BARTELL GLOBAL

# OWNER'S MANUAL

# Predator Series Grinder

P800PRO and P800E


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Curr Rev. – A

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# ORIGINAL LANGUAGE OPERATING MANUAL FOR BARTELL GRINDERS



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| REV. | DATE | DESCRIPTION | APPROVED BY: |
|---|---|---|---|
| A | 1/5/2023 | Initial Release | JHL |
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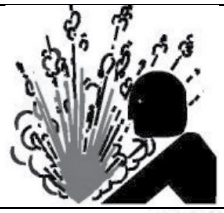
| SAFETY PRECAUTIONS | |
|---|---|
|  | **DANGER**<br>**EXPLOSION HAZARD**<br>Never operate the machine in an explosive atmosphere, near combustible materials, or where ventilation does not clear exhaust fumes. |
|  | **WARNING**<br>**BURN HAZARD**<br>Never come into contact with the engine or muffler when engine is operating or shortly after it is turned off. Serious burns may occur. |
|  | **WARNING**<br>**ROTATING HAZARD**<br>Never place hands or feet inside safety guard rings. Serious injury will result from contact with rotating blades. |
|  | **CAUTION**<br>**MOVING PARTS**<br>Before starting the machine, ensure that all guards and safety devices are in place and functioning properly. |
|  | **ATTENTION**<br>**READ OWNER'S MANUAL**<br>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

The Predator Series Planetary Diamond Grinders are designed for wet and dry grinding of Concrete, marble, terrazzo, and granite. Their applications range from rough grinding and coating removal through a polished finish.

This Manual contains the information and procedures to assist you to operate and maintain the P650E, P650PRO, P800E, and P800PRO floor grinder safely and correctly.

- P650E – 650mm Wide, Electrically Powered Planetary Grinder
- P650PRO – 650mm Wide, Propane Powered Planetary Grinder
- P800E – 800mm Wide, Electrically Powered Planetary Grinder
- P800PRO – 800mm Wide, Propane Powered Planetary Grinder

It is extremely important for all users to be familiar with the contents of the manual before commencing operation of either machine. Failure to do so may result in damage to the machine or expose the operator to unnecessary dangers that may cause injury/death.

Only staff that has received the necessary training, both practically and theoretically concerning their usage should operate the machines

# WARRANTY INFORMATION

All grinders sold by Bartell Morrison Inc. are warranted against defects in materials and/or workmanship; excluding normal wear on wearing components and components covered by a separate original manufacturer's warranty, for a period of 12 months from the date of sale to the original end user purchaser provided that certain conditions have been met.

**Conditions:**

1. The equipment serial number has been registered with Bartell Morrison Inc. or its approved dealers, distributors, representatives, or agents.
2. The equipment has been operated in an appropriate manner by qualified individuals.
3. The equipment has been properly maintained as per the instructions included in the Owner's Manual.
4. All claims for warranty must be filed on proper forms and include the serial number of the equipment along with proof of purchase.

Any evidence of failure to meet these conditions may result in a denial of the warranty claim. Consideration of warranty claims will be at the sole discretion of Bartell Morrison Inc., or its authorized dealers, distributors, representatives, or agents. Bartell Morrison Inc. may, at its discretion, request that the equipment to be considered for warranty be returned at the owner's expense to an authorized repair facility for inspection. Under this warranty we may, at our discretion, repair or replace a part or the whole of the defective component or equipment. Our Warranty coverage is limited to the cost to repair or replace the defective portion of the equipment and a reasonable (as determined by Bartell Morrison Inc.) amount of labor to conduct the repair or replacement. Under no circumstances shall Bartell Morrison Inc. be liable for any additional or exceptional costs beyond the cost to repair or replace the defective portion of the equipment. Bartell Morrison Inc. shall not be held accountable for; costs associated with travel to inspect or repair defective equipment, costs for transporting defective equipment to or from an authorized repair facility, costs incurred to repair or replace the defective equipment at any facility other than one authorized by Bartell Morrison Inc., or ancillary damage caused by or because of the defective equipment. Under no circumstances shall equipment be returned to Bartell Morrison Inc. or its authorized dealers, distributors, representatives, or agents without the approval of Bartell Morrison Inc. as evidenced by a Returned Goods Number. To obtain a Returned Goods Number contact the factory or your authorized dealer, distributor, representative or agent. This warranty is for the sole benefit of the original end user purchaser and is not transferable to any other company or person.

# SPECIFICATIONS

| | P650E | P650Pro | P800E | P800Pro |
|---|---|---|---|---|
| **Source** | Electric | Propane | Electric | Propane |
| **Power** | 230V, 60 Hz, 1 Phase<br>230V, 60 Hz, 3 Phase<br>460V, 60 Hz, 3 Phase | LX700 - 708cc OYNX | 230V, 60 Hz, 3 Phase<br>460V, 60 Hz, 3 Phase | 993 cc Briggs and Stratton Vanguard |
| **Output - HP (kW)** | 10 HP (7.5 kW) – 460V<br>7.5 HP (5.6 kW) – 230V | 19 HP (14.1 kW) | 20 HP (15 kW) | 35 HP (26 kW) |
| **Variable Head Speed - RPM** | 1012 | 1012 | 890 | 890 |
| **Grinding Heads** | 3 | 3 | 3 | 3 |
| **Head Diameter** | 9" (228.6mm) | 9" (228.6mm) | 11" (279.4 mm) | 11" (279.4 mm) |
| **Grinding Width** | 25" (625mm) | 25" (625mm) | 30" (762 mm) | 30" (762 mm) |
| **Water Tank Capacity** | 7.5 gal (28 L) | 7.5 gal (28 L) | 12.5 gal (47 L) | 12.5 gal (47 L) |
| **Vacuum Port** | 3" (75.6mm) | 3" (75.6mm) | 3" (75.6mm) | 3" (75.6mm) |
| **Machine Weight (lbs)** | 873 lbs (395 kg) | 775 lbs (351 kg) | 1254 lbs (568 kg) | 1309 lbs (593 kg) |
| **Grinding Force (lbs)** | 639 lbs (289 kg) | 565 lbs (256 kg) | 877 lbs (397 kg) | 916 lbs (415 kg) |
| **Max Height** (Handle Up) | 76" (1930 mm) | 76" (1930 mm) | 82.3" (2092 mm) | 82.3" (2092 mm) |
| **Min Height** (Handle Down) | 44" (1118 mm) | 44" (1118 mm) | 51.5" (1310 mm) | 51.5" (1310 mm) |
| **Min Length - in (mm)** (Handle and Weights forward) | 52" (1321 mm) | 52" (1321 mm) | 68.5" (1740 mm) | 68.5" (1740 mm) |
| **Max Length - in (mm)** (Handle and weights Back) | 83" (2108 mm) | 83" (2108 mm) | 92.3" (2345 mm) | 92.3" (2345 mm) |
| **Width - in (mm)** | 26" (660 mm) | 26" (660 mm) | 31.6" (800 mm) | 31.6" (800 mm) |

# SAFETY PRECAUTIONS

It is important that the following be read carefully in order that the operational performance of the Bartell Grinder be fully understood. Proper maintenance procedures will ensure long life and top performance of the unit.

**SAFETY PRECAUTIONS**

- Always keep unauthorized, inexperienced, untrained people away from this machine.
- Rotating and moving parts will cause injury if contacted. Make sure guards are in place. Keep hands and feet away from moving parts.
- Fuel the machine only when the engine is stopped, using all necessary safety precautions.
- The engine must always be stopped (Propane models) or electrically disconnected from the source (electric models) before attempting any repair or adjustments. Ignition key should be off.

**Danger: Never operate the machine in an explosive atmosphere, near combustible materials or where ventilation does not clear exhaust fumes. Repair fuel leaks immediately. Refer to your engine owner's manual for more safety instructions.**

- Be careful not to come in contact with the muffler when the engine is hot, serious burns may result!
- Always maintain control of the machine while it is in operation. Never let go of the machine while drum is rotating.
- When starting the grinder, maintain throttle in closed position as recommended.
- Be sure that the RPM's do not exceed 2000 when starting and stopping the drum rotation.
- Be careful with the grinder around stub pipes or other obstructions on the floor. Should the machine catch, or hit such an obstruction, serious damage may result to the machine, or operator to be injured.
- At no time should lifting of machinery be attempted without mechanical means such as a hoist or a forklift.
- When lifting the grinder, only use specified connection points.
- When securing the grinder for transport, only use specified connection points.
- Disconnect battery before attempting any electrical maintenance.
- The machine should not be started without the rubber dust skirt attached. It is essential a good seal between floor and machine be established for safety, especially when operating in dry grinding applications.

- Extreme caution must be used when moving machinery by hand on an inclined plane. Even the slightest slope can cause forces/ momentum making the machinery impossible to brake manually.
- Never use the machine if you are tired, if you have consumed any alcohol, or if you are taking medication that could affect your vision, your judgment or your coordination.
- Never use a machine that has been modified in any way from its original specification.

## Propane Tank Safety

Using propane tanks to power grinders can be an efficient and reliable energy source. However, it is crucial to follow certain safety guidelines to ensure the proper handling and usage of propane tanks. This operation manual provides essential instructions to promote safe practices when using propane tanks to power grinders.

1. Storage:

    a. Select an appropriate storage area: Choose a well-ventilated, dry, and secure location for storing propane tanks. The storage area should be away from ignition sources, such as open flames, electrical equipment, or direct sunlight.

    b. Position the tanks upright: Always keep the propane tanks in an upright position to prevent any leaks or damage to the valves.

    c. Store tanks at a safe distance: Maintain a minimum of 10 feet distance between propane tanks and any flammable materials or combustible substances.

    d. Secure tanks properly: Ensure propane tanks are properly secured in an upright position, either by using a tank stand, rack, or restraining straps designed for this purpose.

    e. Ensure compliance with local, state, and federal regulations.

2. Tank Handling:

    a. Inspect tanks regularly: Before using a propane tank, conduct visual inspections for signs of damage, such as dents, rust, or oil residue. If any damage is observed, do not use the tank, and arrange for professional inspection or replacement.

    b. Avoid dropping or mishandling tanks: Propane tanks may rupture or leak when dropped or mishandled. Always handle them with care, avoid dropping or banging them against hard surfaces.

    c. Do not overfill tanks: It is vital to fill the propane tanks only up to their designated fill line. Overfilling tanks can lead to gas leakage or even a rupture.

    d. Use protective gloves and goggles: When handling propane tanks, wear protective gloves and safety goggles to protect yourself from any potential leaks or hazards.

3. Connecting and Disconnecting:

    a. Check for leaks: Before connecting a propane tank to a grinder, perform a leak check using a solution of soapy water. Apply the solution to all connections and observe for bubbles that indicate a leak. If a leak is detected, refrain from using the tank and tighten the connections or seek professional assistance.

    b. Follow proper connection procedures: When connecting the propane tank to the grinder, ensure that the hose and fittings are compatible with the tank and grinder. Follow the manufacturer's instructions for proper connection and secure all fittings tightly.

    c. Turn off the grinder and disconnect: Before disconnecting the propane tank from the grinder, turn off the grinder and close the valve on the tank. Allow any residual gas pressure to dissipate before disconnecting the hose.

4. Operating Precautions:

    a. Use grinders in well-ventilated areas: When operating grinders powered by propane tanks, ensure that the area is adequately ventilated to prevent the accumulation of propane gas. Carbon monoxide detectors should also be installed in enclosed spaces to monitor gas levels.

    b. Keep tanks away from heat sources: Avoid exposing propane tanks to excessive heat or direct sources of flame, as this can cause the tank to overheat or potentially explode.

    c. Store and transport tanks upright: Always store and transport propane tanks in an upright position, either secured in a vehicle or using appropriate storage measures.

    d. Never tamper with valves: Do not attempt to repair or modify any components of the propane tank or its valves. Only trained professionals should handle repairs or maintenance.

5. Additional Notes:

    a. The cylinder used is classified as a DOT 4E240 cylinder. The service pressure the cylinder is designed for is at 20 PSI. The cylinder has a pressure relief if it reaches an excess of 300 PSI. If the tank is overfilled, this pressure relief will become active once the tank comes up to room temperature.
        i. Pressure relief is highly flammable!
        ii. Never store the propane tank on the grinder.
        iii. Follow local and national regulation when using, storing and filling propane.

b. In the case of pressure relief catching fire, it is necessary to cool the cylinder. Use non-flammable cooling liquid, or a fire extinguisher, to lower the temperature of the cylinder. The flow of gas should stop, when the cylinder is cooled. Shutting off the flow of gas should extinguish the fire the gas was fueling. Propane cylinders are above the capacity for storage in a place frequented by the public. So, storage on site at a grocery store would be against national fire safety code. NFPA 58 chapters 5 and 8

c. All propane grinders include a sensor to test the air around the machine to limit exposure to toxic levels of emissions. Without proper ventilation, this sensor will shut down the machine after 30 seconds of use.

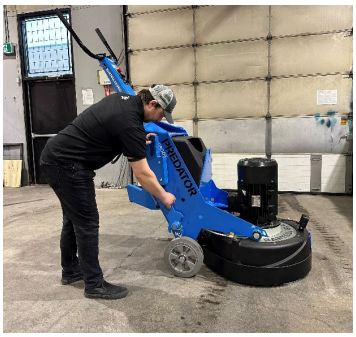
Conclusion:
Following these safety guidelines will help maintain a secure working environment when using propane tanks to power machines. Remember, safety should always be a top priority. If you have any questions or concerns, consult the manufacturer's guidelines or seek professional assistance.

# Transportation

The Predator Series Grinders are equipped with 3rd Transport wheel.

To use 3rd Transport Wheel.

1. Rotate swing weights to rear position by pulling ball handle to release pin.



2. Rotate handle in most vertical position.
3. Place one foot on swing weight and pull machine back until 3rd wheel is contacting ground.



4. Rotate handle to new vertical position


5. Pull swing weights up to the first locking position.


6. Grinder is now ready to roll.


Note: If greater ground clearance is required, (Example: A ramp) remove propane tank before tilting machine back.

To return the grinder back to grinding position.

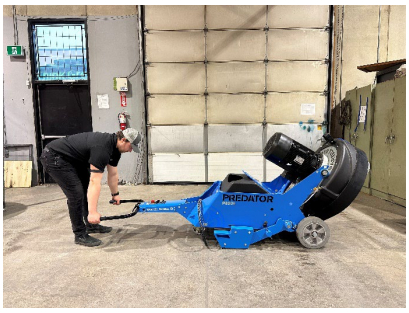
1. Release swing weights to the ground.



2. Rotate Handle to horizontal position.



3. Confirm no people or objects are under the grinder.
4. Pick up handle while placing one foot on the swing weights at the grinder rotates up.





5. Rotate Handle to comfortable operating position.



6. Rotate swing weights to desired grinding position.

To lift grinder with a hoist.

1. Grinder should be in grinding position.
2. Swing weights should be rotated down nearest to the drum.
3. Rotate Handle in horizontal position.


4. Locate marked single Lifting point behind motor/engine.
    a. Do not use any other points of lifting.

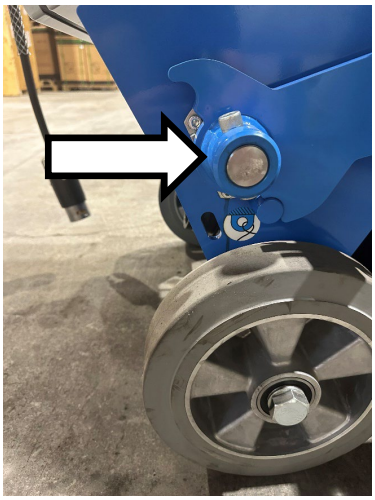

5. Only use OSHA/non-damaged certified lifting equipment

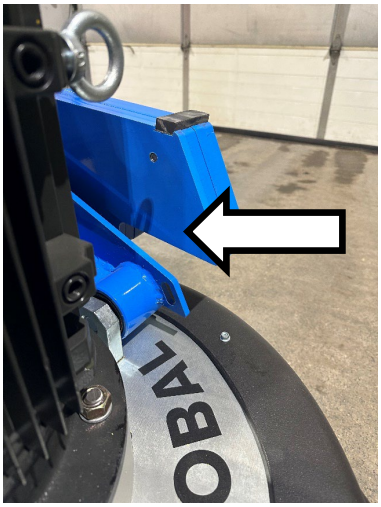
To secure machine for transport

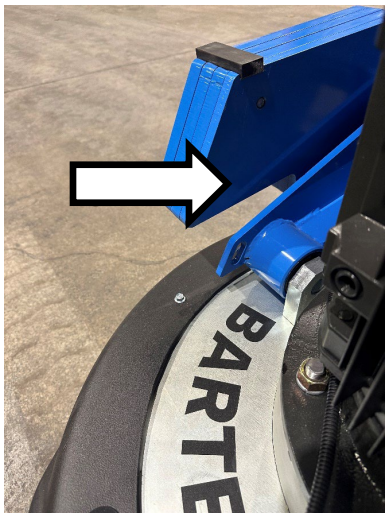
1. Grinder should be in grinding position.
2. Swing weights should be rotated down nearest to the drum.
3. Rotate Handle in a horizontal position.

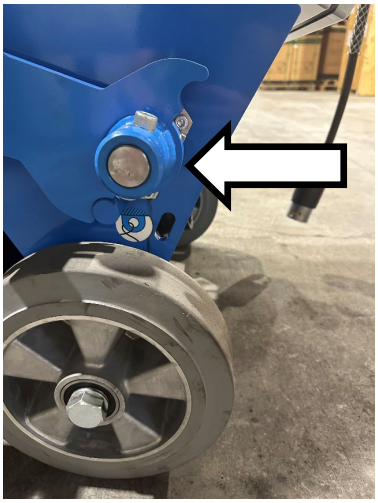


4. Locate 4 marked tie down points
    a. Do not use any other tie down points.

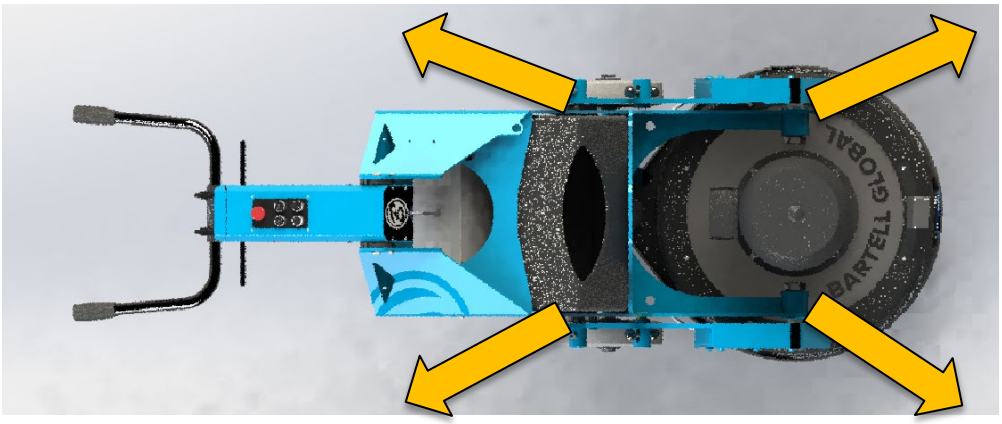








5. Only use DOT certified ratcheting straps based on the weight of the grinder.
    a. Do not use chains for securing machine



# Tooling Installation

The Predator Series Grinders come equipped with quick change tooling system. This allows operators to quickly change grits or types of diamond tooling.

To install/change tooling plates on machine.

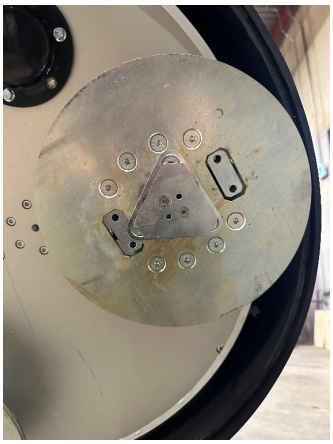
1. Rotate swing weights to rear position by pulling ball handle to release pin.



2. Rotate handle in most vertical position.
3. Place one foot on swing weight and pull machine back until 3rd wheel is contacting ground.



1. Install/change tooling plates by rotating the triangle in the center of each head.
    a. 3 optional screws can be used to fix the tooling plates to the grinder.
    b. Caution Tooling and tooling plates can be hot. Always use correct PPE.




    a. Same method for metal or resin plates

    b. 3 optional screws can be used to fix the tooling plates to the grinder.
    c. Caution Tooling and tooling plates can be hot. Always use correct PPE.
    d. Resin Tooling is in

2. Install/slide Mag by sliding tooling into grooves.
    a. Use rubber mallet to tap tooling in and out of place.

Note: It is recommended not to transport machines with tooling plates installed, unless using optional transport screws.

3. Install resin tooling by attaching with Velcro

# Propane Tank Use

The Predator Series Propane grinders come equipped with a quick-change propane tank system to get you running quicker.

Before operating a propane grinder, read and understand the propane safety check list in this manual.

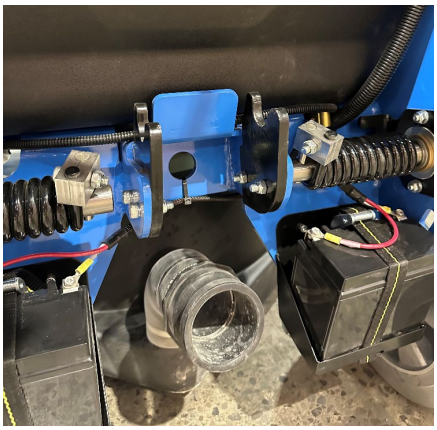
The predator series propane grinders only run on vapor style tanks. Attempt to run a liquid style tank will result in damage to the regulator and engine.

Always confirm the propane tank is not overfilled before bringing it inside a building or installing to the grinder.

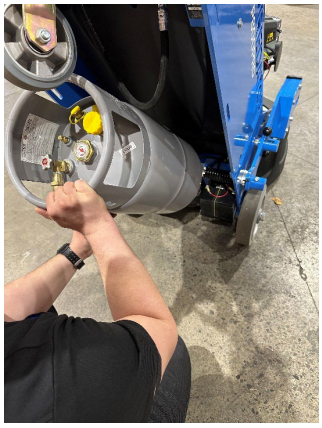
To Install a Propane Tank

1. Confirm Grinder is in grinding position with handle raised to vertical position.


2. Place lower portion of propane tank onto brackets


3. Rotate the top of propane tank toward machine until quick release handle catches top of propane tank.



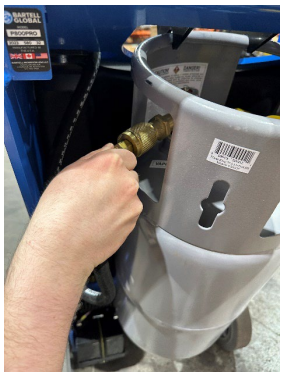
4. Install optional safety strap behind propane tank.
    a. This strap can also be used if the tank is not of standard size.

5. Connect propane hose to propane tank and confirm a tight connection.

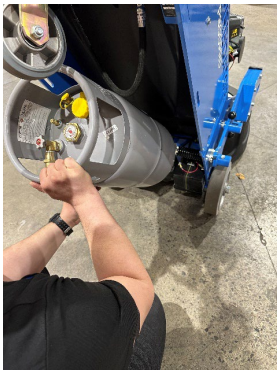
6. Fully Open valve on propane tank.

To Remove Propane Tank

1. Confirm Grinder is in grinding position with handle raised to vertical position.
2. Fully Close valve on propane tank
3. Disconnect propane hose from propane tank.

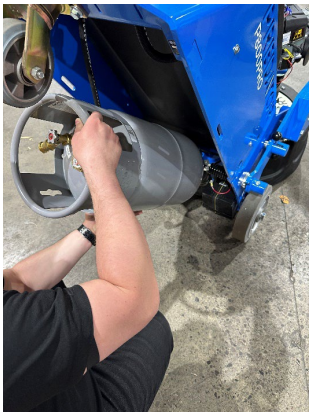


4. While supporting the propane tank with one hand. Use the other hand to pull up on the latch holding the propane tank in place.

5. Rotate the tank down clear of the latch.

6. Release the propane latch with one hand and use two hands to lift and remove the propane tank from the grinder.



** Follow all Propane handling safety guidelines.**

# OPERATING INSTRUCTIONS

## STARTING PROCEDURES - WARM TEMPERATURES

a) Prior to starting the grinder, check the engine oil levels. (Propane only) Be sure the fuel tank is full. Fuel is not shipped with the unit. **WARRANTY IS VOID IF RUN WITHOUT OIL.**
**Fill tank with safety approved fuel containers. **DO NOT MIX OIL WITH FUEL.****
b) Confirm PTO switch is in off position.
c) Confirm throttle is in closed position.
d) Maintain contact with the safety switch. Engine will disengage and stop if safety switch is released. Do not tape, tie-down, or otherwise attempt to bypass safety device.
e) Turn ignition key all the way. Allow engine to warm up before proceeding to full speed operation.
f) Engage PTO below 2000rpms.

## STARTING PROCEDURES - COLD TEMPERATURES

Follow same procedure as above but allow for a longer warm up period of 3-5 min. (In cold weather, oil is much heavier to move. Extra time is required to heat the oil.)

## STOPPING PROCEDURE

a) Bring throttle to low idle (below 2000 RPM) and wait a few seconds.
b) Disengage PTO
c) Turn off ignition key.

# PREVENTATIVE MAINTENANCE AND ROUTINE SERVICE PLAN

This Bartell Predator Grinder has been assembled with care and will provide years of service. Preventative maintenance and routine service are essential to the long life of your Bartell Grinder. Your dealer is interested in your new Grinder and has the desire to help you get the most value from it. After reading through this manual thoroughly you will find that you can do some of the regular maintenance yourself. However, when in need of parts or major service, be sure to see your Bartell dealer. For your convenience we have provided this space to record relevant data about your Grinder. When in need of parts or service be prepared to provide your Grinder serial number. Locate the serial number now and record in the space below.

| | | | |
|---|---|---|---|
| Date Purchased: | | Type of Machine: | |
| Dealer Name: | | Model: | |
| Dealer Phone: | | Serial Number: | |

| Replacement Parts Used | | | | Maintenance Log: | |
|---|---|---|---|---|---|
| Part No. | Quantity | Cost | Date | Date | Operation |
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**ROUTINE SERVICE SCHEDULE**

| Routine Service Intervals | | Each Use | After 1.5 months or 50 hrs | Each 3 months or 100 hrs | Each 6 months or 200 hrs | Each 9 months or 300 hrs | Each 12 months or 400 hrs |
|---|---|---|---|---|---|---|---|
| **General Inspection** | | | | | | | |
| Operation of lights | Check | | O | O | O | O | O |
| Battery | Check and clean | | | O | O | O | O |
| | Recharge | | | O | O | O | O |
| | Replace | | | | | | 2 yrs |
| Guards | Check | O | O | O | O | O | O |
| Warning Stickers | Check | | O | O | O | O | O |
| Test Run | Check Operation | | O | O | O | O | O |
| **Controls** | | | | | | | |
| Safety switch operation | Check | O | O | O | O | O | O |
| Throttle (Propane Only) | Check | O | O | O | O | O | O |
| **Engine (Propane Models Only)** | | | | | | | |
| Fuel Lines & Clamps | Check | | O | O | O | O | O |
| | Replace | | | | | | 2 yrs |
| Engine oil | Check level | O | O | O | O | O | O |
| | Change | | O | | O | | O |
| Engine oil filter | Replace | | | | O | | O |
| Oil Cooler | Clean | | | O | O | O | O |
| Cooling fins | Clean | | O | O | O | O | O |
| Air Cleaner | Check-clean | O | O | O | O | O | O |
| | Replace | | | | | | O |
| Air Intake Line | Check | | | | O | | |
| | Replace | | | | | | 2 yrs |
| Valve Clearance | Check-adjust | | | | O | | O |
| Fuel Filter | Check and clean | | | O | O | O | O |
| | Replace | | | | O | | |
| Fuel Tank | Clean | | | | | | 500 hrs |
| Fuel Injection Nozzles | Check pressure | | | | | | 500 hrs |
| Fuel Injection Timer | Check | | | | | | 500 hrs |
| Injection Pump | Check | | | | | | 500 hrs |
| Engine Wiring | Check | | | | | | O |
| Coolant | Check | O | | | | | |
| | Change | | | | | | O |

| Routine Service Intervals | | Each Use | After 1.5 months or 50 hrs | Each 3 months or 100 hrs | Each 6 months or 200 hrs | Each 9 months or 300 hrs | Each 12 months or 400 hrs |
|---|---|---|---|---|---|---|---|
| **Drive Train:** | | | | | | | |
| Bearings | Lubricate | | O | O | O | O | O |
| Universal Couplings | Lubricate | | | O | O | O | O |
| Belt Tension/ Condition | Check | O | O | O | O | O | O |
| Clutch/ Pulley Operation | Check | O | O | O | O | O | O |

## ROUTINE SERVICE INTERVALS

Due to the nature and environment of use, grinders are exposed to severe operating conditions.

Some general maintenance guidelines will extend the useful life of your grinder:

- The initial service for your grinder should be performed after 50 hours of use, at which time your mechanic (or authorized repair shop) should complete all of the recommended checks in the schedule above. The previous chart is handy for keeping a record of the maintenance performed and the parts used for servicing your grinder.
- Regular service according to the schedule above will prolong the life of the grinder and prevent expensive repairs.
- After each use, your grinder should be cleaned to remove any concrete residue from the drum, flex heads and surrounding components. Use of a power washer will make clean up quick and easy, especially if a release agent was applied prior to use. Use caution to not wet any electrical components. Refer to engine supplier manual on pressure washing guidelines.
- In the Service Schedule above, items that should be checked, replaced or adjusted are indicated by "o" in the appropriate column. Not all grinder models include the same features and options and as such not all service operations may have to be performed. For ease of recording, place a checkmark (√) through the "o" when the item is complete. If an item is not required or not completed place an "x" through the "o" in the box.
- Failure to have your grinder regularly serviced and properly maintained in accordance with the manufacturer's instructions will lead to premature failure and void the warranty.

# MAINTENANCE INSTRUCTIONS

## GENERAL MAINTENANCE

Remember, safety is paramount when performing routine maintenance checks. Always disconnect the grinder from the power source before conducting any inspections or maintenance tasks.

- Visual Inspection: Regularly examine the grinder for any signs of damage, loose parts, or frayed wires. Ensure that all components are in good condition and properly connected.

- Power Cord: Check the power cord for any cuts or exposed wires. If any damage is found, replace the cord immediately to prevent electrical hazards.
    - NOTE: After the first 8 hours of run time, check electrical connections for tightness. Connectors may come loose due to vibration.

- Fasteners: Check all screws, nuts, and bolts on the grinder for proper tightness. If any are loose, tighten them securely to prevent accidents during operation.

- Safety Mechanisms: Test the grinder's safety mechanisms, such as the E-Stop, to ensure they are functioning effectively. These mechanisms are designed to protect the user from potential accidents or injuries.

- Electrical Connections: Inspect the grinder's electrical connections, such as switches and plugs, for any signs of damage or loose connections. Ensure that all connections are secure and properly insulated.

- Cleanliness: Regularly clean the grinder's external surfaces and remove any debris or residue from the grinding area. This prevents build-up that can affect the grinder's performance and poses a safety hazard. Hard concrete is very difficult to remove, greatly increases weight, and reduces efficient subsequent operation of unit.

## MAINTENANCE FOR PROPANE POWERED GRINDERS

- Check the propane tank: Ensure that the propane tank is securely fastened and in good condition. Check for any leaks or damage to the tank.

- Inspect fuel lines and connections: Inspect the fuel lines and connections for any signs of wear, cracks, or leaks. Tighten any loose connections and replace any damaged fuel lines.

- Clean the air filter: Regularly clean or replace the air filter to prevent dirt and debris from clogging the engine. A clogged air filter can lead to decreased engine performance.

- Check the spark plug: Inspect the spark plug for any buildup or damage. Clean or replace the spark plug as needed. A clean spark plug ensures proper ignition and efficient combustion.

- Change the engine oil: Regularly change the engine oil to maintain optimal engine performance. Follow the manufacturer's recommendations for the correct oil type and interval for oil changes.

- Check and adjust the throttle and idle speed: Inspect the throttle and idle speed settings and adjust them according to the manufacturer's recommendations. Proper throttle and idle settings help maintain efficient and smooth engine performance.

- Inspect the exhaust system: Check the exhaust system for any leaks, damage, or clogs. A properly functioning exhaust system is essential for safe operation and optimal engine performance.

- Clean the engine exterior: Regularly clean the exterior of the engine to remove dirt, debris, and any flammable materials. A clean engine is less likely to overheat and will last longer.

- Lubricate Swing Weight Locking Pin: It is recommended to spray the swing weight locking pin with a graphite based lubricate to allow pin to move freely. The spring inside the swing weight should engage the holes automatically.

# TROUBLESHOOTING

## 800PRO and 650PRO

**WON'T START**

- Throttle fully open
- Hand lever wire broken
- Propane Tank overfilled
- Propane Tank Empty
- Propane Tank is not Vapor Style
- Propane Tank valve turned off
- Electrical Source is not working
- Gas filter plugged
- Gas line plugged
- Hole in gas line
- Safety Switch is engaged
- Safety switch wire or connectors not making good contact

**STARTS BUT NO HIGH SPEED**

- Engine problems
- Throttle cable broken or seized
- Throttle lever and connectors loose or out of adjustment
- Other engine problems (Refer to engine manual)

**BELT WEARING RAPIDLY**

- Belt adjusted improperly
- Pulley out of alignment
- Wrong belt/defective belt
- Clutch sticking
- Belt rubbing

**DRIVE SHAFT WILL NOT TURN**

- Universal joint(s) seized
- Spline stripped
- Key(s) sheared

## 800E and 650E

| Operation Panel Indication | | | Name | Refer to Page |
|---|---|---|---|---|
| Error message | E - - - | E--- | Faults history | 229 |
| | HOLd | HOLD | Operation panel lock | 234 |
| | LOCd | LOCD | Password locked | 234 |
| | Er 1<br>Er2<br>Er4 | Er1<br>Er2<br>Er4 | Parameter write error | 234 |
| | Err. | Err. | Inverter reset | 234 |
| Warning | OL | OL | Stall prevention (overcurrent) | 235 |
| | oL | oL | Stall prevention (overvoltage) | 235 |
| | rb | RB | Regenerative brake prealarm | 236 |
| | TH | TH | Electronic thermal relay function prealarm | 236 |
| | PS | PS | PU stop | 235 |
| | MT | MT | Maintenance signal output | 236 |
| | UV | UV | Undervoltage | 236 |
| | SA | SA | Safety stop | 236 |
| | EV | EV | 24V external power supply operation | 237 |
| Alarm | FN | FN | Fan alarm | 237 |
| Fault | E.OC1 | E.OC1 | Overcurrent trip during acceleration | 237 |
| | E.OC2 | E.OC2 | Overcurrent trip during constant speed | 237 |
| | E.OC3 | E.OC3 | Overcurrent trip during deceleration or stop | 238 |
| | E.OV1 | E.OV1 | Regenerative overvoltage trip during acceleration | 238 |
| | E.OV2 | E.OV2 | Regenerative overvoltage trip during constant speed | 238 |
| | E.OV3 | E.OV3 | Regenerative overvoltage trip during deceleration or stop | 238 |
| | E.THT | E.THT | Inverter overload trip (electronic thermal relay function) | 239 |
| | E.THM | E.THM | Motor overload trip (electronic thermal relay function) | 239 |
| | E.FIN | E.FIN | Heatsink overheat | 239 |

| Operation Panel Indication | | | Name | Refer to Page |
|---|---|---|---|---|
| Fault | E.ILF | E.ILF | Input phase loss | 239 |
| | E.OLT | E.OLT | Stall prevention stop | 240 |
| | E. bE | E. BE | Brake transistor alarm detection | 240 |
| | E. GF | E.GF | Output side earth (ground) fault overcurrent at start | 240 |
| | E. LF | E.LF | Output phase loss | 240 |
| | E.OP1 | E.OP1 | Communication option fault | 240 |
| | E.OPT | E.OPT | Option fault | 241 |
| | E. 1 | E. 1 | Option fault | 241 |
| | E. PE | E.PE | Parameter storage device fault | 241 |
| | E.PE2 | E.PE2 | Internal board fault | 241 |
| | E.rET | E.RET | Retry count excess | 241 |
| | E. 5<br>E. 6<br>E. 7<br>E.CPU | E. 5<br>E. 6<br>E. 7<br>E.CPU | CPU fault | 241 |
| | E.IOH | E.IOH | Inrush current limit circuit fault | 242 |
| | E.USb | E.USB | USB communication fault | 242 |
| | E.MB4 to E.MB7 | E.MB4 to E.MB7 | Brake sequence fault | 242 |
| | E.SAF | E.SAF | Safety circuit fault | 242 |
| | E. 13 | E.13 | Internal circuit fault | 242 |

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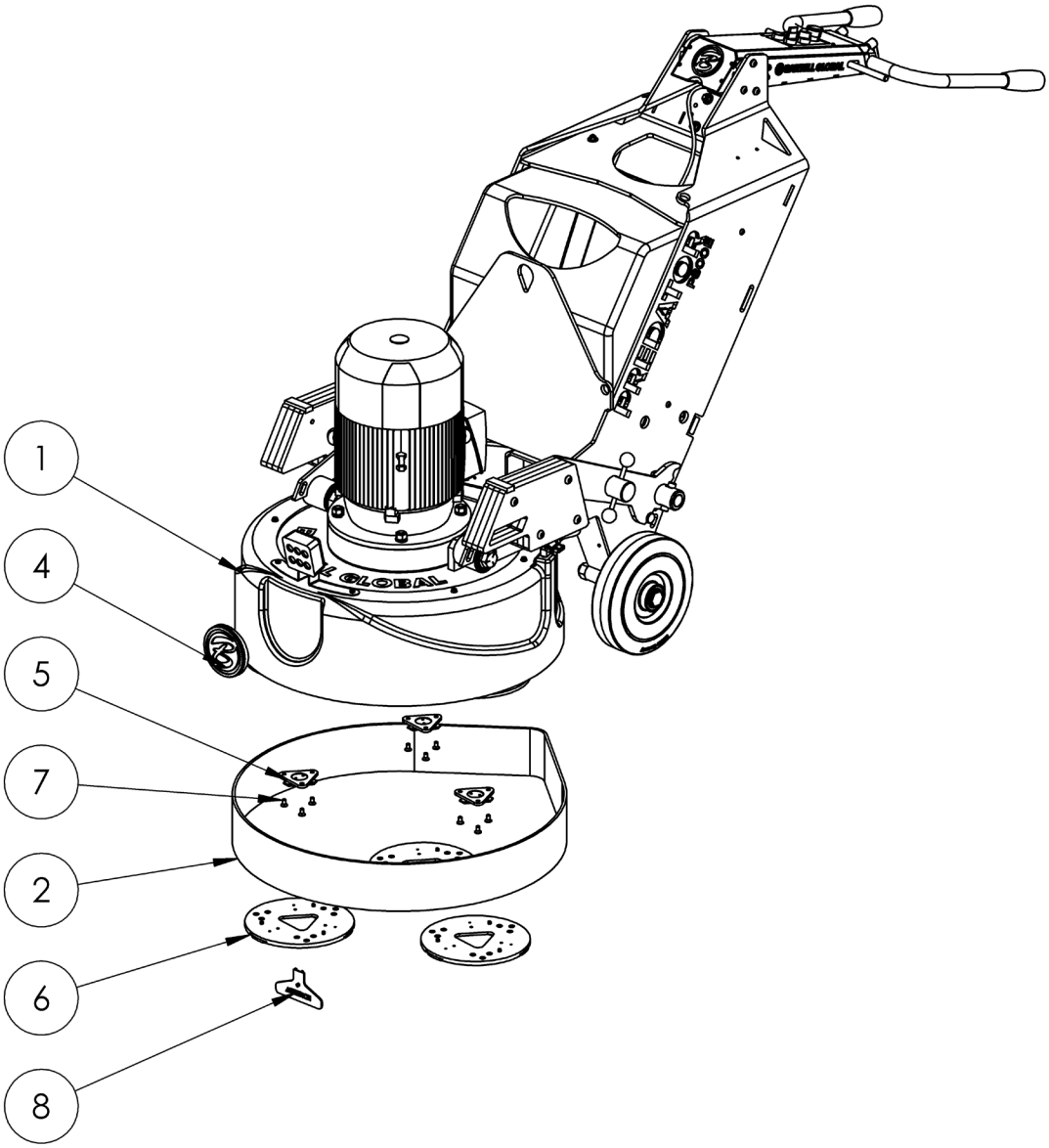
# PARTS

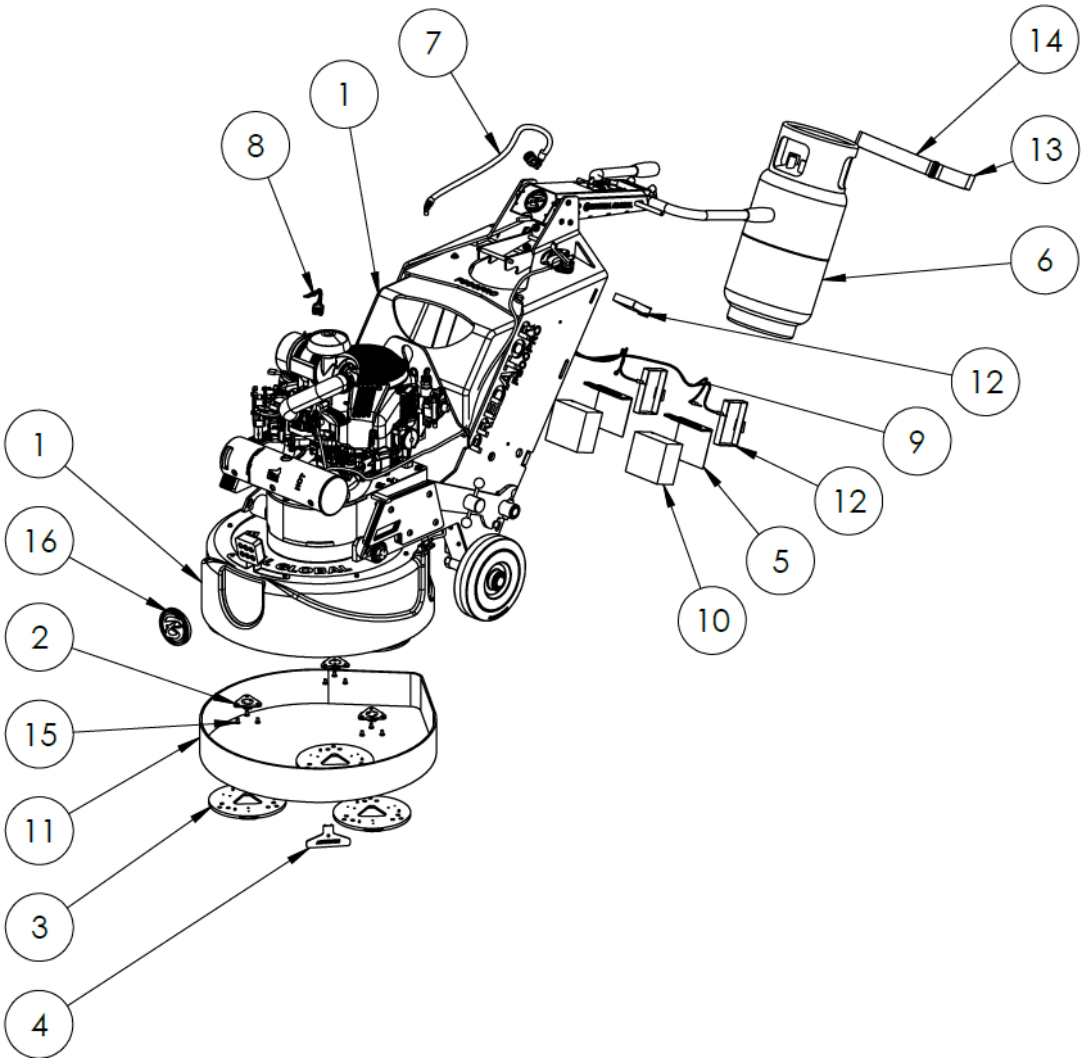
## 98-0054 - PREDATOR P800E GRINDER - C

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 96-0756 | PREDATOR P800E GRINDER ASSEMBLY | 1 |
| 2 | 13-0619 | DUST COVER - 800 | 1 |
| 3 | 61-0076 | PREDATOR DECAL KIT 800E | 1 |
| 4 | 51-3354 | PREDATOR B EMBLEM 800 | 1 |
| 5 | 96-0780 | TOOLING TRIANGLE ASSEMBLY 800 | 3 |
| 6 | 96-0781 | METAL TOOLING KIT 800 | 3 |
| 7 | 12-0880-16 | FLAT HEAD SOCKET SCREW - M8X16 - ZINC | 9 |
| 8 | 96-0456 | TOOLING WRENCH | 1 |



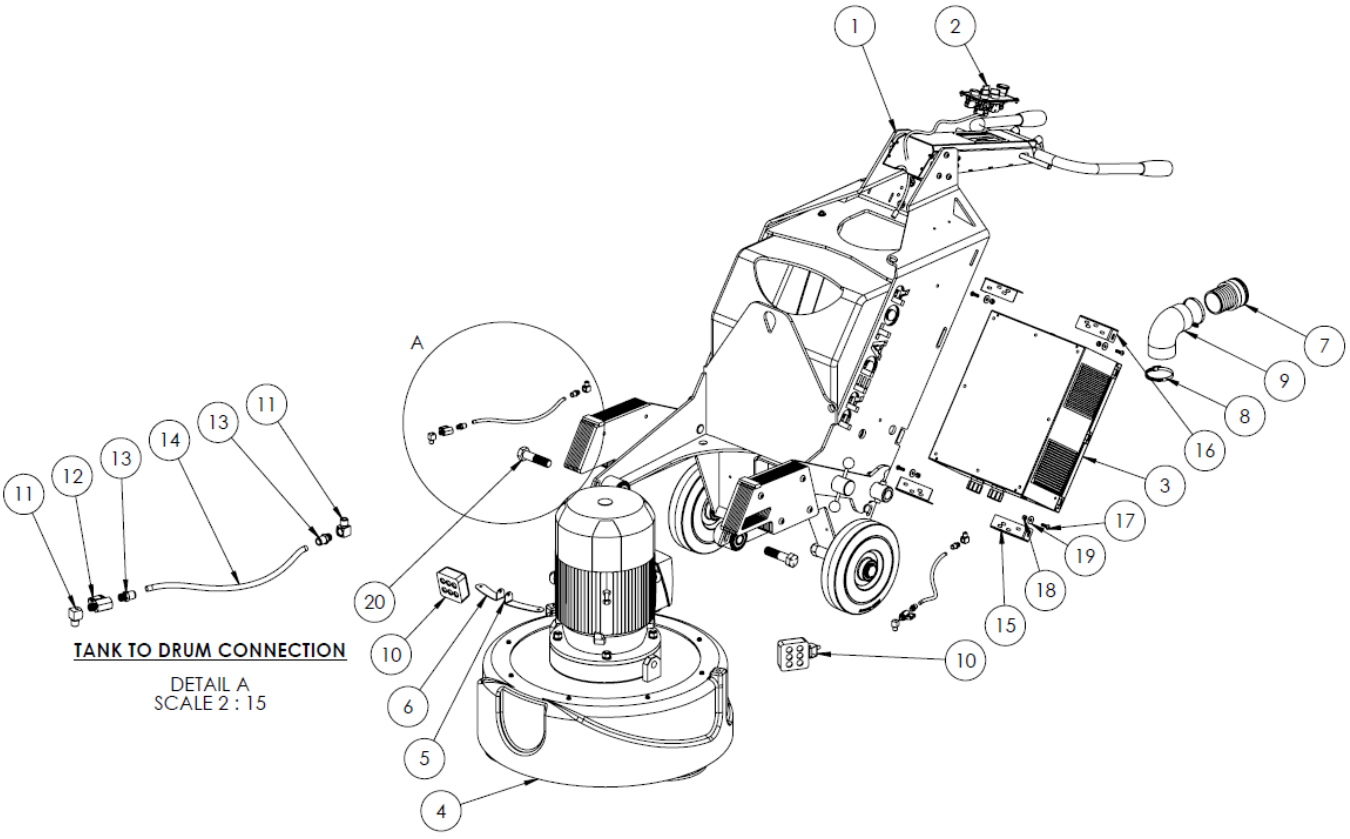
## 98-0053 - PREDATOR P800PRO GRINDER - D

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 96-0755 | PREDATOR P800PRO GRINDER ASSEMBLY | 1 |
| 2 | 96-0780 | TOOLING TRIANGLE ASSEMBLY 800 | 3 |
| 3 | 96-0781 | METAL TOOLING KIT 800 | 3 |
| 4 | 96-0456 | TOOLING WRENCH | 1 |
| 5 | 96-0807 | BATTERY BOX COVER ASSEMBLY | 2 |
| 6 | 44-0059 | 33LB PROPANE TANK VAPOR | 1 |
| 7 | 41-0056 | PROPANE HOSE ASSEMBLY 800PRO | 1 |
| 8 | 24-0309 | BATTERY CABLE ENGINE SIDE 650PRO AND 800PRO | 1 |
| 9 | 24-0308 | BATTERY CABLE 2X BATTERY 800PRO | 1 |
| 10 | 23-0235 | BATTERY, 12V | 2 |
| 11 | 13-0619 | DUST COVER - 800 | 1 |
| 12 | 13-0618 | BATTERY STRAP 1"X24" | 3 |
| 13 | 13-3326 | PROPANE TANK STRAP 2X VELCRO | 1 |
| 14 | 13-3327 | PROPANE TANK STRAP RING+VELCRO | 1 |
| 15 | 12-0880-16 | FLAT HEAD SOCKET SCREW - M8X16 - ZINC | 9 |
| 16 | 51-3354 | PREDATOR B EMBLEM 800 | 1 |
| 17 | 61-0075 | PREDATOR DECAL KIT 800PRO | 1 |



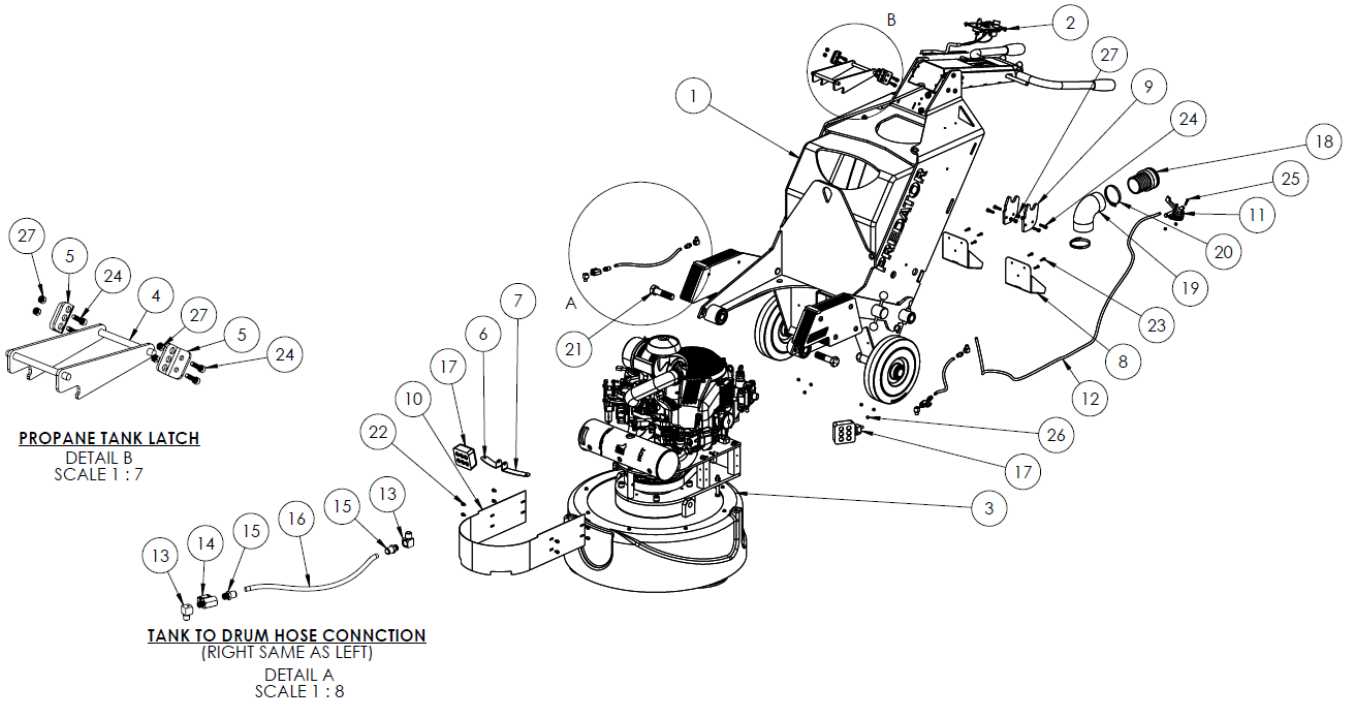
## 96-0756 - PREDATOR P800E GRINDER ASSEMBLY - G

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 96-0750 | FRAME ASSEMBLY - 800 | 1 |
| 2 | 96-0788 | SWITCH PANEL - 800E | 1 |
| 3 | 22-0107 | ELECTRICAL CONTROL ASSEMBLY - 800E | 1 |
| 4 | 96-0609 | DRUM MOTOR SUB ASSEM 800E | 1 |
| 5 | 52-0603 | FRONT LIGHT BRACKET LEFT - 800 | 1 |
| 6 | 52-0602 | FRONT LIGHT BRACKET RIGHT - 800 | 1 |
| 7 | 13-0613 | MALE 3IN CAMLOCK BARBED | 1 |
| 8 | 13-0672 | HOSE CLAMP 3IN SMOOTH | 2 |
| 9 | 13-0616 | SHROUD TO VAC ELBOW 3IN | 1 |
| 10 | 23-0240 | LIGHT 12V FLOOD | 2 |
| 11 | 41-0032 | FITTING 0.25 NPT MALE TO 0.25 NPT FEMALE 90 DEG BRASS | 4 |
| 12 | 41-0051 | BALL VALVE MALE 0.25 NPT FEMALE 0.25 NPT | 2 |
| 13 | 41-0052 | PUSH-TO-CONNECT 0.25 NPT 0.38 TUBE | 4 |
| 14 | 41-0053 | WATER TUBE CLEAR 0.38 OD | 1 |
| 15 | 52-0608 | ELECTRICAL PANEL BRACKET RIGHT 800E AND 600E | 2 |
| 16 | 52-0609 | ELECTRICAL PANEL BRACKET LEFT 800E AND 600E | 2 |
| 17 | 12-0810-25 | BUTTON HEAD CAP SCREW - M8X25 - ZINC | 4 |
| 18 | 12-0840 | LOCKNUT - M8 - ZINC | 4 |
| 19 | 12-0850 | WASHER - M8 - ZINC | 4 |
| 20 | 11-0371 | HEX HEAD SCREW - 1"X4" - ZINC | 2 |



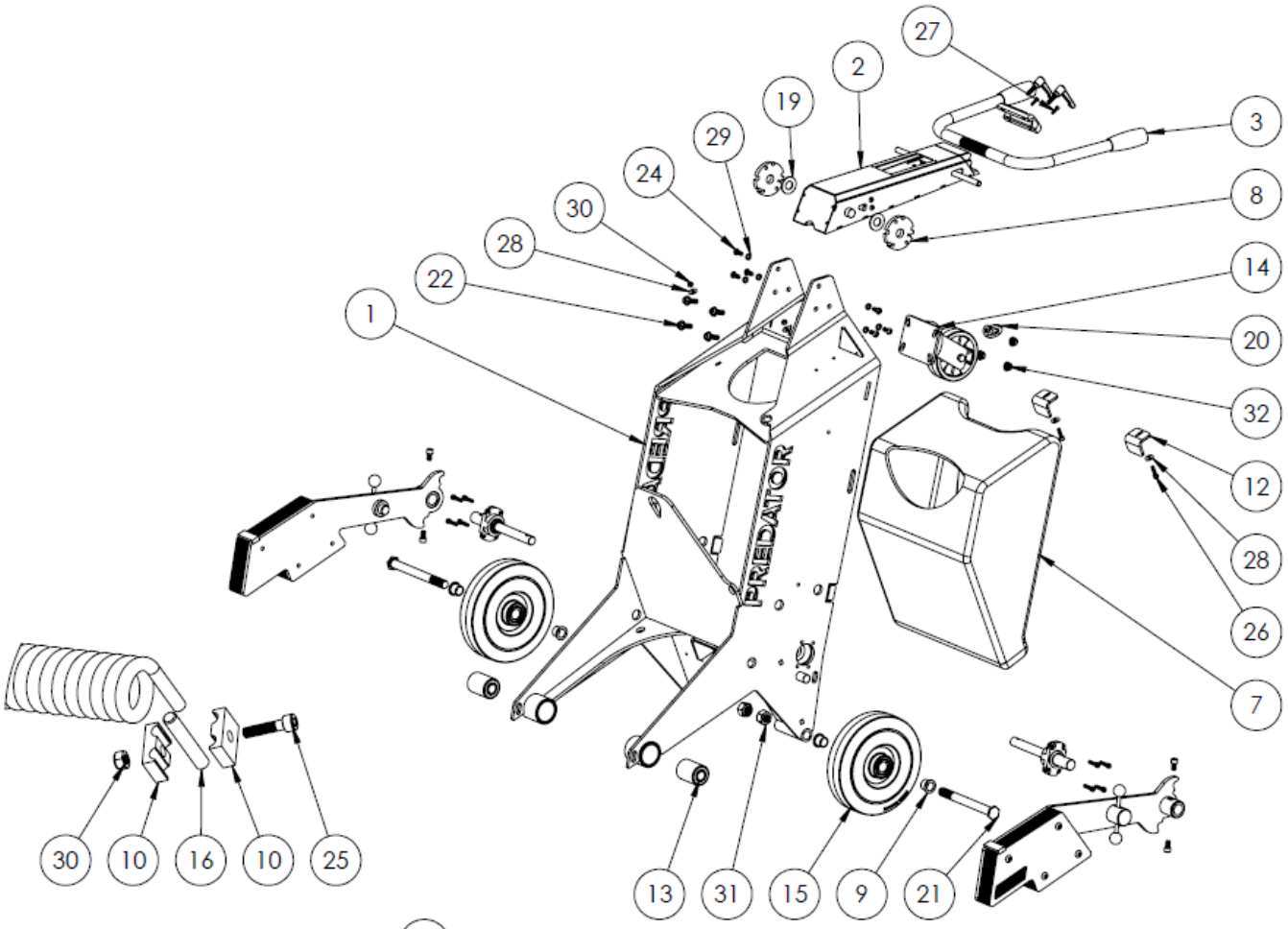
## 96-0755 - PREDATOR P800PRO GRINDER ASSEMBLY - E

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 96-0750 | FRAME ASSEMBLY - 800 | 1 |
| 2 | 96-0754 | SWITCH PANEL - 800PRO | 1 |
| 3 | 96-0811 | ENGINE CLUTCH BOX DRUM ASSEMBLY 800PRO | 1 |
| 4 | 53-0791 | PROPANE TANK LATCH | 1 |
| 5 | 52-0601 | PROPANE TANK LATCH MOUNT | 2 |
| 6 | 52-0602 | FRONT LIGHT BRACKET RIGHT - 800 | 1 |
| 7 | 52-0603 | FRONT LIGHT BRACKET LEFT - 800 | 1 |
| 8 | 52-0605 | BATTERY BOX | 2 |
| 9 | 52-0606 | PROPANE TANK BOTTOM SUPPORT | 2 |
| 10 | | CLUTCH BOX COVER 800PRO | 1 |
| 11 | 43-0405 | THROTTLE HANDLE 650 AND 800PRO | 1 |
| 12 | 43-0406 | THROTTLE CABLE 650 AND 800PRO | 1 |
| 13 | 41-0032 | FITTING 0.25 NPT MALE TO 0.25 NPT FEMALE 90 DEG BRASS | 4 |
| 14 | 41-0051 | BALL VALVE MALE 0.25 NPT FEMALE 0.25 NPT | 2 |
| 15 | 41-0052 | PUSH-TO-CONNECT 0.25 NPT 0.38 TUBE | 4 |
| 16 | 41-0053 | WATER TUBE CLEAR 0.38 OD | 1 |
| 17 | 23-0240 | LIGHT 12V FLOOD | 2 |
| 18 | 13-0613 | MALE 3IN CAMLOCK BARBED | 1 |
| 19 | 13-0616 | SHROUD TO VAC ELBOW 3IN | 1 |
| 20 | 13-0672 | HOSE CLAMP 3IN SMOOTH | 2 |
| 21 | 11-0371 | HEX HEAD SCREW - 1"X4" - ZINC | 2 |
| 22 | 12-0660-12 | SERRATED - M6X12 - ZINC | 8 |
| 23 | 12-0600-20 | SOCKET HEAD CAP SCREW - M6X20 - ZINC | 6 |
| 24 | 12-0800-30 | SOCKET HEAD CAP SCREW - M8X30 - ZINC | 8 |
| 25 | 12-0610-30 | BUTTON HEAD CAP SCREW - M6X30 - ZINC | 2 |
| 26 | 12-0640 | NYLOC NUT - M6 - ZINC | 8 |
| 27 | 12-0840 | LOCKNUT - M8 - ZINC | 8 |

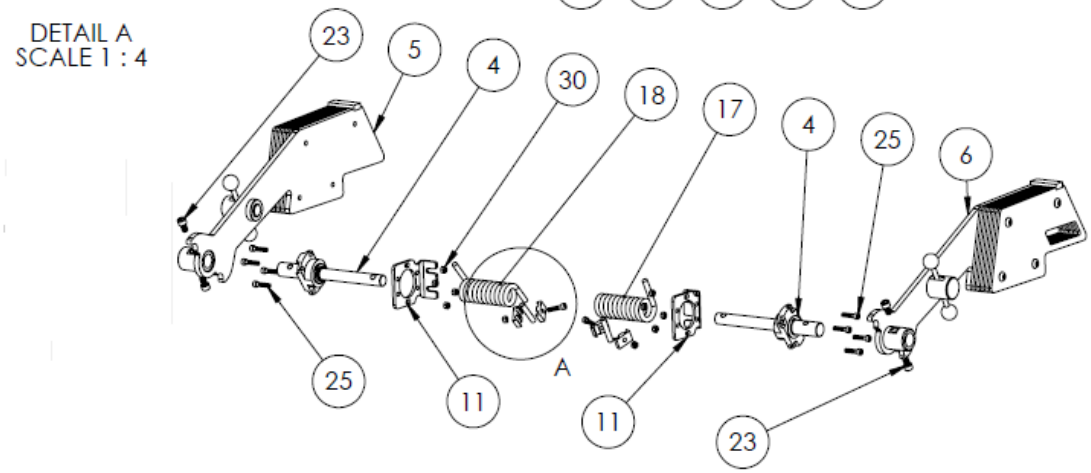


## 96-0750 - FRAME ASSEMBLY – 800 - B

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 53-0790 | FRAME WELDMENT - 800 | 1 |
| 2 | 96-0725 | HANDLE ASSEMBLY | 1 |
| 3 | 96-0720 | BG HANDLE | 1 |
| 4 | 96-0469 | SWING WEIGHT BUSHING ASSEM | 2 |
| 5 | 96-0740 | SWING WEIGHT ASSEMBLY LEFT - 800 | 1 |
| 6 | 96-0745 | SWING WEIGHT ASSEMBLY RIGHT - 800 | 1 |
| 7 | 54-0045 | WATER TANK - 800 | 1 |
| 8 | 51-3358 | HANDLE CLOCK | 2 |
| 9 | 51-3355 | AXLE BUSHING | 4 |
| 10 | 51-3309 | CLAMP | 4 |
| 11 | 52-0359 | SPRING FLANGE | 2 |
| 12 | 52-0600 | TANK MOUNTING BRACKET | 2 |
| 13 | 13-0612 | DRUM MOUNTING BUSHING - 800 | 2 |
| 14 | 13-0611 | CASTER WHEEL | 1 |
| 15 | 13-0610 | WHEEL 12IN | 2 |
| 16 | 13-0609 | TORSION SPRING PIN | 2 |
| 17 | 13-0608 | TORSION SPRING RIGHT | 1 |
| 18 | 13-0602 | TORSION SPRING LEFT | 1 |
| 19 | 13-0556 | THRUST BEARING 1" | 2 |
| 20 | 13-3329 | EYE NUT - M12 - GALV | 1 |
| 21 | 12-2420-250 | HEX HEAD SCREW - M24X250 - ZINC | 2 |
| 22 | 12-1260-35 | HEX HEAD SERRATED - M12X35 - ZINC | 4 |
| 23 | 12-1200-20 | SOCKET HEAD CAP SCREW - M12X20 - ZINC | 4 |
| 24 | 12-1010-25 | BUTTON HEAD CAP SCREW - M10X25 - ZINC | 6 |
| 25 | 12-0800-35 | SOCKET HEAD CAP SCREW - M8X35 - ZINC | 10 |
| 26 | 12-0800-30 | SOCKET HEAD CAP SCREW - M8X30 - ZINC | 2 |
| 27 | 12-0600-20 | SOCKET HEAD CAP SCREW - M6X20 - ZINC | 2 |
| 28 | 12-0850 | WASHER - M8 - ZINC | 4 |
| 29 | 12-1070 | LOCK WASHER - M10 - ZINC | 6 |
| 30 | 12-0840 | LOCKNUT - M8 - ZINC | 12 |
| 31 | 2E+05 | LOCKNUT - M24 - ZINC | 2 |
| 32 | 12-1260 | HEX NUT SURRATED - M12 - ZINC | 3 |



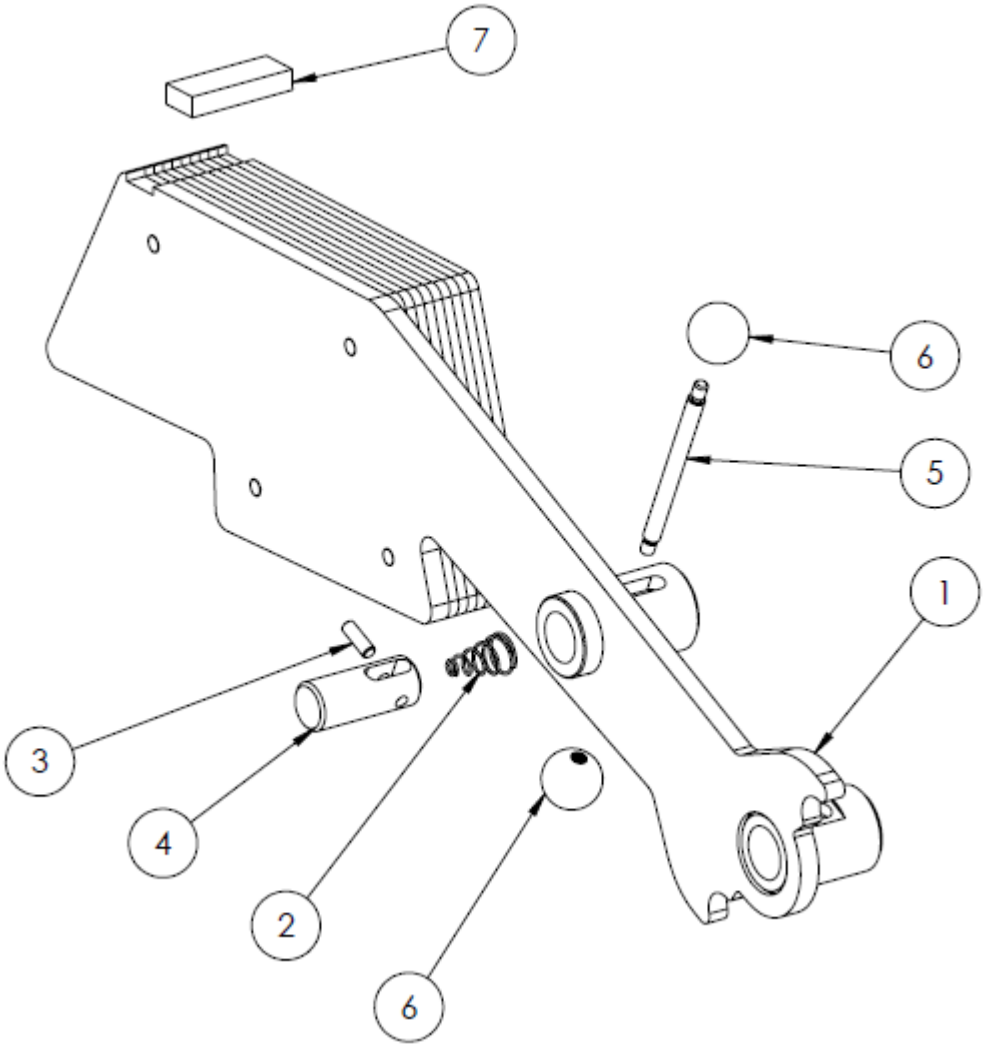

DETAIL A
SCALE 1 : 4




SWING WEIGTHS FROM REAR OF MACHINE

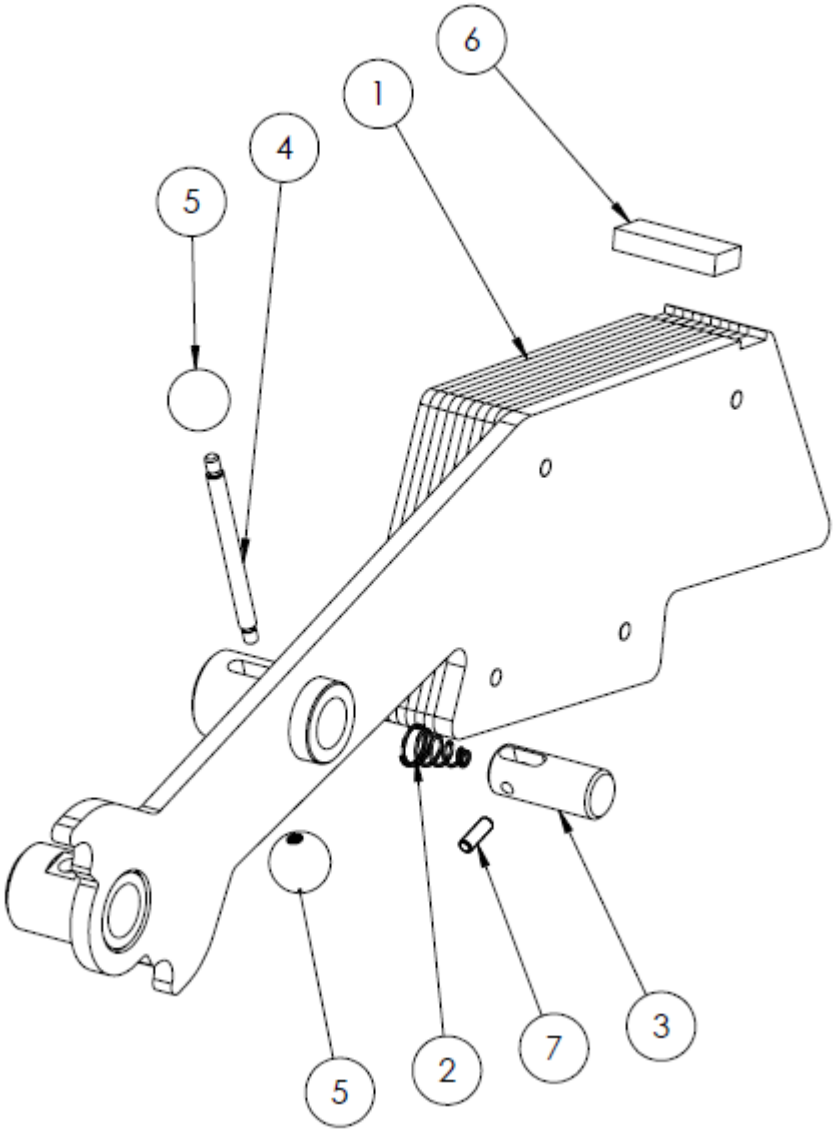
## 96-0745 - SWING WEIGHT ASSEMBLY RIGHT – 800 - D

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 53-0759 | WEIGHT ARM WELDMENT RIGHT - 800 | 1 |
| 2 | 51-3310 | WEIGHT PIN | 1 |
| 3 | 51-3370 | SWING WEIGHT PAD - 650 | 1 |
| 4 | 13-0600 | LEVERAGE PIN | 1 |
| 5 | 13-0603 | PIN LOCK SPRING | 1 |
| 6 | 13-0604 | KNOB | 2 |
| 7 | 13-0605 | SPRING PIN | 1 |



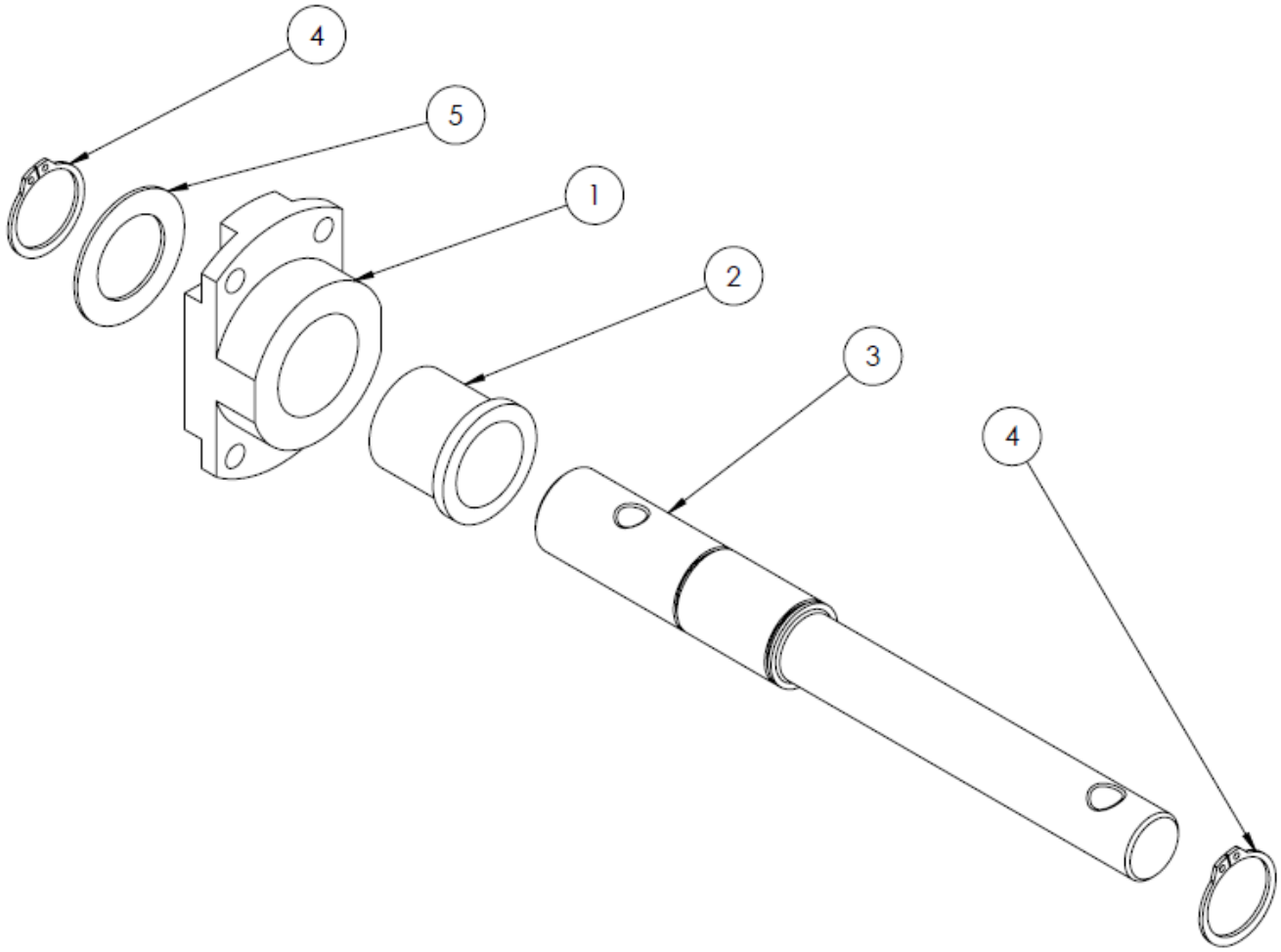
## 96-0740 - SWING WEIGHT ASSEMBLY LEFT – 800 - D

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 53-0757 | WEIGHT ARM WELDMENT LEFT - 800 | 1 |
| 2 | 51-3310 | WEIGHT PIN | 1 |
| 3 | 51-3370 | SWING WEIGHT PAD - 650 | 1 |
| 4 | 13-0600 | LEVERAGE PIN | 1 |
| 5 | 13-0603 | PIN LOCK SPRING | 1 |
| 6 | 13-0604 | KNOB | 2 |
| 7 | 13-0605 | SPRING PIN | 1 |



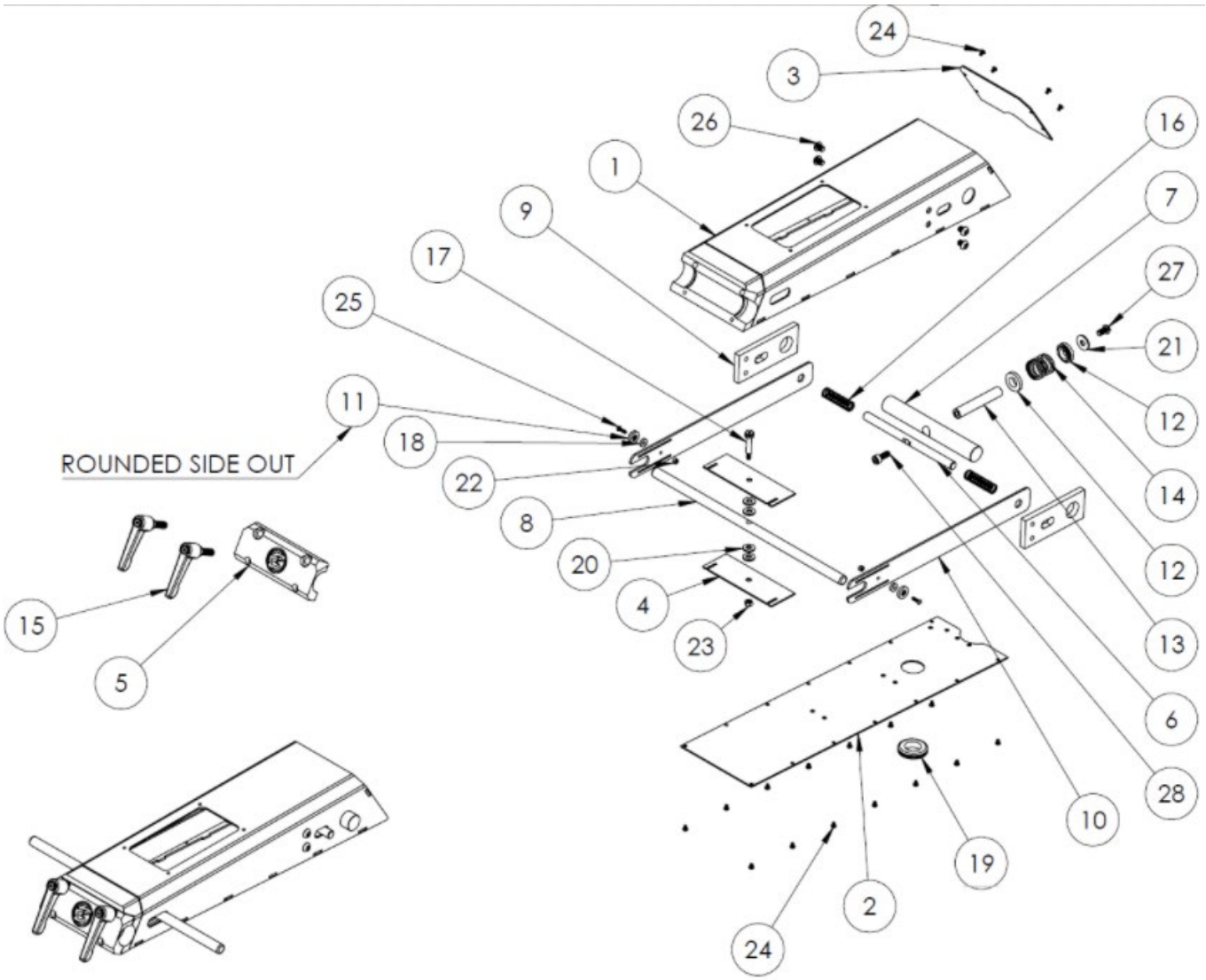
## 96-0469 - SWING WEIGHT BUSHING ASSEMBLY - B

| ITEM NO. | Part Number | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 51-3306 | BUSHING HOUSING | 1 |
| 2 | 13-0601 | WEIGHT BUSHING | 1 |
| 3 | 51-3308 | SPINDLE | 1 |
| 4 | 13-0606 | RETAINING RING 30MM | 2 |
| 5 | 13-0607 | THRUST WASHER 30MM | 1 |



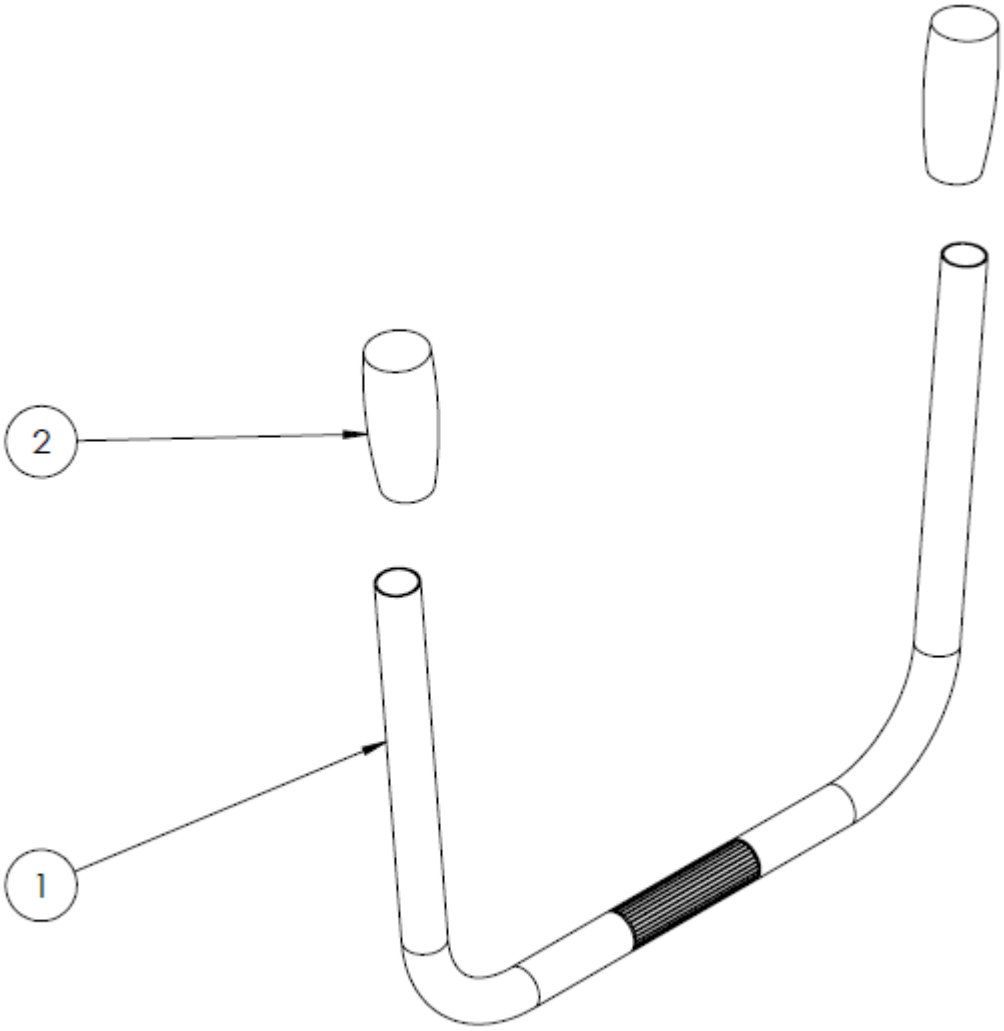
## 96-0725 - HANDLE ASSEMBLY – 650 AND 800 - E

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 53-0750 | HANDLE STEM WELDMENT | 1 |
| 2 | 52-0350 | BOTTOM COVER PANEL | 1 |
| 3 | 52-0351 | FRONT COVER PANEL | 1 |
| 4 | 52-0354 | PREP PLATES | 2 |
| 5 | 51-3200 | HANDLE CAP PLATE | 1 |
| 6 | 51-3201 | LATCH PIN | 1 |
| 7 | 51-3203 | PIVOT PIN | 1 |
| 8 | 51-3303 | PULL HANDLE | 1 |
| 9 | 51-3304 | REINFORCEMENT PLATE | 2 |
| 10 | 51-3305 | PULL PLATE | 2 |
| 11 | 13-0551 | TEFLON SLIDER 3/4" | 2 |
| 12 | 13-0552 | SPRING LOCATOR | 2 |
| 13 | 13-0553 | TAPPED SHAFT M8 | 1 |
| 14 | 13-0575 | COMPRESSION SPRING | 1 |
| 15 | 13-0554 | LOW-PROFILE ADJUSTABLE HANDLE | 2 |
| 16 | 13-0555 | COMPRESSION SPRING | 2 |
| 17 | 13-0557 | SHOULDER BOLT 8X30 M6 | 1 |
| 18 | 13-0558 | SPACER 1/2" X 1/8" | 2 |
| 19 | 25-0182 | GROMET 1IN | 1 |
| 20 | 12-0852 | WASHER - M8 - PTFE | 4 |
| 21 | 12-0850 | WASHER - M8 - ZINC | 1 |
| 22 | 12-0440 | NYLOC NUT - M4 - ZINC | 2 |
| 23 | 12-0640 | NYLOC NUT - M6 - ZINC | 1 |
| 24 | 12-0410-06 | BUTTON HEAD CAP SCREW - M4X6 - ZINC | 18 |
| 25 | 12-0410-16 | BUTTON HEAD CAP SCREW - M4X16 - ZINC | 2 |
| 26 | 12-0810-10 | BUTTON HEAD CAP SCREW - M8X10 - ZINC | 4 |
| 27 | 12-0810-16 | BUTTON HEAD CAP SCREW - M8X16 - ZINC | 1 |
| 28 | 12-0800-20 | SOCKET HEAD CAP SCREW - M8X20 - ZINC | 1 |


24
3
26
1
9
17
25
11
18
22
8
20
4
23
ROUNDED SIDE OUT
15
5
16
7
27
21
12
14
12
13
6
28
10
19
2
24

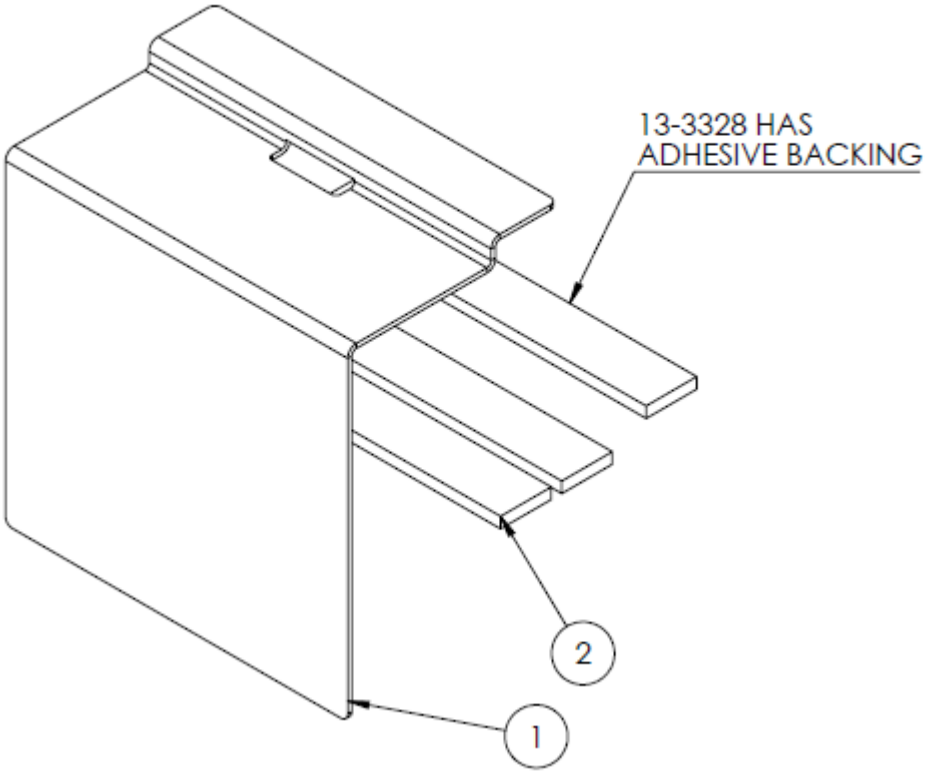
## 96-0720 - BG HANDLE – 650 AND 800 - C

| ITEM NO. | Part Number | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 53-0797 | BG HANDLEBAR WELDMENT | 1 |
| 2 | 13-0560 | BG HANDLE END GRIP | 2 |



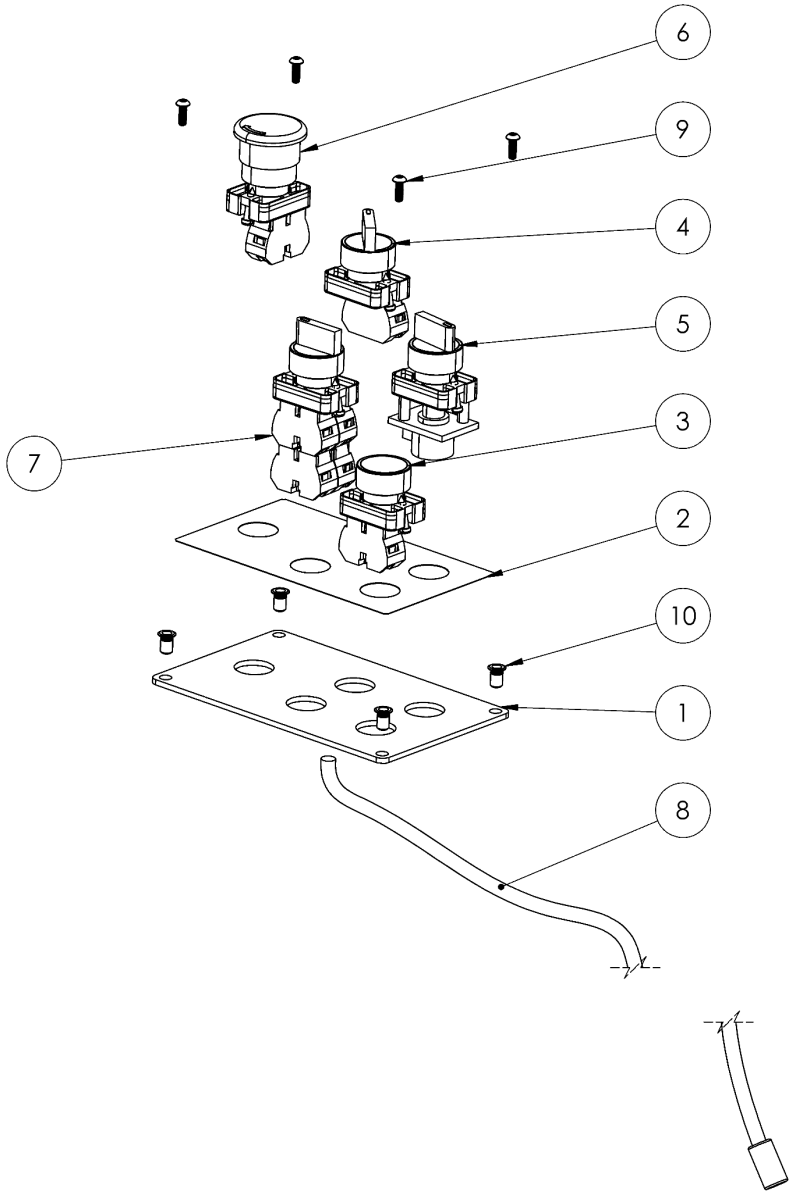
## 96-0807 - BATTERY BOX COVER ASSEMBLY - A

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 52-0630 | BATTERY BOX COVER | 1 |
| 2 | 13-3328 | BATTERY COVER FOAM | 3 |



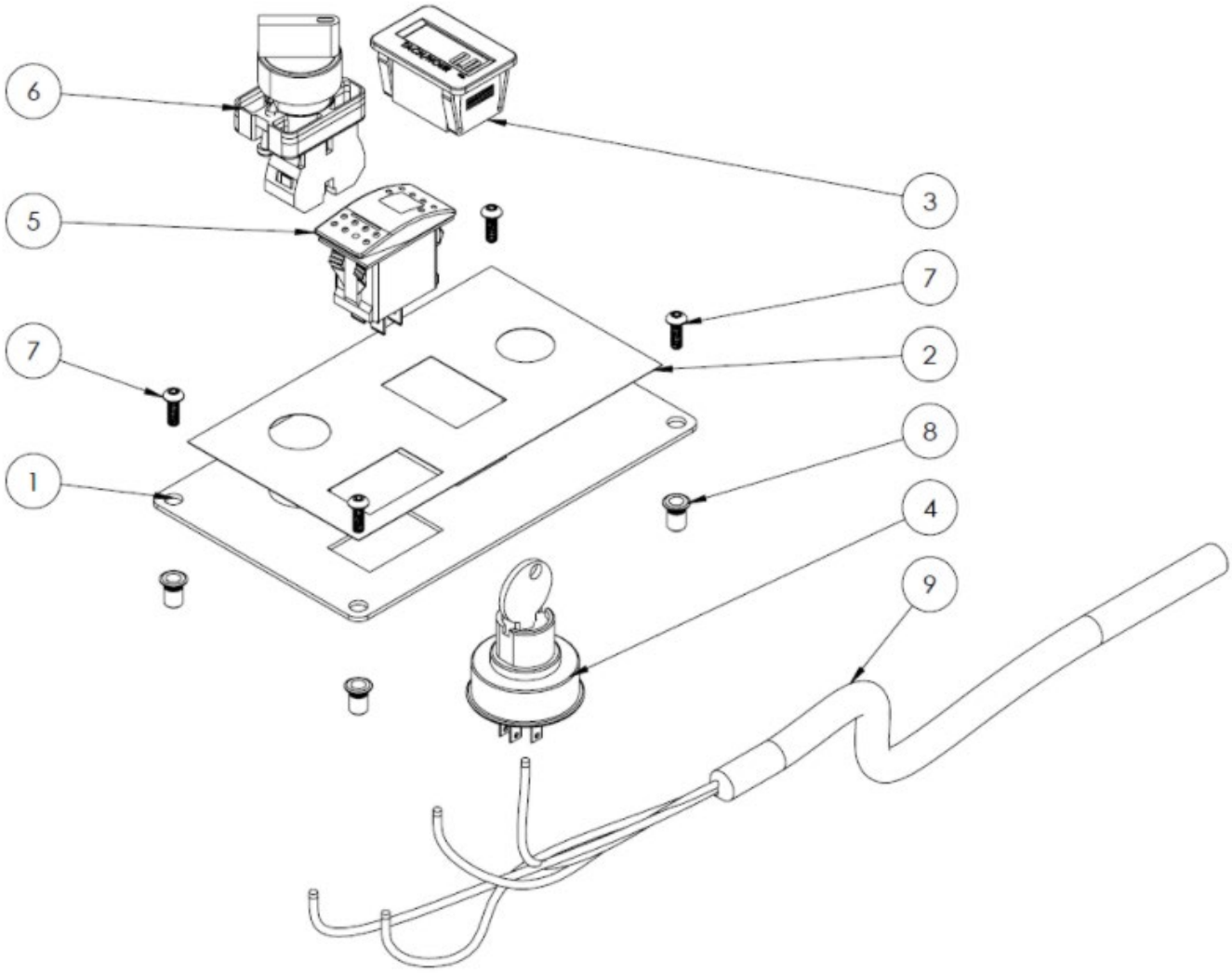
## 96-0788 - SWITCH PANEL – 650E AND 800E - E

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 52-0613 | SWITCH PLATE - 800E | 1 |
| 2 | 61-0080 | SWITCH PLATE DECAL 650 AND 800E | 1 |
| 3 | 22-0100 | PUSH BUTTON | 1 |
| 4 | 22-0104 | SWITCH TWO POSITION | 1 |
| 5 | 22-0105 | SWITCH POTENTIOMETER | 1 |
| 6 | 22-0106 | ESTOP SWITCH | 1 |
| 7 | 22-0109 | SWITCH 3 POSITION | 1 |
| 8 | 24-0290co | SWITCH PANEL CABLE 650E AND 800E | 1 |
| 9 | 12-0410-12 | BUTTON HEAD CAP SCREW - M4X12 - ZINC | 1 |
| 10 | 13-0700 | REVNUT - M4 - ZINC | 1 |



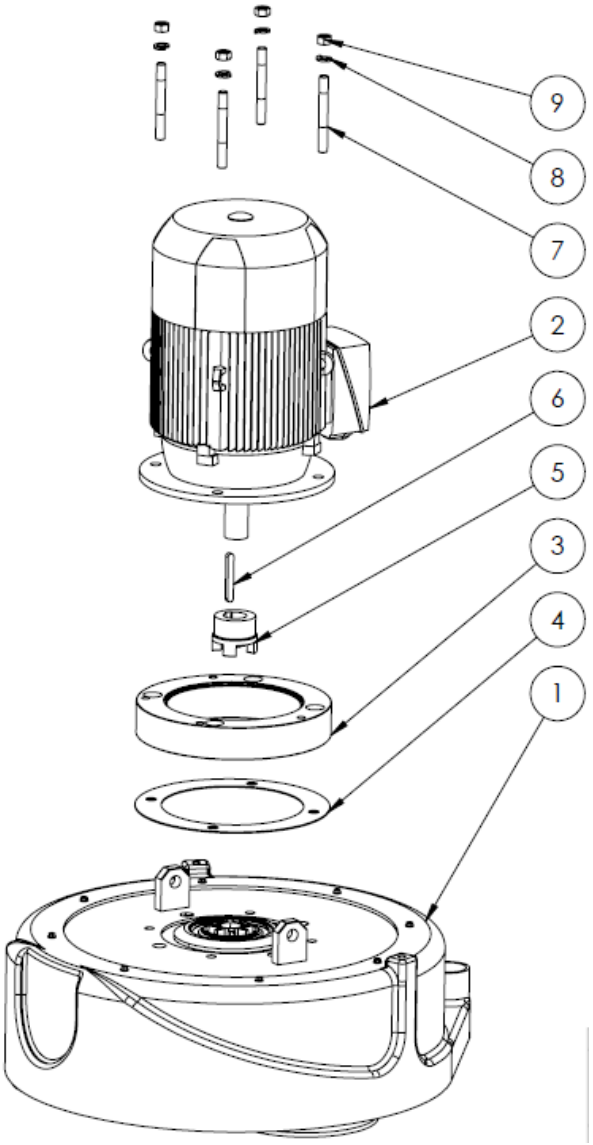
## 96-0754 - SWITCH PANEL – 800PRO - D

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 52-0607 | SWITCH PLATE DECAL | 1 |
| 2 | 61-0079 | SWITCH PLATE DECAL | 1 |
| 3 | 22-0101 | HOUR/TACH DIGITAL METER | 1 |
| 4 | 22-0102 | IGNITION SWITCH 800PRO | 1 |
| 5 | 22-0103 | SWITCH LIGHTED 4 PIN | 1 |
| 6 | 22-0104 | SWITCH TWO POSITION | 1 |
| 7 | 12-0410-12 | BUTTON HEAD CAP SCREW - M4X12 - ZINC | 4 |
| 8 | 13-0700 | REVNUT - M4 - ZINC | 4 |
| 9 | 24-0306 | WIRING HARNESS 800PRO | 1 |



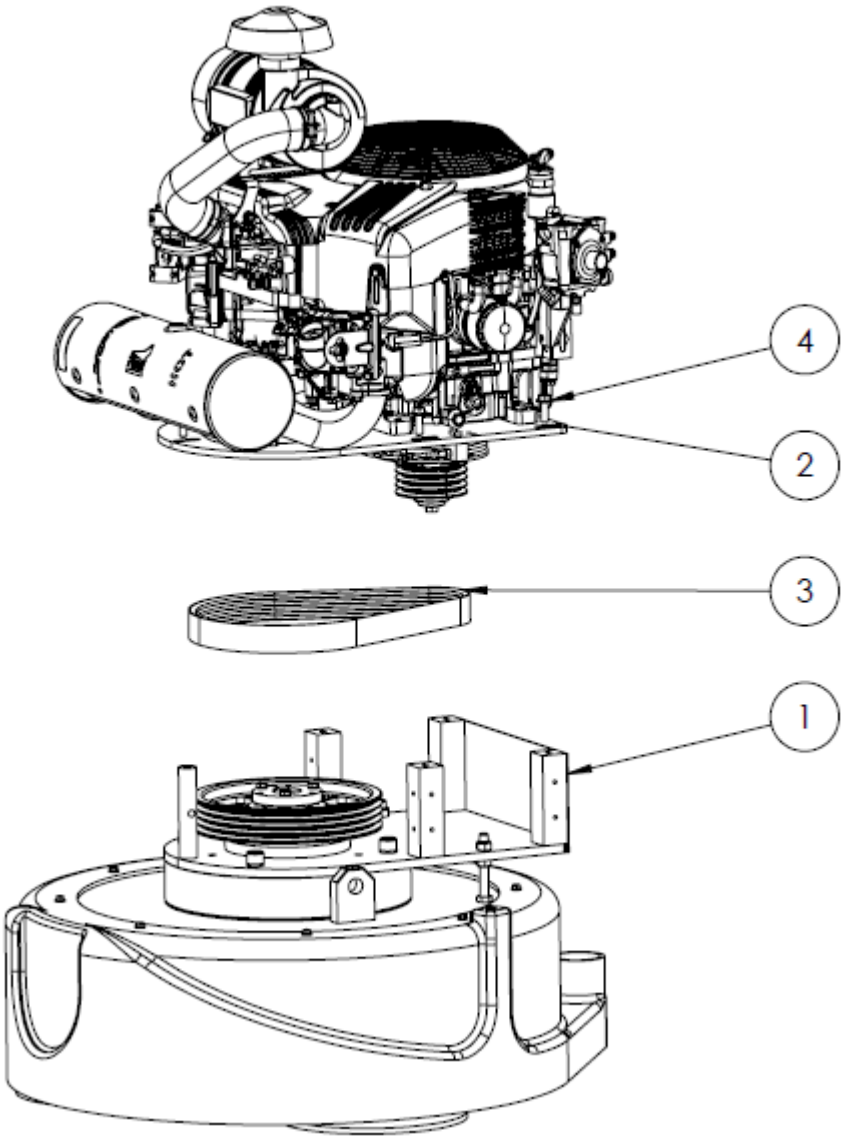
## 96-0609 DRUM MOTOR SUB ASSEM 800E - A

| ITEM NO. | Part Number | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 96-0751 | DRUM ASSEMBLY - 800 | 1 |
| 2 | 23-0245 | THREE PHASE MOTOR | 1 |
| 3 | 51-3383 | DRUM TO DRIVE SPACER - 800 | 1 |
| 4 | 51-3382 | DRUM TO SPACER GASKET - 800 | 1 |
| 5 | 51-4005 | COUPLER, CJ38/45 LOVEJOY MOD - 800 | 1 |
| 6 | 13-0711 | KEY M12-8X90 PARALLEL - 800 | 1 |
| 7 | 13-0114 | STUD M16 - 800E | 4 |
| 8 | 12-1670 | LOCK WASHER - M16 - ZINC | 4 |
| 9 | 12-1630 | NUT – M16 - ZINC | 4 |



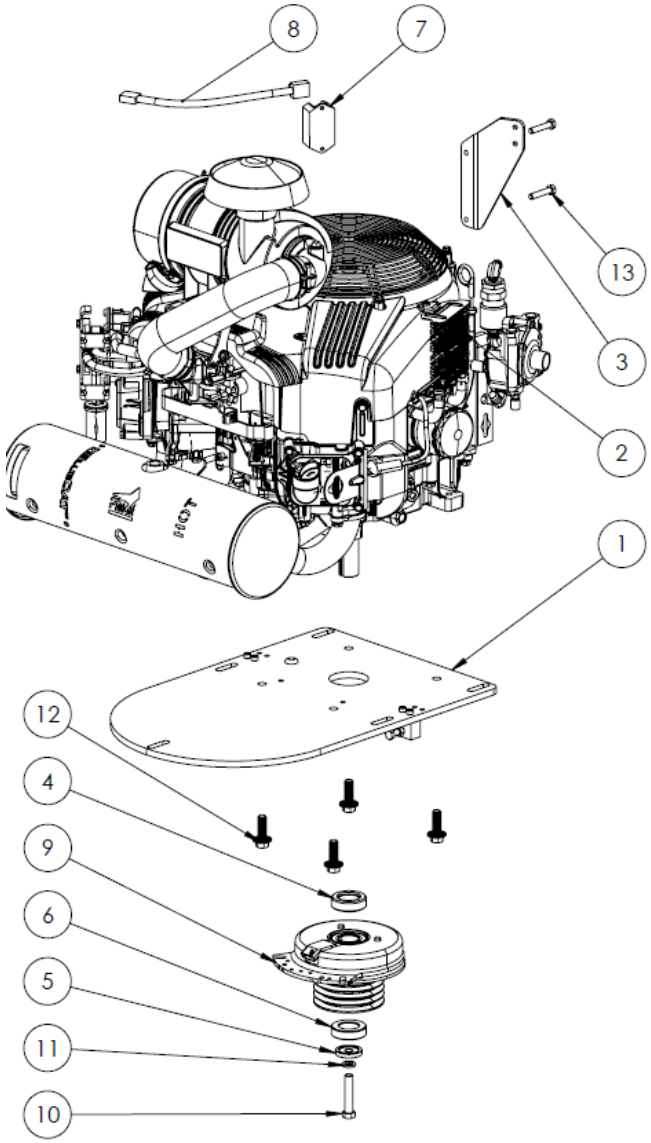
## 96-0811 ENGINE CLUTCH BOX DRUM ASSEMBLY 800PRO - A

| ITEM NO. | Part Number | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 96-0814 | DRUM CLUTCH BOX SUB ASSEMBLY 800PRO | 1 |
| 2 | 96-0752 | DRIVE ASSEMBLY 800PRO | 1 |
| 3 | 13-0713 | BELT 4/3VX 425 GATES - 800PRO | 1 |
| 4 | 12-1060-30 | SCREW, FLANGED HEX HEAD CAP SERRATED M10-1.5 X 30 ZINC | 5 |



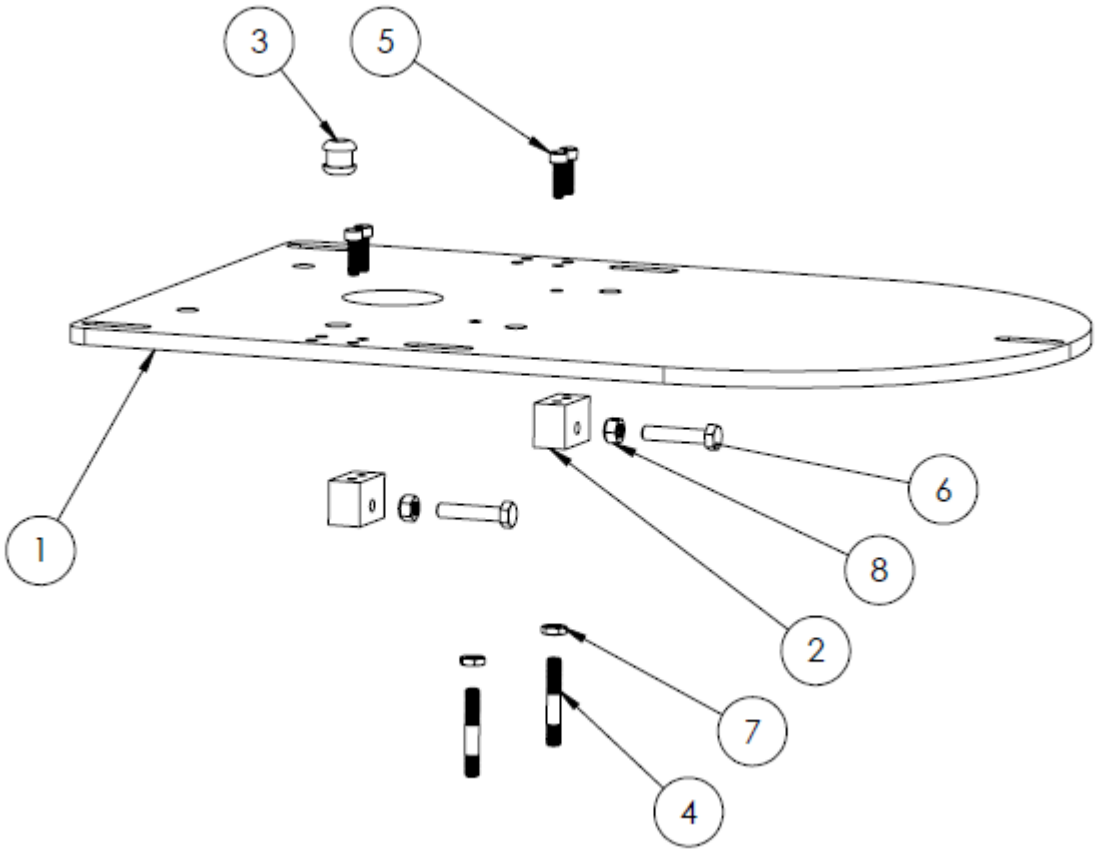
## 96-0752 - DRIVE ASSEMBLY - 800PRO - D

| ITEM NO. | Part Number | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 96-0791 | ENGINE MOUNT SUB ASSEM 800PRO | 1 |
| 2 | 43-0416 | ENGINE ASSEMBLY - 800PRO | 1 |
| 3 | 52-0604 | REGULATOR BRACKET - 800PRO | 1 |
| 4 | 51-3411 | MOTOR SPACER 800PRO | 1 |
| 5 | 51-3414 | CLUTCH WASHER 800PRO | 1 |
| 6 | 51-3413 | CLUTCH SPACER 800PRO | 1 |
| 7 | 23-0250 | SOFT START, CLUTCH | 1 |
| 8 | 23-0252 | SOFT START, CABLE - 800PRO | 1 |
| 9 | 13-0717 | CLUTCH, ELECTRIC 4 GROOVE PULLEY - 800PRO | 1 |
| 10 | 11-0388 | SCREW, HEX 7/16-20 X 2-1/4 GRADE 8 | 1 |
| 11 | 11-0378 | LOCK WASHER – 7/16" ZINC | 1 |
| 12 | 12-1260-35 | HEX HEAD SERRATED – M12X35 - ZINC | 4 |
| 13 | 12-0820-40 | HEX HEAD SERRATED - M12X40 - ZINC | 2 |



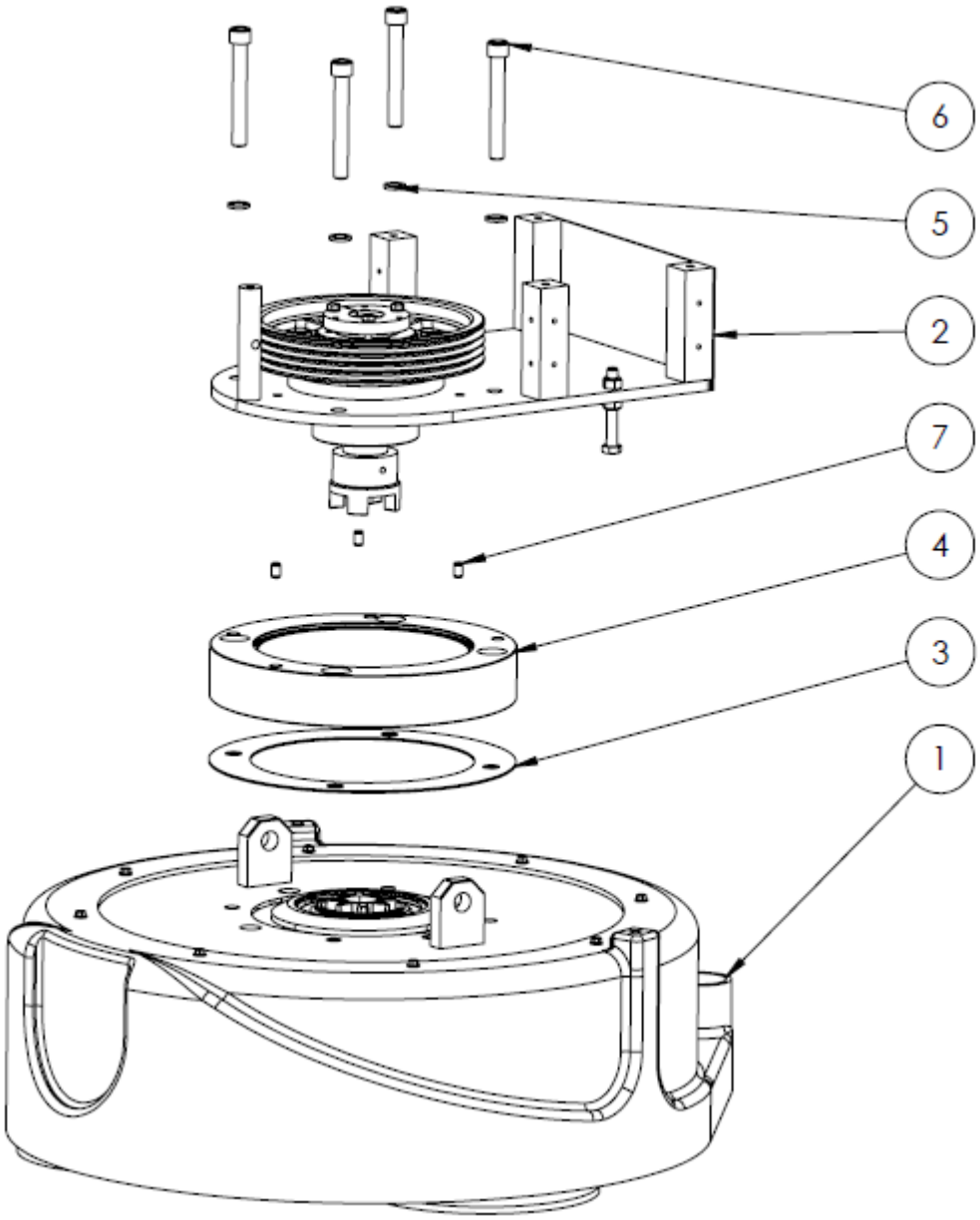
## 96-0791 - ENGINE MOUNT SUB ASSEM - 800PRO - B

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 51-3410 | MOTOR PLATE 800PRO | 1 |
| 2 | 51-3412 | BELT CLUTCH TENSIONER 800PRO | 2 |
| 3 | 13-0716 | GROMMET, HIGH-TEMP 9/16"-3/8"-3/8" | 1 |
| 4 | 13-0715 | STUD DOUBLE END M8X50 | 2 |
| 5 | 12-0600-20 | SOCKET HEAD CAP SCREW - M6X20 - ZINC | 4 |
| 6 | 12-0820-40 | HEX HEAD CAP SCREW - M8X40 - ZINC | 2 |
| 7 | 12-0830-JAM | NUT - M8XJAM - ZINC | 2 |
| 8 | 12-0840 | LOCKNUT - M8 - ZINC | 2 |



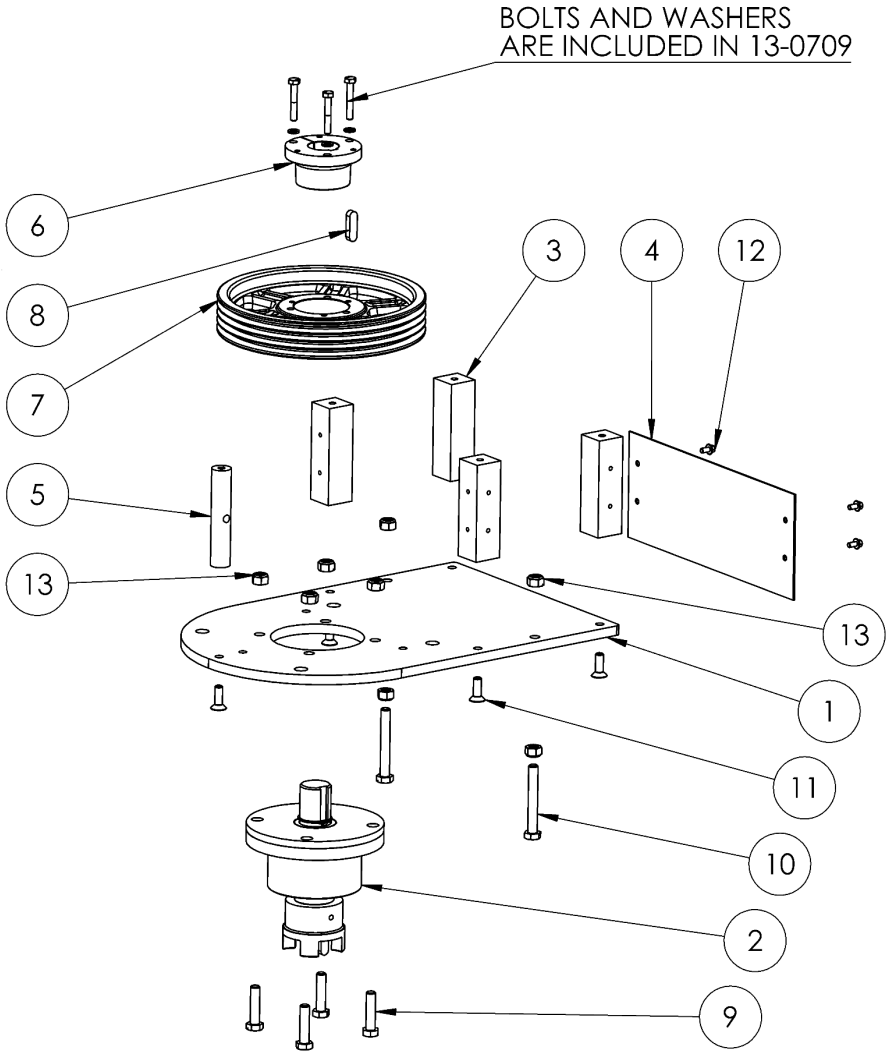
## 96-0814 DRUM CLUTCH BOX SUB ASSEMBLY 800PRO - A

| ITEM NO. | Part Number | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 96-0751 | DRUM ASSEMBLY - 800 | 1 |
| 2 | 96-0753 | DRUM MOUNT PLATE ASSEM - 800PRO | 1 |
| 3 | 51-3382 | DRUM TO SPACER GASKET - 800 | 1 |
| 4 | 51-3383 | DRUM TO DRIVE SPACER - 800 | 1 |
| 5 | 12-1670 | WASHER, LOCK M16 ZINC | 4 |
| 6 | 12-1600-120 | SOCKET HEAD CAP SCREW - M16X120 - ZINC | 4 |
| 7 | 13-0714 | M10 X16 SS DOWEL PIN 3 | 3 |



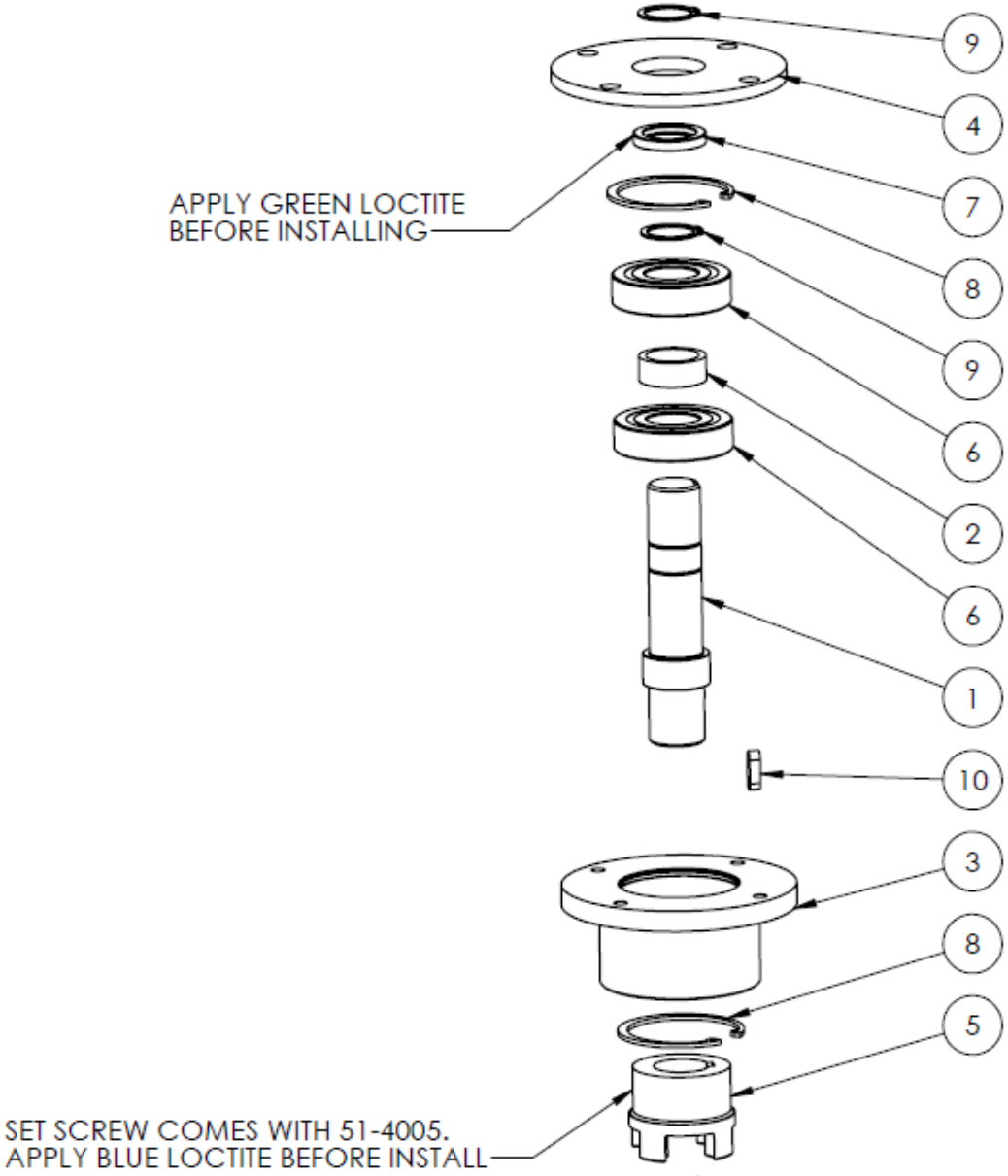
## 96-0753 - DRUM MOUNT PLATE ASSEM - 800PRO - A

| ITEM NO. | Part Number | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 51-3406 | TRANSFER BASE PLATE 800PRO | 1 |
| 2 | 96-0790 | TRANSFER SHAFT SUB ASSEMBLY 800PRO | 1 |
| 3 | 51-3407 | STANCHION CLUTCH BOX 800PRO | 4 |
| 4 | 51-3408 | CLUTCH BOX REAR COVER 800PRO | 1 |
| 5 | 51-3409 | STANCHION, FRONT CLUTCH BOX 800PRO | 1 |
| 6 | 13-0709 | BUSHING 40MM - SK 650PRO AND 800PRO | 1 |
| 7 | 13-0718 | SHEAVE, 4/3V 1060 800PRO | 1 |
| 8 | 13-0719 | KEY M12-8X40 PARALLEL 650PRO | 1 |
| 9 | 12-1220-50 | HEX HEAD CAP SCREW - M12X50 - ZINC | 4 |
| 10 | 12-1220-90 | HEX HEAD CAP SCREW - M12X90 - ZINC | 2 |
| 11 | 12-1080-30 | FLAT HEAD - M10X30 - ZINC | 5 |
| 12 | 12-0660-12 | SERRATED - M6X12 - ZINC | 4 |
| 13 | 12-1240 | LOCKNUT - M12 - ZINC | 8 |



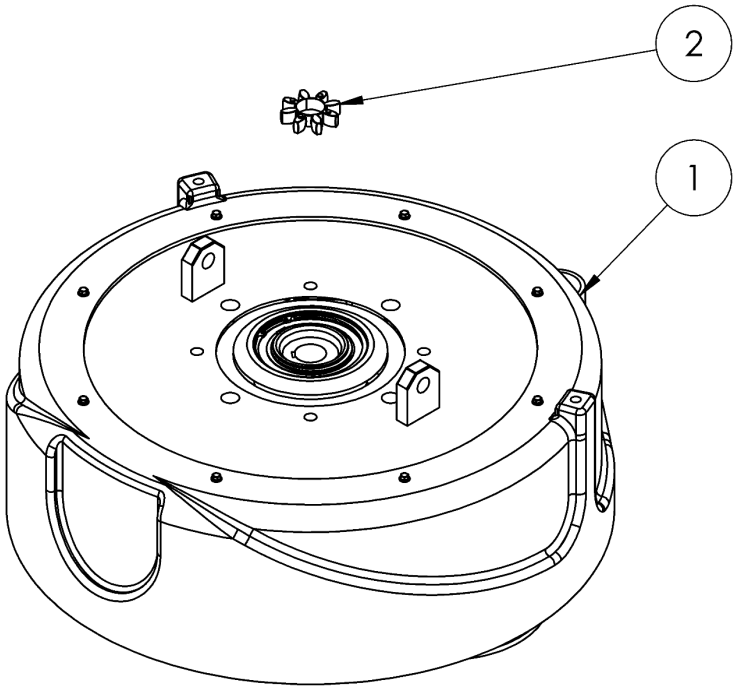
## 96-0790 - TRANSFER SHAFT SUB ASSEMBLY - 800PRO - B

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 51-3405 | TRANSFER SHAFT 800PRO | 1 |
| 2 | 51-3401 | ID SPACER 650PRO 850PRO | 1 |
| 3 | 51-3402 | BEARING HOUSING, PRIMARY 650PRO 850PRO | 1 |
| 4 | 51-3403 | SEAL PLATE 650PRO 850PRO | 1 |
| 5 | 51-4005 | COUPLER, CJ38/45 LOVEJOY MOD - 800 | 1 |
| 6 | 13-3321 | BEARING, BALL, 6308-2RS 650PRO 850PRO | 2 |
| 7 | 13-3322 | SEAL, ROTARY SHAFT M40 X M55 650PRO 850PRO | 1 |
| 8 | 13-3323 | RING, INTERNAL M90 650PRO 850PRO | 2 |
| 9 | 13-3324 | RING, EXTERNAL M40 650PRO 850PRO | 2 |
| 10 | 13-3325 | KEY M12-8X30 PARALLEL - 800 | 1 |



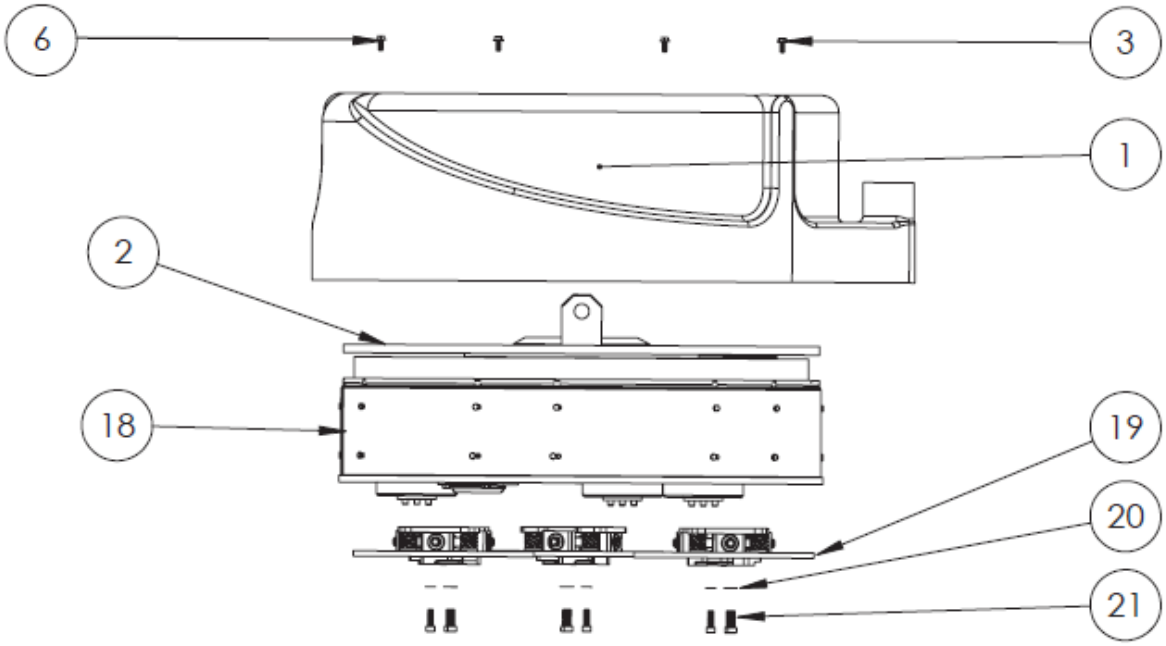
## 96-0751 - DRUM ASSEMBLY – 800

| ITEM NO. | Part Number | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 96-0751 - DRUM | DRUM ASSEMBLY | 1 |
| 2 | 13-0712 | SPIDER CJ38-45 LOVEJOY RED - 800 | 1 |



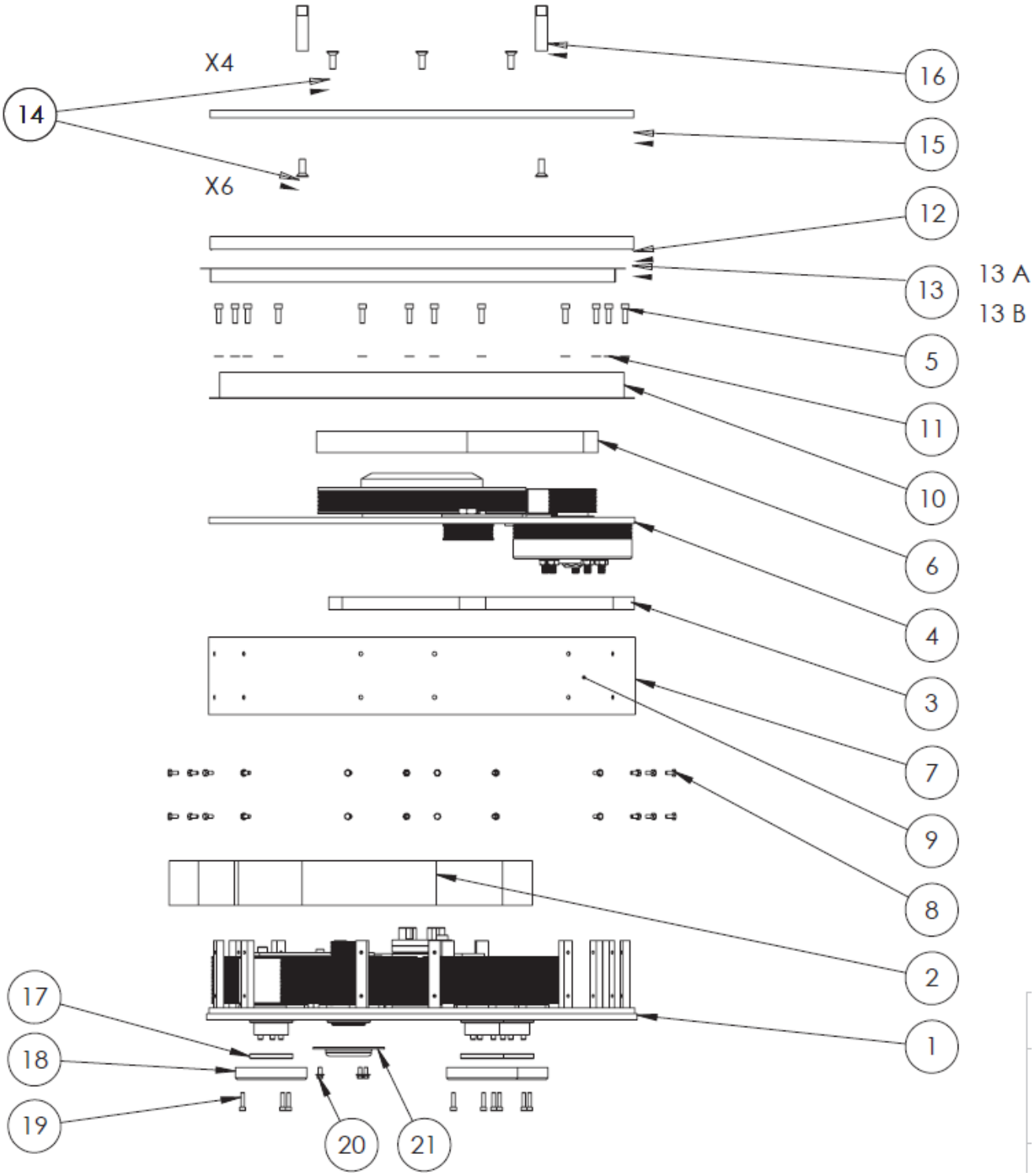
## DRUM – DRUM ASSEMBLY - 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.80066.00 | SHROUD, MOLDED VACUUM | 1 |
| 2 | BG.20249.00 | RUBBER, EPDM GASKET | 8ft |
| 3 | 12-0660-16 | SCREW, FLANGED HEX HEAD CAP M6 -1.0 X 16 | 6 |
| 6 | 12-0660-25 | SCREW, FLANGED HEX HEAD CAP M6 -1.0 X 25(FRONT 2 IN LIGHT BRACKETS) | 2 |
| 18 | BG.80210.01 | **DRUM, COMPLETE** | **1** |
| **19** | BG.8A010.00 | **FLEX HEAD, COMPLETE WITH REDSPRING** | **3** |
| 20 | 12-0870 | WASHER, LOCK M8 Z NC | 9 |
| 21 | 12-0800-20 | SCREW, SOCKET HEAD CAP M8-1.25 X 20 | 9 |



## COMPLETE DRUM - 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| **1** | | **Bottom Plate Assembled** | **1** |
| 2 | BG.80039.00 | BELT, MAIN PK21 M75 X 3046 OC BOTTOM | 1 |
| 3 | BG.80040.00 | BELT, PTO PK6 M11 X 1310 OC MIDDLE | 1 |
| **4** | | **Top Plate Assembled** | **1** |
| 5 A | 12-0800-25 | SCREW, SOCKET HEAD CAP M8-1.25 X 25 12.9 ZINC | 3 |
| 5 B | 12-0820-25 | SCREW, HEX HEAD M8-1.25 X 25 12.9 ZINC | 12 |
| 6 | BG.80041.00 | BELT, TOP PK10 M35 X 1460 OC | 1 |
| 7 | BG.80044.02 | SHROUD, BOTTOM BELT 3PC DESIGN DUST | 3 |
| 8 | 12-0620-12 | SCREW, HEX M6 - 1.0 X 12 | 24 |
| 9 | BG.20287.00 | TAPE, PRESERVATION HEAT SHRINK 3" WHITE | 24ft |
| 10 | BG.80043.01 | SHROUD, TOP BELT DUST V-RING TYPE | 1 |
| 11 | DG.1327 | WASHER, LOCK INTERNAL TOOTH M8 ZINC | 12 |
| 12 | BG.80072.50 | SEAL, RUBBER V RING | 1 |
| 13 | BG.80043.11 | POSITIONER, SEAL V-RING TYPE | 2 |
| 13 A | 12-0560-8 | SCREW, HEX FLANGED HEAD M5 - 0.8 X 8 ZINC | 1 |
| 13 B | 12-0540 | NUT, NYLOC M5 ZINCED | 1 |
| 14 | 12-1080-30 | SCREW, SOCKET FLAT HEAD CAP M10-1.5 X 30 | 10 |
| 15 | BG.80042.01 | PLATE, STATIONARY | 1 |
| 16 | BG.80046.00 | EAR, DRUM MOUNTING | 2 |
| 17 | BG.20286.02 | SEAL, AXLE NITRILE AL. SLURRY COVERS | 3 |
| 18 | BG.20285.02 | COVER, PLANETARY SLURRY ALUMINUM | 3 |
| 19 | 12-0600-25 | SCREW, SOCKET HEAD CAP M6-1.0 X 25 (Aluminum covers) | 9 |
| 20 | 12-0660-12 | SCREW, FLANGED HEX HEAD CAP M6 -1.0 X 12 (PTO cover) | 3 |
| 21 | BG.20284.00 | COVER, PTO SLURRY | 1 |
| **NOT PICTURED** | | | |
| 2 | BG.80039.00 | Tension to 75-85 Hz, read Hz along the longest span of belt. | 1 |
| 3 | BG.80040.00 | Tension to 80-90 Hz, read Hz along the longest span of belt. | 1 |
| 5 | N/A | Red LocTite 263, NB.12.219 is used for the center 3 stancions, | 3 |
| 6 | BG.80041.00 | Tension to 145-155 Hz, read Hz along the longest span of belt. | 1 |
| 7 | BG.80044.00 | Butyl Flex added to 1 and 4 where 7 meets. | 1 |
| 8 | N/A | Red LocTite 263 | 24 |
| 9 | BG.20287.00 | Heat gun used to adhere | 24ft |
| 10 | BG.80043.00 | Butyl Flex added to bottom edge, where 4 meets | 1 |
| 12 | BG.80072.00 | Grease added to felt, Chemrex added to upper edge where 15 meets. | 1 |
| 14 | N/A | Red LocTite 263(10), torque 40 ft-lbf(6), Anti-seize added to countersink(4) | 10 |
| 17 | BG.20286.02 | Press into 18, Grease before installing. | 3 |
| 18 | BG.20285.02 | Silicone added where 1 meets | 3 |
| 19 | N/A | Red LocTite 263 | 9 |
| 20 | N/A | Red LocTite 263 | 3 |
| 21 | BG.20284.00 | Silicone added where 1 meets | 1 |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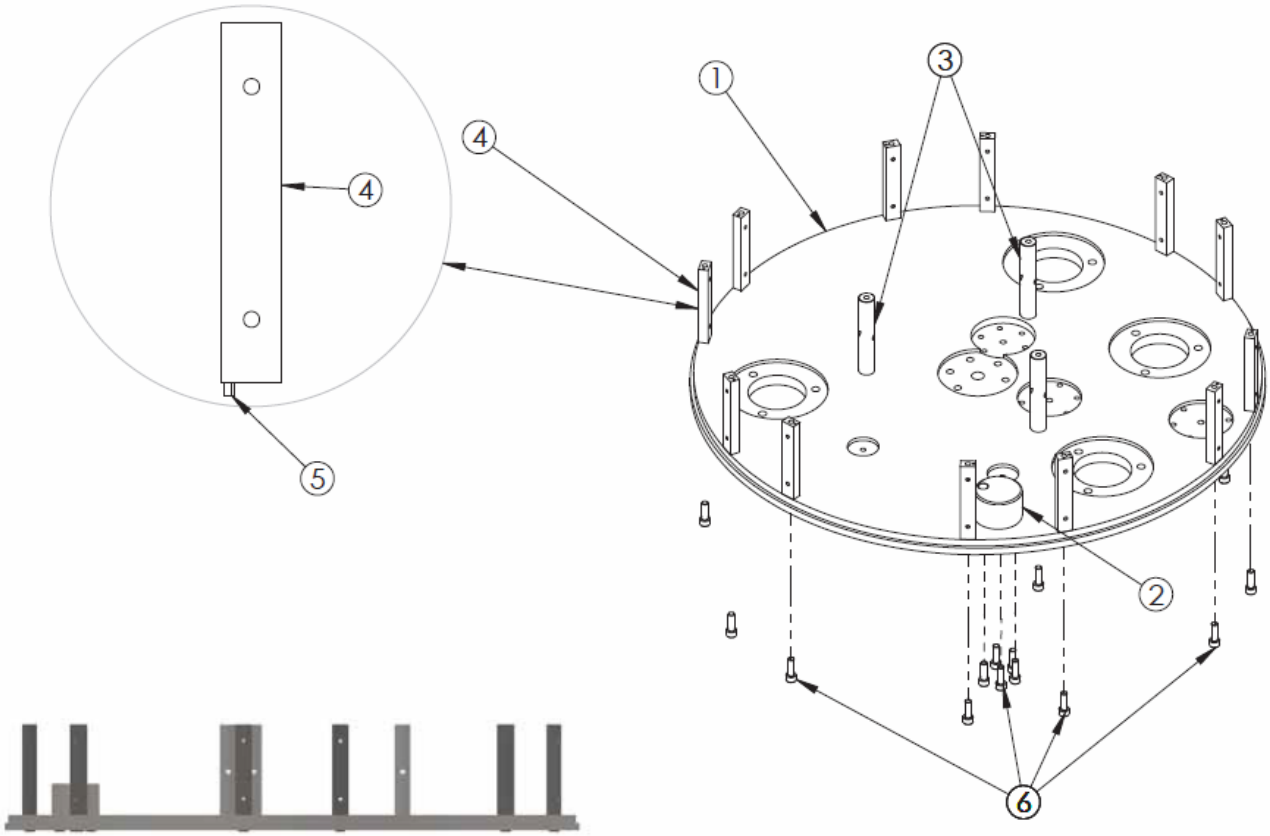
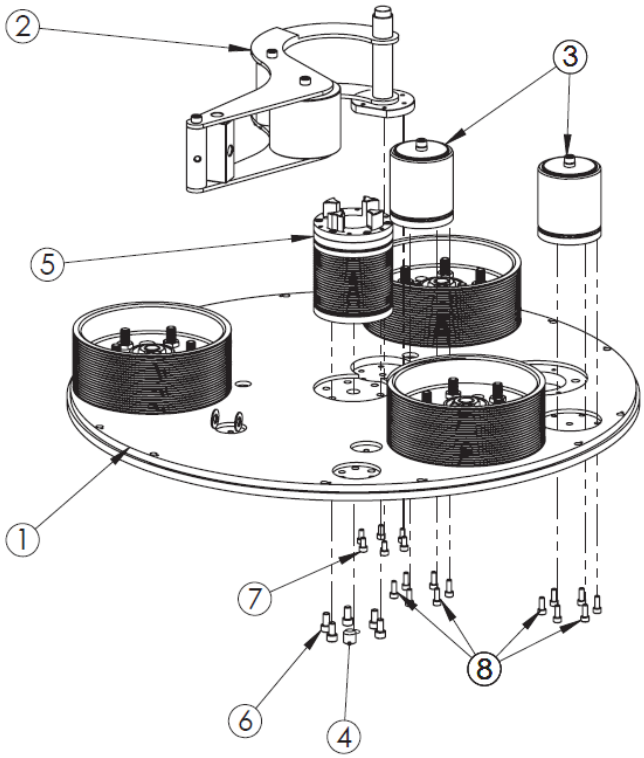
## BOTTOM DRUM I ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.80027.00 | PLATE, BOTTOM DRUM ALUMINUM | 1 |
| 2 | BG.80019.00 | POST, MAIN TENSIONER REACT | 1 |
| 3 | BG.80025.00 | STANCION, INNER | 3 |
| 4 | BG.80026.00 | STANCION, PERIMETER | 12 |
| 5 | NB.50.147 | PIN, SPIRAL M3 X 16 | 12 |
| 6 | 12-0800-25 | SCREW, SOCKET HEAD CAP M8-1.25 X 25 12.9 ZINC | 20 |
| **NOT PICTURED** | | | |
| 6 | N/A | Red LocT te 263 | 20 |



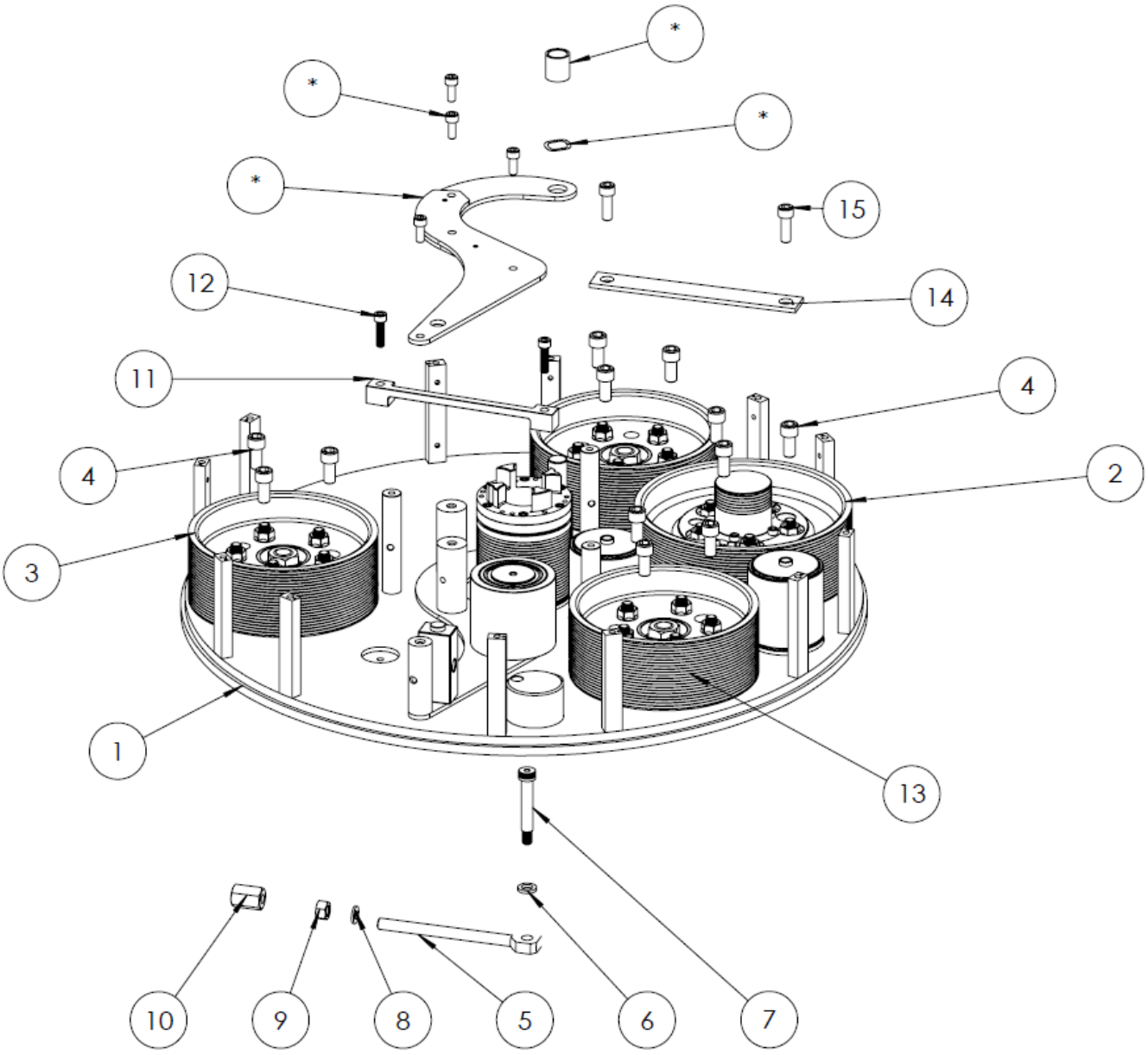
## BOTTOM DRUM II ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| **1** | | **Bottom Drum I Assembled** | **1** |
| **2** | BG.8A005.01 | **SUBASSEM, BELT TIGHTENER** | **1** |
| **3** | BG.8A006.02 | **SUBASSEM, MAIN BELT STEEL IDLER** | **2** |
| 4 | NB.18.140 | SET SCREW, M16-2.0 X 16 (Not used) | 0 |
| **5** | BG.8A007.50 | **SUBASSEM, MAIN BELT SPINDLE SPIDER REV 3** | **1** |
| 6 | 12-0800-16 | SCREW, SOCKET HEAD CAP M8-1.25 X 16 12.9 | 5 |
| 7 | 12-0600-12 | SCREW, SOCKET HEAD CAP M6 -1.0 X 12 ZINC | 6 |
| 8 | 12-0600-20 | SCREW, SOCKET HEAD CAP M6 -1.0 X 16 12.9 ZINC | 12 |
| **NOT PICTURED** | | | |
| 2 | N/A | Upper arm must be removed to install belt, then Red LocTite 263 is used. | 1 |
| 6 | N/A | Red LocT te 263 | 5 |
| 7 | N/A | Red LocT te 263 | 6 |
| 8 | N/A | Red LocT te 263 | 12 |



## BOTTOM DRUM III ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| **1** | | **Bottom Drum II Assembled** | **1** |
| **2** | BG.8A009.00 | **SUBASSEM, PTO** | **1** |
| **3** | BG.8A008.00 | **SUBASSEM, PLANETARY** | **3** |
| 4 | 12-1200-25 | SCREW, SOCKET HEAD CAP M12-1.75 X 25 12.9 ZINC | 12 |
| 5 | BG.20207.02 | ROD, MAIN BELT TENSIONER | 1 |
| 6 | BG.80064.00 | SPACER, ROD TIE DOWN | 1 |
| 7 | NB.15.251 | SCREW, SOCKET HEAD SHOULDER M12 X 60 | 1 |
| 8 | 12-1250 | WASHER, FLAT M12 ZINC | 2 |
| 9 | 12-1230 | NUT, HEXAGONAL M12-1.75 ZINC | 1 |
| 10 | NB.20.120 | NUT, TENSIONER M12 | 1 |
| 11 | BG.20208.00 | BAR, TENSIONER CONTROL | 1 |
| 12 | 12-0800-30 | SCREW, SOCKET HEAD CAP M8-1.25 X 30 | 2 |
| 13 | BG.80039.00 | BELT, MAIN | 1 |
| 14 | BG.80008.00 | LINK, IDLER REINFORCING | 1 |
| 15 | 12-1000-30 | SCREW, SOCKET HEAD CAP M10-1.5 X 30 12.9 ZINC | 2 |
| **NOT PICTURED** | | | |
| **2** | N/A | **Use Rubber Seal along the hub base where the hub meets the hole** | **1** |
| **3** | N/A | **Use Rubber Seal along the hub base where the hub meets the hole** | **3** |
| 4 | N/A | Red LocTite 263, torque 80 ft-lbf | 12 |
| 7 | N/A | Red LocTite 263 | 1 |
| 10 | N/A | Left loose until belt is at tension, then after belt is tensioned add Red LocTite 263 | 1 |
| 12 | N/A | Red LocTite 263 | 2 |
| 15 | N/A | Red LocTite 263, do not add, until belt is in place. | 2 |
| * | N/A | **Red LocTite 263, do not add, until belt is in place.** | * |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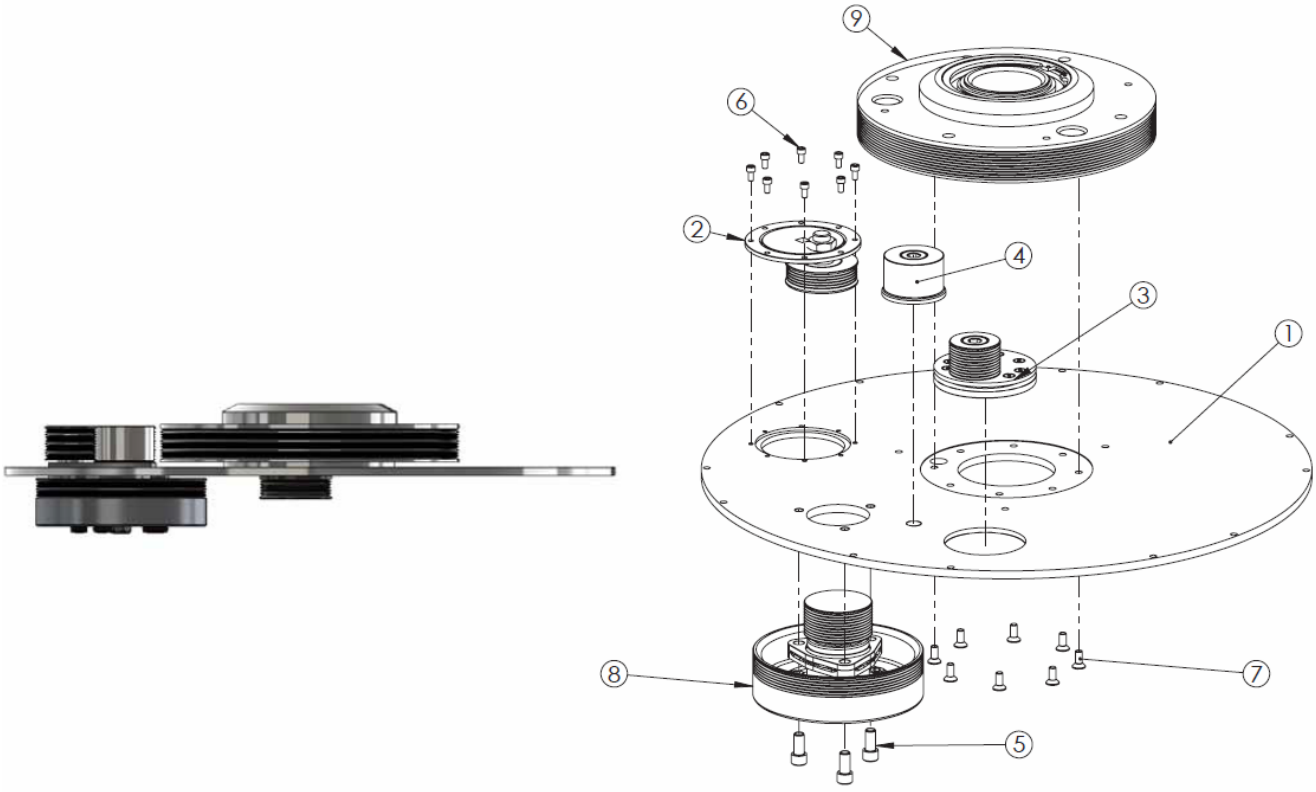
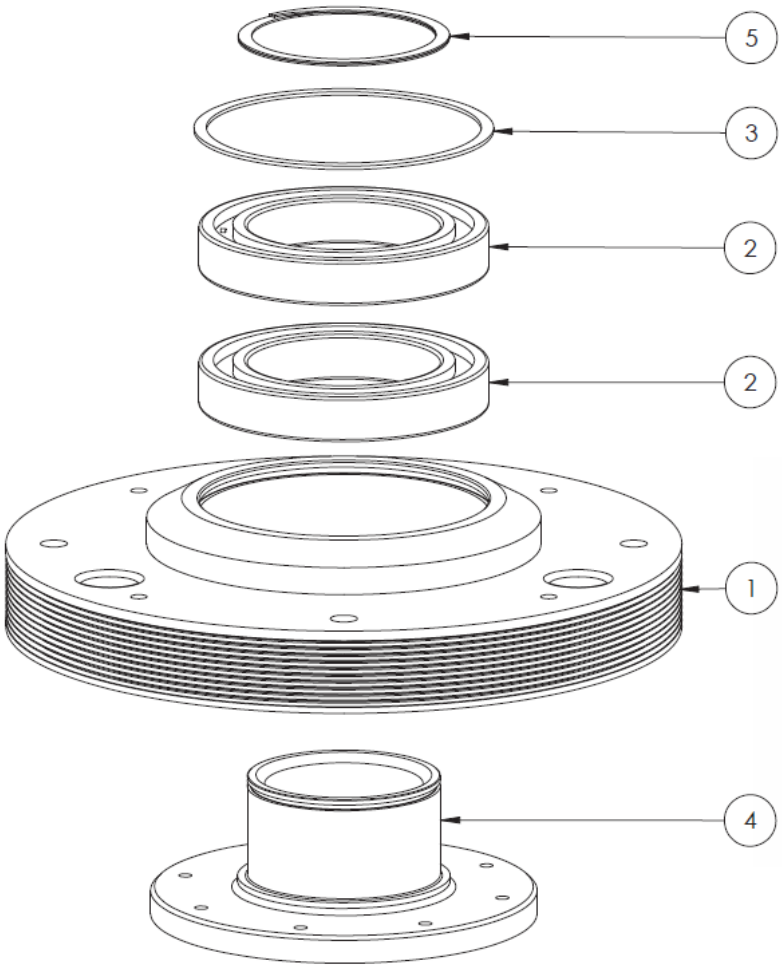
## TOP PLATE ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.80028.00 | PLATE, TOP Drum STEEL | 1 |
| **2** | BG.2A001.00 | **SUBASSEM, PTO TENSIONER** | **1** |
| **3** | BG.8A004.00 | **SUBASSEM, TOP TENSIONER** | **1** |
| **4** | BG.8A003.00 | **SUBASSEM, TOP BELT IDLER** | **1** |
| 5 | 12-1200-30 | SCREW, SOCKET HEAD CAP M12-1.75 X 30 12.9 ZINC | 3 |
| 6 | 12-0600-12 | SCREW, SOCKET HEAD CAP M6 -1.0 X 12 ZINC | 8 |
| 7 | 12-0880-20 | SCREW, FLAT HEAD SOCKET CAP M8 -1.25 X 20 | 8 |
| **8** | BG.8A002.00 | **SUBASSEM, INTERMEDIATE SHEAVE** | **1** |
| **9** | BG.8A001.00 | **SUBASSEM, DRUM SHEAVE** | **1** |
| **NOT PICTURED** | | | |
| **3** | BG.8A004.00 | **Lower plate removed, and added to opposite side of top plate. Large bolt: Red LocTite 263, torque 80 ft-lbf.<br>Small bolts: left loose, until belt is tensioned. Then blue loctite, Torque to 9 ft-lbf (107 in-lbs)** | **1** |
| **4** | BG.8A003.00 | **Large bolt: Red LocTite 263, torque 80 ft-lbf** | **1** |
| 5 | 12-1200-30 | Red LocT te 263, torque 80 ft-lbf | 3 |
| 6 | NB.12.108 | Left loose, unt l belt s tens oned. Then blue loct te, Torque to 12 ft-lbf (144 n-lbf) | 8 |
| 7 | 12-0880-20 | Red LocT te 263, torque 35 ft-lbf | 8 |
| **8** | BG.8A002.00 | **Place spacer flat on top plate, with chamfer exposed. Install sheave, carefully line up bolt pattern. Now install #5 use specs above. Insert axle, red LocTite 263, torque NB20108 to 150 ft-lbf** | **1** |



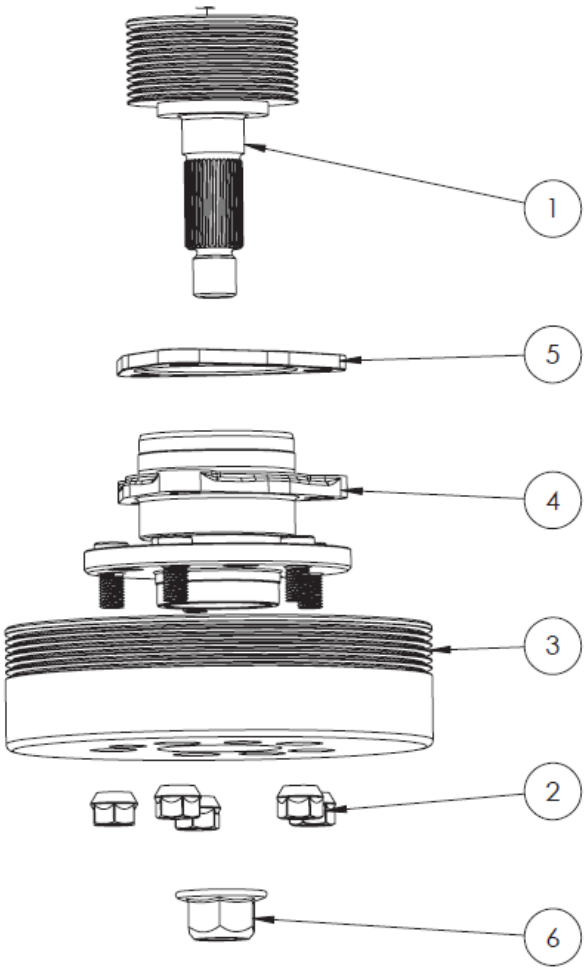
## DRUM SHEAVE ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.80029.60 | Sheave, Stationary DRUM | 1 |
| 2 | BG.20250.00 | BEARING, 6020-2RS | 2 |
| 3 | NB.40.131 | RING, INTERNAL RETAINING M150 | 1 |
| 4 | BG.80032.50 | SPINDLE, DRUM | 1 |
| 5 | NB.40.133 | RING, EXTERNAL RETAINING M100 | 1 |
| | BG.8A001.00 | **SUBASSEM, DRUM SHEAVE** | **1** |
| **NOT PICTURED** | | | |
| 2 | BG.20250.00 | Green LocT te 609, nner and outter, where contacts sp ndle/sheave. | 2 |
| 3 | NB.40.131 | Make sure the snap ring seats | 1 |
| 5 | NB.40.133 | Make sure the snap ring seats | 1 |



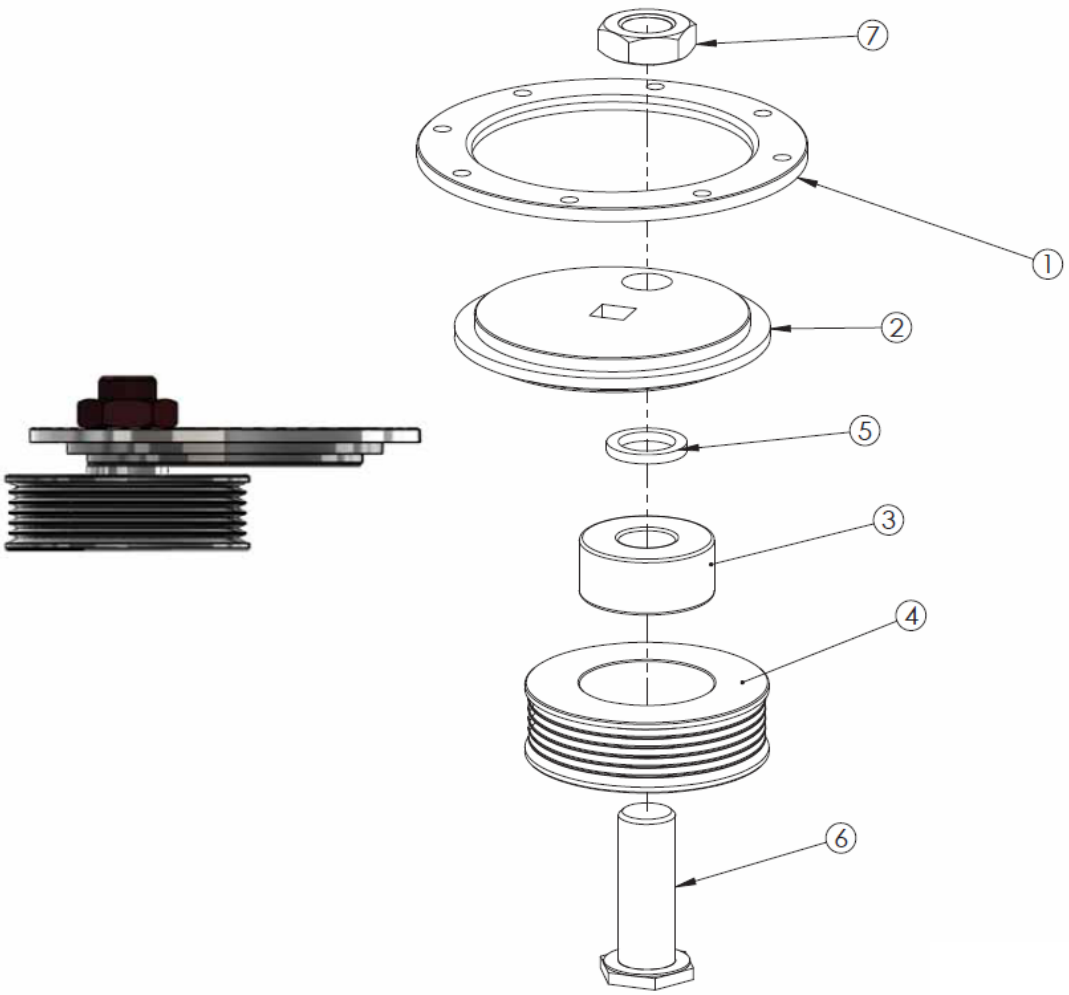
## INTERMEDIATE ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.80033.00 | AXLE, INTERMEDIATE | 1 |
| 2 | NB.20.107 | LUGNUT, M12-1.5 | 5 |
| 3 | BG.80034.01 | SHEAVE, INTERMEDIATE RED | 1 |
| 4 | BG.20201.00 | HUB | 1 |
| 5 | BG.20209.00 | SPACER, PTO HUB | 1 |
| 6 | 12-2060 | NUT, HEX FLANGE M20-2.5 | 1 |
| | BG.8A002.00 | **SUBASSEM, INTERMEDIATE SHEAVE** | **1** |
| **NOT PICTURED** | | | |
| 2 | N/A | Red LocT te 263, torque 60 ft-lbf. | 5 |
| 3 | N/A | Press onto hub(#4) | 1 |
| 1/5/6 | N/A | These parts left loose n subassembly. Dur ng top plate assembly torque and loct te. | 1/1/1 |



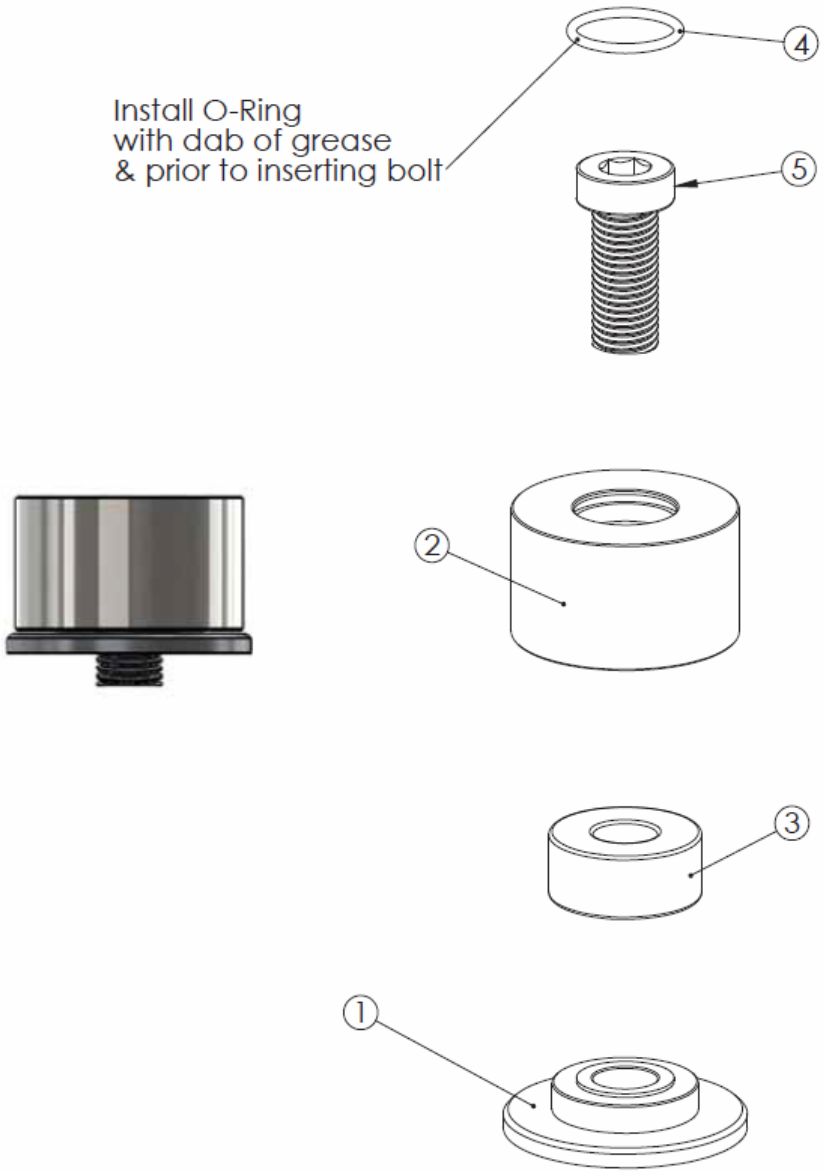
## PTO TENSIONER ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.20203.00 | CLAMP, PTO TENSIONER | 1 |
| 2 | BG.20204.00 | PLATE, PTO TENSIONER | 1 |
| 3 | BG.20220.00 | BEARING, 3204-2RS | 1 |
| 4 | BG.20212.00 | IDLER, PTO TENSIONER | 1 |
| 5 | BG.20211.00 | SPACER, PTO TENSIONER IDLER | 1 |
| 6 | BG.20214.00 | SCREW, HEX HEAD MODIFIED M20-2.5 X 55 | 1 |
| 7 | 12-2040 | NUT, JAM M20 - 2.5 | 1 |
| | BG.2A001.00 | **SUBASSEM, PTO TENSIONER** | **1** |
| **NOT PICTURED** | | | |
| 6 | N/A | Red LocT te 263 for contact w th #2, Torque 80 ft-lbf. | 1 |
| 7 | N/A | Then, Red LocT te 263 on #6 for #7. Capture #6; Torque #7 to 80 ft-lbf. | 1 |



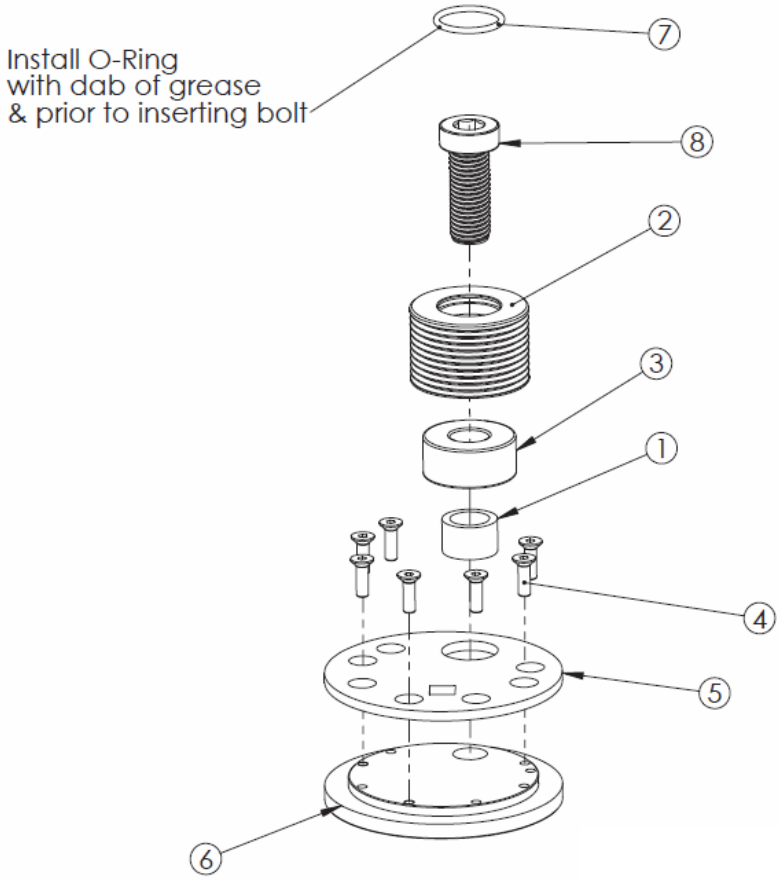
## TOP IDLER ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.80038.00 | BASE, TOP BELT IDLER | 1 |
| 2 | BG.80037.00 | IDLER, TOP BELT | 1 |
| 3 | BG.20220.00 | BEARING, 3204-2RS | 1 |
| 4 | BG.20215.00 | O-RING, M30 | 1 |
| 5 | BG.80078.00 | SCREW, MODIFIED SOCKET HEAD M20-2.5 X 46.8 | 1 |
| | BG.8A003.00 | **SUBASSEM, TOP BELT IDLER** | **1** |
| **NOT PICTURED** | | | |
| 4 | N/A | Grease used w th th s part. | 1 |



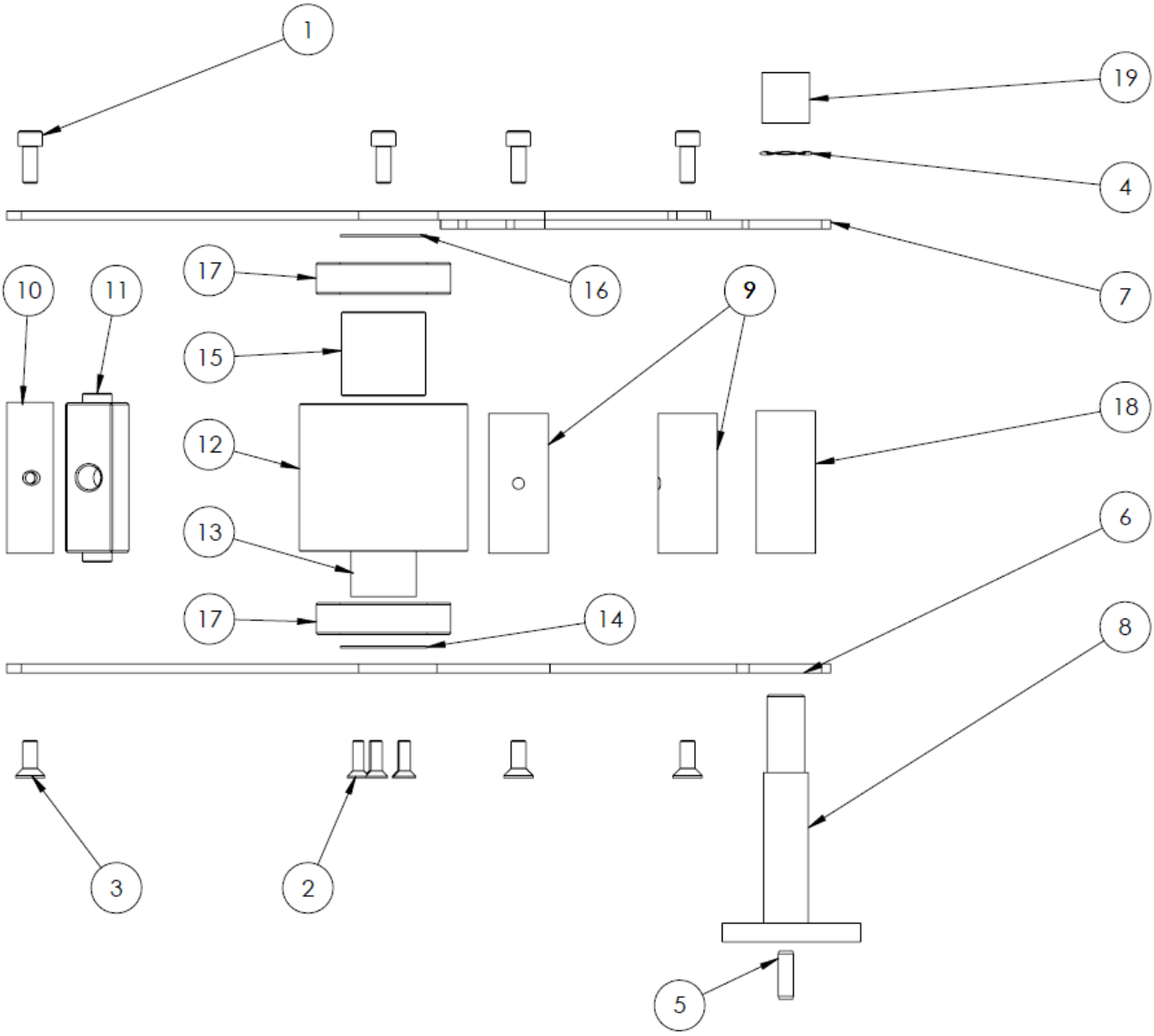
## TOP TENSIONER ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.20210.00 | SPACER, TOP BELT TENSIONER IDLER | 1 |
| 2 | BG.80035.00 | IDLER, TOP BELT TENSIONER | 1 |
| 3 | BG.20220.00 | BEARING, 3204-2RS | 1 |
| 4 | 12-0680-20 | SCREW, FLAT HEAD SOCKET CAP M6 -1.0 X 20 | 7 |
| 5 | BG.20206.50 | CLAMP, TOP BELT TENSIONER | 1 |
| 6 | BG.20205.50 | PLATE, BELT TENSIONER | 1 |
| 7 | BG.20215.00 | O-RING, M30 | 1 |
| 8 | NB.12.263 | SCREW, LOW SOCKET HEAD CAP M20-2.5 X 50 | 1 |
| | BG.8A004.00 | **SUBASSEM, TOP TENSIONER** | **1** |
| **NOT PICTURED** | | | |
| 4 | N/A | Assembled loose. Blue LocT te 242 used when top belt s tens oned correctly | 7 |
| 7 | N/A | Grease used w th th s part. | 1 |
| 8 | N/A | Assembled loose. Red LocT te 263 used & torque 80 ft-lbf; after added to top plate. | 1 |



## MAIN BELT TIGHTENER ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 12-0800-20 | SCREW, SOCKET HEAD CAP M8-1.25 X 20 | 4 |
| 2 | 12-0680-20 | SCREW, FLAT HEAD TORX SOCKET CAP M6 -1.0 X 20 | 5 |
| **3** | 12-0880-20 | SCREW, FLAT HEAD SOCKET CAP M8 -1.25 X 20 | 3 |
| 4 | NB.30.128 | WASHER, FINGER DISC SPRING 20MM | 1 |
| 5 | NB.50.143 | PIN, HARDENED M8 X 26 | 1 |
| 6 | BG.80012.03 | ARM, LOWER TENSIONER 6207 BEARING | 1 |
| 7 | BG.80013.03 | ARM, UPPER TENSIONER 6207 BEARING | 1 |
| 8 | BG.80014.02 | PIVOT, MAIN BELT TENSIONER 6207 BEARING | 1 |
| 9 | BG.80015.02 | STANCION, MAIN TENSIONER HEAVY 6207 BEARING | 2 |
| 10 | BG.80016.00 | SPACER, MAIN TENSIONER | 1 |
| 11 | BG.80017.00 | GRUDGEON, TENSIONER | 1 |
| 12 | BG.80020.01 | IDLER, MAIN TENSIONER 6207 BEARING | 1 |
| 13 | BG.80021.02 | SPINDLE, MAIN TENSIONER 6207 BEARING | 1 |
| 14 | BG.80022.01 | SPACER, LOWER TENSIONER SPINDLE 6207 BEARING | 1 |
| 15 | BG.80063.00 | SPACER, MAIN BELT TENSIONER BEARING 6207 BEARING | 1 |
| 16 | BG.80023.03 | SPACER, UPPER TENSIONER SPINDLE 6207 BEARING | 1 |
| 17 | BG.80047.00 | BEARING, NACHI 6207-2NSE | 2 |
| 18 | BG.80105.02 | TUBE, TIGHTENER SPACER LOWER 6207 BEARING | 1 |
| 19 | BG.80105.03 | TUBE, TIGHTENER SPACER UPPER 6207 BEARING | 1 |
| | BG.8A005.01 | **SUBASSEM, BELT TIGHTENER 6207 BEARING** | **1** |
| **NOT PICTURED** | | | |
| 1 | N/A | Leave loose, no LocTite, finished in bottom drum assembly. | 4 |
| 2 | N/A | Red LocTite 263 | 5 |
| 3 | N/A | Red LocTite 263 | 3 |
| 5 | N/A | Green LocTite 609 | 1 |


1
19
4
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16
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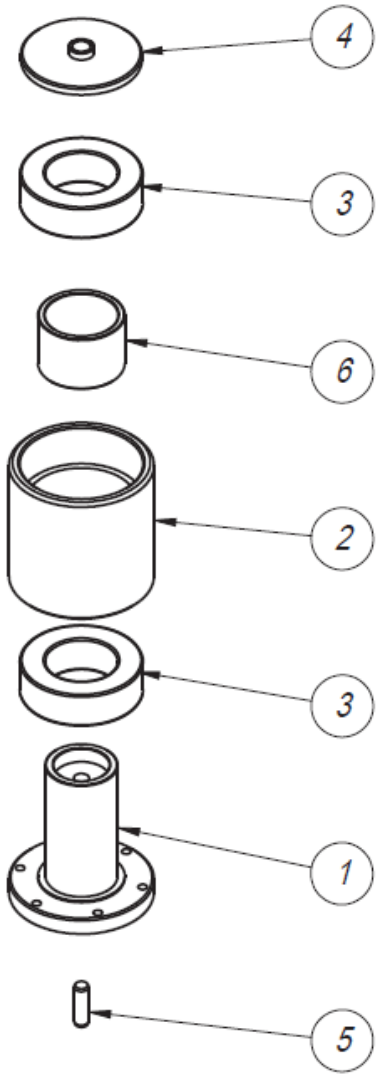
2
5

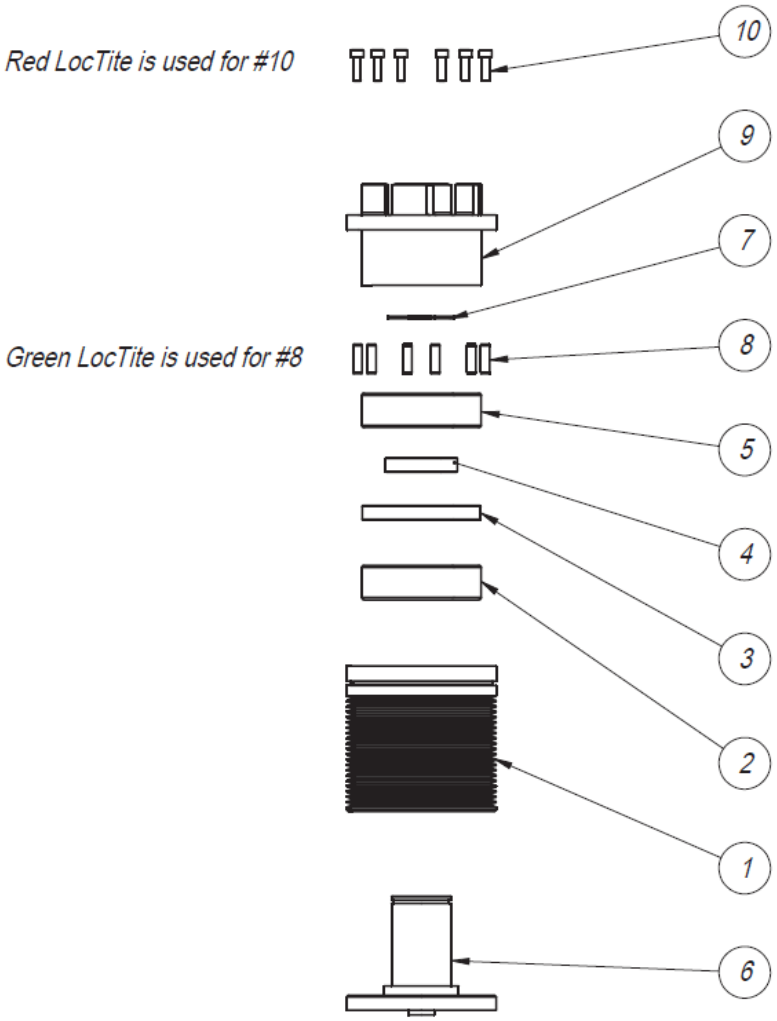
## MAIN IDLER ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.80011.01 | SPINDLE, MAIN BELT IDLER 6207 | 1 |
| 2 | BG.80010.02 | IDLER, **STEEL** MAIN BELT 6207 | 1 |
| 3 | BG.80047.00 | BEARING, 63008-2RS | 2 |
| 4 | BG.80009.01 | RETAINER, IDLER BEARING 6207 | 1 |
| 5 | NB.50.143 | PIN, HARDENED M8 X 26 | 1 |
| 6 | BG.80114.01 | SPACER, MAIN BELT IDLER BEARING 6207 | 1 |
| | BG.8A006.02 | **SUBASSEM, MAIN BELT IDLER 6207** | **1** |



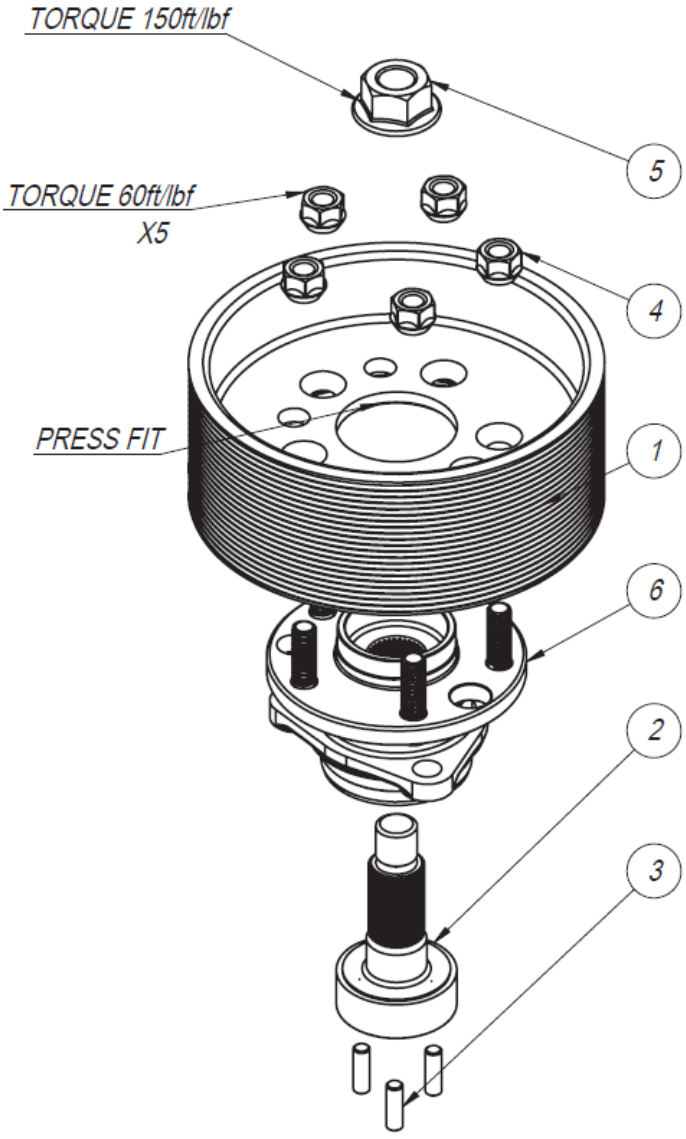
## MAIN SPINDLE ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.80002.50 | SHEAVE, MAIN DRIVE REV 3 | 1 |
| 2 & 5 | BG.20218.00 | BEARING, 62208-2RS | 2 |
| 3 | BG.80003.00 | SPACER, OUTER MAIN BEARING | 1 |
| 4 | BG.80004.00 | SPACER, INNER MAIN BEARING | 1 |
| 6 | BG.80005.50 | SPINDLE, MAIN BEARING REV 2 | 1 |
| 7 | NB.40.110 | RING, EXTERNAL RETAINING M40 | 1 |
| 8 | NB.50.138 | PIN, CYLINDER M5 x 20 | 6 |
| 9 | BG.80002.53 | CAP, MAIN DRIVE COUPLER SHEAVE | 1 |
| 10 | 12-0500-16 | SCREW, SOCKET HEAD CAP M5 -0.8 X 16 | 6 |
| | BG.8A007.50 | **SUBASSEM, MAIN BELT SPINDLE SPIDER REV 3** | **1** |
| **NOT PICTURED** | | | |
| Ÿ | N/A | TOOL Used as a spacer when press ng #9 | 3 |
| 8 | N/A | Green LocT te 609 | 6 |
| 10 | N/A | Red LocT te 263 | 6 |



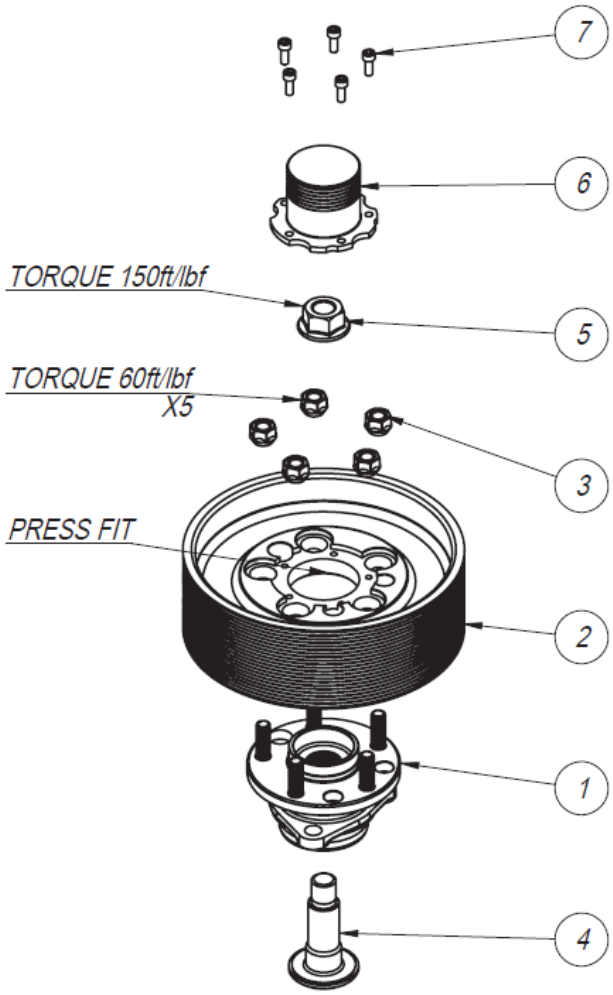
## PLANATARY ASSEMBLY – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.80001.01 | SHEAVE, PLANETARY RED | 1 |
| 2 | BG.20200.00 | AXLE, PLANETARY 40MM | 1 |
| 3 | NB.50.143 | PIN, HARDENED M8 X 26 | 3 |
| 4 | NB.20.107 | NUT, LUG M12-1.5 | 5 |
| 5 | 12-2060 | NUT, HEX FLANGE M20-2.5 | 1 |
| 6 | BG.20201.00 | HUB | 1 |
| | BG.8A008.00 | **SUBASSEM, PLANETARY** | **1** |
| **NOT PICTURED** | | | |
| 4 | N/A | Red LocT te 263, torque 60 ft-lbf | 5 |
| 5 | N/A | Red LocT te 263, torque 150 ft-lbf | 1 |



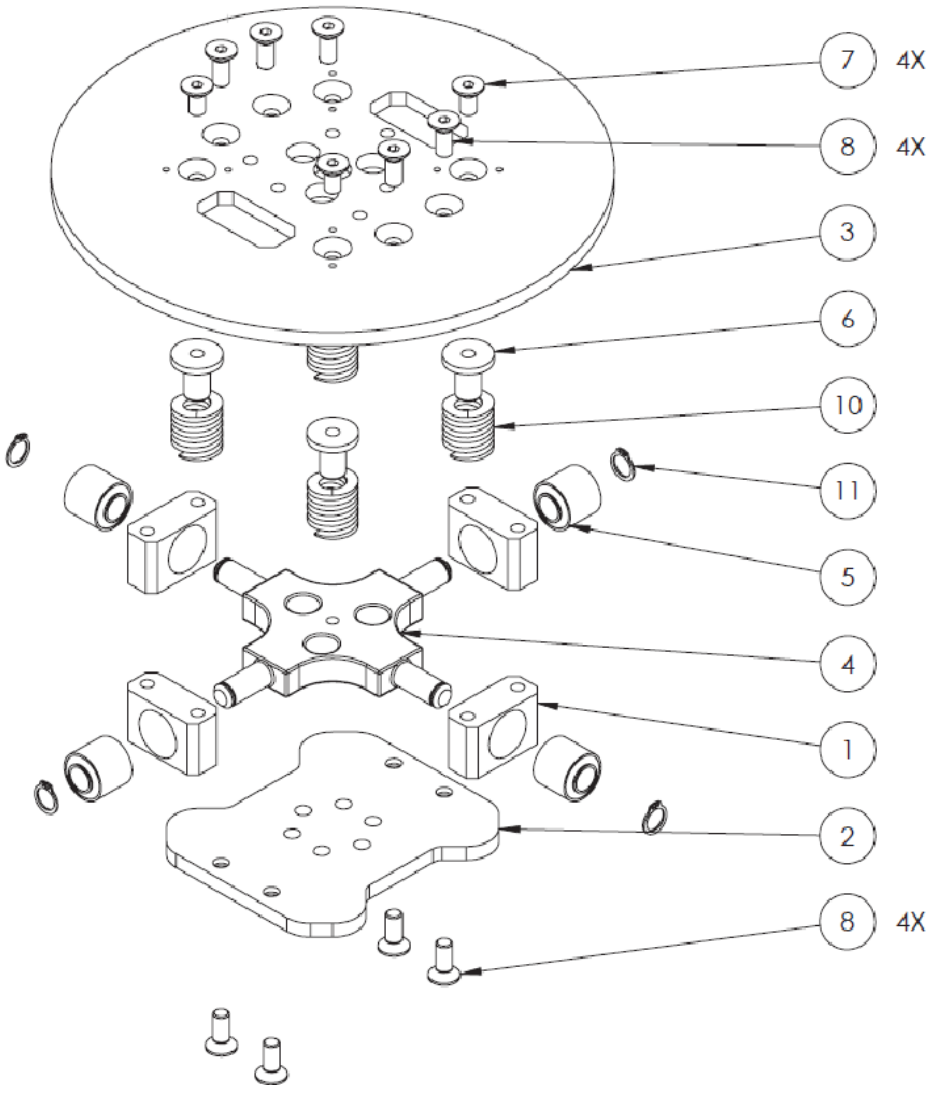
## POWER TAKE OFF (PTO) – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.20201.00 | HUB | 1 |
| 2 | BG.80007.02 | SHEAVE, PTO HUB V3 RED | 1 |
| 3 | NB.20.107 | Lugnut, M12-1.5 | 5 |
| 4 | BG.20202.00 | AXLE, PTO | 1 |
| 5 | 12-2060 | NUT, HEX FLANGE M20-2.5 | 1 |
| 6 | BG.80006.50 | SHEAVE, PTO DRIVE V2 YELLOW | 1 |
| 7 | 12-0600-20 | SCREW, SOCKET HEAD CAP M6 -1.0 X 16 12.9 | 5 |
| | BG.8A009.00 | **SUBASSEM, PTO** | **1** |
| **NOT PICTURED** | | | |
| 3 | N/A | Red LocT te 263, torque 60 ft-lbf | 5 |
| 5 | N/A | Red LocT te 263, torque 150 ft-lbf | 1 |
| 7 | N/A | Red LocT te 263 | 5 |



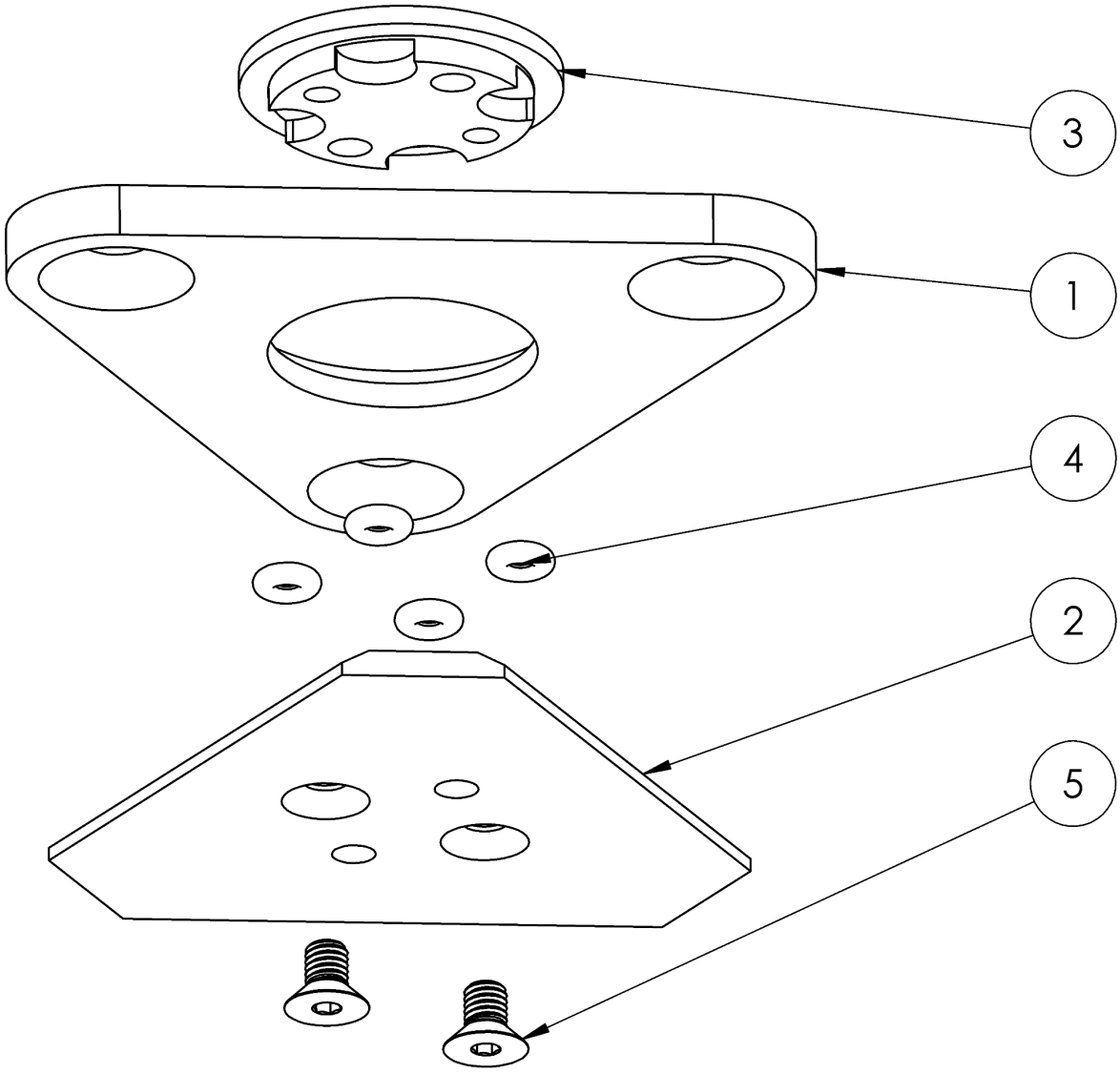
## FLEX HEAD – 800

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | BG.20103.00 | YOKE, SUSPENSION | 4 |
| 2 | BG.20100.50 | PLATE, DRIVING (Rev) | 1 |
| 3 | BG.20101.25 | PLATE, DRIVEN (QM) | 1 |
| 4 | BG.20102.01 | ELEMENT, CENTER STUDDED | 1 |
| 5 | BG.20109.00 | BUSHING, YOKE | 4 |
| 6 | BG.20106.25 | POST, SPRING | 4 |
| 7 | 12-0880-16 | SCREW, FLAT HEAD SOCKET CAP M8-1.25 X 16 | 7 |
| 8 | 12-0880-20 | SCREW, FLAT HEAD SOCKET CAP M8 -1.25 X 20 | 8 |
| 10 | BG.20106.51 | SPRING, DIE RED MEDIUM HARD | 4 |
| 11 | NB.40.113 | RING, EXTERNAL 1/2H | 4 |
| | BG.8A010.00 | **FLEX HEAD, COMPLETE WITH REDSPRING** | **1** |
| **NOT PICTURED** | | | |
| 7 | N/A | Red LocT te 263 | 7 |
| 8 | N/A | Red LocT te 263 | 8 |



## 96-0780 - TOOLING TRIANGLE ASSEMBLY – 800 - A

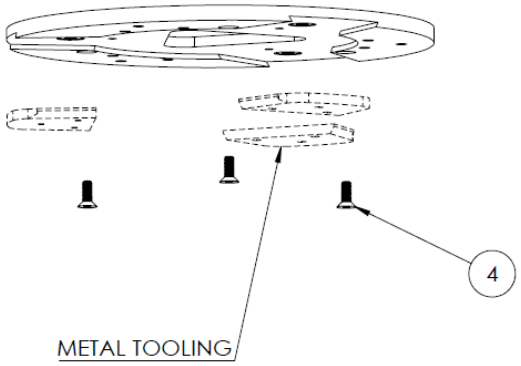
| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 51-3352 | TRIANGLE BASE 800 | 1 |
| 2 | 51-3346 | TRIANGLE HOLDER 800 | 1 |
| 3 | 51-0110 | TRIANGLE HOLDER CENTER ROTATOR | 1 |
| 4 | 13-0142 | O-RING (.125 ID X .313 OD X 0.94 W) | 4 |
| 5 | 12-0581-10 | FLAT HEAD - M5X10 -SS | 2 |



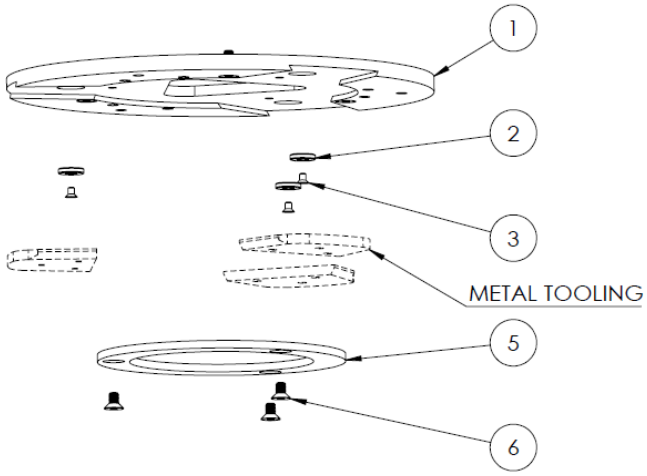
## 96-0781 - METAL TOOLING KIT – 800 - B

| ITEM NO. | PART NUMBER | DESCRIPTION | SLIDE IN QTY. | SLIDE IN WITH RING QTY. | BOLT ON QTY. |
|---|---|---|---|---|---|
| 1 | 51-3347 | TOOLING PLATE 800 | 1 | 1 | 1 |
| 2 | 13-0650 | METAL TOOLING MAGNET | 3 | 3 | 3 |
| 3 | 12-0481-06 | FLAT HEAD PHILLIPS SCREW – M4X6 - SS | 3 | 3 | 3 |
| 4 | 12-0680-16 | FLAT HEAD SOCKET SCREW – M6X16 - ZINC | 3 | 3 | 12 |
| 5 | 51-3348 | METAL TOOLING RING 800 | | 1 | |
| 6 | 12-0680-10 | FLAT HEAD SOCKET SCREW – M6X10 - ZINC | | 3 | |

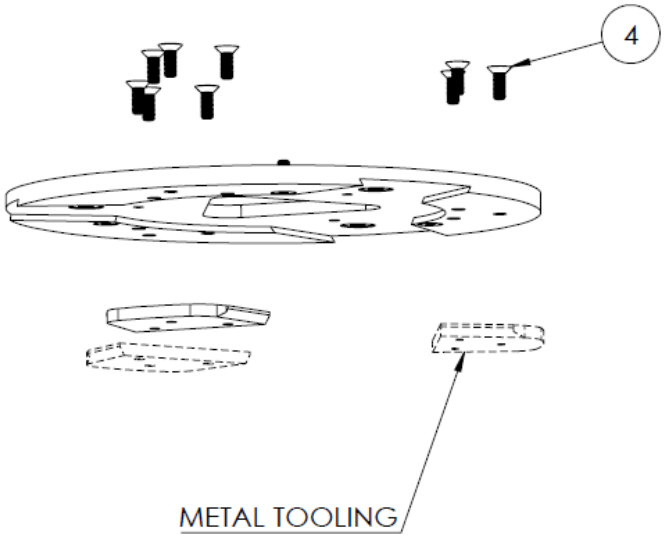
SLIDE IN TOOLING
(WITH TRANSPORT LOCKING SCREWS)




SLIDE IN TOOLING
(WITH LOCKING RING)

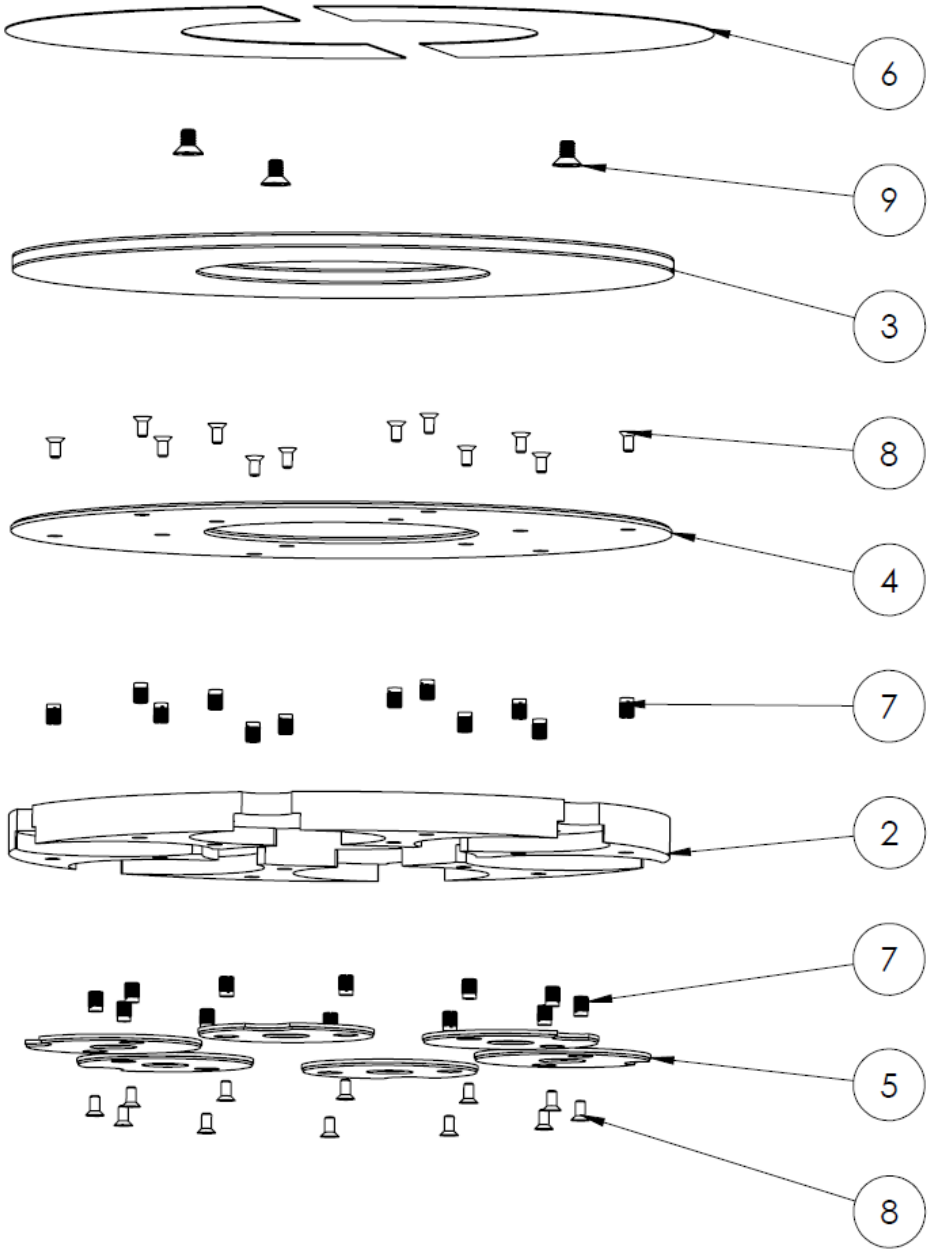



BOLT ON TOOLING



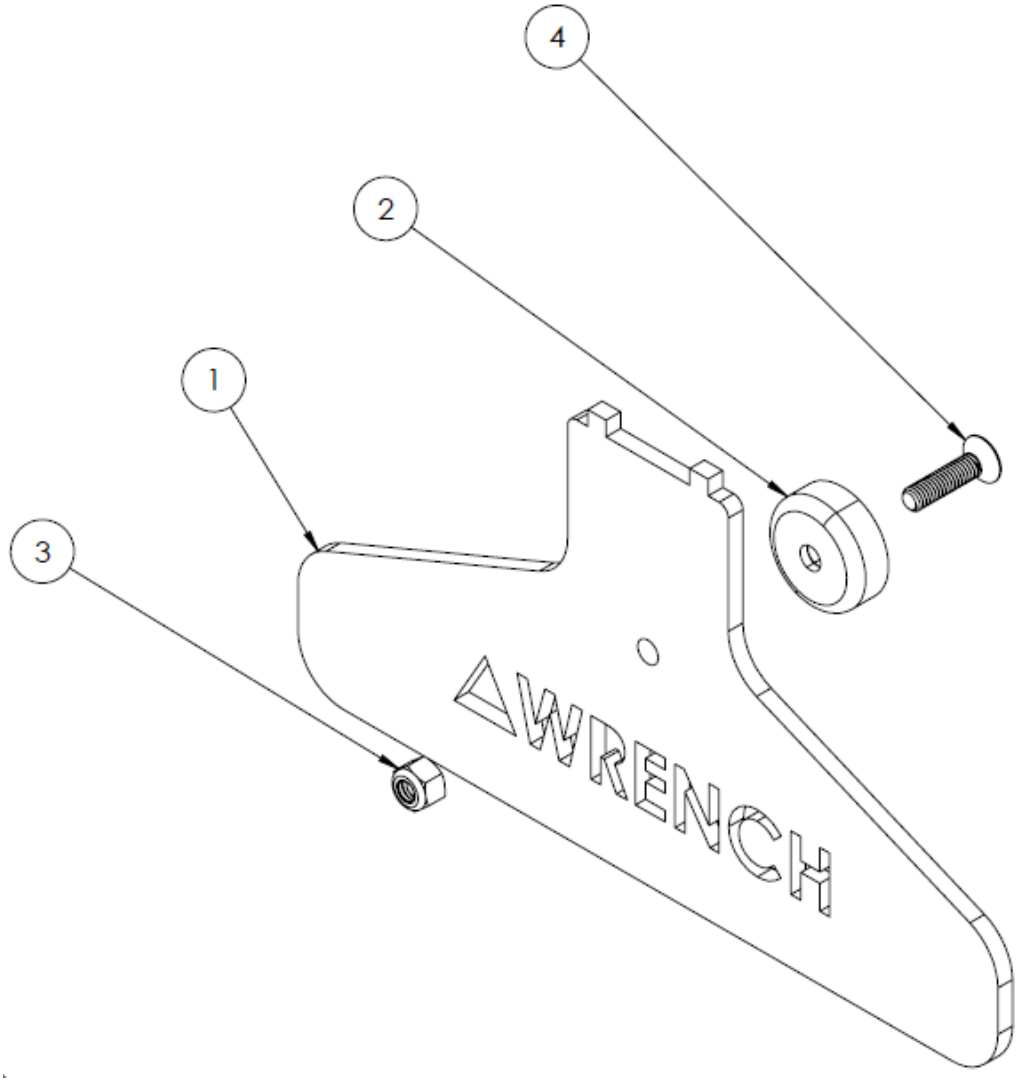
## 96-0782 RESIN TOOLING PLATE ASSEMBLY 3IN 800 – A

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 51-3349 | RESIN TOOLING PLATE 800 | 1 |
| 2 | 51-3350 | RESIN TOOLING HOLDER 800 | 1 |
| 3 | 13-0655 | FOAM RISER ASSEMBLY 800 | 1 |
| 4 | 13-0662 | RESIN TOOLING VELCRO PLATE 800 | 1 |
| 5 | 13-0653 | RESIN TOOLING PLATE VELCRO 3IN | 6 |
| 6 | 13-0664 | ADHESIVE/VELCRO LOOP HALF 800 | 2 |
| 7 | 13-0654 | PRESS-IN INSERT - M4 - BRASS | 24 |
| 8 | 12-0480-08 | FLAT HEAD PHILLIPS SCREW - M4X8 - ZINC | 24 |
| 9 | 12-0680-10 | FLAT HEAD SOCKET SCREW - M6X10 - ZINC | 3 |



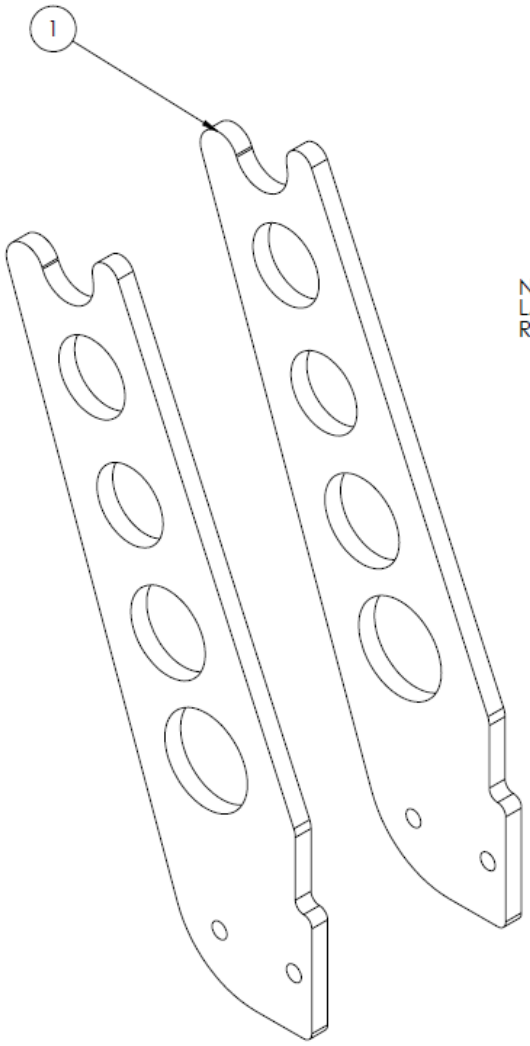
## 96-0456 – TOOLING WRENCH

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|---|---|---|---|
| 1 | 52-0628 | TOOLING WRENCH FLAT | 1 |
| 2 | 13-0115 | WRENCH MAGNET | 1 |
| 3 | 12-0440 | NYLOC NUT – M4 - ZINC | 1 |
| 4 | 12-0480-16 | FLAT HEAD – M4X16 - ZINC | 1 |



## 96-0809 – PROPANE TANK BRACKET SUPPORT 20LB 800PRO KIT - A

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 52-0629 | PROPANE TANK BRACKET SUPPORT 20LB 800PRO | 2 |




NOTE: REMOVE EXISTING BRACKETS LARGE TANK BRACKETS AND REUSE HARDWARE.

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CONTRACTOR PROVEN EQUIPMENT SINCE 1946

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