

**Support Bulletin-SB-25-10047**  
**Date-6.25.2025**  
**Title: John Blue Pump Impeller Drag**  
**Product Line: Spray Tender**  
**Model: QuickDraw**  
**Level: Public**  
**Author(s):Andy Boyle**  
**Revision Letter: A**



**Overview:** Click or tap here to enter text.

SurePoint Ag's QuickDraw mobile trailer applications utilize a John Blue Centrifugal SP3350 Pump that is driven by a Honda IGX 390 with Auto Choke or Vanguard 400 EFI/ETC engine. Proper fitment/ securement between the engine and pump will ensure optimal pump and engine performance. An engine and pump assembly that is misaligned or has an improper fitment may experience low carrier transfer rates and poor engine performance. If you are experiencing these symptoms, please perform the procedure outlined in the steps below. Shims, nuts, and washers can be obtained by contacting customer support and referencing this Support Bulletin.

#### **Parts**

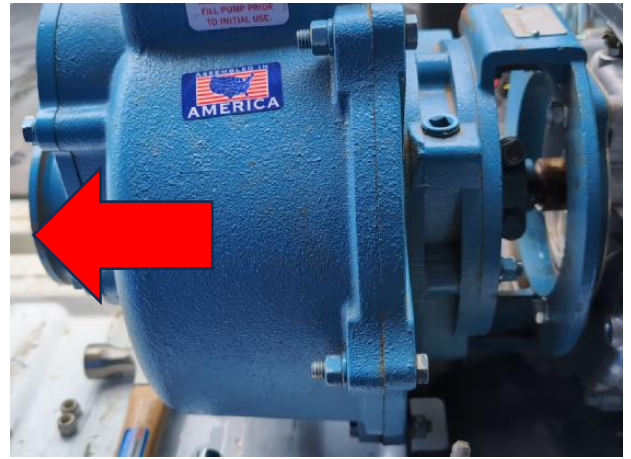
Shim PN 400-6679Y2 **Vanguard Engines Only**  
3/8 Stainless Lock Nut's Qty.2  
3/8 Washers Qty.8 **Vanguard Engines Only**

#### **Tools Needed**

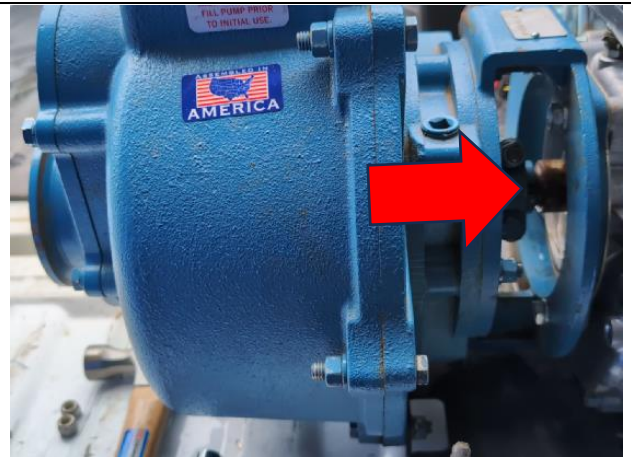
Hammer  
Pipe, Punch, or Dowel  
9/16" Wrench  
Ratchet & Extension  
9/16 Socket  
5/16 Socket  
Torque Wrench capable of 50 lbs-ft.  
Grease or Oil  
Gloves

#### **Instructions**

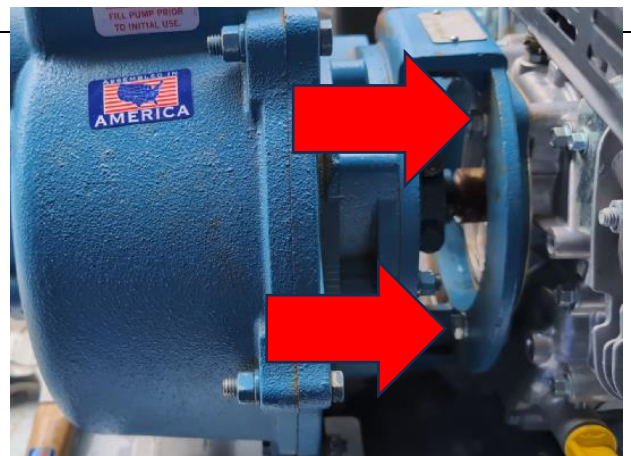
1. Use 5/16" socket to remove hose clamp from inlet of pump and move inlet hose out of the way.



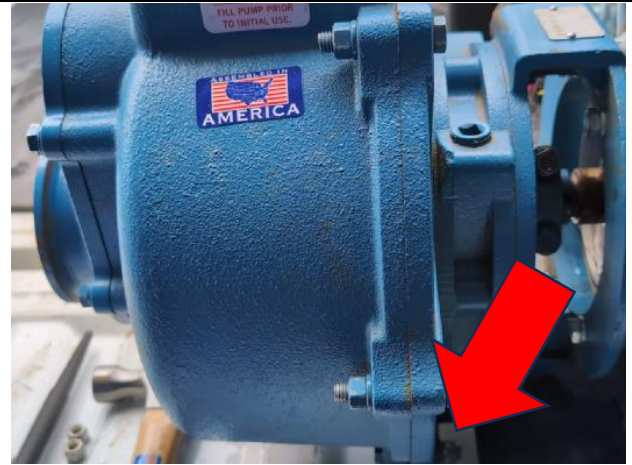
2. Use 9/16" wrench and Socket to remove two bolts and Collar from John Blue Coupler. (Discard Nuts and lock washers)  
**If using a Honda IGX 390 Skip to Step 8.**



3. Use 9/16" wrench to remove 4 pump mounting bolts from engine assembly. (Save bolts and washers for reassembly)



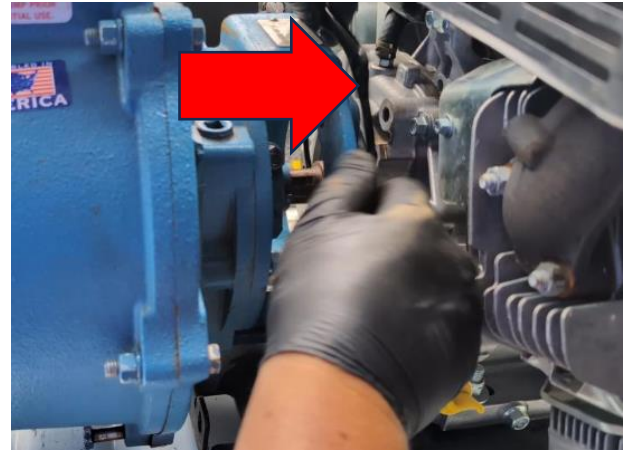
4. Use 9/16" wrench and socket to remove two bolts and nuts attaching the pump to the Engine Mounting Plate.



5. Pry the pump away from the engine.



6. Install Shim PN. 400-6679Y2-BK between pump and engine. Reinstall 4 pump mounting bolts to Engine.



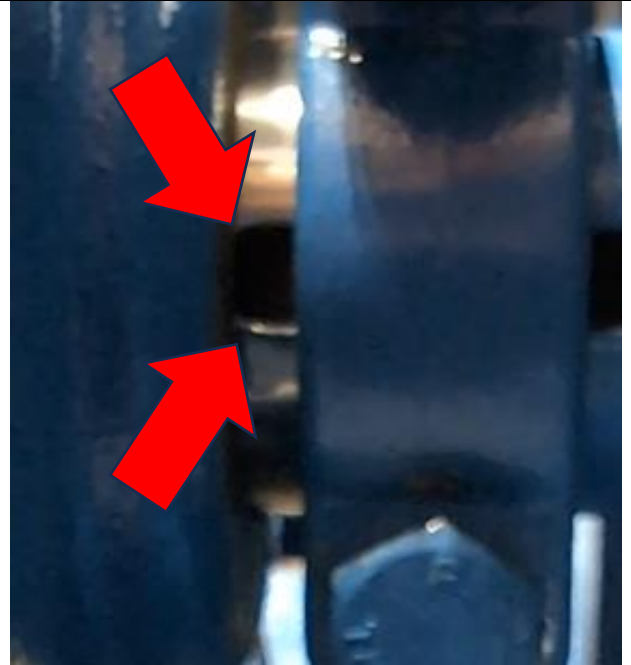
7. Reinstall 2 bolts using 4 stainless steel washers on each bolt between the pump and the engine mounting plate.



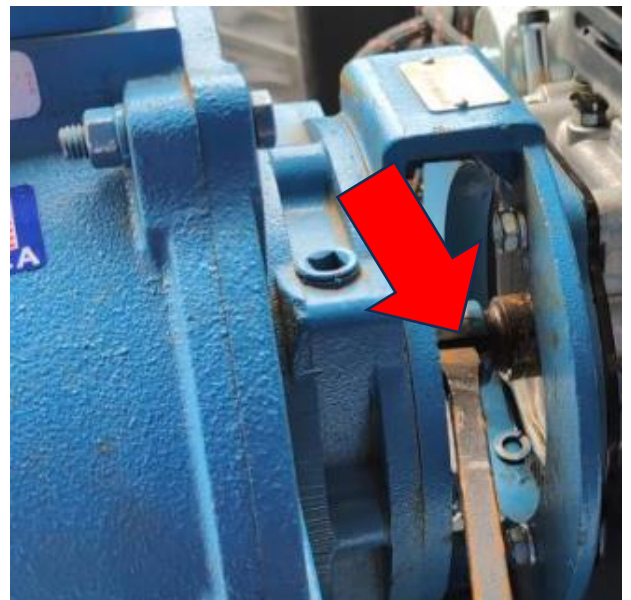
8. Insert dowel into pump inlet. Place dowel on impeller shaft, use hammer to drive impeller towards engine.



9. The impeller shaft will stop moving and make a solid thud sound when the shaft has been driven as far as it can go. See picture for visual confirmation that impeller shaft is positioned correctly. The round part of the keyway on the pump shaft should be just emerging from the pump.



10. Align Impeller Shaft Keyway with Crankshaft Keyway





11. Apply a small amount of oil to original collar bolts.



12. Install Collar 1/4" from the end of the impeller shaft.



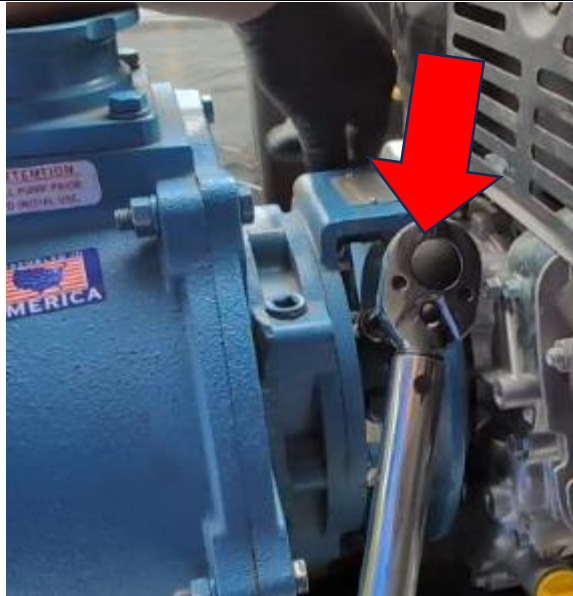
13. Reinstall the original bolts. Note their orientation. 3/8 Stainless Steel Lock Nuts.



14. Using a ratchet to tighten both bolts equally. Avoid using an impact as it can generate heat damaging the bolt and nut.



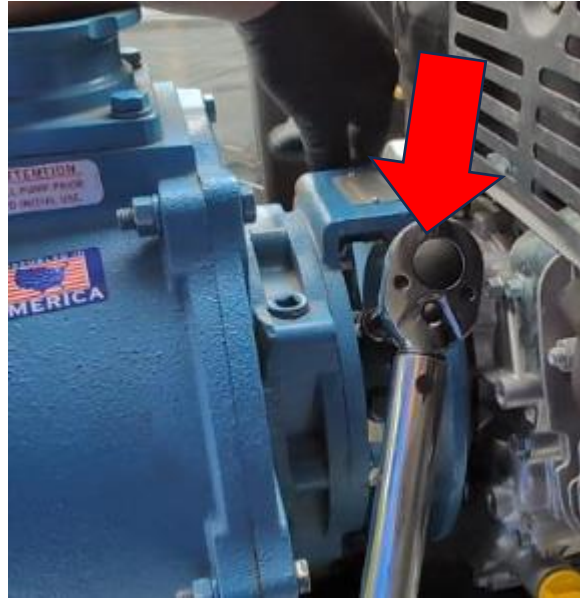
15. Using a torque wrench tighten both bolts equally to 50lbs-ft.



16. Wait for the steel in impeller coupler to relax. Coupler gaps should close and touch. This can take up to 30 minutes.



17. Using a torque wrench tighten both bolts equally to 50 lbs-ft. Repeat periodically throughout season.



18. Reconnect hose to inlet side of pump and secure with hose clamp.

