Installation - Operation - Parts

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

332230T

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

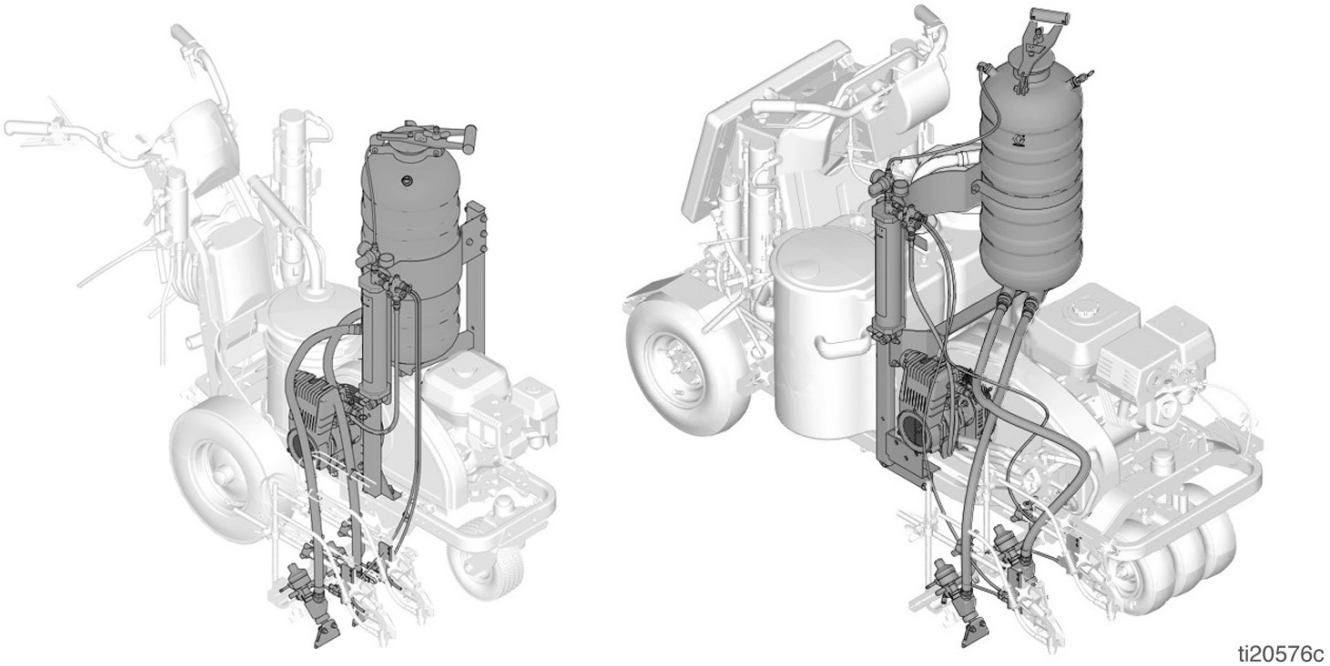
80 psi (.55 MPa, 5.5 bar) Maximum Working Pressure

Related Manual

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

Important Safety Instructions

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



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PROVEN QUALITY. LEADING TECHNOLOGY.

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.

⚠ WARNING



FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent fire and explosion:

- 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.
- Keep work area free of debris, including solvent, rags and gasoline.
- Ground all equipment in the work area. See **Grounding** instructions.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are antistatic or conductive.
- **Stop operation immediately** if static sparking occurs or you feel a shock**.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- 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.
- Do not leave the work area while equipment is energized or under pressure.
- Turn off all equipment and follow the **Pressure Relief Procedure** 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. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.
- Do not carry passengers.
- Check work area for reduced overhead clearance (e.g. doorways, tree branches, parking ramp ceilings) and avoid contacting them.

⚠WARNING



SKIN INJECTION HAZARD

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. **Get immediate surgical treatment.**

- Do not spray without tip guard and trigger guard installed.
- Engage trigger lock when not spraying.
- Do not point gun at anyone or at any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** when you stop spraying and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses and couplings daily. Replace worn or damaged parts immediately.



ENTANGLEMENT HAZARD

Rotating parts can cause serious injury.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Do not wear loose clothing, jewelry or long hair while operating equipment.
- Equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.



MOVING PARTS HAZARD

Moving parts can pinch, cut or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.



BURN HAZARD

Equipment surfaces and fluid that’s heated can become very hot during operation. To avoid severe burns:

- Do not touch hot fluid or equipment.



PERSONAL PROTECTIVE EQUIPMENT

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:

- Protective eye wear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

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.

CE Safety Checklist

(To be completed during non-factory installation)

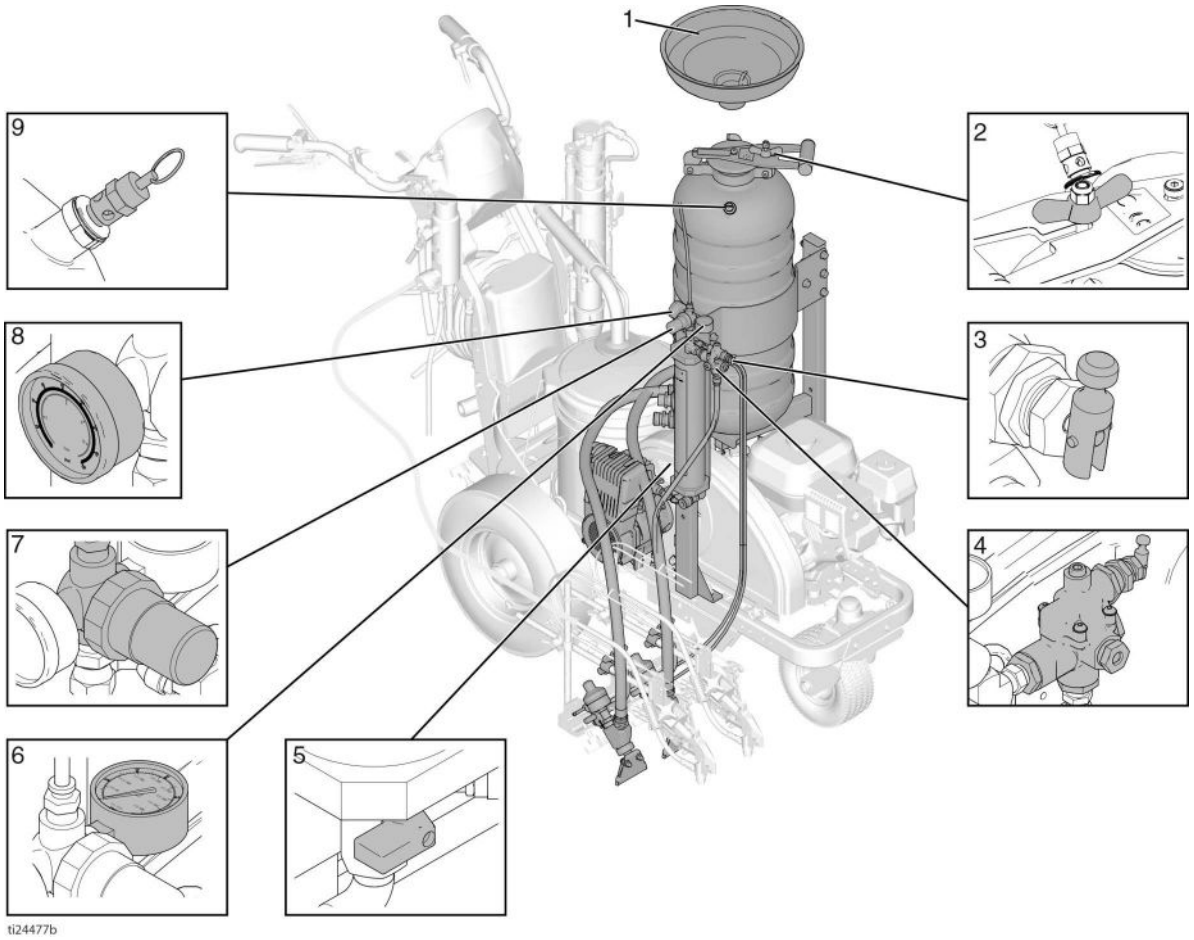
- ☐ Covers and shrouds for moving parts are in place (see guard installation section).
- ☐ Fasteners, belts, covers, grills, and compressor are tight-mounted securely.
- ☐ Read and understand all warnings and instructions in this manual and the striper manual.

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

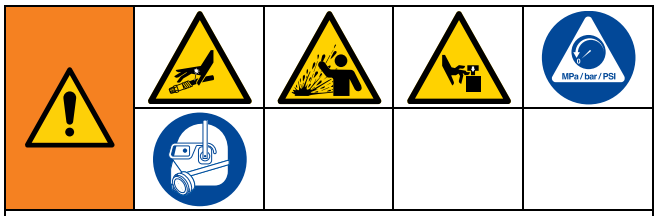


Ref.	Description
1	Funnel
2	Wing Nut
3	Compressor Bypass Switch
4	Regulator Unloader

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.



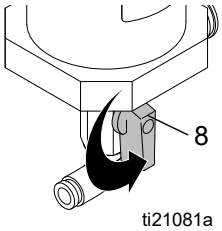
This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.

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.

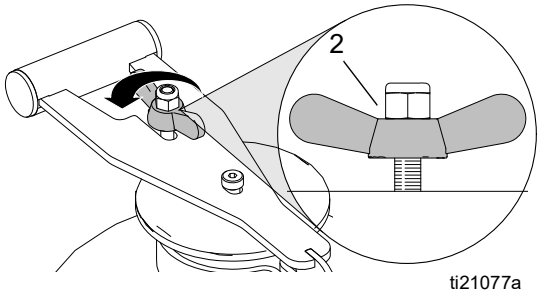


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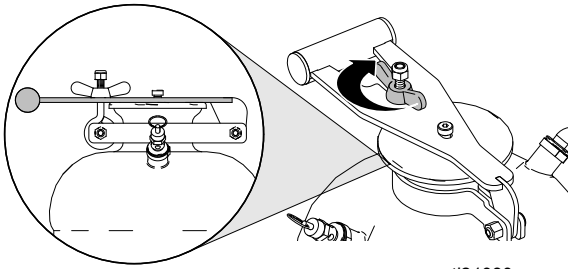
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3. Loosen wing nut (2) until it reaches end of threads. If any remaining pressure is in bead tank, it will be released through seal while wing nut secures lid to hopper. Confirm pressure is at 0 psi (0 bar, 0 MPa) and open lid.



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



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

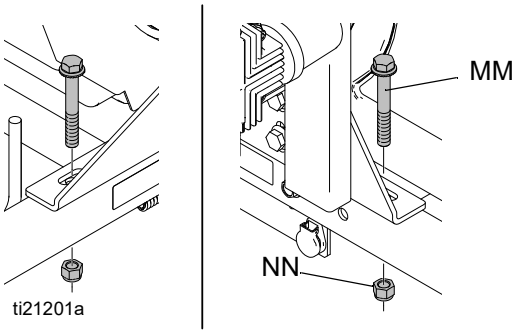
Assemble Compressor Mounting and Drive Components



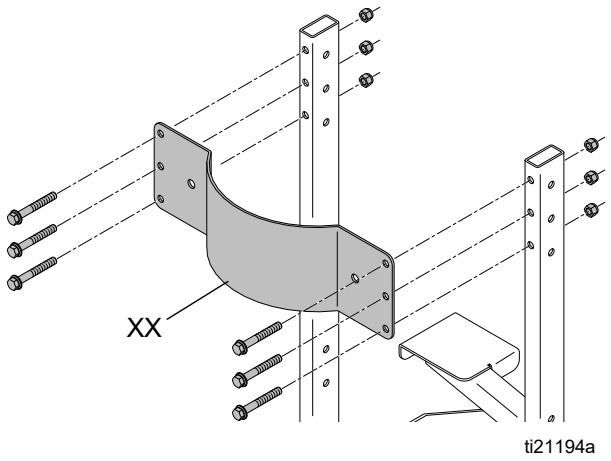
NOTE: Glass bead system and paint guns can be mounted on either side of sprayer.

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).

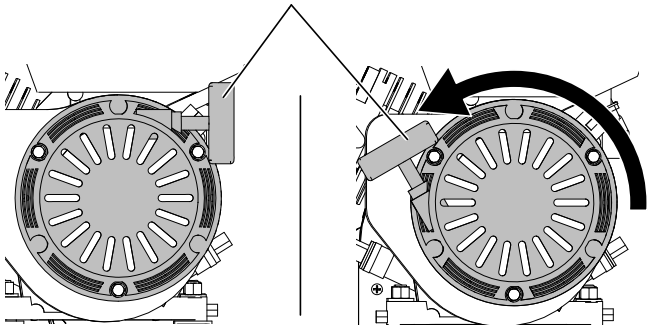


3. Assemble hopper basket (XX) and base with hardware as shown below. Use 9/16 in. wrench to snug screws. Loosen all six screws 1/4 turn.



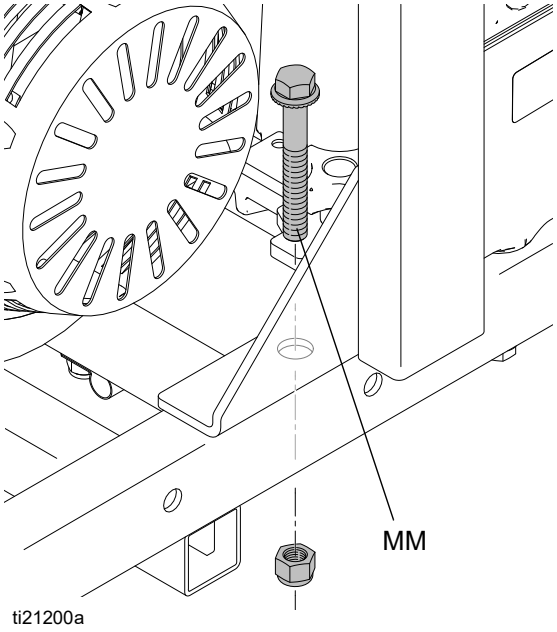
Complete Frame Assembly

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



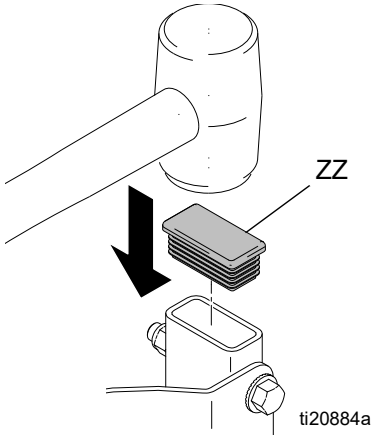
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1. Use 9/16 wrench to tighten bottom screws (MM) to hardware shown.



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



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LL200 Compressor Installation

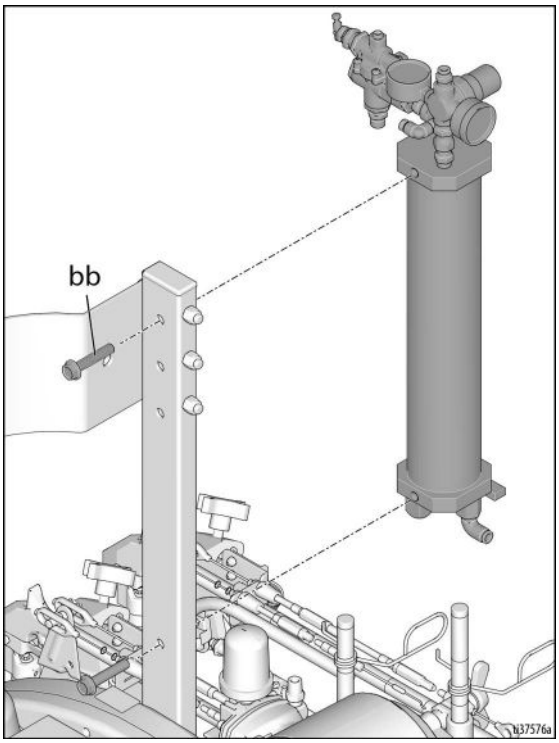
Tools Needed:

- 2.5 mm Allen wrench
- 1/4 in. Allen wrench
- 1/8 in. Allen wrench
- 7/16 in. wrench
- 9/16 in. wrench
- 11/16 in. wrench
- Rubber Mallet

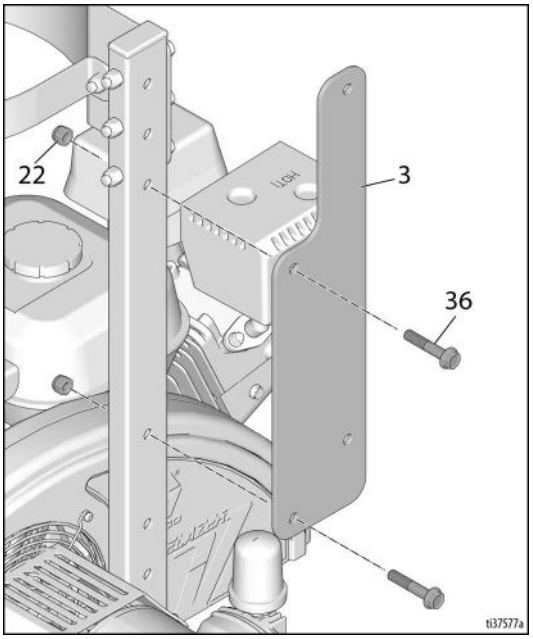


Replacing the compressor requires pulling on the starting rope. To help prevent entanglement, pinching, and potentially serious injury from an unexpected start-up, disconnect the spark plug prior to compressor replacement.

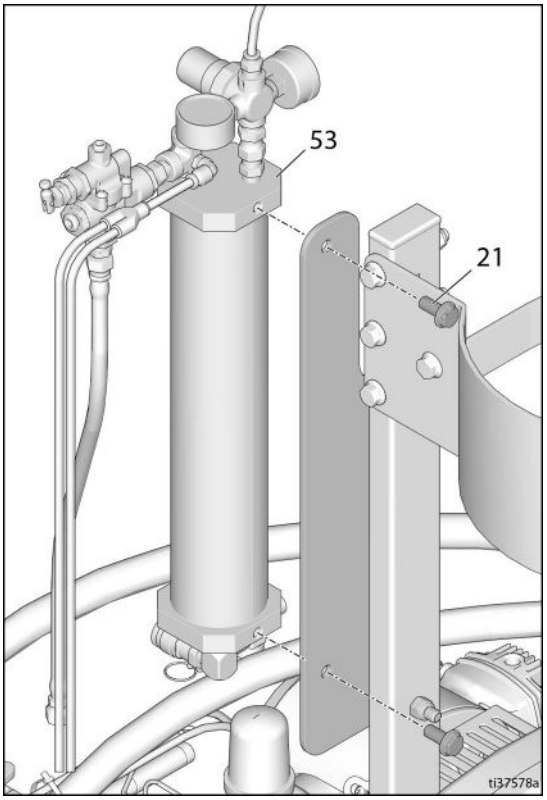
1. Turn engine OFF. Let engine cool prior to working on it.
2. Disconnect spark plug on engine. Perform **Pressure Relief Procedure**, page 4.
3. Disconnect output air line.
4. Using a 9/16 in. wrench, remove air tank from frame.



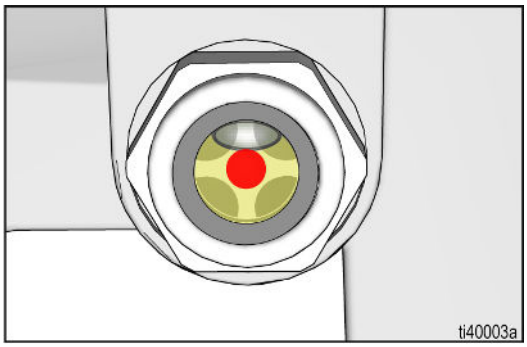
5. Using same bolts (bb) and lock nuts (22), install air tank bracket (3).



6. With a 9/16 in. wrench, mount air tank to air tank bracket with screws. When correctly installed, air tank will sit farther forward than the previous installation.



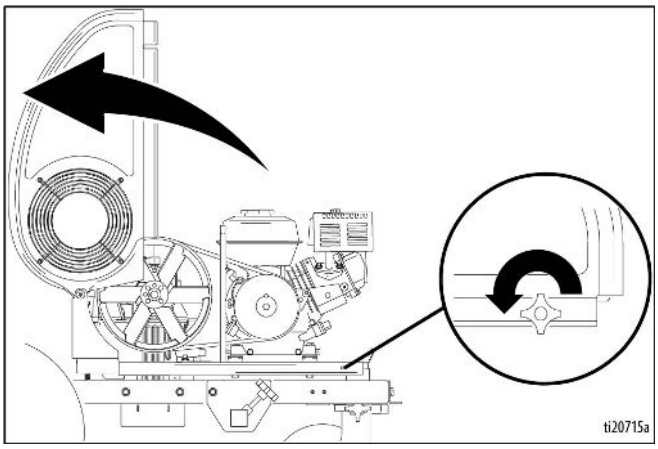
7. Remove oil breather from compressor. Pour 4 oz. of included compressor oil into compressor through breather port. Verify oil is above red dot in sight glass.



NOTE: Oil level will change at a slower rate than poured as it descends into the crankcase. Pour small amounts at a time, checking between pours.

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

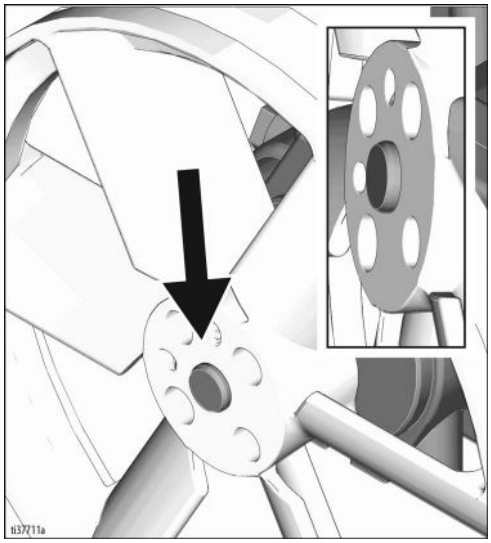
8. Remove hopper. Locate belt shroud. Loosen knob and rotate shroud.



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

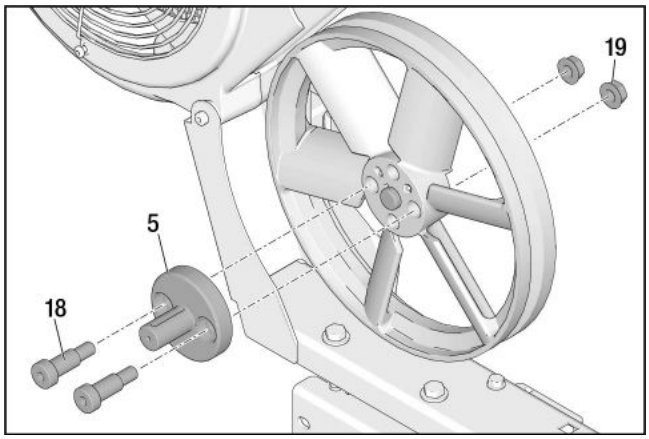
NOTE: Do ***not*** use ball end Allen wrenches, as they may break and become stuck in the screws.

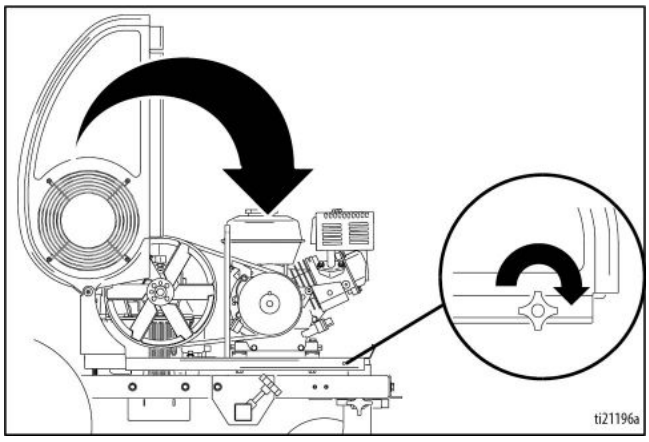
10. Assure pump shaft extends 0.125-0.225 in. (3.175-5.73 mm) beyond the face of the pulley. The pump shaft is the pilot for the coupler adapter. If necessary loosen set screws on pulley and slide pulley along pump shaft, torque set screws to 58-62 in-lb (6.6-7 N•m).



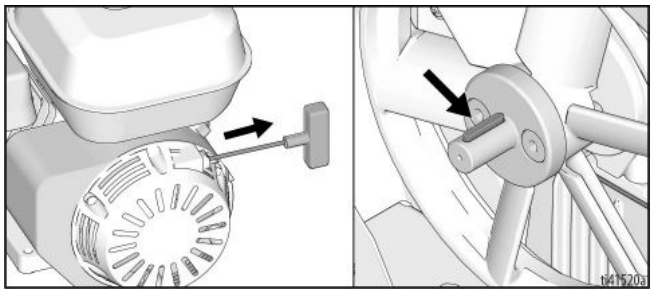
NOTE: Before performing step 13, secure nuts to back of pulley with piece of duct tape to assist with installation.

11. 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 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). Put belt shroud down.

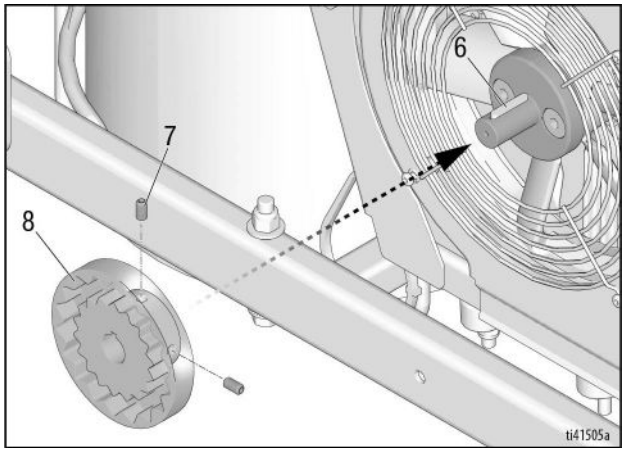




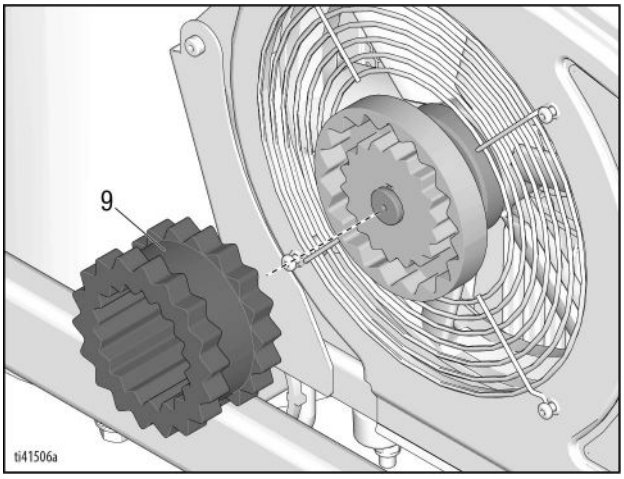
12. Slowly pull the starter rope to rotate shaft so that the shaft keyway (5) faces up. Place the key (2) into the shaft keyway. A light tap with a rubber mallet may be needed to ensure the key seats completely.



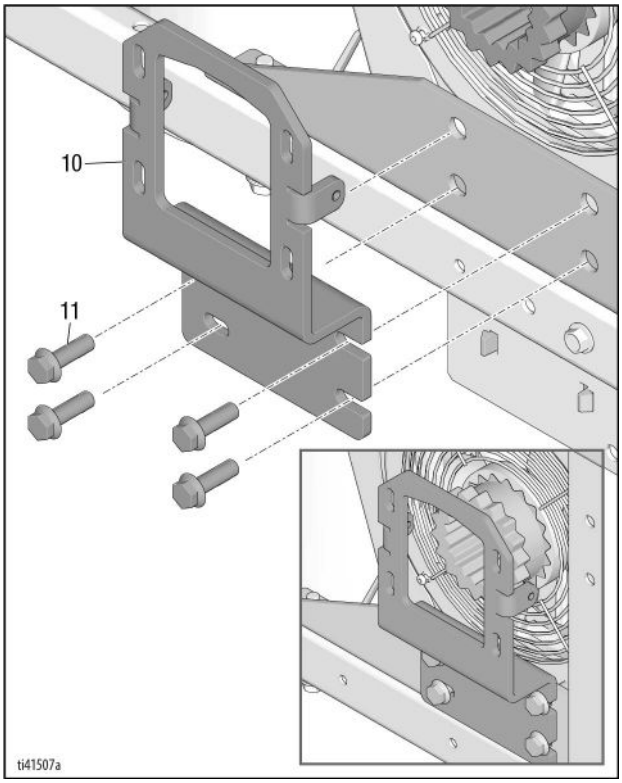
13. Start two set screws (7) into coupler (8). Slide coupler (8) over coupler mount (5), assure key (6) is still in position. Push coupler (8) flush against coupler mount (3) face. Tighten set screws with 1/8 in. Allen wrench to 150-160 in-lb (16.9-18 N•m).



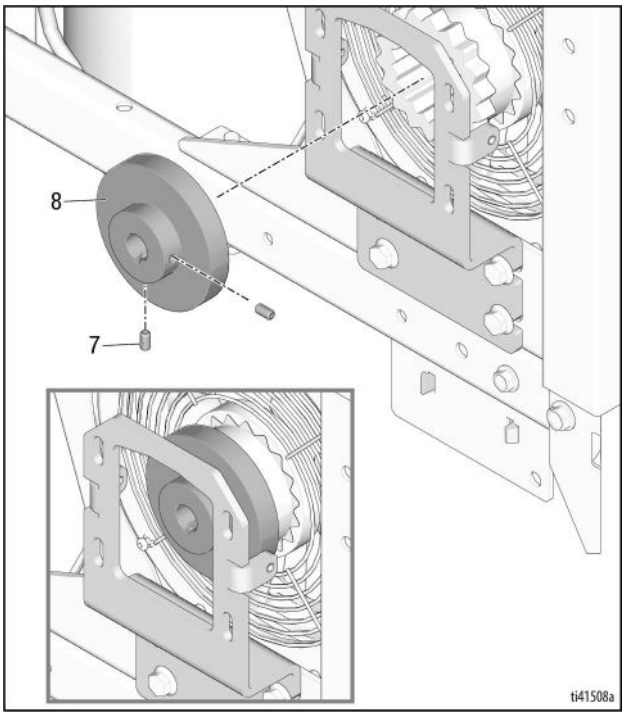
14. Align teeth and slide flex insert (9) all the way into coupler (8).



15. Secure mounting bracket (10) to frame with four flange bolts (11). Leave bolts slightly loose to allow for horizontal adjustment in following steps.



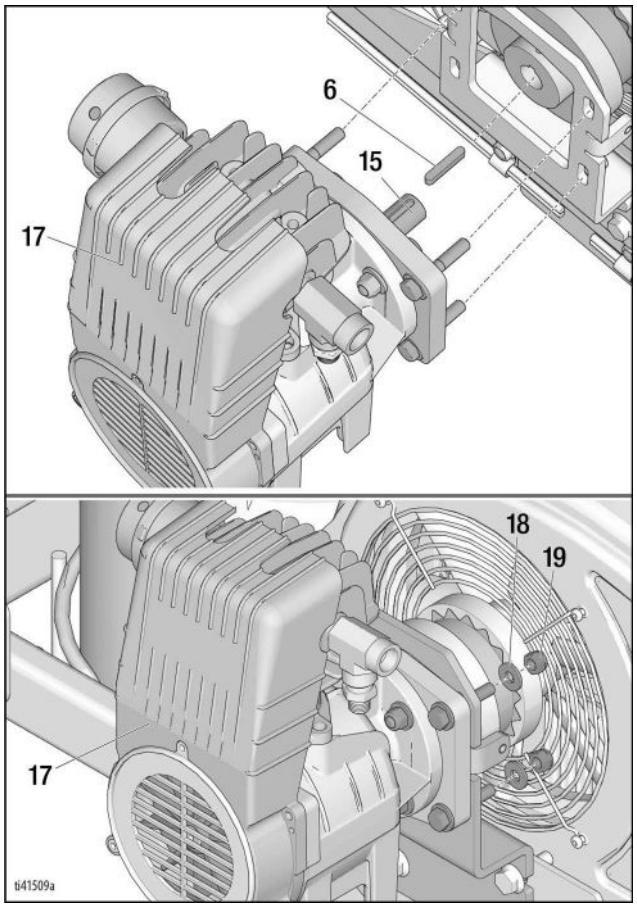
16. Start two set screws (7) into second coupler (8). Slide coupler (8) over flex insert (9). Coupler (8) should stay in position, if not it may need to be held until the next step.



17. Ensure keyway on coupler shaft (15) is on top, rotate as necessary. Place second key (6) in keyway of coupler shaft (15). Align keyway in coupler (8) to receive coupler shaft (15) and key (6). Aligning all four studs (16) with associated vertical slots, slide compressor assembly (17) into mounting bracket so that coupler shaft (15) inserts into coupler (8), ensure key (6) stays in place. Install four washers (18) and four nuts (19) onto four studs, tighten until slightly loose to allow for vertical adjustment.

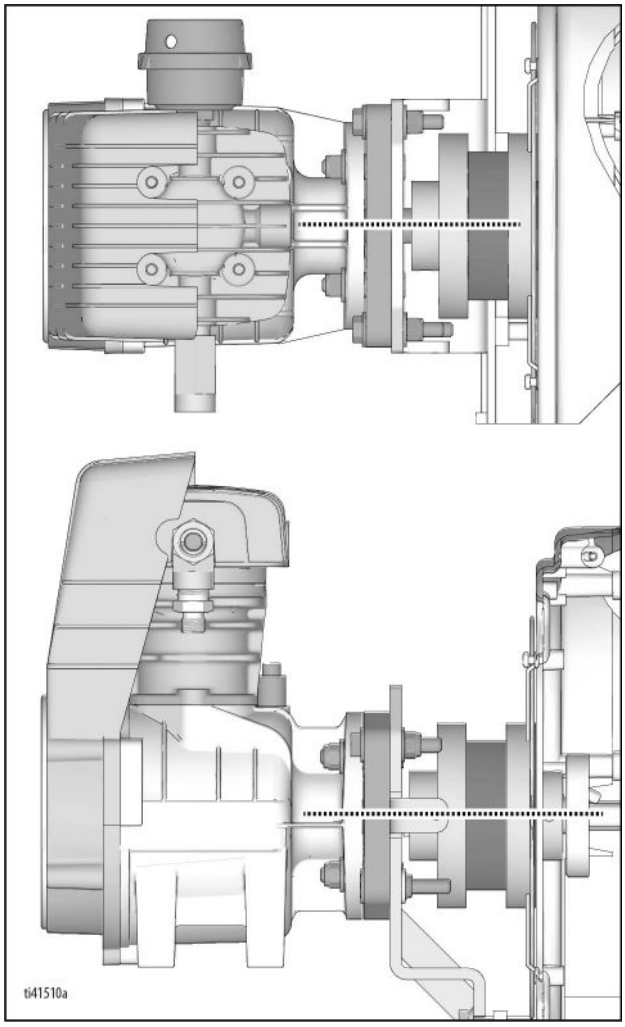
NOTICE

Performing the following step incorrectly may result in improper alignment of the two rotating couplers. This may cause premature wear and require replacement of the flex insert (9).



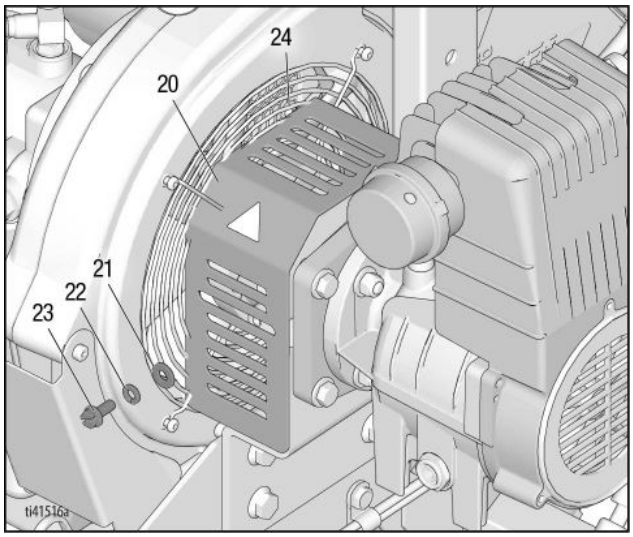
18. Horizontal Alignment: hold compressor assembly (17) such that when viewed from above both couplers (8) and flex insert (9) are aligned axially. When properly aligned, tighten mounting bracket bolts (11) to frame to 23-27 ft-lbs (31-37 N•m). Horizontal alignment is now complete.

19. Vertical Alignment: hold compressor assembly (17) such that from the side both couplers (17) and flex insert (9) are aligned axially. When properly aligned, tighten four nuts (19) on studs (16) to mounting bracket (10) to 150-160 in-lb (16.9-18 N•m). Vertical alignment is now complete.



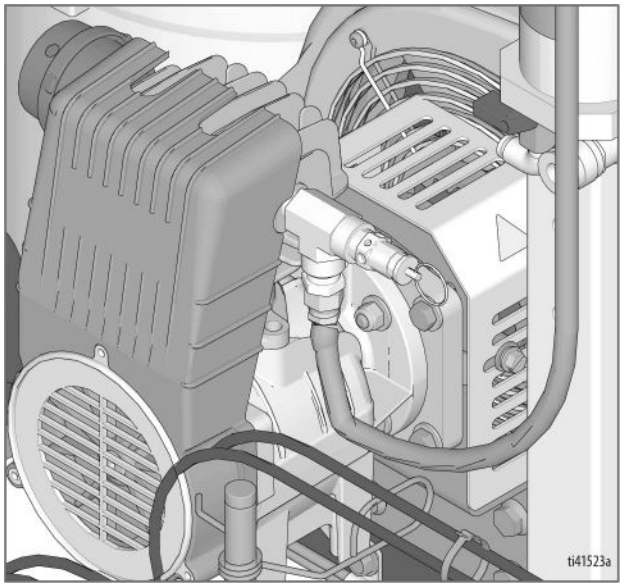
20. With the second coupler (8) still loose on coupler shaft (15), slide coupler (8) against flex insert (9) until flex insert is tightly sandwiched between both couplers. Back coupler (8) off approximately 1/16 in., leaving a slight gap between coupler (8) and flex insert (9). Tighten set screws in loose coupler (8) with 1/8 in. Allen wrench to 150-160 in-lb (16.9-18 N•m). Verify flex insert (9) can wiggle slightly between couplers. Only a slight amount of movement is required.

21. Place guard (20) over mounting bracket (11). Located longest slot on vertical sides (3rd from top), and align with mounting tabs. Install two flat washers (21), two lock washers (22), and two screws (23). Leave slightly loose. Press guard (20) flush against fan guard (24). Ensure minimal (less than 1/4 in.) or no gap between mounting bracket (11) around perimeter. Tighten two screws (23) to 130-150in-lb (14.7-16.9 N•m).



22. Test operation of compressor by running unit. Check for excessive vibration and/or wobble between couplers (8) and flex insert (9). If present, repeat horizontal and vertical alignment steps (steps 18 and 19).

23. Use a 11/16 in. wrench and a 9/16 in. backup wrench to attach the braided hose from the air tank to the tee.

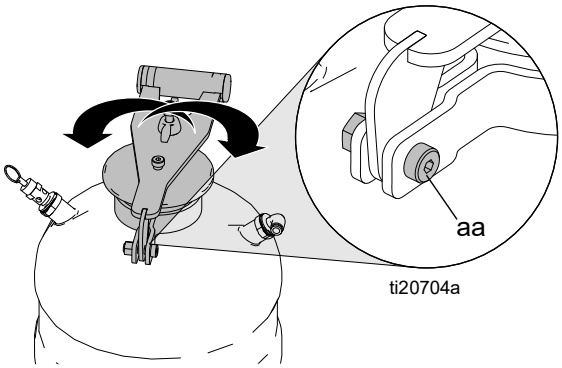


24. Reconnect spark plug wire.

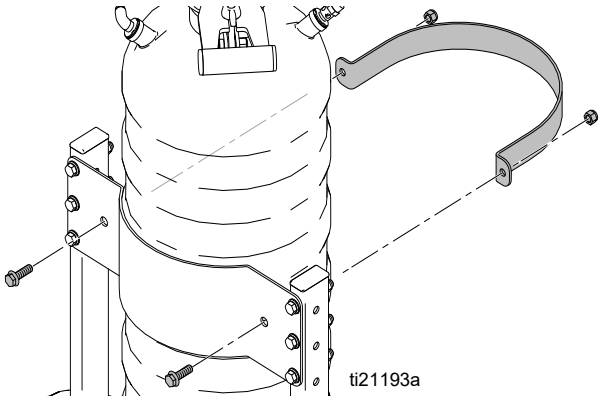
Bead Tank Mounting

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.

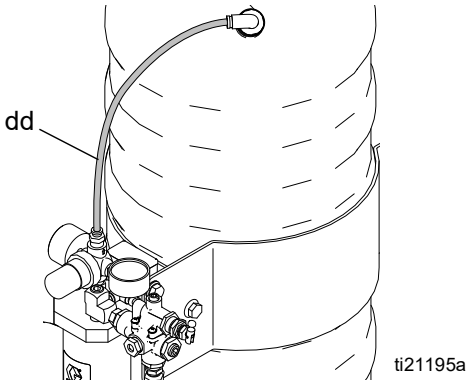


2. Place clamping band around tank and secure with mounting hardware shown below. Tighten until there is no movement between clamp and bead tank.



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

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.

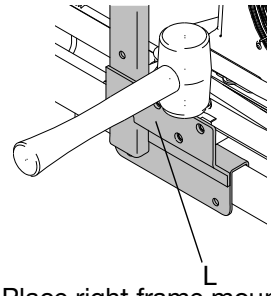


LL250 Pressurized Bead System Kit 25R270

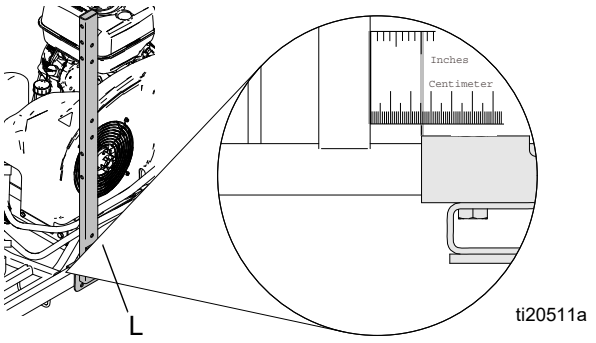
Assemble Compressor Mounting and Drive Components



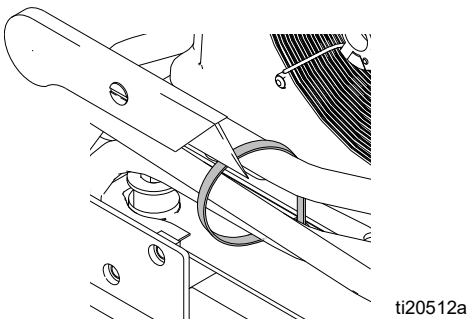
1. Use rubber mallet or wood block to position right frame mount (L) flush to LL250 frame.



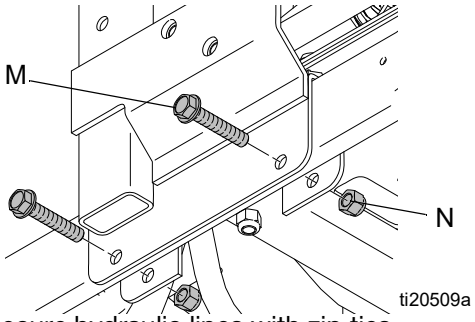
2. Place right frame mount (L) onto LL250 frame in location shown below (approximately 1 in. from cross member of LL250 frame). **NOTE:** To ensure flush sitting, scrape frame free of any raised debris on frame surface.



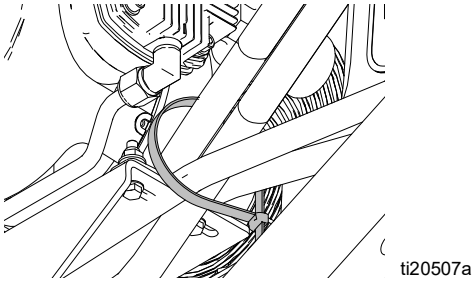
3. Cut any existing tie wraps that interfere (they will be replaced later with new tie straps).



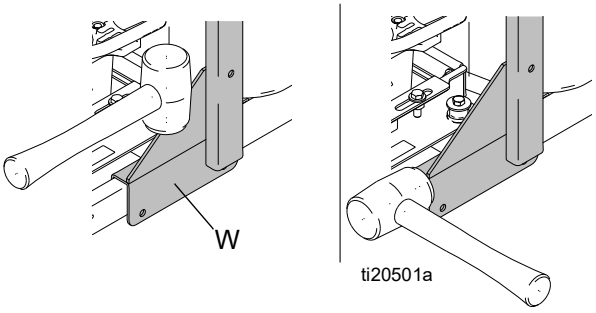
4. Loosely install two screws (M) and two locknuts (N) through bottom of frame mount. Use 9/16 in. wrench to fully tighten.



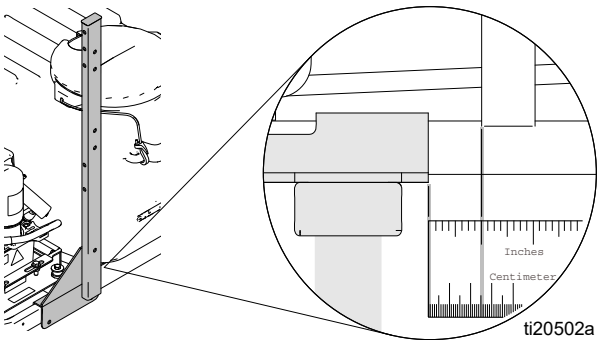
5. Secure hydraulic lines with zip ties.



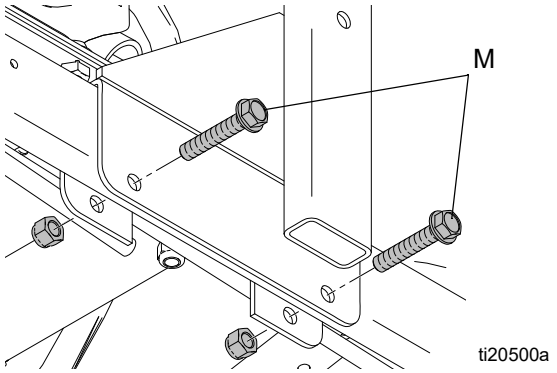
6. Position left frame mount (W) on LL250 frame. Remove any zip ties in the way. Use a rubber mallet to tap into place if needed.



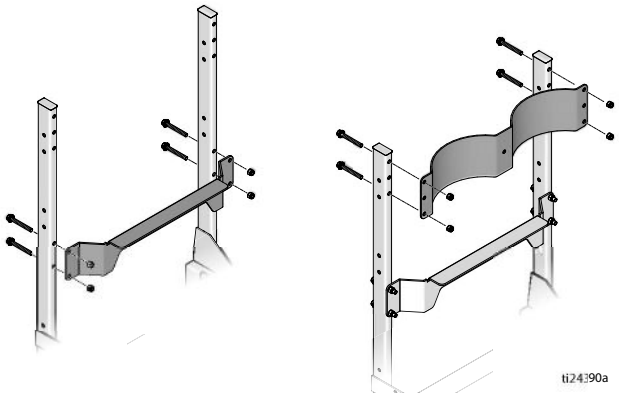
7. Make sure left and right frame mounts are aligned. The left leg should mirror the right leg location from LL250 frame cross member.



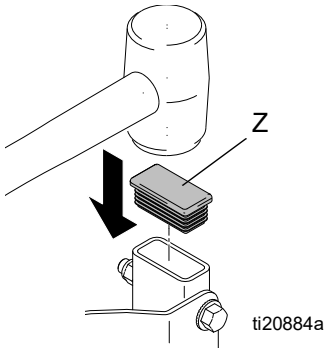
8. Use 9/16 wrench to tighten bottom screws (M) to hardware shown.



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 bottom bolts.



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



LL250 Compressor Installation

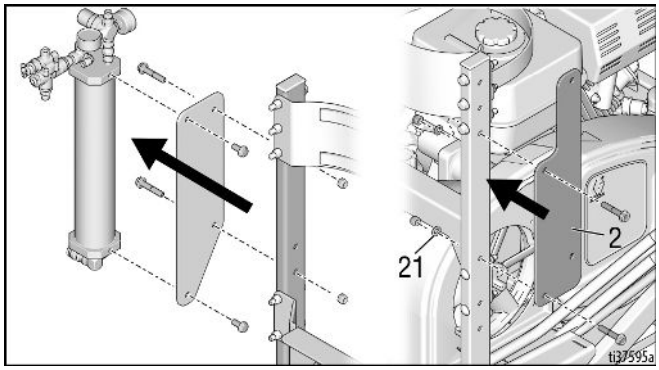
Tools Needed:

- 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 star bit
- Rubber Mallet
- Phillips screwdriver

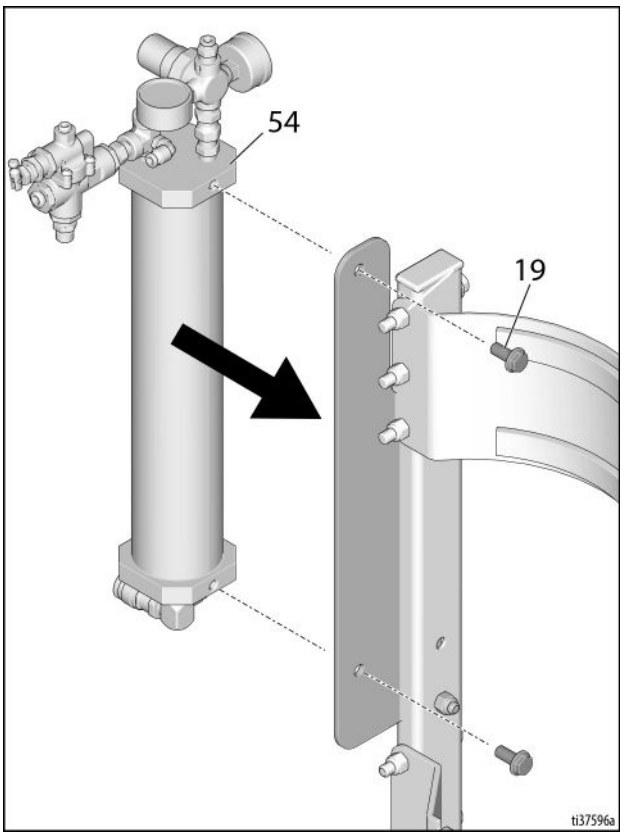


Replacing the compressor requires pulling on the starting rope. To help prevent entanglement, pinching, and potentially serious injury from an unexpected start-up, turn engine off, remove key, and disconnect the battery cable prior to compressor replacement.

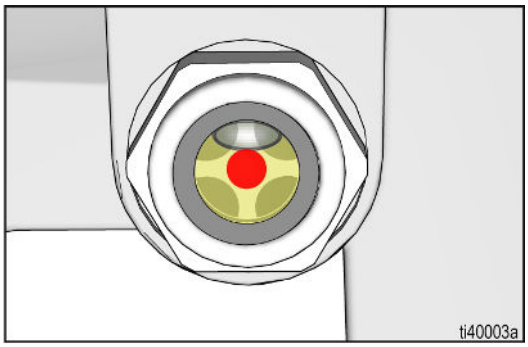
1. Turn engine OFF and remove key. Let engine cool prior to working on it.
2. Disconnect battery cable. Perform **Pressure Relief Procedure** page 4.
3. Disconnect output air line.
4. Using a 9/16 in. wrench, remove air tank and existing air tank bracket. Using the same bolts, plus lock nuts (22), install air bracket (3).



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



6. Remove oil breather from compressor. Pour 4 oz. of included compressor oil into compressor through breather port. Verify oil is above red dot in sight glass.

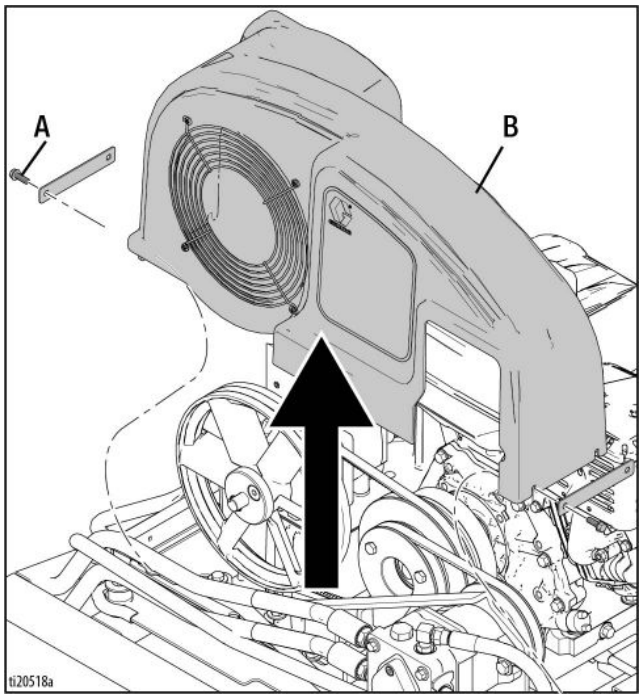


NOTE: Oil level will change at a slower rate than poured as it descends into the crankcase. Pour small amounts at a time, checking between pours.

NOTICE

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

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



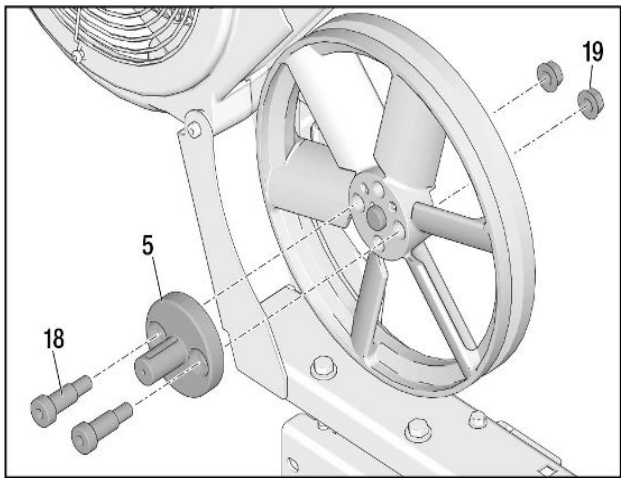
8. Using a 1/4 in. Allen wrench, remove shoulder bolts and serrated nuts securing existing coupler plate.

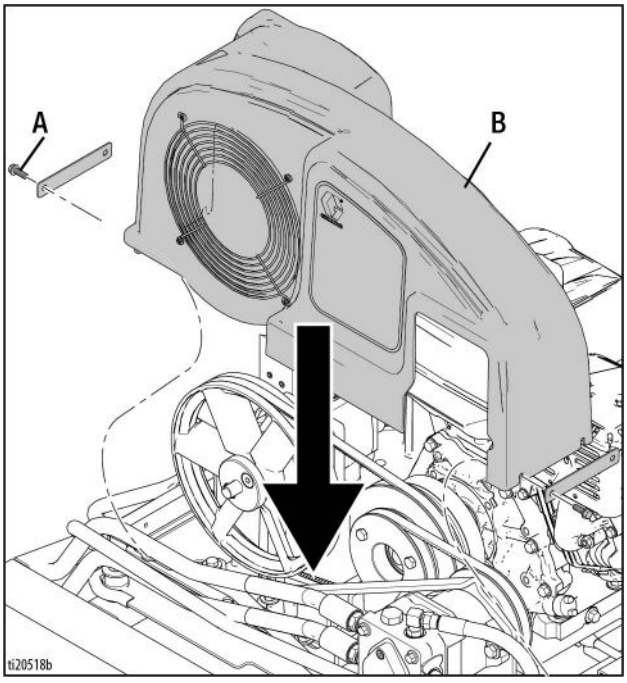
NOTE: Do ***not*** use ball end Allen wrenches, as they may break and become stuck in the set screws.

9. Assure pump shaft extends 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. If necessary loosen set screws on pulley and slide pulley along pump shaft, torque set screws to 58-62 in-lb (6.6-7 N•m).

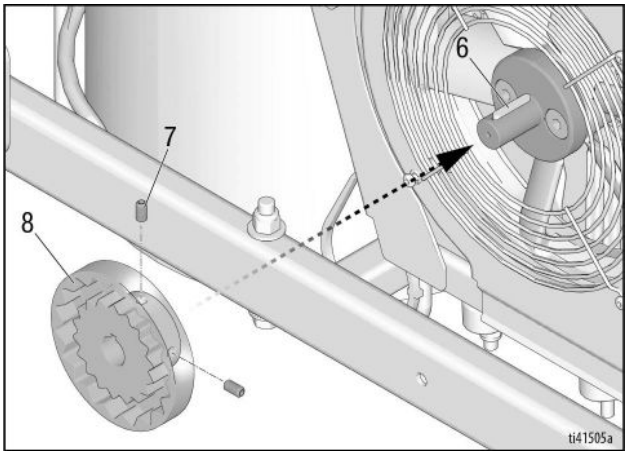
NOTE: Before performing step 14, secure nuts to back of pulley with piece of duct tape to assist with installation.

10. Install coupler mounting plate (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 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). Put belt shroud down.

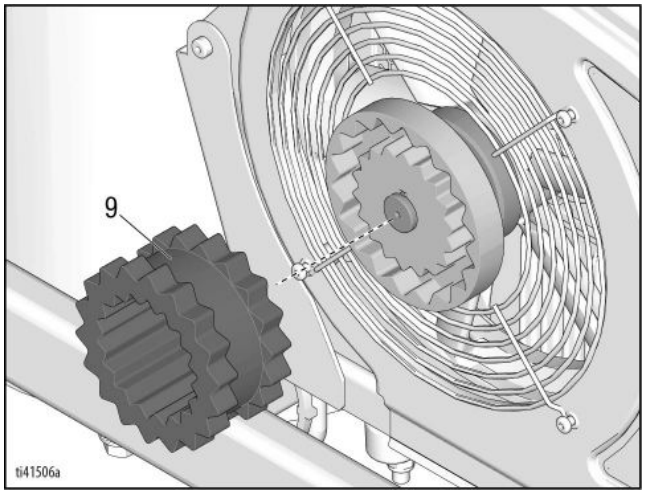




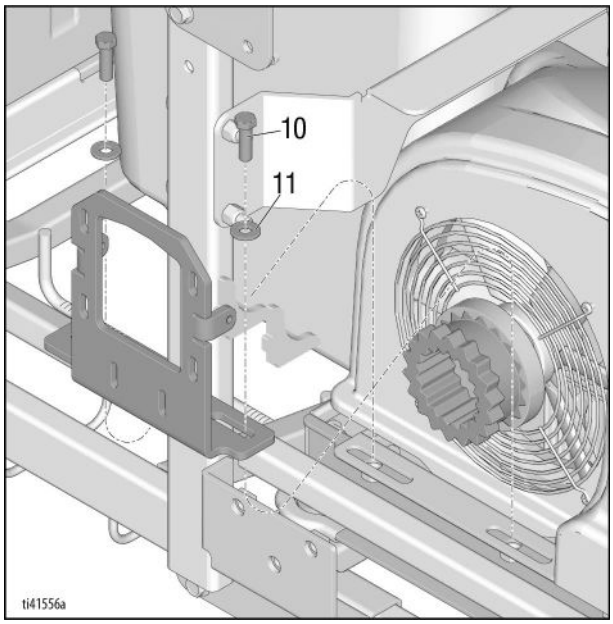
11. Start two set screws (7) into coupler (8). Slide coupler (8) over coupler mount (3), assure key (6) is still in position. Push coupler (8) flush against coupler mount (3) face. Tighten set screws with 1/8 in. Allen wrench to 150-160 in-lb (16.9-18 N•m).



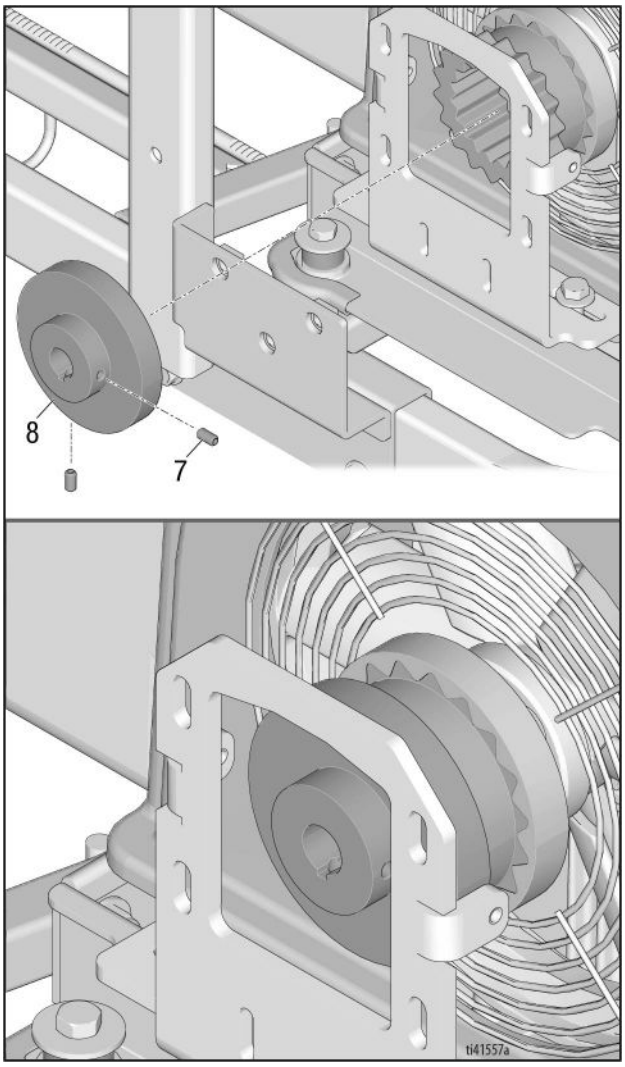
12. Align teeth and slide flex insert (9) all the way into coupler (8).



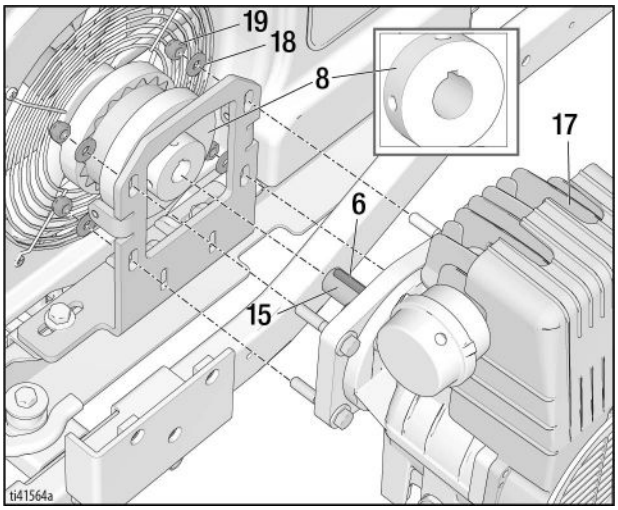
13. Remove existing frame bolts (12) and washers (13) from frame. Using the same bolt and washers, secure mounting bracket (10) to frame. Leave bolts slightly loose to allow for horizontal adjustment in following steps.



14. Start two set screws (7) into second coupler (8). Slide coupler (8) over flex insert (9). Coupler (8) should stay in position, if not it may need to be held until the next step.



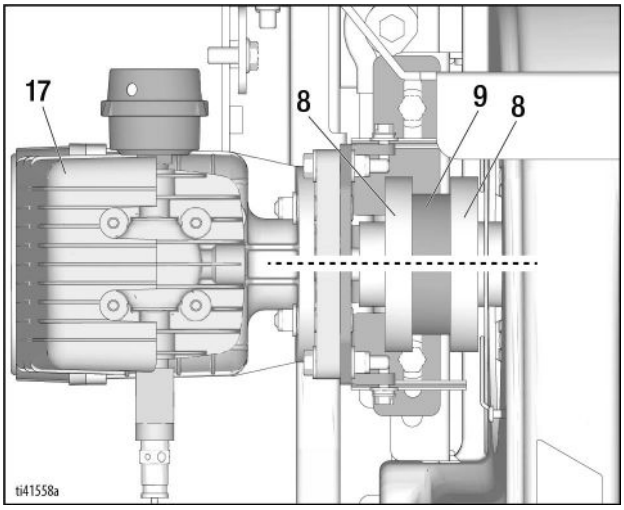
15. Ensure keyway on coupler shaft (15) is on top, rotate as necessary. Place second key (6) in keyway of coupler shaft (15). Align keyway in coupler (8) to receive coupler shaft (15) and key (6). Aligning all four studs (16) with associated vertical slots, slide compressor assembly (17) into mounting bracket so that coupler shaft (15) inserts into coupler (8), ensure key (6) stays in place. Install four washers (18) and four nuts (19) onto four studs, tighten until slightly loose to allow for vertical adjustment.



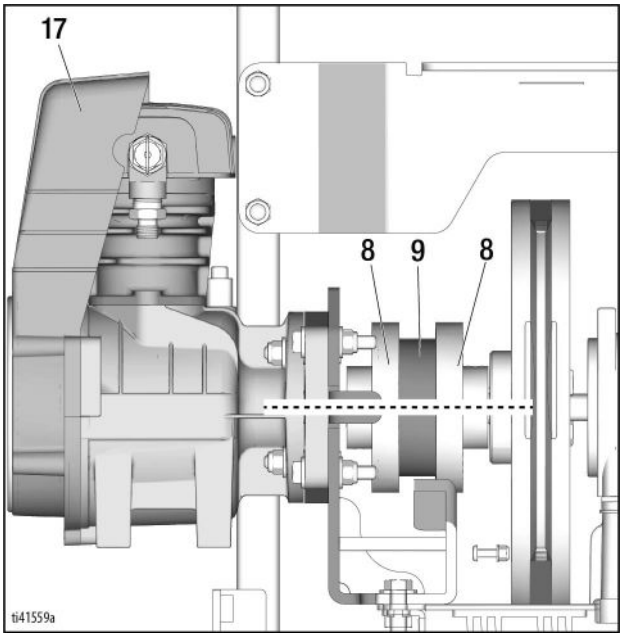
NOTICE

Performing the following step incorrectly may result in improper alignment of the two rotating couplers. This may cause premature wear and require replacement of the flex insert (9).

16. Horizontal Alignment: hold compressor assembly (17) such that when viewed from above both couplers (8) and flex insert (9) are aligned axially. When properly aligned, tighten mounting bracket bolts (12) to frame to 23-27 ft-lbs (31-37 N•m). Horizontal alignment is now complete.

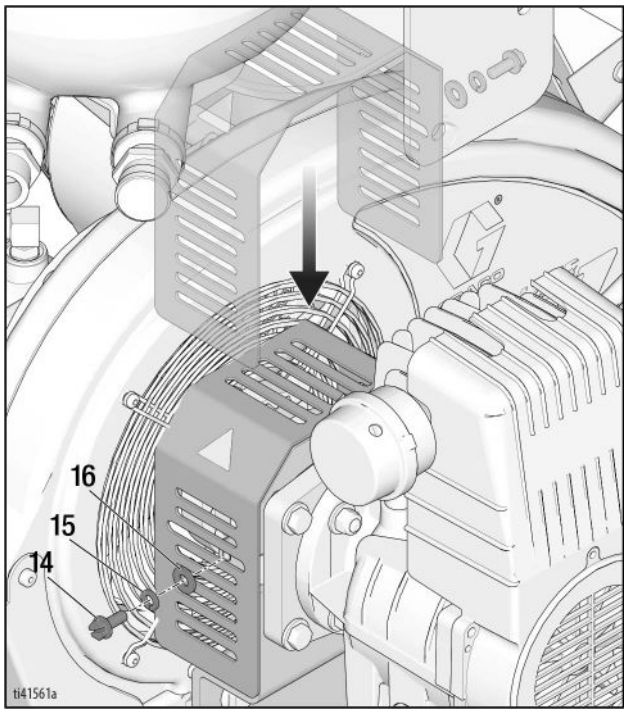


17. Vertical Alignment: hold compressor assembly (17) such that from the side both couplers (8) and flex insert (9) are aligned axially. When properly aligned, tighten four nuts (19) on studs (16) to mounting bracket (10) to 150-160 in-lb (16.9-18 N•m). Vertical alignment is now complete.



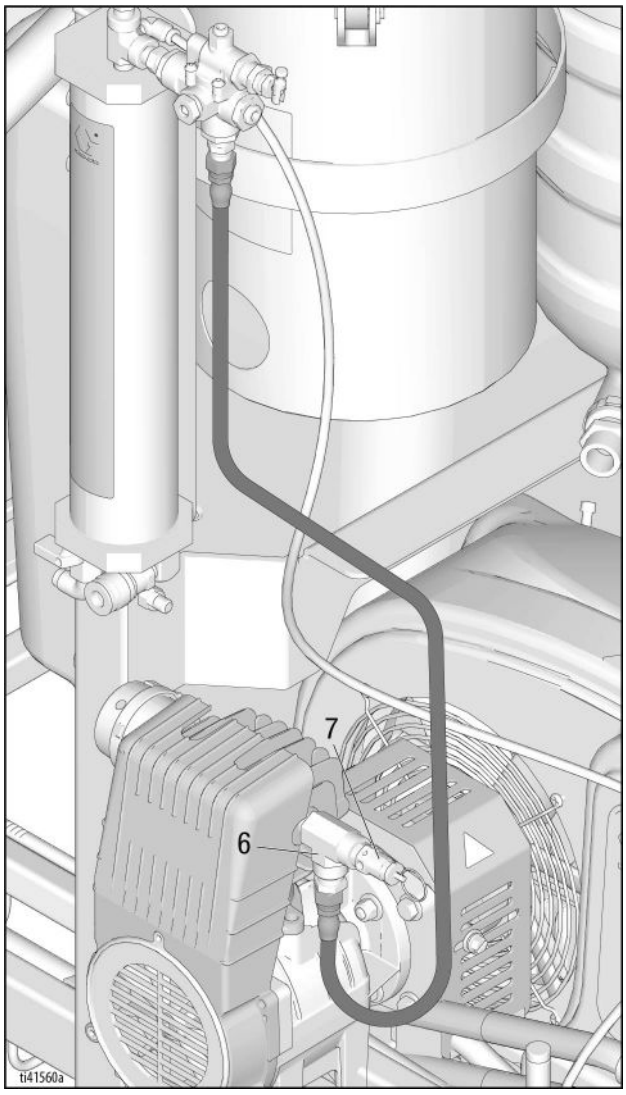
18. With the second coupler (8) still loose on coupler shaft (15), slide coupler (8) against flex insert (9) until flex insert is tightly sandwiched between both couplers. Back coupler (8) off approximately 1/16 in., leaving a slight gap between coupler (8) and flex insert (9). Tighten set screws in loose coupler (8) with 1/8 in. Allen wrench to 150-160 in-lb (16.9-18 N•m). Verify flex insert (9) can wiggle slightly between couplers. Only a slight amount of movement is required.

19. Place guard (20) over mounting bracket (11). Located longest slot on vertical sides (3rd from top), and align with mounting tabs. Install two flat washers (21), two lock washers (22), and two screws (23). Leave slightly loose. Press guard (20) flush against fan guard (24). Ensure minimal (less than 1/4 in.) or no gap between mounting bracket (11) around perimeter. Tighten two screws (23) to 130-150in-lb (14.7-16.9 N•m).



20. Test operation of compressor by running unit. Check for excessive vibration and/or wobble between couplers (8) and flex insert (9). If present, repeat horizontal and vertical alignment steps (steps 16 and 17).

21. Use a 11/16 in. wrench and a 9/16 in. backup wrench to attach the braided hose from the air tank to the tee.



22. Reconnect the battery.

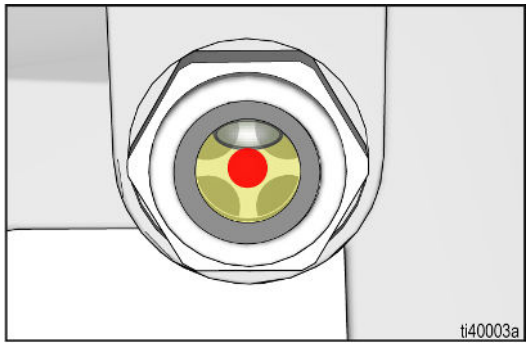
Maintenance



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.

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 is above red dot.



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 4.
- 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

CALIFORNIA RESIDENTS

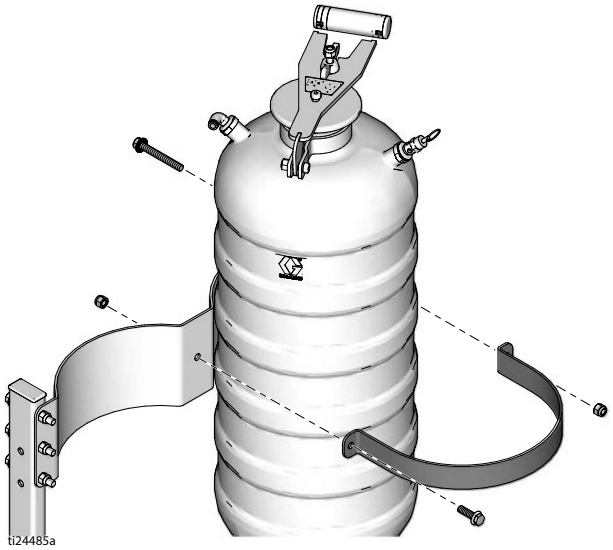
⚠ **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

Bead Tank Mounting

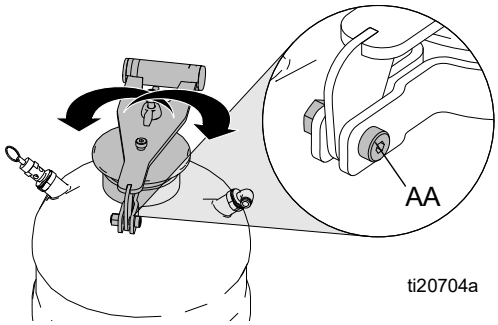
1. When only one bead tank is being installed, it should be placed on the side of the frame furthest from the compressor to best distribute weight.

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

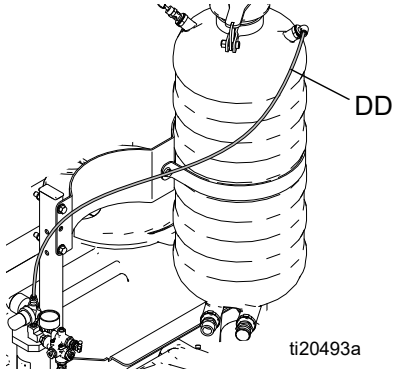
3. Place clamping band around tank and secure with mounting hardware shown below. Tighten until there is no movement between clamp and bead tank. **NOTE:** The flats on the clamp are not intended to touch when hopper bracket is tightened.



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.

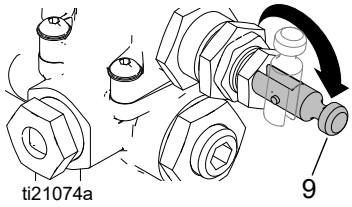


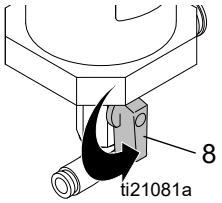
Operation

Charging Air Tank

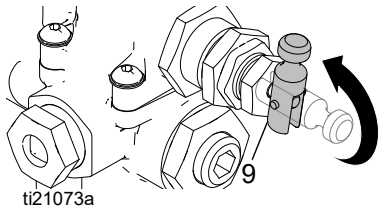
1. Start engine and engage clutch. Compressor is now engaged.

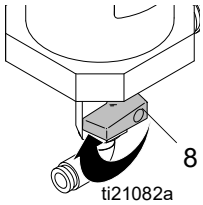
2. If compressor is not needed for a job, move compressor bypass switch (9) to horizontal ON position. Compressor is now exhausting air into atmosphere.



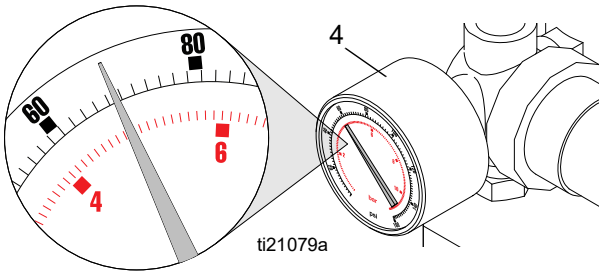


3. Move compressor bypass switch (9) to vertical OFF position to charge air pressure tank. Air tank will continue to charge to 80 psi (5.5 bar, 55 MPa) then cycle between 60-80 psi (4.1-5.5 bar, 41-55 MPa).





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

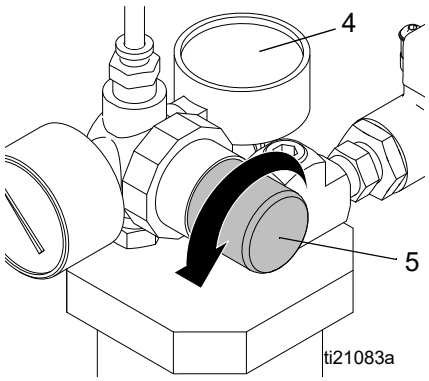


Setting Bead Hopper Pressure

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.



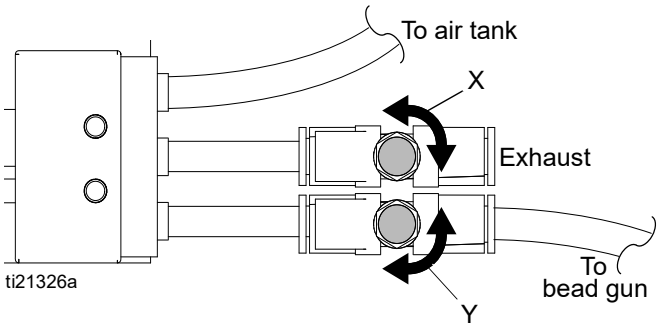
3. See bead flow chart to find proper settings for your application.

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 27.

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.

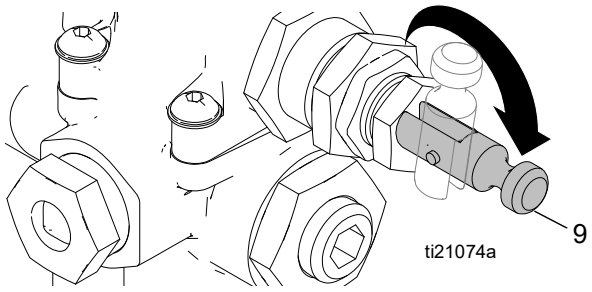
c. For 8 in. width, multiply weight/min value (7.1) x 2 and for 12 in. width x 3.

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	***† 7***	10
4	***† 7.1***	9.5	***† 7***	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

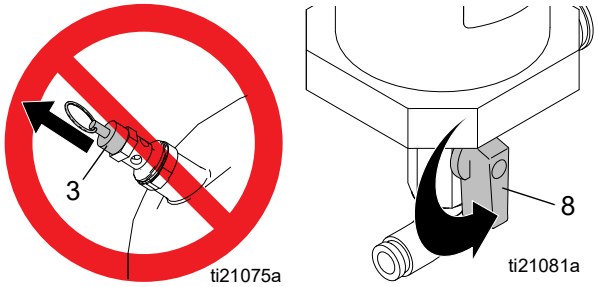
Step 1	Step 2		Step 3		Step 4
Speed	Bead Delivery Requirement (10 cm)		Nozzle Size		Pressure Needed
	720 gram/liter	960 gram/liter	0.234	0.281	
mph	lb/min	lb/min	lb/min	lb/min	psi
2	3.6	4.7	4	5	5
3	5.3	7.1	6	***† 7***	10
4	***† 7.1***	9.5	***† 7***	9	15
5	8.9	11.9	9	11	20
6	10.7	14.2	11	14	25
7	12.4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

Filling Bead Hopper

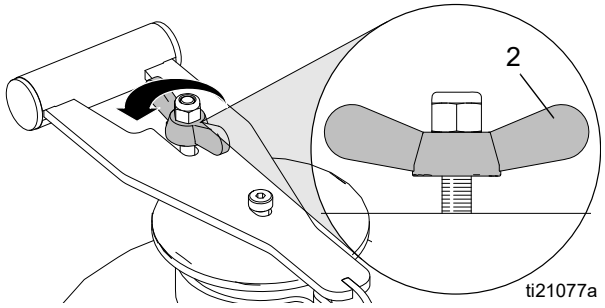
1. Move compressor bypass switch (9) to horizontal position to disengage compressor or turn engine off.



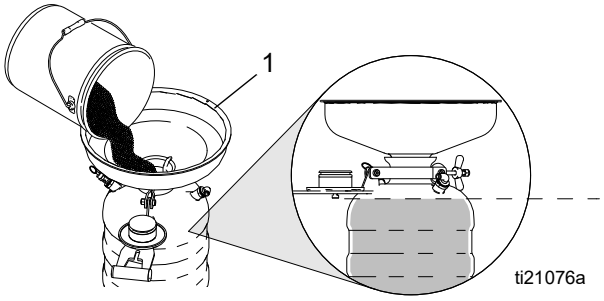
2. Release pressure on bead tank to 0 psi (0 bar, 0 MPa). Turn pressure relief valve (8) to vertical position and watch bead tank pressure gauge (3) until pressure reads 0 psi (0 bar, 0 MPa). Do not use safety valve (3) to release pressure from bead tank.



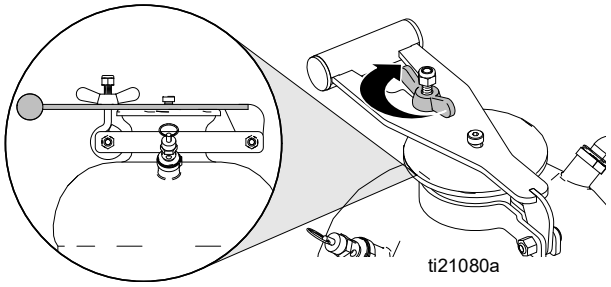
3. Loosen wing nut (2) until it reaches end of threads. If any remaining pressure is in bead tank, it will be released through seal while wing nut secures lid to hopper. Confirm pressure is at 0 psi (0 bar, 0 MPa) and open lid.



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.

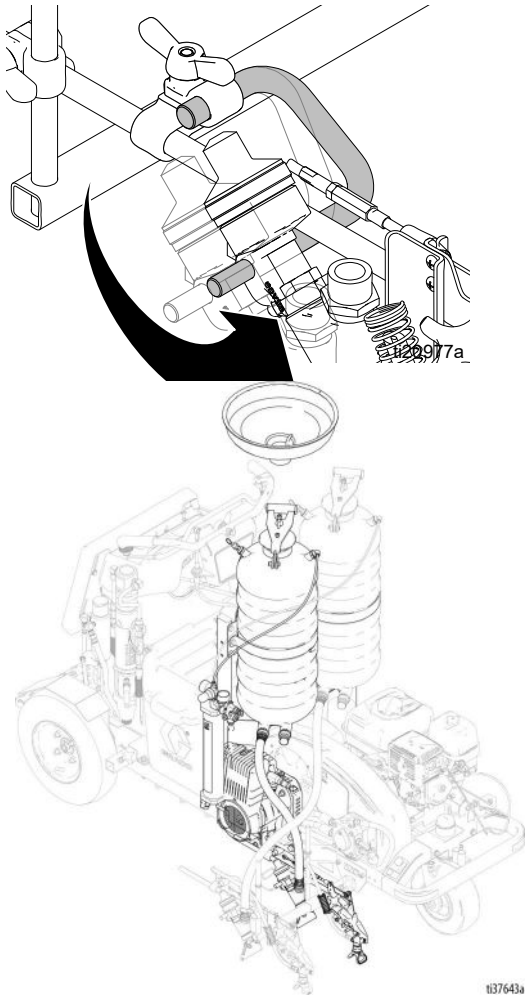


5. Secure lid over opening and tighten wing nut until lid is level with hopper.

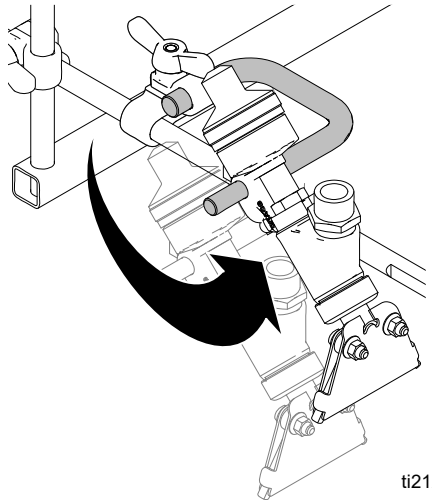


0 to 8 in. Line Setup

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

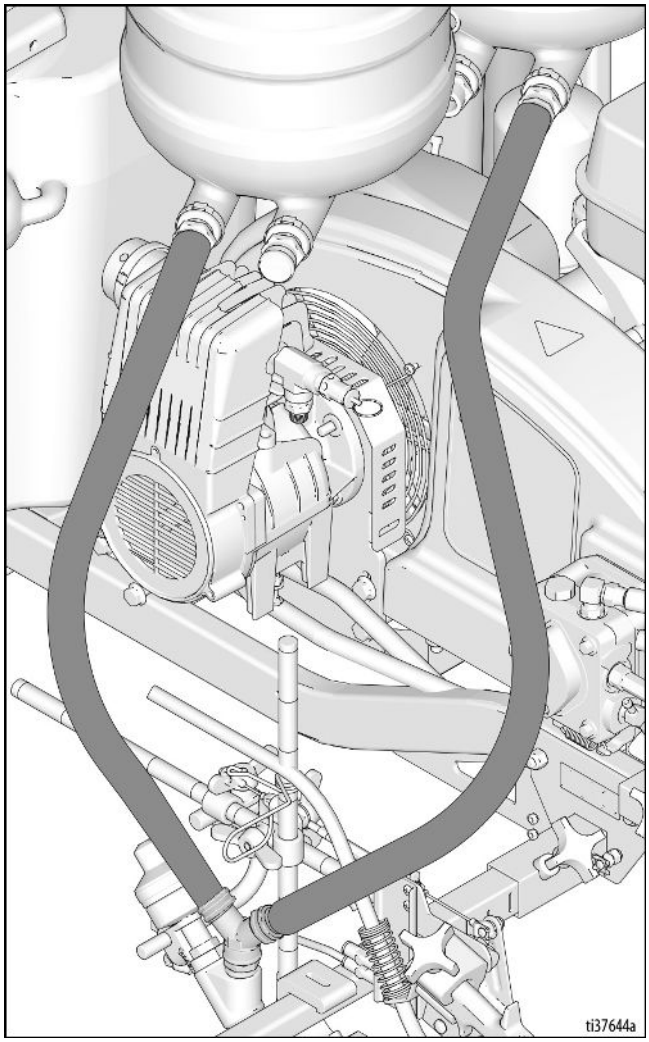


8 - 12 in. Line Setup



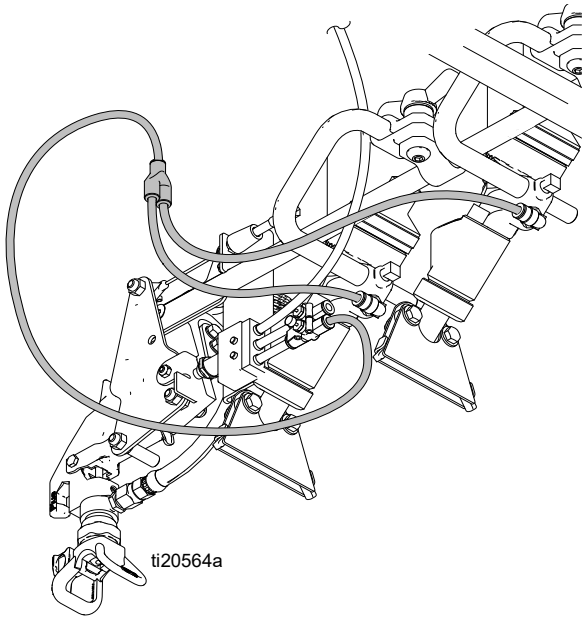
2 Tank 1 Gun Setup

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



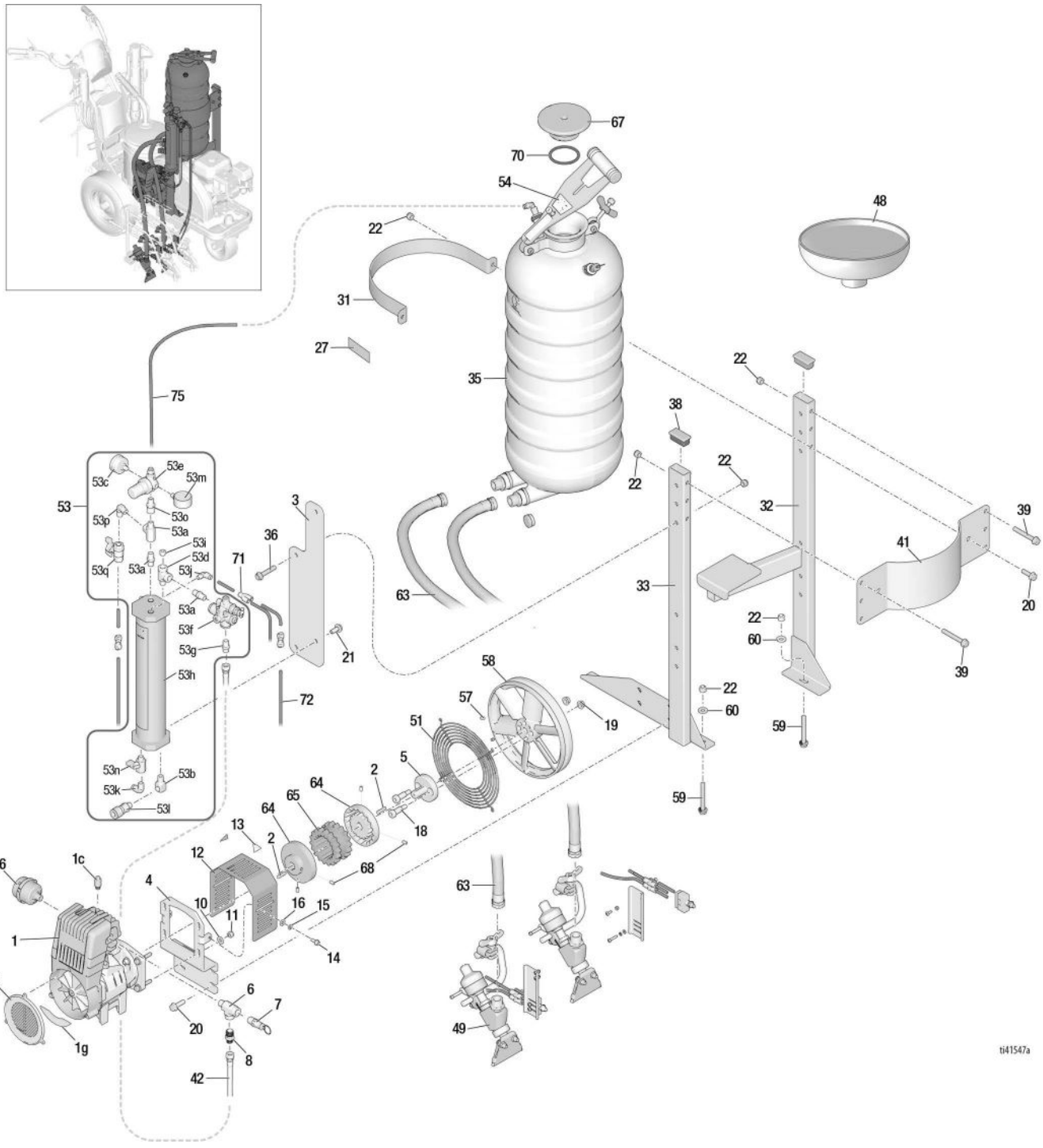
Double Drop Setup

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.



Notes

Parts - Model 25R268



Parts List - 25R268

Ref.	Part	Description	Qty.
1	25U927	KIT, compressor	1
	25R271	KIT, obsolete compressor replacement**	1
1c†	25R114	BREATHER, oil	1
1f†	26D804	COVER, fan	1
1g†	25R330	GASKET, adhesive, compression	1
2	25U876	KEY, square, 3/16 x 1.125	2
3	25P599	BRACKET, air tank	1
4	25U879	BRACKET, compressor	1
5	25U884	COUPLER, mounting plate	1
6†	124490	FITTING, tee, street	1
7†	113769	VALVE, safety	1
8†	164672	ADAPTER	1
10	100527	WASHER, flat	4
11	111040	NUT, lock, insert, nylock, 5/16	4
12	25U885	GUARD, compressor	1
13▲	15H108	LABEL, safety, warning, pinch	2
14	108296	SCREW, mach, hex wash hd	3
15	100016	WASHER, lock	3
16	110755	WASHER, flt, 1/4 in.	3
18	126833	SCREW, shoulder, socket head	2
19	112958	NUT, hex, flanged, 3/8-16	2
20	111193	SCREW, cap flange hd	6
21	111192	SCREW, cap flange hd	2
22	101566	NUT, lock	1
23	113500	ADHESIVE, anaerobic	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, *includes 67 & 70*	1
36	111194	SCREW, cap flange hd	2
38	115087	PLUG, tubing	2
39	121488	SCREW, hex hd, flanged	6
41	16T593	BRACKET, bead tank, LL200, painted	1
42	16T939	HOSE, coupled	1
45	16U273	HOSE, pneumatic	1
48	16T437	FUNNEL, bead tank	1
49	16R963	KIT, accessory, bead gun	1
50	404989	STRAP, tie	2
51	16U273	GRILL, fan guard	1
52▲	16C394	LABEL, safety, warning, entangle	1
53	16U025	KIT, tank, pressure, *includes 53a-53o*	1
53a	156971	FITTING, nipple, short	2
53b	187357	ELBOW,street	1
53c	16W088	GAUGE, air pressure	1
53d	17C463	FITTING, tee, street, modification	1
53e	16U375	REGULATOR	1
53f	126804	REGULATOR, unloader	1
53g	162453	FITTING, 1/4 NPT	1
53h	16U174	TANK, pressure	1
53i	101970	PLUG, pipe	1
53j	118486	FITTING, elbow, push	1
53k	113321	FITTING, elbow, tube	1
53l	116720	COUPLER, quick disconnect	1
53m	104655	GAUGE, press air	1
53n	15B565	VALVE, ball	1
53o	156823	FITTING, union, swivel	1
54▲	16U788	LABEL, pressure	1
55	189919	BLANK, label, kit	1
57	101962	SCREW, set, sch, 1/4-20	2
58	16U205	PULLEY, fan w/ attachment holes	1
59	125626	SCREW, hex hd, flanged	3
60	100023	WASHER, flat	3
61	125809	LUBRICANT, oil, synthetic	1
62	119400	SEALANT, pipe, stainless steel	1
63*	16T829	HOSE, bead, 3/4 in., clean	2
64	25U930	HUB, flex shaft coupling	2
65	25U874	INSERT, flex shaft coupling	1
66†	25R115	FILTER, air, compressor	1
67	16T601	LID, bead tank	1
68★	120087	SCREW, set 1/4 x 1/2	4
70	113755	O-RING	1
71*	115287	FITTING, Y tube	1
72*	16U274	HOSE, pneumatic	1
75	16U273	HOSE, pneumatic	1

** Included in set 16R963*

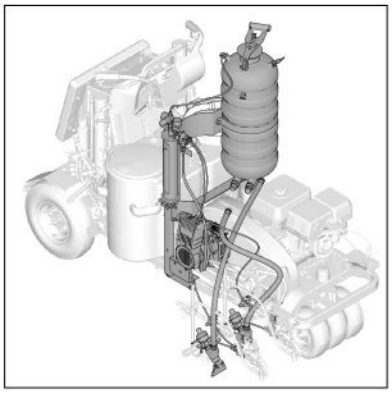
† *Included in set 25U927*

★ *Included in 25U930*

*** For replacement of obsolete dual cylinder compressor with single cylinder oil-bath sealed compressor.*

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

Parts - Model 25R270



Parts List - Model 25R270

Ref.	Part	Description	Qty.
1	25U927	KIT, compressor	1
	25R272	KIT, obsolete compressor replacement**	1
1c†	25R114	BREATHER, oil	1
1f†	26D804	COVER, fan	1
1g†	25R330	GASKET, adhesive, compresion	1
2	25U876	KEY, square, 3/16 x 1.125	2
3	25P603	BRACKET, air tank LL250	1
4	25U882	BRACKET, compressor 250	1
5	25U884	COUPLER, mounting plate	1
6†	124490	FITTING, tee, street	1
7†	113769	VALVE, safety	1
8†	164672	FITTING, adapter	1
10	100527	WASHER, flat	4
11	111040	NUT, lock, insert, nylock 5/16	4
12	25U931	GUARD, compressor	1
13▲	15H108	LABEL, safety, warning, pinch	2
14	108296	SCREW, mach, hex	3
15	100016	WASHER, lock	3
16	110755	WASHER, flat, 1/4 in.	3
18	126833	SCREW, shoulder, socket head	2
19	112958	NUT, hex, flanged, 3/8-16	2
20	111193	SCREW, cap, flange hd.	1
21	113500	ADHESIVE, anaerobic	1
22	101566	NUT, lock	17
27▲	194668	LABEL, notice, glass bead	1
31	16T580	BAND, clamping, bead tank	1
32	16T698	FRAME, bead tank, painted, LL250, left	1
33	16T697	FRAME, bead tank, painted, LL250, right	1
34	16T596	BASE, bead tank frame, LL250	1
35	16T629	TANK, bead, *includes 67 & 70*	1
36	111194	SCREW, cap flange hd	6
38	115087	PLUG, tubing	2
39	125626	SCREW, hex hd, flanged	6
41	16T594	BRACKET, bead hopper, LL250, painted	1
42	16T939	HOSE, coupled	1
45	404989	STRAP, tie	2
48	16T437	FUNNEL, bead tank	1
49	16R963	KIT, accessory, bead gun	1
51	16U327	GRILL, fan guard	1
53	16U025	KIT, tank, pressure, *includes 53a-53o*	1
53a	156971	FITTING, nipple, short	2
53b	187357	ELBOW,street	1
53c	16W088	GAUGE, air pressure	1
53d	17C463	FITTING, tee, street, modification	1
53e	16U375	REGULATOR	1
53f	126804	REGULATOR, unloader	1
53g	162453	FITTING, 1/4 NPT	1
53h	16U174	TANK, pressure	1
53i	101970	PLUG, pipe	1
53j	118486	FITTING, elbow, push	1
53k	113321	FITTING, elbow, tube	1
53l	116720	COUPLER, quick disconnect	1
53m	104655	GAUGE, press air	1
53n	15B565	VALVE, ball	1
53o	156823	FITTING, union, swivel	1
54▲	16U788	LABEL, pressure	1
56	189919	BLANK, label, kit	1
57	101962	SCREW, set, sch, 1/4-20	2
58	16U205	PULLEY, fan w/ attachment holes	1
61	125809	LUBRICANT, oil, synthetic	1
62	119400	SEALANT, pipe, stainless steel	1
63*	16T829	HOSE, bead, 3/4 in., clean	2
64	25U930	HUB, flex shaft coupling	2
65	25U874	INSERT, flex shaft coupling	1
66†	25R115	FILTER, air, compressor	1
67	16T601	LID, bead tank	1
68★	120087	SCREW, set 1/4x1/2	4
70	113755	O-RING	1
71*	115287	FITTING, Y tube	1
72*	16U274	HOSE, pneumatic	1
73	124258	BOLT, carriage	4
74	100023	WASHER, flat	4
75	16U273	HOSE, pneumatic	1
76❊	25U875	TRIM, edge protection	2

* *Included in set 16R963*

† *Included in set 25U927*

★ *Included in 25U930*

❊ *Included in 25U931*

** *For replacement of obsolete dual cylinder compressor with single cylinder oil-bath sealed compressor.*

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

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