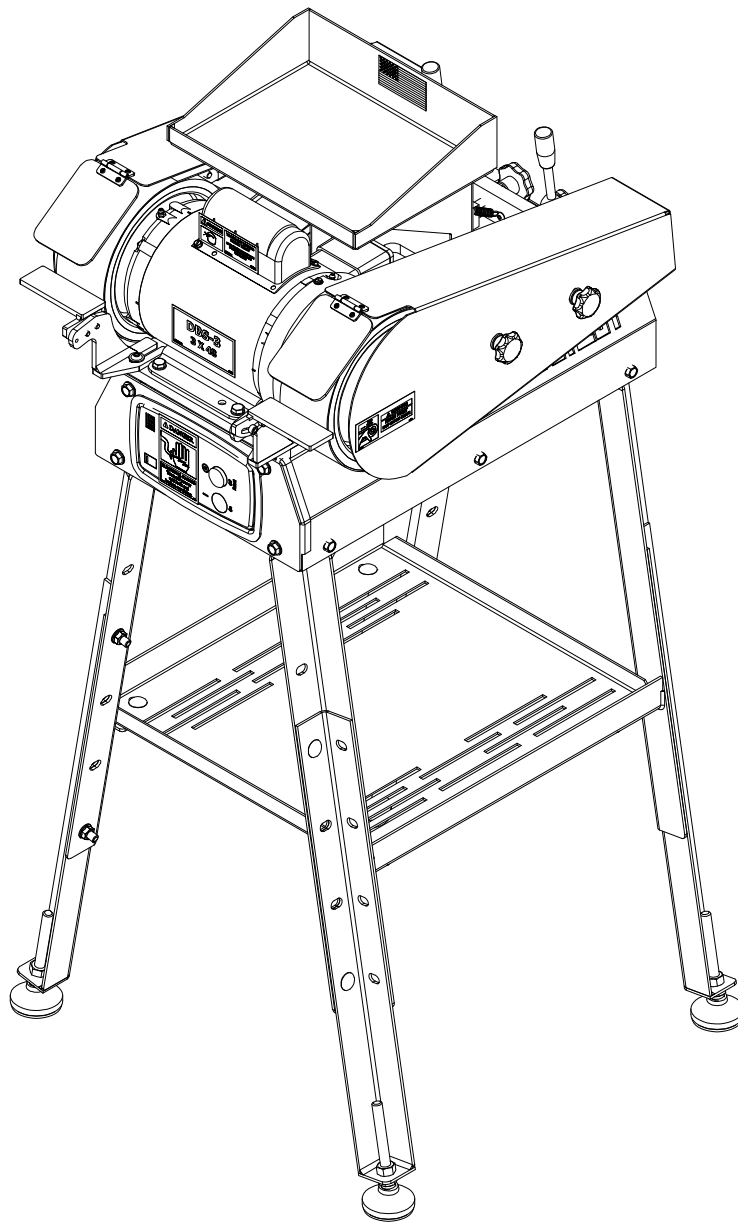


**You have downloaded a manual for our DBS-3 Dual
Belt Sander.**

**(If printing the manual double-sided, DO NOT PRINT
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www.scotchman.com

DBS-3

DUAL BELT

SANDER

SERIAL # 0001DBS1125 - CURRENT

VERSION 1 - NOVEMBER 2025

FOREWORD

This manual has been prepared to acquaint you with the operation, maintenance, and serviceable components of your Scotchman machine. Please refer to this manual (or online version) when contacting the factory regarding parts, schematics, or other questions related to this machine.

This manual contained up to date information at the time of publication and we urge you to read this manual before operating the machine, or if you are unfamiliar with a process. Updates to this manual will be indicated by the version number on the front cover, within the serial number range covering your machine.

Scotchman Industries strives to continually improve our products and reserves the right to change specifications or design at any time without notification.

For your information and future reference, machine relevant data may be recorded in the spaces below. This information can be located on the data tag of the machine, on the rear of the machine. The serial number is also stamped on the rear tracking block.

MODEL: _____

SERIAL NUMBER: _____

DATE RECEIVED: _____

VOLTAGE: _____ VAC PHASE: _____

HERTZ: _____ Hz FULL LOAD AMPS: _____ A

When contacting Scotchman Industries for inquiries, tooling, or replacement parts, please make sure to provide the machine model and full serial number.

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7:00AM - 1:00PM MST (Friday)

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1.0 INTRODUCTION

The Dual Belt Sander with 3" belts (DBS-3) is a unique sanding and deburring solution that the Scotchman factory has developed and used for 25+ years. Featuring two 8-inch contact finishing wheels, the DBS-3 quickly produces clean finished surfaces. It is equipped with two standard abrasive belts of varying grits.

Depending on the intended application, the DBS-3 can be outfitted with other abrasive grits that work well for finishing, sanding, and deburring of both ferrous and non-ferrous metals, as well as other materials.

This machine is built with toolless belt changing hardware with self-tensioning capabilities. Belt tracking is also simplified with tapered idler rollers and a tracking knob. A hex key is included for locking down the tracking mechanism.

2.0 WARRANTY

Scotchman Industries, Inc. will, within three (3) years of the date of purchase, replace F.O.B. the factory or refund the purchase price for any goods which are defective in materials or workmanship; provided the buyer returns the warranty registration card within thirty (30) days of the purchase date and, at the seller's option, returns the defective goods freight and delivery prepaid to the seller, which shall be the buyer's sole and exclusive remedy for defective goods.

Hydraulic and electric components are subject to their respective manufacturer's warranties. Any electrical changes made to the standard machine due to local electrical code variation must be paid by purchaser.

This warranty does not apply to machines and/or components which have been altered, changed, or modified in any way or subjected to abuse and abnormal use, inadequate maintenance and lubrication, or subjected to use beyond the seller's recommended capacities and specifications. In no event shall the seller be liable for labor cost expended on such goods or consequential damages. The seller shall not be liable to the purchaser or any other person for loss or damage directly or indirectly arising from the use of the goods or from any other cause.

No officer, employee, or agent of the seller is authorized to make any oral representations or warranty of fitness or to waive any of the foregoing terms of sale and none shall be binding on the seller.

Scotchman Industries strives to continually improve our products and reserves the right to change specifications or design at any time without notification.

3.0 SAFETY PRECAUTIONS

- 1. The operators of this machine must be qualified and well trained in the operation of the machine. The operators must be aware of the capacities of the machine and the proper use of the guards provided with the machine.**
- 2. All of the guards must be kept in good working order. Promptly replace worn or damaged parts with authorized parts.**
- 3. Never place any part of your body into or under any of the machine's moving parts.**
- 4. Wear the appropriate personal protective equipment. Safety glasses are always required, whether operating, setting up, or observing this machine in operation. Since heavy pieces of metal with sharp edges can be processed on this machine, the operator should also wear safety-toed shoes and tight-fitting leather gloves.**
- 5. Strictly comply with all warning labels and decals on the machine. Never remove any of the labels. Replace worn or damaged labels promptly.**
- 6. Always disconnect and lock out the power when performing maintenance work or belt replacement on the machine. Follow the procedures outlined in the operator's manual for setting up.**
- 7. Never operate this machine with worn or damaged belts. Replace worn belts, contact wheels, and idler wheels promptly.**
- 8. Practice good housekeeping by keeping the area around the machine clear and well lit. Do not obstruct the operator's position by placing anything around the machine that would impede the operator's access to the machine.**
- 9. Never modify this machine in any way without the written permission of the manufacturer.**
- 10. Never leave this machine running unattended.**
- 11. Always operate the sanding station while facing the station.**
- 12. Set up a program of routine inspections and maintenance for this machine. Make all repairs and adjustments in accordance with the manufacturer's instructions.**

4.0 WARNING LABELS

ITEM	PART #	DESCRIPTION
1	003122	DANGER VOLTAGE STICKER
2	019100	U.S. DATA PLATE
3	019120	230V 1PH DECAL
4	019127	US FLAG DECAL
5	092091	DBS-3 PINCH POINT DECAL
6	092100	DBS-3 DECAL
7	092101	SMALL SAFETY GLASSES STICKER

LEFT SIDE OF MACHINE

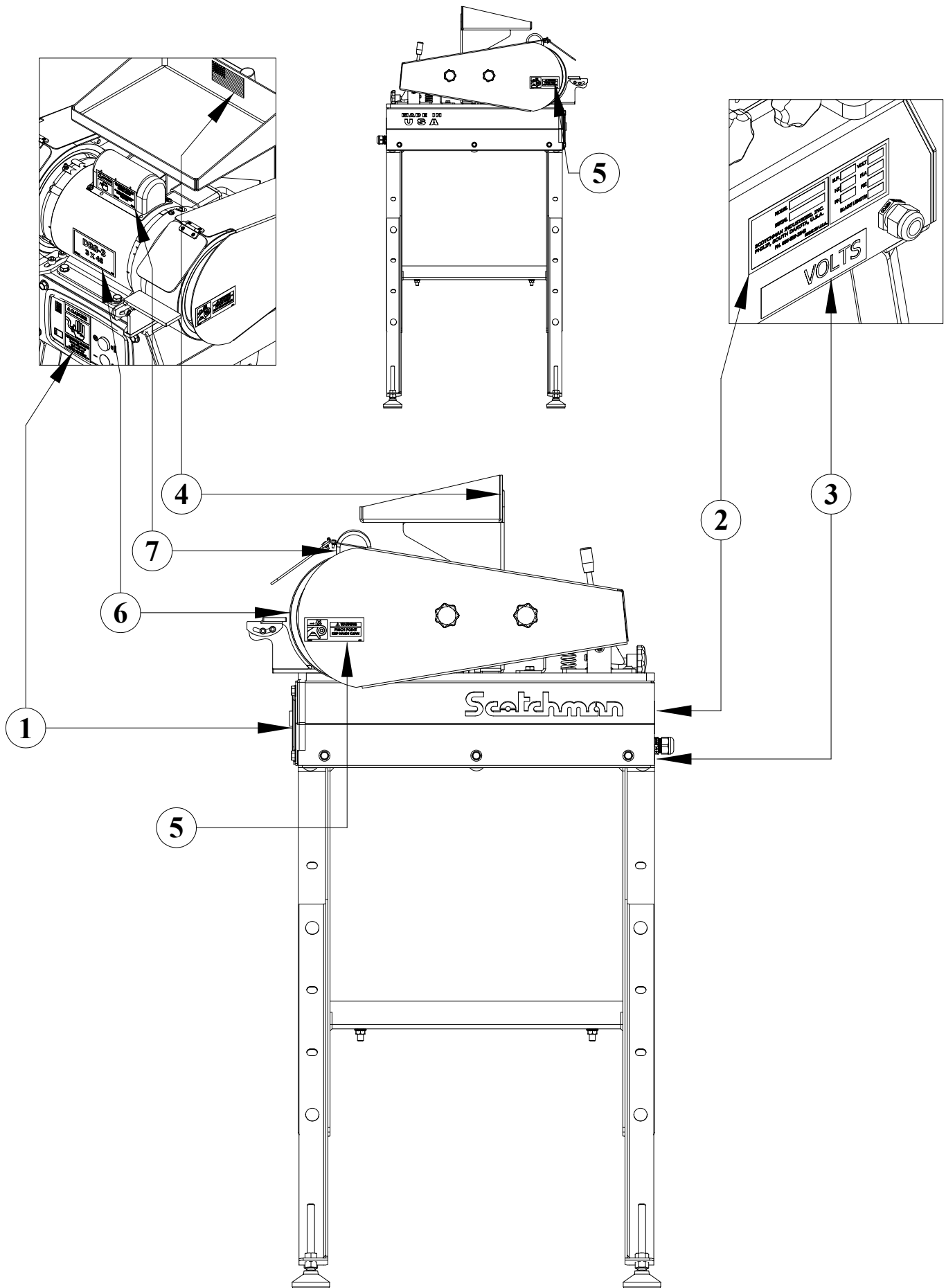


FIGURE 4.0

5.0 INSTALLATION & SETUP

CAUTION: THIS SECTION DISCUSSES INSTALLATION AND SET UP PROCEDURES. PLEASE READ THOROUGHLY BEFORE OPERATING THIS MACHINE.

5.1 Physical Inspection

Any damage to the machine during shipment should be reported to the delivery carrier immediately. A damage report must be made so that a claim can be placed. The carrier is responsible for shipping damage, but it is the customer's responsibility to immediately report damages, external or internal. While the machine is being positioned/assembled, remove inspect the interior of the machine for possible shipping damages.

CHECK SPECIFICALLY THE FOLLOWING ITEMS:

- Motor assembly.
- Tension and tracking assemblies.
- Starter box.
- Electrical connections.
- Tool rest assemblies.
- A general inspection of machine cabinet, guards, and awareness barriers.
- Check the repack box for all accessory items ordered with the machine.

5.2 Physical Dimensions

ITEM	DESCRIPTION	(IN)	(CM)
A	Floor to Tool Rest Table	43-1/2 +/- 9	110.5 +/- 22.9
B	Bottom of Sander to Tool Rest Table	9 1/4	23.5
C	Stand Height	34-1/4 +/- 9	87 +/- 22.9
D	Stand Width	25 +/- 3-1/2	63.5 +/- 8.9
E	Stand Depth	23-1/4	59
F	Sander Height	18 1/4	46.4
G	Sander Depth	27	68.6
H	Sander Width	20 3/4	52.7
	Weight	200 LBS.	91 KG.

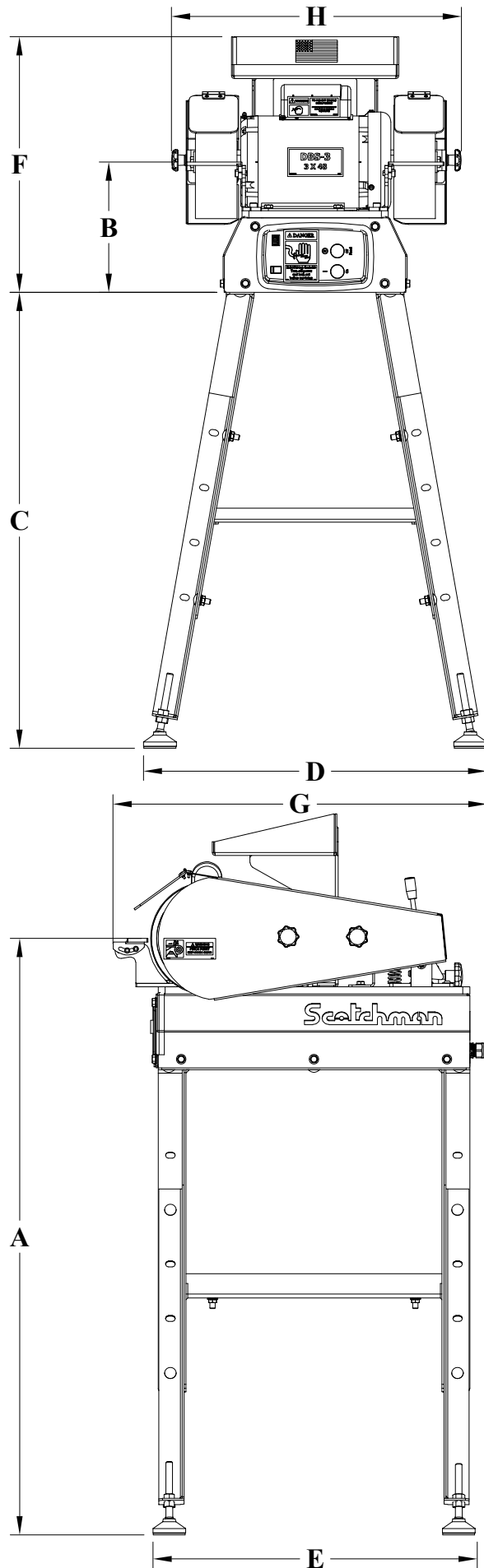


FIGURE 5.1

5.3 Stand Setup

For parts identification, REFER TO FIGURE 5.2 BELOW.

Tools Needed:

- 14mm Wrench/Socket
- 19mm Wrench/Socket

1. Attach Lower Parts Tray (1) to first Upper Stand Leg Bracket (2) with Carriage Bolts (3) and Serrated Flange Locknuts (4) supplied. Repeat for other Upper Stand Leg Bracket (2) provided.
2. Install Leveling Foot (5) on first Lower Adjustable Stand Leg (6) with M12 Nut supplied. Repeat for other three Leveling Feet (5) and Lower Adjustable Stand Legs (6).
3. Attach first Lower Adjustable Stand Leg (6) to first corner of Upper Stand Leg Bracket (2) with Carriage Bolts (3) and Serrated Flange Locknuts (4) supplied. Align slots as necessary to achieve desired Stand Height. Repeat for other three Lower Adjustable Stand Legs (6)

(REFER TO STAND HEIGHT → Leg Position Chart Below)

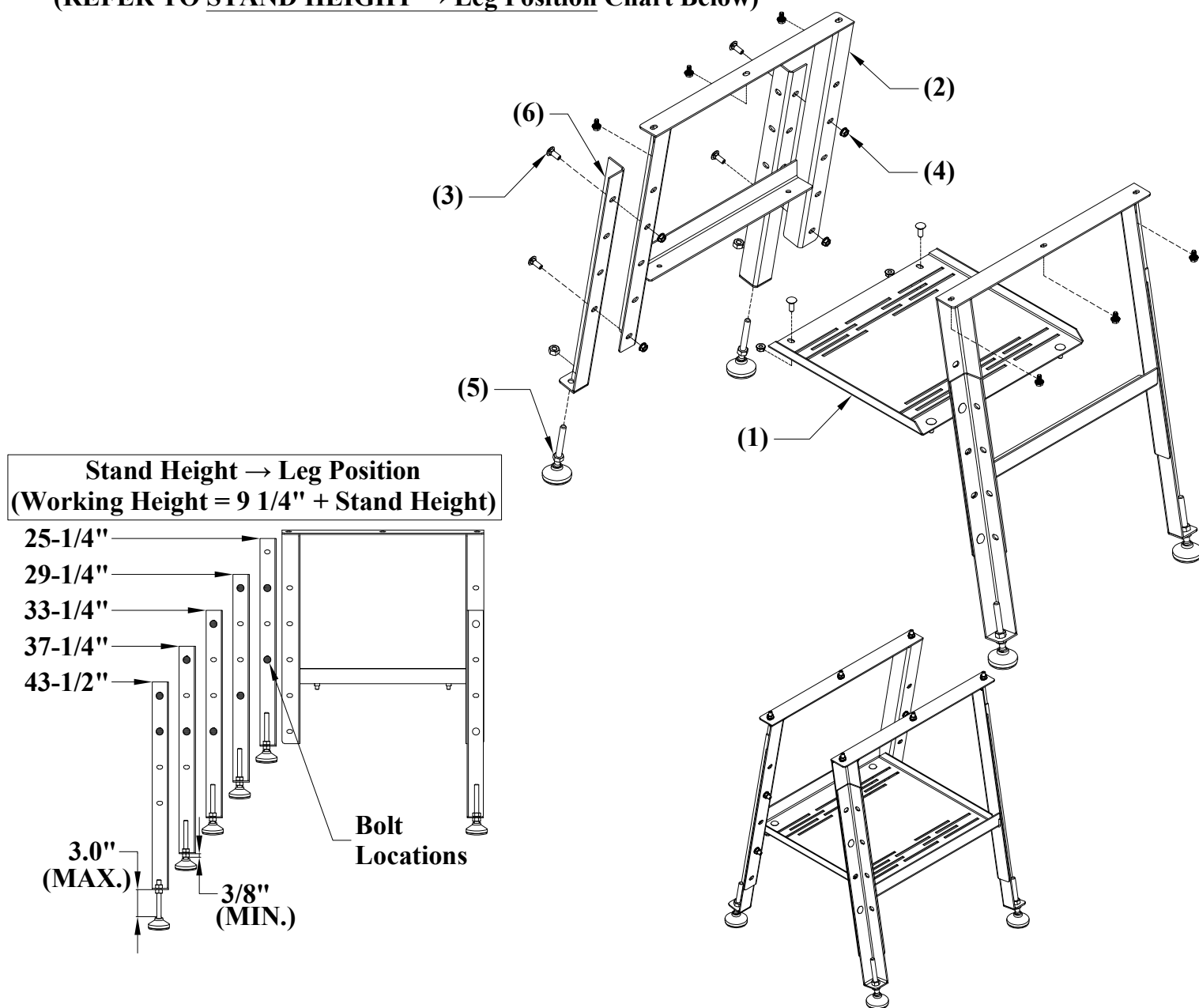


FIGURE 5.2

5.4 Machine Moving Procedures

CAUTION: MAKE SURE THAT ANY LIFTING MACHINE HAS ADEQUATE CAPACITY BEFORE ATTEMPTING TO MOVE THIS MACHINE. IT IS DESIGNED TO BE MOVED BY A HOIST AND/OR FORKLIFT. THIS MODEL WEIGHS 180 LB. (82 KG). THERE IS A LIFTING EYE BUILT INTO THE BASE OF THE MACHINE FOR LIFTING PURPOSES.

SEE FIGURE 5.3 BELOW:

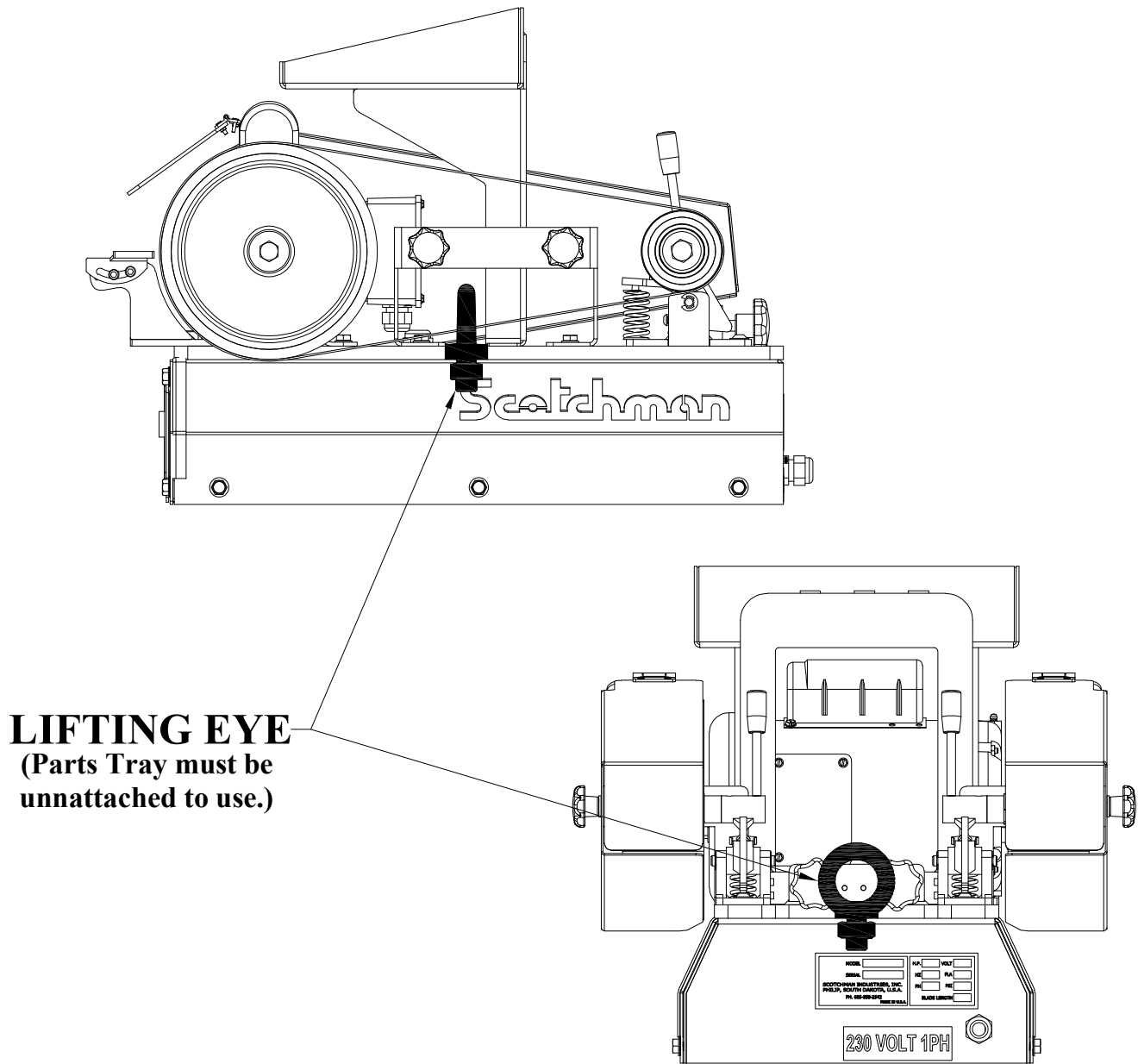


FIGURE 5.3

5.5 Machine Setup

For parts identification, REFER TO FIGURE 5.4 BELOW.

Tools Needed:

- 13 mm Wrench/Socket
- 14mm Wrench/Socket
- Hoist (min. 300 lb rating)

1. After assembly of the stand is complete. Lift DBS-3 Sander Assembly (1) using a hoist to position it on the assembled DBS-3 Stand (2).
2. Attach the DBS-3 Sander Assembly (1) to the assembled DBS-3 Stand (2) with Wizlock Fasteners (3) provided.
3. Attach Parts Tray (4) with M8 Bolts and Washers (5) supplied.

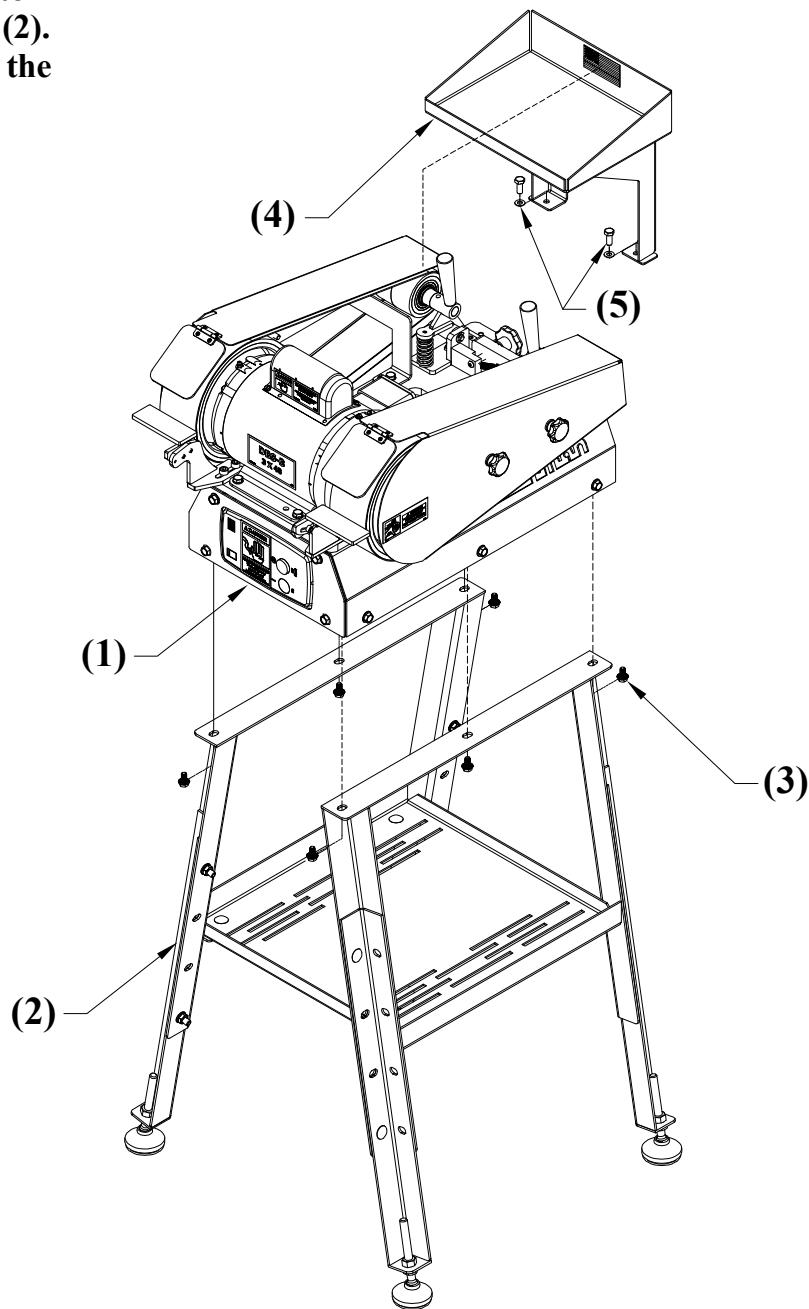


FIGURE 5.4

5.6 Electrical Requirements

CAUTION: TO PREVENT DAMAGE TO THE MOTOR, COMPONENTS, AND DANGER TO THE OPERATOR, ALL ELECTRICAL CONNECTIONS SHOULD BE MADE BY A LICENSED ELECTRICIAN.

All machines are wired for single-phase electrical power. The supply voltage should be (+/-) 10% of the motor voltage rating, to ensure satisfactory machine performance. Check the motor data tag for full load amperage requirements.

The electrical diagram for the machine is on PAGE 14 of this manual.

SEE DIAGRAMS IN FIGURES 5.5.1 AND 5.5.2

For electrical supply lines we recommend at least 12-gauge (AWG). We DO NOT recommend supply lines longer than 25 feet (7.5 m).

Although the motor is rated for continuous duty, we do not recommend leaving the machine running unattended. Heat can build up in the idlers and belts and break down prematurely with long term use.

POWER REQUIREMENTS

MOTOR VOLTAGE	230 (1PH) VAC
<u>FULL LOAD AMPERAGE (FLA)*</u>	6.3 AMPS
Motor frame	143TZ
Motor Power Rating:	1 HP
Speed:	1750 RPM
KVA Power Rating:	1.4 KVA @ 60 Hz
Starting Current:	530% Full Load

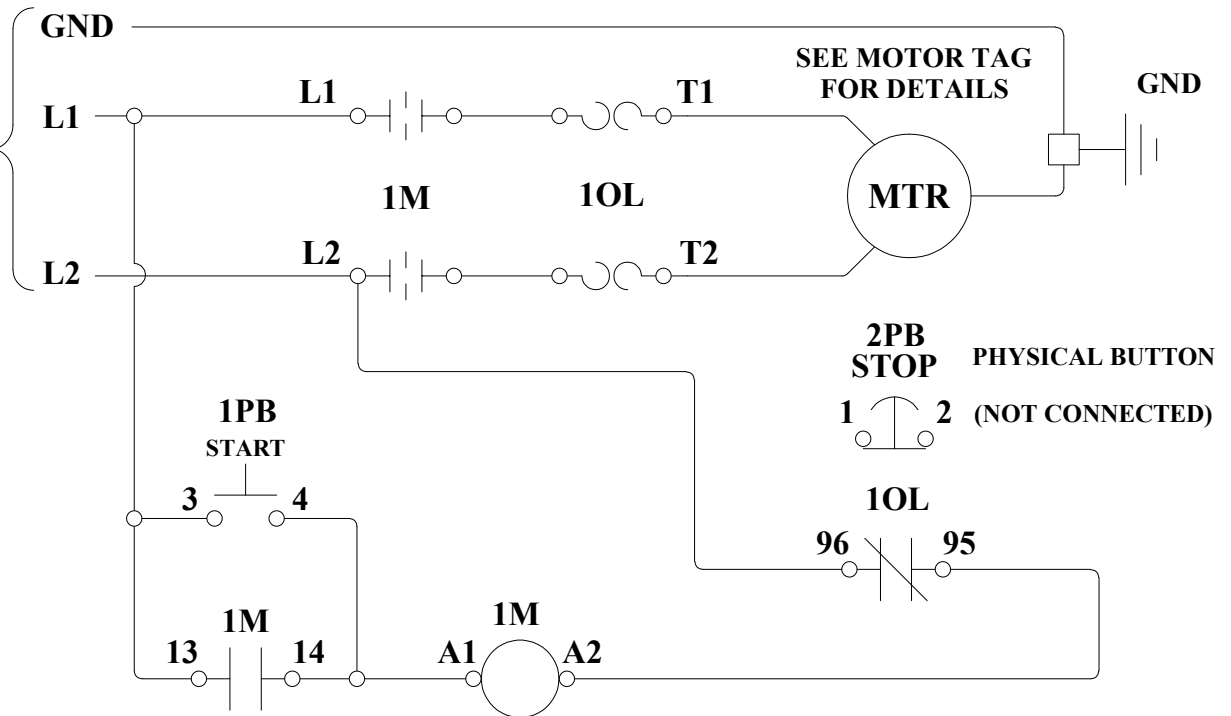
* FOR FLC (FULL LOAD CURRENT), REFER TO NEC TABLE 430.248

FIGURE 5.5.1

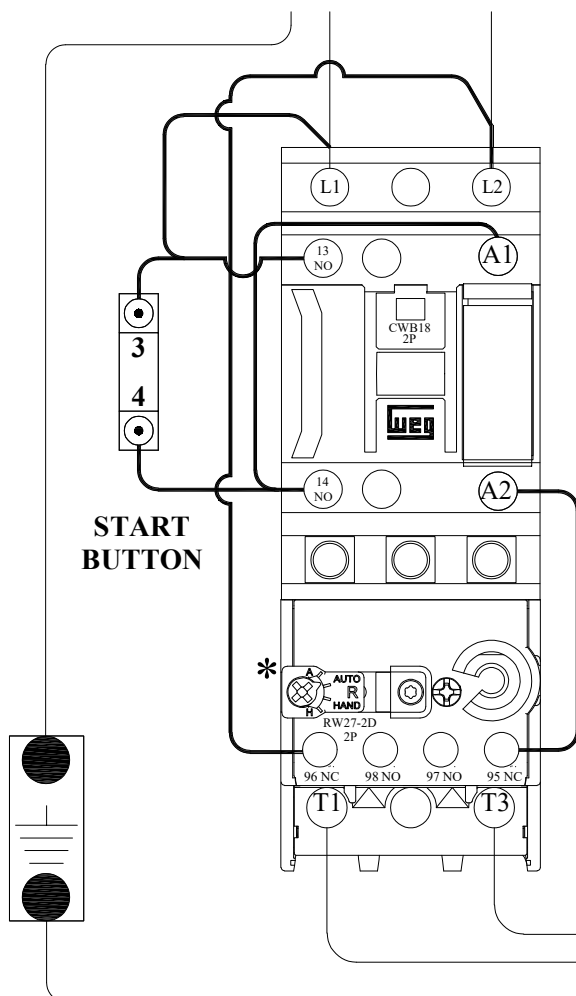
1-PHASE POWER

**INCOMING SUPPLY
(BY CUSTOMER)
PROVIDE MAXIMUM
UPSTREAM
PROTECTION PER
N.E.C. CODE 430-52.**

M - MOTOR START RELAY
OL - OVERLOAD (THERMAL)
PB - PUSH BUTTON

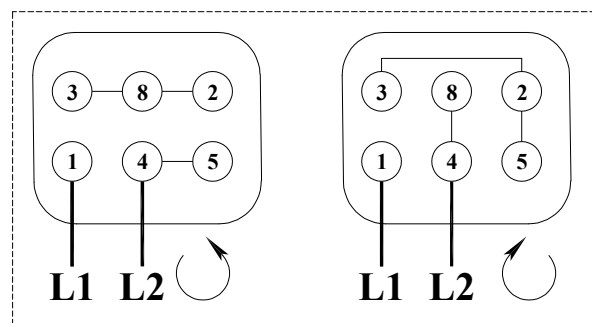


LINE POWER



PART #	DESCRIPTION
011311	CONTACTOR IEC 18A 3 N.O. POLE 208-240VAC
011306	WEG THERMAL OVERLOAD RELAY 5.6-8.0*
092061	1HP 115/230V 60HZ DOUBLE SHAFT MOTOR

* All replacement overloads need FLA's set, and reset button switched to "Auto"



*** Follow Instruction Sheet On
Motor Capacitor Enclosure**

TO MOTOR*

FIGURE 5.5.2

5.7 Machine Startup

BEFORE STARTING THIS MACHINE, TAKE TIME TO THOROUGHLY REVIEW THE OPERATOR'S MANUAL.

This machine is equipped with two switches located on the front of the machine above the motor. The Green (On) is the START Button and above it is the Red (Off) Extended STOP Button.

REFER TO FIGURE 5.6 BELOW

To start the machine push the Green (On) START Button. Push the Red (Off) Extended STOP button to stop the machine.

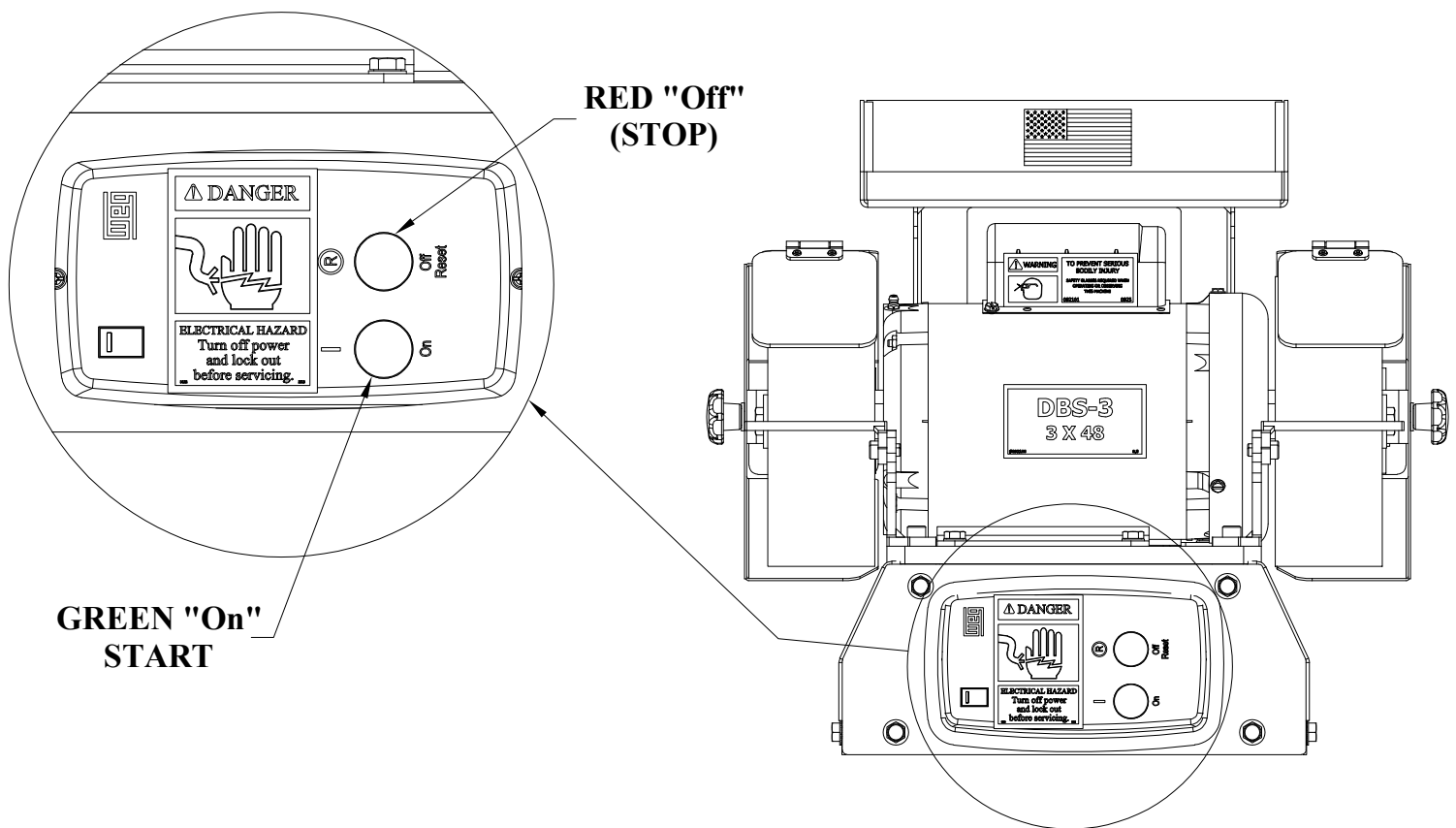


FIGURE 5.6

5.8 Belt Tracking

Tracking Guide: REFER TO FIGURE 5.7 BELOW

Left Belt (viewed from rear of machine)

1. To make the belt track left (away from the machine) turn the knob on that side counter-clockwise.
2. To make the belt track right (towards the machine) turn the knob on that side clockwise.

Right Belt (viewed from rear of machine)

1. To make the belt track left (towards the machine) turn the knob on that side clockwise.
2. To make the belt track right (away from the machine) turn the knob on that side counter-clockwise.

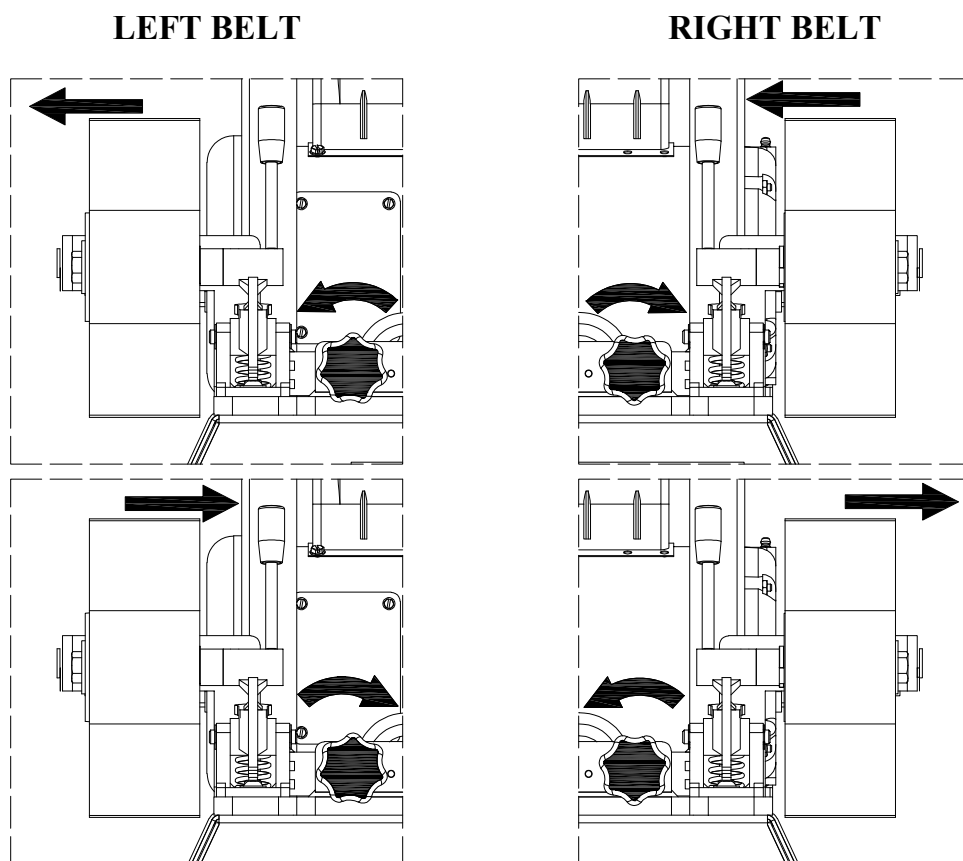


FIGURE 5.7

5.9 Belt Replacement

For parts identification, REFER TO FIGURE 5.8 BELOW.

WARNING: Before performing any maintenance, adjustments, or belt changes, disconnect the machine from the power source.

1. Remove Belt Guard (1) by unscrewing Belt Guard Knobs (2).
2. After the Belt Guard has been removed, push the Tension Lever (3) towards the front of the machine to release tension on the Belt (4).
3. Remove the worn Belt.
4. Next, install the new Belt by sliding it partially on to the front Contact Wheel (5) first, then push the Tension Lever towards the front of the machine and slide the Belt on to the Idler Wheel (6).
5. After the belt has been installed, spin the contact wheel by hand to determine where the belt is tracking on the Idler and Contact Wheel at a low speed.
6. If the belt does not track correctly, loosen the Flanged Bolt (7) on the back side of the tension system and adjust the Tracking Knobs (8) as needed (see page 16) until the belt is tracking well, then reconnect power and briefly (~0.5 seconds) power the machine to ensure the belt will track correctly at a higher speed, adjust Tracking Knobs as needed, once the new belt is tracking properly tighten the Flanged Bolt to 'lock' this tracking position.
7. Reinstall the Belt Guard.

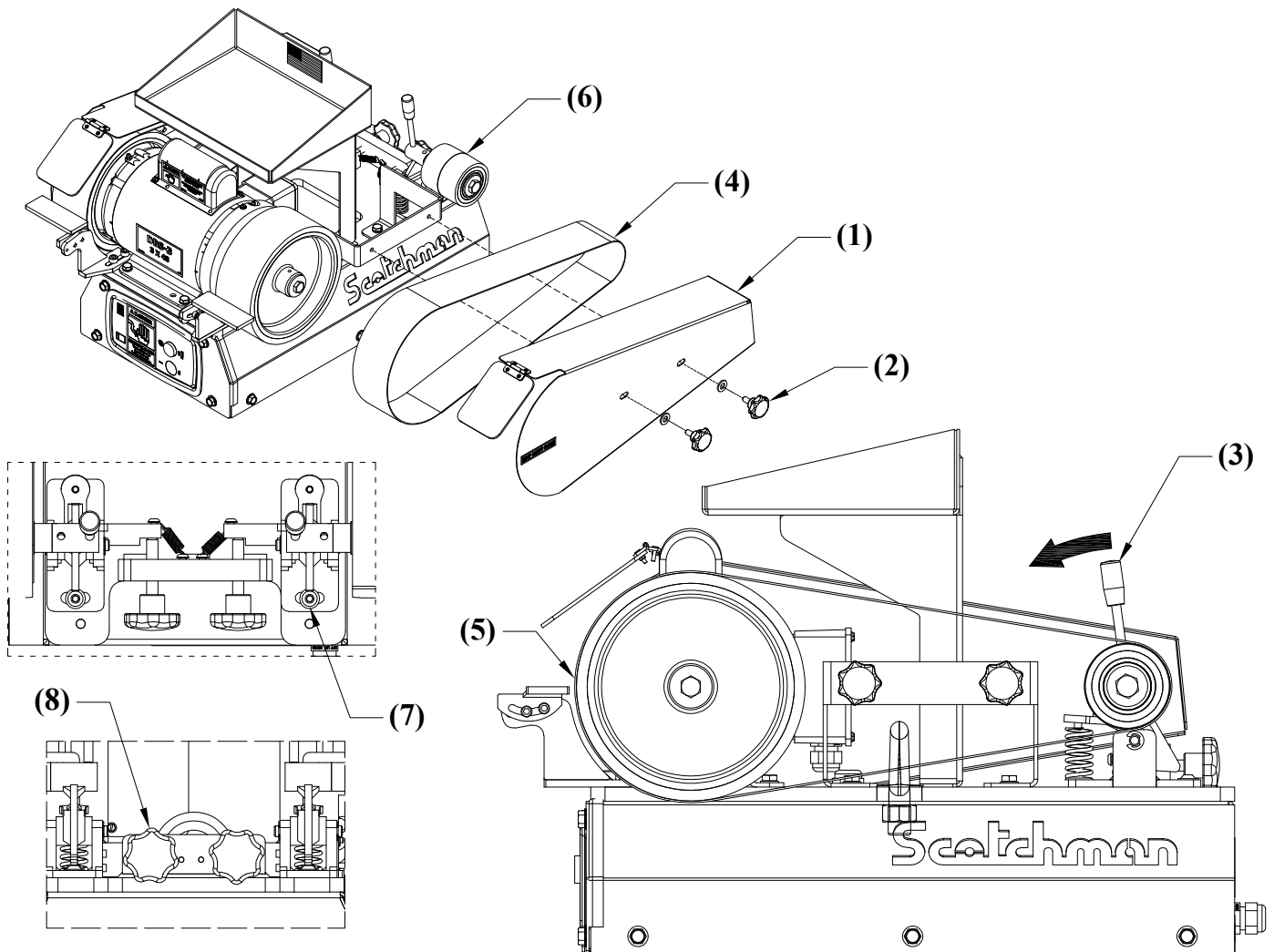


FIGURE 5.8

6.0 PARTS BREAKDOWN

For convenience and ease of order completion, always provide your complete serial number when ordering parts.

6.1 Base Plate Assembly

ITEM	PART #	DESCRIPTION
1	000627	#20 SNAP RING
2	001602	1.5" EXTENSION SPRING
3	077156	M6 X 8 X 12 DIN912 SHOULDER BOLT
4	077157	M6 DIN985 GREER NUT
5	092011	DBS-3 BASE PLATE PAINTED
6	092022	DBS-3 BELT GUARD BRACKET
7	092028	DBS-3 TRACKING BASE LH
8	092034	DBS-3 TRACKING BASE RH
9	092035	DBS-3 TENSION ROCKER
10	092046	DBS-3 1" OD IDLER SHAFT
11	092074	M10 X 50MM TRACKING KNOB
12	092075	3/8" X 2" CLEVIS PIN
13	092076	DBS-3 COMPRESSION SPRING
14	092078	DBS-4 TENSION LEVER
15	092111	DBS-3 TRACKING SYSTEM ASSEMBLY RH SALES
16	092112	DBS-3 TRACKING SYSTEM ASSEMBLY LH SALES
17	123011	1/8 X 2 HAIRPIN COTTER PIN
18	201138	M8 X 16MM DIN933 HHCS
19	214011	M8 DIN125 REGULAR WASHER
20	218032	M8 X 20MM DIN915 DP SET SCREW
21	220014	M6 X 10MM DIN BN19 BHCS
22	220060	M8 X 16MM ISO 7380-2 FLANGED BHCS

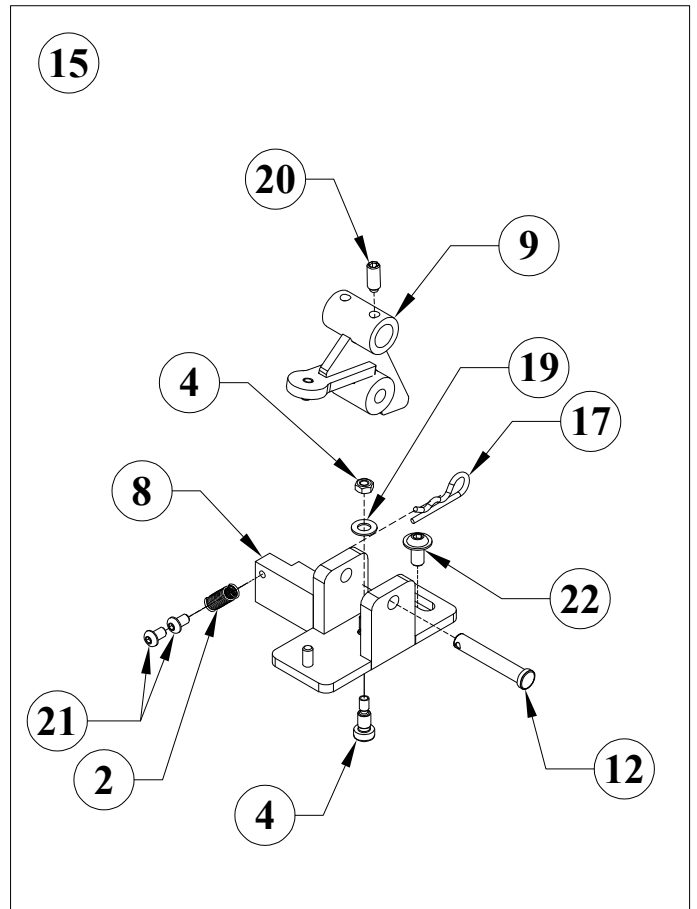
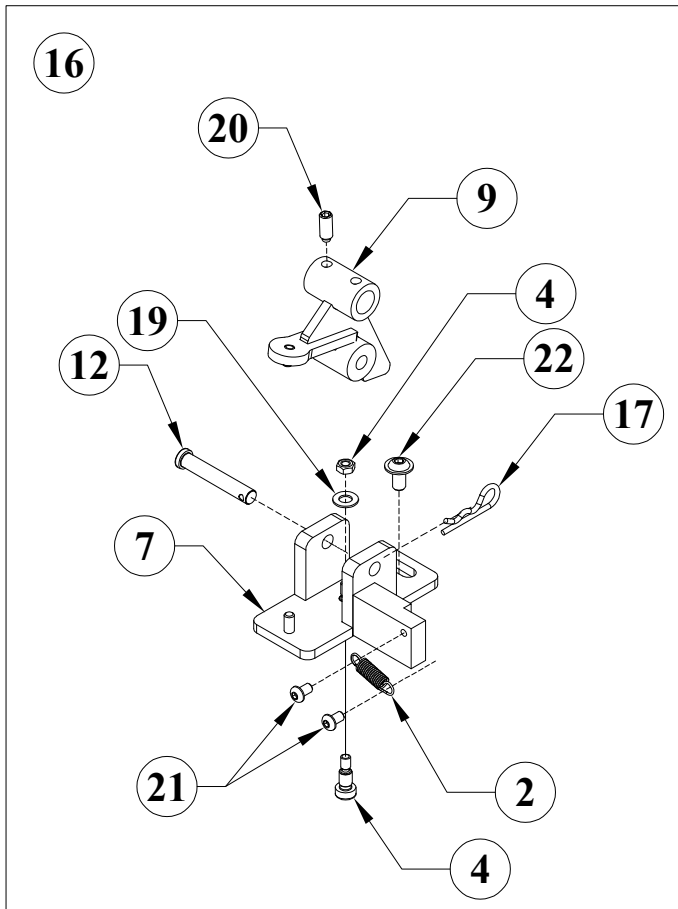
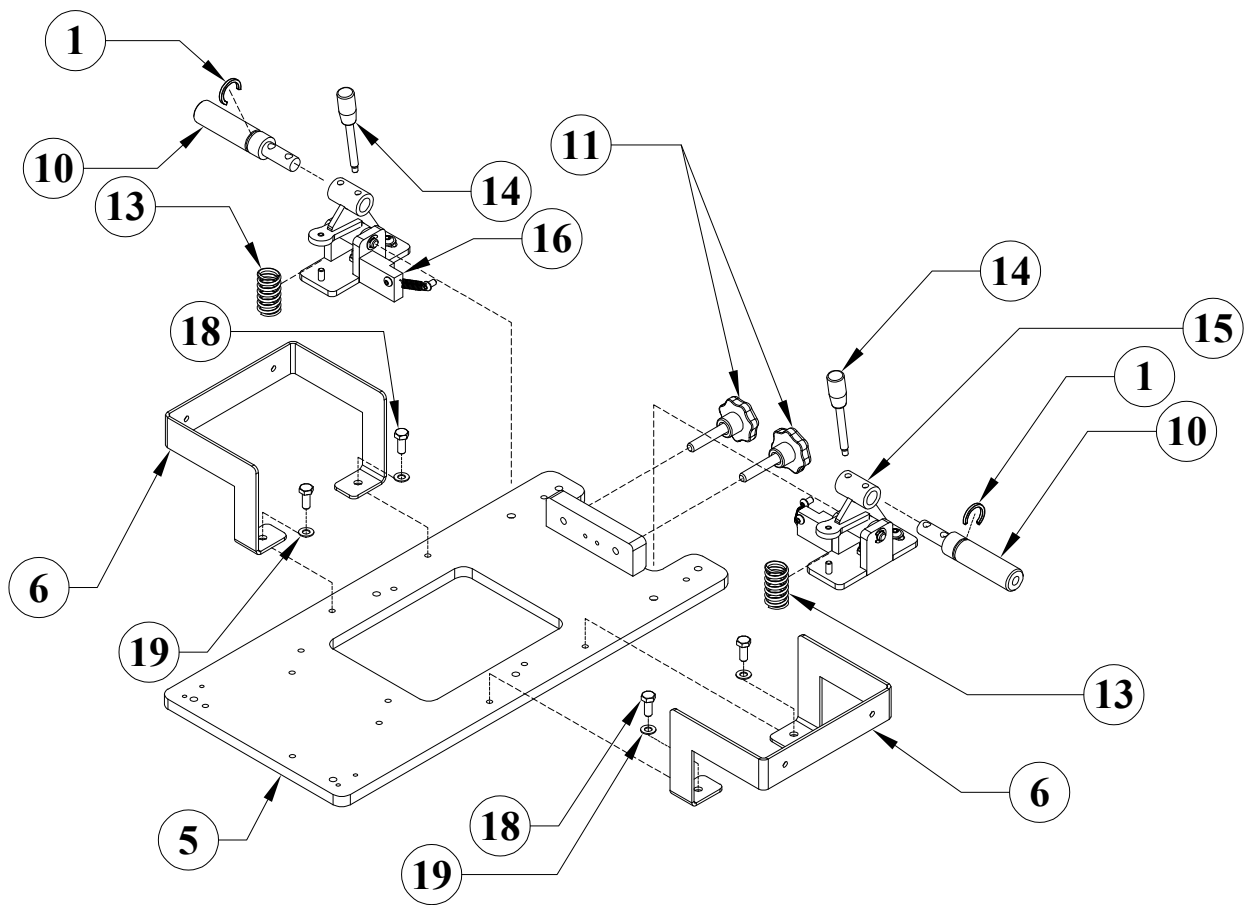


FIGURE 6.1

6.2 Cabinet Base Assembly

ITEM	PART #	DESCRIPTION
1	011311	CONTACTOR IEC 18A 3 N.O. POLE 208-240VAC 50/60HZ
2	011306	WEG THERMAL OVERLOAD RELAY 5.6-8.0A
3	014405	STAINLESS BACK PLATE ASSY
4	073660	M8 X 12MM DIN912 SHCS
5	077864	M5 X 12MM DIN912 SHCS
6	077907	SHROUD EDGE
7	092010	DBS-3 BASE ASSEMBLY
8	092019	DBS-3 CABINET ACCESS PANEL
9	092020	DBS-3 CABINET TOP
10	092021	DBS-3 CABINET BOTTOM
11	092045	DBS-3 S-S BUTTON MOUNTING PLATE
12	092064	220VAC 1PH START/STOP ENCLOSURE
13	201205	M10 X 16MM DIN933 HHCS
14	214012	M10 DIN125 REGULAR WASHER
15	224105	M8 X 16MM DIN-BN73 WLCS
16	234008	M5 DIN934 HEX NUT
17	562501	PG16 LIQUID CORD CONN

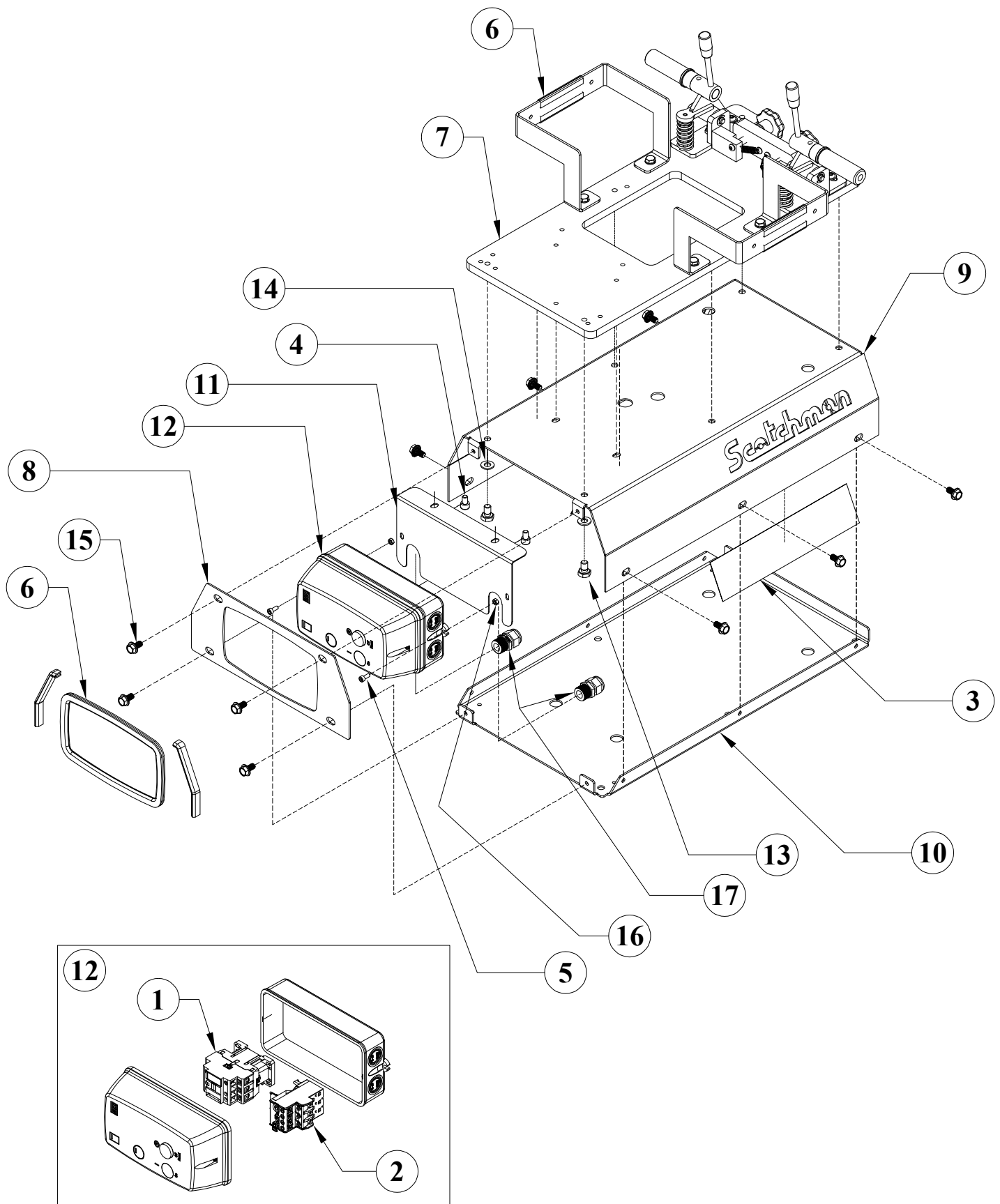


FIGURE 6.2

6.3 Sander Sub Assembly

ITEM	PART #	DESCRIPTION
1	073692	M20 DIN 580 EYE BOLT
2	092024	DBS-3 TOOL REST BASE RH
3	092025	DBS-3 TOOL REST RH
4	092026	DBS-3 TOOL REST LH
5	092027	DBS-3 TOOL REST BASE LH
6	092061	1HP 115/230V 60 HZ DOUBLE SHAFT MOTOR
7	092065	DBS-3 8" X 3" CONTACT WHEEL
8	092068	DBS-3 3" X 3" IDLER WHEEL
9	092113	DBS-3 TOOL REST ASSEMBLY RH SALES
10	092114	DBS-3 TOOL REST ASSEMBLY LH SALES
11	201138	M8 X 16MM DIN933 HHCS
12	201205	M10 X 16MM DIN933 HHCS
13	203212	M10 X 30MM DIN933 HHCS
14	213012	M10 DIN9021 BLACK WASHER
15	213014	M12 DIN9021 LARGE WASHER
16	214011	M8 DIN125 REGULAR WASHER
17	220060	M8 X 16MM ISO 7380-2 FLANGED BHCS
18	221010	M6 X 16MM DIN912 SHCS
19	562501	PG16 LIQUID CORD CONN

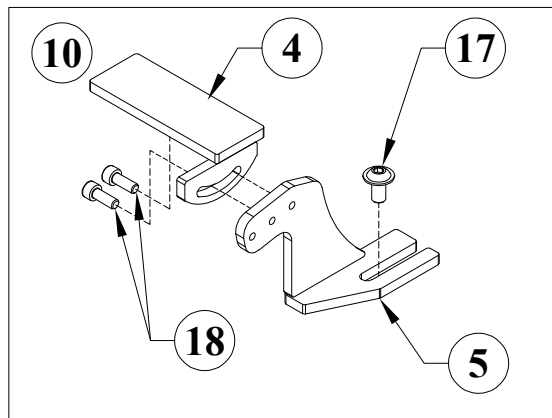
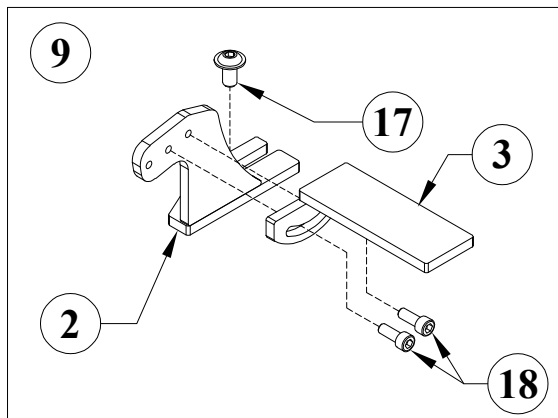
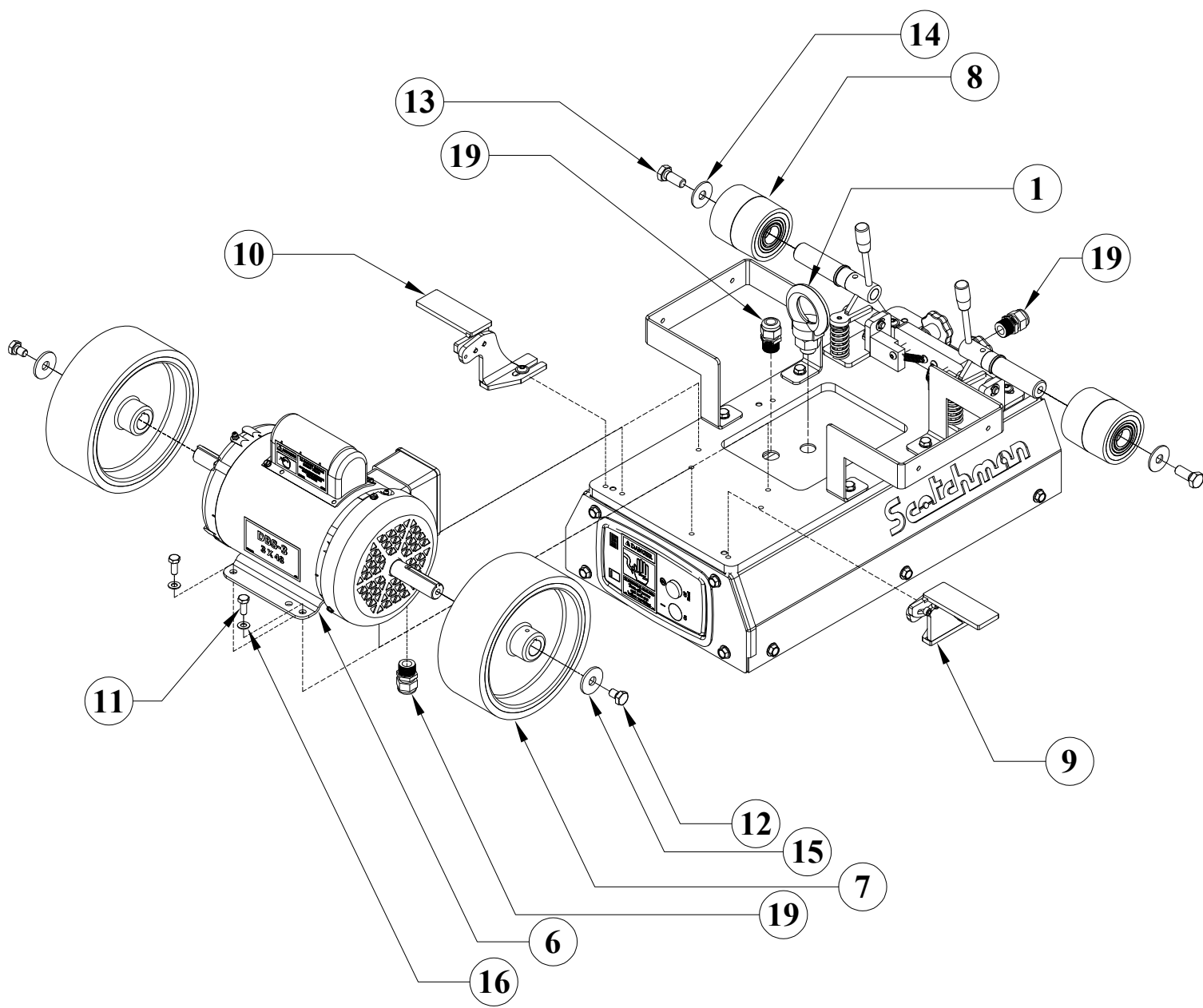


FIGURE 6.3

6.4 Sander Assembly

ITEM	PART #	DESCRIPTION
1	092014	DBS-3 PARTS TRAY
2	092043	DBS-3 BELT GUARD (LH)
3	092044	DBS-3 BELT GUARD (RH)
4	092072	1-1/2" FRINCTION HINGE
5	092073	DBS-3 LEXAN SPARK SHIELD
6	092079	DBS-3 BELT GUARD KNOB
7	092081	3 X 48" MED NON WOVEN BELT
8	092084	3 X 48" 36 GRIT SANDING BELT
9	092115	DBS-3 CHIP GUARD ASSEMBLY
10	201138	M8 X 16MM DIN933 HHCS
11	208000	M3 DIN934 HEX NUT
12	214011	M8 DIN125 REGULAR WASHER
13	214012	M10 DIN125 REGULAR WASHER
14	220100	M3 X 10MM DIN912 SHCS

SHIPS LOOSE

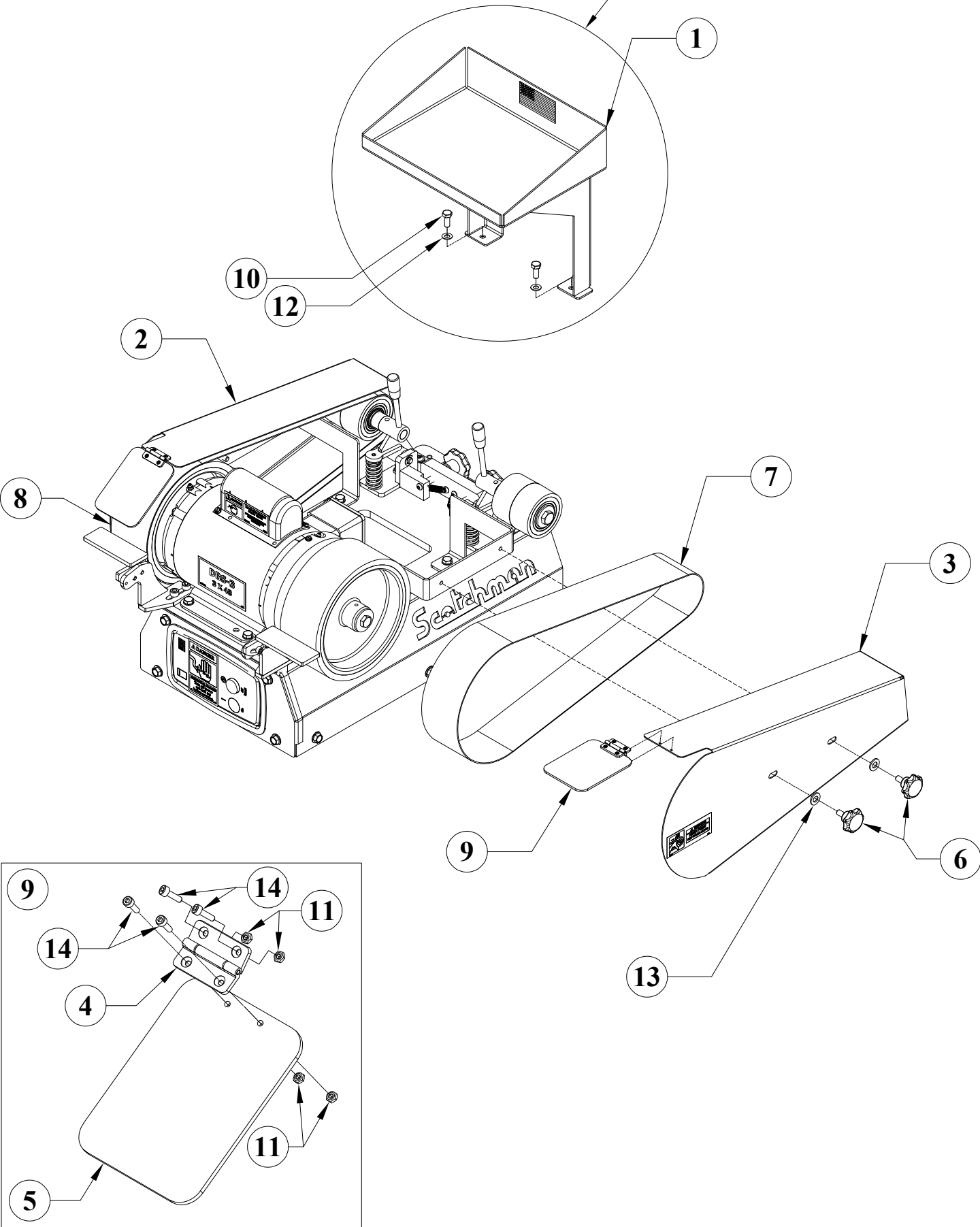


FIGURE 6.4

6.5 Stand Assembly

ITEM	PART #	DESCRIPTION
1	092051	DBS-3 LOWER LEG PAINTED
2	092052	DBS-3 LOWER PARTS TRAY
3	092055	DBS-3 TOP LEG
4	092071	M12 X 100MM LEVELING FEET
5	111000	3/8-16 SERRATED FLANGE LOCKNUT
6	130210	3/8-16 X 1 CARRIAGE BOLT ZINC
7	224105	M8 X 16MM DIN-BN73 WLCS

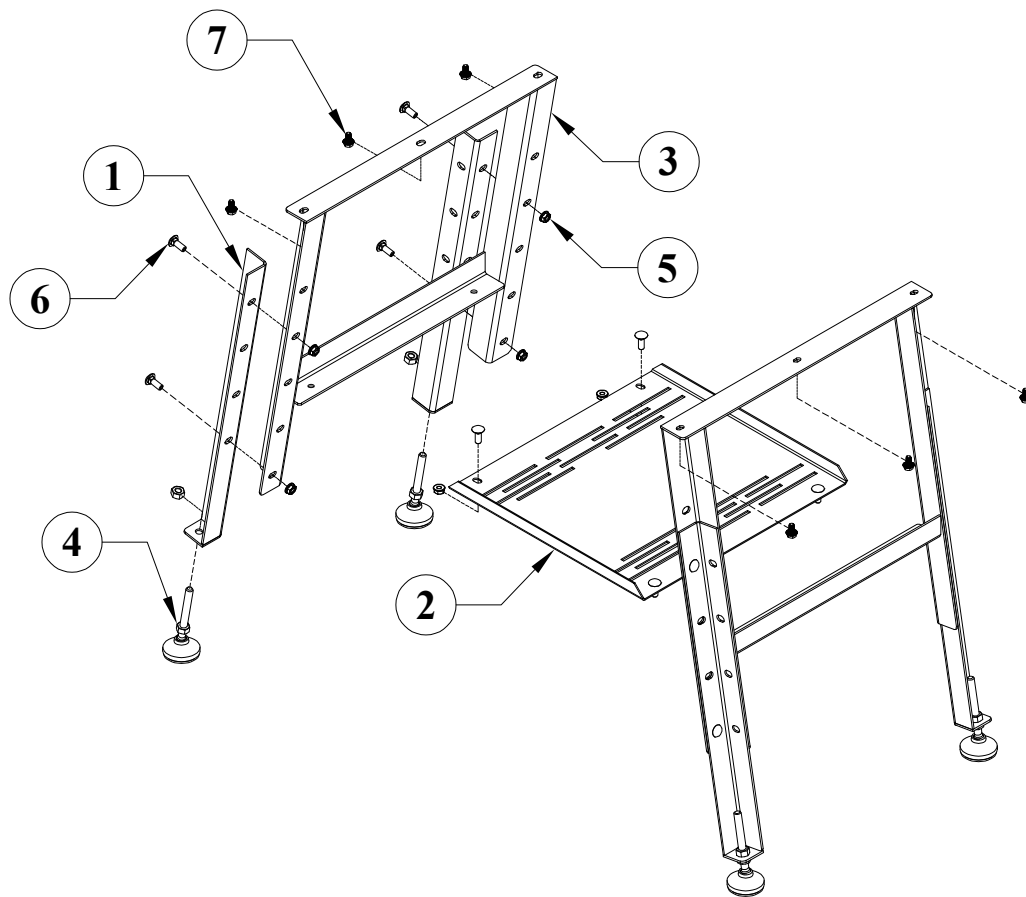


FIGURE 6.5

7.0 Technical Data

7.1 Technical Specifications

Abrasive Belts	(1X) 3" x 48" Sanding Belt (36 Grit)
	(1X) 3" x 48" Non-Woven Med. Finishing Belt (180 Grit)
Motor	1.0 HP
Voltages	1 PH 220V 60 Hz
Class	NEMA F
Rating-Duty	40C AMB-CONT
RPM	1750
Amp	6.3
Power Factor	.69
Belt Speed (FPS)	60
Contact Wheel	8" x 3"
Weight (lbs.)	200
	Toolless Belt Changing/Tensioning
	Adjustable Stand and Leveling Feet

8.0 AVAILABLE BELTS

NOTE: This machine comes standard with one 36 grit Aluminum Oxide Sanding Belt and one Medium (180 grit) Non-Woven Scotchbrite Belt.

Other Sanding Belt grits (24 - 400) not listed can be ordered from the factory.

Rough (100 grit), Extra Fine (240 grit), and Ultra Fine (400 grit) Non-Woven Belts also available. Call to inquire for more information.

	<u>Item</u>	<u>Length / Grit</u>	<u>Part number</u>	<u>Packaging</u>
*	Aluminum Oxide	3" x 48" / 36	092084	1 box (10 belts)
	Aluminum Oxide	3" x 48" / 60	092082	1 box (10 belts)
	Non-Woven Belts	3" x 48" / FINE	092083	1 box (10 belts)
*	Non-Woven Belts	3" x 48" / MED	092081	1 box (10 belts)

* Denotes belts that come standard with machine.

Scotchman[®] Industries, Inc.

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