Power Split International

Double Vertical Splitter

A practical and productive machine that splits large, tough logs with ease.

By Bill Gove

Below: Jim Carlino stands beside his Power Split Double Vertical while an employee readies a block for splitting. Bottom right: Two of Carlino's employees use the block lift to start splitting.

For these reviews of firewood processors and splitters, I'm always on the lookout for a machine that is different, one that has a special or unique application. And just when you think that all firewood producers have the same goal in mind or the same product, there pops up that operation which doesn't fit the mold.

Firewood processors typically cut a log into firewood length blocks, split the blocks into desired sizes in a single thrust, and convey the splits away from the machine. But recently there came to my attention a firewood machine that defied the conventional. It has no provision to cut the log into firewood lengths, and it splits the wood in an unusual vertical position. Yet the manufacturer made great claims regarding production.

Why, I wondered, would anyone want to buy a splitter that required the operator to first block the log with a chain saw and yet cost as much as a lower-priced firewood processor? Well, there was a logical answer to my question. But I had to travel halfway across the country to find it.

The machine is known as the Power Split International, made in Laval, Quebec in Canada, located near Montreal. The Power Split came on the market about eight years ago, developed by a Canadian firewood processor.

I was anxious to view a machine in action but found I had to go to northern Illinois to find some Power Splits in action. For a reason that I discovered later, this is one of the areas where U.S. sales have been most active. In Woodstock, Illinois, I met Jack Foss, a young firewood producer of varied business interests and definite ideas about marketing. Jack's enthusiasm for his business, Lumberjacks Firewood, was not distracted by the fact that he had just returned from his honeymoon in Colorado or that he was scheduled to play his weekly hockey game that evening.

As I drove into the yard I noticed a fairly new firewood processor off in a corner, obviously getting little use. But in front of one of the log piles, two workers were busy working with a Power Split.

The Power Split used by

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PHOTOS BY BILL GOVE

POWER SPLIT SPEC SHEET

MODEL
Power Split International Double Vertical

POWER UNIT W/HP
Standard: Honda 18 HP with 50 pound fly wheel
Optional: Kubota Diesel

SPLITTING FORCE
26 tons

SPLITTER CYCLE TIME
5 seconds

SPLITTING STROKE
22 to 24 inches

HYDRAULIC TANK CAP.
25 gallons

WEDGE (standard)
Two-way and four-way

MACHINE WEIGHT
2,500 pounds

TRANSPORT LENGTH
25 feet

TRANSPORT WIDTH
6 feet

TRANSPORT HEIGHT
6 feet, 6 inches

WHEEL BASE
10 feet

CONVEYOR
25 feet

EST. PRODUCTION RATE
4 cords/hour

MAX. BLOCK DIAMETER
40 inches

OPTIONAL EQUIPMENT
Block lift, extended table, heavy duty gauge table, roof, wood hooks

SALES PRICE
(before options) $19,500

MANUFACTURER
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Jack was a double vertical splitter with two vertical splitting stations, which I learned is the company's most popular model. Although the manufacturer makes a single splitter model, the double splitter is more practical and, as I observed, much more efficient. The vertical splitting rams are independently operated by each operator with his own foot pedal. This allows the operator to use both hands to manipulate the block of wood.

Watching Jack Foss's two workers on the Power Split I realized how important it was to have a pair of workers that function well together. Except when one of the workers blocked the wood with a chain saw, they each worked a splitter. While one of them split a large-diameter block into large sections and placed them in the middle of the table, the other operator resplit the sections into the small pieces that Jack's customers demand. With smaller diameter blocks, they worked independently.

The large work table is about knee height, but it is not necessary for the operator to lift the heavy blocks up onto the table. An optional hydraulic log lift on the left side of the machine raised the heaviest of blocks onto the table where workers positioned them under the splitting ram.

One of my first thoughts, while watching the vertical ram in motion and the hands under it manipulating the block of wood, was one of safety. I was reminded of the old-fashioned bobbin splitters, once popular in northern New England, whose continual-motion guillotine blade split the rough squares–as well as an occasional finger from the hand that was positioning the wood.

But the Power Split is different. The ram on the splitter comes down only when the operator depresses the pedal, and doesn't come down fast enough to catch the operator unaware. The entire cycle takes five seconds. And Jack's operators were adept at keeping their hands on the sides of the blocks while positioning the wood. Nevertheless, it would seem advisable to keep this in mind while training an operator. The splitting ram has a force of 26 tons.

The Power Split requires workers to block the wood before splitting.

Although the machine is equipped with a 25-foot conveyor which can be conveniently fed from the trough between the two splitters, Jack chose not to use the conveyor. The machine operators stacked the wood in pallet-like containers for easier handling; each container holds one-sixth to one-quarter of a cord of wood.

Jack uses the containers to expedite loading of his homemade firewood dry kiln. Each of the two small metal structures holds 1 to 1 1/2 cords of wood, heated by a wood stove outside the boxes. Hot air is forced through the units by fans.

Jim Carlino, whose operation is located a few miles east in Ingleside, Illinois, runs a similar wood supply business, though he markets his operation differently. He's a general contractor who operates a large firewood production yard as a sideline, keeping two men steadily busy.

Jim also operates a double splitter with a worker at each splitter ram, unless one of them is blocking wood with a chain saw. However, instead of stacking the split wood in containers, Jim has his crew put the wood in large loose piles, windrow fashion. Thus, the self-propelling feature of the machine is handy as the machine easily moves around the yard without having to be towed.

And the use of the built-in variable speed conveyor has made it possible for Jim to reduce his labor costs. He used to employ

one person who tossed the split wood up onto the high piles. The wood is air dried in the large piles for a few weeks or occasionally for a few months.

Although a larger engine is available as an option, the 18 horsepower Honda split the toughest of the wood. Jim's machine consumes about 5 gallons of fuel in a working day.

I noticed that Jim equipped his machine with the straight two-way wedges, the same as Jack Foss, although the four-way or star wedge is available for the machine. Both men gave the same reasons for not using the star wedge–safety and control of split size. They both felt that with a worker already holding sides of the upright block as the ram came down, a single splitting edge is enough to be aware of. Neither reported injuries while operating the Power Split.

As for the size of the split wood, the two machine owners differed in practice. Jack Foss caters to customers who want the wood split fairly small and of somewhat uniform size. His operator with the two-way wedge first breaks down the block with parallel splits, spacing them for the desired firewood size. Then these sections are turned 90 degrees and split together, making pieces of uniform size.

Jim Carlino markets his wood in larger pieces, but still finds that the single wedge controls the wood size better. He said the star wedge produced too much waste.

Power Split claims a production rate of 10 face cords (3 1/3 cords) per hour. It's difficult to compare this rate to a firewood processor, because of the time and labor necessary to block the wood with a chain saw, a function that is built into the processor. Firewood processors produce from 1 1/2 to 3 1/2 cords per hour, depending on the size of the model.

So why would an operator choose a splitter over a firewood processor? As I looked over the log supply and as I learned more about the source of the logs, I began to appreciate the answer and how it applied to this part of the U.S. Large woodlots for logging and forest management are quite limited in this semi-rural country, and sawmills are not common. Many of the logs acquired for firewood production come from land clearings; they're large, knotty, and crooked. And they can be any length, from about 5 feet on up.

Some of the logs in both of the yards I visited could never be handled by a firewood processor. There was an abundance of oak, hickory, and ash. The workers cut blocks 20 inches and over in diameter, some even 30 inches, and the 1,000-pound lift on the side of the Power Split easily lifted the large blocks up onto the table for the operator to slide under the splitting ram. Splitting large blocks on a processor involves considerable

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rehandling, unless large split pieces are satisfactory. Thus, with a wood supply of this type and with good labor that is not high-priced, the Power Split proves to be quite practical and productive.

Many firewood processors, however, would probably not find the Power Split to be the most practical machine. Logging the northern hardwood forest produces smaller wood from thinnings or from the top sections of the trees which make excellent firewood. The Power Split could easily handle this material, but not as efficiently as a processor.

Over in Jim Carlino's lot, log suppliers occasionally bring in some good quality white oak, walnut and cherry logs, but they still go through the splitter; the log market is too far away to sort out the logs. Jim wholesales his air-dried wood for about $45 per face cord, a common measurement in this area. The wood is all cut 16 inches long; therefore, three face cords would equal a full cord.

Sometimes Jim has his workers count out 220 pieces of the even-sized wood to make the face cord. The retail customers pay $65 per face cord delivered and dumped. The oak is sorted out and brings $10 more. Yearly production exceeds 700 full cords.

Jack Foss has a different marketing scheme. All of the wood fiber finds a place in his product mix. Any log material with large knots or severe crooks that would not make attractive looking firewood is cut out and put through a chipper to make mulching chips. Various grades of bark mulch are also marketed.

If he has a pile of small logs, Jack fires up his processor along with a GFX splitter that he uses as a resplitter. Jack's yearly production runs 1,200 to 1,500 cords, of which one-quarter goes to his commercial markets. Jack keeps it all 16 inches in length, small and uniform in size and of good grade; he retails it for $225 to $300 per cord.

I was impressed with the Power Split and relieved to find the logical answer to the question of why an operator would choose a large splitting machine over a processing machine. ■

Bill Gove is a retired forester who last worked for the Vermont Department of Parks and Forests.

MANUFACTURER'S COMMENTS

Power Split manufactures a full line of self-propelled and regular splitters. Our most popular models are the double vertical splitter with conveyor and the single vertical splitter with conveyor. Both machines are self-propelled and are unique in design. They allow workers to use one piece of equipment for splitting and conveying the wood out of the way. With a cycle time of 5 seconds, our machines are the fastest, most productive splitters on the market. They are simple to operate, and ergonomically designed. These machines are the only pedal activated splitters on the market.

The vertical design coupled with the large work tables enable the larger split wood to stay on the table and not fall to the ground to be picked up again for resplit. The vertical design also allows you to control the quality and size of the wood perfectly. Power Split International splitters are the future of splitters.