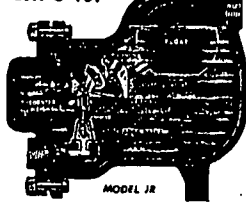


## NICHOLSON WEIGHT-OPERATED TRAPS NEVER NEED PRIME

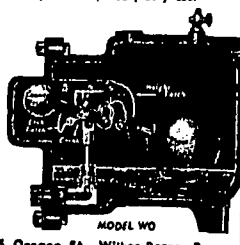
Nicholson weight-operated traps, under no condition, leak live steam. This prevents the costly loss of steam occurring when bucket traps lose their prime as a result of drying up in superheat or flashing at sudden pressure drops. Under these conditions Nicholson weight-operated traps still hold

tight because they do not depend on buoyancy of float to raise valve. For purifiers, superheated lines, headers, separators, heaters, dry kilns, pipe coils, turbine throttle valve drips, stop and check valves, etc. Also for oil and gas lines. 3 Types—press. to 200, 500 and 1500 lbs.; for every heavy-duty use.

CAT'G 751



MODEL JR



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TRAPS · VALVES · FLOATS

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Costs less  
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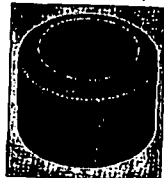


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## More TECHNICAL BRIEFS

feature, the outside of the magnet centerless ground and was located fitting into a rabbet on the flux collecting poles. These have a tendency, however, to have high shaft leakage which reduces output voltage. But the leakage is reduced by using a layer of magnetic material such as brass between inside sleeve and used to hold finger mechanisms together around castings. These changes result in about 70% reduction in the amperage on the large diameter rotor and somewhat lower reduction on the small diameter rotor. The construction, with the rotor removed, the stator, was high enough to minor loop on the demagnetization curve after re-assembly was much less than the previous design. This part of the reason of the large reduction in sinico weight. Paper No. 53-153.

Under Excited Operation of Large Sine Generators on Pacific Gas & Electric Co's System. By V. F. K. and W. R. Johnson, Pacific Gas & Electric Co.; C. H. Holley and P. H. General Electric Co.

Power factor on the Pacific Gas & Electric Co's transmission system increased because of the growth of voltage lines and increased use of capacitors. These conditions tend to increase system voltage, particularly during light loads, and make regulation by under-excited turbine-generators important. During May 1951, 83 tests were conducted at the company's Moss Landing steam plant on two hydrogen-cooled 3600-rpm units, one rated 115,000 kw, the other 129,375 kw at 15 psig hydrogen pressure. These tests were conducted jointly with the General Electric Co to determine limits of operation, the leading-power-factor range and establish a basis for safe operation under these conditions, with particular attention to heating of the end iron of the stator core. Conclusions arrived at:

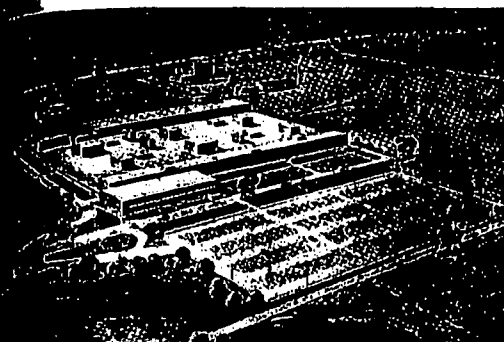
1. These tests confirm that the generators can operate continuously at leading power factor with rated kw and rated voltage without danger in heating of the stator core iron.

2. Heating of the stator-core punching responds very quickly to changes in load and excitation.

3. Operation of Unit No. 2 at power factor leading, 82.5 mv at 115 kv, and 15 psig hydrogen with the regulating amplifier voltage regulator



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**STEAM GENERATORS**  
will help heat the  
**CATERPILLAR TRACTOR CO.'s**  
new plant at York, Pa.



WICKES Consolidated Engineering Company Inc., Baltimore, Md.  
ENGINEERS: Whitman, Reardon & Associates, Baltimore, Md.

The Caterpillar Tractor Co., one of the world's largest manufacturers of earth moving equipment, will shortly open their new York, Pa. plant where several hundred men will turn out assemblies for world famous Caterpillar D6, D7 and D8 Tractors. In this modern manufacturing facility, Caterpillar has installed two 80,000 lb. WICKES steam generators to obtain efficient, economical heat throughout the 360,000 sq. ft. structure. These Type R 2-drum WICKES boilers have a design pressure of 200 psi. and are equipped with economizers and spreader stokers. WICKES can fill your requirements for steam generators up to 250,000 lbs. per hour and 2000 psi. — all types of multiple drum boilers, adaptable to any standard method of firing: oil, gas, underfeed or spreader stoker. Consult your nearest WICKES representative or write us today for descriptive literature.

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