

University of Nebraska  
Department of Biological Systems Engineering  
Nebraska Tractor Test Laboratory

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PERFORMANCE WITHIN AN OPERATING SPEED RANGE  
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A "constant" power performance claim for a tractor model will be verified by testing at the PTO power outlet whenever possible.

The following PTO power and fuel consumption runs at engine speeds within the operating speed range of the engine shall be made. The fuel heating system will not be readjusted after Run 1.

RUN 1 (2 h) Performance at the maximum (or highest) engine speed. This speed will be regarded as rated engine speed for fuel system adjustments unless otherwise specified.

RUN 2 (1 h) Performance at the minimum (or lowest) engine speed for which the claim is made.

RUN 3 (1 h) Performance at an intermediate engine speed..

A speed which will produce maximum power may be specified by the manufacturer. If a speed is not specified, the engine speed at the midpoint of the range will be used.

This run is not required if maximum power is developed in Runs 2 or 4.

RUN 4 (1 h) Performance at standard PTO speed. If the standard PTO speed ( $540 \pm 5$  rpm or  $1000 \pm 10$  rpm) coincides with any of the above engine speeds, this run is not required.

A "constant" power claim for tractor models not equipped with a PTO power outlet shall be verified by test procedures identified in Board Action No. 18, Section 2.c.

The "constant" power claim will be met if the power developed in Runs 2, 3 and 4 equal or exceed the power developed in Run 1.

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June 10, 1983  
August 17, 1998 (Reaffirmed)

Board of Tractor Test Engineers

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Chairman

*Michael F. Kocher*  
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