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# **PREDATOR GRINDER POLISHER**

## **2400**

### **OWNER'S MANUAL**



[www.BARTELLGLOBAL.COM](http://www.BARTELLGLOBAL.COM)





ORIGINAL LANGUAGE OPERATING MANUAL FOR  
2400 GRINDER POLISHER

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REV.	DATE	DESCRIPTION	APPROVED BY:
-	11/8/18	Manual Created	EC

## SAFETY PRECAUTIONS



### **DANGER** **EXPLOSION HAZARD**

Never operate the machine in an explosive atmosphere, near combustible materials, or where ventilation does not clear exhaust fumes.



### **WARNING** **BURN HAZARD**

Never come into contact with the engine or muffler when engine is operating or shortly after it is turned off. Serious burns may occur.



### **CAUTION** **MOVING PARTS**

Before starting the machine, ensure that all guards and safety devices are in place and functioning properly.



### **ATTENTION** **READ OWNER'S MANUAL**

Read and understand owner's manual before using this machine. Failure to follow operating instructions could result in serious injury or death.

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## INTRODUCTION

Innovatech Products and Equipment Company specializes in the manufacturing and distribution of surface preparation equipment and supplies. From our early origins as a flooring removal company, and a foundation based upon the success of our Terminator line of flooring removal machines, Innovatech has transformed itself into an industry leader over a twelve-year period.

Our continued growth can be attributed to our pledge to offer only premium products, our commitment to stand behind what we sell, and a staff well known throughout the industry for their knowledge and commitment to our valued customers. Based on customer need, Innovatech has proudly diversified our offerings to include a complete line of surface preparation products including Shot Blasters, Scarifiers, Floor Grinders, Dust Collectors, Diamond Abrasives, and other products.

## SPECIFICATIONS

	<b>2400 (7.5 hp)</b>	<b>2400 (10 hp)</b>
<b>Cutting Width</b>	24" (609mm)	24" (609mm)
<b>Dimensions (Operating Conditions)</b>	49" x 25" x 46" (1244mm x 635mm x 1168mm)	49" x 25" x 46" (1244mm x 635mm x 1168mm)
<b>Weight</b>	568lbs (258kg)	652lbs (296kg)
<b>Tank Capacity</b>	6 Gal (22.75L)	6 Gal (22.75L)
<b>Grinding Discs</b>		
Dimensions	4" x 8.5" (101mm x 216mm)	4" x 8.5" (101mm x 216mm)
<b>Motor</b>		
HP	7.5	10
RPM	180– 900rpm	180– 900rpm
<b>Power Source</b>		
Phase	1 $\emptyset$ or 3 $\emptyset$	3 $\emptyset$
Voltage	1 $\emptyset$ (208-230) 3 $\emptyset$ (208-230)	390-460
Hz	60Hz	60Hz
Amps	0-28A	40-36A
Extension Cord	50 Feet	50 Feet

## **WARRANTY INFORMATION**

Innovatech warrants to original retail purchaser of the equipment:

### **A. LIMITED WARRANTY**

The equipment, when first delivered, will conform to the specifications set forth in the Owner's Manual and will be without defect in material or workmanship. For a period of one (1) year after delivery to the original retail purchaser, or 300 clock hours of operation, whichever occurs first; or in the case of replacement parts other than belts, for a period of ninety (90) days after the part is installed or within the warranty period described above, whichever is later, if the original retail purchaser notifies Innovatech (either directly or through one of Innovatech's authorized dealers) of a defect in material or workmanship or of a non-conformity to the specifications, then, upon confirmation of the defect of non-conformity and confirmation that the defect or nonconformity is covered within these Limited Warranty conditions, Innovatech will, at its election and at its expense, either (i) repair or correct the defect and/or non-conformity, or (ii) replace the part.

### **B. LIMITATIONS**

This Limited Warranty does not apply to damage caused by (i) misuse of the equipment including, with limitation, use of the wrong power source, striking an imbedded object such as a bolt, electrical outlet box, expansion joint or steel reinforcing rod; or (ii) unauthorized alteration, modification, repair or tampering; or (iii) use of replacement parts not supplied by Innovatech; or (iv) normal wear, discoloration, surface corrosion, deterioration of finishes or paint surfaces, or (v) other appearance deterioration caused primarily by use. Innovatech shall not be responsible and this Limited Warranty shall not apply to damage caused by improper maintenance or failure to inspect and maintain the equipment as recommended in the Owner's Manual.

### **C. BELTS**

The Drive Belt is covered as set out at paragraph A., above, but for the period of six (6) months after delivery or 250 clock hours of operation, whichever occurs first.

### **D. TRANSPORTATION**

Purchaser will pay the cost of transporting defective or non-conforming parts to Innovatech and the cost of returning repaired or replacement parts to purchaser. Each party will safely package the parts it sends to the other in accordance with good commercial practice. If purchaser requests and Innovatech agrees, Innovatech may perform covered warranty work where the equipment is located. If Innovatech performs the work at the location, purchaser will pay the cost of business class transportation and good quality meals and lodging for Innovatech's technicians.

### **E. ABUSE**

Innovatech is not responsible for damage, defect, breakage, or malfunction of the equipment that is caused by abuse or by operation of the equipment in a manner which is not recommended or approved by Innovatech.

## **F. EXCLUSIVE WARRANTY**

Except as is expressly set out in this limited warranty: (i) Innovatech makes no promise or warranty, expressed or implied, with respect to the equipment; (ii) Innovatech makes no promise or warranty that the equipment is fit for any particular purpose; (iii) Innovatech will have no obligation or liability to the purchaser or to any third party with for any damage caused by the equipment or as a result or consequence of any claimed defect in the equipment, any failure to warn or notify, or any claimed non-conformity to the specifications; and (iv) Purchaser will have no other remedies in respect of such defect, non-conformity, damage or condition except those set out in this limited warranty.

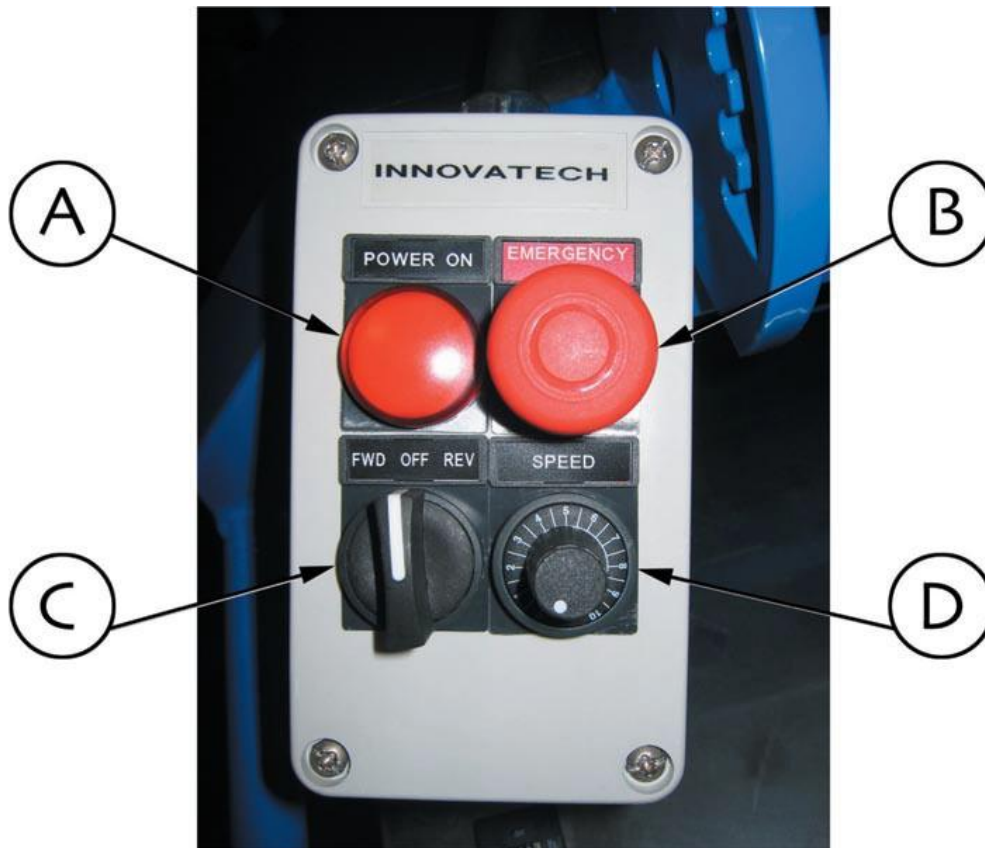
## **SAFETY PRECAUTIONS**

1. Only persons who have received training are permitted to operate or repair the grinder.
2. Use personal safety equipment such as steel toe shoes, safety glasses, and earplugs.
3. Do not use grinder in area where there is a risk of explosion or fire.
4. Do not start the machine with heads off the ground.
5. Make sure the splashguard is on before starting machine.
6. Before you start grinding, check the floor for bolts, large holes and uneven joints. Hitting these things can damage machine, tools, and cause personal injury.
7. Make sure all power supply is connected with the right voltage.
8. Use only cold water in water tank. Do not use chemicals in water tank.
9. When filling water tank, to avoid electrical hazards and injury, do not spill water onto the machine motor and electrical box.
10. Switch off the machine power before changing grinding tools.
11. Disconnect power supply before working or repairing machine.
12. Be very careful with rolling machine on any sloping floors or ramps. The machine can roll very quickly. Two people may be needed to handle and control the machine.
13. Use caution with removing the grinding tools after finished grinding. Tools can be very hot. Use gloves to remove the plates.
14. When grinding glues, epoxy paints, or coatings, leaving the machine down on floor could cause the head to stick to the floor. Always tip back machine as soon as the head comes to a complete stop.
15. Always store machine in a dry place.
16. Only use Innovatech recommended tooling.
17. The operator must never leave the machine unattended during operation.
18. When grinding dry, use a suitable vacuum to extract the dust.
19. Innovatech is not responsible for any off gassing of hazardous gas that is generated by grinding materials. It is the responsibility of the operator. Grinding floors containing asbestos is especially dangerous and can cause health problems. Contact your state or country for the proper way to handle it.

## Controls and Features

- A. Lamp light is red, power is on ready to use
- B. Emergency stop push down to stop and pull up to restart
- C. Forward and reverse
- D. Manual speed pot: controls the rotation of the grinding head. Turn the knob clockwise to increase the speed and counter clockwise to decrease the speed

NOTE: DO NOT use the emergency stop button to start and stop the machine. This button is designed for emergency use only.





## **OPERATION INSTRUCTIONS**

### Before starting:

1. Check the floor carefully and remove all bolts, nails, as well as any loose material that could get caught in the machine.
2. Fit the appropriate tools to the machine.
3. Fit splash guard to the right height.
4. Connect the power supply. Make sure you have all the phases. May have to check with volt meter.
5. If you are grinding dry, connect the appropriate vacuum and start vacuum before starting the grinder.

**NOTE: IF THE WRONG POWER IS SUPPLIED TO THE GRINDER, IT WILL DAMAGE THE ELECTRICAL COMPONENTS IN THE INVERTERS.**

### Starting machine:

1. Turn main power switch on side of power box to ON.
2. Turn forward or reverse switch left of right.
3. Turn manual speed pot up to get the heads turning for desired speed. (If heads do not move, you may have to lean on handle to reduce pressure on tools.
4. Always grip handle firmly when starting machine. The machine will always move from side to side with first start.
5. When finished with grinding, turn off machine and let the heads come to a complete stop before tilting back the machine.

### Changing of Tools:

1. Before working on the grinder, bring the motor to a total stop and disconnect power.
2. Tilt machine back on floor.
3. Use caution! Tools can be very hot from grinding. Use gloves.
4. Use special tool supplied to turn center of tool holder to remove tool plate.
5. Replace with new tool plate and turn to lock in place.
6. Lower machine back down and re-adjust splash guard is necessary.



## **MAINTENANCE**

Clean machine after every use. To clean machine, use a low pressure water hose or air pressure. Do not use a high PSI pressure washer. This could force water into areas of the machine unintentionally and damage parts. A regular inspection of machine for wear and damage should be done on a regular basis. If any parts have been damaged or have excessive wear, they should be replaced. If a belt needs being replaced, please see separate instructions.

## **TROUBLESHOOTING**

1. Check to see if main power supply is on.
2. Check to see if emergency stop is pushed down; if it is, pull up.
3. Check to see if manual speed pot is turned up past 1.
4. Check all cords ends for loose connection.
5. Check fuse in distribution box with test meter.
6. Check to see if all phases are with right voltage (check with volt meter).
7. Check the converter connector cable to motor.
8. Check for error message on display of the converter.

## **FAULTS WHICH CANNOT BE AUTOMATICALLY RESET**

Faults which cannot be automatically reset are listed in the table below. To clear these faults:

1. Remove power from the drive controller.
2. Wait for the display to go off completely.
3. Determine the cause of the fault and correct it.
4. Re-apply power.

<b>FAULT</b>	<b>PROBABLE CAUSE</b>	<b>REMEDY</b>
B L F Brake Sequence	<ul style="list-style-type: none"> <li>• Brake release current not reached</li> </ul>	<ul style="list-style-type: none"> <li>• Check the drive controller and motor connections</li> <li>• Check the motor windings</li> </ul>
C r F Precharge Circuit Fault	<ul style="list-style-type: none"> <li>• Precharge circuit damaged</li> </ul>	<ul style="list-style-type: none"> <li>• Reset the drive controller</li> <li>• Replace the drive controller</li> </ul>
I n F Internal Fault	<ul style="list-style-type: none"> <li>• Internal fault</li> <li>• Internal connection fault</li> </ul>	<ul style="list-style-type: none"> <li>• Remove sources of electromagnetic interference</li> <li>• Replace the drive controller</li> </ul>
O C F Over Current	<ul style="list-style-type: none"> <li>• Incorrect parameter settings in the Set- and drC- menus</li> <li>• Acceleration too rapid</li> <li>• Drive controller and/or motor undersized for load</li> <li>• Mechanical blockage</li> </ul>	<ul style="list-style-type: none"> <li>• Clear the mechanical blockage</li> </ul>
S C F Motor Short Circuit	<ul style="list-style-type: none"> <li>• Short circuit or grounding at the drive controller output</li> <li>• Significant ground leakage current at the drive controller output if several motors are connected in parallel</li> </ul>	<ul style="list-style-type: none"> <li>• Check the cable connecting the drive controller to the motor and check the motor insulation</li> <li>• Reduce the switching frequency</li> </ul>
S O F Over Speed	<ul style="list-style-type: none"> <li>• Instability</li> <li>• Overhauling load</li> </ul>	<ul style="list-style-type: none"> <li>• Check the size of the motor, drive controller, and load</li> </ul>
F n F Aut-Tuning Fault	<ul style="list-style-type: none"> <li>• Motor or motor power not suitable for the drive controller</li> <li>• Motor not connected to the drive controller</li> </ul>	<ul style="list-style-type: none"> <li>• Check the presence of the motor during auto-tuning</li> <li>• If a downstream contractor is being used, close it during auto-tuning</li> </ul>
E P F External Fault	<ul style="list-style-type: none"> <li>• User defined</li> </ul>	<ul style="list-style-type: none"> <li>• User defined</li> </ul>
L F F	<ul style="list-style-type: none"> <li>• Loss of the 4-20 mA reference on input A13</li> </ul>	<ul style="list-style-type: none"> <li>• Check the connection on input A13</li> <li>• Loss of 4-20 mA follower</li> </ul>
O b F Over voltage during deceleration	<ul style="list-style-type: none"> <li>• Braking too rapidly</li> <li>• Overhauling load</li> </ul>	<ul style="list-style-type: none"> <li>• Increase the deceleration time</li> </ul>
O H F Drive Overload	<ul style="list-style-type: none"> <li>• Drive controller or ambient temperature is too high</li> <li>• Continuous motor current load is too high</li> </ul>	<ul style="list-style-type: none"> <li>• Check the motor load, the drive controller ventilation, and the environment. Wait for the drive controller to cool before restarting</li> </ul>
O L F Motor Overload	<ul style="list-style-type: none"> <li>• Thermal trip due to prolonged motor overload</li> </ul>	<ul style="list-style-type: none"> <li>• Allow the motor to cool before restarting</li> </ul>

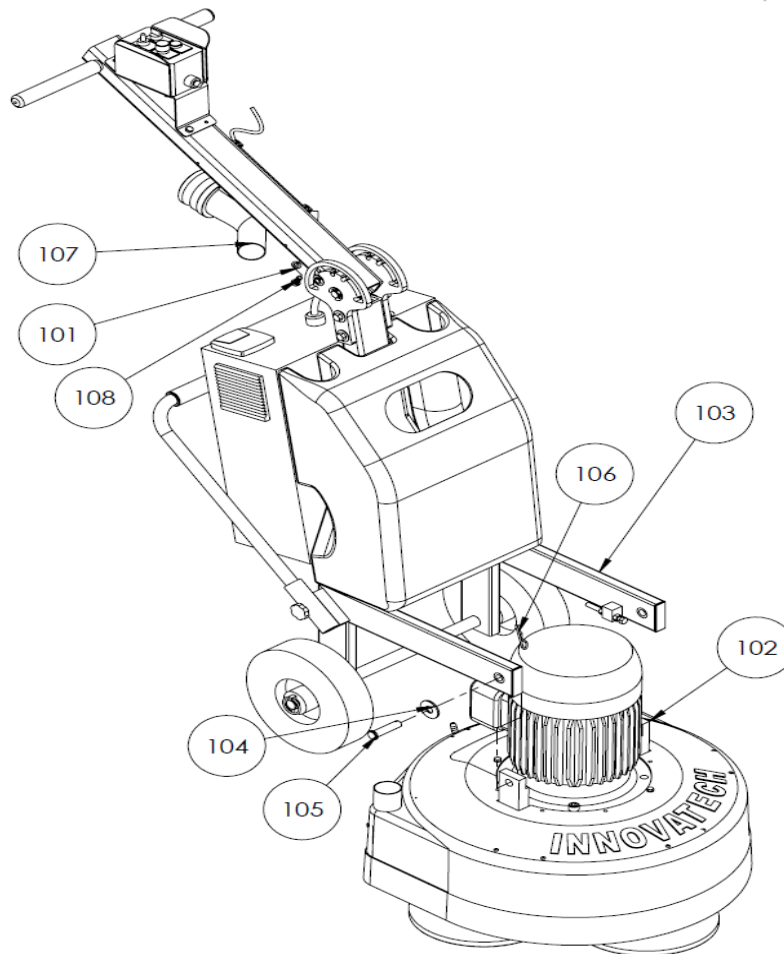
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	<ul style="list-style-type: none"> <li>• Motor power rating too low for the application</li> </ul>	
<p>O P F Motor phase failure</p>	<ul style="list-style-type: none"> <li>• Loss of phase at drive controller output</li> <li>• Downstream contractor open</li> <li>• Motor not connected</li> <li>• Instability in the motor current</li> <li>• Drive controller oversized for motor</li> </ul>	<ul style="list-style-type: none"> <li>• Check the connections from the drive controller to the motor</li> <li>• Test the drive controller on a low power motor or without a motor: set OPL to nO</li> </ul>
<p>O S F Over voltage during steady state operation or during acceleration</p>	<ul style="list-style-type: none"> <li>• Line voltage too high</li> <li>• Line supply transients</li> </ul>	<ul style="list-style-type: none"> <li>• Check the line voltage. Compare with the drive controller nameplate rating</li> <li>• Reset the drive controller</li> </ul>
<p>P H F Input phase failure</p>	<ul style="list-style-type: none"> <li>• Input phase loss, blown fuse</li> <li>• Three-phase drive controller used on a single-phase line supply</li> <li>• Input phase imbalance</li> <li>• Transient phase fault</li> </ul> <p><i>NOTE: This protection only operates with the drive controller running under load</i></p>	<ul style="list-style-type: none"> <li>• Check the connections and the fuses</li> <li>• Verify that the input power is correct</li> <li>• Supply three-phase power if needed</li> </ul>
<p>C F F Configuration Fault</p>	<ul style="list-style-type: none"> <li>• The parameter configurations are not suited to the application</li> </ul>	<ul style="list-style-type: none"> <li>• Restore the factory settings or load the backup configuration, if it is valid</li> </ul>
<p>U S F Under Voltage</p>	<ul style="list-style-type: none"> <li>• Line supply too low</li> <li>• Transient voltage dip</li> <li>• Damaged precharge resistor</li> </ul>	<ul style="list-style-type: none"> <li>• Check the line voltage</li> <li>• Replace the drive controller</li> </ul>

## PARTS DRAWINGS & DIAGRAM

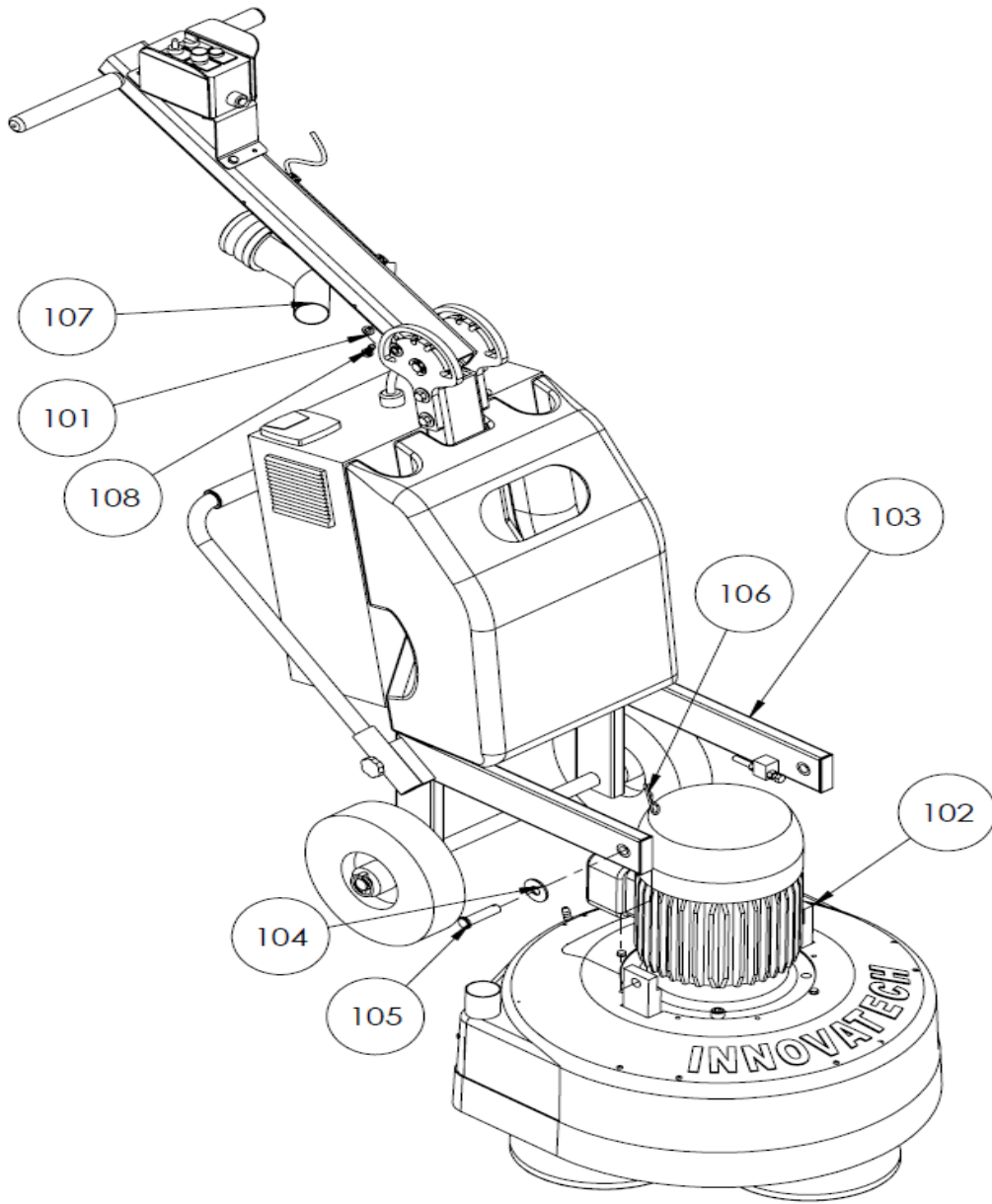
### Grinder Final Assembly

10 hp, 3-Phase motor Part# 96-0083/ 7.5 hp, 1-Phase motor Part# 96-0084



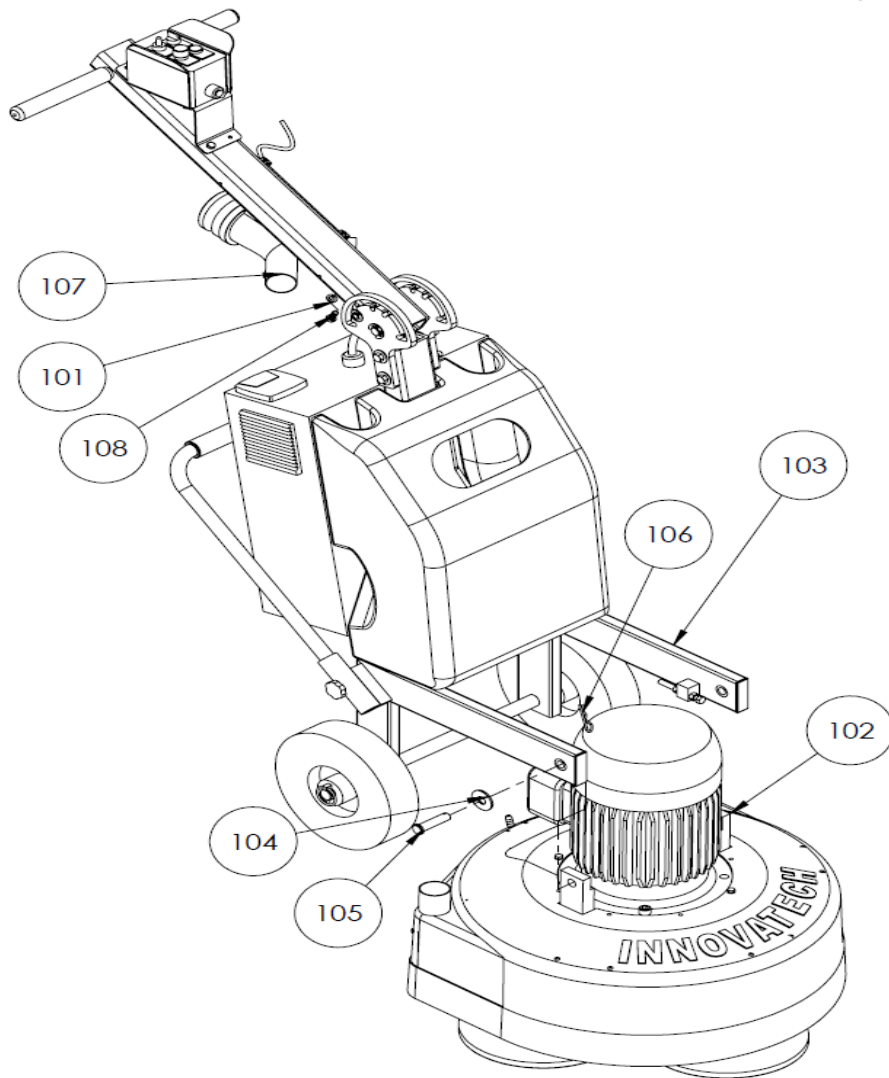
ITEM	DESCRIPTION	PART#	QTY
101	Washer (split lock), 3/8	11-0129	2
102	Grinder head assy	see note 2	1
103	Frame assy (complete build-up)	see note 2	1
104	Washer, 5/8	11-0148	2
105	Pin (clevis), 5/8 dia. x 2-1/2 long	11-0082	2
106	Pin (hairpin cotter)	11-0052	2
107	Coupler Y connector	53-0332	1
108	Screw (Hex head), 3/8-16 x 3/4	11-0130	2

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**98-0005 10HP, 230V**



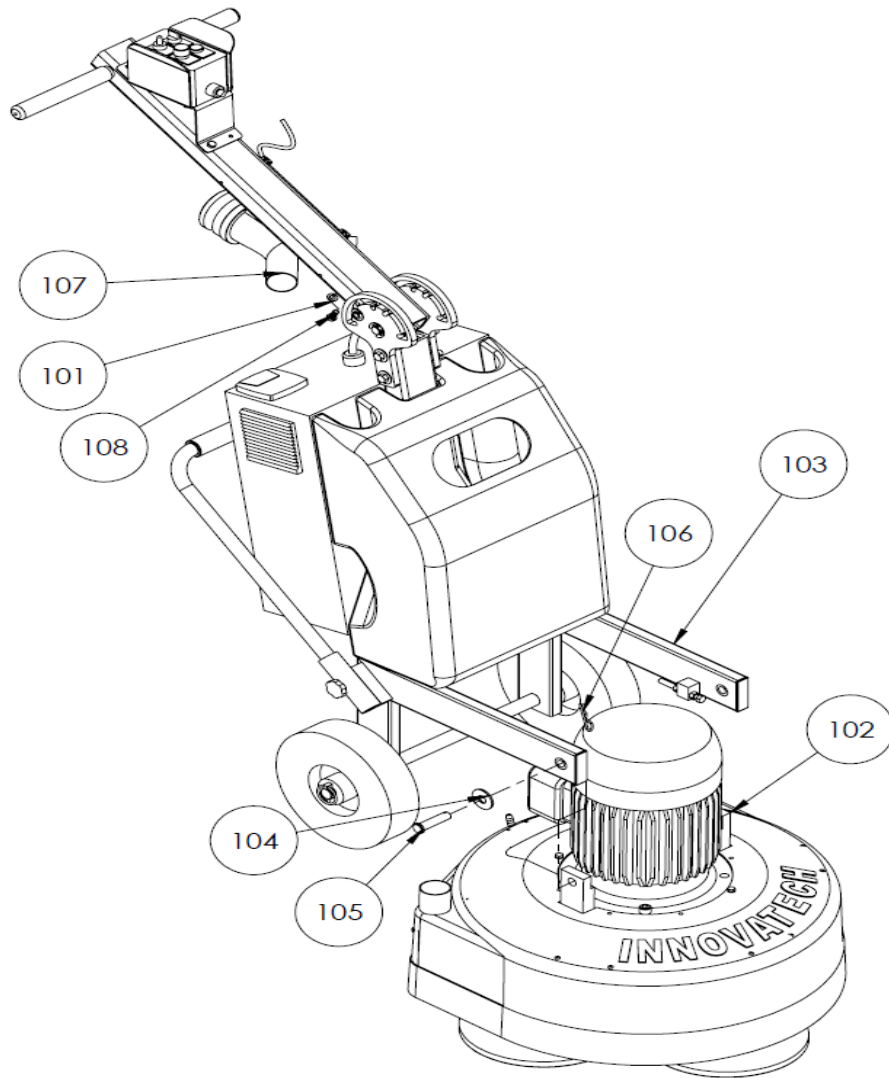
ITEM	DESCRIPTION	PART#	QTY
101	Washer (split lock), 3/8	11-0129	2
102	Grinder head assy	96-0077	1
103	Frame assy (complete build-up)	98-0081	1
104	Washer, 5/8	11-0148	2
105	Pin (clevis), 5/8 dia. x 2-1/2 long	11-0082	2
106	Pin (hairpin cotter)	11-0052	2
107	Coupler Y connector	53-0332	1
108	Screw (Hex head), 3/8-16 x 3/4	11-0130	2

# 98-0006 7.5HP, 230V



ITEM	DESCRIPTION	PART#	QTY
101	Washer (split lock), 3/8	11-0129	2
102	Grinder head assy	96-0078	1
103	Frame assy (complete build-up)	96-0082	1
104	Washer, 5/8	11-0148	2
105	Pin (clevis), 5/8 dia. x 2-1/2 long	11-0082	2
106	Pin (hairpin cotter)	11-0052	2
107	Coupler Y connector	53-0332	1
108	Screw (Hex head), 3/8-16 x 3/4	11-0130	2

# 98-0007, 10HP, 480V



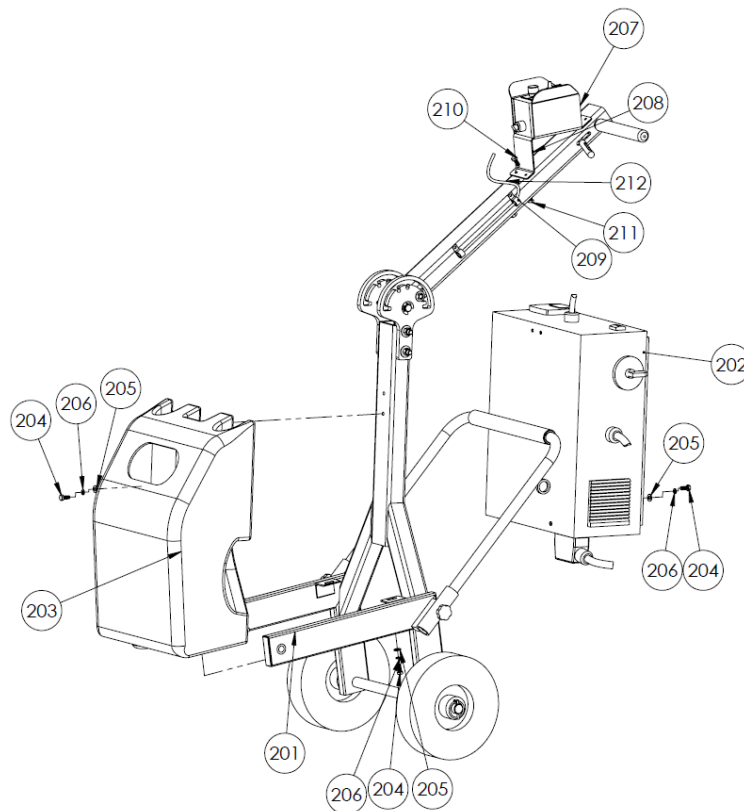
ITEM	DESCRIPTION	PART#	QTY
101	Washer (split lock), 3/8	11-0129	2
102	Grinder head assy	96-0077	1
103	Frame assy (complete build-up)	96-0091	1
104	Washer, 5/8	11-0148	2
105	Pin (clevis), 5/8 dia. x 2-1/2 long	11-0082	2
106	Pin (hairpin cotter)	11-0052	2
107	Coupler Y connector	53-0332	1
108	Screw (Hex head), 3/8-16 x 3/4	11-0130	2



**96-0081 Frame 2400 (Complete Build-Up)**

10 hp, 3-Phase motor Part# 96-0083

7.5 hp, 1-Phase motor Part# 96-0084

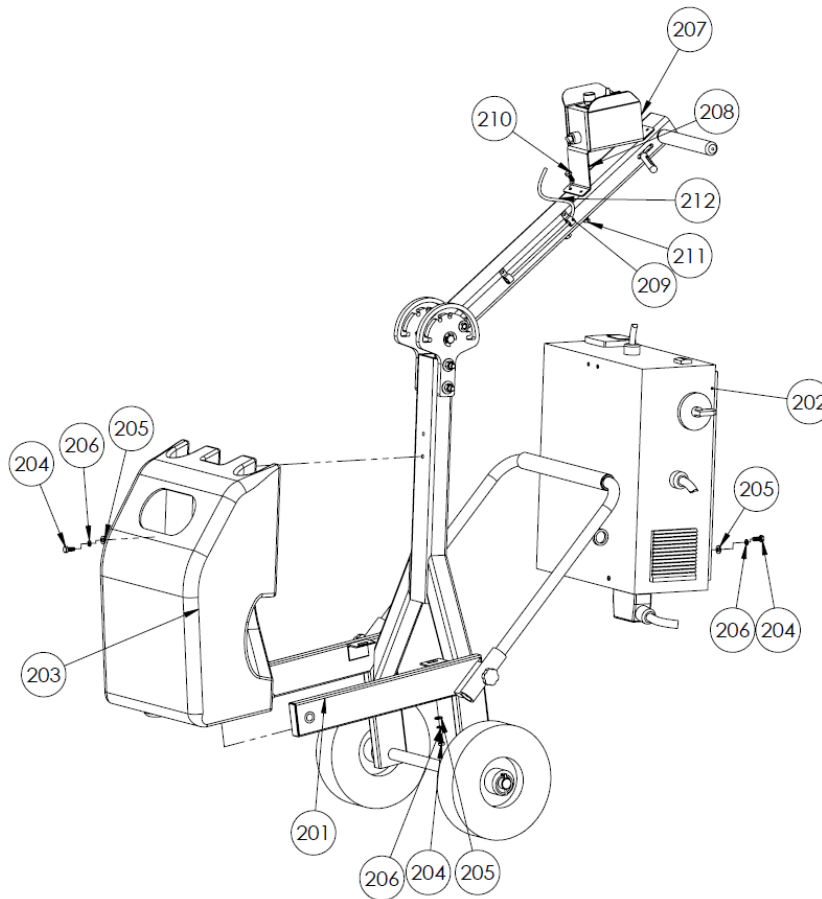


ITEM	PART	DESCRIPTION	QTY
201	96-0070	Frame structure	1
202	See note 2	Inverter Box	1
203	96-0071	Water tank assy	1
204	11-0118	Screw (hex head), 5/16-18 x3/4	8
205	11-0139	5/16 Washer	8
206	11-0127	5/16 Lock washer	8
207	23-0052	Power control box	1
208	53-0223	Bracket	1
209	13-0151	P-clamp (1/2" cable size)	2
210	11-0152	Screw (1/4 - 20 x 5/8 socket button head)	6
211	11-0217	Screw (5/16 - 18 x 3/4 socket button head)	2

Notes:

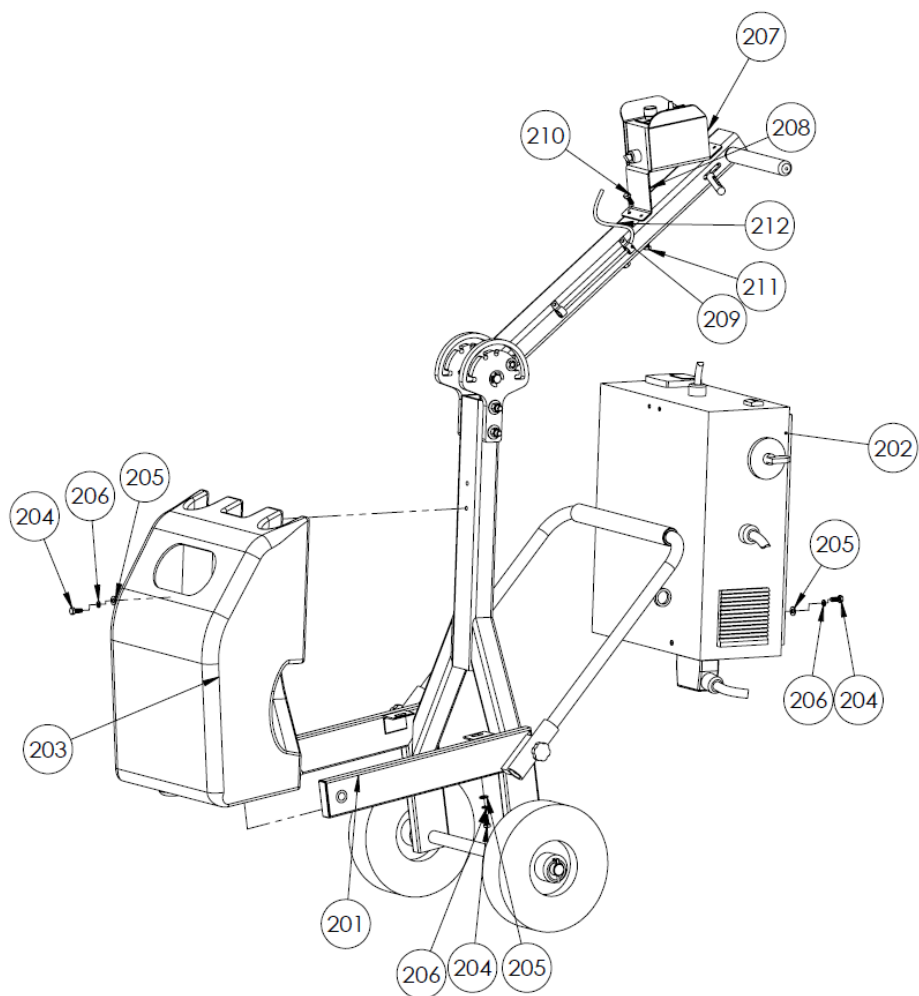
1. For illustration simplicity, not all duplicate items are shown or labeled
2. Inverter box, Power supply box and connecting cable are pre-wired together as one unit.
3. Inverter unit options: use Part# 96-0072 for 10 hp 3-phase motor and Part# 96-0073 for 7.5 hp 1-phase motor
4. Inverter protection bar is part of the frame structure and is not shown

**96-0081, 10hp, 230V**



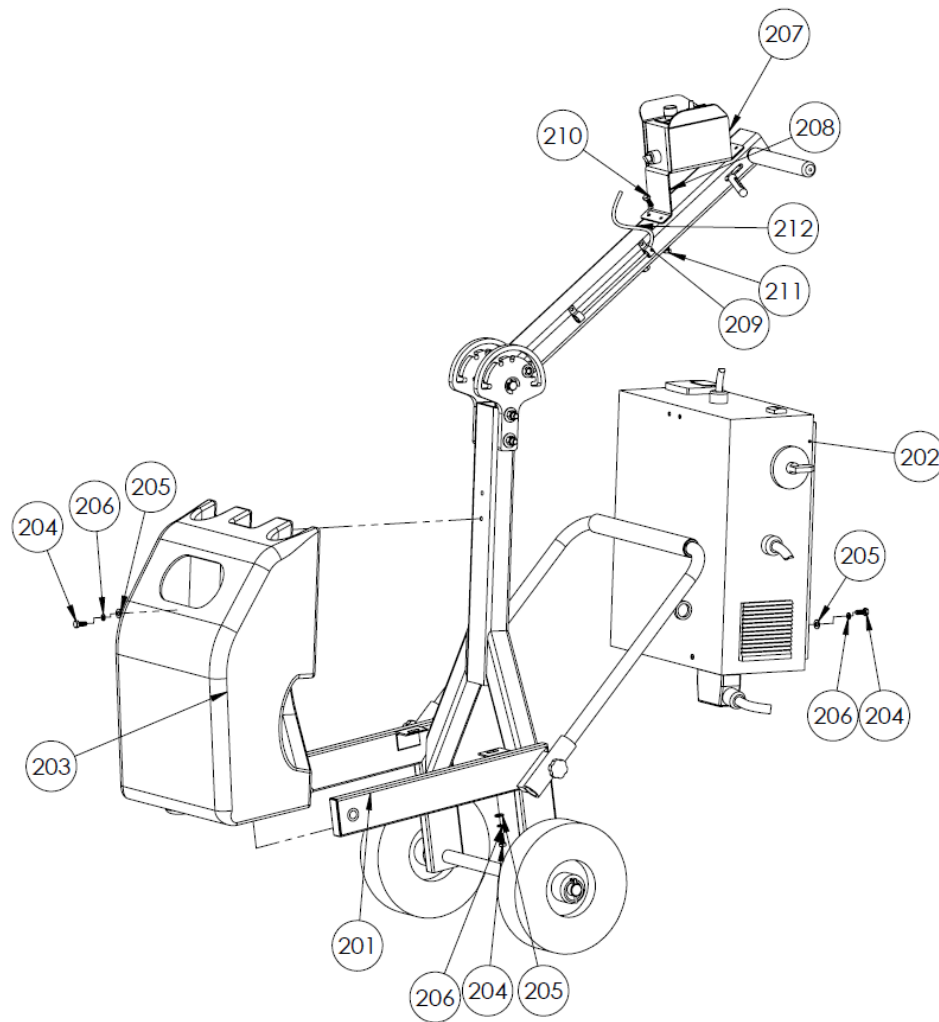
ITEM	PART	DESCRIPTION	QTY
201	96-0070	Frame structure	1
202	96-0072	Inverter Box	1
203	96-0071	Water tank assy	1
204	11-0118	Screw (hex head), 5/16-18 x3/4	8
205	11-0139	5/16 Washer	8
206	11-0127	5/16 Lock washer	8
207	23-0052	Power control box	1
208	53-0223	Bracket	1
209	13-0151	P-clamp (1/2" cable size)	2
210	11-0152	Screw (1/4 - 20 x 5/8 socket button head)	6
211	11-0217	Screw (5/16 - 18 x 3/4 socket button head)	2
212			

**96-0082, 7.5hp, 230V**



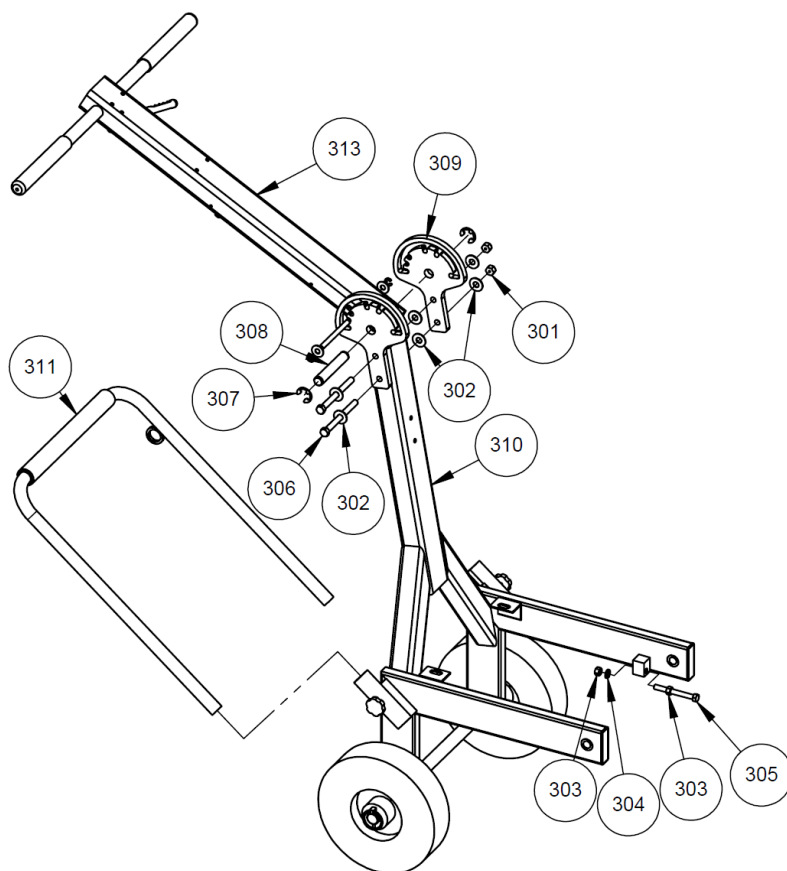
ITEM	PART	DESCRIPTION	QTY
201	96-0070	Frame structure	1
202	96-0073	Inverter Box	1
203	96-0071	Water tank assy	1
204	11-0118	Screw (hex head), 5/16-18 x3/4	8
205	11-0139	5/16 Washer	8
206	11-0127	5/16 Lock washer	8
207	23-0052	Power control box	1
208	53-0223	Bracket	1
209	13-0151	P-clamp (1/2" cable size)	2
210	11-0152	Screw (1/4 - 20 x 5/8 socket button head)	6
211	11-0217	Screw (5/16 - 18 x 3/4 socket button head)	2
212	See note 2	Cable between control box and inverter	1

**96-0091, 10hp, 480V**



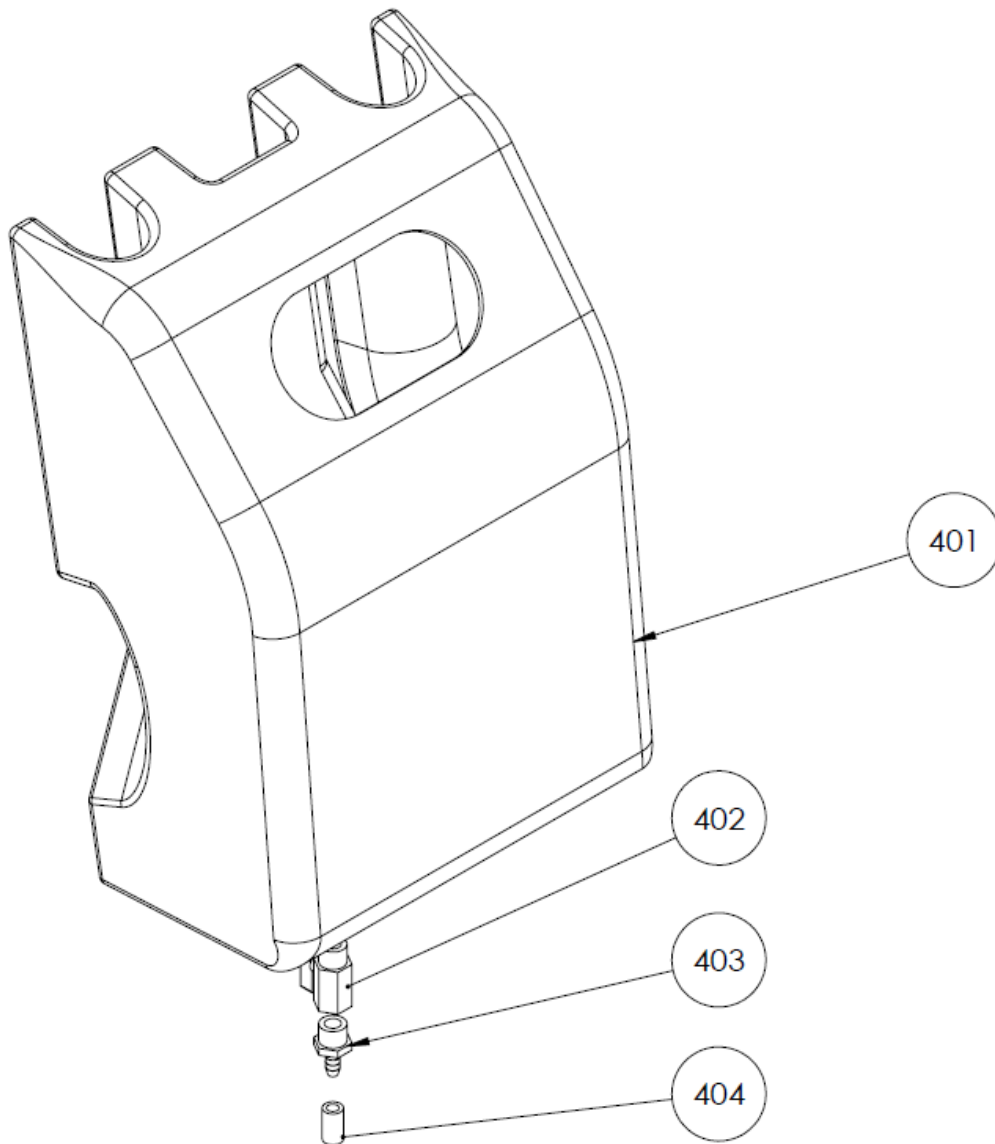
ITEM	PART	DESCRIPTION	QTY
201	96-0070	Frame structure	1
202	96-0093	Inverter Box	1
203	96-0071	Water tank assy	1
204	11-0118	Screw (hex head), 5/16-18 x3/4	8
205	11-0139	5/16 Washer	8
206	11-0127	5/16 Lock washer	8
207	See note 2	Power control box	1
208	53-0223	Bracket	1
209	13-0151	P-clamp (1/2" cable size)	2
210	11-0152	Screw (1/4 - 20 x 5/8 socket button head)	6
211	11-0217	Screw (5/16 - 18 x 3/4 socket button head)	2
212	See note 2	Cable between control box and inverter	1

**Frame Structure – Part# 96-0070**



ITEM	PART	DESCRIPTION	QTY
301	11-0027	Steel Nylon-Insert Lock Nut, 7/16"-14 ZP	2
302	11-0036	Washer, 7/16"	6
303	11-0124	Nut, 3/8"-16	4
304	11-0129	Split lock washer, 3/8	2
305	11-0218	Hex head screw, 3/8-16 x3-1/2	2
306	11-0219	Hex head cap screw, 7/16"-14*5"	2
307	13-0137	Retaining ring (E-style), fits 7/8 dia. shaft	2
308	51-0187	Handle Hinge Pin	1
309	51-0278	Handle Tilt Angle Selection Plate	2
310	53-0030	Base & post structure	1
311	53-0307	Inverter box protection bar	1
313	96-0304	Frame- Handle Assy	1

**Water Tank Part# 96-0071**



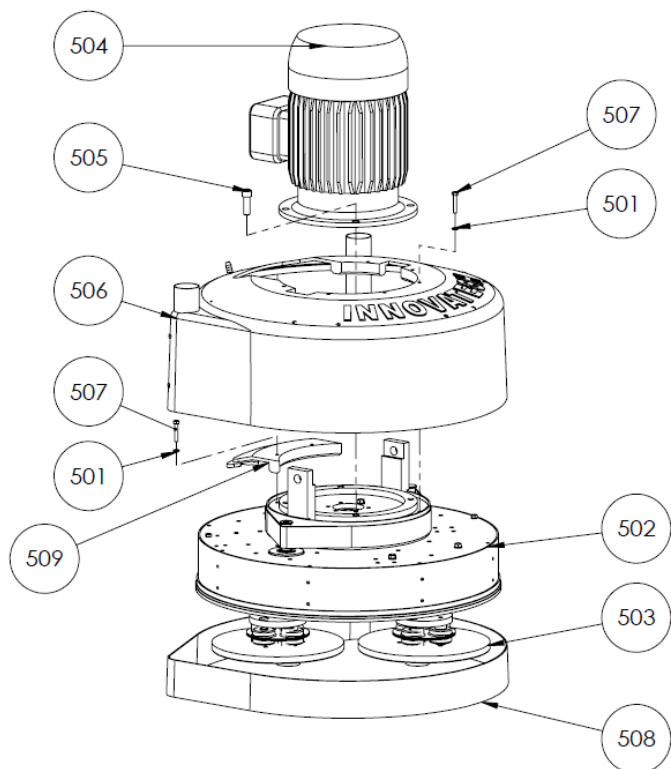
ITEM	DESCRIPTION	PART#	QTY
401	Water tank	54-0017	1
402	Drain valve	32-0010	1
403	Coupler (w 1/2" pipe threads and 3/8" barbed end)	32-0011	1
404	Tubing (3/8 ID x 5/8 OD x 10" Long)	32-0013	1

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## Grinder Head

10 hp, 3-Phase motor Part# 96-0077

7.5 hp, 1-Phase motor Part# 96-0078



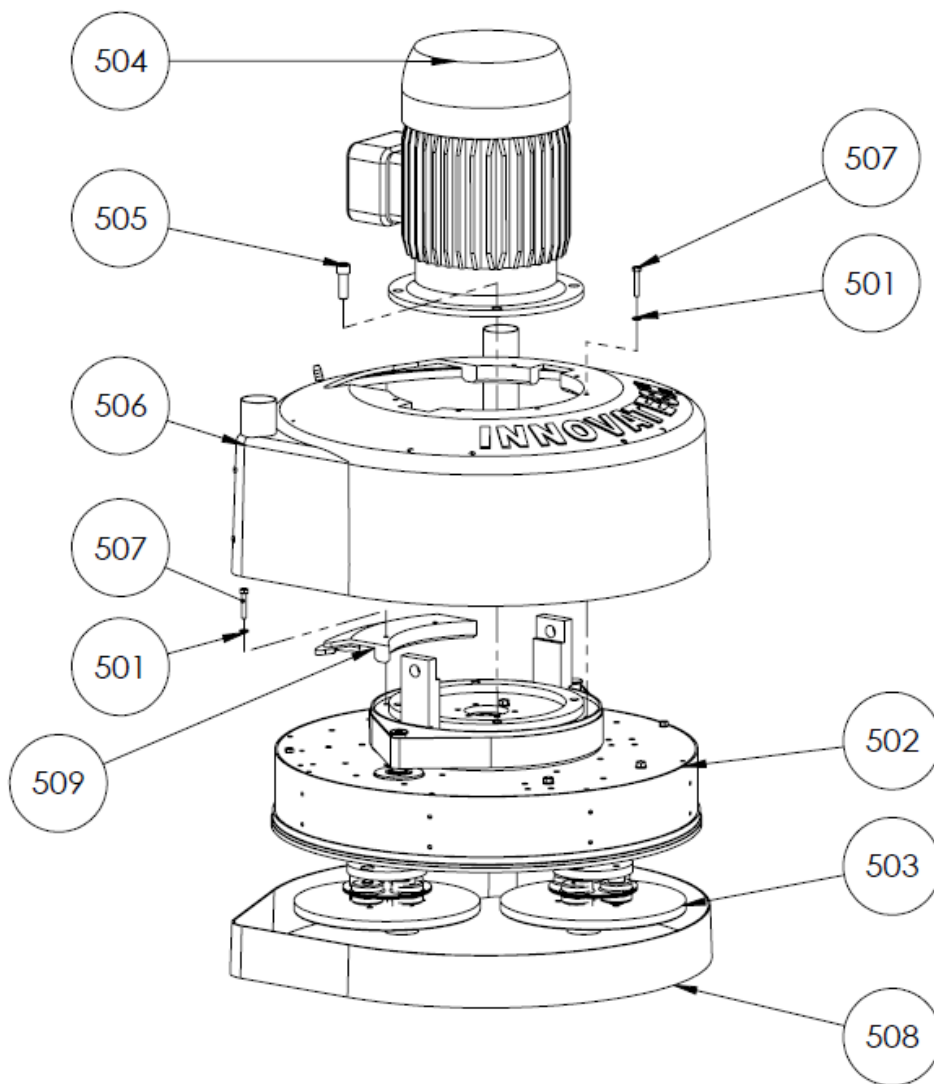
ITEM	DESCRIPTION	PART#	QTY
501	Washer (split lock), 1/4	11-0069	8
502	Drum [drive) unit	see note 3	1
503	Cutter head floating head assy	96-0065	4
504	Motor	see note 2	1
505	Screw (socket head), 1/2 - 13 x 1-1/2	11-0119	4
506	Shroud assy	96-0075	1
507	Screw (hex head), 1/4 - 20 x 1-1/2	11-0159	8
508	Splash guard	54-0002S	1
509	Shroud- cut-out panel	54-0019	1

**Notes:**

1. For illustration simplicity, not all parts are shown or labeled.
2. Motor Options
  - 10 hp, 3-Phase: Part# 23-0058
  - 7.5 hp, 1-Phase: Part# 23-0062
3. Drum Unit Options:
  - 10hp 3-Phase Motor: Part# 96-0062
  - 7.5 hp, 1-Phase: Motor: Part# 96-0069 (Reduced weight)

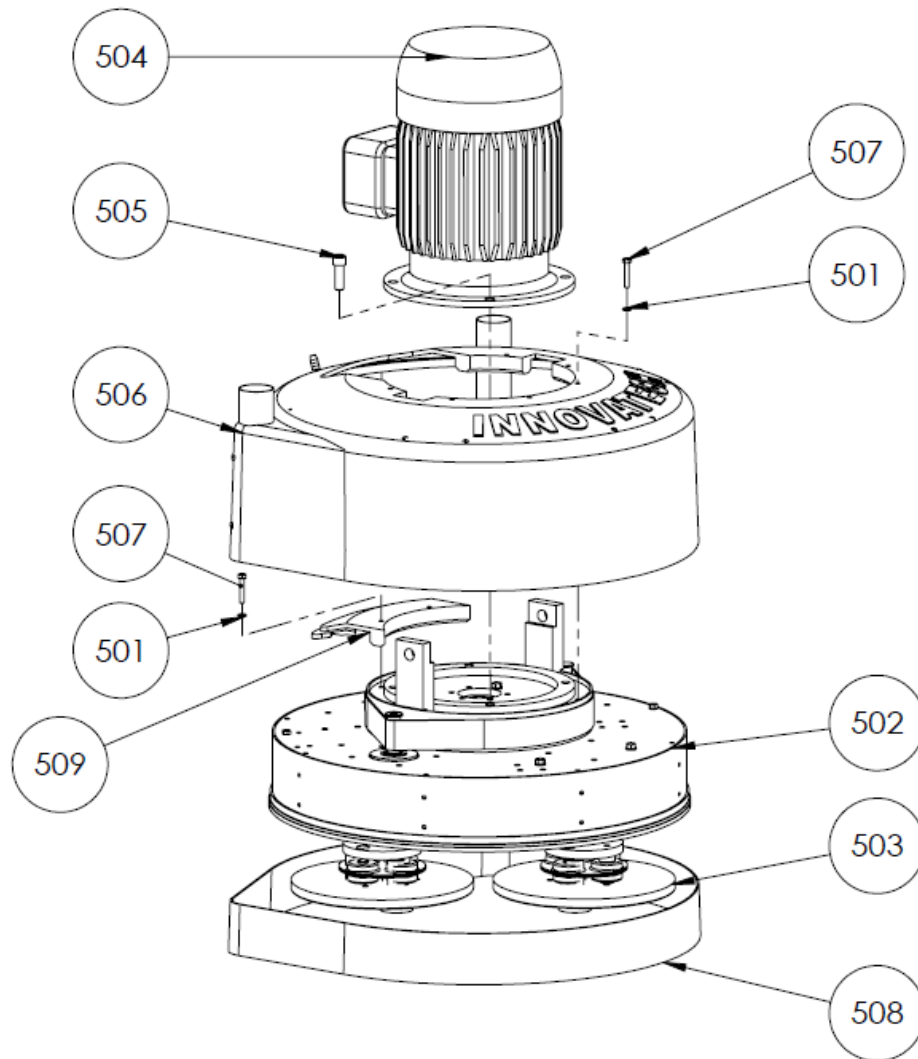


**96-0077, 10hp, 480V, 230V grinder head**



ITEM	DESCRIPTION	PART#	QTY
501	Washer (split lock), 1/4	11-0069	8
502	Drum [drive] unit	<b>96-0062</b>	1
503	Cutter head floating head assy	96-0065	4
504	Motor	<b>23-0058</b>	1
505	Screw (socket head), 1/2 - 13 x 1-1/2	11-0119	4
506	Shroud assy	96-0075	1
507	Screw (hex head), 1/4 - 20 x 1-1/2	11-0159	8
508	Splash guard	54-0002S	1
509	Shroud- cut-out panel	54-0019	1

**96-0078, 7.5hp, 230V, Grinder head**

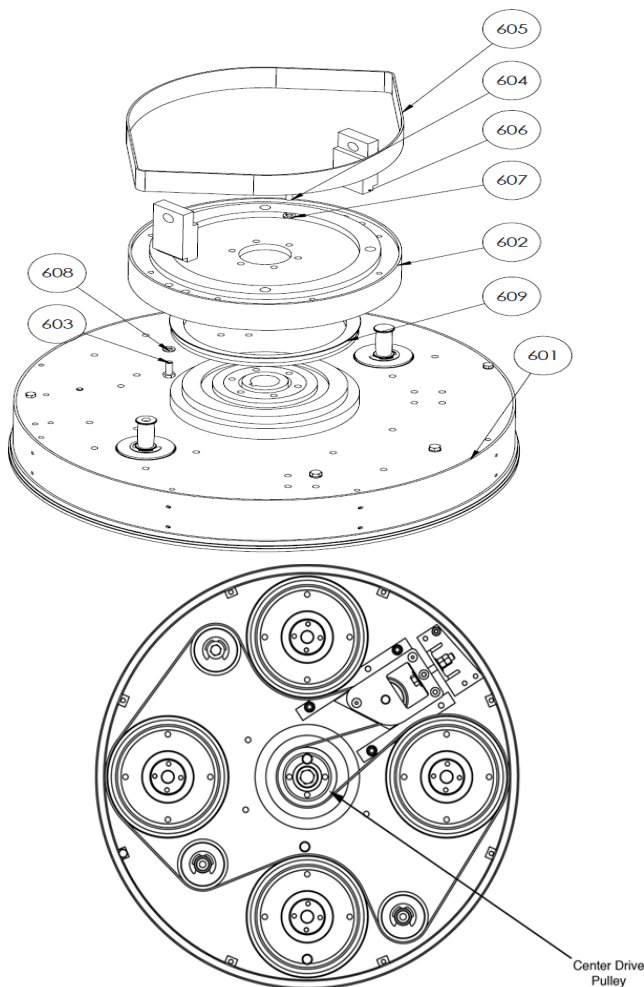


ITEM	DESCRIPTION	PART#	QTY
501	Washer (split lock), 1/4	11-0069	8
502	Drum [drive] unit	<b><u>96-0079</u></b>	1
503	Cutter head floating head assy	96-0065	4
504	Motor	<b><u>23-0062</u></b>	1
505	Screw (socket head), 1/2 - 13 x 1-1/2	11-0119	4
506	Shroud assy	96-0075	1
507	Screw (hex head), 1/4 - 20 x 1-1/2	11-0159	8
508	Splash guard	54-0002S	1
509	Shroud- cut-out panel	54-0019	1

## Drum Drive Unit

Standard Version Part# 96-0062

Reduced Weight Version Part# 96-0079



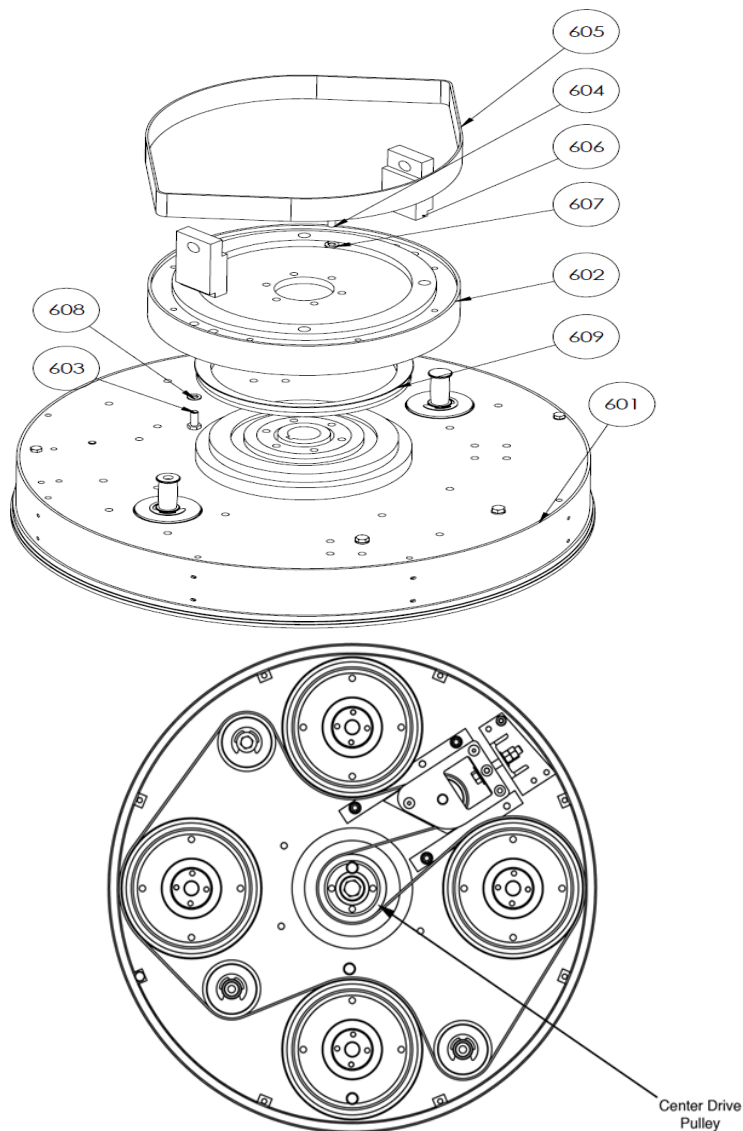
ATTENTION: BELT'S GREY COLORED SIDE TO FACE TOWARD CENTER DRIVE PULLEY.

ITEM	DESCRIPTION	PART	QTY
601	Drum Assy	See Note 2	1
602	Motor Base Assy	53-0026	1
603	Screw (Hex head), 3/8-16 x 1-1/2	11-0089	4
604	Screw (Hex head), 5/16-18 x1, grade 8	11-0192	6
605	Belt, 1-3/4 W x 43-3/4 L	13-0164	1
606	Post	51-0219	2
607	Washer (Split Lock), 5/16	11-0217	6
608	Washer (Split Lock), 3/8	11-0129	4
609m	Seal (V-Ring), 198 ID x 25mm Width	13-0165	1

Note:

1. This illustration serves to primarily show how parts/components fit together for the assembly of this unit. It may not necessarily reflect the as-built stages and/or hardware assigned to the components.
2. Drum assy options: Use P/N 96-0059 for drum drive unit standard version, P/N for drum drive unit reduced weight version.

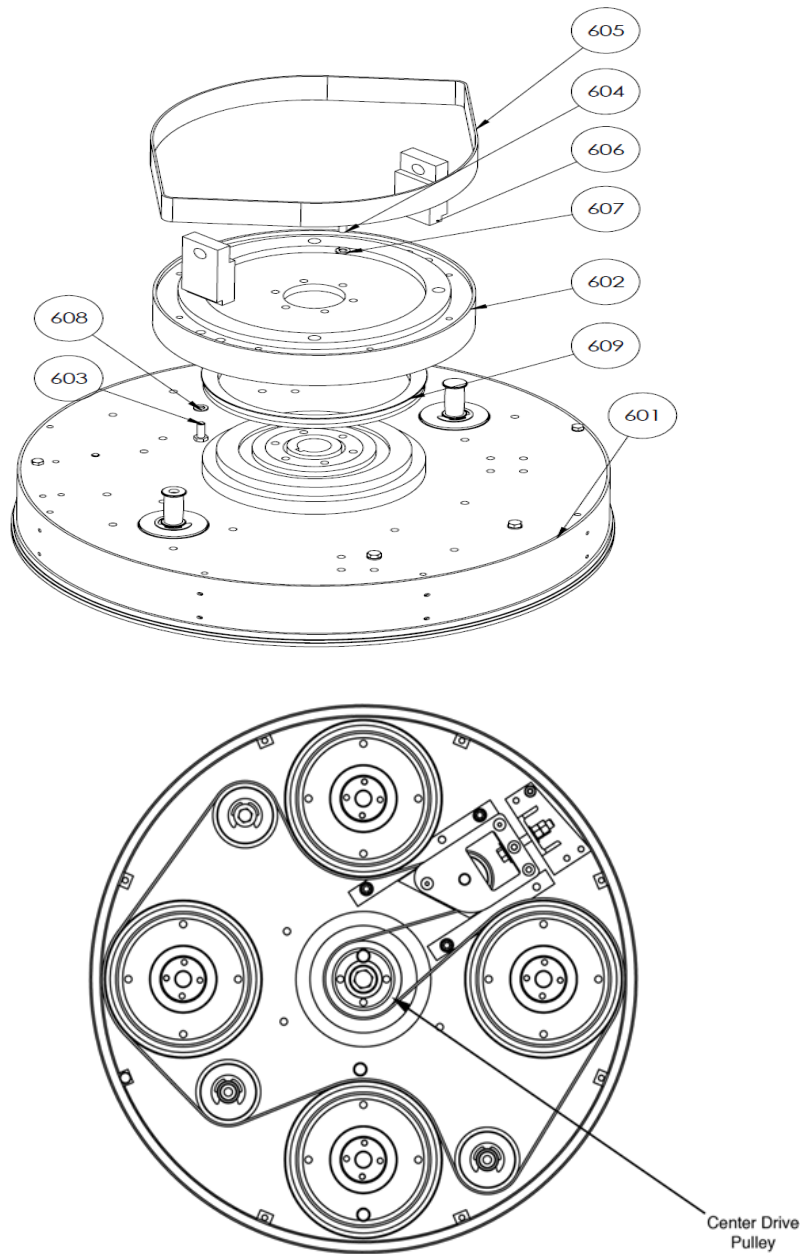
### 96-0079 Drum drive unit



ATTENTION: BELT'S GREY COLORED SIDE TO FACE TOWARD CENTER DRIVE PULLEY.

ITEM	DESCRIPTION	PART	QTY
601	Drum Assy	96-0080	1
602	Motor Base Assy	53-0026	1
603	Screw (Hex head), 3/8-16 x 1-1/2	11-0089	4
604	Screw (Hex head), 5/16-18 x1, grade 8	11-0192	6
605	Belt, 1-3/4 W x 43-3/4 L	13-0164	1
606	Post	51-0219	2
607	Washer (Split Lock), 5/16	11-0217	6
608	Washer (Split Lock), 3/8	11-0129	4
609m	Seal (V-Ring), 198 ID x 25mm Width	13-0165	1

### 96-0062 Drum drive unit



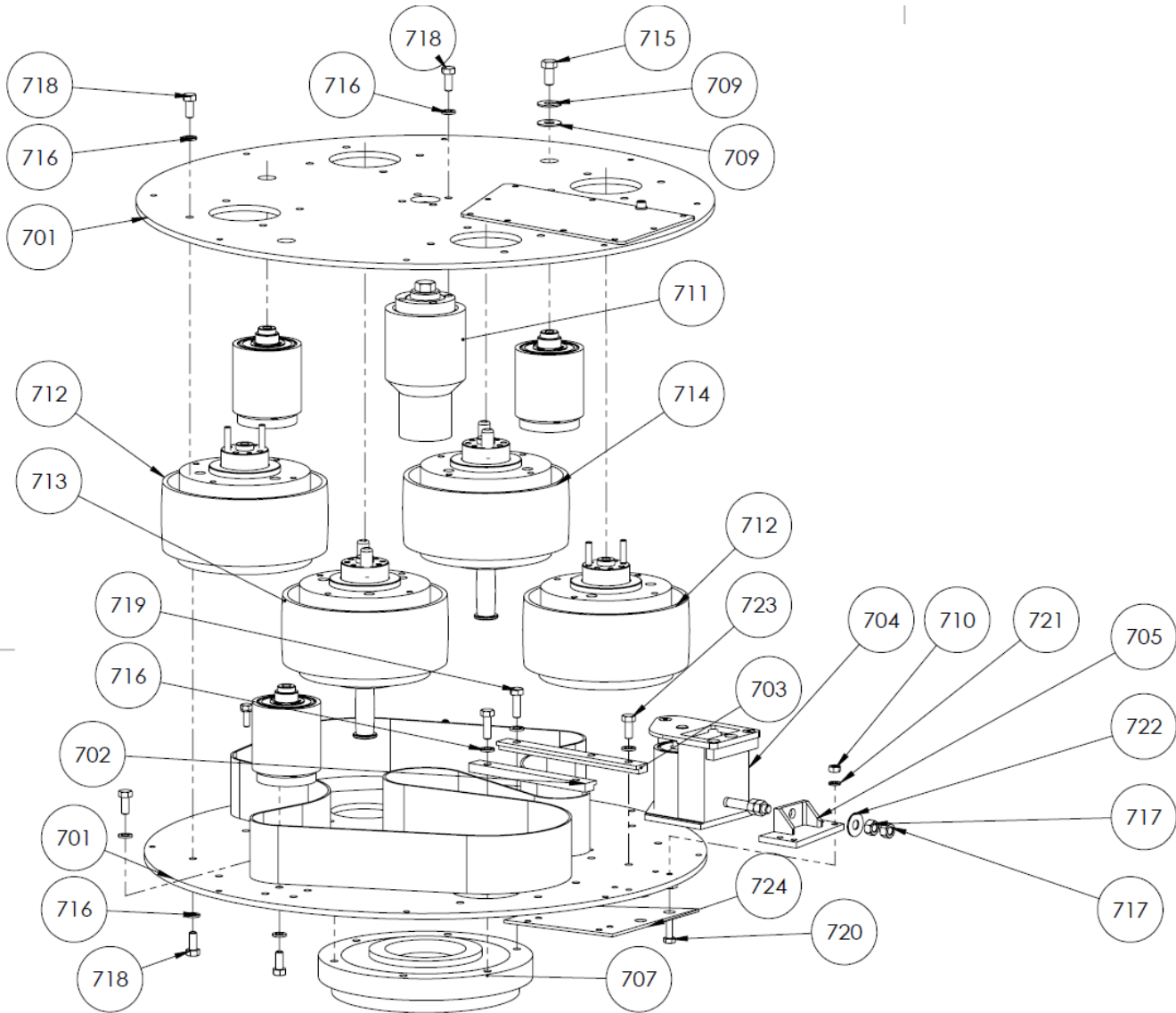
ATTENTION: BELT'S GREY COLORED SIDE TO FACE TOWARD CENTER DRIVE PULLEY.

ITEM	DESCRIPTION	PART	QTY
601	Drum Assy	96-0059	1
602	Motor Base Assy	53-0026	1
603	Screw (Hex head), 3/8-16 x 1-1/2	11-0089	4
604	Screw (Hex head), 5/16-18 x1, grade 8	11-0192	6
605	Belt, 1-3/4 W x 43-3/4 L	13-0164	1
606	Post	51-0219	2
607	Washer (Split Lock), 5/16	11-0217	6
608	Washer (Split Lock), 3/8	11-0129	4
609m	Seal (V-Ring), 198 ID x 25mm Width	13-0165	1

## Drum Assembly

Standard Version Part# 96-0059

Reduced Weight Version Part# 96-0080

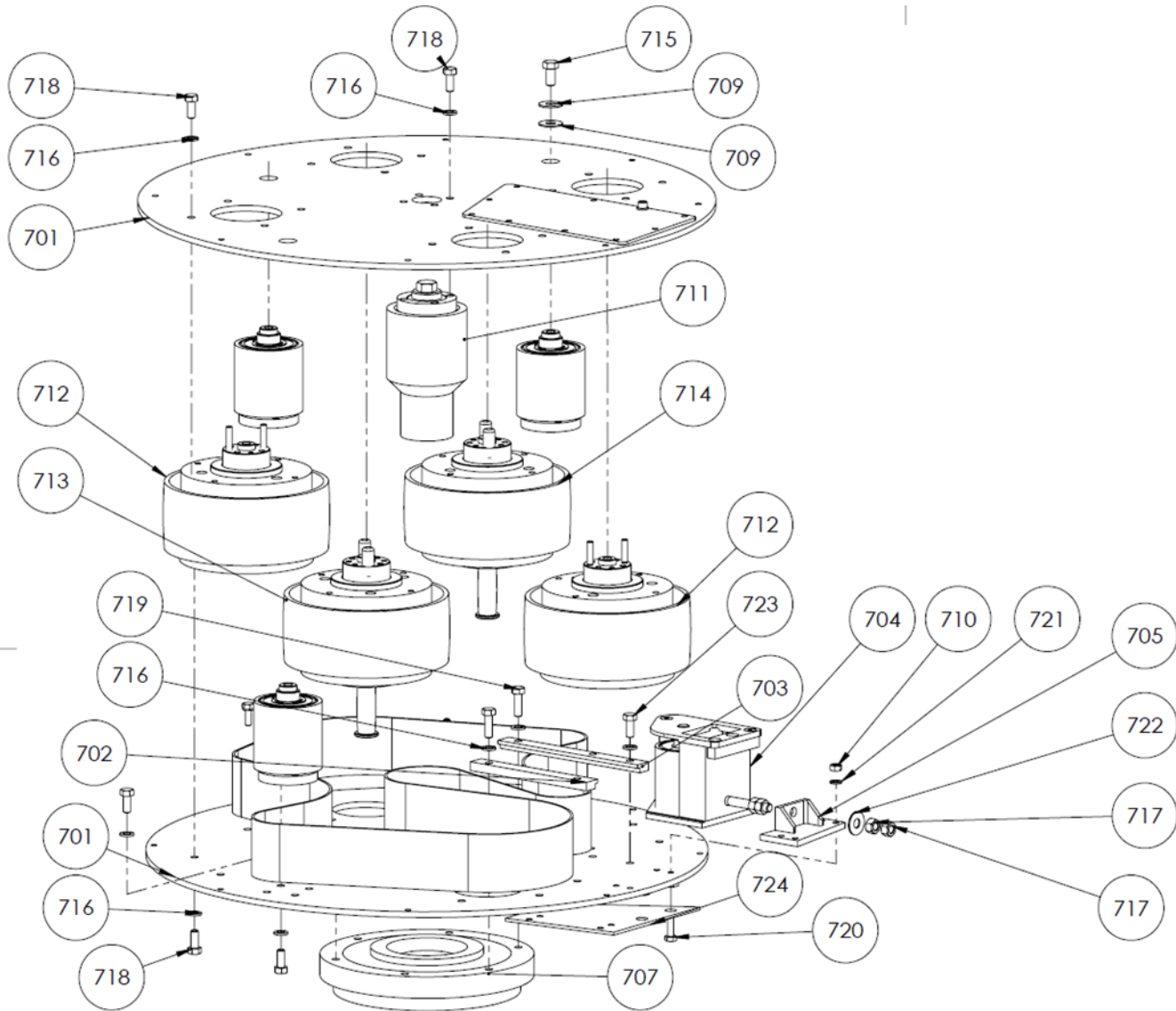


ITEM	DESCRIPTION	PART#	QTY
701	Drum top/bottom plate	See note 2	8
702	Tensioner sliding track (w/ 2 holes)	51-0198	1
703	Tensioner sliding track (w/ 3 holes)	51-0197	1
704	Tensioner sliding unit	96-0052	1
705	Tensioner stationary anchor unit	53-0027	1
706	Idler (Main Drive) Assy	96-0019	1
707	Bearing assembly (Motor base/drum connection)	96-0057	1
708	Main Drive Belt: 2-1/2"W x 86-1/2"L x .106"Thk	13-0163 See note 4	1
709	Washer, 3/8	11-0035	6
710	Steel Hex Nut, GR8: 1/4"-20, ZP	11-0123	4
711	Center Drive Pulley (24" grinder)- Assy kit	96-0306	1
712	Cutter head pulley assembly	96-0282	2
713	Cutter head pulley assembly (with flanged top pulley)	96-0327	1
714	Cutter head pulley assembly (with insert flanged top pulley)	96-0051	
715	Steel Hex Head Cap Screw, GR5: 3/8"-16x3/4" ZP	11-0130	3
716	Washer (split lock), 5/16	11-0127	55
717		11-0124	2
718	Screw (hex head), 5/16 - 18 x 3/4, grade 8	11-0193	50
719		11-0171	
720	Screw (hex head), 1/4 - 20 x 1	11-0121	4
721	Steel Split Lock Washer, 1/4", ZP	11-0069	4
722		11-0128	1
723		See note 5	
724		See note 6	1

**NOTES:**

1. FOR ILLUSTRATION SIMPLICITY, NOT ALL PARTS ARE SHOWN OR LABELED.
2. DRUM TOP AND BOTTOM PLATES ARE COMPONENTS OF DRUM ENVELOPE. TO SHOW HOW PARTS FIT TOGETHER, NOT ALL OF DRUM ENVELOPE'S PARTS ARE SHOWN. DRUM ENVELOPE OPTIONS: USE P/N 96-0056 FOR STANDARD DRUM ASSY VERSION, P/N 96-0088 FOR REDUCED WEIGHT DRUM ASSY VERSION.
3. USAGE OF INDICATED WASHERS FOR IDLERS INSTALLATION ARE MANDATORY TO ENSURE SCREWS' ENDS WILL NOT TOUCH ROTATING BEARINGS UNDERNEATH.
4. ASSY'S DRIVE BELT IS NOT SHOWN HERE DUE TO SPACE CONSTRAINTS. REFER TO BELT ROUTING ILLUSTRATION FOR BELT LAYOUT ON ASSY.
5. INDICATED SCREW OPTIONS: USE 3/4" LENGTH (P/N 11-0193) FOR STANDARD DRUM ASSY VERSION, 1-1/4" LENGTH (P/N 11-0245) FOR REDUCED WEIGHT VERSION.
6. USE INDICATED ADAPTER PLATE (P/N 53-0037) ON REDUCED WEIGHT DRUM ASSY VERSION ONLY.

### Drum Assembly 96-0080



ITEM	DESCRIPTION	PART#	QTY
701	Drum top/bottom plate	See note 2	8
702	Tensioner sliding track (w/ 2 holes)	51-0198	1
703	Tensioner sliding track (w/ 3 holes)	51-0197	1
704	Tensioner sliding unit	96-0052	1
705	Tensioner stationary anchor unit	53-0027	1
706	Idler (Main Drive) Assy	96-0019	1
707	Bearing assembly (Motor base/drum connection)	96-0057	1
708	Main Drive Belt: 2-1/2"W x 86-1/2"L x .106"Thk	13-0163 See note 4	1
709	Washer, 3/8	11-0035	6
710	Steel Hex Nut, GR8: 1/4"-20, ZP	11-0123	4



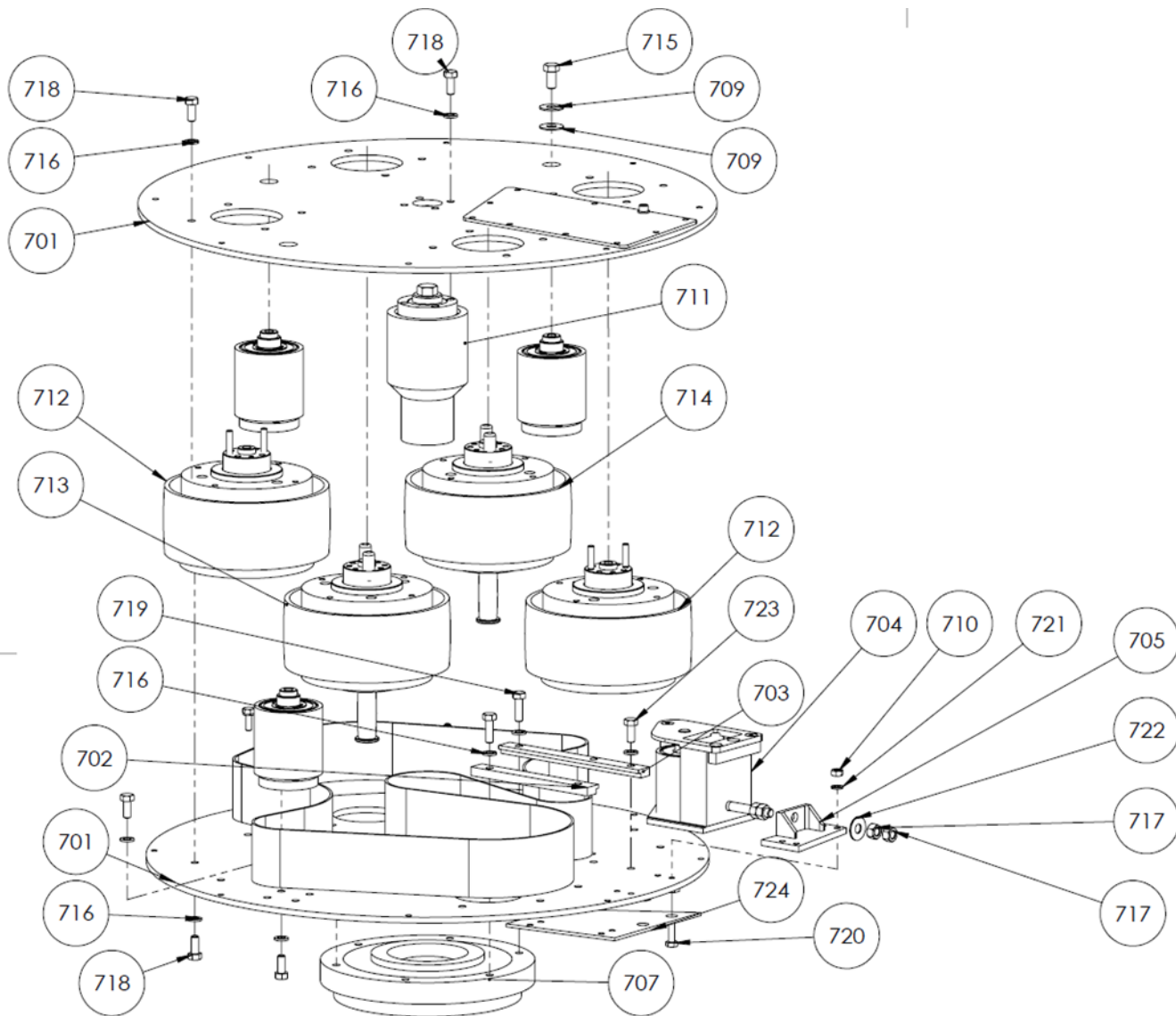
Predator 2400  
Owner's Manual

711	Center Drive Pulley (24" grinder)- Assy kit	96-0306	1
712	Cutter head pulley assembly	96-0282	2
713	Cutter head pulley assembly (with flanged top pulley)	96-0327	1
714	Cutter head pulley assembly (with insert flanged top pulley)	96-0051	
715	Steel Hex Head Cap Screw, GR5: 3/8"- 16x3/4" ZP	11-0130	3
716	Washer (split lock), 5/16	11-0127	55
717		11-0124	2
718	Screw (hex head), 5/16 - 18 x 3/4, grade 8	11-0193	50
719		11-0171	
720	Screw (hex head), 1/4 - 20 x 1	11-0121	4
721	Steel Split Lock Washer, 1/4", ZP	11-0069	4
722		11-0128	1
723		11-0125	
724		53-0037	1

NOTES:

1. FOR ILLUSTRATION SIMPLICITY, NOT ALL PARTS ARE SHOWN OR LABELED.
2. DRUM TOP AND BOTTOM PLATES ARE COMPONENTS OF DRUM ENVELOPE. TO SHOW HOW PARTS FIT TOGETHER, NOT ALL OF DRUM ENVELOPE'S PARTS ARE SHOWN. DRUM ENVELOPE OPTIONS: USE P/N 96-0056 FOR STANDARD DRUM ASSY VERSION, P/N 96-0088 FOR REDUCED WEIGHT DRUM ASSY VERSION.
3. USAGE OF INDICATED WASHERS FOR IDLERS INSTALLATION ARE MANDATORY TO ENSURE SCREWS' ENDS WILL NOT TOUCH ROTATING BEARINGS UNDERNEATH.
4. ASSY'S DRIVE BELT IS NOT SHOWN HERE DUE TO SPACE CONSTRAINTS. REFER TO BELT ROUTING ILLUSTRATION FOR BELT LAYOUT ON ASSY.
5. INDICATED SCREW OPTIONS: USE 3/4" LENGTH (P/N 11-0193) FOR STANDARD DRUM ASSY VERSION, 1-1/4" LENGTH (P/N 11-0245) FOR REDUCED WEIGHT VERSION.
6. USE INDICATED ADAPTER PLATE (P/N 53-0037) ON REDUCED WEIGHT DRUM ASSY VERSION ONLY.

### Drum Envelope 96-0059



ITEM	DESCRIPTION	PART#	QTY
701	Drum top/bottom plate	See note 2	8
702	Tensioner sliding track (w/ 2 holes)	51-0198	1
703	Tensioner sliding track (w/ 3 holes)	51-0197	1
704	Tensioner sliding unit	96-0052	1
705	Tensioner stationary anchor unit	53-0027	1
706	Idler (Main Drive) Assy	96-0019	1
707	Bearing assembly (Motor base/drum connection)	96-0057	1
708	Main Drive Belt: 2-1/2"W x 86-1/2"L x .106"Thk	13-0163 See note 4	1
709	Washer, 3/8	11-0035	6
710	Steel Hex Nut, GR8: 1/4"-20, ZP	11-0123	4

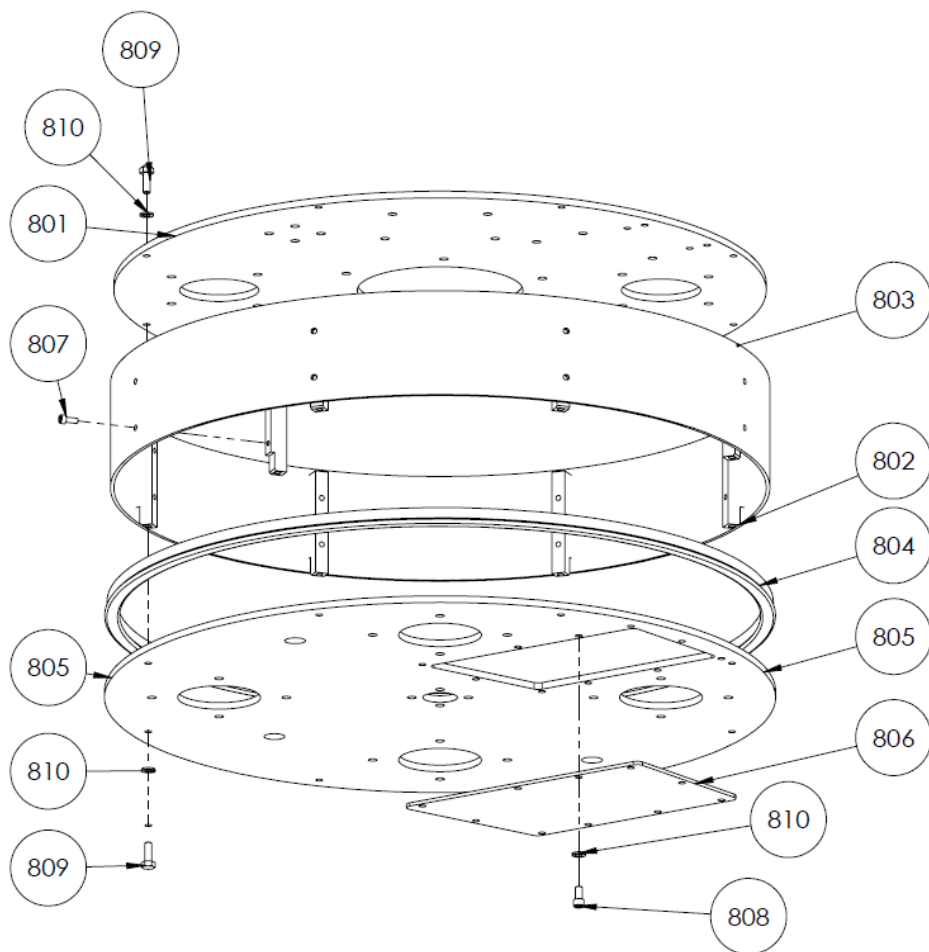
Predator 2400  
 Owner's Manual

711	Center Drive Pulley (24" grinder)- Assy kit	96-0306	1
712	Cutter head pulley assembly	96-0282	2
713	Cutter head pulley assembly (with flanged top pulley)	96-0327	1
714	Cutter head pulley assembly (with insert flanged top pulley)	96-0051	
715	Steel Hex Head Cap Screw, GR5: 3/8"- 16x3/4" ZP	11-0130	3
716	Washer (split lock), 5/16	11-0127	55
717		11-0124	2
718	Screw (hex head), 5/16 - 18 x 3/4, grade 8	11-0193	50
719		11-0171	
720	Screw (hex head), 1/4 - 20 x 1	11-0121	4
721	Steel Split Lock Washer, 1/4", ZP	11-0069	4
722		11-0128	1
723		11-0193	
724			

## Drum Envelope

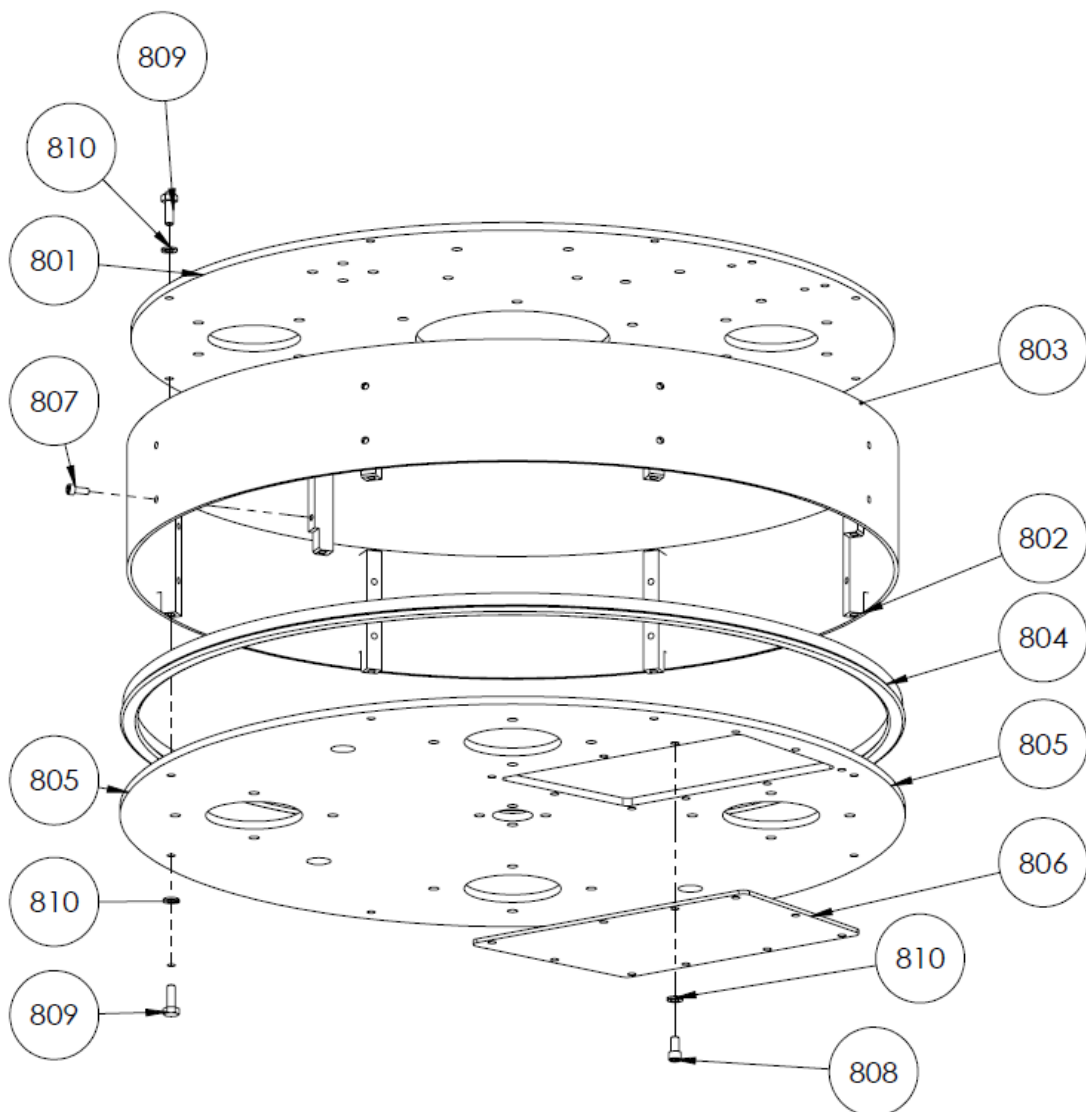
Standard Version Part# 96-0056

Reduced Weight Version Part# 96-0088



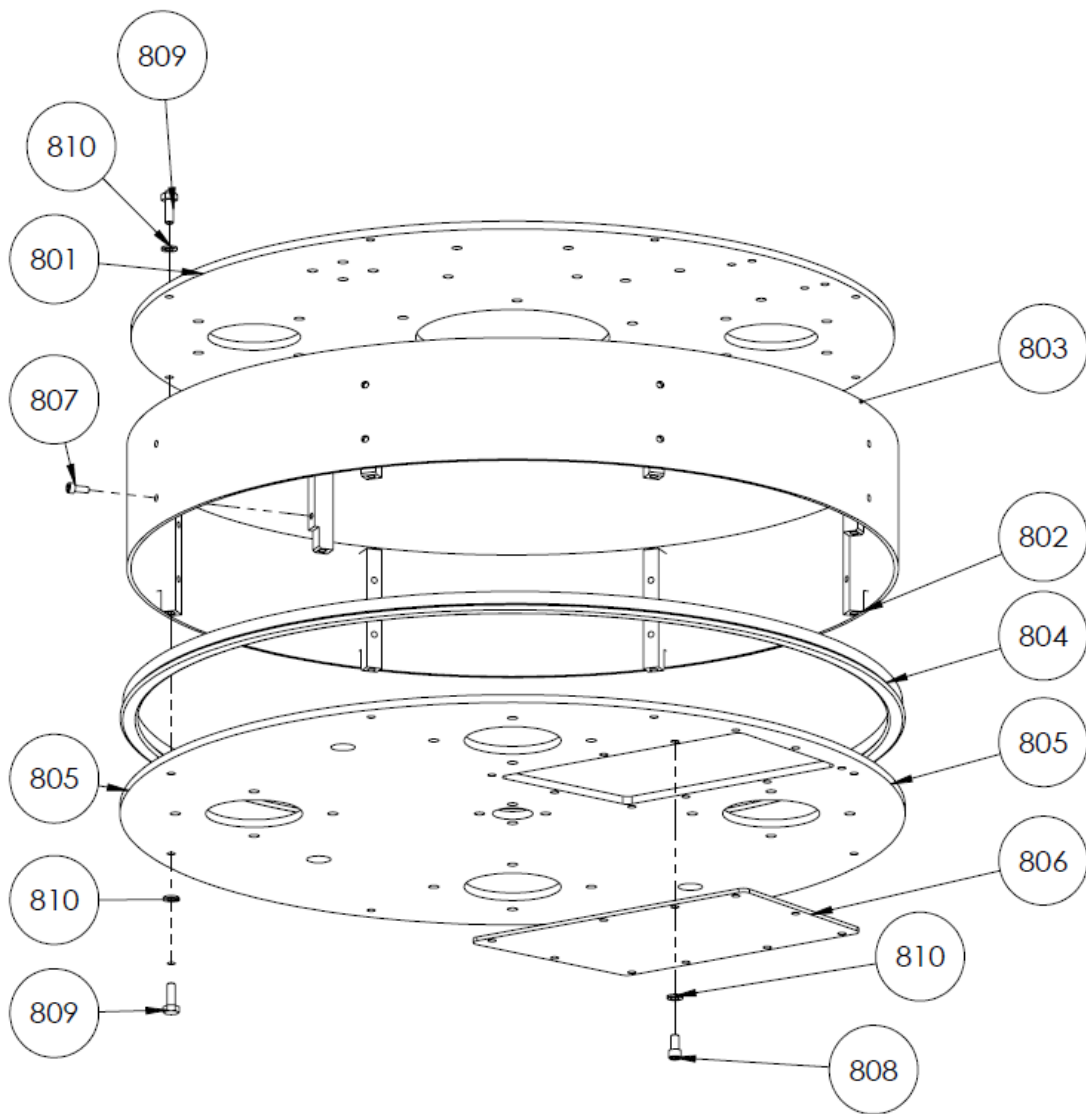
ITEM	DESCRIPTION	PART#	QTY
801	Drum top plate	See note 2	1
802	Spacer Bar	51-0022	8
803	Drum side wall	53-0031	1
804	Seal (edge trim)	03-0001	1
805	Drum bottom plate	See note 3	1
806	Cover plate (Tensioner access hole)	52-0206	1
807	Socket head cap screw 10-24 x 1/2	11-0149	16
808	Socket head cap screw 1/4-20x 1/2	11-0164	10
809	Socket head cap screw 1/4-20x 3/4	11-0133	16
810	1/4" lock washer	11-0069	26

### 96-0088 Drum Envelope



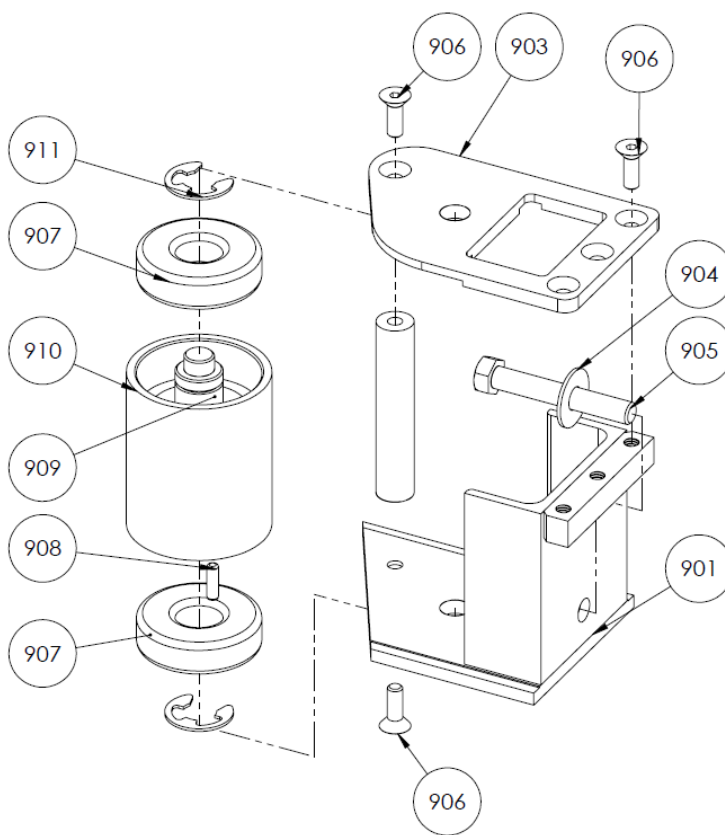
ITEM	DESCRIPTION	PART#	QTY
801	Drum top plate	51-0289	1
802	Spacer Bar	51-0022	8
803	Drum side wall	53-0031	1
804	Seal (edge trim)	03-0001	1
805	Drum bottom plate	51-0290	1
806	Cover plate (Tensioner access hole)	52-0206	1
807	Socket head cap screw 10-24 x 1/2	11-0149	16
808	Socket head cap screw 1/4-20x 1/2	11-0164	10
809	Socket head cap screw 1/4-20x 3/4	11-0133	16
810	1/4" lock washer	11-0069	26

### 96-0056 Drum Envelope



ITEM	DESCRIPTION	PART#	QTY
801	Drum top plate	51-0203	1
802	Spacer Bar	51-0022	8
803	Drum side wall	53-0031	1
804	Seal (edge trim)	03-0001	1
805	Drum bottom plate	51-0204	1
806	Cover plate (Tensioner access hole)	52-0206	1
807	Socket head cap screw 10-24 x 1/2	11-0149	16
808	Socket head cap screw 1/4-20x 1/2	11-0164	10
809	Socket head cap screw 1/4-20x 3/4	11-0133	16
810	1/4" lock washer	11-0069	26

**Tension Sliding Unit - #96-0052**

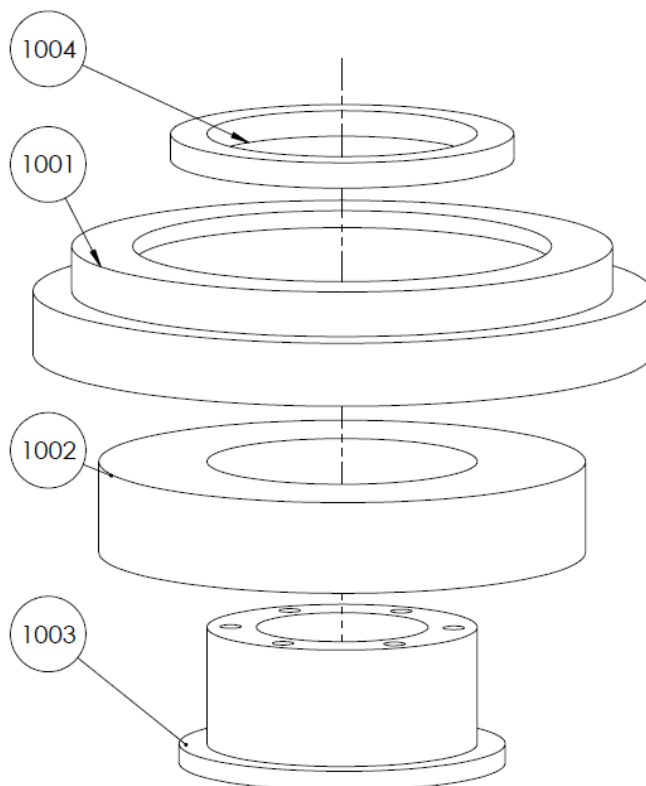


ITEM	DESCRIPTION	PART	QTY
901	Tensioner Sliding Base	53-0024	1
902	Tensioner top plate support post	51-0200	1
903	Tensioner top plate	51-0195	1
904	Washer (SAE), 3/8	11-0126	1
905	Screw (Hex head), 3/8-16 x 2-1/2	11-0122	1
906	Screw (Flat head), 1/4-20 x 3/4	11-0140	5
907	Bearing, 20ID x 52OD x 15H	13-0122	2
908	Pin (dowel), 3/16 dia x 5/8 long	13-0133	1
909	Shaft, 0.787 dia	51-0017	1
910	Idler (Sleeve roller), 2-3/8 dia x 7/8 high	51-0018	1
911	Retaining Ring (E-style)- 7/8 dia shaft	13-0137	2

Notes:

1. For illustration simplicity, not all duplicate items are shown or labeled.
2. Idler's end with shallow internal counter bore faces toward sliding base.
3. Secure indicated screw with a medium strength thread locking compound (IE. Loctite 242.)
4. Manufacturing note: Tag weld support post to sliding base to prevent rotational movement.

**Bearing Assembly (Drum / Motor Base Connection - #96-0057**



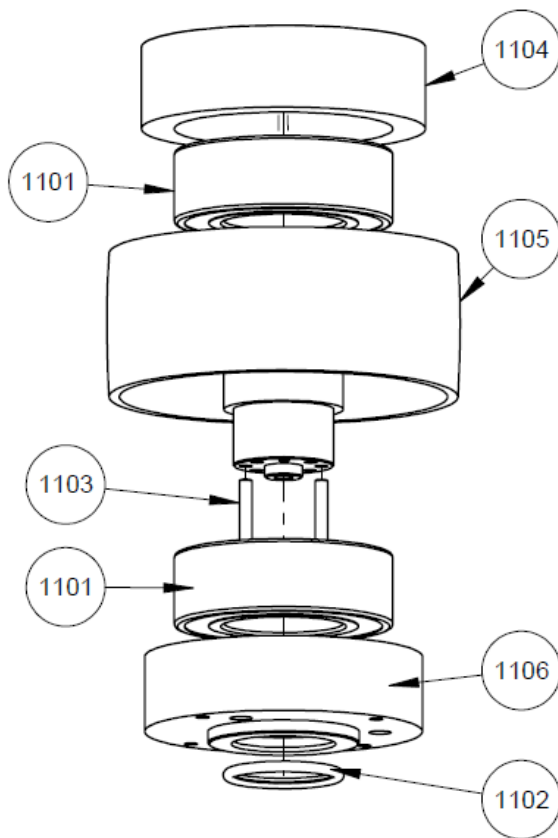
ITEM	DESCRIPTION	PART	QTY
1001	Bearing housing (outer housing)	51-0212	1
1002	Bearing, 100 ID x 180 OD x 34mm high	13-0160	1
1003	Bearing housing (inner housing)	51-0211	1
1004	Spacer Ring, 3.94 ID X 5 OD X 3/8" thick	51-0213	1

Notes:

1. FOR ILLUSTRATION SIMPLICITY, NOT ALL PARTS ARE SHOWN OR LABELED.
2. DRUM TOP PLATES OPTIONS: USE PIN 51-0203 FOR DRUM ENVELOPE STANDARD VERSION, P/N 51-0289 FOR DRUM ENVELOPE REDUCED WEIGHT VERSION.
3. DRUM BOTTOM PLATES OPTIONS: USE P/N 51-0204 FOR DRUM ENVELOPE STANDARD VERSION, P/N 51-0290 FOR REDUCED WEIGHT VERSION.
4. SECURE INDICATED SCREW(S) WITH A MEDIUM STRENGTH THREAD LOCKING COMPOUND (I.E. LOCTITE 242).
5. SEAL JOINT BETWEEN DRUM SIDE WALL AND TOP PLATE, AS WELL AS SPACER BARS, WITH SILICONE.
6. SEAL PERIMETER OF COVER PLATE WITH SILICONE AFTER ATTACHMENT TO DRUM BOTTOM PLATE.

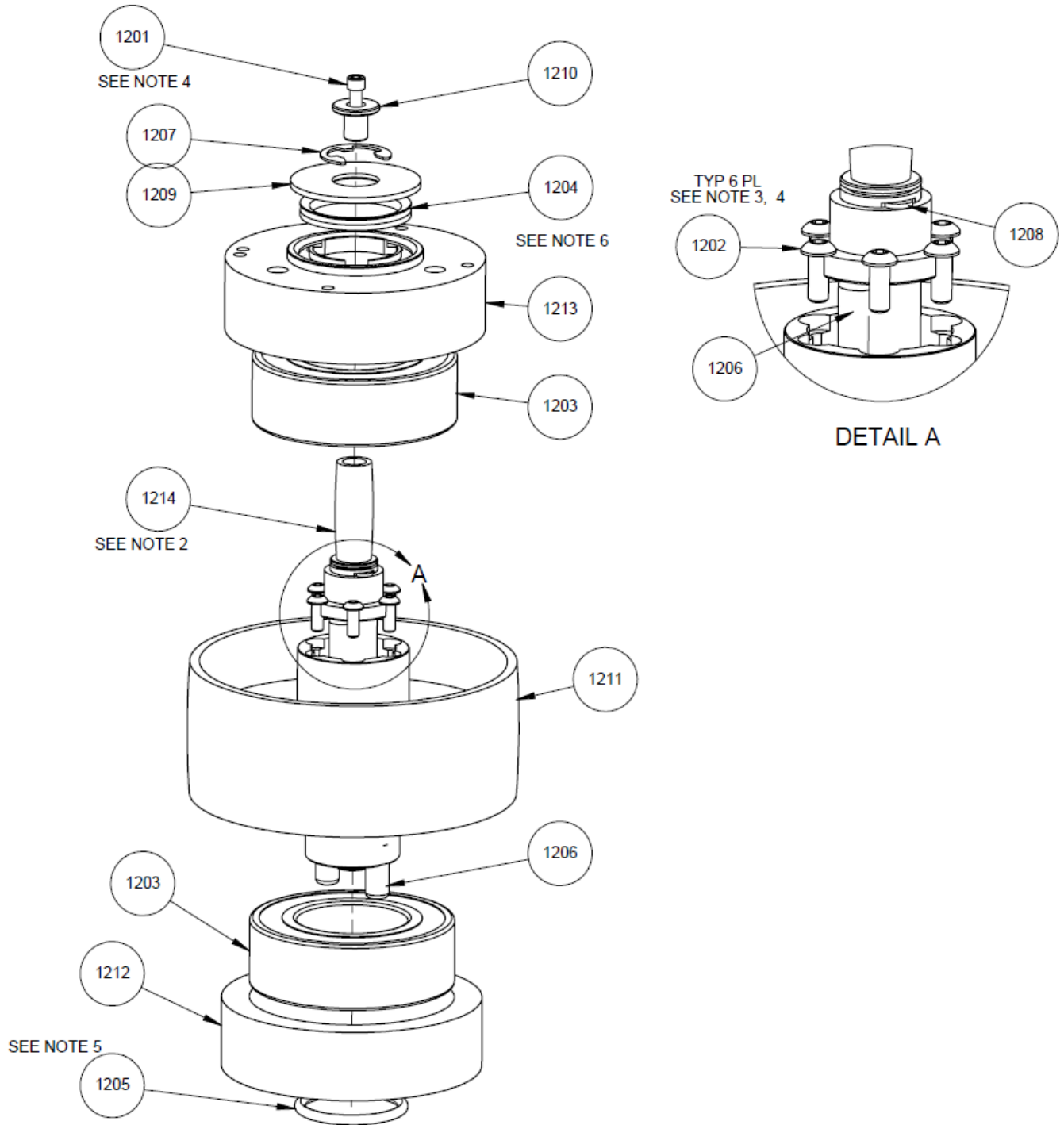


**Cutter Head Pulley Assembly (Cast Unit) - #96-00282**



ITEM	PART	DESCRIPTION	QTY
1101	13-0120	Bearing (60*110*36.5)	2
1102	13-0131	O-ring (2"ID*2-3/8"OD*3/16"W)	1
1103	13-0134	Dowel pin, 1/4 "dia *1"long	2
1104	51-0002	Bearing housing (cutter head, top)	1
1105	51-0191-6	Cutter head pulley	1
1106	51-0867	Bearing housing (cutter head, bottom)	1

**Cutter Head Pulley Assembly (With Flanged Top Pulley, Cast Unit) - #96-0327**

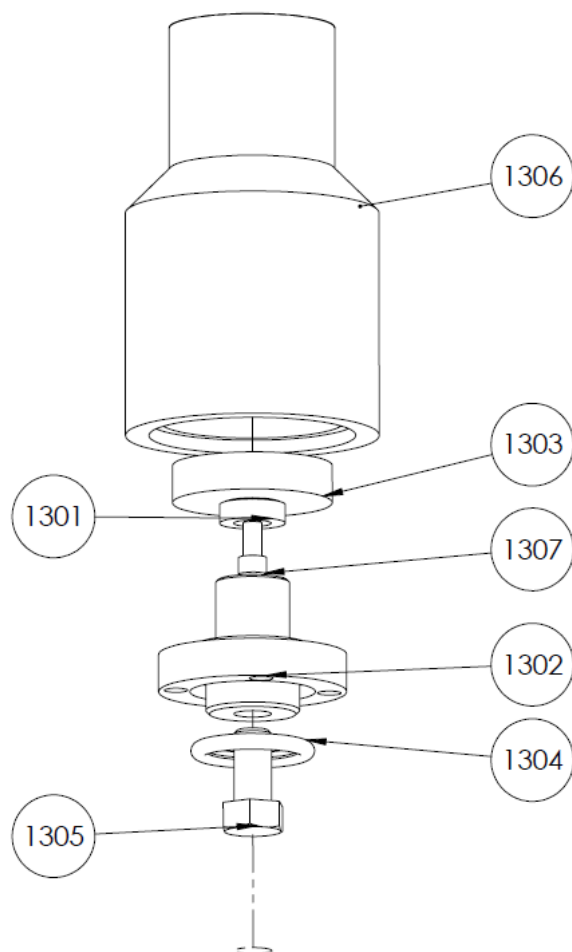


ITEM	PART	DESCRIPTION	QTY
1201	11-0169	Socket Head Cap Screw, 1/4"-20 x 3/4"	1
1202	11-0349	Button head socket cap screw, 1/4"-20 x 5/8"	6
1203	13-0120	Bearing, 60 ID x110 OD x36.5 W	2
1204	13-0124	Seal, V-Ring, 45ID x 5W x 9H	1
1205	13-0131	O-ring (2" ID x 2-3/8" OD x 3/16" W)	1
1206	13-0202	Steel Dowel Pin, 1/2"OD x 1.25"L	3
1207	13-0135	Retaining ring (E-style)	1
1208	13-0140	Key (Woodruff, full radius), .063 thk x .375 dia	1
1209	51-0027	Dust Cover Disc	1
1210	51-0157	Flange insert	1
1211	51-0191-9	Cutter head pulley, base	1
1212	51-0867	Bearing housing (cutter head, bottom)	1
1213	51-0911	Bearing housing (cutter head, top)	1
1214	51-0982	Cutter head pulley, top drive (easy-replace, heavy duty)	1

NOTES:

1. DRAWING SERVES TO REPRESENT ASSEMBLY DETAILS, BUT MAY NOT NECESSARILY REFLECT ACTUAL SUBCOMPONENT GROUPINGS OR ASSEMBLY SEQUENCES.
2. APPLY ANTISEIZE COATING BETWEEN TOP PULLEY AND BASE CONTACT.
3. USE GRADE 5 (OR STRONGER) ALLOY STEEL SCREW, NOT [WEAK] STAINLESS STEEL VERSIONS.
4. SECURE SCREW(S) WITH MEDIUM STRENGTH THREAD LOCKING COMPOUND (IMPORTANT SAFEGUARD REQUIREMENT).
5. O-RING RESIDES INSIDE GROOVE ON BEARING HOUSING.
6. SEAL RING'S BASE PERIMETER WITH SILICONE SEALANT (TO PREVENT WATER SEEPAGE INTO ASSEMBLY).

**Pulley Assembly (Center Drive) - #96-0054**

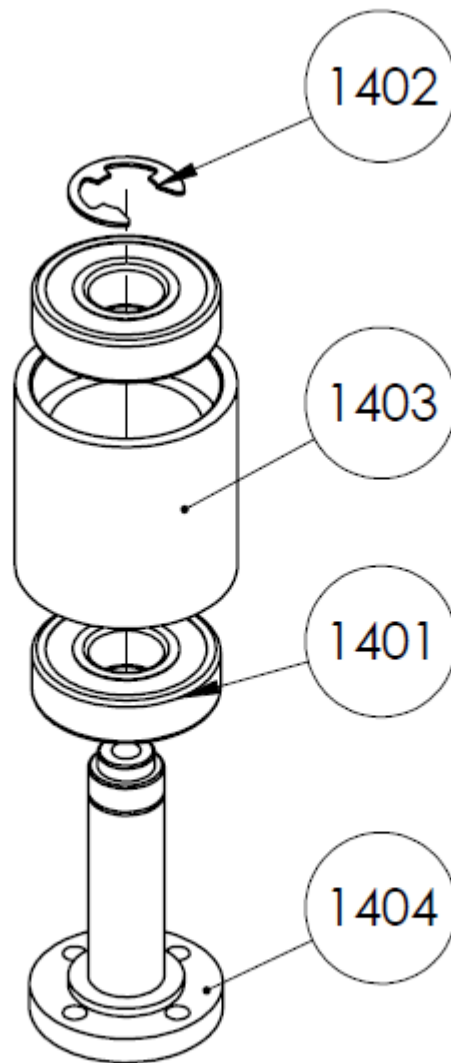


ITEM	DESCRIPTION	PART	QTY
1301	Washer, 0.5IDx0.94ODx0.2"Thk	51-0102	1
1302	Shaft (Center drive pulley support)	51-0039	1
1303	Bearing, 25IDx62ODx17mm high	13-0121	1
1304	O-ring, 1-1/4IDx1-5/8ODx3/16 width	13-0132	1
1305	Bolt (Hex head), 1/2-13 x1	11-0147	1
1306	Pulley, 3-3/8 dia	51-0214	1
1307	Screw (socket head), 1/2-13 x2	11-0170	1

Notes:

1. For illustration simplicity, not all aprts are shown.
2. Indicated screw to be used for attaching pulley to motor shaft
3. Secure indicated screw (s) using a medium strength thread locking compound.

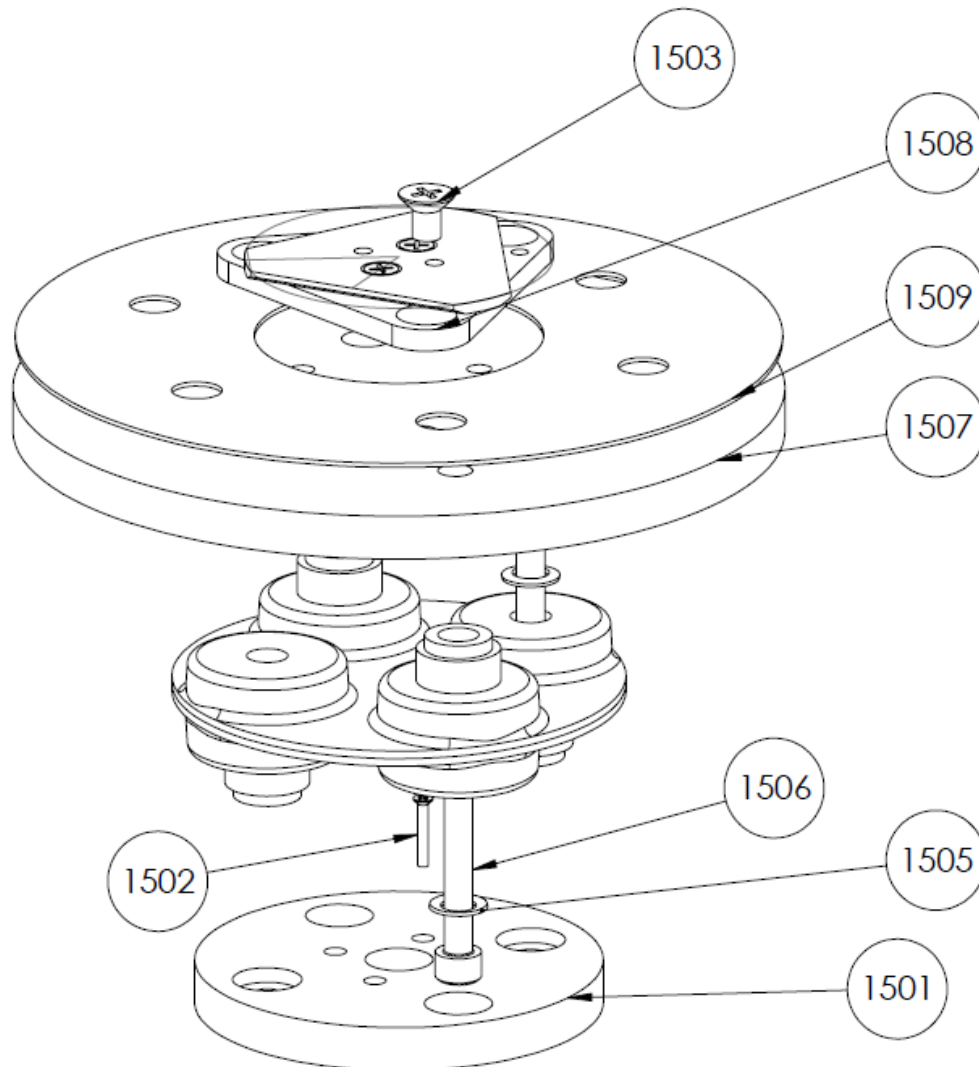
**Idler Assembly - #96-0019**



ITEM	PART	DESCRIPTION	QTY
1401	13-0121	Ball bearing	2
1402	13-0135	Retaining ring (E-style)	1
1403	51-0020	Idler pulley sleeve	1
1404	51-0021	Idler pulley shaft	1

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## Cutter Head Floating Head - #96-0065



### Notes:

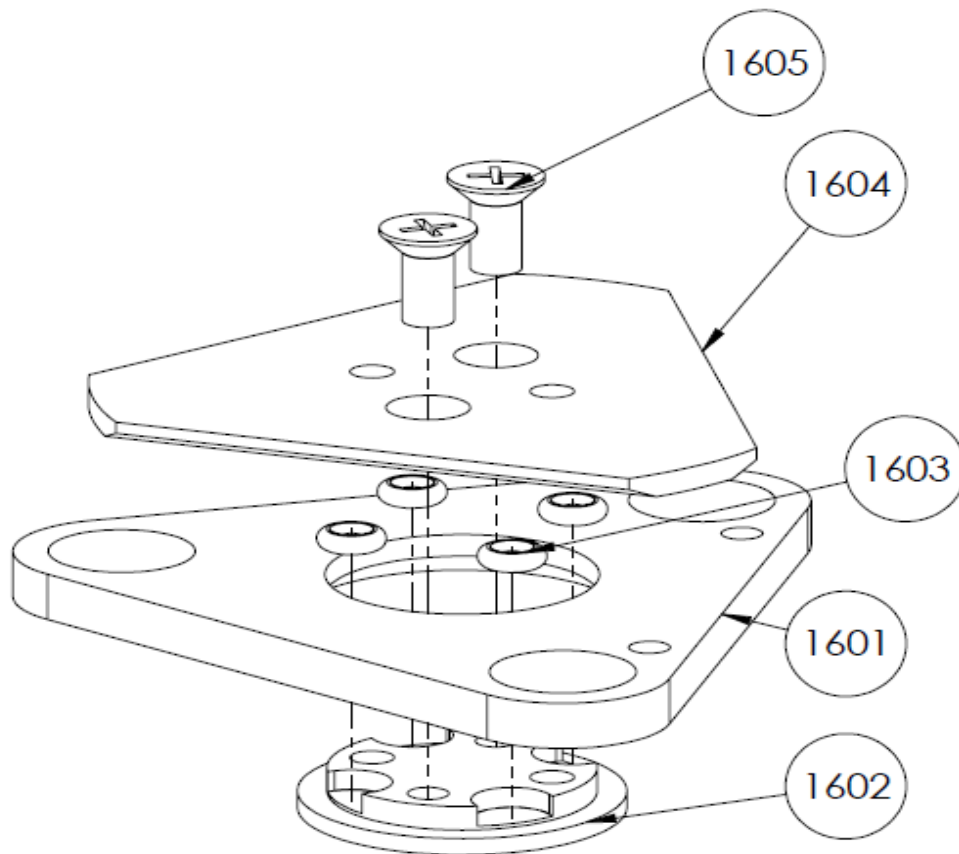
1. FOR ILLUSTRATION SIMPLICITY, NOT ALL PARTS ARE SHOWN OR LABELED.
2. INDICATED SCREW(S) IS USED FOR ATTACHING ASSEMBLY TO CUTTER HEAD SHAFT.
3. INDICATED SCREW(S) HAS AN "UNDERCUT" HEAD FEATURE TO AVOID POSSIBLE FITTING INTERFERENCE PROBLEMS.
4. SECURE INDICATED SCREW(S) USING A MEDIUM STRENGTH THREAD LOCKING COMPOUND (IE. LOCTITE 242).
5. SECURE INDICATED SCREW(S) USING A HIGH STRENGTH THREAD LOCKING COMPOUND (IE. LOCTITE 271).

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ITEM	DESCRIPTION	PART	QTY
1501	Cutter head floating head top plate	51-0140	1
1502	Screw (flat head, hex socket), ¼-20x1	11-0120	2
1503	Screw(flat head, philips), 5/16-18x1/2	11-0206	3
1504	Flexible coupling	13-0056	1
1505	Washer (Belleville, serrated), 0.413 ID x0.630	11-0162	4
1506	Screw (socket head), 3/8-24x2	11-0147	4
1507	Cutter head floating head bottom plate	51-0240	1
1508	Cutter head triangle holder assy	96-0064	1
1509	Cutter head velcro mat	13-0168	1



**Cutter Head Triangle Holder Assembly - #96-0063**



**Notes:**

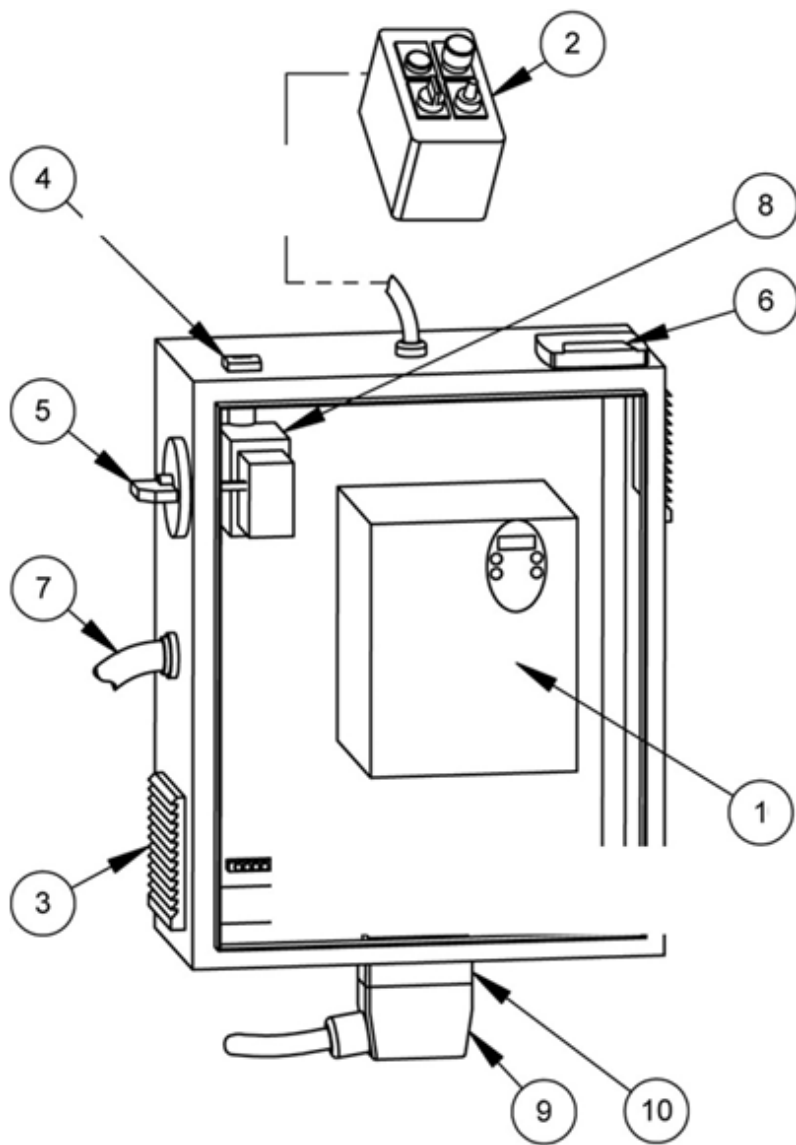
1. FOR ILLUSTRATION SIMPLICITY, NOT ALL PARTS ARE SHOWN OR LABELED.
2. ATTACH INDICATED SCREWS TO CENTER ROTATOR USING A HIGH STRENGTH THREAD LOCKING COMPOUND (IE. LOCTITE 271). SCREW HEADS HAVE AN "UNDERCUT" FEATURE TO AVOID POSSIBLE PARTS FITTING INTERFERENCE PROBLEMS.

ITEM	DESCRIPTION	PART	QTY
1601	Triangle holder base	51-0244	1
1602	Triangle holder center rotator	51-0110	1
1603	O-ring, 1/8IDx5/16ODx3/32 width	13-0142	4
1604	Triangle holder hold down	51-0246	1
1605	Screw (Flat head, Philips) #10-24x5/16	11-0142	2

## Inverter Unit

10 hp, 3-Phase motor Part# 96-0072

7.5 hp, 1-Phase motor Part# 96-0073



ITEM	DESCRIPTION	PART#	QTY
1	Inverter	see note 3	1
2	[Power] control box	23-0052	1
3	Vent cover	25-0076	2
4	Hour meter	23-0061	1
5	Switch (On/Off)	22-0019	1
6	Amp meter	23-0068	1
7	Cable (power in)	see note 4	1
8	Circuit breaker	see note 5	1
9	Cable (inverter / motor connection)	24-0027	1
10	Connector plug (inverter / motor connection)	23-0056	1

**Notes:**

1. CONTROL BOX, CONNECTING CABLE, AND INVERTER BOX ARE PRE-WIRED TOGETHER AS ONE UNIT.

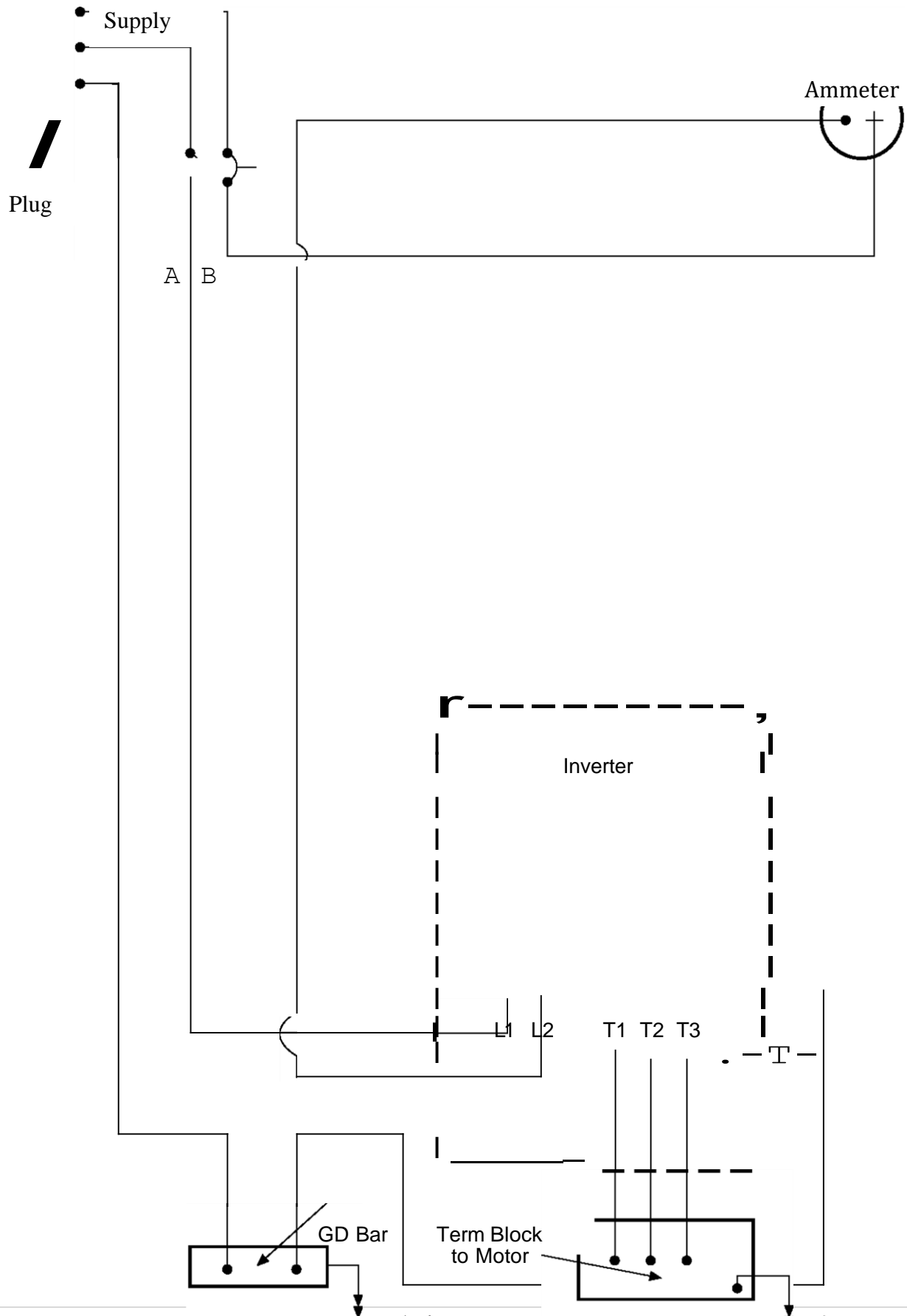
2. BOX LID HIDDEN TO SHOW INTERNAL COMPONENTS. INTERNAL WIRING NOT SHOWN FOR ILLUSTRATION SIMPLICITY.

3. INVERTER: 10 HP 3-PHASE MOTOR: PART# 23-0066, 7.5 HP 1-PHASE MOTOR: PART# 23-0067.

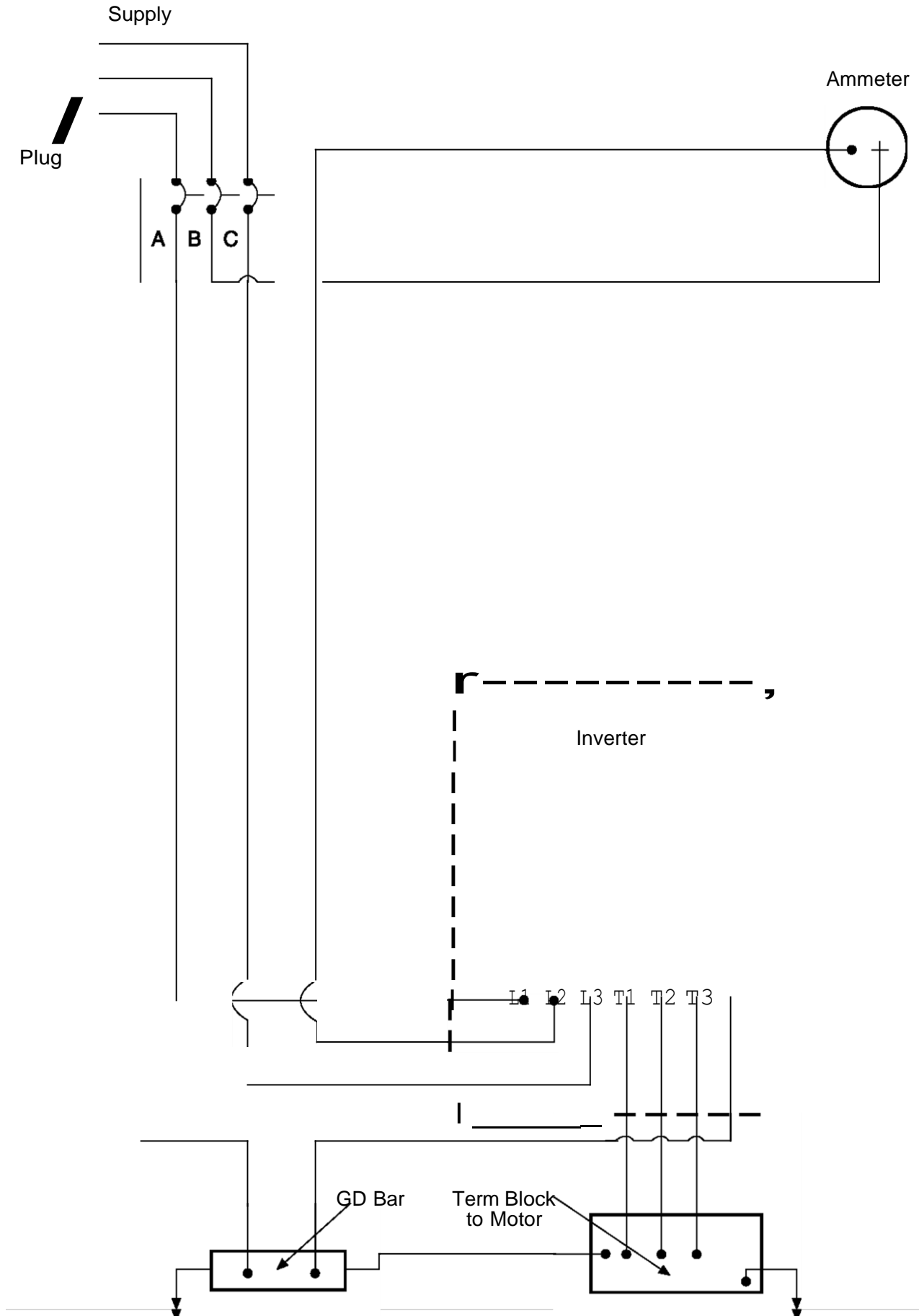
4. POWER CABLE: 10 HP 3-PHASE MOTOR: PART# 24-0025, 7.5 HP 1-PHASE MOTOR: PART# 24-0026.

5. BREAKER: 10 HP 3-PHASE MOTOR: PART# 23-0069, 7.5 HP 1-PHASE MOTOR: PART# 23-0070.

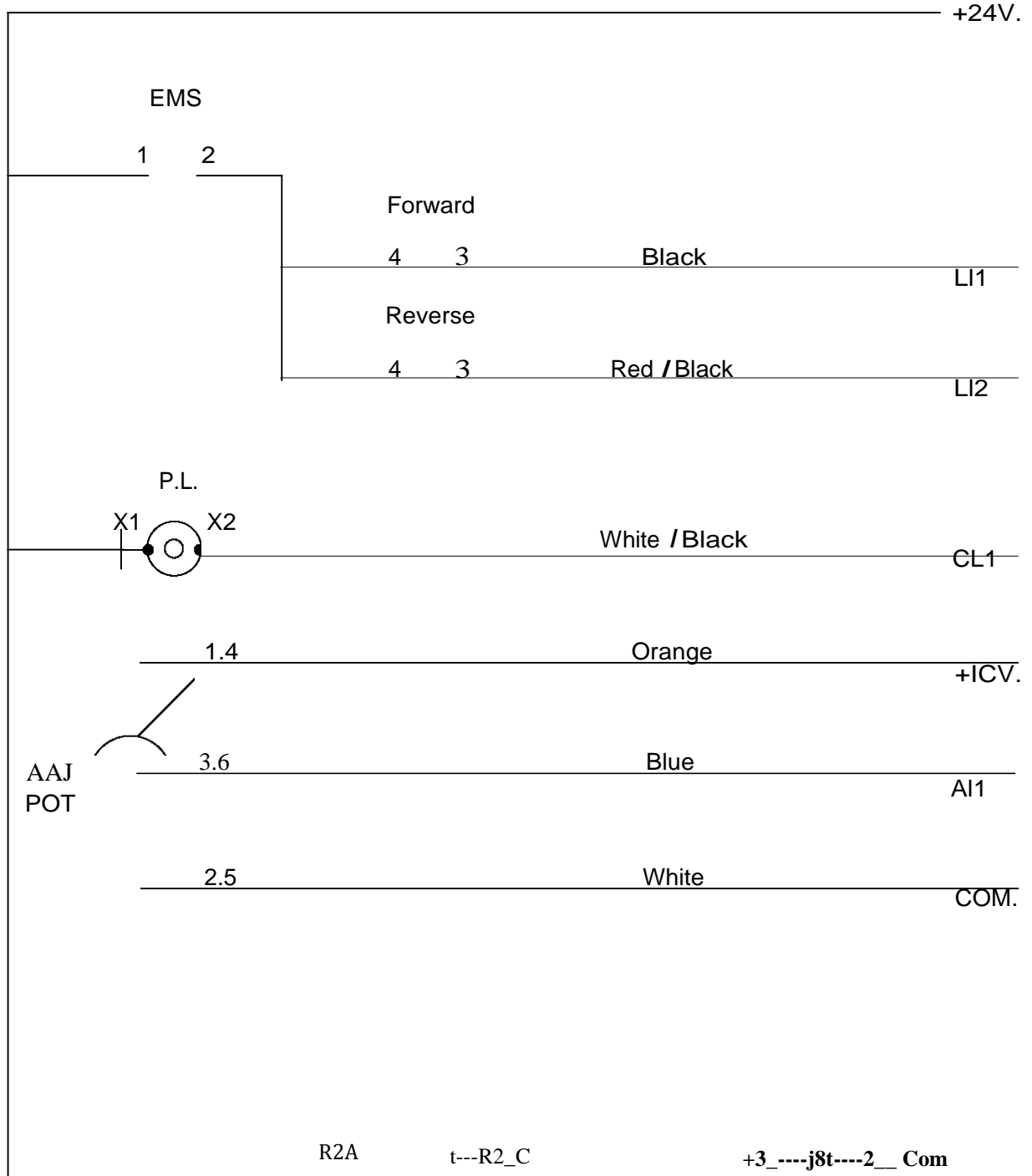
### Single Phase Wiring Schematic



### Three Phase Wiring Schematic



### Controls Wiring Schematic

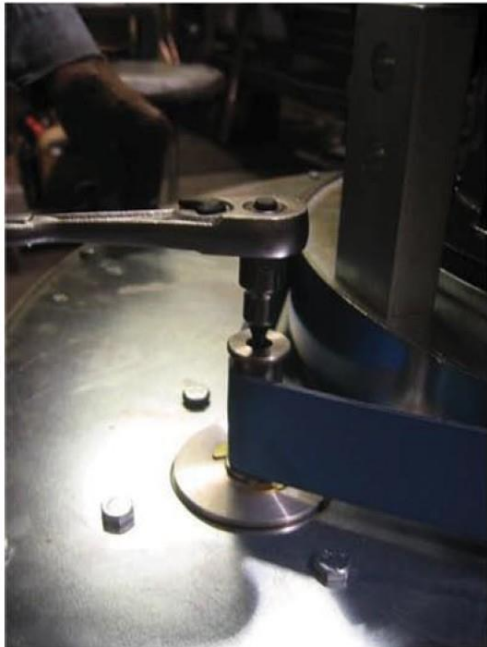


## Predator Grinder Upper Belt Change

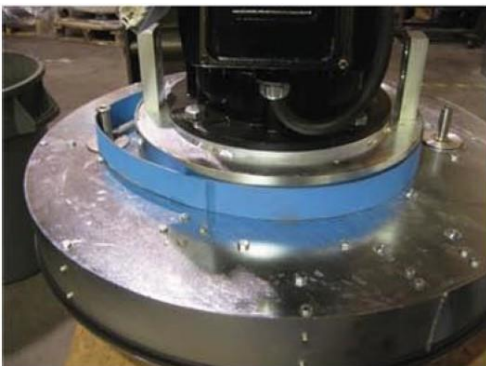
STEP 1 – Remove plastic dust shroud.



STEP 2 – Remove screw and washers on one side.



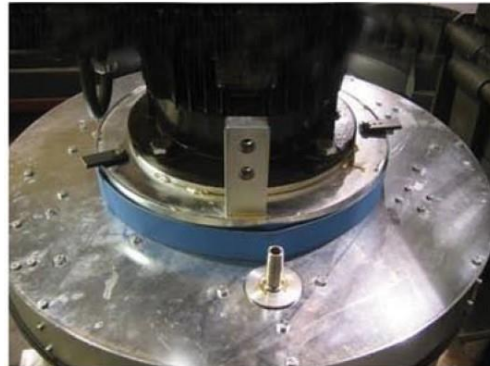
STEP 3 – Place the new belt over the motor and one pulley loosely.



STEP 4 – Screw in the belt hold down on both sides of the motor.



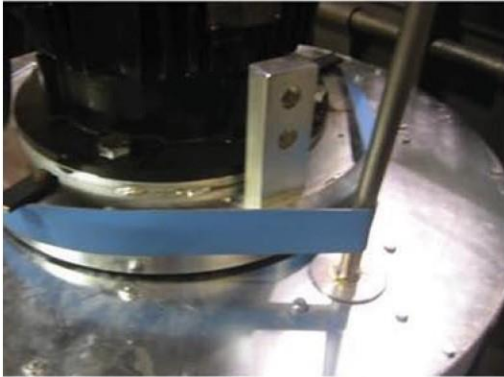
Finished hold downs on both sides.



STEP 5 – Insert bar through belt and insert round end into the screw hole.



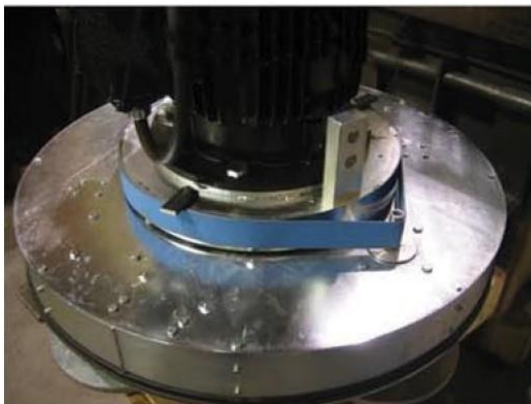
STEP 6 - Pull back on the bar and slip belt over the shaft.



STEP 7 - Use flat head screw driver to pull remaining belt over the lip.



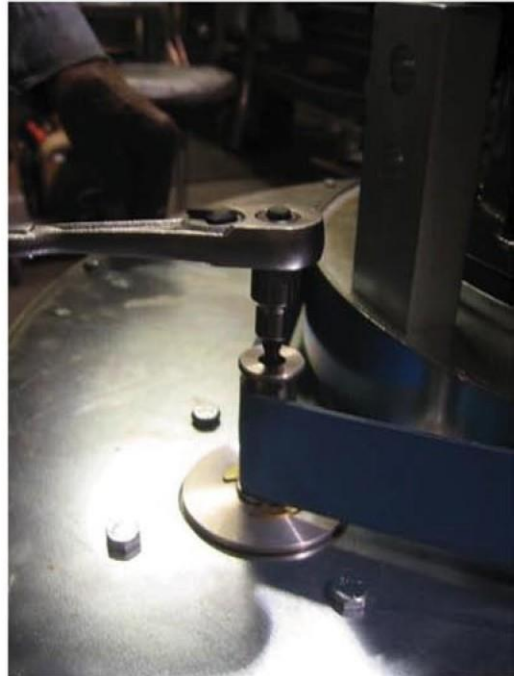
Belt installation complete.



STEP 8 - Add Loc-tite 242 supplied with kit to the screw threads.



STEP 9 - Replace the screw and washer.

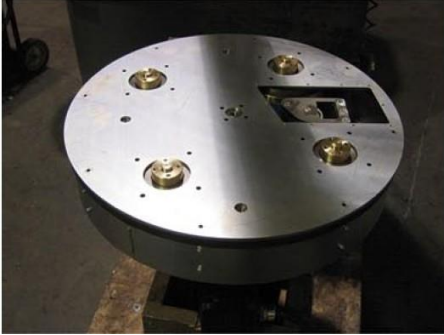


STEP 10 - Remove belt guides and replace dust shroud.

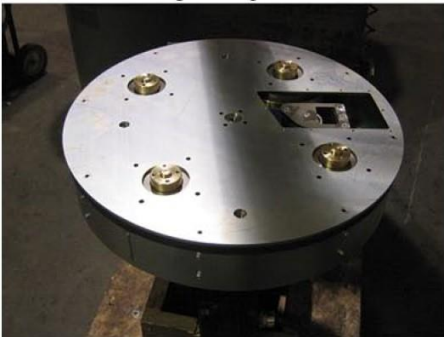


## Predator Grinder Inner Belt Change

STEP 1 – Remove grinding heads.



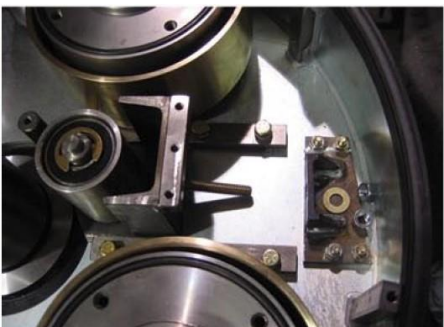
STEP 2 – Remove all bolts and inspection plate.



STEP 3 – Remove bottom plate.



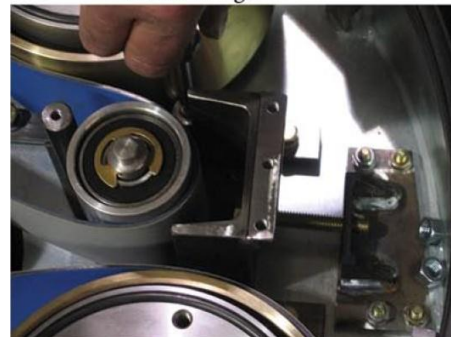
STEP 4 – Unscrew bolts to loosen Belt Tensioner.



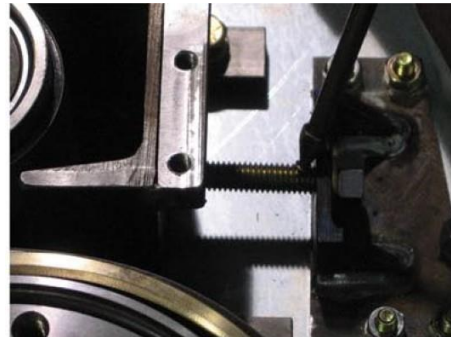
STEP 5 – Loop belt over pulleys. (Grey side goes toward the center pulley.)



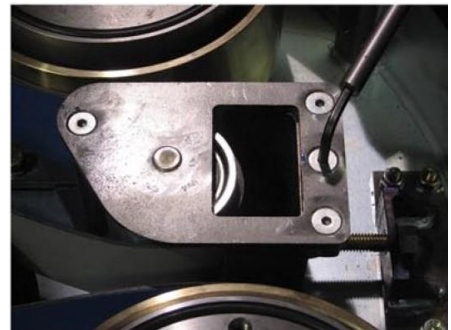
STEP 6 – Lightly tighten base bolts and slide the screw through the hole.



STEP 7 – Put the nut and washer on the screw and add a drop of oil to the screw.

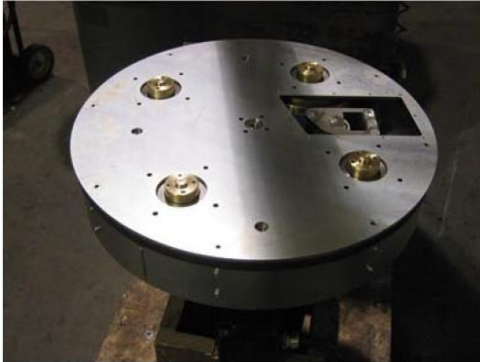


STEP 8 – Put on the top plate of the Belt Tension and screw in.

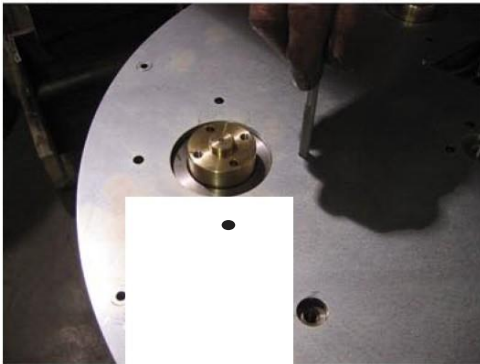




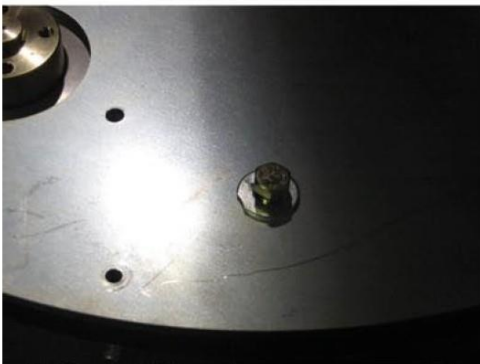
STEP 9 – Replace the  
bottom plate.



STEP 10 – Align the screw holes on all the pulleys and put one bolt in each pulley.



Remember to use blue locktite on screws with flat washers.



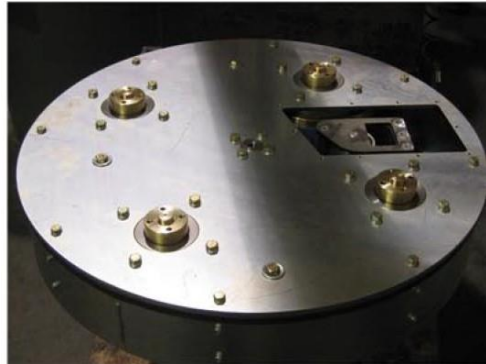
STEP 11 – Tighten down one screw on each pulley and four main bolts tight.



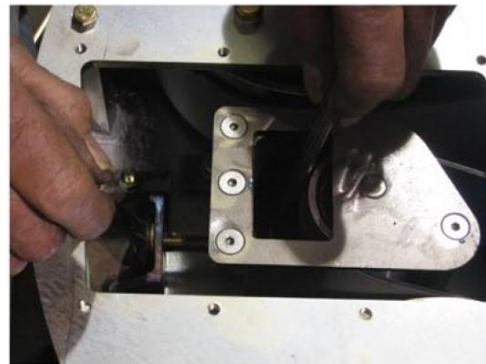
Remember to put lock washers  
back on screws.



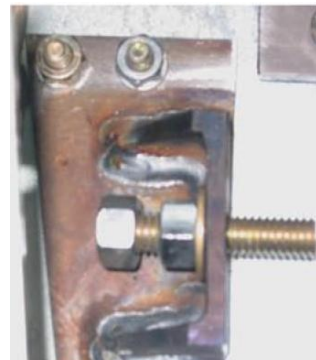
STEP 12 – Tighten in all remaining screws with lock washers.



STEP 13 – Tighten the bolt on the Belt Tensioner to tighten the inner belt.



STEP 14 – Halfway through tightening of inner belt, add second nut to screw. Tighten until screw is 1/16" away from inside plate.



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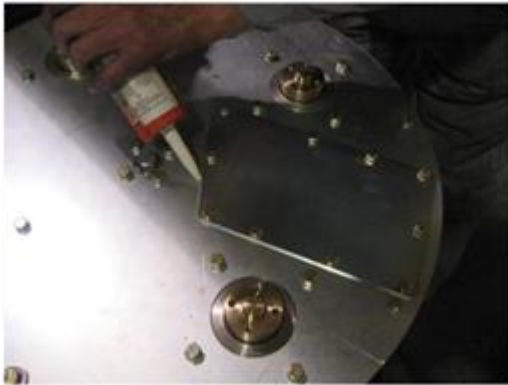
STEP15-Tighten down base boles on the belt tensioner.



STEP17-The inner belt replacement is complete. Replace grinding heads.



STEP16-Replace inspection cover tighten screws with lock washers and place silicone around the edge.



## **DECLARATION OF CONFORMITY**

### **CERTIFICAT DE CONFORMITÉ / GELIJKVORMIGHEIDS CERTIFICAAT / DECLARACIÓN DE CONFORMIDAD / DECLARAÇÃO DE CONFORMIDADE / DICHIARAZIONE DI CONFORMITA**

**We:** **Innovatech Products**  
4701 Allmond Ave  
Louisville, Kentucky, USA  
40209  
Tel: (425) 405-9100  
Toll Free: (800) 267-6682  
Fax: (425) 405-9108

Declare under our sole responsibility that the product to which this declaration relates is in conformity with the following standard(s) or other normative documents.

Déclarons sous notre responsabilité que le produit cette déclaration est conforme aux normes suivantes ou d'autres documents habituels.

Verklaren onder onze verantwoordelijkheid dat het product naar welke de verklaring verwijst conform de volgende standaards of anders gebruikelijke documenten is.

Declaramos bajo nuestra única responsabilidad que el producto en lo que esta declaración concierne, es conforme con la siguiente normativa u otros documentos.

Declara sob sua responsabilidade que o produto a quem esta declaração interessar, está em conformidade com os seguintes documentos legais ou normas directivas.

Dichiariamo sotto la ns. unica responsabilità che il prodotto al quale questa dichiarazione si riferisce, è fabbricato in conformità ai seguenti standard e documenti di normative.

EN 349:1993	Safety of Machinery - Minimum gaps to avoid crushing of parts of the human body.
EN 418:1993	Safety of Machinery - Emergency stop equipment, functional aspects - Principles for design
EN 12100-1:2003	Safety of Machinery - Basic Concepts, general principles for design - Part 1: Basic Terminology, methodology
EN 12100-2:2003	Safety of Machinery - Basic Concepts, general principles for design - Part 2: Technical Principles
EN ISO 4872:1978	Acoustics - Measurement of Airborne noise emitted by construction equipment intended for outdoor use - Method for determining compliance with noise limits.
EN ISO 5349-1:2001	Mechanical vibration. Measurement and evaluation of human exposure to hand-transmitted vibration. General requirements
EN ISO 5349-2:2001	Mechanical vibration. Measurement and assessment of human exposure to hand-transmitted vibration. Practical guidance for measurement at the workplace.

Following the provisions of Directive(s):

Suivant les directive(s) déterminées:

Volgens de vastgestelde richtlijnen:

Siguiendo las directiva(s):

No seguimento das clausulas da Directiva(s):

Seguendo quanto indicato dalla Direttiva(s):

98/37/EC	Machinery Directive
2000/14/EC	Noise Directive
2001/95/EC	General Product Safety Directive
2002/95/EC	Reduction of Hazardous Waste Directive

Technical Characteristics:

Caractéristiques techniques:

Technisch gegevens:

Características Técnicas:

# Predator 2400 Owner's Manual

Características Técnicas:  
Qualitäts di tecnico:

Model Modéle Type Modelo Modelo Modello	MachineSerial Number Numéro de Série machine Serienummer machine Máquina número de série Numero de serie da maquina Numero di seria la macchina	Engine Serial Number Numéro de Série moteur Serienummer motor Motor número de série Numero de serie do motor Numero di seria la motore	Weight Masse Gewicht Masa Massa Massa
			Lbs (kg)

Noise Level Puissance acoustique Geluidniveau Nivel Sonoro Nivel del Ruido	Pressure level Pression acoustique Geluidsdrkniveau Nivel Acustico Pressão Acústica	Vibration level Niveau de vibration Vibratieniveau Nivel de Vibracion Nivel de Vibração
Lwa (dB)	Lpa (Db)	ahv (m/s <sup>2</sup> )
98	99	1.5

**The Technical Construction file is maintained at:**

Les fiches techniques de construction sont gardées à:  
Het technische constructie document wordt bewaard te:  
El archivo técnico de construcción se mantiene en:  
O arquivo técnico de construção é mantido no (a):  
L'originale dossier tecnico di costruzione è conservato presso:

**The authorized representative is:**

Le représentant autorisé est:  
Gemachtigd vertegenwoordiger is:  
La representación autorizada es:  
O representante autorizado é:  
Il rappresentate autorizzato:

**Signature of Authorized Person:**

Signature de la personne autorisée:  
Handtekening van gemachtigd persoon:  
Firma de la persona autorizada:  
Assinatura de pessoa autorizada:  
Firma della persona autorizzata:

**Typed name of Authorized Person:**

Nom dactyographié de la personne autorisée:  
Getypte naam van gemachtigd persoon:  
Nombre de la persona autorizada:  
Nome datilografado da pessoa autorizada:  
Nome della persona autorizzata:

**Title of Authorized Person:**

Titre de la personne autorisée:  
Functie van gemachtigd persoon:  
Cargo de la persona autorizada:  
Titulo da pessoa autorizada:  
Posizione della persona autorizzata:

**Date and place of issue:**

Date et place d'émission:  
Datum en plaats van afgifte:  
Fecha y lugar de emision:  
Data e lugar de emissão:  
Data e luogo di emissione:

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**Mr. Richard Stanley  
V.P. Operations**



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2015-04-27

Mississauga, Ontario, Canada



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