These instructions are intended for use only by experienced, qualified combustion start-up personnel. Adjustment of this equipment and its components by unqualified personnel can result in fire, explosion, severe personal injury, or even death.

IMPORTANT

Upon receipt, carefully check the replacement impeller to be sure no damage has occurred during shipment or handling. Any changes made to the turbo blower assembly could cause detectable differences in vibration levels. However, since each impeller is centrifugally balanced before shipment to Quality Grade G6.3 of the ISO Standard 1940, impeller replacement in itself should not cause concern. If excessive vibration level is suspected before or after impeller replacement, obtain quantitative peak-to-peak displacement or velocity vibration readings at the motor bearings prior to consulting the factory.

These instructions are intended to serve as guidelines covering the installation, operation, and maintenance of Hauck equipment. While every attempt has been made to ensure completeness, unforeseen or unspecified applications, details, and variations may preclude covering every possible contingency. WARNING: TO PREVENT THE POSSIBILITY OF SERIOUS BODILY INJURY, DO NOT USE OR OPERATE ANY EQUIPMENT OR COMPONENT WITH ANY PARTS REMOVED OR ANY PARTS NOT APPROVED BY THE MANUFACTURER. Should further information be required or desired or should particular problems arise which are not covered sufficiently for the purchaser's purpose, contact Hauck Mfg. Co.
The following procedures should be followed when it becomes necessary to inspect or replace the impeller on a Hauck blower. The numbers in parentheses refer to items depicted in Figure 1.

**WARNING**
This equipment is potentially dangerous with the possibility of serious personal injury and property damage. Hauck Manufacturing Company recommends the use of flame supervisory equipment and fuel safety shutoff valves. Furthermore, Hauck urges rigid adherence to National Fire Protection Association (NFPA) standards and insurance underwriter's requirements. Operation and regular preventative maintenance of this equipment should be performed only by properly trained and qualified personnel. Annual review and upgrading of safety equipment is recommended.

The following procedures should be followed when it becomes necessary to inspect or replace the impeller on a Hauck blower. The numbers in parentheses refer to items depicted in Figure 1.

**CAUTION**
Ensure that the electrical power cannot be accidentally applied to the motor while the casing is disassembled.

1. Remove both self-tapping screws (22) holding the front half of the casing to the outlet adapter.
2. Remove all of the hex head bolts (14) located around the casing flange.
3. Separate the two halves. The two halves are factory sealed with resin coating. To facilitate their separation, it is recommended that a knife be drawn along the joining edge of the halves. Moderate force may be required to overcome the seal between the casing halves.
4. Loosen the three setscrews (5) at the rear of the impeller hub. **Do not remove the stud or lock nut at the center of the impeller.**
5. Pull the impeller from the motor shaft. The key will separate from the motor shaft and impeller hub keyway. (Do not misplace the key as it will be reused).
6. Inspect the impeller and replace if necessary.
7. Clean any burrs from the shaft caused by the setscrews. If necessary, use an emery cloth to restore a smooth surface.
8. Apply an antiseize compound to the impeller hub bore and the shaft.
9. Place the motor shaft keyway at the 12 o’clock position and insert the key.
10. After ensuring that the impeller hub keyway is aligned with the key on the motor shaft, slide the impeller on the shaft.
11. Replace the front half of the casing and tighten all casing hex head bolts (14).
12. Replace the self-tapping screws (22) which hold the front half of the casing to the outlet adapter.

**NOTE**
In order to ensure an effective air seal, it is important that a suitable caulking (we recommend "3M Strip Caulk") be placed between the outlet adapter and the casing halves for a short distance in each direction. Suggested approximately area of caulking is shown in Figure 1.

**IMPORTANT**
It is important to reinsert the key before attempting to tighten the impeller setscrews. Failure to do so will prevent proper tightening of the key setscrew. It is also imperative that the sequence and torquing procedure outlined be followed exactly. Failure to sufficiently tighten the setscrews may allow the impeller to further loosen during operation of the blower, while excessive tightening may damage the setscrews as well as impair their effectiveness.

**Blower Hub Locking Mechanism**

![Blower Hub Locking Mechanism](image)

**Figure 2. Blower Hub Locking Mechanism Cutaway**
There are three setscrews, positioned 120° apart, that are used to secure the impeller to the shaft by means of the blower hub locking mechanism. One of the three setscrews is located over the key. The procedure below should be followed closely to properly secure the impeller:

1. Remove the three hex socket head setscrews and liberally apply Loctite 243.

2. Replace the setscrews loosely and slide the impeller back and forth on the shaft until the impeller is positioned at the midpoint of its travel range.

3. Snug either setscrew that is not over the key. Then snug the second setscrew that is not over the key.

4. Snug the setscrew that is over the key.

5. Torque the three setscrews to 400 in-lb (45 N-m).

**IMPORTANT**

Before starting the blower for the first time, the impeller should be rotated to be sure there are no restrictions to its free turning. **Operate the blower for 15 minutes**, then recheck the setscrews. **After one week of operation**, recheck the setscrews and retorque if necessary. Thereafter, periodically check the setscrews.