the safety prop and should suddenly drop onto personnel performing maintenance work under the raised platform.

# ☐ Lubrication

Refer to the above lubrication drawing for location of the following item numbers.

#### ☐ King pins (Item 1)

King pin bearings are self lubricating. Check for signs of damage and excessive wear as outlined in the maintenance schedule.

#### **DO NOT lubricate**

### ☐ Tie rods (Item 2)

Tie rod bearings are self lubricating. Check for damage and excessive wear as outlined in the maintenance schedule.

#### **DO NOT lubricate**

#### ☐ Steer cylinder end (Item 3)

Steer cylinder ends are self lubricating. Check for damage and excessive wear as outlined in the maintenance schedule.

### **DO NOT lubricate**

# ☐ Wheel bearingsDrive wheels (Item 4)

Wheel bearings used on drive wheels are sealed bearings and do not require lubrication.

# **Maintenance Information**

#### ☐ Engines (Item 5)

Other than daily Operator's maintenance outlined in the Daily Inspection and Maintenance schedule, all other engine maintenance information is found in the manufacturer's instruction manual.

Refer to the engine manufacturer's instruction manual or consult your local engine service representative if engine adjustments or repairs are needed.

# **ACAUTION**

The engine MUST be operated in accordance with manufacturer's instructions and serviced at recommended intervals.

Failure to do so could result in the loss of your engine warrenty and repair of any failure resulting from improper maintenance could be at your own expense.

# ☐ Hydraulic oil reservoir (Item 6)

The fluid level should be kept level with the indicator line on the side of thereservoir and should be checked with all cylinders fully retracted and the platform in the stowed position.

The interior of the reservoir should be wiped out and cleaned each time the hydraulic oil is changed. The reservoir filler/breather cap should be removed and the cap breather cleaned yearly with Kerosene, Fuel Oil or other solvent.

It is absolutely necessary that only new, clean hydraulic oil is added.

# **ACAUTION**

If it becomes necessary to add or use an oil other than the recommended fluid, it is important that it be compatible and equivalent to the factory fill. Local oil suppliers can generally furnish this information.

If questions still remain, contact Snorkel for further information.

### ☐ Return filter (Item 7)

On SR scissorlift models, the hydraulic oil return filter is mounted in the right hand tray assembly close to the hydraulic oil reservoir.

The filter element is a throw-away type filter and should be changed after the initial break-in period (approximately 50 hours operation time).

The filter condition should be checked at the 90 day or 150 hour Preventive Inspection Maintenance

interval or more frequently under extreme working conditions.

When changing the filter element, the oil inside of the filter element, should be examined for deposits of metal cuttings, which if present, could indicate excessive wear in some of the system components.

# □ Door hinges and latches (Item 8)

Door hinges and latches may be lubricated as required with spray lubrication or SAE 10W oil.

After lubricating, remove any excess oil or over-spray so it will not collect dirt and debris.

# ☐ Slide pads (Item 9)

Check slide pads for excessive wear and replace as required.

Slide pads **DO NOT** require lubrication.

# ☐ Scissor arm bearings (Item 10)

Scissor arm bearings are self lubricating. Check bearings for signs of damage and excessive wear as outlined in the maintenance schedule.

**DO NOT** lubricate scissor arm bearings.

# ■ Batteries (Item 11)

The battery will have longer life if the water level is maintained and it is kept charged. The unit will have better starting characteristics with a fully charged battery.

In cold weather the battery should be maintained at full charge to keep from freezing. An extremely low or dead battery can freeze in cold weather. Make sure connections are clean and tight.

Check specific gravity of the battery per maintenance schedule.

Make sure charging equipment is operating properly.

# **ADANGER**

Lead-acid batteries contain sulfuric acid which will damage eyes or skin on contact. When working around batteries, ALWAYS wear a face shield to avoid acid in eyes.

If acid contacts eyes, flush immediately with clear water and get medical attention.

Wear rubber gloves and protective clothing to keep acid off skin, if acid contacts skin, wash off immediately with clear water.

# **ADANGER**

Lead-acid batteries produce flammable and explosive gases. NEVER allow smoking, flames or sparks around batteries.

# ■ Preventive inspection maintenance 90 day or 150 hour checklist

|   | 90  | aay    | or    | 150     | nour   | cneckiist |  |
|---|-----|--------|-------|---------|--------|-----------|--|
| 0 | K O | K - No | Servi | ice Red | auired |           |  |

Corrective Action RequiredCorrected, (Record description of corrective action).

| Serial Number |  |  |
|---------------|--|--|
|               |  |  |
|               |  |  |

| Inspection Procedures Codes                  |
|--|
| (1) Weld cracks, dents and/or rust           |
| (2) Installation                             |
| (3) Leaks                                    |
| (4) Operation                                |
| (5) Condition                                |
| (6) Tightness                                |
| (7) Residue buildup                          |
| (8) See placards and decals inspection chart |
|  |

| CHECK   | OK | ✓ | Χ |
|---|----|---|---|
| BASEFRAME   |    |   |   |
| Structural (1)  |    |   |   |
| Steering cylinders (2,3,4,6)                                  |    |   |   |
| Steering cylinder fasteners and linkage (2,4)                 |    |   |   |
| Tires and wheels (5)  |    |   |   |
| Articulating axles, if so equipped (2,4,5)                    |    |   |   |
| Tray side covers (2,5,6)                                      |    |   |   |
| Torque drive wheel lug nuts 90 - 100 ft. lbs. (2,6)           |    |   |   |
| Torque steer wheel lug nuts 90 - 100 ft. lbs. (2,6)           |    |   |   |
| Right drive motor(s) (3,6)                                    |    |   |   |
| Left drive motor(s) (3,6)                                     |    |   |   |
| Drive cut-out   |    |   |   |
| Back-up horn (4)  |    |   |   |
| Guides, rollers and slides (2,4,5)                            |    |   |   |
| Parking brake(s) (3,4)  |    |   |   |
| Free wheeling valve (3,4)                                     |    |   |   |
| Emergency lowering valve (3,4)                                |    |   |   |
| Lowering alarm (4)  |    |   |   |
| Battery disconnect switch (4)                                 |    |   |   |
| Lubrication points  |    |   |   |
| Cords and wire assemblies (2,5,6)                             |    |   |   |
| Hydraulic tubes and hoses (3,5)                               |    |   |   |
| Decals and placards (2,8)                                     |    |   |   |
| ( ),,,  |    |   |   |
| OUTRIGGERS AND CONTROLS                                       |    |   |   |
| Right front outrigger (2,3,4)                                 |    |   |   |
| Left front outrigger (2,3,4)                                  |    |   |   |
| Right rear outrigger (2,3,4)                                  |    |   |   |
| Left rear outrigger (2,3,4)                                   |    |   |   |
| Platform elevated, outrigger controls<br>DO NOT WORK (4)      |    |   |   |
| Outriggers lowered, platform elevated DRIVE WILL NOT WORK (4) |    |   |   |
|   |    |   |   |
| SCISSOR ARM ASSEMBLY  |    |   |   |
| Structural (1)  |    |   |   |
| Scissor arm pivot pins (2,5)                                  |    |   |   |
| Lift cylinders and valves (2,3,4)                             |    |   |   |
| Safety bar (2,4,5)  |    |   |   |
| Hydraulic tubes and hoses (3,5)                               |    |   |   |
| Wires and electrical cables (2,5)                             |    |   |   |
| Decals and placards (2,8)                                     |    |   |   |
|   |    |   |   |

| CHECK  BASE CONTROL STATION  Key switch, main power ON - OFF (4)  Selector switch base/platform controls - BASE CONTROLS SELECTED PLATFORM CONTROLS DO NOT WORK (4)  Selector switch base/platform controls - PLATFORM CONTROLS SELECTED BASE CONTROLS DO NOT WORK (4)  Toggle switch, platform UP - DOWN (4)  Key start switch (4)  Toggle switch, glow plug, timing light diesel units only (4)  Fuel select switch GAS - LP FUEL (4)  Emergency stop switch (4)  Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Lift enable light (4)     | X |
|---|---|
| Key switch, main power ON - OFF (4)  Selector switch base/platform controls - BASE CONTROLS SELECTED PLATFORM CONTROLS DO NOT WORK (4)  Selector switch base/platform controls - PLATFORM CONTROLS SELECTED BASE CONTROLS DO NOT WORK (4)  Toggle switch, platform UP - DOWN (4)  Key start switch (4)  Toggle switch, glow plug, timing light diesel units only (4)  Fuel select switch GAS - LP FUEL (4)  Emergency stop switch (4)  Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4) |   |
| Selector switch base/platform controls - BASE CONTROLS SELECTED PLATFORM CONTROLS DO NOT WORK (4)  Selector switch base/platform controls - PLATFORM CONTROLS SELECTED BASE CONTROLS DO NOT WORK (4)  Toggle switch, platform UP - DOWN (4)  Key start switch (4)  Toggle switch, glow plug, timing light diesel units only (4)  Fuel select switch GAS - LP FUEL (4)  Emergency stop switch (4)  Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4)                                      |   |
| BASE CONTROLS SELECTED PLATFORM CONTROLS DO NOT WORK (4)  Selector switch base/platform controls - PLATFORM CONTROLS SELECTED BASE CONTROLS DO NOT WORK (4)  Toggle switch, platform UP - DOWN (4)  Key start switch (4)  Toggle switch, glow plug, timing light diesel units only (4)  Fuel select switch GAS - LP FUEL (4)  Emergency stop switch (4)  Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4)   |   |
| Selector switch base/platform controls - PLATFORM CONTROLS SELECTED BASE CONTROLS DO NOT WORK (4) Toggle switch, platform UP - DOWN (4) Key start switch (4) Toggle switch, glow plug, timing light diesel units only (4) Fuel select switch GAS - LP FUEL (4) Emergency stop switch (4) Hour meter (4) Circuit breaker reset (4) Lowering alarm (4) Engine kill alarm (4) Low oil pressure alarm (4) High temperature alarm (4)  |   |
| PLATFORM CONTRÔLS SELECTED BASE CONTROLS DO NOT WORK (4)  Toggle switch, platform UP - DOWN (4)  Key start switch (4)  Toggle switch, glow plug, timing light diesel units only (4)  Fuel select switch GAS - LP FUEL (4)  Emergency stop switch (4)  Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4)  |   |
| Key start switch (4)  Toggle switch, glow plug, timing light diesel units only (4)  Fuel select switch GAS - LP FUEL (4)  Emergency stop switch (4)  Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4)   |   |
| Toggle switch, glow plug, timing light diesel units only (4)  Fuel select switch GAS - LP FUEL (4)  Emergency stop switch (4)  Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4)   |   |
| diesel units only (4)  Fuel select switch GAS - LP FUEL (4)  Emergency stop switch (4)  Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4)  |   |
| Emergency stop switch (4)  Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4)   |   |
| Hour meter (4)  Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4)  |   |
| Circuit breaker reset (4)  Lowering alarm (4)  Engine kill alarm (4)  Low oil pressure alarm (4)  High temperature alarm (4)  |   |
| Lowering alarm (4) Engine kill alarm (4) Low oil pressure alarm (4) High temperature alarm (4)  |   |
| Engine kill alarm (4) Low oil pressure alarm (4) High temperature alarm (4)   | _ |
| Low oil pressure alarm (4) High temperature alarm (4)   |   |
| High temperature alarm (4)  |   |
|   |   |
| Lift enable light (4)   |   |
|   |   |
|   |   |
| PLATFORM  |   |
| Structural (1)  |   |
| Guardrails properly installed and fastened (2,5)  |   |
| Platform entrance chain or gate (2,5)   |   |
| Wires and electrical cables (2,5)   |   |
| Decals and placards (2,8)   |   |
| Correct operators manual in document holder   |   |
| Roll out platform deck extension (2,4,5,8)  |   |
| PLATFORM CONTROLS   |   |
| Drive speed - platform elevated<br>SLOW DRIVE SPEED ONLY (4)  |   |
| Drive speed - platform lowered<br>DRIVES FAST or SLOW (4)   |   |
| Joystick control -<br>DRIVE/STEER and PROPORTIONAL LIFT (4)   |   |
| Toggle type selector switch -<br>HIGH SPEED/HIGH TORQUE (4)   |   |
| Toggle type selector switch - LIFT/DRIVE (4)  |   |
| Low engine oil light (4)  |   |
| Engine start/kill switch (4)  |   |
| Lift enable light, if so equipped (4)   |   |
| Raised platform drive enable light, if so equipped (4)  |   |
| Emergency stop button (4)   |   |
| Joystick interlock switch (4)   |   |
| Selector switch - ALTERNATOR/MACHINE Units equipped with optional AC alternator (4)   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |

| CHECK                                | OK | ✓ | Х |
|--------------------------------------|----|---|---|
| ENGINE                               |    |   |   |
| Air filter (5)                       |    |   |   |
| Belts and hoses (5)                  |    |   |   |
| Hydraulic pump (4)                   |    |   |   |
| Engine oil (5)                       |    |   |   |
| Engine START - STOP (4)              |    |   |   |
| Electric throttle (4)                |    |   |   |
| Engine coolant level (5)             |    |   |   |
| Fuel system (3)                      |    |   |   |
| Fuel tank (3,5)                      |    |   |   |
|                                      |    |   |   |
| ELECTRICAL                           |    |   |   |
| Batteries (2,4)                      |    |   |   |
| Battery terminals (5,6,7)            |    |   |   |
| Battery electrolyte level (5)        |    |   |   |
| Battery specific gravity reading (5) |    |   |   |
| Wires and cables (2,5,6)             |    |   |   |
| Battery disconnect switch (4)        |    |   |   |
| Level sensor (2,4,5)                 |    |   |   |
| Motion warning alarm (2,4)           |    |   |   |
|                                      |    |   |   |
|                                      |    |   |   |

| CHECK                                     | OK | ✓ | Χ |
|---|----|---|---|
| HYDRAULIC RESERVOIR & RETURN FILTER       |    |   |   |
| Translucent hydraulic oil reservoir (3,5) |    |   |   |
| Filler/breather cap (6)                   |    |   |   |
| Hydraulic fluid level (2,5)               |    |   |   |
| Return filter (2,5,6)                     |    |   |   |
| Return filter element (5)                 |    |   |   |
|   |    |   |   |
| OPTIONAL EQUIPMENT                        |    |   |   |
| AC 110/220 volt outlet on platform (2,4)  |    |   |   |
|   |    |   |   |
| Flashing light (2,4)                      |    |   |   |
|   |    |   |   |
|   |    |   |   |
|   |    |   |   |
|   |    |   |   |
|   |    |   |   |
|   |    |   |   |

| Corrective Action Required  |  |  |
|---|--|--|
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
| Note: If correction action is required on any item, attach sheet indicating problem and action taken.                                     |  |  |
| All items have been properly checked and tested and found to be operating satisfactory or necessary corrective action has been completed. |  |  |
| Inspected By: Date  |  |  |
|   |  |  |

# ■ Torque chart

|               | TENSILE                           | PROPE            | ERTY CLASS    | 8.8             | PROPER           | RTY CLASS     | 10.9            |
|---------------|-----------------------------------|------------------|---------------|-----------------|------------------|---------------|-----------------|
| NOM SIZE<br>X | STRESS<br>AREA                    | CLAMP            | TORQUE        | (N.m)           | CLAMP            | TORQUE        | (N.m)           |
| PITCH         | A <sub>s</sub> (mm <sup>2</sup> ) | LOAD<br>W<br>(N) | DRY<br>k=0.20 | LUBED<br>k=0.15 | LOAD<br>W<br>(N) | DRY<br>k=0.20 | LUBED<br>k=0.15 |
| M3 x 0.5      | 5.03                              | 2 200            | 1.32          | 0.99            | 2 990            | 1.79          | 1.34            |
| M3.5 x 0.6    | 6.78                              | 2 960            | 2.07          | 1.55            | 4 030            | 2.82          | 2.11            |
| M4 x 0.7      | 8.78                              | 3 830            | 3.07          | 2.30            | 5 220            | 4.17          | 3.13            |
| M5 x 0.8      | 14.2                              | 6 200            | 6.20          | 4.65            | 8 430            | 8.43          | 6.33            |
| M6 x 1        | 20.1                              | 8 770            | 10.5          | 7.90            | 11 950           | 14.3          | 10.8            |
| M8 x 1.25     | 36.6                              | 15 975           | 25.6          | 19.2            | 21 750           | 34.8          | 26.1            |
| M8 x 1        | 39.2                              | 17 100           | 27.4          | 20.5            | 23 275           | 37.3          | 27.9            |
| M10 x 1.5     | 58.0                              | 25 325           | 51            | 38.0            | 34 450           | 69            | 52              |
| M10 x 1.25    | 61.2                              | 26 725           | 53            | 40.1            | 36 350           | 73            | 55              |
| M12 x 1.75    | 84.3                              | 36 800           | 88            | 66              | 50 075           | 120           | 90              |
| M12 x 1.25    | 92.1                              | 40 200           | 96            | 72              | 54 700           | 130           | 98              |
| M14 x 2       | 115                               | 50 200           | 140           | 105             | 68 300           | 190           | 145             |
| M14 x 1.5     | 125                               | 54 550           | 155           | 115             | 74 250           | 210           | 155             |
| M16 x 2       | 157                               | 68 525           | 220           | 165             | 93 250           | 300           | 225             |
| M16 x 1.5     | 167                               | 72 900           | 235           | 175             | 99 200           | 320           | 240             |
| M20 x 2.5     | 245                               | 106 950          | 430           | 320             | 145 550          | 580           | 435             |
| M20 x 1.5     | 272                               | 118 750          | 475           | 355             | 161 550          | 650           | 485             |
| M24 x 3       | 353                               | 154 100          | 740           | 555             | 209 700          | 1 010         | 755             |
| M24 x 2       | 384                               | 167 600          | 805           | 605             | 228 100          | 1 100         | 820             |
| M27 x 3       | 459                               | 200 350          | 1 080         | 810             | 272 650          | 1 470         | 1 100           |
| M27 x 2       | 496                               | 216 500          | 1 170         | 875             | 294 600          | 1 590         | 1 150           |
| M30 x 3.5     | 561                               | 244 900          | 1 470         | 1 100           | 333 250          | 2 000         | 1 500           |
| M30 x 3       | 580                               | 253 150          | 1 520         | 1 140           | 344 500          | 2 070         | 1 550           |
| M30 x 2       | 621                               | 271 050          | 1 630         | 1 220           | 368 850          | 2 210         | 1 660           |
| M33 x 3.5     | 694                               | 302 950          | 2 000         | 1 500           | 412 250          | 2 720         | 2 040           |
| M33 x 2       | 761                               | 332 200          | 2 200         | 1 640           | 452 050          | 2 980         | 2 240           |
| M36 x 4       | 817                               | 356 600          | 2 570         | 1 930           | 485 300          | 3 490         | 2 620           |
| M36 x 3       | 865                               | 377 600          | 2 720         | 2 040           | 513 800          | 3 700         | 2 780           |
| M39 x 4       | 976                               | 426 000          | 3 320         | 2 490           | 579 750          | 4 520         | 3 390           |
| M39 x 3       | 1 028                             | 448 700          | 3 500         | 2 630           | 610 650          | 4 760         | 3 570           |
| M42 x 4.5     | 1 121                             | 489 300          | 4 110         | 3 080           | 665 850          | 5 590         | 4 200           |
| M42 x 3       | 1 206                             | 526 400          | 4 420         | 3 320           | 716 350          | 6 020         | 4 510           |
| M45 x 4.5     | 1 306                             | 570 050          | 5 130         | 3 850           | 775 750          | 6 980         | 5 240           |
| M45 x 3       | 1 398                             | 610 250          | 5 490         | 4 120           | 830 400          | 7 470         | 5 610           |
| M48 x 5       | 1 473                             | 642 950          | 6 170         | 4 630           | 874 950          | 8 400         | 6 300           |
| M48 x 3       | 1 604                             | 700 150          | 6 720         | 5 040           | 952 800          | 9 150         | 6 860           |
| Grade mark    | Grade marking M8.8 M10.9 M12.9    |                  |               |                 |                  |               |                 |

# ■ Servicing STC Fittings

# **AIMPORTANT**

These units use Aeroquip STC hydraulic fittings. Please read the following service information before undertaking any disassembly or service work on these fittings.

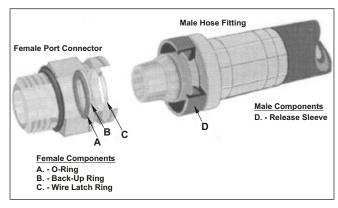


Figure 1. - STC Components

#### **NOTE:**

An STC release tool kit is available from Snorkel, Part Number 12791K

#### □ Disconnection

# **ADANGER**

Remove pressure from the system before attempting to disconnect these fittings in order to avoid forceful ejection of the fitting, which could result in personal injury.

- Some fluid may still be in the system.
   Minimise fluid loss by draining the fluid from
   the system components prior to
   disconnection.
- 2. Prior to disconnection, clean the area around the fitting with a clean cloth, or, using an airgun blow dirt and debris from the release sleeve area.
- To help avoid release sleeve tearing create a release tool insertion gap by moving the sleeve in the release direction. (see Figure 2). This can be done either by hand or by using a single prong of the release tool.
- 4. Insert the release tool behind the release sleeve D (see Figure 1) and pull the hose assembly out from the mating STC connector (leaving the release tool inserted will aid disassembly). Do not pry on the fitting with the release tool. (See Figure 2).

 If a release tool is not available, a thin blade screwdriver may be used (larger fitting sizes may require two screwdrivers). Follow step 4 above.

Use with care - a screwdriver could damage the release sleeve.

### ☐ Inspection

- 1. STC Fittings are designed to be connected and disconnected repeatedly without replacing the O-Ring and Back-Up-Ring, unless leakage or damage is observed.
- 2. Inspect mating STC fittings to ensure they are in good condition, clean and free of contaminants, nicks, scratches, flatspots etc.
- 3. Check the Wire Latch Ring **C** (see Figures 1 and 3) to ensure that it is in the proper position in the female STC connector prior to installation or reconnection.
- 4. Check the O-Ring A to ensure it is not cut or otherwise damaged prior to installation or reconnection.
- 5. Check the Back-Up-Ring **B** to ensure it is not damaged. Verify that it is at the front of the O-Ring groove prior to reconnecting the fitting.

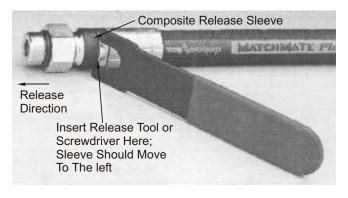


Figure 2. - STC Assembly

# **ACAUTION**

If leakage is observed, and the fittings are in otherwise good condition, a seal replacement kit must be installed or the fitting must be replaced!

If seals are not replaced, a decrease in system performance or damage to the system components may result.

#### ☐ Installation and connection

 Install the STC port connector into the mating port carefully. Follow recommended installation procedures for the applicable port fittings.  Align the STC fitting on the hose assembly with the STC connector, and push the hose fitting into the mating STC connector until you feel a definite snap and a solid stop.

# **ACAUTION**

Pull back on the hose assembly to verify that a proper connection has been made. An improper connection may result in a sudden assembly failure with a potential for personal injury.

# ☐ Seal replacement instructions

- Inspect the O-Ring A in Female STC connectors.
- 2. Carefully remove the O-Ring **A** and Back-Up Ring **B** with an O-Ring pick without damaging the interior surfaces of the fitting.
- 3. Inspect the interior surfaces and groves of the fitting and ensure they are free of foreign material, nicks, scratches, or dents.

# **AIMPORTANT**

Any damaged O-Ring must be replaced with a new O-Ring and Back-Up Ring using only genuine Aeroquip parts.

Any damaged fitting must be replaced with a new part to avoid leakage.

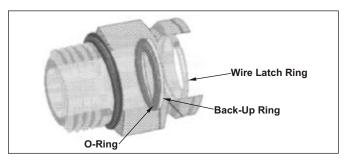


Figure 3. - Female Port Connector

- 4. If undamaged, clean the fitting and install Back-Up Ring **B** at the front of the O-Ring groove.
- 5. Install the new O-Ring A in the groove behind the Back-Up Ring B and inspect to ensure O-Ring and Back-Up Ring are secure in the groove. Lubricate the O-Ring with a lubricant which is compatible with the system fluid.

# **AIMPORTANT**

Inspect to verify proper location of O-Ring in the connector (See Figure 3). Leakage could occur if installed incorrectly.

- If the Wire Latch Ring C is damaged, carefully remove the Latch Ring without damaging the interior surfaces of the connector.
- 7. Carefully insert the new Wire latch Ring in the Latch Ring groove. The Latch Ring should be able to rotate in the groove.
- 8. Inspect and reinstall the connector. Follow the installation / connection steps for reinstallation.

# ■ Auto Level System Troubleshooting

If the auto level system fails to level the machine there could be electrical or hydraulic problems.

If the lift enable light comes on but the machine is not level or the auto level board has been removed or replaced the unit will need to be re-calibrated.

An EZcal is required to do this.

#### □ Test procedures

- 1. Remove the stabiliser cylinder covers.
- Verify that the micro switches are working by operating them by hand. An EZcal can be plugged into the auto level board to verify the signals are reaching the board.
- 3. Verify that electrical signals are being sent from the auto level board to the stabiliser valves when auto level is selected.

  There should be approximately 12 volts across each leg coil and the stabiliser divert valve when auto level is selected.
- 4. Verify the hydraulic system by manually powering the stabiliser divert valve at each leg coil individually with the engine running. Each leg should move both up and down.

# ☐ Using the EZcal

 Plug EZcal into the P1 port of the auto level board (see Figure 1.), and turn on the ignition of the SR.



Figure 1.

# NOTE:

The EZcal is a menu driven measuring and calibration device. Use the **four arrow keys** to scroll through menus and levels within menus, the **enter key** to enter/confirm data, and the **escape key** to cancel an operation or return to a previous menu level.

# **AWARNING**

Incorrect use of the EZcal could lead to safety issues and result in damage to the machine.

Ensure that you carefully follow the procedures set out below.

2. The display screen will show the following information (See Figure 2.).

# GP122 MENU: HELP:PRESS ENTER

#### Figure 2.

- 3. Use the [RIGHT ARROW] to scroll through to [DIAGNOSTICS] then press [ENTER].
- 4. Use the [RIGHT ARROW] to scroll to [SWITCHES] and press [ENTER].

#### **NOTE:**

The designations LR, RR, RF, and LF used subsequently refer to leg positions with respect to the auto level board <u>not</u> the position on the machine (see Figure 3.).

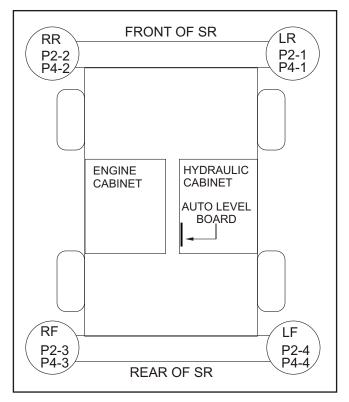


Figure 3.

GP122 MENU:

HELP: PRESS ENTER

GP122 MENU: ACCESS LEVEL 3

ACCESS LEVEL: CODE 0000

GP122 MENU: ACCESS LEVEL 1

**ADANGER** 

GP122 MENU: MACHINE SETUP

# MACHINE SETUP: CHANGE DEFAULTS

Press [ENTER] The display screen will show:

# DEFAULTS: 1=SR2255

10. Only one machine type at a time will show on the screen.

Use the [UP & DOWN ARROWS] to select the correct machine type (the full list is shown below).

0=MHP

1=SR2770

2=SR3370

3=SR3370eu

4=SR2255

5=SR2755

# **ADANGER**

Death or personal injury and serious damage to the machine can result from selecting the incorrect machine type.

ENSURE that the machine type you selected at the above step is the one you are carrying out the auto level calibration on.

11. Press [ESC]

The display screen will show:

# MACHINE SETUP: CHANGE DEFAULTS

12. Press the [RIGHT ARROW] to select the calibrate level function.

The display screen will show:

# MACHINE SETUP: CALIBRATE LEVEL

13. Press [ENTER].

The display screen will show:

# CALIBRATE LEVEL: YES:ENTER.NO:ESC

14. Press [ESC] to abort the calibration or [ENTER] to proceed with the calibration process.

If [ENTER] is selected the display screen should show:

# CALIBRATE LEVEL: TILT 0.0'.0.0'

- 15. Values should now read approximately 0.0, 0.0. If they do not repeat from step 9.
- 16. Switch the ignition off and on again.
- 17. Check that the machine now levels correctly.

# **Maintenance Information**

### ■ To order service or repair parts

When placing an order for service or repair parts, Manuals are available from Snorkel to support any please have the following information available for of the machines that we produce. your machine.

- ✓ Machine model number
- ✓ Machine serial number
- ✓ Snorkel part number
- ✓ Description of part
- ✓ Quantity of parts required
- √ Your purchase order number
- ✓ Address for order to "Ship To"
- ✓ Your desired shipment method

All correspondence relative to this unit, such as field reports, discrepancy reports, requests for service information, etc., should be directed to:

Snorkel 36 Bruce Road P.O. Box 1041 Levin 5500 New Zealand

Phone: +64 06 368-9168 Fax: +64 06 368-9164

Attention: Parts Department

20335 Ventura Blvd. Suite 310

Woodland Hills, CA 91364-2471 USA

#### ■ Manuals

The specific manuals for SR2255 - SR2755 are as follows:

- ✓ Operator's Manual Snorkel part number - 12874A
- √ Repair Parts Manual Snorkel part number - 12874B

# **Record machine information here:**

\* This information is found on the serial number placard

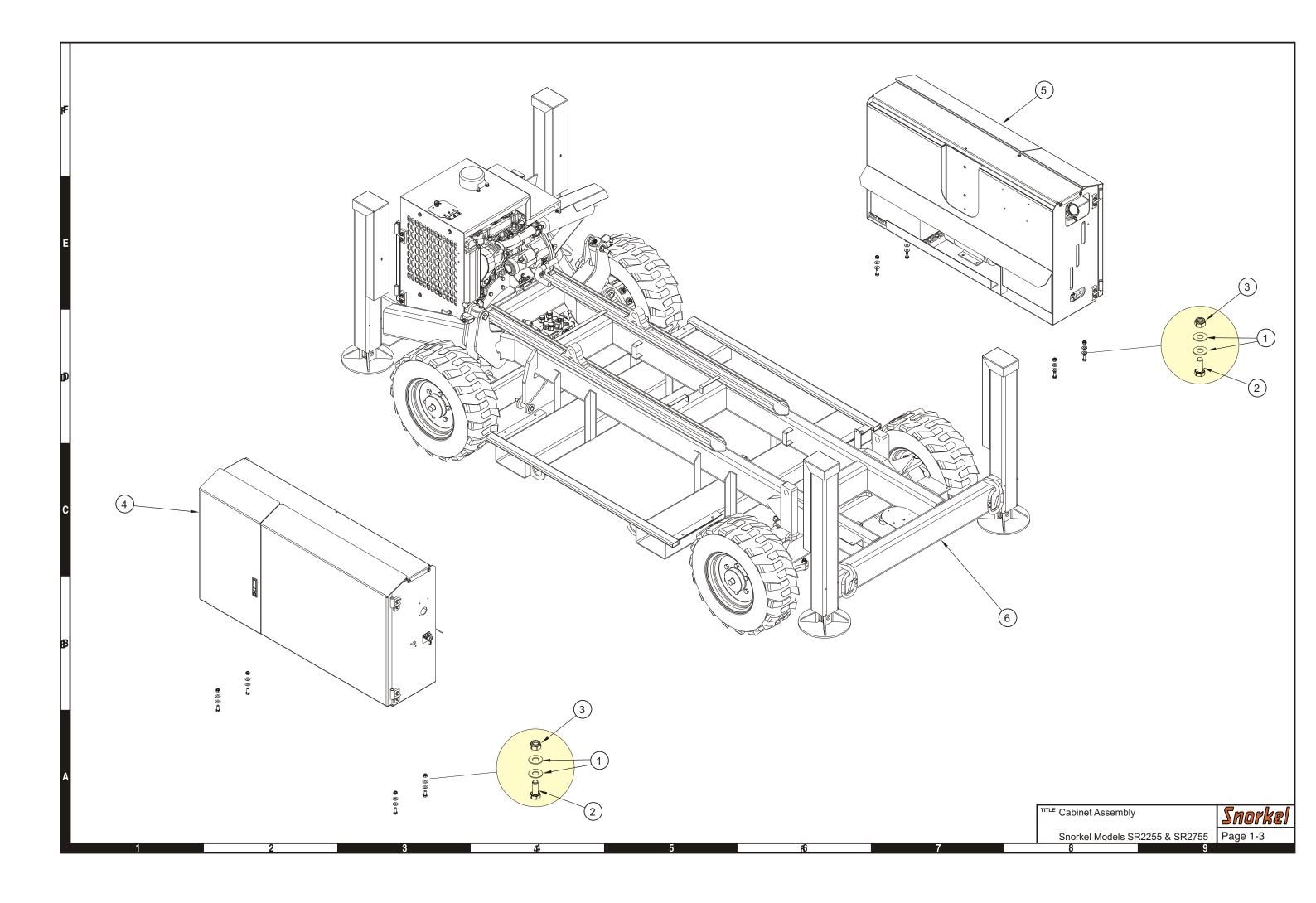
attached to your machine.

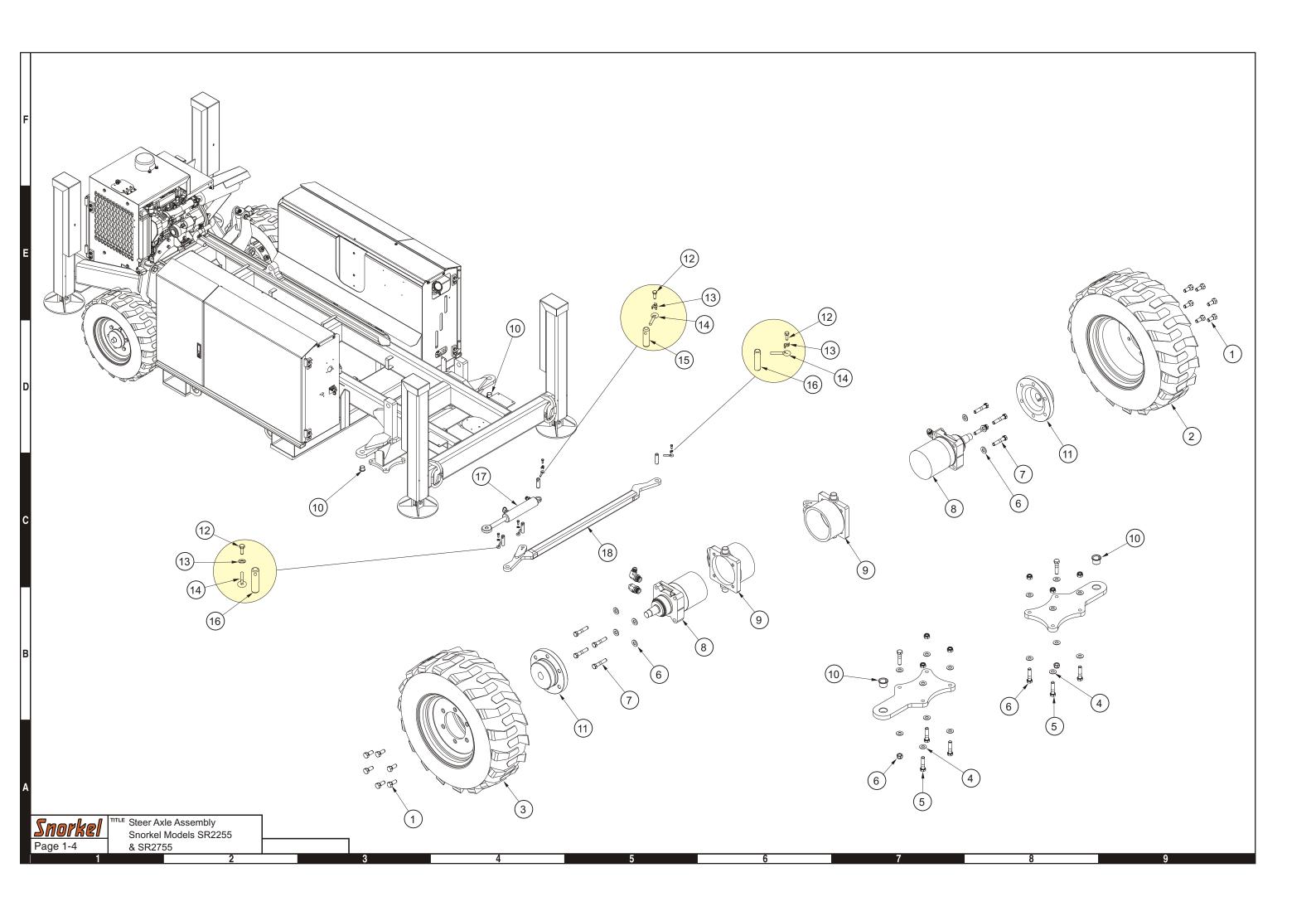
| ☐ ANSI and OSHA compliance  | Model number*                 |  |  |
|---|-------------------------------|--|--|
| All owners and users of the aerial platform must read, understand, and comply with all applicable regulations. Ultimate compliance to OSHA regulations is the responsibility of the user and their employer.                                    | Serial number*                |  |  |
| ANSI publications clearly identify the responsibilities of all personnel who may be involved with the period platform. A reprint of the   | ·                             |  |  |
| involved with the aerial platform. A reprint of the "Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors and Lessees of ANSI/SIA A92.5-1992 Boom-Supported Elevating Work Platforms" is available from Snorkel dealers or |                               |  |  |
| from the factory upon request.  |                               |  |  |
| Copies are also available from:   | Snorkel dealer or distributor |  |  |
| Scaffold Industry Association   | +=1:::                        |  |  |

| Cabinet assembly1-2                              |
|--|
| Cabinet assembly drawing1-3                      |
| Steer axle assembly drawing1-4                   |
| Steer axle assembly1-5                           |
| Articulating axle assembly1-6                    |
| Articulating axle assembly drawing1-7            |
| Control cabinet assembly drawing1-8              |
| Control cabinet assembly1-9                      |
| Fuel cabinet assembly1-10                        |
| Fuel cabinet assembly drawing1-11                |
| Engine assembly drawing, Kubota D902 1-12        |
| Engine assembly, Kubota D902 1-13                |
| Cable operated emergency bleed down 1-14         |
| Cable operated bleed down drawing 1-15           |
| Scissor stack SR2255 1-16                        |
| Scissor atack drawing, SR22551-17                |
| Scissor stack drawing, SR27551-18                |
| Scissor stack SR2755                             |
| Stabiliser assembly before SN NZ081001 1-20      |
| Stabiliser assembly drawing                      |
| (Before SN NZ081001)1-21                         |
| Stabiliser assembly drawing                      |
| (From SN NZ081001)1-22                           |
| Stabiliser assembly from SN NZ0810011-23         |
| Platform assembly before SN NZ081001 1-24        |
| Platform assembly drawing                        |
| (Before SN NZ081001)                             |
| Platform assembly drawing (From SN NZ081001)1-26 |
| Platform assembly from SN NZ0810011-27           |
| Engine cabinet assembly1-28                      |
| Engine cabinet assembly drawing1-29              |
| Fuel tank assembly, diesel fuel 1-30             |
| Upper control box mounting assembly 1-31         |
| Placards and decals installation 1-32            |
| Placards and decals drawing 1-33                 |

# **Cabinet assembly**

| Item | Part No    | Qty | Description               |
|------|------------|-----|---------------------------|
| 1.   | 3603-10    | 16  | Washer, flat, M10 x 24 ZP |
| 2.   | 3610-10025 | 8   | Bolt, M10 x 25, C8.8, ZP  |
| 3.   | 3611-10    | 8   | Nut, nylock, M10          |
| 4.   | 12857-1    | 1   | Cabinet, control          |
| 5.   | 12856-1    | 1   | Cabinet, fuel             |
| 6.   | 12855      | 1   | Chassis assembly          |

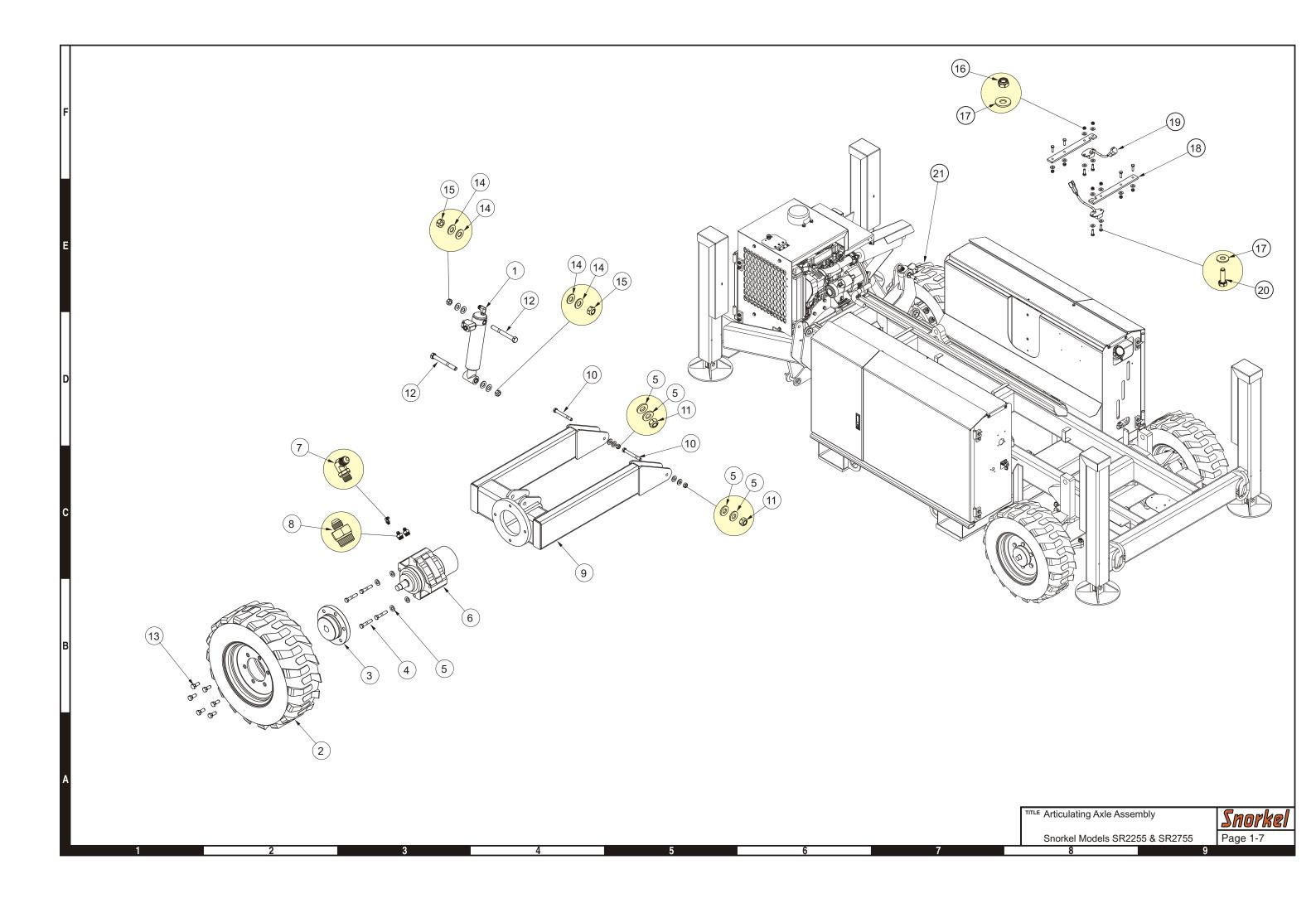


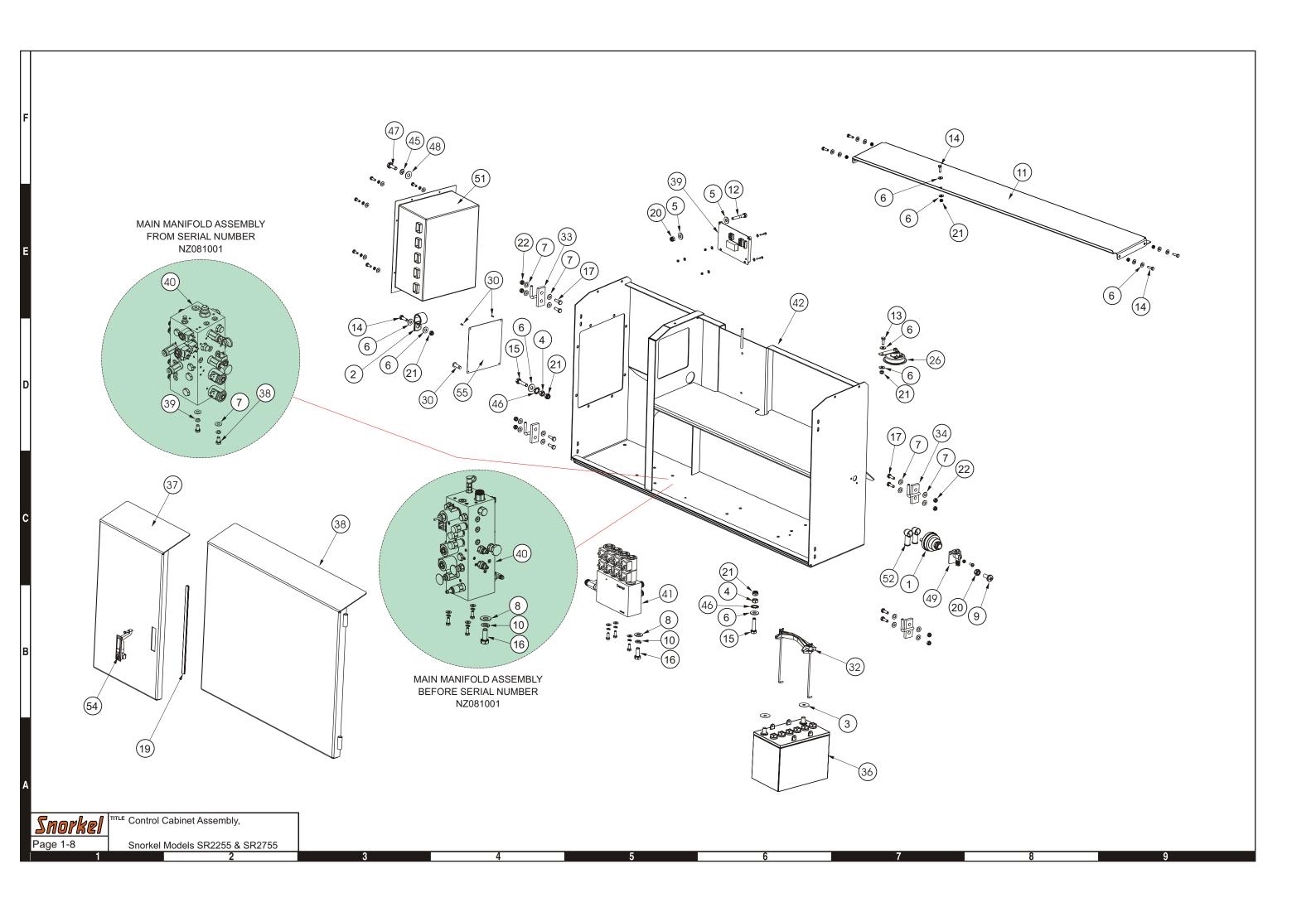


| Item | Part No.   | Qty | Description                    |
|------|------------|-----|--------------------------------|
| 1.   | 98300-9    | 24  | Countersunk wheel bolt         |
| 2.   | 12286-3L   | 1   | Wheel, left hand, foam filled  |
| 3.   | 12286-3R   | 1   | Wheel, right hand, foam filled |
| 4.   | 3603-12    | 16  | Washer, flat, M12 x 24 ZP      |
| 5.   | 3610-12050 | 8   | Bolt, M12 x 50, C8.8, ZP       |
| 6.   | 3611-12    | 8   | Nut, nylock, M12               |
| 7.   | 3616-12060 | 16  | Bolt, M12 x 60, C10.9, black   |
| 8.   | 11601      | 2   | Wheel motor                    |
| 9.   | 11590      | 2   | Swivel housing, kingpin        |
| 10.  | 3626-1     | 4   | Flanged bush                   |
| 11.  | 11629      | 2   | Wheel hub                      |
| 12.  | 3610-06016 | 4   | Bolt, M6 x 16, C8.8, ZP        |
| 13.  | 11492-1    | 4   | Washer, tab, M6                |
| 14.  | 8628       | 4   | Pin keeper                     |
| 15.  | 9311       | 1   | Pin, steer cylinder            |
| 16.  | 9319       | 3   | Pin, tie rod arm               |
| 17.  | 11699      | 1   | Steer cylinder                 |
| 18.  | 12303      | 1   | Steering rod                   |

# Articulating axle assembly

| Item | Part No.   | Qty | Description                                 |
|------|------------|-----|---|
|      |            |     | ·   |
| 1.   | 11642A     | 2   | Axle cylinder assembly                      |
| 2.   | 12286-3R   | 1   | Wheel, right hand, foam filled              |
| 3.   | 11629      | 2   | Wheel hub                                   |
| 4.   | 3616-12060 | 8   | Bolt, M12 x 60, C10.9, black                |
| 5.   | 3603-12HD  | 8   | Washer, flat, M12HD, galvanised             |
| 6.   | 11600      | 2   | Wheel motor                                 |
| 7.   | 7031-003   | 2   | Adaptor, elbow 90°, 7/16" JICM -> 7/16" UNO |
| 8.   | 7025-010   | 4   | Adaptor, straight, 9/16" JICM -> 7/8" UNO   |
| 9.   | 12296      | 2   | Swing arm weld                              |
| 10.  | 3616-12100 | 4   | Bolt, M12 x 100, C10.9, ZP                  |
| 11.  | 3608-12C   | 4   | Conelock nut, M12                           |
| 12.  | 3616-16140 | 4   | Bolt, (Modified), M16 x 140, C10.9          |
| 13.  | 98300-9    | 12  | Wheel stud                                  |
| 14.  | 3603-16HD  | 8   | Washer, flat, M16, galvanised               |
| 15.  | 3608-16C   | 4   | Conelock nut, M16                           |
| 16.  | 3611-06    | 16  | Nut, nylock, M6                             |
| 17.  | 3603-06    | 8   | Washer, flat, M6 x 16 ZP                    |
| 18.  | 11794      | 2   | Mounting bracket, magnetic switch           |
| 19.  | 560278     | 2   | Proximity switch                            |
| 20.  | 3610-06020 | 8   | Bolt, M6 x 20, C8.8 ZP                      |
| 21.  | 12286-3L   | 1   | Wheel, left hand, foam filled               |

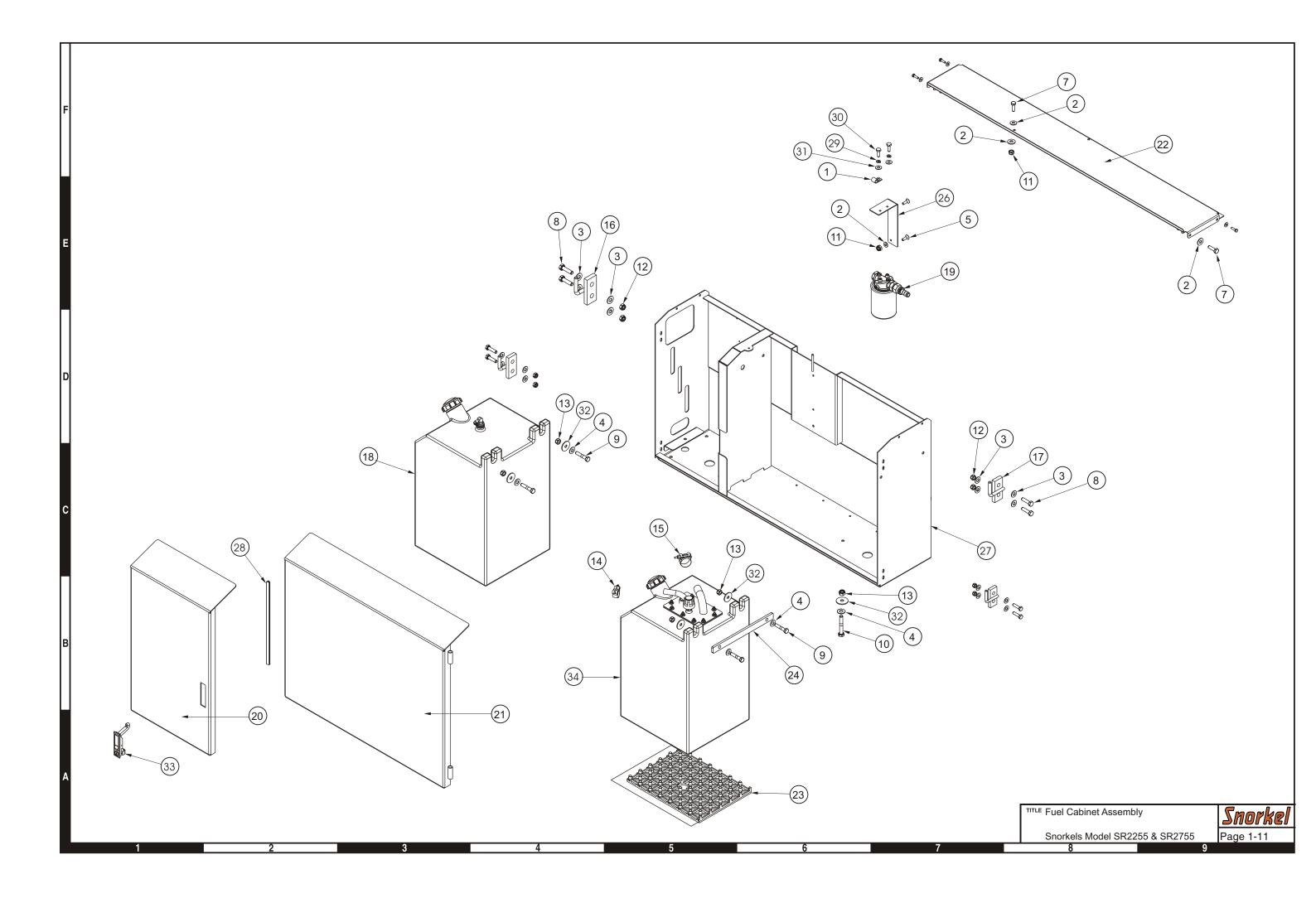


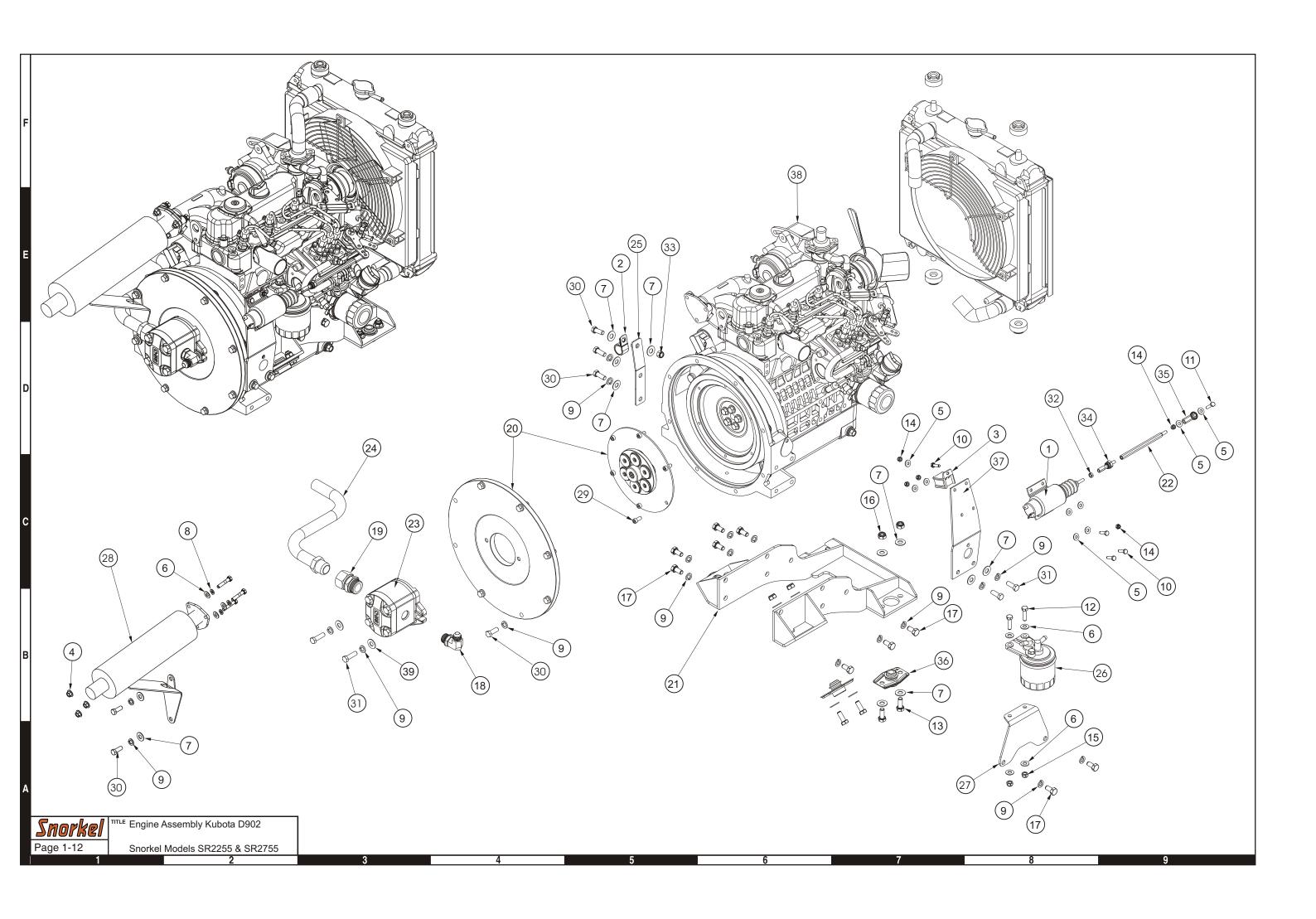


| Item       | Part No.               | Qty     | Description                        |
|------------|------------------------|---------|------------------------------------|
| 1.         | 302-0049               | 1       | Switch, battery disconnect         |
| 2.         | 2022-005               | 1       | Clamp                              |
| 3.         | 2069                   | 1       | Anti-corrosive pads                |
| 4.         | 3602-06                | 2       | Nut, hex, M6 plated                |
| 5.         | 3603-05                | 8       | Washer, flat, M5 x 12.5 ZP         |
| 6.         | 3603-06                | 21      | Washer, flat, M6 x 16 ZP           |
| 7.         | 3603-08                | 24      | Washer, flat, M8 x 19 ZP           |
| 8.         | 3603-10                | 3       | Washer, flat, M10 x 24 ZP          |
| 9.         | 3604-05012             | 2       | Screw, pan head, M10               |
| 10.        | 3605-10                | 8       | Washer, spring, M10                |
| 11.        | 12313-10               | 1       | Top panel side cabinet             |
| 12.        | 3610-05025             | 4       | Bolt, M5 x 25, C4.6, ZP            |
| 13.        | 3610-06016             | 6       | Bolt, M6 x 16, C8.8, ZP            |
| 14.        | 3610-06020             | 3       | Bolt, M6 x 20, C8.8, ZP            |
| 15.        | 3610-06025             | 2       | Bolt, M6 x 25, C8.8, ZP            |
| 16.        | 3610-10020             | 8       | Bolt, M10 x 20, C8.8, ZP           |
| 17.        | 3610-08025             | 8       | Bolt, M8 x 25, C8.8, ZP            |
| 19.        | PCA015                 | 1       | Rubber channel section             |
| 20.        | 3611-05                | 6       | Nut, nylock, M5                    |
| 21.        | 3611-06                | 12      | Nut, nylock, M6                    |
| 22.        | 3611-08                | 8       | Nut, nylock, M8                    |
| 26.        | 4381                   | 1       | Horn                               |
| 30.        | 8974                   | 4       | Screw, hammer drive                |
| 32.        | 10268-1                | 1       | Battery bracket                    |
| 33.        | 11470                  | 2       | Left hand hinge                    |
| 34.        | 11470-1                | 2       | Right hand hinge                   |
| 36.        | 11596                  | 1       | Battery, 12v                       |
| 37.        | 11679                  | 1       | Left hand door weld, small         |
| 38.        | 11680                  | 1       | Right hand door weld, large        |
| 39.        | 12546                  | 1       | Auto level board                   |
| 40.        | 12567                  | 1       | Manifold, main, SR                 |
| 41.        | 12568                  | 1       | Manifold, stabiliser, SR           |
| 42.        | 12716                  | 1       | Control cabinet weld               |
| 45.        | 60005-007<br>12783-06  | 10<br>2 | Washer, spring, 1/4"HD, plated     |
| 46.        |                        |         | Lock washer                        |
| 47.<br>48. | 60015-012<br>60030-006 | 10      | Bolt, 1/4" UNC x 5/8" G5<br>Washer |
| 48.<br>49. | 300840                 | 10<br>1 | Lock out lever assembly            |
| 49.<br>51. | 560222                 | 1       | Control box, ground                |
| 51.<br>52. | 3040269                | 2       | Boot, cable entry                  |
| 5∠.<br>54. | 8342416                | 1       | Latch, adjustable trigger          |
| 54.<br>55. | 0070901E               | 1       | Name plate                         |
| 55.        | 00709010               | I       | Name plate                         |

# **Fuel cabinet assembly**

| Item     | Part No    | Qty | Description  |
|----------|------------|-----|--|
|          |            |     | ·  |
| 1.<br>2. | 2022-002   | 1   | Clamp Weeker flet M6 v 16 7P                             |
| ∠.<br>3. | 3603-06    | 26  | Washer, flat, M8 x 10 ZP                                 |
|          | 3603-08    | 18  | Washer, flat, M8 x 19 ZP                                 |
| 4.       | 3603-10    | 3   | Washer, flat, M10 x 24 ZP                                |
| 5.<br>7  | 3606-06020 | 2   | Screw, countersunk socket head, M6 x 20, stainless steel |
| 7.       | 3610-06020 | 9   | Bolt, M6 x 20, C8.8, ZP                                  |
| 8.       | 3610-08030 | 8   | Bolt, M8 x 30, C8.8, ZP                                  |
| 9.       | 3610-10050 | 2   | Bolt, M10 x 50, C8.8, ZP                                 |
| 10.      | 3610-10065 | 1   | Bolt, M10 x 65, C8.8, ZP                                 |
| 11.      | 3611-06    | 11  | Nut, nylock, M6  |
| 12.      | 3611-08    | 8   | Nut, nylock, M8  |
| 13.      | 3611-10    | 7   | Nut, nylock, M10   |
| 14.      | 3618-26    | 1   | Hose clamp   |
| 15.      | 3618-32    | 1   | Hose clamp   |
| 16.      | 11470      | 2   | Left hand hinge  |
| 17.      | 11470-1    | 2   | Right hand hinge   |
| 18.      | 13106-1A   | 1   | Fuel tank assembly                                       |
| 19.      | 11649      | 1   | Return oil filter assembly                               |
| 20.      | 11679      | 1   | Left hand door weld, small                               |
| 21.      | 11680      | 1   | Right hand door weld, large                              |
| 22.      | 12313-10   | 1   | Top Panel side cabinet                                   |
| 23.      | 12314-3    | 1   | Pad, hydraulic tank                                      |
| 24.      | 12314-4    | 1   | Spacer, hydraulic tank mount                             |
| 26.      | 12329      | 1   | Bracket, return line filter                              |
| 27.      | 12856-1    | 1   | Side cabinet weld, hydraulic                             |
| 28.      | PCA015     | 1   | Rubber channel section                                   |
| 29.      | 60005-007  | 2   | Washer, spring, 1/4"HD, plated                           |
| 30.      | 60015-006  | 2   | Bolt, 3/4" x 1/4" UNC, plated                            |
| 31.      | 60030-006  | 2   | Flat sash, 1/4", ZP                                      |
| 32.      | 5560179    | 7   | Flat washer, special                                     |
| 33.      | 8342416    | 1   | Latch, adjustable trigger                                |
| 34.      | 12318A     | 1   | Hydraulic tank   |

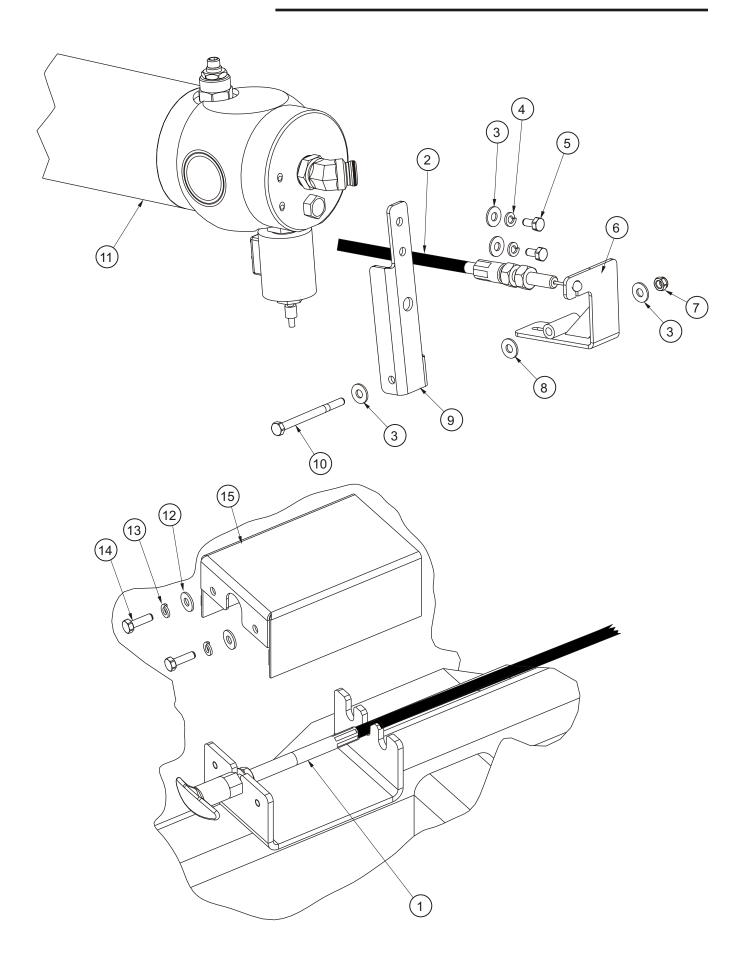




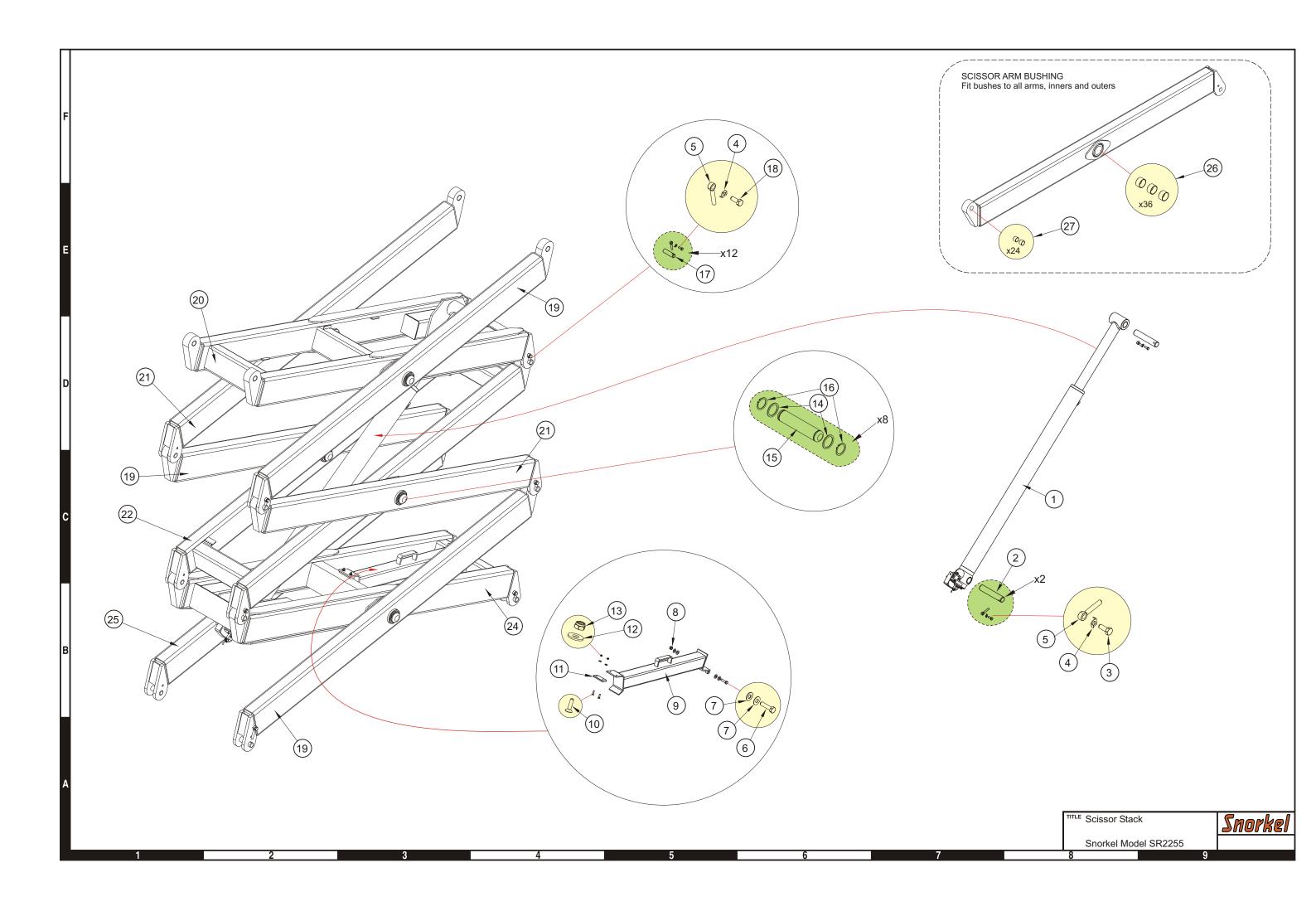
| Item | Part No    | Qty | Description  |
|------|------------|-----|--|
| 1.   | 304-0174   | 1   | Solenoid, 12V  |
| 2.   | 2022-005   | 1   | Clamp cushion 1"   |
| 3.   | 2065-002   | 1   | Plug in relay base   |
| 4.   | 3602-08    | 3   | Nut, hex, M8, plated   |
| 5.   | 3603-06    | 9   | Washer, flat, M6 x 16, ZP  |
| 6.   | 3603-08    | 7   | Washer, flat, M8 x 19, ZP  |
| 7.   | 3603-10    | 24  | Washer, flat, M10 x 24, ZP                                       |
| 8.   | 3605-08    | 3   | Washer, spring, M8   |
| 9.   | 3605-10    | 25  | Washer, spring, M10  |
| 10.  | 3610-06020 | 4   | Bolt, M6 x 20, C8.8, ZP  |
| 11.  | 3610-06025 | 1   | Bolt, M6 x 25, C8.8, ZP  |
| 12.  | 3610-08030 | 2   | Bolt, M8 x 30, C8.8, ZP  |
| 13.  | 3610-10025 | 8   | Bolt, M10 x 25, C8.8, ZP   |
| 14.  | 3611-06    | 5   | Nut, nyloc, M6   |
| 15.  | 3611-08    | 2   | Nut, nyloc, M8   |
| 16.  | 3611-10    | 8   | Nut, nyloc, M10  |
| 17.  | 3617-10020 | 10  | Bolt, M10 x 20, fine thread                                      |
| 18.  | 7031-004   | 1   | Adaptor, 3/4" JICM -> 7/8" UNO, elbow 90°                        |
| 19.  | 7098-7     | 1   | Adaptor, 1 & 5/16" JICF -> 1 & 1/16" UNO, straight               |
| 20.  | 12956      | 1   | Coupling, SAE 'A' 9 spline -> SAC #5 bellhousing + 6/12 flywheel |
| 21.  | 12961      | 1   | Engine cradle weld   |
| 22.  | 13023      | 1   | Throttle lever, D902   |
| 23.  | 13049      | 1   | Pump, SAE-A, 9 spline  |
| 24.  | 13074      | 1   | Pipe, pump suction   |
| 25.  | 13074-5    | 1   | Support, for suction pump  |
| 26.  | 13086-01   | 1   | Fuel filter, Kubota 15224 - 43013, supplied with engine          |
| 27.  | 13095      | 1   | Fuel filter bracket, Kubota D902                                 |
| 28.  | 13097      | 1   | Exhaust weldment D902, SR2255                                    |
| 29.  | 13104-0510 | 6   | Capscrew 5/16" UNC - 5/8"  |
| 30.  | 60017-007  | 13  | Bolt, 3/8" UNC   |
| 31.  | 60017-010  | 2   | Bolt   |
| 32.  | 60021-008  | 1   | Nut, 1/4" NF   |
| 33.  | 60042-051N | 1   | Nut, nyloc, UNC 3/8"   |
| 34.  | 2650001    | 1   | Swivel, inline   |
| 35.  | 2690004    | 1   | Rod end  |
| 36.  | 7630208    | 4   | Engine mount   |
| 37.  | 13022      | 1   | Throttle solenoid bracket, D902                                  |
| 38.  | 13086      | 1   | Engine, Kubota D902  |
| 39.  | 3603-10H   | 2   | Washer, flat, M10, hardened                                      |

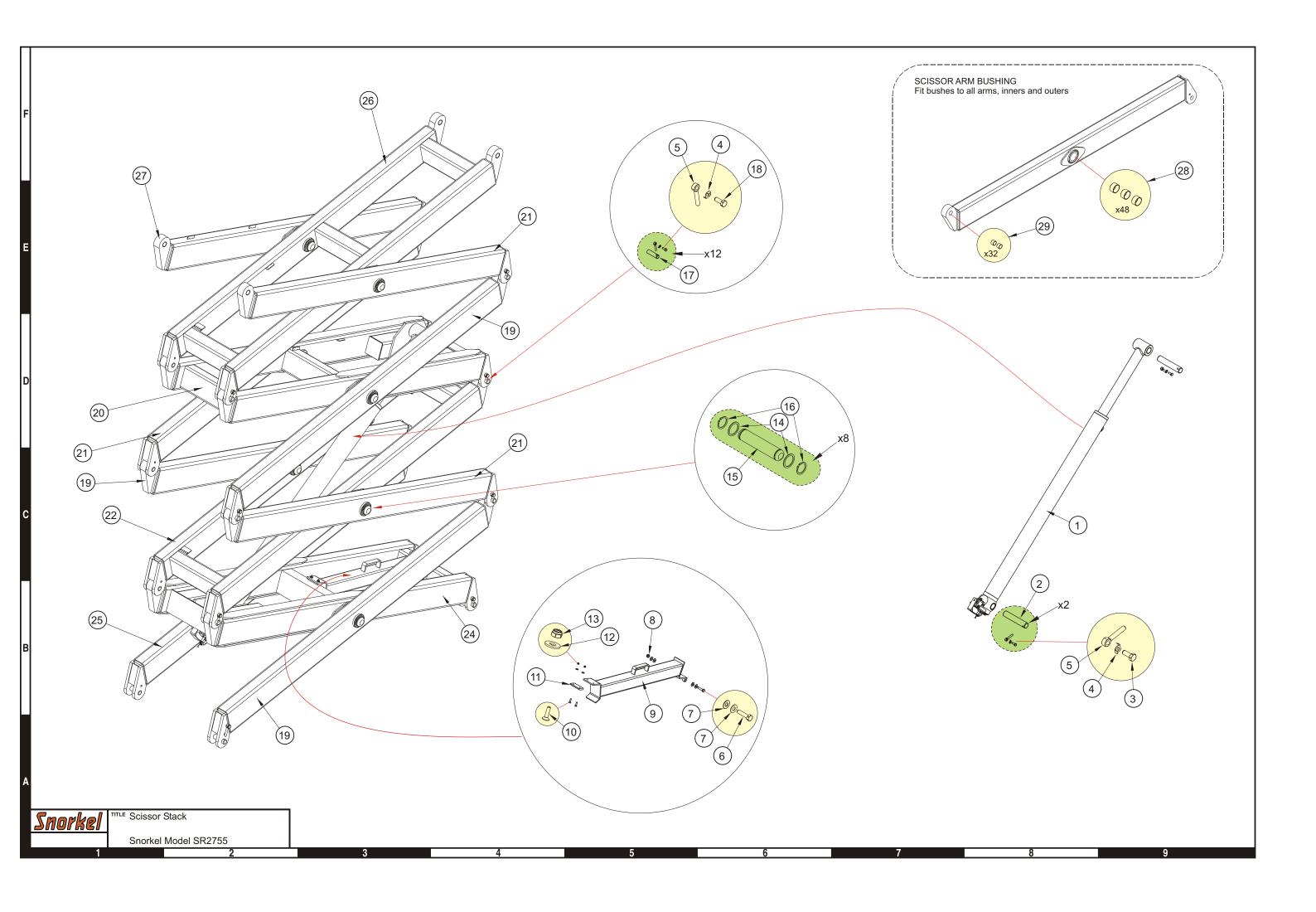
#### Cable operated emergency bleed down

| Item | Part No    | Qty | Description                                  |
|------|------------|-----|--|
| 1.   | 12748      | 1   | Bleed down handle and cable to lift cylinder |
| 2.   | 12748      | 1   | Bleed down cable                             |
| 3.   | 3603-06    | 4   | Washer, plain, M6 x 16                       |
| 4.   | 3605-06    | 2   | Washer, spring, M6                           |
| 5.   | 3610-06012 | 2   | Bolt, M6 x 12, C8.8, ZP                      |
| 6.   | 12648      | 1   | Valve lever                                  |
| 7.   | 3611-06    | 1   | Nut, nyloc, M6                               |
| 8.   | 3641-06    | 1   | Washer, nylon, M6                            |
| 9.   | 12647-1    | 1   | Cylinder lever pivot                         |
| 10.  | 3610-06075 | 1   | Bolt, M6 x 75, C8.8, ZP                      |
| 11.  | 12746A     | 1   | SR lift cylinder                             |
| 12.  | 3603-06    | 2   | Washer, plain, M6 x 16, ZP                   |
| 13.  | 3605-06    | 2   | Washer, spring, M6                           |
| 14.  | 3610-06020 | 2   | Bolt, M6 x 20, C8.8, ZP                      |
| 15.  | 12818      | 1   | Bleed down cover                             |



| 14   | Dord No.   | Ohr | De a suitable su  |
|------|------------|-----|---|
| Item | Part No    | Qty | Description   |
| 1.   | 12746A     | 1   | Cylinder assembly, SR lift                              |
| 2.   | 9292       | 2   | Pin, 38.1 x 200mm, 10mm keeper                          |
| 3.   | 3610-10020 | 2   | Bolt, M10 x 20, C8.8 ZP                                 |
| 4.   | 11492-3    | 10  | Locktab, M10  |
| 5.   | 8626       | 10  | Pin keeper, 10mm, plated                                |
| 6.   | 3610-10120 | 1   | Bolt, M10 x 120, C8.8 ZP                                |
| 7.   | 3603-10    | 4   | Washer, flat, M10 x 24 ZP                               |
| 8.   | 3611-10    | 1   | Nylock nut, M10   |
| 9.   | 11380      | 1   | Safety prop weld  |
| 10.  | 3606-06025 | 2   | Cap screw, countersunk socket, M6 x 25, stainless steel |
| 11.  | 11143-2    | 1   | Wear pad  |
| 12.  | 3603-06    | 2   | Washer, flat, M6 x 16 ZP                                |
| 13.  | 3611-06    | 2   | Nylock nut, M6  |
| 14.  | 3629-5062L | 12  | Washer, scissor pivot (Washer 51 ID x 65 OD)            |
| 15.  | 11804      | 6   | Scissor pivot pin                                       |
| 16.  | 3619-5     | 12  | Circlip, external, 50mm nominal diameter                |
| 17.  | 8699       | 8   | Pin, arm/arm  |
| 18.  | 3610-10025 | 8   | Bolt, M10 x 25, C8.8                                    |
| 19.  | 12529      | 3   | Arm, outer, mid right hand weld                         |
| 20.  | 12912      | 1   | Arm, inner upper weld                                   |
| 21.  | 12530      | 2   | Arm, outer, nidleft hand weld                           |
| 22.  | 12906      | 1   | Arm, inner, mid weld                                    |
| 24.  | 12933      | 1   | Arm, inner, lower weld                                  |
| 25.  | 12713      | 1   | Arm, outer, lower right weld                            |
| 26.  | 3624-2     | 36  | Bush  |
| 27.  | 3624-3     | 24  | Bush  |

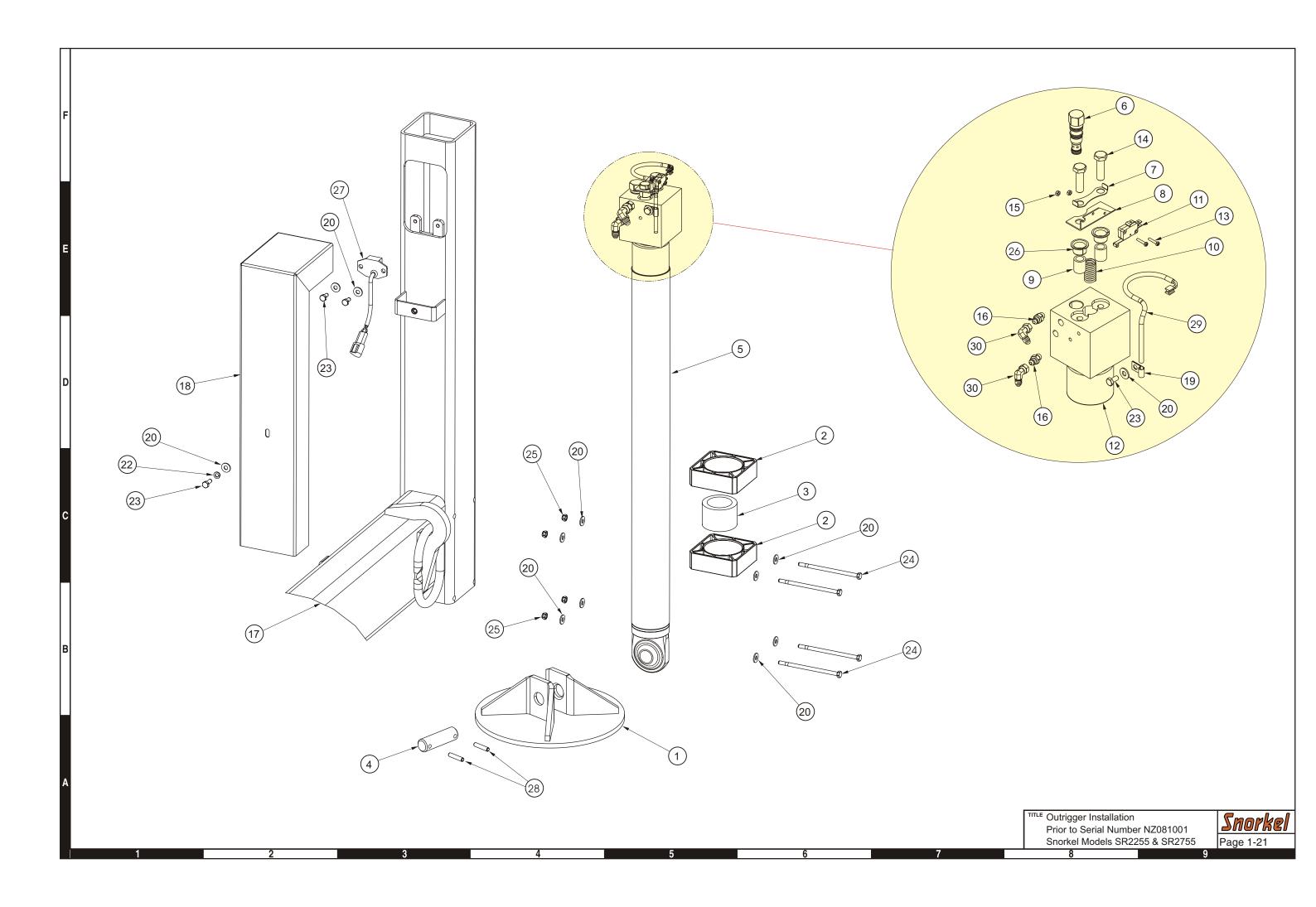


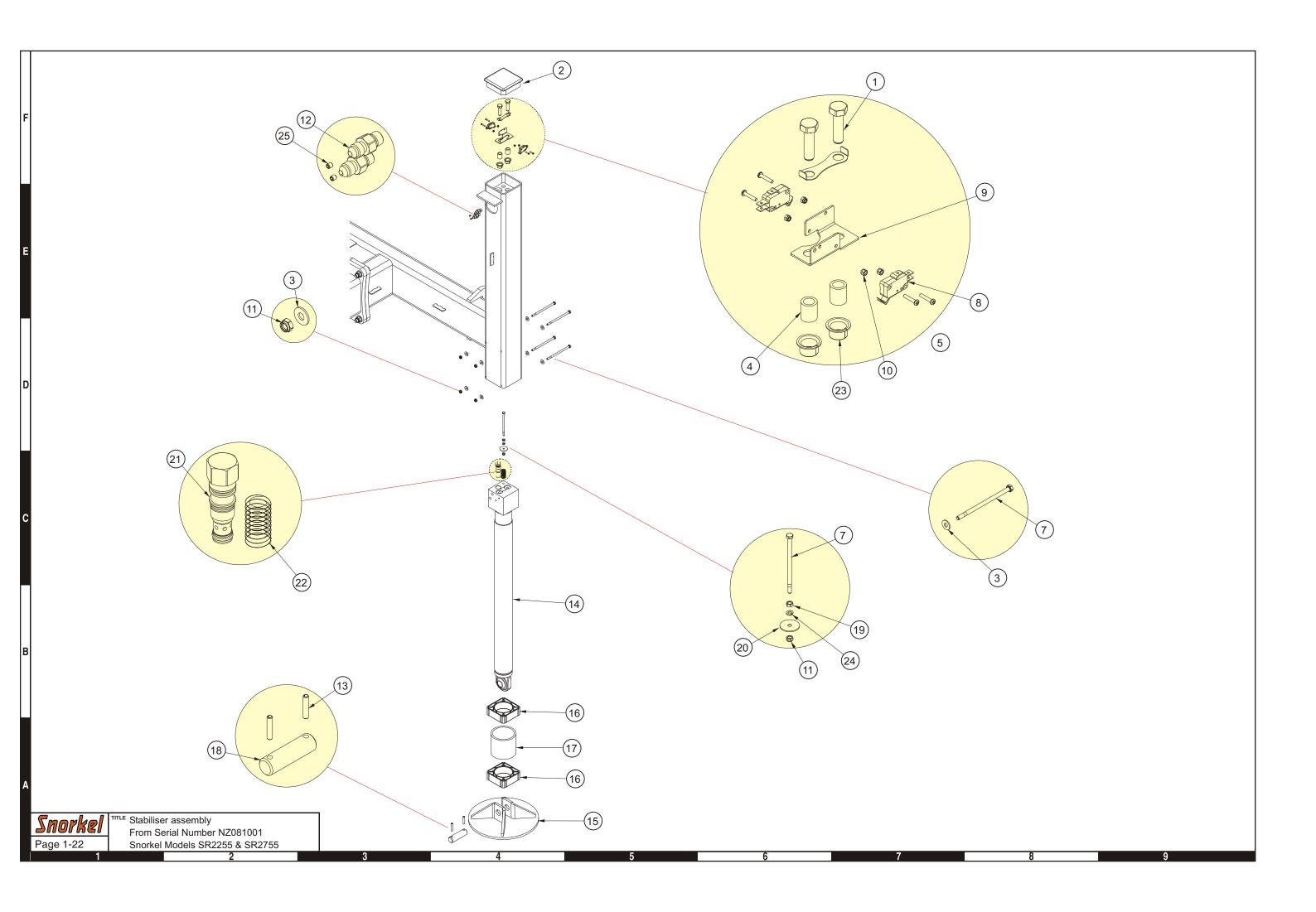


| Item | Part No    | Qty | Description   |
|------|------------|-----|---|
| 1.   | 12746A     | 1   | Cylinder assembly, SR lift                              |
| 2.   | 9292       | 2   | Pin, 38.1 x 200mm, 10mm keeper                          |
| 3.   | 3610-10020 | 2   | Bolt, M10 x 20, C8.8 ZP                                 |
| 4.   | 11492-3    | 14  | Locktab, M10  |
| 5.   | 8626       | 14  | Pin keeper, 10mm, plated                                |
| 6.   | 3610-10120 | 1   | Bolt, M10 x 120, C8.8 ZP                                |
| 7.   | 3603-10    | 4   | Washer, flat, M10 x 24 ZP                               |
| 8.   | 3611-10    | 1   | Nylock nut, M10   |
| 9.   | 11380      | 1   | Safety prop weld  |
| 10.  | 3606-06025 | 2   | Cap screw, countersunk socket, M6 x 25, stainless steel |
| 11.  | 11143-2    | 1   | Wear pad  |
| 12.  | 3603-06    | 2   | Washer, flat, M6 x 16 ZP                                |
| 13.  | 3611-06    | 2   | Nylock nut, M6  |
| 14.  | 3629-5062L | 16  | Washer, scissor pivot (Washer 51 ID x 65 OD)            |
| 15.  | 11804      | 8   | Scissor pivot pin                                       |
| 16.  | 3619-5     | 16  | Circlip, external, 50mm nominal diameter                |
| 17.  | 8699       | 12  | Pin, arm/arm  |
| 18.  | 3610-10025 | 12  | Bolt, M10 x 25, C8.8                                    |
| 19.  | 12529      | 3   | Arm, outer, mid right hand weld                         |
| 20.  | 9332       | 1   | Arm, inner upper weld                                   |
| 21.  | 12530      | 3   | Arm, outer, mid left hand weld                          |
| 22.  | 12906      | 1   | Arm, inner, mid weld                                    |
| 24.  | 12933      | 1   | Arm, inner, lower weld                                  |
| 25.  | 12713      | 1   | Arm, outer, lower right weld                            |
| 26.  | 9331       | 1   | Arm, inner, upper fourth stage                          |
| 27.  | 9502       | 1   | Arm, outer, upper weldment                              |
| 28.  | 3624-2     | 48  | Bush  |
| 29.  | 3624-3     | 32  | Bush  |

## Stabiliser assembly before SN NZ081001

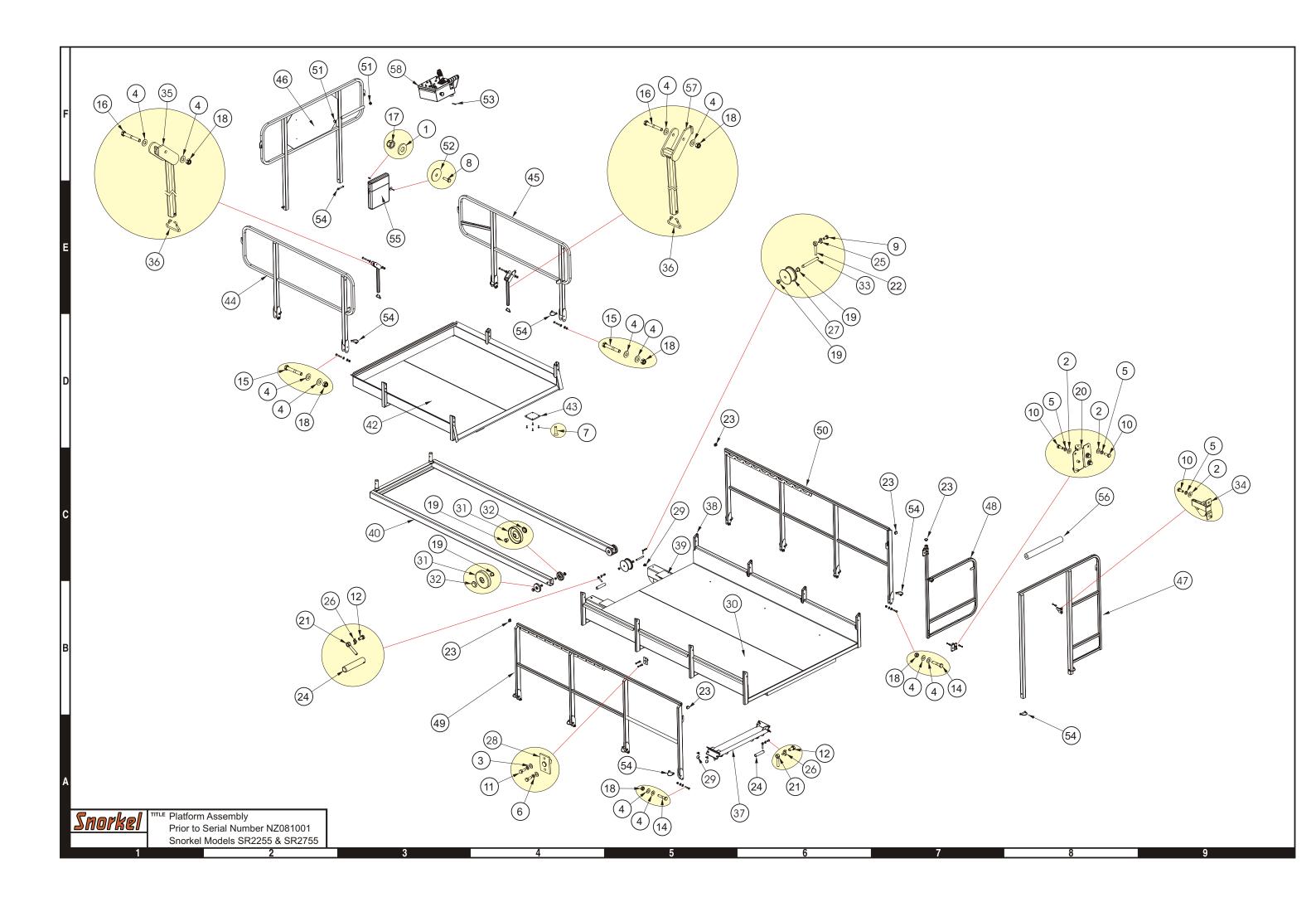
|      | D          | 01  |                                 |
|------|------------|-----|---------------------------------|
| Item | Part No    | Qty | Description                     |
| 1.   | 11305      | 1   | Foot weld assembly              |
| 2.   | 11366-1    | 2   | Stabiliser bush                 |
| 3.   | 11366-2    | 1   | Spacer, stabiliser bush         |
| 4.   | 11369      | 1   | Pin, foot swivel                |
| 5.   | 12036A     | 1   | Cylinder assembly               |
| 6.   | 11367-2    | 1   | Pilot check valve               |
| 7.   | 11492-4    | 1   | Lock tab                        |
| 8.   | 12036-4    | 1   | Microswitch mount plate         |
| 9.   | 12036-5    | 2   | Sliding spacer                  |
| 10.  | 12036-6    | 1   | Compression spring              |
| 11.  | 12036-7    | 1   | Switch                          |
| 12.  | 12036      | 1   | Stabiliser cylinder             |
| 13.  | 3604-03016 | 2   | Machine screw                   |
| 14.  | 3610-10030 | 2   | Bolt                            |
| 15.  | 3611-03    | 2   | Nyloc nut                       |
| 16.  | 7025-015   | 2   | JICM x UN 'O' ring, male nipple |
| 17.  | REF        | 1   | Stabiliser weldment             |
| 18.  | 12039      | 1   | Hose cover, stabiliser leg      |
| 19.  | 2022-003   | 1   | Cable clamp                     |
| 20.  | 3603-06    | 12  | Flat washer                     |
| 22.  | 3605-06    | 1   | HD spring washer                |
| 23.  | 3610-06012 | 4   | Bolt                            |
| 24.  | 3610-06110 | 4   | Bolt                            |
| 25.  | 3611-06    | 4   | Nyloc nut                       |
| 26.  | 3626-8     | 2   | Flanged permaglide bush         |
| 27.  | 560278     | 1   | Magnetic proximity switch       |
| 28.  | 3633-3     | 2   | Roll pin                        |
| 29.  | 12731-4    | 1   | Wiring loom                     |
| 30.  | 6999-005   | 2   | Adaptor, JICM to JICF           |

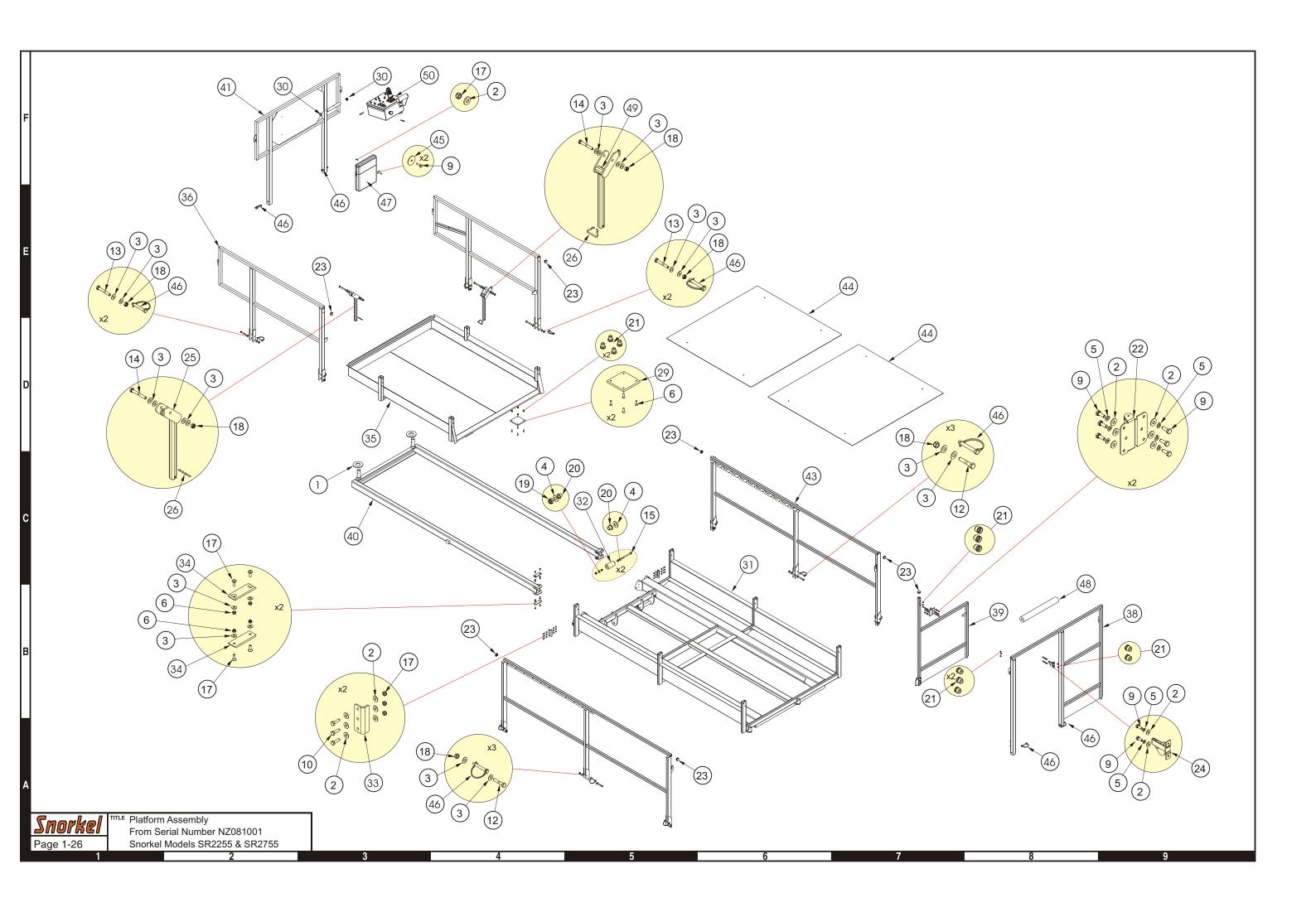




| Item | Part No           | Qty              | Description  |
|------|-------------------|------------------|--|
| Note | : All parts are " | Per Stabiliser F | Housing", (4 housings per machine)                   |
|      |                   |                  | , ( · · · · · · · · · · · · · · · · · ·              |
| 1.   | 3610-10030        | 2                | Bolt, M10 x 30, C8.8                                 |
| 2.   | 9911              | 1                | Plug, RHS, 100 x 100                                 |
| 3.   | 3603-06           | 8                | Washer, flat   |
| 4.   | 12036-5           | 2                | Sliding spacer                                       |
| 5.   | 3604-03016        | 4                | Screw, pan head M3 x 16                              |
| 6.   | 11492-4           | 1                | Locktab, dual, 10mm                                  |
| 7.   | 3610-06110        | 5                | Bolt, M6 x 110, C4.6                                 |
| 8.   | 12036-7           | 2                | Microswitch  |
| 9.   | 12036-8           | 1                | Microswitch mount plate, dual                        |
| 10.  | 3611-03           | 4                | Nut, nylock, M3                                      |
| 11.  | 3611-06           | 5                | Nut, nylock, M6                                      |
| 12.  | 7025-015          | 2                | Adpater, JICM straight, 7/16" -> UNO straight, 7/16" |
| 13.  | 3633-3            | 2                | Roll pin, 1 & 1/4" x 1/4", plated                    |
| 14.  | 12036             | 1                | Cylinder   |
| 15.  | 11305             | 1                | Stabiliser foot weldment                             |
| 16.  | 11366-1           | 2                | Stabiliser bush                                      |
| 17.  | 11366-2           | 1                | Plastic tube, 82mm long                              |
| 18.  | 11369             | 1                | Pin, 7/8" x 76mm                                     |
| 19.  | 3602-06           | 1                | Nut, M6, plated                                      |
| 20.  | 60030-198         | 1                | Washer, fender, 1/4"                                 |
| 21.  | 11367-2           | 1                | Pilot check valve                                    |
| 22.  | 12036-6           | 1                | Spring   |
| 23.  | 3626-8            | 2                | Bush   |
| 24.  | 3605-06           | 1                | Washer, spring, M6                                   |
| 25.  | 7804-002          | 2                | Restrictor, 0.8 x M5                                 |

| Item       | Part No                  | Qty     | Description                              |
|------------|--------------------------|---------|--|
| 1.         | 3603-05                  | 2       | Plain washer                             |
| 2.         | 3603-06                  | 14      | Plain washer                             |
| 3.         | 3603-08                  | 4       | Plain washer                             |
| 4.         | 3603-10                  | 40      | Plain washer                             |
| 5.         | 3605-06                  | 14      | Spring washer                            |
| 6.         | 3605-08                  | 4       | Spring washer                            |
| 7.         | 3606-06025               | 8       | Metric countersunk screw                 |
| 8.         | 3610-05016               | 2       | Metric bolt                              |
| 9.         | 3610-06012               | 2       | Metric bolt                              |
| 10.        | 3610-06016               | 14      | Metric bolt                              |
| 11.        | 3610-08020               | 4       | Metric bolt                              |
| 12.<br>14. | 3610-10020<br>3610-10050 | 4<br>8  | Metric bolt                              |
| 14.<br>15. | 3610-10030               | 4       | Metric bolt Metric bolt                  |
| 16.        | 3610-10075               | 2       | Metric bolt                              |
| 17.        | 3611-05                  | 2       | Nyloc nut                                |
| 18.        | 3611-10                  | 18      | Nyloc nut                                |
| 19.        | 3626-2                   | 8       | Flanged bush                             |
| 20.        | 7495                     | 2       | Spring hinge                             |
| 21.        | 8626                     | 4       | Pin keeper                               |
| 22.        | 8628                     | 2       | Pin keeper                               |
| 23.        | 8926-1                   | 5       | Plug, RHS                                |
| 24.        | 9016                     | 4       | Pin                                      |
| 25.        | 11492-1                  | 2       | Tab washer                               |
| 26.        | 11492-3                  | 4       | Tab washer                               |
| 27.        | 11658-1                  | 2       | External roller, plated                  |
| 28.        | 11658-11                 | 2       | Rollout stop, plated                     |
| 29.        | 11658-20                 | 10      | Wear plug                                |
| 30.        | 12890                    | 2       | Platform floor pressing                  |
| 31.<br>32. | 11658-3                  | 4<br>4  | Internal roller, plated<br>Thrust button |
| 32.<br>33. | 11658-6<br>11658-7       | 2       | Axle pin extension roller                |
| 34.        | 11691-10                 | 1       | Gate latch striker set                   |
| 35.        | 11695L                   | 1       | Handrail latch, left                     |
| 36.        | 11695-3                  | 2       | Latch holding ring                       |
| 37.        | 12589                    | 1       | Slider bar weld                          |
| 38.        | 12847                    | 1       | Platform weld                            |
| 39.        | 12599-9                  | 2       | Deck run-off plate                       |
| 40.        | 12600                    | 1       | Rollout frame weld                       |
| 42.        | 12871                    | 1       | Rollout deck weld                        |
| 43.        | 12709-10                 | 2       | Rollout deck slide pad                   |
| 44.        | 12710-10                 | 1       | Handrail, left                           |
| 45.        | 12710-11                 | 1       | Handrail, right                          |
| 46.        | 12846                    | 1       | Handrail front                           |
| 47.        | 12845                    | 1       | Handrail weld, entry                     |
| 48.        | 12721                    | 1       | Handrail weld, gate                      |
| 49.        | 12727-10                 | 1       | Left hand rail                           |
| 50.        | 12727-11                 | 1       | Right hand rail                          |
| 51.<br>52. | 12750                    | 2<br>2  | Plug, round                              |
| 52.<br>53. | 60030-198<br>72404       | 2       | Fender washer<br>Grip clip               |
| 53.<br>54. | 302544                   | ∠<br>16 | Pin and lock                             |
| 55.        | 562386                   | 1       | Literature compartment                   |
| 56.        | 9980003                  | 1       | Foam pipe wrap                           |
| 57.        | 11695R                   | 1       | Handrail latch, right                    |
| 58.        | 12700A                   | 1       | Upper control box assembly               |
|            |                          |         |  |

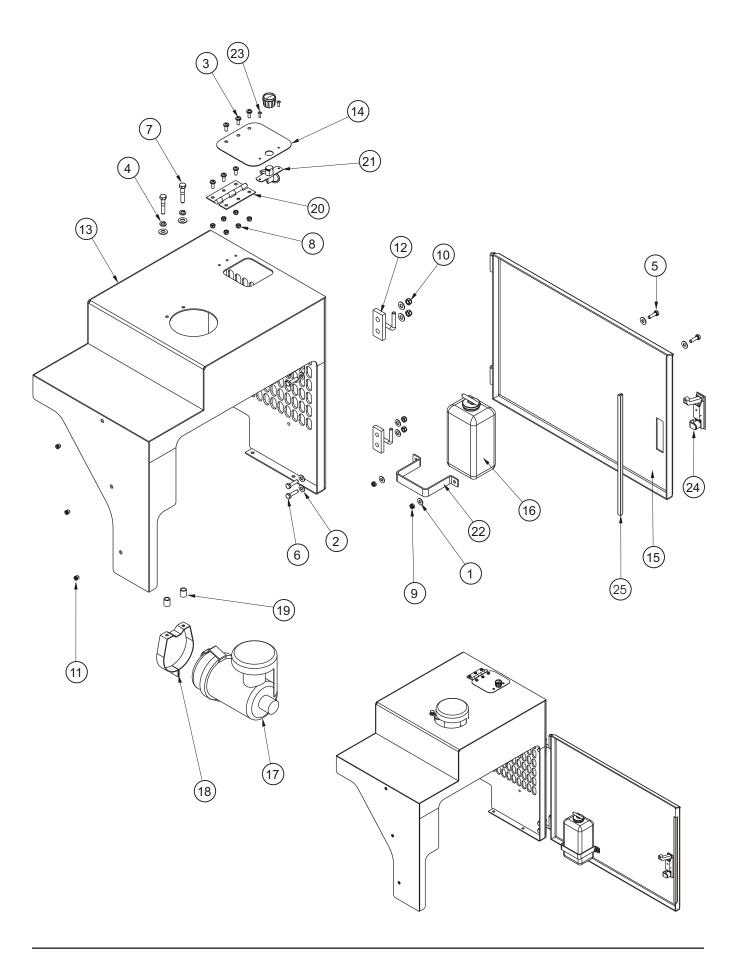




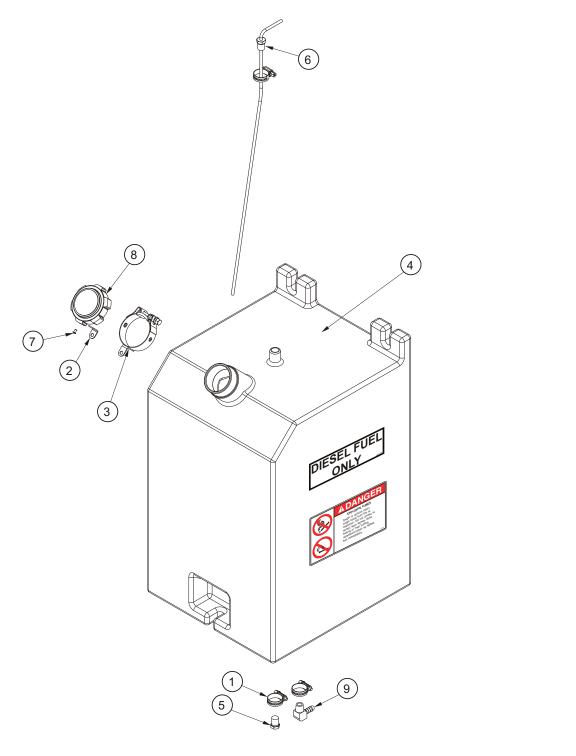
| Item             | Part No           | Qty         | Description  |
|------------------|-------------------|-------------|--|
| 1.               | 60630-019         | 2           | Washer, plain, 1 & 1/4"                                  |
| 2.               | 3603-06           | 36          | Washer, plain, M6 x 16, ZP                               |
| 3.               | 3603-10           | 36          | Washer, plain, M10 x 24, ZP                              |
| 4.               | 3603-12           | 4           | Washer, plain, M12x 24, ZP                               |
| 5.               | 3605-06           | 14          | Washer, spring, M6                                       |
| 6.               | 3606-06020        | 16          | Screw, countersunk socket head, M6 x 20, stainless steel |
| 8.               | 3610-05016        | 2           | Bolt, M5 x 16, C4.6, ZP                                  |
| 9.               | 3610-06016        | 14          | Bolt, M6 x 16, C8.8, ZP                                  |
| 10.              | 3610-06020        | 6           | Bolt, M6 x 20, C8.8, ZP                                  |
| 11.              | 3610-10025        | 8           | Bolt, M10 x 25, C8.8, ZP                                 |
| 12.              | 3610-10050        | 6           | Bolt, M10 x 50, C8.8, ZP                                 |
| 14.              | 3610-10075        | 6           | Bolt, M10 x 75, C8.8, ZP                                 |
| 15.              | 3610-12130        | 2           | Bolt, M12 x 130, C8.8, ZP                                |
| 17.              | 3611-06           | 18          | Nut, nyloc, M6   |
| 18.              | 3611-10           | 10          | Nut, nyloc, M10  |
| 19.              | 3608-12C          | 2<br>4      | Nut, conelok, M12  |
| 20.<br>21.       | 3626-2<br>3628-06 | 4<br>14     | Flanged permaglide bush                                  |
| 21.<br>22.       | 7495              | 2           | Nutsert, M6 Spring hinge                                 |
| 23.              | 8926-1            | 7           | Plug, RHS 25mm   |
| 23.<br>24.       | 11691-10          | 1           | Gate latch striker set                                   |
| 2 <del>5</del> . | 11695             | 1           | Handrail latch, left                                     |
| 26.              | 11695-3           | 2           | Latch holding ring                                       |
| 29.              | 12709-10          | 2           | Rollout deck slide pad                                   |
| 30.              | 12750             | 2           | Plug, round, 25mm  |
| 31.              | 13152             | 1           | Platform weld  |
| 32.              | 13122-11          | 2           | External roller  |
| 33.              | 13122-12          | 2           | Stop, rollout deck                                       |
| 34.              | 13122-14          | 4           | Wear pad, internal                                       |
| 35.              | 13153             | 1           | Rollout deck weld  |
| 36.              | 13124             | 1           | Handrail, left front                                     |
| 37.              | 13125             | 1           | Handrail, right  |
| 38.              | 13156             | 1           | Handrail weld, entry                                     |
| 39.              | 13127             | 1           | Handrail, gate   |
| 40.              | 13128             | 1           | Rollout deck, frame weld                                 |
| 41.              | 13154             | 1           | Handrail, front  |
| 42.              | 13130             | 1           | Left hand rail   |
| 43.              | 13131             | 1           | Right hand rail  |
| 44.              | 13155             | 2           | Platform floor pressing                                  |
| 45.              | 60030-198         | 2           | 1/4" fender washer                                       |
| 46.              | 302544            | 14          | Pin and lock   |
| 47.<br>49        | 562386            | 1<br>0.51 M | Literature compartment                                   |
| 48.<br>40        | 9980003           | 0.5LM       | Foam pipe wrap<br>Handrail latch, right                  |
| 49.<br>50        | 11695R            | 1           |  |
| 50.              | 12700A            | ı           | Upper control box assembly                               |

# **Engine cabinet assembly**

| Item | Part No    | Qty | Description               |  |
|------|------------|-----|---------------------------|--|
| 1.   | 3603-06    | 4   | Plain washer              |  |
| 2.   | 3603-08    | 10  | Plain washer              |  |
| 3.   | 3604-05012 | 6   | Pan head screw            |  |
| 4.   | 3605-08    | 2   | Spring washer             |  |
| 5.   | 3610-06020 | 2   | Bolt                      |  |
| 6.   | 3610-08030 | 4   | Bolt                      |  |
| 7.   | 3610-08050 | 2   | Bolt                      |  |
| 8.   | 3611-05    | 6   | Nyloc nut                 |  |
| 9.   | 3611-06    | 2   | Nyloc nut                 |  |
| 10.  | 3611-08    | 4   | Nyloc nut                 |  |
| 11.  | 3628-06    | 3   | Nutsert, M6               |  |
| 12.  | 11470-1    | 2   | Right hand hinge, upper   |  |
| 13.  | 13028      | 1   | Engine cabinet weld       |  |
| 14.  | 13028-10P  | 1   | Radiator flap             |  |
| 15.  | 13032      | 1   | Door weld                 |  |
| 16.  | 13086-03   | 1   | Radiator overflow bottle  |  |
| 17.  | 13086-04   | 1   | Air cleaner               |  |
| 18.  | 13086-05   | 1   | Air cleaner bracket       |  |
| 19.  | 13098-1    | 2   | Air filter support        |  |
| 20.  | 13101      | 1   | Butt hinge                |  |
| 21.  | 13102      | 1   | Latch, spring             |  |
| 22.  | 13103      | 1   | Overflow tank mount       |  |
| 23.  | 60027-014  | 2   | Rivet                     |  |
| 24.  | 8342416    | 1   | Latch, adjustable trigger |  |
| 25.  | PCA015     | 1   | Rubber channel section    |  |

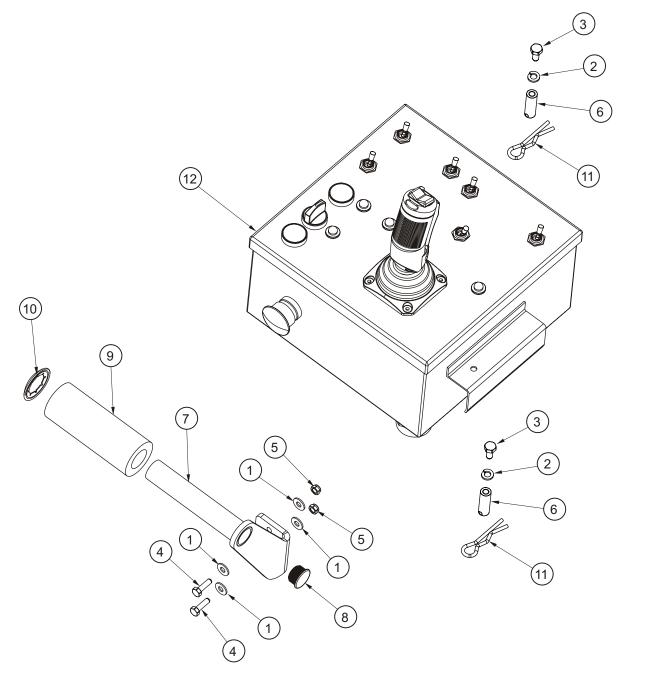


| Item | Part No   | Qty | Description                    |  |
|------|-----------|-----|--------------------------------|--|
| 1.   | 3618-11   | 3   | Hose clamp, 11 - 25mm ZP       |  |
| 2.   | 11955-1   | 1   | Locking tab, securable cap     |  |
| 3.   | 11955-2   | 1   | Neck clamp, securable cap      |  |
| 4.   | 13106-1   | 1   | Fuel tank, SRxx70              |  |
| 5.   | 13108-04  | 1   | Plug, 1/4" NPTM                |  |
| 6.   | 13109     | 1   | Fuel return weld               |  |
| 7.   | 60027-013 | 1   | Rivet, 1/4" x 5/32"            |  |
| 8.   | 605256    | 1   | Cap, vented                    |  |
| 9.   | 967309    | 1   | Male elbow, 5/16" x 1/4", BSPT |  |



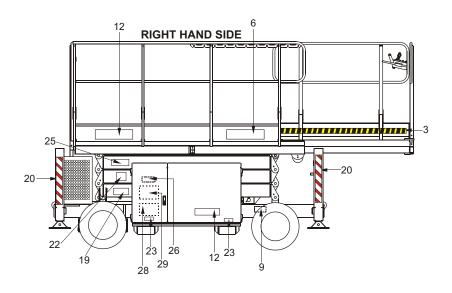
page 1 - 31

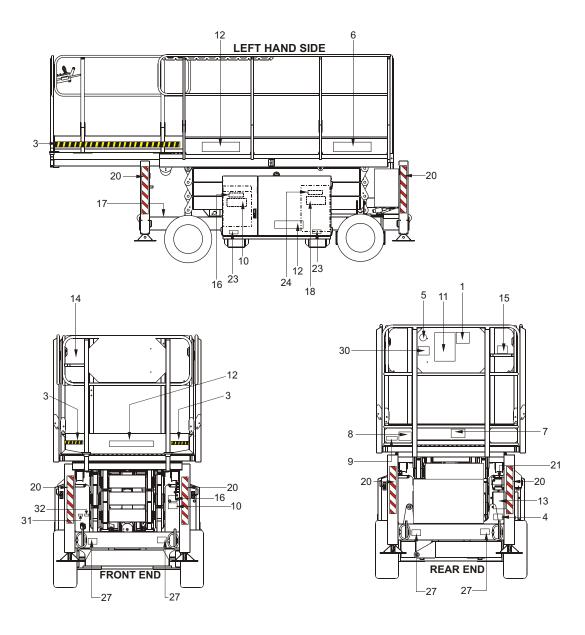
| Item | Part No.   | Qty | Description                     |
|------|------------|-----|---------------------------------|
| 1.   | 3603-06    | 4   | Washer, plain, M6 x 16, ZP      |
| 2.   | 3605-06    | 2   | Washer, spring, M6              |
| 3.   | 3610-06012 | 2   | Bolt, metric, M6 x 12, C8.8, ZP |
| 4.   | 3610-06020 | 2   | Bolt, metric, M6 x 20, C8.8, ZP |
| 5.   | 3611-06    | 2   | Nut, nyloc, M6                  |
| 6.   | 11690-16   | 2   | Security pin                    |
| 7.   | 12749      | 1   | Wrist support                   |
| 8.   | 12750-25   | 1   | Plug, round                     |
| 9.   | 12751      | 1   | Hand grip, foam                 |
| 10.  | 12756      | 1   | Star washer with end cap        |
| 11.  | 72404      | 2   | Grip clip                       |
| 12.  | 12700      | 1   | Control box                     |



#### Placards and decals installation

| Item | Part No  | Qty | Description  |  |  |
|------|----------|-----|--|--|--|
|      |          |     | ·  |  |  |
| 1.   | 1843     | 1   | Decal, warning New Zealand only                                    |  |  |
| •    | 9428     | 1   | Decal, electrical hazard Australia only                            |  |  |
| 3.   | 96924-9  | 4m  | Decal, warning stripes yellow/black                                |  |  |
| 4.   | 0070901E | 1   | Decal, serial number   |  |  |
| 5.   | 9751     | 1   | Decal, New Zealand made  |  |  |
| 6.   | 12671-1  | 2   | Decal, SR2255  |  |  |
|      | 12671-2  | 2   | Decal, SR2755  |  |  |
| 7.   | 12699-1  | 1   | Decal, rated load SR2255   |  |  |
|      | 12699-2  | 1   | Decal, rated load SR2755   |  |  |
| 8.   | 0073298  | 1   | Decal, foam tyres  |  |  |
| 9.   | 451986   | 2   | Decal, interlocks  |  |  |
| 10.  | 476706   | 2   | Decal, explosive fumes, (outside cabinet door & fuel tank)         |  |  |
| 11.  | 12574    | 1   | Decal, danger with alarm   |  |  |
| 12.  | 569295   | 5   | Decal, Snorkel logo  |  |  |
| 13.  | 560240   | 1   | Decal, lower control box   |  |  |
| 14.  | 12689    | 1   | Decal, upper control box   |  |  |
| 15.  | 560272   | 1   | Decal, emergency stop upper box                                    |  |  |
| 16.  | 605726   | 1   | Decal, diesel fuel, (on fuel tank)                                 |  |  |
| 17.  | 12753    | 1   | Decal, emergency bleed down  |  |  |
| 18.  | 12814    | 1   | Decal, hydraulic fluid, (on hydraulic oil tank)                    |  |  |
| 19.  | 58365-6  | 1   | Decal, safety prop   |  |  |
| 20.  | 9223-3   | 4   | Decal, chevron   |  |  |
| 21.  | 300699   | 1   | Decal, operators check list  |  |  |
| 22.  | 0323897  | 1   | Decal, must not operate  |  |  |
| 23.  | 621486   | 4   | Decal, forklift  |  |  |
| 24.  | 302950   | 1   | Decal, hydraulic oil level   |  |  |
| 25.  | 300700   | 1   | Decal, shearing hazard   |  |  |
| 26.  | 12816    | 1   | Decal, emergency operation, lowering and pushing, (inside of door) |  |  |
| 27.  | 0083427  | 4   | Decal, lifting/tie down  |  |  |
| 28.  | 12815-1  | 1   | Decal, hydraulic circuit SR, (inside cabinet door)                 |  |  |
| 29.  | 12815-2  | 1   | Decal, electrical circuit SR, (inside cabinet door)                |  |  |
| 30.  | 562426   | 1   | Decal, operators manual enclosed                                   |  |  |
| 31.  | 13089-2  | 1   | Decal, 24V DC (when option fitted)                                 |  |  |
| 32.  | 13089-1  | 1   | Decal, Diesel (when option fitted)                                 |  |  |





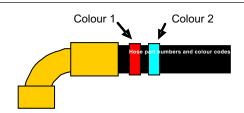
## Section 2. - Hydraulics

| Hose part numbers and colour codes 2-3                      |
|---|
| Hydraulic assembly before SN NZ081001 2-4                   |
| Hydraulic schematic drawing (Before SN NZ081001)2-5         |
| Hydraulic schematic drawing                                 |
| (From SN NZ081001)2-6                                       |
| Hydraulic assembly from SN NZ0810012-7                      |
| Manifold assembly, main before SN NZ081001 2-8              |
| Manifold assembly drawing Before SN NZ081001.2-9            |
| Manifold assembly, main, from SN NZ081001 2-10              |
| Manifold assembly drawing from SN NZ081001 . 2-11           |
| Manifold assembly, 4WD before SN NZ081001 2-12              |
| Manifold assembly, 4WD from SN NZ081001 $\ldots2\text{-}13$ |
| Manifold assembly, stabilisers2-14                          |
| Hydraulic oil tank assembly2-15                             |
| Hydraulic oil tank assembly drawing 2-16                    |
| Steer axle cylinder   |
| Axle cylinder   |
| Main lift cylinder assembly2-19                             |

#### **READING HOSE TAGS**

Hose tags are read from the fitting side of the hose in towards the hose.

As such colour 1 is the closest to the fitting, colour 2 the next colour then 3, 4 etc...



page 2 - 3

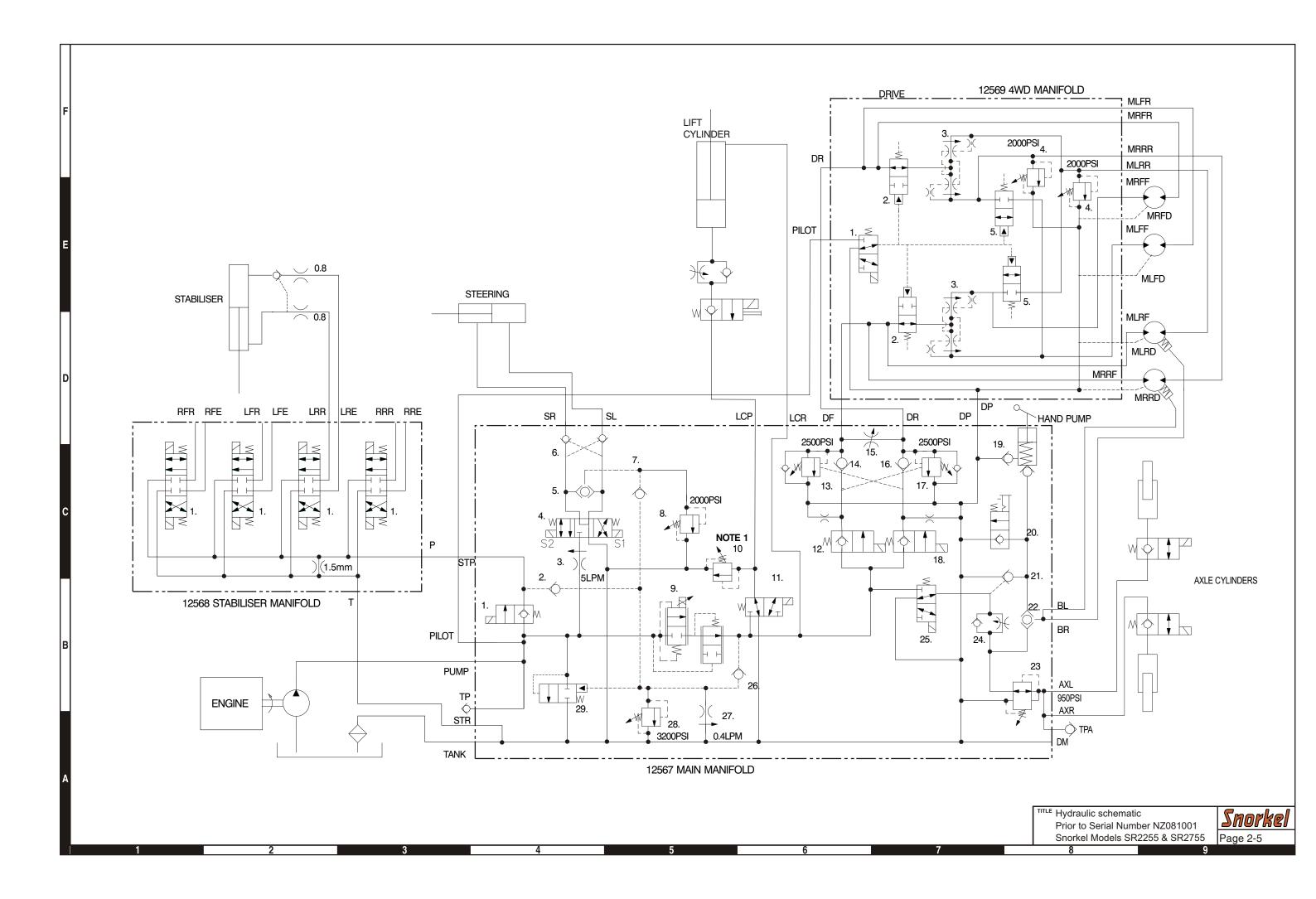
| Snorkel     | Cole   | our ID   |  |
|-------------|--------|----------|--|
| Part Number |        | Colour 2 | Hose Use   |
| 12812-44    | Red    | Yellow   | Stab RR Extend: Stab Manifold RRE → Stab Cyl RR Extend       |
| 12812-45    | Red    | Green    | Stab RR Retract: Stab Manifold RRR → Stab Cyl RR Retract     |
| 12812-46    | Orange | Yellow   | Stab LR Extend: Stab Manifold LRE → Stab Cyl LR Extend       |
| 12812-47    | Orange | Green    | Stab LR Retract: Stab Manifold LRR → Stab Cyl LR Retract     |
| 12812-48    | Yellow | Yellow   | Stab LF Extend: Stab Manifold LFE → Stab Cyl LF Extend       |
| 12812-49    | Yellow | Green    | Stab LF Retract: Stab Manifold LFR → Stab Cyl LF Retract     |
| 12812-50    | Green  | Yellow   | Stab RF Extend: Stab Manifold RFE → Stab Cyl RF Extend       |
| 12812-51    | Green  | Green    | Stab RF Retract: Stab Manifold RFR → Stab Cyl RF Retract     |
| 12812-43    | Blue   | Yellow   | Steer Right: Main Manifold SR → Steer Cyl Extend             |
| 12812-9     | Blue   | Green    | Steer Left: Main Manifold SL → Steer Cyl Retract             |
| 12812-10    | Red    |          | Drive Forward: Main Manifold DF → 4WD Manifold DF            |
| 12812-11    | Blue   |          | Drive Reverse: Main Manifold DR → 4WD Manifold DR            |
| 12812-52    | Red    | Red      | Motor RR CW (Fwd): 4WD Manifold MRRF → Motor RR Port B       |
| 12812-53    | Red    | Blue     | Motor RR CCW (Rev): 4WD Manifold MRRR → Motor RR Port A      |
| 12812-54    | Red    |          | Motor RR Brake: Main Manifold BR → RR Motor Brake            |
| 12812-55    | Orange | Red      | Motor LR CW (Rev): 4WD Manifold MLRR → Motor LR Port B       |
| 12812-56    | Orange | Blue     | Motor LR CCW (Fwd): 4WD Manifold MLRF → Motor LR Port A      |
| 12812-57    | Orange |          | Motor LR Brake: Main Manifold BL → LR Motor Brake            |
| 12812-58    | Yellow | Red      | Motor LF CW (Rev): 4WD Manifold MLFR → Motor LF Port B       |
| 12812-59    | Yellow | Blue     | Motor LF CCW (Fwd): 4WD Manifold MLFF → Motor LF Port A      |
| 12812-60    | Green  | Red      | Motor RF CW (Fwd): 4WD Manifold MRFF → Motor RF Port B       |
| 12812-61    | Green  | Blue     | Motor RF CCW (Rev): 4WD Manifold MRFR → Motor RF Port A      |
| 12812-62    | Green  |          | Lock Left Axle: Main Manifold AXL → LH Axle Cyl              |
| 12812-63    | Black  |          | Lock Right Axle: Main Manifold AXR → RH Axle Cyl             |
| 12812-28    | Red    | Orange   | 4WD Manifold Pilot: Main Manifold Pilot → 4WD Manifold Pilot |
| 12812-29    | Red    | Black    | 4WD Manifold Return: Main Manifold DP → 4WD Manifold DP      |
| 12812-64    |        |          | Main Manifold Return: Main Manifold Tank → Oil Filter        |
| 12812-65    |        |          | Filter Return: Oil Filter → Hydraulic Oil Tank               |
| 12812-66    |        |          | Stab Manifold Pressure: Main Manifold STP → Stab Manifold P  |
| 12812-67    |        |          | Stab Manifold Return: Main Manifold STR → Stab Manifold R    |
| 12812-68    | Orange |          | Pump Pressure: Main Manifold Pump → Pump Pressure Port       |
| 12812-69    |        |          | Suction Line: Pump Suction Port → Hydraulic Oil Tank         |
| 12812-70    | Black  | Yellow   | Raise Stack: Main Manifold LCP → Lift Cyl Extend             |
| 12812-71    | Black  | White    | Lift Cyl Drain: Main Manifold LCR → Lift Cyl Drain           |

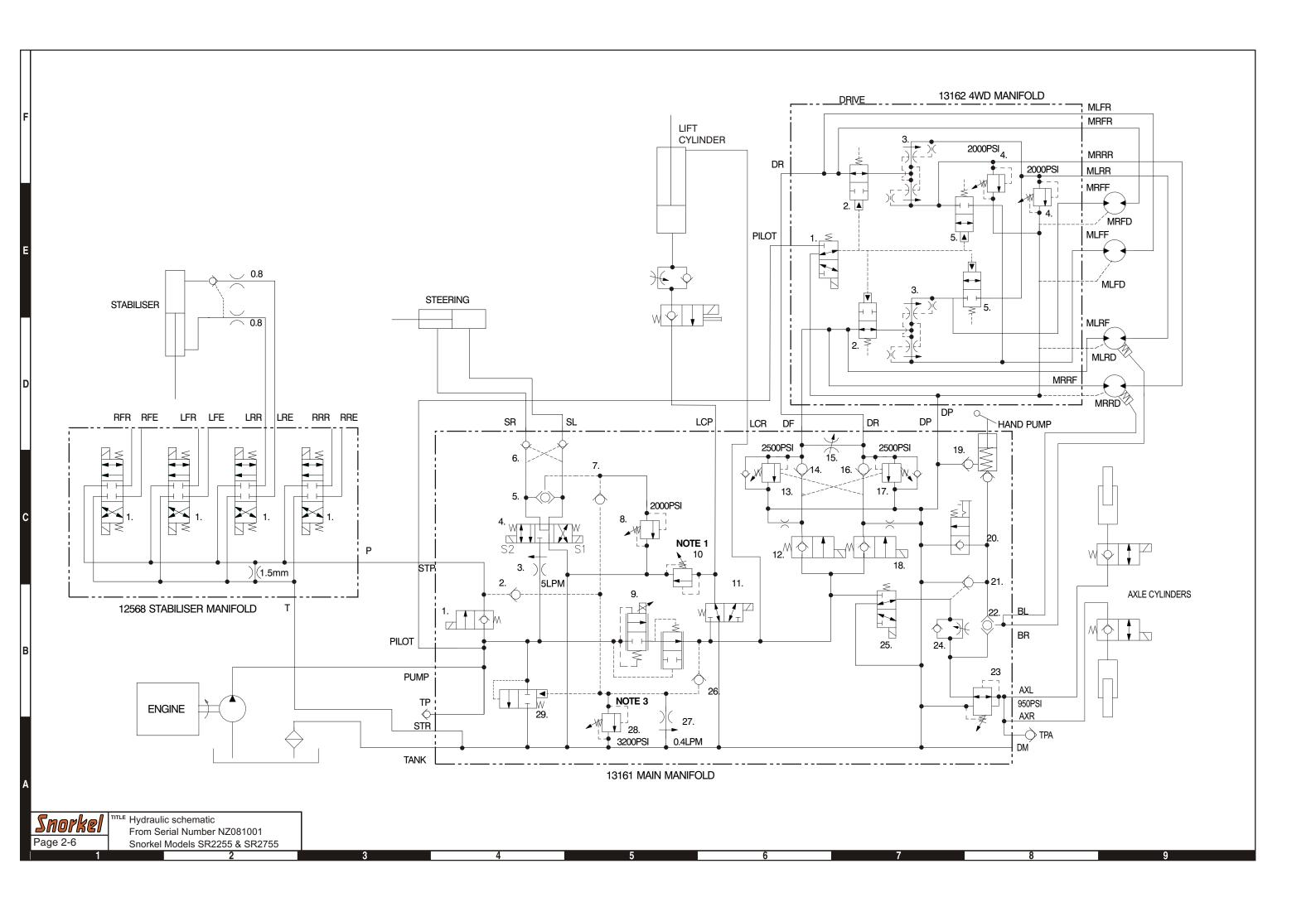
## Hydraulic assembly before SN NZ081001

| Item | Part No | Qty | Description                     |
|------|---------|-----|---------------------------------|
| 0.   | 12568A  | 1   | Stabiliser valve block assembly |
| 1.   | 12568-1 | 4   | Stabiliser directional valve    |

| Item | Part No  | Qty | Description                        |
|------|----------|-----|------------------------------------|
| 0.   | 12567A   | 1   | Main manifold valve block assembly |
| 1.   | 12567-1  | 1   | Stabiliser divert valve            |
| 2.   | 12567-2  | 1   | Compensator check                  |
| 3.   | 12567-3  | 1   | Steering flow control              |
| 4.   | 12567-4  | 1   | Steering directional valve         |
| 5.   | 12567-5  | 1   | Steering relief shuttle            |
| 6.   | 12567-6  | 1   | Steering pilot check               |
| 7.   | 12567-2  | 1   | Steering relief check              |
| 8.   | 12567-8  | 1   | Steering relief valve              |
| 9.   | 12567-9  | 1   | Proportional valve                 |
| 10.  | 12567-8  | 1   | Lift relief                        |
| 11.  | 12567-11 | 1   | Lift valve                         |
| 12.  | 12567-12 | 1   | Drive valve, forward               |
| 13.  | 12567-13 | 1   | Drive counterbalance valve         |
| 14.  | 12567-14 | 1   | Drive check valve                  |
| 15.  | 12567-15 | 1   | Free wheel valve                   |
| 16.  | 12567-14 | 1   | Drive check valve                  |
| 17.  | 12567-13 | 1   | Drive counterbalance valve         |
| 18.  | 12567-18 | 1   | Drive valve, reverse               |
| 19.  | 12567-19 | 1   | Hand pump                          |
| 20.  | 12567-20 | 1   | Brake reset valve                  |
| 21.  | 12567-21 | 1   | Brake pilot check                  |
| 22.  | 12567-22 | 1   | Brake shuttle                      |
| 23.  | 12567-23 | 1   | Axle pressure reducing valve       |
| 24.  | 12567-24 | 1   | Brake flow control valve           |
| 25.  | 12567-11 | 1   | Brake selector valve               |
| 26.  | 12567-2  | 1   | Compensator check                  |
| 27.  | 12567-27 | 1   | Compensator bleed                  |
| 28.  | 12567-8  | 1   | Main relief                        |
| 29.  | 12567-29 | 1   | Compensator                        |

| Item | Part No | Qty | Description                           |
|------|---------|-----|---------------------------------------|
| 0.   | 12569A  | 1   | 4 wheel drive manifold block assembly |
| 1.   | 12569-1 | 1   | Selector valve series parallel        |
| 2.   | 12569-2 | 2   | Pilot operated selector valves, N.O.  |
| 3.   | 12569-3 | 2   | Flow divider combiner                 |
| 4.   | 12569-4 | 2   | Drive motor relief valves             |
| 5.   | 12569-5 | 2   | Pilot operated selector valve, N.C.   |





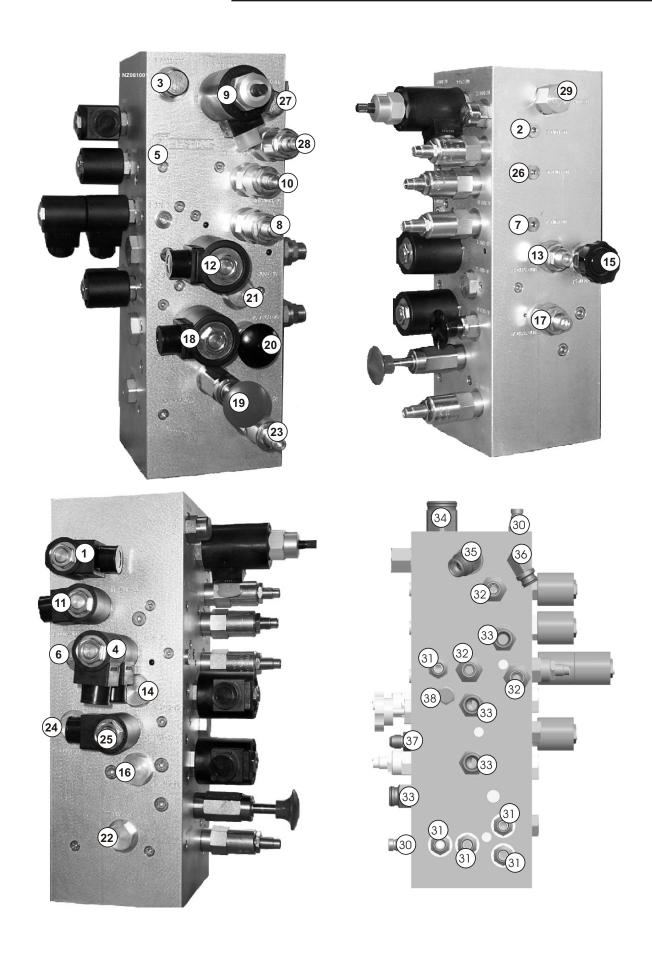
| Item     | Part No           | Qty    | Description  |  |
|----------|-------------------|--------|--|--|
| 0.<br>1. | 12568A<br>12568-1 | 1<br>4 | Stabiliser valve block assembly Stabiliser directional valve |  |

| Item | Part No  | Qty | Description                            |
|------|----------|-----|--|
| 0.   | 13161A   | 1   | Main manifold valve block assembly, V2 |
| 1.   | 12567-1  | 1   | Stabiliser enable valve                |
| 2.   | 12567-2  | 1   | Stabiliser check valve                 |
| 3.   | 12567-3  | 1   | Steering flow control                  |
| 4.   | 12567-4  | 1   | Steering directional valve             |
| 5.   | 12567-5  | 1   | Steering relief shuttle                |
| 6.   | 12567-6  | 1   | Steering pilot check                   |
| 7.   | 12567-2  | 1   | Steering relief check                  |
| 8.   | 12567-8  | 1   | Steering relief valve                  |
| 9.   | 12567-9  | 1   | Proportional valve                     |
| 10.  | 12567-8  | 1   | Lift relief                            |
| 11.  | 12567-11 | 1   | Lift valve                             |
| 12.  | 12567-12 | 1   | Drive valve, forward                   |
| 13.  | 12567-13 | 1   | Drive counterbalance valve, reverse    |
| 14.  | 12567-14 | 1   | Drive check valve, forward             |
| 15.  | 12567-15 | 1   | Free wheel valve                       |
| 16.  | 12567-14 | 1   | Drive check valve, reverse             |
| 17.  | 12567-13 | 1   | Drive counterbalance valve, forward    |
| 18.  | 12567-12 | 1   | Drive valve, reverse                   |
| 19.  | 12567-19 | 1   | Hand pump                              |
| 20.  | 12567-20 | 1   | Brake reset valve                      |
| 21.  | 12567-21 | 1   | Brake pilot check                      |
| 22.  | 12567-22 | 1   | Brake shuttle                          |
| 23.  | 12567-23 | 1   | Axle pressure reducing valve           |
| 24.  | 12567-24 | 1   | Brake flow control valve               |
| 25.  | 12567-11 | 1   | Brake selector valve                   |
| 26.  | 12567-2  | 1   | Compensator check                      |
| 27.  | 12567-27 | 1   | Compensator bleed, flow regulator      |
| 28.  | 12567-8  | 1   | Main relief                            |
| 29.  | 12567-29 | 1   | Compensator                            |

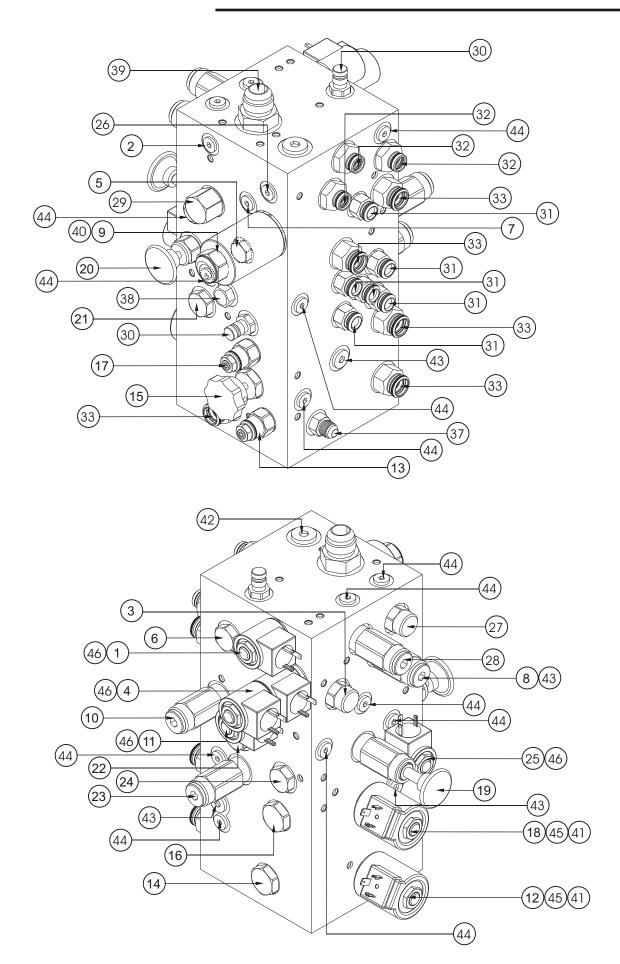
| Item | Part No | Qty | Description                               |
|------|---------|-----|---|
| 0.   | 13162A  | 1   | 4 wheel drive manifold block assembly, V2 |
| 1.   | 12569-1 | 1   | Selector valve series parallel            |
| 2.   | 12569-2 | 2   | Pilot operated selector valves, N.O.      |
| 3.   | 12569-3 | 2   | Flow divider combiner                     |
| 4.   | 12569-4 | 2   | Drive motor relief valves                 |
| 5.   | 12569-5 | 2   | Pilot operated selector valve, N.C.       |

## Manifold assembly, main before SN NZ081001

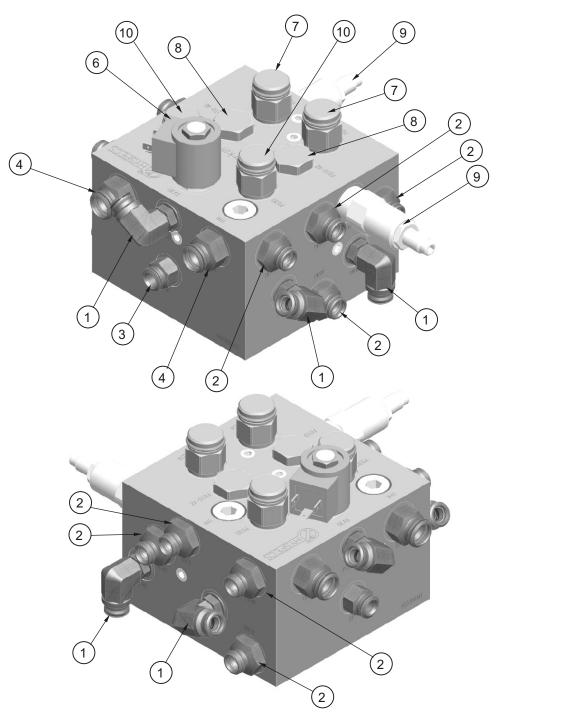
| lkom | Part No      | Other | Description                                     |
|------|--------------|-------|---|
| Item | Part No      | Qty   | Description                                     |
| 0.   | 12567A       | 1     | Main manifold valve block assembly              |
| 1.   | 12567-1      | 1     | Stabiliser divert valve                         |
| 2.   | 12567-2      | 1     | Compensator check                               |
| 3.   | 12567-3      | 1     | Steering flow control                           |
| 4.   | 12567-4      | 1     | Steering directional valve                      |
| 5.   | 12567-5      | 1     | Steering relief shuttle                         |
| 6.   | 12567-6      | 1     | Steering pilot check                            |
| 7.   | 12567-2      | 1     | Steering relief check                           |
| 8.   | 12567-8      | 1     | Steering relief valve                           |
| 9.   | 12567-9      | 1     | Proportional valve                              |
| 10.  | 12567-8      | 1     | Lift relief                                     |
| 11.  | 12567-11     | 1     | Lift valve                                      |
| 12.  | 12567-12     | 1     | Drive valve, forward                            |
| 13.  | 12567-13     | 1     | Drive counterbalance valve                      |
| 14.  | 12567-14     | 1     | Drive check valve                               |
| 15.  | 12567-15     | 1     | Free wheel valve                                |
| 16.  | 12567-14     | 1     | Drive check valve                               |
| 17.  | 12567-13     | 1     | Drive counterbalance valve                      |
| 18.  | 12567-18     | 1     | Drive valve, reverse                            |
| 19.  | 12567-19     | 1     | Hand pump                                       |
| 20.  | 12567-20     | 1     | Brake reset valve                               |
| 21.  | 12567-21     | 1     | Brake pilot check                               |
| 22.  | 12567-22     | 1     | Brake shuttle                                   |
| 23.  | 12567-23     | 1     | Axle pressure reducing valve                    |
| 24.  | 12567-24     | 1     | Brake flow control valve                        |
| 25.  | 12567-11     | 1     | Brake selector valve                            |
| 26.  | 12567-2      | 1     | Compensator check                               |
| 27.  | 12567-27     | 1     | Compensator bleed                               |
| 28.  | 12567-8      | 1     | Main relief                                     |
| 29.  | 12567-29     | 1     | Compensator                                     |
| 30.  | 10992-2      | 2     | Test point, 9/16" UNO                           |
| 31.  | 12770-330606 | 5     | Adapter, straight, 9/16" UNO -> 3/8" STCF       |
| 32.  | 12770-330806 | 3     | Adapter, straight, 3/4" UNO -> 3/8" STCF        |
| 33.  | 12770-330808 | 4     | Adapter, straight, 3/4" UNO -> 1/2" STCF        |
| 34.  | 12770-331212 | 1     | Adapter, straight, 1 and 1/16" UNO -> 3/4" STCF |
| 35.  | 12770-340808 | 1     | Adapter, 45° elbow, 3/4" UNO -> 1/2" STCF       |
| 36.  | 12770-350606 | 1     | Adapter, straight, 9/16" UNO -> 3/8" STCF       |
| 37.  | 7025-001     | 1     | Adapter, straight, 9/16" UNO -> 9/16" JICM      |
| 38.  | 7035-001     | 1     | Plug, 9/16" UNO                                 |



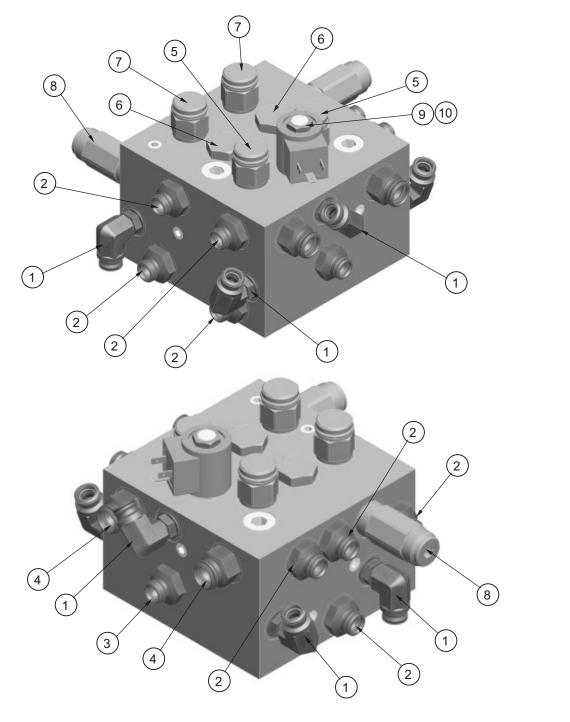
| Item | Part No      | Qty | Description                                  |
|------|--------------|-----|--|
| 0.   | 13161A       | 1   | Main manifold valve block assembly, V2       |
| 1.   | 12567-1      | 1   | Stabiliser enable valve                      |
| 2.   | 12567-2      | 1   | Stabiliser check valve                       |
| 3.   | 12567-3      | 1   | Steering flow control                        |
| 4.   | 12567-4      | 1   | Steering directional valve                   |
| 5.   | 12567-5      | 1   | Steering relief shuttle                      |
| 6.   | 12567-6      | 1   | Steering pilot check                         |
| 7.   | 12567-2      | 1   | Steering relief check                        |
| 8.   | 12567-8      | 1   | Steering relief valve                        |
| 9.   | 12567-9      | 1   | Proportional valve                           |
| 10.  | 12567-8      | 1   | Lift relief                                  |
| 11.  | 12567-11     | 1   | Lift valve                                   |
| 12.  | 12567-12     | 1   | Drive valve, forward                         |
| 13.  | 12567-13     | 1   | Drive counterbalance valve, reverse          |
| 14.  | 12567-14     | 1   | Drive check valve, forward                   |
| 15.  | 12567-15     | 1   | Free wheel valve                             |
| 16.  | 12567-14     | 1   | Drive check valve, reverse                   |
| 17.  | 12567-13     | 1   | Drive counterbalance valve, forward          |
| 18.  | 12567-12     | 1   | Drive valve, reverse                         |
| 19.  | 12567-19     | 1   | Hand pump                                    |
| 20.  | 12567-20     | 1   | Brake reset valve                            |
| 21.  | 12567-21     | 1   | Brake pilot check                            |
| 22.  | 12567-22     | 1   | Brake shuttle                                |
| 23.  | 12567-23     | 1   | Axle pressure reducing valve                 |
| 24.  | 12567-24     | 1   | Brake flow control valve                     |
| 25.  | 12567-11     | 1   | Brake selector valve                         |
| 26.  | 12567-2      | 1   | Compensator check                            |
| 27.  | 12567-27     | 1   | Compensator bleed, flow regulator            |
| 28.  | 12567-8      | 1   | Main relief                                  |
| 29.  | 12567-29     | 1   | Compensator                                  |
| 30.  | 10992-2      | 2   | Test point, 9/16" UNO                        |
| 31.  | 12770-330606 | 5   | Adapter, straight, 9/16" UNO -> 3/8" STCF    |
| 32.  | 12770-330806 | 3   | Adapter, straight, 3/4" UNO -> 3/8" STCF     |
| 33.  | 12770-330808 | 4   | Adapter, straight, 3/4" UNO -> 1/2" STCF     |
| 37.  | 7025-001     | 1   | Adapter, straight, 9/16" UNO -> 9/16" JICM   |
| 38.  | 7035-001     | 1   | Plug, 9/16" UNO                              |
| 39.  | 7025-008     | 1   | Adapter, straight, 11/16" JICM -> 11/16" UNO |
| 40.  | 12567-30     | 1   | Coil, 12V                                    |
| 41.  | 12567-31     | 2   | Plug   |
| 42.  | 12567-32     | 2   | Plug   |
| 43.  | 12567-33     | 6   | Plug, (2 not shown)                          |
| 44.  | 12567-34     | 13  | Plug, (1 not shown)                          |
| 45.  | 12677        | 2   | Coil, 12V                                    |
| 46.  | 12835-2      | 5   | Coil, 12V                                    |



| Item | Part No      | Qty | Description                                |
|------|--------------|-----|--|
| 0.   | 12569A       | 1   | 4 wheel drive manifold block assembly      |
| 1.   | 12770-350606 | 5   | Adapter, 90° elbow, 9/16" UNO -> 3/8" STCF |
| 2.   | 12770-330806 | 8   | Adapter, straight, 3/4" UNO -> 3/8" STCF   |
| 3.   | 12770-330606 | 1   | Adapter, straight, 9/16" UNO -> 3/8" STCF  |
| 4.   | 12770-330808 | 2   | Adapter, straight, 3/4" UNO -> 1/2" STCF   |
| 6.   | 12569-1      | 1   | Selector valve series parallel             |
| 7.   | 12569-5      | 2   | Pilot operated selector valves, NC         |
| 8.   | 12569-3      | 2   | Flow divider combiner                      |
| 9.   | 12569-4      | 2   | Drive motor relief valves                  |
| 10.  | 12569-2      | 2   | Pilot operated selector valves, NO         |
|      |              |     |  |

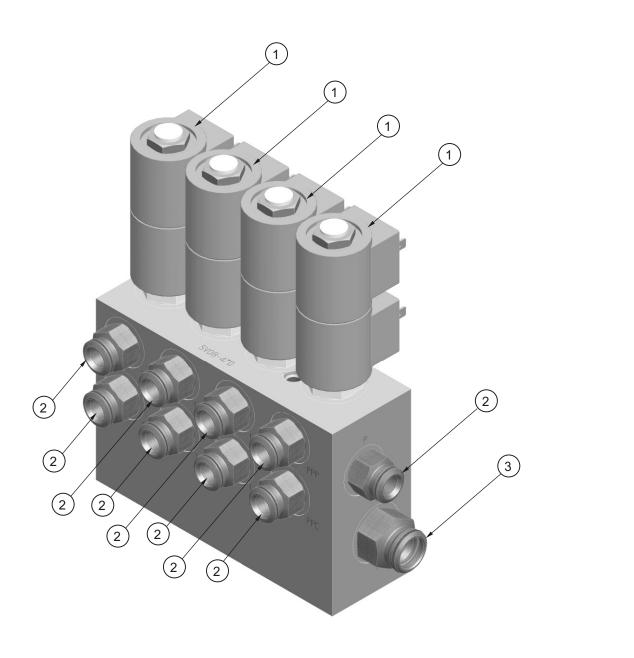


| Item | Part No      | Qty | Description                                |
|------|--------------|-----|--|
| 0.   | 13162A       | 1   | 4 wheel drive manifold block assembly, V2  |
| 1.   | 12770-350606 | 5   | Adapter, 90° elbow, 9/16" UNO -> 3/8" STCF |
| 2.   | 12770-330806 | 8   | Adapter, straight, 3/4" UNO -> 3/8" STCF   |
| 3.   | 12770-330606 | 1   | Adapter, straight, 9/16" UNO -> 3/8" STCF  |
| 4.   | 12770-330808 | 2   | Adapter, straight, 3/4" UNO -> 1/2" STCF   |
| 5.   | 12569-2      | 2   | Pilot cartridge, NO                        |
| 6.   | 12569-3      | 2   | Flow divider, combiner                     |
| 7.   | 12569-5      | 2   | Pilot valve, NC                            |
| 8.   | 12569-6      | 2   | Drive motor relief valve                   |
| 9.   | 12567-11     | 1   | Selector valve series, parallel            |
| 10.  | 12835-2      | 1   | Coil, 12V                                  |

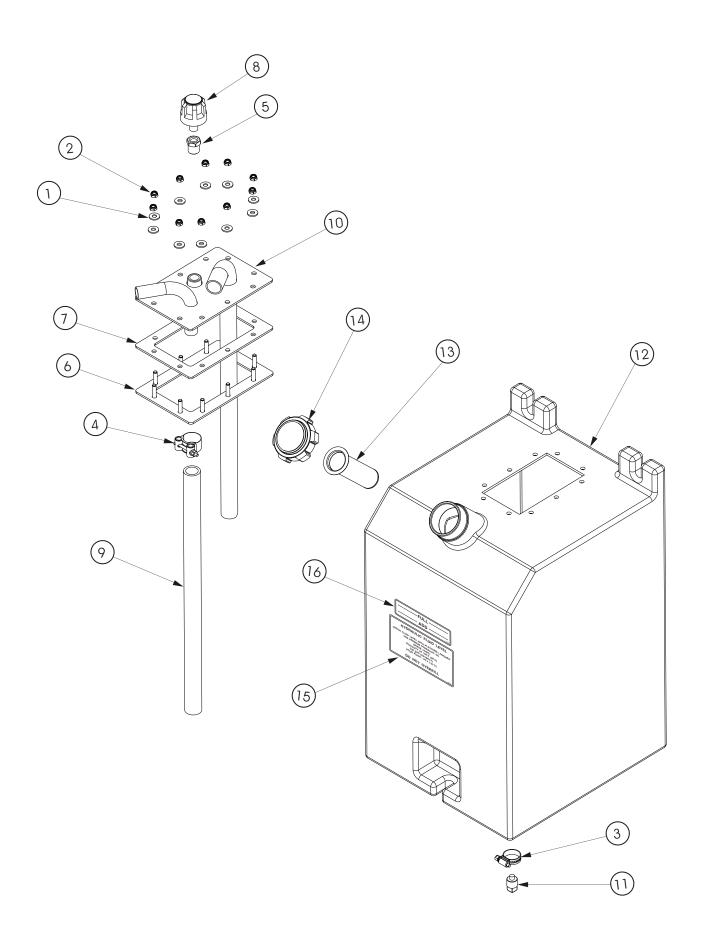


## Manifold assembly, stabilisers

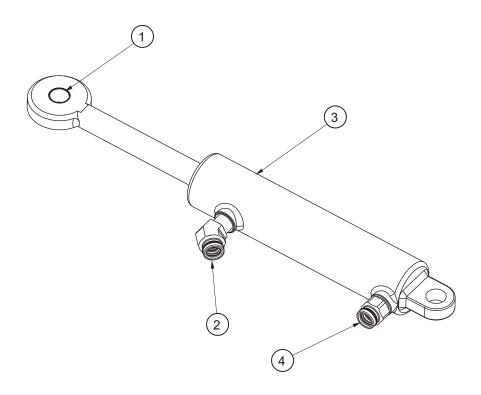
| Item | Part No      | Qty | Description                               |
|------|--------------|-----|---|
| 0.   | 12568A       | 1   | Stabiliser valve block assembly           |
| 1.   | 12568-1      | 4   | Stabiliser directional valve              |
| 2.   | 12770-330606 | 9   | Adapter, straight, 9/16" UNO -> 3/8" STCF |
| 3.   | 12770-330808 | 1   | Adapter, straight, 3/4" UNO -> 1/2" STCF  |



| Item | Part No  | Qty | Description                           |
|------|----------|-----|---------------------------------------|
| 1.   | 3603-06  | 10  | Plain washer                          |
| 2.   | 3611-06  | 10  | Metric nyloc nut                      |
| 3.   | 3618-11  | 1   | Hose clamp 11 - 25mm ZP               |
| 4.   | 3618-26  | 1   | Hose clamp 26 - 28mm ZP (Pass.)       |
| 5.   | 7060-001 | 1   | BSPTM x BSPTF reducer bush            |
| 6.   | 11430-1  | 1   | Base plate weld                       |
| 7.   | 11430-5  | 1   | Gasket                                |
| 8.   | 11487    | 1   | Filter breather                       |
| 9.   | 11558-8  | 1   | Tank inner hose                       |
| 10.  | 12318-2  | 1   | Top plate, hydraulic oil tank         |
| 11.  | 452756   | 1   | Plug, magnetic 3/8 NPT                |
| 12.  | 561706   | 1   | Tank, 13 gallon                       |
| 13.  | 605246   | 1   | Strainer, hydraulic tank filler       |
| 14.  | 605256   | 1   | Cap, vented                           |
| 15.  | 451776   | 1   | Decal, hydraulic fluid                |
| 16.  | 302950   | 1   | Decal, hydraulic fluid, max/min level |

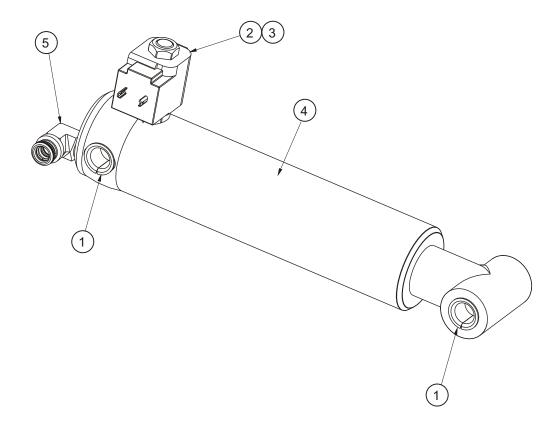


| Item | Part No.     | Qty | Description                               |
|------|--------------|-----|---|
| 1.   | 3624-27      | 1   | Permaglide bush                           |
| 2.   | 12770-340406 | 1   | Adapter, male SAE to female STC           |
| 3.   | 11699        | 1   | Steer cylinder                            |
| 4.   | 12770-330406 | 1   | Adapter, male SAE to female STC, straight |
|      | 11699K       | 1   | Seal kit                                  |

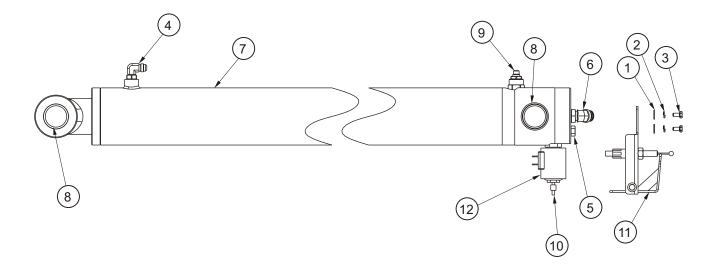


## Axle cylinder

| Item | Part No.     | Qty | Description   |
|------|--------------|-----|---|
| 1.   | 3626-3       | 4   | Flanged permaglide bush                                   |
| 2.   | 11368-2      | 1   | Solenoid valve and coil (Prior to Serial Number NZ070116) |
|      | 12835-1      | 1   | Cartridge (from Serial Number NZ070116)                   |
| 3.   | 12835-2      | 1   | Coil (from Serial Number NZ070116)                        |
| 4.   | 11642        | 1   | Axle cylinder   |
| 5.   | 12770-350606 | 1   | Adapter, Male SAE to female STC, 90° adjustable           |
|      | 11642K       | 1   | Seal kit  |



| Item | Part No      | Qty | Description                              |
|------|--------------|-----|--|
| 1.   | 3603-06      | 2   | Washer, plain, M6 x 16, ZP               |
| 2.   | 3605-06      | 2   | Washer, spring, M6                       |
| 3.   | 3610-06012   | 2   | Bolt, M16 x 12, C8.8, ZP                 |
| 4.   | 7031-001     | 1   | Adaptor, elbow 90° 9/16 JICM -> 9/16 UNO |
| 5.   | 7035-001     | 1   | Plug                                     |
| 6.   | 12770-340808 | 1   | Adaptor, elbow 45° 1/12 UNO -> 1/2 STC F |
| 7.   | 11687        | 1   | SR lift cylinder                         |
| 8.   | 56112-6      | 6   | Bushing                                  |
| 9.   | 6010833      | 1   | Valve, cartridge, adjustable             |
| 10.  | 6018024      | 1   | Solenoid valve, 2 way, normally closed   |
| 11.  | 12752A       | 1   | Cylinder bleed down bracket assembly     |
| 12.  | 12677        | 1   | Coil                                     |
|      | 11687K       | 1   | Seal kit                                 |



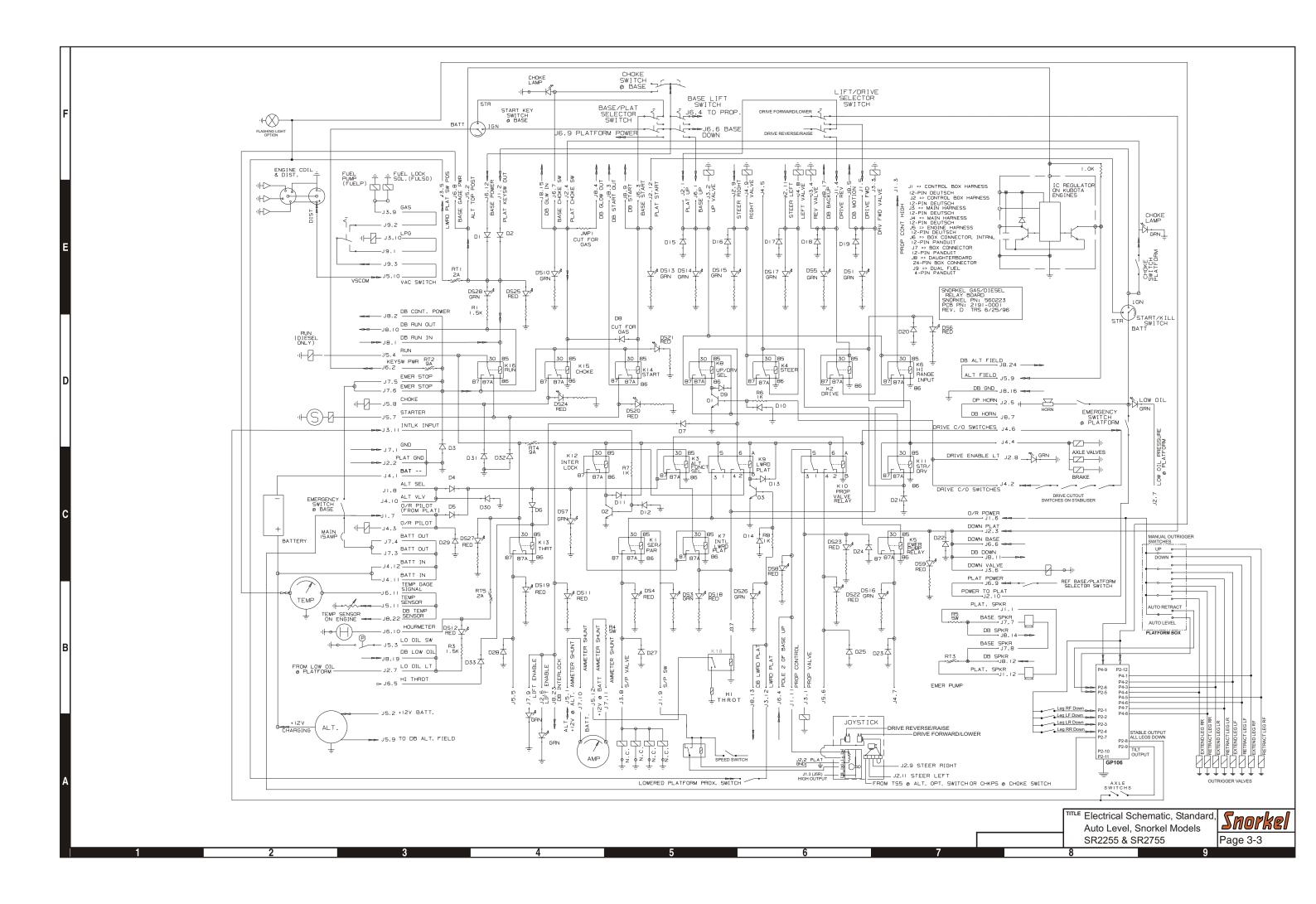
#### Section 3. - Electrical

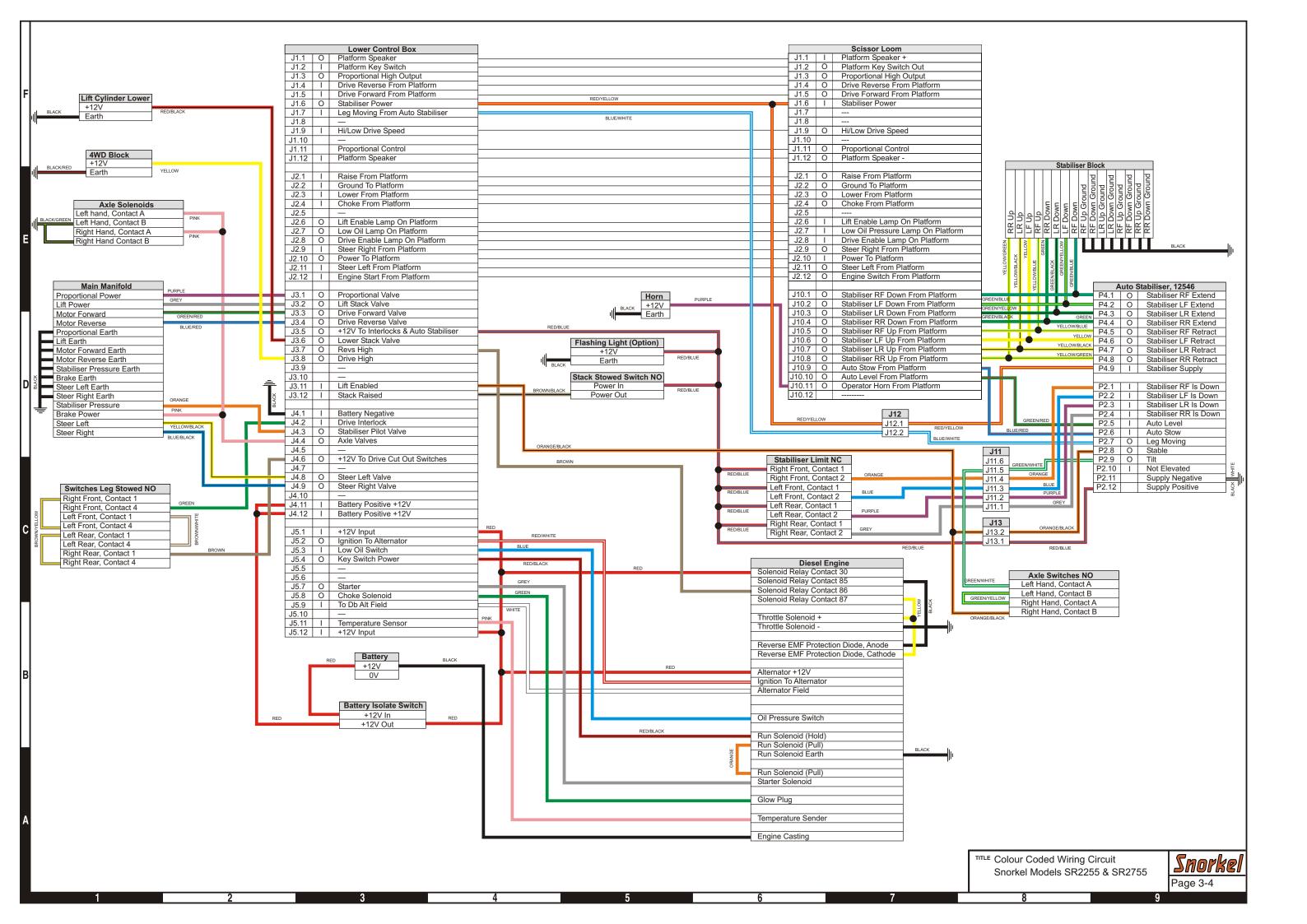
| Looms   |
|---|
| Electrical schematic drawing, auto level 3-3  |
| Colour coded wiring circuit auto level 3-4    |
| Ground control box assembly drawing 3-6       |
| Ground control box assembly 3-7               |
| Ground box                                    |
| Ground box drawing - sheet 1 3-9              |
| Ground box drawing - sheet 2 3-10             |
| Platform control box assembly 3-12            |
| Platform Control Box Assembly drawing Sheet 1 |
| Platform Control Box Assembly drawing         |
| Sheet 2                                       |

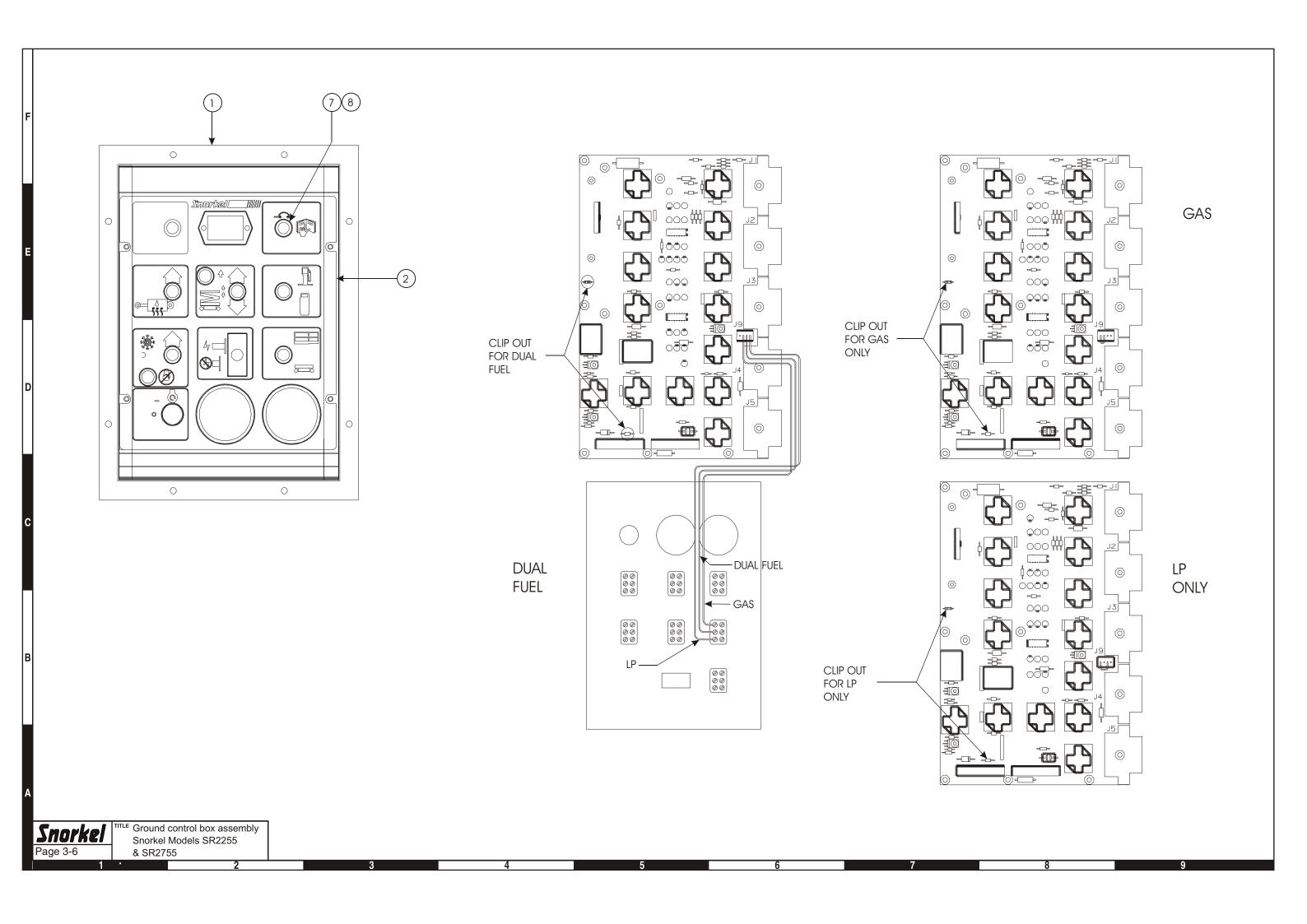
#### Looms

|--|

1.



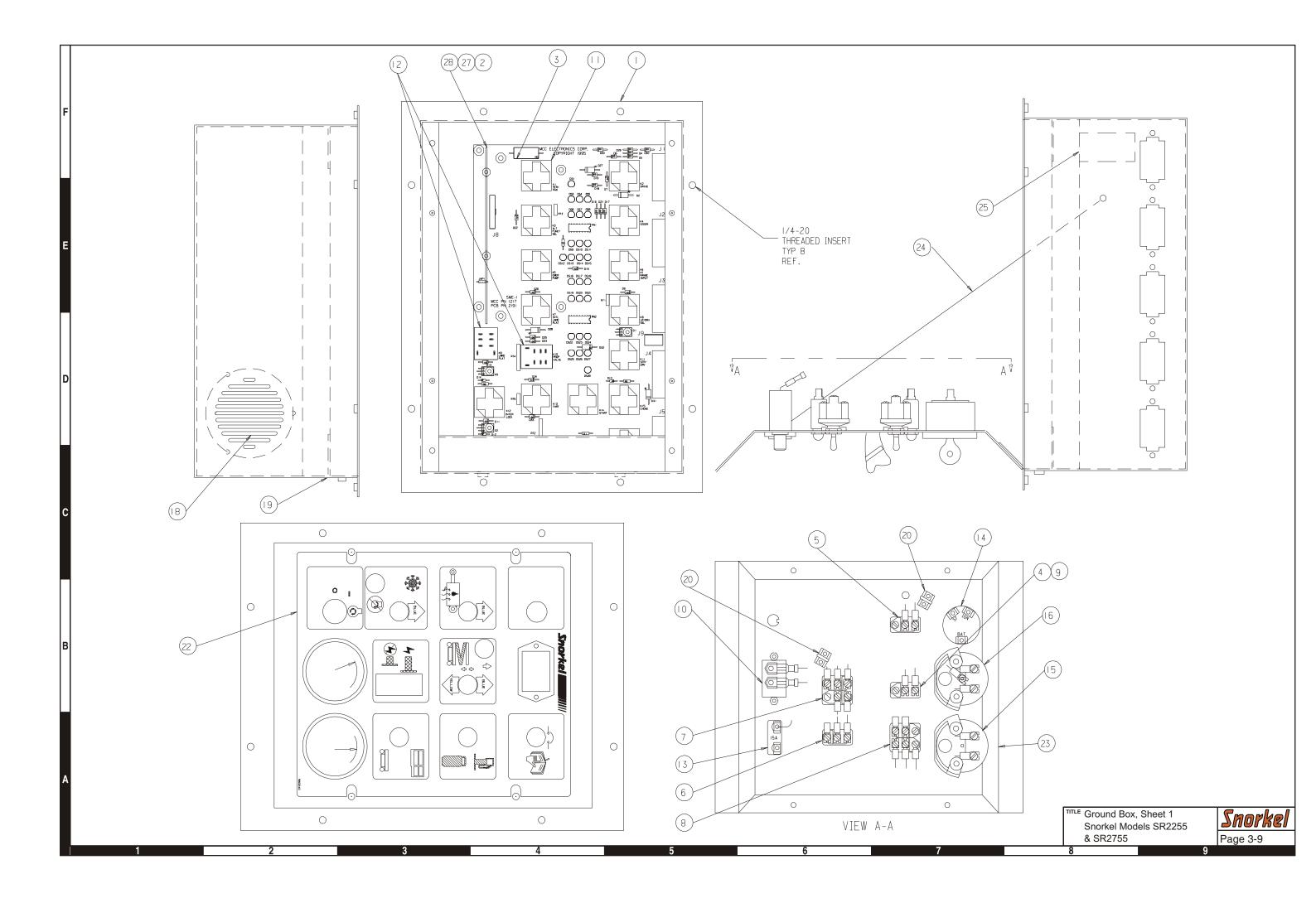


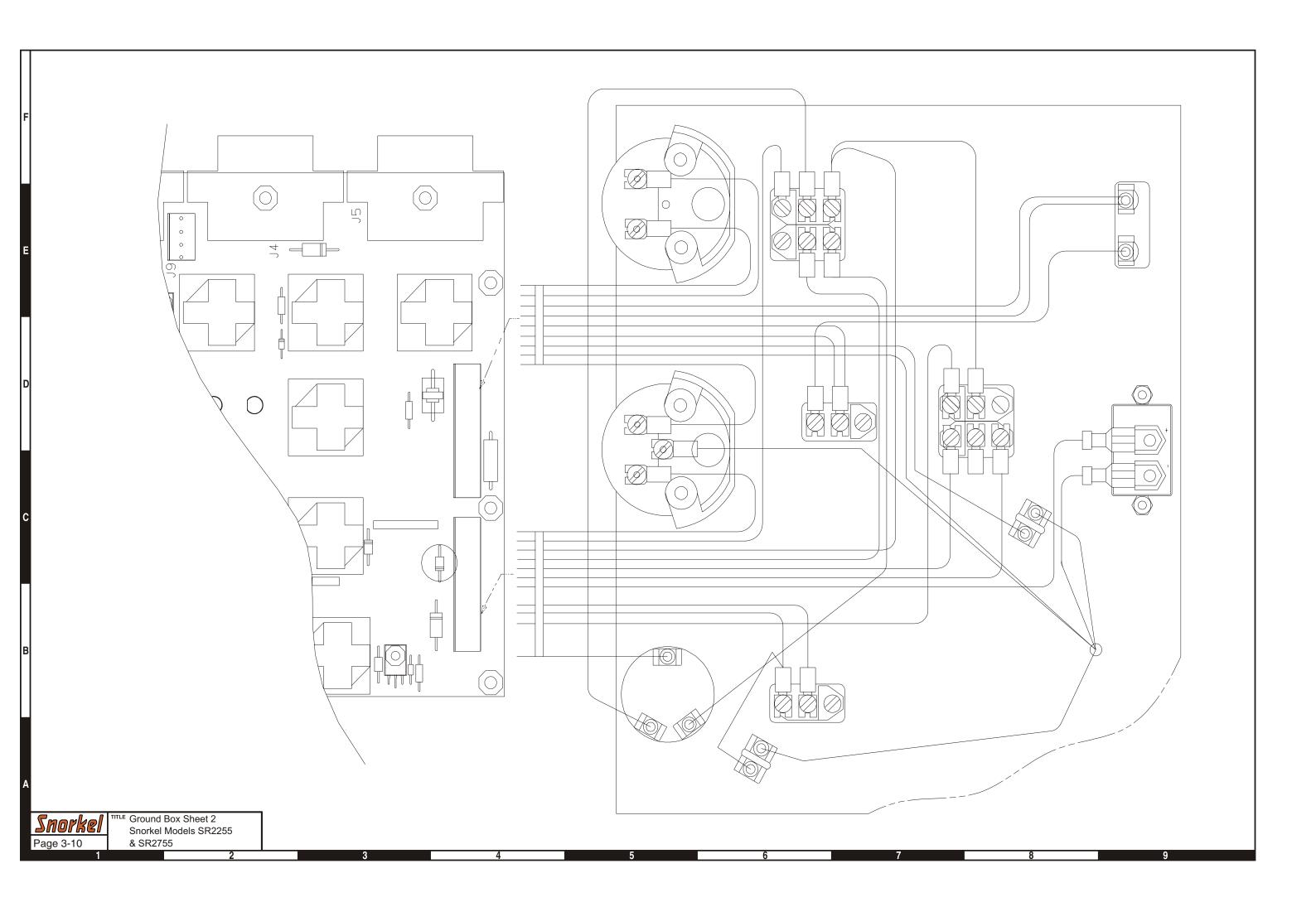


| Item | Part No | Qty | Description                                      |
|------|---------|-----|--|
|      |         |     | Ground control box assembly, Kubota diesel units |
| 1.   | 560222  | 1   | Ground box (see page 3 - 8)                      |
| 2.   | 560240  | 1   | Decal, ground control                            |
| 7.   | 3040068 | 1   | Circuit breaker 20 amp                           |
| 8.   | 3044167 | 1   | Terminal #10 spade 16/14 wire                    |

#### **Ground box**

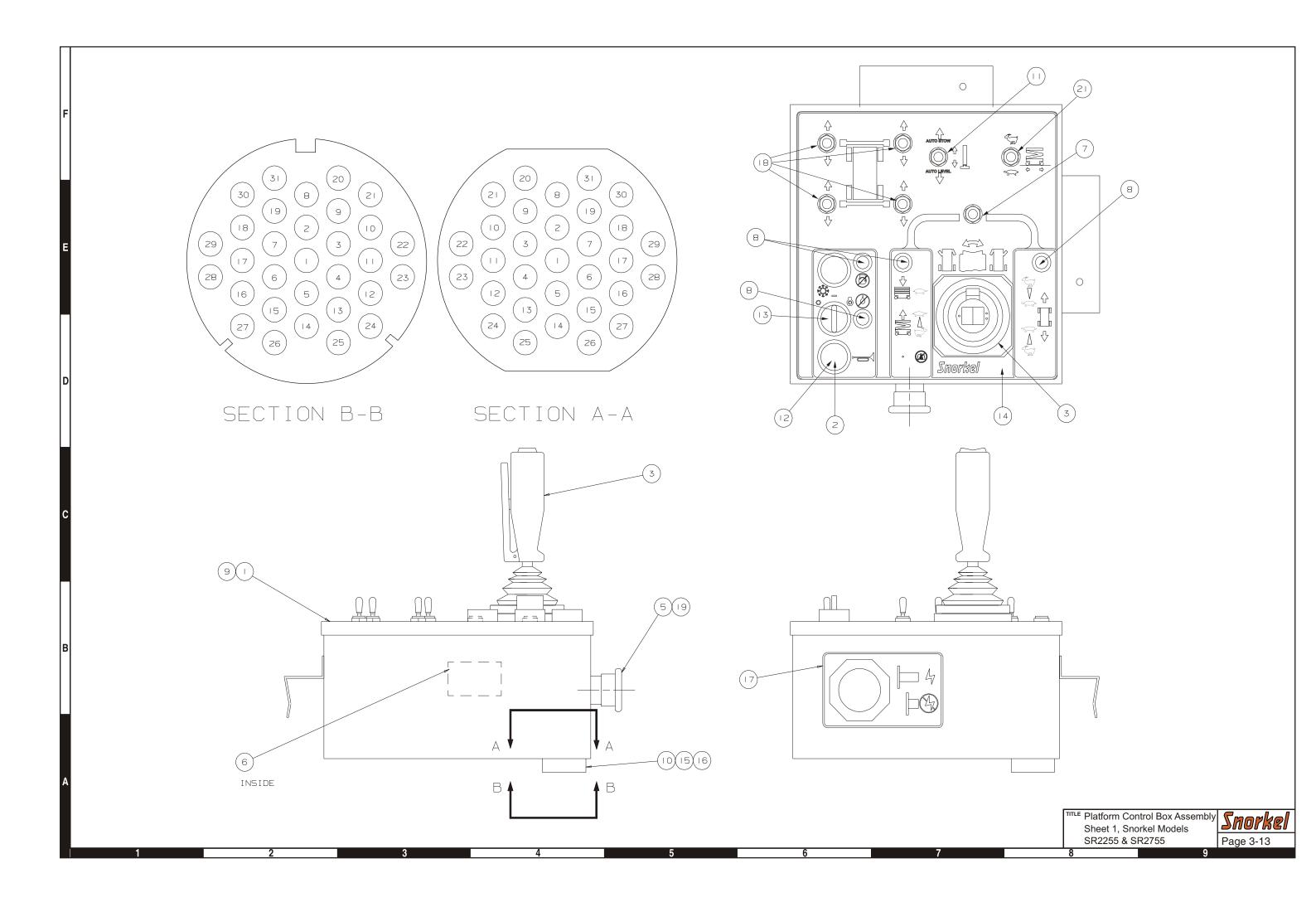
| Item | Part No  | Qty | Description                               |
|------|----------|-----|---|
| 0.   | 560222   | 1   | Ground box, complete                      |
| 1.   | 560229   | 1   | Ground electrical box                     |
| 2.   | 560224   | 1   | Alarm board/daughter board                |
| 3.   | 560223   | 1   | Relay board/mother board                  |
| 4.   | 3020013  | 1   | Switch, toggle                            |
|      | 446836   | 1   | Switch, push/pull emergency stop, CE only |
|      | 446826   | 1   | Contact block, CE only                    |
| 5.   | 302-0015 | 1   | Switch, toggle, SPST, (MON/OFF)           |
| 6.   | 302-0016 | Ref | Switch, toggle, SPDT, (M/OFF/M)           |
| 7.   | 302-0018 | 1   | Switch, toggle, DPDT, (M/OFF/M)           |
| 8.   | 302-0097 | 1   | Switch, toggle, DPDT, (ON/ON)             |
|      | 3020167  | 1   | Key switch, CE only                       |
|      | 3049906  | 1   | Mounting base, CE only                    |
| 9.   | 562236   | 1   | Switch guard, not required for CE         |
| 10.  | 455186   | 1   | Hour meter                                |
| 11.  | 562326   | 14  | Relay, 12 volt DC - 20/30 amp             |
| 12.  | 560390   | 2   | Relay, 12 volt DC - 10 amp                |
| 13.  | 563686   | 1   | Circuit breaker, 15 amp capacity thermal  |
| 14.  | 3020087  | 1   | Key switch                                |
|      | 10113    | 1   | Start switch, CE only                     |
|      | 9776     | 1   | Mounting base, CE only                    |
|      | 10114    | 1   | Contact, CE only                          |
| 15.  | 560394   | 1   | Temperature gauge                         |
| 16.  | 560396   | 1   | Ammeter                                   |
| 17.  | 560397   | 1   | Internal wire harness                     |
| 18.  | 302832   | 1   | Speaker                                   |
| 19.  | 302882   | 1   | Drain plug                                |
| 20.  | 560377   | 1   | Lamp, green bezel 12 volt                 |
| 21.  | 3040068  | Ref | Circuit breaker, 20 amp capacity thermal  |
| 22.  | 560240   | Ref | Decal, ground control                     |
| 23.  | 560398   | 1   | Gasket                                    |
| 24.  | 560389   | 1   | Door restraint cable                      |
| 25.  | 0070967  | 1   | Corrosion inhibitor                       |
| 26.  | 560395   | 1   | Temperature sensor                        |
| 27.  | 302856   | 2   | Bracket for daughter board                |
| 28.  | 302855   | 2   | Stand-off for daughter board              |





### Platform control box assembly

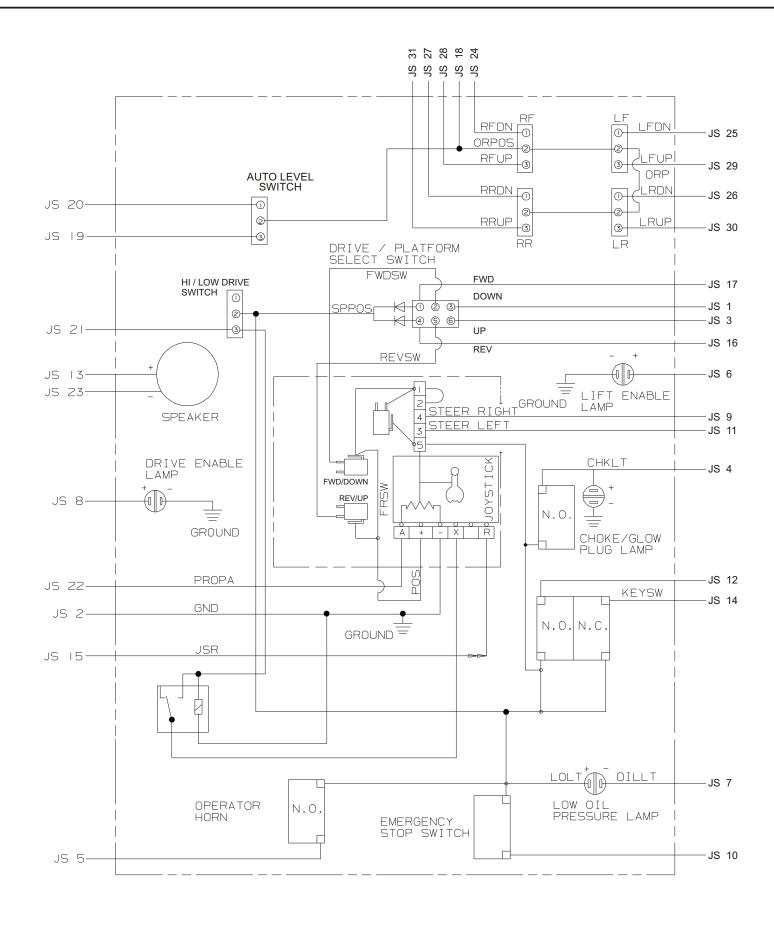
|      | - · · · · |     | 5 1.0  |
|------|-----------|-----|--|
| Item | Part No   | Qty | Description  |
| 0.   | 560221    | 1   | Platform control box assembly                                      |
| 1.   | 560228    | 1   | Platform control box   |
| 2.   | 560332    | 1   | Switch, push button  |
| 3.   | 560225    | 1   | Joystick controller  |
| 4.   | 560376    | 1   | Internal wire harness  |
| 5.   | 446836    | 1   | Switch, push/pull emergency stop                                   |
| 6.   | 0070967   | 1   | Corrosion inhibitor  |
| 7.   | 3020097   | 1   | Switch, toggle   |
| 8.   | 560377    | 4   | Led lamp, green 12 volt  |
| 9.   | 560375    | 1   | Gasket   |
| 10.  | 3049847   | 1   | Electrical connector   |
| 11.  | 3020016   | 1   | Switch, auto level (not installed on machines without stabilisers) |
| 12.  | 560332    | 1   | Switch, operator horn  |
| 13.  | 560379    | 1   | Switch, start/kill   |
| 14.  | 560241    | 1   | Placard, platform control box                                      |
| 15.  | 3040099   | 1   | Electrical connector lock washer                                   |
| 16.  | 3040098   | 1   | Electrical connector lock nut                                      |
| 17.  | 560272    | 1   | Placard, emergency stop  |
| 18.  | 3020016   | 4   | Switch, outriggers (not installed on machines without stabilisers) |
| 19.  | 446826    | 1   | Contact block, emergency stop                                      |
| 20.  | 560378    | 1   | Diode wire assembly  |
| 21.  | 563736    | 1   | Switch, toggle   |



|   | PIN#  |        |                                    |  |  |
|---|-------|--------|------------------------------------|--|--|
|   | JS 1  | J2.3   | LOWER FROM PLATFORM                |  |  |
|   | JS 2  | J2.2   | PLATFORM GROUND WIRE               |  |  |
|   | JS 3  | J2.1   | RAISE FROM PLATFORM                |  |  |
|   | JS 4  | J2.4   | CHOKE/GLOW PLUG SWITCH AT PLATFORM |  |  |
|   | JS 5  | J10.11 | OPERATOR HORN                      |  |  |
|   | JS 6  | J2.6   | LIFT ENABLE LAMP                   |  |  |
|   | JS 7  | J2.7   | PLATFORM LOW OIL PRESSURE LAMP     |  |  |
|   | JS 8  | J2.8   | PLATFORM DRIVE ENABLE LAMP         |  |  |
|   | JS 9  | J2.9   | STEER RIGHT                        |  |  |
|   | JS 10 | J2.10  | POWER TO PLATFORM (14 GA)          |  |  |
|   | JS 11 | J2.11  | STEER LEFT                         |  |  |
|   | JS 12 | J2.12  | START SWITCH FROM PLATFORM         |  |  |
|   | JS 13 | J1.1   | PLATFORM SPEAKER                   |  |  |
|   | JS 14 | J1.2   | PLATFORM KEY SWITCH OUT            |  |  |
| * | JS 15 | J1.3   | PROPORTIONAL HIGH OUTPUT           |  |  |
|   | JS 16 | J1.4   | DRIVE REVERSE                      |  |  |
|   | JS 17 | J1.5   | DRIVE FORWARD                      |  |  |
| # | JS 18 | J1.6   | OUTRIGGER SUPPLY                   |  |  |
|   | JS 18 | J12.1  | OUTRIGGER SUPPLY                   |  |  |
|   | JS 19 | J10.9  | AUTO STOW                          |  |  |
|   | JS 20 | J10.10 | AUTO LEVEL                         |  |  |
|   | JS 21 | J1.9   | HI/LOW DRIVE SWITCH                |  |  |
|   | JS 22 | J1.11  | PROPORTIONAL CONTROL               |  |  |
|   | JS 23 | J1.12  | PLATFORM SPEAKER                   |  |  |
|   | JS 24 | J10.1  | OUTRIGGER RF DOWN                  |  |  |
|   | JS 25 | J10.2  | OUTRIGGER LF DOWN                  |  |  |
|   | JS 26 | J10.3  | OUTRIGGER LR DOWN                  |  |  |
|   | JS 27 | J10.4  | OUTRIGGER RR DOWN                  |  |  |
|   | JS 28 | J10.5  | OUTRIGGER RF UP                    |  |  |
|   | JS 29 | J10.6  | OUTRIGGER LF UP                    |  |  |
|   | JS 30 | J10.7  | OUTRIGGER LR UP                    |  |  |
|   | JS 31 | J10.8  | OUTRIGGER RR UP                    |  |  |

\* NOTE: INPUT FROM JSR (JS 15) ONLY IF LOWER PLATFORM SWITCH IS MADE!

**‡** NOTE: JS 18 T'S IN CONTROL CABLE TO J1.6 AND J12.1



# Section 4. - Options

| AC outlet at platform, 230 volt    | 4-2 |
|------------------------------------|-----|
| AC outlet at platform 230V drawing | 4-3 |
| Flashing light installation        | 4-4 |
| Fuel gauge option                  | 4-5 |

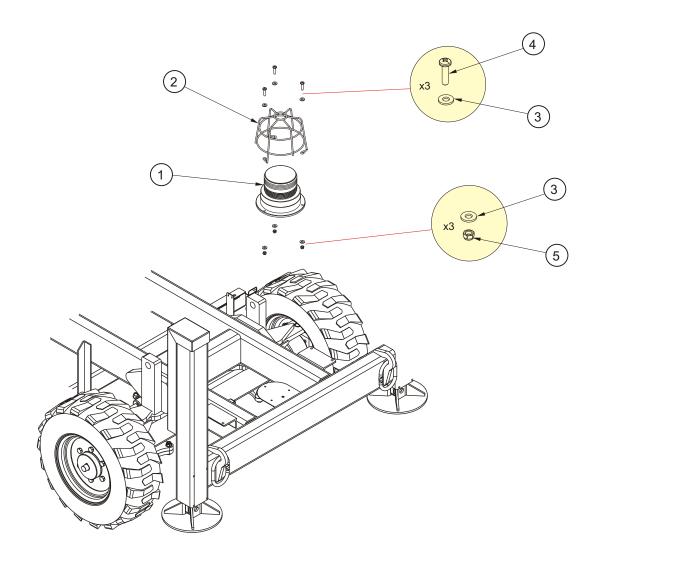
### AC outlet at platform, 230 volt

| Item | Part No  | Qty | Description   |
|------|----------|-----|---|
| 1.   | 10967-3  | 2   | PDL enclosure                                       |
| 2.   | 10967-1  | 1   | Residual current device (with appliance inlet pins) |
| 3.   | 1814     | 2   | M20 nylon cable gland                               |
| 4.   | 10967-2  | 1   | Appliance inlet                                     |
| 5.   | 2500-014 | 1   | Switch outlet                                       |
| 6.   | 1812     | 1   | 3 core x 1.5 tpe flex cable                         |

# **RIGHT-HAND SIDE** 5 1 TOE BOARD DECK 6 RCD MOUNTED AT BASE

# Flashing light installation

| Item | Part No    | Qty | Description                    |  |
|------|------------|-----|--------------------------------|--|
| 1.   | 1866-003   | 1   | Flashing light                 |  |
| 2.   | 1866-004   | 1   | Guard, flashing light          |  |
| 3.   | 3603-05    | 6   | Washer, plain, M5 x 12.5, ZP   |  |
| 4.   | 3604-05020 | 3   | Screw, pan head, M5 x 20, ZP   |  |
| 5.   | 3611-05    | 3   | Nut, nyloc, M5                 |  |
| 6.   | 304-0341   | 2   | Terminal pin, male (not shown) |  |



|                                  |  |                       |  |   | <br> |
|----------------------------------|--|-----------------------|--|---|------|
| Item                             | Part No  | Qty                   | Description  |   |      |
| 0.<br>1.<br>2.<br>3.<br>4.<br>5. | 11507<br>11430-9<br>0070483<br>11430-5<br>11430-1<br>3611-06 | 1<br>1<br>1<br>1<br>1 | Fuel gauge option Top plate fuel tank Fuel gauge Gasket Base plate weld Nylock nut |   |      |
|                                  |  |                       | +  | 1 |      |
|                                  | 3  |                       |  |   |      |
|                                  |  |                       |  | 4 |      |
|                                  |  |                       |  |   |      |
|                                  |  |                       | <b>D</b>   |   |      |

230 Volt AC outlet at platform, 4-2 AC outlet at platform, 230 volt AC, 4-2 Decal and placards installation, 1-32 Gradeability, 2-3, 2-4 Ground clearance, 2-3, 2-4 Ground control box assembly, 3-7 Insulation rating, 2-3, 2-4 Joystick controller, 3-12 Key switch, 3-8 Lift time, 2-3, 2-4 Maintenance, 0-7 Maintenance schedules, 0-8 Manual organisation See Maintenance information - page 3 Manual Organization, 0-7 Maximum rated axle capacity, 2-3, 2-4 Nominal working height, 2-3, 2-4 0 Overall height, 2-3, 2-4 Overall length (with stabilizers), 2-3, 2-4 Overall weight, 2-3, 2-4 Placards and decals installation, 1-32 Platform control box assembly, 3-12 Platform size, 2-3, 2-4 S Safe working load (main deck), 2-3, 2-4 Safe working load (roll out deck), 2-3, 2-4 Speed (maximum drive), 2-3, 2-4 Temperature sensor, 3-8 Travelling height, 2-3, 2-4 Turning radius (inner), 2-3, 2-4 Turning radius (outer), 2-3, 2-4 Warranty - Limited See inside front cover

Working height, 2-3, 2-4

Weight, 2-3, 2-4