

GrindLazer™

For removal of materials from flat horizontal concrete and asphalt surfaces. For use with compatible universal quick attach systems from major skid steer manufacturers. For professional use only.

Model 25P471 - GrindLazer HP RC820 H (Hydraulic-Low Flow)
1000 psi (69 bar, 6.9 MPa) Inlet Fluid Maximum Working Pressure

Model 25P472 - GrindLazer HP RC1640 H (Hydraulic-High Flow)
2000 psi (138 bar, 3.8 MPa) Inlet Fluid Maximum Working Pressure

Model 25P473 - GrindLazer HP RC1625 G (Gas - 25HP Kohler)

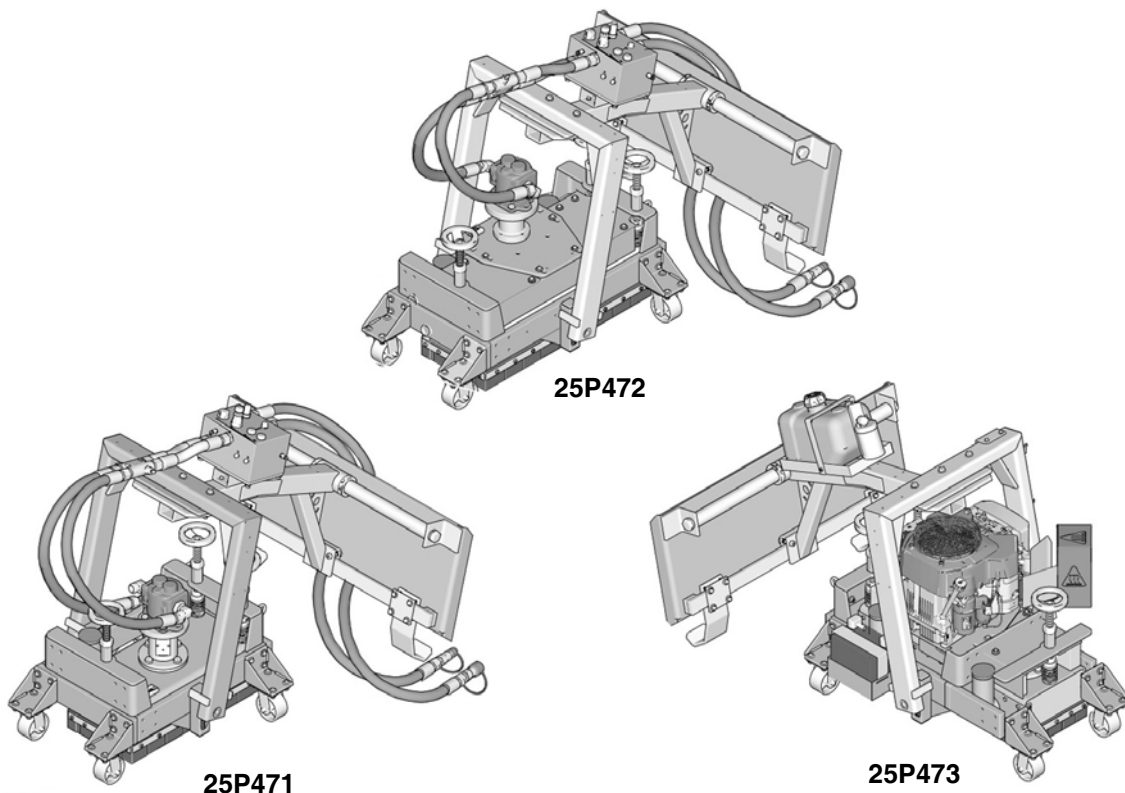
Related Manuals:

24 590 54	Kohler Owner's Manual
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Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment. Be familiar with the controls and the proper usage of the equipment. Save these instructions.



ti37703a











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Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <h2 style="margin: 0;">WARNING</h2>	
 	<p>DUST AND DEBRIS HAZARD</p> <p>Grinding concrete and other surfaces with this equipment can create dust that contains hazardous substances. Grinding can also create flying debris.</p> <p>To reduce the risk of serious injury:</p> <ul style="list-style-type: none"> • Control the dust to meet all applicable workplace regulations. • Wear protective eye wear and a properly fit-tested and government approved respirator suitable for the dust conditions. • Use equipment only in a well-ventilated area. • Grinding equipment must be used only by trained personnel who understand the applicable workplace regulations.
  	<p>ENTANGLEMENT AND MOVING PARTS HAZARD</p> <p>Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> • Keep clear of moving parts. • Stop cutter rotation before raising equipment more than 1/2 inch (1.3 cm) above work surface. Do not operate cutters when equipment is raised more than 1/2 inch (1.3 cm). • Do not operate equipment with protective guards or covers removed. • Do not wear loose clothing, jewelry or long hair while operating equipment. • Before checking or servicing equipment, disconnect hydraulic supply/return lines (hydraulic models) or black battery cable and both spark plug wires (gas model).
	<p>BURN HAZARD</p> <p>Cutters and engine can become very hot during operation. To avoid severe burns, do not touch hot equipment. Wait until equipment has cooled completely.</p>
	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • Do not operate the unit when fatigued or under the influence of drugs or alcohol. • Do not leave the work area while equipment is energized. Turn off all equipment when equipment is not in use. • Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. • Do not alter or modify equipment. • Use equipment only for its intended purpose. Call your distributor for information. • Keep children and animals away from work area. • Comply with all applicable safety regulations. • Maintain a safe operating distance from other people in the work area. • Avoid any pipes, columns, openings, or any other objects protruding from work surface.

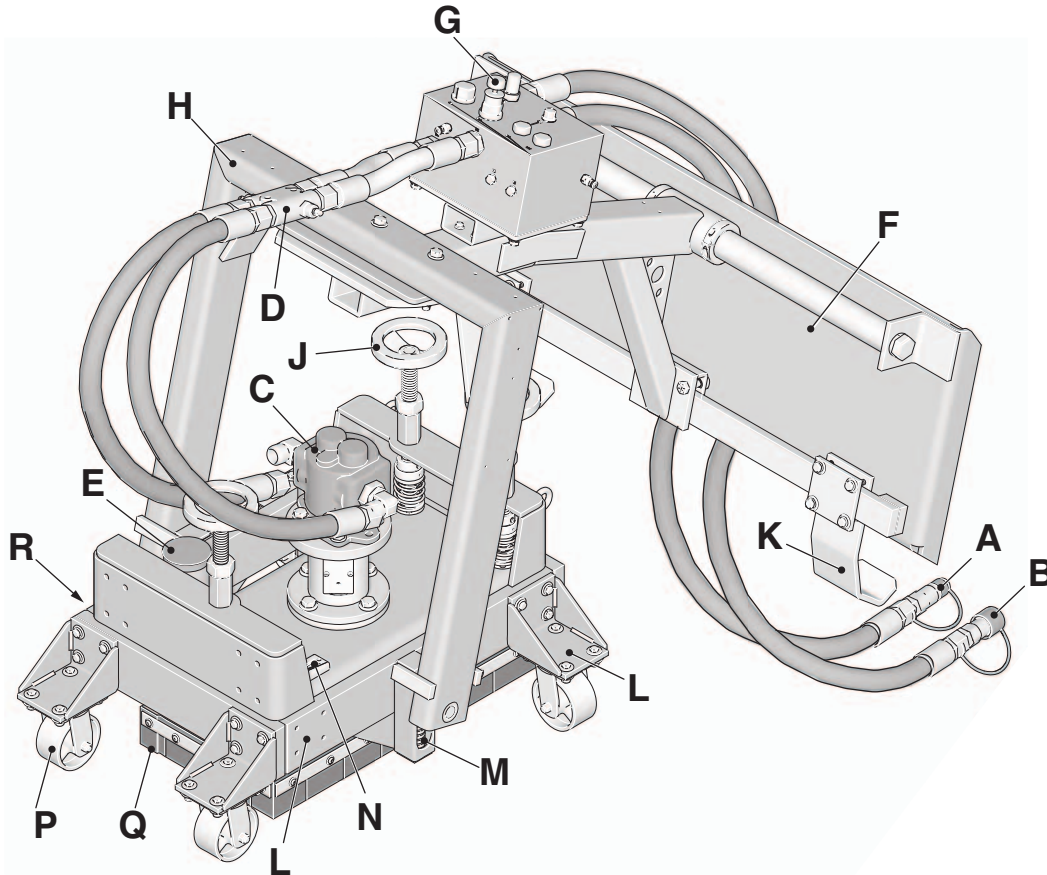


WARNING

  	<p>SKIN INJECTION HAZARD</p> <p>High-pressure fluid from hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> • Inspect hose before each use for cuts, bulges, kinks or any other damage. • Replace damaged hose immediately. • Replace hoses proactively at regular intervals based on your operating conditions. • Tighten all fluid connections before operating the equipment. • Keep clear of leaks. • Do not stop or deflect leaks with your hand, body, glove, or rag. • Never exceed hose Maximum Pressure or Temperature ratings. • Only use chemicals that are compatible with hose materials. See Technical Specifications in this manual. Read Safety Data Sheets (SDSs) and fluid and solvent manufacturer's recommendations.
 	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> • Use equipment only in well ventilated area. • Do not fill fuel tank while engine is running or hot; shut off engine and let it cool. Fuel is flammable and can ignite or explode if spilled on hot surface. • Do not top off or overfill tank. • Do not run engine near spilled gasoline or while fuel cap is removed. • Keep work area free of debris, including solvent, rags and gasoline. • Keep a fire extinguisher in work area.
	<p>CARBON MONOXIDE HAZARD</p> <p>Exhaust contains poisonous carbon monoxide, which is colorless and odorless. Breathing carbon monoxide can cause death.</p> <ul style="list-style-type: none"> • Do not operate in an enclosed area.
	<p>BATTERY HAZARD</p> <p>Lead-acid batteries produce explosive gases and contain sulfuric acid that can cause severe burns. To avoid sparks and injury when handling or working with a lead-acid battery:</p> <ul style="list-style-type: none"> • Read and follow the battery manufacturer's warnings. • Exercise caution when working with metallic tools or conductors to prevent short circuits and sparks. • Keep all sparks, flames, and cigarettes away from batteries. • Always wear protective eyewear and protective equipment for face, hands, and body. • If you have direct contact with battery fluid, flush with water and consult a physician immediately. • Installation and maintenance must be performed by knowledgeable personnel only.
 	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of dust or chemicals, burns, and hearing loss. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eye wear. • Protective shoes. • Gloves. • Hearing protection. • Properly fit-tested and government approved respirator suitable for the dust conditions.

Component Identification

25P471 (Hydraulic - Low Flow)



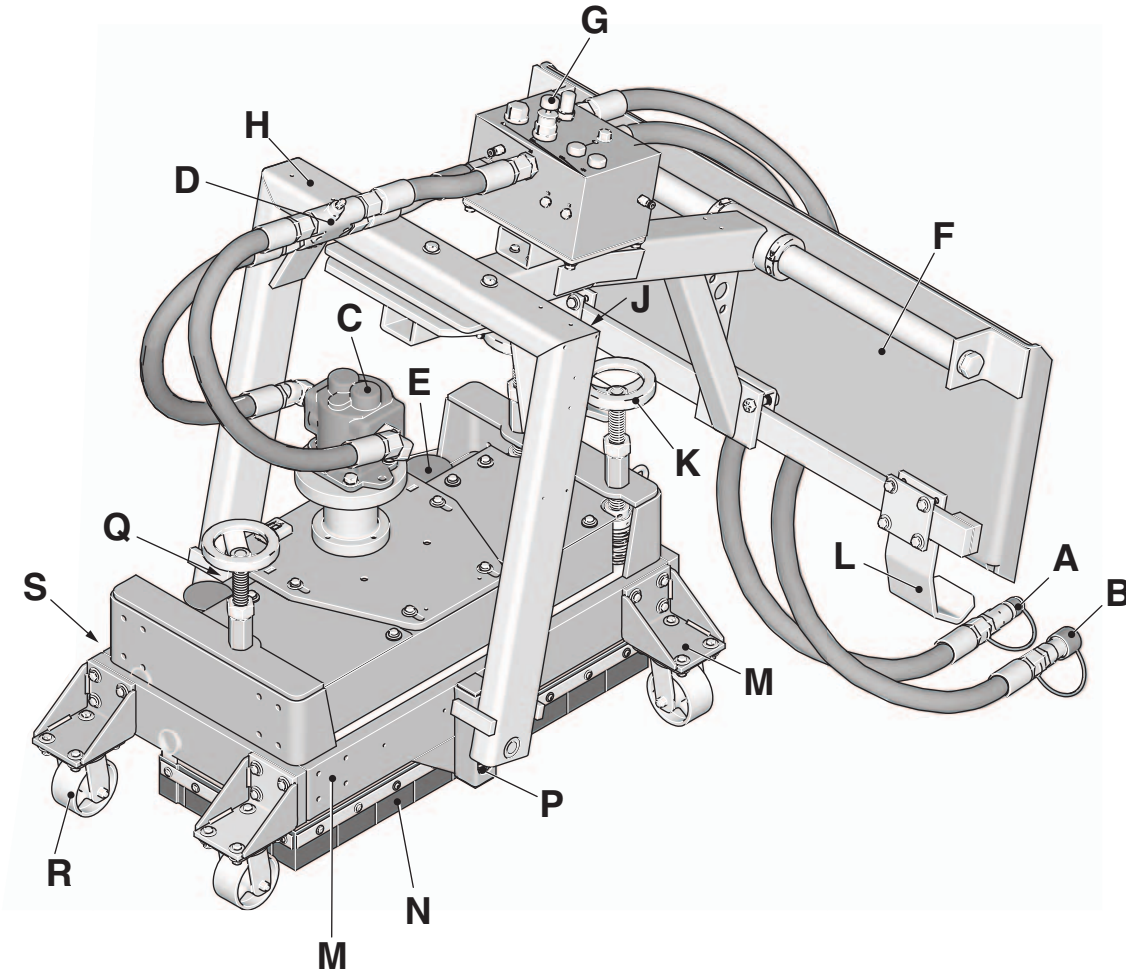
Component	
A*	Hydraulic Supply Line (male quick-connect)
B*	Hydraulic Return Line (female quick-connect)
C	Hydraulic Pump
D	Cushion Valve
E	Vacuum Port
F	Universal Quick Attach Mount Plate
G	Cutter Speed Control
H	U-bar
J	Cutter Height Control Knobs (3x)

Component	
K	Universal Quick Attach Mount Support Legs
L	Wheel Mount Location (side)
M	U-bar Spring
N	Tachometer
P	Caster Wheels
Q	Dust/Debris Skirt
R	Serial ID Label

* Connection type: Flat Face - ISO 16028

Component Identification

25P472 (Hydraulic - High Flow)



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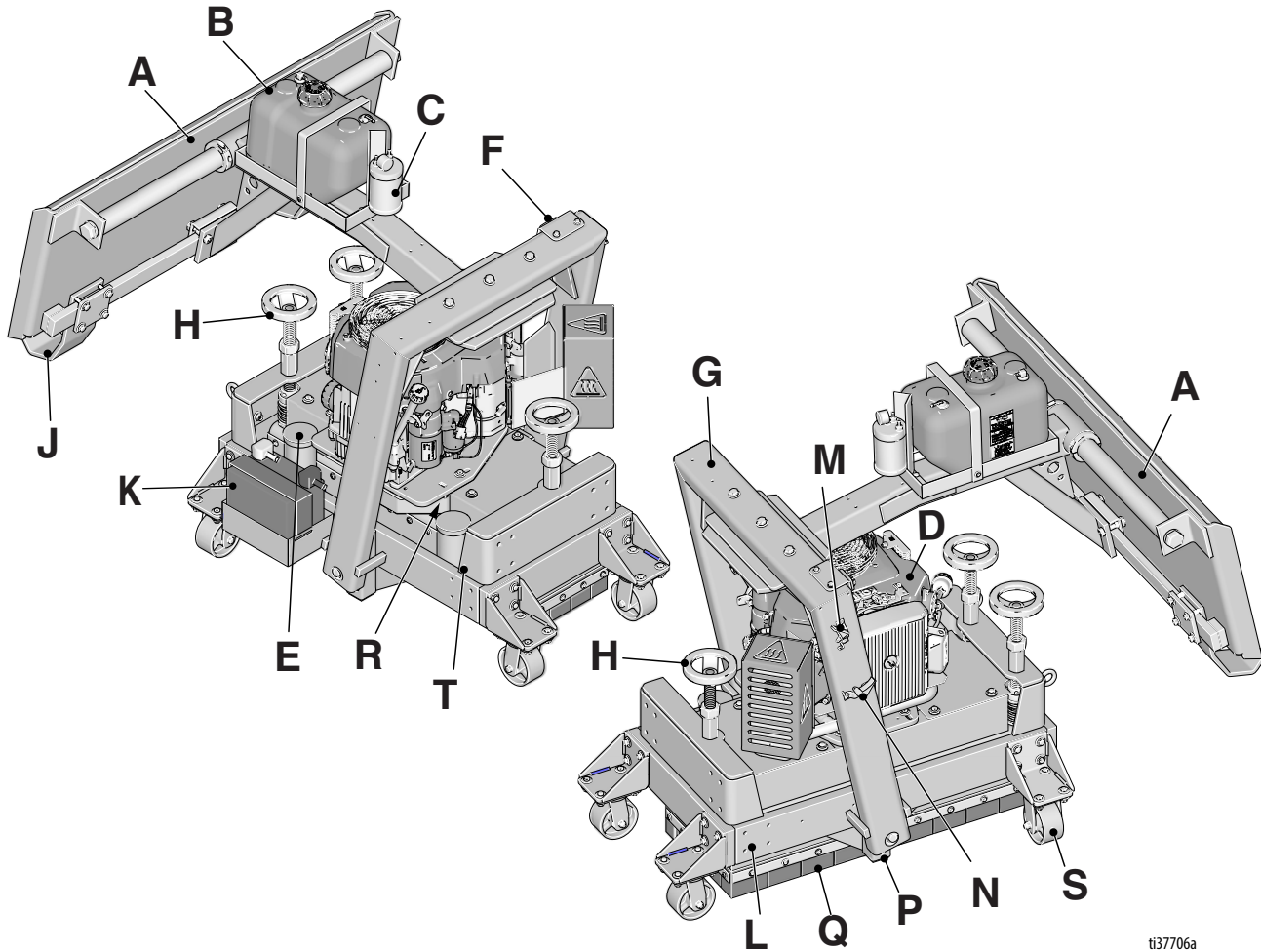
Component	
A	Hydraulic Return Line (male-quick connect)
B	Hydraulic Supply Line (female-quick connect)
C	Hydraulic Pump
D	Cushion Valve
E	Vacuum Ports (2x)
F	Universal Quick Attach Mount Plate
G	Cutter Speed Control
H	U-bar
J	Tachometer

Component	
K	Cutter Height Control Knobs (3x)
L	Universal Quick Attach Mount Support Legs
M	Wheel Mount Location (side)
N	Dust/Debris Skirt
P	U-bar Spring
Q	Belt Tension
R	Caster Wheels
S	Serial ID Label

* Connection type: Flat Face - ISO 16028

Component Identification

25P473 (Gas)



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Component	
A	Universal Quick Attach Mount Plate
B	Gas Tank
C	Emission Canister
D	Engine
E	Vacuum Ports (2x)
F	Tachometer
G	U-bar
H	Cutter Height Control Knobs (3x)
J	Universal Quick Attach Mount Support Legs

Component	
K	Battery Box
L	Wheel Mount Location (side)
M	Throttle (Speed) Control
N	Choke Control
P	U-bar Spring
Q	Debris Skirt
R	Belt Tension
S	Caster Wheels
T	Serial ID Label

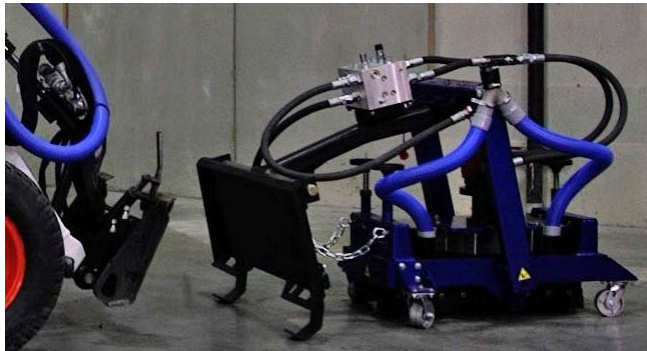
Setup

				
CRUSH HAZARD				
To avoid serious injury or death, never work under the equipment unless it is securely supported by safety stands or blocks.				

Connect GrindLazer to Skid Steer

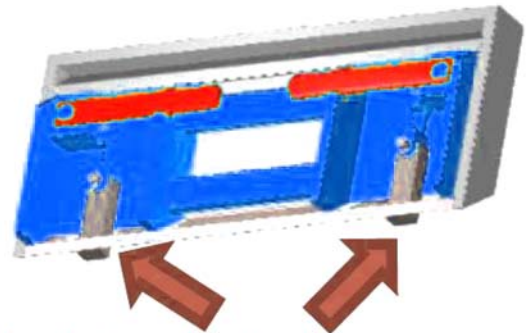
The following instructions are generic. Due to the differences in attachment mounting and attachment methods among various brands of skid steers, refer to your skid steer owners manual for attachment connection instructions specific to your skid steer.

Verify that the hydraulic hoses are clear from the front of the Universal Quick Attach Mount Plate and that the mounting plate is free from dirt and debris. When clear, move the skid steer close to the Universal Quick Attach Mount Plate. Tilt skid steer plate adapter forward to align coupling point with the upper part on the Universal Quick Attach Mount Plate and raise skid steer plate adapter slightly.



Connect Skid Steer to Universal Quick Attach Mount Plate

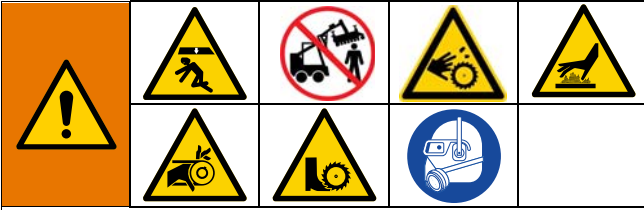
When the top edge of the skid steer plate adapter is seated in the top part of the Universal Quick Attach Mount Plate, curl the skid steer tilt function back until the Universal Quick Attach Mount Plate is flat against the skid steer plate adapter. Lock down the skid steer plate adapter levers. Before operating the GrindLazer, verify that the skid steer lock pins are fully engaged through the latch slots on the Universal Quick Attach Mount Plate.



Check Skid Steer Lock Pin Engagement

Wipe off any dirt or dust from the male and female Hydraulic Return/Supply Lines with a clean rag before attaching hoses, to keep contaminants from entering the hydraulic system. Connect the GrindLazer Hydraulic Return/Supply Lines to the auxiliary circuit connectors on the skid steer.

Cutter Head Installation



CRUSH HAZARD

Turn off skid steer, remove key, engage parking brake, and block wheels before you service your machine. To avoid serious injury or death, never work under the equipment unless it is securely supported by safety stands or blocks.

HYDRAULIC MODELS

To avoid injury from unexpected start up, disconnect the Hydraulic Supply/Return Lines before you service your machine.

GAS MODEL

To avoid injury from unexpected start up, disable engine as follows: 1) Disconnect both spark plug wires. 2) Disconnect negative (-) battery cable from battery.

Model 25P471 uses one rotary head. Models 25P472 & 25P473 use multiple rotary heads to increase forward speed or width in the removal of traffic lines or surface preparation. Regardless of the type of head chosen, correct head installation and adjustment will ease removal and ensure a long cutter life.

If cutter heads are not assembled, see **Cutter Head Removal**, page 15.

1. Raise the GrindLazer to a height where the cutters are easily accessible. Support the GrindLazer with blocks or safety stands.
2. Install the number of heads desired (from one to three) on the spindles using either a 24mm socket or a wrench. It is recommended to use an impact wrench if available.

Caster Wheel Positions

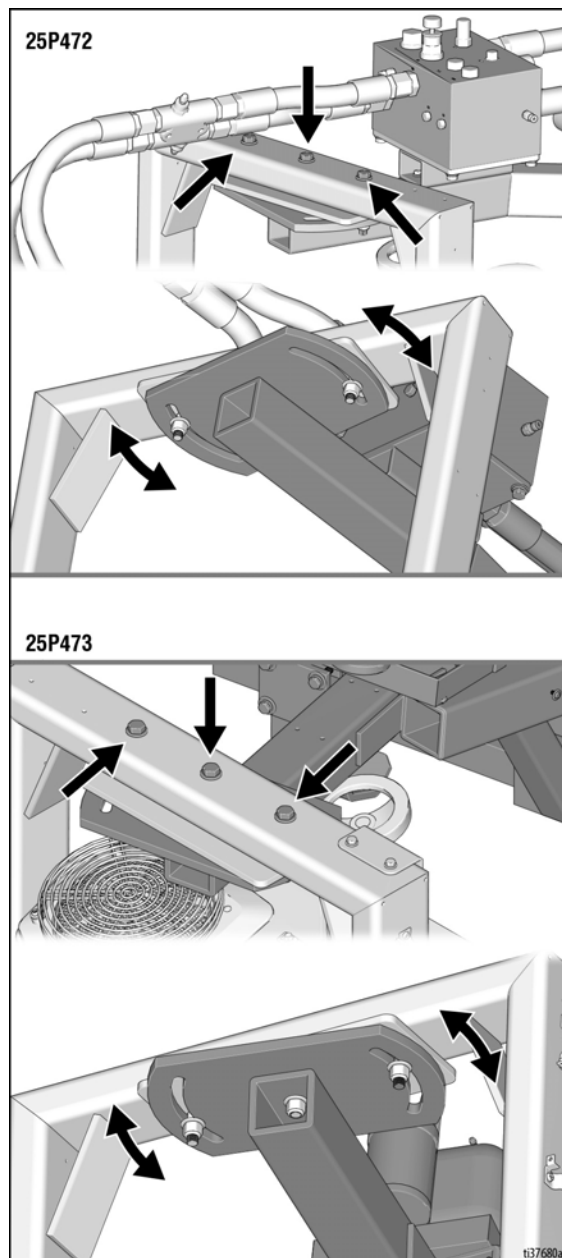
The four wheel assemblies can be mounted in the front, rear, or on either side of the GrindLazer, depending upon surface conditions, and to prevent debris buildup.

Set Width of Cut (Models 25P472 & 25P473)

Models 25P472 & 25P473 allow the GrindLazer to be swiveled up to 30° either left or right to increase the cutting path width.

Loosen the center swivel bolt at the end of the attachment arm and then loosen the outer two bolts using two 3/4" sockets or wrenches. Swivel the GrindLazer either right or left to the desired angle and re-tighten the bolts.

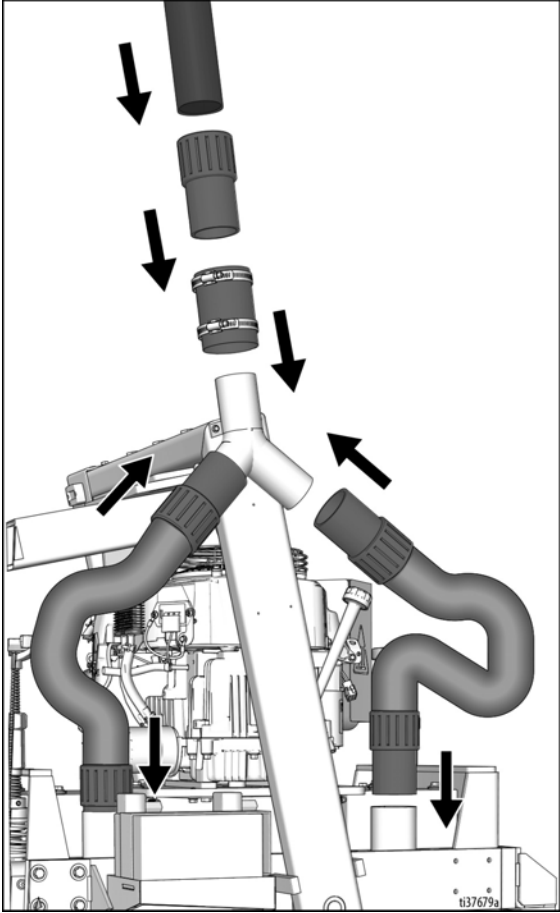
NOTE: You may wish to elevate the leading edge side of the cutters just slightly to increase erasing capacity.



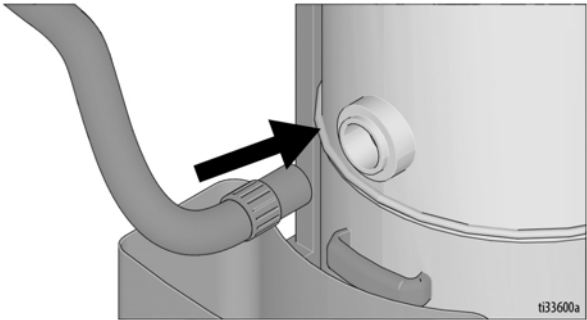
Dust Control

Vacuum Attachment

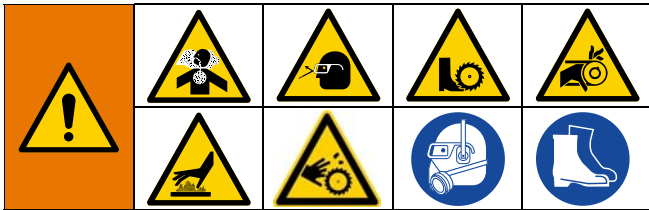
- 1. If using a vacuum, attach vacuum hose to the vacuum ports on the GrindLazer.



- 2. Attach vacuum hose to the inlet port on the Cyclone Separator (optional) or vacuum.



Operation



NOTICE

Do not start GrindLazer while cutter head is in contact with the work surface. Doing so can cause damage to the cutters.

GrindLazer Start Up

Check the surrounding area for bystanders and clear them before starting the skid steer or GrindLazer. Before turning on Hydraulic Supply/Return Lines (25P471 & 25P472) or starting engine (25P473), perform the following:

- Read and understand gas engine manual.
- Make sure all guards are in place and secure.
- Make sure all mechanical fasteners are secure.
- Inspect for damage to engine and other exterior surfaces.
- Inspect work area to locate any pipes, columns, deck inserts, or other objects protruding from work surface. Avoid these objects during operation.

Engine Start (Gas)

1. Raise the GrindLazer off of the work surface slightly (~0.5 inch, 1.3 cm) to ensure the cutters do not put grooves in the work surface when starting the engine. This can be achieved by using the lift feature on the skid steer.
- If you cannot elevate the GrindLazer initially to start the engine, you can turn the Cutter Height Control Knobs counterclockwise to provide the cutter clearance.
- If the hydraulics of the skid steer do not maintain the cutter clearance, put a couple of pieces of 1/4" plywood or some other suitable shim under the wheels to raise the cutters off of the work surface. This allows the GrindLazer to be started above the work surface, then rolled off of the wood (or shim) to begin line removal.

2. Open the fuel shutoff on the gas tank and then place the Throttle Control lever at the "fast" position.
3. Move the Choke Control lever to closed.
4. Turn Key Switch to start the engine.
5. After the engine starts, move Choke Control lever to open.
6. Set Throttle Control to desired setting. Refer to **Set Cutter Speed**, page 13.

If the Engine Does Not Start (Gas)

- Check engine for proper gas and oil levels.
- Check the spark plugs. Make sure socket areas are clean and clear of debris, and the proper gap is set. Replace if needed.
- Battery might be dead.
- If engine still does not start, refer to the engine manual.

Motor Start (Hydraulic)



1. Raise the GrindLazer off of the work surface slightly (~0.5 inch, 1.3 cm) to ensure the cutters do not put grooves in the work surface when starting the engine. See **Step 1** under **Engine Start (Gas)**, page 12, for more details.
2. Start the skid steer and engage the auxiliary circuit.
3. Adjust speed as required using the Cutter Speed Control. Refer to **Set Cutter Speed**, page 13.

When Operating...

The U-bar should always be positioned perpendicular to the work surface and never at an angle towards or away from the driver. The U-bar has two terrain floating or planing springs to allow the operator to float over high spots or apply some down pressure to plane through high spots. After sufficient warm up time, turn on vacuum, begin forward motion and lower the GrindLazer simultaneously.

NOTE: If you stop the forward motion, the GrindLazer should be raised to prevent surface damage.

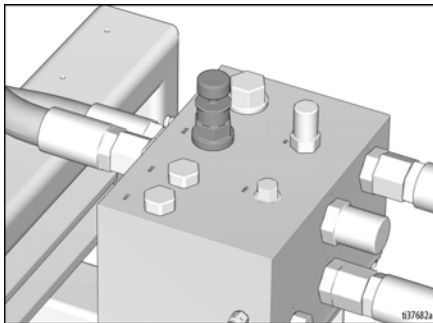
Set Cutter Speed

				
Rotating cutters can severely injure feet. Keep feet clear of cutters.				

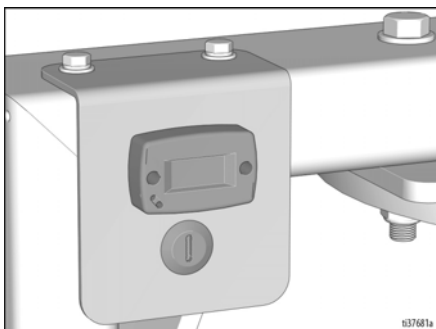
1. Set the skid steer parking brake.
2. Raise the GrindLazer off of the work surface slightly (~0.5 inch, 1.3 cm) to ensure the cutters do not put grooves in the work surface when starting the engine. See **Step 1** under **Engine Start (Gas)**, page 12, for more details.
3. Allow the hydraulic motor/gas engine to warm up for a minute or two and then set the correct RPM for the cutters you have installed. Refer to **Recommended Speeds**, page 13, and **Set Cut Depth**, page 13.

NOTICE
Incorrect setting of RPM will damage cutters or the drive belt.

4. **Hydraulic Models (25P471 & 25P472):** Observe the tachometer to ensure speed of the cutters matches the **Recommended Speeds** for best cutter life. Adjust as required using the Speed Control Knob.



Gas Model (25P473): After engine warms up, adjust Throttle Control lever and observe tachometer to ensure engine speed of the cutters matches the **Recommended Speeds** for best cutter life.





Recommended Speeds

For best performance and cutter life, try to maintain the following speeds read at the Tachometer:

Tachometer Speed		
	Cutter Type	
Model	Carbide Cutters	Wire Brush
25P471	2000-2200	800-1000
25P472	2000-2400	1400-1600
25P473	3200-3400	1400-1600

Set Cut Depth

				
Rotating cutters can severely injure feet. Keep feet clear of cutters.				

Set cutter depth just deep enough to do the job. Too much pressure will wear the cutters out faster and leave a much more severe cut on the surface.

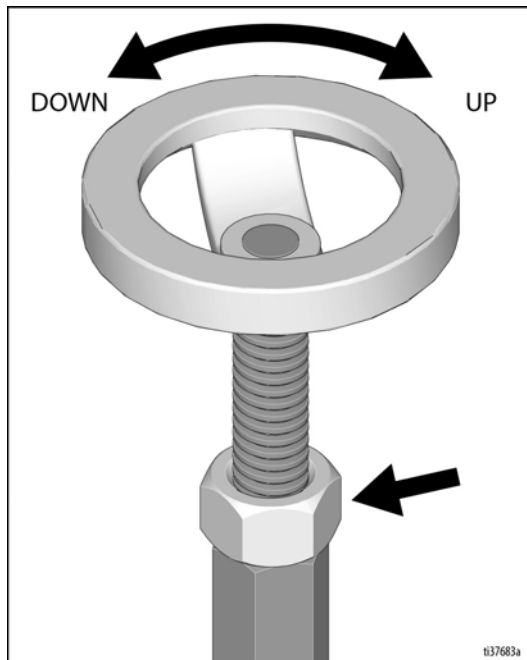
25P471: Cutters should be parallel to the work surface when engaged. The cutting circle left by the GrindLazer should be an even circle.

25P472 & 25P473: Add slightly more pressure to the rear cutters than the front cutters by turning the rear Cutter Height Control Knobs clockwise two turns. This will allow the front cutters to remove the material and the rear to finish the job.

NOTE: Excess down pressure creates excess wear on all moving parts. The GrindLazer's weight should be sufficient enough to hold the cutter heads against the work surface. Should the desired results not meet your expectations, consider resetting the GrindLazer (RPM's) to the correct speed or reducing forward motion speed.

1. **Hydraulic Models (25P471 & 25P472):** Turn off auxiliary circuit and wait until the GrindLazer cools off if it has been running.
Gas Model (25P473): Turn off engine and wait until the GrindLazer cools off if it has been running.
2. Loosen the jam nuts using a 1-5/8" wrench on the Cutter Height Control Knobs located on both ends of the GrindLazer.

3. Turn the Cutter Height Control Knobs counterclockwise about two turns to ensure the cutter head or heads do not contact the work surface.



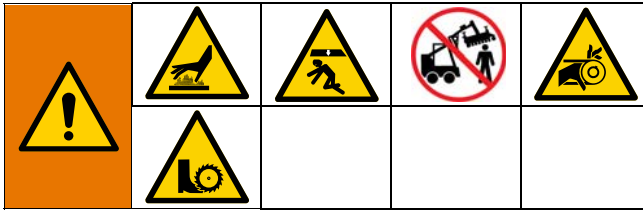
4. For the initial adjustment, fold the debris skirt upwards and tape it to the frame. This allows viewing the cutters when setting the height.
5. Begin adjusting the head or heads downward. Using a piece of thick paper, adjust until the head or heads are touching the paper evenly on all sides.
6. Turn the Cutter Height Control Knobs clockwise about two turns so the cutters touch the work surface with a slight force.

Disconnect GrindLazer from Skid Steer

The following instructions are generic. Due to the differences in attachment mounting and removal methods among various brands of skid steers, refer to your skid steer owners manual for proper attachment removal methods.

1. Set skid steer parking brake.
2. **Hydraulic Models (25P471 & 25P472):** Turn off auxiliary circuit and place GrindLazer on the work surface.
Gas Model (25P473): Turn off engine and place the GrindLazer on the work surface.
3. **Hydraulic Models (25P471 & 25P472):** Release hydraulic pressure in hoses, and disconnect auxiliary hoses.
4. Release the skid steer lock pins.
5. Start skid steer engine and detach Universal Quick Attach Mount Plate.

Repair



Avoid touching the cutter head(s) after use until they have completely cooled.

CRUSH HAZARD

To avoid serious injury or death, never work under the equipment unless it is securely supported by safety stands or blocks.

HYDRAULIC MODELS

To avoid injury from unexpected start up, always disconnect the Hydraulic Supply/Return Lines before you service your machine.

GAS MODEL

To avoid injury from unexpected start up, disable engine as follows: 1) Disconnect both spark plug wires. 2) Disconnect negative (-) battery cable from battery.

Cutter Head Removal

1. Raise the GrindLazer to a height where the cutters are easily accessible. Support GrindLazer with blocks or safety stands.
2. Remove the cutters from the spindles using either a 24mm socket or a wrench. It is recommended to use an impact wrench if available.

Cutter Head Replacement

1. Slide backing plate onto spindle shaft. Slide felt washer onto shaft into the ring in the backing plate.



2. Slide cutter assembly onto shaft up to the backing plate.



3. Slide felt washer onto the shaft into the space between the cutter edge and the bearing edge.



4. Slide outer bearing cover onto shaft against the felt washer.



5. Slide Belleville washer onto shaft against the outer bearing cover.

NOTE: The washer should bend outward.



6. Place hex nut onto shaft. Tighten so the nut is tight but the cutters can freely rotate on their bearings (if no rotation, the nut is too tight).



7. To install cutter heads, refer to **Cutter Head Installation**, page 10.

Drive Belt Replacement (Models 25P472 & 25P473)

Models 25P472 & 25P473 are equipped with a Poly Chain® GT2 (Gates Co.) drive belt or a multi groove (banded) “V” belt in a serpentine arrangement. This allows all three heads to turn in the same direction to minimize parts inventory of heads and drive components.

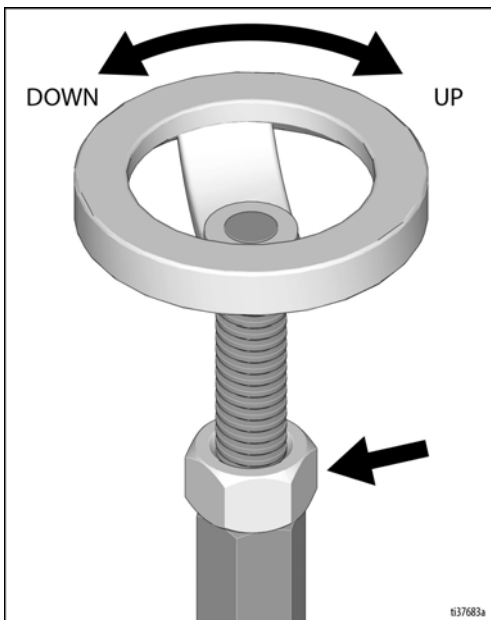
Tools required:

- 1 5/8” wrench
- 7/16” socket or wrench
- 1/2” socket or wrench (gas model)
- 9/16” socket or wrench
- 3/16” hex key

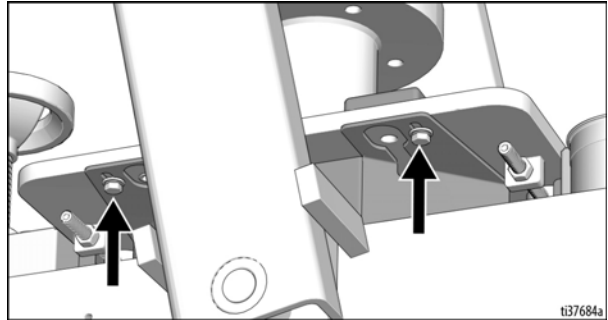
1. **Hydraulic Models (25P471 & 25P472):** Turn off auxiliary circuit and wait until the GrindLazer cools off if it has been running.

Gas Model (25P473): Turn off engine. Disable engine as follows: 1) Disconnect both spark plug wires. 2) Disconnect negative (-) battery cable from battery.

2. Raise the cutter heads off the work surface by turning the 3 Cutter Height Control Knobs all the way up. Loosen the jam nuts using the 1-5/8” wrench and raise the three elevating screws all the way up. This allows access to the button head screws holding the upper and lower covers on.



3. Remove the auxiliary belt cover over the engine pulley using a 7/16” socket or wrench.

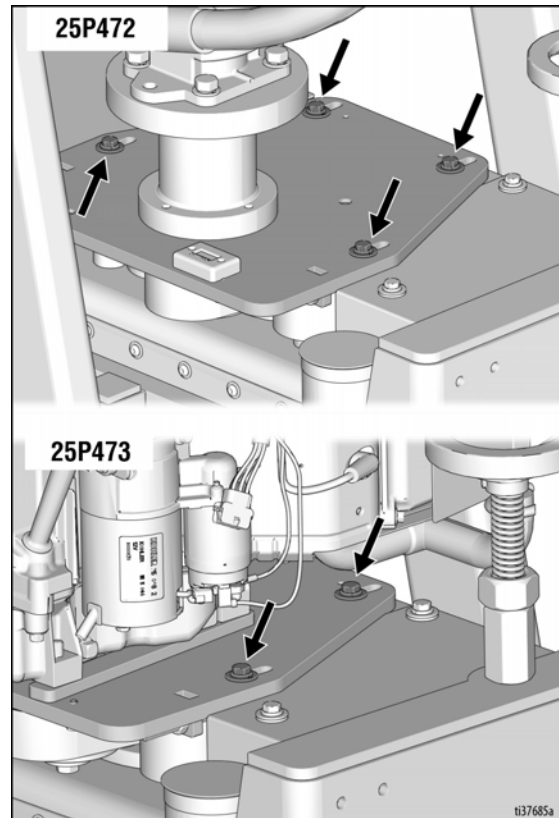


4. **Hydraulic Model (25P472):** Remove the main belt guards using a 9/16” socket or wrench.

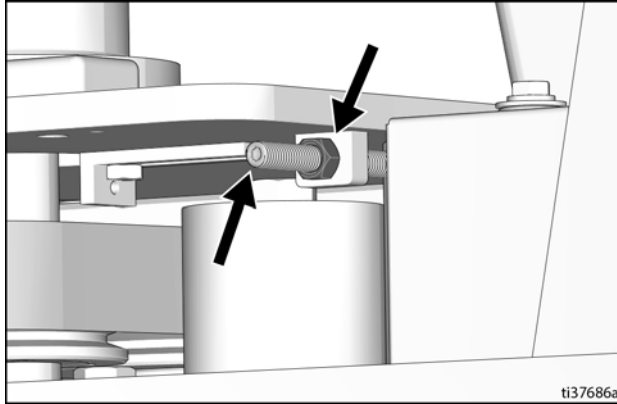
If the engine has been running, wait until the exhaust cools off as it may cause severe burns.			

Gas Model (25P473): Remove the exhaust using a 1/2” socket or wrench to remove the U-bolts. Remove the belt guards using a 9/16” socket or wrench.

5. Once the belt guards are out of the way, remove the four motor plate screws using a 9/16” socket or wrench.



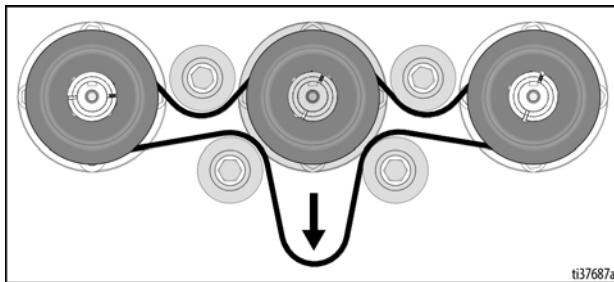
6. To loosen the tension on the belt, locate and loosen the two jam nuts on the adjusting screws for under the motor mount plate using a 9/16" socket or wrench and then using a 3/16" hex key back out the tensioning screws until the drive belt is completely loose.



7. **Hydraulic Model (25P472):** Lift the entire motor mount plate assembly off and set it aside to allow access to the drive belt.

Gas Model (25P473): Lift the engine plate up about 4". You may want to put blocks under the four corners of the cover to fix it in the raised position and hold up the engine. Or you can simultaneously lift and cock engine slightly so that the belt can be slid free from the pulley.

8. To install the new belt, remove the old belt and slide the new one around the three pulleys and four idlers. Tie a piece of string around the belt to pull it out towards the motor pulley at reassembly time.



9. Lower the engine and belt cover and as you lower it use the string to pull the belt over the motor pulley.
10. Using the tension screws begin to tighten the belt by moving the engine away from the center of the GrindLazer. Torque tensioning screws to 25-30 in-lbs (2.8-3.4 N·m).

11. **Hydraulic Model (25P472):** After the belt has been properly tightened, reconnect the GrindLazer to the skid steer and allow it to run for 15-20 seconds to allow the belt to set into the grooves of the pulleys correctly.

Gas Model (25P473): After the belt has been properly tightened, reconnect the black battery cable and both spark plug wires, and turn the starter button to rotate the engine 15-20 revolutions to allow the belt to set into the grooves of the pulleys correctly.

NOTICE

It is better to tension the belt tightly rather than loosely. Loose belts will cause the belt to ride out of the pulley grooves and break.

12. Reattach all the covers and the GrindLazer will be ready for operation. Periodic tensioning of the belt will ensure long belt life. Recheck belt tension again after 30 minutes of use.

Bearing Replacement (Models 25P472 & 25P473)

Note the assemblies are matched in sets which assures all three heads hit the working surface at the same time.

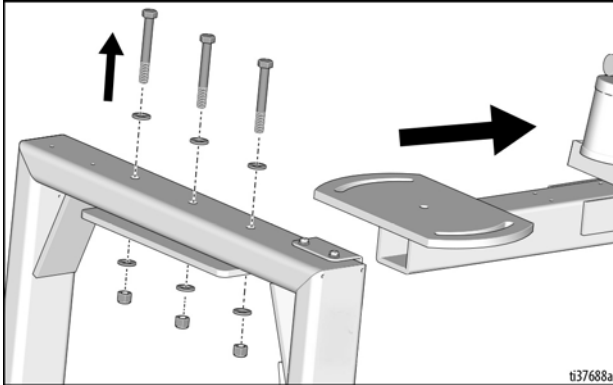
Tools required:

- Two 3/4" socket or wrench
- Flat head screw driver
- 3/16" hex key

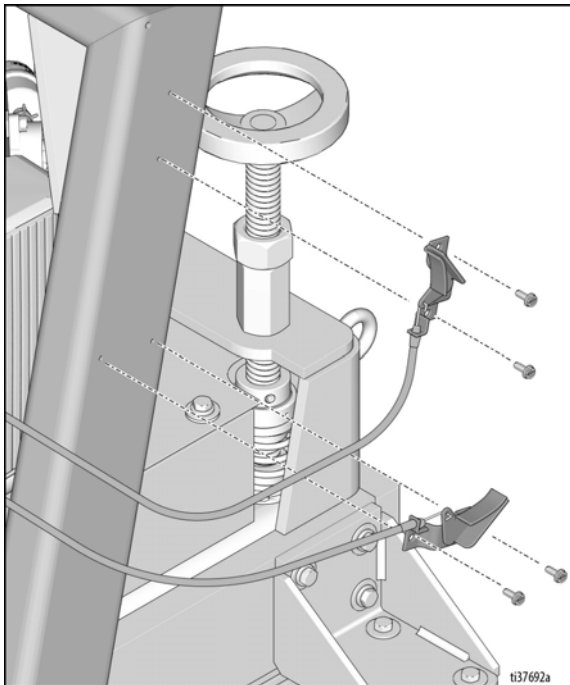
1. To access the bearing assemblies, follow **Drive Belt Replacement (Models 25P472 & 25P473)**, page 16. Remove the drive bearing assemblies.
2. If it has not been done, remove the cutter heads. Perform **Cutter Head Removal**, page 15, before proceeding.

3. **Hydraulic Model (25P472):** With the hydraulic hoses attached, remove the hydraulic motor and set it aside.

Gas Model (25P473): The Quick Attach Mount boom will have to be removed to allow the U-bar to be rotated to remove the engine. To do this, use the 3/4" socket or wrench to remove the 3 bolts attaching the U-bar to the Quick Attach Mount boom. Drain gas from the tank and carefully disconnect the gas lines to the engine before pulling the boom away.

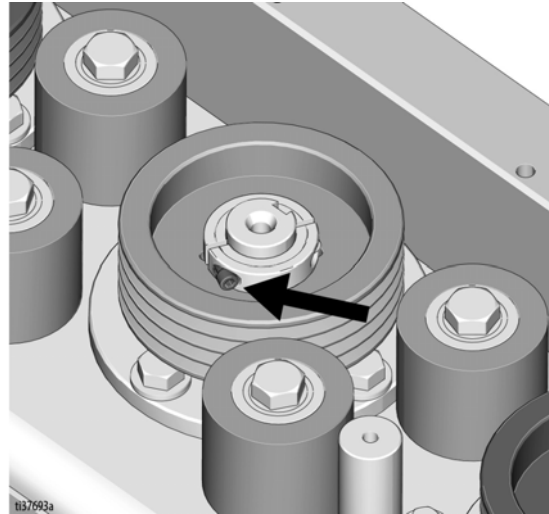


4. **Gas Model only (25P473):** Remove the throttle and choke levers from the U-bar using a flat head screw driver. Also disconnect the battery cables, at which point the U-bar can be rotated so the engine can completely be removed from the GrindLazer. It is recommended to use an engine lift or a hoist to lift the engine off the GrindLazer.

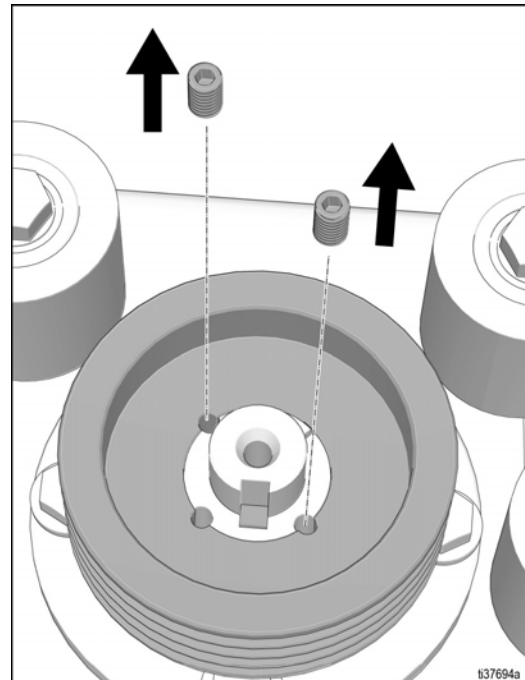


NOTE: At this point there is full access to the GrindLazer drive components to service them as needed.

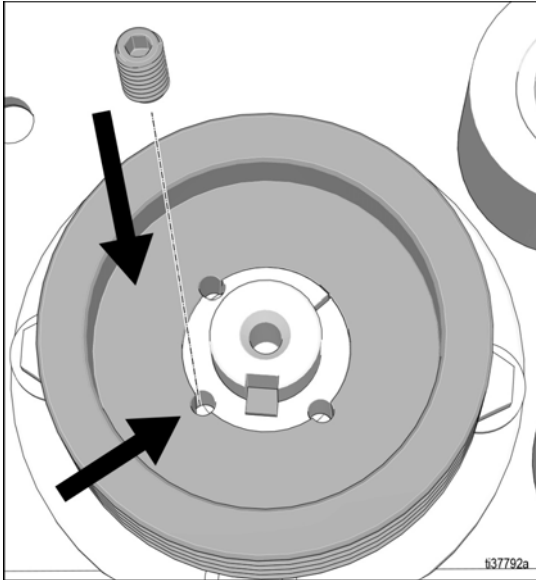
5. To service the main bearing housings, the drive pulleys must be removed. To do this use a 3/16" hex key to remove the collar.



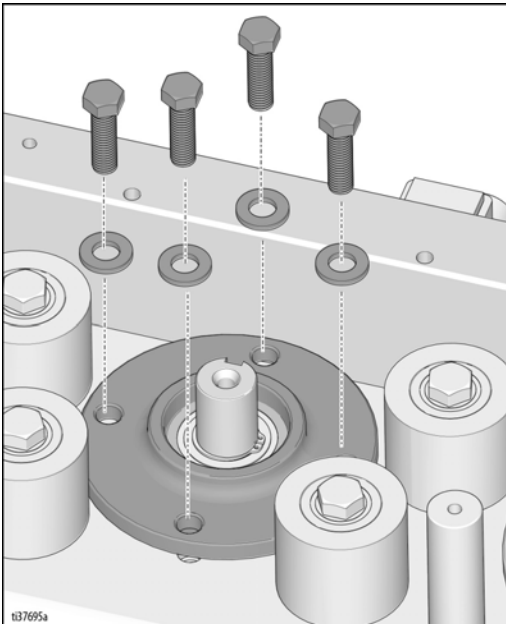
6. After the collar is removed, use the 3/16" hex key to remove the two set screws that are locking down the pulley.



7. Use one of the set screws and thread it into the middle hole to back out the bushing as shown below.



8. Lift off the pulley. Remove the four mounting bolts to the bearing assembly and lift out the assembly.



Bearing Replacement (Model 25P471)

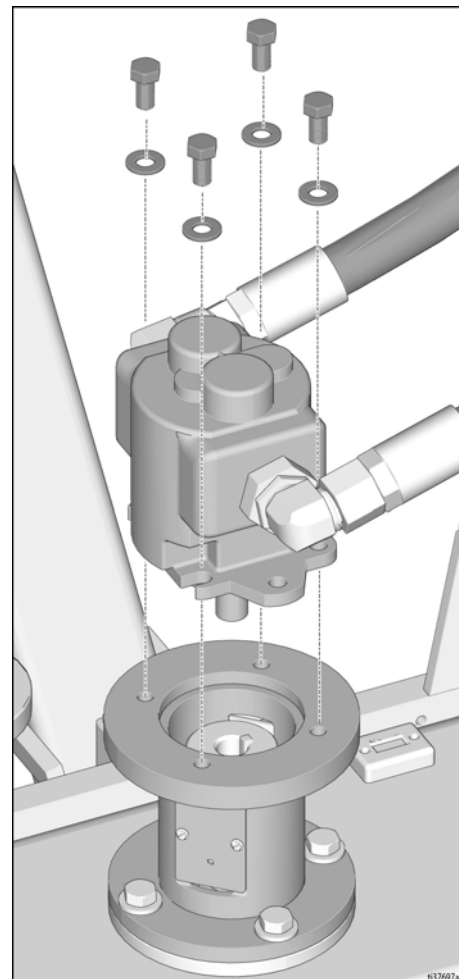
Tools required:

- Two 3/4" socket or wrench
- 9/16" socket or wrench

1. Turn off auxiliary circuit and wait until the GrindLazer cools off if it has been running.
2. To remove the drive bearing assembly, first follow **Cutter Head Removal**, page 15, to remove the cutter heads.

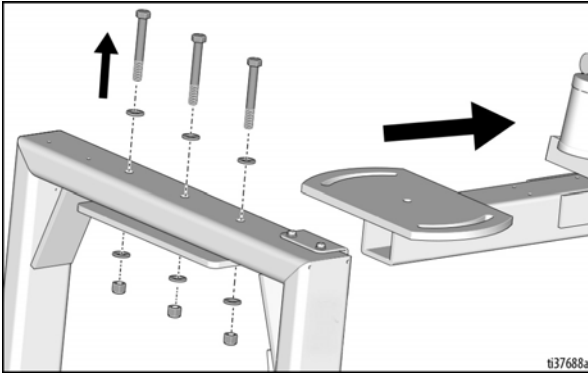
NOTE: It may be needed to completely remove the motor and Universal Quick Attach Mount Plate to have enough working room. This gives you access to the bearing assembly.

3. If it has not been done, remove the cutter heads. Perform **Cutter Head Removal**, page 15, before proceeding.
4. Start by removing the hydraulic motor from the motor adapter using the 9/16" socket or wrench.

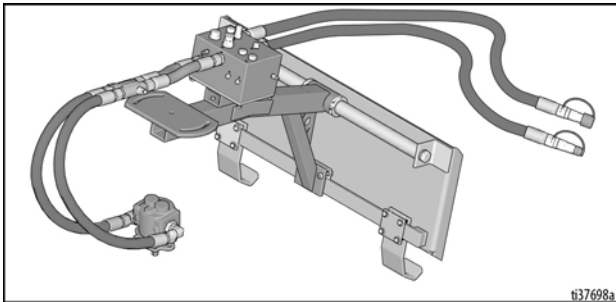


Repair

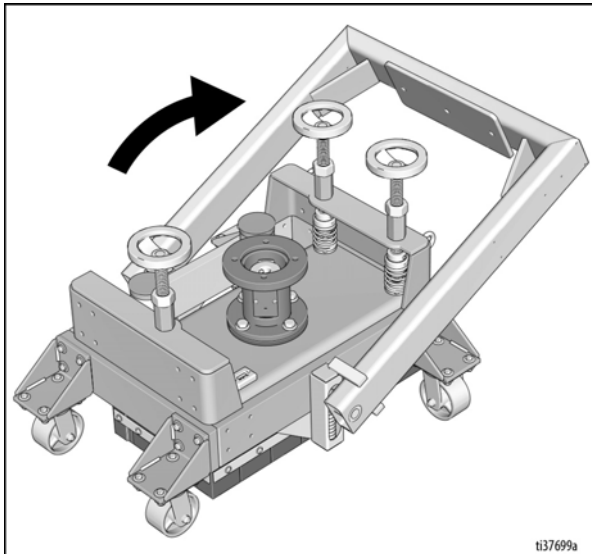
5. Remove the Quick Attach Mount boom from the U-bar using the 3/4" socket or wrench.



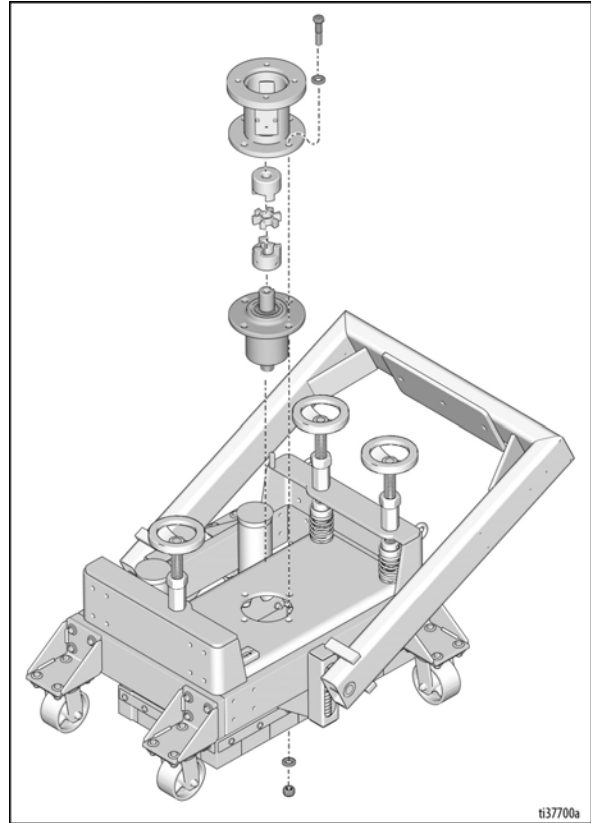
6. Remove the Quick Attach Mount and hydraulic assemblies from the GrindLazer and set aside.



7. Rotate the U-bar out of the way to allow removal of the entire drive bearing assembly.








8. Remove the bearing assembly using the 3/4" socket or wrench.



9. Install new bearing assembly using the reverse steps above to install.

Maintenance

				
<p>Avoid touching engine and cutter head after use until they have completely cooled.</p> <p>HYDRAULIC MODELS To avoid injury from unexpected start up, always disconnect the hydraulic supply source before you service your machine.</p> <p>GAS MODEL To avoid injury from unexpected start up, disable engine as follows: 1) Disconnect both spark plug wires. 2) Disconnect negative (-) battery cable from battery.</p>				

				
<p>CRUSH HAZARD To avoid serious injury or death, never work under the equipment unless it is securely supported by safety stands or blocks.</p>				

The following steps should be performed to maintain proper operation and sustain the life of the GrindLazer.

BEFORE OPERATION:

- Visually inspect the entire GrindLazer for damage or loose connections.
- **25P473 only:** Check engine oil (see engine manual).
- Check bushings and cutters.
- Check cutter for uneven wear.

DAILY:

- Check all fasteners and re-tighten.
- Clean dust and debris from exterior of GrindLazer (do NOT use pressure washer or other high pressure cleaning equipment).
- Inspect dust skirts for damage. Repair or replace damaged skirts in order to help dust and debris containment.
- **25P473 only:** Check engine oil level and fill as necessary.
- **25P473 only:** Check and fill gas tank.
- **25P473 only:** Remove air filter cover and clean element. Replace element if necessary. Replacement elements can be purchased from your local engine dealer.

AFTER THE FIRST 20 HOURS OF OPERATION:

- **25P473 only:** Drain engine oil and refill with clean oil. See engine manual for correct viscosity.

EVERY 40-50 HOURS OF OPERATION:

- **25P473 only:** Change engine oil (see engine manual).
- Grease wheel bearings.

AS REQUIRED:

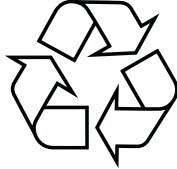
- **25P472 & 25P473 only:** Check drive belt and tension and tighten or replace as needed.

For additional information about engine maintenance, see engine manual.

Recycling and Disposal


Rechargeable Battery Disposal

Do not place batteries in the trash. Recycle batteries according to local regulations. In the USA and Canada, call 1-800-822-8837 to find recycling location or go to www.call2recycle.org.






End of Product Life

At the end of the product's useful life, dismantle and recycle it in a responsible manner.

- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Remove battery, tachometer, and other electronic components. Recycle according to applicable regulations.
- Do not dispose of electronic components with household or commercial waste. 
- Deliver remaining product to a recycling facility.


Troubleshooting


			
<p>HYDRAULIC MODELS</p> <p>To avoid injury from unexpected start up, always disconnect the Hydraulic Supply/Return Lines before you service your machine.</p> <p>GAS MODEL</p> <p>To avoid injury from unexpected start up, disable engine as follows: 1) Disconnect both spark plug wires. 2) Disconnect negative (-) battery cable from battery.</p>			


			
<p>CRUSH HAZARD</p> <p>To avoid serious injury or death, never work under the equipment unless it is securely supported by safety stands or blocks.</p>			


Problem	Cause	Solution
Cutters wearing unevenly/prematurely	Cutter head is too low	Raise the cutter head.
	Material build up	Clean the cutters.
	Bearings may be worn	Replace bearings.
	Wrong cutters for application	Contact Tech Services.
Excess Vibration	Bearings may be worn	Replace bearings.
	Drive shaft worn	Replace drive shaft.
	Improper cutter set-up	Contact Tech Services.
	Spindle contacting the work surface	Raise the cutter head.
GrindLazer jumps erratically	Wheels worn out	Replace the wheels.
	RPM is too low	Turn engine throttle or speed control to highest setting.
Drive belt wearing prematurely	Surface is severely uneven	Move to smoother surface.
	Belt not tensioned properly	Tension belt, see Drive Belt Replacement (Models 25P472 & 25P473) , page 16.
Cutter Head Adjustment Handle will not turn	Wrong belt	Order new belt.
	Threads are not greased	Clean and grease threads.
Cutters not spinning	Auxiliary hydraulics (25P471 & 25P472)	Reverse direction of flow on skid steer auxiliary hydraulics. If not available, swap hydraulic hose ends.
	Hydraulic motor	Replace hydraulic motor.
	Bearing drive assembly	Replace drive assembly.
	Drive belt (25P472 & 25P473)	Replace belt.


Parts - 25P471 (Outer Frame)


 Torque to 28-30 ft-lbs
(37.9-40.7 N·m)


 Torque to 20-22 ft-lbs
(27.1-29.8 N·m)

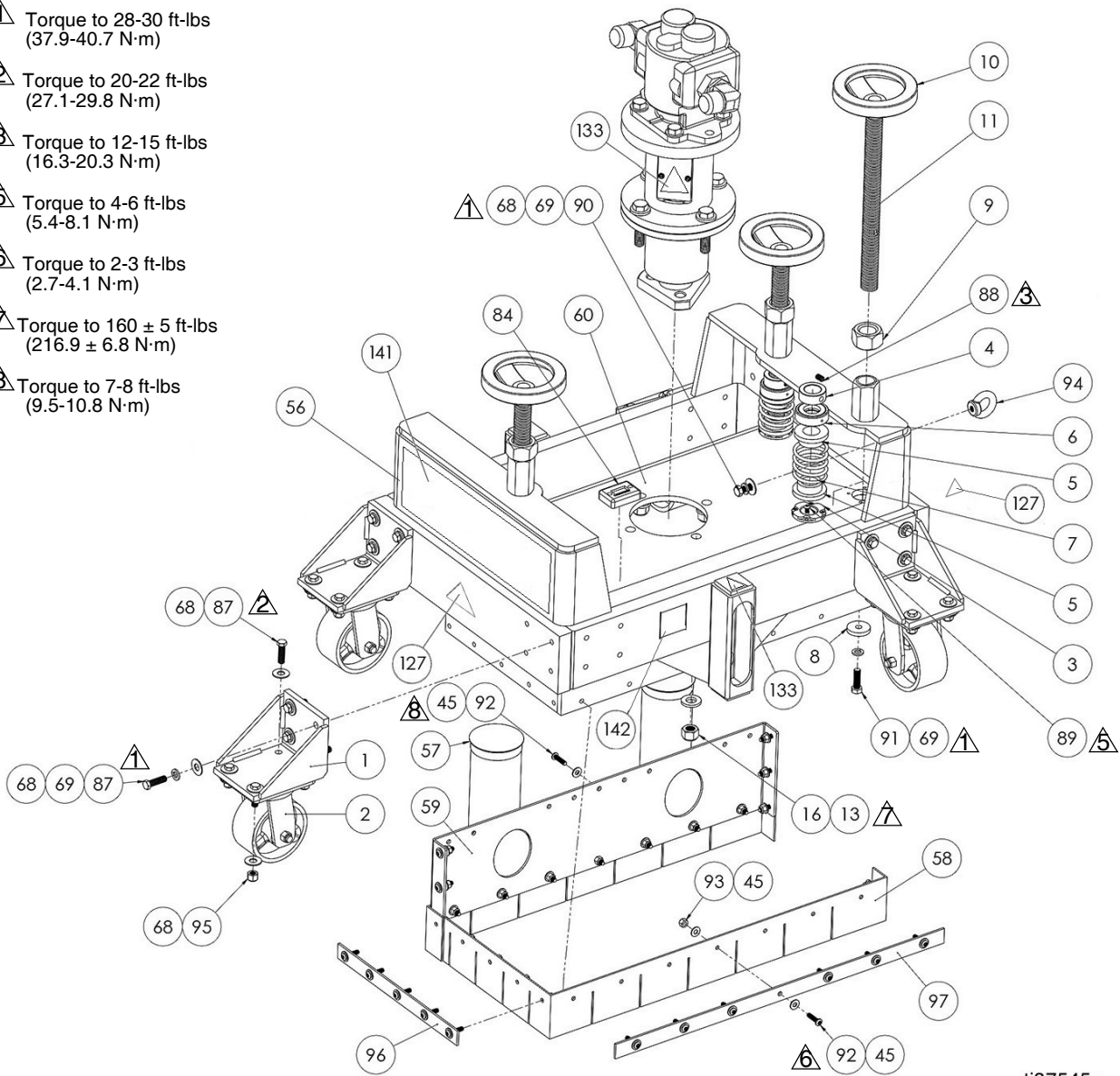
 Torque to 12-15 ft-lbs
(16.3-20.3 N·m)

 Torque to 4-6 ft-lbs
(5.4-8.1 N·m)

 Torque to 2-3 ft-lbs
(2.7-4.1 N·m)

 Torque to 160 ± 5 ft-lbs
(216.9 ± 6.8 N·m)

 Torque to 7-8 ft-lbs
(9.5-10.8 N·m)



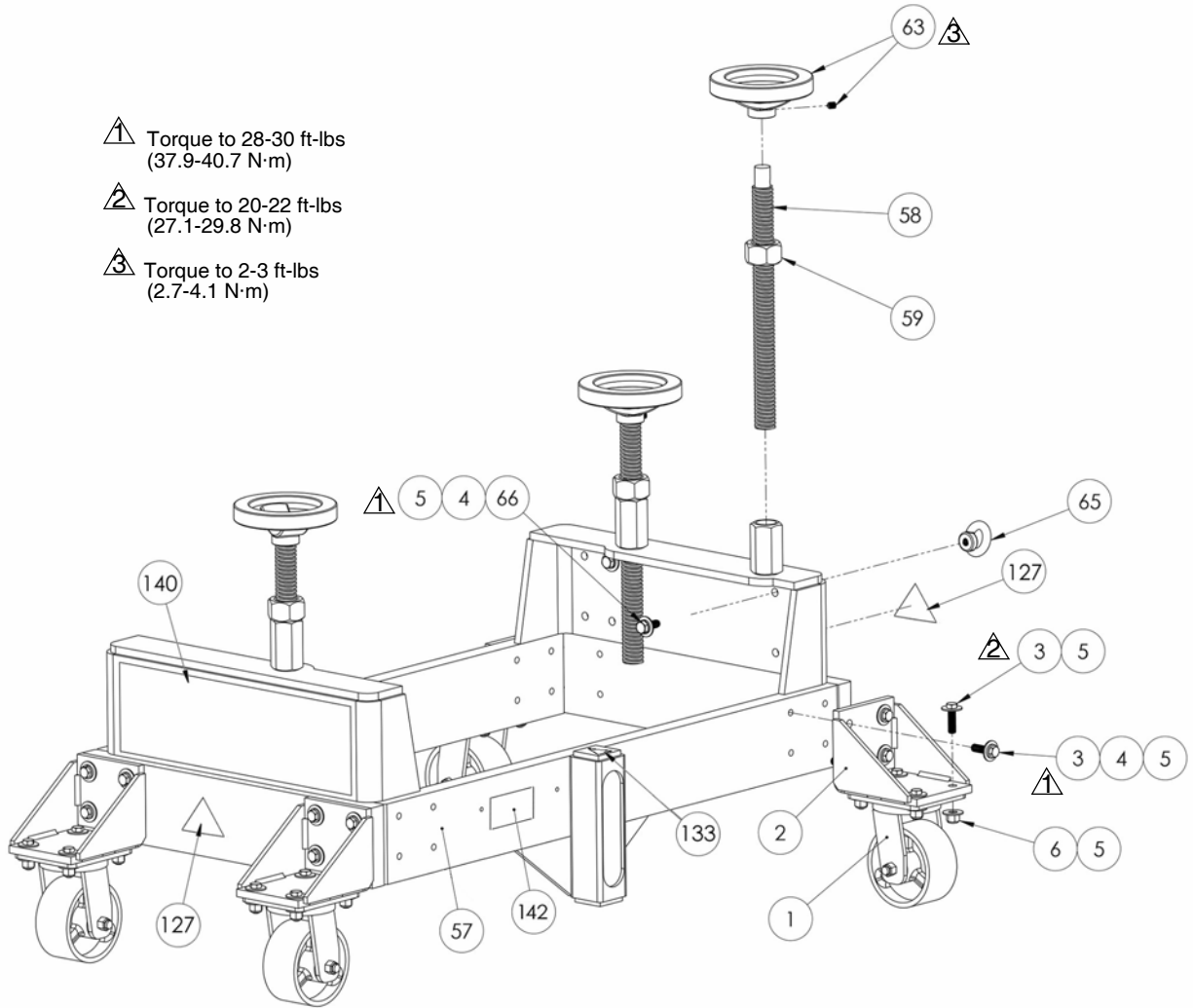
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Parts List - 25P471 (Outer Frame)

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	18B047	MOUNT, caster	4	69	100133	WASHER, lock, 3/8"	29
2	18B176	CASTER	4	84	18B188	TACHOMETER	1
3	18B160	BUSHING, bronze	3	87	18B501	BOLT, hex, head, 3/8-16 x 1.25"	32
4	18B161	SPRING, stop, lock collar	3	88	18B525	SET, screw, 5/16-18 x 1/2"	3
5	18B164	SPRING, lift, seat	6	89	18B485	SCREW, button head, #10-32 x 3/8"	12
6	18B165	BEARING, thrust	3	90	100101	SCREW, cap, hex, 3/8-16x1"	2
7	18B183	SPRING, height control	3	91	17W103	SCREW, hex, cap, 3/8-24 x 1.25"	3
8	18B194	WASHER, jumbo	3	92	18B484	SCREW, button, head, 1/4-20 x 1"	34
9	18B124	NUT, hex, acme	3	93	102040	NUT, nylock, 1/4-20	34
10	18B159	WHEEL, height	3	94	18B117	NUT, eye, 3/8-16	2
11	18B158	SCREW, height control	3	95	101566	NUT, nylock, 3/8-16	16
13	18B108	SPACER, hardened, 9/16"	8	96	18B154	RETAINER, front, skirt	1
16	18B536	NUT, nylock, 9/16-12	4	97	18B152	STRIP, rubber hold, large	2
45	17W020	WASHER, flat, 1/4"	72	127▲	16C393	LABEL, warning, ISO cut foot hazard	2
56	18B043	FRAME, outer	1	133▲	15H108	LABEL, warning, pinch hazard	4
57	17W220	CAP, tube	2	141	18B545	LABEL, brand, RC820 H	1
58	18B151	SKIRT, rubber	1	142▲	19B269	LABEL, safety, crush	2
59	18B035	GUARD, dust	1				
60	18B038	FRAME, inner	1				
68	100023	WASHER, flat, 3/8"	58				

▲ Replacement safety labels, tags, and cards are available at no cost.

Parts - 25P472 (Outer Frame)



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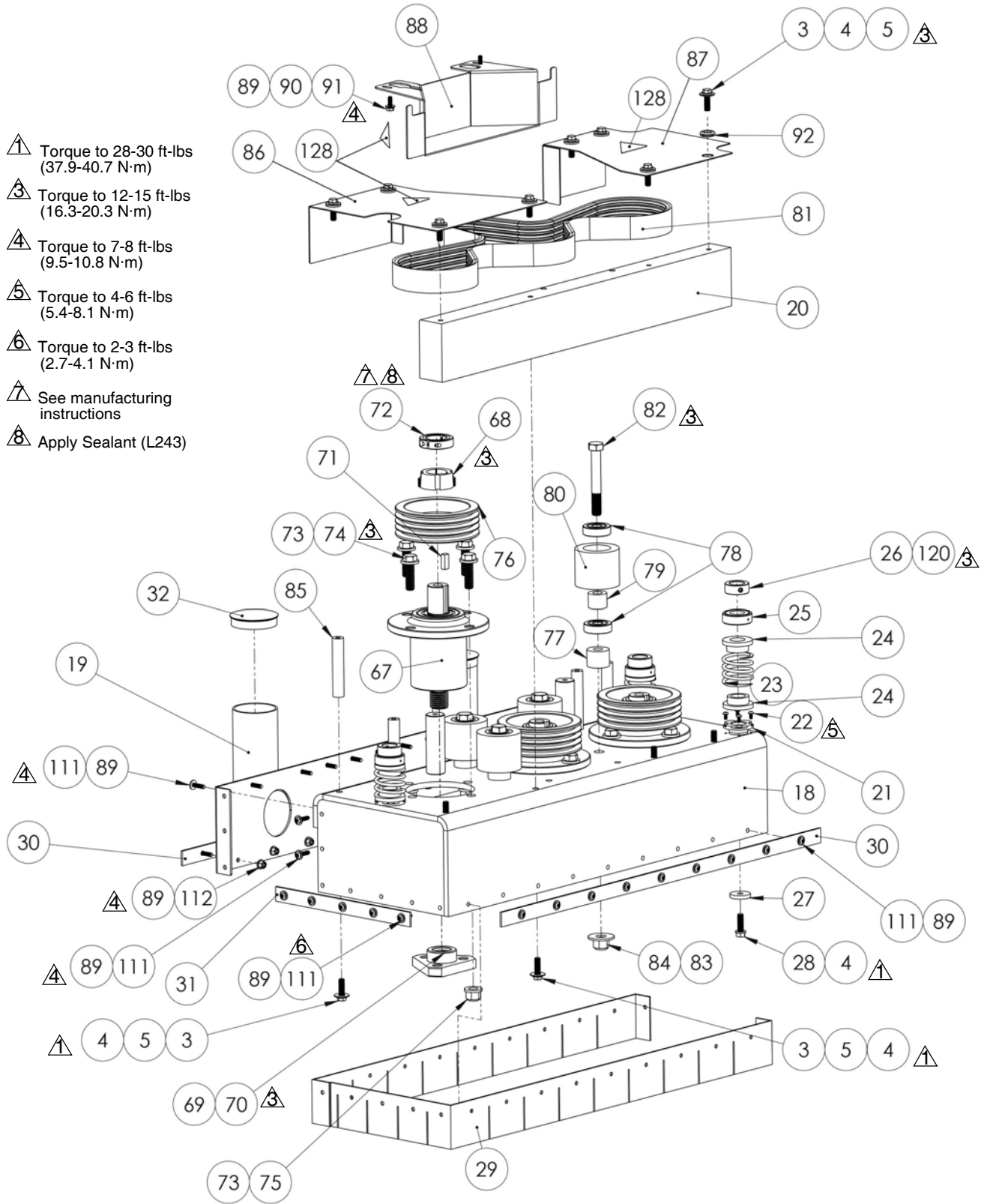
Parts List - 25P472 (Outer Frame)

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	18B176	CASTER	4	65	18B117	NUT, eye, 3/8-16	2
2	18B047	MOUNT, caster	1	66	100101	SCREW, hex cap, 3/8-16 x 1"	2
3	18B501	BOLT, hex head, 3/8-16 x1.25"	53	127▲	16C393	LABEL, warning, ISO cut foot hazard	2
4	100133	WASHER, lock, 3/8"	51	133▲	15H108	LABEL, warning, pinch hazard	2
5	100023	WASHER, flat, 3/8"	74	140	18B547	LABEL, brand, RC1640 H	1
6	101566	NUT, nylock, 3/8-16	16	142▲	19B269	LABEL, safety, crush	2
57	18B045	FRAME, outer	1				
58	18B158	SCREW, height, control	3				
59	18B124	NUT, acme, hex, 1.0-5	3				
63	18B159	WHEEL, height	3				

▲Replacement safety labels, tags, and cards are available at no cost.

Parts - 25P472 (Inner Frame)

- Torque to 28-30 ft-lbs (37.9-40.7 N·m)
- Torque to 12-15 ft-lbs (16.3-20.3 N·m)
- Torque to 7-8 ft-lbs (9.5-10.8 N·m)
- Torque to 4-6 ft-lbs (5.4-8.1 N·m)
- Torque to 2-3 ft-lbs (2.7-4.1 N·m)
- See manufacturing instructions
- Apply Sealant (L243)

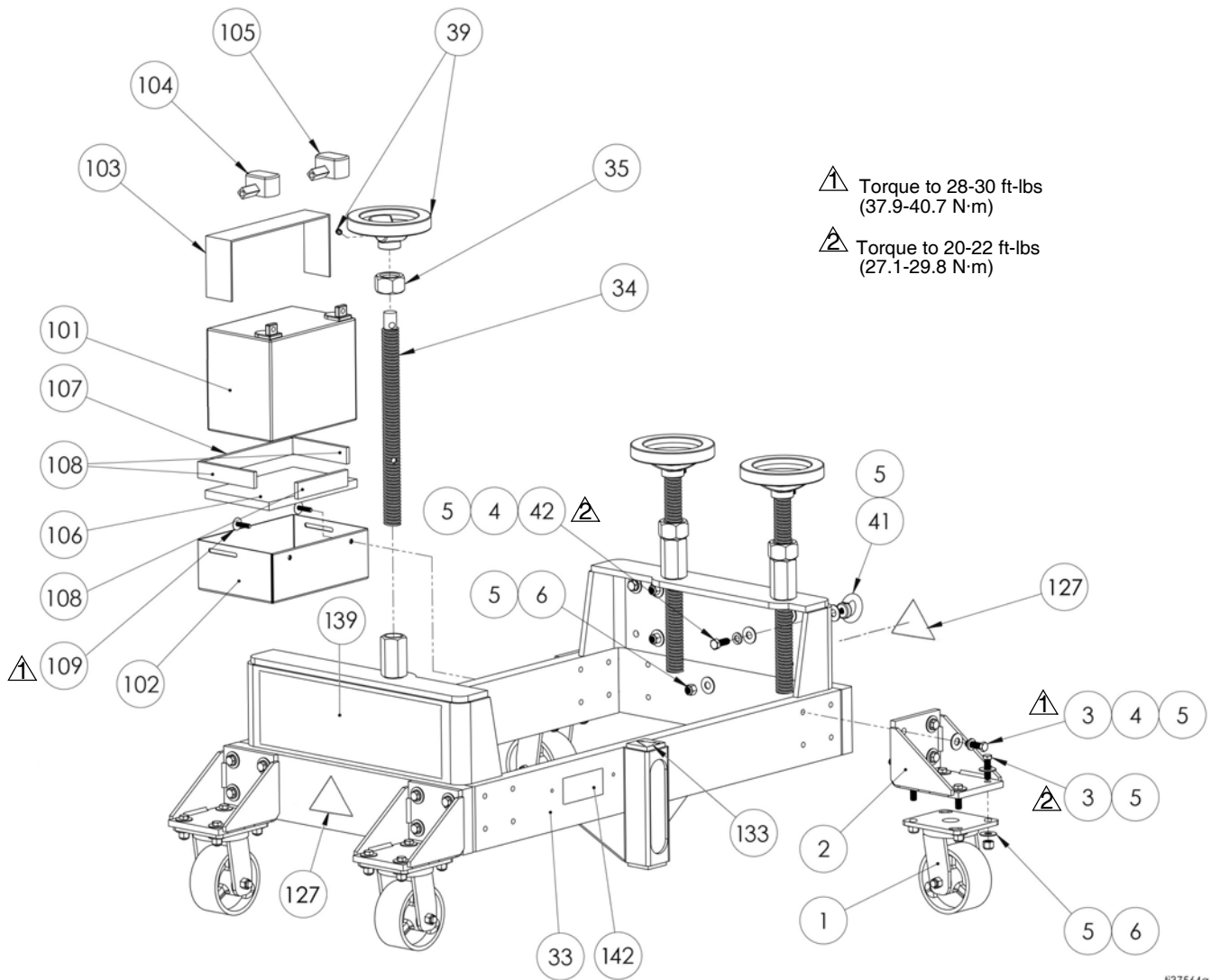


Parts List - 25P472 (Inner Frame)

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
3	18B501	BOLT, hex head, 3/8-16 x 1.25"	53	75	18B536	NUT, nylock, 9/16-12	12
4	100133	WASHER, lock, 3/8"	51	76	17X925	PULLEY, drive	3
5	100023	WASHER, flat, 3/8"	74	77	18B174	SPACER, roller	4
18	18B039	FRAME, inner	1	78	18B115	BEARING	8
19	18B036	PLATE, inner frame, exhaust	1	79	18B163	SPACER, belt idler	4
20	18B193	WEIGHT, counter, internal	1	80	18B162	ROLLER, belt idler	4
21	18B160	BUSHING, bronze	3	81	18B177	BELT, drive	1
22	18B485	SCREW, button head, #10-32 x 3/8"	12	82	18B513	SCREW, hex cap, 5/8-11 x 4.5"	4
23	18B183	SPRING, height, control	3	83	18B492	WASHER, flat, 5/8"	4
24	18B164	SEAT, lift, spring	6	84	101712	NUT, nylock, 5/8-11	4
25	18B165	BEARING, thrust	3	85	18B167	SPACER, belt guard	4
26	18B161	SPRING, stop, lock collar	3	86	18B029	GUARD, belt, front	1
27	18B194	WASHER, jumbo	3	87	18B028	GUARD, belt, rear	1
28	17W103	SCREW, cap, hex, 3/8-24 x 1.25"	3	88	18B030	GUARD, center, belt	1
29	18B170	SKIRT, rubber	1	89	17W020	WASHER, flat, 1/4"	86
30	18B155	RETAINER, side skirt	2	90	100022	SCREW, hex, cap, 1/4-20 x 0.75"	6
31	18B154	RETAINER, front skirt	1	91	100016	WASHER, lock, 1/4"	6
32	17W220	CAP, tube	2	92	18B113	BUSHING, rubber, 3/4"	8
67	17W238	BEARING, drive, housing, assy	3	111	18B484	SCREW, button head, 1/4-20 x 1"	40
68	18B180	BUSHING, taper lock, 35mm	4	112	102040	NUT, nylock, 1/4-20	40
69	17X259	CONNECTOR, hub, drive	3	120	18B525	SCREW, set, 5/16-18 x 1/2"	3
70	101679	SCREW, set, 3/8-24 x 0.5"	8	128▲	16C394	LABEL, safety, warning, entangle	3
71	18B197	KEY, 8mm x 10mm x 1"	4				
72	18B198	COLLAR, locking	3				
73	18B108	SPACER, hardened 9/16"	24				
74	18B511	SCREW, hex cap, 9/16-12 x 2"	12				

▲Replacement safety labels, tags, and cards are available at no cost.

Parts - 25P473 (Outer Frame)








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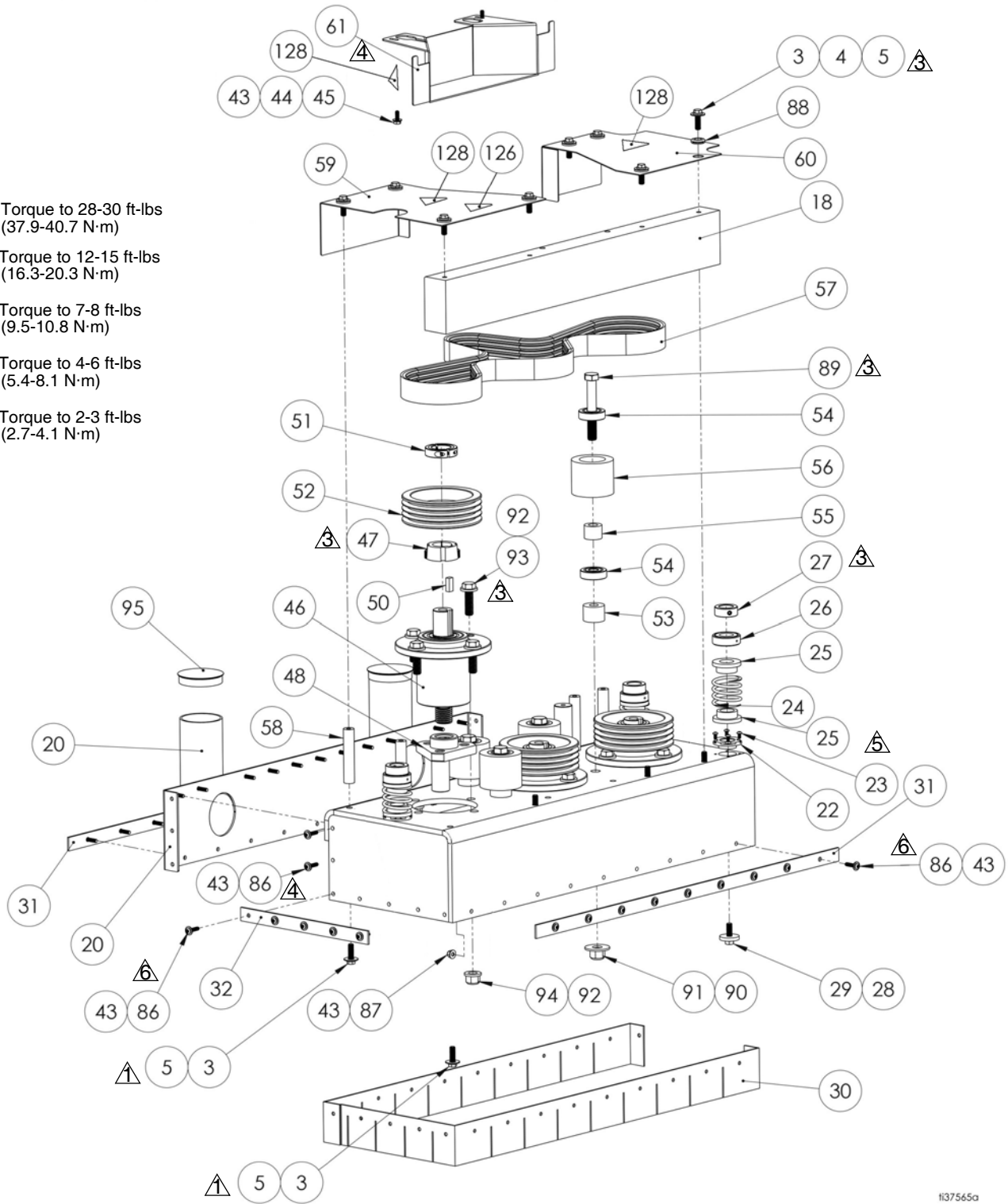
Parts List - 25P473 (Outer Frame)

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	18B176	CASTER	4	103	18A786	STRAP, Velcro, 2" x 24"	1
2	18B047	MOUNT, caster	1	104	801958	PROTECTOR, battery terminal, red	1
3	18B501	BOLT, hex head, 3/8-16 x 1.25"	56	105	801959	PROTECTOR, battery terminal black	1
4	100133	WASHER, lock, 3/8"	53	106	18Y704	FOAM, urethane, 1/2"	1
5	100023	WASHER, flat, 3/8"	88	107	18Y705	FOAM, urethane, 1/4"	1
6	101566	NUT, nylock, 3/8-16	20	108	18Y701	FOAM, urethane, 1/4"	3
33	18B045	FRAME, outer	1	109	103204	SCREW, low profile, 1/4-20 x 1"	2
34	18B158	SCREW, height control	3	127▲	16C393	LABEL, warning, ISO cut foot hazard	2
35	18B124	NUT, hex, acme	3	133▲	15H108	LABEL, warning, pinch hazard	2
39	18B159	WHEEL, height	3	139	18B557	LABEL, brand, RC1625 G	1
41	18B117	NUT, eye, 3/8-16	2	142▲	19B269	LABEL, safety, crush	2
42	100101	SCREW, cap, hex, 3/8-16x1"	2				
101	115753	BATTERY	1				
102	17Y121	BOX, battery	1				

▲Replacement safety labels, tags, and cards are available at no cost.

Parts - 25P473 (Inner Frame)

-  Torque to 28-30 ft-lbs (37.9-40.7 N·m)
-  Torque to 12-15 ft-lbs (16.3-20.3 N·m)
-  Torque to 7-8 ft-lbs (9.5-10.8 N·m)
-  Torque to 4-6 ft-lbs (5.4-8.1 N·m)
-  Torque to 2-3 ft-lbs (2.7-4.1 N·m)



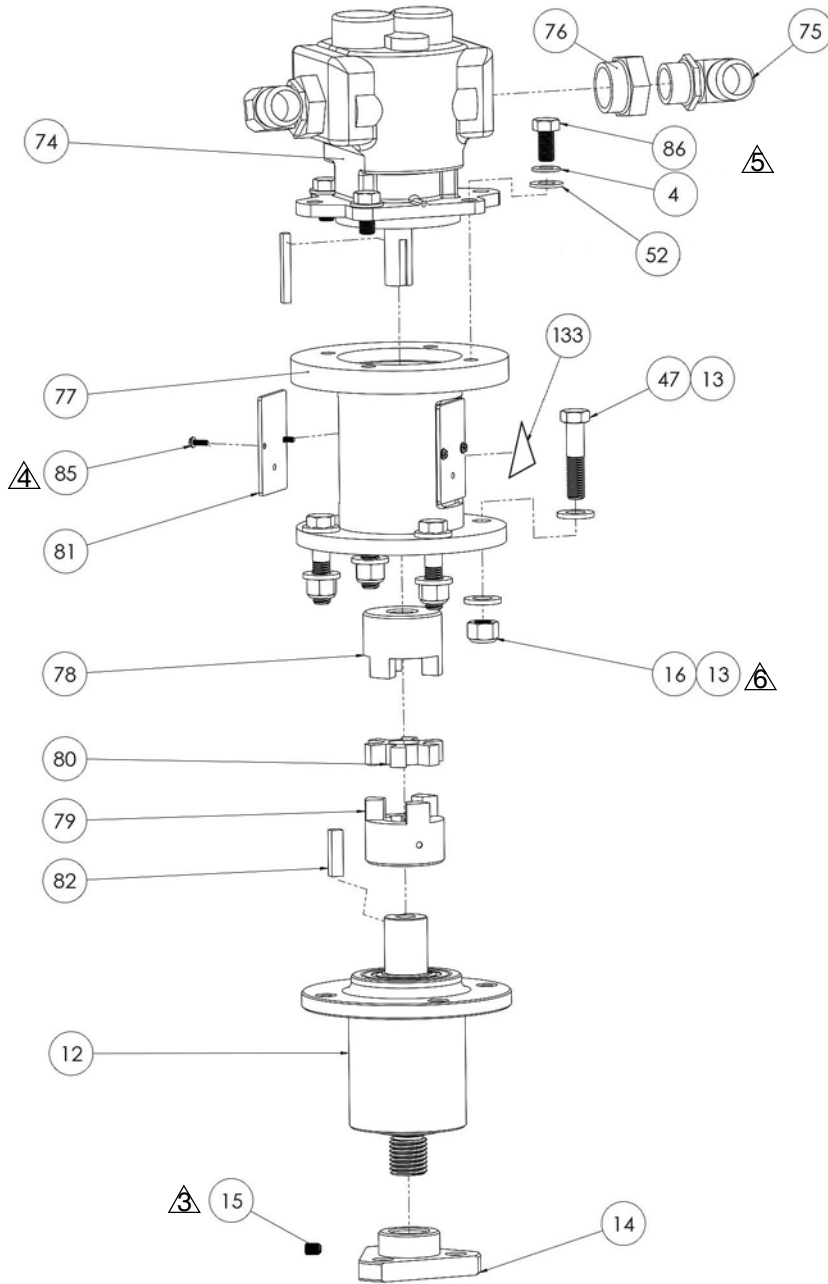
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Parts List - 25P473 (Inner Frame)

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
3	18B501	BOLT, hex head, 3/8-16 x 1.25"	56	53	18B174	SPACER, roller	4
4	100133	WASHER, lock, 3/8"	53	54	18B115	BEARING	8
5	100023	WASHER, flat, 3/8"	88	55	18B163	SPACER, belt idler	4
18	18B193	WEIGHT, counter, internal	1	56	18B162	ROLLER, belt, idler	4
20	18B036	PLATE, exhaust, inner, plate	1	57	18B177	BELT, drive,	1
22	18B160	BUSHING, bronze	3	58	18B167	SPACER, belt, guard	4
23	18B485	SCREW, button head, #10-21 x 3/8"	14	59	18B029	GUARD, belt, front	1
24	18B183	SPRING, height control	3	60	18B028	GUARD, belt, rear	1
25	18B164	SEAT, lift, spring	6	61	18B030	GUARD, belt, center	1
26	18B165	BEARING, thrust	3	86	18B484	SCREW, button head, 1/4-20 x 1"	40
27	18B161	SPRING, stop, lock collar	3	87	102040	NUT, nylock, 1/4-20	40
28	18B194	WASHER, jumbo	3	88	18B113	BUSHING, rubber, 3/4"	8
29	17W103	SCREW, hex cap, 3/8-24 x 1.25"	3	89	18B513	SCREW, hex cap, 5/8-11 x 4.5"	4
30	18B170	SKIRT, rubber	1	90	18B492	WASHER, flat, 5/8"	4
31	18B155	RETAINER, side, skirt	2	91	101712	NUT, nylock, 5/8-11	4
32	18B154	RETAINER, front, skirt	1	92	18B108	SPACER, hardened, 9/16"	24
43	17W020	WASHER, flat, 1/4"	82	93	18B511	SCREW, hex cap, 9/16-12 x 2"	12
44	100016	WASHER, lock, 1/4"	2	94	18B536	NUT, nylock, 9/16-12	12
45	100022	SCREW, hex cap, 1/4-20 x 0.75"	2	95	17W220	CAP, tube	2
46	17W238	BEARING, drive, housing, assy	1	126▲	16D646	LABEL, warning, ISO hot surface	1
47	18B180	BUSHING, taper, lock, 35mm	3	128▲	16C394	LABEL, warning, entangle hazard	3
48	17X259	CONNECTOR, hub, drive	3				
50	18B197	KEY, 8mm X 10mm x 1"	3				
51	18B198	COLLAR, locking	3				
52	17X925	PULLEY, drive	3				

▲Replacement safety labels, tags, and cards are available at no cost.

Parts - 25P471 Motor & Drive



3 Torque to 12-15 ft-lbs
(16.3-20.3 N·m)

4 Torque to 7-8 ft-lbs
(9.5-10.8 N·m)

5 Torque to 90 ± 5 ft-lbs
(122 ± 6.8 N·m)

6 Torque to 140 ± 5 ft-lbs
(190 ± 6.8 N·m)

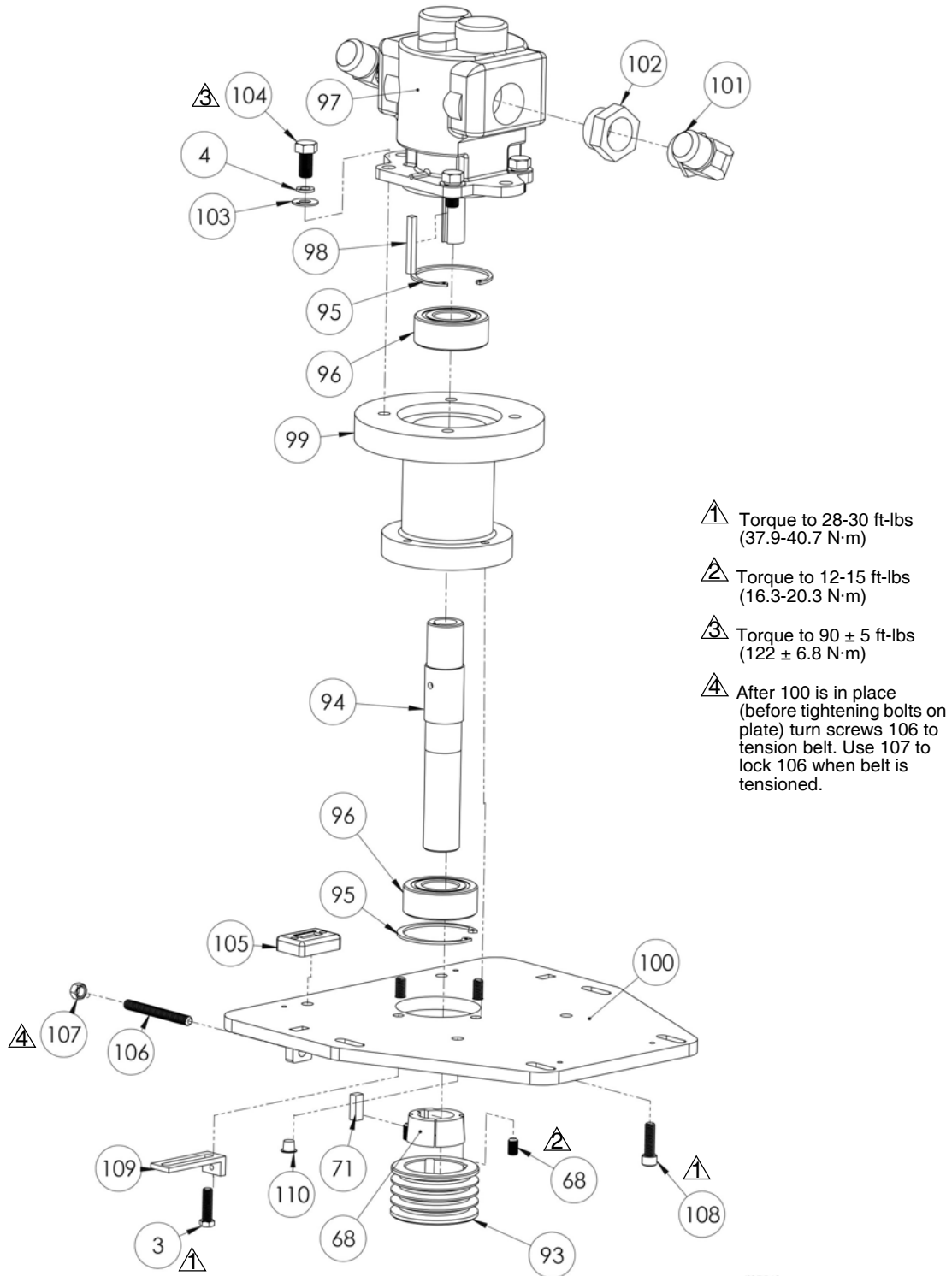
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Parts List - 25P471 Motor & Drive

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
12	17W238	BEARING, drive, housing, assy	1	78	18B186	LOVEJOY, 7/8"	1
13	18B108	SPACER, hardened 9/16"	8	79	18B050	LOVEJOY, 1 3/8"	1
14	17X259	CONNECTOR, hub, drive	1	80	18B187	LOVEJOY, spider	1
15	101679	SCREW, set, 3/8-24 x 5"	3	81	18B064	GUARD	2
16	18B536	NUT, nylock, 9/16-12	4	82	18B363	KEY, 8mm x 10mm x 1.5"	1
47	18B512	HX-CS.562-12 x 2.5	4	85	117501	SCREW, mach, slot hex wash hd	4
52	17W098	WASHER, flat, 1/2"	10	86	123664	SCREW, cap hex, 1/2-20 x 1"	4
74	18B146	MOTOR, hydraulic	1	133▲	15H108	LABEL, safety, warning, pinch	2
75	18B140	FITTING, 90°	2				
76	18B141	REDUCER, straight	2				
77	18B034	HOUSING, motor	1				

▲Replacement safety labels, tags, and cards are available at no cost.

Parts - 25P472 Motor & Drive

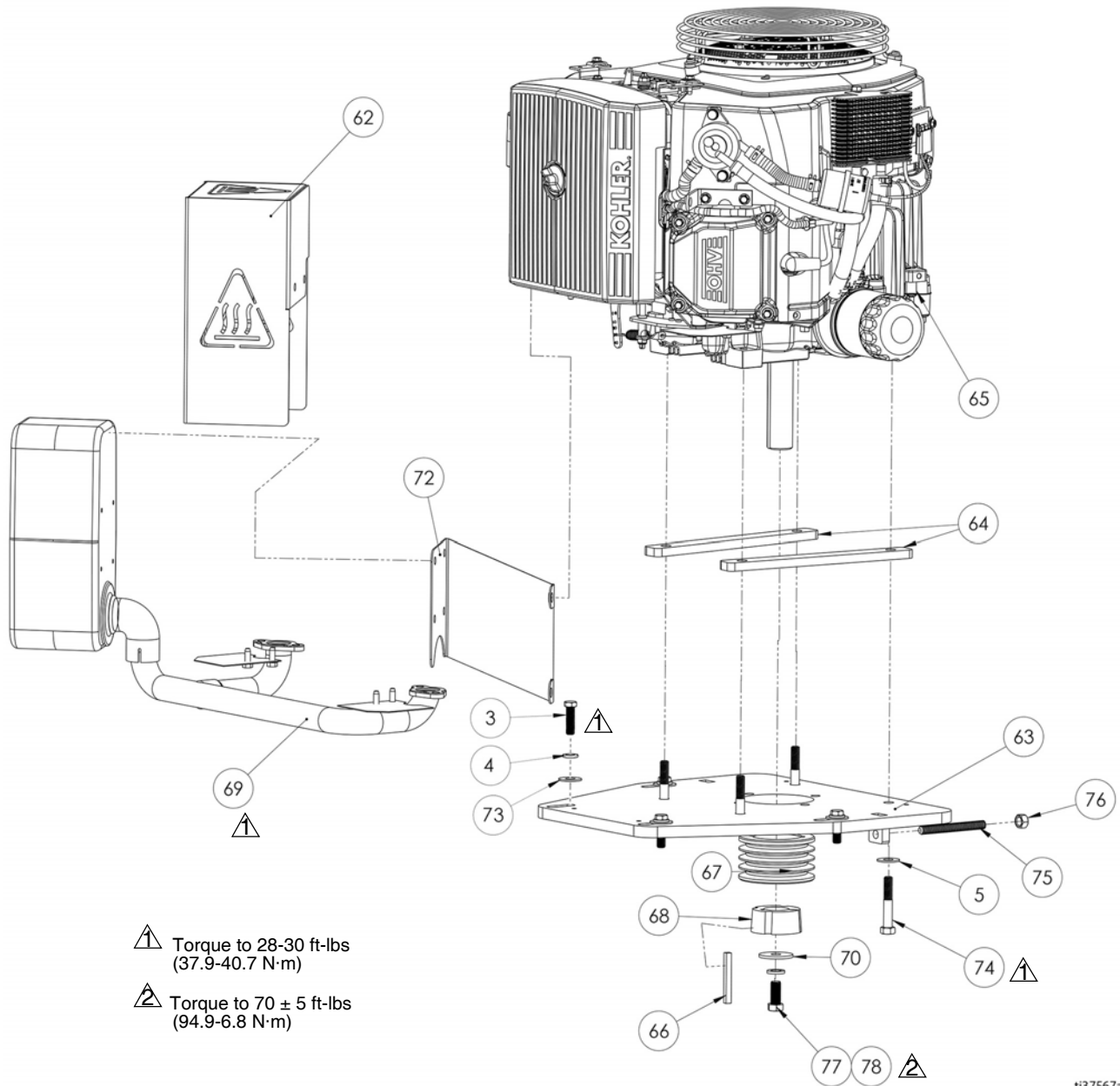


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Parts List - 25P472 Motor & Drive

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
3	18B501	BOLT, hex head, 3/8-16 x1.25"	53	100	18B031	PLATE, motor	1
4	101911	WASHER, lock, 3/8"	4	101	18B140	FITTING, 90°	2
68	18B180	BUSHING, taper, lock, 35mm	4	102	18B141	REDUCER, straight	2
71	18B197	KEY, 8mm X 10mm x 1"	4	103	17W218	WASHER, flat, 3/8"	4
93	17W966	PULLEY, engine, drive	1	104	19B349	SCREW, cap hex, 1/2-20 x 1"	4
94	18B037	SHAFT, drive	1	105	18B188	TACHOMETER	1
95	18B196	C-CLIP	2	106	18B526	SCREW, set, 3/8-16 x 3 1/2	2
96	18B185	BEARING	2	107	100131	NUT, hex, 3/8-16	2
97	18B138	MOTOR, hydraulic	1	108	18B528	SCREW, socket cap, 3/8-16 x 1 1/4"	3
98	17W088	KEY, square, 2 1/4 x 1/4	1	109	18B201	BRACKET, tach mount	1
99	18B033	MOUNT, motor, hydraulic	1	110	18B145	PLUG, fitting, #3	3

Parts - 25P473 Engine & Drive



Torque to 28-30 ft-lbs
(37.9-40.7 N·m)

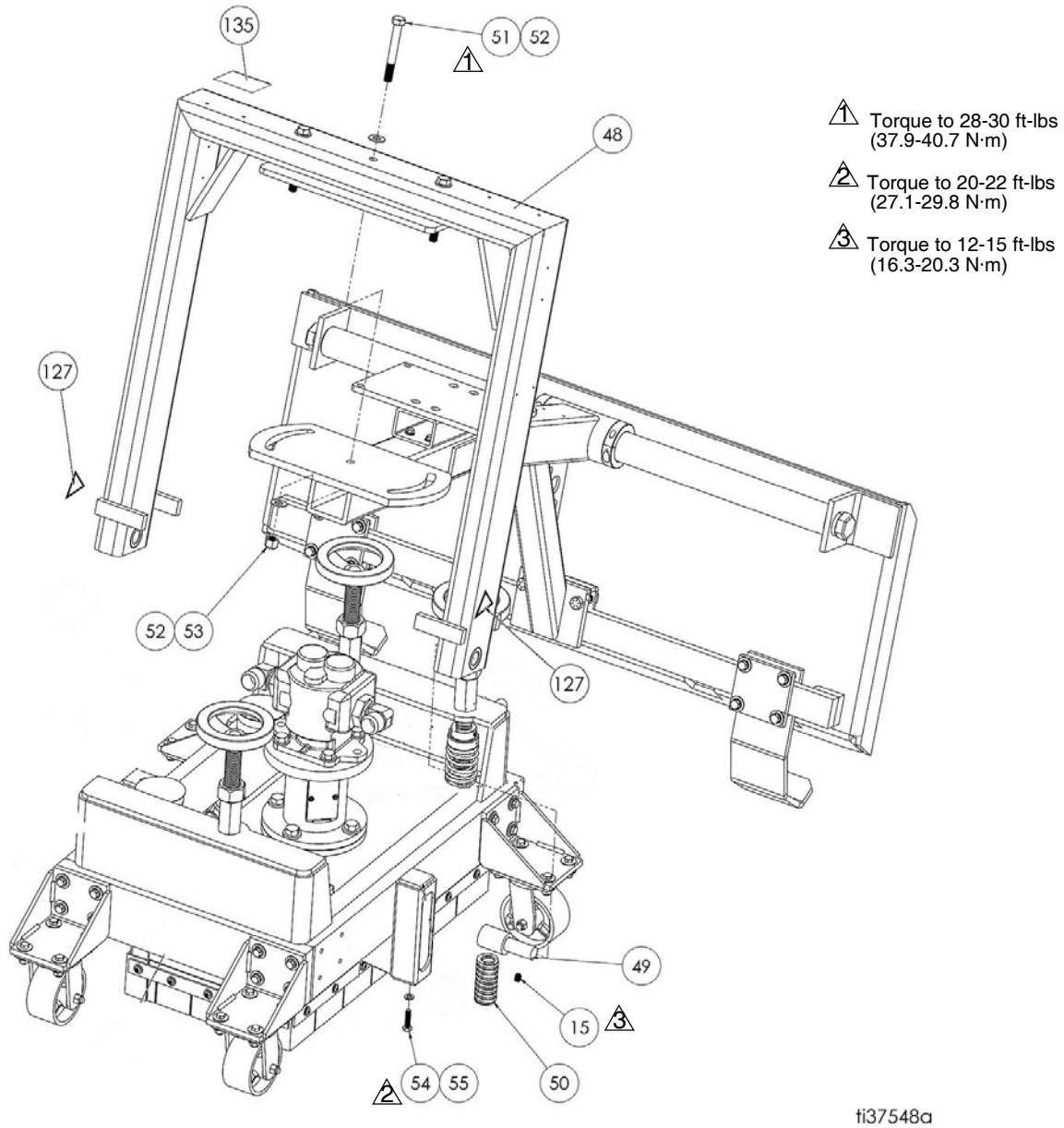
Torque to 70 ± 5 ft-lbs
(94.9-6.8 N·m)

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Parts List - 25P473 Engine & Drive

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
3	18B501	BOLT, hex head, 3/8-16x1.25"	52	69	18B119	KIT, muffler	1
4	100133	WASHER, lock, 3/8"	49	70	18B179	PULLEY, stop	1
5	100023	WASHER, flat, 3/8"	88	72	19B235	BRACKET, exhaust	1
62	18B750	MUFFLER, shield, heated	1	73	18B490	WASHER, flat, 3/8"	4
63	18B031	PLATE, motor	1	74	18B503	SCREW, hex cap, 3/8-16 x 1"	4
64	18B166	SPACER, engine, mount	2	75	18B526	SCREW, set, 3/8-16 x 3 1/2	2
65	18B121	ENGINE, Kohler 25HP	1	76	100131	NUT, hex, 3/8-16	2
66	17W088	KEY, square, 2 1/4 x 1/4	1	77	116645	SCREW, hex cap, 7/16-20 x 1"	1
67	17W966	PULLEY, engine drive	1	78	100052	WASHER, lock, 7/16"	1
68	18B181	BUSHING, drive, 1.125"	1				

Parts - 25P471 / 25P472 Universal Quick Attach Mount U-Bar

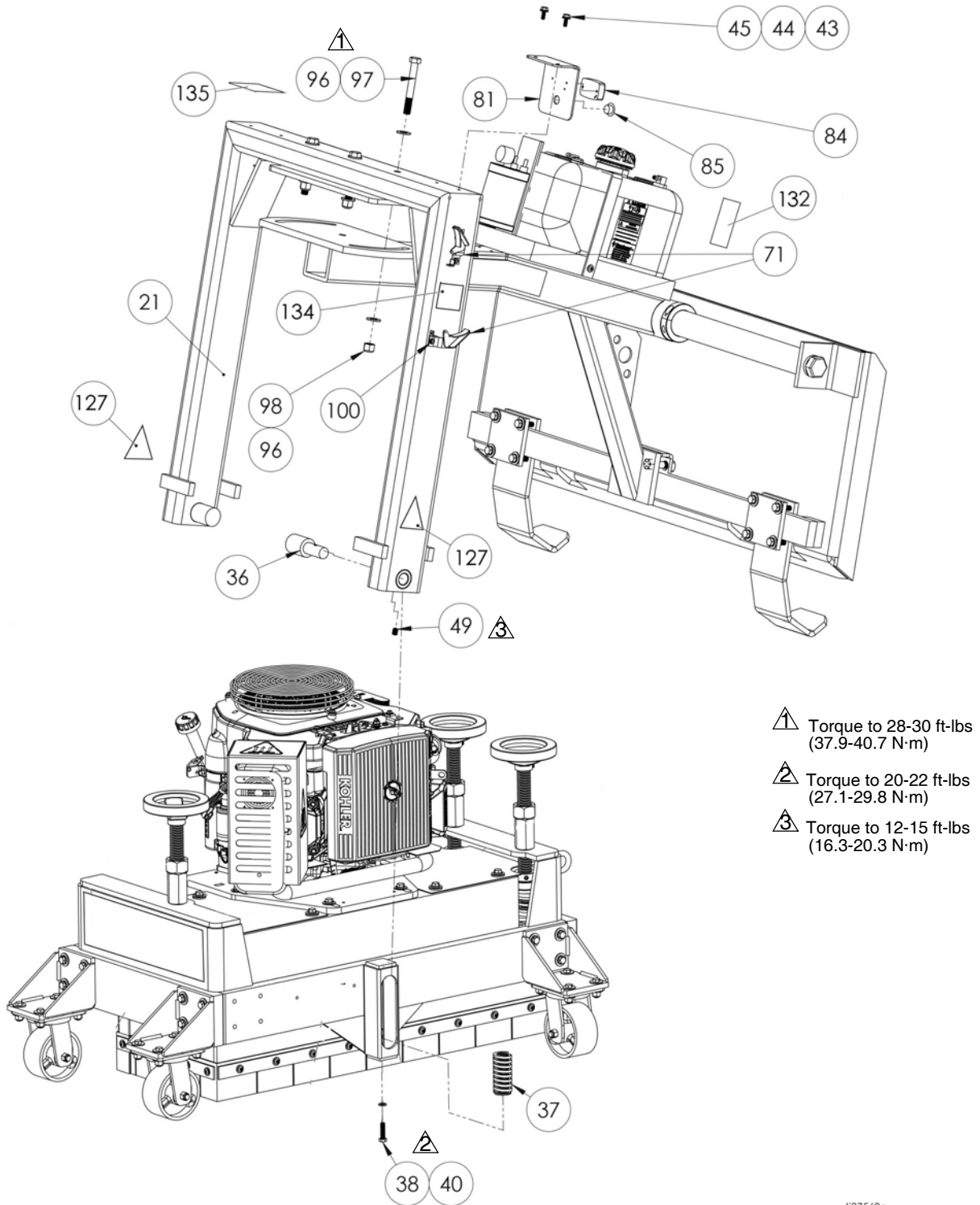


Parts List - 25P471 / 25P472 Universal Quick Attach Mount U-Bar

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
15	101679	SCREW, set, 3/8-24 x 0.5"	3	54	18B496	SCREW, cap, hex, 5/16-18 x 1 1/4"	2
48	18B041	U-BAR	1	55	100214	WASHER, lock, 5/16"	2
49	18B182	ROLLER, cam	2	127▲	16C393	LABEL, warning, ISO cut foot hazard	2
50	18B157	SPRING, U-bar, assy	2	135▲	17W315	LABEL, safety, warning	1
51	17W057	SCREW, cap, hex, 1/2-20 x 4"	3				
52	17W098	WASHER, flat, 1/2"	10				
53	101926	NUT, nylock, 1/2-20	3				

▲ Replacement safety labels, tags, and cards are available at no cost.

Parts - 25P473 Universal Quick Attach Mount U-Bar



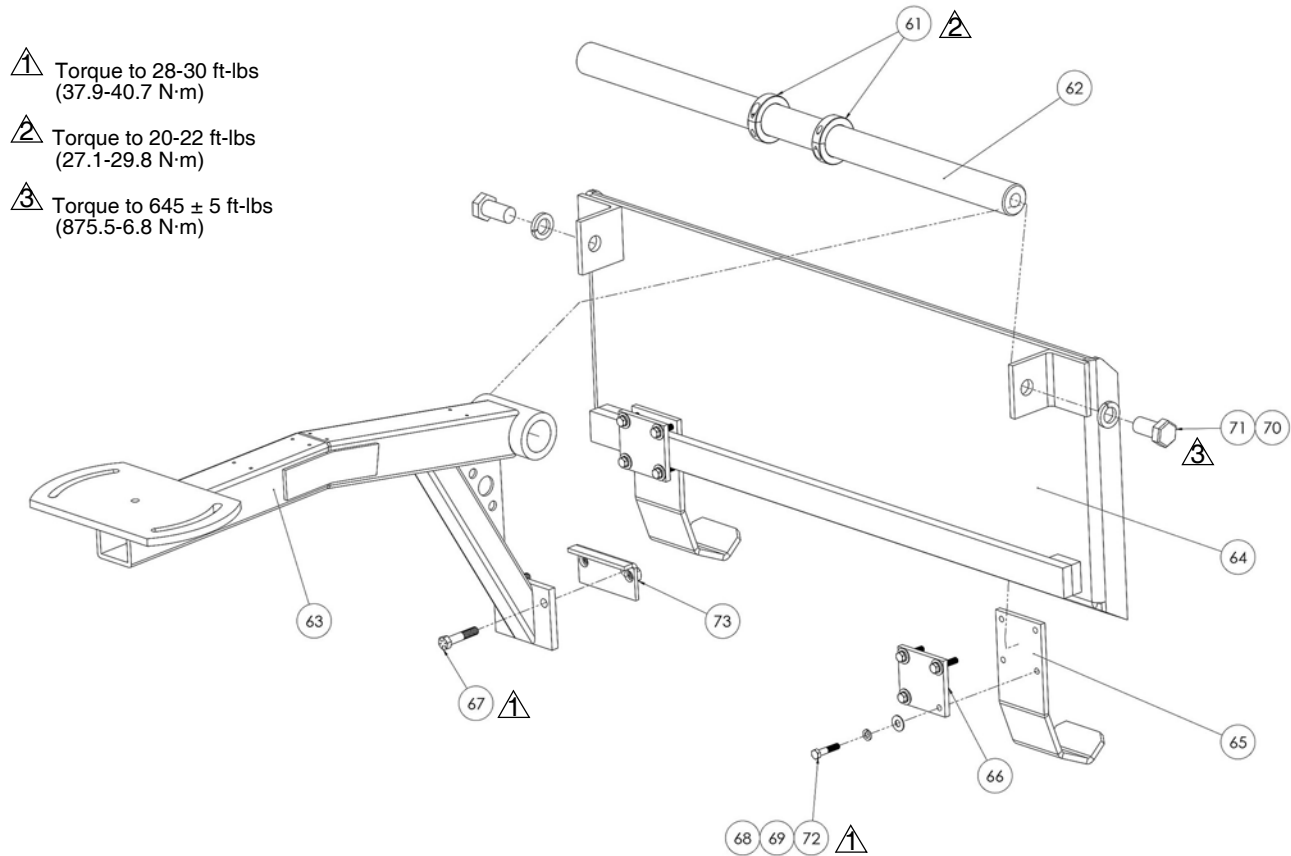
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Parts List - 25P473 Universal Quick Attach Mount U-Bar

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
21	18B041	U-BAR	1	85	18B120	SWITCH, key	1
36	18B182	CAM ROLLER	2	96	17W098	WASHER, flat, 1/2"	6
37	18B157	SPRING, U-bar, assy	2	97	17W057	SCREW, hex cap, 1/2-20 x 4"	3
38	18B496	SCREW, cap, hex, 5/16-18 x 1 1/4"	2	98	101926	NUT, nylock, 1/2-20"	3
40	100214	WASHER, lock, 5/16"	2	100	17W089	SCREW, hex self tap, 10-32 x 1/2"	4
43	17W020	WASHER, flat, 1/4"	84	127▲	16C393	LABEL, warning, ISO cut foot hazard	4
44	100016	WASHER, lock, 1/4"	4	132▲	19Y703	LABEL, warning, fire & explosion	1
45	100022	SCREW, hex, cap, 1/4-20 x 0.75	8	134	19B306	LABEL, gas throttle/choke	1
49	101679	SCREW, set, 3/8-24 x 0.5"	5	135▲	17W315	LABEL, safety, warning	1
71	18B112	CABLE, throttle	2				
81	18B202	SWITCH, starter, switch	1				
84	17W284	TACHOMETER	1				

▲Replacement safety labels, tags, and cards are available at no cost.

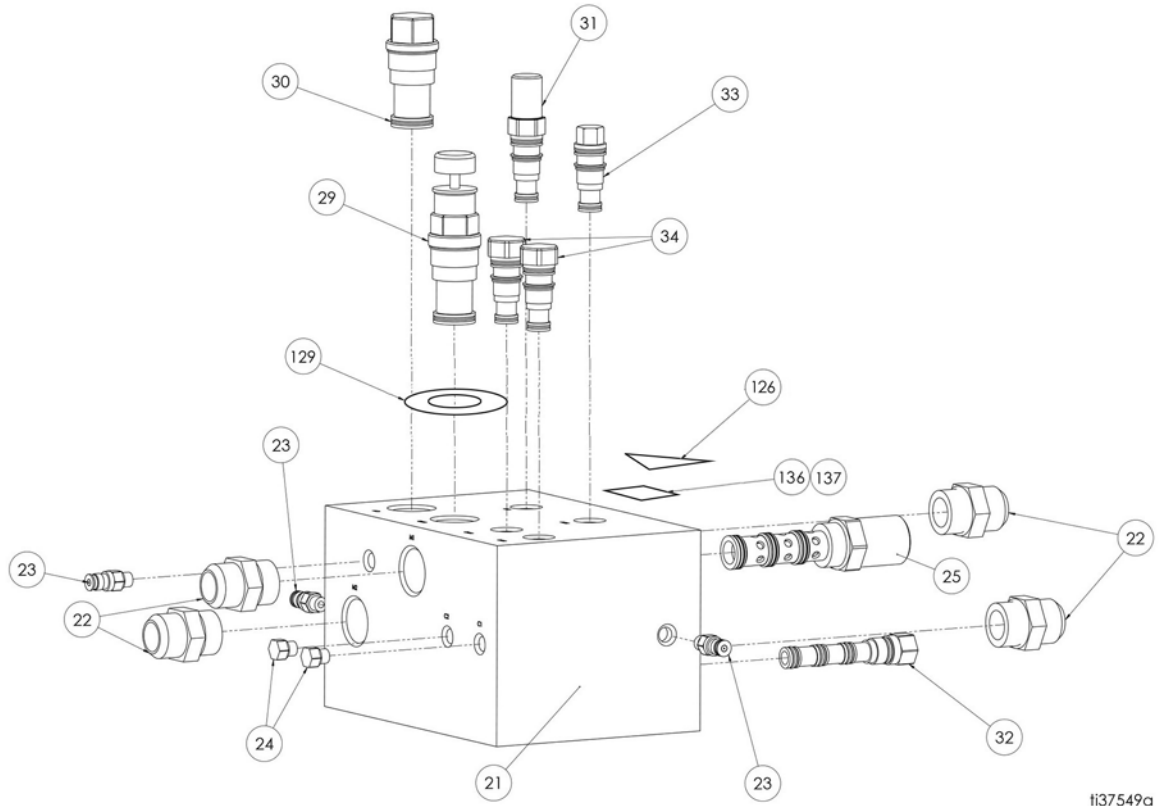
Parts - 25P471 / 25P472 / 25P473 Universal Quick Attach Mount Plate



Parts List - 25P471 / 25P472 / 25P473 Universal Quick Attach Mount Plate

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
61	18B110	COLLAR, locking, 2" split	2	68	100023	WASHER, flat, 3/8"	58
62	18B173	RAIL, slide	1	69	100133	WASHER, lock, 3/8"	29
63	18B153	ARM, boom	1	70	18B527	WASHER, lock, 1"	2
64	18B116	PLATE, skid steer, mounting	1	71	18B518	SCREW, hex, cap, 1/8 x 2"	2
65	18B199	LEGS, Quick Attach Mount	2	72	18B505	SCREW, hex, cap, 3/8-24 x 1.75"	8
66	18B200	PLATE, legs, locking	2	73	18B156	NUT, lower, plate	1
67	18B508	SCREW, hex, cap, 1/2-13 x 2.5"	2				

Parts - 25P471 / 25P472 Manifold



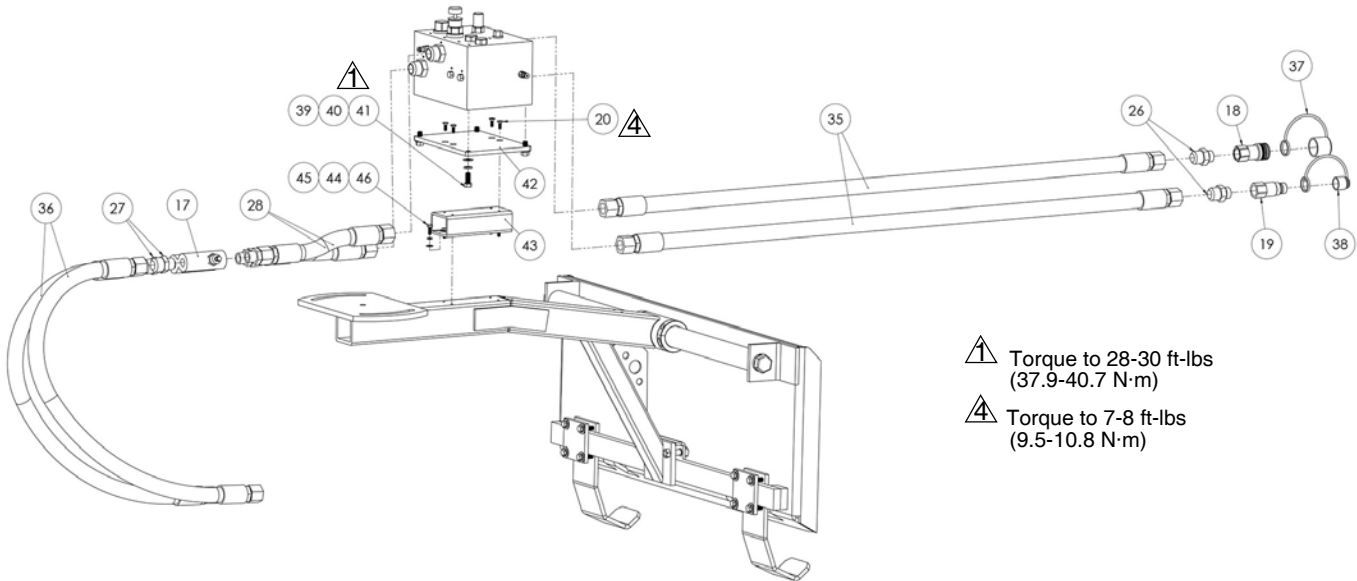
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Parts List - 25P471 / 25P472 Manifold

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
21	18B134	MANIFOLD, hydraulic	1	33	18B147	PLUG, blanking	1
22	18B139	FITTING, straight	4	34	18B149	PLUG, blanking	2
23	18B144	PORT, diagnostic	3	126▲	16D646	LABEL, warning, ISO hot surface	2
24	18B142	PLUG, hex, #4	2	129	18B603	LABEL, flow control	1
25	18B135	CONTROL, pressure sensing, flow	1	136	18B772	LABEL, X1 pressure (25P471 only)	1
29	18B136	VALVE, needle	1	137	18B773	LABEL, X3 pressure (25P472 only)	1
30	18B137	VALVE, check	1				
31	18B143	VALVE, pressure relief	1				
32	18B148	PLUG, blanking	1				

▲ Replacement safety labels, tags, and cards are available at no cost.


Parts - 25P471 / 25P472 Hydraulic Hoses




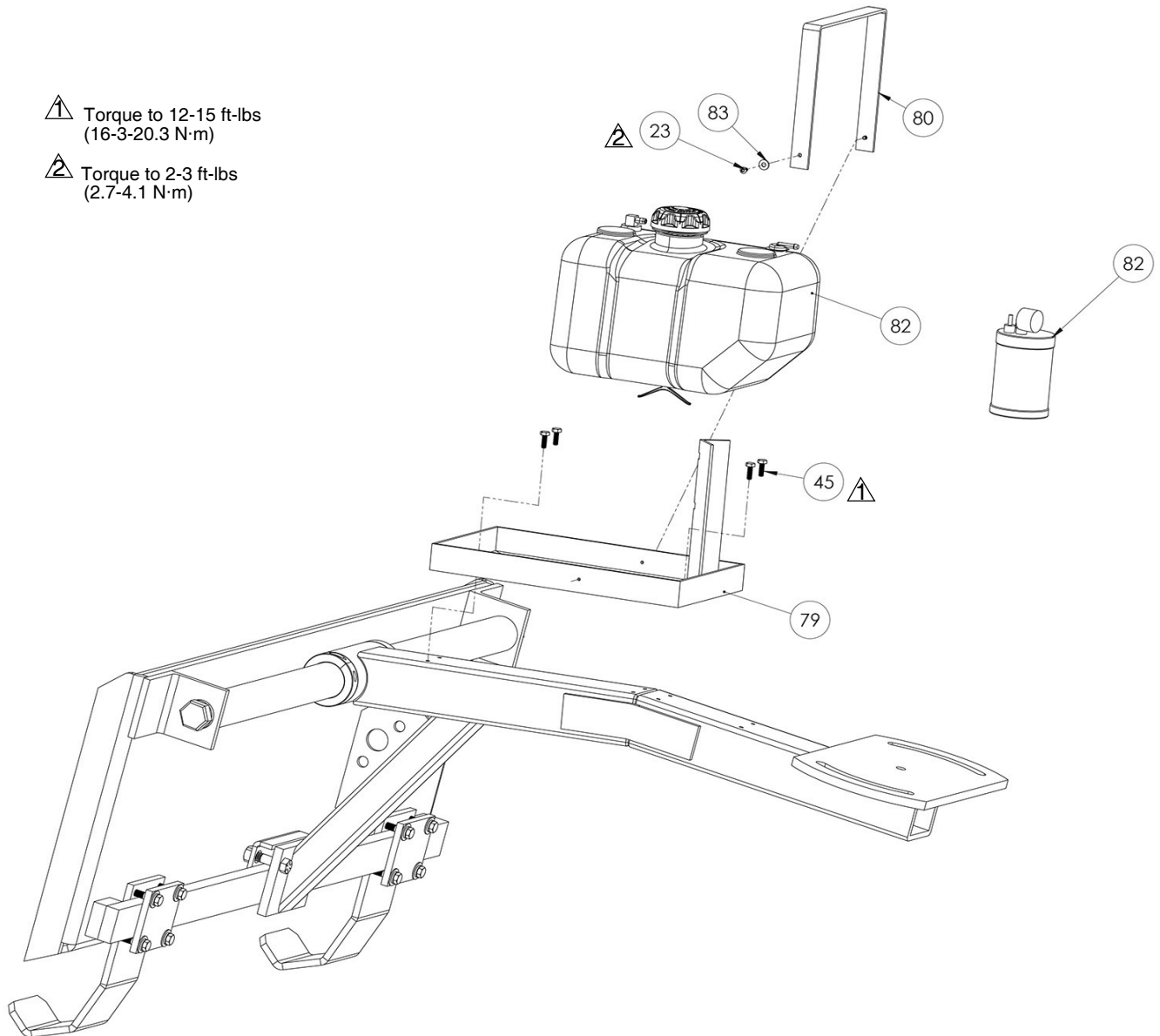
Parts List - 25P471 / 25P472 Hydraulic Hoses

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
17	18B190	VALVE, cushion	1	38	18B539	COVER, dust, male	1
18	18B191	FITTING, female, quick-connect	1	39	18B491	WASHER, flat, 7/16"	4
19	18B192	FITTING, male, quick-connect	1	40	100052	WASHER, lock, 7/16"	4
20	18B487	SCREW, flat, head, 1/4-20 x 3/4"	4	41	18B506	SCREW, hex, cap, 7/16-14 x 1"	4
26	18B125	FITTING, straight	2	42	18B195	PLATE, manifold, support	1
27	18B123	FITTING, straight	2	43	18B175	BRACKET, manifold	1
28	18B126	HOSE, hydraulic, 14"	2	44	100016	WASHER, lock, 1/4"	4
35	18B128	HOSE, hydraulic, 60"	2	45	17W020	WASHER, flat, 1/4"	72
36	18B127	HOSE, hydraulic, 45"	2	46	100022	SCREW, hex, cap, 1/4-20 x 0.75	4
37	18B538	COVER, dust, female	1				

Parts - 25P473 Fuel Tank Assembly

 Torque to 12-15 ft-lbs
(16-3-20.3 N·m)

 Torque to 2-3 ft-lbs
(2.7-4.1 N·m)



Parts List - 25P473 Fuel Tank Assembly

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
23	18B485	SCREW, button head, #10-32 x 3/8"	14	80	18B172	RETAINER, fuel tank	1
45	100022	SCREW, cap hex, 1/4-20 x 0.75"	4	82	19B339	KIT, fuel tank & label	1
79	18B171	BRACKET, fuel tank, base	1	83	102360	WASHER, flat, #10	2

Technical Data

GrindLazer HP RC820 H (Model 25P471)		
	US	Metric
Inlet fluid working pressure	1000 psi	69 bar (6.9 MPa)
Standard flow delivery	15-25 gpm	57-95 l/min
Noise level		
Sound levels for this product are influenced by the type of skid steer, and the contribution of the sound from the GrindLazer cannot be adequately distinguished from the skid steer.		
Dimensions/Weight (unpacked)	US	Metric
Height	42 in.	107 cm
Length	57 in.	145 cm
Width	46 in.	117 cm
Weight	740 lb	336 kg

GrindLazer HP RC1640 H (Model 25P472)		
	US	Metric
inlet fluid working pressure	2000 psi	138 bar (13.8 MPa)
Standard flow delivery	24-40 gpm	91-151 l/min
Noise level		
Sound levels for this product are influenced by the type of skid steer, and the contribution of the sound from the GrindLazer cannot be adequately distinguished from the skid steer.		
Dimensions/Weight (unpacked)	US	Metric
Height	42 in.	107 cm
Length	60 in.	152 cm
Width	46 in.	117 cm
Weight	940 lb	426 kg

GrindLazer HP RC1625 G (Model 25P473)		
Noise level (dBa)*		
Sound power	106 dBa per ISO 3744	
Sound pressure	88 dBa measured at 3.1 feet (1m)	
*Does not include sound from the prime mover. See relevant manual for prime mover.		
Dimensions/Weight (unpacked)	US	Metric
Height	36 in.	91 cm
Length	60 in.	152 cm
Width	46 in.	117 cm
Weight	945 lb	429 kg

Notes
All trademarks or registered trademarks are the property of their respective owners.
To meet OSHA dust requirements: Models 25P472 & 25P473: Recommend using LazerVac 550 (25M860). Model 25P471: Recommend using LazerVac 330 (25E237) or LazerVac 550 (25M860).

CALIFORNIA PROPOSITION 65



WARNING: This product can expose you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

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Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

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For patent information, see www.graco.com/patents.

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Original instructions. This manual contains English. MM 3A7398

Graco Headquarters: Minneapolis

International Offices: Belgium, China, Japan, Korea

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