Husqvarna®

Operator's manual

TS510

Please read the operator's manual carefully and make sure you understand the instructions before using the machine.

GB

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Introduction

Thank you for purchasing your new machine from Husqvarna Construction Products. We have provided important safety messages in this manual and on the machine. Please read these messages carefully. A safety message alerts you to potential hazards that could hurt you or others. Each safety message is preceded by a symbol or the safety alert symbol (⚠) and one of two words, **WARNING**, or **CAUTION**.

These signal words mean:

WARNING: Indicates a hazardous situation which, if not avoided COULD result in death or serious injury.

CAUTION: Indicates a hazardous situation, which, if not avoided, COULD result in minor or moderate injury. It may also be used to alert against unsafe practices.
Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury. Other important messages are preceded by the word NOTICE.

NOTICE means:

NOTICE: Indicates a hazardous situation which, if not avoided, could result in property damage. Your machine or other property can be damaged if you don't follow this instruction.

The safety labels should be periodically inspected and cleaned by the user to maintain good legibility at a safe viewing distance. If the label is worn, damaged, or is illegible, it should be replaced.

⚠ WARNING!

Before starting up machine make sure you completely read these instructions. Be familiar with operation of the machine before operation!

⚠ **EVERY MACHINE IS THOROUGHLY TESTED BEFORE LEAVING THE FACTORY. EACH MACHINE IS SUPPLIED WITH A COPY OF THIS MANUAL. OPERATORS OF THIS EQUIPMENT MUST READ AND BE FAMILIAR WITH THE SAFETY WARNINGS. FAILURE TO OBEY WARNINGS MAY RESULT IN INJURY OR DEATH. FOLLOW INSTRUCTIONS STRICTLY TO ENSURE LONG SERVICE IN NORMAL OPERATION.**

SYMBOLS and DECALS

- Please read the instructions for use prior to operating the machine for the first time.
- Antes de la puesta en marcha, lea detenidamente las instrucciones y familiaricese con la máquina.

- Mandatory
- Obligatorio

- Indication
- Indicación

- Prohibition
- Prohibición

- Warning Triangle
- Triángwulo De Advertencia

- Wear Eye Protection
- Usar Gafas De Protección

- Wear Head Protection
- Usar Casco De Protección

- Wear Breathing Protection
- Usar Máscara De Protección

- The Use Of Ear Protection Is Mandatory
- Es Obligatorio El Uso De Protección Auditiva

- Wear a Hard Hat
- Usar Casco Duro

- Wear Safety Shoes
- Usar Zapatos De Seguridad

- Wear Appropriate Clothing
- Usar Ropa Adecuada

- Remove The Blade Prior To Hoisting, Loading, Unloading And Transporting The Machine On Jobsite.
- Desmontar El Disco Antes De Desplazar, Cargar, Descargar O Transportar La Máquina En La Obra.

SYMBOLS and DECALS

- Motor Off
- Parar El Motor

- Use In Well Ventilated Area
- Usar En Una Área Bien Ventilada

- Do Not Use In Flammable Areas
- No Usar In Áreas Inflamables

- Machinery Hazard, Keep Hands And Feet Clear.
- Máquina Peligrosa - Mantenga Manos Y Pies Alejados De La Máquina

- Danger, Poison Exhaust Gas
- Peligro, Gases De Escape Tóxicos

- No Non-working Personnel In Area
- Prohibido Para Personas Ajenas A La Obra

- No Smoking
- No Fumar

- Do Not Operate Without All Guards In Place
- No Operar Sin Todas Las Protecciones In Su Sitio

- Always Keep the Blade Guards In Place
- Mantenga Siempre Las Protecciones De La Hoja En Su Sitio

- Water Supply On
- Suministro De Agua Conectado

- Water Supply Off
- Suministro De Agua Desconectado

- Water Supply
- Suministro De Agua

- Keep Work Area Clean/Well Lit, Remove All Safety Hazards
- Mantenga Limpio El Sitio De Trabajo/Bien Iluminado, Elimine Todos Los Riesgos De Seguridad

SYMBOLS and DECALS

- Dangerously High Noise Level
- Nivel De Ruido Elevadamente Peligroso

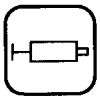
- Pay Extreme Attention To The Care And Protection Of The Machine Before Starting Up
- Ponga Extrema Atención Al Cuidado Y Preparación De La Máquina Antes De Ponerla En Marcha

- Remove Tools From Area and Machine
- Elimine Las Herramientas Del Área Y De La Máquina

- Oil Pressure
- Presión De Aceite

- Oil Required
- Necesita Aceite

- Dipstick, Maintain Proper Oil Level
- Varilla De Control, Mantenga El Nivel De Aceite Correcto



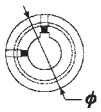
- Lubrication Point
- Punto De Lubrication

- Unleaded Fuel Only
- Solamente Combustible Sin Plomo

- Repairs Are To Be Done By An Authorized Dealer Only
- Las Reparaciones Deben Ser Efectuadas Únicamente Por Un Distribuidor Autorizado

- Diamond Blade
- Sierra Diamantada

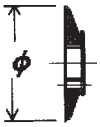
- Blade Diameter
- Diámetro De La Hoja



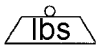
- Pulley Diameter
- Diámetro De La Correa

SYMBOLS and DECALS

- Number of Revolutions Per Minute, Rotational Speed
- N° De Revoluciones Por Minuto, Velocidad De Rotación



- Blade Flange Diameter
- Diámetro De La Brida De La Hoja



- Machine Mass (lbs)
- Masa De La Máquina (lbs)

- Engine
- Motor

- Engine Speed Revolutions/Minute
- Velocidad Del Motor En Revoluciones Por Minuto (RPM)

- Engine Start
- Arranque Del Motor

- Electric Motor
- Motor Electrica

Husqvarna

TARGET GUARDMATIC TS510

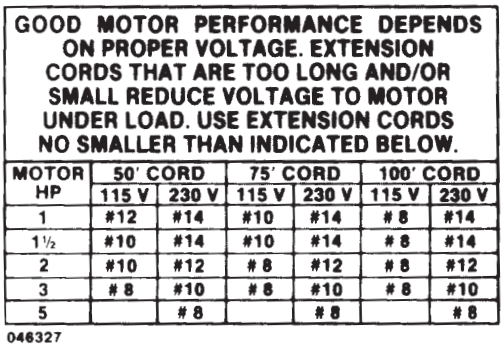
P/N 542 19 07-26
Location: Water Pan Sides, (2X)

P/N 542 17 75-88
Location: Blade Guard (Qty. 1) All Models

Husqvarna

P/N 542 19 07-33
Location: Front of Pan, Belt Guard (2X)

P/N 046326
Location: Motor
(Qty. 1) Electric Models



GOOD MOTOR PERFORMANCE DEPENDS ON PROPER VOLTAGE. EXTENSION CORDS THAT ARE TOO LONG AND/OR SMALL REDUCE VOLTAGE TO MOTOR UNDER LOAD. USE EXTENSION CORDS NO SMALLER THAN INDICATED BELOW.

MOTOR HP	50' CORD		75' CORD		100' CORD	
	115 V	230 V	115 V	230 V	115 V	230 V
1	#12	#14	#10	#14	# 8	#14
1½	#10	#14	#10	#14	# 8	#14
2	#10	#12	# 8	#12	# 8	#12
3	# 8	#10	# 8	#10	# 8	#10
5		# 8		# 8		# 8

046327

P/N 046327
Location: Motor
(Qty. 1) Electric Models

SAFETY INSTRUCTIONS

⚠ WARNING!

Before starting up machine make sure you completely read these instructions. Be familiar with operation of the machine before operation!

MANDATORY

INDICATION
INFORMATION
INSTRUCTION

WARNING

PROHIBITION

These signs will give advice for your safety

Before leaving our factory every machine is thoroughly tested.

Follow our instructions strictly and your machine will give you long service in normal operating conditions.

⚠ WARNING!

Always make sure the saw is connected to a properly grounded electrical outlet. Failure to comply with this warning could result in serious bodily injury or death!

The operator must wear protective clothing appropriate to the work he is doing.

Any persons not involved in the work should leave the area.

The working area must be completely clear, well lit and all safety hazards removed.

Any persons not involved in the work, should leave the area.

⚠ WARNING!

Use ONLY Reinforced Abrasive Blades or Diamonnnd Blades with this machine.

Use ONLY blades marked with a maximum operating speed greater than the blade shaft speed.

DO NOT use carbide tipped, wood cutting, or circular saw blades with this machine.

Conventional “Wet” diamond blades MUST be used with water.

DO NOT use conventional “Wet” diamond blades without water. Using conventional “wet” diamond blades without water can result in injury or death of the operator or persons in the work area!

Before performing any maintenance, ALWAYS locate the machine on a level surface with the engine / motor OFF and the start switch in the OFF position, and the power source disconnected.

SAFETY INSTRUCTIONS

⚠ WARNING!

HEARING HAZARD! DURING NORMAL USE OF THIS MACHINE, OPERATOR MAY BE EXPOSED TO A NOISE LEVEL EQUAL OR SUPERIOR TO **85 dB (A)**

DUST WARNING

Cutting, especially when DRY cutting, generates dust that comes from the material being cut, which frequently contains silica. Silica is a basic component of sand, quartz, brick clay, granite and numerous other minerals and rocks. Exposure to excessive amount of such dust can cause:

- Respiratory diseases (affecting your ability to breath), including chronic bronchitis, silicosis and pulmonary fibrosis from exposure to silica. These diseases may be fatal;
- Skin irritation and rash; and
- Cancer according to NTP* and IARC*
  * National Toxicology Program, International Agency for Research on Cancer

Take precautionary steps

- Avoid inhalation of and skin contact with dust, mist and fumes;
- Wet cut when feasible, to minimize dust;
- Wear and ensure that all bystanders wear appropriate respiratory protection such as dust masks designed to filter out microscopic particles. (See OSHA 29 CFR Part 1910.1200)

California Prop 65 Warning:

Use of this product can cause exposure to materials known to the State of California to cause cancer and/or birth defects or other reproductive harm.

SAFETY FIRST!

WARNINGS
DO's AND DO NOT's

WARNING: FAILURE TO COMPLY WITH THESE WARNINGS AND OPERATING INSTRUCTIONS COULD RESULT IN DEATH OR SERIOUS BODILY INJURY.

DO

- **DO** read this entire operator's manual before operating this machine. Understand all warnings, instructions, and controls.
- **DO** keep all guards in place and in good condition.
- **DO** wear safety approved hearing, eye, head and respiratory protection.
- **DO** read and understand all warnings and instructions on the machine.
- **DO** read and understand the symbol definitions contained in this manual.
- **DO** keep all parts of your body away from the blade and all other moving parts.
- **DO** know how to stop the machine quickly in case of emergency.
- **DO** shut off the engine and allow it to cool before refueling.
- **DO** inspect the blade, flanges and shafts for damage before installing the blade.
- **DO** use only reinforced abrasive blades or steel center diamond blades manufactured for use on masonry saws.
- **DO** use only blades marked with a maximum operating speed greater than the blade shaft speed. Verify speed by checking blade shaft rpm and pulley diameters and blade flange diameters.
- **DO** verify saw drive configuration by checking blade shaft RPM, pulley diameters, and blade flange diameter.
- **DO** read all safety materials and instructions that accompany any blade used with this machine.
- **DO** inspect each blade carefully before using it. If there are any signs of damage or unusual wear, **DO NOT USE THE BLADE**.
- **DO** mount the blade solidly and firmly. Wrench tighten the arbor nut.
- **DO** make sure the blade and flanges are clean and free of dirt and debris before mounting the blade on the saw.
- **DO** use dry cutting diamond blades with a 1" (diameter arbor only). Never use damaged or worn blade flanges.
- **DO** use the correct blade for the type of work being done. Check with blade manufacturer if you do not know if blade is correct.
- **DO** operate this machine only in well ventilated areas.
- **DO** instruct bystanders on where to stand while the machine is in operation.
- **DO** establish a training program for all operators of this machine.
- **DO** clear the work area of unnecessary people. Never allow anyone to stand in front of or behind the blade while the engine is running.
- **DO** make sure the blade is not contacting anything before starting the engine.
- **DO** always tie down the machine when transporting.
- **DO** use caution and follow instructions when setting up or transporting the machine.
- **DO** have all service performed by competent service personnel.
- **DO** verify the blade arbor hole matches the machine spindle before mounting the blade.
- **DO** make sure the gas caps of the machine and the fuel can are properly tightened before starting the engine. Move fuel can at least 10 feet from machine after fueling.
- **DO** clean the machine after each day's use.
- **DO** remove adjusting keys and wrenches from tool before turning it on.
- **DO** keep the handles dry, clean and free of oil and dirt.
- **DO** carefully maintain and clean for better and safer performance. Follow instructions for changing accessories. Inspect tool cords periodically and, if damaged, have repaired by authorized service facility.
- **DO** use the proper blade flange size for each blade size. Never use damaged or worn blade flanges.
- **DO** use caution when handling fuel.
- **DO** only cut in a straight line.
- **DO** **make sure electric powered machines are plugged into a properly grounded circuit.**
- **DO** **make sure power cords are the proper size and in good condition.**
- **DO** **follow all electrical codes in your area.**
- **DO** **use correct voltage and proper extension cords. Never carry tool by cord or yank it to disconnect it from receptacle. Keep cord away from heat, oil and sharp edges.**
- **DO** **disconnect tools from power source when not in use, before servicing and, when changing accessories.**
- **DO** **carefully maintain and clean for better and safer performance. Follow instructions for changing accessories. Inspect tool cards periodically and, if damaged, have repaired by authorized service facility.**
- **DO** always give a copy of this manual to the equipment user. For extra copies, call TOLL FREE 1-800-288-5040.

SAFETY FIRST!

WARNINGS
DO's AND DO NOT's

WARNING: FAILURE TO COMPLY WITH THESE WARNINGS AND OPERATING INSTRUCTIONS COULD RESULT IN DEATH OR SERIOUS BODILY INJURY.

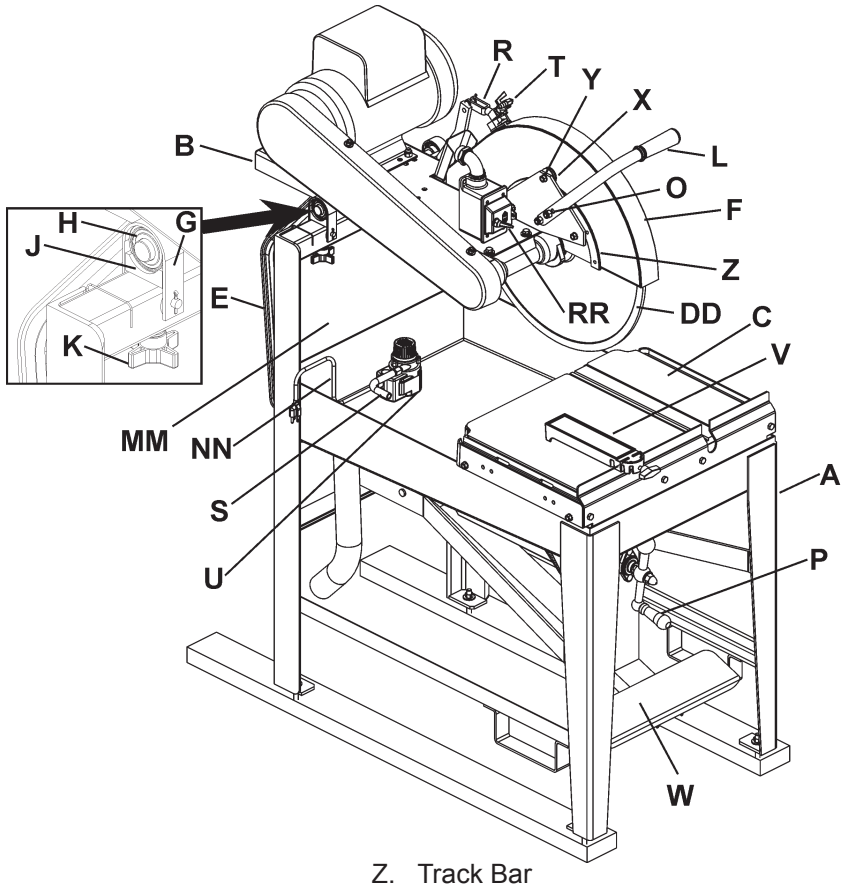
DO NOT

DO NOT operate this machine unless you have read and understood this operator's manual.
DO NOT operate this machine without the blade guard, or other protective guards in place.
DO NOT leave this machine unattended while the engine is running.
DO NOT work on this machine while the engine is running.
DO NOT operate this machine when you are tired or fatigued.
DO NOT use a wet blade without adequate water supply to the blade.
DO NOT exceed maximum blade speed shown for each blade size. Excessive speed could result in blade breakage.
DO NOT operate the machine if you are uncertain of how to run the machine.
DO NOT use damaged equipment or blades.
DO NOT touch or try to stop a moving blade with your hand.
DO NOT cock, jam, wedge or twist the blade in a cut.
DO NOT transport a cutting machine with the blade mounted on the machine.
DO NOT use a blade that has been dropped or damaged.
DO NOT use carbide tipped blades.
DO NOT lay power cords in or near water.
DO NOT replace the motor with any motor that does not have a special grounding connection.
DO NOT use segmented diamond blades without water unless specifically designed for dry cutting.
DO NOT touch a dry cutting diamond blade immediately after use. These blades require several minutes to cool after each cut.
DO NOT use damaged or worn blade flanges.
DO NOT allow other persons to be near the machine when starting, refueling, or when the machine is in operation.
DO NOT operate this machine in an enclosed area unless it is properly vented.
DO NOT operate this machine in the vicinity of anything that is flammable. Sparks could cause a fire or an explosion.
DO NOT allow blade exposure from the guard to be more than 180 degrees.
DO NOT operate this machine with the belt guard or blade guard removed.
DO NOT operate this machine unless you are specifically trained to do so.
DO NOT use a blade that has been over heated (Core has a bluish color).
DO NOT jam material into the blade.
DO NOT grind on the side of the blade.
DO NOT start cutting with a saw until you have a clear work area and secure footing.
DO NOT operate this machine while under the influence of drugs or alcohol.

This saw was designed for certain applications only. DO NOT modify this saw or use for any application other than for which is it was designed. If you have any questions relative to its application, DO NOT use the saw until you have written Diamant Boart, Inc. and we have advised you.

Husqvarna Construction Products, North America
17400 West 119th Street
Olathe, Kansas 66061
In USA 1-800-288-5040

WHAT-IS-WHAT (PARTS IDENTIFICATION)

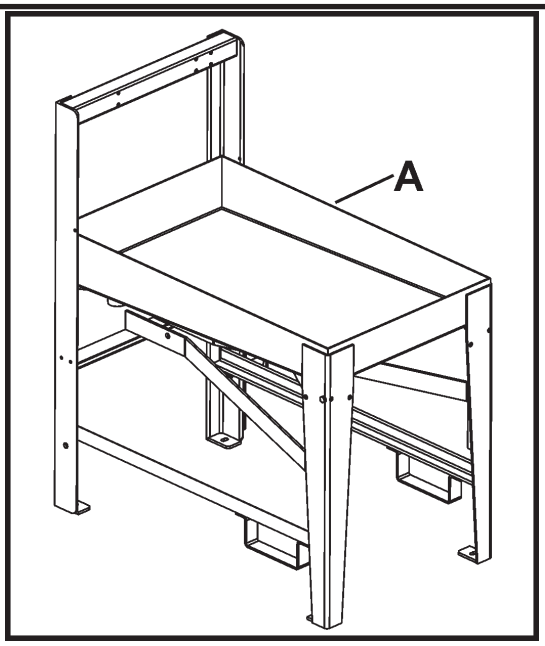


A. Pan Weldment
B. Head Platform Assembly
C. Conveyor Cart Assembly
D. Pin (For Foot Pedal Yoke - Not Shown)
E. Foot Pedal Yoke
F. Blade Guard Assembly
G. Bearing Clamps
H. Bearings
I. —
J. Pivot Blocks
K. Knobs
L. Handle with Grip
M. Capscrew
N. Lower Bracket
O. Handle Attaching Hardware
P. Blade Height Control Handle
Q. Spring
R. Tilt Arm (For Blade Guard)
S. Water Hose (Water Pump To Blade Guard)
T. Water Valve
U. Water Pump
V. Rip Guide
W. Foot Pedal
X. Wheel (Blade Guard Pivot)
Y. Setscrew (Blade Guard Pivot)

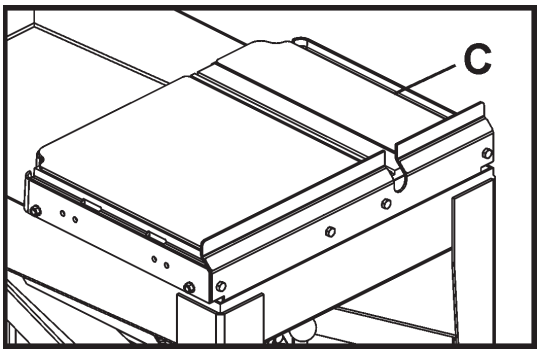
Z. Track Bar
AA. --
BB. Capscrew (Blade Shaft - Not Shown)
CC. Outer Flange (Not Shown)
DD. Blade (Diamond or Abrasive)
EE. Inner Flange (Not Shown)
FF. Arbor (Blade Mounting - Not Shown)
GG. Square (Not Shown)
HH. Shims (Not Shown)
II. ————————————
JJ. Capscrews (Blade Shaft Housing- Rear-Not Shown)
KK. Capscrews (Blade Shaft Housing- Top-Not Shown)
LL. Wrench (Not Shown)
MM. Splash Curtain
NN. Electrical Cord (Water Pump)
OO. Electrical Plug
PP. Reset Button (Electric Motor - Not Shown)
QQ. ————————————
RR. Power Switch (On-Off)
SS. Belt Tensioning Bolt
TT. Serial Number Plate
UU. --
VV. --
WW. --

ASSEMBLY

- When unpacked, this unit consists of these parts:
  1. Pan Weldment (A).
  2. Head Platform Assembly (B).
  3. Cart Assembly (C).
  4. Blade Guard Assembly (F).
  5. Water Pump (U) Carton.
  6. Wrench (LL) & Rip Guide (V) wrapped inside Water Curtain (MM).

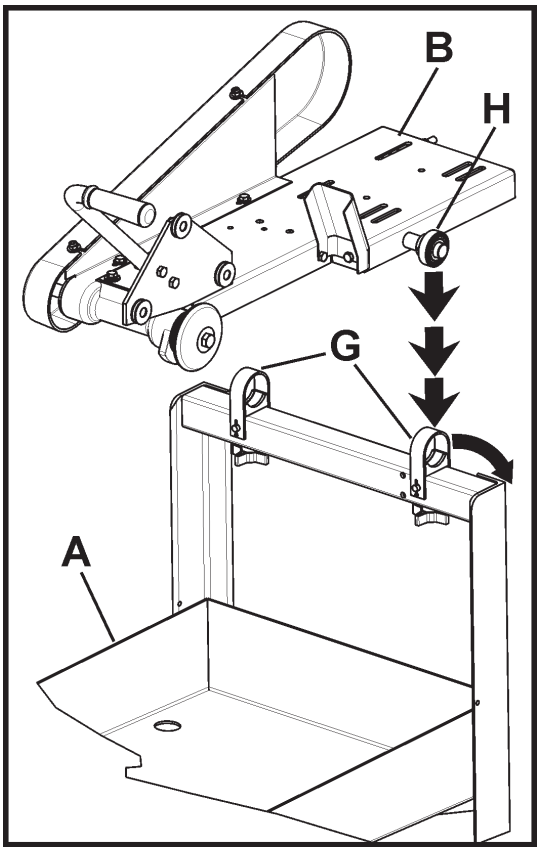


- Set the Pan Weldment (A) in an open area so all sides can be accessed. Remove Head Platform Assembly (B) from Pan.

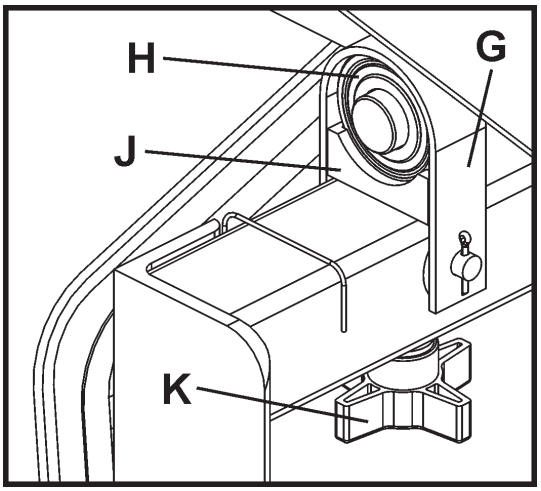


- Remove Cart Assembly (C) from its shipping carton. Set the Cart Assembly (C) onto the Pan Weldment (A) so that the wheels of the Cart Assembly (C) roll along the sides of the Pan Weldment (A).

- Pivot left and right Bearing Clamps (G) into their lower position. Mount Head Platform Assembly (B) [Note For clarity, Electric Motor not shown on diagram] to Pan Weldment (A) so that Bearings (H) (on Head Platform) are resting in Pivot Blocks (J) (on Pan Weldment) and blade shaft end of Head Platform (B) is resting on Cart Assembly (C).

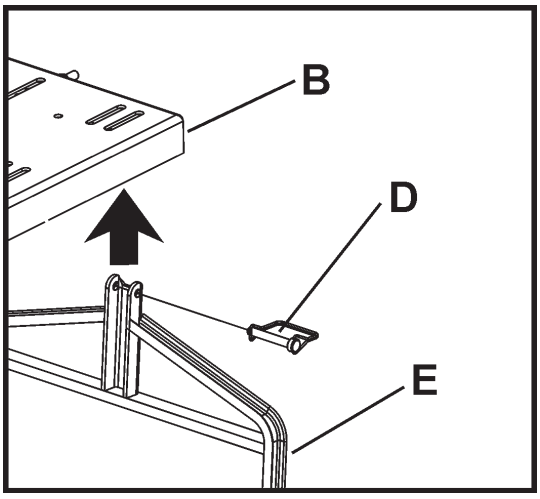


- Pivot left and right Bearing Clamps (G) into their upper position. Tighten Knobs (K) until Bearing (H) of Head Platform (B) is secured into Pivot Block (J) of Pan Weldment (A).

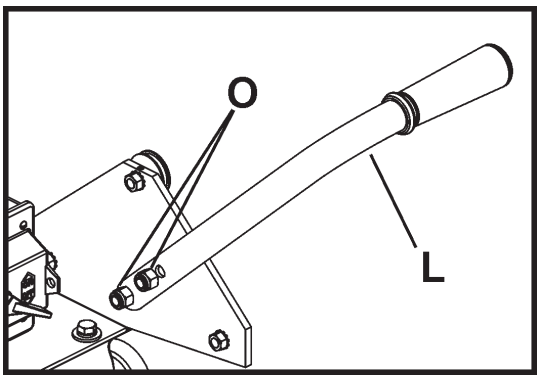


- Pivot Head Platform (B) upward then install Pin (D) to connect Head Platform (B) to Foot Pedal Yoke (E).

Note: Motor not shown on Head Platform (B) for clarity.

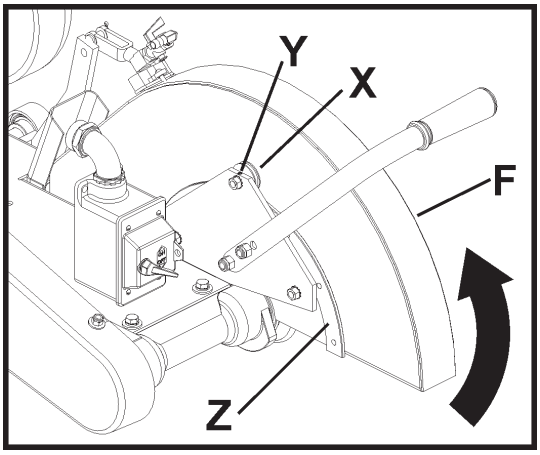


- Install Handle (L). Position Handle (L) as shown. Install Handle Hardware (O) with the Capscrew head on outside of triangular shaped plate. Nuts should be next to Handle (L), as shown, else Blade Guard Assembly (F) can not be installed. Tighten Handle Hardware (O) securely.



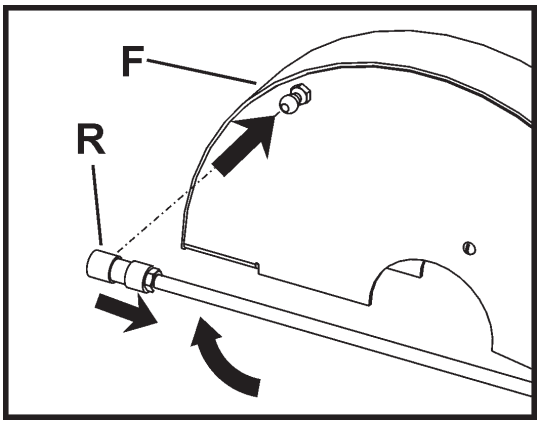
- Install Blade Guard (F). Position Blade Guard (F) in a nearly vertical position with he rear of the guard on top. Position so that Track (Z) is above lower Wheel (X), and below upper Wheel (X). Pivot Blade Guard Assembly (F) to a nearly horizontal position (as shown).

Note: Force required to pivot Blade Guard Assembly (F) can be adjusted if required - see MAINTENACE section for more information.

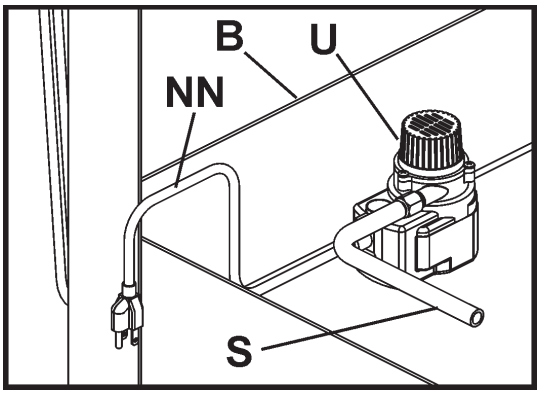


ASSEMBLY

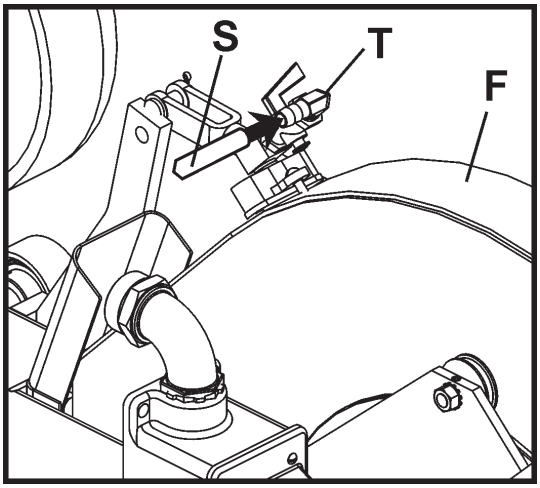
- Install Tilt Arm (R) onto Blade Guard (F). Pivot Tilt Arm (R) upward until near Stud on Blade Guard (F). Pull collar on Tilt Arm (R) toward rear of machine, then connect with Stud on Blade Guard (F).



- Install Water Pump (U): Unpack Water Pump (U) from its shipping carton. Install Water Pump (U) by plugging its Electrical Cord (NN) into the electric motor pigtail cord on the electric motor. Install the hose barb fitting onto the Water Pump (U), then push on the Water Pump Hose (S). Route Water Hose & Electrical Cord (NN) above the cross-brace of the Pan Weldment (B) to avoid contact with blade during operation. Place Electric Water Pump (U) in bottom of Pan Weldment (A).

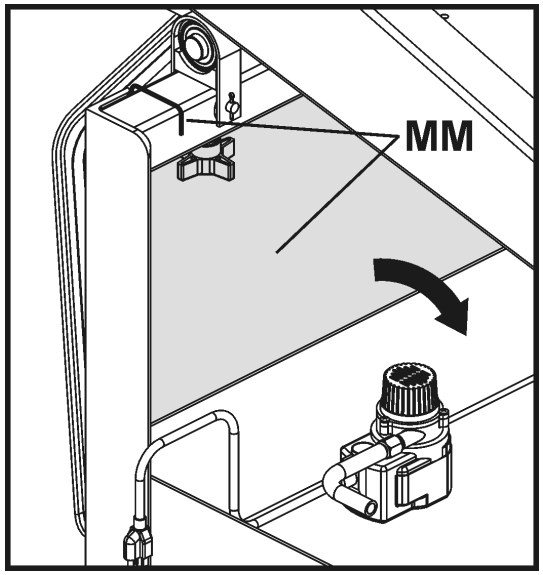


- Push opposite end of Water Pump Hose (S) onto Water Valve (T) at Blade Guard Assembly (F).

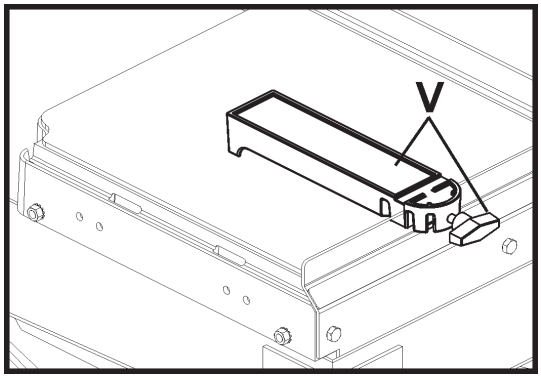


ASSEMBLY

- Unpack Water Splash Curtan (MM), Wrench (AA), and Rip Guide (V) by unrolling Water Splash Curtain (MM).
- Install Water Splash Curtain: Hook the top of the Water Splash Curtain (MM) over head pivot bar. Place bottom of Water Splash Curtain (MM) in Pan Weldment (A) to avoid water dripping from the pan.



- Install Rip Guide (V): Set Rip Guide (V) in desired position along Conveyor Cart (C) backstop. Tighten Knob to secure in position. Rip Guide (V) can be set to 90 degree position (as shown), or at 45 degrees to left or right.



OPERATION

⚠ WARNING!

Before starting up machine make sure you completely read these instructions. Be familiar with operation of the machine before operation!

Use: Wet or Dry sawing of masonry and refractory materials such as brick and block, as shown in American National Standard Institute, B7.1-2000 "SAFETY REQUIREMENTS FOR THE USE, CARE & PROTECTION OF ABRASIVE WHEELS" (ANSI B7.1-2000). This machine is designed for use as a Masonry Saw, and conforms to ANSI B7.1-2000. All other applications are prohibited. Not for use with material shapes that are unstable on a flat surface, such as rocks, natural stone, or man-made material of irregular shape.

Tools: Diamond blades — dry or water cooled,
Reinforced Abrasive blades — dry cutting only.
Sizes:
Ø: 12" (300 mm), 14" (350 mm), 18" (450 mm), and 20" (500 mm)
with Arbor Ø 1" (25.4 mm).
For information contact your Dealer, and obtain a copy of ANSI B7.1-2000.

⚠ WARNING!

Use ONLY REINFORCED Abrasive Blades or Diamond Blades with this machine.

Use ONLY blades marked with a maximum operating speed greater than the blade shaft speed.

DO NOT use carbide tipped, wood cutting, or circular saw blades with this machine.

Conventional “Wet” diamond blades MUST be used with water.

DO NOT use Abrasive Blades WITH water!

Depth of Cut (Maximum):
8.00" (203.2 mm) with Ø 20" (500 mm) blade.

Maximum Material Size:
8" x 8" x 16" (20.3 x 20.3 x 40.6 cm) block.

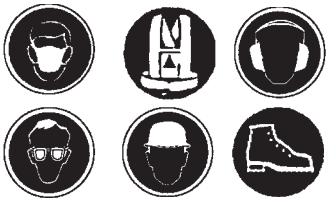
Nominal Weight: See “Specifications”.
Operating Weight: See “Specifications”.
Dimensions: See “Specifications”.
Blade Guard Capacity: See "Tools" above.

Check Before Operation:

- Make sure that extension cord length is properly sized for motor used on saw. See chart below.

EXTENSION CORD SIZE (A.W.G. Minimum)						
Motor HP	50 ft Long		75 ft Long		100 ft Long	
	230 V	460 V	230 V	460 V	230 V	460 V
3 HP	#10	---	#10	---	#10	---
5 HP	#8	---	#8	---	#8	---
7-1/2 HP						

- Take into account the working conditions from a health and safety point of view.



The operator must wear protective clothing appropriate to the work he is doing.

⚠ WARNING!

Always make sure the saw is connected to a properly grounded electrical outlet. Failure to comply with this warning could result in serious bodily injury or death!

NOTICE

DO NOT operate on low voltage! Low voltage causes loss of power, motor overheating, and possibly motor winding burnout. Voltage should be checked at the motor while it is operating.

Electric Motor Plugs & Connectors			
Motor	Wired For Voltage	Motor Pigtail Plug (NEMA No.)	Connector Required (NEMA No.)
1-1/2 HP	115 V	L5-20P	L5-20R
2 HP	230 V	L6-15P	L6-15R
3 HP	230 V	L6-30P	L6-30R

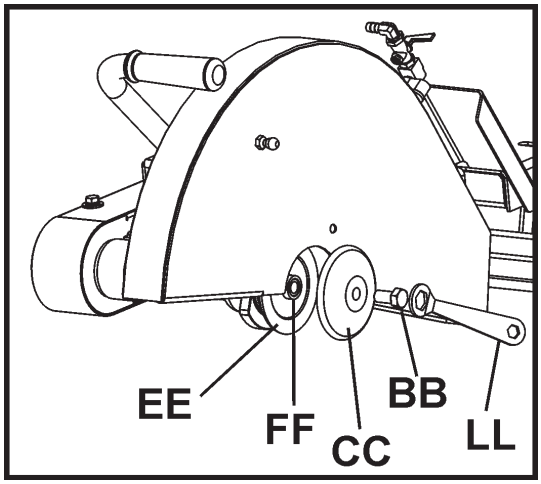
OPERATION

Fitting the Blade:

- The blade rotates in a “down-cut” direction. This means that the front of the blade is moving downward while the rear of the blade is moving upward.
- Mount the Blade (DD) so that arrow on blade rotates in this “down-cut” direction. Blade (DD) can be installed / removed by using the 3/4" (19 mm) end of the Wrench (LL) provided.

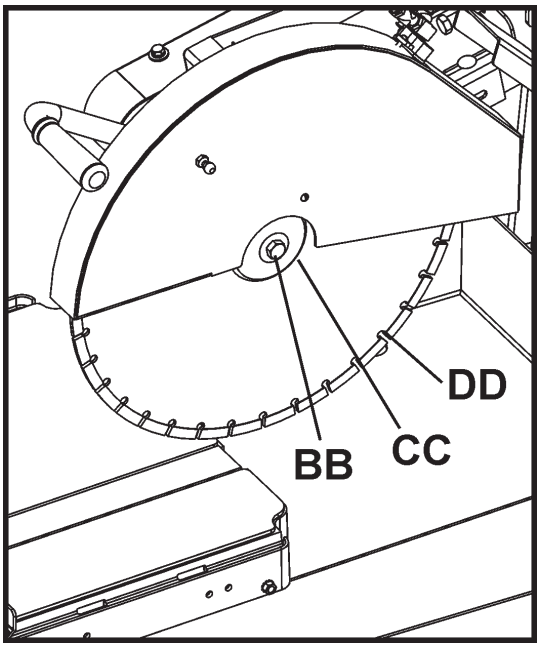
NOTICE
Note that Blade Shaft Capscrew (BB) has RIGHT HAND THREADS. Installation of the wrong capscrew could damage the blade shaft!

1. Using the Wrench (LL) provided (or one of your own) loosen the Capscrew (BB) by turning it Counter-Clockwise.
2. Remove the outer Flange (CC). Make sure Outer Flange (CC), Inner Flange (EE), and Arbor (FF) are clean and not damaged.
3. Mount Blade (DD) to arbor. Install Outer Flange (CC). Install and tighten Capscrew (BB) by turning it in a Clockwise direction (Right Hand Thread). Use Wrench (LL) to firmly tighten the Capscrew (BB) to arbor shaft.



- After mounting the Blade (DD), it should align over the top of the wooden insert in the Conveyor Cart (C). During operation of this unit, the blade can, and should, pass into the wooden insert, but NOT into the cast aluminum part of the Conveyor Cart (C).

  If this is not true, loosen the setscrews that secure the Bearings (H) to the Head Platform Assembly (B). Position the Head Platform Assembly (B) to the left or right until the Diamond Blade (DD) is aligned over the top of the wooden insert, then re-tighten the Bearing (H) setscrews.



Wet Or Dry Cutting:

- Configure the saw for the type of operation required, wet or dry.

⚠ WARNING!
Conventional “Wet” diamond blades MUST be used with water! If cutting without water use only diamond blades that are intended to be used dry (without water). DO NOT use Abrasive Blades WITH water! Always use respiratory protection when dry sawing!

OPERATION

Wet Configuration:

- Fill the water reservoir pan [Pan Weldment (A)] with water to within 1 inch (25 mm) of the top. Be sure that the Electric Water Pump Intake (U) is fully immersed in water at all times. Keep the intake screen clean and free of sludge, slurry, or other foreign material.

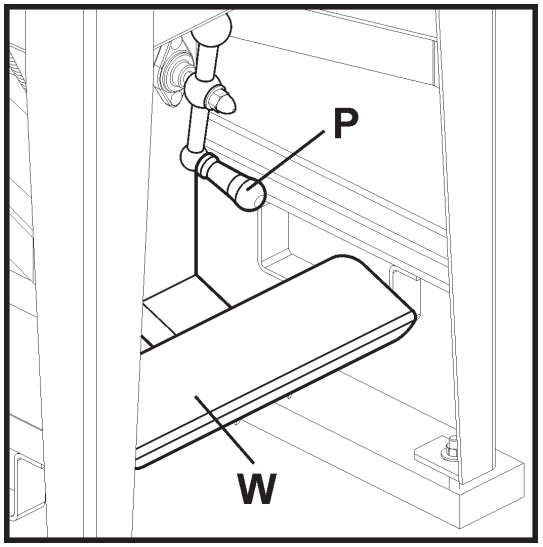
Dry Configuration:

- Before cutting dry unplug the Water Pump (U) from electric motor by disconnecting the Electrical Cord (NN).

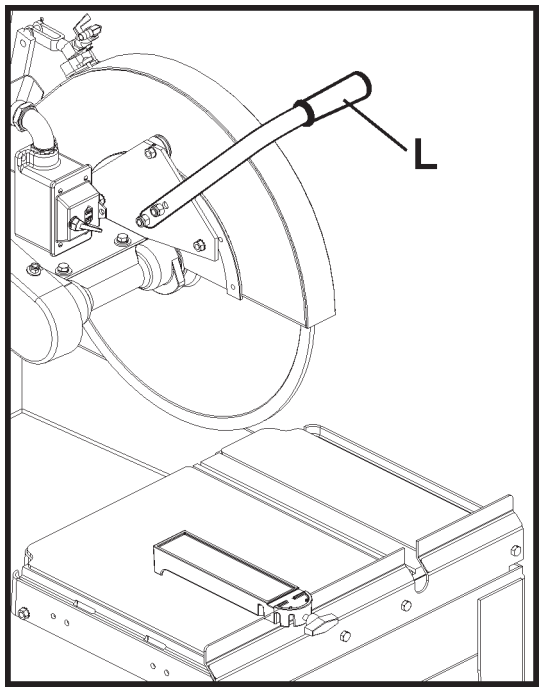
Cutting Operations:

- Place material on Conveyor Cart (C) and move conveyor cart to the front of the saw so that the blade DOES NOT contact the material.
- Cutting Methods: This unit allows three methods for the blade to contact the material:

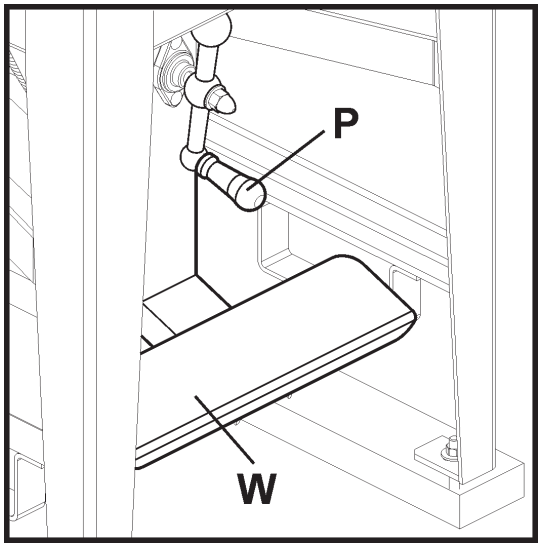
1. **Fixed Head:** Position Blade (D) to desired height, using Blade Height Control Handle (P). Turn Handle (P) clockwise or counter-clockwise to raise or lower Blade (D). Material can then be pushed into blade. This method is best for reduced blade wear.



2. **Pivot Using Hand Grip:** Hold the Hand Grip (L) and lower the blade into the material. Blade will return to upper position when force is released.



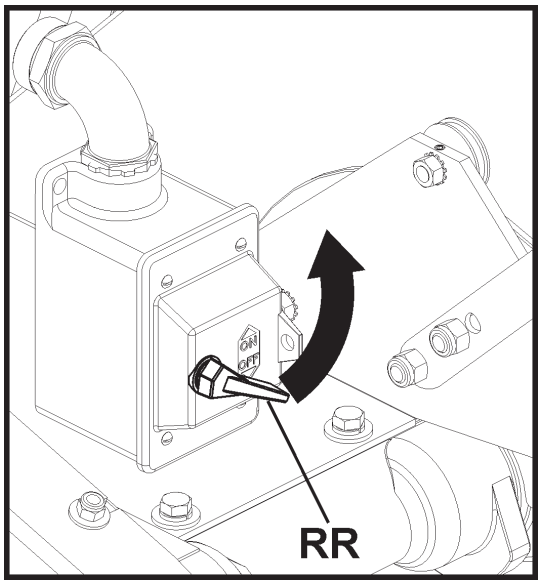
3. **Pivot Using Foot Pedal (W):** Push down Foot Pedal (W) to lower blade into material. Blade will return to upper position when force is released.



OPERATION

Start / STOP of Machine:

- Start the electric motor by turning the Power Switch (RR) to the "ON" position.
- Open the Water Valve (T) fully, and check the water flow before cutting.
- Cut the material using one of the Cutting Methods described in the above section.



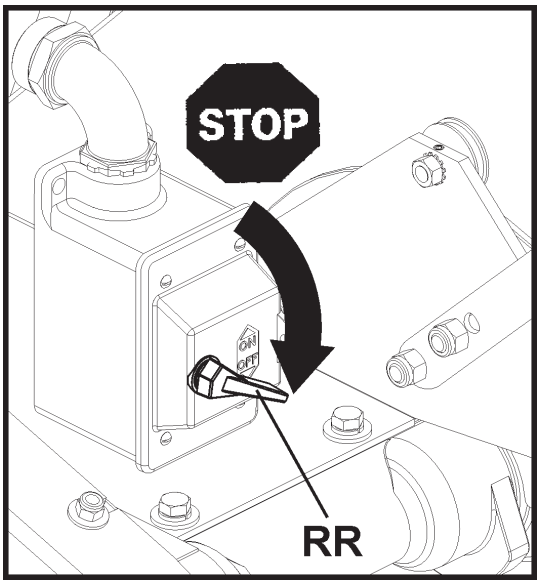
⚠ WARNING!

Keep hands clear of rotating blade during operation!

READ ALL SAFETY WARNINGS before operating this machine!

Stopping the Machine:

Stop machine by turning Power Switch (RR) to OFF position.



⚠ WARNING!

ALWAYS set Power Switch (RR) to OFF position BEFORE connecting to power source! Electric motor will run if Power Switch (RR) is in ON position.

⚠ WARNING!

STOP Machine, and Wait for all blade movement to stop before removing material from machine!

Incidents During Operation:

- If motor stops during operation, check the following:

1. Interruption to electrical connection: Check all electrical connections.
2. Manual Overload switch has been tripped: Single phase, 60 Hertz motors are equipped with a manual overload Reset Button (PP). If motor stops because of an electrical overload and overload Reset Button (PP) trips, turn motor Power Switch (RR) to OFF position. Allow motor to cool for 5 to 10 minutes, then push the Reset Button (PP). A click indicates that motor is reset and ready for operation. Restart motor by turning Power Switch (RR) to ON position.

⚠ WARNING!

Before performing any maintenance, ALWAYS locate the machine on a level surface with engine / motor OFF, and start switch in the OFF position, and power source disconnected!

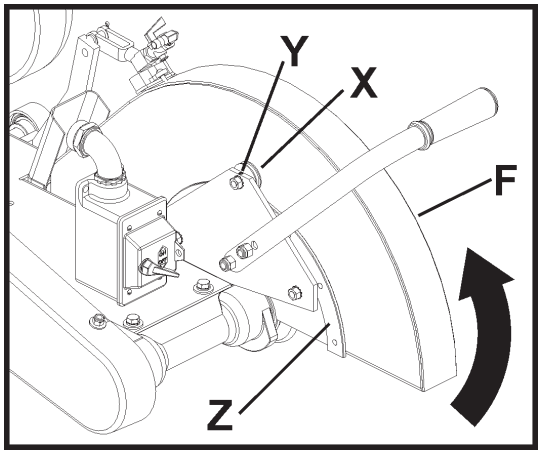
- After each use: **CLEAN the machine.**

Check Daily:

- Clean the reservoir pan [Pan Weldment (A)] to remove sludge and slurry. This slurry is an abrasive cutting compound and will shorten the life of the Water Pump (U) and Blade (DD). Clean reservoir pan twice a day in heavy cutting. Refill with clean water.
- At end of each day, clean water reservoir pan [Pan Weldment (A)] to remove sludge. Flush clean water through the Water Pump (U) and hoses.

When Required:

- "Sta-Level" Blade Guard Assembly (F): If blade guard becomes loose and pivots too freely, blade guard pivot force can be increased. Adjust the Top Wheel (X) of the three (3) wheels behind the blade guard:
  1. Loosen the nut holding the Top Wheel (X).
  2. Adjust the Setscrew (Y) to force the Top Wheel (X) down against the Track Bar (Z).
  3. Re-tighten the nut holding the Top Wheel (X) in position.



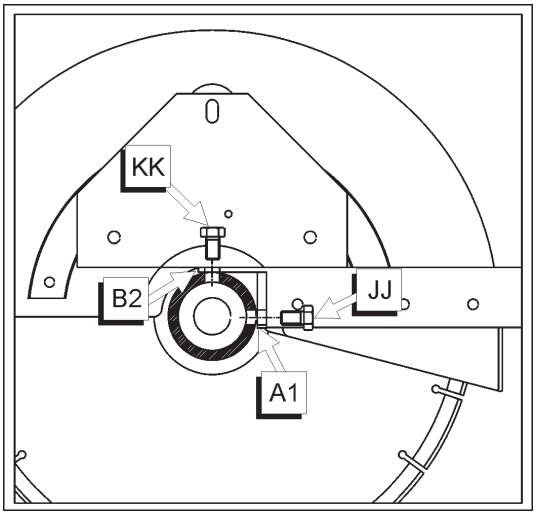
Blade Alignment:

- The blade shaft arbor on this machine is aligned at the factory so that a new blade will cut "square" with the material placed on the Cart Assembly (C). If the saw or Head Platform Assembly (B) is dropped or damaged the blade could become mis-aligned so that it no longer cuts "squarely" through the material. If this occurs the blade shaft should be re-aligned so that the saw will produce "square" cuts. If the Blade is severely out of alignment [1/16" (1.5 mm) or more] the Head Platform Assembly (B) may need to be "bent" so that the blade is closer to being aligned. In cases of severe damage the Head Platform Weldment should be replaced. Precise alignment can be achieved by using Shims (HH) of various thickness. See spare parts list for part number and shim thickness information.

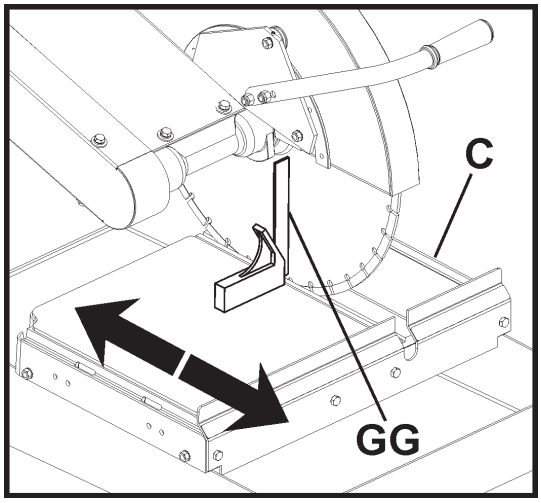
⇒ **Note:** Before starting to align the head platform make sure the blade is flat and is NOT bent or damaged!

⇒ **Note:** When aligning the blade against the square be sure to allow for the difference in thickness between the diamond segment and the center core of the blade!

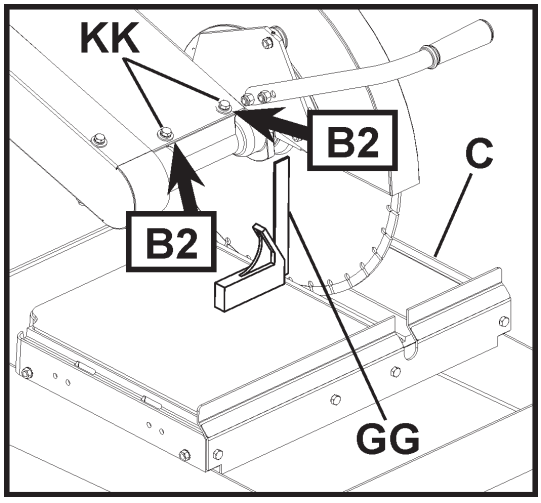
1. Make sure the Conveyor Cart (C) rolls freely along the pan. If the pan is damaged it must be repaired or replaced before the blade can be aligned. Lock the Head Platform Assembly (B) securely in a horizontal position.



2. PARALLEL ALIGNMENT: Supply a Square (GG) and place it on the Conveyor Cart (C) and roll the cart while the Square (GG) rests against the blade. Adjust the Blade Shaft into Parallel Alignment (if required) by putting Shims (HH) between the blade shaft housing and the head platform weldment at location "**A1**". Loosen, but do not remove, the Capscrews (JJ) holding the blade shaft in position. Slide a shim, of the proper thickness, upward and position around the thread of one of the capscrews. Tighten the hardware and check the blade alignment. Add more shims if required until the blade shaft has Parallel Alignment.



3. PERPENDICULAR ALIGNMENT: Place Square (GG) on Conveyor Cart (C) so that it is against the saw blade and is below center of blade shaft. If Square (GG) does NOT contact the Diamond Blade (DD) along entire height of square, then blade shaft must adjusted into Perpendicular Alignment. Adjust blade shaft by putting Shims (HH) between blade shaft housing and head platform weldment at location "**B2**". Loosen, but do not remove, Capscrews (KK) that hold blade shaft in position. Slide a shim, of proper thickness, inward and position around the thread of one of capscrews. Tighten hardware and check blade alignment. Add more shims if required until blade shaft has Perpendicular Alignment.



MAINTENANCE

V-Belt Tension:

- Check V-Belt tension when unit is new and never set belt tension beyond this point.
- The saw is equipped with high tension V-Belts. The belts are properly tensioned at the factory, but after a few hours of operation they will stretch and become loose.
- Tensioning Blade Shaft V-Belts:
  1. Loosen the four (4) capscrews that attach the motor.
  2. Tighten the Belt Tensioning Bolt (SS) at the rear of the saw until the belt a tightened to the original factory tension.
  3. Re-tighten the four (4) capscrews that attach the motor.

Important Advise:

- Never transport the saw with the cutting head positioned on the frame. The movement can knock the head out of alignment.
- When storing for an extended period of time, use a wire brush to remove hard, caked sludge. Clean and thoroughly lubricate moving parts - so on the next job the saw is ready for operation.
- Drive belts must be tight. When the belts are loose, power is lost. Replace worn belts without delay!
- The blade must fit the arbor snugly - especially diamond blades. Otherwise, pounding will occur and this will seriously damage the blades. If the arbor shoulder is grooved where the diamond blade has bound in the cut as the shaft has continued to turn, the arbor must be replaced, or the blade life will be severely shortened.
- Blade flanges must be full diameter - minimum of 4" (100 mm). Replace worn flanges at once because undersized flanges shorten blade life and cause blade breakage.
- Check the conveyor cart condition on a regular basis. Replace the wheels and the wooden insert frequently.
- Be certain the cutting head is correctly aligned. Blade misalignment because of handling damage, or transporting the saw with the cutting head on the frame can seriously affect blade life.
- Replace noisy bearings immediately! Worn bearings will quickly destroy the blade.
- Flush clean water through the pump and spray the assembly after every job to prolong the pump and blade life.
- Diamond blades may need to be “sharpened”. Blades may be efficiently “dressed” with dressing sticks.

⚠ WARNING!

Never use fire bricks to “sharpen” or dress diamond blades!

⚠ WARNING!

Abrasive blades must be a reinforced type!

Never use an abrasive blade with water!

Abrasive Blades can be damaged by operator abuse, such as jamming material into blade!

MAINTENANCE

PRE OPERATION CHECKLIST

Before leaving our factory, every machine is thoroughly tested. Follow our instructions strictly and your machine will give you long service in normal operating conditions.

Before starting up the machine, make sure you read this entire Operation's Manual and are familiar with the operation of the machine.

WITH MACHINE COLD AND SETTING LEVEL:

1. Electric Models: Verify all electrical connections are intact.

1 - 2 HOUR OPERATION CHECK LIST:

ALWAYS place the machine on a level surface with the engine/motor "OFF", the ignition switch set in the "OFF" position and disconnected from the power source before performing any maintenance. Let the machine cool down!!

1. Tension the blade drive V-belts. DO NOT over tension!!

SCHEDULED MAINTENANCE QUICK REFERENCE:

Before performing any maintenance, ALWAYS place the machine on a level surface with the engine/motor "OFF" and the ignition switch set in the "OFF" position.

SERVICE DAILY:

1. Check blade guard for damage.
2. Check hoses and clamps for damage or looseness. Tighten or replace as necessary.
3. Clean the reservoir pan frequently.
4. At the end of each day, flush clean water through the water pump and hoses

SERVICE EVERY 50 HOURS:

1. Check blade drive V-belt tension. DO NOT over tension!

We carry out all repairs in the shortest possible time and at the most economical prices. See inside back cover for our address and telephone numbers.

The instructions for use and spare parts found in this document are for information only and are not binding. As part of our product quality improvement policy, we reserve the right to make any and all technical modifications without prior notice.

The manufacturer accepts no responsibility caused by unsuitable use or modifications.

NOTES

SPECIFICATIONS

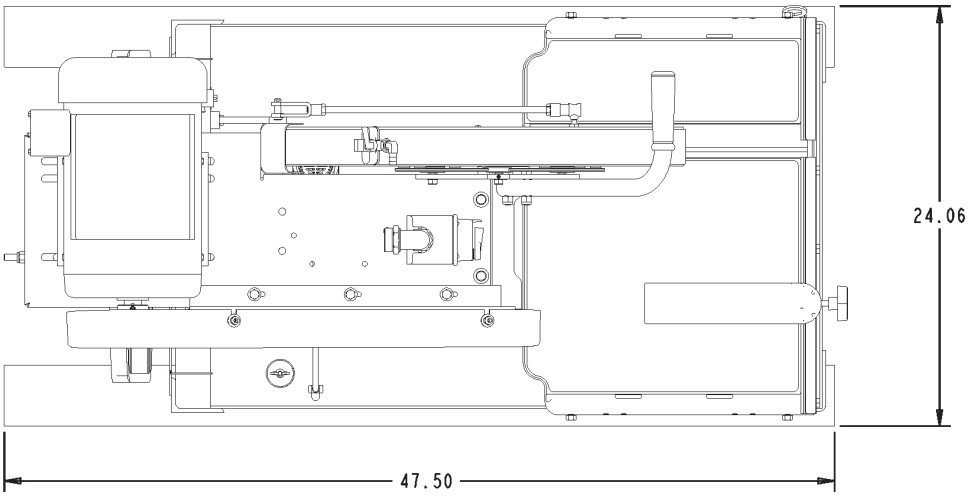
Specifications				
MODEL NO.	**TS 510**	**TS 510**	**TS 510**	**TS 510**
TYPE	5 HP Electric	3 HP Electric	5 HP Electric	7.5 HP Electric
Blade Guard Capacity	12 - 14" (300 - 350 mm)	12 - 20" (300 - 500 mm)	12 - 20" (300 - 500 mm)	12 - 20" (300 - 500 mm)
Blade Shaft RPM:	3090	2350	2350	2350
Max. Depth of Cut:	5.0" (127 mm)	8.0" (203 mm)		
Blade Arbor Size:	1.00" (25.4 mm)			
Blade Shaft:	Sealed Ball Bearings			
Blade Shaft Drive:	Two V-Belts	Two V-Belts	Two V-Belts	Three V-Belts
Blade Guard:	One Piece Steel, Sta-LevelTM Design, 20" (500 mm) Maximum Capacity			
Blade Coolant:	Water			
Water Pan:	21.73 x 36.73 x 3.50 Inch (552x933x88.9 mm), 13.1 Gallon (49.6 Liter) Capacity [1" (25.4 mm) From Top)			
Conveyor Cart:	Cast Aluminum w/ Vulcanized Rubber Top, Adjustable Measuring Rule, 45° / 90° Cutting Guide			
Water Pump: **Electric Models:** **Gasoline Model:**	300 Gallons / Hour, Submersible, Totally Epoxy Sealed, Thermal Over Load Protected 8 GPM, Belt Drive, Solid Bronze, With Strainer & Built-In Priming Pump with Check Valve			
Frame:	Heavy duty, Jig Welded "X" Braced Steel, Open Throat Design For Unlimited Ripping			
Weight Pounds (kg):				
Saw Crated:	361 (162)	360 (161)	361 (162)	395 (177)
Saw Uncrated:	333 (149)	332 (149)	333 (149)	368 (165)
Saw Operating (Water in Pan):	442 (200)	441 (200)	442 (200)	477 (216)

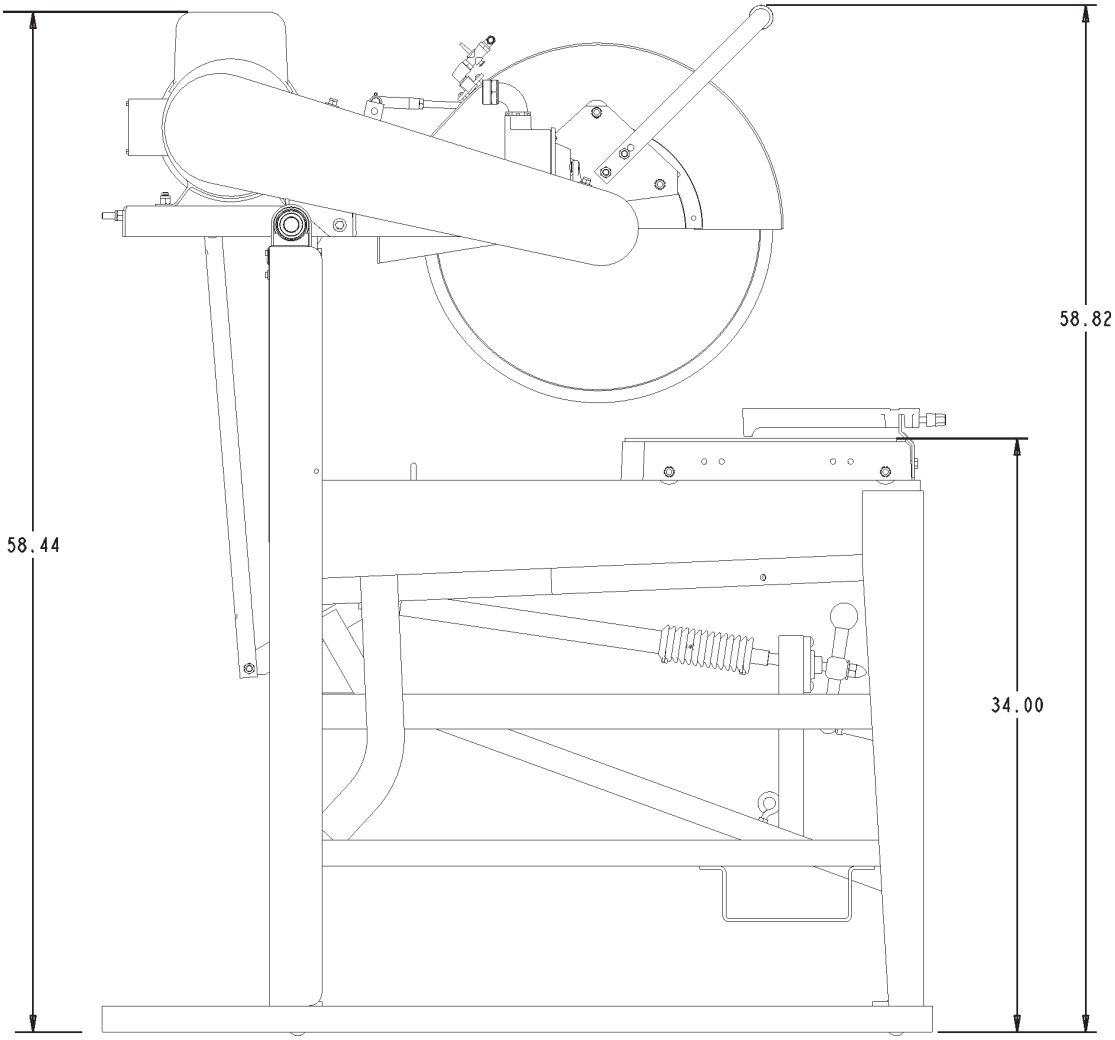
Power Source				
MODEL NO.	TS 510 (3hp-14")	TS 510 (3hp-20")	TS 510 (5hp-20")	TS 510 (7.5hp-20")
TYPE:	Electric	Electric	Electric	Electric
Engine / Motor:	Baldor	Baldor	Baldor	Baldor
Horsepower (kw):	3 (2.2)	3 (2.2)	5 (3.7)	7.5 (5.6)
RPM:	3450	3450	3450	3450
Specifications:	T.E.F.C.	T.E.F.C.	T.E.F.C.	T.E.F.C.
Voltage:	208-230	208-230	208-230	230 / 460
Cycle (Hz) / Current / Phase:	60 / A.C. / 1	60 * / A.C. / 1	60 * / A.C. / 1 **	60 * / A.C. / 3
Full Load Amps:	14.5-13	14.5-13	21.5-20	19.4 / 9.7
Starting Amps:	188-95	188-95	149-139	166 / 83
Starter:	Capacitor	Capacitor	Capacitor	Contactor
Coolant:	Air			

* 50 cycle motors available upon special request: 2 HP model is 240 Volt, 3 HP model is 220-380 Volt
** 3 phase motor available upon special request - specify 230 or 460 volts for factory wiring.
Note: For item numbers on motors / engine see parts list. Specifications are subject to change without notice.

SPECIFICATIONS

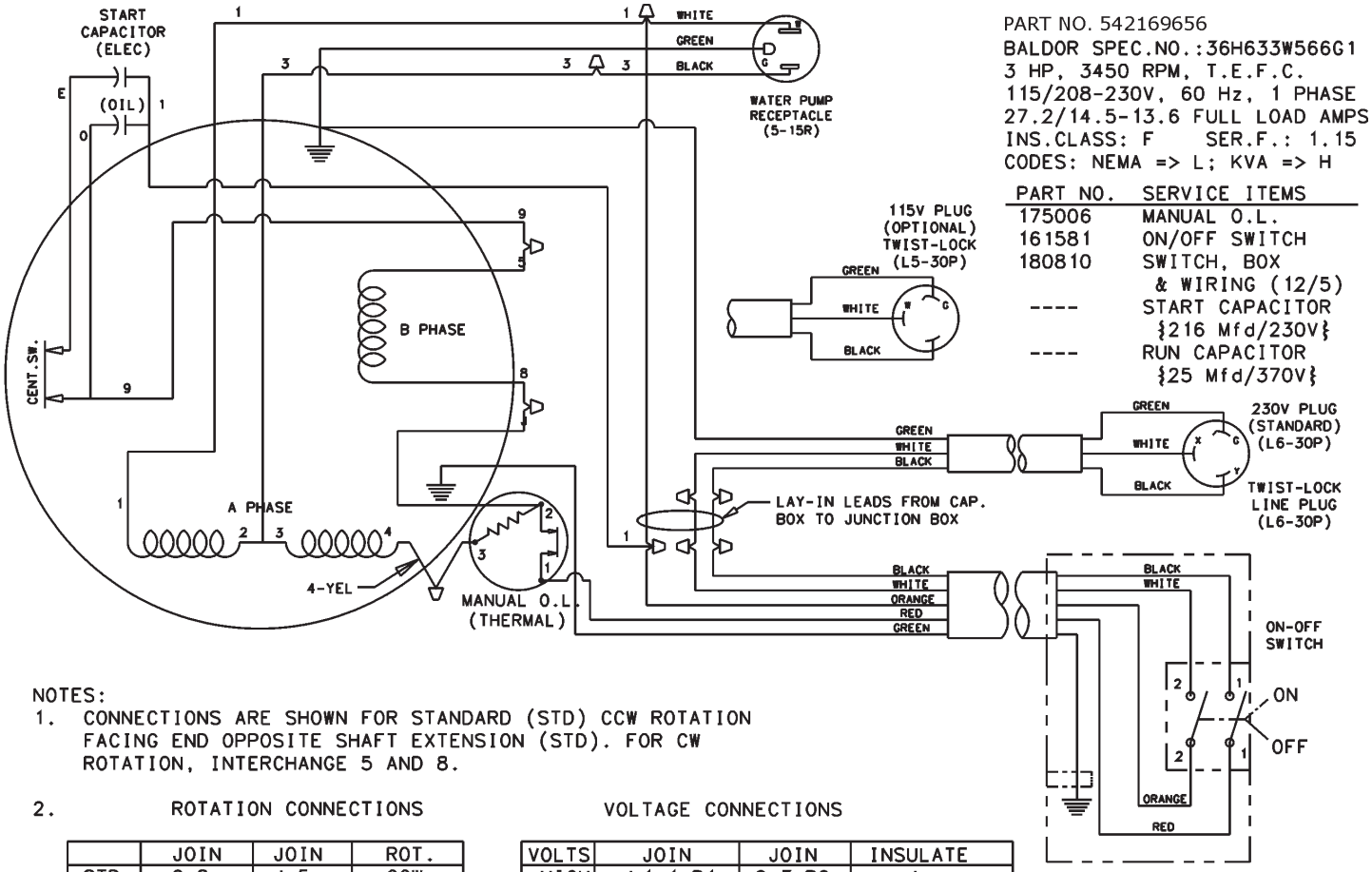
Dimensions shown in Inches





WIRING DIAGRAMS

3 HP / 208-230V / 1 Phase / 60 Hz Electric Motor (Ref 169656)



PART NO. 542169656
BALDOR SPEC.NO.:36H633W566G1
3 HP, 3450 RPM, T.E.F.C.
115/208-230V, 60 Hz, 1 PHASE
27.2/14.5-13.6 FULL LOAD AMPS
INS.CLASS: F SER.F.: 1.15
CODES: NEMA => L; KVA => H

PART NO.	SERVICE ITEMS
175006	MANUAL O.L.
161581	ON/OFF SWITCH
180810	SWITCH, BOX & WIRING (12/5)
----	START CAPACITOR {216 Mfd/230V}
----	RUN CAPACITOR {25 Mfd/370V}

NOTES:
1. CONNECTIONS ARE SHOWN FOR STANDARD (STD) CCW ROTATION FACING END OPPOSITE SHAFT EXTENSION (STD). FOR CW ROTATION, INTERCHANGE 5 AND 8.

2. ROTATION CONNECTIONS

	JOIN	JOIN	ROT.
STD.	9-8	J-5	CCW
OPP.	9-5	J-8	CW

VOLTAGE CONNECTIONS

VOLTS	JOIN	JOIN	INSULATE
HIGH	L1-1-P1	2-3-P2	J
LOW	L1-1-3-P1	2-J-P2	

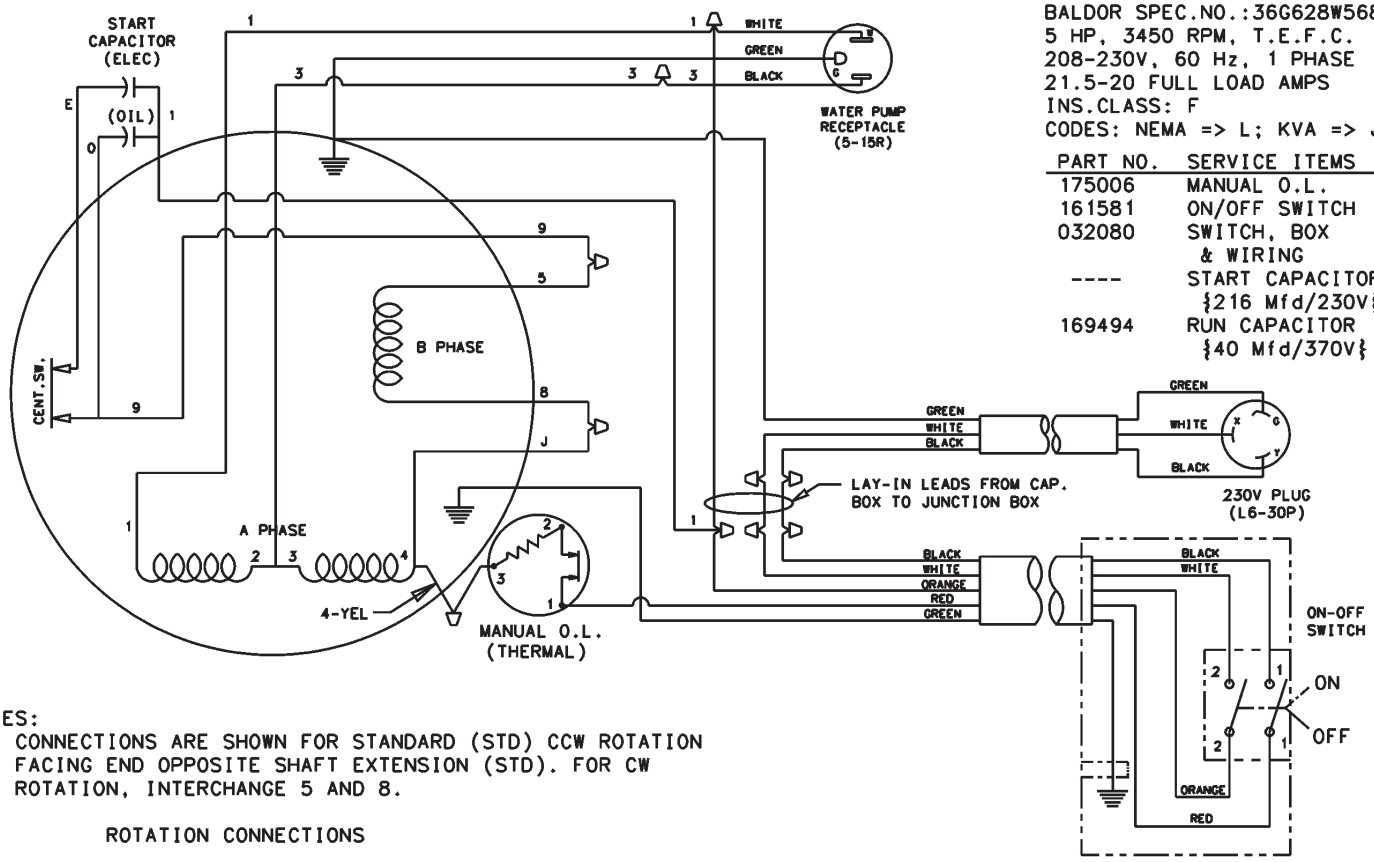
PART NO.	SPEC.NO.	HP	RPM	VOLT	HZ	PH	F.L.AMPS
542169656	36H633W566G1	3	3450	115/208-230	60	1	27.2/14.5-13.6

WIRING DIAGRAMS

5 HP / 208-230V / 1 Phase / 60 Hz Electric Motor (Ref 169622)

DBI PART NO. 169622
(WAS 161492)
BALDOR SPEC.NO.:36G628W568G1
5 HP, 3450 RPM, T.E.F.C.
208-230V, 60 Hz, 1 PHASE
21.5-20 FULL LOAD AMPS
INS.CLASS: F
CODES: NEMA => L; KVA => J

PART NO.	SERVICE ITEMS
175006	MANUAL O.L.
161581	ON/OFF SWITCH
032080	SWITCH, BOX & WIRING
----	START CAPACITOR {216 Mfd/230V}
169494	RUN CAPACITOR {40 Mfd/370V}

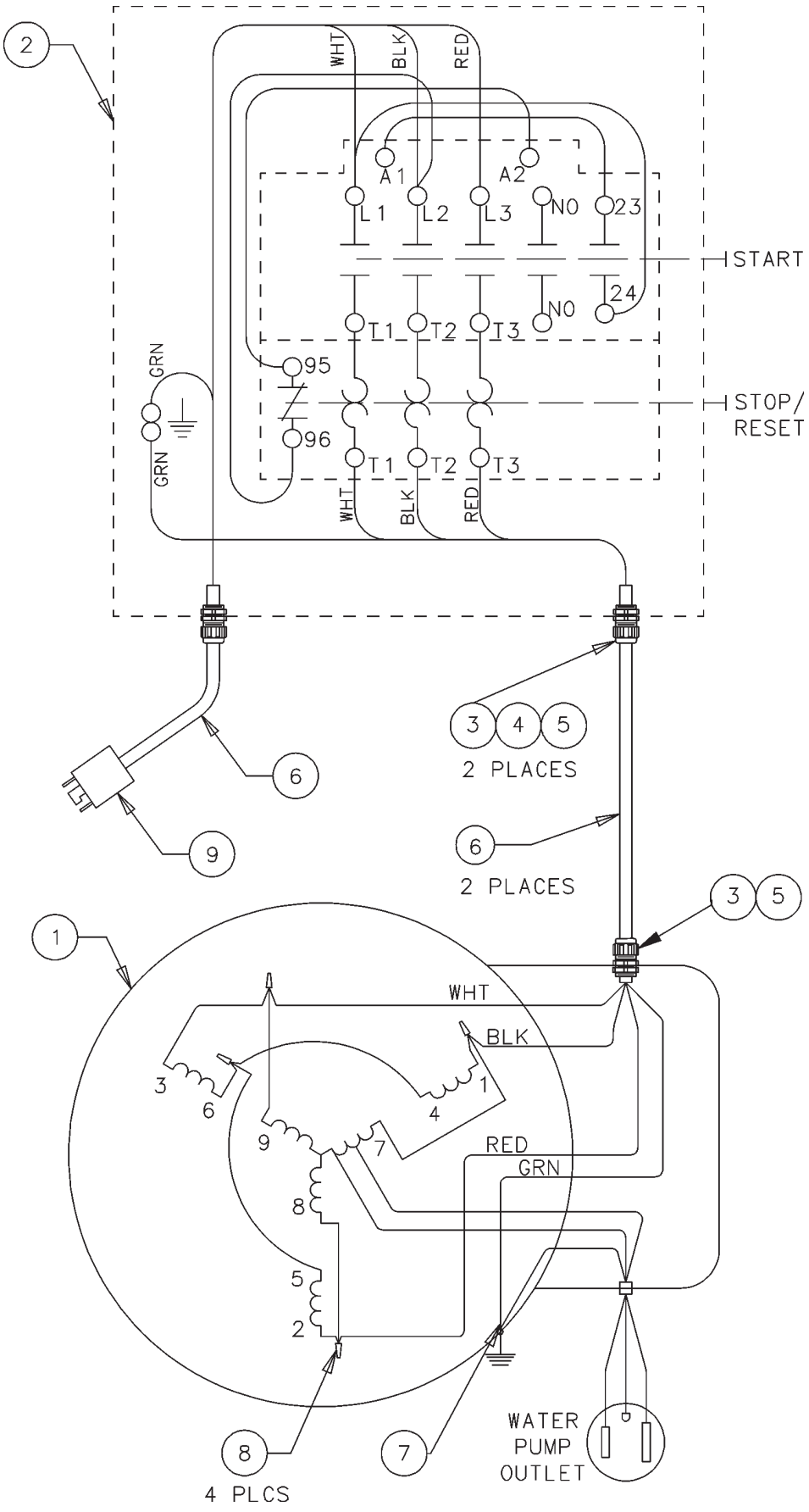


NOTES:
1. CONNECTIONS ARE SHOWN FOR STANDARD (STD) CCW ROTATION FACING END OPPOSITE SHAFT EXTENSION (STD). FOR CW ROTATION, INTERCHANGE 5 AND 8.

2. ROTATION CONNECTIONS

	JOIN	JOIN	ROT.	
STD.	9,8	J,5	CCW	
OPP.	9,5	J,8	CW	

7.5 HP / 230V / 3 Phase / 60 Hz Electric Motor (Ref Dwg B-182128)



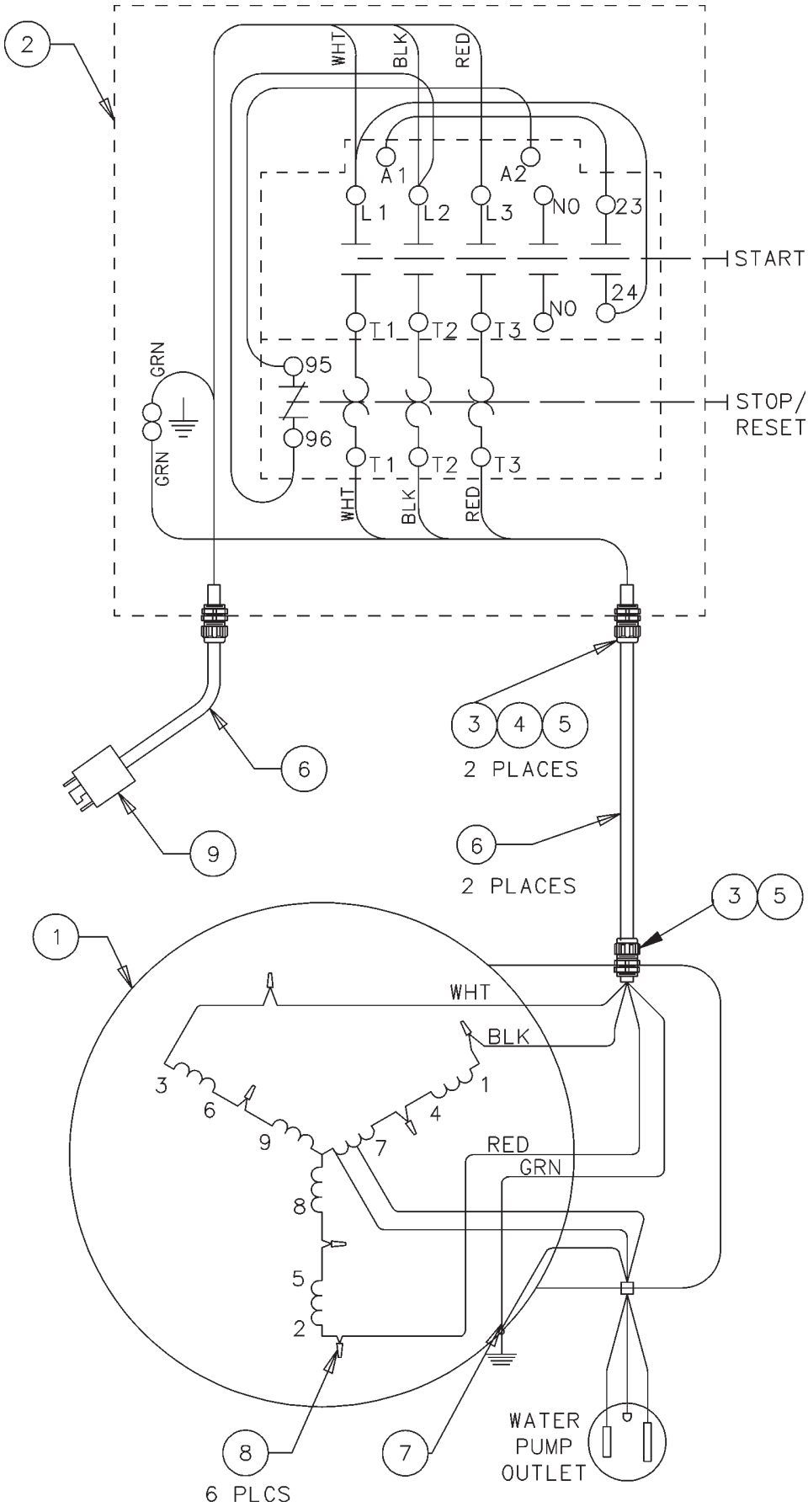
WIRING DIAGRAMS

ITEM	P/N	DESCRIPTION	QTY
1	------	Motor, 7.5hp/230V/3ph/60hz/19.4A	1
2	------	Motor Starter	1 (Note 9)
3	------	Strain Relief, 3/4 NPT	3
4	------	Locknut, 3/4 Conduit	3
5	------	Sealing Ring, 3/4 Conduit	2
6	------	Cord, Type SO - 12/4 x 38 (To motor)	3.17 Ft
-	------	Cord, Type SO - 12/4 x 42 (To plug)	3.50 Ft
7	------	Terminal Ring, Insulated #10 x 12-10GA	1
8	------	Connector, Wire, Yellow, 18-10 AWG	6
9	------	Plug, Customer Supplied	1

NOTES:

9. When replacing the motor starter, adjust the overload protection (remove cover of box) to the same value as the Full Load Amp Value (Marked on the Motor Serial Number Plate).

7.5 HP / 460V / 3 Phase / 60 Hz Electric Motor (Ref Dwg B-182129)



WIRING DIAGRAMS

ITEM	P/N	DESCRIPTION	QTY
1	------	Motor, 7.5hp/460V/3ph/60hz/9.7A	1
2	------	Motor Starter	1 (Note 10)
3	------	Strain Relief, 3/4 NPT	3
4	------	Locknut, 3/4 Conduit	3
5	------	Sealing Ring, 3/4 Conduit	2
6	------	Cord, Type SO - 12/4 x 38 (To motor)	3.17 Ft
-	------	Cord, Type SO - 12/4 x 42 (To plug)	3.50 Ft
7	------	Terminal Ring, Insulated #10 x 12-10GA	1
8	------	Connector, Wire, Yellow, 18-10 AWG	6
9	------	Plug, Customer Supplied	1

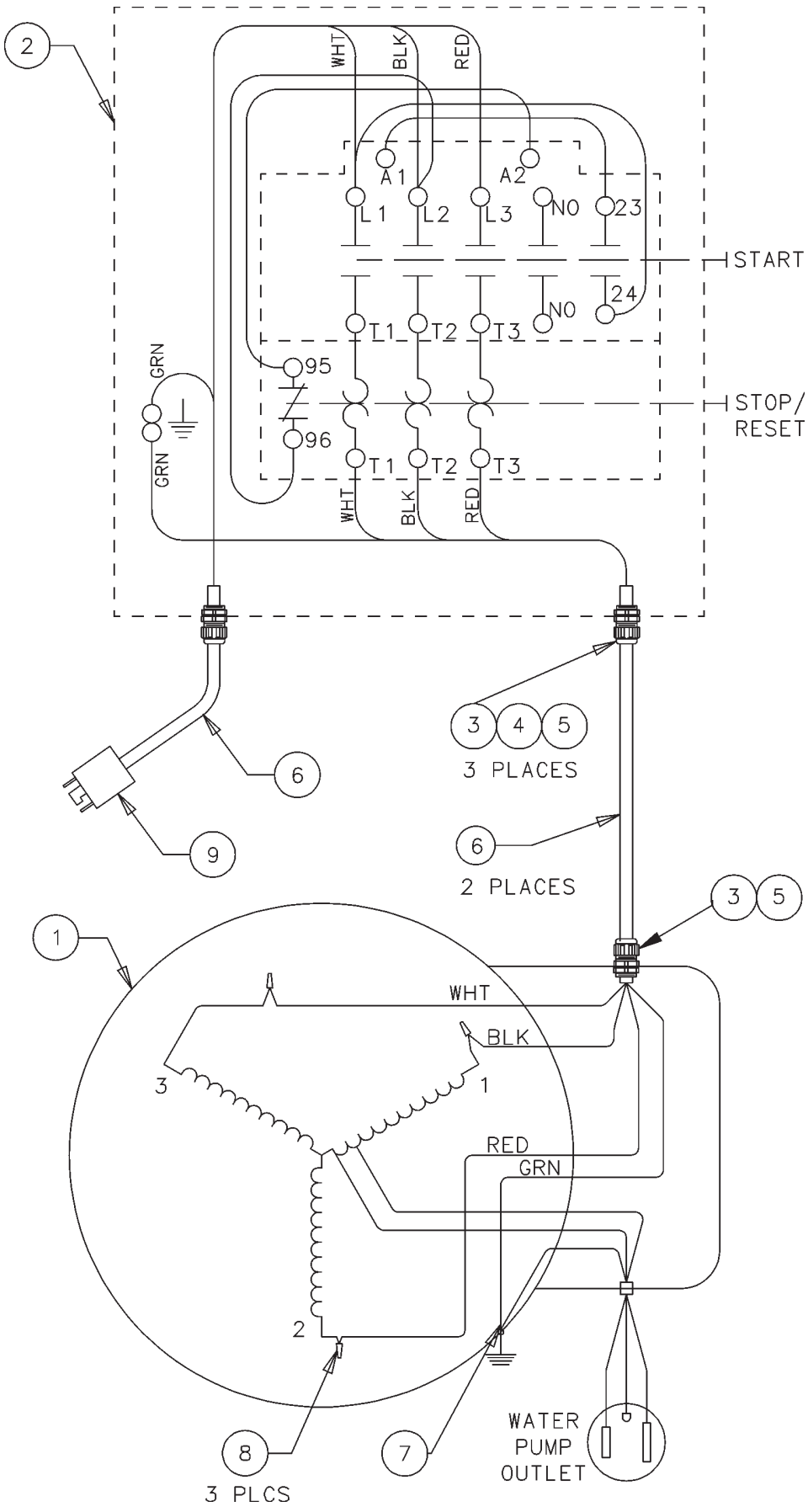
NOTES:

10. When replacing the motor starter, adjust the overload protection (remove cover of box) to the same value as the Full Load Amp Value (Marked on the Motor Serial Number Plate).

WIRING DIAGRAMS

7.5 HP / 575V-60 Hz & 415V-50 Hz / 3 Phase Electric Motors

(Ref Dwg B-182133)



WIRING DIAGRAMS

7.5 hp / 575V / 3 Phase / 60 Hz Motor (Ref: Dwg B-182133)

ITEM	P/N	DESCRIPTION	QTY
1	------	Motor, 7.5hp/575V/3ph/60hz/7.4A	1
2	------	Motor Starter	1 (Note 11)
3	------	Strain Relief, 3/4 NPT	3
4	------	Locknut, 3/4 Conduit	3
5	------	Sealing Ring, 3/4 Conduit	2
6	------	Cord, Type SO - 12/4 x 38 (To motor)	3.17 Ft
-	------	Cord, Type SO - 12/4 x 42 (To plug)	3.50 Ft
7	------	Terminal Ring, Insulated #10 x 12-10GA	1
8	------	Connector, Wire, Yellow, 18-10 AWG	3
9	------	Plug, Customer Supplied	1

NOTES:

11. When replacing the motor starter, adjust the overload protection (remove cover of box) to the same value as the Full Load Amp Value (Marked on the Motor Serial Number Plate).

7.5 hp / 415V / 3 Phase / 50 Hz Motor (Ref: Dwg B-182130)

ITEM	P/N	DESCRIPTION	QTY
1	------	Motor, 7.5hp/415V/3ph/50hz/10A	1
2	------	Motor Starter	1 (Note 12)
3	------	Strain Relief, 3/4 NPT	3
4	------	Locknut, 3/4 Conduit	3
5	------	Sealing Ring, 3/4 Conduit	2
6	------	Cord, Type SO - 12/4 x 38 (To motor)	3.17 Ft
-	------	Cord, Type SO - 12/4 x 42 (To plug)	3.50 Ft
7	------	Terminal Ring, Insulated #10 x 12-10GA	1
8	------	Connector, Wire, Yellow, 18-10 AWG	3
9	------	Plug, Customer Supplied	1

NOTES:

12. When replacing the motor starter, adjust the overload protection (remove cover of box) to the same value as the Full Load Amp Value (Marked on the Motor Serial Number Plate).

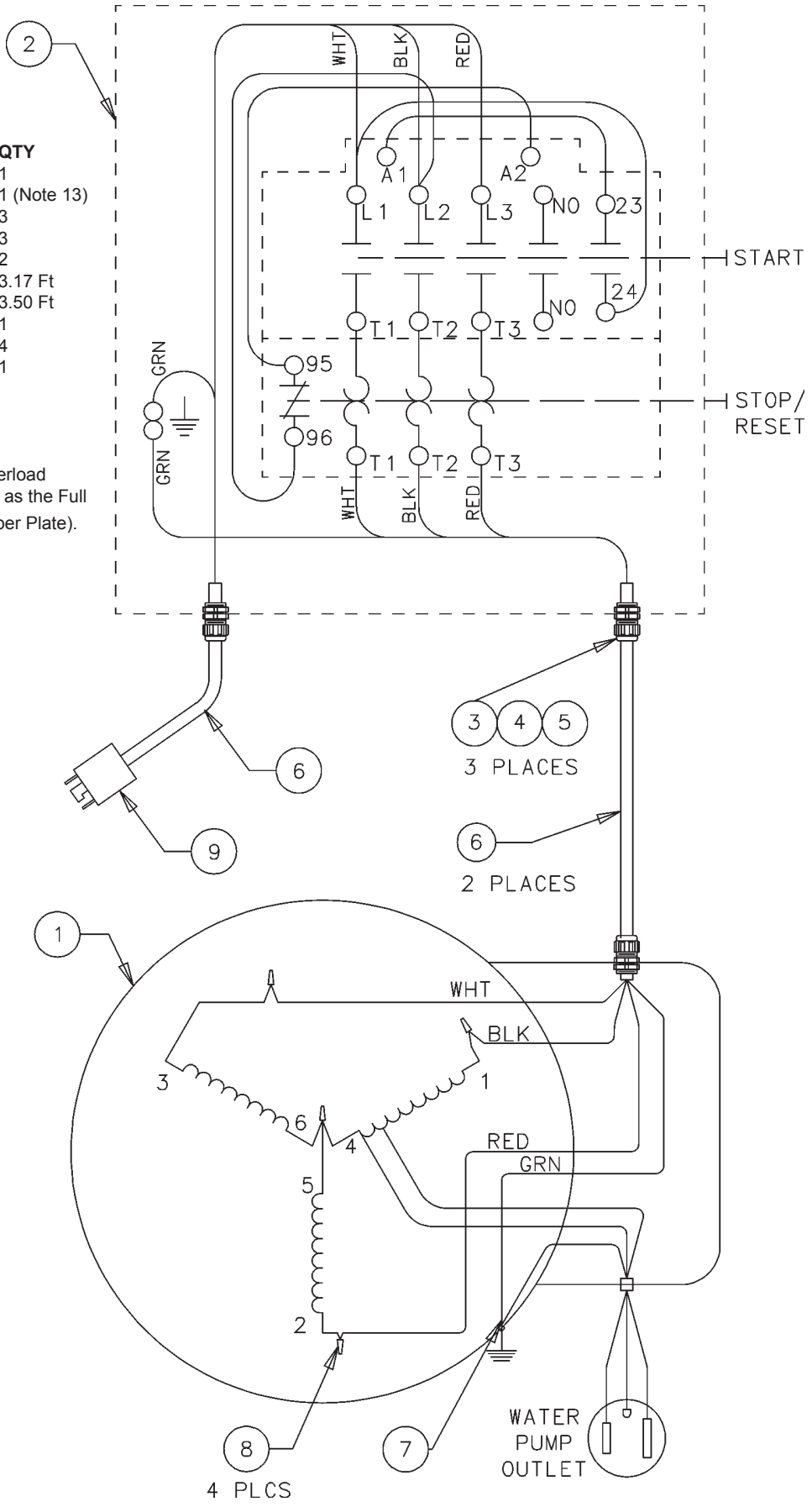
WIRING DIAGRAMS

7.5 HP / 220V / 3 Phase / 50 Hz Electric Motor (Ref Dwg B-182131)

ITEM	DESCRIPTION	QTY
1	Motor, 7.5hp/220V/3ph/50hz/18A	1
2	Motor Starter 220V	1 (Note 13)
3	Strain Relief, 3/4 NPT	3
4	Locknut, 3/4 Conduit	3
5	Sealing Ring, 3/4 Conduit	2
6	Cord, Type SO - 12/4 x 38 (To motor)	3.17 Ft
-	Cord, Type SO - 12/4 x 42 (To plug)	3.50 Ft
7	Terminal Ring, Insulated #10 x 12-10GA	1
8	Connector, Wire, Yellow, 18-10 AWG	4
9	Plug, Customer Supplied	1

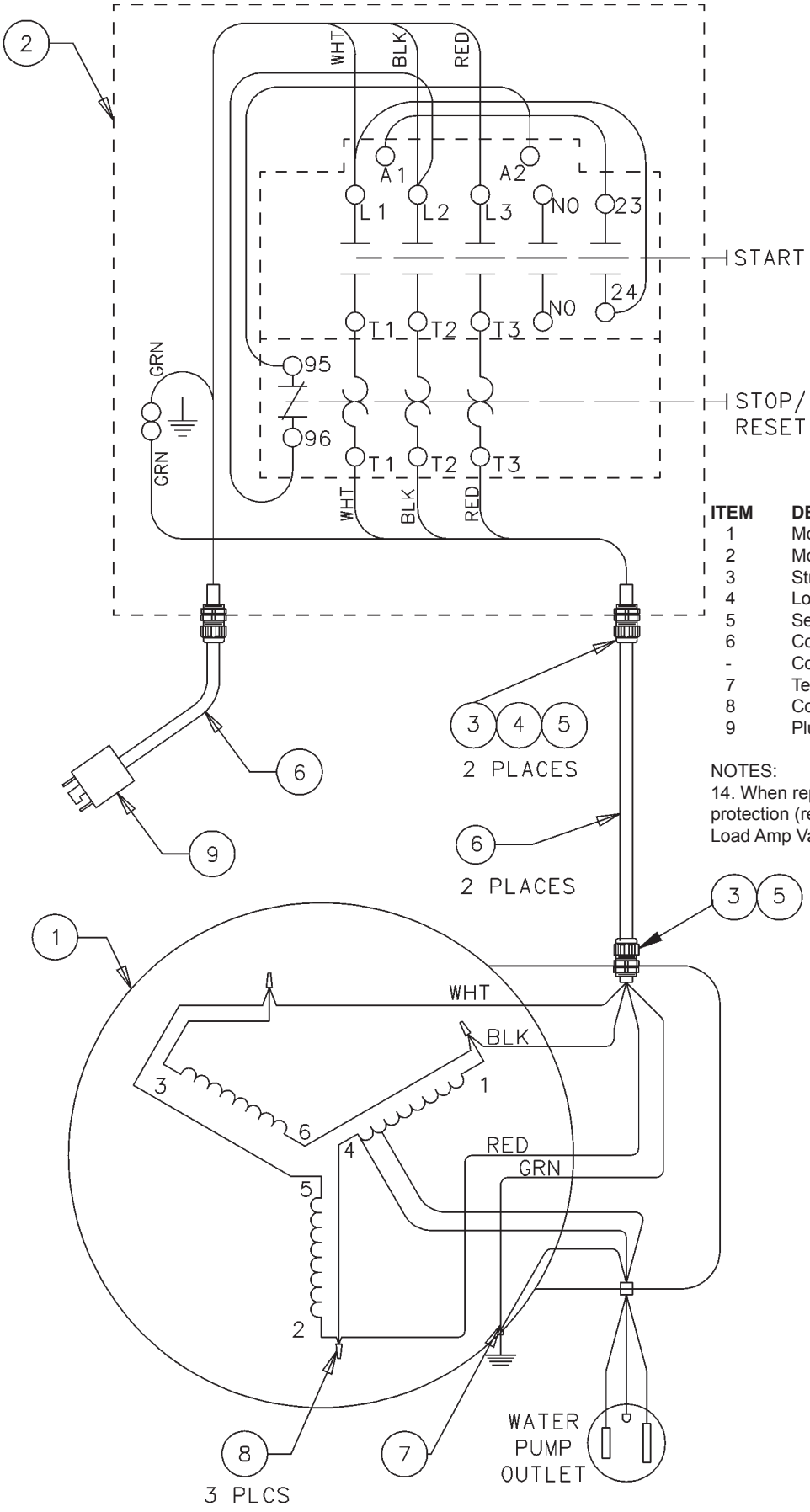
NOTES:

13. When replacing the motor starter, adjust the overload protection (remove cover of box) to the same value as the Full Load Amp Value (Marked on the Motor Serial Number Plate).



WIRING DIAGRAMS

7.5 HP / 380V / 50 Hz / 3 Phase Electric Motor (Ref Dwg B-182132)



ITEM	DESCRIPTION	QTY	
1	Motor, 7.5hp/380V/3ph/50hz/10.5A	1	
2	Motor Starter	1	(Note 14)
3	Strain Relief, 3/4 NPT	3	
4	Locknut, 3/4 Conduit	3	
5	Sealing Ring, 3/4 Conduit	2	
6	Cord, Type SO - 12/4 x 38” (To motor)	3.17 Ft	
-	Cord, Type SO - 12/4 x 42” (To plug)	3.50 Ft	
7	Terminal Ring, Insulated #10 x 12-10GA	1	
8	Connector, Wire, Yellow, 18-10 AWG	3	
9	Plug, Customer Supplied	1	

NOTES:
14. When replacing the motor starter, adjust the overload protection (remove cover of box) to the same value as the Full Load Amp Value (Marked on the Motor Serial Number Plate).

NOTE:
NOTA:

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Canada
Customer Service: 800-461-9589
Customer Serv. Fax: 800-728-1907

International
Customer Service: 913-928-1300
Customer Serv. Fax: 913-438-7938

DUST WARNING

Cutting, especially when DRY cutting, generates dust that comes from the material being cut, which frequently contains silica. Silica is a basic component of sand, quartz, brick clay, granite and numerous other minerals and rocks. Exposure to excessive amount of such dust can cause:

- Respiratory diseases (affecting your ability to breath), including chronic bronchitis, silicosis and pulmonary fibrosis from exposure to silica. These diseases may be fatal;
- Skin irritation and rash; and
- Cancer according to NTP* and IARC*
  * National Toxicology Program, International Agency for Research on Cancer

Take precautionary steps

- Avoid inhalation of and skin contact with dust, mist and fumes;
- Wet cut when feasible, to minimize dust;
- Wear and ensure that all bystanders wear appropriate respiratory protection such as dust masks designed to filter out microscopic particles. (See OSHA 29 CFR Part 1910.1200)

California Prop 65 Warning:
Use of this product can cause exposure to materials known to the State of California to cause cancer and/or birth defects or other reproductive harm.

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2014-09-24 Printed In U.S.A.