

XF-16R/XF-18R

BAND SAW POWER FEEDER



PARTS LIST

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GENERAL SAFETY RULES

There is a certain amount of hazard involved with the use of woodworking machinery. Using the machine with the respect and caution demanded as far as safety precautions are concerned will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, severe personal injury to the operator can occur.

1. Read the operation manual before operating this machine.
2. If you are not thoroughly familiar with the machine operation, obtain advice from a supervisor or other qualified person.
3. The machine should be disconnected from the power source before performing maintenance or adjustments to the internal mechanisms, or when making repairs.
4. After maintenance job is finished, check to see if there are any tools or objects left on the machine. Close all safety guards.
5. Before leaving the machine, make sure the work area is clean.
6. Check timber for loose knots, nails, or other items, which may cause a hazard or affect the machine's performance.
7. Learn the machine's applications and limitations, as well as the specific potential hazards peculiar to it. Keep the machine in top condition for best and safest performance.
8. Keep all guards in place and in working order.
9. Do not force the machine. It will do the job better and be safer working at the rate for which it was designed.
10. All children and visitors should be kept a safe distance from the working area.
11. The operator should keep proper footing and balance at all times.
12. Do not operate the machine while under the influence of drugs, alcohol, or any other medication.
13. Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the machine.
14. Never leave the machine until it comes to a complete stop, and never leave the machine running unattended.
15. The employer is responsible for selecting competent and qualified employees.
16. The employer must make sure that employees study and utilize this safety information.
17. Supervisors must alert personnel of any unsafe practices they observe.
18. All employees should be aware of first aid facilities and be encouraged to use them, regardless of the severity of the injury.
19. Fire prevention must be practiced and fire protection must be available to prevent loss of life, personal injury, and property damage.
20. Safety shoes should be worn to provide protection against rolling objects, falling objects, and sharp edges in the workplace.
21. Eye protection should be worn and such devices should be carefully selected, fitted and used. Compulsory wearing of glasses with impact resistant lenses and side shields is a good safety policy. All eye protection should conform to ANSI 87 standards.
22. Wear hearing protection when operating the machine.
23. Do not wear rings, necklaces or jewelry around moving machinery.
24. Do not wear loose fitting clothes. Clothing should be comfortable, but long sleeves, neckties, etc. should not be worn.
25. Do not wear gloves or other hand covering articles around moving machinery.

26. Cover long hair with a hair net or cap.
27. Protective guards and shields must be in place at all times unless they must be removed for specific service or maintenance. They should be immediately replaced when service or maintenance is completed.
28. Make sure that operator clearly knows how to stop the machine before starting work.
29. Never clean or remove chips while the machine is running.
30. Maintain the machine in good operating condition. Report unusual conditions or machine malfunctions immediately.
31. Do not alter or remove guards and warning labels.
32. Keep the immediate area clean. Do not allow the floor to become slippery, or covered with dust or obstacles. Dust that accumulates in the work area is a hazard that can cause you to fall or slip against the machine or its controls.
33. Employees should be required to report to their supervisors any hazardous condition of the machine or in the immediate area.

UNPACKING & CHECKING CONTENTS

The machine has been well packed at the manufacturer's factory and shipped in good condition. The machine is shipped in one wooden pallet.

Upon receiving the machine, carefully unpack it and check all items as according to the packing list.

If you find any part is missed or damaged, contact your local distributor or the manufacturer of the machine immediately. Do not attempt to operate the machine until the missing parts are obtained and are installed correctly.

ELECTRICAL SAFETY RULES

1. Do not alter or bypass any protective interlock.
2. Before starting the machine, read and observe all warning labels and markings such as nameplates and identification plates.
3. Only personnel who are properly trained and have adequate knowledge and skill should undertake all electrical/electronic troubleshooting and repair.
4. Use extra precautions in damp areas to prevent yourself from accidental grounding.
5. Make sure your body and your tools are clear of electrical grounding.
6. The control panel doors should be opened only when it is necessary to check the electrical equipment or electrical wiring.
7. Before applying power to any equipment, establish without a doubt that all persons are clear.
8. Be alert and be sure you can work with no outside distractions.
9. Avoid wearing metal frame glasses or wearing a metallic necklace or chain, and never work on electrical equipment while wearing rings, watches, or bracelets.
10. When replacing conductors, make sure they conform to the manufacturer's specifications, including proper color-coding.

11. Do not alter the electrical circuits. If machine damage is caused by an unauthorized alteration, the user is responsible, not the manufacturer.
12. Always assume the electrical power is ON and treat circuit as live. This caution develops a habit that may prevent an accident.
13. Give capacitors time to discharge. Otherwise, it should be done manually with care.
14. Use proper test equipment to make certain you have an open circuit. Test equipment must be checked and calibrated at regular intervals.
15. Open the control panel doors only when it is necessary to check the electrical equipment or wiring. After closing the door, make sure the disconnecting means are operating with the disconnecting handle mechanism in its proper position.
16. All covers on junction boxes must be closed before leaving any job.

INTRODUCTION

The feeding devices for Band Saws are ideal tools for resawing safely and efficiently. They can be attached to different types of Band Saws with a working table. XF-16R is suitable for Band saws of 16" to 28". XF-18R is suitable for Band Saws of over 24".

LIFTING

The XF-18R feeding body is 120 lbs. It can be lifted by means of a crane or some other lifting device. Hooked under a rope (B) run the ring bolt (C), screwed into the base of the re-saw attachment, on the other side, connected to rod (A). (Fig. 1)

INSTALLATION

The feeding attachment is to be installed on the table in accordance with the measurement shown in Fig. 2. The procedure is as follows:

1. Adjust fence to the nearest position to Saw Blade (Measuring Scale on "0") and run parallel with saw blade (A). Then use 2 pieces of 10mm screw to fix fence base on the table (B). **NOTE: The unparalleled condition between fence and saw blade may cause irregular cutting and danger.**
2. Turn the nut of spring adjusting rod © to the rear position. Furthermore set up the feed roller to the right of saw blade, meantime, its central point has to be located in front of saw blade (D) about 10mm.
3. Remove base to parallel the right edge of working table, but its maximal angle does not exceed 25° between of the saw blade (E). Set 4 pieces of 10mm screw to fix feeding attachment on table (F).
4. Refer to Fig. 3 about suggested specification of drilling holes. (Refer to Fig. 4 for XF-16R)

NOTE: In case that the attachment is mounted on a narrow working table, a bracket must be fitted to carry the feeding attachment.

OPERATING INSTRUCTIONS

NOTE: Before testing the XF-16R attachment, move the dust resistant plates away from feeding rollers to avoid danger or hurt caused by opposite power cable connection and wrong feeding direction.

1. **Timber Feeding:** Feeding pressure can be adjusted by tightening the nut (G), which compresses the roller pressure spring (H).
2. **Roller Fence:** Turning the knob (A) can adjust thickness of cutwork pieces. Set up required thickness on measuring scale (J). Tighten the handle after finish adjusting.
3. **Feeding Rates:** There are 8 applicable feeding speeds—28/17/13.5/10/8/6/5/3M/min for the XF-18R and 6 feeding speeds—1.5/3/3.8/5.7/7.6/11.4M/min for the XF-16R. The rate of feeding is decided depending on the hardness and thickness of the timber to be processed and efficiency of the band saw. **NOTE: Too fast feeding speed or dull saw blade may cause irregular cutting.** The reduction gear shaft is driven by electric motor through a v-belt. XF-18R speed is varied as follows:
 - A. Stop the machine. Open the pulley housing. Use lever 10 to loosen nut and lift the motor.
 - B. Slip the belt to the groove for required speed. Remember that the lowest speed is at the minimum diameter on the motor pulley and maximum diameter on the reduction gear pulley. Lower the motor and retighten.XF-16R speed is varied as follows:
 - A. Stop the machine. Open the pulley housing. Use lever 24 to loosen nut and 6mm wrench to loose screw. Relax the belt M17.
 - B. Slip the belt M17 to the groove for required speed. Adjusting the screw for suitable belts tension. **(Test belts tension with your index finger. Apply slight pressure and allow the belts to be pushed 3-5mm. Right tension avoids splitting and prolongs the usage.)** Retighten nut of 24 and fix the motor.
4. **Changing Motor:** If the motor has to be changed, the pulley must be removed in order that the motor can be slid out of the housing. This is done by removing the set screw holding the pulleys and screwing an 8mm thread bolt or grub-screw into the hole and tightening; the bolt or screw is then used to extract the pulley. To remove the pulley screw, first, remove the bolt and the locking ring; into the tapped hole in the small plate, insert a grub-screw or bolt and tighten in order to extract the pulley.

ELECTRICAL COMPONENTS

The feeders have passed secure quality test but they are all the while advisable to plug into fused sockets.

The feeders have passed several security certifications worldwide, such as CE Mark in Europe, CSA/NRTL in North America, etc. Wire connection diagrams are as below.

LUBRICATION & MAINTENANCE

- The feeders have been supplied properly lubricated by the manufacturer. To avoid damage by insufficient lubrication or maintenance, it is necessary to replace with new lubricating oil after 200 hours running. Afterward, check the oil and compensate every 3 months.
- The worm gear of the re-saw attachment should be lubricated with oil (X-Oil, Mobil Mobilgear 630, Shell Omala 150 BP, Energol GR-XP 150, or any equivalent type is recommended.)
- To add oil, remove plug on the top cover of the gearbox; an indicator plug on the side of gearbox displays the level; the gearbox-mounting arm should be lubricated with grease gun.
- At least once a week lubricate the sliding arm of the fence with an oilcan; also lubricate the fence roller pins.
- From time to time, all working waste (sawdust, shavings, etc.) should be removed from both outside and inside the feeders by means of air jet or powerful bellows.
- The two dust resistant plates, mounted on roller cover of XS-16R, are designed to resist working waste. Check if the plates close to feeding rollers and tightened before operation anytime.

PARTS LIST

XF-16R Feeding Body