

# 2967-0001 AIR ASSIST CYLINDER & PNEUMATIC CONTROL SYSTEM

**SET UP & PARTS MANUAL** 2565-992 - 1/2025



FOUNDED 1930

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GERMINATE UNIFORMITY ™

## **FOREWORD**

You've just joined an exclusive but rapidly growing club.

For our part, we want to welcome you to the group and thank you for buying a Yetter product.

We hope your new Yetter products will help you achieve both goals-increase your productivity and increase your efficiency so that you may generate more profit.

This operator's manual has been designed into four major sections: Foreword, Safety Precautions, Installation Instructions and Parts Breakdown.

This **SAFETY ALERT SYMBOL** indicates important safety messages in the manual. When you see this symbol, be alert to the possibility of **PERSONAL INJURY** and carefully read the message that follows.



<u>DANGER</u>: Indicates an imminently hazardous situation which, if not avoided "will" result in death or serious injury. This signal word is to be limited to the most extreme situations



<u>WARNING</u>: Indicates a potentially hazardous situation which, if not avoided, "could" result in death or serious injury.



**CAUTION:** Indicates a potentially hazardous situation, which if not avoided, "may" result in minor or moderate injury. It may also be used to alert against unsafe practices.



**NOTICE**: Indicates information considered important, but not hazard related (e.g., messages relating to property damage).

It is the responsibility of the user to read the operator's manual and comply with the safe and correct operating procedure and to lubricate and maintain the product according to the maintenance schedule in the operator's manual.

The user is responsible for inspecting his machine and for having parts repaired or replaced when continued use of the product would cause damage or excessive wear to the other parts.

It is the user's responsibility to deliver his machine to the Yetter dealer who sold him the product for service or replacement of defective parts, which are covered by the warranty policy.

If you are unable to understand or follow the instructions provided in this publication, consult your local Yetter dealer or contact:

#### YETTER MANUFACTURING CO.

309/776-4111 800/447-5777 309/776-3222 (FAX)

Website: www.yetterco.com
E-mail: info@yetterco.com
WARRANTY

Yetter Manufacturing warrants all products manufactured and sold by it against defects in material. This warranty being expressly limited to replacement at the factory of such parts or products as shall appear to be defective after inspection. This warranty does not obligate the Company to bear cost of labor in replacement of parts. It is the policy of the Company to make improvements without incurring obligations to add them to any unit already sold. No warranty is made or authorized to be made, other than herein set forth. This warranty is in effect for one year after purchase.

DEALER:		
D L / \L L I \.		

Yetter Manufacturing warrants its own products only & cannot be responsible for damages to equipment on which mounted.



A brief description of signal words that may be used in this manual:

<u>DANGER</u>: Indicates an imminently hazardous situation which, if not avoided "will" result in death or serious injury. This signal word is to be limited to the most extreme situations.

**WARNING**: Indicates a potentially hazardous situation which, if not avoided, "could" result in death or serious injury.

<u>CAUTION</u>: Indicates a potentially hazardous situation, which if not avoided, "may" result in minor or moderate injury. It may also be used to alert against unsafe practices.

**NOTICE:** Indicates information considered important, but not hazard related (e.g., messages relating to property damage).

Consult your implement and tractor operator's manual for correct and safe operating practices. Be aware of towed implement width and allow safe clearance.

Safety decals are placed on the implement to alert the operator and others to the risk of personal injury or unsafe operation during normal operations and servicing.

- 1. The safety decals must be kept clean and in good condition to ensure that they are legible.
- 2. Safety decals must be replaced if they are missing or illegible.
- 3. When components are replaced during repair or servicing, check that the new components include the necessary safety signs.
- 4. Replacement safety decals may be obtained from your local dealer.



Read these instructions carefully to acquaint yourself with the Equipment. Working with unfamiliar equipment can lead to accidents.

Never park the equipment on a steep incline or leave the equipment running unattended.

Never clean, lubricate or adjust a machine that is in motion.

Always check that straps are secure.

Make sure latches are in pinned position when moving equipment.

Do not allow children to operate this equipment.

Do not allow riders on the equipment, trailer and/or pick-up.

Use speed and caution dictated by the terrain being traversed. Do not operate on any slope steep enough to cause tipping or loss of control.

Read and understand the operator's manual and require all other persons who will operate the equipment to do the same.

If operating on public roadways, where legal, be certain all lighting is operating properly and observe all traffic laws.

Beware of increased stopping distances and control effort when operating with implements attached.

Be familiar with all controls and be prepared to stop equipment quickly in an emergency.

#### FAILURE TO HEED MAY RESULT IN PERSONAL INJURY OR DEATH.

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## **BOLT TORQUE**

Regularly inspect each residue manager for loose or worn bolts & hardware. Repair or replace as needed.

All hardware used on the 2940 Air Adjust is Grade 5 unless otherwise noted. Grade 5 cap screws are marked with three radial lines on the head. If hardware must be replaced, be sure to replace it with hardware of equal size, strength and thread type. Refer to the torque values chart when tightening hardware.



**NOTICE:** Over tightening hardware can cause as much damage as when under tightening. Tightening hardware beyond the recommended range can reduce its shock load capacity.

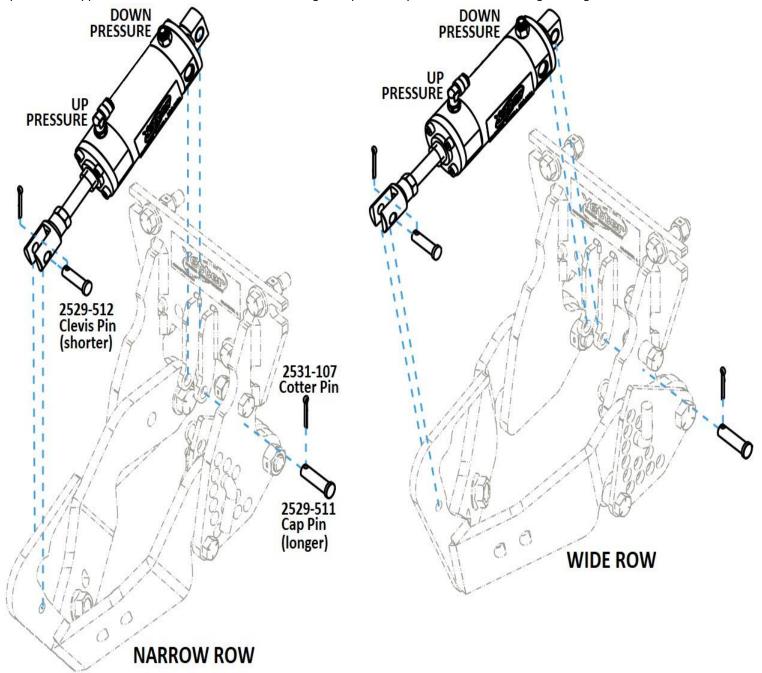
The chart below is a guide for proper torque. Use it unless a specified torque is called out elsewhere in the manual. Torque is the force you apply to the wrench handle or the cheater bar, times the length of the handle or bar. Use a torque wrench whenever possible.

The following table shows torque in ft. lbs. for coarse thread hardware.

BOLT DIA. AND THREADS PER INCH	GRADE 2	GRADE 5 A-325	GRADE 8
3/8-16	25	35	50
7/16-14	35	55	80
1/2-13	55	85	125
9/16-12	75	125	175
5/8-11	105	170	235
3/4-10	185	305	425
7/8-9	170	445	690
1-8	260	670	1030
1 1/8-7	365	900	1460
1 1/4-7	515	1275	2060
1 3/8-6	675	1675	2700
1 1/2-6	900	2150	3500
1 3/4-5	1410	3500	5600

## AIR ASSIST CYLINDER ASSEMBLY INSTRUCTIONS

**STEP 1:** Install air cylinder to each residue manager. The cap side will install to tabs on the residue manager faceplate using the longer, thicker pin. The rod side will install to handle of pivot arm using the shorter, thinner pin. Install cotter pin into the hole on each mounting pin, bend each cotter end to keep the cotter from falling out. Make sure jam nut & rod clevis are tight. Keep the extra elbow fitting as a spare unless application would better suit an elbow fitting on cap side of cylinder instead of a straight fitting.



### AIR ASSIST CONTROLLER INSTALLATION INSTRUCTIONS

STEP 1: Mount 2969-103 control box using the 2984-512, 2984-513 Ram mount, & 2940-144 control box mount hardware.

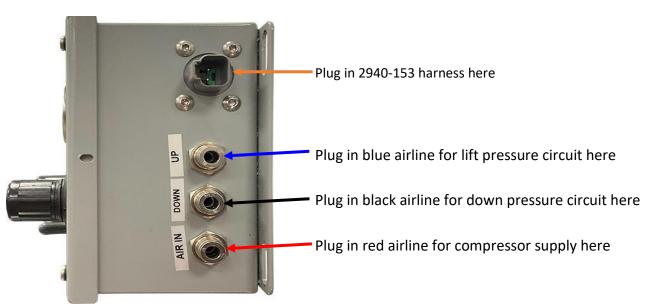


**STEP 2:** Attach male 2 pin connector of the 2940-153 to the female 2 pin connector on the 2969-103 Cab Controller. Install the connector (not provided) for your tractor at the bare end of the 2940-153 and connect to tractors switched power source. Connect the black wire on the Yetter harness to the black wire of the switched power harness. Connect the red wire on the Yetter harness to the orange wire on the switched power harness. Connecting the red wire on the Yetter harness to the red wire on the switched power harness will provide constant power to the switch on the Yetter control box and may lead to draining the tractor's battery.



Switched Power Source Connector part #'s:

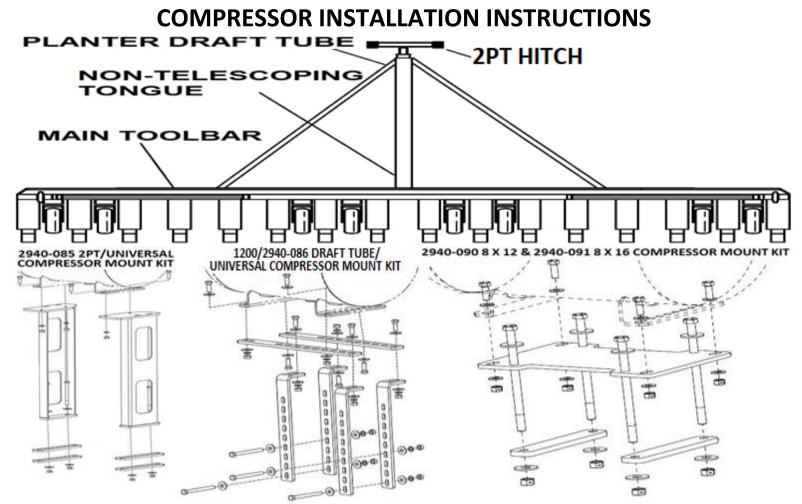
JOHN DEERE PART #: RE67013 CNH PART #: 187103A1 CAT P/N: AG233356



**STEP 3:** Install air lines from planter into side of control box: red compressor supply to AIR IN port, blue row cleaner lift pressure to UP port, & black row cleaner down pressure to DOWN port on right side of control box. "Air in" should be from the supply air tank. "Down" should be to airline connected to cap side of the air cylinder. "Up" should be airline connected to rod end of the air cylinder.



NOTE: Step 3 is best completed after finishing Step 2 & 3 on page 13



Yetter 2967-0050 Compressor Assembly

\*SEE PAGE 21 for more 1200-086 assembly details

STEP 1: Install compressor mount kit on planter in an area with clearance while planting & that also has clearance while folding/unfolding. Some mounting location options are: A) DRAFT TUBE by planter hitch, B) outer NON-TELESCOPING TONGUE, C) MAIN TOOLBAR that row units are mounted to.

STEP 2: Install compressor to the mount bracket using the 1200-410 Mount Plate using provided ½"-13 X 1 ½" bolts & hardware
Install 2940-166 on tractor battery, red cable to positive post & black cable to negative post. Mount/secure breaker to avoid short circuit. Install 2940-167
(10') & 2940-168 (20') power cable extensions from Anderson connector on 40A breaker cable to the Anderson connector on compressor labeled B in photo below. Try to have a connection near the hitch for ease of attaching/detaching planter from tractor. Zip tie power cables as needed.

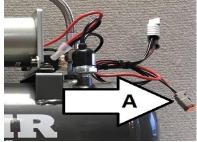




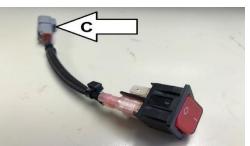




**STEP 3:** Install female connector of 2940-154 at compressor (labeled A) & route to interior of tractor cab. Find a suitable location in cab to mount/place 1200-360 cab switch & harness. Once cab switch is secured in place, install male connector of 2940-154 to the female connector of the switch (labeled C).





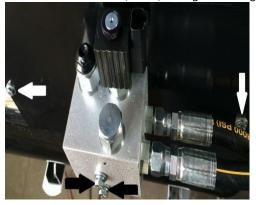


#### Yetter 2940-050A/055 Compressor Assembly

#### Step 1: Preparation

**LARGER ELECTRIC COMPRESSOR:** The crate labeled 2940-050A includes 1) Yetter electric compressor, 1) 2940-181 Y harness, 1) 2940-189 10FT Compressor Control Harness, 1) 2940-150 80A Breaker Cable, 1) 2940-151 Main Power Extension, & 2) 2940-163 20FT Main Power Extensions. Open filter assembly, inspect condition of filter, reinstall.

HYDRAULIC COMPRESSOR: The crate labeled 2940-055 includes 1) Yetter hydraulic compressor, 1 liter bottle of oil, 2940-181 Y harness, & 2940-189 10FT compressor control harness. Remove compressor from crate. Remove the housing by removing 6 bolts (4 are pictured in picture 1 below, the other 2 are on the opposite side of the housing) using a ratchet with 7/16 socket & 7/16 wrench. Remove the dipstick & slowly fill pump with provided oil until oil reaches fill line on the sight glass. Fill the pump slowly as there is a delay between oil entering pump & seeing oil on the sight glass. Confirm oil level is full on the dipstick as well. Reinstall dipstick, housing, & control block. Remove wing nut on the air filter housing, remove air filter cover, & inspect condition of the air filter. Reinstall filter, cover, & wing nut making sure filter is sealed between filter base plate & cover.

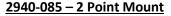






#### Step 2: Mounting

Every planter/tractor combination will contain its own unique situations in regard to mounting Compressor Assembly for clearance/accessibility. YOU SHOULD EXERCISE YOUR OWN BEST JUDGEMENT TO FIT YOUR SITUATION. Begin by locating a suitable mounting location. Placement will vary on make & model of planter. Use mounts supplied or depending on application different mounts may need to be built. See examples below labeled customer built bracket. Be sure to check clearance in all locations, especially noting tractor tires, folding/unfolding the planter for transport mode, marker arms, fertilizer tanks, & 2-point top link. Yetter has 4 different mounting kits; 2940-085 to mount compressor to top link of the 2 point hitch, 2940-086 to mount to draft tube, 2940-090 to mount to an 8" X 12" bar, & 2940-091 to mount to an 8" X 16" bar. See page 20 for proper assembly of the mounting kit & compressor mounting. A process of folding & unfolding, turning in a tight circle, & raising/lowering markers & planter is recommended to ensure compressor clearance.



















**Step 3: (Yetter 2940-050 Electric Compressor)** Install the 2940-150 on the tractor battery. Red cable connects to positive battery post & black cable connects to negative battery post. Install the 2940-151 (10ft) & 2940-163 (20ft) main power extensions until you reach the compressor. Install the connector on extension to the large connector on electric compressor unit.







## **Yetter Hydraulic Compressor Installation**

### **Hydraulic Hose and Fitting Kits**

All fittings & adaptors do not have to be used

Additional fittings & adaptors may need purchased

				P 41 41 41 41 41 41 41 41 41 41 41 41 41
2940-088 (PLANTER)	2940-089 kit (STAND ALONE)	Part #	Part Name	Description
Qty in kit	Qty in kit			
4	2	2515-324	ELBOW	90 DEG, 3/4 SAE TO -6 JIC
	2	2515-327	ADAPTER	3/4-16 SAE TO -6 JIC
3		2515-329	ADAPTER	REDUCER, -8 F TO -6 M JIC
2	2	2515-411	ELBOW	90 DEG 3/4 SAE TO -8JIC
3	1	2515-425	TEE	TEE 3/4 SAE
2		2515-428	ELBOW	JIC-6 90 DEGREE SWIVEL
3		2515-430	TEE	JIC-8 RUN TEE
2	2	2515-431	ADAPTER	9/16 SAE TO -6 JIC ADAPTER
1		2515-432	ELBOW	JIC-8 90 DEGREE SWIVEL
2	2	2515-831	HOSE	3/8 10FT HOSE -6 JIC F
1	1	2515-832	HOSE	1/2 10FT HOSE -8 JIC F
1	1	2515-833	ADAPTER	3/4 SAE TO -8 JIC
	2	2515-834	COUPLER	PIONEER, POPPET STYLE
1	1	2515-848	ELBOW	90 DEG, ¼ SAE TO -6 JIC

### 2940-088 HYDRAULIC HOSE & FITTINGS KIT



#### 2940-089 HYDRAULIC HOSE & FITTINGS KIT



Step 3: Hydraulic Hose and Fittings Installation to the Compressor

Tool required: An assortment of standard wrenches & crescent wrench.

- A) Remove cap from the 6 port (also labeled P on Hydraulic Control Block) & install 2515-431 6 ORB (O-Ring Boss) to 6 JIC straight adaptor fitting so that O-Ring end goes into hydraulic block & JIC end faces away from the block. Install 1) 2515-831 3/8 6 10ft hydraulic hose to that fitting.
- B) Remove cap from the –8 port (also labeled T on Hydraulic Control Block) & install the 2515-833 8 ORB to –8 JIC straight adaptor fitting so that the O-Ring end goes into the hydraulic block & the JIC end faces away from the block. Install the 2515-832 ½ –8 10ft hydraulic hose to that fitting.







C) Remove cap plug from – 4 port on the motor (this is the Case Drain)using a 3/16 hex key wrench if equipped with threaded plug (may also have rubber plug) & install the 2515- 848 –4 ORB to – 6 JIC 90 degree adaptor fitting so that the O-Ring end goes into the hydraulic motor & the JIC end faces downward. Install 1) 2515-831 3/8 – 6 10ft hydraulic hose to that fitting.







## 2940-114 Stand Alone Comp. Wiring Kit Installation (2940-050A/055)

**Step 1:** Install the 2940-518 Cab Switch harness in the tractor cab. Mount the Switch in an area easily accessable. The 2 bare wires need spliced to the OEM Switched Power Connector (not supplied), & the female 2 pin Deutsch routes to tractor hitch.

**Step 2**: From the 2 pin female Deutsch of the 2940-518 at hitch, install as many 2940-154 (30ft extension) harnesses as need to reach the compressor. **Step 3**: Install the 2940-525 at compressor as labeled in photo below. Install the 2940-154 into the remaining open connector.











#### Step 4: 2940-055 Hydraulic Connection

There are 2 ways to supply hydraulic flow to the compressor: an open SCV on the tractor or plumbing into a planter circuit. If plumbing into a planter's circuit, the circuit must have constant hydraulic flow when the planter is in use. Always plumb between the tractor's SCV & the hydraulic block on the planter. Plumbing downstream of the hydraulic block may cause inconsistent flow to all functions driven by that hydraulic circuit. PTO driven & power beyond hydraulic circuits are NOT to be used when plumbing the Yetter hydraulic compressor. When running, the Yetter hydraulic compressor requires a maximum of 4 gallons per minute. The 2940-088 hydraulic fittings kit is used to tie into a planter circuit & 2940-089 hydraulic fittings kit is for using an open SCV remote on the tractor. In some applications, more fittings & longer hydraulic hoses may need purchased to make hydraulic connection. It is recommended to use 1 hydraulic hose from the compressor to the location where the connection is made, splicing hoses together cause more potential leak points. If teeing into lift/lower & bulk fill fan on a John Deere planter, plumb Yetter hydraulic compressors pressure circuit into planter's return circuit (usually labeled V2A on the hydraulic block) & plumb Yetter hydraulic compressor return circuit into the planter's pressure circuit (usually labeled V1A on hydraulic block). Additional hydraulic plumbing pictures may be acquired by calling Yetter service, 800-447-5777.

#### **BULKHEAD ON DB PLANTERS**









**SCV DIRECT** 

**TEEING BEHIND PIONEER COUPLER** 

**KINZE 4900** 







<u>Step 6:</u> Connect hydraulic hose attached to case drain on motor to case drain connector on tractor or by teeing into a case drain circuit on the planter. Below are a few examples of hydraulic connection. The Yetter hydraulic compressor is equipped with a case drain port on the motor. Case Drain is a pressure free circuit that provides a flow path to the reservoir for hydraulic fluid used to cool & lubricate the motor. Make sure to connect the case drain to the reservoir where the hydraulic flow to the compressor is received. If tractor isn't equipped with case drain, a kit may be purchased from the OEM tractor dealer. **DO NOT** plumb the case drain into a return circuit.

#### CASE DRAIN FLAT FACE COUPLERS CONNECTED AT TRACTOR

TEE INTO EXISTING CASE DRAIN









NOTE: THESE ARE EXAMPLES ONLY. USE YOUR BEST JUDGEMENT TO FIT YOUR SITUATION

### **OEM COMPRESSOR PLUMBING**

#### John Deere Compressor Tank Manifold

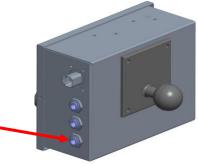
Step 1: Locate the manifold block on the JD comp. tank, drain air pressure from tank/manifold block, & remove gauge/pipe plug

Step 2: If pipe plug equipped, install 2940-650 ½PTC elbow where plug was removed. If gauge equipped, install 2940-374 adaptor; Male end gets Teflon tape & installs on manifold block, gauge installs in rearward facing female end, & 2940-350 ½PTC elbow installs in remaining end. Step 3: Install water separator assembly near compressor tank, either zip tie in place or fasten with hardware. Install 2515-910 ½" red airline

between 2940-650 elbow fitting & inlet fitting on water separator assembly. (see below for water separator installation)



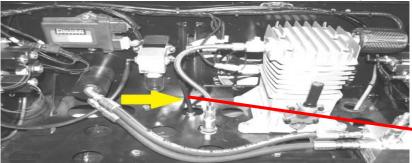




### Precision Planting Hydraulic Compressor

**Step 1:** Drain all tank pressure from Precision Planting hyd. comp. & install a 1200-342 3/8PC to ½PC Tee Reducer in the airline that routes from top of tank to the water separator (as indicated by arrow below), or you could tee downstream of their water separator.

**Step 2:** Install water separator assembly near compressor tank, either zip tie in place or fasten with hardware. (see below for water separator installation) Install 2515-910 1/4" red airline between 2940-650 elbow fitting & inlet fitting on water separator assembly

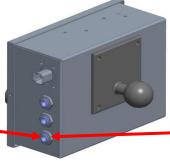




#### **Case Hydraulic Compressor**

Step 1: Drain all tank pressure from Case hyd. comp. Plumb into compressor by either installing a 1200-342 3/8PC to ½PC Tee Reducer in airline that routes from top of tank to valve manifold (as indicated in left photo) or by installing a 2940-650 in bung on side of compressor tank Step 2: Install water separator assembly near compressor tank, either zip tie in place or fasten with hardware. (see below for water separator installation) Install 2515-910 ½" red airline between 1200-342 or 2940-650 elbow fitting (whichever used) & inlet fitting on water separator assembly







## **Water Separator Assembly**

#### Step 1: Install Water Separator

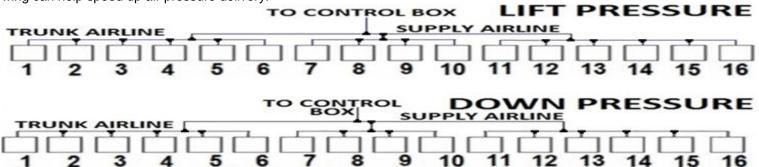
Install water separator assembly near compressor, preferably on a mount bracket for compressor using zip ties. Make sure bowl/ dispenser fitting is facing downward. Install black airline in the auto drain fitting & route towards the ground, secure with zip ties. Once the float inside the bowl reaches a certain point, the water separator will auto-drain flushing the water/debris out. Clean/Dry air is key to prolong service life of the Yetter control box components. Plumb ¼" red airline from outlet fitting on compressor source to inlet fitting on water separator assembly. Plumb ¼" red airline from outlet fitting on water separator to inlet fitting on Yetter Control Box. The regulator needs to be set at 100psi, pull up on regulator cap, adjust pressure if needed, push cap back down to lock.

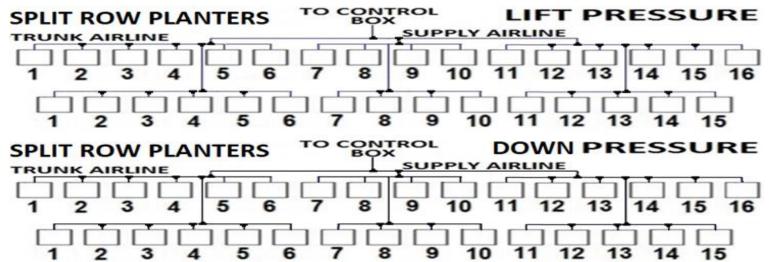
### **AIRLINE PLUMBING INSTRUCTIONS**

**NOTE:** On folding planters, it's best to plumb row cleaners in sections: left wing, center section, & right wing, or left half & right half. 16 row/31 split row front fold diagrams provided below. **BLACK** airline = DOWN, **BLUE** airline = LIFT, **RED** airline = Compressor to Control Box

**STEP 1: Trunk Airline Installation** Start at row 1 on left wing, route ¼" blue & ¼" black airline up through parallel linkage up to main toolbar & route across toolbar to last inside row on left wing. Install black airline into fitting on cap end of cylinder & blue airline into fitting on rod end of cylinder. Trace both airlines back to row 1 & install a tee in each airline at each row. (rows 2-5 in diagram below) At row 1, cut the airline to length needed & install blue airline into rod end fitting & black airline into cap end fitting. Repeat this process to plumb in the right wing & center section trunk airline.

STEP 1A: Rear Rank Trunk Airline Installation (if equipped) Repeat process of Step 1 on rear rank row cleaners on split row planters to create trunk airlines on left wing, right wing, & center section on these rows. Once this is done, install a tee in front & back rank blue & black trunk airline of each section (left wing, center, & right wing) that is centrally located. Install blue airline between 2 tees to connect lift pressure on front rank to lift pressure on back rank. Install black airline between 2 tees to connect down pressure on front rank to down pressure on back rank. Adding a 2<sup>nd</sup> set of airline between front rank & back rank on each wing can help speed up air pressure delivery.

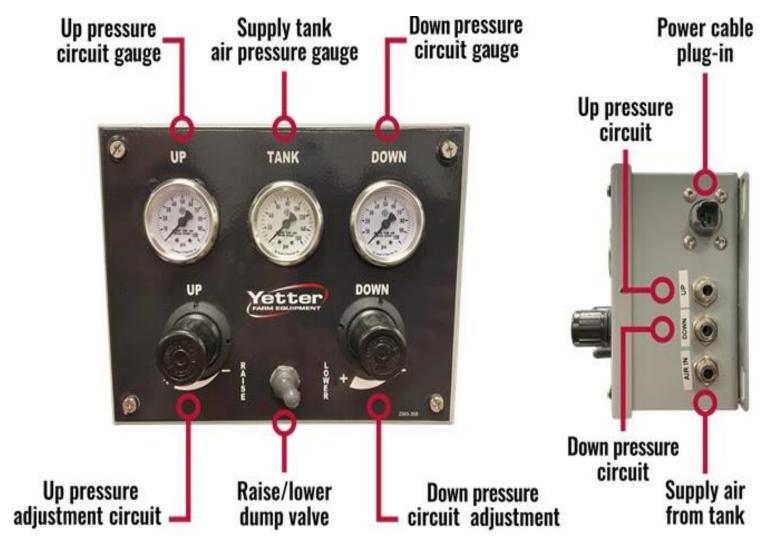




STEP 2: Supply Airline Installation Install a tee in blue & black trunk airline on each section of planter; left wing, right wing & center section. Install blue & black airline from tees installed in each wing to center of planter, connect blue airlines using a tee & connect black airlines using a tee. From remaining port on each tee, install blue airline to connect center section lift trunk airline to supply lift pressure & install black airline to connect center section down trunk airline to supply down pressure. Install blue & black airline from planter hitch, go down 1 draft tube (on front fold planters), & install a tee in the nearest supply airline in both blue & black airline to connect each airline. On rigid planters, install blue & black airline to trunk airline; install a tee to connect black supply airline to black trunk airline & blue supply airline to blue trunk airline. From tractor hitch, install blue & black airline into cab & install into Yetter control box; blue airline into port labeled UP, black airline into port labeled DOWN. Use 2) 2515-911 1/4"PC straight union to connect supply airline on tractor to supply airline at planter hitch.

STEP 3: Compressor Airline Installation Install red airline from automatic water separator outlet fitting to planter hitch. Install red airline from tractor hitch to tractor cab & install in port labeled AIR IN. At tractor/planter hitch, use 1) 2515-911 1/4"PC straight union to connect red airline from tractor hitch to red airline on planter hitch.

## **OPERATION**



**TANK PRESSURE GAUGE:** This gauge will display how much pressure is being sent to the control box. Each compressor will be different at what psi they shutoff at, small Yetter electric compressor will shut off at 125psi, larger Yetter electric & Yetter hydraulic will shut off at 145psi. In between the control box & compressor should be a water separator/gauge assembly with each regulator set at 100psi. If compressor struggles to maintain 100psi, check each circuit for leaks.

**UP PRESSURE CIRCUIT GAUGE:** This gauge will show you how much lift pressure is being sent to each row cleaner. In conventional till conditions, this will be higher. In no till conditions, this will be lower. To make adjustments, pull regulator knob until it pops/clicks to unlock. Make the adjustment you want to make (clockwise=increase, counterclockwise=decrease. Push the regulator knob back in to lock back in place.

**DOWN PRESSURE CIRCUIT GAUGE:** This gauge will show you how much down pressure is being sent to each row cleaner. In conventional till conditions, this will be lower. In no till conditions, this will be higher. To make adjustments, pull regulator knob until it pops/clicks to unlock. Make the adjustment you want to make (clockwise=increase, counterclockwise=decrease. Push the regulator knob back in to lock back in place.

**RAISE/LOWER SWITCH:** This function is used to raise the row cleaners without having to use the regulator knobs to do so. Flip switch to left to RAISE to lift row cleaners, flip switch to LOWER to apply the regulated pressure back to the air cylinders.

**POWER CABLE PLUG-IN:** The 2940-153 should be wired to the OEM tractor power strip cable & plugged into this port.

AIR IN/DOWN/UP: This is where airlines are installed to bring out into the control box and to deliver air to the air cylinders.

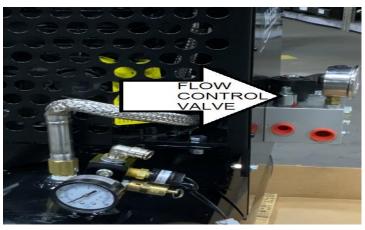
**FIELD USE:** As field conditions change, cab control adjustments can be made. If blades aren't penetrating at depth trying to achieve, apply more down pressure. If soil conditions are mellow/tilled, lessen down pressure or increase up pressure to achieve desired results. Conventional Till: 40UP 10DN, Min Till: 25UP 30DN, No Till: 15UP 40DN

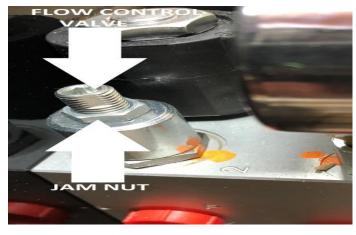
**NOTE:** Air is controlled to both sides of the cylinder at the same time. This helps take the bounce out of the row cleaner & make performance more consistent.

## **OPERATION PRECAUTIONS**

To ensure the hydraulic compressor motor doesn't exceed recommended operating RPM level, the hydraulic oil flow control valve has been preset. In some instances, the compressor may run below optimum rpm, or will not reach 145psi of tank pressure read at the gauge on the compressor tank causing the VDM to think the compressor is running continuously. (High Compressor Run Time message will appear on cab controller) If this is the case, an adjustment to the flow control valve needs made. Only open the flow control valve enough to allow compressor to build to 145psi tank pressure read at the gauge on compressor tank. Opening the flow control too far could cause over speeding and reduced service life of the compressor. The liquid filled gauge on the hydraulic block will read the amount of hydraulic pressure (should be 2500-3000psi) Follow the instructions below to make the proper adjustment.

NOTE: Before making any adjustments to the flow control valve, adjust the tractor hydraulic flow fully open. Adjusting the tractor's hydraulic flow will affect the compressor's RPM. The hydraulic motor speed on the hydraulic compressor should not exceed 1350RPM. RPM's on the hydraulic compressor may be checked via the fan blades with an optical tachometer.





- STEP 1: Engage the hydraulics to the compressor and press ACTIVATE SYSTEM icon.
- STEP 2: Make adjustments while hydraulic motor is running or should be running. Open tank drain to engage compressor if necessary.
- STEP 3: Insert a 3/16 Allen wrench into flow control valve. Loosen jam nut by turning ½ wrench counterclockwise.
- **STEP 4:** Using the Allen wrench, **SLIGHTLY** turn the flow control valve counterclockwise (the equivalent to 3 degrees or 1/32 of a turn) to increase the hydraulic motor speed.
- STEP 5: Hold Allen wrench in place & tighten jam nut. Each time an adjustment is made, allow compressor to build to its potential 145psi shut off mark. If 145psi is not achieved, drain tank pressure until compressor turns on, & make another adjustment. Repeat these steps until 145psi is achieved so that compressor runs smoothly without struggle. DO NOT RUN MOTOR ON COMPRESSOR MORE THAN 1350RPM! RPMs can be checked with an optical tachometer using fan blades. Once flow control valve is set properly, hold Allen wrench in place & tighten jam nut.

## **Pre-Field Operation Guide**

**LEAK TESTING:** A leak testing procedure should be performed after Air Assist system set-up is complete. This procedure shall be performed at beginning of each planting season & every 20 hours of in season use. **In addition, it should be performed if user notices a lack of air pressure availability or if compressor is running an abnormally high duty cycle/run time.** It will help keep duty cycle in check, thus extending life of compressor. The most efficient way to perform a leak test is to use shop air, if available, to allow for a quieter environment to detect an air leak better. It is best to do leak checks of the system by using shop air to keep things quieter to be able to hear leaks well. Shop air can be plumbed into inlet side of water separator or by filling compressor tank with shop air. If shop air isn't available, use the onboard compressor. Apply 80psi of pressure to up pressure circuit. All of the air cylinders should raise the residue managers to the up position. Check all up pressure tees, fittings, and cylinders for leaks & replace parts as needed. Return up pressure circuit pressure to 0psi. Apply 50psi of pressure to the down pressure circuit. All of the air cylinders should be in the down position and take extreme effort to raise by hand. Check all down pressure tees, fittings, & cylinders for leaks & replace parts as needed. Return down pressure circuit pressure to 0psi.









## **Yetter Hydraulic Compressor Maintenance**

**WARNING:** Keep extremities out of compressor housing when compressor is running, has potential to run, or recently shut off as there are rotating/high temperature parts that my cause injury. Always turn tractor off & disconnect power before performing any maintenance.

#### LUBRICATION:

The compressor is shipped empty of pump lubrication & needs oil added before operation. Provided is a 1 Liter bottle of grade 111 full synthetic. Add oil until oil level is seen half way up on sight glass & then recheck oil level on dipstick. Yetter part # for purchasing new bottle is 2940-550. Full synthetic oil in the hyd. comp. pump should always be used.

#### **GUARDS:**

Always ensure the housing and guards are in place during operation.

#### **AIR FILTER CARTRIDGE:**

Yetter part number 2940-549. Order as needed.

### MAINTENANCE SCHEDULE GUIDE

#### **DAILY**

Check oil level and fill as needed

Check air filter cleanliness and clean/replace as needed

Check hoses for fluid leaks and replace/fix as needed

Check air lines for air leaks and replace/fix as needed

Check component parts of the compressor for damage (pressure switch, cooling fan, gauge, etc)

Open Tank Drain Valve (10 seconds) (see illustration to the right) to allow moisture to drain-----

#### SEASONALLY/200 COMPRESSOR HOURS

Change compressor oil

Change inlet air filter

Check fluid hoses and air lines for weakness or weathering and replace as needed.

Check hydraulic fittings for proper connections with no leaks, replace as needed.



Closed





#### FIRST OIL CHANGE SHOULD TAKE PLACE AFTER APPROXIMATELY 50 RUNNING HOURS

#### **CLEANING OR REPLACING THE 2940-106 AIR FILTER**



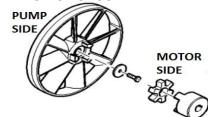
Filter cleanliness is critical to maintain performance/service life of compressor. Recommendations for cleaning are **DAILY**, replace every 200 hours OR beginning of every planting season. Dirt sucked passed filter will ruin the pump.

STEP 1: Remove the wing nut, filter cover & filter. (If cleaning, tap the filter on a solid surface to remove dirt from the pleats & clean the filter base. DO NOT USE COMPRESSED AIR TO CLEAN FILTER!

STEP 2: Install new or cleaned filter, cover, & wing nut removed in step 1. TIGHTEN WING NUT SECURELY.

#### REPLACING THE COOLING FAN

Remove the housing & hydraulic motor, loosen the LH bolt on the end of the shaft, use a pry bar to apply pressure to the back side of the fan while tapping on the LH bolt head until fan coupler is loose on the pump shaft, replace fan, tighten LH bolt, reinstall, the hydraulic motor & put the housing back on.



## **Yetter Hydraulic Compressor Maintenance**

## **Check Hydraulic Air Compressor Oil**

Deactivate SCV operating hydraulic compressor and turn tractor off before servicing

NOTE: Check hydraulic air compressor oil daily before use during planting season and beginning of each season.

Sight glass is positioned behind the housing for protection purposes but easily seen without removing the housing. Oil level should be visible in sight glass. If oil needs added, remove housing and add grade 111 synthetic or PAO synthetic compressor oil until seen in middle of sight glass

#### Filling or Changing Hydraulic Air Compressor Oil

▲ Deactivate SCV operating hydraulic compressor and turn off tractor before servicing

## Filling Hydraulic Air Compressor Oil Step 1: Remove cap

Step 2: Using a proper sized funnel add grade 111 synthetic or a PAO synthetic compressor oil until oil level is in middle of the sight glass

Step 3: Install cap

#### Changing Hydraulic Air Compressor Oil

Step 1: Remove cap for ventilation while draining

Step 2: Place container in position to catch oil while draining

Step 3: Remove drain plug to allow oil to drain
Step 4: Install removed drain plug after oil drained in entirety

Step 5: Add grade 111 synthetic or a PAO synthetic compressor

oil until oil level is in middle of the sight glass

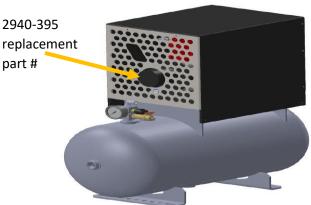






### Remove housing to add or fill the pump with oil. See page 8 for housing removal instructions.





## 2515-082 Seal Kit

STEP 1: Take Cylinder Apart - Remove clevis, jam nut, & cap (screws) from cylinder rod end. Use tape/card board on cylinder ends to protect from scratches, & put cylinder in a vise, clamping the flat spots on cap end. Place wrench on cap anchor, turn counterclockwise to take cylinder apart. Remove the rod, taking both ends of cylinder apart are necessary for easier access.

STEP 2: Replace Seals - Remove seals with yellow arrows in photo below. Use a thin, flat screw driver to remove old parts to replace with new. STEP 3: Assemble Cylinder Back Together - Put the rod back in cylinder body, apply thread lock to threads on cylinder caps, & turn

clockwise until cap ends on tight. Put cap/4 screws back on & tighten screws. Install the jam nut & clevis back on rod.

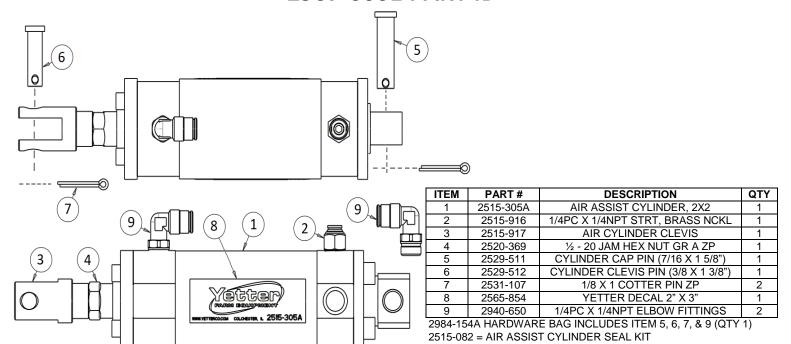




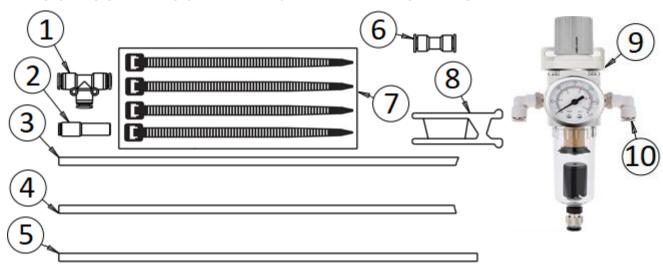




## 2967-0001 PART ID



## 2967-0021 - 0027 AIR CYLINDER TUBING KIT PART ID

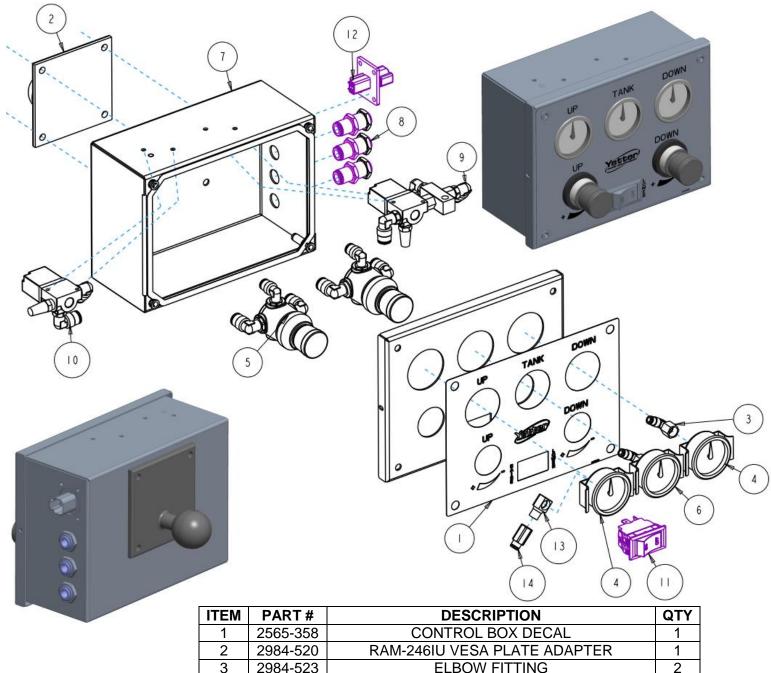


			0021	0022	0023	0024	0025	0026	0027
ITEM	PART#	DESCRIPTION	QTY						
1	1200-147	1/4PC TEE(PKG OF 10)	2	3	4	5	8	10	11
2●	1200-353	3/8 STEM TO 1/4PC REDUCER	1	1	1	1	1	1	1
3	2515-906	BLACK 1/4" NYLON TUBING, 100' RLL	1	2	2	3	4	4	5
4	2515-908	BLUE 1/4" NYLON TUBING, 100' RLL	1	2	2	3	4	4	5
5	2515-910	RED 1/4" NYLON TUBING, 100' RLL	1	1	1	1	1	1	1
6●	2515-911	1/4"PC STRAIGHT UNION	3	3	3	3	3	3	3
7	2940-148	11.5" BLACK ZIP TIES (PKG OF 100)	1	1	1	1	2	2	2
8●	2940-341	AIR TUBING CUTTER	1	1	1	1	1	1	1
	2967-111	MANUAL BAG	1	1	1	1	1	1	1
9∙	2967-0200	WATER SEPARATOR W/ REGULATOR	1	1	1	1	1	1	1
10●	2940-650	1/4PC X 1/4NPT ELBOW, BRASS NCKL	2	2	2	2	2	2	2

• = INCLUDED IN 2967-111 MANUAL BAG

ITEMS 9 & 10 CAN BE ORDERED ASSEMBLED AS A KIT, PART # 2967-0100

## 2969-103 PART ID

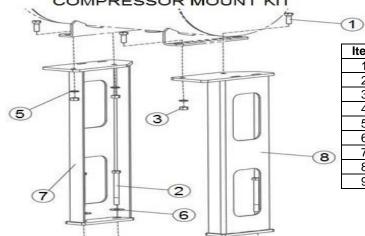


ITEM	PART#	DESCRIPTION	QTY
1	2565-358	CONTROL BOX DECAL	1
2	2   2984-520   RAM-246IU VESA PLATE ADAPTER		1
3	3 2984-523 ELBOW FITTING		2
4	2984-528	0-100PSI PANEL GAUGE MOUNT	2
5	2984-529	REGULATOR ASSEMBLY	2
6	2984-530	0-160PSI PANEL GAUGE MOUNT	1
7	2984-541	ENCLOSURE	1
8	2984-542	BULKHEAD FITTING,1/4PC X M14 X 1 STRT	3
9	2984-543	DOWN VALVE ASSEMBLY	1
10	2984-544	UP VALVE ASSEMBLY	1
11	2984-545	SWITCH	1
12	2984-546	DEUTSCH HOUSING FOR MALE TERM.	1
13	2984-547	90 DEGREE STREET ELBOW-LOW PROFILE	1
14	2984-548	5/32"PC X 1/8F-NPT ADAPTER	1

<sup>\*</sup>Airline removed from drawing for clarity, if airline inside control box needs replaced, use leftover ¼" black tubing from 2515-906 100ft roll

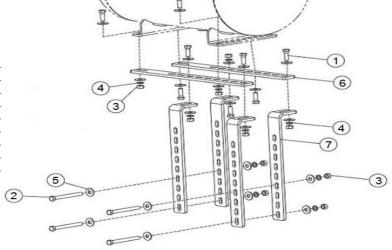
## **COMPRESSOR MOUNT PART ID**

#### 2940-085 2 PT/UNIVERSAL COMPRESSOR MOUNT KIT



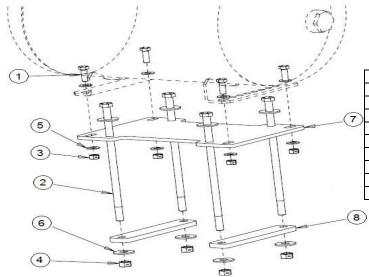
Item	Part #	Description	Qty
1	2502-294	1/2-13 X 1 1/2 HHCS GR 5 ZP	4
2	2502-373	1/2-13 X 6 HHCS GR 5 ZP	4
3	2520-352	1/2-13 HEX NUT ZP	4
4	2520-357	1/2-13 LOCK HEX NUT ZP	4
5	2525-352	1/2 MED LOCK WASHER ZP	4
6	2526-352	½ SAE FLAT WASHER ZP	8
7	2940-207	COMPRESSOR MOUNT W.A., LH	1
8	2940-208	COMPRESSOR MOUNT W.A., RH	1
9	2940-355	MOUNT STRAP	4

Item	Part #	Description	Qty
1	2502-294	1/2-13 X 1 1/2 HHCS GR 5 ZP	8
2	2502-349	½ - 13 X 5 FULL THREAD BOLT GR 5 ZP	4
3	2520-352	½ - 13 HEX NUT ZP	12
4	2525-352	1/2 MED LOCK WASHER ZP	12
5	2526-351	1/2 STANDARD FLAT WASHER ZP	24
6	2940-344	COMPRESSOR STRAP	2
7	2940-351	COMPRESSOR MOUNT BRACKET	4



2940-086 DRAFT TUBE/UNIVERSAL COMPRESSOR MOUNT KIT

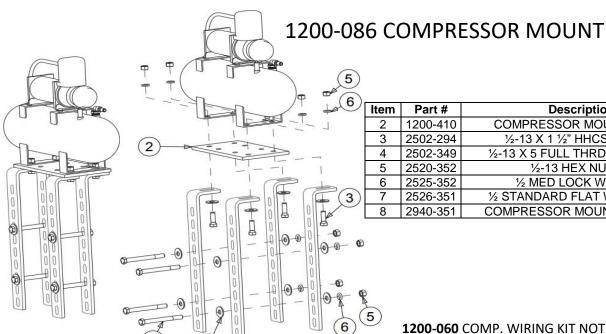
#### 2940-090 8x12 & 2940-091 8x16 HYD COMP MOUNT KIT



	Item	Part #	Description	Qty
	1	2502-294	1/2-13 X 1 1/2 HHCS GR 5 ZP	4
	2	2502-388	5/8-11 X 14 HHCS GR 5 ZP (IN THE 2940-090 KIT)	4
1	į	2502-389	5/8-11 X 18 HHCS GR 5 ZP (IN THE 2940-091 KIT)	4
1	3	2520-357	1/2-13 HEX LOCK NUT ZP	4
	4	2520-459	5/8-11 HEX LOCK NUT ZP	4
	5	2526-352	1/2 STANDARD FLAT WASHER ZP	8
	6	2526-451	5/8 STANDARD FLAT WASHER ZP	8
	7	2940-372	HYDRAULIC COMPRESSOR MOUNT PLATE	1
ſ	8	2940-373	MOUNT STRAP	2

6

## 2967-050 SMALL ELECTRIC COMPRESSOR PARTS IDENTIFICATION



Item	Part #	Description	Qty
2	1200-410	COMPRESSOR MOUNT PLATE	1
3	2502-294	1/2-13 X 1 1/2" HHCS GR 5 ZP	4
4	2502-349	1/2-13 X 5 FULL THRD HHCS GR 5	4
5	2520-352	1/2-13 HEX NUT ZP	8
6	2525-352	1/2 MED LOCK WASHER	8
7	2526-351	1/2 STANDARD FLAT WASHER ZP	12
8	2940-351	COMPRESSOR MOUNT BRACKET	4

1200-060 COMP. WIRING KIT NOT SHOWN, **BILL OF MATERIALS INCLUDE:** 

- 1 1200-360 CAB SWITCH HARNESS
- 1 2940-156 30FT 2 PIN HARNESS EXTENSION
- 1 2940-166 VDM POWER CABLE W/ 40A BREAKER
- 1 2940-167 10FT VDM POWER CABLE EXTENSION



Qty

1

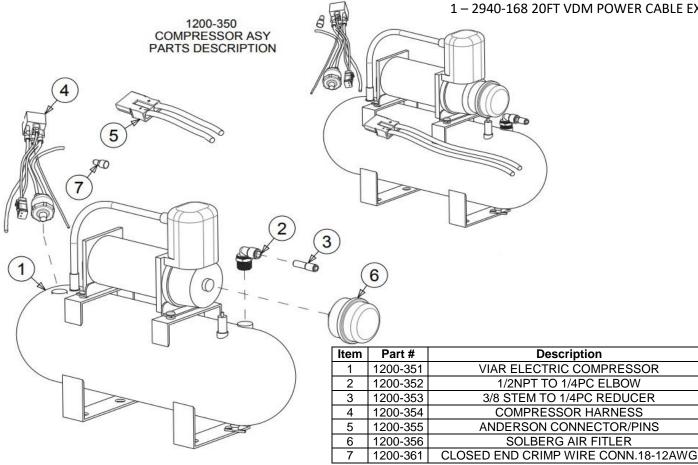
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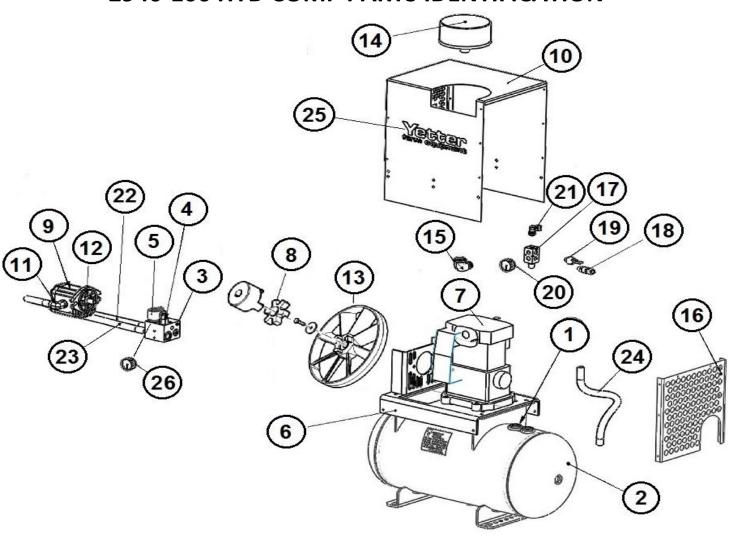
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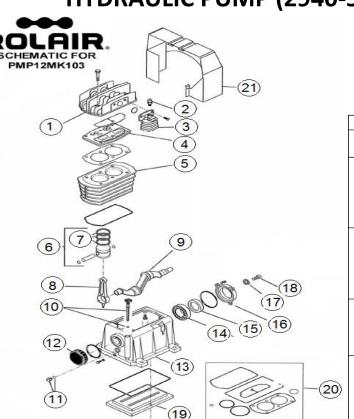


## 2940-106 HYD COMP PARTS IDENTIFICATION



Item	Part Number	Description	Qty
1	N/A	CHECK VALVE	1
2	2940-440	12 GALLON TANK	
3	2940-546	HYDRAULIC COMPRESSOR CONTROL BLOCK	
4	N/A	FLOW CONTROL VALVE	1
5	2940-506	ON/OFF SOLENOID (COIL ONLY)	1
	2940-543	ON/OFF SOLENOID (CARTRIDGE VALVE)	1
6	N/A	FRAME	1
7	2940-545	ROL-AIR COMPRESSOR PUMP UNIT	1
8	2940-531	RUBBER SPIDER INSERT FOR LOVEJOY COUPLER	1
9	2940-554	HYDRAULIC MOTOR	1
10	N/A	HOUSING COVER	1
11	N/A	MOTOR ELBOW FITTING	1
12	N/A	INLET ELBOW FITTING	1
13	2940-519A	HYDRAULIC COMPRESSOR FAN, CAST (will fit on all Yetter Hyd. Compressors)	1
14	2940-549	HYDRAULIC COMPRESSOR AIR FILTER (FILTER ELEMENT ONLY)	1
15	N/A	FILTER ELBOW	1
16	N/A	BACK GUARD	1
17	N/A	AIR MANIFOLD	1
18	2940-416	175PSI TANK SAFETY RELIEF VALVE	1
19	2940-377	COMPRESSOR PRESSURE SWITCH 125-145PSI	1
20	2940-439	0-160PSI HYDRAULIC COMPRESSOR GAUGE	1
21	2940-635	3/8PTC X 3/8 NPT 90 DEGREE ELBOW FITTING, SWIVEL	1
22	N/A	TANK HOSE	1
23	N/A	INLET HOSE	1
24	N/A	PRESSURE LINE	1
25	2565-058	YETTER DECAL	1
26	2940-544	HYDRAULIC PRESSURE GAUGE WITH ADAPTER 0 – 5000PSI (LIQUID FILLED)	1

# **HYDRAULIC PUMP (2940-545) PARTS IDENTIFICATION**





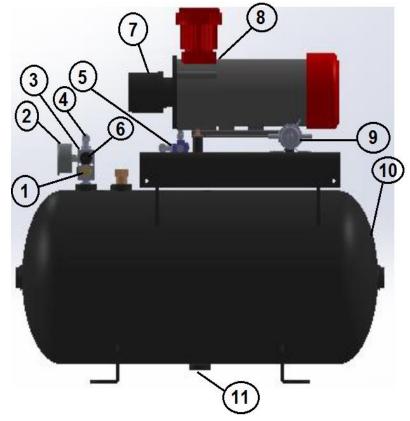
#### PARTS LIST FOR PMP12MK103

Schematic #	Description	Part #	Qty.
1	Head	FC113167020	1
2	Cold Start Valve	FC011158000	1
3	Aftercooler	FC116091024	1
4	Valve Plate Assembly	FC413167005	1
5	Cylinder	FC113167002	1
6	Complete Piston Assembly	FC413167006	2
7	Ring Set (2 required)	FC213167001	2
8	Connecting Rod	FC113150004	2
9	Crankshaft	FC113167003	1
10	Dipstick	FC312036000	1
11	Sight Gauge	FC012029000	1
12	End Cover	FC113149009	1
13	Crankcase	FC113167001	1
14	Ball Bearing	FC033027000	1
15	Oil Seal	FC010053000	1
16	Bearing Carrier	FC113149008	1
17	Washer	FC014005001	1
18	Bolt (Left-Hand Thread)	FC014001057	1
19	Lower Cover	FC113149015	1
20	Gasket Set	FC213167002	1
21	Shroud	FC113150002	1

## **PART REFERENCE ONLY**

## 2940-101A PARTS IDENTIFICATION

Item	Part #	Description	Qty
1	2940-416	175PSI TANK SAFETY RELIEF VALVE	1
2	2940-439	0-160PSI HYDRAULIC COMPRESSOR GAUGE	1
3	N/A	AIR MANIFOLD	1
4	2940-635	3/8PC X 3/8NPT 90° ELBOW FITTING, SWIVEL	1
5	2940-336	HIGH PRESSURE RELIEF VALVE (NO FITTINGS)	1
	1200-323	1/4"PC TO 1/8NPT ELBOW	
6	2940-377	COMPRESSOR PRESSURE SWITCH 125-145PSI	1
7	2940-395	FILTER ELEMENT	1
8	2940-390	ELECTRIC COMPRESSOR	1
9	2940-391	COMPRESSOR RELAY	1
10	N/A	12 GALLON TANK	1
11	N/A	1/4 TURN TANK DRAIN VALVE	1





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