



212,213,241, HKX Stomp Grate Installation

REV:08042020

Caution

Pay attention to your surroundings. Make sure that there are not any potential hazards around you. Make sure that the boat is secure, and cannot fall or move. Make sure the trailer is on a level surface, and that the tires are chocked so that the trailer cannot move. If the trailer is connected to a vehicle then make sure the vehicle is disabled so that nobody can start, or move the vehicle.

NOTICE

Read the tool manufacturers safety recommendations before installation. It is always recommended to wear OSHA approved PPE equipment. This includes the proper use of eye/face protection, ear protection, gloves, and appropriate clothing. Above all be sure to use common sense.

This product should be installed only by someone that is competent with the use of power tools, and the ability to understand basic mechanical operation.

If you use procedures or service tools that are not recommended in this instruction sheet, YOU ALONE must decide if your actions might injure people or damage property.

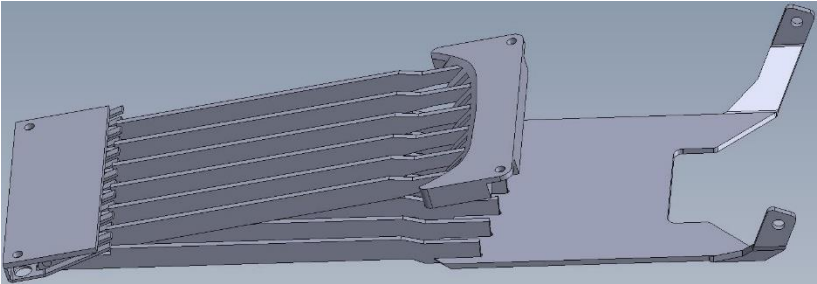
Always be aware of parts that can move, such as impellers, reverse buckets, and drivelines.

Do not start any work until you have read, and understand these instructions fully.

TO THE INSTALLER: Be sure to give this instruction sheet to the customer. Advise the customer of proper operation, and any cautions in operating the product.

Full Kit Contents

- (1) Stomp Grate



- (1) Pedal



- (1) Guide Bar



- (2) Springs



- (2) Pushrods



- (2) SAE Washers, (2) 5/32 Cotter Pins



- (4) Allen Head Bolts



1. Remove Current Grate From The Pump

The grate can fall on you during removal. It is helpful to support the grate before removing any hardware. A second person to support the grate may be necessary.

Remove the 4 lock nuts, and washers, then remove grate.



Location of factory lock nuts, washers, and studs

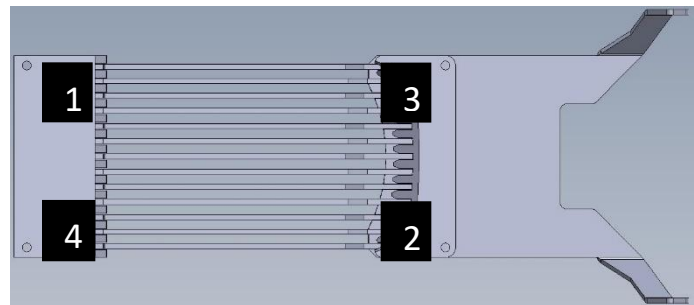
2. Remove Studs From The Pump

Use a stud remover tool to remove the studs from the jet pump. It may be necessary to apply a slight amount of heat to help break the Loctite seal loose. Be careful to not burn the pump to boat seal.

3. Install New Stomp Grate Onto The Pump

Different boat manufacturers use different size intake blocks. Measure from the bottom of the pump to the bottom of the boat. The Stomp grate is designed for 1" thick intake. Shims are needed if intake is thicker than 1". Shims can be provided upon request.

Install stomp grate, and any shims that are necessary, with the allen head hardware. Apply blue Loctite 243, or 242 to the threads of the provided allen head hardware before installation. Torque in order to 18ft. lb. Follow torque sequence chart.



Torque Sequence

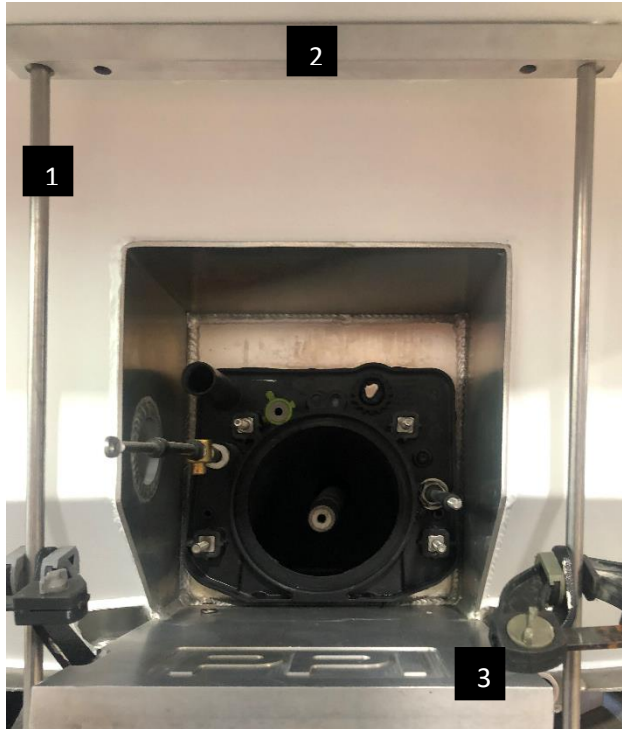
4. Install Guide Bar

To help locate the guide bar location you can insert the push rods through the guide bar, and clamp the push rods to the outside of the stomp grate ears. Make sure stomp grate is supported in the fully up position. Remove the hardware from the guide bar. Then push the guide bar to the bottom of the swim deck. Verify that the guide bar is centered over the pump. Set the guide bar an appropriate distance from the transom. Too far away and it can be a trip hazard, too close to the transom makes it difficult to operate the pedal. Be sure not to exceed the range of the roller bushing inside of the guide bar.

Mark and drill the 2 7/16" holes, and the 2 7/8" holes.

Sometimes it is necessary to cut the guide bar to miss bracing under the swim deck. It is recommended that you use the guide bar as the hole template before cutting it apart.

Bolt the guide bar, and spring to the swim deck with the allen head hardware provided in the guide bar bag. Tighten bolts until snug. Must be able to move spring around slightly.



1. Push Rod
2. Guide Bar
3. Clamp on ear of stomp grate

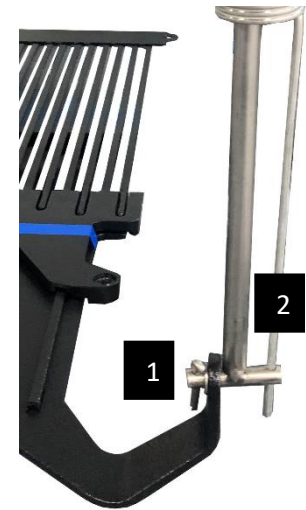
5. Install Push Rods, and Springs

Install push rods through the plastic bushings in the guide bar, and insert spring into one of the holes on the push rods. Now install other side of push rod through the stomp grate. It may be necessary to pivot stomp grate downward to install push rod into the ear.

Install flat washer, and cotter pin into push rods on the stomp grate side. Bend each side of the cotter pin at least 45 degrees.

Hold the stomp grate in the full up, and closed position. Pull the spring down 1"-1.5". Bend the tail around the push rod to hold that tension on it. Trim off the extra tail on the spring.

Tighten 7/16" bolts to 30 ft. lbs.



1. Cotter pin and washer
2. Spring tail

6. Trim Push Rods, and Install Pedal

Measure from the top of the swim deck to the top of the push rod. You should have 7"-9" sticking up. If not then you will need to trim the push rod down to that dimension. Ideal stroke range for a stomp grate is 6"-8".

Set pedal on top of push rods. Remove the allen set screws, and apply blue Loctite 242 or 243 to the threads of the set screws. Reinstall set screws. Tighten each bottom first, and then each top one. Torque each to 77 in. lbs.

Operation

1. Get to a calm deep section of water.
2. Turn engine off. **DO NOT OPERATE STOMP GRATE WHILE ENGINE IS RUNNING! DAMAGE TO THE PUMP WILL OCCUR!**
3. Activate stomp grate by stomping on the pedal 2-3 times. Be sure to fully compress pedal each time.
4. Re-start engine, and run boat to verify blockage is cleared.
5. Repeat steps 1-3 if blockage isn't cleared. It may be necessary to repeat 2-3 times.
6. If it doesn't seem like blockages are clearing then debris may be passed the grate. You will need to access your cleanout to clear blockage, or disassemble the jet pump. Be mindful of your surroundings, and disable the engine before accessing the jet pump.

Tips

- Technique on clearing debris varies by boat design, and type of debris. It may be necessary to change your technique
- Sometimes it can be helpful to get the boat moving 20-30 MPH before operating the stomp grate. Remember to turn the engine off before operating the stomp grate. This allows water to flow across the grate releasing any debris.
- Moss/grass debris can sometimes be difficult to clear. It can sometimes be helpful to lift up on the pedal after activating. This creates a scissor type effect, and cuts the grass.
- A high-speed reverse maneuver can sometimes cause water to travel backwards in the pump causing debris to release. To do this you need forward momentum, then a quick reverse before turning engine off. Be sure to shift back to forward after engine is off. The effect should be a wave of water hitting the back of the boat. Everyone in the boat should be holding on for this maneuver. Boats with short sides should not attempt this maneuver. Water could travel over the transom causing the boat to swamp.

Maintenance

- All welds, and joints need to be checked annually for cracks caused by vibration, and harmonics to avoid pump damage.
- Check torque on grate bolts, guide bar bolts, and pedal set screws twice a year. Re-apply blue Loctite 242, or 243 to the threads of any hardware found loose.
- Applying a new coating to the grate may be necessary to avoid excessive rust.