



STRIKER® (SKR-100) USER MANUAL

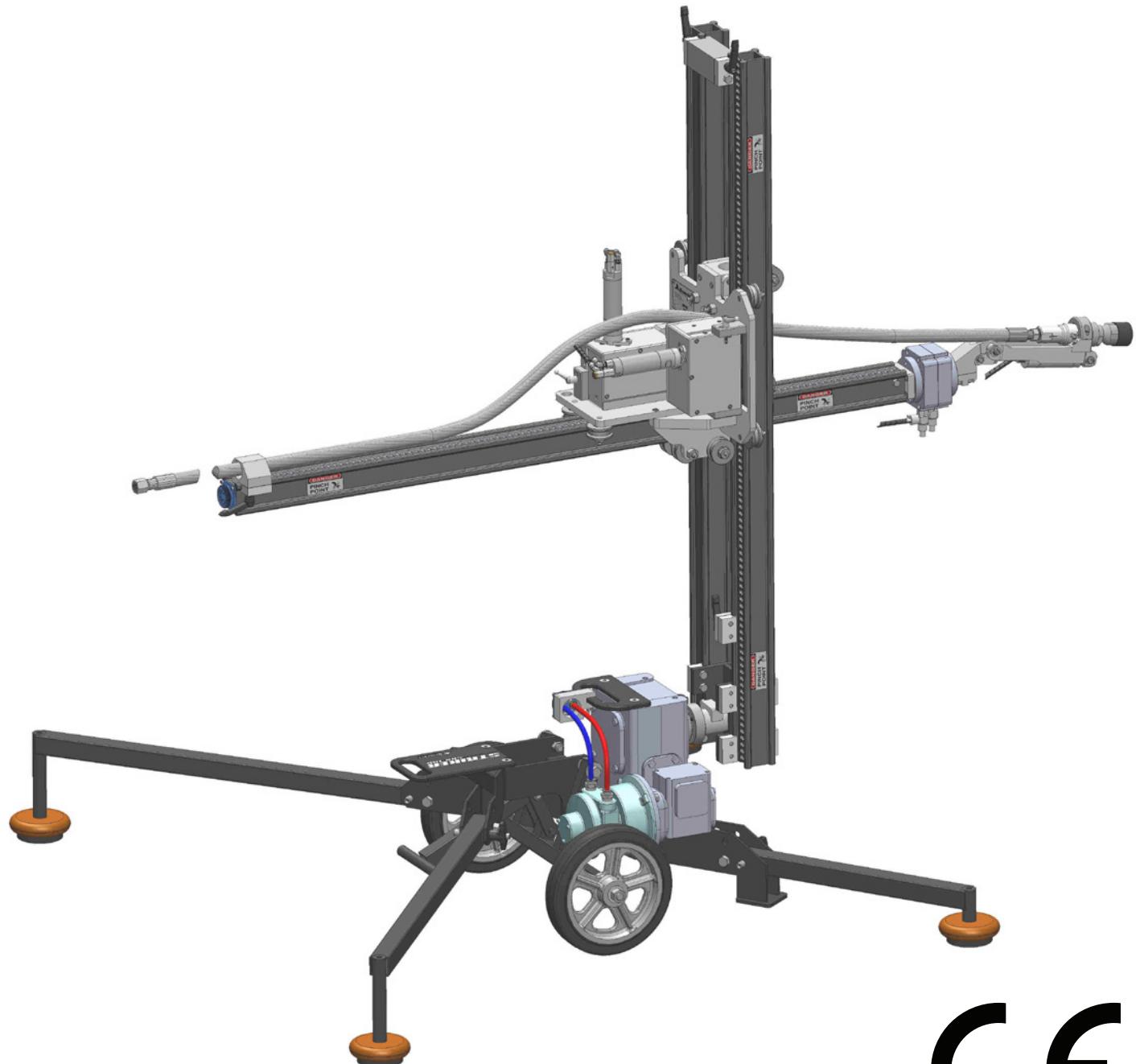


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Andrew Birt Consulting Ltd.
UK

This manual must be used in accordance with all applicable national laws. The manual shall be regarded as a part of the machine and shall be kept for reference until the final dismantling of the machine, as defined by applicable national law(s).

SPECIFICATIONS

STRIKER® (SKR-100) Weight:

STRIKER® (SKR-100) Size, Folded:

STRIKER® (SKR-100) Size, Outriggers Extended:

Cleaning Window:

Reaction Force:

Control Box Weight:

Maximum Air Supply Pressure:

System Operating Pressure:

Recommended Operational Temperature Range

260 lbs (118kg)

25 in. wide x 31 in. Long

(635 mm wide x 787 mm Long)

63 in. wide x 55 in. Long x 66 in. High

(1600 mm wide x 1397 mm Long x 1676 mm High)

78 in. H x 48 in. W x 54 in. D

(1981 mm x 1219 mm x 1371 mm)

Up to 70 lb (32 kg)

43 lbs (19.5 kg) (Includes Control Box, FRL, and stand)

125 psi (0.86 MPa)

80 psi (0.70 MPa) minimum, 125 psi (0.86 MPa) maximum

-20 °F to 140 °F (-29 °C to 60 °C)

DESCRIPTION OF EQUIPMENT AND INTENDED USE

The powerful and responsive STRIKER® (SKR-100) combines a rotary shotgun arm and positioning system for precise remote shotgunning in tough to reach locations.

The STRIKER® (SKR-100) must not be put into service within the European Community ("EC") until the final machinery into which it is to be incorporated has been declared in conformity with the Machinery Directive and all other applicable EC Directives.

KEY FEATURES:

STRIKER® (SKR-100)

- Modular system designed for portability and easy assembly
- Lightweight components for single operator setup and use
- Wheeled base for easy maneuverability
- Fully pneumatic
- Portable control box allows cleaning visibility.
- Affordable alternative to complicated robotic systems

CONTROL BOX

- Small, lightweight, ergonomic design that includes a Portable stand and filter-regulator-lubricator assembly
- Body controls: In/Out, Up/Down, and Rotation
- Wrist controls: Rotation and Flex
- Pneumatic Foot Pedal Dump Control



**CE DECLARATION OF INCORPORATION
OF PARTLY COMPLETED MACHINERY**

We: StoneAge, Inc. 466 South Skylan Drive Durango, CO 81303, USA

Declare that this "partly completed machinery" supplied with this declaration:

Equipment: STRIKER® Assembly

Model name: SKR-100 Is in accordance with the following Directives: and

- is designed and manufactured solely as a non-functional component to be incorporated into a machine requiring completion;
- must not be put into service within the European Community ("EC") until the final machinery into which it is to be incorporated has been declared in conformity with the Machinery Directive and all other applicable EC Directives; and
- is designed and manufactured to comply with the 2006/42/EC Essential Health and Safety Requirements of the Machinery Directives and the relevant parts of the following specifications:

EN ISO 12100:2010 Safety of machinery - General principles for design - Risk assessment and risk reduction

I hereby declare that the equipment named above has been tested and found to comply with the relevant sections of the above referenced specifications and directives.

Signed _____

Date 08/25/2015

Andrew Birt

Independent Dealer Manager

StoneAge, Inc., Worcester, UK

The technical file for the STRIKER® (SKR-100) User Manual is maintained at: StoneAge, Inc. 466 South Skylan Drive, Durango, CO 81303, USA

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WARNING AND SAFETY INSTRUCTIONS

OPERATOR TRAINING

Managers, Supervisors, and Operators MUST be trained in Health and Safety Awareness of High-pressure Water Jetting and hold a copy the Water Jetting Association (WJA) Code of Practice, or equivalent (see www.waterjetting.org.uk).

Operators MUST be trained to identify and understand all applicable standards for the equipment supplied. Operators should be trained in manual handling techniques to prevent bodily injury.

StoneAge has designed and manufactured this equipment considering all hazards associated with its operation. StoneAge assessed these risks and incorporated safety features in the design. StoneAge **WILL NOT** accept responsibility for the results of misuse.

IT IS THE RESPONSIBILITY OF THE INSTALLER/OPERATOR to conduct a job specific risk assessment prior to use. Job specific risk assessment MUST be repeated for each different set up, material, and location.

The risk assessment MUST conform to the Health and Safety at Work Act 1974 and other relevant Health and Safety legislation.

PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

Use of Personal Protective Equipment (PPE) is dependent on the working pressure of water and the cleaning application. Managers, Supervisors, and Operators MUST carry out a job specific risk assessment to define the exact requirements for PPE. See Protective Equipment for Personnel (Section 6) of WJTA-IMCA's Recommended Practices For The Use Of High-pressure Water jetting Equipment for additional information.

Hygiene - Operators are advised to wash thoroughly after all waterjetting operations to remove any waterblast residue which may contain traces of harmful substances.

First aid provision - users MUST be provided with suitable first aid facilities at the operation site.

SAFETY LABEL DEFINITIONS

The STRIKER® (SKR-100) has the potential to cause serious injury to fingers or hands if they become caught between the rollers or rotating connections.



Operators MUST read, understand, and follow the Operational and Training Requirements (Section 7.0) of WJTA-IMCA's Recommended Practices For The Use Of High-pressure Water jetting Equipment, or equivalent.

Operators MUST read, understand and follow the Warnings, Safety Information, Assembly, Installation, Connection, Operation, Transport, Handling, Storage, and Maintenance Instructions detailed in this manual.

The risk assessment MUST consider potential material or substance hazards including:

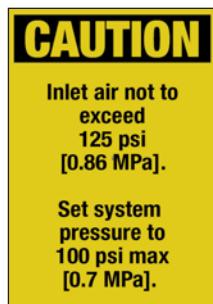
- Aerosols
- Biological and microbiological (viral or bacterial) agents
- Combustible materials
- Dusts
- Explosion
- Fibers
- Flammable substances
- Fluids
- Fumes
- Gases
- Mists
- Oxidizing Agents

PPE may include:

- **Eye protection:** Full face visor
- **Foot protection:** Kevlar® brand or steel toe capped, waterproof, non-slip safety boots
- **Hand protection:** Waterproof gloves
- **Ear protection:** Ear protection for a minimum of 85 dBA
- **Head protection:** Hard hat that accepts a full face visor and ear protection
- **Body protection:** Multi-layer waterproof clothing approved for water jetting
- **Hose protection:** Hose shroud
- **Respiratory protection:** May be required; refer to job specific risk assessment

The STRIKER® (SKR-100) has the potential to cause serious injury if fingers or hands become caught between the carriage and rails.

Maximum operating air pressure is 100 psi (0.7 MPa). Never exceed 125 psi (0.86 MPa) supply pressure. Exceeding 125 psi (0.86 MPa) supply pressure may result in injury to the Operator and/or damage to the equipment.



WARNING AND SAFETY INSTRUCTIONS

⚠ WARNING

Operations with this equipment can be potentially hazardous. Caution MUST be exercised prior to and during machine and water jet tool use. Please read and follow all of these instructions, in addition to the guidelines in the WJTA Recommended Practices handbook, available online at www.wjta.org. Deviating from safety instructions and recommended practices can lead to severe injury and/or death.

- Do not exceed the maximum operating pressure specified for any component in a system.
- The immediate work area MUST be marked off to keep out untrained persons.
- Inspect the equipment for visible signs of deterioration, damage, and improper assembly. Do not operate if damaged, until repaired.
- Make sure all threaded connections are tight and free of leaks.
- Users of the STRIKER® (SKR-100) MUST be trained and/or experienced in the use and application of high-pressure technology and cleaning, as well as all associated safety measures, according to the WJTA Recommended Practices for the use of High-pressure Water jetting Equipment.
- The Control Box should be located in a safe location where the Operator has good visibility of the placement of the tool. The STRIKER® (SKR-100) and Control Box MUST be supervised at all times and should never be left unattended.
- Always de-energize the system before opening the door to service or replace any parts. Failure to do so can result in severe injury and/or death.
- When moving the STRIKER® (SKR-100) lift with care to prevent bodily injury.

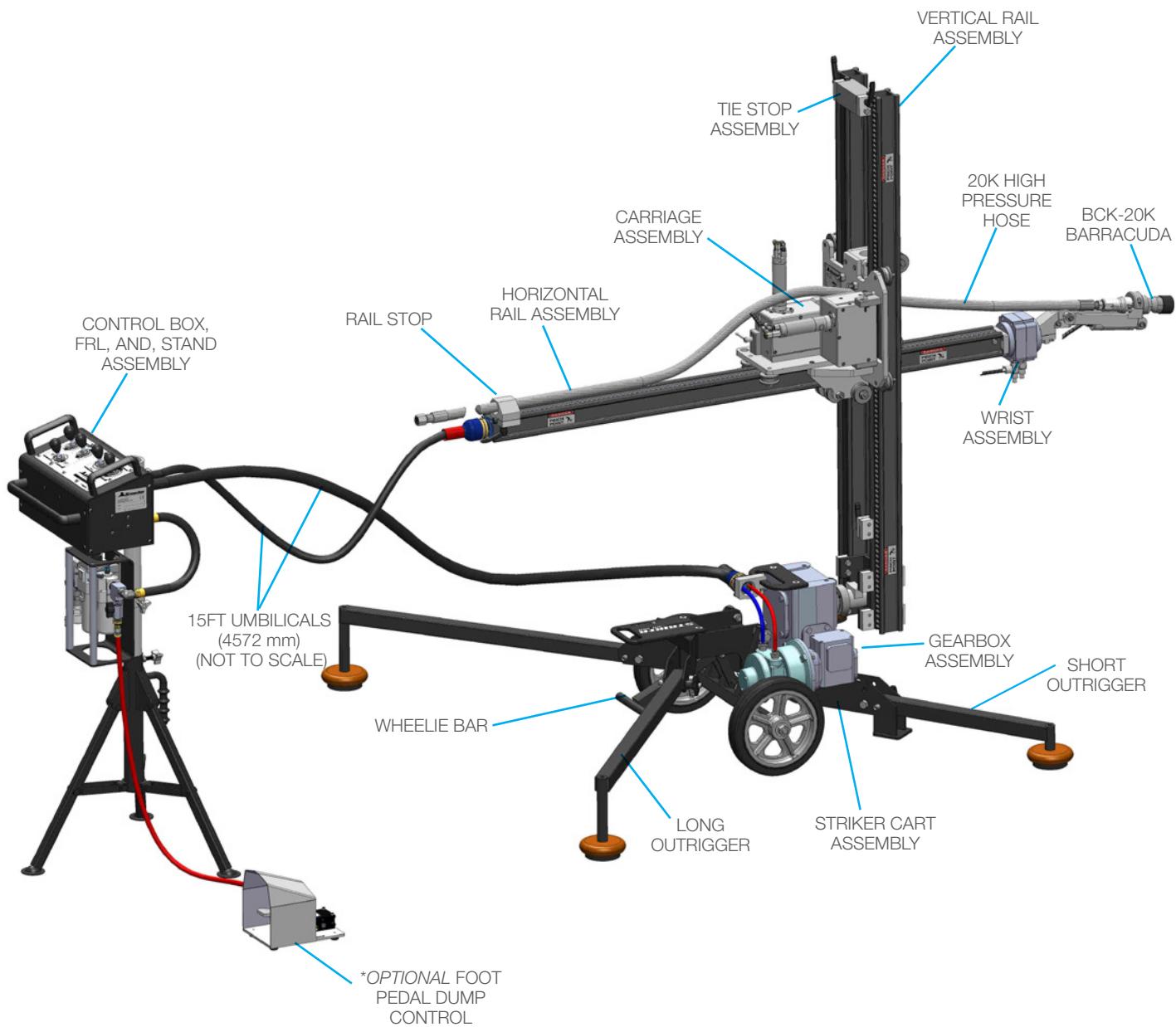
PRE-RUN SAFETY CHECK

Refer to WJTA-IMCA's, Recommended Practices For The Use Of High-pressure Water jetting Equipment and/or The Water Jetting Association's, WJA Code of Practice for additional safety information.

- Complete a job specific risk assessment and act on the resulting actions.
- Adhere to all site specific safety procedures.
- Ensure the waterblasting zone is properly barricaded and that warning signs are posted.
- Ensure the work place is free of unnecessary objects (e.g. loose parts, hoses, tools).
- Ensure all Operators are using the correct Personal Protective Equipment (PPE).
- Check that the air hoses are properly connected and tight.
- Check all hoses and accessories for damage prior to use. Do not use damaged items. Only high quality hoses intended for waterblast applications should be used as high-pressure hoses.
- Check all high-pressure threaded connections for tightness.
- Test the Control Box before operating the STRIKER® (SKR-100) with high-pressure water to verify the control valves move the Tool in the intended directions.
- Operate the high-pressure water at full pressure and use the Pneumatic Foot Pedal Dump Control to verify that the dump valve is working properly.
- Ensure that Operators never connect, disconnect, or tighten hoses, adapters, or accessories with the high-pressure water pump unit running.
- Ensure no personnel are in the hydroblasting zone.

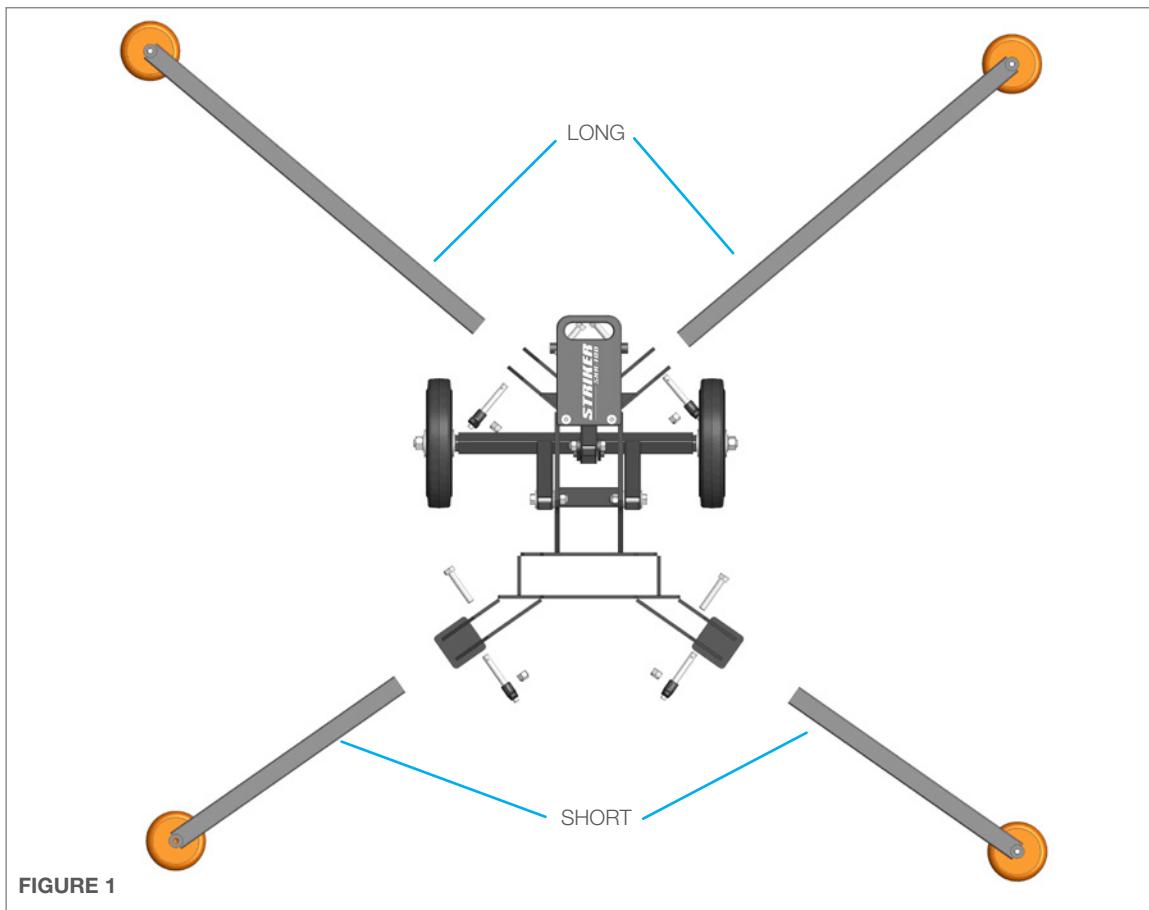
SYSTEM ASSEMBLY - OVERVIEW

STRIKER® SYSTEM AND CB-SKR CONTROL BOX

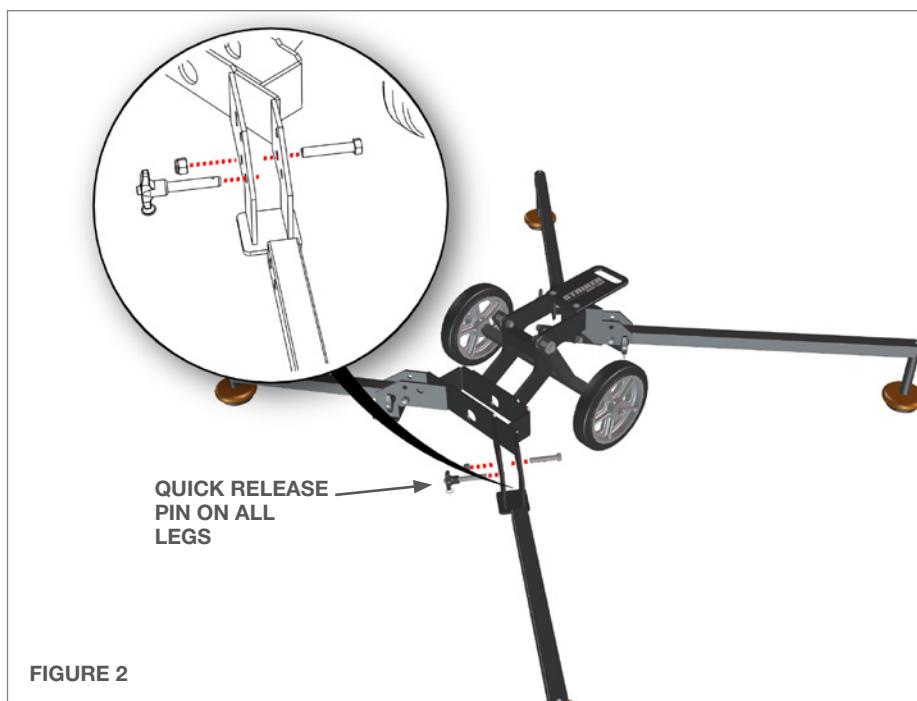


SKR-100 SET-UP - STANDARD LEG ASSEMBLIES

1. Mount the Long and Short Legs to the Cart as shown in **(Figure 1)**



2. Install the supplied 1/2" Bolt and Lock Nut as shown in **(Figure 2)**. Insert Quick Release Pins where shown after bolts are tightened and range of motion is tested.



SKR-100 SET-UP - STANDARD LEG ASSEMBLIES

3. Tighten all the way with two 3/4" Wrenches, then back out approximately 1/2 turn to allow leg to pivot. (**Figure 3**)



4. Remove the Quick Release Pin to test the Leg Assembly by lifting up and down to ensure it moves freely. (**Figure 4**)
Repeat 2 through 4 for the remaining 3 Leg Assemblies.

****Verify Long and Short Legs are in the appropriate positions based on (Figure 1).**



FIGURE 4

SKR-100 SET-UP - DOWNRIGGER LEG ASSEMBLIES

1. Remove the 1/2" Bolts, Lock Nuts, and the Quick Release Pins from the Standard Leg Assembly and Cart. (**Figure 1**)
2. Insert the Downrigger Leg Assembly and secure with the 1/2" Bolt, Lock Nut, and Quick Release Pins as shown in (**Figure 2**).

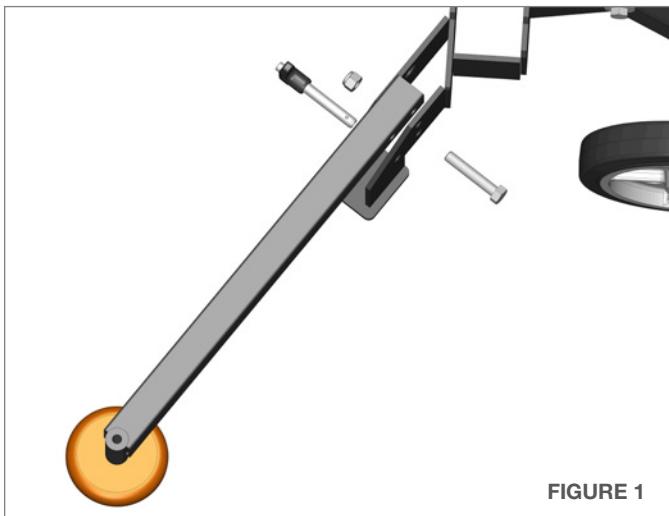


FIGURE 1

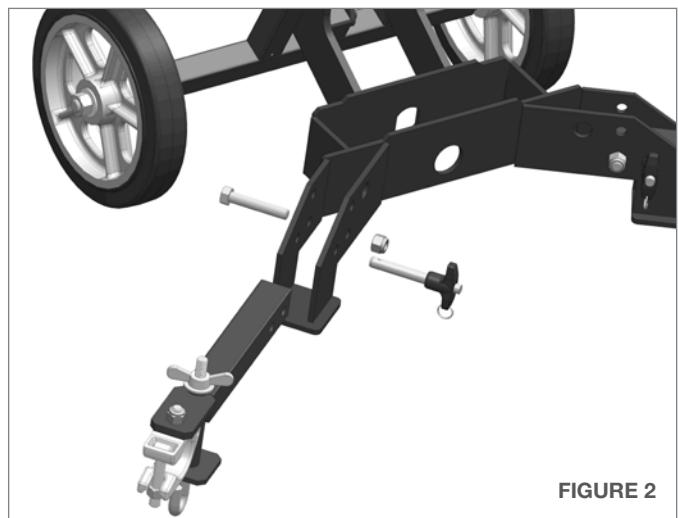


FIGURE 2

3. Confirm that the Short and Long Downrigger Legs are Installed where shown in (**Figure 3**).

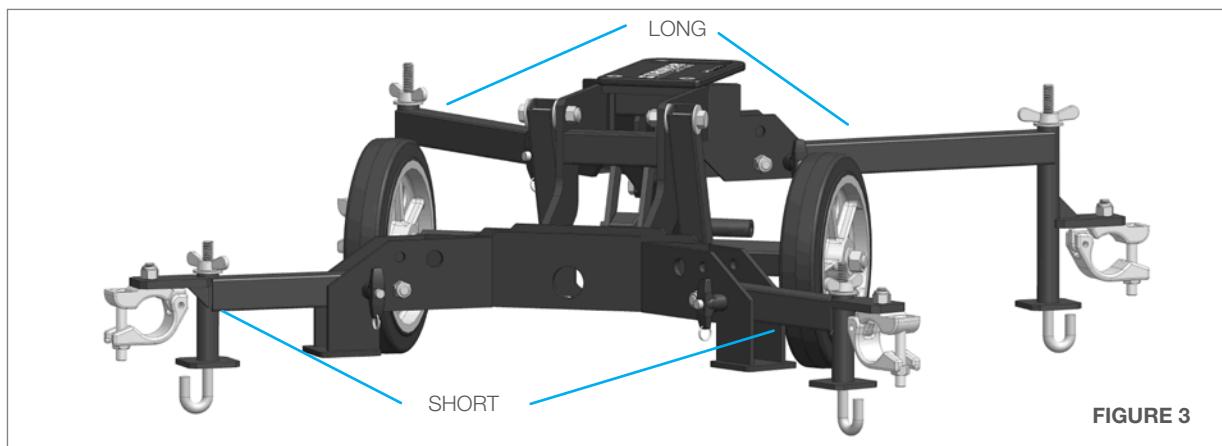


FIGURE 3

SKR-100 SET-UP-GEARBOX TO CART

Place the Gearbox Assembly on the Mounting plate as shown in (Figure 1). Install Wedge Bolt through both inboard and outboard plates and the Gearbox Assembly on the Cart Weldment before tightening. ****NOTE: Orient Wedge Bolt flats as shown in (Figure 2).**

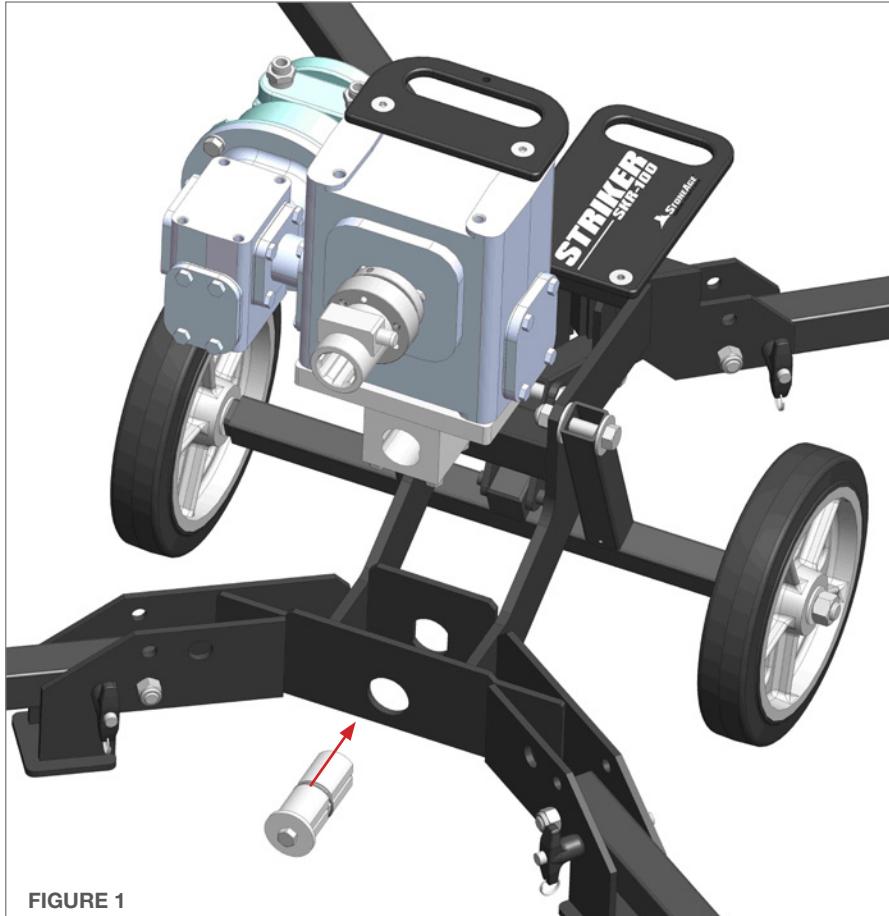


FIGURE 1

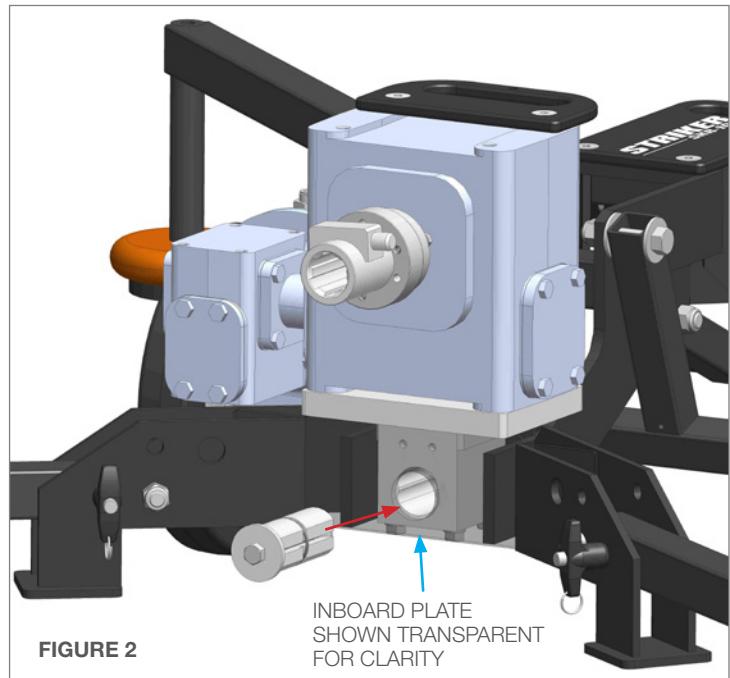
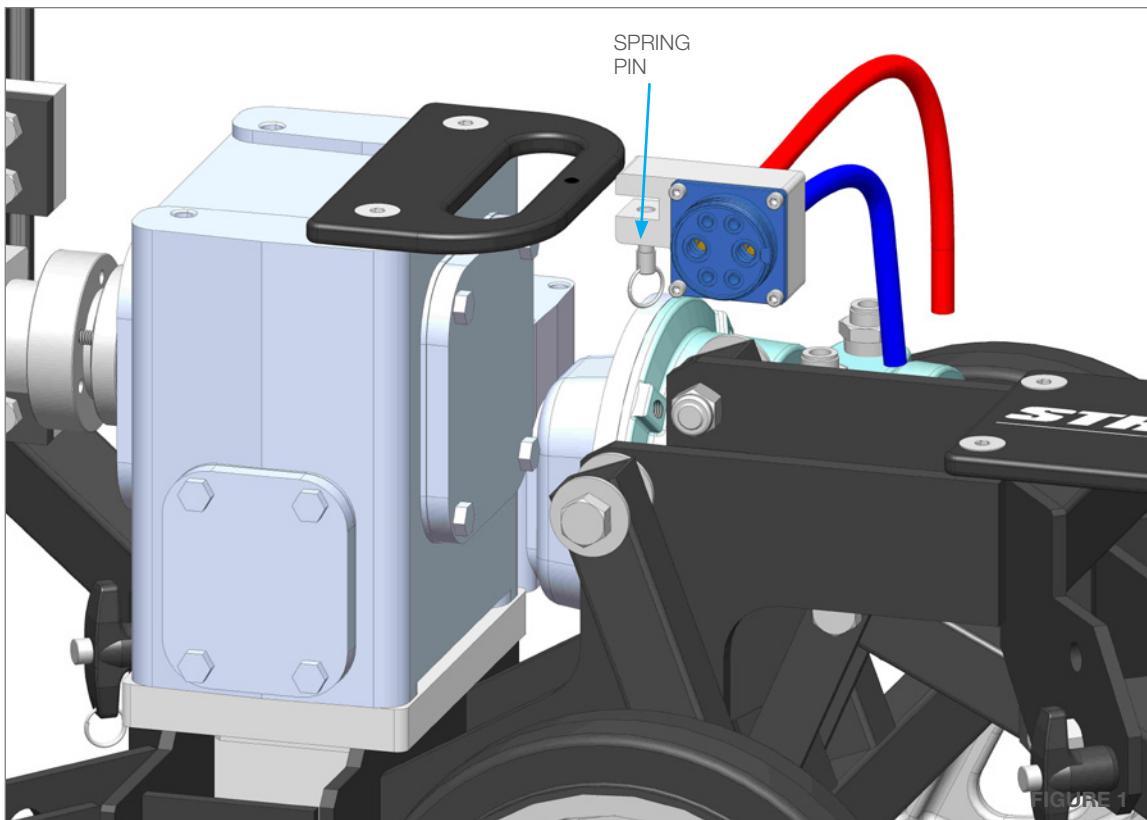


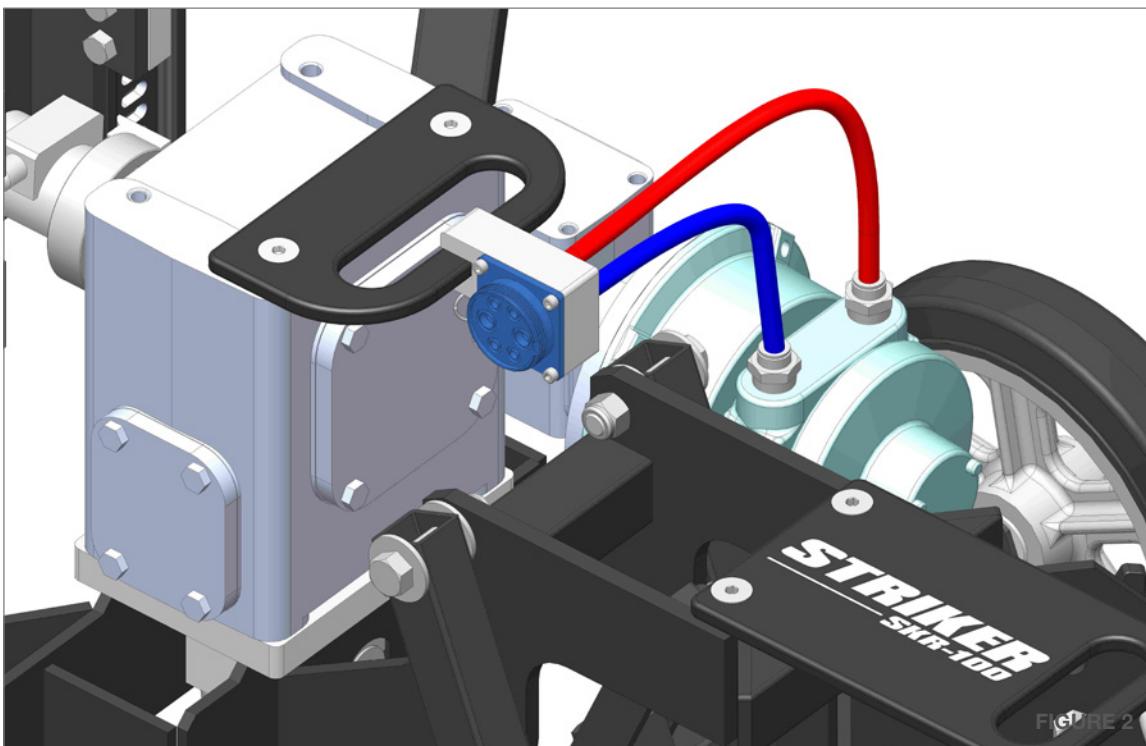
FIGURE 2

SKR-100 - SOCKET MOUNT TO CART AND AIR MOTOR

1. Install Socket Mount Plate from the Cart Assembly and fully engage the Spring Pin. (**Figure 1**).

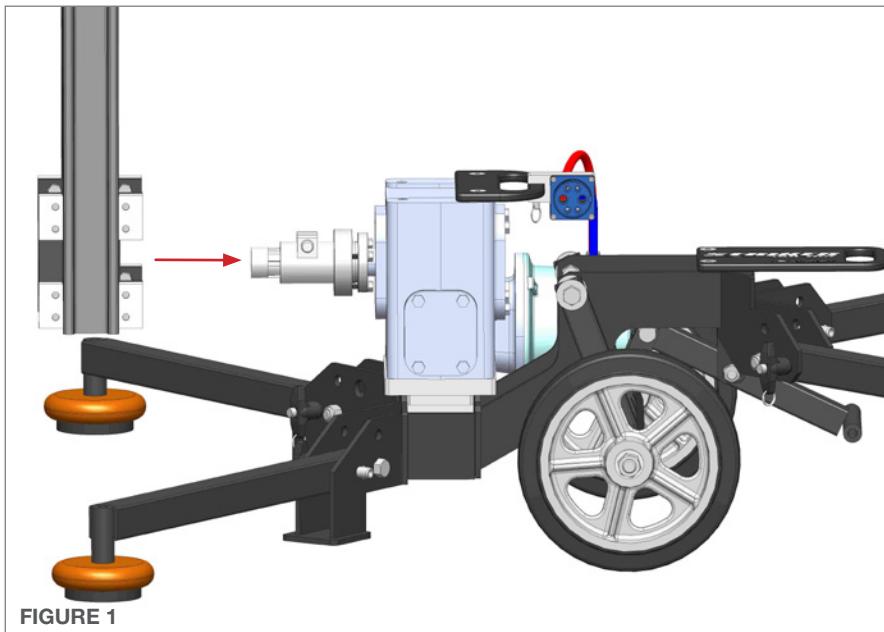


2. Install Red and Blue tubing into fittings on Air Motor as shown in (**Figure 2**). Double check the orientation of the Red and Blue tubing.

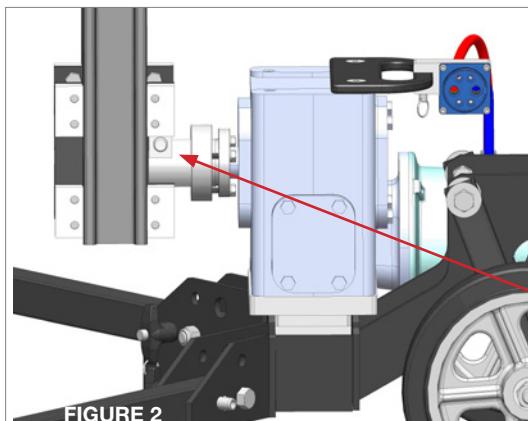


SKR-100 SET-UP-VERTICAL RAIL TO SPLINE

1. Install the Vertical Rail Assembly by aligning the splines and depressing the spring pin on the spline coupling. (**Figure 1**)

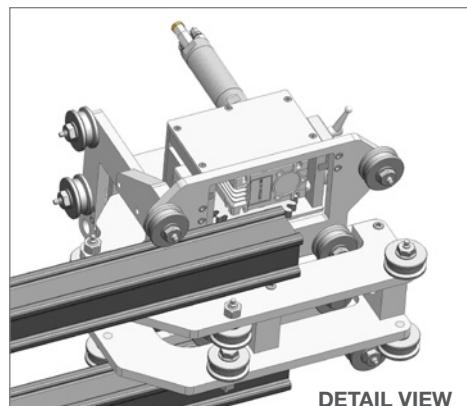
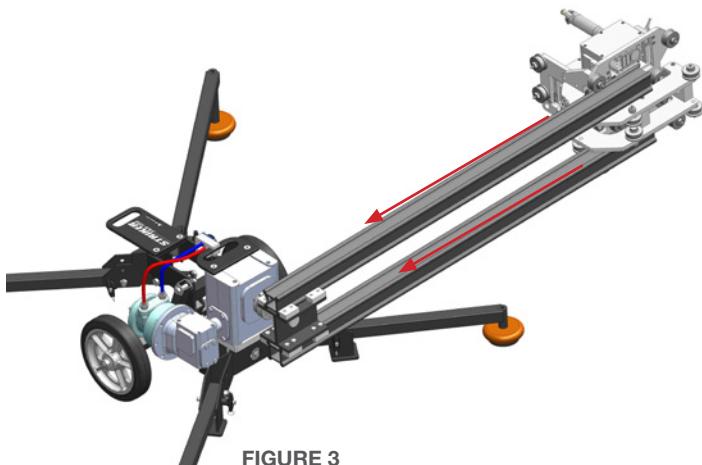


2. Make sure the spring pin is fully engaged. Proper placement of Hub Pin between Rail Clamps is shown below. (**Figure 2**)



HUB PIN BETWEEN RAIL CLAMPS, SHOWN HERE WITH RAILS IN VERTICAL POSITION.

3. Positioning the Vertical Rail Assembly in the horizontal position makes it easier to install or remove the Carriage Assembly. (**Figure 3**)
****NOTE: Rotating the Vertical Rail Assembly requires air to be supplied to the body. See Page 15.**



SKR-100 SET-UP - CARRIAGE , HORIZONTAL RAIL

1. Slide the Carriage down the rails to about mid-way (**Figure 1**) and engage the drive gear by releasing the lever, engaging the gear into the slots and the rail, and tightening the lever.

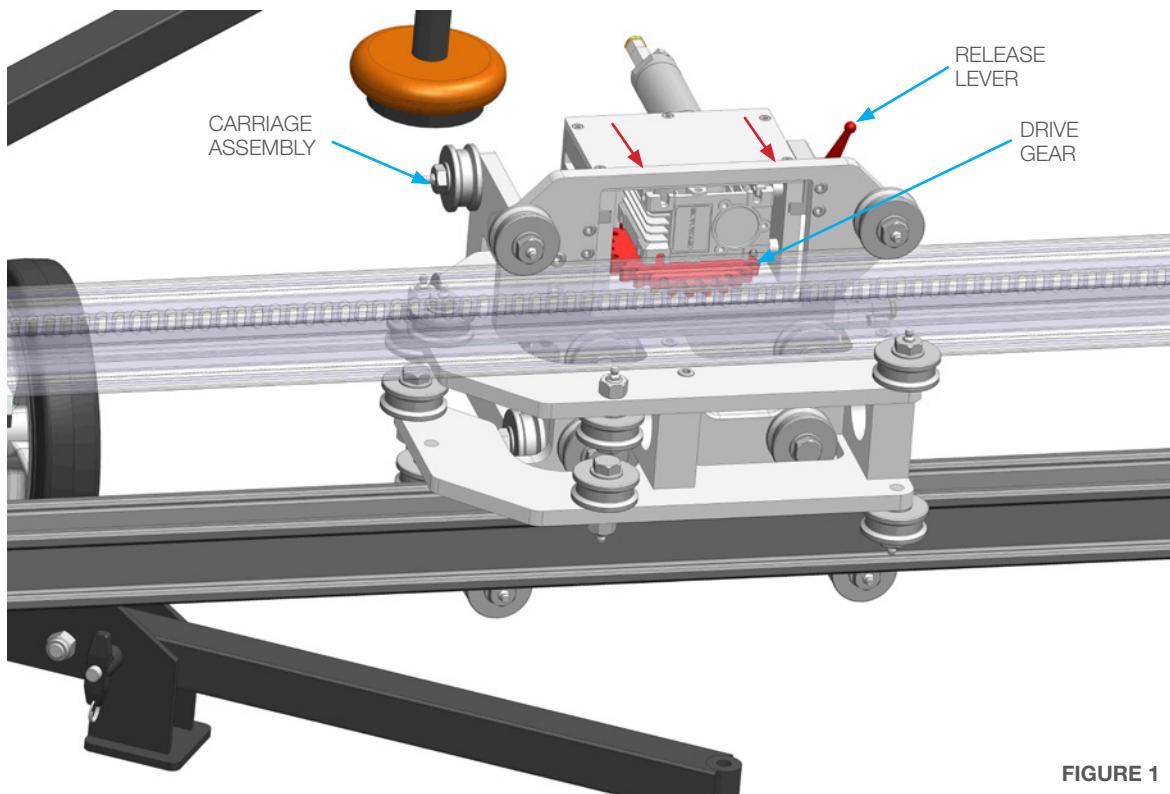


FIGURE 1

2. Install Horizontal Rail Assembly with Wrist through Carriage Assembly. (**Figure 2**). The Rotary Wrist Actuator has 270° of motion.
NOTE: The Horizontal Rail is slotted on top and bottom to allow the center of the Wrist rotation point to be pointed upward or downward.

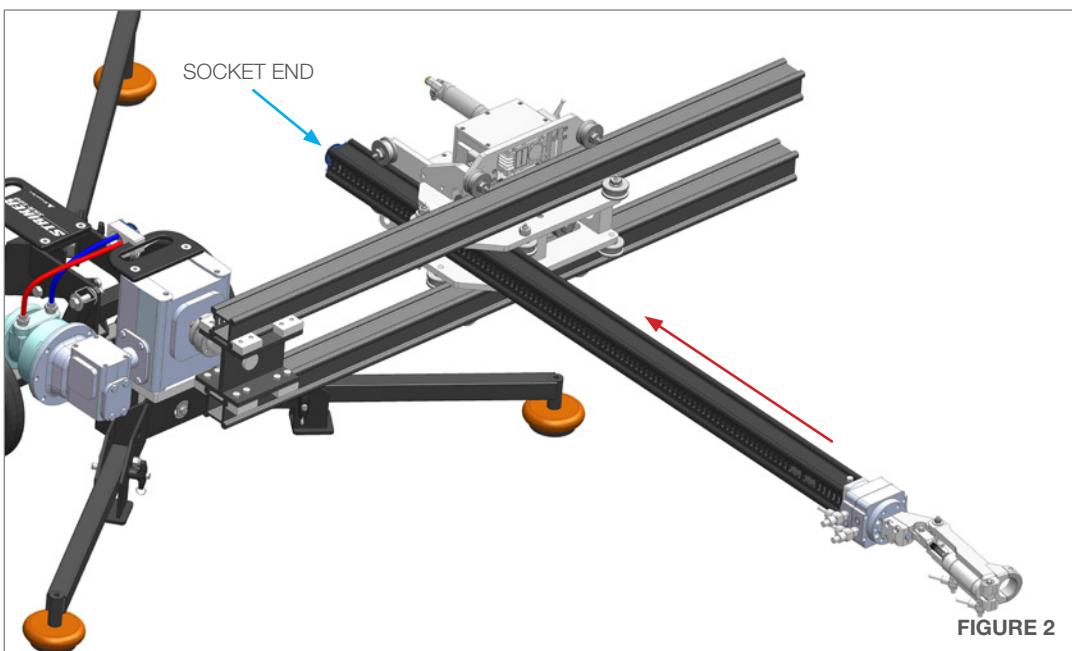
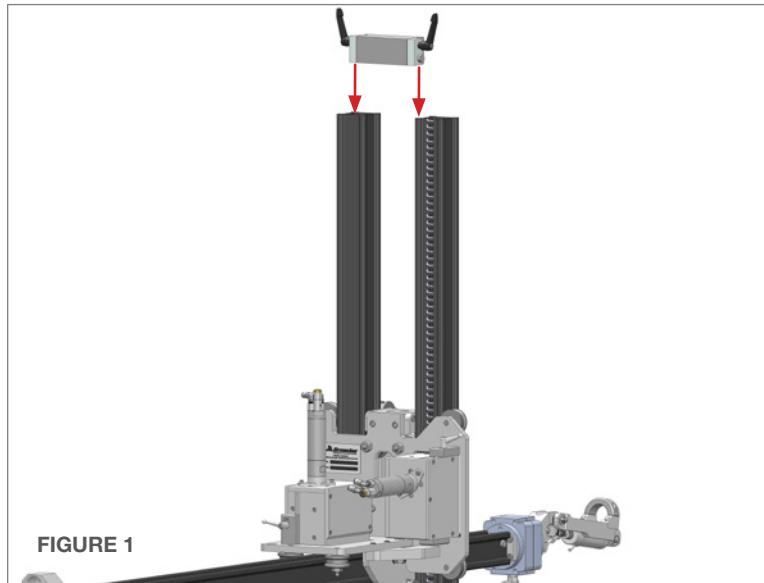


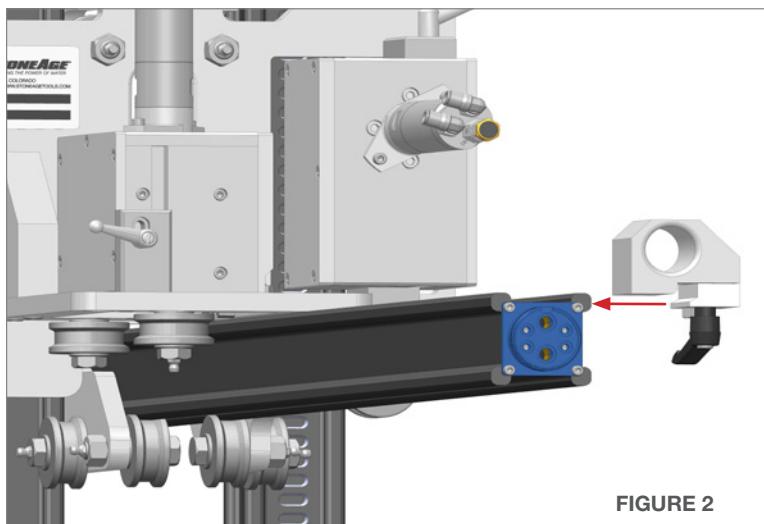
FIGURE 2

SKR-100 SET-UP - RAIL STOPS

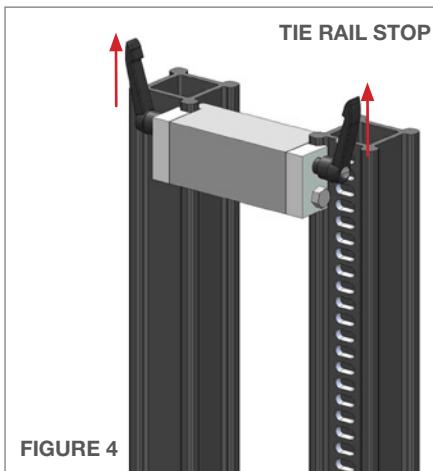
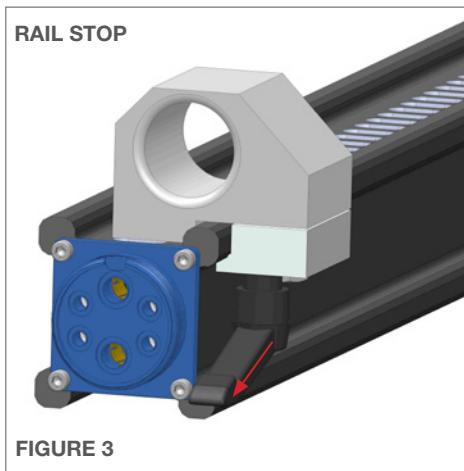
1. Install the Tie Rail Stop to the end of the Vertical Rail Assembly. **(Figure 1)**



2. Install the Rail Stop to the end of the Horizontal Rail Assembly. **(Figure 2)**

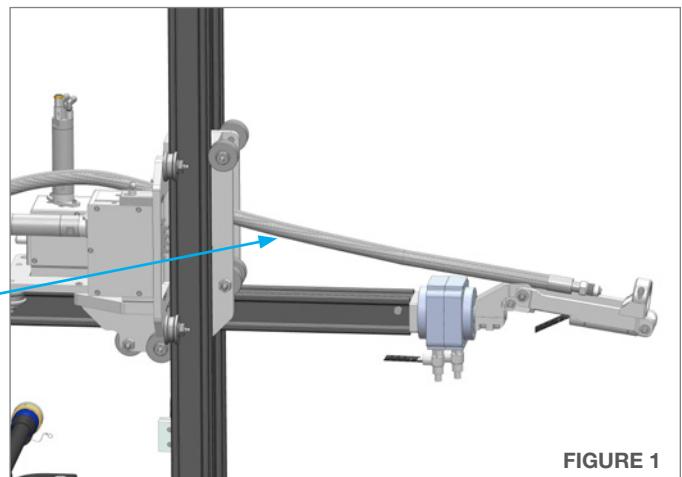
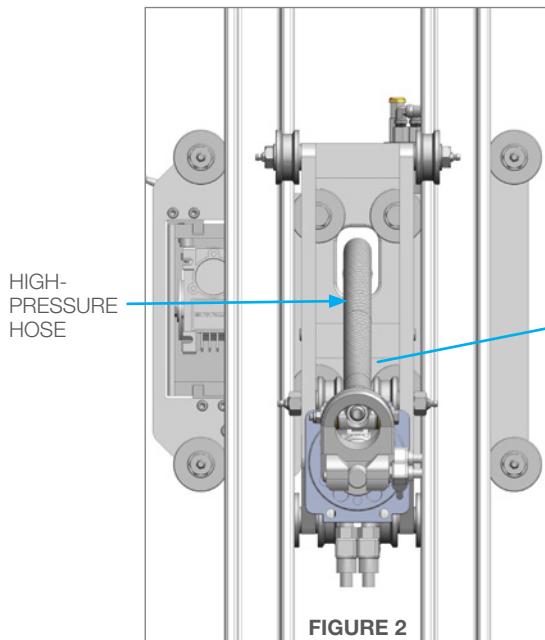


3. Orient the Release Levers away from the Carriage Assembly. **(Figure 3, 4)**

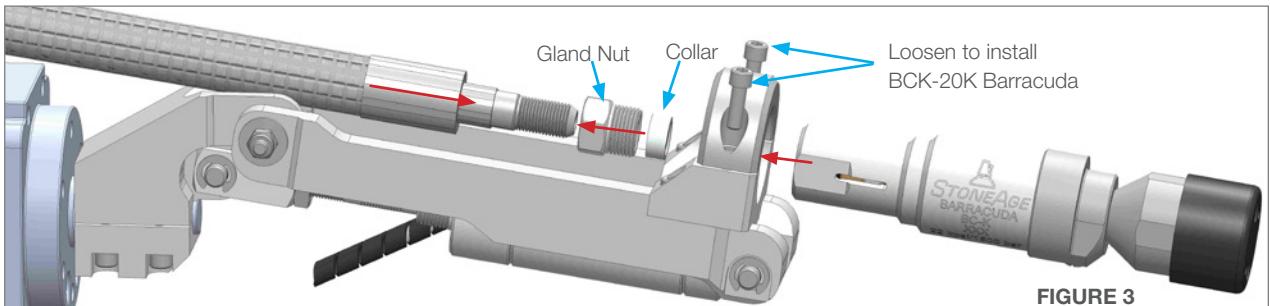


SKR-100 SET-UP - BCK-20K BARRACUDA AND HIGH PRESSURE HOSE

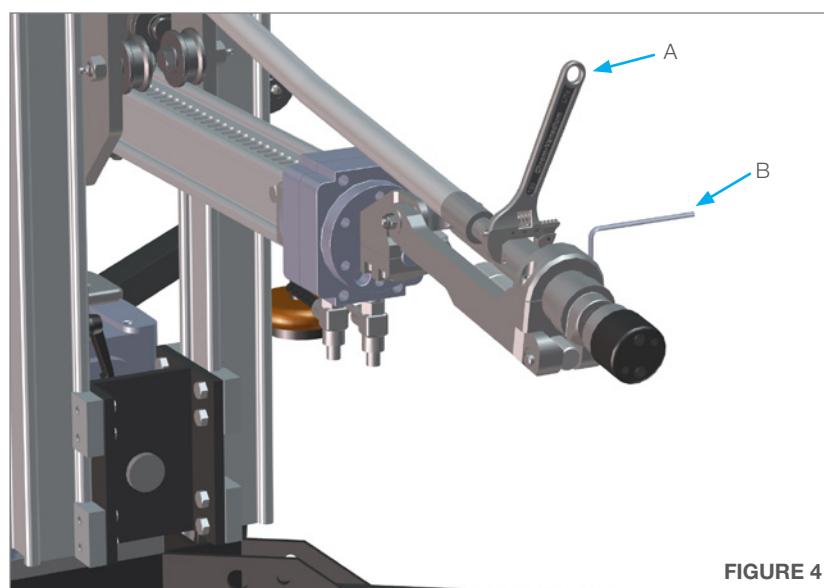
1. Insert the High Pressure Hose. (**Figure 1, 2**)



2. Fasten High Pressure Hose to BCK-20K Barracuda (**Figure 3**). The hose end is a 9/16" medium pressure connection, with a modified gland nut and standard collar.

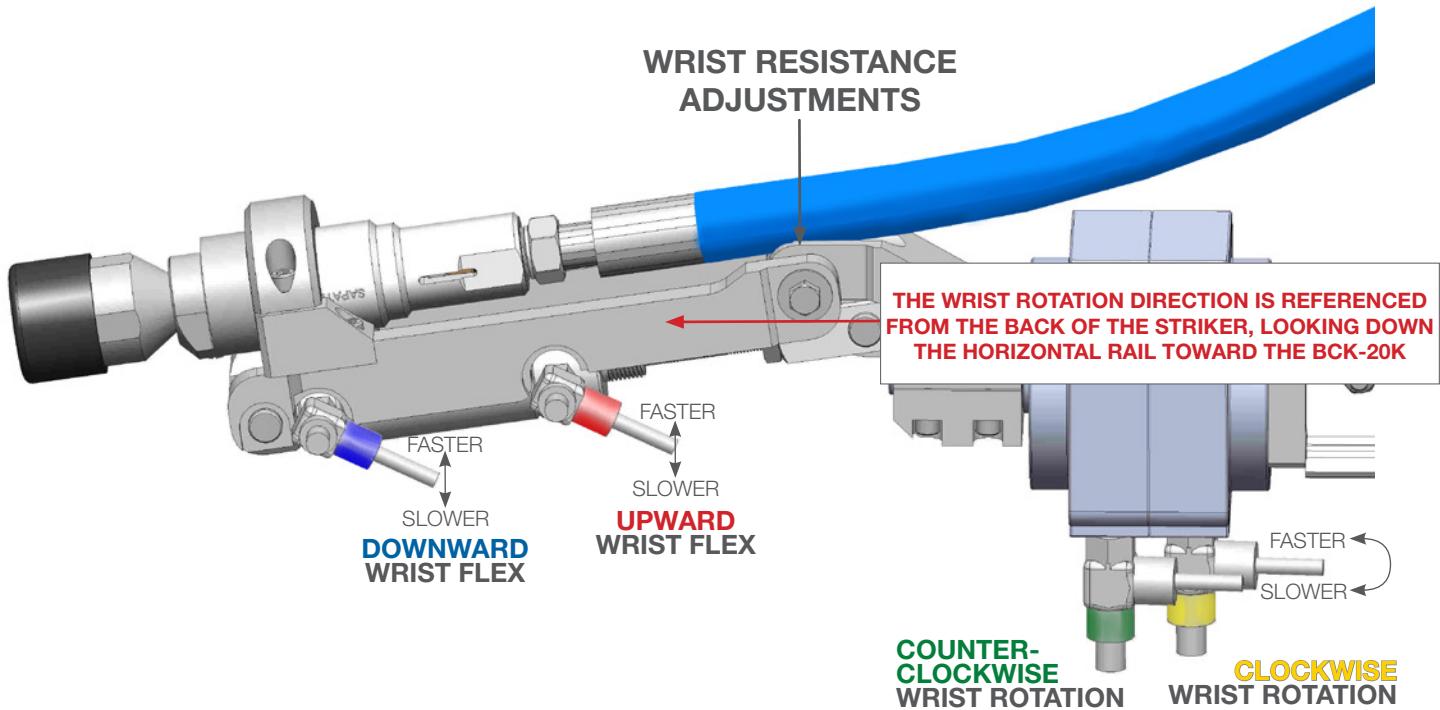


3. Tighten BCK-20K Barracuda to Gland Nut on the High Pressure Hose (A) and tighten the Wrist Clamp to BCK-20K Barracuda (B). (**Figure 4**)

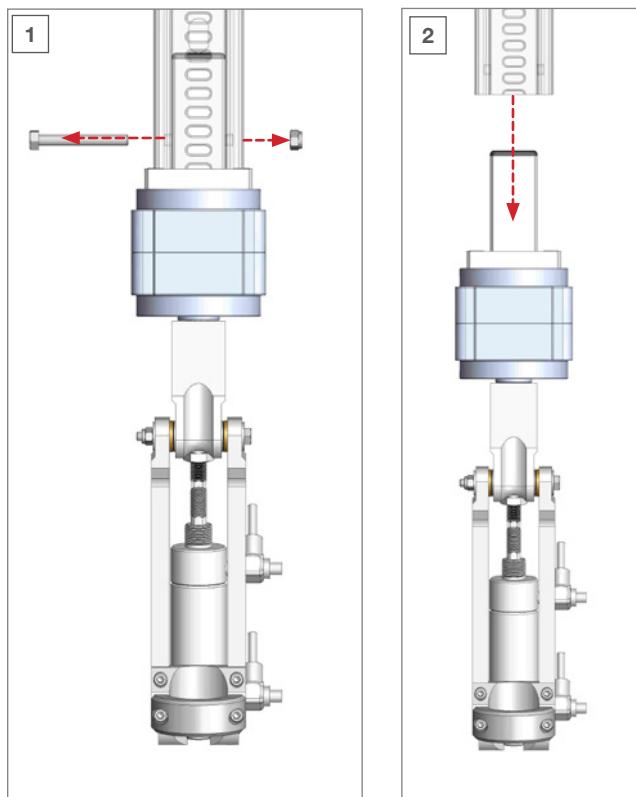


SKR-100 SET-UP - WRIST SPEED AND RESISTANCE ADJUSTMENTS

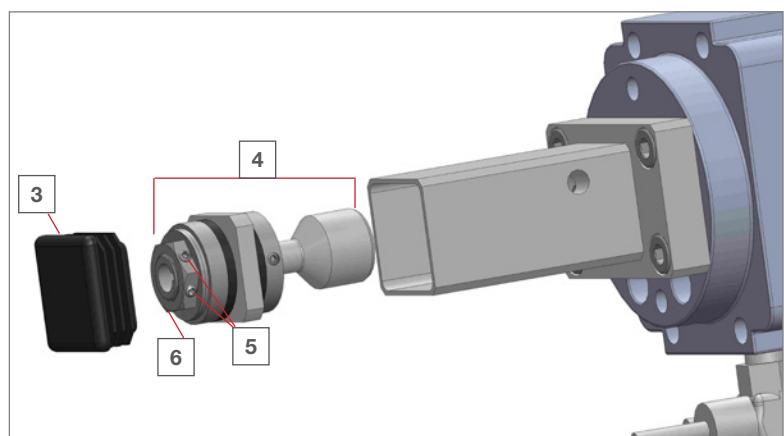
WRIST SPEED CONTROL ADJUSTMENTS



WRIST RESISTANCE ADJUSTMENTS



1. Remove Bolt and Lock Nut From the Rail and Wrist Assembly.
2. Pull the Wrist Assembly free of the Rail.
3. Remove the black plastic end cap from the end of the Wrist Assembly.
4. Remove the Friction Torque Limiter and Shaft
5. Loosen set screws.
6. Adjust nut to the left for less resistance and tighten to the right for increased resistance.



SKR-100 SET-UP - POSITIONING AND RELOCATING THE STRIKER

LEG BASE SET-UP

The leg base on the Striker may come with the legs folded upright.

1. Lift the Lever Bar up, use the longer legs as handles, tilt the Striker back, and roll into place. Once in place, pull the 4 Quick Release Pins out of the leg assemblies. (**Figure 1**)

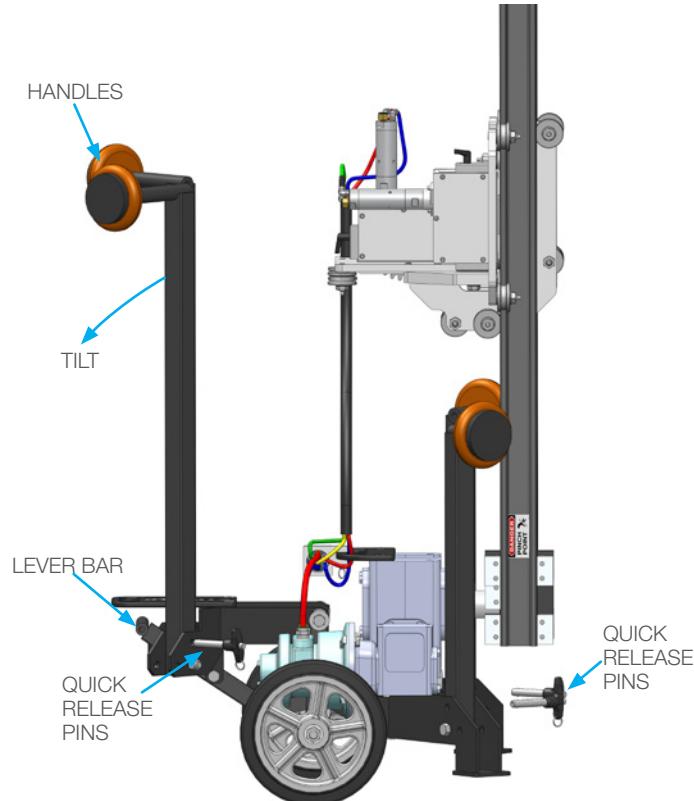


FIGURE 1

2. Pull the leg assemblies down and insert the Quick Release Pins through the cart and leg base. Push down on the Lever Bar to raise the wheels and foot plates off the ground. The Striker can be stabilized by screwing the feet in or out. (**Figure 2**)

CAUTION

All four adjustable feet must be level to the ground and the lever bar must be pressed firmly down to lift the wheels and foot plates off the ground. (**Figure 2**) Failure to do so may allow the Striker to slide around on the ground during operation.

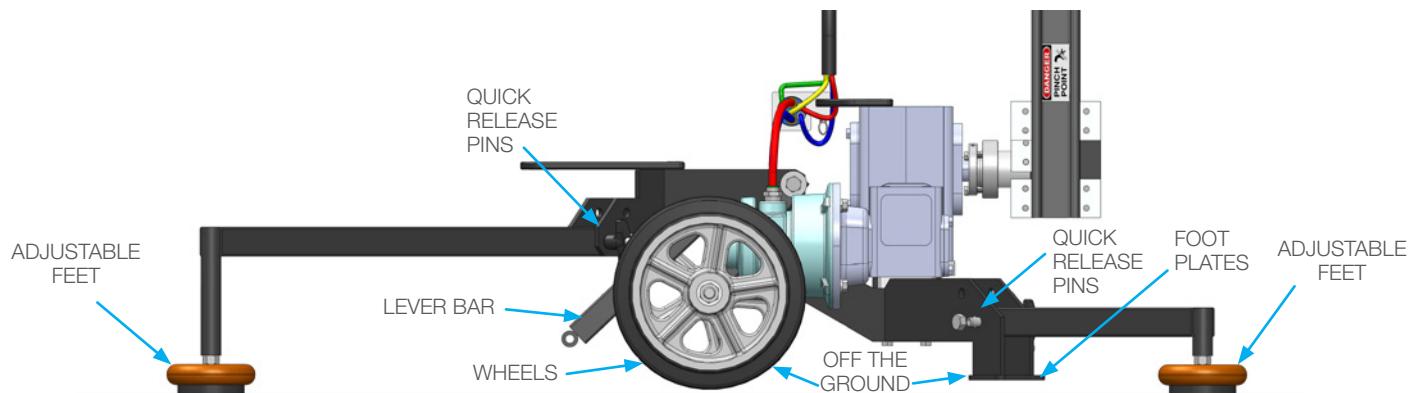
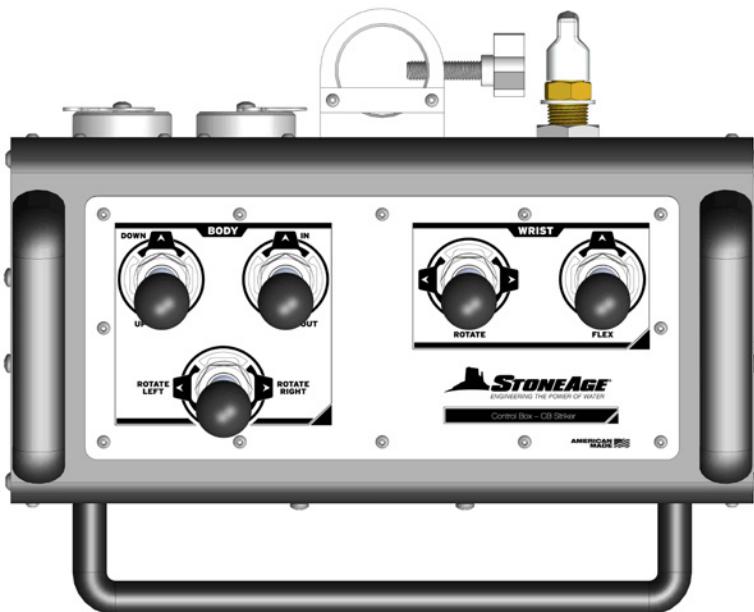


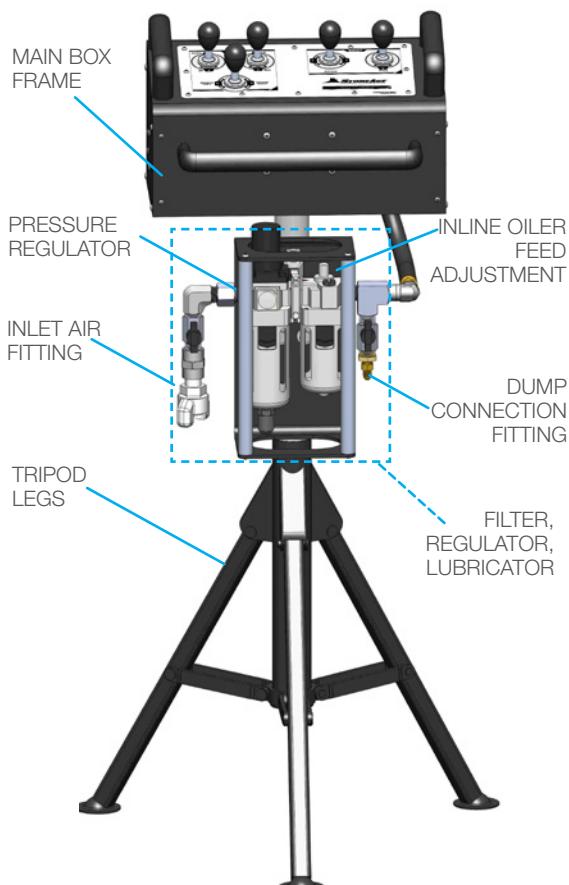
FIGURE 2

CONTROL BOX - OVERVIEW

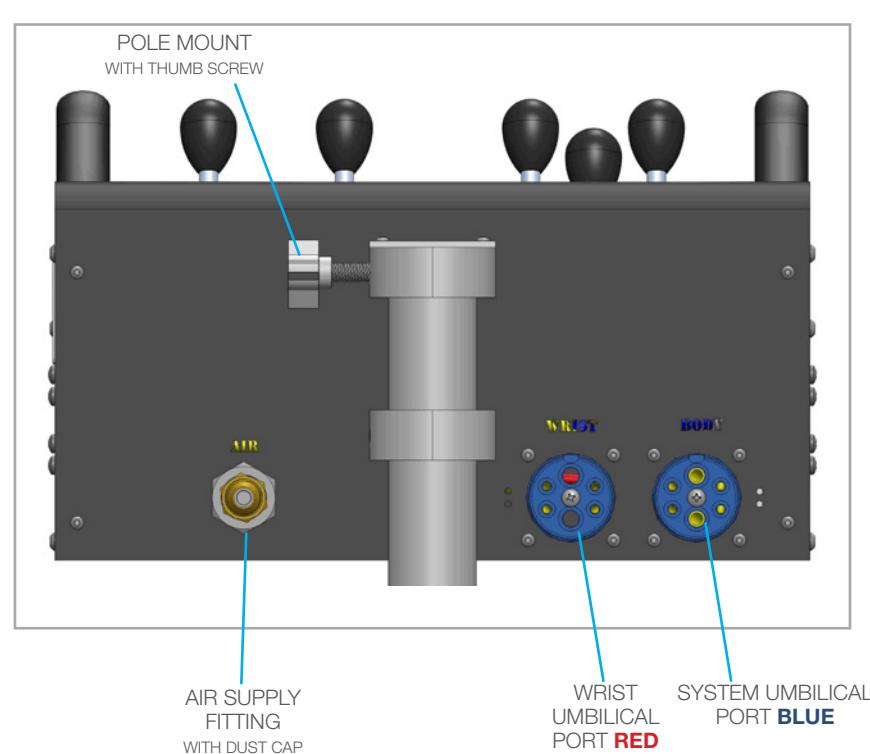
CONTROL BOX
TOP VIEW



CONTROL BOX
FRONT VIEW



CONTROL BOX
REAR VIEW

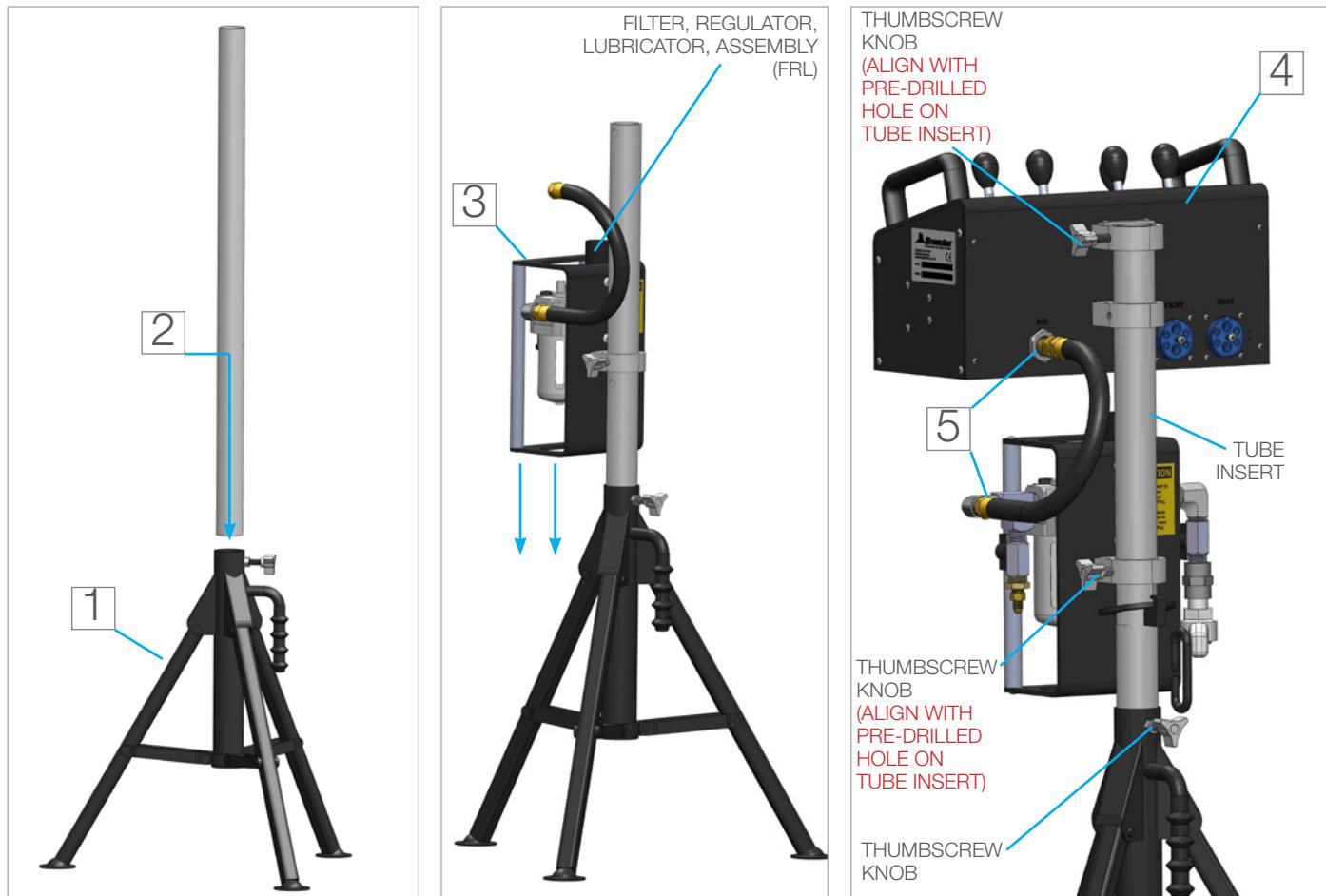


ASSEMBLE CONTROL BOX, FRL, AND TRIPOD BASE

1. Setup the tripod base in a location with good visibility to the cleaning sites bundle face, but at a safe distance away from waterblast zone.
2. Slide the vertical tube into the tripod base. Secure with the supplied thumbscrew knob. Note: The vertical tube has a hole through one wall that the thumbscrew must engage.
3. Slide the Filter, Regulator, Lubricator (FRL) assembly over the vertical tube down to the tripod base. Secure with the supplied thumbscrew knob.

Note: The vertical tube has a hole through one wall that the thumbscrew must engage.

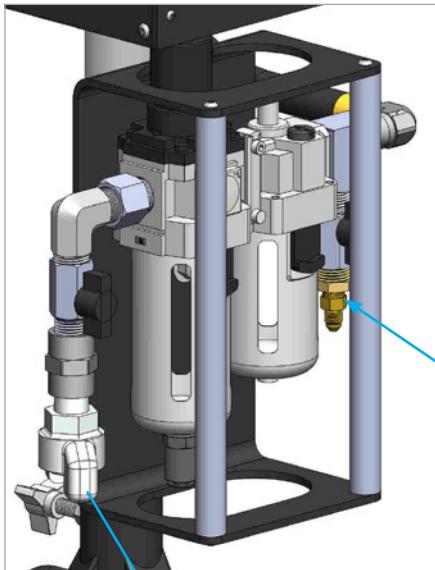
4. Slide the Control Box over the vertical tube. The Control Box has a stop that keeps it located at the top of the vertical tube. Secure with the supplied thumbscrew knob.
5. Install the short 1/2 in. (13 mm) I.D. hose between the FRL and the Control Box.



CONTROL BOX AIR SUPPLY FITTING

AIR SUPPLY AND LUBRICATOR SETTING

1. The Control Box is supplied with a twist claw style inlet coupling (Chicago style) located on the side of the FRL Assembly. Connect a compatible compressed air line (not included) according to the Manufacturer's instructions. If another pneumatic connection is preferred, this fitting can be removed and any male 1/2 in (1.3 cm) NPT fitting may be used.
2. Using the regulator adjust the operating pressure to 110 psi (0.76 MPa) for the application.

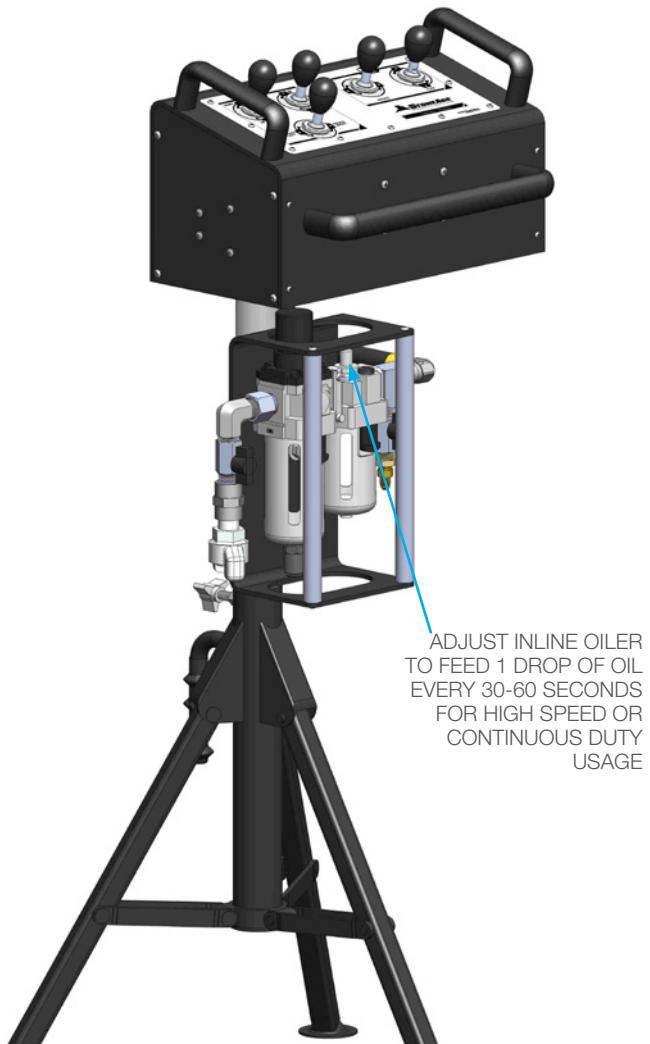


AIR SUPPLY FITTING

A universal **AIR SUPPLY FITTING** (Chicago style) is located on the back of the Control Box. Connect a compatible compressed air line (not included) according to the manufacturer's instructions. If another pneumatic connection is preferred, this fitting can be removed and any male 1/2 in NPT fitting may be used.

WARNING

Minimum operating pressure is 80 psi (0.55 MPa). Never exceed 125 psi (0.86 MPa) supply pressure. Exceeding 125 psi (0.86 MPa) supply pressure may result in injury to the Operator and/or damage to the equipment.

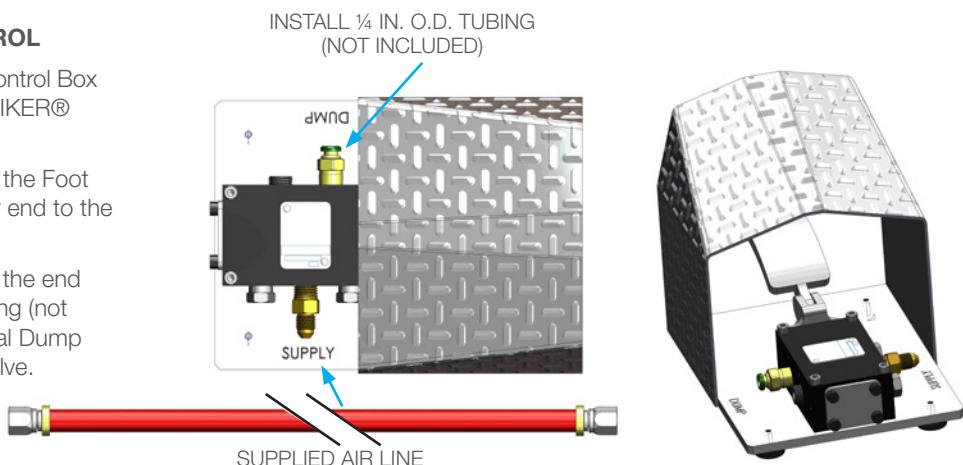


PNEUMATIC FOOT PEDAL DUMP CONTROL

A Pneumatic Foot Pedal Dump Control and Control Box Connection Air Line are supplied with the STRIKER® (SKR-100).

Connect the supplied Air Line to the fitting on the Foot Pedal Dump marked "SUPPLY" and the other end to the Connection Fitting on the Control Box.

To connect to the Dump Valve (Not Included), the end user will need to install 1/4 in. O.D. nylon tubing (not included) between the fitting on the Foot Pedal Dump marked "DUMP" and the pneumatic dump valve.

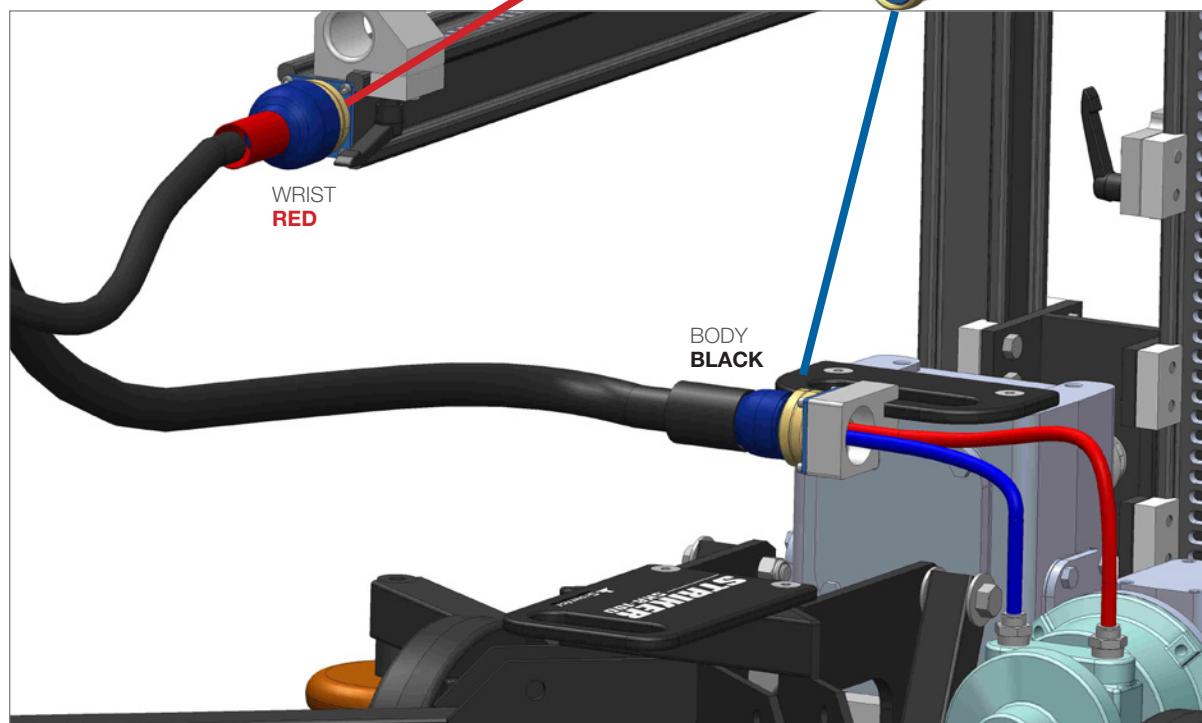
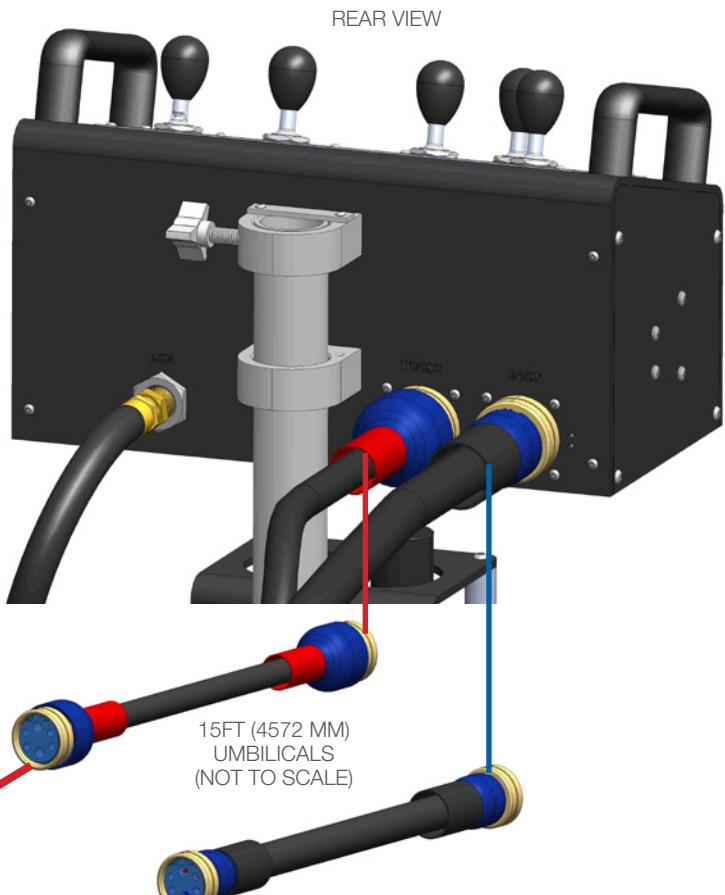
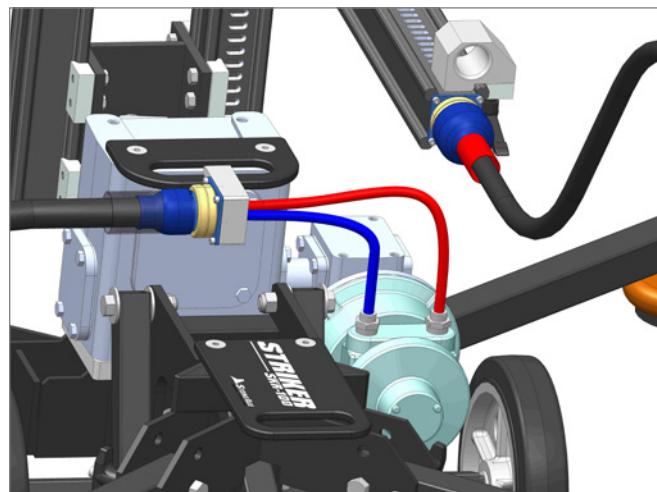


PNEUMATIC SUPPLY LINE CONNECTIONS

1. Remove the dust caps from both plugs on the Control Box and the STRIKER® (SKR-100) .
2. Connect the STRIKER® (SKR-100) to the Control Box by plugging the **RED** umbilical into the plug marked "Wrist" and the **BLACK** umbilical into the plug marked "Body". Verify the Control Box rotates, flexes, raises, and lowers, the wrist and rotates the assembly left and right correctly.
3. Familiarize yourself with the Control Box functions by hooking up to air, before operating the STRIKER® (SKR-100) with high pressure water.

■ WRIST

■ BODY



OPERATION

CONTROL BOX

- There are three levers that control the **BODY** of the STRIKER® (SKR-100).
 - The **IN/OUT LEVER** will move the Horizontal Rail Assembly in the In (extending) and Out (retracting) directions.
 - The **UP/DOWN LEVER** will move the Carriage Assembly Up and Down directions along the Vertical Rail Assembly.
 - The **ROTATE LEFT/RIGHT LEVER** will rotate the Vertical Rail Assembly from the Spine at the bottom in a windshield wiper motion.
- There are two levers that control the **WRIST** of the STRIKER® (SKR-100).
 - The **ROTATE LEVER** rotates the BCK-20K BARRACUDA tool from the Wrist in a maximum 270° radius.
NOTE: The Horizontal Rail is slotted on top and bottom to allow the center of the Wrist rotation point to be pointed upward or downward.
 - The **FLEX LEVER** flexes the BCK-20K BARRACUDA tool 90° from the Wrist.
- The **WRIST** speed controls are located on the STRIKER® (SKR-100) See **Figure 1** for adjustment instructions. Wrist Speed and Resistance settings will operate differently while it is under high pressure water versus operating with air only.
- The **OFF** position for all levers is at the spring centered middle position.
- To de-energize the system, depress the **PNEUMATIC FOOT PEDAL DUMP CONTROL**. This will stop the Carriage Assembly and BCK-20K BARRACUDA tool from moving and reroute the high-pressure water away from the STRIKER® (SKR-100).

WARNING

Crush Hazard. Keep hands, hair, and clothing, clear of Carriage Rollers, Wrist joints, Spline Hub, and out of all travel limit zones. Contact with moving parts can result in severe injury

TEST RUN PROCEDURE

- Perform the **PRE-RUN SAFETY CHECK (SEE PAGE 6)**.
- Test the Control Box before operating the STRIKER® (SKR-100) with high-pressure water to verify the control valves move the Horizontal and Vertical Rail Assemblies in their intended directions, and the **PNEUMATIC FOOT PEDAL DUMP CONTROL** is working properly. Ensure that the High Pressure Water System cannot be energized while making adjustments.
- Operate the high-pressure water at full pressure and use the **PNEUMATIC FOOT PEDAL DUMP CONTROL** to verify that the dump valve is working properly.
- Operate the high-pressure system and waterjet tool at full pressure to test the Speed and Resistance settings on the Wrist. Properly setting up the Wrist will provide good control of the BCK-20K BARRACUDA tool in Rotation and Flex directions. Detailed adjustment instructions can be found on Page 17.
- The STRIKER® (SKR-100) has been engineered to stay in position with a maximum reaction force of 70lbs when all outriggers are deployed. The STRIKER® (SKR-100) may slide on smooth, oily, or slippery surfaces during operation. Anchoring the STRIKER® (SKR-100) to the floor, heavy duty scaffolding, or similar components will aid in keeping the unit in position. The anchoring method MUST be capable of withstanding a minimum of 70 lbs of reaction force from the STRIKER® (SKR-100). Operate the high-pressure hose and waterjet tool at full pressure to test the anchoring method.

RUN PROCEDURE

- After completing the setup, the STRIKER® (SKR-100) system is ready for operation.
- To line up the STRIKER® (SKR-100) with the area to be cleaned, lift up on the Wheelie Bar to engage wheels, counter balance the unit, and move into place. Push down on the Wheelie Bar to set Outriggers down on the floor.
- Operate the in/out, up/down and rotation functions on the body and the rotate and flex functions on the Wrist, to begin high pressure cleaning at the preferred location.
- The STRIKER® (SKR-100) MUST be supervised at all times.

HIGH-PRESSURE HOSE

The STRIKER® (SKR-100) is designed to be used with a 20ft (6096 mm) SPIR STAR® HP 8mm Hose with abrasive cover and Spir Star Blast-Pro® hose ends.

- Only high quality hoses intended for waterblast applications should be used as high-pressure hoses. Pressure rating of high-pressure hoses MUST NEVER be exceeded.
- Verify that the high-pressure hose is properly installed through the Carriage Assembly.

Maintenance Item	Frequency	Maintenance Required
Gearbox oil level	Every 100 Hours of use	Fill with Mobil® and SCH® 634 synthetic gear oil. See individual part diagram for gearbox fill orientations.
Carriage rollers	Every 100 Hours of use	Lubricate Zerks on all Carriage Rollers using any multipurpose NLGI 2 grease.
Vertical and Horizontal Rails	As Needed	Inspect for wear that would allow Carriage Rollers to slip off. Replace Rail as needed.

Contact StoneAge for Safety Data Sheets for material usage, a complete list of spare part numbers, and service instructions for the STRIKER® (SKR-100) and Control Box.

STORAGE, TRANSPORTATION, AND HANDLING

When moving the STRIKER® (SKR-100), lift with care to prevent bodily injury. When the Rear (Long) Outriggers are folded upright, and the wheels on the cart are lowered, the STRIKER® (SKR-100) can be moved as a two wheeled dolly. Two 3/4" (19 mm) holes, are provided in the Front (Short) Outrigger mount plates on the cart weldment. They are intended for Clevis Pins to allow for lifting by crane.

The STRIKER® (SKR-100) is shipped in a custom wooden crate and may be stored upright in the same crate between jobs.

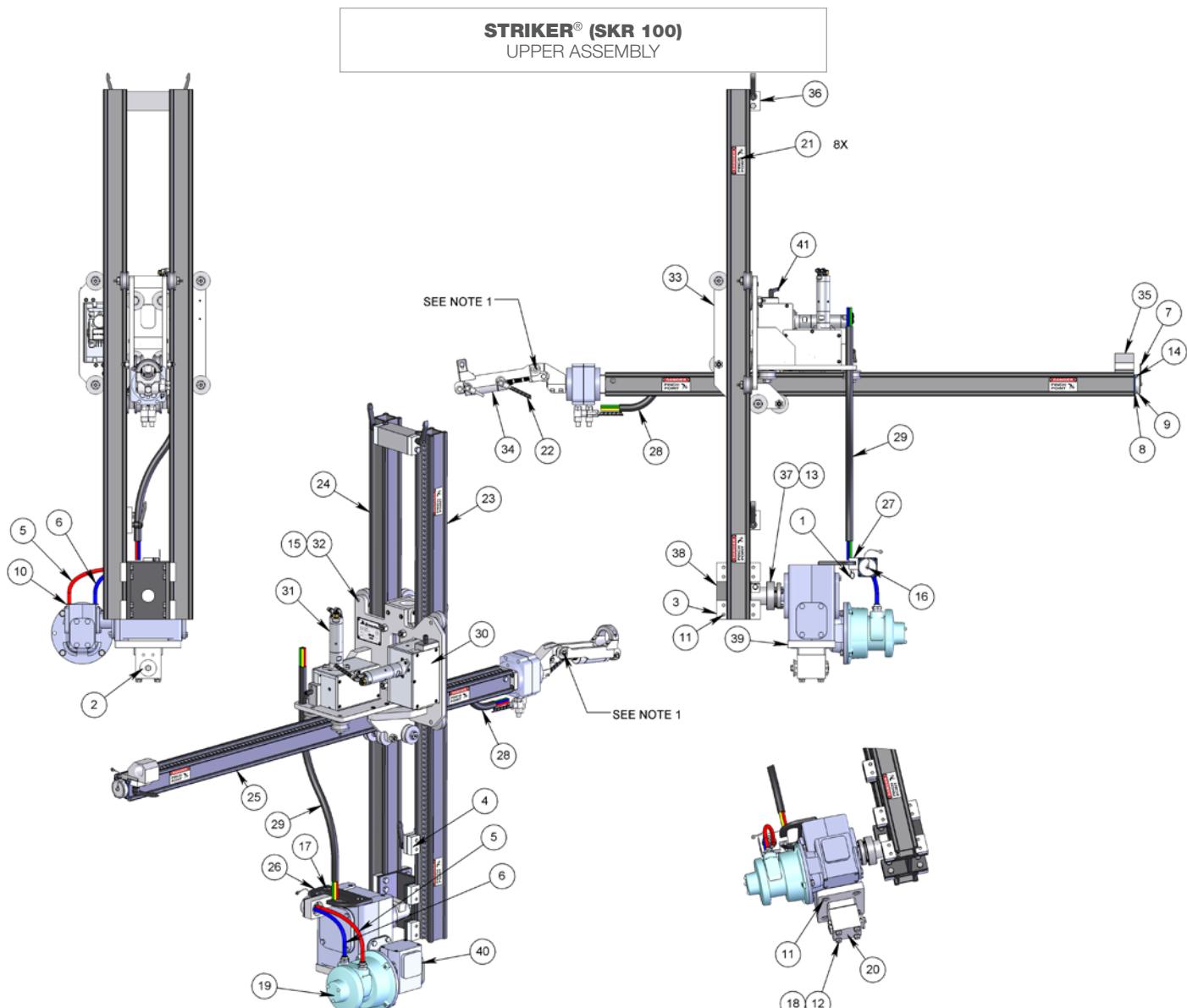
When storing the unit, use compressed air to blow out the air lines to remove debris and moisture. Use mild soapy water to clean the machine in order to remove corrosive materials.

Apply a small amount of air tool oil directly into the forward and reverse fittings. Then, briefly operate the controls at slow speed for a short duration in each direction to coat the interior parts of the motor. Install the dust caps onto all three fittings to keep moisture and dirt out.

PARTS DIAGRAM



#	PART NUMBER	QTY.
1	CB 450 UMBILICAL 4PL4 2PL6	1
2	CB 451 UMBILICAL 4PL4	1
3	SKR 100 STRIKER UPPER	1
4	SKR 109 CART BASE ASSEMBLY	1



#	PART NUMBER	QTY.
1	ABX 566 SPRING PLUNGER, PULL RING LOCKING	1
2	BR 008-BU-001 WEDGE BOLT	1
3	BR 060 RAIL CLAMP	8
4	BU 152 RAIL STOP ASSY	1
5	CB 359-R TUBING, .38 RED	1
6	CB 359-B TUBING, .38 BLUE	1
7	CB 430 LANYARD ASSY BOX	2
8	CB 452.2 FTG TWINTEC SOCKET	2
9	CB 459 SOCKET COVER	2
10	DB 072 FITTING PUSH CONNECT	2
11	GB 537-04 BOLT, HEX .37-16 X 1.00	24
12	GB 537-16 BOLT, HEX .37-16 X 4.00	4
13	GK 250-250-1000-SE KEY (SG 072)	1
14	GS 316-015 SHCS .16-32 X .38 SS	8

15	GSB 313-0075 BHCS 6-32 X .188 LG SS	4
16	GMS 319-015-32 PHMS .19-32X.38 LG PH-SS	2
17	GSF 337-04 FHCS .37-16 X 1.00 LG SS	2
18	GW 537-L LOCK WASHER	8
19	LM 016-6 AIR MOTOR	1
20	LP 095-001 CORNER POST	1
21	PL 160 PINCH POINT 1.5X3.0 DECAL	8
22	SBT 511.1 SPIRAL WRAP, .375	3
23	SKR 180-56 BOX RAIL, 2.5 SLOTTED, 56IN VT	1
24	SKR 181-56 BOX RAIL, 2.5, 56IN VT	1
25	SKR 182-56 BOX RAIL, 2.5 DUAL SLOTTED, 56IN HZ	1
26	SKR 186 GBX HANDLE	1
27	SKR 188 QD HANGER	1

28	SKR 189-6.17 TUBE BUNDLE, 4PL4 74IN WRIST	1
29	SKR 189-5.75 TUBE BUNDLE, 4PL4 69IN BODY	1
30	SKR 203-L MOTOVARIO DRIVE ASSY	1
31	SKR 203-R MOTOVARIO DRIVE ASSY	1
32	SKR 204 CE SERIAL PLATE	1
33	SKR 210 RIBBED CARRIAGE ASSEMBLY	1
34	SKR 230 3 PIECE PALM	1
35	SKR 250 REAR STOP W HOSE GUIDE	1
36	SKR 260 TIE STOP ASSEMBLY	1
37	SKR 270 SPLINE HUB WELDMENT	1
38	SKR 280 RAIL CLAMP BASE WELDMENT	1
39	SKR 290 GBX MOUNT PLATE	1
40	SKR 302 GEARBOX MODIFIED	1
41	SRT 557 ADJUSTABLE HANDLE .25-20 X 1.19 SS	2

PARTS DIAGRAM

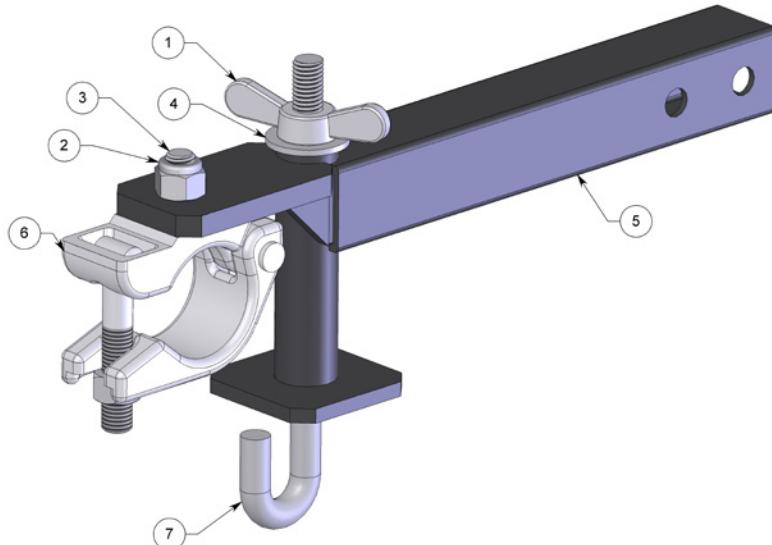
STRIKER® (SKR 109)
CART BASE ASSEMBLY



#	PART NUMBER	QTY.
1	GB 550-11 BOLT, HEX .50-13 X 2.75	4
2	GB 550-10 BOLT, HEX .50-13 X 2.50	4
3	GN 550-H HEX NUT	4
4	GN 550-L NYLOK NUT	8
5	GN 562-H HEX NUT	2
6	GSF 337-03 FHCS .37-16 X .75 LG SS	2
7	GW 550-F FLAT WASHER	4
8	SKR 110 CART	1
9	SKR 130 AXLE FRAME WELDMENT	1

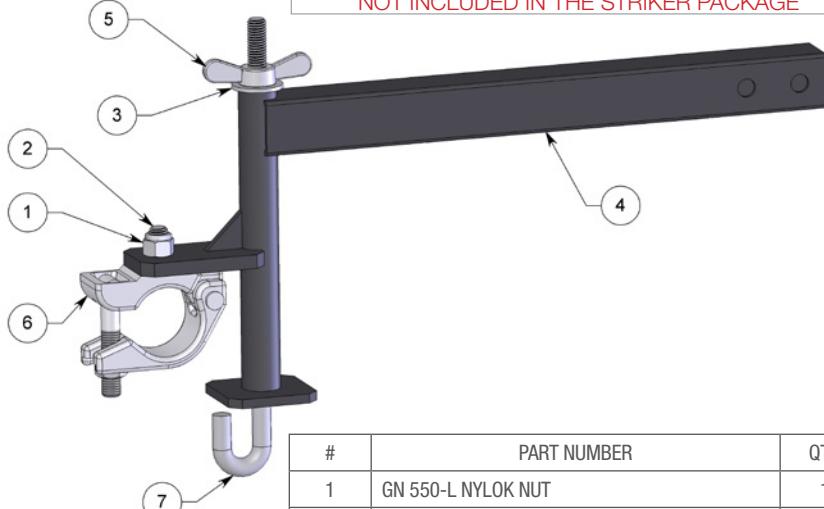
10	SKR 140 WHEELIE BAR WELDMENT	1
11	SKR 150 GEAR LINK WELDMENT	2
12	SKR 160 FWD OUTRIGGER WELDMENT	2
13	SKR 170 AFT OUTRIGGER WELDMENT	2
14	SKR 185 HANDLE	1
15	SKR 305 WHEEL 10.0	2
16	SKR 312 WASHER .750	4
17	SKR 330 FOOT, OUTRIGGER	4
18	SKR 331-001 STUD .5 X 2.5	4
19	SKR 335 QR PIN, T-HANDLE .50 X 2.25	4

STRIKER® (SKR 501)
 FORWARD DOWNRIGGER ASSEMBLY
 NOT INCLUDED IN THE STRIKER PACKAGE



#	PART NUMBER	QTY.
1	SKR 509 WING NUT	1
2	GN 550-L NYLOK NUT	1
3	GSF 550-06 FHCS .50-13 X 1.50 LG Z	1
4	GW 550-F FLAT WASHER	1
5	SKR 501.1 FWD DOWNRIGGER WELDMENT	1
6	SKR 510 SCAFFOLD CLAMP ASSY	1
7	SKR 511 J BOLT FRONT MODIFIED	1

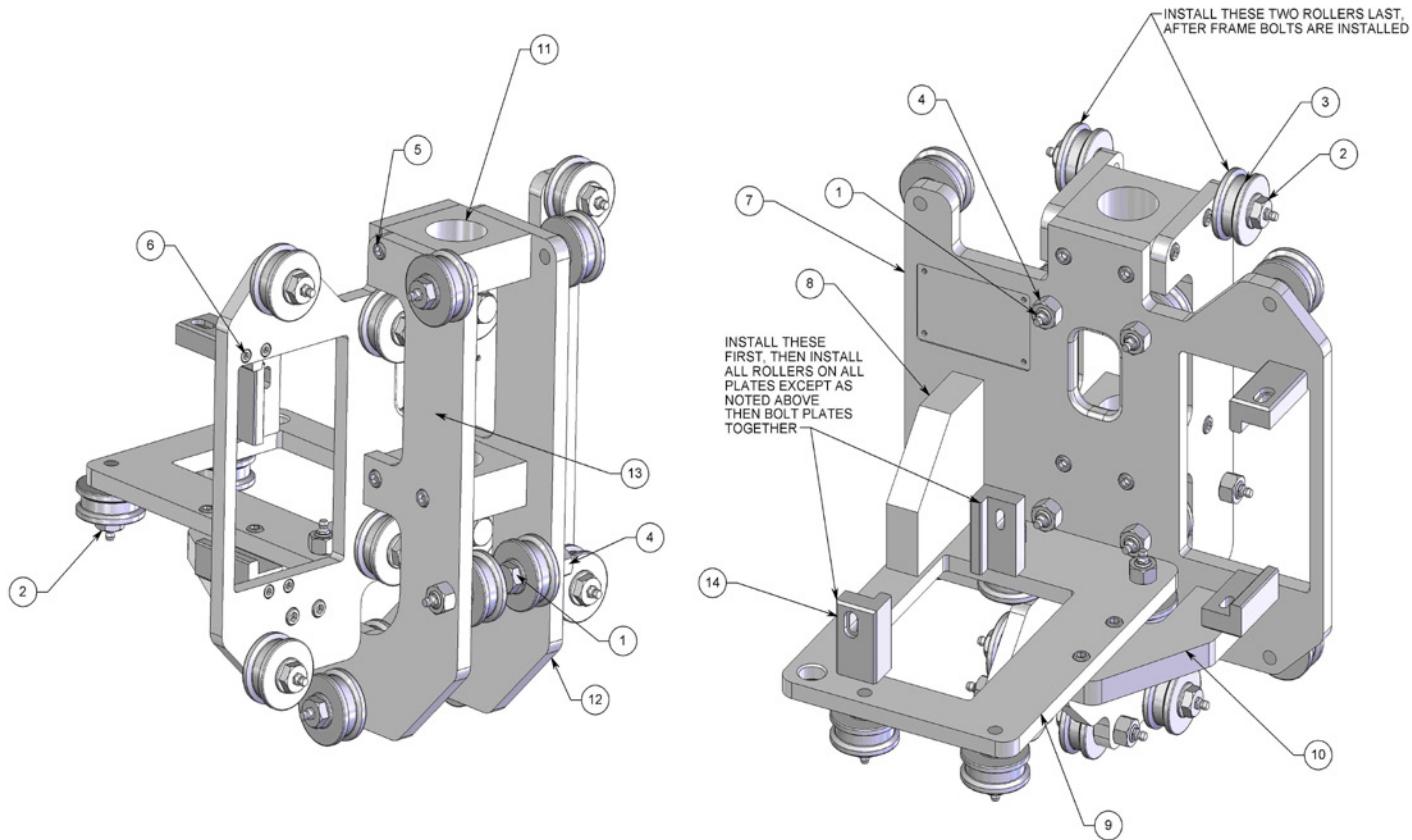
STRIKER® (SKR 502)
 AFT DOWNRIGGER ASSEMBLY
 NOT INCLUDED IN THE STRIKER PACKAGE



#	PART NUMBER	QTY.
1	GN 550-L NYLOK NUT	1
2	GSF 550-06 FHCS .50-13 X 1.50 LG Z	1
3	GW 550-F FLAT WASHER	1
4	SKR 502.1 AFT DOWNRIGGER WELDMENT	1
5	SKR 509 WING NUT	1
6	SKR 510 SCAFFOLD CLAMP ASSY	1
7	SKR 512 J BOLT REAR	1

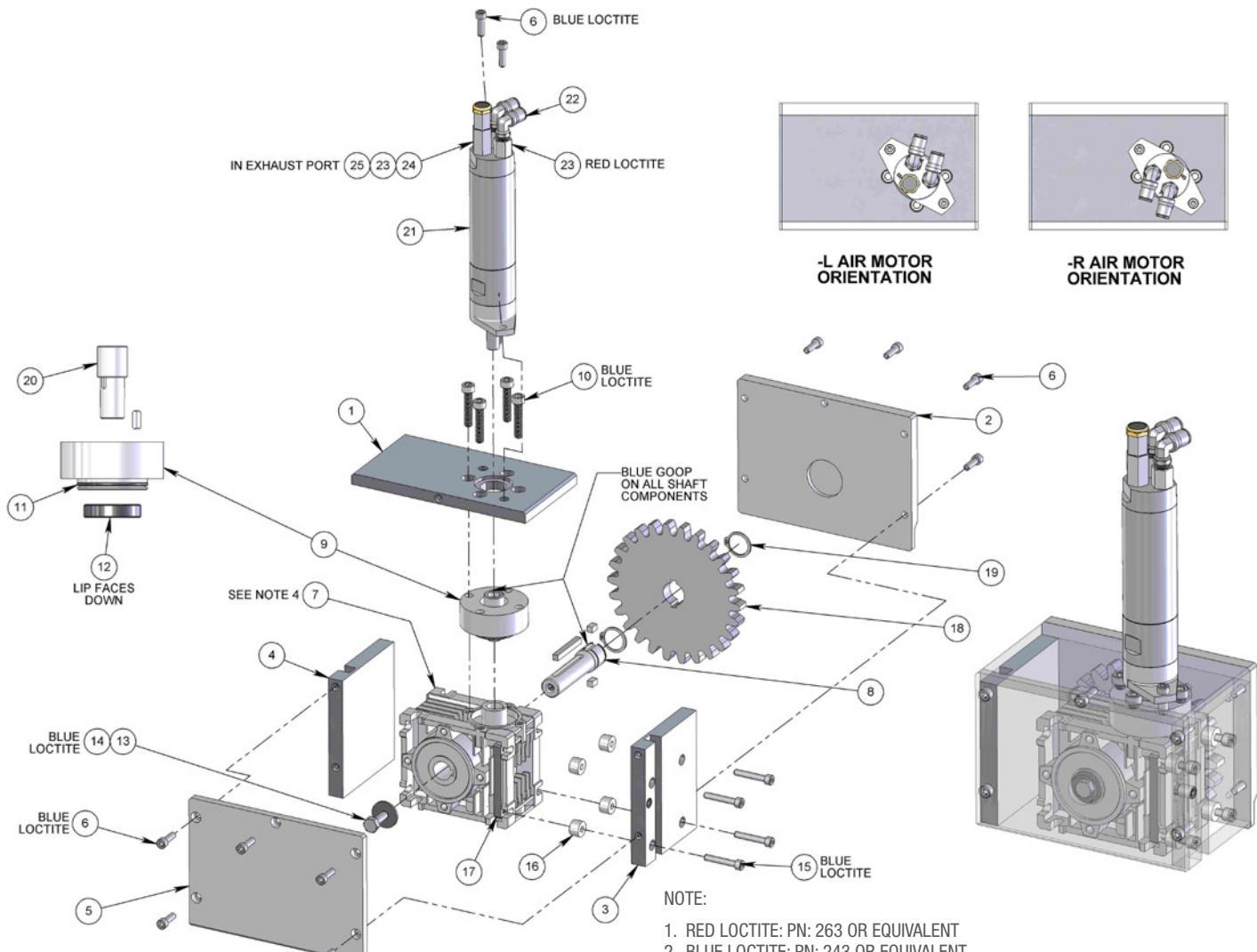
PARTS DIAGRAM

STRIKER® (SKR 210)
CARRIAGE ASSEMBLY



#	PART NUMBER	QTY.
1	BR 051-2.0-0 AXLE-ZERK	10
2	BR 052-1.5 AXLE-ZERK	10
3	BR 055 ROLLER ASSY	20
4	GN 350-H HEX NUT SS	10
5	GS 331-03 SHCS .31-18 X .75 SS	22
6	GS 325-03 SHCS .25-20 X .75 SS (TB 050)	8
7	SKR 211 VERTICAL FLAT PLATE	1
8	SKR 212 CORNER BRACKET	1
9	SKR 213 HORIZONTAL CARRIAGE PLATE	1
10	SKR 214 CORNER BONE	1
11	SKR 215 TOP CROSS BLOCK	2
12	SKR 216 LH VERTICAL PLATE	1
13	SKR 217 RH VERTICAL PLATE	1
14	SRT 546 HANDLE MOUNT BLOCK	4

STRIKER® (SKR 203-X)
MOTOVARIO DRIVE ASSEMBLY, -R OR -L

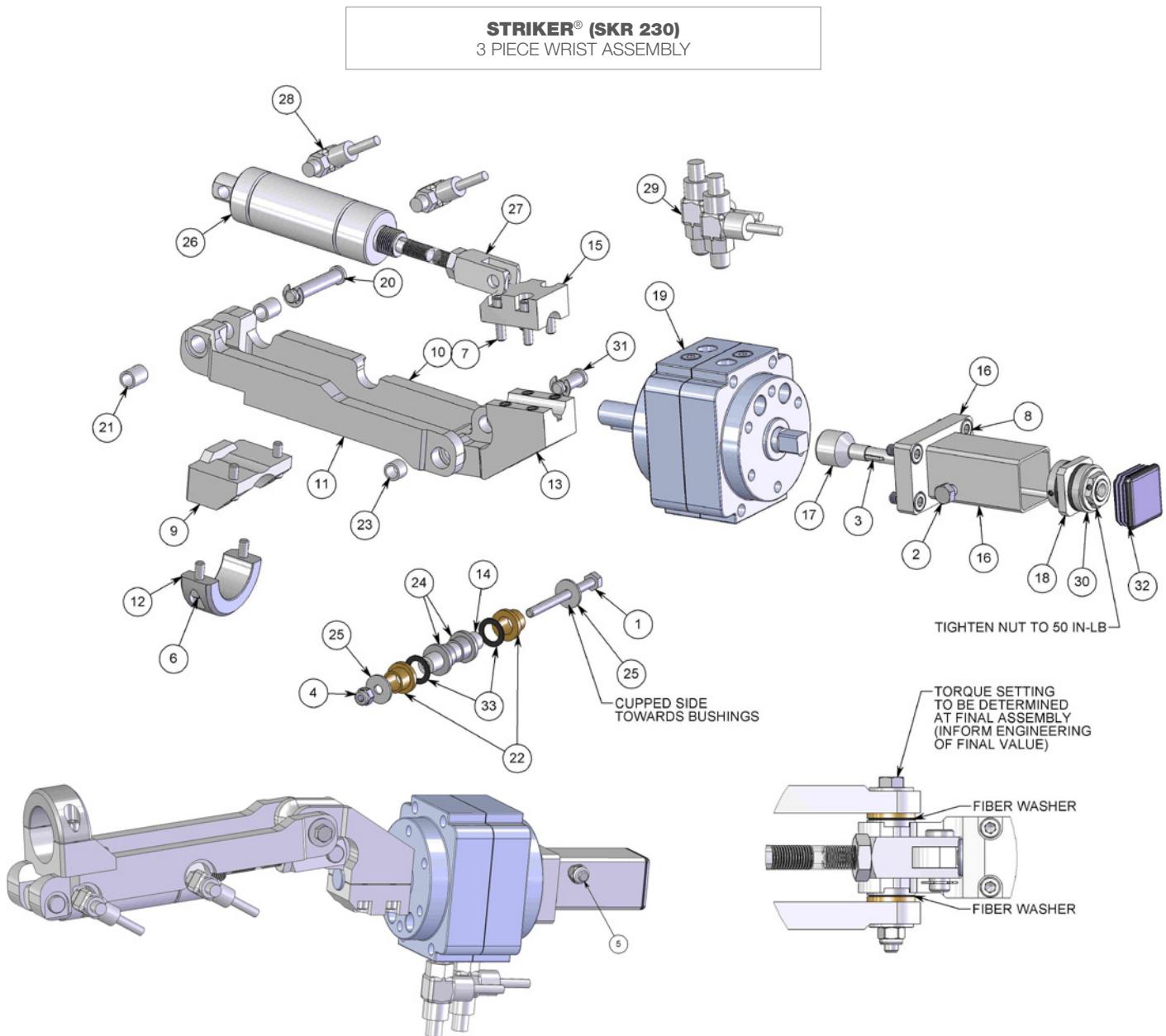


- NOTE:
1. RED LOCTITE: PN: 263 OR EQUIVALENT
 2. BLUE LOCTITE: PN: 243 OR EQUIVALENT
 3. BLUE GOOP IS A SWAGELOK BRAND ANTI-SEIZE. AN EQUIVALENT ALTERNATIVE IS ACCEPTABLE.
 4. REMOVE MOUNTING FLANGE THAT COMES WITH GEARBOX. KEEP INPUT SHAFT FACING UP TO PREVENT OIL LEAKAGE.

#	PART NUMBER	-L/QTY.	-R/QTY.
1	LWP 504 TOP MOTOR MOUNT PLATE	1	1
2	LWP 505 GEAR COVER	1	1
3	LWP 506 HANDLE SIDE MOUNTING PLATE	1	1
4	LWP 507 IDLE SIDE MOUNTING PLATE	1	1
5	LWP 508 REAR COVER	1	1
6	GS 319-025 SHCS .19-24 X .62 SS	12	12
7	LWP 550 MOTOVARIO NMRV030301600_625IN	1	1
8	LWP 509 MOTOVARIO SHAFT	1	1
9	LWP 511 TOP GEARBOX SPACER	1	1
10	GS 3M6-30-1.0 SHCS M6X1.0 X 30 SS	4	4
11	DB 169 O-RING, PISTON	1	1
12	SL 010 SEAL	1	1

13	GB 325-03 BOLT, HEX .25-20 X .75 SS	1	1
14	LWP 516 WASHER, OVERSIZED	1	1
15	GS 319-045 SHCS .19-24 X 1.125 SS	4	4
16	LWP 515 SPACER	4	4
17	LWP 542 NUT PLATE	2	2
18	SRT 520 SPUR GEAR SS (6 DP, 14.5 PA, 26 T)	1	1
19	SRT 537 RETAINING RING, SS EXTERNAL	2	2
20	LWP 510-001 STEP SHAFT	1	1
21	LWP 520.1 AIR MOTOR	1	1
22	SKR 382 FTG, ELBOW SWIVEL 90 P2MPL4	2	2
23	SRT 531 FTG, ADAPTER BSPP2 X P2	3	3
24	SRT 457 CHECK VALVE, BSPP2	1	1
25	WBW 148 MUFFLER	1	1

PARTS DIAGRAM

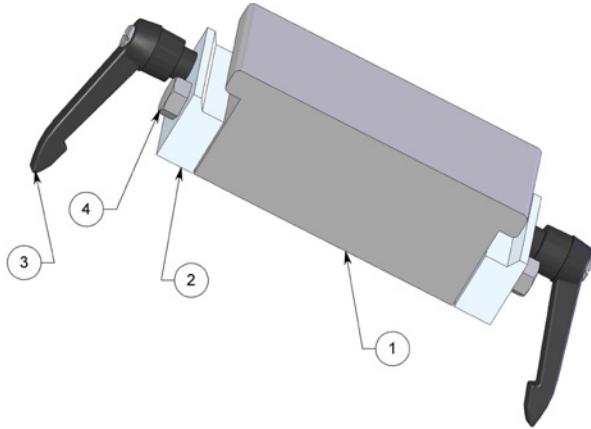


#	PART NUMBER	QTY.
1	GB 325-12 BOLT, HEX .25-20 X 3.00 SS (HC 024)	1
2	GB 331-10 BOLT, HEX .31-18 X 2.50 SS	1
3	GK 094-094-0500-SE KEY	1
4	GN 325-L NYLOK NUT SS (TB 044.1)	1
5	GN 331-L NYLOK NUT SS	1
6	GS 325-03 SHCS .25-20 X .75 SS (TB 050)	4
7	GS 325-04 SHCS .25-20 X 1.00 SS (BC 053)	4
8	GS 3M8-16-1.25 SHCS M8X1.25 X 16 SS	4
9	SKR 231 TOOL HOLDER BC	1

10	SKR 232 ULNA FORK	1
11	SKR 233 RADIUS FORK	1
12	SKR 235 COLLAR UPPER HALF	1
13	SKR 237 PALM	1
14	SKR 238 WRIST BONE	1
15	SKR 240 SQUARE COLLAR HALF	1
16	SKR 241 END ROTARY MOUNT	1
17	SKR 242 TORQUE SHAFT	1
18	SKR 245 TORQUE PLATE	1
19	SKR 301 ROTARY AIR CYLINDER	1
20	SKR 340 PIN .375 X 2.25	1
21	SKR 341 BUSHING .375 X .625	2
22	SKR 342 BUSHING, FLANGE SOFT .5 X .5	2

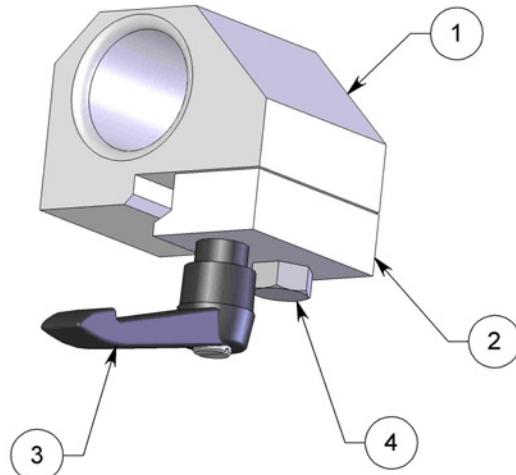
23	SKR 343 BUSHING .375 X .375	1
24	SKR 344 BUSHING, FLANGE .5 X .5	2
25	SKR 345 WASHER, SPRING .265 X .812	2
26	SKR 350 AIR CYLINDER 1.5 DIA 1.5 STROKE	1
27	SKR 351 ROD END 1.5 CYL	1
28	SKR 355 FTG, BIMBA P2 PUSHLOCK NEEDLE VALVE	2
29	SKR 356 FTG, BIMBA P4 PUSHLOCK NEEDLE VALVE	2
30	SKR 360 FRICTION TORQUE LIMITER	1
31	SKR 365 CLEVIS .375 X .8125	1
32	SKR 366 RIBBED PLUG	1
33	SKR 370 FIBER WASHER	2

STRIKER® (SKR 260)
TIE STOP ASSEMBLY



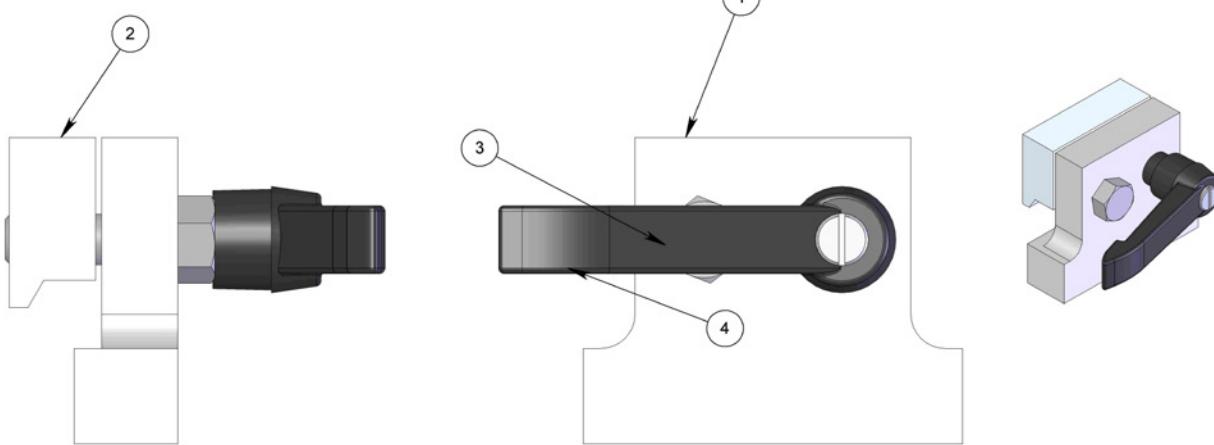
#	PART NUMBER	QTY.
1	TIE STOP	1
2	BR 060-D RAIL CLAMP, DRILLED	2
3	BU 151 HANDLE	2
4	GB 537-05 BOLT, HEX .37-16 X 1.25	2

STRIKER® (SKR 250)
REAR STOP WITH HOSE GUIDE ASSEMBLY



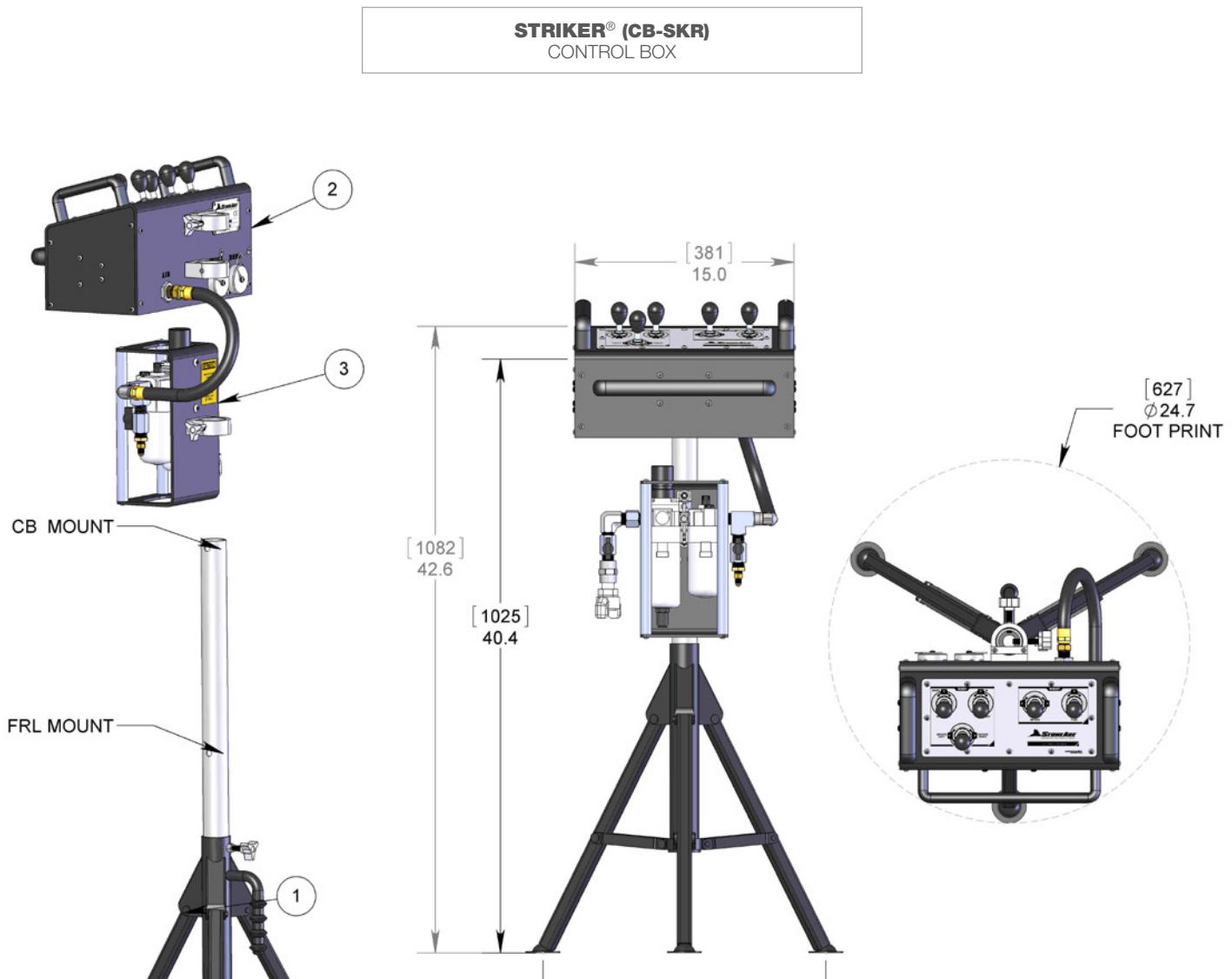
#	PART NUMBER	QTY.
1	SKR 251 REAR STOP	1
2	BR 060-D RAIL CLAMP, DRILLED	1
3	BU 151 HANDLE	1
4	GB 537-05 BOLT, HEX .37-16 X 1.25	1

STRIKER® (BU 152)
RAIL STOP ASSEMBLY



#	PART NUMBER	QTY.
1	BU 149 PLATE, RAIL STOP	1
2	BR 060 RAIL CLAMP	1
3	GB 537-05 BOLT, HEX .37-16 X 1.25	1
4	BU 151 HANDLE	1

PARTS DIAGRAM



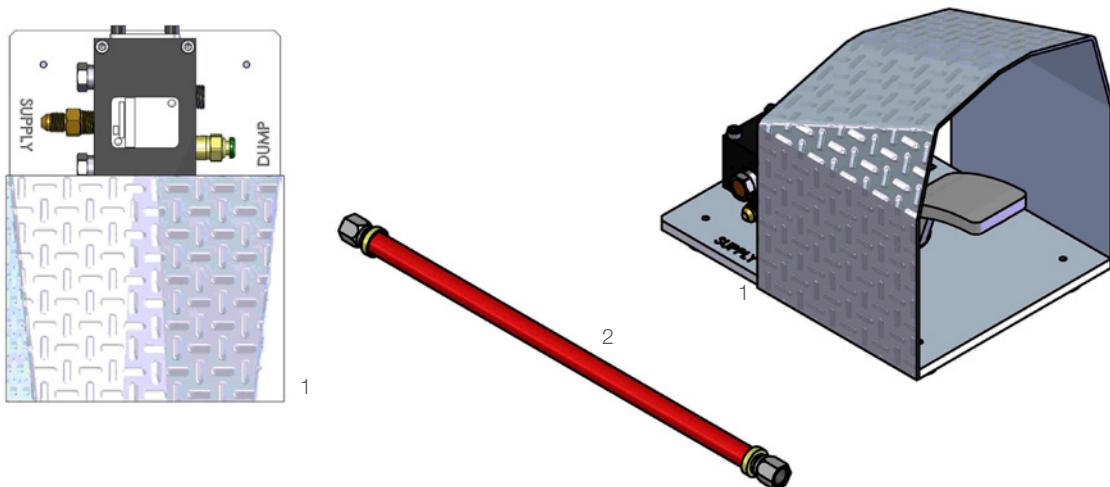
#	PART NUMBER	QTY.
1	CB 301 CB STAND ASSEMBLY	1
2	CB 400 CONTROL BOX ASSY	1
3	CB 403 FRL ASSY	1

STRIKER® (CB 301)
CB STAND ASSEMBLY



#	PART NUMBER	QTY.
1	CB 303 MTG POLE	1
2	CB 314 3-LOBE KNOB	1
3	CB 301.1 TRIPOD	1

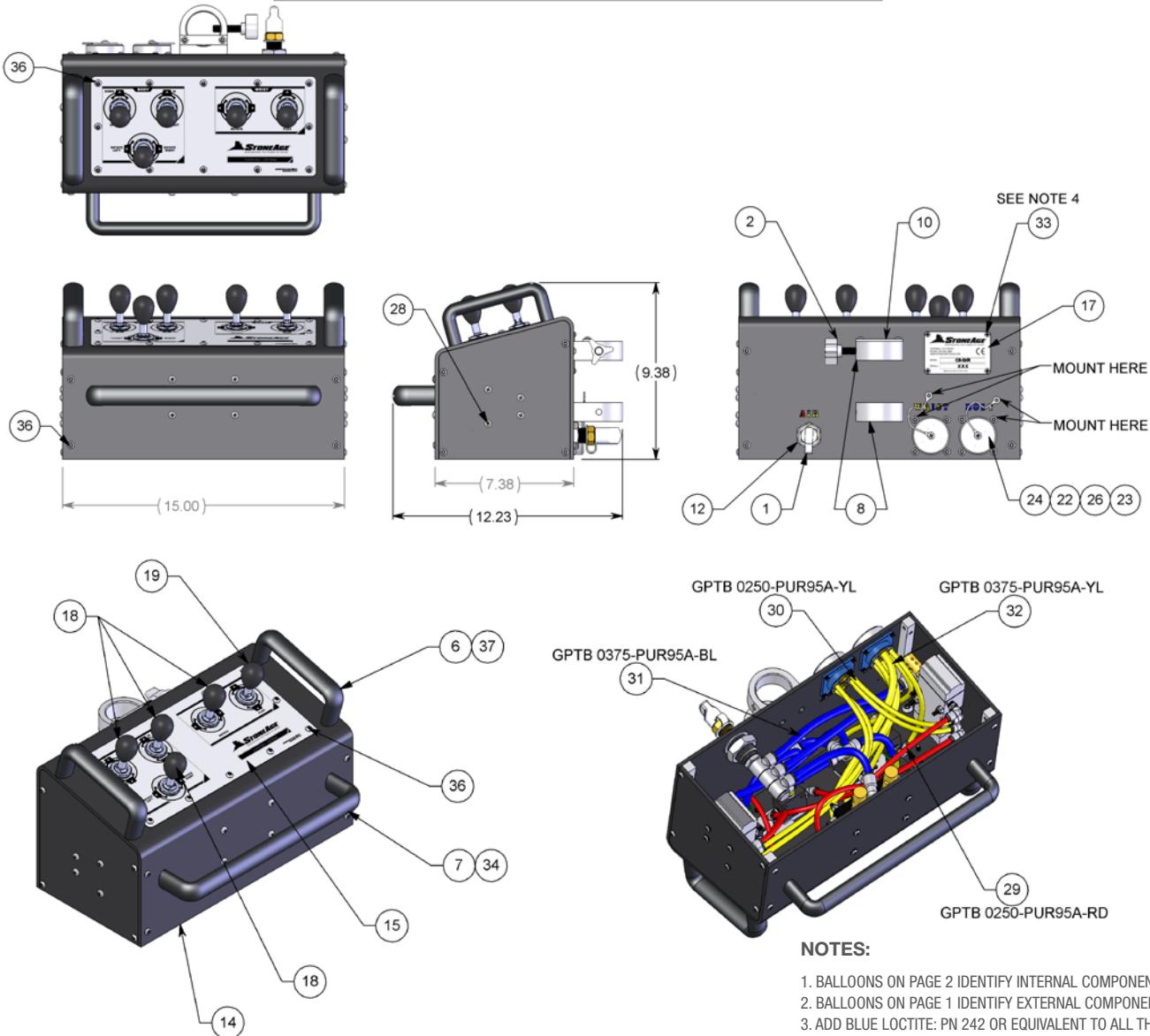
STRIKER® (FPA-SKR)
FOOT PEDAL DUMP CONTROL
NOT INCLUDED IN THE STRIKER PACKAGE



#	PART NUMBER	QTY.
1	FPA-100 FOOT PEDAL ASSEMBLY	1
2	FPA 102 HOSE ASSEMBLY	2

PARTS DIAGRAM

STRIKER® (CB-400)
CONTROL BOX ASSEMBLY
PAGE 1



NOTES:

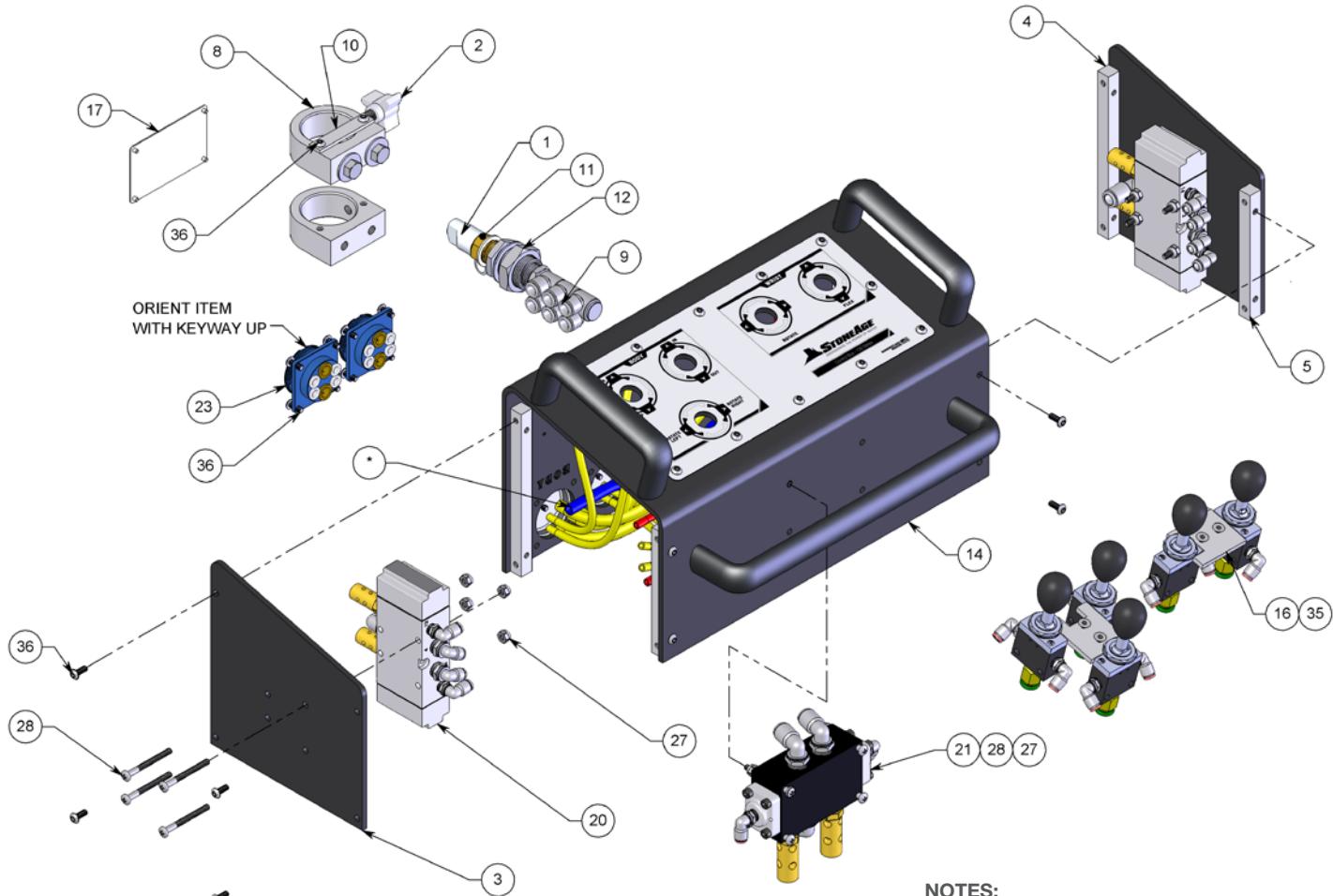
1. BALLOONS ON PAGE 2 IDENTIFY INTERNAL COMPONENTS.
2. BALLOONS ON PAGE 1 IDENTIFY EXTERNAL COMPONENTS.
3. ADD BLUE LOCTITE: PN 242 OR EQUIVALENT TO ALL THREADED HARDWARE UNLESS OTHERWISE NOTED.
4. ADD RED LOCTITE: PN 262 OR EQUIVALENT.

#	PART NUMBER	QTY.
1	BR 167 DUST CAP	1
2	CB 314 3-LOBE KNOB	1
3	CB 322 SIDE PLATE	2
4	CB 323 BRACE REAR	2
5	CB 324 BRACE FRONT	2
6	CB 325 HANDLE TOP	2
7	CB 326 HANDLE FRONT	1
8	CB 328 POLE MOUNT	2
9	CB 331 P8PL6 6-WAY MANIFOLD	1
10	CB 347 CAP PLATE	1
11	CB 355 FTG P8J8 BRASS MALE TO MALE	1
12	CB 380 FTG P8 BULK HEAD CONNECTOR	1

13	CB 382 FTG PL6-T	2
14	CB 401 CB FRAME	1
15	CB 402 GRAPHIC OVERLAY_AUTOSHOTSYS	1
16	CB 407 VALVEBRACE	2
17	CB 408 CE SERIAL PLATE	1
18	CB 419-HD PNEUM3WAYASSY NDT	4
19	CB 420-HD PNEUM3WAYASSY_DT	1
20	CB 421 FESTOPILOTEDASSY	2
21	CB 422 RY3 AAA PILOTED SPOOL VALVE ASSY	1
22	CB 430 LANYARD ASSY BOX	2
23	CB 452.2 FTG TWINTEC SOCKET	2
24	CB 459 SOCKET COVER	2
25	GB 337-03 BOLT, HEX .37-16 X .75 SS	4

26	GMS 319-015-32 PHMS .19-32X.38 LG PH-SS	2
27	GN 319-L NYLOK NUT SS (HC 025.1)	12
28	GPH 319-08 PHPMS 10-24 X 2.00 SS	12
29	GPTB 0250-PUR95A-RD	5FT
30	GPTB 0250-PUR95A-YL	6FT
31	GPTB 0375-PUR95A-BL	6FT
32	GPTB 0375-PUR95A-YL	2FT
33	GSB 313-0075 BHCS 6-32 X .188 LG SS	4
34	GSB 3M8-16-1.25 BHCS M8X1.25 X 16 SS	2
35	GSF 319-02 FHCS .19-24 X .50 LG SS	4
36	GTB 319-02-32 BHTS .19-32 X .50 LG TORX-SS	38
37	GTB 331-025 BHTS .31-18 X .63 LG TORX-SS	4
38	GW 537-F FLAT WASHER	4

STRIKER® (CB-400)
CONTROL BOX ASSEMBLY
PAGE 2



NOTES:

1. BALLOONS ON PAGE 2 IDENTIFY INTERNAL COMPONENTS.
2. BALLOONS ON PAGE 1 IDENTIFY EXTERNAL COMPONENTS.
3. ADD BLUE LOCTITE: PN 242 OR EQUIVALENT TO ALL THREADED HARDWARE UNLESS OTHERWISE NOTED.
4. ADD RED LOCTITE: PN 262 OR EQUIVALENT.

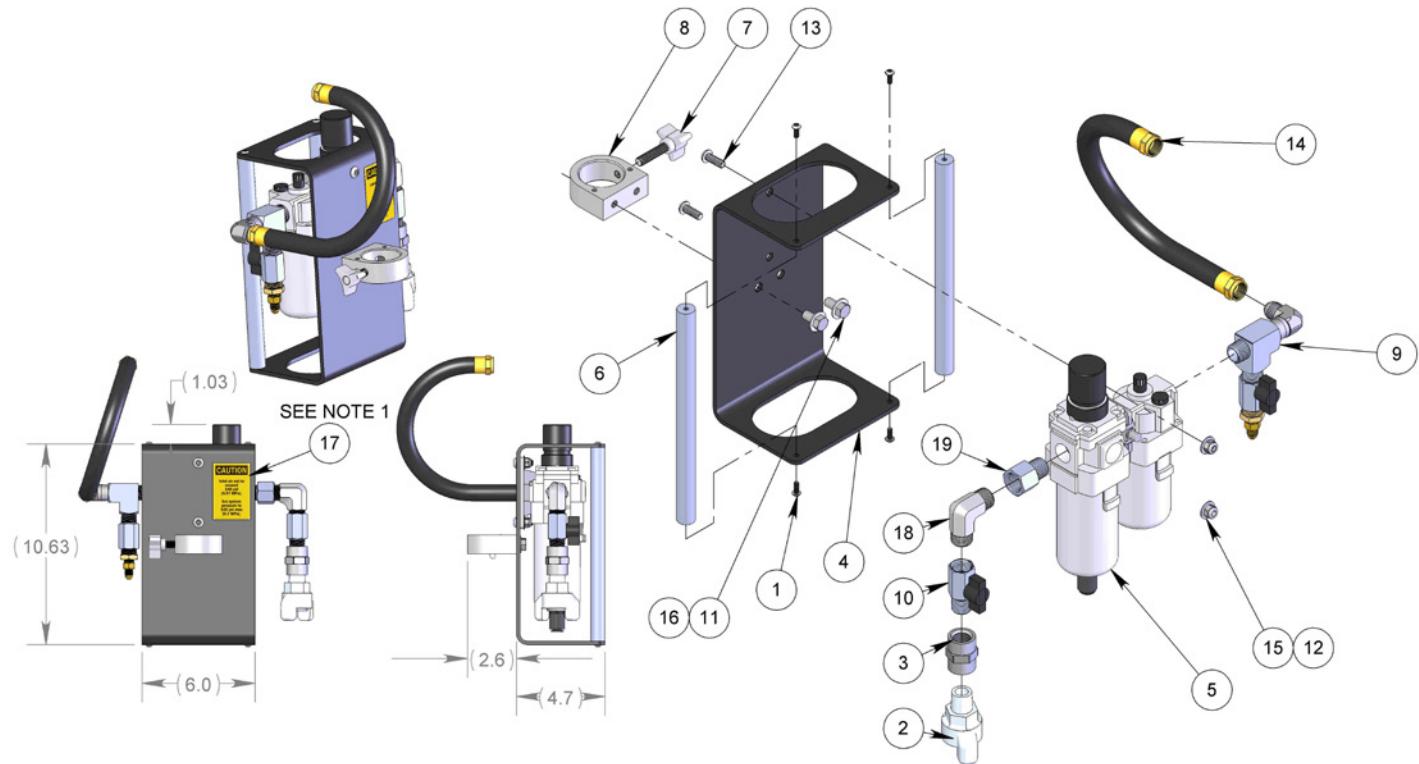
#	PART NUMBER	QTY.
1	BR 167 DUST CAP	1
2	CB 314 3-LOBE KNOB	1
3	CB 322 SIDE PLATE	2
4	CB 323 BRACE REAR	2
5	CB 324 BRACE FRONT	2
6	CB 325 HANDLE TOP	2
7	CB 326 HANDLE FRONT	1
8	CB 328 POLE MOUNT	2
9	CB 331 P8PL6 6-WAY MANIFOLD	1
10	CB 347 CAP PLATE	1
11	CB 355 FTG P8&J8 BRASS MALE TO MALE	1
12	CB 380 FTG P8 BULK HEAD CONNECTOR	1

13	CB 382 FTG PL6-T	2
14	CB 401 CB FRAME	1
15	CB 402 GRAPHIC OVERLAY_AUTOSHOTSYS	1
16	CB 407 VALVEBRACE	2
17	CB 408 CE SERIAL PLATE	1
18	CB 419-HD PNEUM3WAYASSY_NDT	4
19	CB 420-HD PNEUM3WAYASSY_DT	1
20	CB 421 FESTOPILOTEDASSY	2
21	CB 422 RY3 AAA PILOTED SPOOL VALVE ASSY	1
22	CB 430 LANYARD ASSY BOX	2
23	CB 452.2 FTG TWINTEC SOCKET	2
24	CB 459 SOCKET COVER	2
25	GB 337-03 BOLT, HEX .37-16 X .75 SS	4

26	GMS 319-015-32 PHMS .19-32X.38 LG PH-SS	2
27	GN 319-L NYLOK NUT SS (HC 025.1)	12
28	GPH 319-08 PHPMS 10-24 X 2.00 SS	12
29	GPTB 0250-PUR95A-RD	5FT
30	GPTB 0250-PUR95A-YL	6FT
31	GPTB 0375-PUR95A-BL	6FT
32	GPTB 0375-PUR95A-YL	2FT
33	GSB 313-0075 BHCS 6-32 X .188 LG SS	4
34	GSB 3M8-16-1.25 BHCS M8X1.25 X 16 SS	2
35	GSF 319-02 FHCS .19-24 X .50 LG SS	4
36	GTB 319-02-32 BHTS .19-32 X .50 LG TORX-SS	38
37	GTB 331-025 BHTS .31-18 X .63 LG TORX-SS	4
38	GW 537-F FLAT WASHER	4

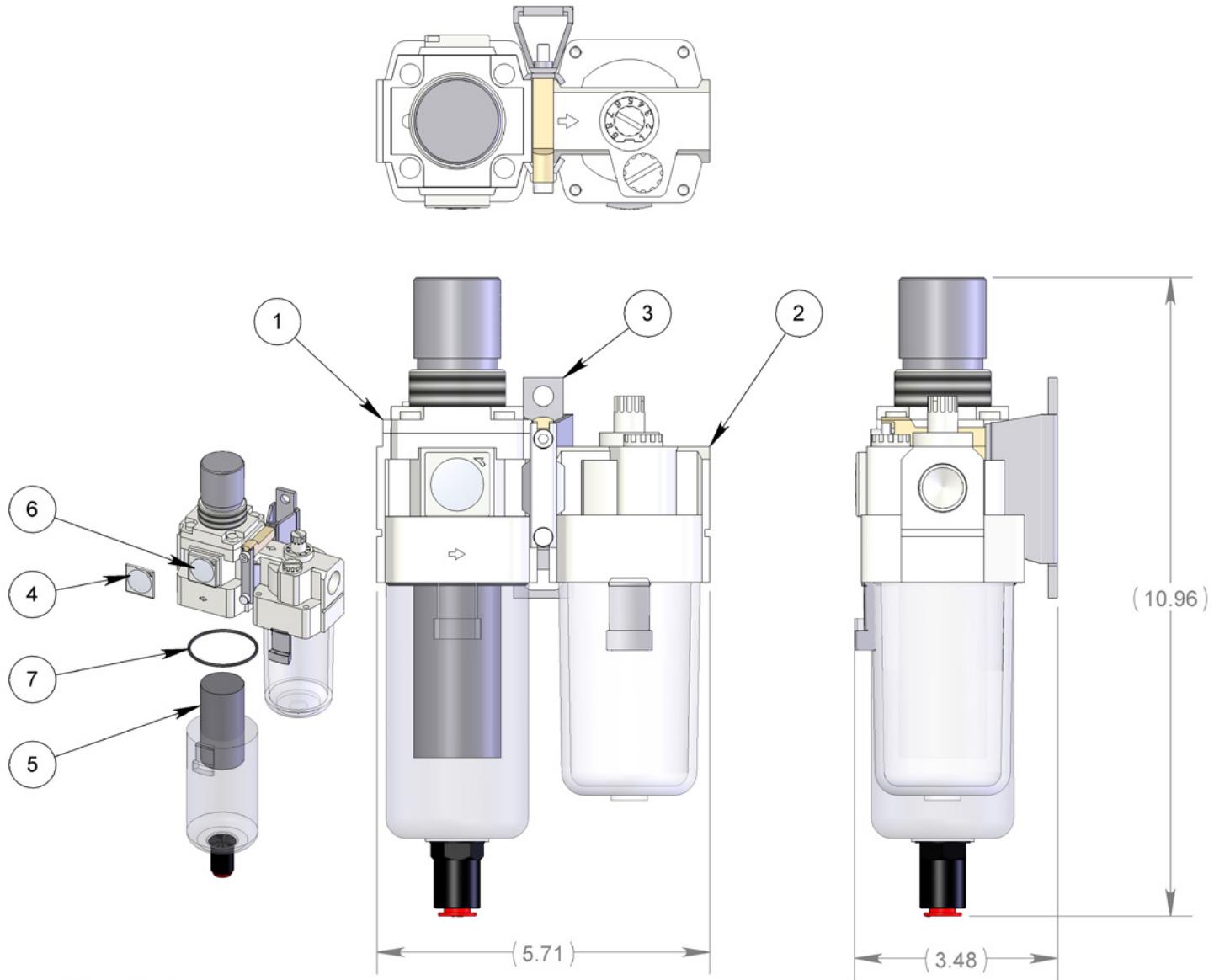
PARTS DIAGRAM

STRIKER® (CB 403)
(FILTER, REGULATOR, LUBRICATOR) FRL ASSEMBLY



#	PART NUMBER	QTY.
1	GTB 319-02-32 BHTS .19-32 X .50 LG TORX-SS	4
2	CB 114 INLET FITTING	1
3	CB 115 COUPLING	1
4	CB 311 FRL FRAME	1
5	CB 312 FILTER-REGULATOR-LUBRICATOR	1
6	CB 313 ROD	2
7	CB 314 3-LOBE KNOB	1
8	CB 328 POLE MOUNT	1
9	CB 390 FRL DUMP SUPPLY ASSY	1
10	CB 393 P8 BALL VALVE	1
11	GB 337-03 BOLT, HEX .37-16 X .75 SS	2
12	GN 331-L NYLOK NUT SS	2
13	GSB 331-035 BHCS .31-18 X .88 LG SS	2
14	CB 052-14 HOSE ASSY (FOR CB PDT)	1
15	GW 331-F FLAT WASHER SS	2
16	GW 337-F FLAT WASHER SS	2
17	PL 156 CAUTION INLET AIR	1
18	SBT 292.1 FTG 90° ELBOW P8MP8M	1
19	ML 077-P8 BUSHING	1

STRIKER® (CB 312)
GEN 3 FILTER, REGULATOR, LUBRICATOR WITH GEN 2 CLAMP



#	PART NUMBER	QTY.
1	CB 312.1 GEN3 REGULATOR-FILTER AW40-N04DE-Z-B	1
2	CB 312.2 LUBRICATOR AL40-N04-Z-A	1
3	CB 312.3 SPACER W BRACKET, GEN2 Y400T	1
4	CB 312.1.4 LENS COVER FOR GAUGE	1
5	CB 312.1.6 FILTER	1
6	CB 312.1.7 GAUGE WITH LENS	1
7	CB 312.1.8 ORING	1

NOTES

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TERMS AND CONDITIONS

1. Acceptance of Terms and Conditions. These Terms and Conditions shall operate as Seller's acceptance of Buyer's purchase order, and such acceptance is made expressly conditional on assent by Buyer to the Terms and Conditions. Such assent shall be deemed to have been given unless written notice of objection to any of such Terms and Conditions (including inconsistencies between Buyer's purchase order and this acceptance) is given by Buyer to Seller promptly on receipt hereof.

Seller desires to provide its Buyer with prompt and efficient service. However, to negotiate individually the terms of each sales contract would substantially impair Seller's ability to provide such service. Accordingly, products furnished and services rendered by Seller are sold only on the Terms and Conditions stated herein. Notwithstanding any Terms or Conditions on Buyer's order, Seller's performance of any contract is expressly made conditional on Buyer's agreement to Seller's Terms and Conditions of sale unless otherwise specifically agreed to in writing by Seller. In the absence of such agreement, commencement of performance, shipment and/or delivery shall be for Buyer's convenience only and shall not be deemed or construed to be an acceptance of Buyer's Terms and Conditions. **PRODUCTS SOLD BY SELLER ARE DESIGNED AND INTENDED TO BE USED AT HIGH PRESSURES AND SPEEDS, AND MAY BE DANGEROUS IF OPERATED IMPROPERLY OR WITHOUT THE USE OF APPROPRIATE SAFETY DEVICES AND GUARDS. BUYER IS CAUTIONED TO CAREFULLY READ AND UNDERSTAND THESE TERMS AND CONDITIONS, AS THEY HAVE IMPORTANT LEGAL CONSEQUENCES.**

2. Payment/Prices. Unless other arrangements have been made in writing between Seller and Buyer, payment for product delivered shall be made upon receipt of invoice. The prices shown on the face hereof are those currently in effect. Prices invoiced shall be per price list in effect at the time of shipment. Prices are subject to increase for inclusion of any and all taxes which are applicable and which arise from the sale, delivery or use of Seller's products or services and for the collection of which Seller is or may be responsible to any governmental authority unless acceptable exemption certificates are provided by Buyer in accordance with law. Buyer shall pay all charges for transportation and delivery and all excise, order, occupation, use or similar taxes, duties, levies, charges or surcharges applicable to the equipment or services being purchased, whether now in effect or hereafter imposed by any governmental authority, foreign or domestic.

3. Warranty. Subject to the limitations and conditions hereinafter set forth, Seller warrants to the original Buyer that its products are free from defects in workmanship and material for a period of one (1) year from shipment date. Seller's obligation under this warranty shall be limited to repairing, replacing or issuing a credit for, at Seller's option, any products or services it finds to be defective in material or workmanship. In no event shall Seller be liable for any incidental, consequential or indirect damages of any kind. **THIS WARRANTY SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY FOR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.** No statement or recommendation made by Seller or its representative to Buyer or User shall constitute a warranty by Seller or a waiver or modification to any of the provisions hereof or create any liability for Seller. All warranty claims are subject to the exclusions and limitations set forth below:

a. The warranty shall not apply if the product or service (1) has been subject to misuse, negligence or accident; (2) has not been installed or operated in accordance with Seller's recommendations; (3) has been operated under more severe conditions than those specified for the particular product or service; (4) has been operated beyond the rated capacity of the product; or (5) has been repaired or altered outside Seller's facilities or in any way so as, in Seller's judgment, to affect its stability or reliability.

b. Products that Seller furnishes, but does not manufacture, carry only the warranty of the Manufacturer of such products. Where other Manufacturers' or Suppliers' products used in Seller's products or services prove defective, Seller's liability shall exist only to the extent that Seller is able to recover from such Manufacturers or Suppliers for such defects.

c. Any warranty granted by Seller to the Buyer shall be deemed void if any goods covered by such warranty are used for any purpose not recommended or permitted. In addition, the Buyer shall indemnify Seller and hold Seller harmless from and against any and all claims, damages, losses, costs, expenses and other liability of whatever nature that Seller suffers or incurs by reason of any such unintended use.

d. Notice of defective product or service must be given in writing to Seller by Buyer or User within fifteen (15) business days following receipt of goods. Buyer or User shall keep such products or services in an unaltered condition for examination by Seller's representative. No goods may be returned for credit or adjustment without prior written permission from Seller.

4. Product Liability. Buyer specifically acknowledges that the products being purchased may be operated at high speeds and/or pressures, and that as such they may be inherently dangerous if not used correctly. Buyer shall be solely responsible for the safe operation of the products at all times and for determining the safety devices and guards that may be required for the safe operation of the products. Buyer shall undertake to specify and order all safety devices and guards necessary for the safe operation of the equipment covered. All safety devices and guards offered in Seller's quotations are recommended for purchase. Seller may provide necessary safety devices and guards not offered in this quotation at an extra price in accordance with the specifications of Buyer. Buyer shall at all times use and require its contractors to use all necessary and appropriate safety devices, guards and proper safe operating procedures. Buyer shall ensure that proper Operator training is provided. Buyer shall not remove or modify any such devices, guards or warning signs and shall insist on safe operating practices on the part of its personnel. In no event shall Seller be responsible for any injuries to persons or property caused by defects in any equipment, including by way of illustration and not limitation, any pumps, compressors, fittings, connections, components, piping or hoses up to the point that same are connected to the product. Buyer agrees to indemnify and to save Seller harmless from any and all liability or obligation incurred by or against Seller, including costs and attorneys' fees, to or by any persons injured directly or indirectly in the operation of the equipment furnished under the following conditions:

- a. if Buyer fails to purchase and use necessary and appropriate safety devices and guards as determined and/or recommended by Seller;
- b. if Buyer fails to maintain in good working order such safety devices and guards as are purchased from Seller;
- c. if Buyer adds, omits, repairs, modifies, replaces or substitutes any components on the equipment without permission from Seller;
- d. if Buyer exceeds at any time the maximum safe loads, pressures or speeds recommended by Seller for the equipment furnished hereunder without the specific written consent of Seller; or
- e. if Buyer otherwise fails to operate the product or equipment in accordance with Seller's printed instructions or otherwise negligently operates the equipment.

5. Delivery. Seller is not obligated to make delivery by a specified date, but will always use its best efforts to make delivery within the time requested. All deliveries are based on F.O.B. Seller's factory, unless specifically agreed otherwise, and Buyer shall pay all shipping costs and insurance from that point. Seller, in its sole discretion, will determine and arrange the means and manner of transportation of the products. Responsibility of Seller shall cease and Buyer assumes all risk of loss or damages upon Seller's delivery to and receipt by a common carrier. Carriers shall be responsible for goods lost or damaged in transit and Buyer shall immediately notify the carrier in writing of such loss or damage. At Buyer's request Seller will offer its assistance. THE PROPOSED SHIPMENT DATE IS AN ESTIMATE. UNDER NO CIRCUMSTANCES SHALL SELLER HAVE ANY LIABILITY WHATSOEVER FOR LOSS OF USE OR FOR ANY DIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM DELAY REGARDLESS OF THE REASON(S). Shortages or errors must be reported within fifteen (15) business days from receipt of shipment to secure adjustment. No merchandise may be returned without securing written approval from Seller. Seller will notify Buyer promptly of any material delay and will specify the revised delivery date as soon as practicable. Seller shall not be liable for any delay in delivery or performance, or for any failure to manufacture, deliver or perform due to (a) any cause beyond its reasonable control; (b) any act of God, act of Buyer, act of civil or military authority, governmental priority, strike or other labor disturbance, flood, epidemic, war, riot, delay in transportation or car shortage; or (c) inability on account of any cause beyond the reasonable control of Seller to obtain necessary materials, components, services or facilities. In the event of any such delay, the date of delivery or of performance shall be extended for a period equal to the time lost by reason of the delay.

6. Technical Advice. All technical advice, recommendations and services of Seller are intended for use by persons having adequate skill, at their own risk, and Seller assumes no responsibility, and Buyer hereby waives all claims against Seller, for results obtained or damages incurred from the use of Seller's advice, recommendations and services.

7. Modification. These Terms and Conditions are intended by Seller and Buyer to constitute a final, complete and exclusive expression of agreement and cannot be supplemented or amended without Seller's prior written approval. Seller's waiver of any breach, or failure to enforce any of the Terms and Conditions at any time, shall not in any way affect,

limit or waive Seller's right thereafter to enforce and compel strict compliance with every Term and Condition thereof. If any provisions of these Terms and Conditions are held to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of the other portions hereof.

8. Disputes. Buyer and Seller shall attempt in good faith promptly to resolve any dispute arising under these Terms and Conditions by negotiations between representatives who have authority to settle the controversy. If unsuccessful, Buyer and Seller shall further attempt in good faith to settle the dispute by nonbinding third-party mediation, with fees and expenses of such mediation apportioned equally to each side. Any dispute not so resolved by negotiation or mediation may then be submitted to a court of competent jurisdiction in accordance with the terms hereof. These procedures are the exclusive procedures for the resolution of all such disputes between the parties. All sales, agreements for sale, offers to sell, proposals, acknowledgments and contracts of sale, including, but not limited to, purchase orders accepted by Seller, shall be considered a contract under the laws of the State of Colorado and the rights and duties of all persons, and the construction and effect of all provisions hereof shall be governed by and construed according to the laws of such state. A state or federal court located within the State of Colorado shall have sole and exclusive jurisdiction over any litigation concerning any such matters as well as any alleged defects of any products or equipment covered thereby or damages sustained as a result of such alleged defects. If any litigation is commenced between Seller and Buyer, or their personal representatives, concerning any provision hereof, the party prevailing in the litigation shall be entitled, in addition to such other relief that is granted, to a reasonable sum as and for their attorneys' fees and costs in such litigation or arbitration.

STONEAGE TRADEMARK LIST

View the list of StoneAge's trademarks and service marks and learn how the trademarks should be used. Use of StoneAge trademarks may be prohibited, unless expressly authorized.

<http://www.StoneAgetools.com/trademark-list/>

STONEAGE PATENT DATA

View the list of StoneAge's current U.S. patent numbers and descriptions.

<http://www.sapatents.com>



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