

One of the sawmills most important operations is the cutting up of the log into lumber. This was done in those days by the use of the equipment as shown in the photo on the opposite page. The bandsaw is on the left, and the carriage is on the right. The "carriage" is a moveable platform on which the log is secured, and had a two man crew. The carriage as each board is cut from the log, is moved back and forth in front of the saw on two steel rails. The inside rail next to the saw, is flat on top, but the outside rail the other side of the carriage, has an "upside down" V shaped configuration on top. The V rail is parallel with the bandsaw axis, and both rails have to be level and straight through out their length to produce quality lumber, and the bandsaw has to be vertical. The carriage would probably have six sets of trucks or axels to support it with 18" wheels. All flat wheels ^{ARE} on the inside, and all V wheels on the outside to fit the V rail. This keeps the carriage and thus the log traveling through the saw in a straight line.

The carriage shown, and which was standard in those days, is known as a 3 block "rig" with probably a maximum opening of 52 inches. The steel faced bed blocks, on which the log is placed, are stationary and secured to the carriage frame. The vertical knees are about 30" high, secured to the bed blocks, but free to move in and out in unison, controlled by a geared rack and pinion movement tied to a steam powered gauged set works. This gauge on the set works shows what the distance is in inches, and at all times, between the vertical knees and the axis of the band saw. Inside the knees and up and the vertical face is a set of curved steel claws or "dogs" that when the levers you see are pushed down the dogs are extended and will grip into a log or cant, a partially cut up log, and thus secure the log to the carriage.

All movement and speed of the carriage up and down the track is powered by steam pressure through a long cylinder called the "shotgun". The dogs were manually operated. There was a built in safety stop in connection with the knees that prevented them from moving forward enough for them or the dogs to run into the band saw. ^{WITH} Usually a clearance of at least an inch or an inch and an eighth. The last board left on the rig, after sawing a log, was called the "dog board".

This whole operation was in control of an individual called the sawyer. It was he who controlled the carriage up and down the track, loaded the logs on the rig, signaled the setter, who controlled the set-works, what thickness he wanted to slab the log, or the next board to be cut, turn the log, etc. And he alone with his skill, decides, when he first sees the log, how he plans to cut it up. And he always has to compromise between getting the highest grade of lumber, to secure the greatest dollar return from each log, out of the log, against the time it took to cut it up. If he spent too much time cutting for maximum grade his production would drop. If he cut all the time for high production his grade value would drop seriously. Not everyone could be a good sawyer. It required constant attention, quick judgement, and fast coordination. And he had the lives of the two men on the carriage in his hands.

The above procedure at the old Potlatch sawmill did not always hold true. The reason was that it had a gang saw. Whenever a sawyer was cutting a log for the gang, usually the two inside rigs. all he had to do was slab off two sides of any log to a pre-determined thickness and send it to the gang. This was where the smaller logs, but not all of them, went. This operation was geared to maximum production with little thought to better grades. This issue through the years has been a long standing debate between those who favored a gang saw and those who favored, in its place, a resaw for better grades in production, with less volume. The larger logs always had the better grades of lumber in the outer parts of the log, which ment the sawyer had to turn the log more often.

(continued)

In reviewing the responsibility of the two men on the carriage, the "setter" operated the set works in response to the sawyers instructions and he had one dog lever to work. And he always had to be aware of, and make suitable small adjustments on the setworks, so that the last board cut would be the proper thickness, taking into account the thickness of the band saw kerf, of approximately 3/16", as they cut through the log. As they traveled through the log on any cut, the sawyer would signal the thickness of the next board to be cut to the setter. The setter would then pre-set the set works and as the log cleared the saw, he would move the log forward on the carriage the distance called for by the sawyer.

The second man on the carriage was called the "dogger". His main job was to work the dogs as needed to secure the log, or to release it as the log was turned. His timing had to be fast and accurate and coordinated with what the sawyer was doing. Another chore he had was whenever a log showed up with considerable "taper", one end much thicker than the other, the sawyer would instruct him to move one or both of his knees usually back a notch or two, to present a straighter face of the log to the saw. The ratchet levers shown with the curved surface was the control for this.

You may notice a blackboard behind the carriage on the wall. Orders for special items, lumber needed to fill orders, timbers or railroad ties are posted there so the sawyer can concentrate on cutting these items as the correct size and specie of log comes by.

In todays modern sawmill, there are no men on the carriage. The entire operation is done by the sawyer, with all-electric set-works, compressed air operated dogs, etc. Some mills have no carriage's of the old type at all, and many functions are under computer control.

With all the tremendous machinery operating through out the mill, such as shafting, gears, pulleys, belts, roll cases, conveyors, chains, plus the multitude of saws, hearing and carrying on a conversation over the roar was impossible. But communication did take place and a sign language exclusive to sawmilling was devised. The most important one was the signs used between the sawyer and setter for numbers. It will soon be a lost art. Here it is;

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| 1. Extend hand, index finger up. | 14. Extend hand, all four fingers out, with side to side motion. |
| 2. Extend hand, index finger and second finger up. | 15. Extend hand, all four fingers and thumb out, side to side motion. |
| 3. Extend hand, second, third and fourth fingers up. | 16. Extend hand, fist closed, side to side motion or twist in circle. |
| 4. Extend hand, all four fingers up. | 17. Extend hand, forefinger crooked and make side to side motion. |
| 5. Extend hand, four fingers and thumb up. | 18. Extend hand, second finger out make side to side motion. |
| 6. Extend hand, fist closed. | 19. Extend hand, thumb down, and make side to side motion. |
| 7. Extend hand, fist closed forefinger crooked. | 20. Extend hand, thumb and index finger closed to make zero, and make side to side motion. |
| 8. Extend hand, fist closed, with second finger straight out. | 21. Signal 20 and then one. |
| 9. Extend hand, fist closed, with thumb down. | 22. Signal 20 and then two! |
| 10. Extend hand, four fingers and thumb out, twist hand. | For thirty, thumb and index finger closed, 3 fingers extended for three, and move hand in a circle. |
| 11. Extend hand, fist closed, with index finger down. | And so on up the scale. |
| 12. Extend hand, fist closed, and twist. | |
| 13. Extend hand, 2, 3, & 4th fingers out, make side to side motion. | |