

**DIAMOND
PRODUCTS**

CG-2 MINI GROOVER WITH 49 HP DIESEL



OPERATORS MANUAL & PARTS BOOK

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Maintenance Records & Notes

Maintenance Records & Notes

DIAMOND PRODUCTS

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CAUTION

Safety Precautions

Operate the CG-2 Mini Grooving machine and all of its components according to this manual. Failure to comply with and have understanding of the following safety, operations, and maintenance instructions may result in serious injury or death. All operators must be properly trained or supervised by experienced personnel prior to operating the machine and should be familiar with the risk and hazards involved with its operation. Improper or unintended machine usage is discouraged and Diamond Products cannot be held liable for damages.

Any and all machine modifications should be made by Diamond Products to ensure safety and design. Any modifications made by the owner(s) are not the responsibility of Diamond Products and void all warranties is problems arise from modifications.

Refer to the CG-2 Mini Grooving Machine parts list for additional information and parts diagrams. Replace parts with only those found in the parts list.

NOTICE: The information in this manual may be updated at anytime.

Safety Alerts



DANGER

Serious Injuries and/or death will occur if these instructions are not followed.



WARNING

Serious Injuries and/ or death will occur if these instructions are not followed.



CAUTION

Mild and/or moderate injuries may occur is these instructions are not followed.

Safety Precautions

Operate the CG-2 Concrete Groover/Grinder and all of its components according to the Diamond Products owner manual. All operators must be properly trained or supervised in order to operate this machine and understand the inherent risk and hazards involved. Improper or unintended saw usage is highly discouraged and Diamond Products cannot be held liable for any damages.

Any and all saw modifications shall be made by Diamond Products to ensure proper safety and engineering. Modifications made to the saw by the current owner are not the responsibility of Diamond Products, and void any and all warranties if problems arise due to the modifications.

Failure to comply with and understand all safety, operation, and maintenance procedures and instructions provided in this manual can result in serious injury and/or death. Any and all information in this manual may be updated and changed at any time.

Prior to operating the saw, record the saws serial number and engine model number and serial number in the *Serial Tags* section of this manual for future reference.

Safety Alerts



DANGER

Serious injuries and/or death will occur if these instructions are not followed.



WARNING

Serious injuries and/or death could occur if these instructions are not followed.



CAUTION

Mild and/or moderate injuries could occur if these instructions are not followed.

Proposition 65



WARNING

Engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and or other forms of repertory harm.



Respiratory Hazard



WARNING

Concrete cutting and drilling produces dust and fumes known to cause illness, death, cancer, respiratory disease, birth defects, and or reproductive harm. Safety protection techniques include, but are not limited to:

- Wearing protective gloves.
- Wearing safety goggles or face shield.
- Using approved respirator.
- Washing work clothes daily.
- Using water when cutting to minimize dust.
- Washing hands and face prior to eating or drinking.

For additional safety and self protection information, contact your employer, the Occupational Safety and Health Administration (OHS), and/or The National Institute for Occupational Safety and Health (NIOSH).

Spark Arrest Requirements



CAUTION

In the State of California it is a violations of Section 4442 or 4443 to use or operate an engine on any forest-covered, brush-covered, or grass covered land unless the engine is equipped with a spark arrestor, as defined in Section 4442, maintained in effective, working order or the engine is constructed, equipped, and maintained for prevention of fire pursuant to section 4443.

General Safety Procedures

- Regularly clean any slurry, concrete dust, and debris from saw.
- Place jack stand or locks under both frame edges at the front and back of the saw frame when working under saw.
- Repair saw immediately if problems arise.
- Replace saw decals when they have become damaged or unreadable to ensure proper safety and operating procedures.
- Dispose of all hazardous waste and materials properly according to city, state, and federal regulations.
- Always have a phone nearby and locate the closest fire extinguisher and first aid kit prior to saw operation.
- Persons under the statutory age limit should not operate the saw.
- Always allow saw to fully cool when finished operating in order to prevent burns or injury.



DO NOT:

- Operate the saw without a complete understanding of all safety, operations, and maintenance instruction.
- Drop equipment, supplies, tools, blades, etc. when handling to prevent injury.
- Operate machine without using appropriate safety equipment required for work site task.



- Operate or service machine with clothing, hair, or accessories that are loose and may become entangled in machine.
- Operate using attachments not associated with or recommended for the machine.
- Operate machine with loose fasteners or belts.
- Operate machine with anyone in working area.
- Operate machine until obstruction have been removed from worksite.
- Operate machine when ill, fatigued, or under the influence of drugs or alcohol.
- Operate the saw on extreme slopes.

- Operate saw without any safety guards, access panels, or safety devices removed or tampered with.
- Grease or lubricate engine or components while it's running.
- Perform any maintenance until saw has cooled.
- Perform maintenance with engine running.

Battery Safety

- Ignitable explosive gases are emitted from battery. DO NOT expose battery to sparks or open flame.
- Keep are around battery well ventilated.
- Keep the battery level when handling it.
- Use protective eyewear or a face shield and avoid contact with the skin when handling/servicing the battery.
- Use a proper battery tester when testing the battery strength.
- Always connect the battery cables to the proper terminal to ensure safety.
- Regularly inspect the battery, cables, clamps, and terminals for damages. Clean, replace, tighten, and grease components as necessary.
- Always keep the battery cable clamps away from the battery terminals when the battery is disconnected to avoid accidental connections.
- Immediately rinse your clothing, skin, or eyes with water if exposed to battery acid. Seek medical attention immediately!
- Turn off the master battery disconnect when servicing the machine.
- Disconnect the battery prior to servicing the machine unless stated otherwise.
- Remove the battery when storing the machine for longer periods.
- Disconnect external equipment connected through the electrical outlets prior to servicing the machine.
- Always use the correct size fuses (amps) to prevent fires.

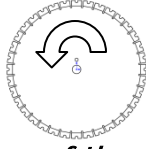


Blade Safety

- Always use reinforced abrasive blades or steel centered diamond blades.
- Inspect all blades prior to usage and discard any damaged blades.
- NO NOT install a blade shaft with engine running.
- Keep all body parts away from rotating blades.

Blade Safety cont.

- DO NOT Expose yourself or others to the direct line of the blade shaft while operating the saw.
- Inspect the blade flanges, for any visible damage, wear, and cleanliness.
- Always use the appropriate size blade for the cutting task. The blade must fit snug on the blade shaft arbor and be properly retained by all blade shaft tie bolts and flanges.
- Wear gloves and always be aware of environment when handling blades.
- DO NOT drop blades when handling.
- Always point printed arrow on the blade in the direction the blade shaft is rotating when installing blade. ***The CG-2 is an Up Cut machine, therefore the blade arrows must point toward the operator if they were at the rear of the machine.***
- Always use the appropriate blade type for the material being cut.
- DO NOT exceed the maximum RPM speed printed on the blade when cutting; Excessive blade speed can cause blade breakage, resulting in serious injury and/or death.
- DO NOT use blade with lower maximum operating speed than the blade shaft speed for cutting.
- Always tighten the blade shaft bolts to 185 ft-lb or 250 Nm to properly secure the flange and blades. Failure to completely secure the loose flange or blades may cause parts to loosen or fall off resulting in serious injury and damage to machine.
- Install correct blade shaft sheave, drive belts, and flanges when changing blade size. Refer to the Diamond Products parts list in this manual for additional information.
- Adjust engine speed if necessary to properly accommodate the indicated blade speed which can be identified by the readout on the shaft speed tachometer located on the dash.
- Raise the blade to a sufficient height when maneuvering the saw to provide proper clearance between ground and blades.
- Always allow blades to cool prior to servicing, blades may get extremely hot during cutting process and may retain heat for long periods of time.



Belt Guard Safety

- DO NOT Operate saw without belt guards in place.
- Blade exposure while cutting should be no more than 180°.
- DO NOT remove belt guards with engine running.
- Always keep belt guards in place and securely fastened to prevent danger.
- Inspect the belt guard prior to operating and clean, repair, or replace as necessary.

Fuel Safety

- Store all fuels in appropriate safety containers.
- DO NOT operate saw with a fuel leak.
- DO NOT refuel machine while it is running.
- Let engine cool before adding fuel.
- DO NOT smoke or expose fuel to open flame when filling the fuel tank and or working on machine.
- DO NOT overfill fuel tank, and immediately cleanup any fuel spilled prior to starting machine as fuel may leak from vent cap when saw is raised.
- Move the saw away from fueling area prior to starting engine.
- Use appropriate diesel fuels in cold weather areas.
- Drain fuel tank and fuel lines for prolonged storage.



Engine Safety & Starting Procedure

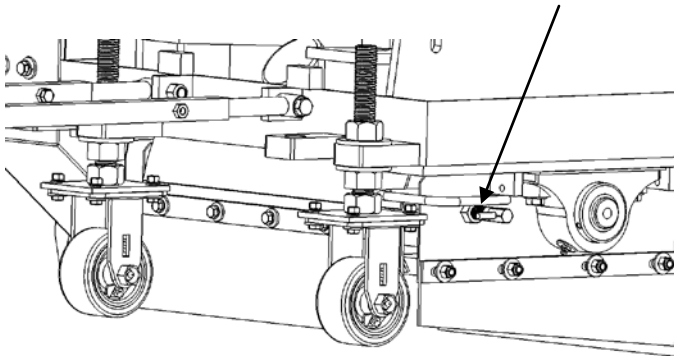
- Refer to the Deutz Operational Manual including with this saw for primary engine safety and care information.
- Push the *Emergency Stop* button down to immediately stop the engine if necessary.

Starting Procedure

- The CG-2 machine is equipped with multiple safety devices to prevent injury to operator or equipment during startup and operation.
- Always start the engine with the speed control lever in *NEUTRAL* and the transmission fully engaged to prevent unnecessary saw movement.
- To engage the transmission, locate the Positraction Engagement Knob on the dash of the machine and tighten until transmission is fully engaged.
- Water pressure must be present at the water supply connection in order to start the machine. The CG-2 machine is equipped with

a water safety device that prevents saw operations without having an adequate water supply. Water does not necessarily need to be flowing to cutting head, but must be pressurizing in the system and must be utilized when sawing.

- The CG-2 Grooving and Grinding machine is also equipped with a safety device that will not permit an engine start unless the cutting head is fully raised and the saw blades are completely clear of ground. This is achieved by raising the cutting head **FULLY** by pressing the left button on the controller handle and raising the cutting head till it stops.
- Set the parking brake located on the left side of the machine to the ON position.
- The machine may now be started using the key switch located on the dash panel.
- Once engine has been started and given adequate time to achieve operating temperature the saw is ready for use.
- Remember the transmission must be fully engaged or a safety device will not allow lowering of the cutting head.
- Slowly lower the cutting head using the right button on the control lever use caution not to slam the cutting head blades into the ground.
- Also be sure that the rotating safety shield is rotated out of the way and locked in to position using the pin on the lower left of the machine.



WARNING

- THIS MACHINE IS AN UP CUT SAW, MEANING THE BLADES ROTATE IN A DIRECTION CAUSING THE MACHINE TO FORCE ITSELF BACKWARDS. USE CAUTION WHEN FIRST ATTEMPTING TO CUT TO PREVENT SERIOUS INJURY TO OPERATOR AND EQUIPMENT. BE AWARE OF THE EMERGENCY STOP BUTTON LOCATED ON ---

-THE DASH IN ORDER TO PRESS IT IN CASE MACHINE BECOMES UNCONTROLLABLE.

- Once machine is set to depth and ready to cut, disengage the parking brake and proceed to cut with caution by moving the controller handle forward.
- DO NOT leave machine unattended when running.
- Keep all body parts away from rotating parts when the machine is running.
- DO NOT start engine without air filters installed.
- DO NOT allow dust or debris to enter air intake tubes when cleaning/servicing air filters to prevent serious engine damage.
- Replace any damaged saw components immediately that may allow dust to enter the engine in order to prevent serious engine damage.
- DO NOT use any starting substances or fluids when starting engine using glow plugs. (Spraying starter into intake tube) These materials are extremely flammable and explosive, and can melt or damage parts possibly causing engine to explode when used in conjunction with glow plugs.
- Always operate saw in a well ventilated area. Concentrated engine exhaust can cause loss of consciousness and/or death.
- DO NOT operate saw in areas that contain combustible materials and/or fumes, these can create an explosion.
- DO NOT leave saw unattended after shutting off until blades have fully stopped spinning.
- Clean the engine's cooling system regularly to prevent hot operating temperature and damage to saw's engine.
- DO NOT perform any maintenance on saw while it is running.
- Let engine cool before performing any maintenance.
- Handle hot oil carefully when changing oil and make sure to properly dispose of used oil.



Cutting Safety

- The work area should contain no buried or embedded electrical, gas, water, or telecommunications lines.
- Turn off all electricity, gas, and water lines around work area prior to cutting.
- DO NOT expose yourself or others to the direct line of cutting when operating saw.
- DO NOT allow any person, animal, or object in and around work area when cutting.

- Use just enough pressure to guide the saw on cutting line. DO NOT forcibly direct (twist) the saw from side to side to avoid damaging the saw blades.
- Avoid sawing excessively deep to prevent premature blade wear and reduce sawing cost.

Hydraulic System Safety

- Turn the engine off prior to performing and maintenance on the hydraulic system.
- Lower the saw to the floor so it is level to release pressure in the hydraulic system prior to performing any maintenance on the hydraulic system.
- Visually inspect for, or use a piece of cardboard placed under machine to check for and locate and hydraulic leaks. Keep all body parts away from areas where that may eject hydraulic fluid. Pressurized hydraulic fluid can penetrate skin causing serious injury.



Belt Safety

- Turn off engine prior to performing any belt maintenance.
- Always let belts cool down prior to performing any replacement or repairs.
- Regularly inspect the belts for any fraying, stress cracks, and /or any other damage, replace them immediately if and damage is found.
- Over tensioning the belts may cause damage to the PTO unit. Under tensioning belts may cause shorter belt life and poor saw performance.
- Squealing belts are an indication that the belts are loose.
- Always make sure that belts are properly aligned.
- Always replace belt guard prior to operating the saw after any belt maintenance.

Transmission Safety

- DO NOT assume the transmission will act as a brake or holding mechanism when the saw is in the *Neutral* position when stopping or parking saw. Block the saw to prevent an unwanted movement and set the parking brake on the left side of the machine.
- The engine must run at half throttle or greater to ensure proper transmission efficiency.
- Clean the transmission fan and fan guard regularly and prevent buildup of debris on the transmission to prevent high transmission temperatures.

Transportation Safety

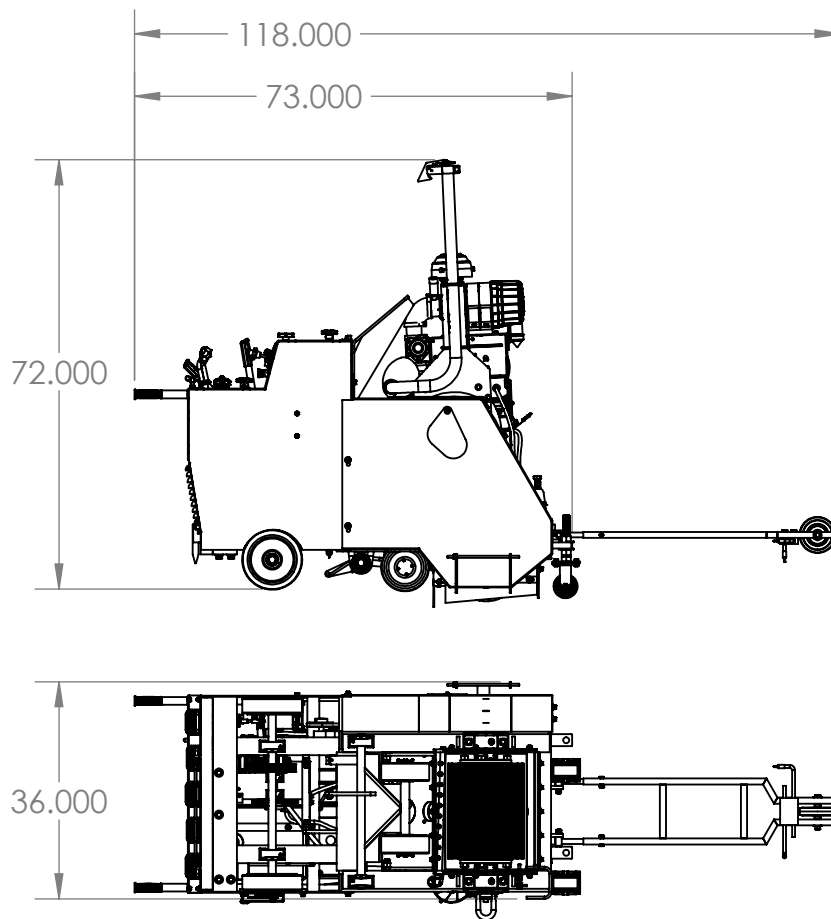
- Drain the saws fuel tank when transporting over long distances.
- Use heavy duty ramps that will support weights greater than the saw and operator for loading.
- The towing vehicle/trailers should always be in good working condition and capable of handling the weight of the machine.
- Raise the saw to avoid catching the lower body of the saw when loading and unloading saw.
- Use extreme caution and low speed when guiding saw up or down ramps for loading.
- Slowly drive the saw backward up the ramps and slowly forward for unloading down ramps.
- When transporting saw, turn engine off once the saw is loaded and place the drive level in the *Neutral* position and engage the transmission.
- Block and chain the saw to properly secure it for transport, do not assume the transmission and parking brake will keep the machine in place.
- Refer to DOT (Department of Transportation) for additional information regarding proper transportation technique.

Lifting Safety

- Move yourself and others away from the lifting area when hoisting to prevent being crushed underneath saw.
- Secure the appropriate cables, ropes, wires, and/or chains to the saw lifting points and frame to properly lift saw when hoisting it.
- DO NOT attempt to lift saw irresponsibly or improperly.



CG-2 Mini Groover Dimensions



Saw Specifications

Maximum Length (Pointer Down and Handles Extended)	142.00"
Minumum Length (Handles in and Pointer Up)	73.00"
Saw Height	72.00"
Handle Extension	24.00"
Saw Width (Maximum)	36.00"
Uncrated Saw Weight	1900-2000 lbs.
Blade Arbor Diameter	5.00"
Maximum Cutting Depth	1.625"
Blade Shaft Bearing Diameter	1.4375"
Blade Shaft Bearing	High Capacity Tapered Roller
Blade Shaft Drive	Dual 5 Groove 3V Belts
Blade Shaft Effective Length	16.00"
Blade Lift	Electro-Hydraulic Pump
Blade Coolant	10 H1/4 Spray Nozzle
Front Wheels	8.00" x 3.00" x 1.00"
Drive Wheels	10.00" x 3.00" x 1.25"
Handle Bars	Two Positions with Tilt
Transmission	Eaton Hydrostatic
Drive Speed	0-200 Ft/Min
Electric Start	Standard
Hour Meter	Standard
Amp Meter	Warning Light
Fuel Capacity	9.0 U.S Gallons
Blade Tachometer	Standard
Frame Lift	Standard

CG-2 Mini Groover Dash Layout & Operational Controls

Blade Depth Stop Control:
Holds specific cutting depth.

Emergency Stop:
Stops all power systems
inside of machine in case
of emergency.

Water Safety Switch:
Ensures water pressure
to machine.

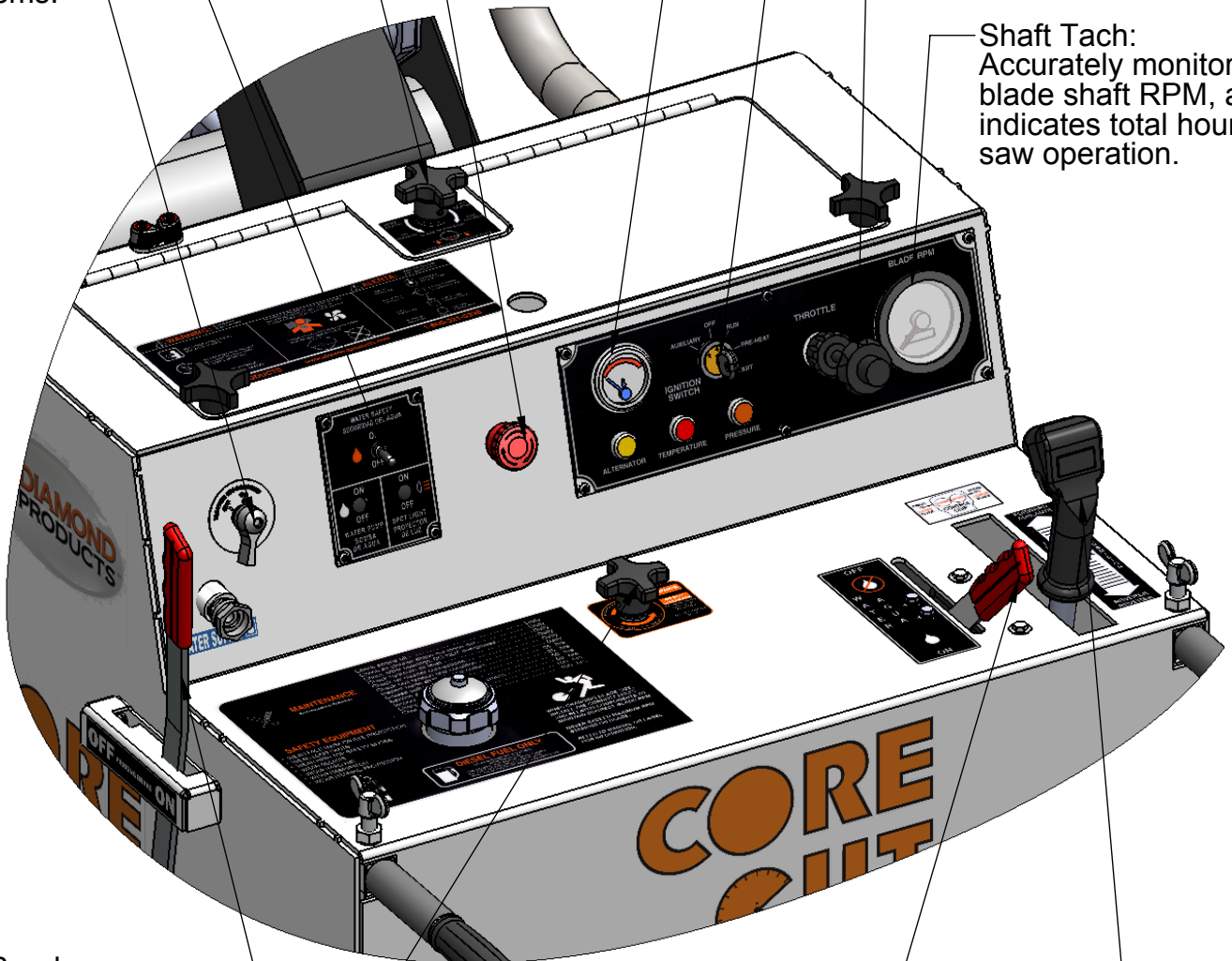
Engine Temperature Gauge

Ignition Switch

Throttle Control:
Used to sets engine RPM.

Shaft Tach:
Accurately monitors
blade shaft RPM, and
indicates total hours of
saw operation.

Master Power Switch:
Controls Electrical output
from battery to components
electrical systems.



Parking Break:
When engaged prevents
machine from moving.

Water Control Lever:
Used to engage water flow to
cutting head.

Positraction Control:
Used To engage drive
axle to transmission.

Control Lever:
Forward & Reverse motion controls
machine movement in corresponding
direction while in center is neutral. Left
button controls raises blades, and right
button lowers blades.

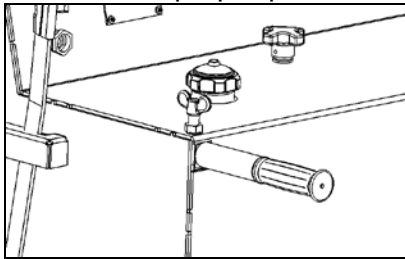
Operating the CG-2

Handlebars

The handlebars are used to help the operator guide and maneuver the saw.

Adjusting the Handlebars

1. Loosen the handle lock knobs.
2. Hold the handlebar grip and place the first handlebars into the handlebar opening directly below the lock knob, there are two paths the handlebar can fit through. Select the handlebar angle that works best for specific cutting operation and slide handlebar in to determined length.
3. Tighten the handle lock knob to secure handlebar at proper position.



Handle Lock Knob & Handlebar

4. Repeat steps 2-3 to secure the second handlebar.
5. Adjust handlebar orientation and length as necessary.

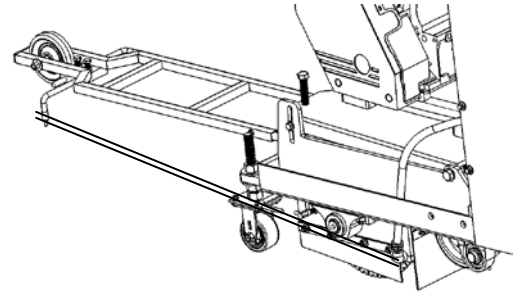
Front Pointer

The front pointer assembly aids the operator in following a cutting line.

Adjusting the Front Pointer

1. Remove the tensioned pointer lanyard from the cable cleat on the top of the dash.
2. Lower the front pointer to the floor.
3. Loosen both front pointer frame screws.
4. Divide a 10' piece of string in half.
5. Place the looped end of the string into a gullet on the backside of the outermost blade.
6. Place one side of the string up against the front side of the blade, holding the string ends in one hand; tension the lines out towards the front pointer rod.
7. Slide the pointer rod over between the tensioned string lines.
8. Retighten both front pointer frame screws to secure pointer rods.
9. Lift the front pointer frame off the ground when cut is complete, and re-tension

pointer lanyards and place it in the cable cleat to secure it in place.



Pointer Alignment Using String

Battery



WARNING

- Ignitable & explosive gasses are emitted from the battery. DO NOT expose battery to any sparks or open flames, and keep area around battery well ventilated.



CAUTION

- Use proper battery tester, such as a voltmeter, to test the battery strength.
- Use protective eyewear or face shield and avoid skin contact when handling battery.



The saw contains an installed, charged battery with one positive and one negative battery lead. The battery cables are connected prior to saw delivery.

A battery disconnect switch is located on the left side of the dash on the saw, this disconnect switch should be used whenever the saw is not in operation for safety and battery longevity.

Diamond Blades



WARNING

DO NOT Exceed the maximum RPM printed on the blade when cutting. Excessive blade speed can cause blade breakage, resulting in serious injury or death.



Using the proper blade helps preserve the blades life and also improves the operator's efficiency, resulting in lower cost. Refer to www.diamondproducts.com for a list of all the different blades available to suite each job.

Inspecting the Blade

Always inspect each blade prior to blade installation. DO NOT use damaged blades for cutting in order to avoid injuring yourself, others, or the machine. Discard all damaged blades and inspect each replacement blade for deficiencies.

Inspect blades prior to installation for:

- Cracks, Nicks, Or Dents
- A damaged and/or deformed arbor.
- Darkness or discoloration near edges of the blade.
- A deformed blade circumference.
- Segments missing or cracked.
- Core wear.
- Bending or warpage.
- Uneven side widths.

Blade Speed

Refer to the Diamond Products blade specification for information on the recommended blade RPM when cutting. DO NOT use a blade with a lower maximum operating speed than the blade shafts speed when cutting.

Blade Shaft Removal



WARNING

- DO NOT remove or install a blade shaft with the engine running.
- Failure to properly secure the loose flange and blade shaft tie bolts may cause parts to loosen and fall off.
- The blade shaft assembly weighs up to 500 pounds and must be lifted to a vertical position to change blades.
- Failure to follow these instructions may cause serious injury or death.



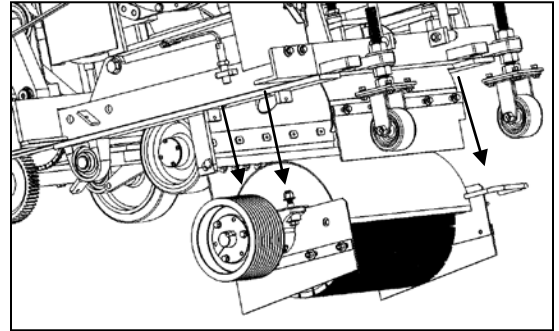
CAUTION

- Always wear protective gloves when handling blades.
- Always let blades cool prior to removing or replacing of blades.



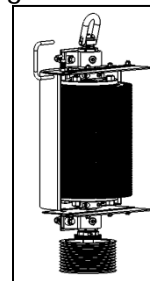
1. Remove the belt guard. There are 6 bolts that must be removed using a 9/16" Wrench or Socket.
2. Remove the blade shaft drive belts (2). Refer to page __ for removal and installation.

3. Lower the saw until the blades make contact with the ground using the lowering button located on the right side of the control handle.
4. Block the front and rear of the blade shaft assembly with wooden block or similar to ensure the blade shaft assembly does not roll when bearing bolts are loosened.
5. Remove the depth stop wheels off the front of the machine by removing the hex nuts with a 1.50" wrench or socket.
6. Loosen and remove the 4 blade shaft bearing bolts using a 3/4" wrench or socket.



Carefully Lower Blade Shaft Assembly From Machine

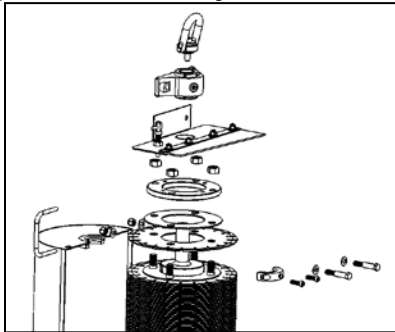
7. Slowly raise the saw to the maximum height using the raise (Left) pushbutton on the speed lever.
8. Carefully remove chock blocks at the front of the blade shaft assembly and slowly remove the assembly, it should clear the machine.
9. Using supplied hoist ring (2504720) attached to the non sheave end of the blade shaft. Make sure the ring is fully seated in the threads and that threads are clean and free of debris on the end of the blade shaft. With a suitable lifting device and proper capacity chain or cable, lift the shaft and carefully set down on sheave end. After securely setting in upright position, remove hoist ring.



Place Blade Shaft Assembly on End Using Hoist Ring

10. Remove the revolving blade shield by removing the hex head machine screws located on the underside of the shield near the bearings.

11. After bearing cap halves are removed, remove outer shield and set aside.
12. Remove the bearing on the lifting end of the blade shaft and set aside.
13. Next, remove the Left Blade Cover Weldment leaving the water shield and lock pin attached.
14. Remove the (4) Hex nuts using a 1-1/8" wrench or socket holding the Blade Flange in place.
15. If the Blade Flange is stuck, use the (4) pre tapped holes to thread 1/2-13 bolts to press off the flange.
16. Once the Blade Flange is removed you have access to the cutting blades and spacers, these will vary depending on the setup of your saw. REMEMBER to inspect all blades for any signs of damage including, cracks, dents, missing segments or discoloration and replace immediately.



Blade Removal (Please Refer to the Parts Manual Section of This Manual for Larger Illustration).

17. Repeat steps 10-16 in reverse order for reassembly, take note that the blade shaft spins at very high RPM's and all fasteners must be double checked for proper fitment and torque (4 bolts retaining Blade Flange must be 185 ft lbs or 250 Nm) prior to reinstallation to ensure operator and machine safety.
18. When installing new blades, be sure the blades are correct for the cutting task.
19. Cleanliness is very important in this area of the machine, take the extra time to ensure all debris, slurry and foreign materials have been fully eliminated before reassembly.
20. Always make sure the arrow on your Diamond Products blade is pointed in the same direction as the rotation of the blade shaft.
21. Reinstall blade shaft assembly in the reverse order of removal; reinstall belts, guards and depth stop wheels before restarting machine.

Belt Guards

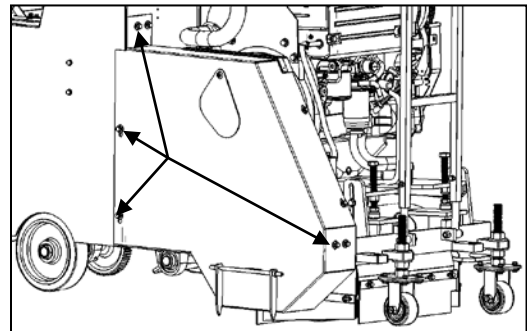


- DO NOT operate machine with belt guards removed.
- DO NOT remove belt guards when engine is running.

The belt guards shield the belt drive to prevent accidents and must always be in place when operating the saw.

Removal & Installation of Belt Guards

1. Remove the (6) 3/8" bolts using a 9/16" wrench or socket that retain the belt guard.
2. Lift the belt guard away from machine.
NOTE: the belt guard shields the underside of the pulleys and must be removed by pulling straight back.
3. Install in reverse order of removal.



Remove the six bolts attaching belt guard.

Water Supply

The water supply helps cool the blades and minimize dust when cutting. Approximately five to eight gallons of water per minute are required to adequately cool blades when running. *NOTE: this machine is equipped with a water safety switch meaning it will NOT operate unless there is a suitable supply of water to the water supply line.*

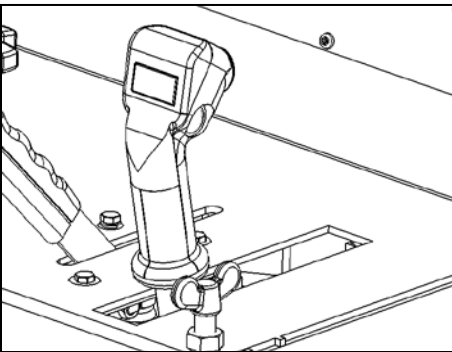
Using the Water Supply System

1. Connect water source to the hose connection on the left side of the dash of the machine.
2. Turn on the Water Safety Switch on dash panel.
3. When ready to start cut, turn the water flow to the ON position using the level next to the Machine Control Handle on the right of the dash. Remember the water source needs to be ON and adequate in order for the machine to be started.

4. There a total of ten spray tips routed just behind the blades of the cutting head, these ensure proper cooling when cutting.
5. Check that the spray tips with machine off that they are functioning properly and have an even spray of water when servicing machine.

Control Grip

The control grip located on the right side of the dash control many of the functions of the machine. Moving the lever in a forward and reverse motion control the machine movement in a similar fashion, while in the center position is neutral. *NOTE: even though the machine will typically not move in the neutral position, do not assume it is safe to hold the machine in a parked manner, always use the parking brake to park machine.* There are also two button located on the front side of the control lever, these operate the raising and lowering of the cutting head. The left button raises that machine, while the right lowers the machine.



Control Grip Lever

Raising the Saw

Press the left button on the control grip to raise the saw and depress to stop. *NOTE: Always raise blade to a sufficient height to ensure the blades are completely clear of the ground when maneuvering the machine.*

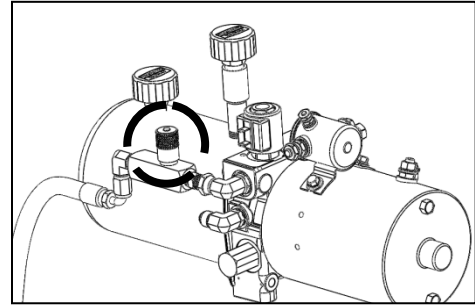
Lowering the Saw

Press the right button on the control grip to lower the saw and depress to stop. *NOTE: Carefully lower the saw, do not slam the cutting head down, this may damage blades or the machine.*

Controlling Lowering Speed

It is possible to adjust the rate at which the machine lowers the cutting head, to do this make sure the machine is shut off and remove the rear access panel from the machine. With panel

removed adjust the flow control valve located on the hydraulic pump so it is to the operators liking.



Flow Control Valve

Forward Control

Push the control lever forward to travel forward at a desired speed. The maximum speed that the saw can travel is 200 ft/min. *NOTE: The engine must be running and the transmission must be fully engaged in order to move the using the speed control lever, which must be in the NEUTRAL position to start engine. Also remember that the emergency STOP button will always stop the machine should it be necessary.*

Reverse Control

Pull the speed control lever backward to the desired traveling speed. The maximum speed the machine will travel backward is 200 ft/min.

Neutral Control

Place the speed control lever in the Neutral position to stop the saw from moving forward and backward. DO NOT use the neutral position as a parking brake, this will NOT hold the machine; apply the parking brake to keep machine from moving unnecessarily.

Transmission

The transmission controls the movement of machine. Always remember to push the emergency STOP button to immediately stop the saw if necessary. The transmission must be engaged and in the neutral position in order to start the machine, as a precaution always have parking brake set when starting the machine.

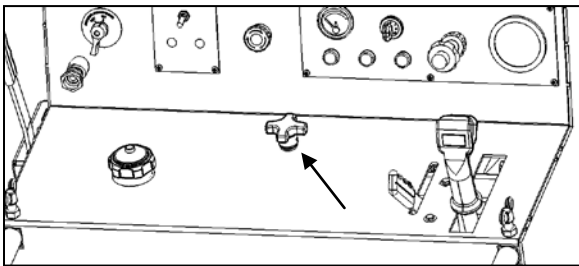
Engaging Transmission

1. Place speed control lever in the neutral position.
2. With engine off, turn the Transmission Engagement Knob located in the center of the lower dash to the left to engage transmission.

3. Turn knob till its stops, this ensures that transmission is engaged.

Disengaging Transmission

1. Place speed control lever in the neutral position.
2. Locate Transmission Engagement Knob in the center of the dash.
3. Turn Engagement Knob to the right to disengage transmission
4. Transmission is disengaged when machine will free roll. NOTE: DO NOT disengage transmission unless saw is on level ground and parking brake is set.



Transmission Engagement Knob

Fuel System

WARNING

- DO NOT operate the saw with a fuel leak.
- DO NOT refuel saw with the engine running.
- DO NOT smoke or expose fuel to open flame when filling the fuel tank and/or working on fuel system.
- DO NOT overfill fuel tank. Cleanup any spilled fuel prior to starting the machine.
- NOTE: Fuel may seep from fuel vent cap when saw is raised to its upright position if overfilled with fuel, cleanup any fuel spillage.



Adding Fuel

Check fuel level daily and fill as necessary, avoid running machine out of fuel.

1. Lower the saw so that it is level with ground.
2. Stop the engine and allow time to cool down.
3. Remove fuel cap.

4. Fill the fuel tank with low sulfur or ultra low sulfur diesel fuel only. The fuel tank has a capacity of nine gallons.
5. Replace fuel cap and tighten to secure.

Cold Weather Fuel

Diesel fuel can become thick in cold weather, resulting in clogs in the fuel system; refer to the Deutz Operation manual for a list of appropriate cold weather fuels.

Storage

Fill the fuel tank to prevent condensation and contamination in the tank for short storage intervals. For long periods of storage, drain the fuel tank and lines.

Engine

WARNING

- DO NOT leave engine running while machine is unattended.
- Operate saw in a well ventilated area, concentrated exhaust can cause loss of consciousness and/or death.



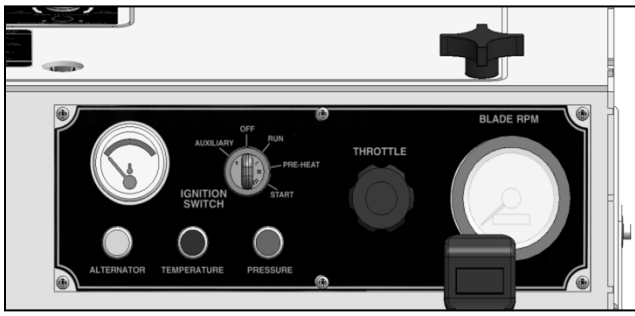
Engine Governor

A manufacturer set governor controls the engines maximum speed. DO NOT adjust the governor setting unless blade size has changed and would require a different maximum engine speed.

Ignition Switch

The ignition switch is located on the dash panel of the CG-2 machine. This is a multi-function switch and operates as follows:

- *Auxiliary*: Creates power, but does not start the engine.
- *Off*: Turns engine off.
- *Run*: Creates power, but does not start the engine.
- *Pre-Heat*: Warms engines glow plugs which help the engine start in cold weather.
- *Start*: Turns engine on. *DO NOT engage Start for long periods of time, this can cause overheating or damage to the starter. If engine does not start right away, release the key and try several minutes later. Refer to the Fault Table in the Deutz manual if engine does not start after two attempts.*



Ignition Switch & Throttle Handle

Throttle Handle

This controls the engines RPM, which in return control the blade RPM which is monitored on the Blade Tachometer located next to the Throttle Handle. NOTE: The Tachometer on the dash DOES NOT indicate engine RPM, this is a measure of blade RPM.

- Turn the throttle handle counterclockwise to increase the engines RPM's. To decrease engine RPM's turn the throttle handle clockwise.
- Push the spring loaded throttle tip and pull the throttle out to increase engine RPM's, or push in the throttle handle to decrease engine RPM's.

Hold/Release Knob

- Turn the Hold/Release knob clockwise to hold the throttle at a constant engine/blade RPM or turn the Hold/Release knob counterclockwise to release the throttle and adjust engine RPM.
- Turn the Throttle Handle clockwise to decrease, or counterclockwise to increase engine/blade RPM when the Hold/Release button is secure; however, the spring loaded throttle tip cannot be pushed in or pulled out to adjust engine/blade RPM when the Hold/Release button is secured.

Prior to Starting Engine

Complete the following check list prior to starting the engine.

- Fill the fuel tank with diesel and check the engine oil.
- Push the water valve to OFF position
- Make sure Water Safety Switch is ON
- Place transmission in NEUTRAL
- Engage transmission
- Apply Parking Brake
- Pull Emergency Stop OUT
- Verify the Master Power Switch is ON

- Push the Throttle in to idle.
- Remove all obstructions from work area.

Starting Engine

WARNING

- DO NOT use any starting substance or starter fluids when starting machine. Engines equipped with glow plugs may ignite these extremely flammable materials and may spark fire or explosion causing serious injury and/or damage to machine.



1. To start engine without using glow plugs, insert the key into the key ignition and turn the key to *Start*, and immediately release when engine starts. If engine does not start after two attempts, refer to the Fault Table in the Deutz Manual.
2. To start the engine using glow plugs, insert the key into the key ignition and turn the key to *Pre-Heat*, holding it there for approximately 20 seconds. Turn the key to the *Start* position and release immediately after engine start. If the engine does not start right away, try the *Pre-Heat* process again and attempt to *Start* engine. If engine does not start after two attempts refer to the Fault Table in the Deutz Manual.
3. Once engine has started increase engine speeds to half throttle and allow the engine to warm up for several minutes.
4. Increase the engine speed to full throttle after warm up. Adjust throttle as necessary when cutting. DO NOT exceed recommended blade RPM. *NOTE: At times the actual blade RPM will be lower than that recommended for the blade do to job conditions and/or task difficulty level.*

Stopping Engine

CAUTION

- DO NOT leave the saw unattended, after turning off engine until blades have fully stopped spinning.
1. Place speed controller in *Neutral* position.
 2. Raise blades from cut.
 3. Push water valve to OFF position.
 4. Decrease engine speed to idle for several minutes to allow engine to cool down.
 5. Turn key to *OFF* position and remove key.

Concrete Cutting



WARNING

- **DO NOT expose yourself or other in the direct path of the blades when operating the saw.**



For better efficiency, keep the following in mind while cutting:

- Use just enough pressure on the handlebars to guide the saw on the cutting line. **DO NOT** forcibly direct (twist) the saw from side to side when cutting.
- Moving too quickly when cutting may stall the saw, or cause the blades to climb out of the cut. If the saw stalls at anytime, move the speed controller to the *Neutral* position and raise the blades fully to restart the engine.
- **DO NOT** lower the blades or move the saw forward to quickly when finishing a partial cut to avoid forcing the blades into the concrete.

Prior to Cutting

Complete the following prior to cutting:

- Raise the blades to a sufficient height when maneuvering the saw to provide proper clearance between machine and the ground.
- Align the front pointer with the blade.
- Clearly mark the cutting line.
- The work area should not contain any buried cables, electrical lines, gas lines, or telecommunication lines and all gas and electrical utilities should be shut off in area prior to cutting.

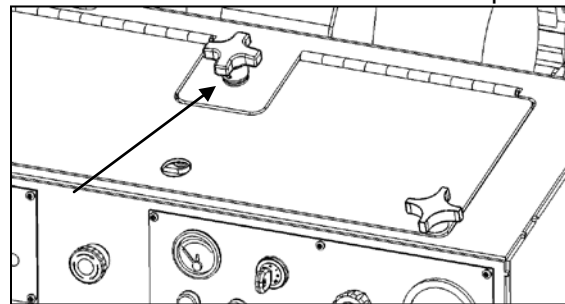
Making the Cut

1. Pull the water valve to the *ON* position.
2. Align the blade and pointer with the cutting line.
3. Lower the blade to touch the cutting surface.
4. Plunge the blade until the desired cutting depth is reached. To maintain a particular depth when cutting, turn the Depth Control Knob clockwise, located on the top of the machines dash, until resistance is felt. The blade should not lower any further, if there is no need for a depth stop, do not use it.
5. Push the speed control lever forward until the desired travelling speed is reached.

Raise and lower the blades as necessary.
When using the depth stop, raise the blades from the cut and repeat as necessary.

Adjusting the Depth Stop

Turn the depth stop knob counterclockwise to increase the cutting depth when plunging the blade, or turn the depth stop knob clockwise to decrease the cutting depth when plunging the blade. The depth stop knob will stop turning when the saw has reached its maximum depth.



Depth Control Knob

Continuing a Partial Cut

1. Maneuver the saw into the correct location.
2. Align the blade with previous cut, and then plunge the blade back into the concrete. **DO NOT** move forward until blade is properly aligned with cut.
3. Push the speed control lever forward until the desired traveling speed is reached.

Finishing a Cut

1. Place the speed control lever in the *Neutral* position.
2. Raise the blades from the cut high enough to ensure proper ground clearance when maneuvering saw.

Maintaining the CG-2

DO NOT attempt to perform any maintenance on this saw if you are not properly trained for it, or are not supervised by an experienced person. Contact the manufacturer with any questions regarding the maintenance. Refer to the Diamond Products Parts list contained in this manual for additional information, part numbers, and assembly diagrams.

Failure to read and comply with the instructions provided in this manual may result in serious injuries and/or death, and may cause damage to the saw.

Complete the tasks listed below prior to performing and saw maintenance:

- Turn the engine off and let the engine and machine cool down.
- Turn all switches and/or controls to their OFF positions.
- Disconnect the battery.
- Place jack stands or blocks under both edges of the frame at the front and under the frame base at the rear of the machine when working underneath the saw.

Maintenance Overview

Complete the following maintenance task as required. There is a maintenance chart decal placed directly atop the machine on the dash panel for your convenience. Refer to the Deutz Operational Manual for full engine maintenance.

Daily and/or Regularly

- Lubricate the blade shaft bearings daily or when dry cutting 2-3 times daily. The grease fittings for the bearings are located on either side of the blade shaft assembly.
- Lubricate the blade shaft cover bearings daily, the grease fittings are located on the inner edges of the blade shaft cover on either side of the blade shaft end flanges.
- Inspect all belts daily for tension and wear, and replace and/or re-tension them if necessary.
- Visually inspect the saw for any signs of damage, fluid leaks, or excessive wear.
- Tighten loose nuts and bolts.
- Check fuel level and fill if necessary.

- Check hydraulic fluid level and fill if necessary.
- Check engine oil and fill if necessary.
- Remove all slurry and debris from the cooling fan.
- Remove and slurry or debris from the oil cooler.
- Re-tension the rear drive chain if necessary.

125 Hours

- Change Engine oil.
- Replace oil Filter.

500 Hours

- Replace in-line fuel filter.
- Replace fuel filter.
- Check battery, cables, and connectors and clean if necessary.
- Replace outer primary air filter.
- Replace inner safety filter.

Handle Bars

The handle bars generally require little to no maintenance. Check them occasionally for abnormal bending or cracking and replace immediately if there is any damage.

Part Lubrication



- DO NOT lubricate any part with the engine running.

Lubricating parts on schedule increases the saw's efficiency and prolongs the saw's life. Use NLGI No.2 premium lithium based grease when lubricating parts.

Blade Shaft

Lubricate both ends of the blade shaft daily, and 2-3 times daily when dry cutting.

Blade Shaft Cover

Lubricate both sides of the blade shaft cover daily.

Lift Plate Bearings

Lubricate the lift plate bearings and front axle bearings every 40 hours of operation.

PTO

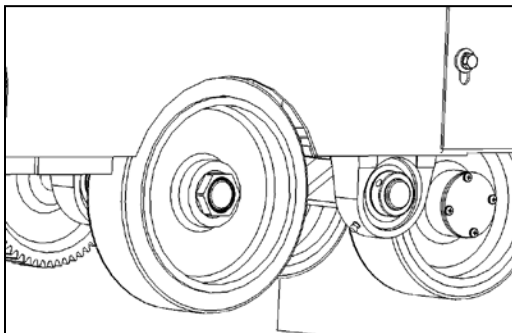
Pump grease into the PTO grease fitting until it begins to ooze out from behind the V-ring seal every 25 hours. The grease fitting is accessible on the side of the belt guard, rotate access door to locate fitting.

Rear Wheels

Inspect the rear wheels regularly for any visible damages or wear and replace when necessary.

Replacing Rear Wheels

1. With the machine properly lifted and setting on jack stands, unscrew the Trantorque bushing and remove the rear wheel.
2. Place new wheel onto rear axle weldment.
3. Place Trantorque bushing into new wheel hole and tighten bushing to 175 ft-lb (237 Nm). NOTE: Failure to properly tighten the Trantorque bushing may cause the wheel to fall off saw.



Trantorque Bushing

Battery

WARNING

- Ignitable & explosive gasses are emitted from the battery. DO NOT expose battery to any sparks or open flames, and keep area around battery well ventilated.
- Disconnect the battery when performing maintenance.



CAUTION

- Use a proper battery tester, such as a voltmeter, to test battery and electrical system.
- Use protective eyewear or a face shield and avoid any contact with the skin when handling the battery.

Battery Type

12 Volt, Group 24

Inspecting the Battery

1. Open access panel on top of the machine.
2. Loosen the battery brace lock nuts and remove brace.
3. Disconnect the negative battery cable lead from the negative battery terminal.
4. Disconnect the positive battery cable lead from the positive battery terminal.
5. Inspect the battery terminals, battery cables, and battery clamps for any visual signs of damage, and corrosion and clean or replace as necessary.
6. Reconnect positive battery cable to positive battery terminal.
7. Reconnect the negative battery cable to the negative battery terminal.
8. Replace the battery brace and locknuts.
9. Close access panel.

NOTE: If battery must be replaced, carefully remove the battery from its platform and remove it from the machine being careful to keep it level. Properly dispose of old battery.

Electrical System

WARNING

- DO NOT perform any electrical maintenance with the battery connected.



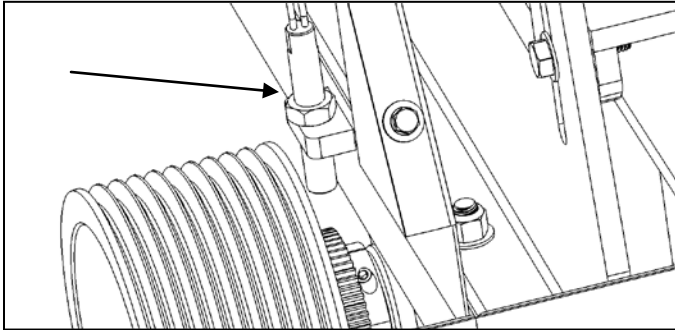
The electrical system generally requires little to no maintenance. The fuses are located near the hydraulic pump on the inside of the dash accessible through the access panel. Replace fuses as necessary.

The relay switch and circuit breakers are located next to the fuse panel. The circuit breaker should reset itself in the event of an overload, if the breaker continually turns on and off, disconnect the battery and determine the cause of the overload.

Magnetic Sensor

The magnetic sensor detects the blade shafts RPM at the blade shaft and transfers the reading to the blade shaft tachometer/hour meter. Generally this sensor requires little or no maintenance, however, if the blade tachometer/ hour meter remain at zero

when operating the saw, the magnetic sensor needs to be adjusted or replaced.



Magnetic Sensor Located Behind Blade Shaft Sheave

Adjusting the Magnetic Sensor

1. Loosen the jam nut on the magnetic sensor.
2. Turn the magnetic sensor clockwise until it bottoms out (stops).
3. Turn the sensor counterclockwise exactly one half turn.
4. Retighten the jam nut down the frame base to secure sensor.

Replacing the Magnetic Sensor

1. Disconnect the battery.
2. Disconnect the magnetic sensors two wire connector.
3. Loosen the jam nut on the sensor so it sits near the upper part of the sensor, and turn the sensor counter clockwise to remove it from the base frame.
4. Place new sensor into the threaded hole and tight sensor till it bottoms out (stops).
5. Turn the sensor one half turn counterclockwise and secure the jam nut on sensor to frame base.
6. Reconnect the battery.

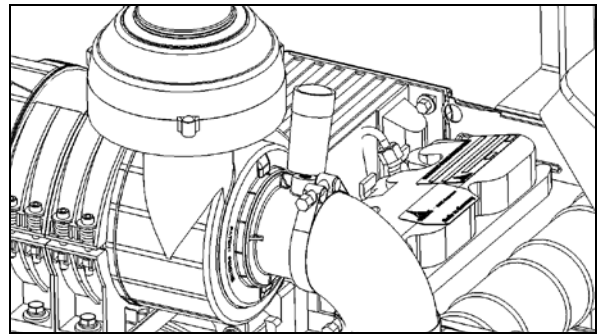
Air Cleaner

Refer to the Deutz Operation manual as the primary source for information on the air cleaner.

Restriction Indicator

Service the air cleaner as determined by the restriction indicator to prevent unnecessary damage to the engine, which decreases maintenance cost and prolongs the life the engine.

- The restriction indicator service bar turns red when the air cleaner requires service. The chart on the restriction indicator identifies the current restriction level in the air cleaner.
- Press the reset button on the restriction indicator to reset the unit after the air cleaner has been serviced.

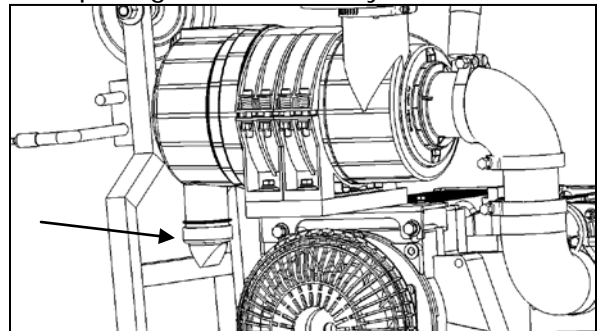


Restriction Indicator

Rubber Dust Ejector Boot

The rubber dust ejector boot valve ejects debris and water when operating the saw. Occasionally inspect and clean the ejector boot.

- Press inward on both sides of the ejector boot near the valve opening to release debris and water, and clean the valve opening when necessary.



Rubber Dust Ejector Boot

Cleaning/Replacing the outer Primary Filter

The air filter contains a dry outer primary filter. Service filter according to the restriction indicator bar, and replace the filter annually.

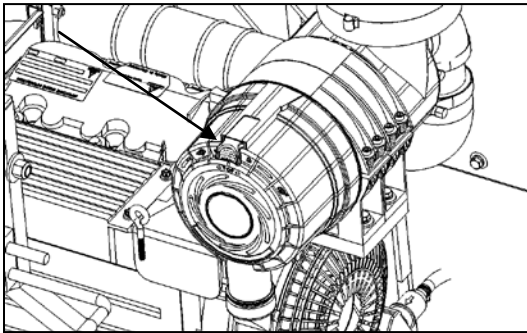
DO NOT over-service or under-service the filter.
DO NOT operate saw without filter installed.

1. Pull the tab out on the air cleaners end cover.
2. Turn the end cap clockwise to unlock the cover, and pull the end cover away from the air cleaner.
3. Pull out the primary filter from the air cleaner and inspect it condition.
4. Move away from the saw and clean the filter form the inside out using dry compressed air (no more than 70 PSI) and wash lightly with water to remove all debris from filter.
5. Allow filter to completely dry before re-installation.

6. Inspect the inside of the air cleaner assembly. Clean away any loose debris being careful not to get any debris inside the intake tube.
7. Place filter back into air cleaner over safety filter, and gently push into place till it feels secure.
8. Place the end cap cover tightly back against the end of the air cleaner housing and twist clockwise and lock into place using tab.

Replacing the inner safety filter

The inner safety filter is not to be cleaned, replace after five service cleanings of the primary filter, or every year. DO NOT operate saw without the without this filter installed.



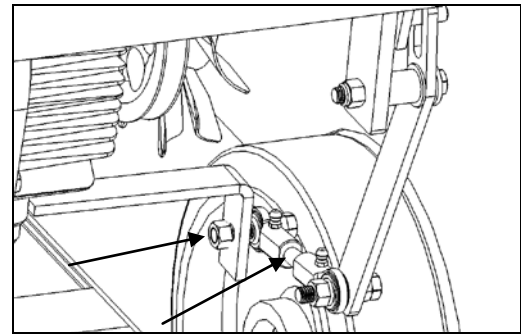
Air Cleaner End Cover Tab

Speed Control Lever

The speed control lever generally requires little maintenance. If the speed control lever is out of sync with the saw's movement, for example, if the saw moves forward when in neutral, adjustment is needed.

Adjusting the Speed Control Lever

1. Remove the rear cover panel from saw and identify the linkage assembly connected to the speed control lever.
2. Adjust the threaded link between the ball joint connectors.
3. Remove any tools from area and start engine to check for accuracy.
4. Turn engine off and readjust if necessary, then replace rear body panel.
5. If desired, loosen or tight the lock nuts on the ball joints pivot point to adjust the friction felt when moving the control lever.



Linkage Assembly

Hydraulic System

WARNING

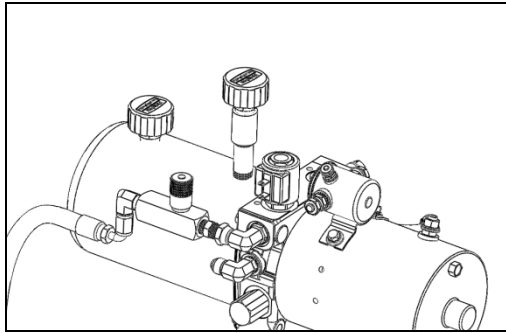
- Turn off the engine prior to performing any maintenance on the hydraulic system.
- Lower the saw to the floor so it is level to release the pressurized hydraulic fluid in the hydraulic system prior to performing any maintenance or repairs.
- Visually inspect for, or use a piece of cardboard under machine, for any hydraulic fluid leaks. Keep all body parts away from areas that may eject hydraulic fluid. Pressurized hydraulic fluid can penetrate skin causing serious injury. IF skin is punctured by hydraulic fluid, seek medical attention immediately.



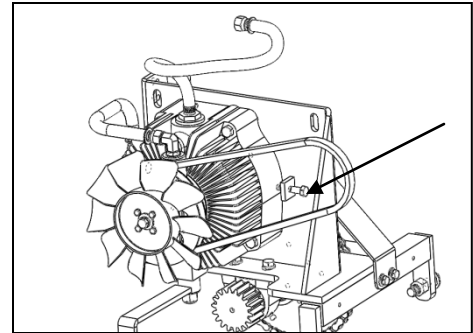
Adding Hydraulic Fluid

Check the hydraulic fluid level regularly and add when necessary.

1. Open the access panel on top of the dash of the saw.
2. Lower the saw to the ground so it is level (this provides an accurate fluid level reading).
3. Remove the breather cap on the top of the hydraulic pump.
4. Add DEXTRON II automatic transmission fluid when necessary. *NOTE: Filling the oil to the top of the opening will cause fluid to leak for the cap when the saw is lowered. Fill oil to just below where the pipe begins to extend out from the pump body to prevent overfilling.*



Hydraulic Pump Breather Cap



Transmission Adjustment Screw

Transmission

Cooling Fan

- Remove the fan guard and wipe down or use compressed air to remove debris and slurry from the transmission cooling fan. The transmission will not properly cool if the fan is clogged up with debris.

Adding Oil

- The hydraulic pump supplies oil to the transmission. Check the oil level daily in the pump and add DEXTRON II automatic transmission fluid if necessary. Refer to the previous section for information on adding fluid.

Adjusting Rear Drive Chain

- Regularly inspect the rear drive chain and tighten when necessary. Regularly lubricate the rear drive chain with oil to increase the chains life.
1. Remove the rear access panel from machine.
 2. Remove the chain guard.
 3. Loosen the four 3/8" hex bolts and nuts attaching the transmission to transmission platform, but do not remove.
 4. Adjust the set screw (3/8" bolt) that is located on the front side of the transmission platform.
 5. Turn the set screw clockwise to push transmission backward in order to tighten up chain slack. Leave a little slack in the chain and DO NOT over tighten the chain.
 6. Retighten the 4 transmission bolts and hex nuts.
 7. Replace chain guard and rear body access panel.

Belt System

WARNING

- Turn the engine off prior to performing any belt maintenance.
- Always let belts cool prior to performing any belt maintenance.



Blade Drive Belts

There are two five-strand V belts that rotate the blades shaft via the PTO.

Blade Drive Belt Tension

The manufacturer's belt tension is set between 68-70 hertz (Hz). DO NOT exceed the manufactures tension settings. NOTE: Over-tensioning the belts may damage the power-take-off (PTO) unit. Under-tensioning the belts may cause premature wear and/or poor saw performance. Squealing belts are an indication that the belts are loose.

Test the belt tension on a daily basis to ensure best performance and longest life of belts.

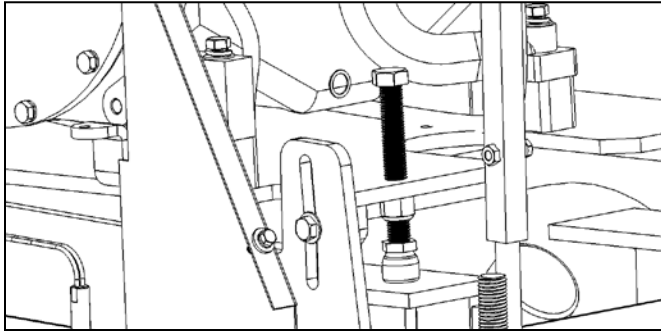
- Touch the end of the sonic tension meter sensor (Available through Diamond Products) at the midpoint of the longest section and strum the belt. Adjust the belts tension if it is lower than the manufacturers setting.

Adjusting the Belt Drive

1. Remove the belt guard.
2. Inspect belts for and fraying, stress cracks, and/or breakage and replace immediately if any damage is found.
3. Test the belt tension, Continue to step 4 if the belt needs tensioning. Replace belt guard if no tensioning or replacement is required.
4. There are two 1/2-13 retaining bolts on the front sides of the engine plate. Loosen

these bolts and allow the engine plate to be moved by the tensioning bolts.

- Two large tension bolts can be found on both front corners of the engine plate. Loosen each bolts hex nut.
- Adjust the tension bolt closest to the belt first, don't over tighten.
- Once the blade belts are tightened properly, adjust the second belt tension bolt to match the first exactly.
- Retighten the tension bolt hex nuts.
- Retighten the two ½-13 bolts on the side of the engine plate, and replace belt guard.



Engine Plate Bolts & Tensioning Hex Nuts

Replacing the Blade Drive Belts

- Remove the belt guard.
- Locate and loosen the two ½-30 Engine Plate retaining bolts on either side of the engine plate near the front.
- Adjust the two belt tensioning bolts on the front of the engine plate one at a time after loosening each belts hex nut.
- Turn both bolts counter clockwise until each swivel pad and nut touch the bottom of the engine plate.
- You should now have the belts adequately loosened for belt removal.
- Remove the belts from the PTO and blade sheave and replace with new belts.
- Align the new belts in a fashion that they are lined up with the corresponding V grooves on the sheave and PTO. NOTE: The PTO unit has (11) grooves, the first groove closest to engine is for the Jack shaft belt, DO NOT seat blade shaft belts in this groove.
- Adjust the tension in the belts by first adjusting the belt tension bolt closest to the drive belts. DO NOT exceed manufacturer's belt tension settings.
- Once first tension bolt is adjusted, adjust second to match exactly.

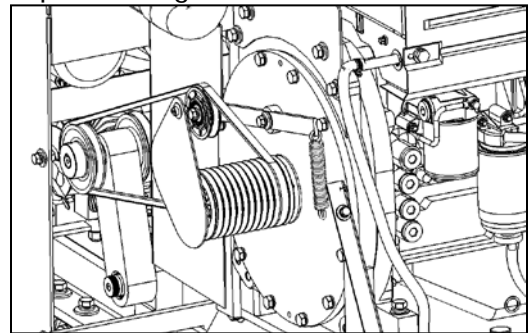
- Retighten tension bolts hex nuts and the ½-13 engine plate retaining bolts on the sides of the engine plate and replace belt guard.

Primary Transmission V Belt

There is one Primary Transmission V Belt on the saw. This is tensioned by a spring tensioner, and requires no manual tension adjustments. Inspect the belt for fraying, stress cracks, and/or any other damage and replace immediately if damage is present.

Replacing the Primary V-Belt

- Remove belt guard.
- Remove the blade shaft drive belts outlined in previous section.
- Push the spring tensioner down and hold it in place to create slack in the V belt.
- Remove the V belt from the spring tensioner idler wheel, then from PTO unit and jackshaft pulley.
- Route the new V belt around the PTO unit, jackshaft pulley and spring tensioner idler wheel.
- Release the spring tensioner to tension the V belt.
- Reinstall and tension blade shaft belts.
- Replace belt guard.



Primary Transmission V Belt

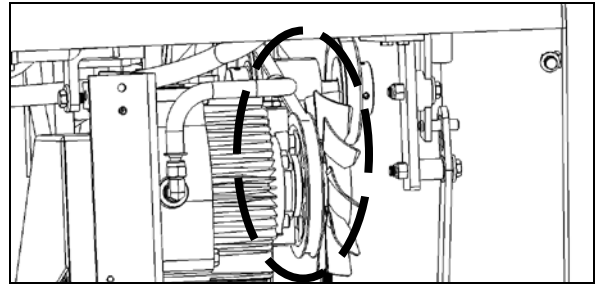
Secondary Transmission V-Belt

There is one secondary transmission v-belt on the saw. This belt is tensioned by the spring tensioner that tensions the primary v-belt and requires no manual adjustment. Visually inspect the secondary transmission v-belt for fraying, stress cracks, and/or any other damages and replace as necessary.

Replacing the Secondary Transmission V-Belt

- Remove the belt guard.
- Push the spring tensioner down to create slack in the belt.
- Remove the belt from the inner jack shaft pulley.

4. Release the spring tensioner.
5. Remove the v-belt form the transmission pulley.
6. Loop and alight the new v-belt first around the transmission pulley.
7. Press down on the transmission belt tensioner and route the secondary belt around the jackshaft pulley.
8. Release the spring tensioner to tension the secondary v-belt.
9. Replace belt guards.



Secondary Transmission V-Belt

Engine V-Belts

Refer to the parts list section of this manual for replacement v-belts and other parts.

Engine



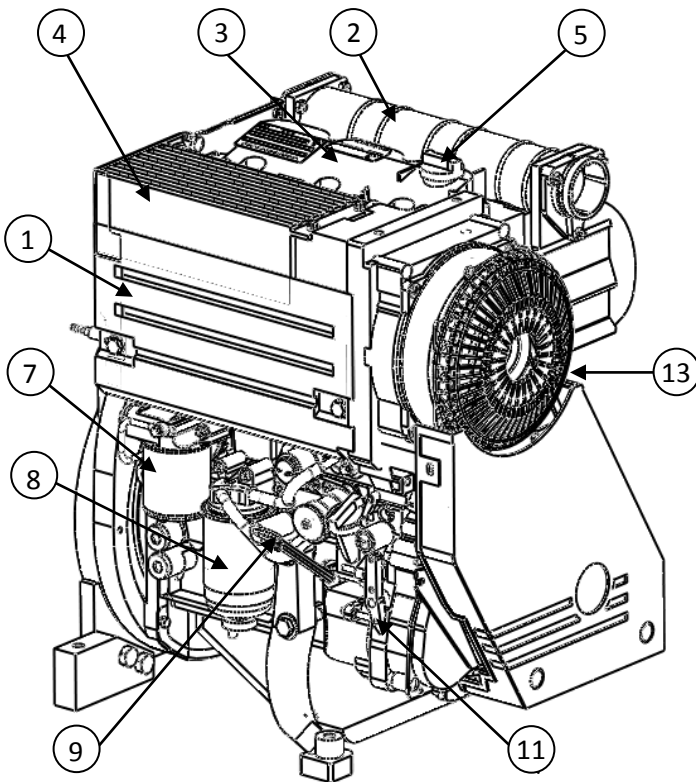
WARNING

- Always allow engine to cool down before performing any maintenance or inspections.
- Never attempt maintenance when engine is running.
- Always allow maintenance to be done by individuals with experience.

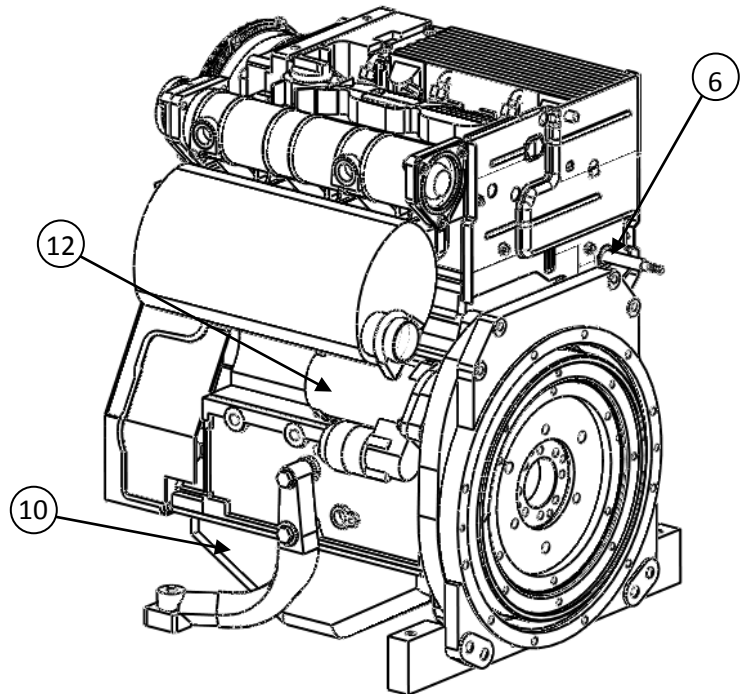


Always refer to the Deutz Operation Manual as the primary source of information on the engine.

Engine Components



Front View Of Deutz Engine



Rear View Of Deutz Engine

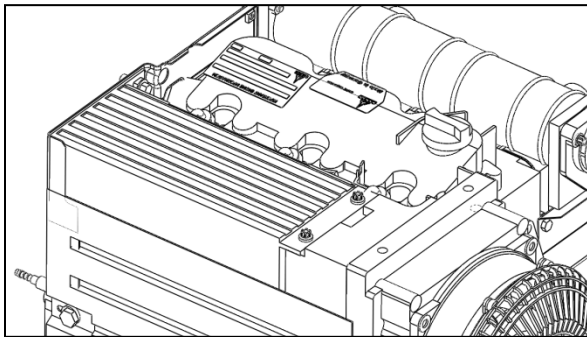
Engine Components Cont.

1. Removable Air Cowling (Remove to access Fuel Injectors)
2. Air Intake Pipe
3. Cylinder Head Cover
4. Oil Cooler
5. Oil Fill
6. Fuel Supply Pump
7. Oil Filter
8. Primary Fuel Filter
9. Oil Dip Stick
10. Oil Pan
11. Throttle Lever
12. Starter Motor
13. Cooling Fan

Engine Cooling System

Inspect and clean the engine cooling system regularly, pending on the level of concrete dust and debris at different job site. Failure to clean and monitor the engine cooling system will result in higher operation temperatures and possible engine damage.

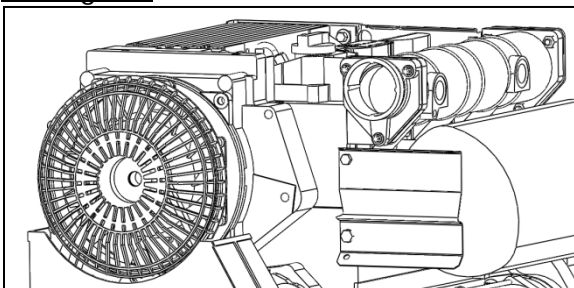
Oil Cooler



Engine Oil Cooler

1. Remove the coolant air cowling.
2. Clean the cooler with a brush or use a hose to remove slurry and dust.
3. Blow compressed air into the cooling fins on the top of the cooler to dislodge and dust or debris.
4. Replace the cowling intake and fasten.

Cooling Fan



Cooling Fan

1. Remove the engine cooling fan cover.
2. Clean the fan guard with a brush or water hose.
3. Blow compressed air around the fan to remove and dirt or debris.
4. Replace the fan guard and fasten.

Checking Oil Level

Check the engine oil level every time machine is operated and top off if necessary.

1. Turn the engine off with saw on level ground.
2. Lower the saw so that the engine is level.
3. Remove the oil dipstick and wipe it clean.
4. Reinsert the oil dipstick into holder and remove again. The oil level should be between the upper and lower depression marks on the dipstick. DO NOT let oil go below the lower depression mark on dipstick this will cause catastrophic engine failure.
5. Remove the oil cap and add oil as necessary. Let oil settle for a few minutes then check again. DO NOT fill oil above the higher marking on the oil dipstick.
6. Refer to the Deutz Operators manual for proper oils to be used.
7. Replace dipstick and oil cap prior to operating saw.

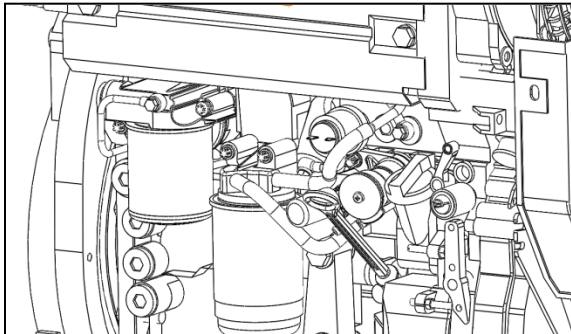
Changing Engine Oil

Change Engine Oil Every 125 Hours.

1. Lower the saw that it is level to the ground.
2. Start the engine and allow to idle to about two minutes. This will warm oil and allow it to flow better from engine.
3. Place oil drain pan underneath saw to catch drain oil from oil drain hose.
4. Open the oil drain valve and drain oil completely.
5. Close the oil drain valve. Dispose of used oil according to city, state, and federal regulations.
6. Replace oil filter by first placing a oil catch tray beneath filter.
7. Loosen oil filter (rotating counterclockwise) using appropriate oil filter wrench.
8. Hold oil filter under mating surface to catch any residual oil that may come from engine.
9. Wipe off mating surface with clean cloth.
10. Light oil the gasket of the new oil filter with clean oil.
11. Tighten new oil filter in place (rotating clockwise) until it touches the mating

surface, then finish tightening filter with oil filter wrench.

12. Inspect seal for any leaks.
13. Remove oil cap and refill engine with the proper capacity and appropriate oil type which can be found in the Deutz Operation Manual included with your saw.
14. Let oil settle for several minutes and check oil level with dipstick.
15. Fill with engine oil until oil level meets the *top depression mark on the oil dip stick.*
NOTE: When changing oil and filter, replace filter after dirty oil has been drained from machine.

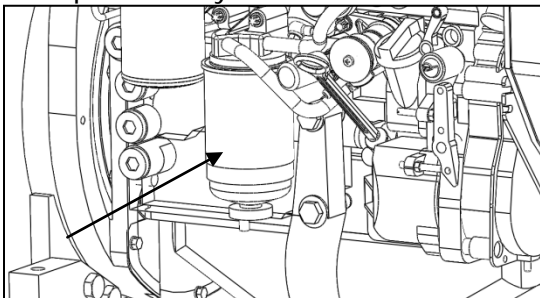


Oil Filter

Replacing Fuel Filter

Replace the fuel filter annually, or every 500 hours.

1. Turn off Engine
2. Lower the saw so that it is level with ground.
3. Place drainage pan beneath the fuel filter.
4. Loosen the fuel filter (rotating counterclockwise) using appropriate wrench.
5. Drain the fuel from the filter into tray.
6. Wipe down fuel filter mating surface with a clean cloth.
7. Lightly oil the new filter rubber gasket with clean oil.
8. Tighten new fuel filter (rotating clockwise) until it reaches the mating surface, then tighten using appropriate wrench.
9. Inspect for any fuel leaks.



Fuel Filter

In Line Fuel Filter

Replace the inline fuel filter every 250-500 hours depending on the amount of sediment visible in the filter.

Replacing In Line Fuel Filter

1. Turn the engine off.
2. Lower the saw so that it is level with the ground.
3. Place a drainage tray underneath fuel filter.
4. Remove hose clamps on each end of the fuel filter, excess fuel may leak from hoses.
5. Remove filter and replace with new filter verifying that the arrow on the filter is pointing in the direction of fuel flow.
6. Push hoses up tightly to filter body and reinstall clamps.
7. Check for any fuel leaks and properly dispose of waste fuel and filter.

Oil and Fuel Lines

Regularly check the oil and fuel lines for any visible sign of wear or leakage and replace or service as necessary.

Storing

Complete the following task when storing saw for extended periods of time.

- Lower the saw completely to remove strain on lifting mechanism.
- Turn all switch and controls to OFF position.
- Remove battery from the saw and store in proper location.
- Drain fuel from tanks and fuel lines.
- Disconnect water supply hose and drain all water from system using compressed air.
- Refer to Deutz Operator Manual for information on engine storage.
- Clean the saw and store in a dry area out of the reach of children.

Disposal of Saw

Properly dispose of the saw when it is no longer repairable and/or contain any safety hazards not worth repairing. Drain all fluids from the machine including oil, and fuel and dispose of according to city, state, and federal regulations. Remove battery and deposit it at a proper recycling facility. Secure the saw and haul to salvage yard for appropriate disposal.

Index

Serial Tags

Saw Serial Tag

The saw's serial tag is located on the left side of the dash. Record this number below for future reference and customer service purposes.

Serial Number	
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Engine Serial Tag

The engines serial tag is located on the top of the engine attached to the valve cover. Record this serial tags model and serial number below for future reference and customer service purposes.

Model Number	
Serial Number	

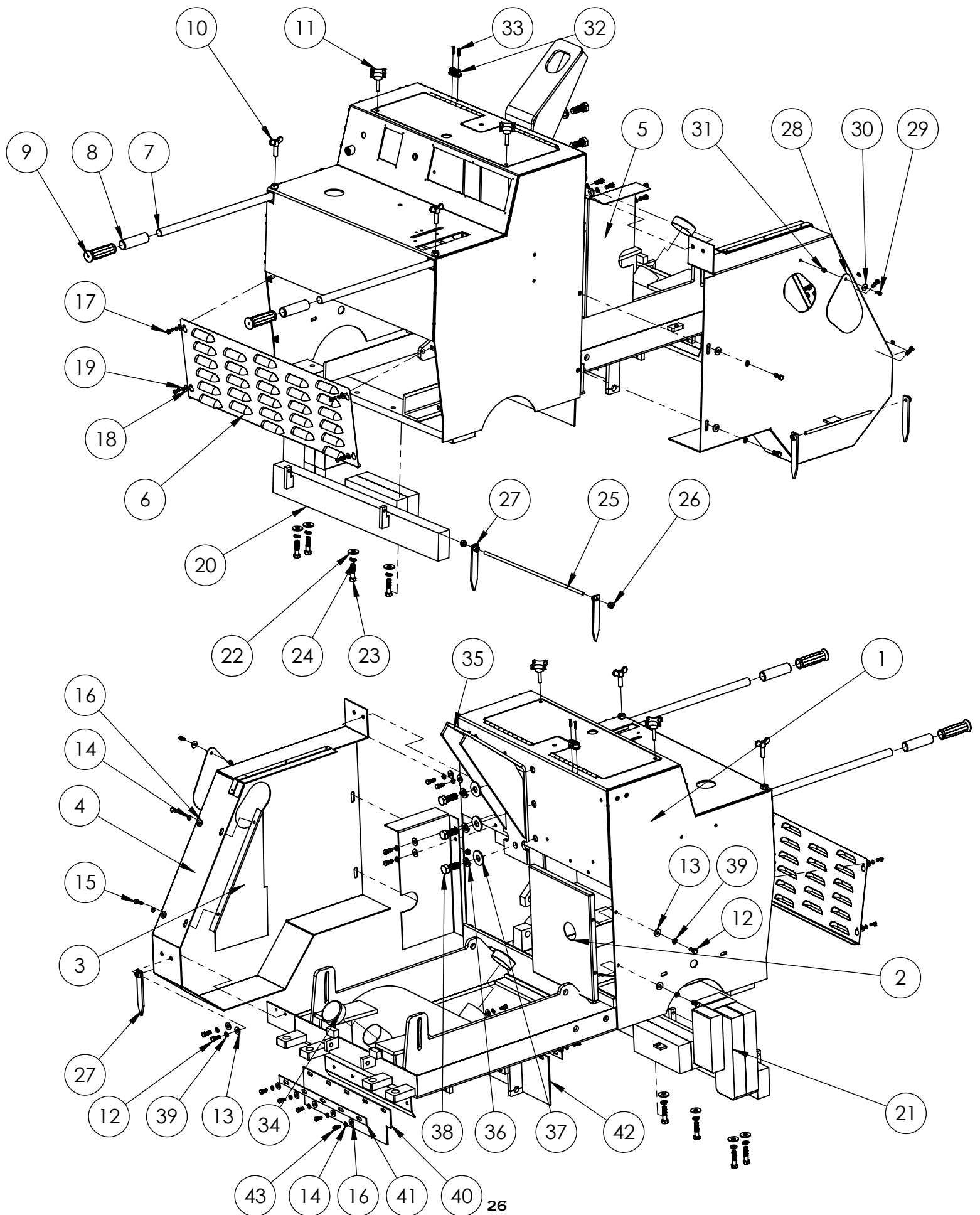
Troubleshooting

Troubleshooting		
Symptom	Problem	Solution
Engine will not start.	Emergency stop button activated?	Pull out on emergency stop button.
	Out of fuel?	Check for fuel in tank.
	Fuel filter or lines clogged?	Replace fuel filter or lines.
	Weak or worn out battery?	Test, charge, or replace battery.
	Faulty battery connection?	Inspect, clean and tighten battery cables.
	Main circuit breaker tripped?	Check wiring for short.
	Cold weather condition?	Pre-Heat engine with glow plugs.
	Engine Malfunction?	Refer to Deutz manual.
Saw will not rise.	Defective solenoid start switch?	Check and replace hydraulic pump solenoid.
	Worn out battery?	Test, charge, or replace battery.
	Defective raise button?	Check and replace raise button.
Saw Will Not Lower.	Debris in lowering valve stem?	Remove, inspect, and clean valve stem.
	Worn out battery?	Test, charge, or replace battery.
	Defective lowering button?	Check and replace lowering button.
Saw lowers to fast/slow.	Improper lowering speed?	Adjust flow valve knob on hydraulic pump.
Saw will not completely lower.	Depth stop set?	Turn the knob on the depth stop counterclockwise.
Machine not cutting straight.	Misaligned rear axle?	Adjust rear axle alignment.
	Excessive force applied when sawing?	Reduce forward speed.
	Wrong blade for application?	Contact dealer or manufacturer for correct blade.
Short Belt Life	Loose belts causing slippage?	Check belt tension on regular basis.
	Sheaves misaligned?	Use straightedge to check alignment.
	Worn sheave grooves?	Check for groove wear and replace as necessary.
	Mismatched belt set?	Replace with new set of belts, DO NOT mix new and old.
	Overheating PTO?	Check belt tension and lubricate PTO every 25 hrs.

References

1. Deutz AG (www.deutz.com)
 - Operations Manual 2011, 1st Edition, Germany 2008
 - Spare Parts Catalogue D/TD/TCCD 2011, 1st Edition, Germany, 2008
2. Diamond Products (www.diamodproducts.com)
 - CG-2 Mini Groover/Grinder With 49 HP Diesel Manual, Grand Rapids, 2012

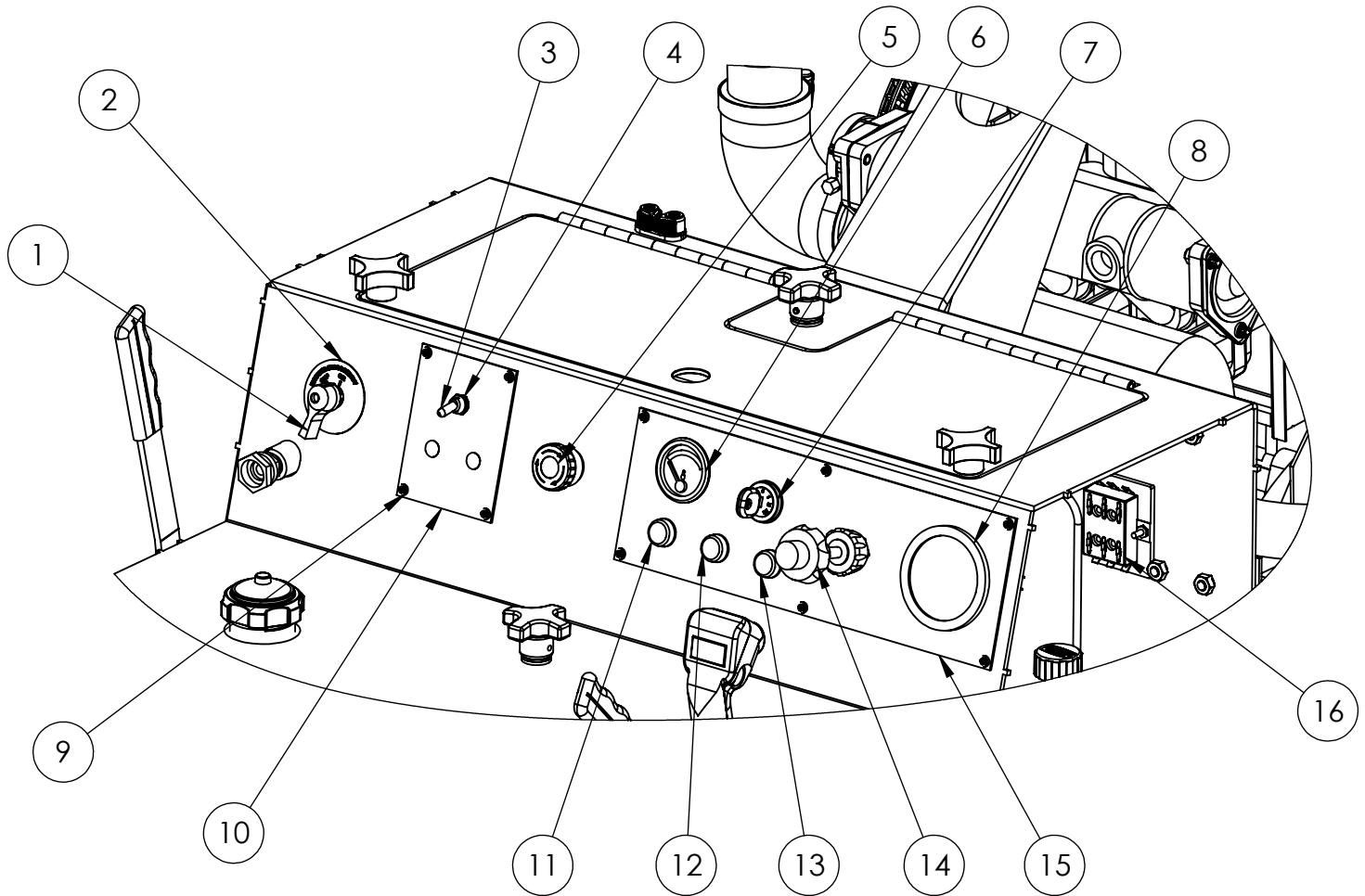
CG-2 Mini Groover Main Frame & Guards



CG-2 Mini Groover Main Frame And Guards

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	6079266	CG-2 Frame Weldment	1
2	6079265	CG-2 Upright Safety Guard Weldment	1
3	6075281	Belt Guard Front Safety Cover Weldment	1
4	6079267	CG-2 Belt Guard	1
5	6075282	Belt Guard Rear Safety Cover	1
6	7700105	COVER, REAR, LOUVERED, CG-2	1
7	7600196	HANDLE, ROD, \varnothing 1.0 X 35.0	2
8	2501955	Handle Stop Grip	2
9	2500636	Handle Grip	2
10	2900430	Hand Lock Knob, 1/2-13 x 1-1/2"	2
11	2900234	Hand Lock Knob, 3/8"-16	2
12	2900005	3/8-16x1.00 HEX CAP SCREW	10
13	2903018	3/8" Flat Washer	10
14	2900031	5/16 SPLIT LOCK WASHER	12
15	2900138	5/16-18x1.00 HEX CAP SCREW	2
16	2900567	5/16" Flat Washer	12
17	2900114	1/4-20x.750 HEX CAP SCREW	4
18	2900126	1/4" USS Flat Washer	4
19	2900024	1/47" Split Lock Washer	4
20	6075405	Main Counterweight Assembly	1
21	6075406	Aux. Counterweight Assembly	1
22	2900127	1/2" USS Flat Washer	4
23	2900106	1/2-13 x 2.00" Hex Head Cap Screw	4
24	2900084	1/2 SPLIT LOCK WASHER	4
25	6082005	Rear Pointer Rod	1
26	2501603	Set Collar, 3/8" with Set Screw	2
27	6082004	Rear Pointer Weldment	4
28	6079264	PTO Grease Fitting Access Door	1
29	2900246	Shoulder Screw, 5/16" x 1/4" (1/4-20)	1
30	2900252	Belleville Washer, 5/16"	1
31	2900010	1/4-20 Nylon-Insert Hex Locknut	1
32	2501427	Rope Cleat	1
33	91500A199	8-32 x1.00" Flat Head Phillips Machine Screw	2
34	2506731	3.00" I.D. Dust Cap	2
35	6082002	Frame Lift Weldment, CG-2	1
36	2900042	3/4 SPLIT LOCK WASHER	3
37	2903136	3/4" USS Flat Washer	3
38	2903138	3/4-10 x 2.00" Hex Head Cap Screw	3
39	2900006	3/8 SPLIT LOCK WASHER	10
40	6079260	Front Water Shield	1
41	6079259	CG-2 Water Shield Retaining Strip	2
42	6079261	Rear Water Shield	1
43	2900019	5/16-18x .750" Hex Head Cap Screw	10

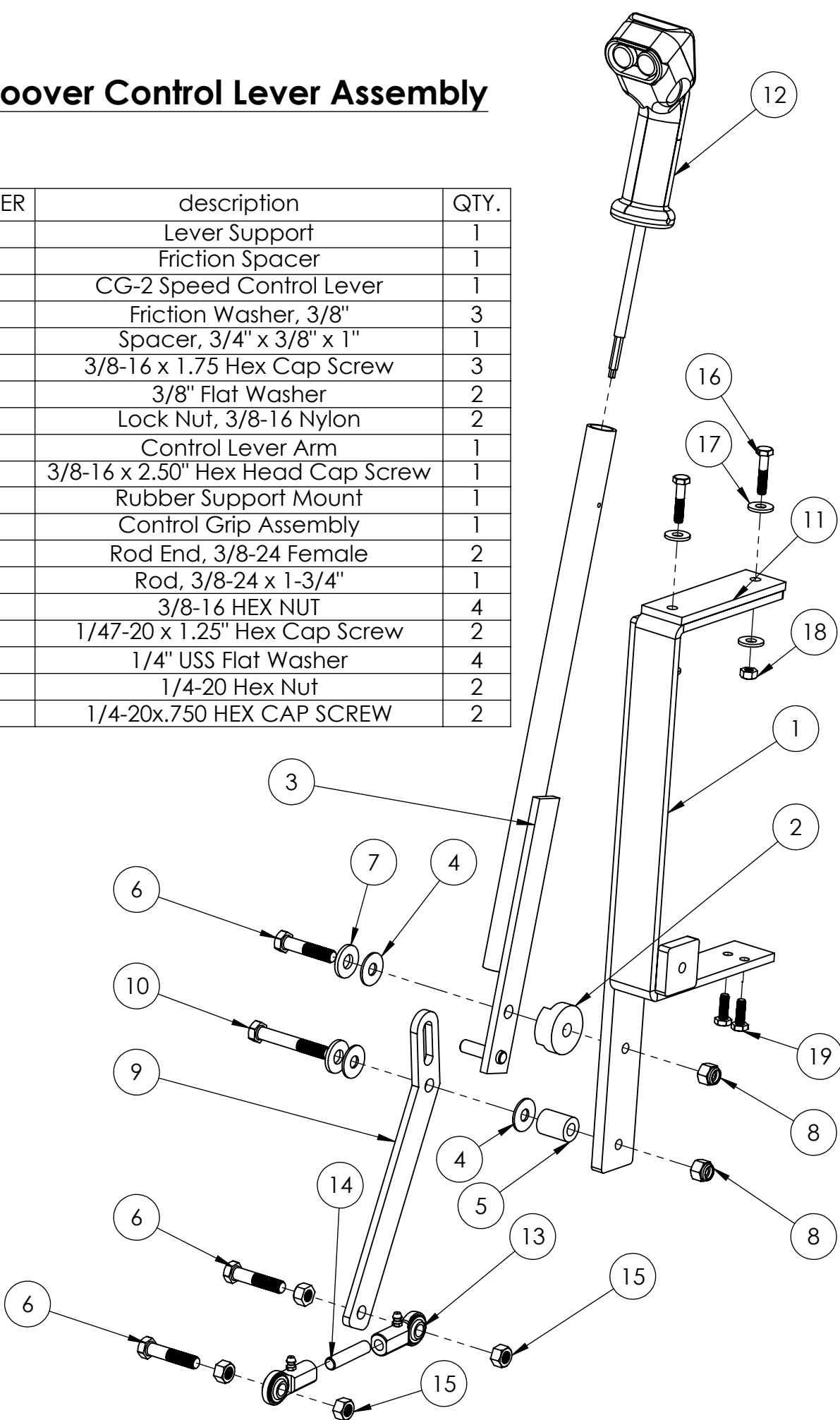
CG-2 Mini Groover Instrument Panel Assembly



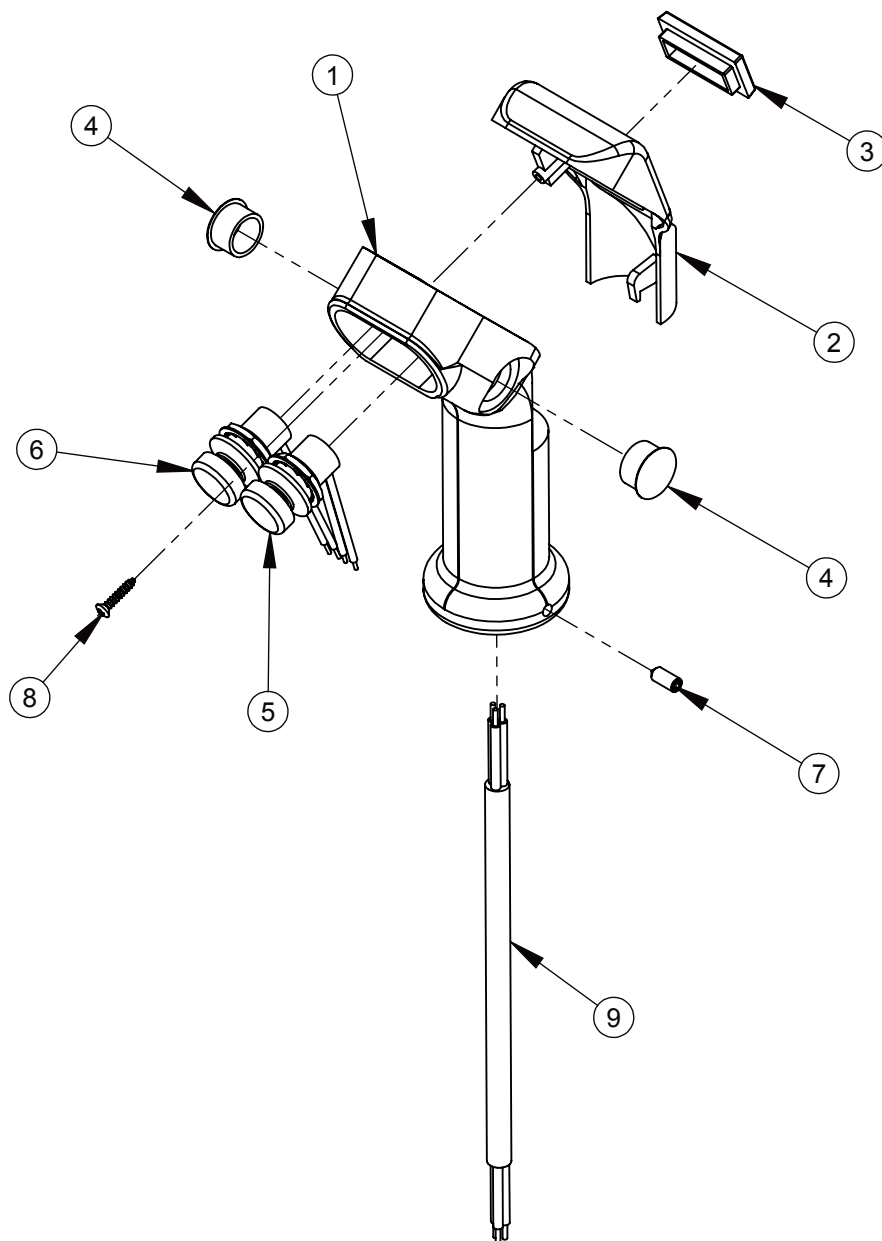
ITEM NO.	PART NUMBER	Description	QTY.
1	2500565A	Battery Disconnect Switch Body	1
2	2800566	Face Plate, Battery Disconnect	1
3	2800062	Toggle Switch On/Off	1
4	2800063	Switch Boot	1
5	2801367	Emergency Stop Button	1
6	2703192	Temperature Gauge, Pricol	1
7	2703194	Ignition Switch & Key	1
8	6010416	VDO Tachometer / Hour Meter	1
9	2900021	Tap Screw, Pan Hd., #10-24 x 3/8"	10
10	6010098	Switch Plate	1
11	2700785	Alternator Light	1
12	2700787	Oil Temperature Light	1
13	2700786	Oil Pressure Light	1
14	2500228	Throttle Controller	1
15	6013093	Gauge Panel	1
16	2800388	Fuse Panel, 6 Circuit	1

CG-2 Mini Groover Control Lever Assembly

ITEM NO.	PART NUMBER	description	QTY.
1	6075408	Lever Support	1
2	6010055	Friction Spacer	1
3	6079209	CG-2 Speed Control Lever	1
4	2900153	Friction Washer, 3/8"	3
5	2506001	Spacer, 3/4" x 3/8" x 1"	1
6	2900047	3/8-16 x 1.75 Hex Cap Screw	3
7	2903018	3/8" Flat Washer	2
8	2900018	Lock Nut, 3/8-16 Nylon	2
9	6075410	Control Lever Arm	1
10	2900596	3/8-16 x 2.50" Hex Head Cap Screw	1
11	2501339	Rubber Support Mount	1
12	6010319	Control Grip Assembly	1
13	2500152	Rod End, 3/8-24 Female	2
14	6011059	Rod, 3/8-24 x 1-3/4"	1
15	2900033	3/8-16 HEX NUT	4
16	2900052	1/47-20 x 1.25" Hex Cap Screw	2
17	2900126	1/4" USS Flat Washer	4
18	2900125	1/4-20 Hex Nut	2
19	2900114	1/4-20x.750 HEX CAP SCREW	2

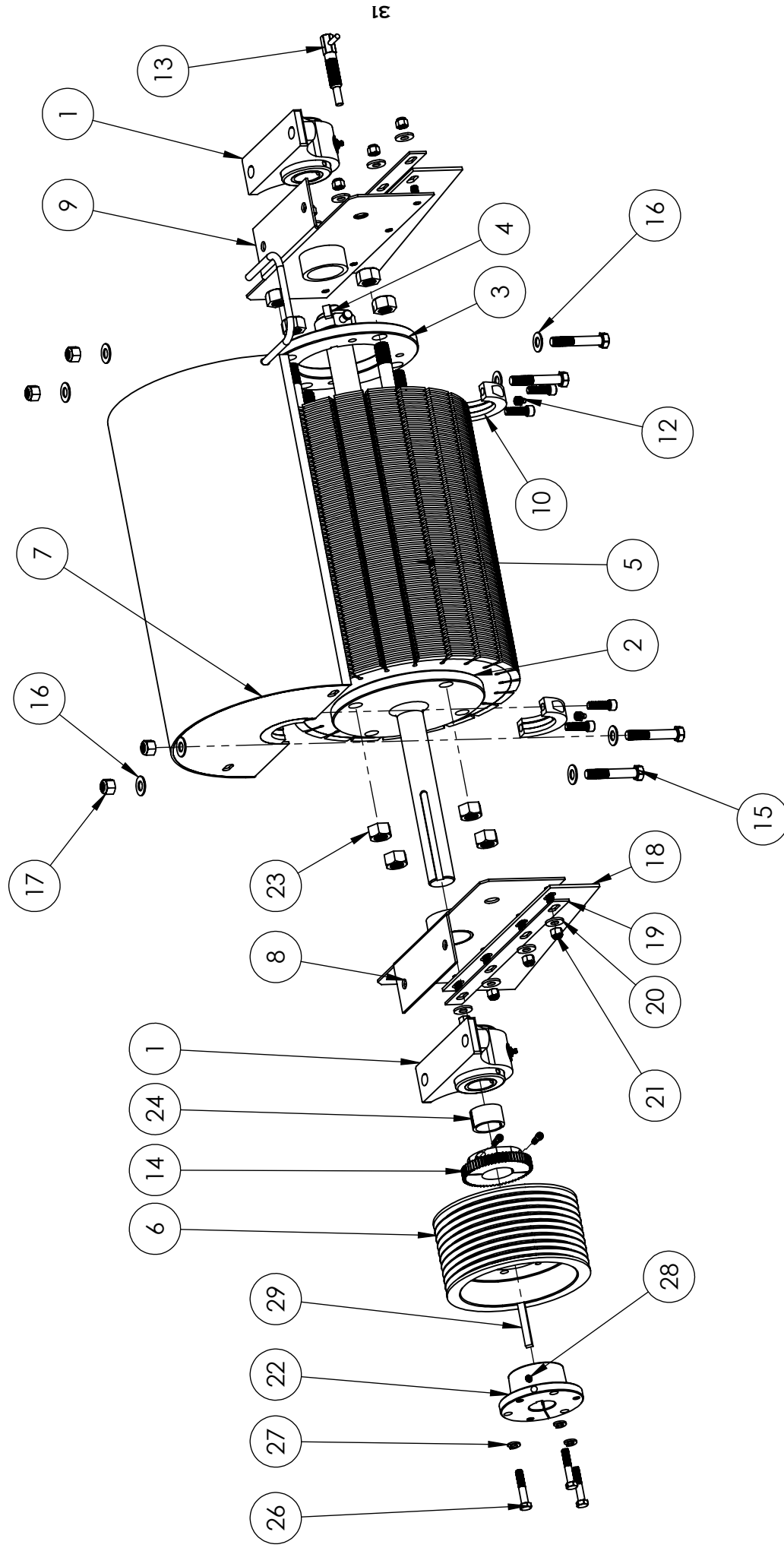


CG-2 Mini Groover Control Grip Assembly

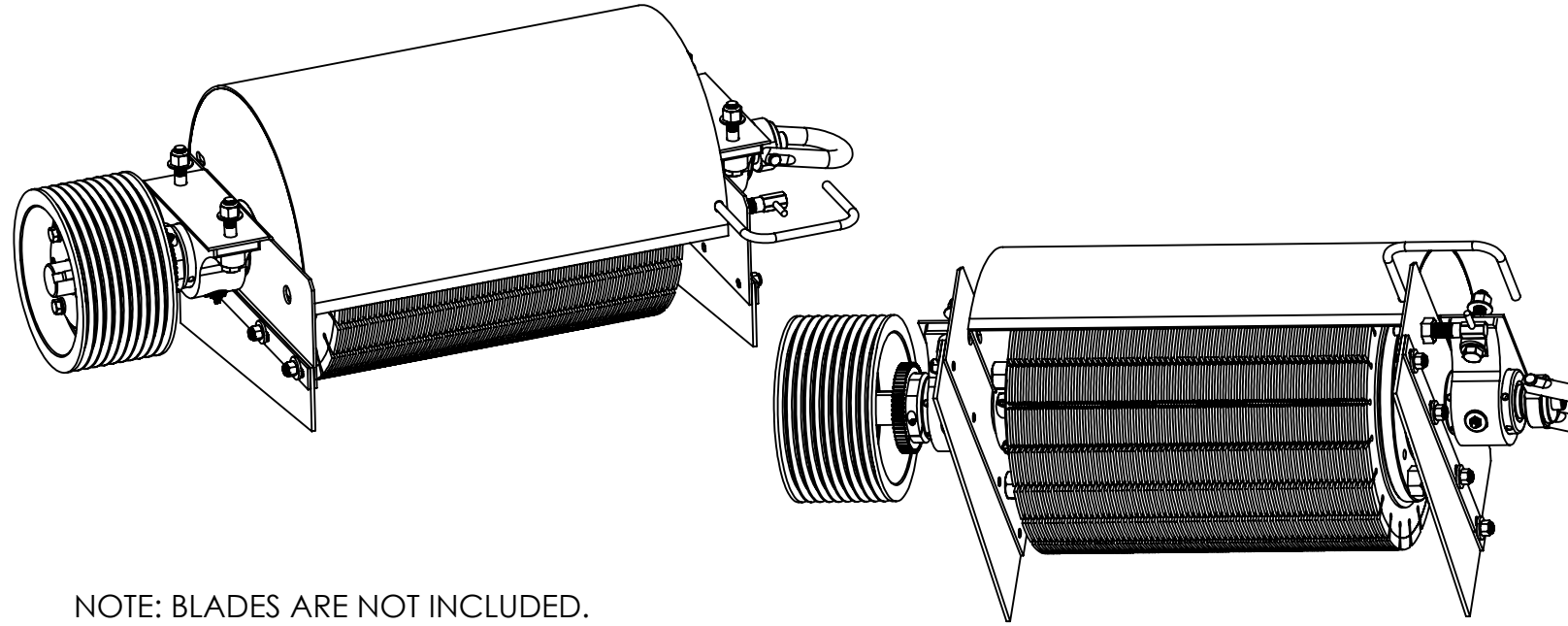


ITEM NO.	PART NUMBER	Description	QTY.
1	2501280	Control Grip Body	1
2	2501281	Control Grip Cover	1
3	2500644	Plug, Rectangular	1
4	2500694	Plug, 5/8" Hole	2
5	2800372	Pushbutton Switch (B&G)	1
6	2800373	Pushbutton Switch (B&W)	1
7	2900453	Set Screw, Soc. Hd., M5-0.8 x 12mm	1
8	2900452	Machine Screw, Oval Hd., #4 x 5/8"	1
9	2800393	Harness, Hydraulic Pump	1

CG-2 Mini Groover Blade Shaft Assembly



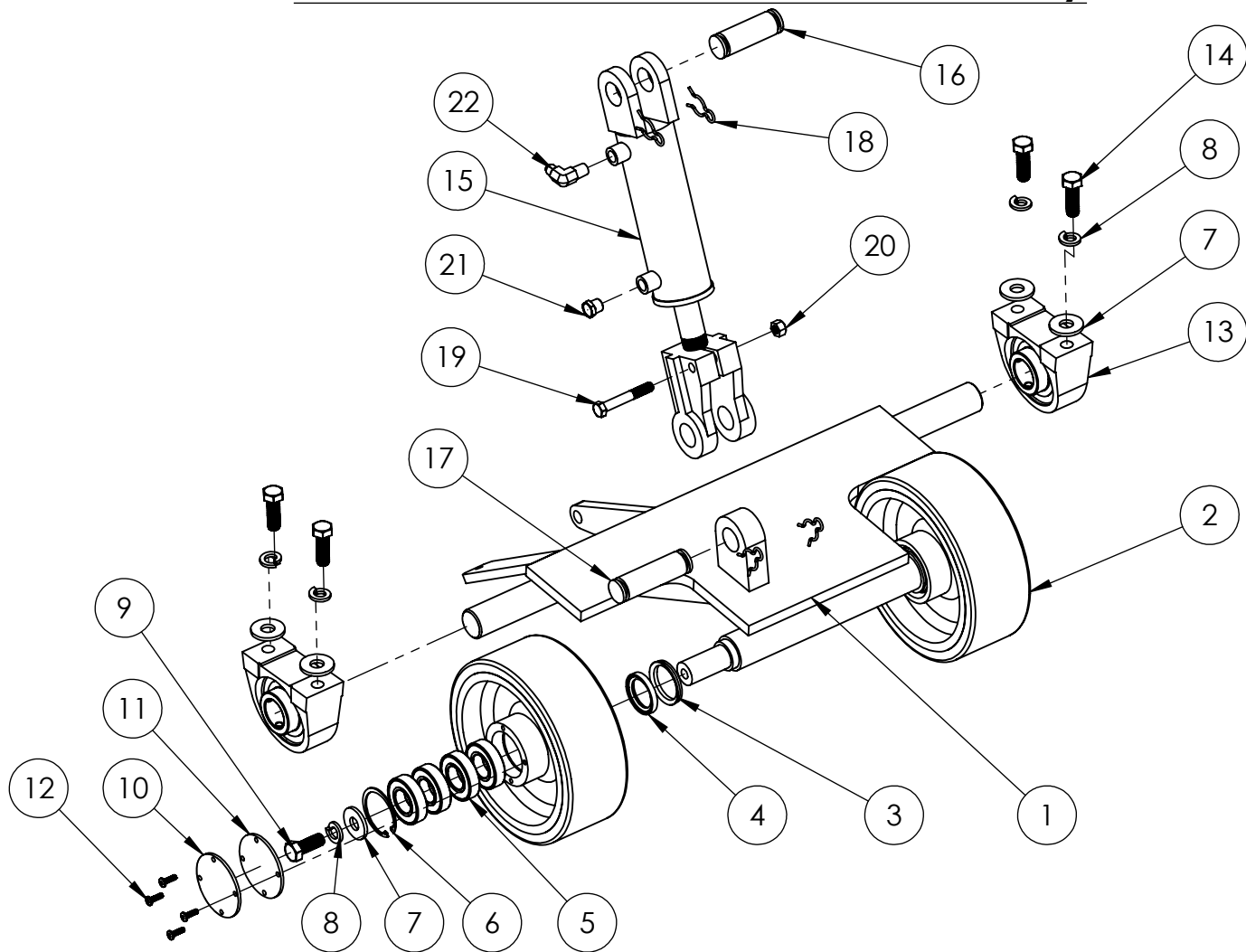
CG-2 Mini Groover Blade Shaft Assembly



NOTE: BLADES ARE NOT INCLUDED.

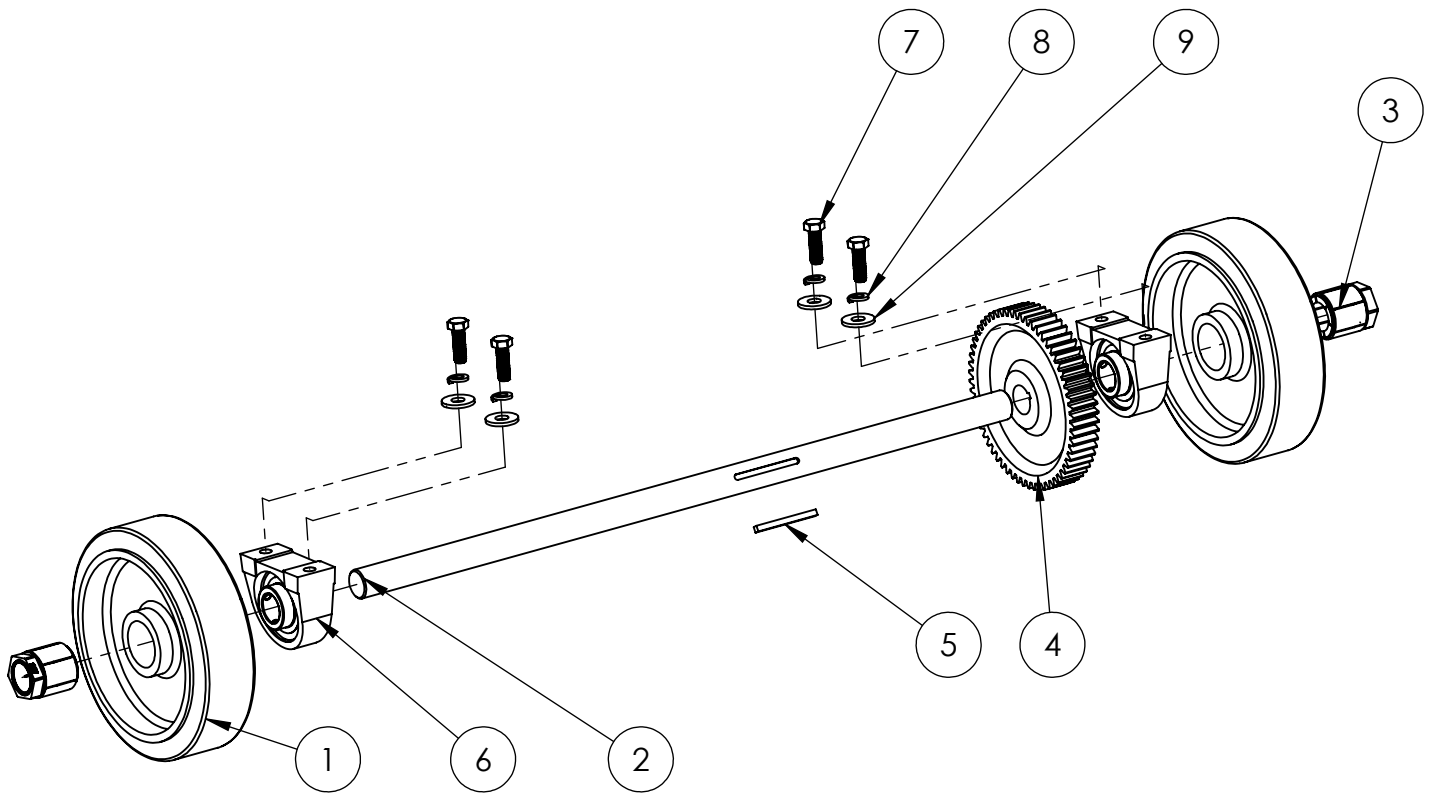
ITEM NO.	PART NUMBER	Description	Default/Qty.
1	2705403	Bearing, 1-7/16" Pillow Block	2
2	6082007	Blade Shaft, CG-2	1
3	6030317	Blade Flange	1
4	6078034-1	Key, 3/8" Sq. x 5/8"	1
5	6091574	Threaded Rod, 3/4"-10 x 18.625"	4
6	2500440	Sheave, 8" x 10 Groove QD Style	1
7	6075416	Blade Cover Weldment	1
8	6075414	Blade Cover Side Mount Weldment, Right	1
9	6075415	Blade Cover Side Mount Weldment, Left	1
10	6091589	Outer Bearing, Blade Cover, Top	2
12	2900062	Grease Fitting, 1/8" NPT	2
13	2503351	Locking Spring Plunger, L-Handle	1
14	6010230	Shaft Tach Gear	1
15	2903091	1/2-13 x 3.00" Hex Head Cap Screw	4
16	2900058	1/2 FLAT WASHER	8
17	2900026	1/2-13 Nylon-Insert Hex Locknut	4
18	6079262	CG-2 Blade Side Splash Shield	2
19	6079263	CG-2 Water Shield Side Strip	2
20	2903018	3/8" Flat Washer	8
21	2900018	Lock Nut, 3/8-16 Nylon	8
22	2506550	Bushing, QD, SF 1-7/16"	1
23	2903134	3/4-10 Hex Nut Hex Nut	8
24	7600292	Sleeve, Tach Gear	1
26	2900080	3/8-16 x 2.00" Hex Head Cap Screw	3
27	2900006	3/8 SPLIT LOCK WASHER	3
28	2900142	5/16-10 x .375" Cup Point Set Screw	1
29	2503468	CG-2 Blade Sheave Key	1
32	2504720	1/2-13" Hoist Ring	1

CG-2 Mini Groover Lift Plate Assembly



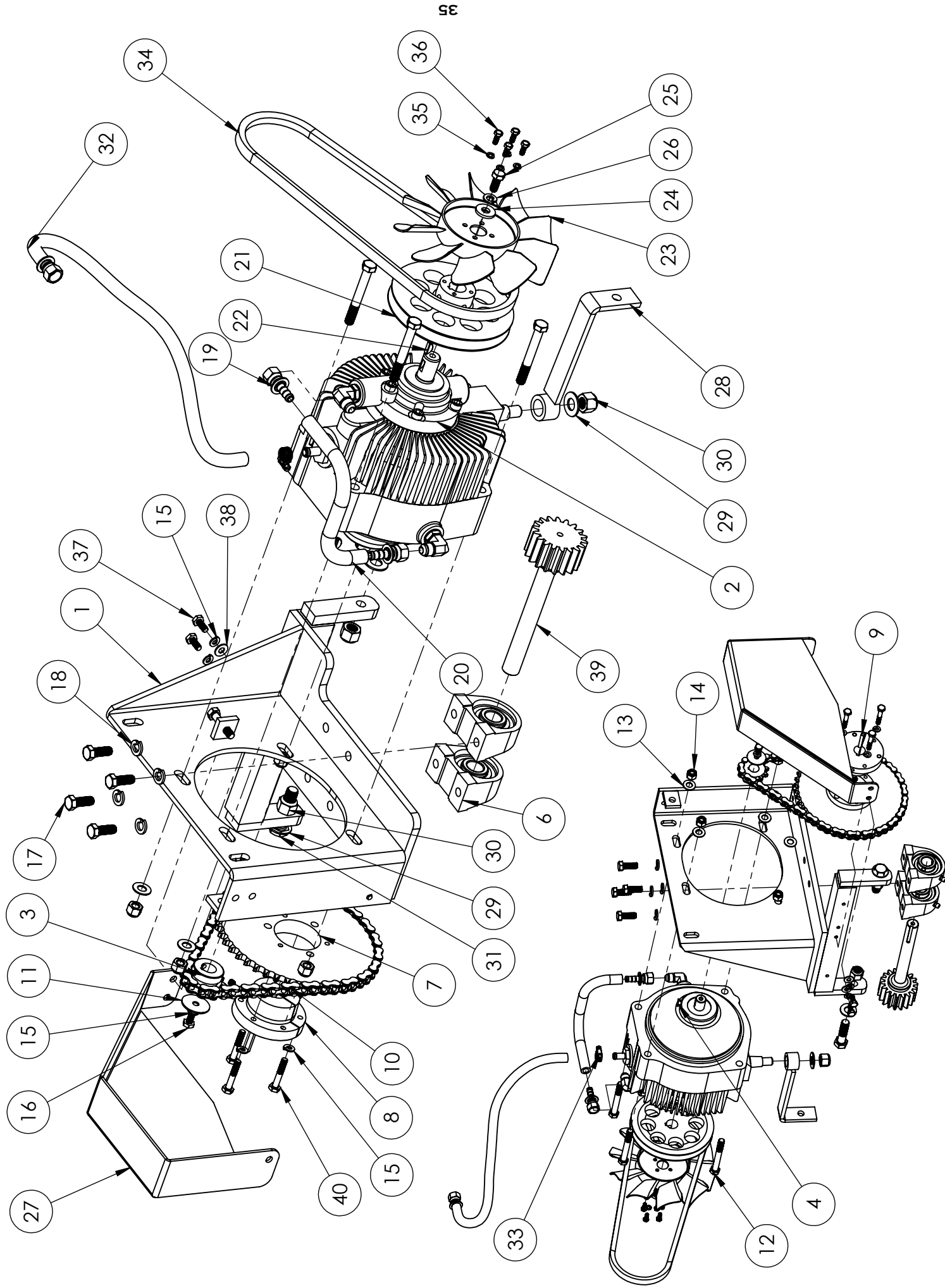
ITEM NO.	PART NUMBER	description	QTY.
1	6075418	Lift Plate Weldment	1
2	2501390	Wheel, 8" Front	2
3	2501428	Seal, 1-1/2" V-Ring	2
4	2501391	Seal, 1-1/4" x 1-3/4" x 1/4"	2
5	2501418	Ball Bearing, 1" x 2" x 1/2"	8
6	2501392	Retaining Ring, 2" Internal	2
7	2900127	1/2" USS Flat Washer	6
8	2900084	1/2 SPLIT LOCK WASHER	6
9	2900025	1/2-13 x 1.25" Hex Cap Screw	2
10	6010536	Wheel Cover	2
11	2501393	Wheel Cover Gasket	2
12	2901246	10-24 x .625" Phillips Pane Head Machine Screw	8
13	2500158	Pillow Block Bearing 1-1/4"	2
14	2900499	1/2-13x1.50 HEX CAP SCREW	4
15	2500177	Hydraulic Cylinder 2.00" Bore	1
16	6010031	Cylinder Pin, 1" Dia. x 3" Long	1
17	6010119	Cylinder Pin, 1" Dia. x 3-1/2" Long	1
18	2900064	Hair Pin Cotter, 3/4"	4
19	2900596	3/8-16 x 2.50" Hex Head Cap Screw	1
20	2900033	3/8-16 HEX NUT	1
21	3200727	1/4" NPT Breather	1
22	3200057	Elbow, 1/4" M. Pipe to 1/4" M. JIC	1

CG-2 Mini Groover Drive Axle Assembly

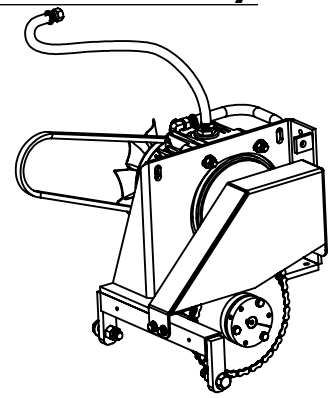
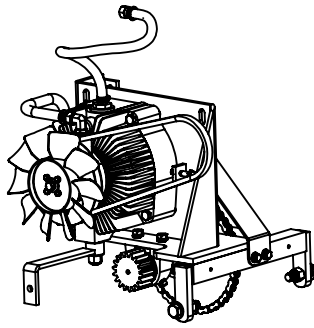


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2500873	Wheel, 10" Rear with 2" Bore	2
2	7600252	ROD, ϕ 1.25 X 32.75, AXLE	1
3	2500874	Trantorque Bushing, 1-1/4"	2
4	6010665	Wheel Drive Gear, 60 Tooth	1
5	7600167-09	KEY, .25 X 3.0L	1
6	2500158	Pillow Block Bearing 1-1/4"	2
7	2900499	1/2-13x1.50 HEX CAP SCREW	4
8	2900084	1/2 SPLIT LOCK WASHER	4
9	2900127	1/2" USS Flat Washer	4

CG-2 Mini Groover Transmission & Drive Assembly



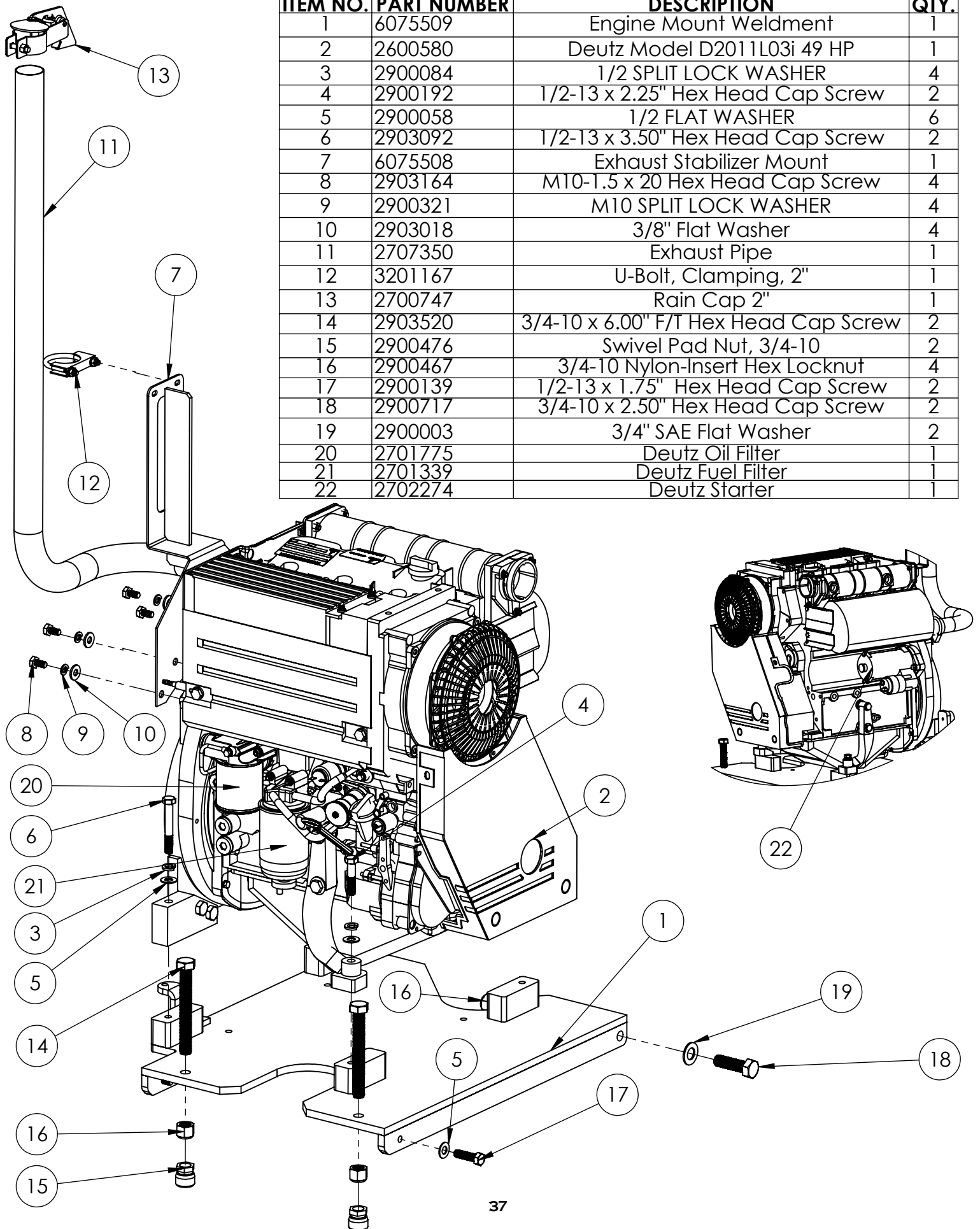
CG-2 Mini Groover Transmission & Drive Assembly



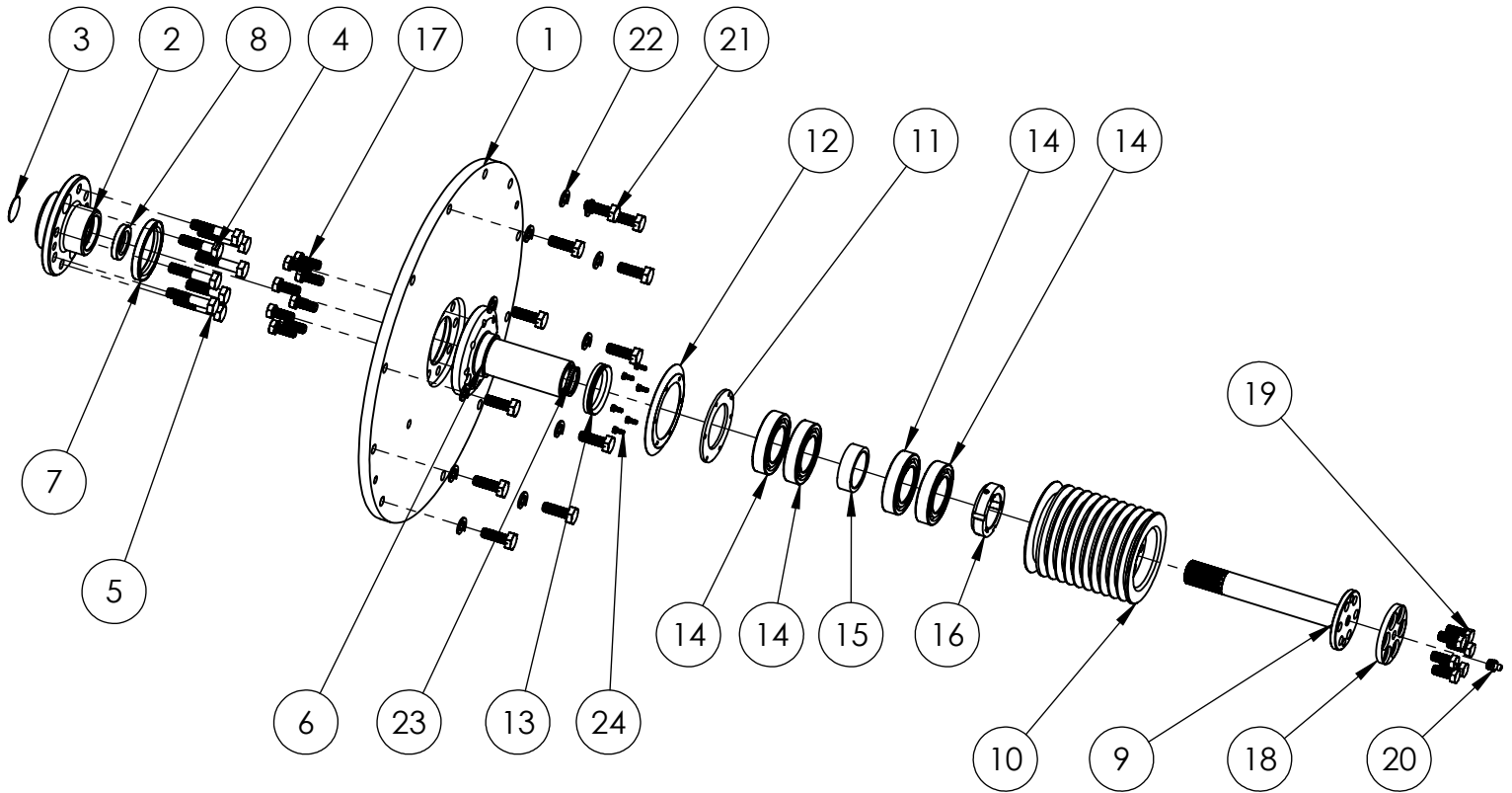
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	7800072	TRANSMISSION PLATFORM, 6010068, MODIFIED	1
2	2600068	Eaton Hydrostatic Transmission	1
3	2500150	Sprocket, #40 x 11 Tooth	1
4	2900063	Woodruff Key #405, 1/8" x 5/8"	1
6	2500159	Pillow Block Bearing, 3/4"	2
7	2500148	Sprocket, #40 x 45 Tooth	1
8	2500149	QD Bushing, SDS x 3/4" w/Fasteners	1
9	6048229	Key, 3/16" Sq. x 1-1/4"	1
10	6010069	Chain, #40 x 56 Pitch	1
11	2900083	Fender Washer, 1/4" x 1-1/4"	1
12	2900035	3/8-16 x 3.00" Hex Head Cap Screw	4
13	2900014	3/8" SAE Flat Washer	4
14	2900018	Lock Nut, 3/8-16 Nylon	4
15	2900024	1/47" Split Lock Washer	7
16	2900082	1/4-20 x .500" Hex Head Cap Screw	1
17	2900005	3/8-16x1.00 HEX CAP SCREW	4
18	2900006	3/8 SPLIT LOCK WASHER	4
19	3200046	Fitting, 3/8" F. JIC to 3/8" Push Lock	3
20	6010060	Oil Recirculation Hose, 3/8" I.D. x 9"	1
21	6010682	Transmission Pulley 5.5"	1
22	2900143	Woodruff Key #61, 3/16" x 5/8"	1
23	2500519	Cooling Fan, 7"	1
24	2900567	5/16" Flat Washer	1
25	2900019	5/16-18x .750" Hex Head Cap Screw	1
26	2900031	5/16 SPLIT LOCK WASHER	1
27	6010671	Chain Guard	1
28	6075501	Shift Lever Weldment	1
29	2900058	1/2 FLAT WASHER	3
30	2900026	1/2-13 Nylon-Insert Hex Locknut	3
31	2900106	1/2-13 x 2.00" Hex Head Cap Screw	2
32	6010059	CG-2 Transmission Hose	1
33	3200062	Hose Clamp #4	1
34	2504025	V-Belt, AX-33	1
35	2900038	#10 Split Lock Washer	4
36	2900448	#10-32 x .500" Hex Head Machine Screw	4
37	2900023	1/4-20 X .625" Hex Head Cap Screw	3
38	2900009	1/4 SAE Flat Washer	3
39	6010664	Transmission Jackshaft 18T	1
40	2900048	1/4-20 x 1.50" Hex Head Cap Screw	3
42	2900508	5/16-18 x 1.50" Hex Head Cap Screw	1

CG-2 Mini Groover Engine Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	6075509	Engine Mount Weldment	1
2	2600580	Deutz Model D2011L03i 49 HP	1
3	2900084	1/2 SPLIT LOCK WASHER	4
4	2900192	1/2-13 x 2.25" Hex Head Cap Screw	2
5	2900058	1/2 FLAT WASHER	6
6	2903092	1/2-13 x 3.50" Hex Head Cap Screw	2
7	6075508	Exhaust Stabilizer Mount	1
8	2903164	M10-1.5 x 20 Hex Head Cap Screw	4
9	2900321	M10 SPLIT LOCK WASHER	4
10	2903018	3/8" Flat Washer	4
11	2707350	Exhaust Pipe	1
12	3201167	U-Bolt, Clamping, 2"	1
13	2700747	Rain Cap 2"	1
14	2903520	3/4-10 x 6.00" F/T Hex Head Cap Screw	2
15	2900476	Swivel Pad Nut, 3/4-10	2
16	2900467	3/4-10 Nylon-Insert Hex Locknut	4
17	2900139	1/2-13 x 1.75" Hex Head Cap Screw	2
18	2900717	3/4-10 x 2.50" Hex Head Cap Screw	2
19	2900003	3/4" SAE Flat Washer	2
20	2701775	Deutz Oil Filter	1
21	2701339	Deutz Fuel Filter	1
22	2702274	Deutz Starter	1

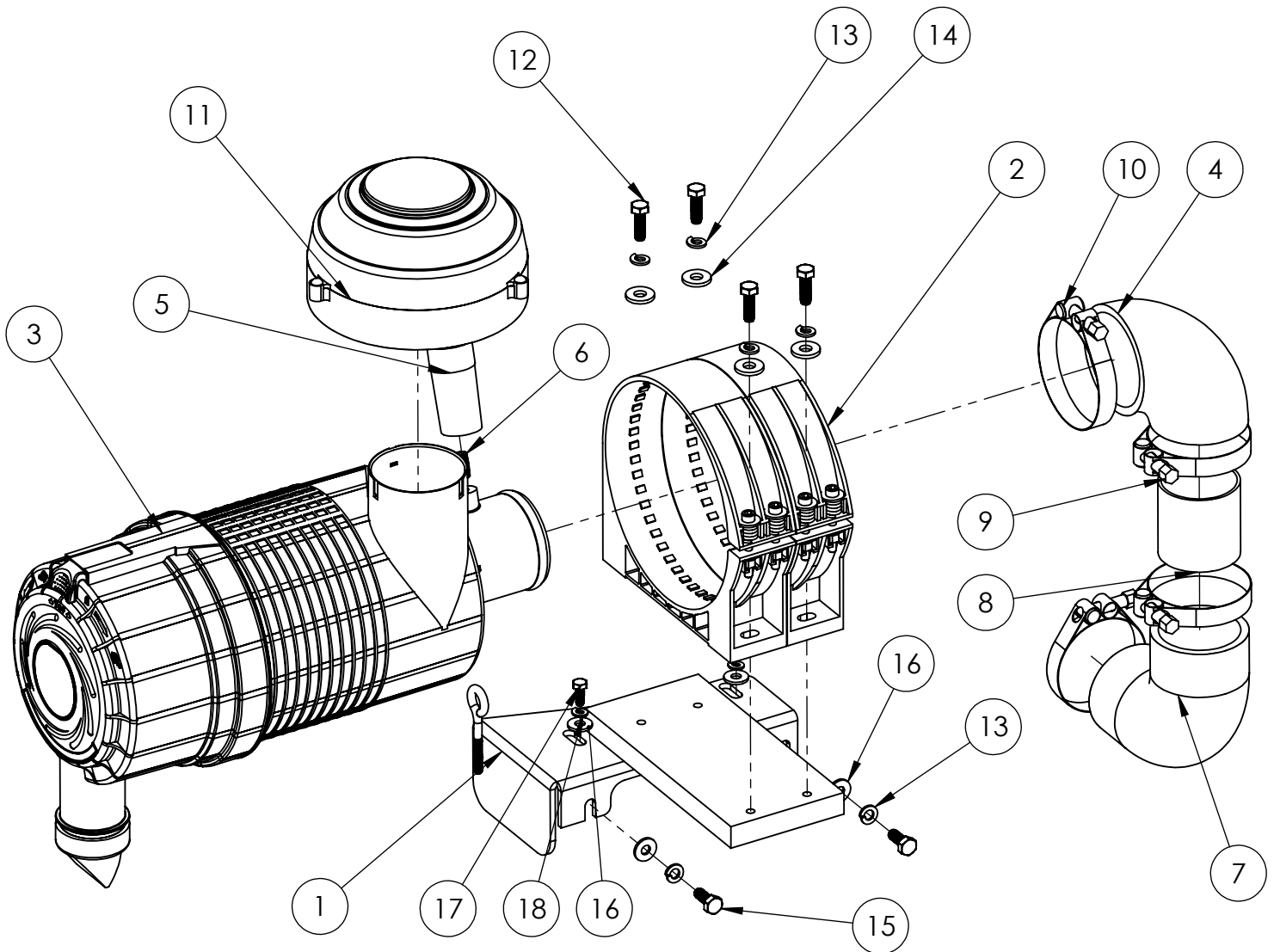


CG-2 Mini Groover PTO Assembly



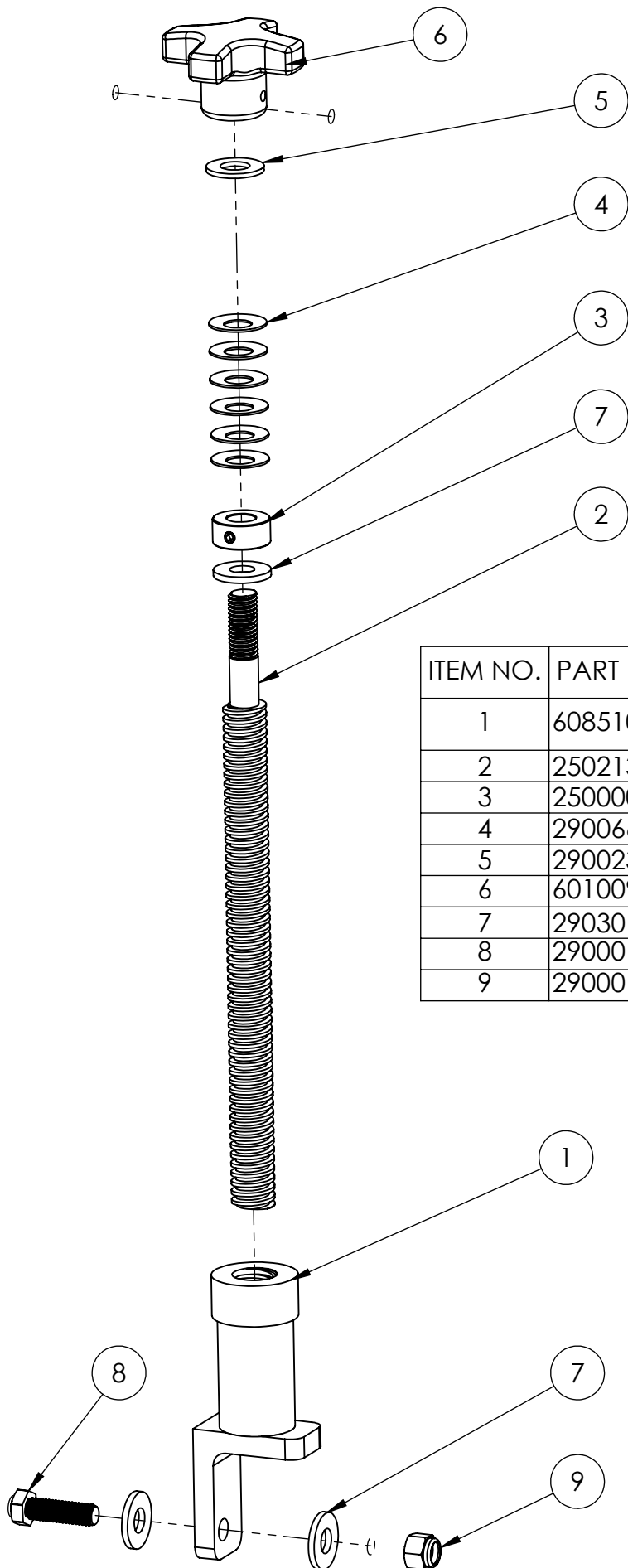
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	6082013	Inner Ring Support	1
2	2501721	Coupling Hub	1
3	2501670	Hubbard Plug, 1-1/8"	1
4	2900316	M10 x 40mm Hex Head Cap Screw	2
5	2900318	M10 x 50mm Hex Head Cap Screw	6
6	2501717	Shaft Support Sleeve	1
7	2501983	Seal, 2" x 2-5/8" x 5/16"	1
8	2501714	Seal, 1" x 1-1/2" x 1/4"	1
9	2501720	Splined Drive Shaft	1
10	2501722	Sheave, 4" x 11 Groove	1
11	2501719	Bearing Retainer Plate	1
12	2501998	Grease Slinger Disc	1
13	2500751	Seal, 1-3/4" V-Ring	1
14	2501986	Ball Bearing, 40mm x 68mm x 15mm	4
15	6046020	PTO Bearing Spacer	1
16	2900654	Bearing Lock Nut, 1-9/16"-18	1
17	2900621	3/8-16 x .875" Hex Head Cap Screw	8
18	2501985	Grease Disc	1
19	2900954	3/8-24 x .875" Hex Head Cap Screw	6
20	2900062	Grease Fitting, 1/8" NPT	1
21	2903169	M10 x1.5 x 30 Hex Head Cap Screw	11
22	2900321	M10 SPLIT LOCK WASHER	11
23	2501984	Seal, 1" x 1-1/4" x 1/8"	1
24	2900624	6-32 x .375" Hex Head Machine Screw	6

CG-2 Mini Groover Air Intake Assembly



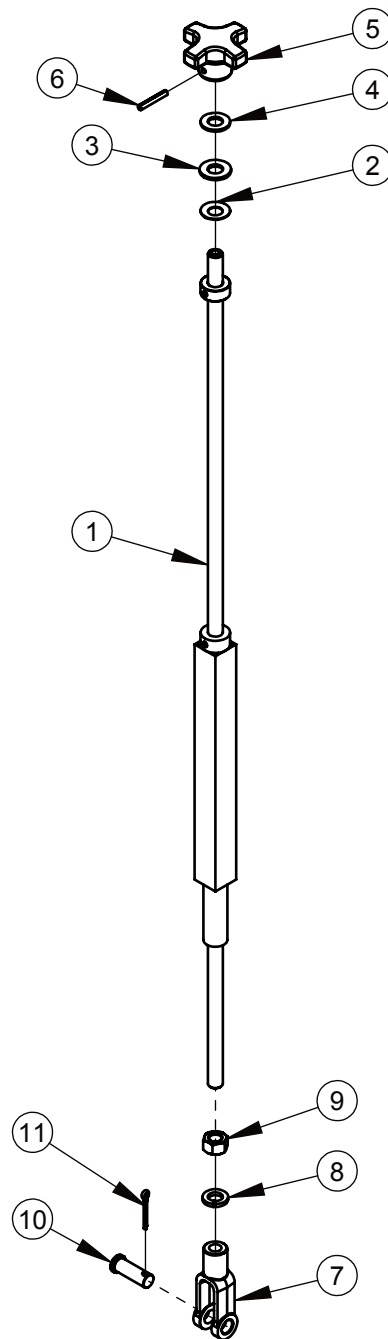
ITEM NO.	PART NUMBER	Description	QTY.
1	6075401	Air Intake Bracket	1
2	2501385	Mounting Band, Polymer	2
3	2501384	Air Cleaner Complete	1
4	2704336	Hose Elbow, 3" I.D.	1
5	2500423	Restriction Indicator	1
6	3200117	Close Nipple, 1/8" NPT	1
7	2506684	Hose Elbow, 2-1/2" I.D.	1
8	6010052	Connector Tube, 2-1/2" O.D.	1
9	3200847	2.78-3.09" T-Bolt Clamp	3
10	3205561	3.31-3.59" T-Bolt Clamp	1
11	2501388	Pre-Cleaner with Clamp	1
12	2900138	5/16-18x1.00 HEX CAP SCREW	4
13	2900031	5/16 SPLIT LOCK WASHER	6
14	2900567	5/16" Flat Washer	4
15	2900329	M8 x 20MM Hex Head Cap Screw	2
16	2900126	1/4" USS Flat Washer	4
17	2900341	M6 x 16mm Hex Head Cap Screw	2
18	2900024	1/47" Split Lock Washer	2

CG-2 Mini Groover Positraction Engagement Assembly



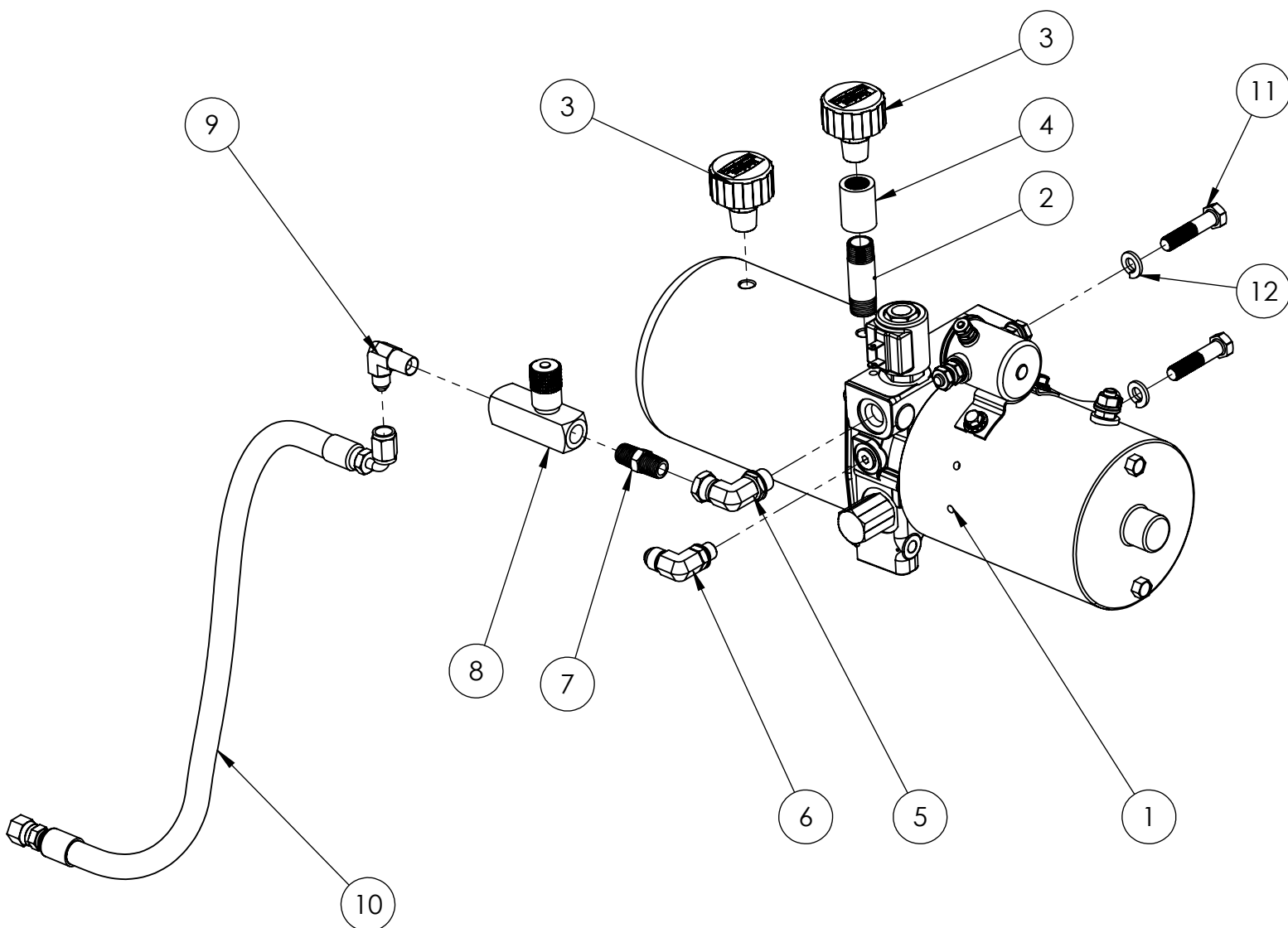
ITEM NO.	PART NUMBER	Description	QTY.
1	6085101	Positraction Engagement Weldment	1
2	2502135	Acme Threaded Rod, 3/4-6 x 11"	1
3	2500007	Set Collar, 1/2" with Set Screw	1
4	2900665	Belleville Washer, 1/2"	6
5	2900239	Friction Washer, 1/2"	1
6	6010095	Depth Stop Knob	1
7	2903018	3/8" Flat Washer	3
8	2900013	3/8-16 X 1.25" Hex Cap Screw	1
9	2900018	Lock Nut, 3/8-16 Nylon	1

CG-2 Mini Groover Depth Stop Assembly



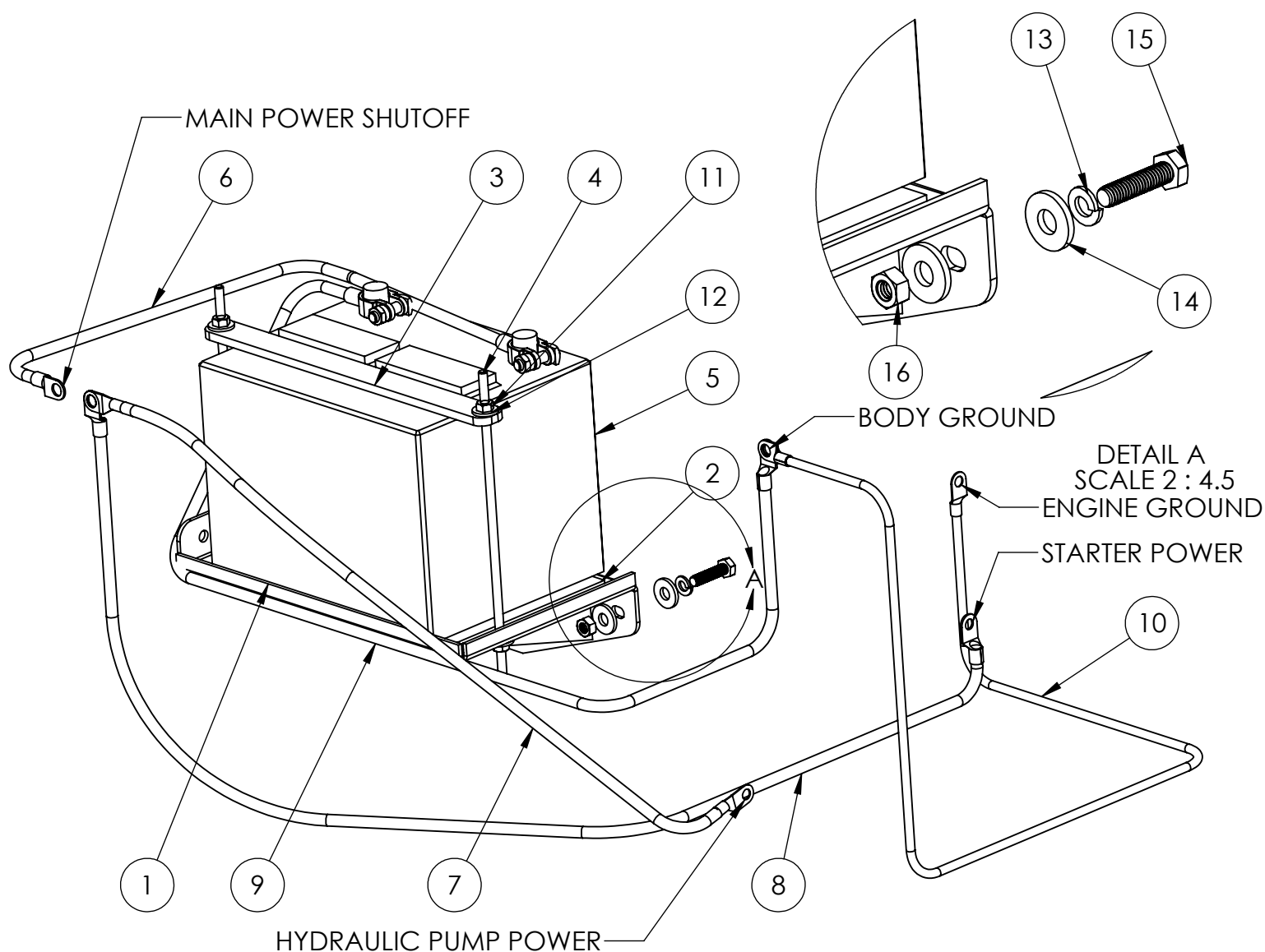
ITEM	PART NO.	QTY.	DESCRIPTION
1	6010097	1	Depth Stop Weldment
2	2900665	1	Belleville Washer, 1/2"
3	2900058	1	Flat Washer, 1/2" SAE
4	2900239	1	Friction Washer, 1/2"
5	6010095	1	Depth Stop Knob
6	2900132	1	Roll Pin, 3/16" x 1-1/4"
7	2900158	1	Yoke, 1/2-13
8	2900084	1	Lock Washer, 1/2" Split
9	2900037	1	Hex Nut, 1/2-13
10	2900007	1	Clevis Pin, 1/2" Dia. x 1-3/8"
11	2900004	1	Cotter Pin, 1/8" x 1"

CG-2 Mini Groover Hydraulic Pump Assembly



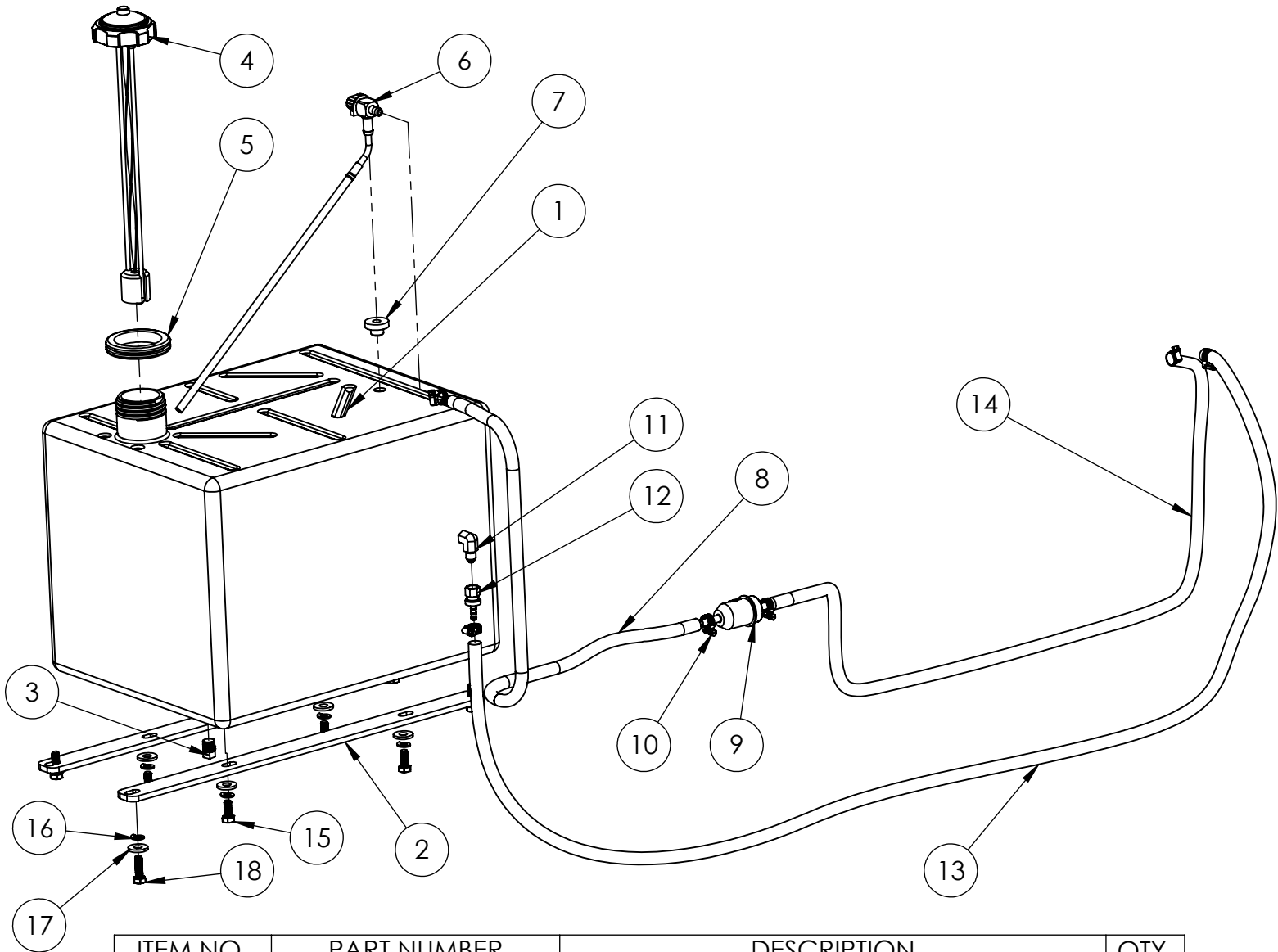
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2600070	Hydraulic Pump Unit	1
2	3200123	Pipe Nipple, 3/8" NPT x 2"	1
3	2700321	Breather Cap	2
4	3200120	Pipe Coupling, 3/8" NPT	1
5	3200115	Elbow, 3/8" O-Ring to 1/4" F. Pipe	1
6	3200116	Elbow, 1/4" O-Ring to 3/8" M. JIC	1
7	3200060	Hex Nipple, 1/4" NPT	1
8	3200056	Flow Control Valve, 1/4" NPT	1
9	3200057	Elbow, 1/4" M. Pipe to 1/4" M. JIC	1
10	3200054	Hydraulic Hose Assembly (Lift Plate Cylinder)	1
11	2900047	3/8-16 x 1.75 Hex Cap Screw	2
12	2900006	3/8 SPLIT LOCK WASHER	2

CG-2 Mini Groover Battery Assembly



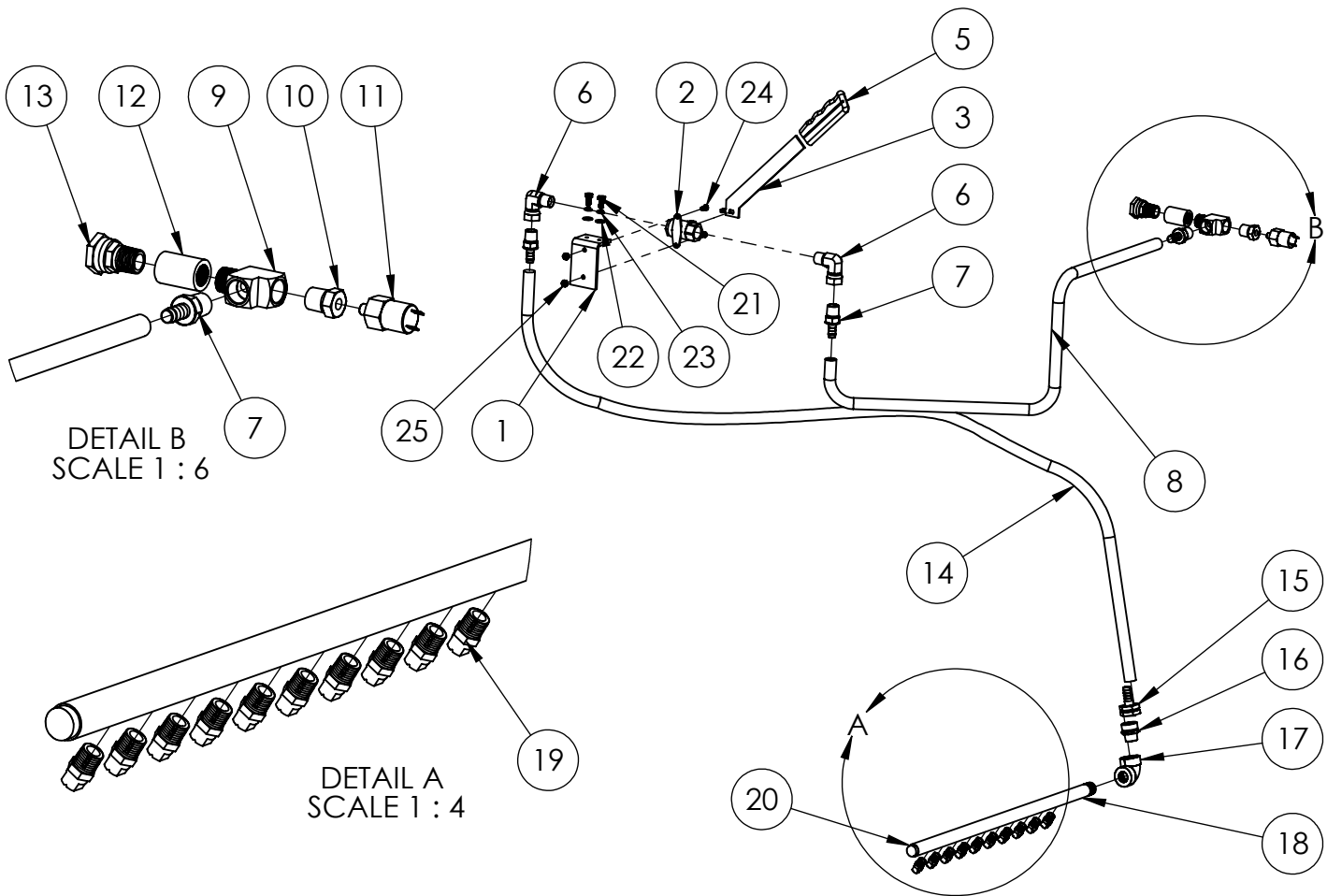
ITEM NO.	PART NUMBER	Description	QTY.
1	6010670	Battery Platform	1
2	6010016	Battery Pad	1
3	6010017	Battery Top Brace	1
4	6010344	Rod, 1/4-20 x 9-1/2"	2
5	2800600	Battery 12 Volt	1
6	6079077	Cable, Battery (Pos) to Disconnect	1
7	6079078	Cable, Disconnect to Lift Pump	1
8	6079079	Cable, Disconnect to Starter	1
9	6079080	Cable, Battery (Neg) to Ground	1
10	6079081	Cable, Ground to Engine	1
11	2900125	1/4-20 Hex Nut	4
12	2900126	1/4" USS Flat Washer	4
13	2900031	5/16 SPLIT LOCK WASHER	3
14	2900567	5/16" Flat Washer	6
15	2900217	5/16"-18 x 1.25" Hex Cap Screw	3
16	2900141	5/16-18 MEDIUM DUTY HEX NUT	3

CG-2 Mini Groover Fuel Tank & Supply Assembly



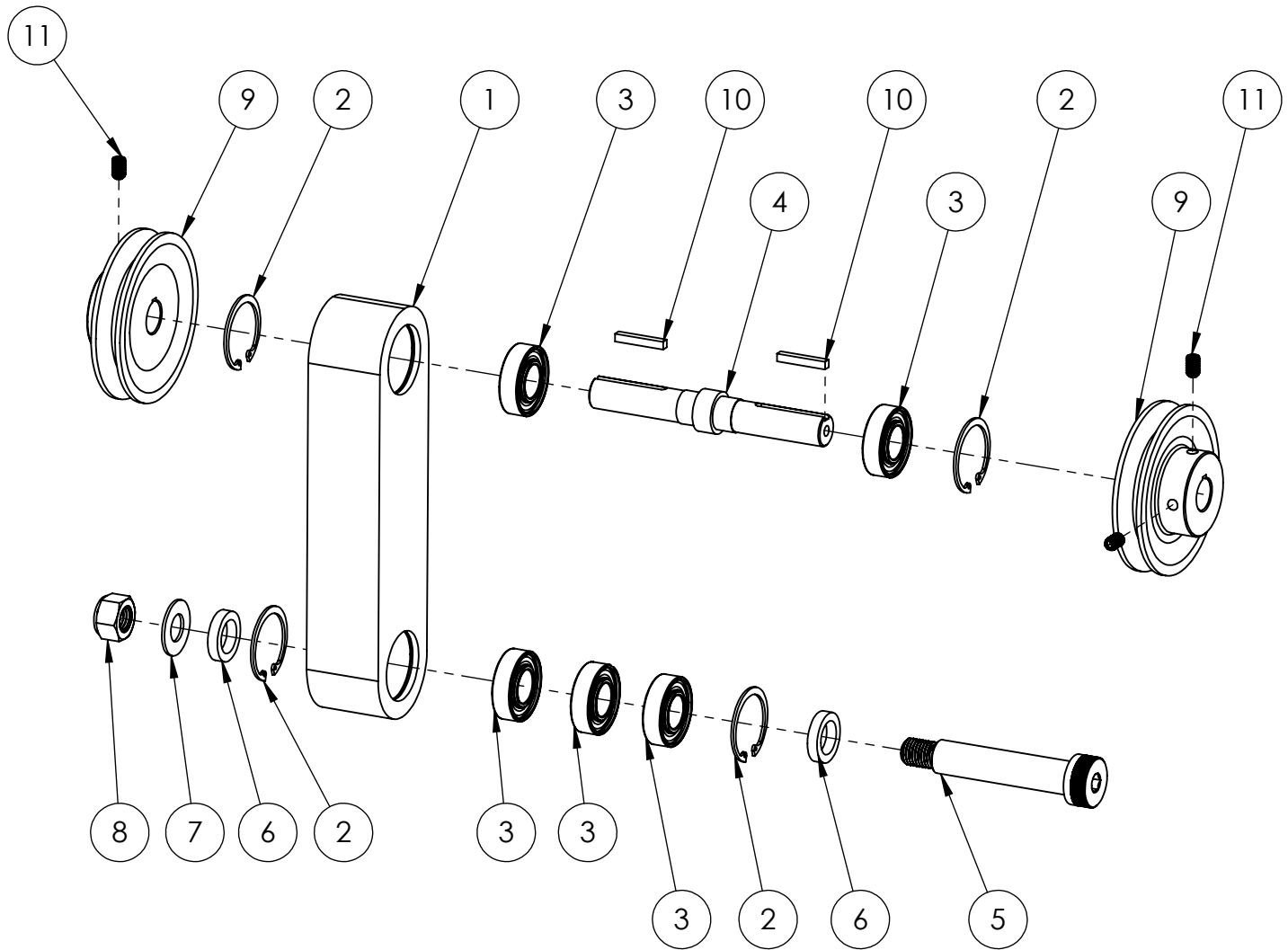
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2501784	Fuel Tank	1
2	6010257	Fuel Tank Mount Bar	2
3	3200206	Pipe Plug, 1/4" NPT	1
4	2504786	Fuel Tank Cap & Gauge	1
5	2500205	Fuel Tank Grommet	1
6	2501777	Fuel Valve w/Pick-Up	1
7	2501215	Bushing, Rubber, Tank	1
8	6010693	Fuel Supply Hose, 5/16" I.D. x 30"	1
9	2501785	Filter, Diesel Fuel	1
10	3200062	Hose Clamp #4	6
11	3200057	Elbow, 1/4" M. Pipe to 1/4" M. JIC	1
12	3200091	Fitting, 1/4" F. JIC to 1/4" Push Lock	1
13	6010103	Fuel Return Hose, 5/16" I.D x 48"	1
14	6013095	Fuel Supply Hose, 5/16" I.D. x 54"	1
15	2900019	5/16-18x .750" Hex Head Cap Screw	4
16	2900031	5/16 SPLIT LOCK WASHER	8
17	2900567	5/16" Flat Washer	8
18	2900138	5/16-18x1.00 HEX CAP SCREW	4

CG-2 Mini Groover Water Supply Assembly



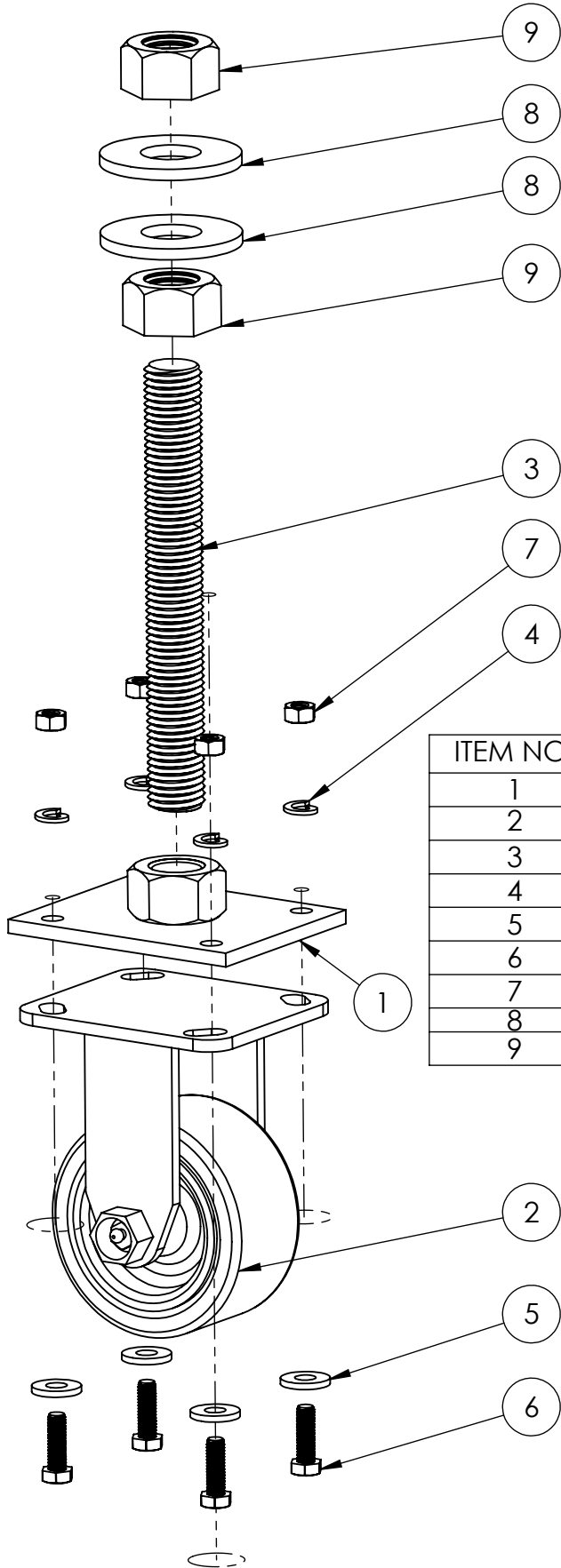
ITEM NO.	PART NUMBER	Description	QTY.
1	6011257	Water Valve Mounting Bracket	1
2	3200558	Water Valve, 1/2" Panel Mount	1
3	6011256	Water Valve Handle	1
5	2500002	Lever Grip	1
6	3200399	Elbow, 1/2" M. Pipe x 1/2" F. Pipe Swivel	2
7	3200172	Fitting, 1/2" M. Pipe to 1/2" Pushlok	3
8	6082011	Water Supply Hose, 30"	1
9	3205583	Fitting, Street Tee, 1/2"-14 NPTF	1
10	3205584	Reducer, 1/2" M. to 1/8" F. Pipe	1
11	2800060	Water Pressure Safety Switch	1
12	3200568	Coupler, 1/2" Pipe Female	1
13	3202298	Fitting, 1/2" MPT to 3/4" F. Garden Hose	1
14	6082010	Water Hose, 1/2" ID x 58"	1
15	3200021	Fitting, 3/4" F Garden to 1/2" Hose Barb	1
16	3200155	Fitting, 1/2" M. Pipe to 3/4" M. Garden	1
17	3202046	Elbow, Pipe, 1/2", 90°, SCH 40	1
18	6091575	Spray Pipe	1
19	2504610	Nozzle, Spray, H1/4-8030	10
20	6093038	Spray Pipe Plug	1
21	2900023	1/4-20 X .625" Hex Head Cap Screw	2
22	2900009	1/4 SAE Flat Washer	2
23	2900024	1/47" Split Lock Washer	2
24	2900708	10-32 x .500" Round Head (Phillips) Machine Screw	2
25	2900688	10-32 Nylon-Insert Hex Locknut	2

CG-2 Mini Groover Transmission Jackshaft Assembly



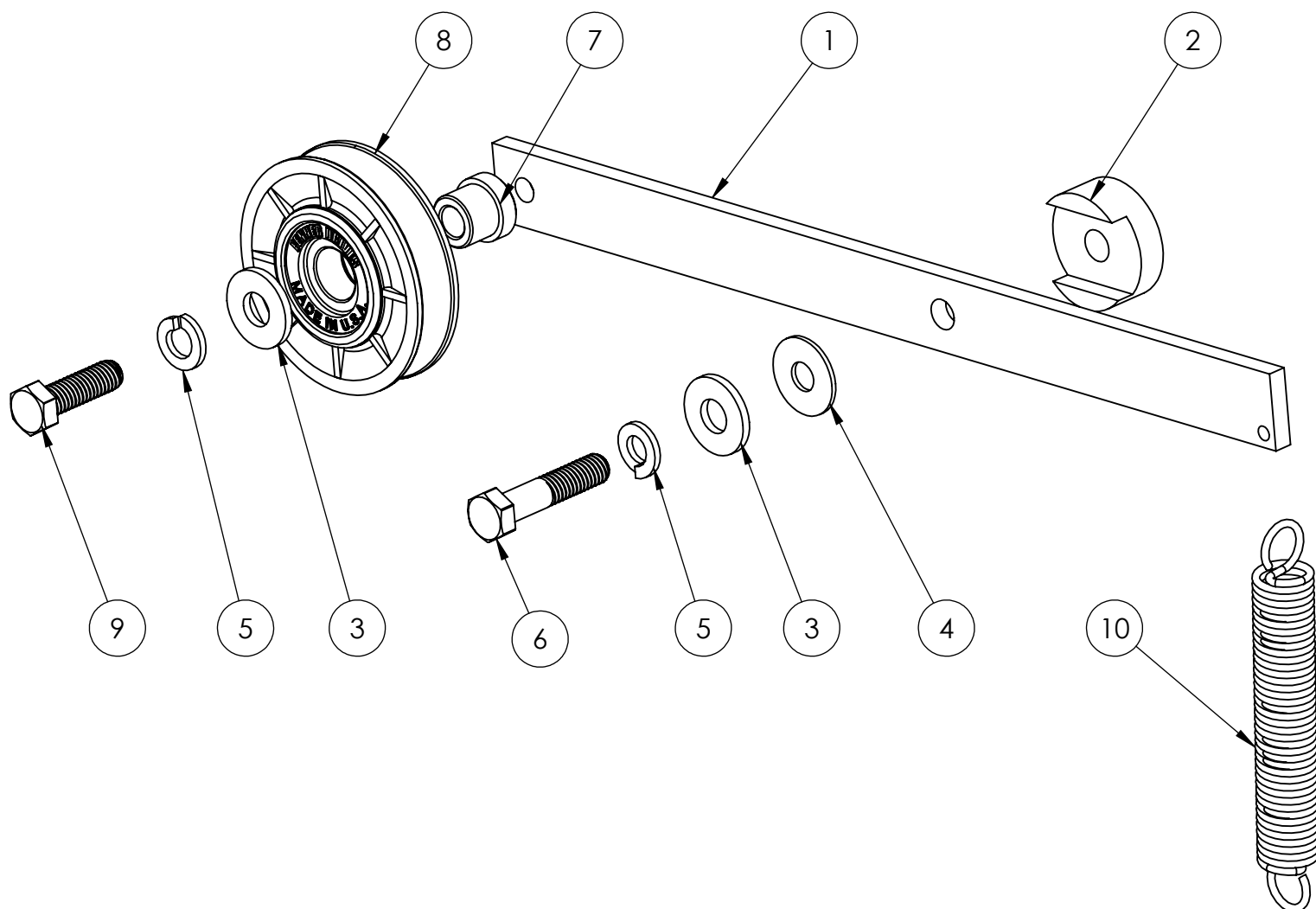
ITEM NO.	PART NUMBER	Description	QTY.
1	6010667	Jackshaft Pivot Housing	1
2	2501748	Retaining Ring, 42mm Internal	4
3	2501743	Ball Bearing, 20mm x 42mm x 12mm	5
4	6010666	Idler Jackshaft	1
5	2900669	20mm x 90mm (M16) Shoulder Bolt	1
6	6010685	Bearing Spacer, 1/4"	2
7	2900202	5/8 SAE Flat Washer	1
8	2900670	M16 Nylon-Insert Hex Locknut	1
9	2500455A	Pulley, 4" Single Groove	2
10	6048229	Key, 3/16" Sq. x 1-1/4"	2
11	2900617	5/16-18 x .500" Cup Point Set Screw	4

CG-2 Mini Groover Guide Wheel Assembly



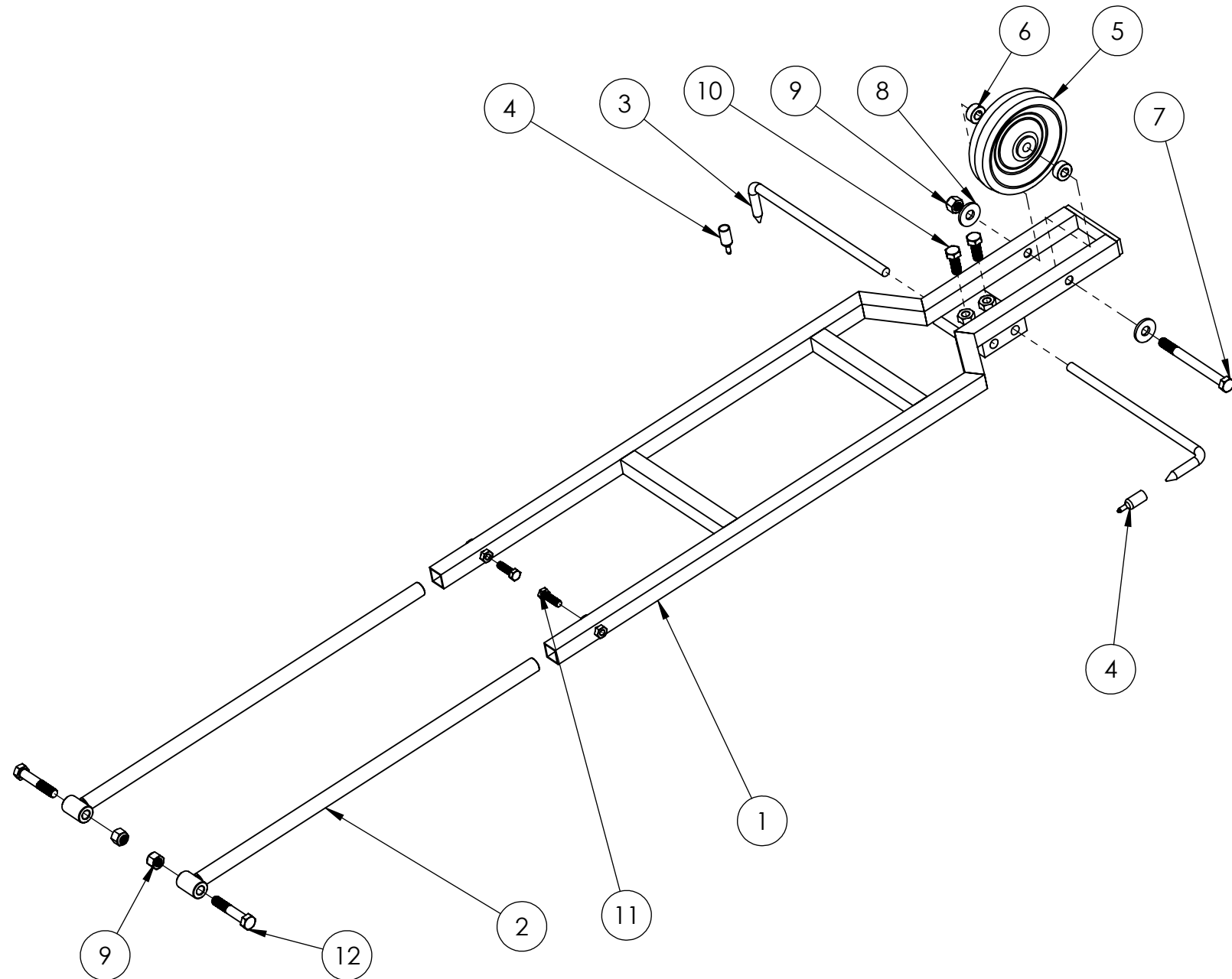
ITEM NO.	PART NUMBER	Description	QTY.
1	6082000	Caster Plate Weldment	1
2	2507007	Rigid Caster 4" x 2"	1
3	6082001	Threaded Rod, 1"-8 x 8"	1
4	2900031	5/16 SPLIT LOCK WASHER	4
5	2900567	5/16" Flat Washer	4
6	2900138	5/16-18x1.00 HEX CAP SCREW	4
7	2900141	5/16-18 MEDIUM DUTY HEX NUT	4
8	2900295	1.00" USS Flat Washer	2
9	2901406	1-8 Hex Nut	2

CG-2 Mini Groover Transmission Belt Tensioner Assembly



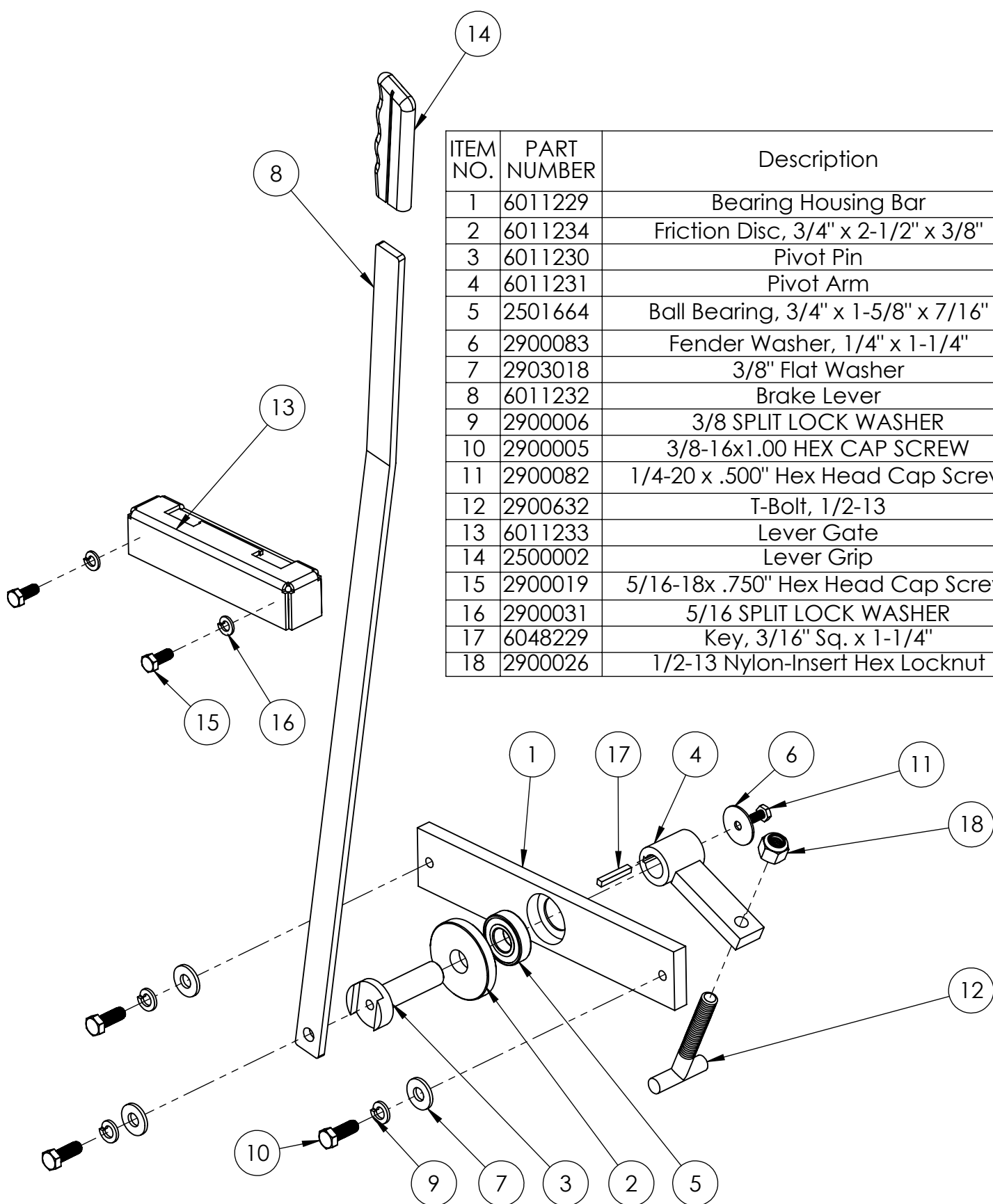
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	6075170	Belt Tension Arm	1
2	6010055	Friction Spacer	1
3	2903018	3/8" Flat Washer	2
4	2900153	Friction Washer, 3/8"	1
5	2900006	3/8 SPLIT LOCK WASHER	2
6	2900047	3/8-16 x 1.75 Hex Cap Screw	1
7	2500246	Shoulder Adapter, 3/8" Bore	1
8	2500074	Idler Pulley 3"	1
9	2900013	3/8-16 X 1.25" Hex Cap Screw	1
10	2504035	Spring, Ext., 3/4" x 6-1/2"	1

CG-2 Mini Groover Front Pointer Assembly



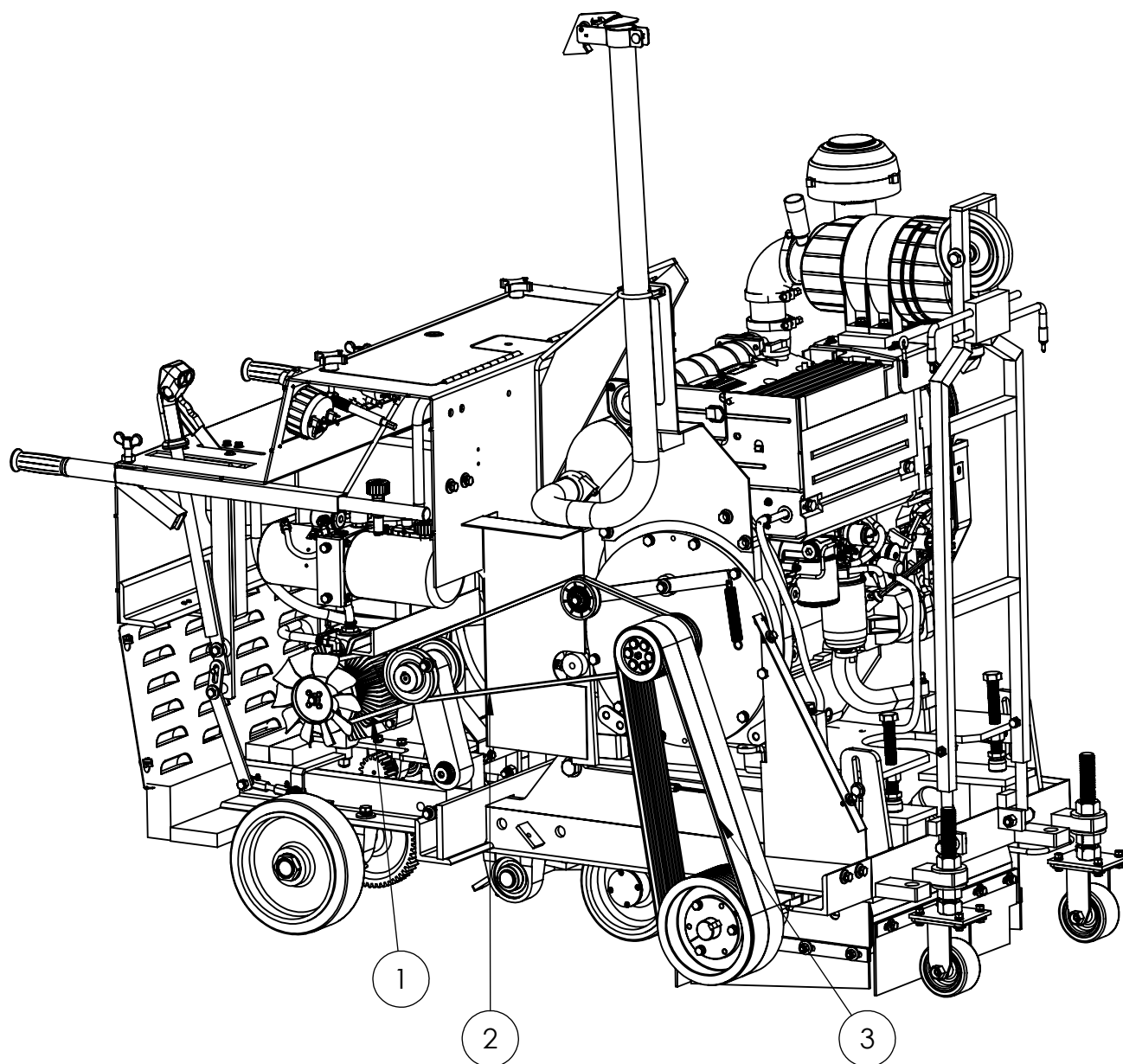
ITEM NO.	PART NUMBER	Description	QTY.
1	6075413	Frame, Front Pointer	1
2	6011152	Front Pointer Arm	2
3	6082003	Front Pointer Rod	2
4	2500740	Pointer Cap	2
5	2501409	Wheel, 6"	1
6	2500007	Set Collar, 1/2" with Set Screw	2
7	2903096	1/-13 x 5.50" Hex Head Cap Screw	1
8	2900127	1/2" USS Flat Washer	2
9	2900026	1/2-13 Nylon-Insert Hex Locknut	3
10	2900025	1/2-13 x 1.25" Hex Cap Screw	2
11	2900013	3/8-16 X 1.25" Hex Cap Screw	2
12	2900105	1/2-13 x 2.75" Hex Head Cap Screw	2

CG-2 Mini Groover Parking Brake Assembly



ITEM NO.	PART NUMBER	Description	QTY.
1	6011229	Bearing Housing Bar	1
2	6011234	Friction Disc, 3/4" x 2-1/2" x 3/8"	1
3	6011230	Pivot Pin	1
4	6011231	Pivot Arm	1
5	2501664	Ball Bearing, 3/4" x 1-5/8" x 7/16"	1
6	2900083	Fender Washer, 1/4" x 1-1/4"	1
7	2903018	3/8" Flat Washer	3
8	6011232	Brake Lever	1
9	2900006	3/8 SPLIT LOCK WASHER	3
10	2900005	3/8-16x1.00 HEX CAP SCREW	3
11	2900082	1/4-20 x .500" Hex Head Cap Screw	1
12	2900632	T-Bolt, 1/2-13	1
13	6011233	Lever Gate	1
14	2500002	Lever Grip	1
15	2900019	5/16-18x .750" Hex Head Cap Screw	2
16	2900031	5/16 SPLIT LOCK WASHER	2
17	6048229	Key, 3/16" Sq. x 1-1/4"	1
18	2900026	1/2-13 Nylon-Insert Hex Locknut	1

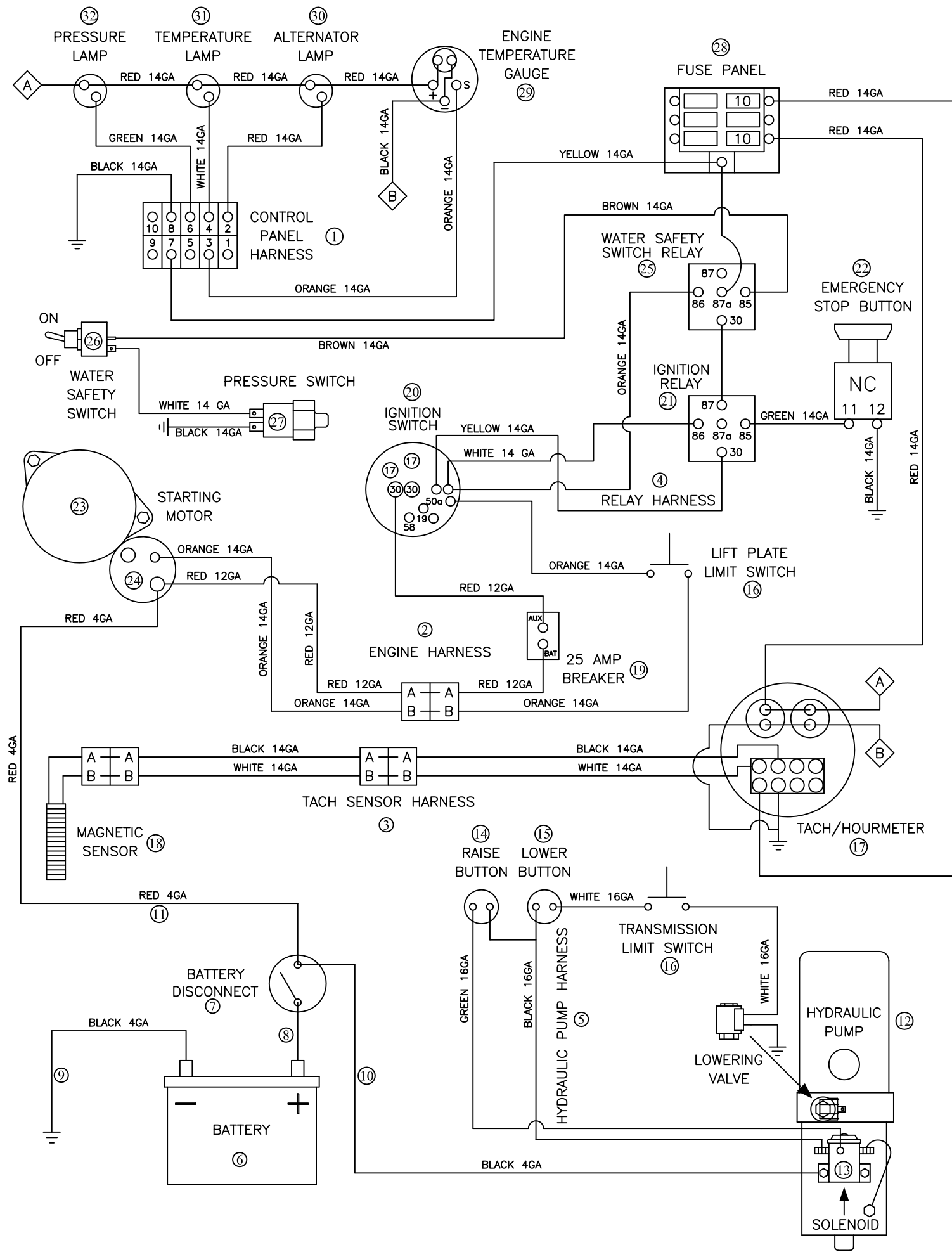
CG-2 Mini Groover Belt Location



ITEM NO.	PART NUMBER	Description	QTY.
1	2504025	Eaton Transmission Belt	1
2	2502668	Belt, AP56	1
3	2503416	Banded Belt, 5/3V/600 - 5 Strand	2

*NOTE: IMAGE FOR ILLUSTRATION PURPOSES ONLY, NEVER OPERATE MACHINE WITHOUT ALL BLADE & BELT GUARDS IN PLACE.

Wiring Diagram



Wiring Diagram

ITEM	PART NO.	QTY.	DESCRIPTION
1	2801306	1	Control Panel Harness
2	2800429	1	Engine Harness
3	2800397	1	Tach Sensor Harness
4	2800392	1	Relay Harness
5	2800393	1	Hydraulic Pump Harness
6	2800600	1	Battery, 12V
7	2800565	1	Battery Disconnect Switch
8	6079077	1	Cable, Battery (POS) to Disconnect
9	6079080	1	Cable, Battery (NEG) to Ground
10	6079078	1	Cable, Disconnect to Lift Pump
11	6079079	1	Cable, Disconnect to Starter
12	2600070	1	Hydraulic Pump Unit
13	2700169	1	Solenoid, Motor
14	2800372	1	Pushbutton Switch, Raise
15	2800373	1	Pushbutton Switch, Lower
16	2801474	2	Switch, N.O. Pushbutton
17	6010416	1	Tach/Hour Meter (VDO) Calibrated
	2800611	2	(Light Socket)
	2800612	2	(Light Bulb, Wedge Base)
18	2800169	1	Magnetic Sensor
19	2800387	1	Circuit Breaker, 25A
	2800364	1	Circuit Breaker Boot, Red
20	2703194	1	Ignition Switch & Key
	2703195	1	(Ignition Key Only)
21	2800144	1	Relay, Ignition
22	2801367	1	Emergency Stop Button
23	2702274	1	Starting Motor (Includes #24)
24	2701823	1	Solenoid Switch
25	2800144	1	Relay, Water Safety Switch
	2800263	1	Relay Connector
	2800264	4	Wire Terminal, 1/4" Push-on
26	2800062	1	Toggle Switch
	2800063	1	Boot, Toggle Switch
27	2800060	1	Water Pressure Safety Switch
28	2800388	1	Fuse Panel, 6 Circuit
	2800389	2	Fuse, 10A Red ATO/ATC
29	2703192	1	Temperature Gauge, Pricol
30	2700785	1	Alternator Light
	2700293	1	(Bulb Only)
31	2800787	1	Oil Temperature Light
	2700293	1	(Bulb Only)
31	2800786	1	Oil Pressure Light
	2700293	1	(Bulb Only)

EQUIPMENT AND PARTS WARRANTY

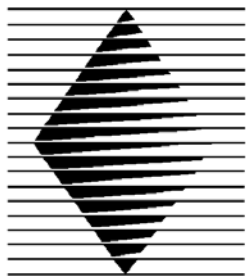
Diamond Products warrants all equipment manufactured by it against defects in workmanship or materials for a period of one (1) year from the date of shipment to Customer.

The responsibility of Diamond Products under this Warranty is limited to replacement or repair of defective parts at Diamond Products' Elyria, Ohio factory, or at a point designated by it, of such parts as shall appear to us upon inspection at such parts, to have been defective in material or workmanship, with expense for transportation and labor borne by Customer.

In no event shall Diamond Products be liable for consequential or incidental damages arising out of the failure of any Product to operate properly.

Integral units such as engines, electric motors, batteries, transmissions, etc., are excluded from this Warranty and are subject to the prime manufacturer's warranty.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND ALL SUCH OTHER WARRANTIES ARE HEREBY DISCLAIMED.



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