

# Complete Pressurized Bead System for LineLazer 200HS/DC/MMA and LineLazer 250SPS/DC/MMA

332230P

EN

- For professional use only -

## Models:

25R268 1-Gun LL200HS/MMA

25R270 1-Gun LL250SPS/MMA

25R267 2-Gun LL200HS/DC/MMA

25R269 2-Gun LL250SPS/DC/MMA

80 psi (.55 MPa, 5.5 bar) Maximum Working Pressure

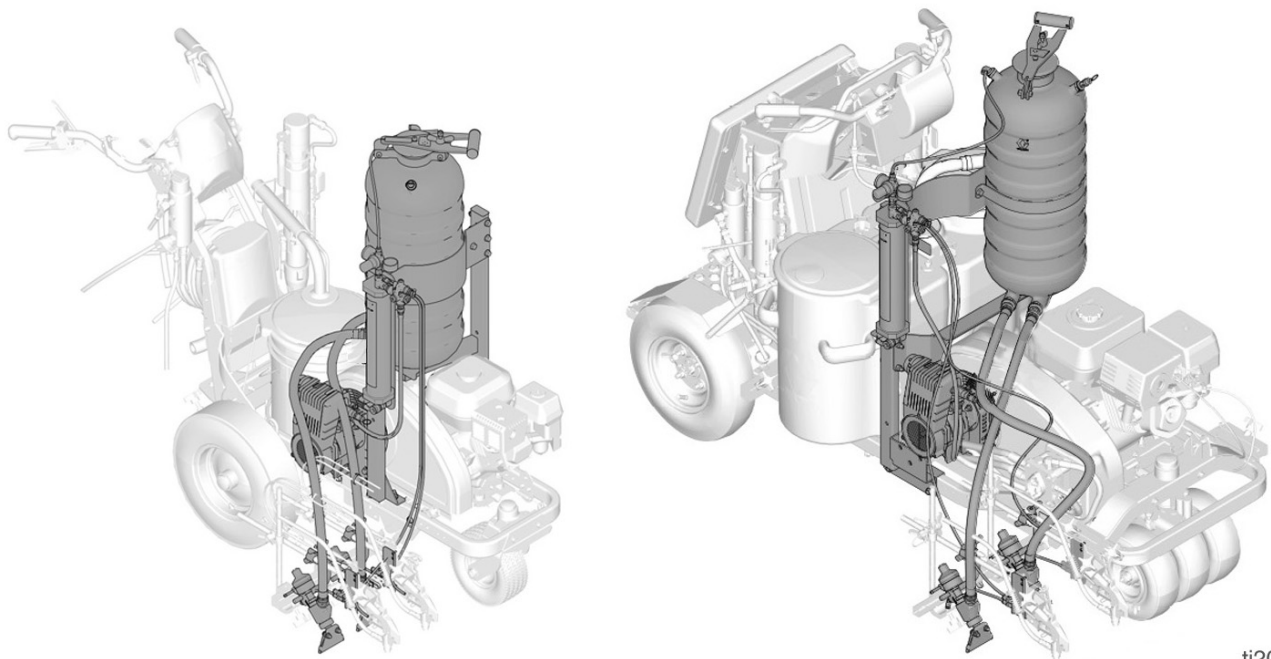
## Related Manual

Bead Gun Kit	332226
LLIV 200HS Repair	311021
LLV 200HS/DC Repair and Parts	3A3390
LLV 200MMA Operation, Repair, and Parts	3A6466
250DC Repair	334053



## Important Safety Instructions

Read all warnings and instructions in the striper manual. Be familiar







ti20576c








# 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.

 <b>WARNING</b>	
 	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in <b>work area</b> can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in well ventilated area.</li> <li>• 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.</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Ground all equipment in the work area. See <b>Grounding</b> instructions.</li> <li>• Use only grounded hoses.</li> <li>• Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are antistatic or conductive.</li> <li>• <b>Stop operation immediately</b> if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul>
	<p><b>EQUIPMENT MISUSE HAZARD</b></p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>• Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See <b>Technical Data</b> in all equipment manuals.</li> <li>• Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS from distributor or retailer.</li> <li>• Do not leave the work area while equipment is energized or under pressure.</li> <li>• Turn off all equipment and follow the <b>Pressure Relief Procedure</b> when equipment is not in use.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>• Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.</li> <li>• Make sure all equipment is rated and approved for the environment in which you are using it.</li> <li>• Use equipment only for its intended purpose. Call your distributor for information.</li> <li>• Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Keep children and animals away from work area.</li> <li>• Comply with all applicable safety regulations.</li> <li>• Do not carry passengers.</li> <li>• Check work area for reduced overhead clearance (e.g. doorways, tree branches, parking ramp ceilings) and avoid contacting them.</li> </ul>

# ! WARNING

	<p><b>INJECTION HAZARD</b> High-pressure fluid from gun, 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. <b>Get immediate surgical treatment.</b></p> <ul style="list-style-type: none"> <li>• Do not spray without tip guard and trigger guard installed.</li> <li>• Engage trigger lock when not spraying.</li> <li>• Do not point gun at anyone or at any part of the body.</li> <li>• Do not put your hand over the spray tip.</li> <li>• Do not stop or deflect leaks with your hand, body, glove, or rag.</li> <li>• Follow the <b>Pressure Relief Procedure</b> when you stop spraying and before cleaning, checking, or servicing equipment.</li> <li>• Tighten all fluid connections before operating the equipment.</li> <li>• Check hoses and couplings daily. Replace worn or damaged parts immediately.</li> </ul>
	<p><b>ENTANGLEMENT HAZARD</b> Rotating parts can cause serious injury.</p> <ul style="list-style-type: none"> <li>• Keep clear of moving parts.</li> <li>• Do not operate equipment with protective guards or covers removed.</li> <li>• Do not wear loose clothing, jewelry or long hair while operating equipment.</li> <li>• Equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> and disconnect all power sources.</li> </ul>
	<p><b>MOVING PARTS HAZARD</b> Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> <li>• Keep clear of moving parts.</li> <li>• Do not operate equipment with protective guards or covers removed.</li> <li>• Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> and disconnect all power sources.</li> </ul>
	<p><b>BURN HAZARD</b> Equipment surfaces and fluid that's heated can become very hot during operation. To avoid severe burns:</p> <ul style="list-style-type: none"> <li>• Do not touch hot fluid or equipment.</li> </ul>
	<p><b>PERSONAL PROTECTIVE EQUIPMENT</b> Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This protective equipment includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• Protective eye wear, and hearing protection.</li> <li>• Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.</li> </ul>
	<p><b>CALIFORNIA PROPOSITION 65</b> The engine exhaust from this product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.</p>

## NOTICE

Never store glass beads in tank between jobs. Begin the day with moisture-free beads. Moisture will cause glass beads to resist flow or solidify over time.

If moisture or condensation is present on tank interior, leave lid open until dry. When operating without the bead system, always leave the moisture drain valve open.

*Tools Needed:*

## **CE Safety Checklist**

**(To be completed during non-factory installation)**

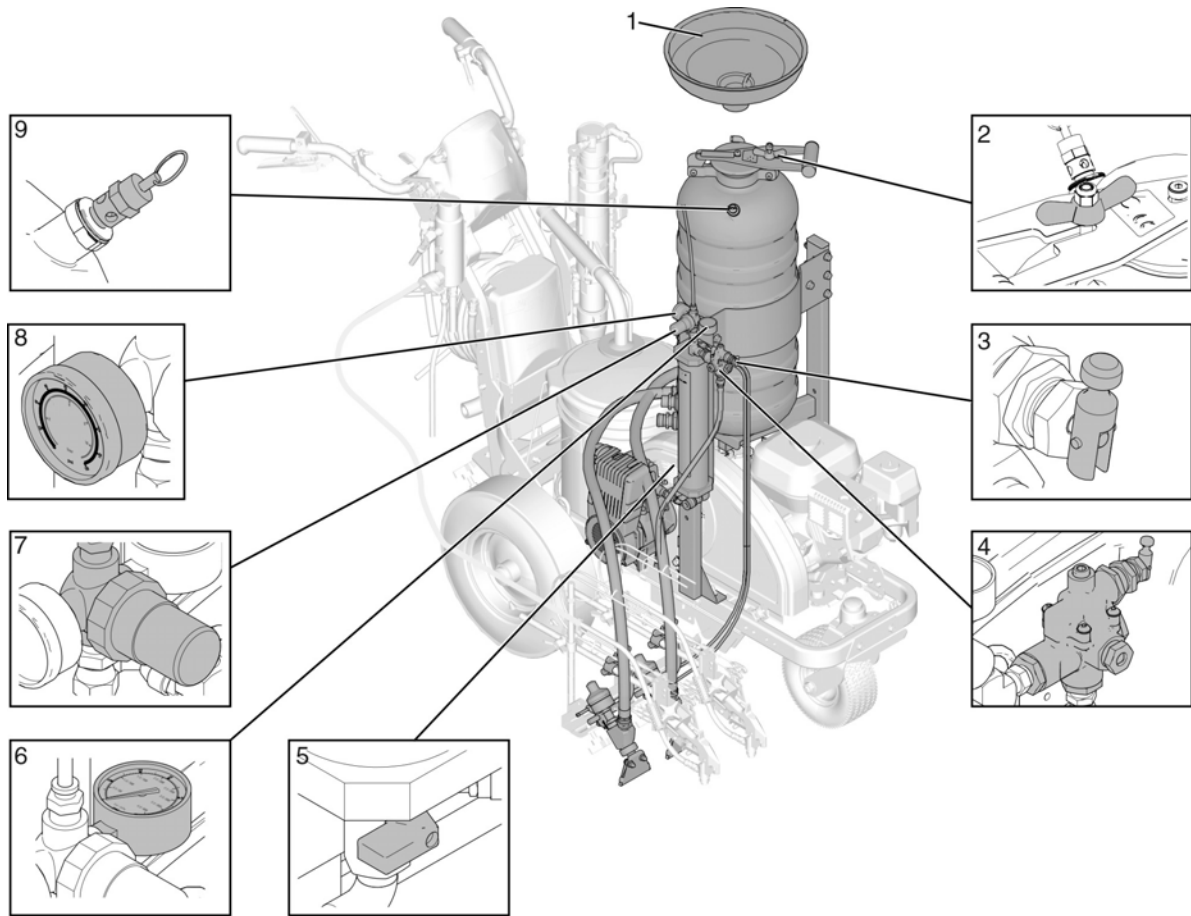
- Covers and shrouds for moving parts are in place (see guard installation section).
- Fasteners, belts, covers, grills, and compressor are tight-mounted securely.
- Read and understand all warnings and instructions in this manual and the striper manual.

## **Tools Needed:**

- 1/8 in. Allen Wrench (supplied with kit)
- Alignment tool 17C504 (supplied with kit)
- 5/32 in. Allen Wrench
- 1/4 in. Allen Wrench
- 3/16 in. Allen Wrench
- 7/16 in. Wrench
- 3/8 in. Wrench
- 1/2 in. Wrench
- 5/8 in. Wrench
- 9/16 in. Wrench
- 11/16 in. Wrench
- T-20 Torx Bit
- Cutting Blade
- Rubber Mallet
- Phillips Screwdriver
- Straight Edge
- 2.5 mm Allen wrench
- 4 mm Allen wrench

# Operation for LL200 and LL250

## Component Identification



ti24477b

Ref.	Description
1	Funnel
2	Wing Nut
3	Compressor Bypass Switch
4	Regulator Unloader

Ref.	Description
5	Pressure Relief Valve
6	Bead Tank Gauge
7	Pressure Regulator Valve
8	Air Tank Gauge
9	Safety Relief Valve

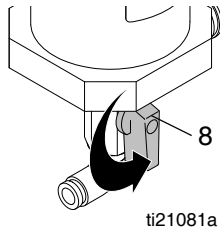
# Pressure Relief Procedure



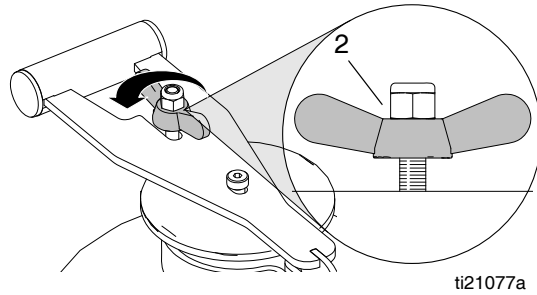
Follow the Pressure Relief Procedure whenever you see this symbol.

<p>This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.</p>					

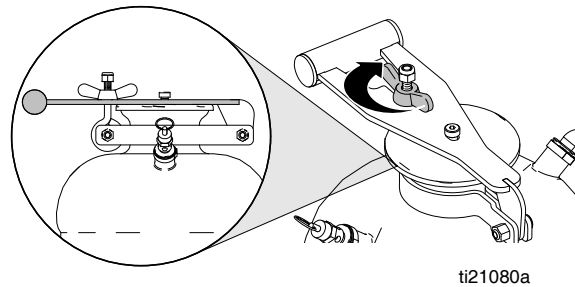
1. Turn engine OFF.
2. Release pressure on bead tank to 0 psi (0 bar, 0 MPa). Turn pressure relief valve (8) to vertical position and watch bead tank pressure gauge until pressure reads 0 psi (0 bar, 0 MPa). Do not use safety valve (3) to release pressure from bead tank.



3. Loosen wing nut (2) until it reaches end of threads. If any remaining pressure is in bead tank, it will be released through seal while wing nut secures lid to hopper. Confirm pressure is at 0 psi (0 bar, 0 MPa) and open lid.



4. Secure lid over opening and tighten wing nut until lid is level with hopper.



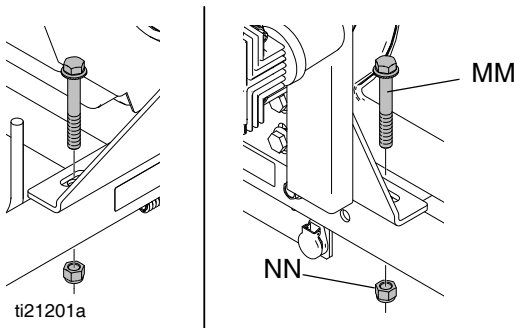
# 200HC/DC/MMA Pressurized Bead System Kit 25R268

## Assemble Compressor Mounting and Drive Components

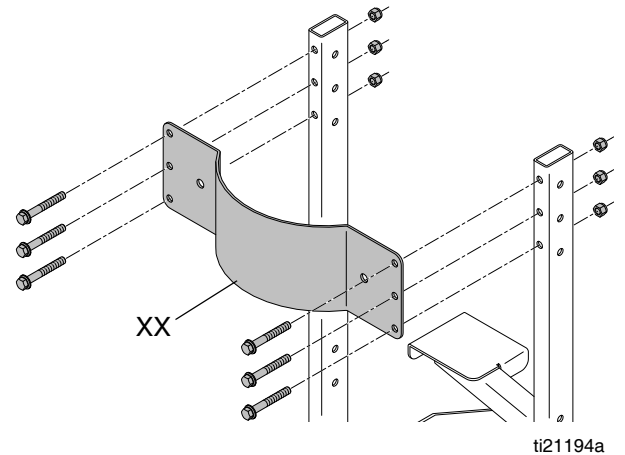


**NOTE:** Glass bead system and paint guns can be mounted on either side of sprayer.

1. Turn off unit. Perform **Pressure Relief Procedure** page 6.
2. Loosely install two screws (MM) and two locknuts (NN) through bottom of frame mount but do not tighten. Remove existing gun arm bracket to gain access to nut (NN).

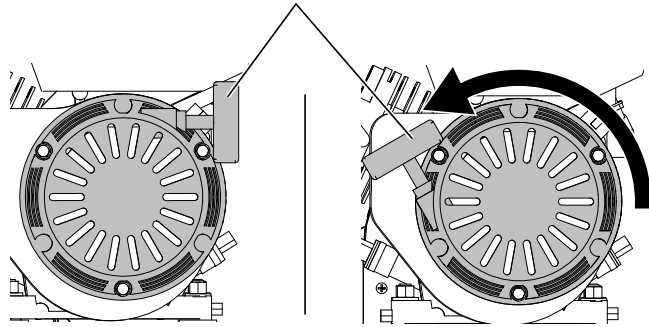


3. Assemble hopper basket (XX) and base with hardware as shown below. Use 9/16 in. wrench to snug screws. Loosen all six screws 1/4 turn.

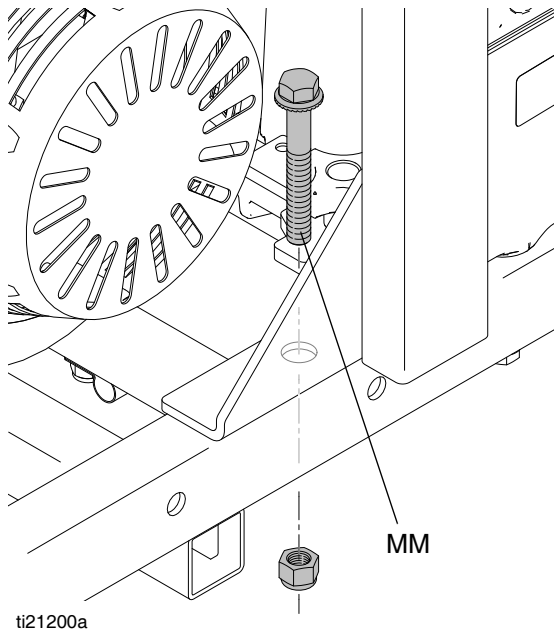


## Complete Frame Assembly

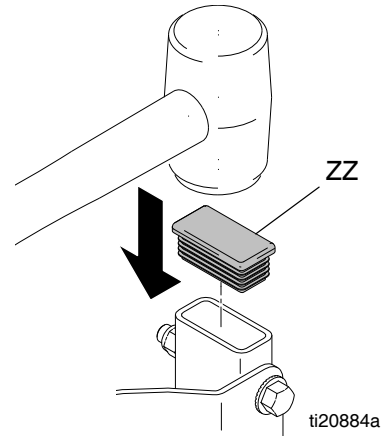
**NOTE:** If desired, rotate recoil 90° counter-clockwise.



1. Use 9/16 wrench to tighten bottom screws (MM) to hardware shown.



2. Install plastic end caps (ZZ) into frame. Use rubber mallet to pound end caps into place.





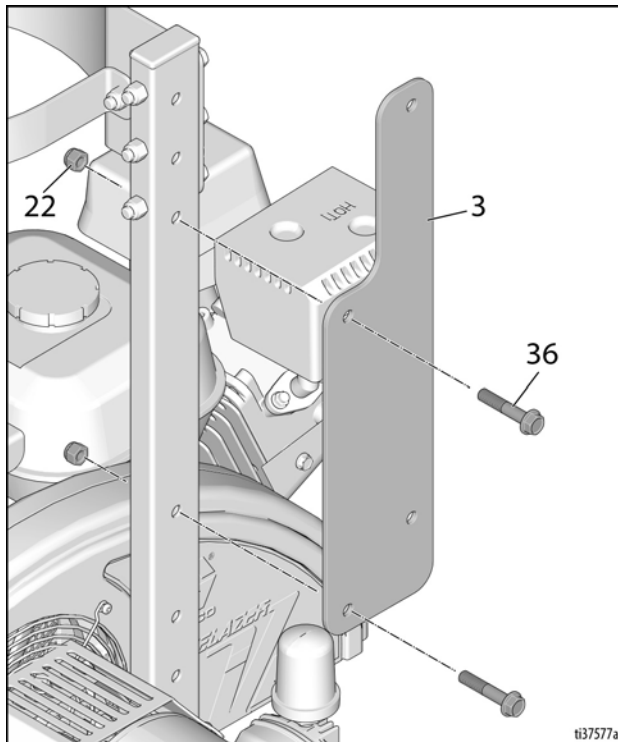
# LL200 Compressor Installation

**Tools Needed:** 2.5 mm Allen wrench, 4.0 mm Allen wrench, 1/4 in. Allen wrench, 7/16 in. wrench, 9/16 in. wrench, 11/16 in. wrench, T-20 Torx bit, rubber mallet, Phillips screwdriver.

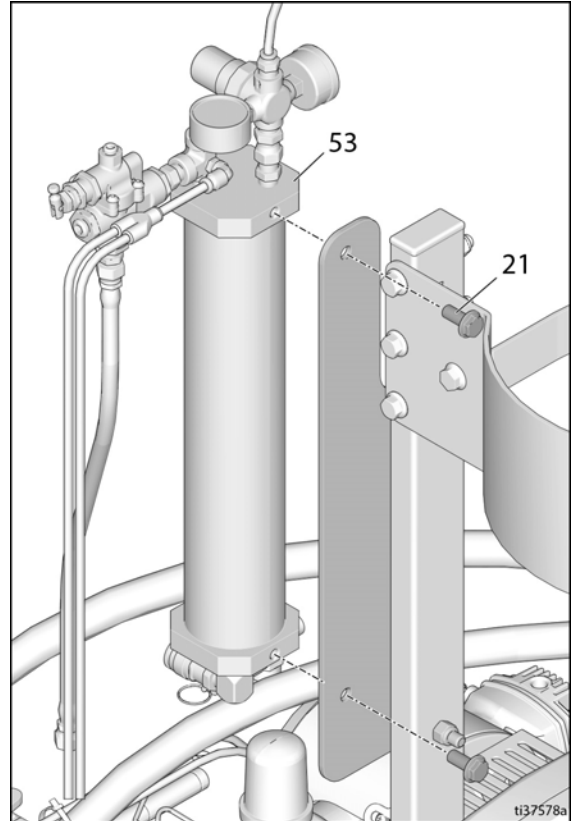


Replacing the compressor requires pulling on the starting rope. To help prevent entanglement, pinching, and potentially serious injury from an unexpected start-up, disconnect the spark plug prior to compressor replacement.

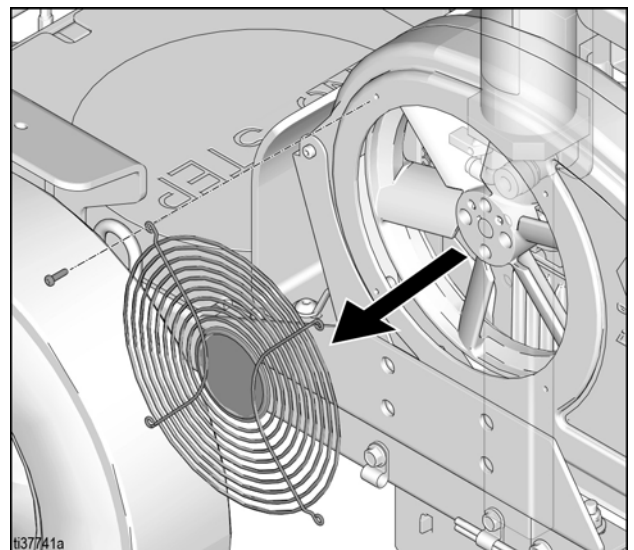
1. Turn engine OFF. Let engine cool prior to working on it.
2. Disconnect spark plug on unit.
3. Perform **Pressure Relief Procedure** page 6.
4. Using bolts (36) and lock nuts (22), install air tank bracket (3).



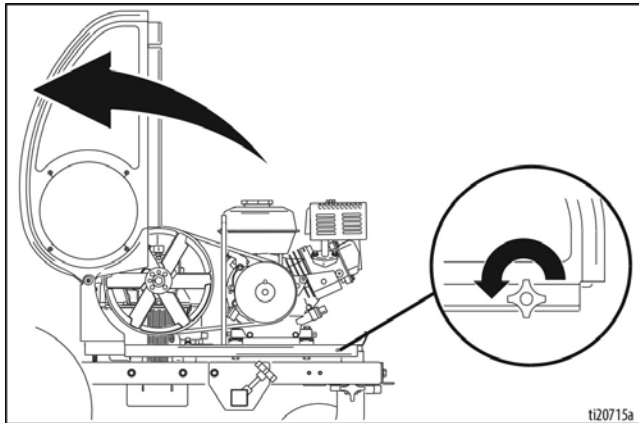
5. With a 9/16 in. wrench, mount air tank (53) to bracket with screws (21).



6. Use the T-20 star bit to remove fan grill from shroud. Save screws for reattachment.



7. Locate belt shroud. Loosen knob and rotate shroud.



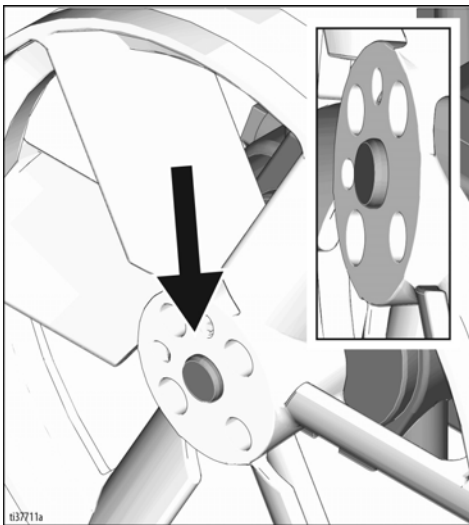
8. Using a 1/4 in. Allen wrench, remove shoulder bolts and serrated nuts securing existing coupler plate.

**NOTE:** Do *not* use ball end Allen wrenches, as they may break and become stuck in the screws.

9. Loosen set screws on pulley. Lift engine to provide slack for the belt and remove old pulley (X).

10. File any rough spots on the pump shaft key.

11. Slide new pulley on to the pump shaft. Pump shaft **must** extend 0.125-0.225 in. (3.175-5.73 mm) beyond the face of the pulley. The pump shaft is the pilot for the coupler adapter.

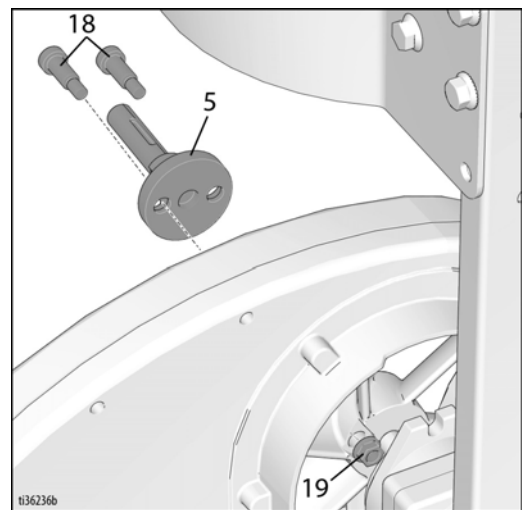
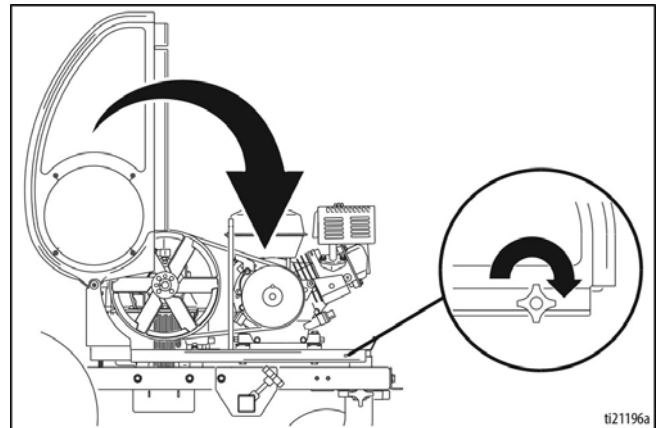


12. Torque pulley set screws to 58-62 in-lb (6.6-7 N•m).

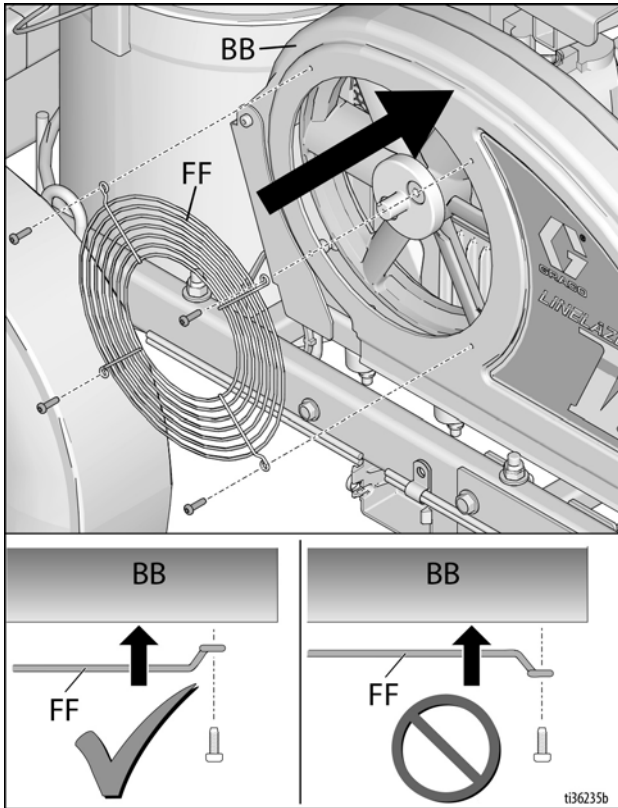
13. Install belt on pulley. Refer to **Ground Drive Belt Replacement** in your striper repair manual for additional instructions and belt tension recommendations.

**NOTE:** Before performing step 14, securing nuts to back of pulley with piece of duct tape will assist with installation.

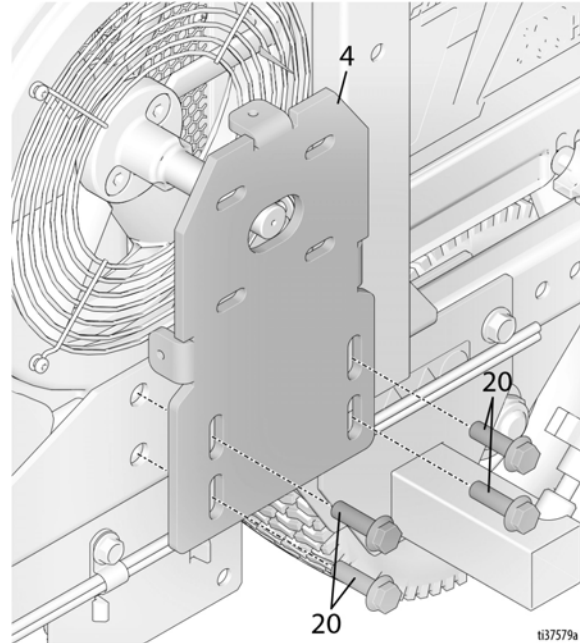
14. Put belt shroud down, install shaft coupler (5) onto pulley with two shoulder screws (18) and serrated nuts (19). Position slot on back of pulley up and move serrated nut with finger to accept shoulder bolt threads. Tighten using shoulder bolt by hand until the teeth on the serrated nut catch the aluminum on the fan. Using a 1/4 in. Allen wrench, torque to 16-18 ft-lb (21-24 N•m).



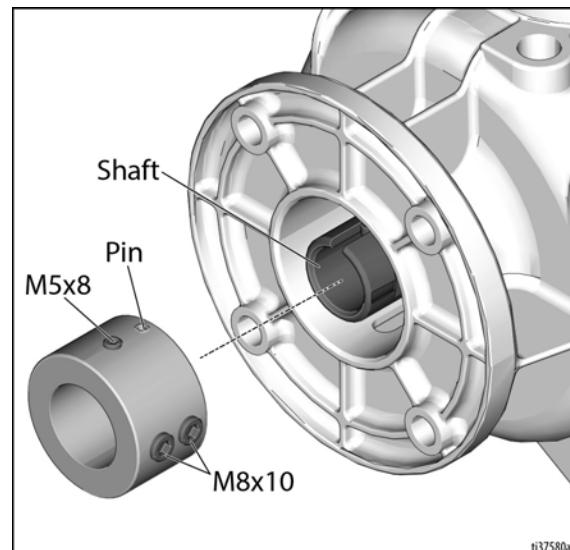
15. Use existing screws to install new fan grill with opening (FF) onto belt. Do not over-tighten screws. Make sure fan grill protrudes out; not into the shroud.



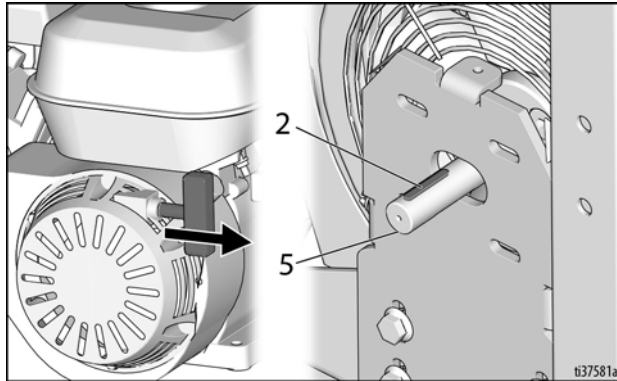
16. Position compressor bracket (4) with three tabs facing towards the fan grill. Center shaft coupler both vertically and horizontally in slot. Insert four screws (20) through the slots in the compressor bracket and tighten to 23-27 ft-lb (31-37 N•m).



17. Place drop of medium strength thread locker on the threads of each set screw. Using a 2.5 mm and a 4.0 mm Allen wrench, screw the set screws into the shaft collar far enough so that the shaft collar can slide on the compressor shaft. Rotate the shaft collar so the pin faces up. Align the shaft collar pin with the compressor shaft keyway as shown. Slide the shaft collar onto the compressor shaft, pin first.



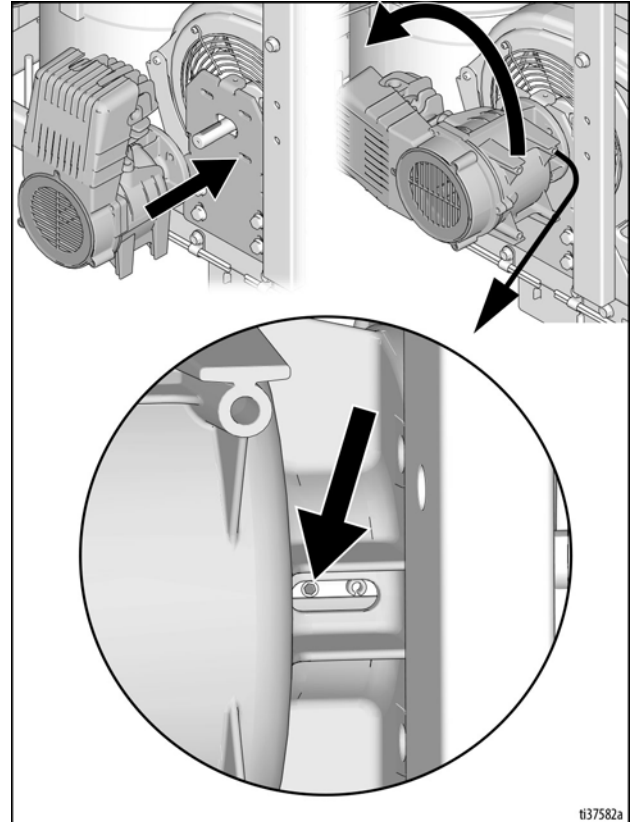
18. Slowly pull the starter rope to rotate shaft so that the shaft keyway (5) faces up. Place the key (2) into the shaft keyway. A light tap with a rubber mallet may be needed to ensure the key seats completely.



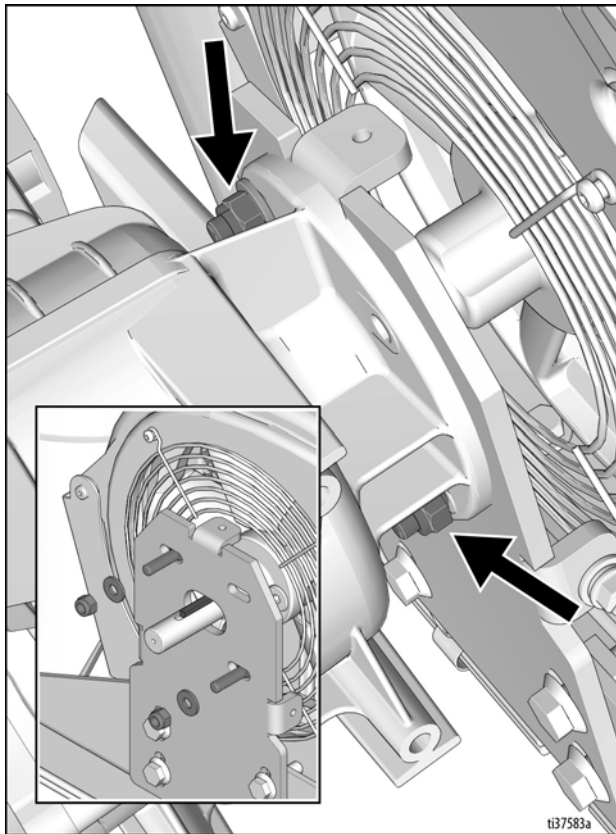
**NOTICE**

Performing steps 19 through 23 out of order, or incorrectly, may cause excessive side loading on the compressor crankshaft and could cause a premature failure of the compressor.

19. Slide compressor onto the shaft coupler mounting plate until the face of the compressor is flush with compressor bracket. Rotate the compressor 90 degrees counter-clockwise until the set screw is accessible.

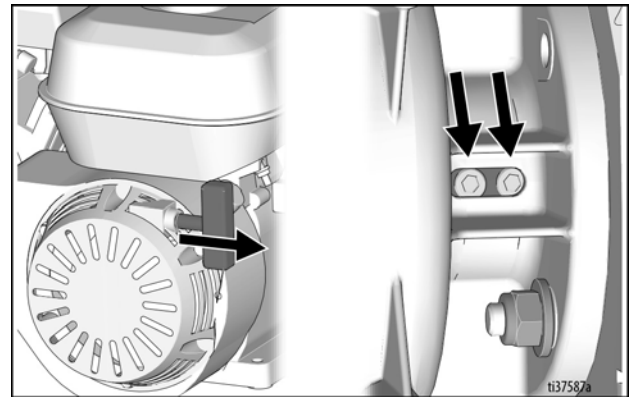


20. Use two carriage bolts, two washers, and two nuts in opposing holes (180 degrees apart) to tighten the compressor to the compressor bracket.

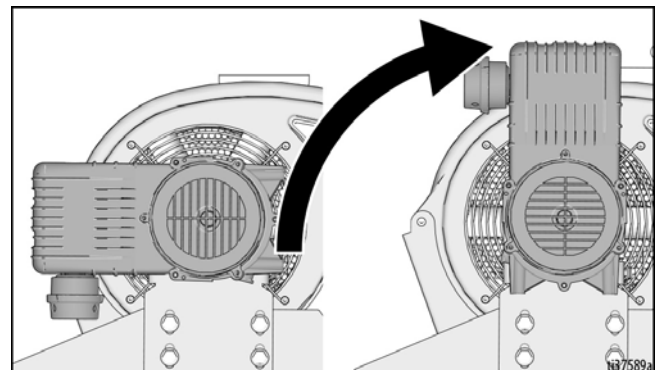


21. Slowly pull the starter rope to rotate until the two M8x10 set screws appear in the set screw access. Torque the set screws to 150-160 in-lb (16.9-18 N•m). Again, slowly pull the starter rope until the single M5x8 set screw appears in the access and tighten it to 37-42 in-lb (4-4.7 N•m).

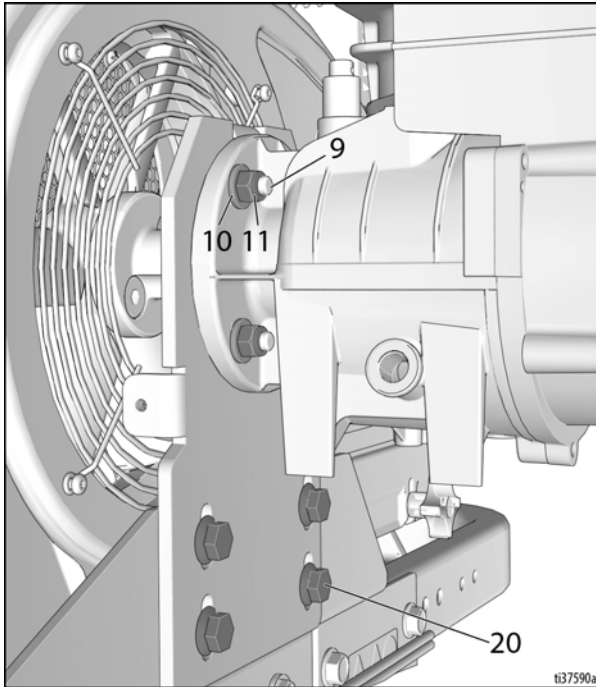
**NOTE:** Do *not* use ball end Allen wrenches, as they may break and become stuck in the screws.



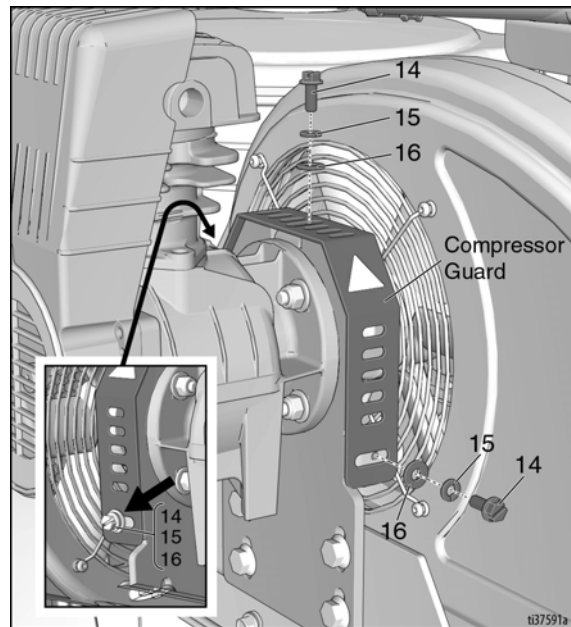
22. Remove two carriage bolts, two washers, and two nuts in opposing holes (180 degrees apart), and rotate the compressor clockwise 90 degrees back to the upright orientation.



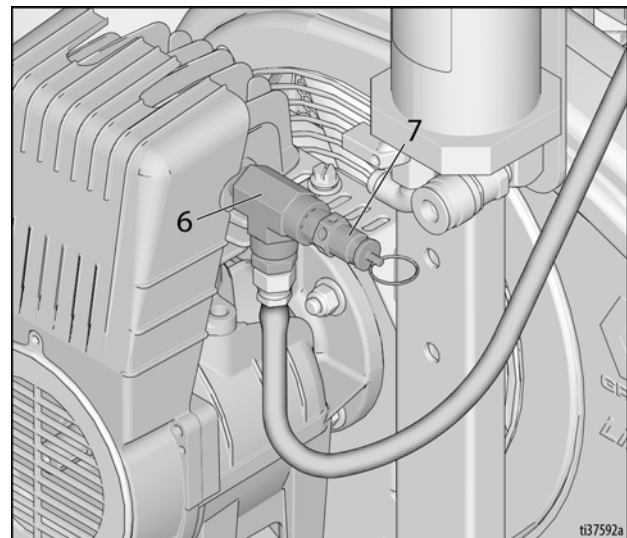
23. With the compressor secured to the coupler mounting plate, slightly loosen the four mounting screws (20). Install all four carriage bolts (9), washers (10), and lock nuts (11), and torque to 150-160 in-lb (16.9-18 N•m). Re-tighten all four mounting screws (20) to 23-27 ft-lb (31-37 N•m).



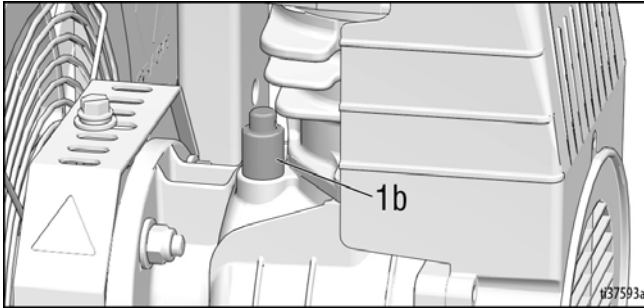
24. Install compressor guard using three screws (14), lock washers (15), and flat washers (16). Torque to 130-150 in-lb (14.7-16.9 N•m).



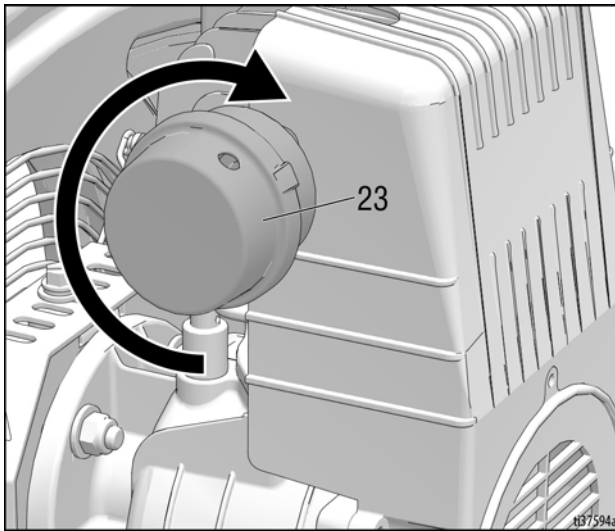
25. Apply thread sealant paste to threads of tee fitting (6). Install tee fitting with safety valve (7) into compressor output. Use a 11/16 in. wrench and a 9/16 in. backup wrench to attach the braided hose from the air tank to the compressor.



26. Remove plug from compressor case. Install oil breather (1c).



27. Install air filter, hand tighten.



28. Before operation, ensure oil is visible on threads of fill port. If not full, fill with included oil until visible on threads.

**NOTICE**

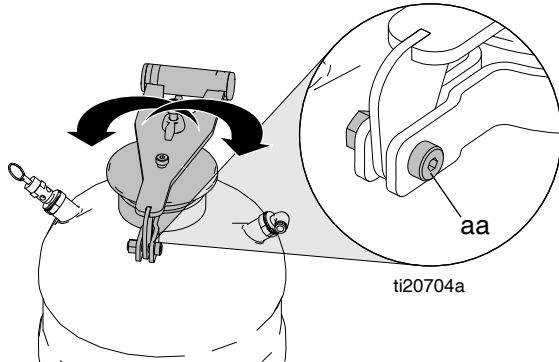
Failure to properly fill compressor with oil can result in failure and/or severe or catastrophic damage to the compressor.

29. Reconnect spark plug wire.

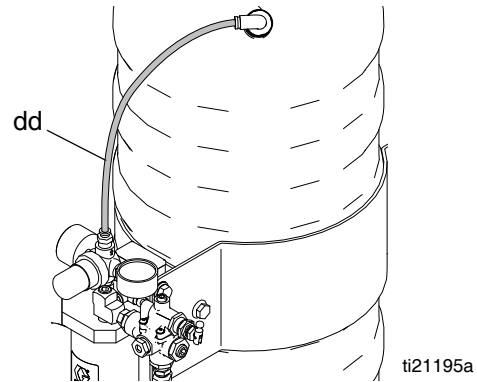
## Bead Tank Mounting

1. Place bead tank on supporting base with outlet fittings facing compressor.

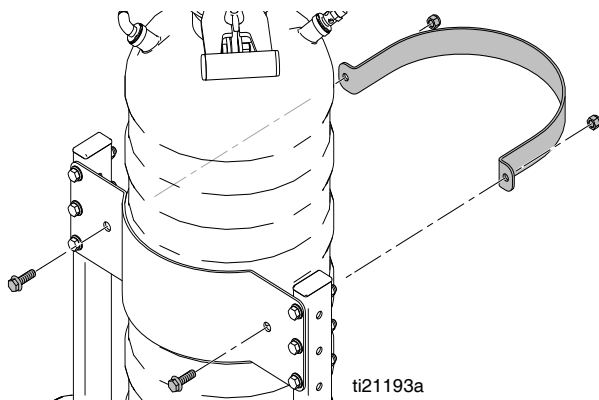
**NOTE:** Position handle to best suit filling needs. Loosen bolt (aa) to help swivel, then retighten.



3. Install 36 in. nylon air line (dd) from top of regulator to swivel fitting on top of bead hopper. Cut air line to desired length. Push air line into fitting until end touches bottom of fitting.



2. Place clamping band around tank and secure with mounting hardware shown below. Tighten until there is no movement between clamp and bead tank.



**NOTE:** The flats on the clamp are not intended to touch the hopper bracket when tightened.

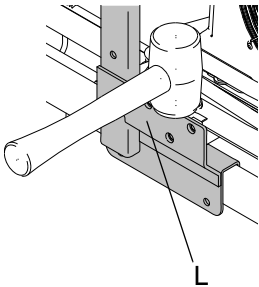


# LL250 Pressurized Bead System Kit 25R270

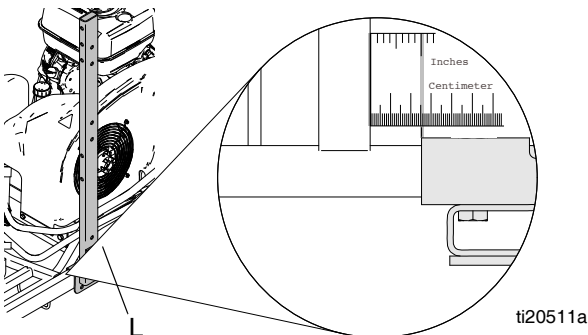
## Assemble Compressor Mounting and Drive Components



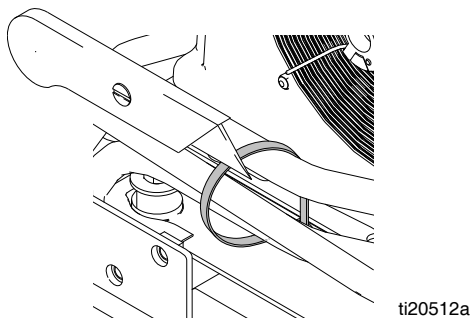
1. Use rubber mallet or wood block to position right frame mount (L) flush to LL250 frame.



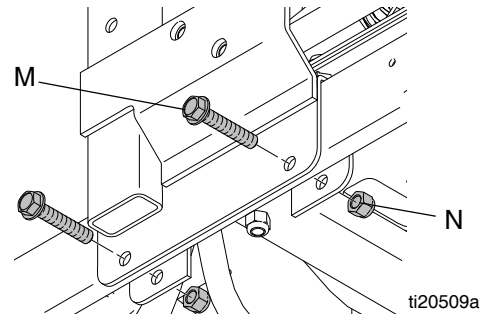
2. Place right frame mount (L) onto LL250 frame in location shown below (approximately 1 in. from cross member of LL250 frame). **NOTE:** To ensure flush sitting, scrape frame free of any raised debris on frame surface.



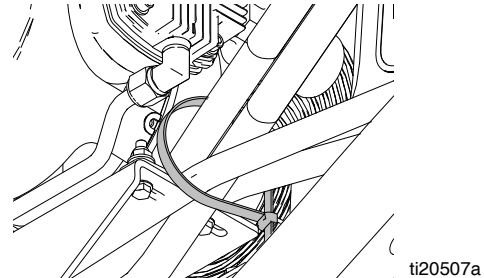
3. Cut any existing tie wraps that interfere (they will be replaced later with new tie straps).



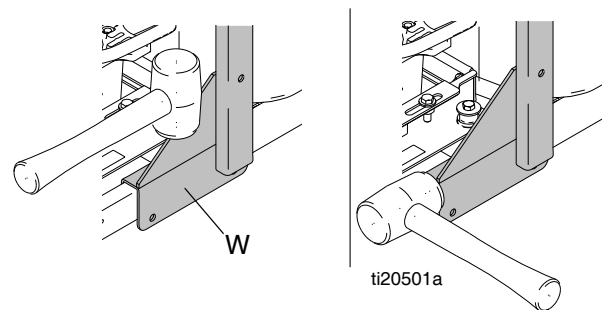
4. Loosely install two screws (M) and two locknuts (N) through bottom of frame mount. Use 9/16 in. wrench to fully tighten.



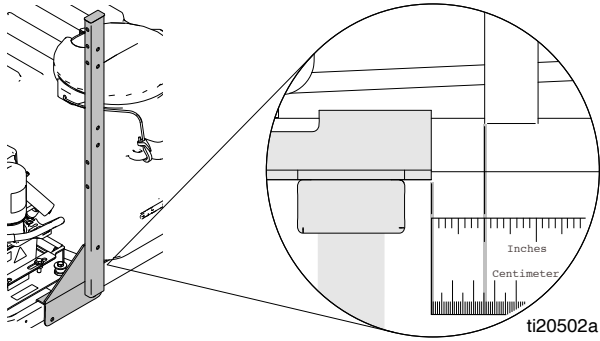
5. Secure hydraulic lines with zip ties.



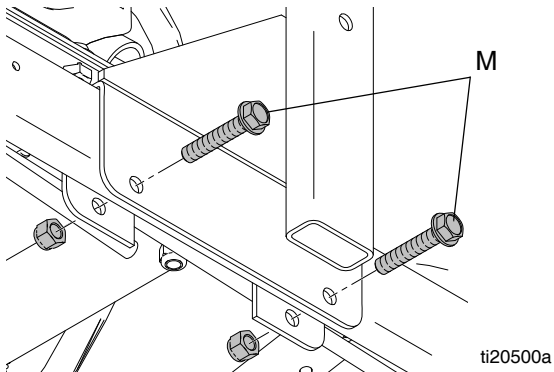
6. Position left frame mount (W) on LL250 frame. Remove any zip ties in the way. Use a rubber mallet to tap into place if needed.



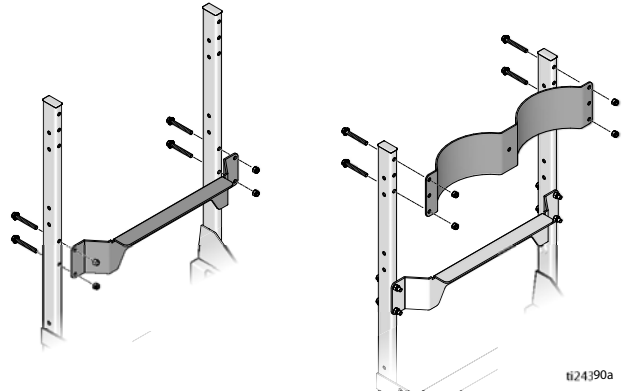
7. Make sure left and right frame mounts are aligned. The left leg should mirror the right leg location from LL250 frame cross member.



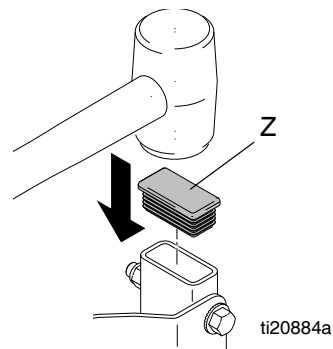
8. Use 9/16 wrench to tighten bottom screws (M) to hardware shown.



9. Assemble hopper bracket (X) and base (Y) with hardware provided. Install carriage bolts with the heads facing the paint tanks. Use 9/16 in. wrench to tighten bolts.

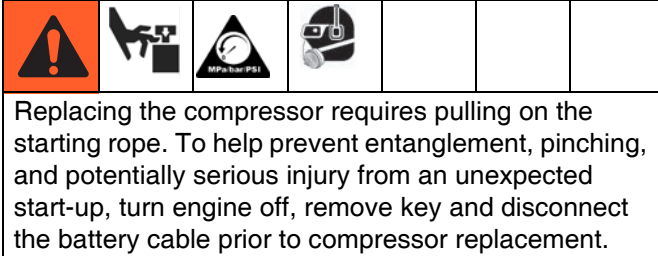


10. Install plastic end caps (Z) into frame. Use rubber mallet to pound end caps into place.

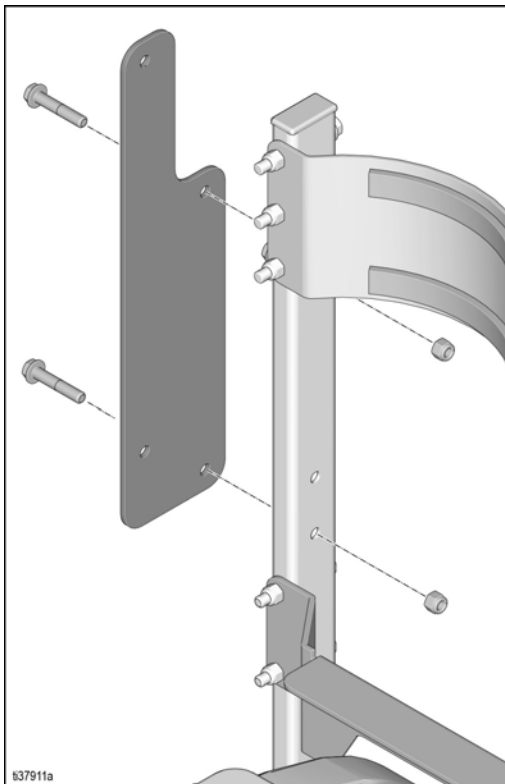


# LL250 Compressor Installation

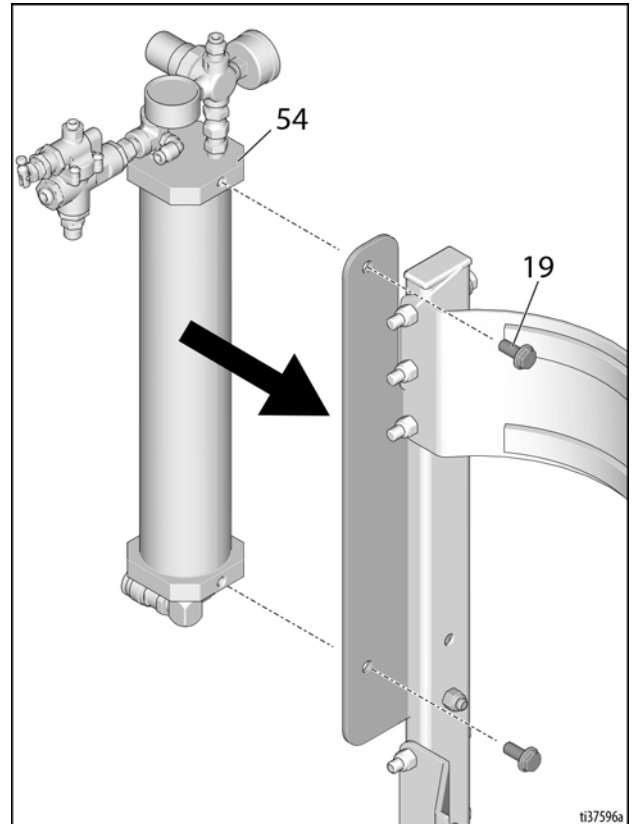
**Tools Needed:** 2.5 mm Allen wrench, 4.0 mm Allen wrench, 1/4 in. Allen wrench, 7/16 in. wrench, 9/16 in. wrench, 11/16 in. wrench, T-20 Torx bit, rubber mallet, Phillips screwdriver.



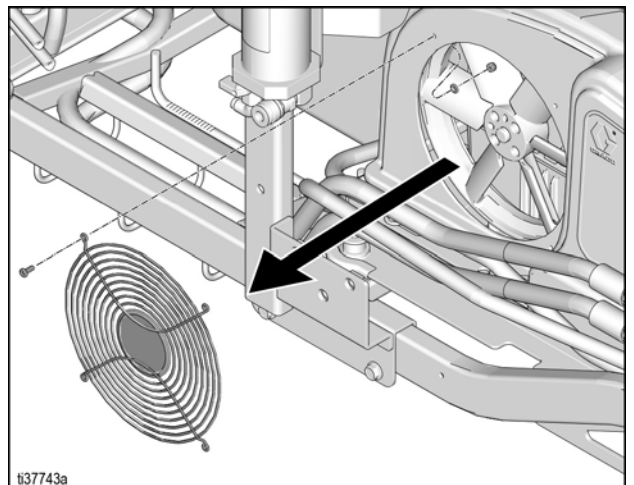
1. Turn unit OFF and remove key. Let unit cool prior to working on it.
2. Disconnect battery cable.
3. Perform **Pressure Relief Procedure** page 6.
4. Using bolts, plus lock nuts, install air bracket.



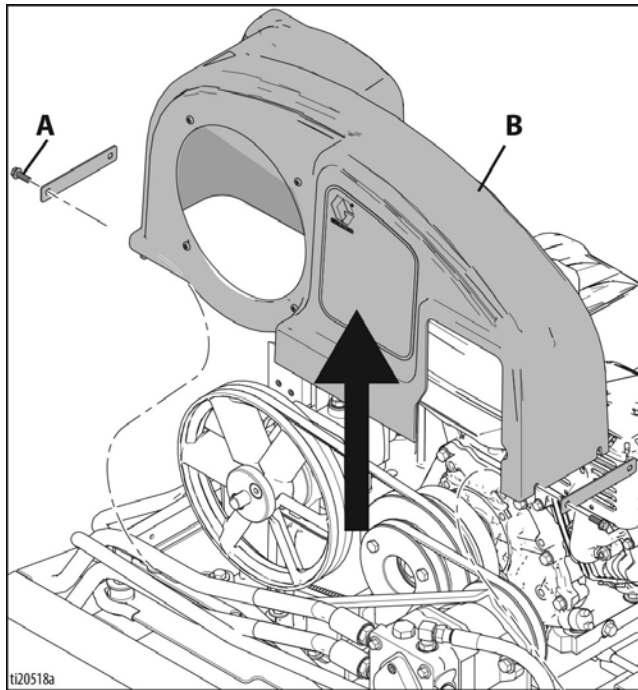
5. Using a 9/16 in. wrench and screws, mount the air tank to the new air tank bracket.



6. Using T-20 star bit, remove fan grill from shroud. Save screws, nuts, and washers for reattachment.



7. Locate belt shroud. Loosen screw (A) and lift belt shroud (B).



8. Using a 1/4 in. Allen wrench, remove shoulder bolts and serrated nuts securing existing coupler plate.

**NOTE:** Do *not* use ball end Allen wrenches, as they may break and become stuck in the set screws.

9. Loosen set screws on pulley. Lift engine to provide slack for the belt and remove old pulley (X).

10. File any rough spots on the pump shaft key.

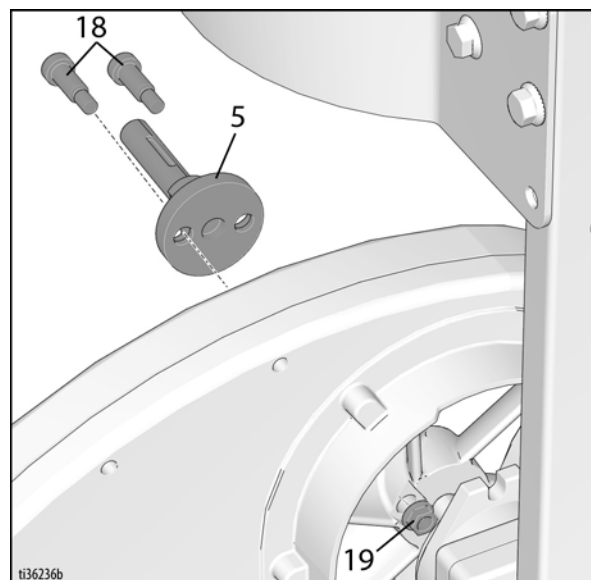
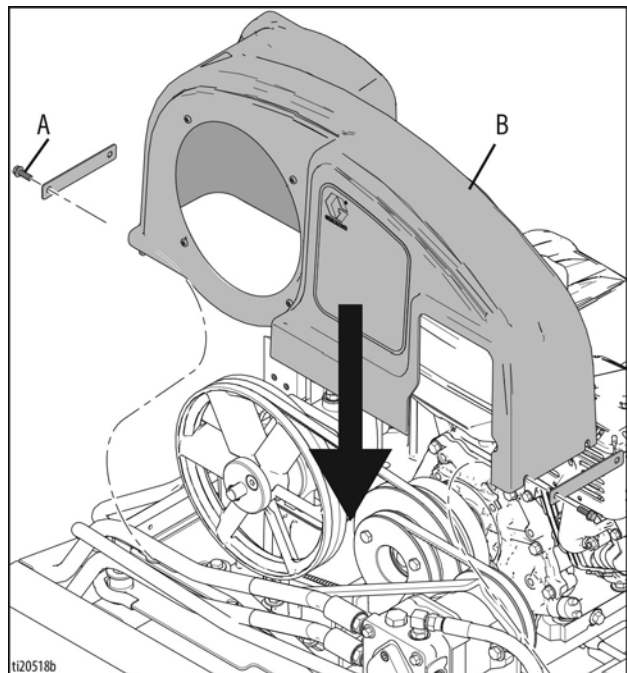
11. Slide new pulley on to the pump shaft. Pump shaft **must** extend 0.125-0.225 in. (3.175-5.73 mm) beyond the face of the pulley. The pump shaft is the pilot for the coupler adapter.

12. Torque pulley set screws to 58-62 in-lb (6.6-7 N•m).

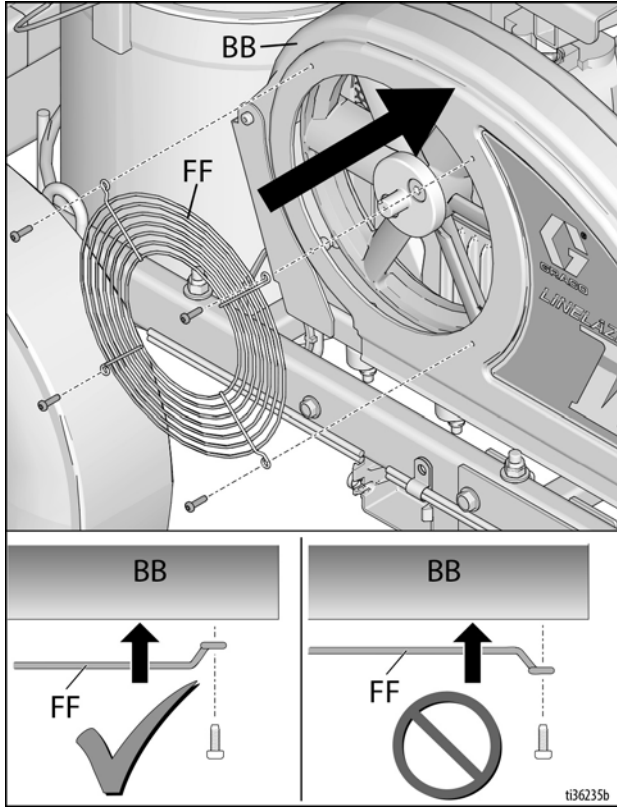
13. Install belt on pulley. Refer to **Ground Drive Belt Replacement** in your striper repair manual for additional instructions and belt tension recommendations.

**NOTE:** Prior to step 14, secure nuts to back of pulley with piece of duct tape will assist with installation.

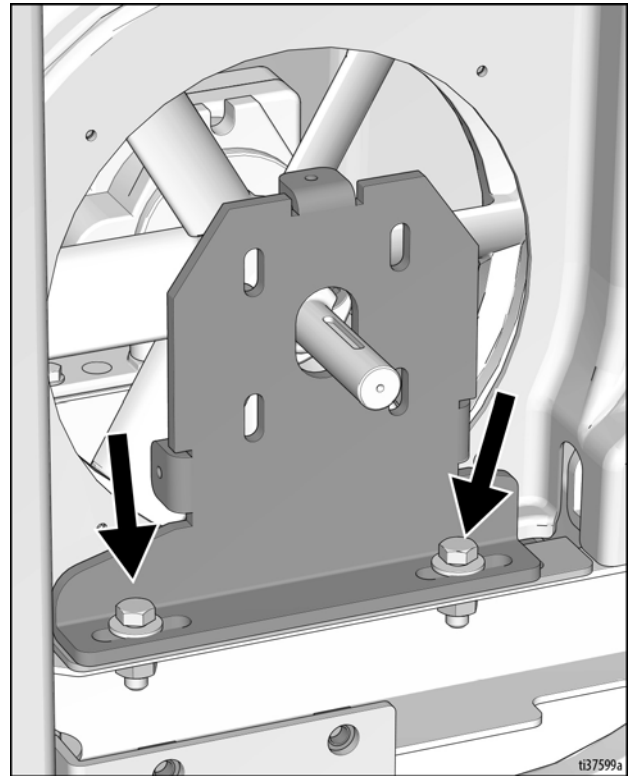
14. Put belt shroud down, install shaft coupler (5) onto pulley with two shoulder screws (18) and serrated nuts (19). Position slot on back of pulley up and move serrated nut with finger to accept shoulder bolt threads. Tighten using shoulder bolt by hand until the teeth on the serrated nut catch the aluminum on the fan. Using a 1/4 in. Allen wrench, torque to 16-18 ft-lb (21-24 N•m).



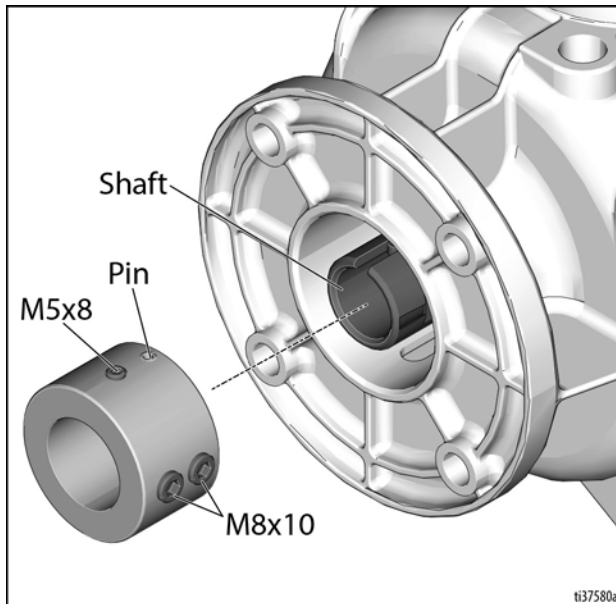
15. Use existing screws, nuts, and washers to install fan grill (FF) back onto bet shroud. Do not over-tighten screws. Make sure fan grill protrudes out; not into the belt shroud.



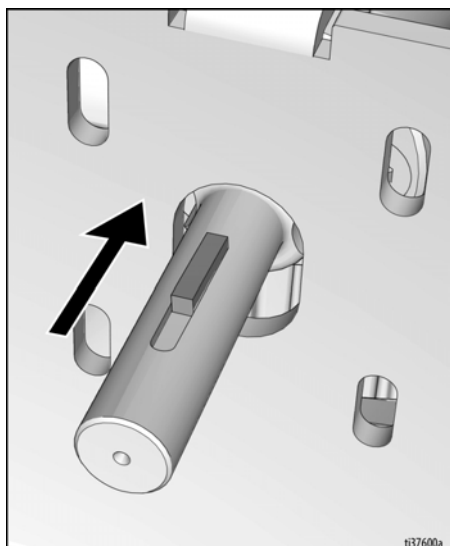
16. Remove two existing bolts and washers from striper frame. Install compressor bracket with three tabs facing towards fan grill using existing washers and bolts. Center coupler mounting plate horizontally in slot, then tighten the two mounting screws to 23-27 ft-lb (31-37 N•m).



17. Place drop of medium strength thread locker on the threads of each set screw. Using a 2.5 mm and a 4.0 mm Allen wrench, screw the set screws into the shaft collar far enough so that the shaft collar can slide on the compressor shaft sleeve. Rotate the shaft collar so the pin faces up. Align the shaft collar pin with the compressor shaft keyway as shown. Slide the shaft collar onto the compressor shaft, pin first.



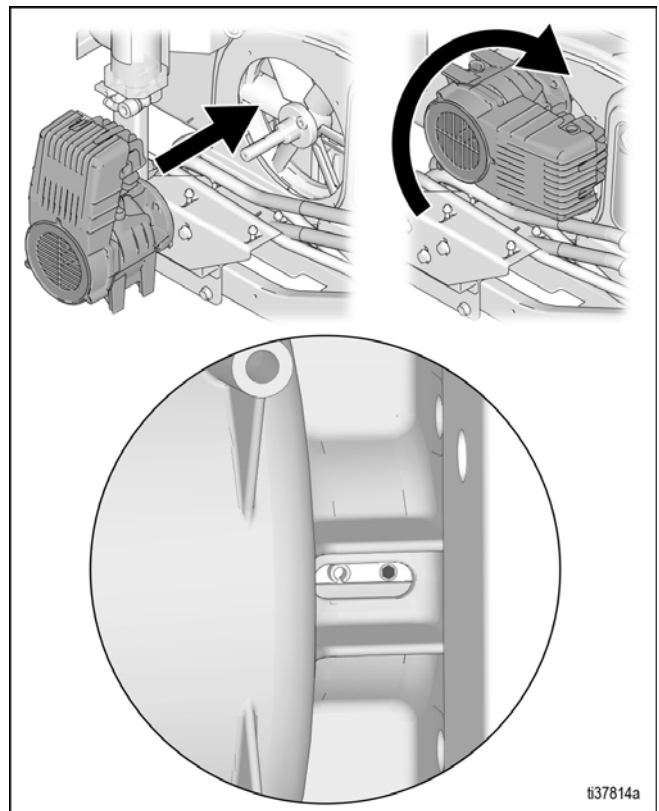
18. Using a long screw driver, slowly rotate the fan pulley. With the keyway of the coupler mounting plate facing up, place the key into the shaft keyway with the key slid to the end of the shaft keyway (as shown). A light tap with a rubber mallet may be needed to ensure the key seats completely.



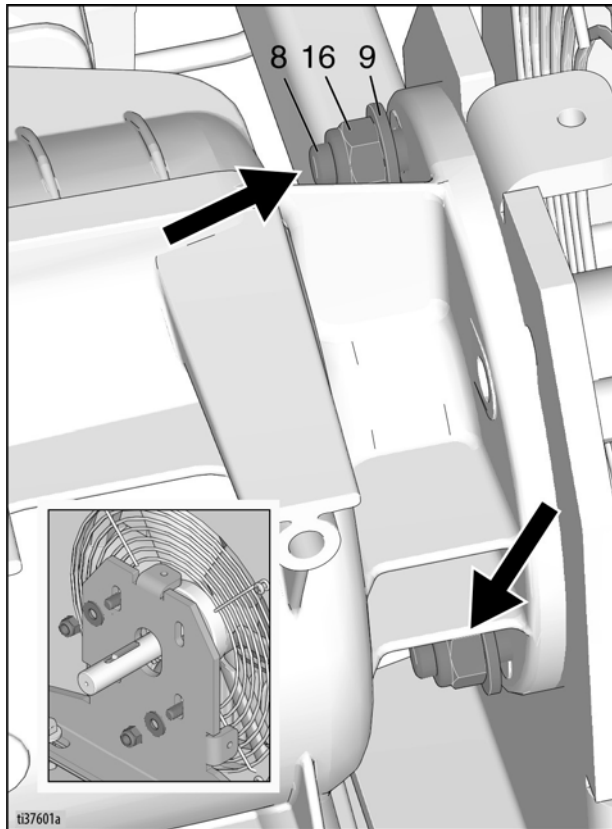
**NOTICE**

Performing steps 19 through 23 out of order, or incorrectly, may cause excessive side loading on the compressor crankshaft and could cause a premature failure of the compressor.

19. Slide the compressor onto the coupler mounting plate until the face of the compressor is flush with the compressor bracket. Rotate the compressor 90 degrees clockwise so that the set screw access is accessible.

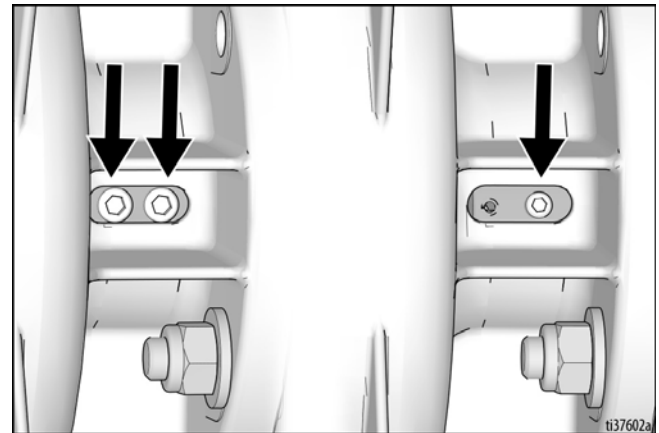


20. Use two carriage bolts (8), two washers (9), and two nuts (16) in opposing holes (180 degrees apart) to tighten the compressor to the compressor bracket.

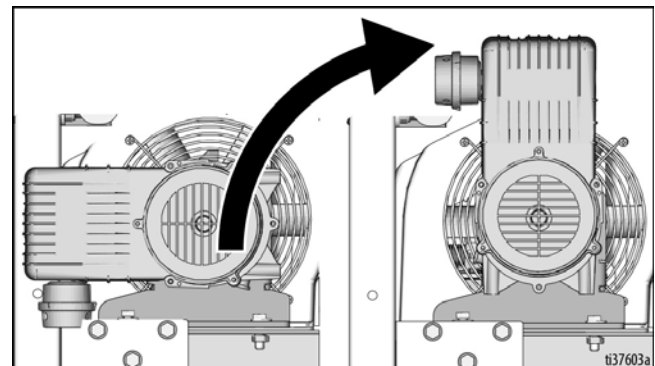


21. Using a long screw driver, slowly rotate the fan pulley until the two M8x10 set screws appear in the set screw access. Torque the set screws to 150-160 in. lb (16.9-18 N•m). Again, slowly rotate the fan pulley until the single M5x8 set screw appears in the access and tighten it to 37-42 in. lb (4-4.7 N•m).

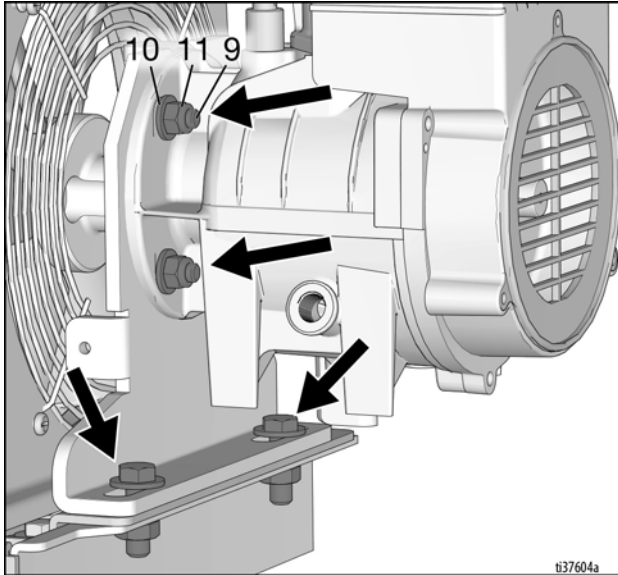
**NOTE:** Do *not* use ball end Allen wrenches, as they may break and become stuck in the set screws.



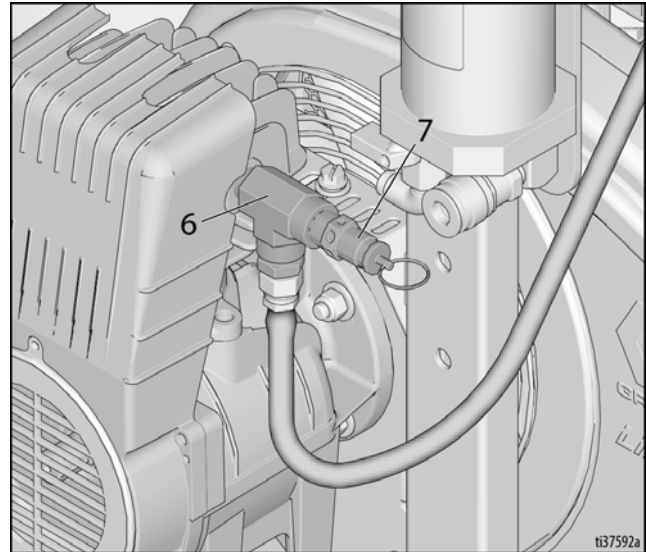
22. Remove two carriage bolts, two washers, and two nuts in opposing holes (180 degrees apart), and rotate the compressor counterclockwise 90 degrees back to the upright orientation.



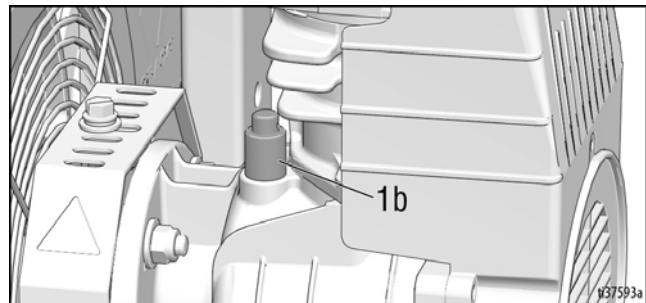
23. With the compressor secured to the coupler mounting plate, slightly loosen the two mounting screws between the frame and bracket. Install all four carriage bolts (9), washers (10), and lock nuts (11), and torque to 150-160 in. lb (16.9-18 N•m). Re-tighten the two mounting screws to 23-27 ft. lb (31-37 N•m).



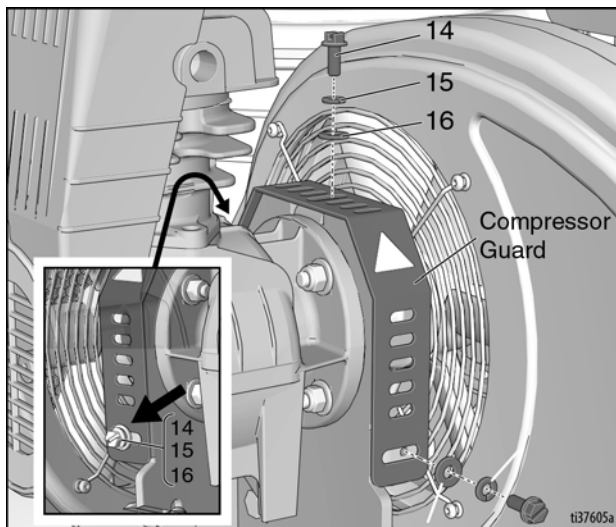
25. Apply thread sealer to threads of tee fitting (6). Install tee fitting with safety valve (7) into compressor output. Use a 1/16 in. wrench and a 9/16 backup wrench to attach the braided hose from the air tank to the tee.



26. Remove plug from compressor case. Install oil breather (1b).

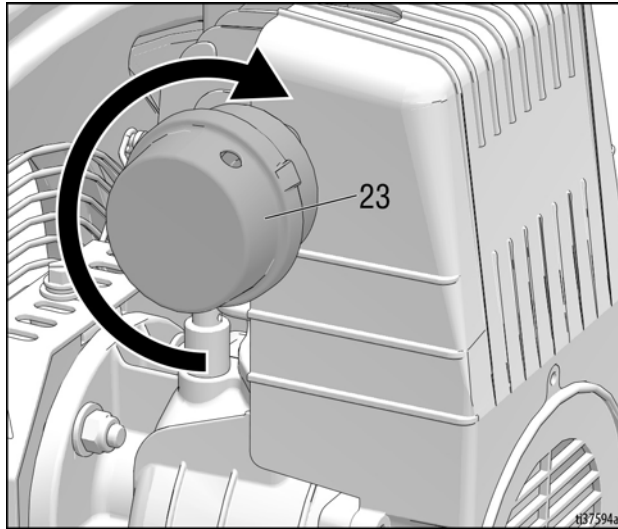


24. Install compressor guard using three screws (14), lock washers (15), and flat washers (16). Torque to 130-150 in. lb (14.7-16.9 N•m).





27. Install air filter. Hand tighten.



28. Before operation, ensure oil is visible on threads of fill port. If not full, fill with included oil until visible on threads.

**NOTICE**

Failure to properly fill compressor with oil can result in failure and/or severe or catastrophic damage to the compressor.

29. Reconnect the battery.

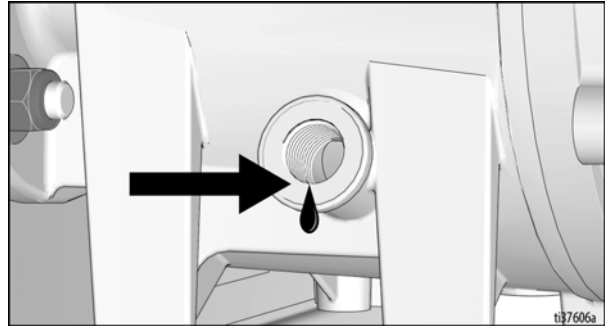
# Maintenance

Routine maintenance is important to ensure proper operation of your compressor. Maintenance includes performing routine actions to keep your compressor in operation and prevent trouble in the future.

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Activity	Interval
Replace air filter	Every 200 hours, or as needed
Change oil*	After first 50 hours, then every 200 hours or three months

\* Drain oil by siphoning from fill port. Use approximately 4 fl. oz of SAE 30W air compressor oil. Proper oil level is attained when oil just begins to drip over the edge of the fill port as shown below.



## Recycling and Disposal at End of Life

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

### Preparation:

- Perform the **Pressure Relief Procedure** page 6.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.

### Dismantle and recycle:

- Remove motors, circuit boards, displays, 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.

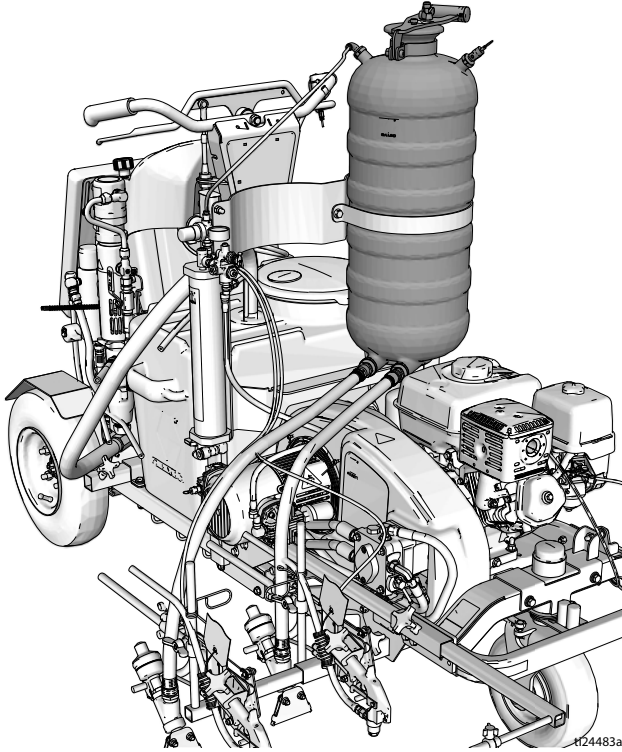
## California Proposition 65



**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](http://www.P65Warnings.ca.gov).

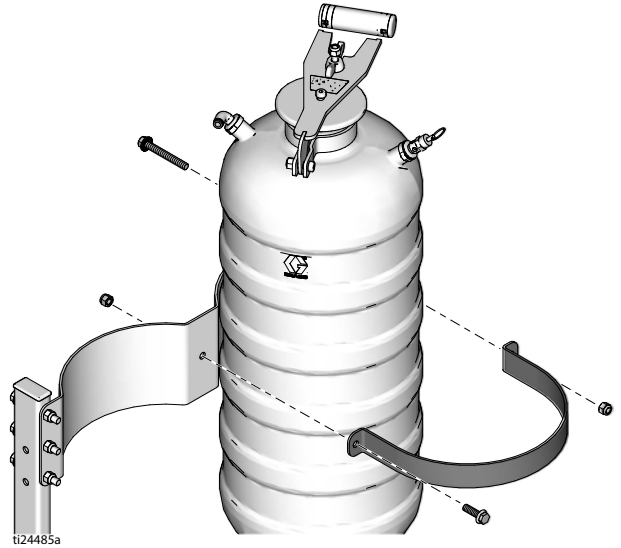
## Bead Tank Mounting

1. When only one bead tank is being installed, it should be placed on the side of the frame furthest from the compressor to best distribute weight.

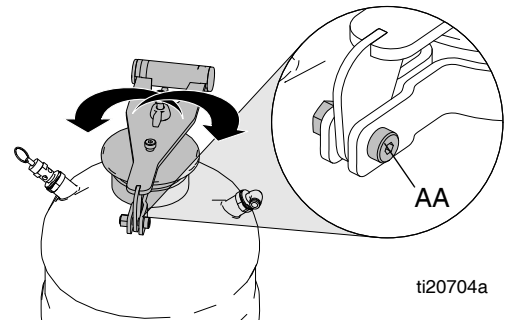


2. Place bead tank on supporting base with outlet fittings facing compressor.

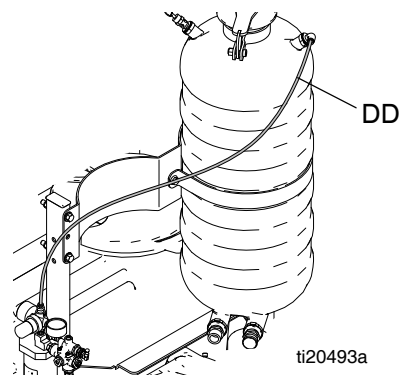
3. Place clamping band around tank and secure with mounting hardware shown below. Tighten until there is no movement between clamp and bead tank. **NOTE:** The flats on the clamp are not intended to touch when hopper bracket is tightened.



**NOTE:** Position handle to best suit filling needs. Loosen bolt (AA) to help swivel, then retighten.



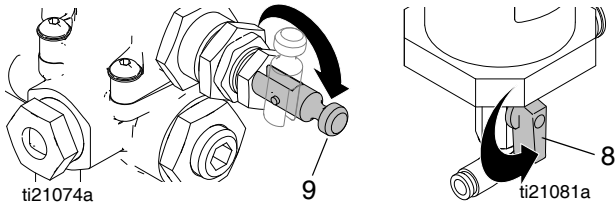
4. Install 36 in. nylon air line (DD) from top of regulator to swivel fitting on top of bead hopper. Cut air hose to desired length. Push air line into fitting until end touches bottom of fitting.



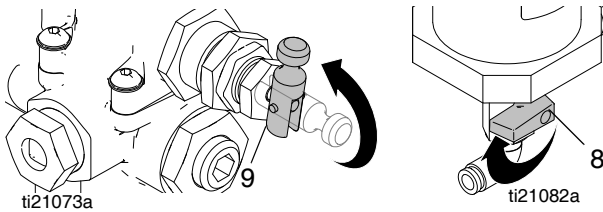
# Operation

## Charging Air Tank

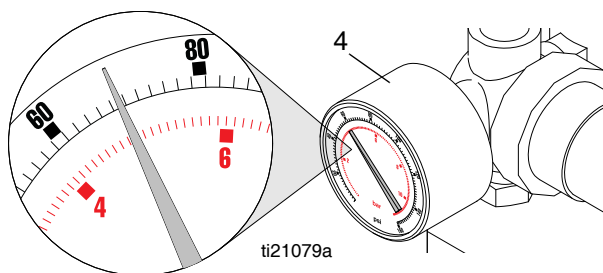
1. Start engine and engage clutch. Compressor is now engaged.
2. If compressor is not needed for a job, move compressor bypass switch (9) to horizontal ON position. Compressor is now exhausting air into atmosphere.



3. Move compressor bypass switch (9) to vertical OFF position to charge air pressure tank. Air tank will continue to charge to 80 psi (5.5 bar, 55 MPa) then cycle between 60-80 psi (4.1-5.5 bar, 41-55 MPa).



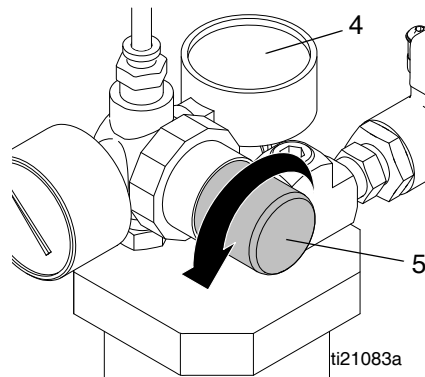
4. See bead tank gauge (4) to read air tank pressure. Pressure from air tank is used to open bead valves at bead gun.



## Setting Bead Hopper Pressure

The pressure regulator valve (5) controls pressure sent from the air tank to the bead tank. The regulator is set to 0 pressure from the factory.

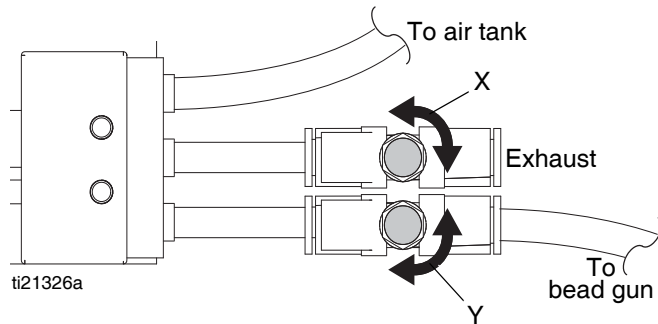
1. Before charging bead tank, confirm that bead tank lid is fully secured and beads have been loaded into tank.
2. To increase pressure, pull knob on pressure regulator valve (5) out and turn counter-clockwise. Watch bead tank gauge (4) pressure and continue turning valve until desired pressure is met.



3. See bead flow chart to find proper settings for your application.
4. Various orifices can be used in gun to obtain different flow rates in conjunction with bead tank pressure. See **Determining Bead Application Pressure** page 30.

## Bead Timing With Gun

1. Use air flow restrictor valves to help time the opening and closing of the bead guns to best match the start and stop of paint lines.
2. Valve (X) is exhausting air and will control the timing end of the bead application. Valve (Y) is sending air to the gun and will control the timing of the start of the bead application.



3. Turning the valve clockwise will delay gun opening/closing time. Turning the valve counter-clockwise will speed up gun opening/closing time.

### NOTICE

Never store glass beads in tank between jobs. Begin the day with moisture-free beads. Moisture will cause glass beads to resist flow or solidify over time.

If moisture or condensation is present on tank interior, leave lid open until dry. When operating without the bead system, always leave the moisture drain valve open.

# Determining Bead Application Pressure

The table below lists bead delivery rates for 4 inch (10 cm) lines with standard size highway beads.

- Wider lines use multiples of 4 in. to determine bead delivery.
- Larger beads reduce flow rates, so a larger nozzle and higher pressure may be required.
- Always verify flow rates with a stopwatch and a scale for weight.

To determine application pressure, follow steps 1 - 4 below:

1. Determine speed the machine will travel when applying line.

2. Identify what the required bead delivery rate is in job specifications.
3. Under bead gun nozzle size, find nearest value compared to Step 2.
4. Match pressure needed to Step 3. Set air regulator to this pressure.

### † EXAMPLE:

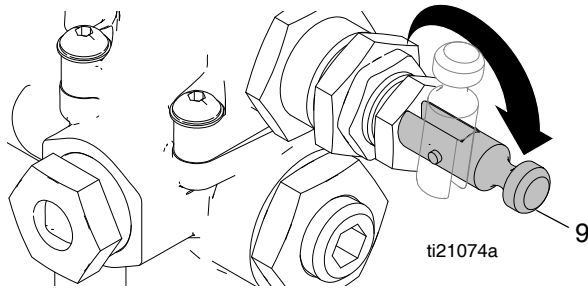
- a. At 4 mph and 6 lb/gal with 0.234 nozzle set tank pressure to 15 psi.
- b. At 4 mph and 6 lb/gal with 0.281 nozzle set tank pressure to 10 psi.
- c. For 8 in. width, multiply weight/min value (7.1) x 2 and for 12 in. width x 3.

Step 1	Step 2		Step 3		Step 4
Speed	Bead Delivery Requirement (4 in.)		Nozzle Size		Pressure Needed
	6 lb/gal	8 lb/gal	0.234	0.281	
mph	lb/min	lb/min	lb/min	lb/min	psi
2	3.6	4.7	4	5	5
3	5.3	7.1	6	<b>† 7</b>	10
4	<b>† 7.1</b>	9.5	<b>† 7</b>	9	15
5	8.9	11.9	9	11	20
6	10.7	14.2	11	14	25
7	12.4	16.6	13	16	30
8	14.2	19	16	19	35

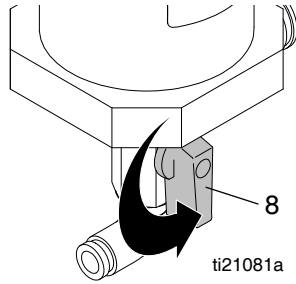
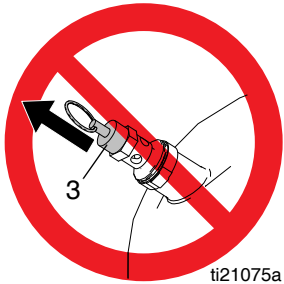
Step 1	Step 2		Step 3		Step 4
Speed	Bead Delivery Requirement (10 cm)		Nozzle Size		Pressure Needed
	720 gram/liter	960 gram/liter	0.234	0.281	
mph	lb/min	lb/min	lb/min	lb/min	psi
2	3.6	4.7	4	5	5
3	5.3	7.1	6	<b>† 7</b>	10
4	<b>† 7.1</b>	9.5	<b>† 7</b>	9	15
5	8.9	11.9	9	11	20
6	10.7	14.2	11	14	25
7	12.4	16.6	13	16	30
8	14.2	19	16	19	35

## Filling Bead Hopper

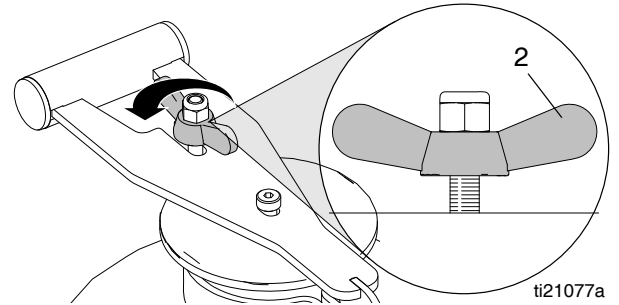
1. Move compressor bypass switch (9) to horizontal position to disengage compressor or turn engine off.



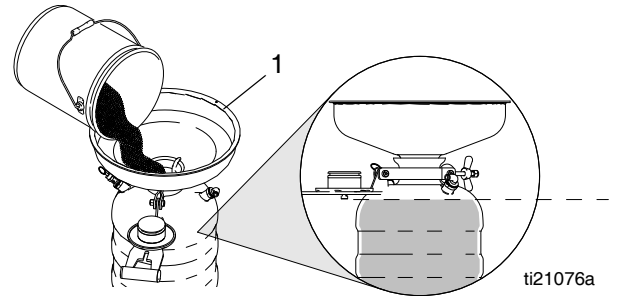
2. Release pressure on bead tank to 0 psi (0 bar, 0 MPa). Turn pressure relief valve (8) to vertical position and watch bead tank pressure gauge (3) until pressure reads 0 psi (0 bar, 0 MPa). Do not use safety valve (3) to release pressure from bead tank.



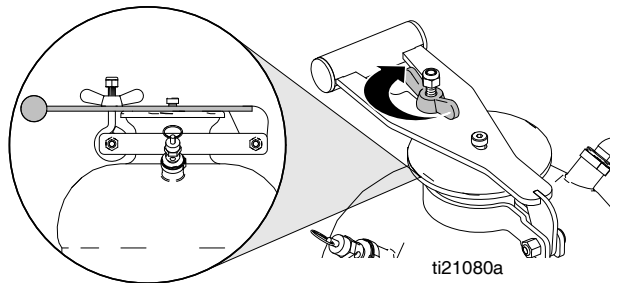
3. Loosen wing nut (2) until it reaches end of threads. If any remaining pressure is in bead tank, it will be released through seal while wing nut secures lid to hopper. Confirm pressure is at 0 psi (0 bar, 0 MPa) and open lid.



4. Place funnel (1) into opening. Pour beads into hopper. Beads should not be filled to a height higher than shown in figure below. Bead level can be viewed through tank wall if light is present.

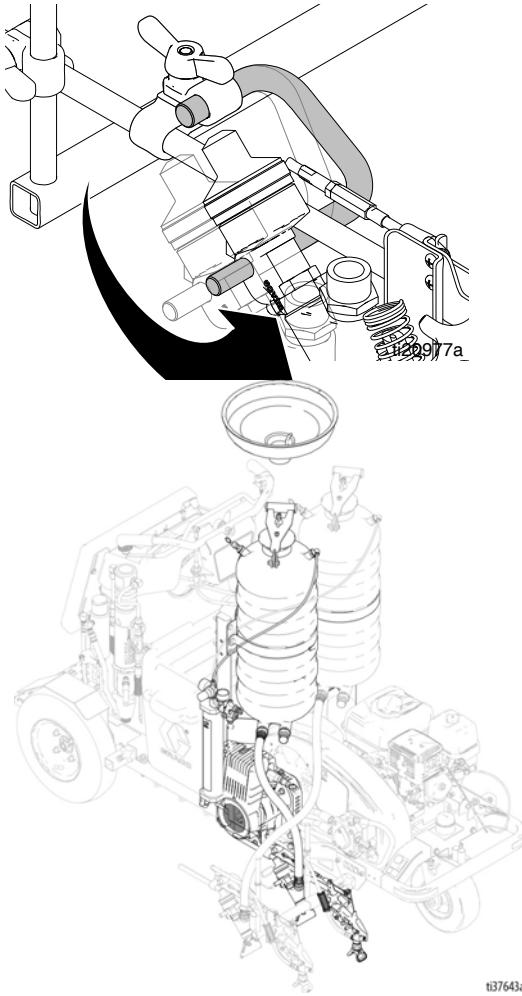


5. Secure lid over opening and tighten wing nut until lid is level with hopper.

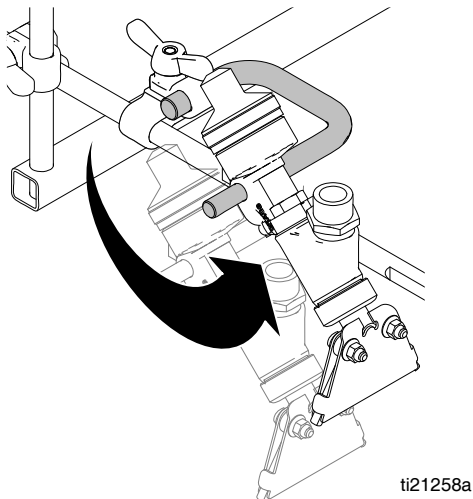


## 0 to 8 in. Line Setup

For wider lines it may be necessary to mount bead gun as shown below.

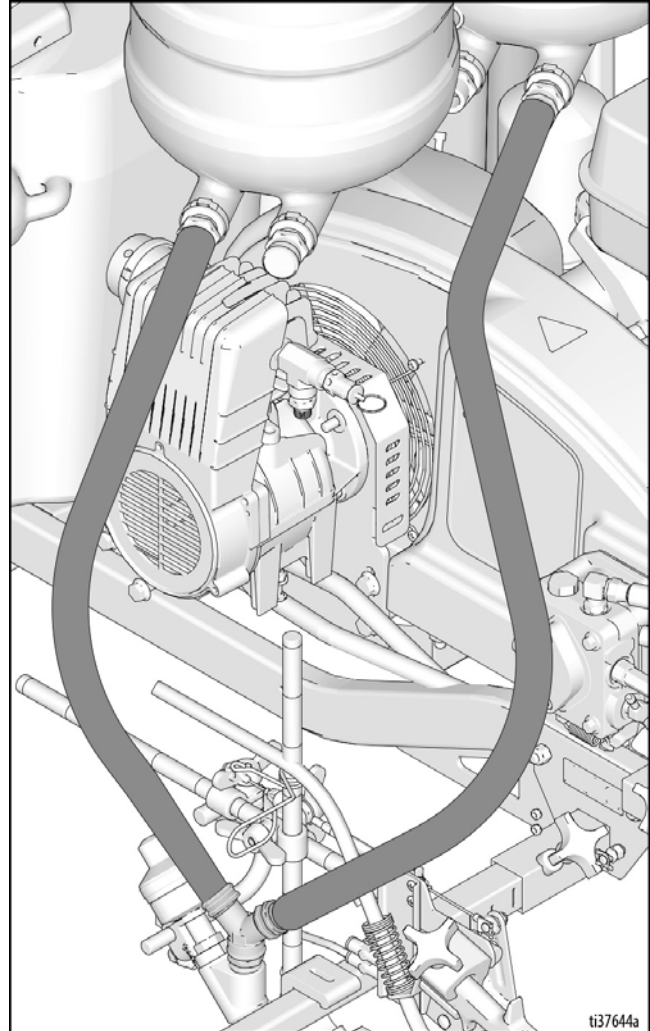


## 8 - 12 in. Line Setup



## 2 Tank 1 Gun Setup

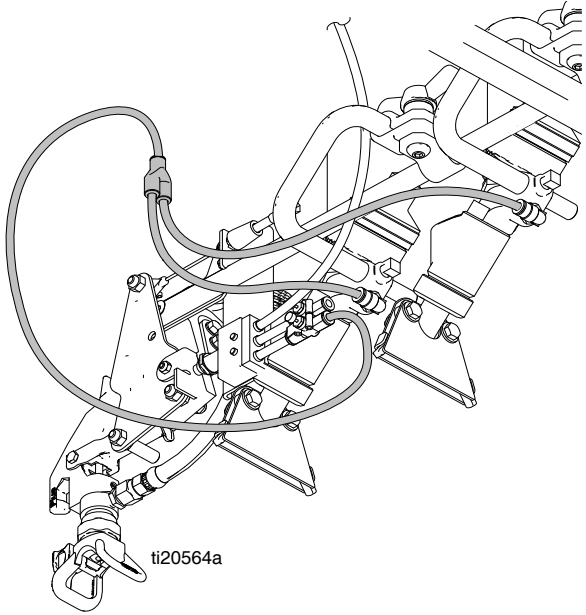
Connect "Y" fitting as shown below to allow two tanks to flow into one gun.



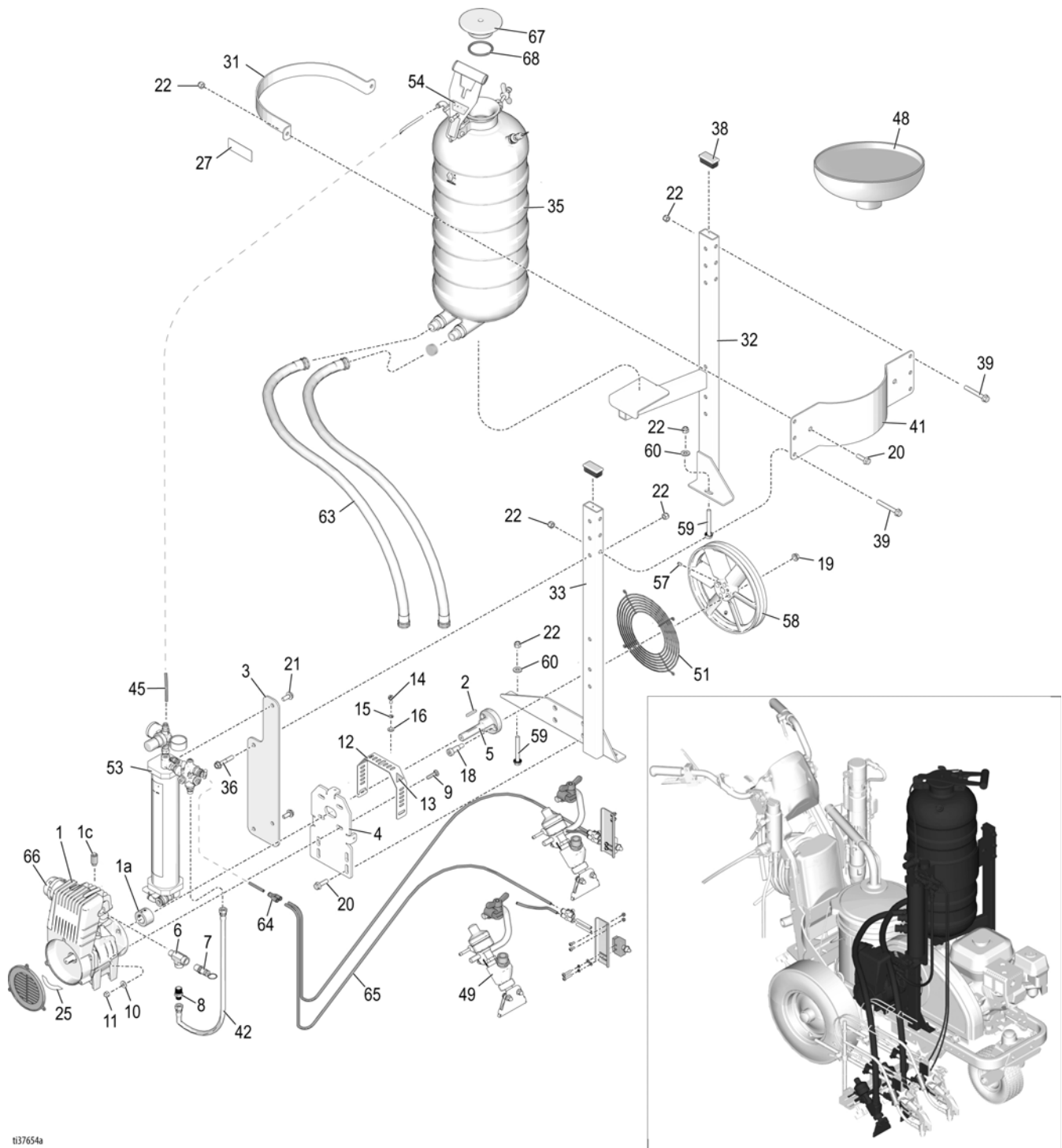


## Double Drop Setup

Use a “Y” fitting to create a dual bead gun setup for double drop beads. Splice exit hose on bottom of air switch and branch into both guns.



# Parts - Model 25R268



t137654a

## Parts List - 25R268

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	25R108	COMPRESSOR, oil	1	38	115087	PLUG, tubing	2
1a†	19B286	KIT, collar, shaft, <i>Includes 1b, 1d, 1e, and 23</i>	1	39	121488	SCREW, hex hd, flanged	6
1b◆	25R109	COLLAR, shaft	1	41	16T593	BRACKET, bead tank, LL200, painted	1
1c†	25R114	BREATHER, oil	1	42	16T939	HOSE, coupled	1
1d◆	25R110	SET SCREW, M5x8	1	45	16U273	HOSE, pneumatic	1
1e◆	25R111	SET SCREW, M8x10	2	48	16T437	FUNNEL, bead tank	1
2	25P605	KEY, square, 3/16 x 1.34	1	49	16R963	KIT, accessory, bead gun, <i>includes 63, 64, and 65</i>	1
3	25P599	BRACKET, air tank	1	50	404989	STRAP, tie	2
4	25P600	BRACKET, compressor straight	1	51	16U273	GRILL, fan guard	1
5	25P602	COUPLER, mounting plate	1	52▲	16C394	LABEL, safety, warning, entangle	1
6	124490	FITTING, tee, street	1	53	16U025	TANK, pressure	1
7	113769	VALVE, safety	1	54▲	16U788	LABEL, pressure	1
8	164672	ADAPTER	1	55	189919	BLANK, label, kit	1
9	17N821	BOLT, carriage	4	57	101962	SCREW, set, sch, 1/4-20	2
10	100527	WASHER, flat	4	58	16U205	PULLEY, fan w/ attachment holes	1
11	111040	NUT, lock, insert, nylock, 5/16	4	59	125626	SCREW, hex hd, flanged	3
12	25P598	GUARD, compressor	1	60	100023	WASHER, flat	3
13▲	15H108	LABEL, safety, warning, pinch	2	61	125809	LUBRICANT, oil, synthetic	1
14	108296	SCREW, mach, hex wash hd	3	62	119400	SEALANT, pipe, stainless steel	1
15	100016	WASHER, lock	3	63*	16T829	HOSE, bead, 3/4 in., clean	2
16	110755	WASHER, flt, 1/4 in.	3	64*	115287	FITTING, Y tube	1
18	126833	SCREW, shoulder, socket head	2	65*	16U274	HOSE, pneumatic	1
19	112958	NUT, hex, flanged, 3/8-16	2	66†	25R115	FILTER, air, compressor	1
20	111193	SCREW, cap flange hd	6	67	16T601	LID, bead tank	1
21	111192	SCREW, cap flange hd	2	68	113755	O-RING	1
22	101566	NUT, lock	11				
23	113500	ADHESIVE, anaerobic	1				
25	25R330	GASKET, adhesive, compression	1				
27▲	194668	LABEL, notice, glass bead	1				
31	16T580	BAND, clamping, bead tank	1				
32	16T763	FRAME, tank, LL200, painted, left	1				
33	16T762	FRAME, bead, tank, LL2200, painted, right	1				
35	16T629	TANK, bead, <i>includes 67 &amp; 68</i>	1				
36	111194	SCREW, cap flange hd	2				

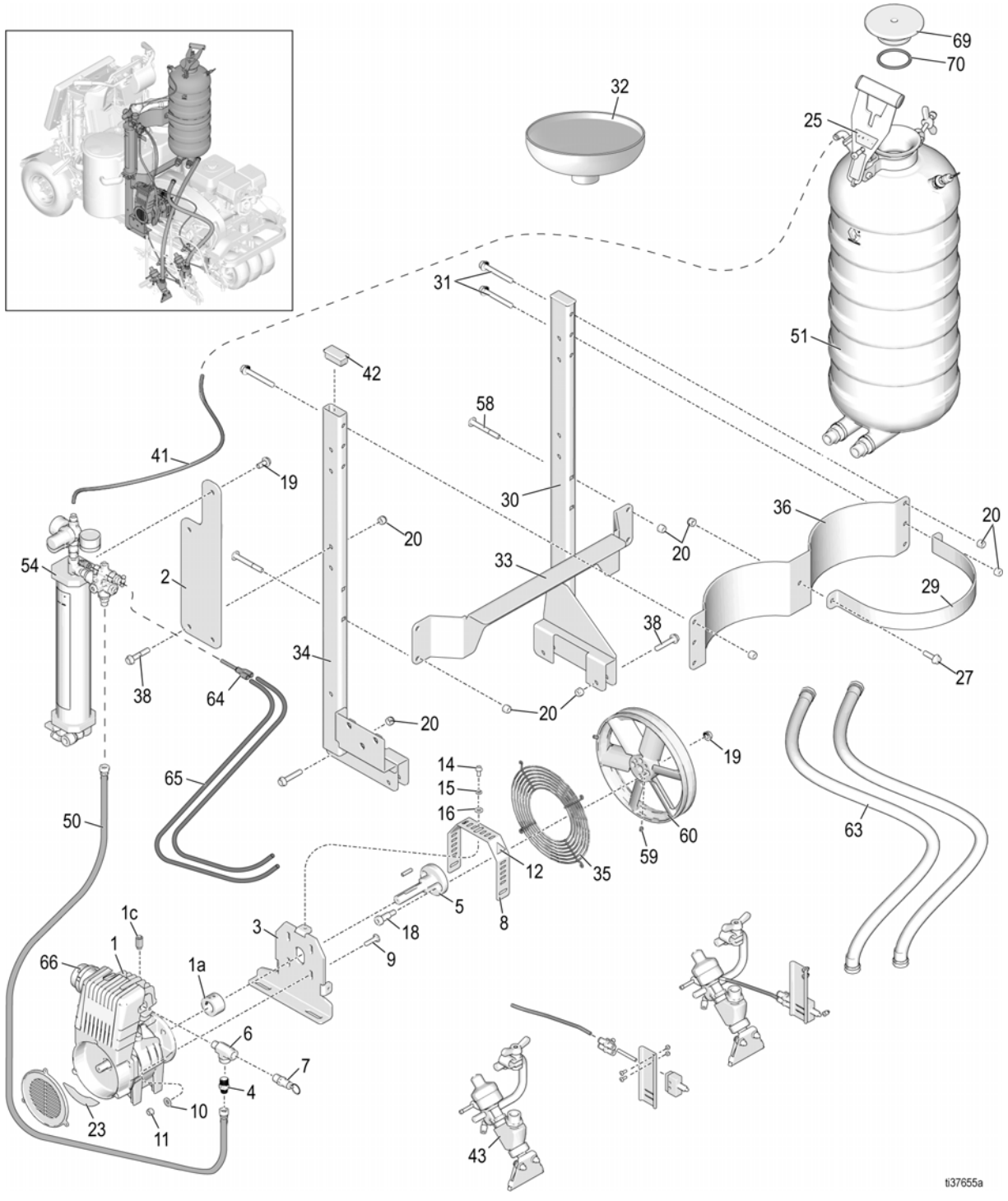
▲ Replacement warning labels may be ordered free of charge.

\* Included in set 16R963

◆ Parts included in set 19B286

† Parts included in set 25R108

# Parts - Model 25R270



## Parts List - Model 25R270

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	25R108	COMPRESSOR, oil	1	35	16U327	GRILL, fan guard	1
1a†	19B286	KIT, collar, shaft, <i>Includes 1b, 1d, 1e, and 22</i>	1	36	16T594	BRACKET, bead hopper, LL250, painted	1
1b◆	25R109	COLLAR, shaft	1	38	111194	SCREW, cap flange hd	6
1c†	25R114	BRETHER, oil	1	41	16U273	HOSE, pneumatic	1
1d◆	25R110	SET SCREW, M5x8	1	42	115087	PLUG, tubing	2
1e◆	25R111	SET SCREW, M8x10	2	43	16R963	KIT, accessory, bead gun, <i>includes 63, 64, and 65</i>	1
2	25P603	BRACKET, air tank LL250	1	45	404989	STRAP, tie	2
3	25P601	BRACKET, compressor 250	1	50	16T939	HOSE, coupled	1
4	164672	FITTING, adapter	1	51	16T629	TANK, bead, <i>includes 69 &amp; 70</i>	1
5	25P602	COUPLER, mounting plate	1	54	16U025	TANK, pressure	1
6	124490	FITTING, tee, street	1	55▲	16U788	LABEL, pressure	1
7	113769	VALVE, safety	1	56	189919	BLANK, label, kit	1
8	25P598	GUARD, compressor	1	58	124258	BOLT, carriage	4
9	17N821	BOLT, carriage	4	59	101962	SCREW, set, sch, 1/4-20	2
10	100527	WASHER, flat	4	60	16U205	PULLEY, fan w/ attachment holes	1
11	111040	NUT, lock, insert, nylock 5/16	4	61	125809	LUBRICANT, oil, synthetic	1
12▲	15H108	LABEL, safety, warning, pinch	2	62	119400	SEALANT, pipe, stainless steel	1
14	108296	SCREW, mach, hex	3	63*	16T829	HOSE, bead, 3/4 in., clean	2
15	100016	WASHER, lock	3	64*	115287	FITTING, Y tube	1
16	110755	WASHER, flat, 1/4 in.	3	65*	16U274	HOSE, pneumatic	1
18	126833	SCREW, shoulder, socket head	2	66	25R126	KEY, shaft	1
19	112958	NUT, hex, flanged, 3/8-16	2	68†	25R111	FITTING, air compressor	1
20	101566	NUT, lock	17	69	16T601	LID, bead tank	1
21	113500	ADHESIVE, anaerobic	1	70	113755	O-RING	1
23	25R330	GASKET, adhesive, compresion	1				
25▲	194668	LABEL, notice, glass bead	1				
26	111192	SCREW, cap flange hd	2				
27	111193	SCREW, cap, flange hd.	1				
29	16T580	BAND, clamping, bead tank	1				
30	16T698	FRAME, bead tank, painted, LL250, left	1				
31	125626	SCREW, hex hd, flanged	6				
32	16T437	FUNNEL, bead tank	1				
33	16T596	BASE, bead tank frame, LL250	1				
34	16T697	FRAME, bead tank, painted, LL250, right	1				

▲ Replacement warning labels may be ordered free of charge.

\* Included in set 16R963

◆ Included in set 19B286

† Included in set 25R108

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