

A test strip was run here, in country rather typical of that in which the Wyssen W-200 system will be operating. The

watershed to which the system was moved from the test site is one of three being used for comparative studies.

(U. S. Forest Service photo)

Heavy-duty Wyssen gets test

The heavy-duty system, the first time used in the United States, was rigged and operated by manufacturer Jakob Wyssen, logging Douglas fir in steep country at Blue River, Oregon

Handling logs up to 45 feet long and turns scaling from 3,000 to 5,000 board feet, this Wyssen W-200 10-ton Skyline-Crane has delivered logs at line speeds of 30 feet per second, with good control, when operating by gravity. In reasonably dense old growth Douglas fir the system can yard 60,000 feet a day.

Both uphill and downhill yarding were done, as the Forest Service first set out a test strip measuring 3,300' x 300'. This was a one-line width for the machine and contained about 2 million feet of timber.

Upon completion of the test operation, the system was moved in September to Experimental Water-

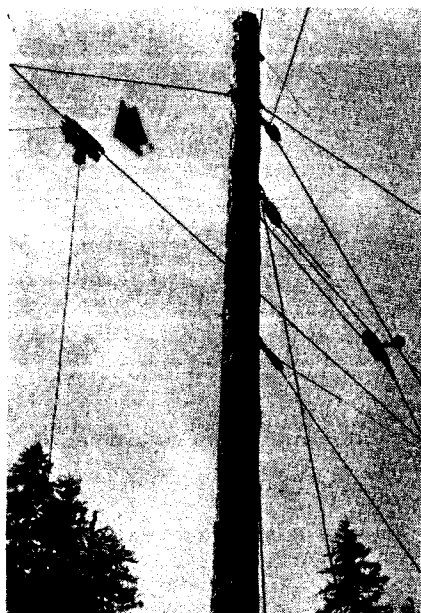
shed No. 1 on the H. J. Andrews Experimental Forest, one of three watershed laboratories in an over-all project.

The project. The watershed in which the skyline logging is being done covers 238 acres. Its counterparts, of approximately the same acreage, will receive different treatments, i.e., one will be tractor logged, the other will be left untouched.

During the year in which the Wyssen operation is busy taking out some 13 million feet (with windup expected in the fall of 1963), the Pacific Northwest Forest and Range Experiment Station will be studying soil

disturbance and changes in stream-flow resulting from logging and will, as well, be studying the economic aspects of skyline operation. All of this is part of the long-range watershed study being carried out on the Andrews Forest.

Developer's operation. The operational aspect of the project is a family affair, with developer Jakob Wyssen and members of his family running the show. A sale of some 15 million feet was made to the Swiss manufacturer, who has contracted with the Balsiger Logging Co. of Blue Lake to do the felling, bucking, loading, road construction and hauling.

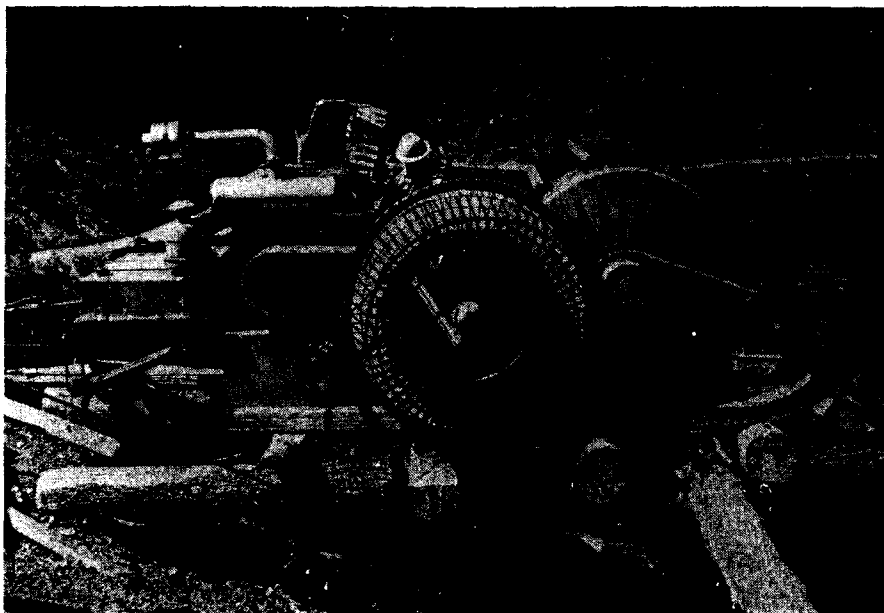


Two safety gates hold the carriage on the skyline under all conditions.

(U. S. Forest Service photo)

Technical data. The yarder for this heavy-duty system weighs 7 tons and measures 7' x 17'. A single drum is powered through an 8-speed manual transmission to a 200 hp engine. Braking is done with an air brake and completed by mechanical means.

The carriage weighs 1.5 tons and rides on 8 pulleys. It is equipped with a time release mechanism for locking to the skyline. The carriage cannot jump the skyline, even when passing intermediate support jacks.



W-200 employs a 200 hp diesel yarder, a 1 7/8" skyline and a 7/8" operating cable. The carriage is brought to a full stop by an internal friction brake.

(U. S. Forest Service photo)

The operating cable for the carriage serves two purposes: movement of the carriage on the skyline and skidding and lifting the turns to the carriage.

The skyline has a reach of 1.25 miles and can be lowered for repairs and raised in 50 minutes with a W-20 yarder and a set of pulley blocks.

Because of a safety-overload factor built into the machine, the big yarder, in its lowest gear, will not pick up a dangerous overload.

Operating sequence. In operation, the carriage is moved from the landing at the bottom of the skyline road to a spot on the slope where the next turn is located. On signal, the carriage is stopped and, after an interval of a few seconds, locked to the skyline. The carriage hook, chokers and operating line all drop at the same time as the lock-on.

On the ground, the hook and chokers are pulled to the next turn of logs by a small power-saw winch and the chokers attached. When the lift-up is made and the hook engages the carriage, it unlocks and runs free, but with braking control as necessary, until locking in place above the landing.

Speed-capacity ratio. Early in the test it was apparent that there is not an appreciable difference in the yarding capacity of the W-200 when distance from the landing increases. Because of the high rate of speed at which the carriage travels, the machine will deliver nearly as many logs to the landing from a distance of 3,000 feet as it will from a distance of 300 feet.

A telephone system connects the yarder operator with the choker setters and the landing. The success of the system depends upon each unit knowing what the other is doing.

The telephone conversations and other aspects of the operation lend a note of strangeness to the show for it is odd to encounter in an American forest a logging crew, only half of whom know English, booming German over the phone and up and down the hill. ■



Logs being loaded out on this Balsiger Logging Co. Kenworth are representative of the timber that will be logged in the year-long Wyssen experiment.

(U. S. Forest Service photo)