USER REVIEW

THE FELDER FB600 BANDSAW

By Art Liebeskind

INTRODUCTION

As a grizzled veteran of some 45 years in woodworking I have owned a few band saws. They have ranged from a 10 inch "Harbor Freight" cheapy through the obligatory 14 inch Delta and then entry into the big league with what I thought was the ultimate, an Italian built 16 inch heavy-duty band saw. I learned a few things from this progression and here they are presented for the common good. Point number one is that big, heavy, and strong is good in a band saw. Point number two is that band saws are for a whole lot more than sawing curves in thick wood; ripping and re-sawing are cases in point. Point number three punctures a common myth that all of the really good big band saws are made in Italy by just a few makers and are often custom badged for specific companies. I recently learned that a company that really cares for top quality can indeed develop its own band saw that will stand up favorably against any in the world. I'm talking about the FB 600, Felder's latest entry into the US band saw market. It's a 24 inch band saw that is really a beast. It is big, it is strong and it is finished beautifully. I must admit to a certain amount of machinery pride and I suppose that makes me a shallow woodworker. Nevertheless, I take pleasure just looking at as well as working with this new addition to my shop. The FB600 has a number of features that are unique and extremely useful and they will be detailed below.

FIRST IMPRESSION

My first impression was one of apprehension as I saw the size of the machine and mentally compared its size to the door opening and the ceiling height of my shop. I was relieved to see that the height was 79 inches and would fit handily in my shop. The machine normally gets shipped upright for easy handling when you get it. I could not help but notice the thickness of the metal in its construction and the heavy vertical column that is a source of its extreme rigidity. All in all it was a good-looking machine and gave a real impression of solidity. It didn't hurt a bit that it was nicely painted and looked good with the other Felder equipment in my shop.
FIT AND FINISH

The FB 600 replaced an Italian 16 inch band saw that frankly was a very nice saw. The castings were a little rough and the sheet metal a little light but all in all it served me fairly well. The FB 600 however was put together in such a precise manner that it truly felt as if it were a gull wing Mercedes being compared to an upper end Fiat. Either one would get you to the corner drugstore and back but it sure is fun to drive the Felder. Specifically, the table was beautifully ground; the doors fit nicely. The paint and the castings were smooth and well done.

CONSTRUCTION

The saw weighs in at 727 pounds and that weight is all iron and steel. The generously sized table is heavy cast-iron and so are the 600 mm (24 inch) wheels. The weight and good balance of the wheels with their flywheel effect contribute to the smooth running of the machine. The vertical column that serves as the backbone is made of thick steel plate and is rigid enough to guarantee that the frame has no flex and therefore wide blades (max. blade width 1¾ inch) can be tensioned correctly without deflection of the saw frame itself.

MAIN SAW TABLE

The table measures 560 x 850 mm or 22" x 33.5" and as mentioned earlier is heavy cast-iron nicely ground and polished. It allows a cutting width of close to 23 inches. A nicely cast plastic zero clearance insert is well fitted and fits flush to the table surface. The table is fitted on three sides with extension bars which allow other Felder accessories to be used to increase the table width and length. These extension bars fit the standard "F type" attachments (extension tables etc.) which many Felder owners already have for their saws or combination machines. A further use for these extension bars is to utilize some of the Aigner accessories which help control stock as it passes past the blade. Note: In my case I already have a wheeled pressure bar that is invaluable for re-sawing and ripping. With a little ingenuity, other accessories such as a circle jig (part #01.1.300) can be fitted to these accessory bars.
TABLE TILTING

The table tilting mechanism is geared with an arced rack and pinion and throughout the angular motion, the table rides on the cast-iron guides. This feature gives a great deal of stability to the table in any of the angular positions. It is easy to adjust and locks securely. The angular range of the table tilt is from 0° to 22.5° (see notes at end of review for future changes). The working height of the table is about 33 inches which seems to be a reasonable and comfortable height to feed stock. In the past some of the other band saws I have owned have been either too high or too low for comfortable use.

FENCE AND DRIFT ADJUSTMENT

The anodized aluminum fence rides on the front extension bars and can be locked in any position across the width of the table. It is a two position fence and can be rotated so that either a tall side or a narrow side is exposed to the work piece. This is useful for small or thin material to be cut. Screws within the locking mechanism can be adjusted if the drift setting needs to be changed.

MITER GAUGE

An optional miter gauge (part number # 13.0.011) is available and as these devices go is quite useful. It has a cutoff stop adjustment built-in that allows repetitive cutting of work piece length. Generally speaking, a miter gauge is not a necessity for the efficient operation of the band saw but does prove useful from time to time.
GUIDES AND TELESCOPING GUARD

The telescoping guard that goes up and down to limit exposure to the blade while cutting is by means of a sturdy rack and pinion and controlled by a hand wheel and a locking mechanism. It is very smooth and despite the fact that it carries the top guides up and down, it does so while keeping these guides in the adjusted position no matter what height is set. There are a number of interesting graphics on the machine itself that indicate such things as which way to turn the lock handle to lock and to release and which way to turn the hand wheel to raise or lower the guard and the guides. This makes life easier than having to remember. A similar graphic indicates which way to turn the tension wheel to increase or decrease tension. Both the upper and lower guards are easily adjusted side to side, front to back and tightness against the blade.

WHEELS

The wheels are heavy cast-iron and well-balanced. The use of cast-iron wheels is the preferred method for a large band saw. A knob on the back of the saw allows adjustment of the top wheel to move the blade forward and backward on the wheels. Once again there is a graphic to indicate which way to turn the hand knob to get the desired movement. A small point but really worthwhile when you are trying to adjust a blade of a different size to the appropriate position on the wheels.
DRIVE BELTS

Most band saws are driven by a Vee belt or a flat belt. This has been my experience in the entire gamut of saws that I have owned until the FB 600. A better and more sophisticated engineering approach to drive the wheels is the poly Vee belt that is part of the drive train on the Felder band saw. This arrangement carries power with less loss and with a much smoother transfer. To my knowledge it is unique among the popular band saws.

DUST COLLECTION

Another feature that I find extremely useful is the fact that there are two dust collection ports. One is in the usual position at the side and collects dust deflected by the internal wooden deflector paddle and the other is located at the lower rear portion of the saw to pick up the dust that usually collects in the bottom of the cabinet. All in all, when properly hooked up the sawing operation is almost dust free. The outlets are 120 mm and 100 mm in diameter (see notes at end of review for future changes).

POWER

The single phase motor is 5.5 hp and 230 volts.. I was delighted to get the single phase 230 volt motor and feel that that is more easily accommodated in the average shop. It certainly seems to have adequate power for anything I wish to cut and indeed it melted its way through 4 inch rock Maple with absolutely no hesitation. After a long session of cutting I could detect minimal temperature rise in the motor and that is a good thing.

BLADES

The blade length is 4521mm or approximately 178 inches, however the value will change on future model (see notes at the end). The euro guides and the saw as it comes can handle blade widths from 1/4 inch to 1 1/4 inch. By using the euro guides as a clamp and clamping a piece of wood or hard plastic with a narrow slot, an even narrower blade can be guided in this machine. For a machine of this size I recommend among the arsenal of blades, a carbide tipped blade for heavy usage and resawing. It is not inexpensive but a really good investment.
RESAW CAPACITY

The cutting height or re-sawing capacity is a 15 3/4". To me, this is as much as should ever be needed. When is the last time you brought home boards wider than 15 3/4 inches? Other saws on the market may have extended their height capacity to greater dimensions but often do so at the sacrifice of frame rigidity. I think the option chosen for this saw is the right way to go for a heavy-duty band saw.

VIBRATION

The standard test for vibration in woodworking machinery seems to be standing a nickel on edge and watching to see if it falls over when the machine is running. I think I have a better way in that I put my hand on the table when the machine is running at no load and when I am cutting and feel both times for vibration. This machine passed the test with flying colors and was virtually vibration free both loaded and unloaded. This is partly due to the heavy construction, partly due to the weight of the wheels and most probably due to the overall precision construction of the machine.

SAFETY FEATURES
In addition to the telescoping blade guard which limits exposure to the blade above the work being cut, other safety features include the foot brake which turns off the motor and stops the blade. Without such a brake, the typical band saw can coast for almost a minute. I feel that this is an important safety feature and really should be standard on any band saw. In addition, it shortens the time to change blades. Limit switches prevent the machine from starting when the upper or lower doors are open which also prevents serious exposure to possibly moving blade started by accident. The manual stop button (a red mushroom type) must be manually pulled out to restart a machine that was stopped by that "off" button. This is to prevent unplanned restarts.

MOBILITY SYSTEM

Two types of mobility system are available as an option at a fairly modest price. I feel that it is worthwhile in order to reposition the machine in a shop of limited space to accommodate long cuts or wide crosscuts.

CUT QUALITY

The cut as tested on both thick and thin boards was excellent. The actual edge of course depends on the number of teeth per inch on the blade used but I found that with a wide blade of three teeth per inch I got a very smooth cut. A minimal pass on a jointer or with a hand plane yielded a joint that could be glued up without any mechanical fastener. With a tall auxiliary fence, it was possible to cut veneer at close to 1/16 of an inch with a surface that was smooth enough to glue down right off the saw. All in all the cut quality was totally satisfactory.

CONCLUSIONS

All in all, I am extremely satisfied with the Felder FB 600 and can heartily recommend it to anyone who wants a really big strong saw capable of just about anything needed in the shop. It is interesting that a saw this capacity and strength can easily fit into just about anyone’s shop since the overall height of the machine is 79 inches. Just make sure that you have some strong friends available to help you bring it into the shop.

Changes coming

Felder just told me that they are actually making some small changes to the FB600 and will call the New model the Felder FB610. They mentioned the following few points to me, none of them in my mind are actually required but I guess as always Felder keeps working on improving their products.
1.) Tilting table from -5° to 45°

2.) They will be adding an observation window in the door to check the run of the blade while tracking so you do not need to open and close the door every time.

3.) The resaw capacity on the new machine will be a full 16” (410mm)

4.) An even heavier rack to eliminate any vibration along with reinforcement around the motor mounting.

5.) The extraction ports will both be changed to 120 mm.

6.) Because the resaw capacity is increasing the machine will be slightly higher, 80 3/8” and thus also have a slightly longer blade (4546mm = approximately 179inch).