Repair

Compressor Replacement for LineLazer™ 200 and LineLazer™ 250

3A7388C

EN

For use on LineLazer Line Stripers to replace compressor used with Pressurized Bead System. For professional use only.

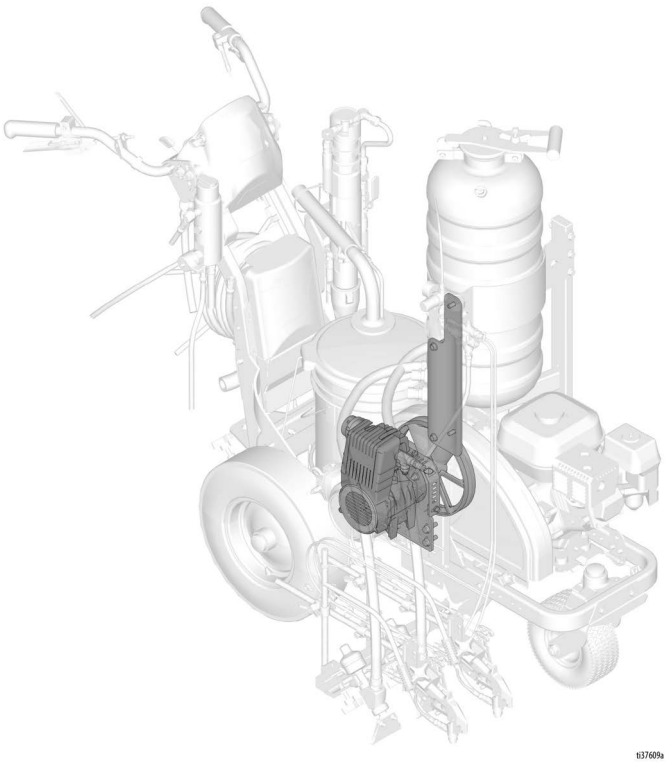
Model for LL200: 25R271
Model for LL250: 25R272

Important Safety Instructions

Read all warnings and instructions in this manual and in your Complete Pressurized Bead System Installation manual before using the equipment. Save all instructions.

Related Manuals

Manual in English	Description
332230	Complete Pressurized Bead System Installation
3A3390	LineLazer 200HS/DC Repair and Parts
3A6466	LineLazer 200MMA Operation
334053	LineLazer 250DC Repair
3A3394	LineLazer 250SPS/DC Repair and Parts



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PROVEN QUALITY. LEADING TECHNOLOGY.

Contents

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


PRESSURIZED EQUIPMENT HAZARD

Fluid from the equipment, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.

- Follow the **Pressure Relief Procedure** when you stop spraying/dispensing and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.


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.
- Equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.


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.

BURN HAZARD

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

- Do not touch hot fluid or equipment.

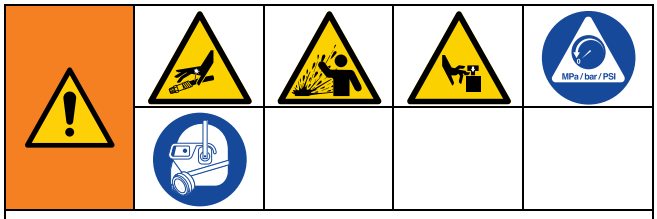
PERSONAL PROTECTIVE EQUIPMENT

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. Protective equipment includes but is not limited to:

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

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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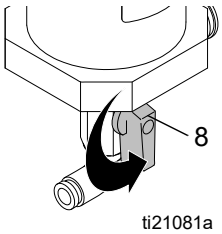

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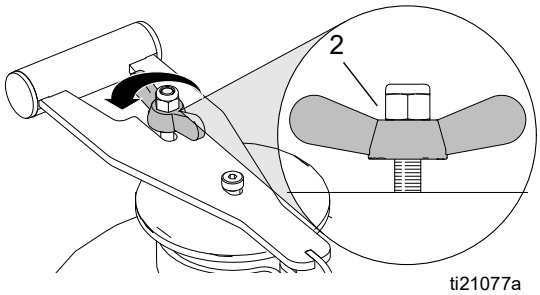
3. Loosen wing nut (2) until it reaches end of threads. If any remaining pressure is in bead tank, it will be released through seal while wing nut secures lid to hopper. Confirm pressure is at 0 psi (0 bar, 0 MPa) and open lid.



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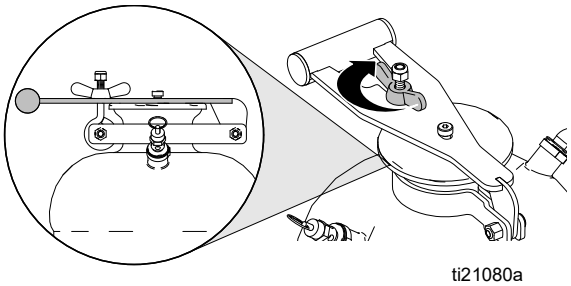
4. Secure lid over opening and tighten wing nut until lid is level with hopper.



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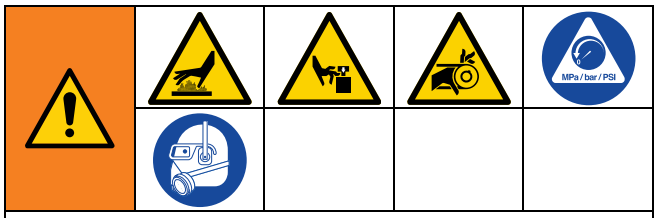
LL200 Compressor Removal

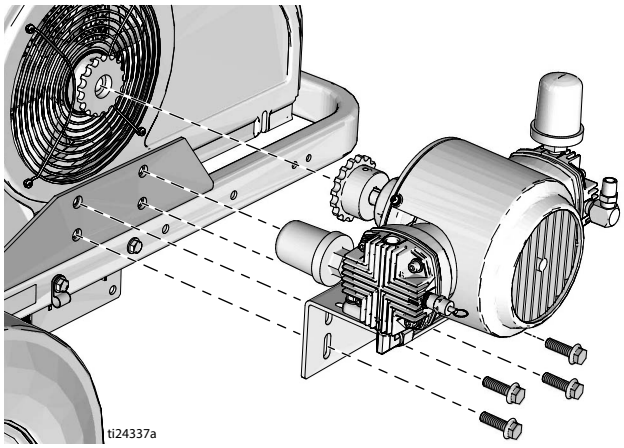
Tools Needed:

- 1/8 in. Allen wrench
- 9/16 in. wrench

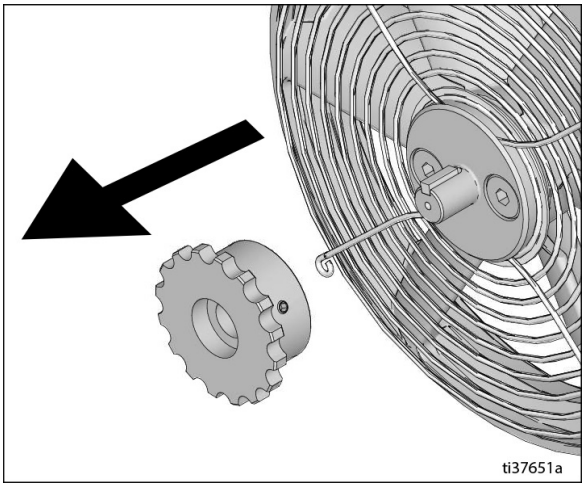


To prevent injuries from burns, let unit cool prior to working on it.

1. Turn engine OFF. Let engine cool prior to working on it.
2. Disconnect spark plug wire on engine. Perform **Pressure Relief Procedure**, page 4.
3. Disconnect output air line.
4. Remove three pan head screws, flat washers, and lock washers holding coupler guard in place. Remove coupler guard.
5. Remove spring clip and connecting pin on chain. Remove chain from around both sprockets.
6. Using a 9/16 in. wrench, remove four screws between compressor bracket and frame. Remove compressor.



7. Using a 1/8 in. Allen wrench, remove coupler set screw. Remove chain coupler from plate coupler.



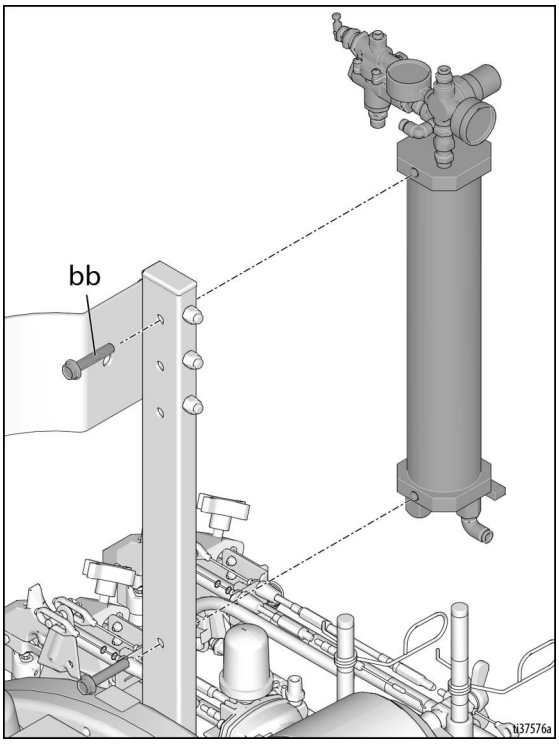
LL200 Compressor Installation

Tools Needed:

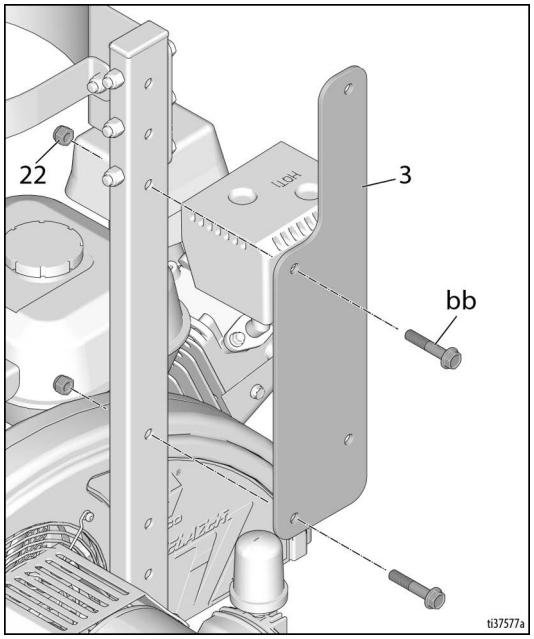
- 2.5 mm Allen wrench
- 1/4 in. Allen wrench
- 1/8 in. Allen wrench
- 7/16 in. wrench
- 9/16 in. wrench
- 11/16 in. wrench
- Rubber Mallet

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.

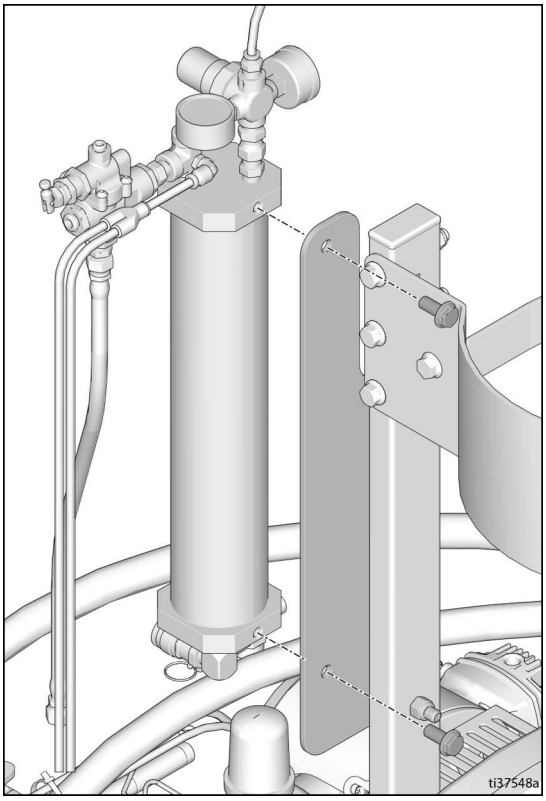
1. Turn engine OFF. Let engine cool prior to working on it.
2. Disconnect spark plug on engine. Perform **Pressure Relief Procedure**, page 4.
3. Disconnect output air line.
4. Using a 9/16 in. wrench, remove air tank from frame.



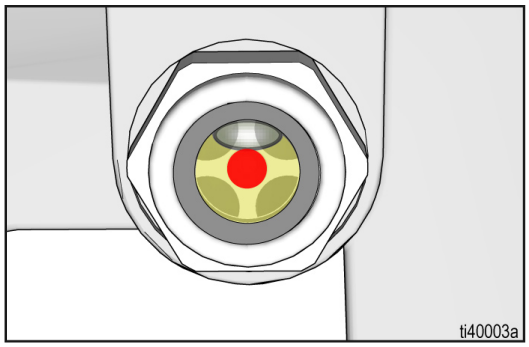
5. Using same bolts (bb) and lock nuts (22), install air tank bracket (3).



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.

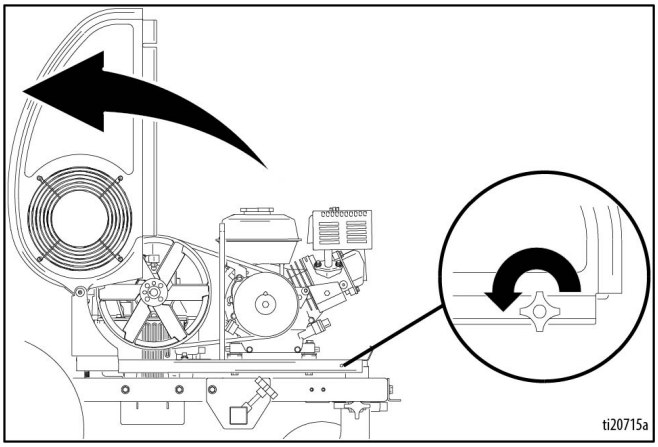


NOTE: Oil level will change at a slower rate than poured as it descends into the crankcase. Pour small amounts at a time, checking between pours.

NOTICE

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

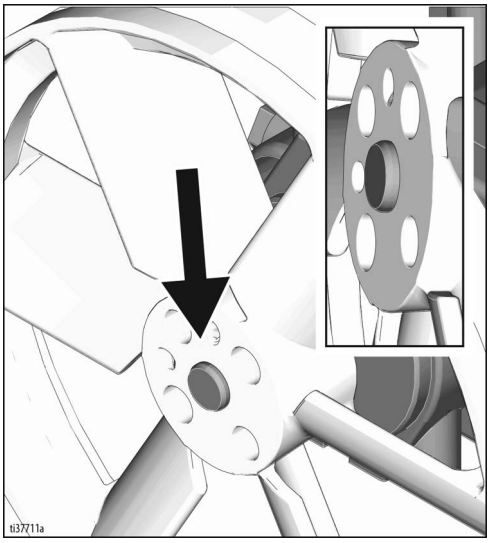
8. Remove hopper. Locate belt shroud. Loosen knob and rotate shroud.



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

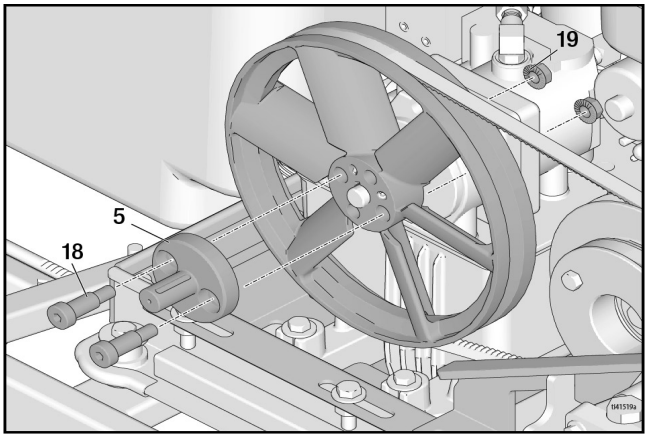
NOTE: Do ***not*** use ball end Allen wrenches, as they may break and become stuck in the screws.

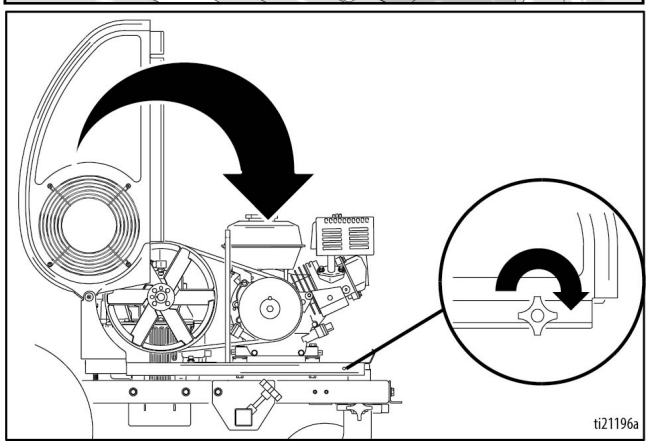
10. Assure pump shaft extends 0.125-0.225 in. (3.175-5.73 mm) beyond the face of the pulley. The pump shaft is the pilot for the coupler adapter. If necessary loosen set screws on pulley and slide pulley along pump shaft, torque set screws to 58-62 in-lb (6.6-7 N•m).



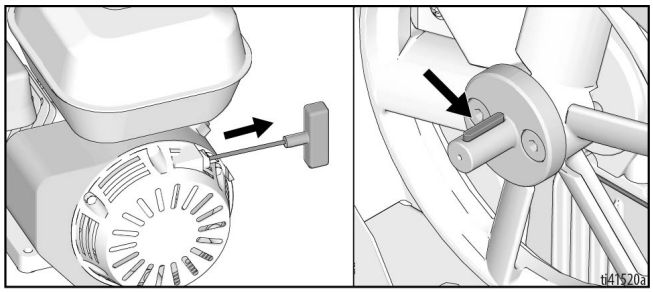
NOTE: Before performing step 13, secure nuts to back of pulley with piece of duct tape to assist with installation.

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.

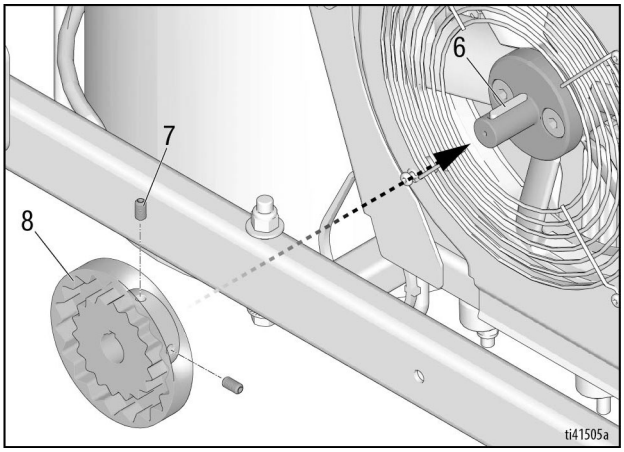




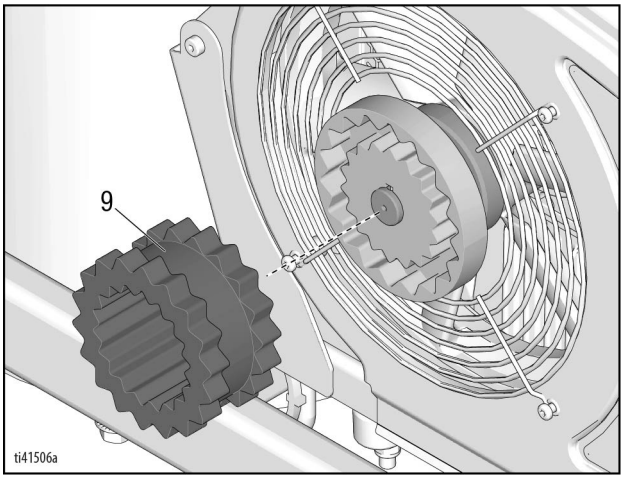
12. Slowly pull the starter rope to rotate shaft so that the shaft keyway (5) faces up. Place the key (2) into the shaft keyway. A light tap with a rubber mallet may be needed to ensure the key seats completely.



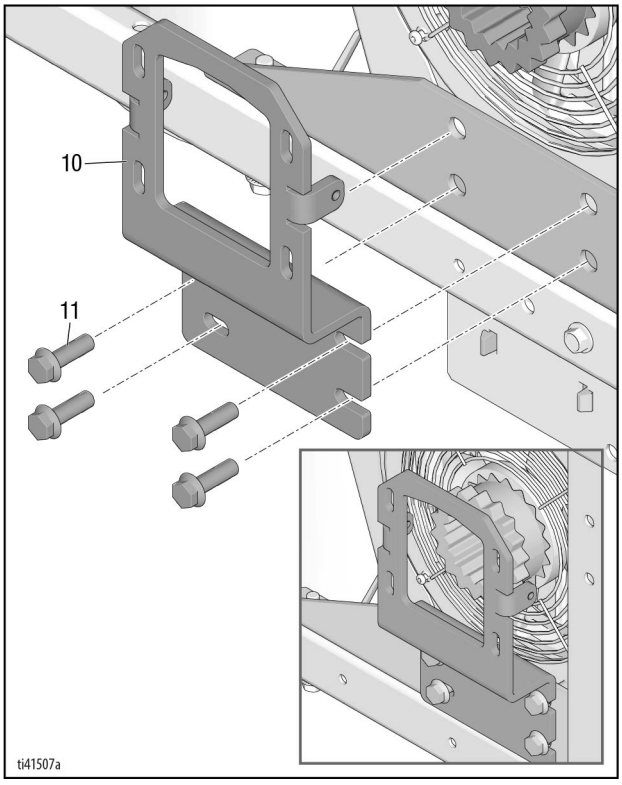
13. Start two set screws (7) into coupler (8). Slide coupler (8) over coupler mount (5), assure key (6) is still in position. Push coupler (8) flush against coupler mount (3) face. Tighten set screws with 1/8 in. Allen wrench to 150-160 in-lb (16.9-18 N•m).



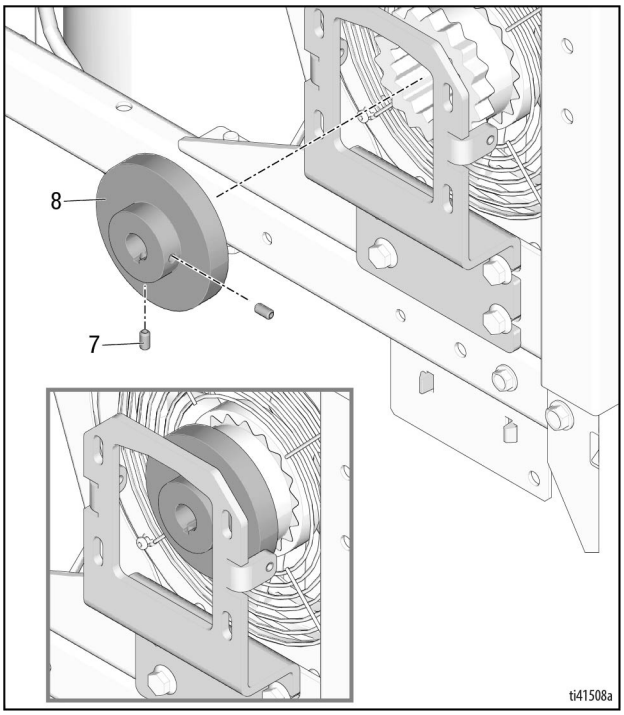
14. Align teeth and slide flex insert (9) all the way into coupler (8).



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



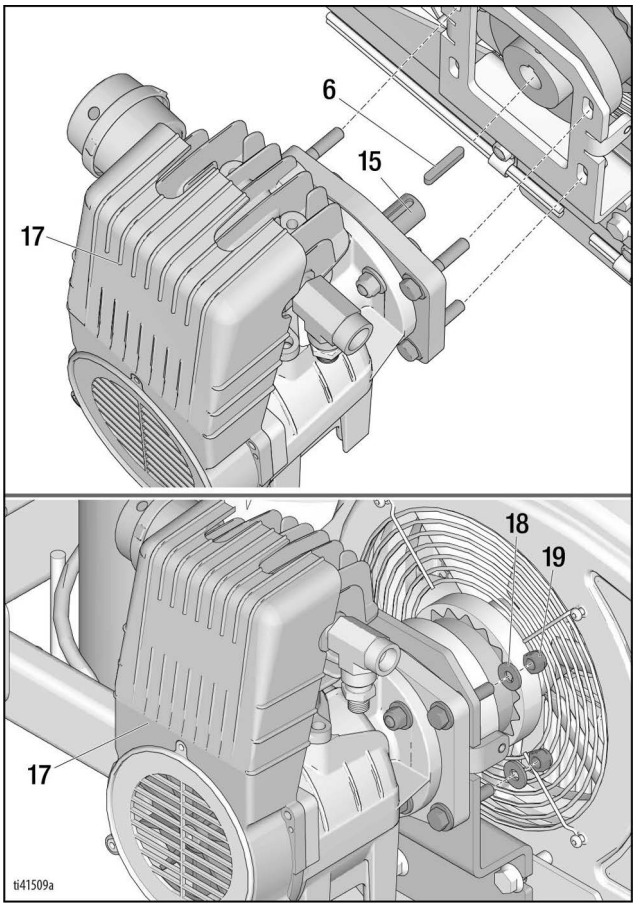
16. Start two set screws (7) into second coupler (8). Slide coupler (8) over flex insert (9). Coupler (8) should stay in position, if not it may need to be held until the next step.



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.

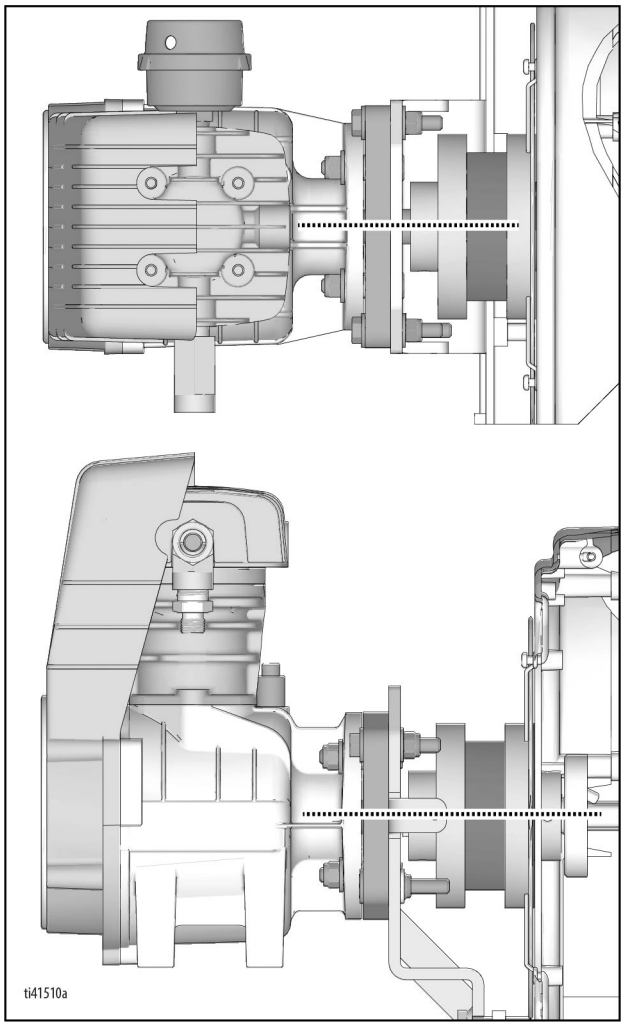
NOTICE

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).



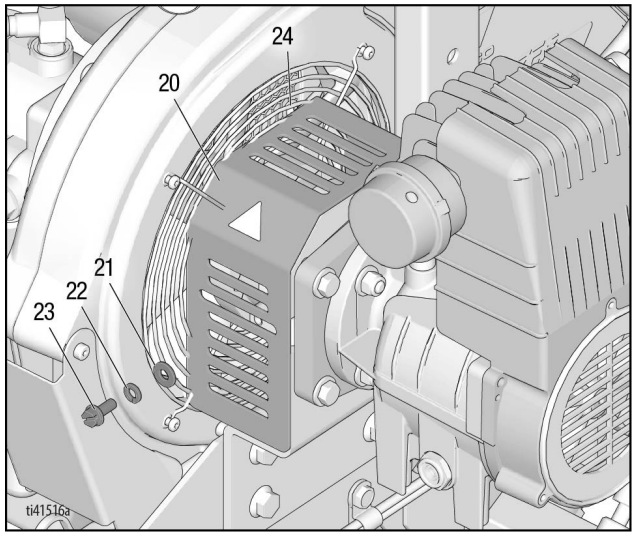
18. Horizontal Alignment: hold compressor assembly (17) such that when viewed from above both couplers (8) and flex insert (9) are aligned axially.When properly aligned, tighten mounting bracket bolts (11) to frame to 23-27 ft-lbs (31-37 N•m). Horizontal alignment is now complete.

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.



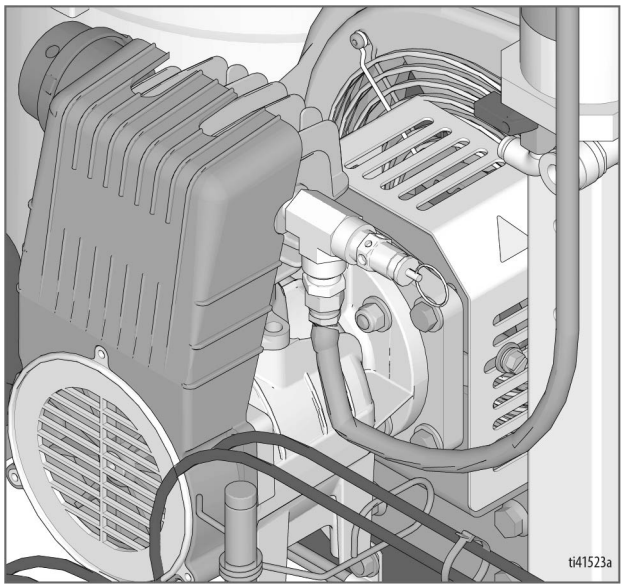
20. With the second coupler (8) still loose on coupler shaft (15), slide coupler (8) against flex insert (9) until flex insert is tightly sandwiched between both couplers. Back coupler (8) off approximately 1/16 in., leaving a slight gap between coupler (8) and flex insert (9). Tighten set screws in 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.

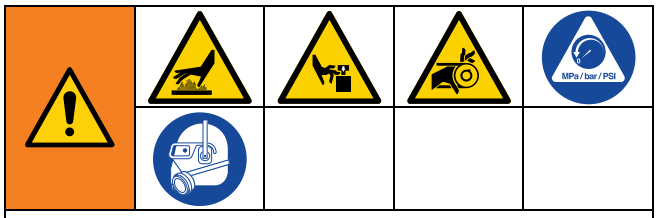


24. Reconnect spark plug wire.

LL250 Compressor Removal

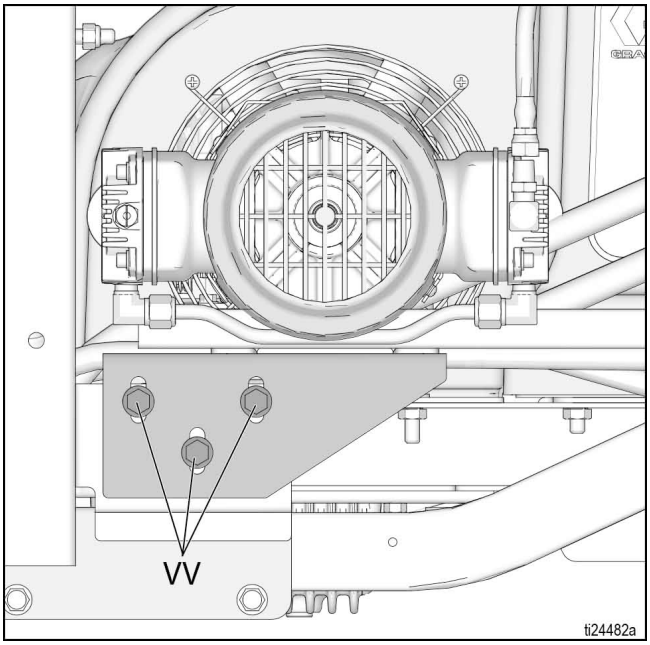
Tools Needed:

- 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

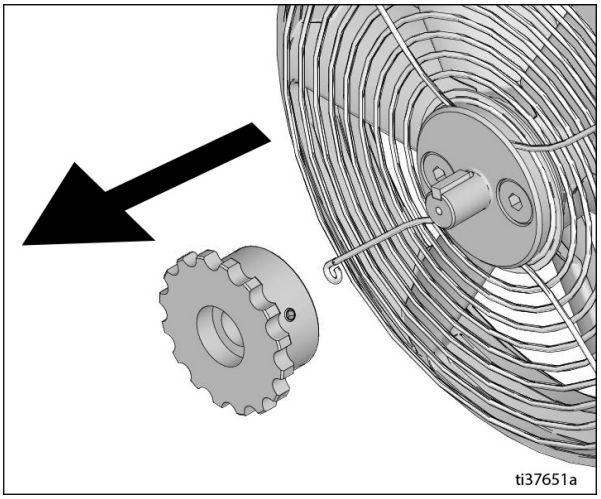


To prevent injuries from burns, let unit cool prior to working on it.

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. Remove three pan head screws, flat washers, and lock washers holding coupler guard in place. Remove coupler guard.
5. Remove spring clip and connecting pin on chain. Remove chain from around both sprockets.
6. Using a 9/16 in. wrench, remove three screws (VV) on the compressor bracket.



7. Using a 1/8 in. Allen wrench, remove coupler set screw. Remove chain coupler from plate coupler.



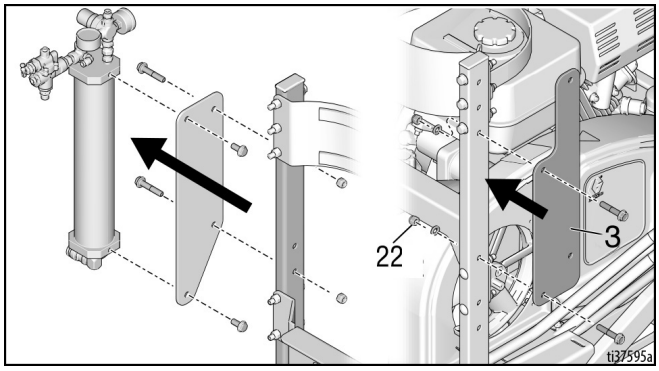
LL250 Compressor Installation

Tools Needed:

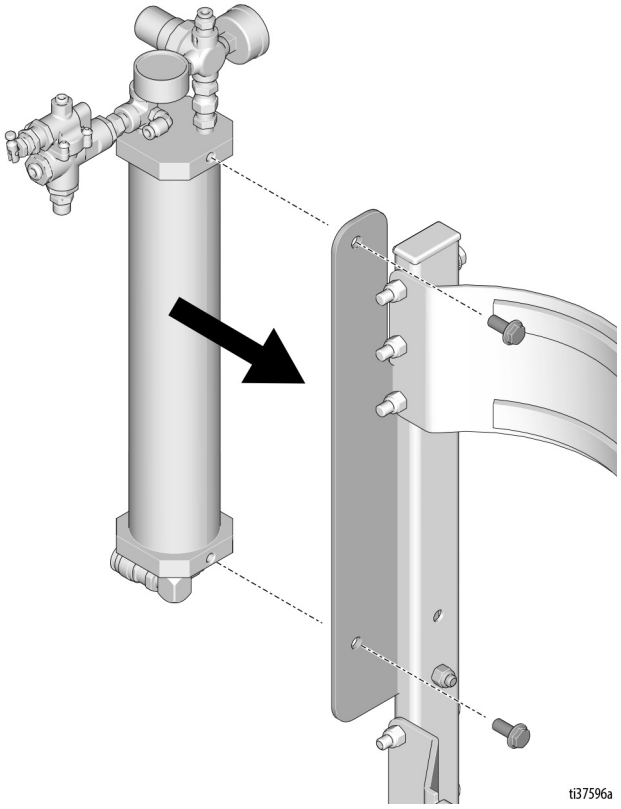
- 2.5 mm Allen wrench
- 4.0 mm Allen wrench
- 1/4 in. Allen wrench
- 7/16 in. wrench
- 9/16 in. wrench
- 11/16 in. wrench
- T-20 star bit
- Rubber Mallet
- Phillips screwdriver

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.

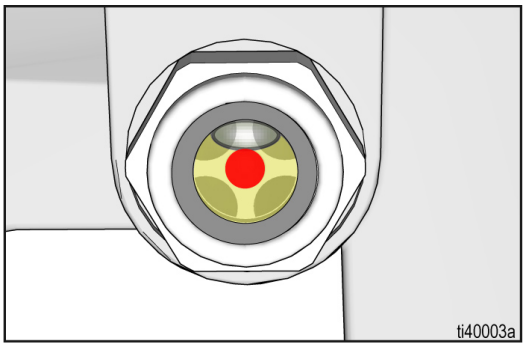
1. Turn engine OFF and remove key. Let engine cool prior to working on it.
2. Disconnect battery cable. Perform **Pressure Relief Procedure** page 4.
3. Disconnect output air line.
4. Using a 9/16 in. wrench, remove air tank and existing air tank bracket. Using the same bolts, plus lock nuts (22), install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



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



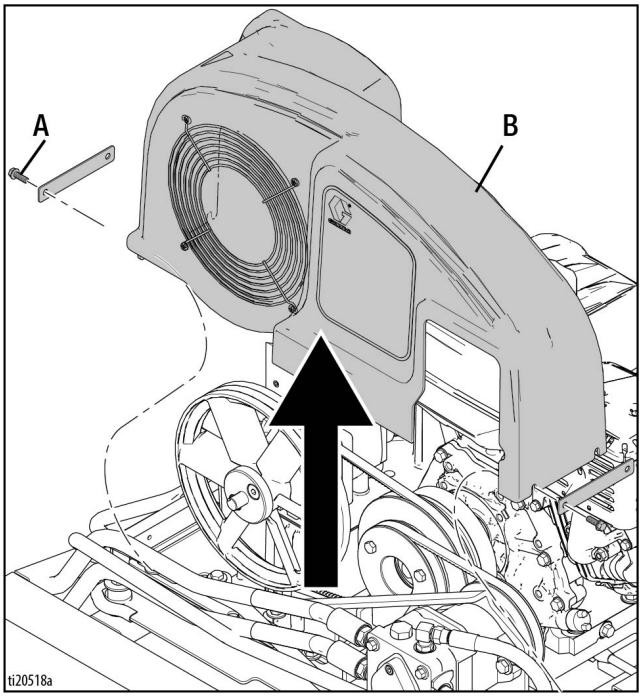
6. Remove oil breather from compressor. Pour 4 oz. of included compressor oil into compressor through breather port. Verify oil is above red dot in sight glass.



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).



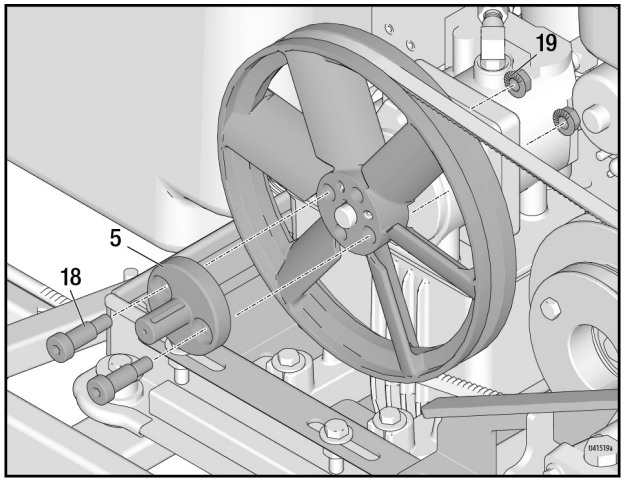
8. Using a 1/4 in. Allen wrench, remove shoulder bolts and serrated nuts securing existing coupler plate.

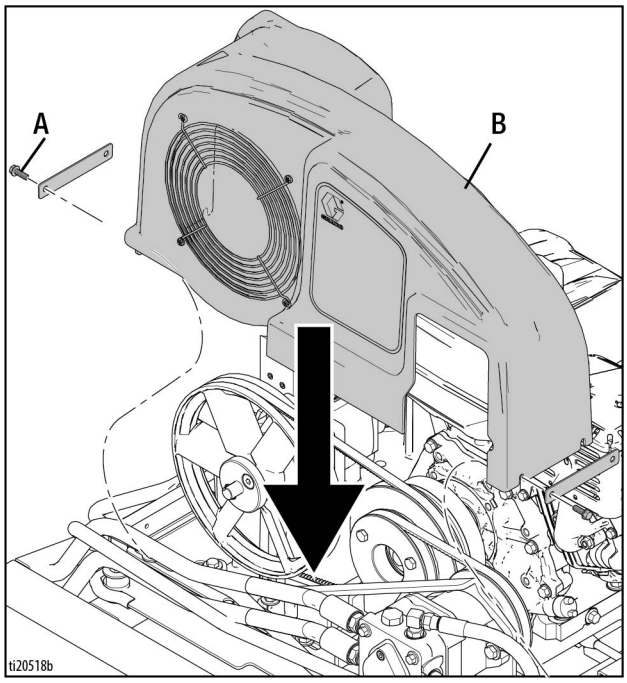
NOTE: Do ***not*** use ball end Allen wrenches, as they may break and become stuck in the set screws.

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).

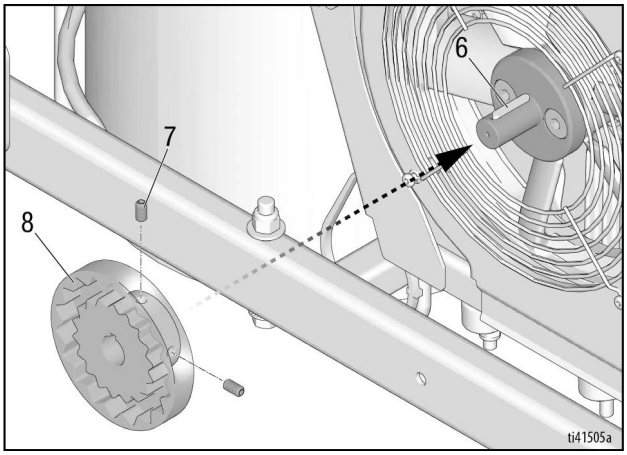
NOTE: Before performing step 14, secure nuts to back of pulley with piece of duct tape to assist with installation.

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.

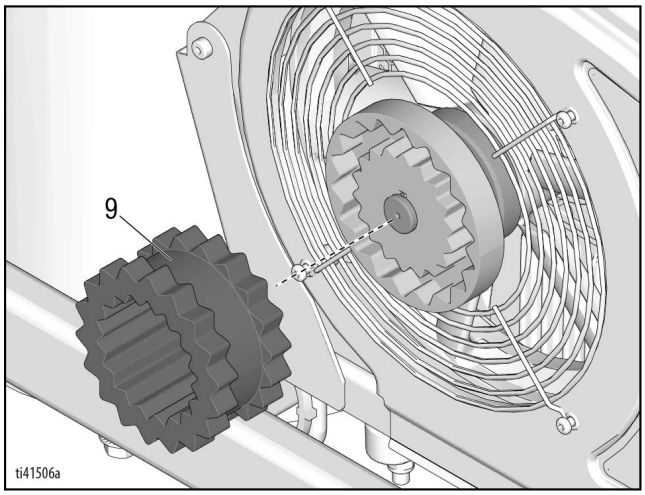




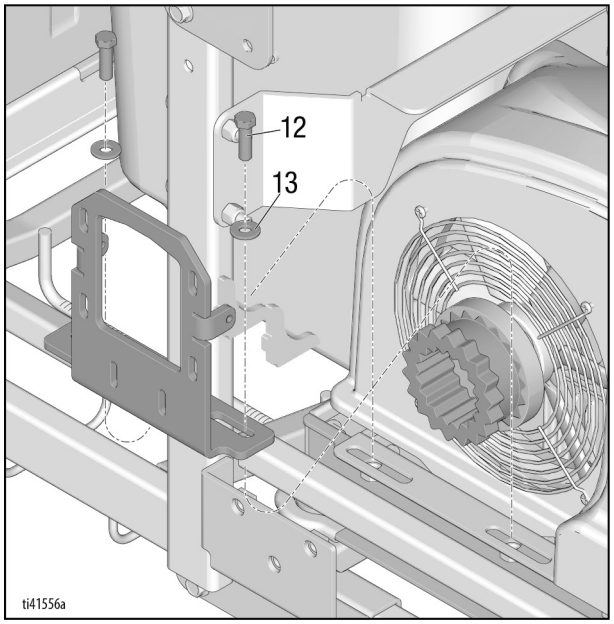
11. Start two set screws (7) into coupler (8). Slide coupler (8) over coupler mount (3), assure key (6) is still in position. Push coupler (8) flush against coupler mount (3) face. Tighten set screws with 1/8 in. Allen wrench to 150-160 in-lb (16.9-18 N•m).



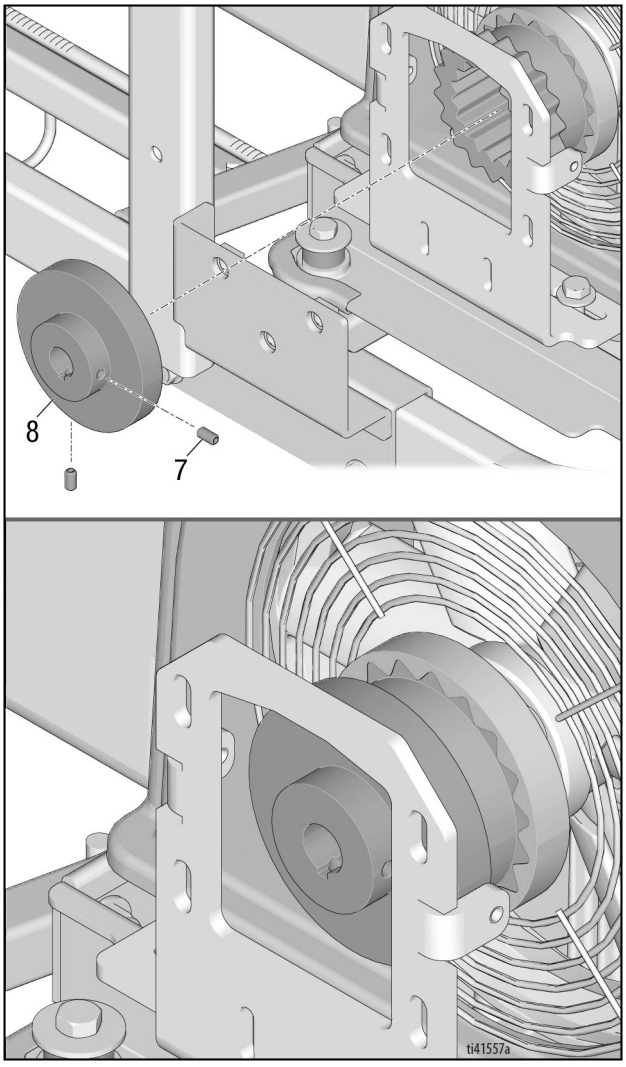
12. Align teeth and slide flex insert (9) all the way into coupler (8).



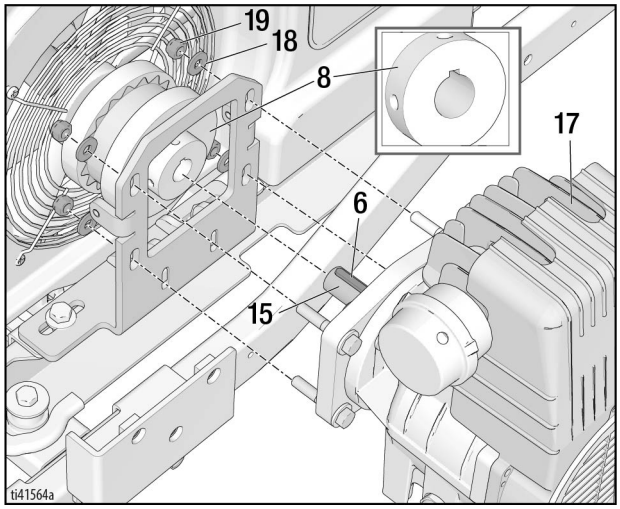
13. Remove existing frame bolts (12) and washers (13) from frame. Using the same bolt and washers, secure mounting bracket (10) to frame. Leave bolts slightly loose to allow for horizontal adjustment in following steps.



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.



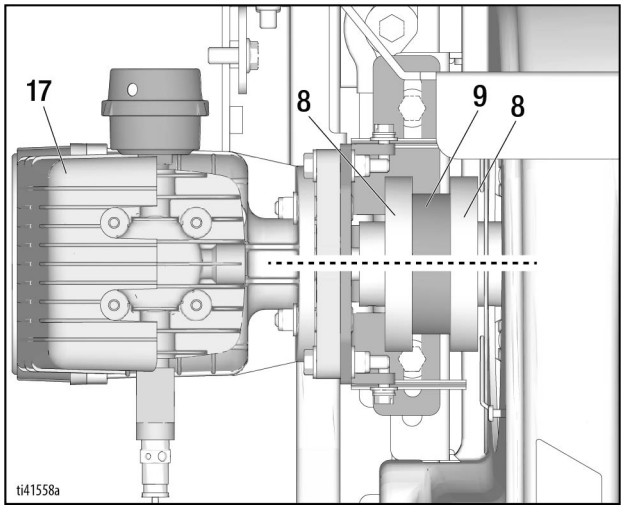
15. Ensure keyway on coupler shaft (15) is on top, rotate as necessary. Place second key (6) in keyway of coupler shaft (15). Align keyway in coupler (8) to receive coupler shaft (15) and key (6). Aligning all four studs (16) with associated vertical slots, slide compressor assembly (17) into mounting 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.



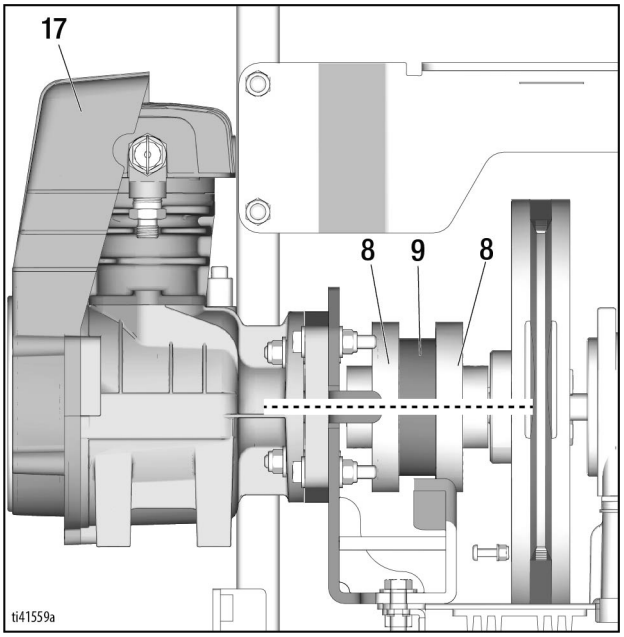
NOTICE

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.

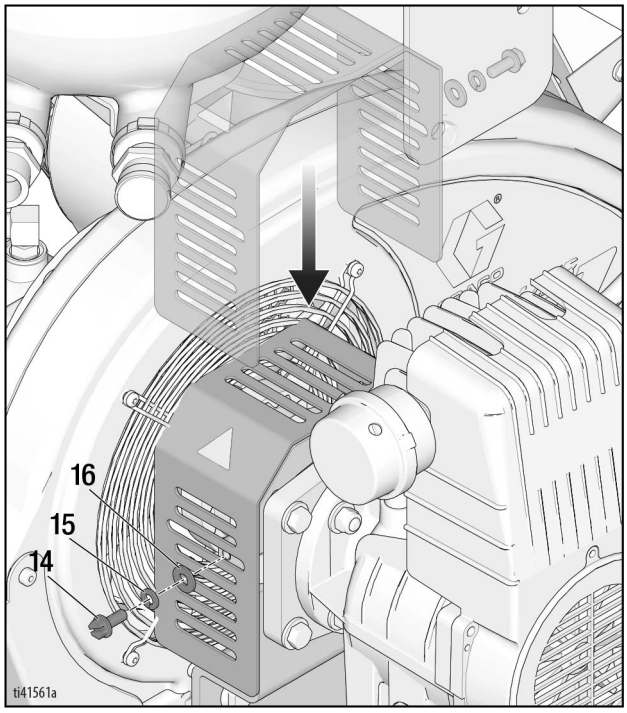


17. Vertical Alignment: hold compressor assembly (17) such that from the side both couplers (8) and flex insert (9) are aligned axially. When properly aligned, tighten four nuts (19) on studs (16) to mounting bracket (10) to 150-160 in-lb (16.9-18 N•m). Vertical alignment is now complete.



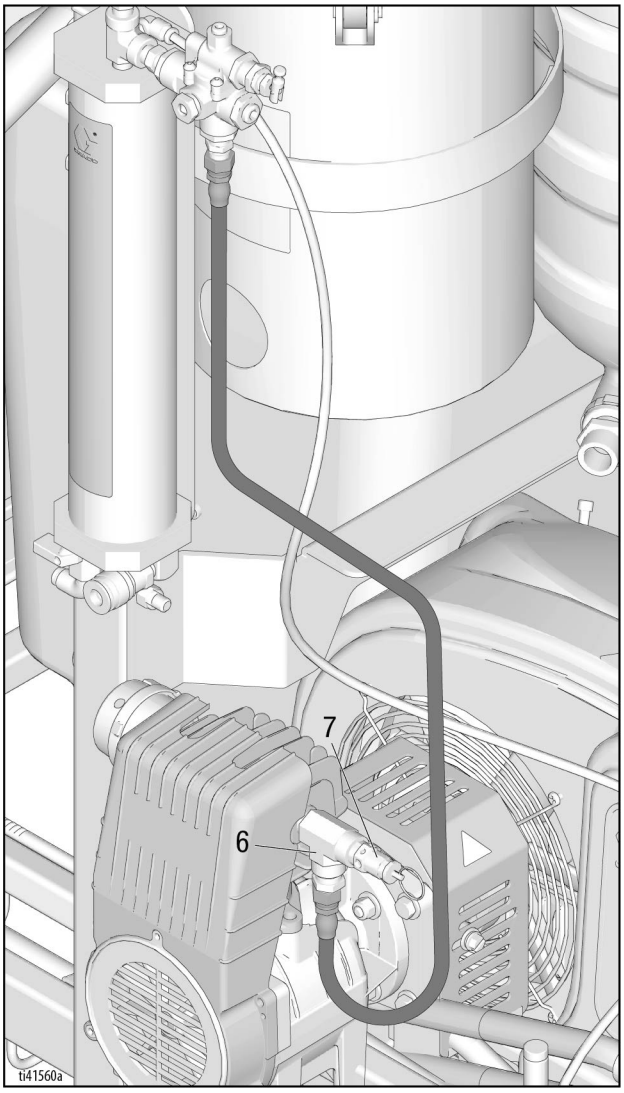
18. With the second coupler (8) still loose on coupler shaft (15), slide coupler (8) against flex insert (9) until flex insert is tightly sandwiched between both couplers. Back coupler (8) off approximately 1/16 in., leaving a slight gap between coupler (8) and flex insert (9). Tighten set screws in 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.



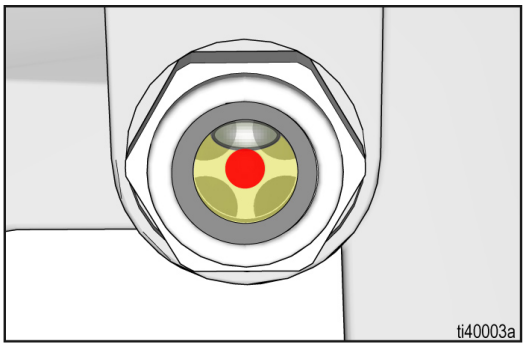
22. Reconnect the battery.

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.

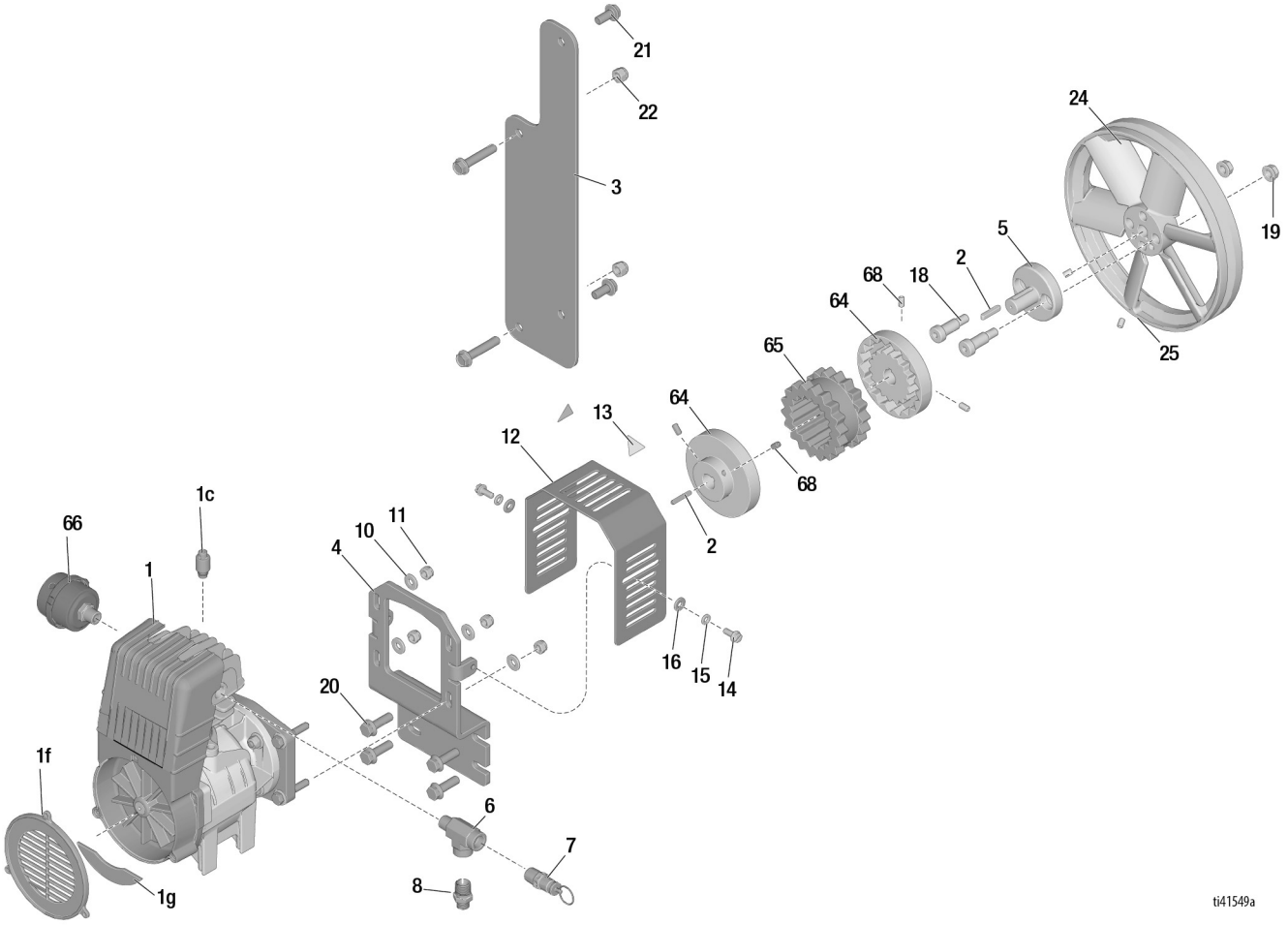
California Proposition 65

CALIFORNIA RESIDENTS

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

Notes

Parts - LL200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Parts List - LL200

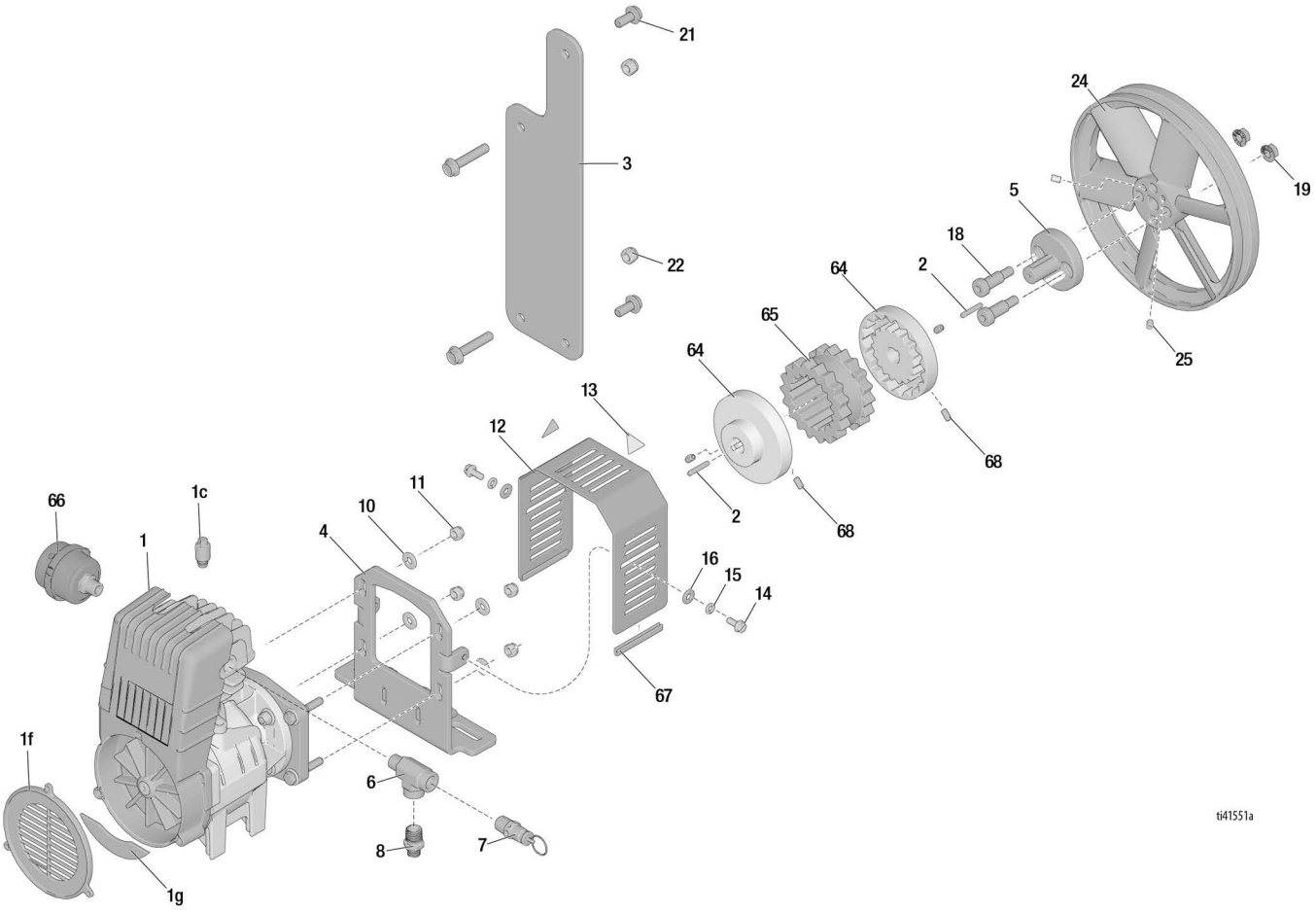
Ref.	Part	Description	Qty.
1	25U927	COMPRESSOR	1
1c ❖	25R114	BREATHER, oil	1
1f ❖	26D804	COVER, fan	1
1g❖	25U927	GASKET, adhesive, compression	1
2	25U876	KEY, square, 3/16 x 1.125	2
3	25P599	BRACKET, air tank	1
4	25U879	BRACKET	1
5	25U884	COUPLER, mount	1
6❖	124490	FITTING, tee, street	1
7❖	113796	VALVE, safety	1
8❖	164672	ADAPTER	1
10	100527	WASHER, plain	4
11	111040	NUT, lock, insert, nylock 5/16	4
12	25U885	GUARD, flexible coupler	1
13▲	15H108	LABEL, safety, warning, pinch	2
14	108296	SCREW, mach, hex washer	2
15	100016	WASHER, lock	2
16	110755	WASHER, plain	2
18	126833	SCREW, shoulder, socket head	2
19	112958	NUT, hex, flanged, 3/8-16	2
20	111193	SCREW, cap	4
21	111192	SCREW, cap	2
22	101566	NUT, lock	2
24	16U205	PULLEY	2
25	101962	SCREW, set 1/4-20	2
64	25U930	HUB, flex shaft coupling	2
65	25U874	INSERT, flex shaft coupling	1
66❖	25R115	FILTER, air, compressor	1
68★	120087	SCREW, set 1/4x1/2	4

❖ *Included in 25U927*

★ *Included in 25U930*

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

Parts - LL250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Parts List - LL250 Kit

Ref.	Part	Description	Qty.
1	25U927	COMPRESSOR	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	25P603	BRACKET, air tank	1
4	25U882	BRACKET	1
5	25U884	COUPLER, mount	1
6❖	124490	FITTING, tee, street	1
7❖	113769	VALVE, safety	1
8❖	164672	ADAPTER	1
10	100527	WASHER, plain	4
11	111040	NUT, lock, insert, nylock 5/16	4
12	25U931	GUARD, flexible coupler	1
13▲	15H108	LABEL, safety, warning, pinch	2
14	108296	SCREW, mach, hex washer	2
15	100016	WASHER, lock	2
16	110755	WASHER, plain	2
18	126833	SCREW, shoulder, socket head	2
19	112958	NUT, hex, flanged, 3/8-16	2
20	111192	SCREW, cap	2
21	101566	NUT, lock	2
23	16U205	PULLEY	2
24	101962	SCREW, set 1/4-20	2
64	25U930	HUB, flex shaft coupling	2
65	25U874	INSERT, flex shaft coupling	1
66❖	25R115	FILTER, air, compressor	1
68★	120087	SCREW, set 1/4x1/2	4
67⁜	25U875	TRIM, edge protector	2

❖ *Included in 25U927*

★ *Included in 25U930*

⁜ *Included in 25U931*

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

Graco Standard Warranty

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

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

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Original instructions. This manual contains English. MM 3A7388
Graco Headquarters: Minneapolis
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