

PRUFSTAND® A400

SINGLE RETARDER MOBILE PTO DYNAMOMETER SPECIFICATIONS



- NO ON-GOING MAINTENANCE
- NO HYDRAULIC FLUID
- NO WATER COOLING
- NO EXTERNAL POWER



- Create your own design
- Custom colors available
- Use your logo



CUSTOMIZE IT - fit your corporate needs



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Data - Acquisition Hardware

Hardware configuration	control board: multi layer board with smd electronic components, power electronics: hybrid multi layer board 70µm
Voltage requirements	None; For charging of batteries only: 110-240VAC 50/60Hz
Board type and channel capacity	Custom in-house developed PCB-Board
Data rate	UART: 115kbps, CAN 500kbps
Transducer writing interface	quick-disconnect harness - 4 channel
Calibration	non-volatile setup memory
Atmospheric correction	Standard
Gear-ratio RPM and shifting compensation	automatic calculation; calibration with generator rpm
Wireless integration options	WIFI, Bluetooth 4.0 integrated
Recording features	two measurements in app - storage of all measurements in cloud in 2017
Data interface	USB
Third-party data-output interface options	no
Temperature sensor	0 to 350 Fahrenheit - 3 included - on control board, power electronics and rotor of eddy-current brake
Standard and optional sensor inputs	rpm of pto, rpm of generator, battery voltage, torque, calibration tool, dynolink, thermistors, etc
Standard and optional control inputs	pwm control for power electronics, relay for fans, dynolink, calibration tool, others on request, etc

Torque transducer

Configuration	Environmentally sealed S-beam load cell
Maximum displayed torque	9999 lb ft [Nm]
Load-cell range	10.000 pounds
Load-cell signal-output gain	2.0mV/V
Load-cell resolution	0.03
Strain gauges	Linearized full-bridge strain gauges in balanced Wheatstone bridge
Advanced linearization (Software)	automatic calculation
System torque resolution	typically better than 0.1% of full scale
Calibration features	calibration tool available - full automatic calibration process
Drift stabilization	supply-voltage and temperature compensation

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Docking Module Assembly

Configuration	steel frame with integrated trailering package
Mechanical frame construction	steel welded; greasable bearings
Absorber to engine coupling	direct input shaft
Driveshaft (to PTO)	1 3/4" 6T
Driveshaft guard	Walterscheid PG 30
Driveshaft splines	1 3/8" 6T & 1 3/4" 6T
Installation	two stabilizers
Ventilation	two thru-flow fans

Integral Trailer Assembly

Mechanical construction	steel / aluminium - powder coated
Brakes	drum brake
Lights	LED, Side markers, LIC LED
Wheels and tires	15" steel rim; 195/65R15
Recommended Towing Speed	up to 80mph; tested up to 120mph
Tongue	150 Pounds

Power Capacity (RPM duty cycle dependent)*

Notice	actual load capacity depends on rpm and rotor temperature
Maximum displayed power	9999 hp [kW]
Maximum displayed torque	9999 ft lb [Nm]
Peak steady-state power	400hp - cold absorber rating
Typical steady-state power range / time	200hp - cold absorber rating
Maximum RPM	2.500rpm - change of belt at pulley at generator necessary - rpm of generator is measured and any overspeed is stored and no measurement possible

Engine (and Absorber) Tachometers

Range	0 - 9999rpm
Timing reference	Quartz-crystal calibrated
Resolution	0.1 RPM
Primary RPM signal	absorber mounted inductive sensor with LED
Signal compatibility	user adjustable trigger voltage and pulse type
Alternate tachometer options	no

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Absorber and Load Control

Absorber to Tractor's PTO coupling	via telescoping heavy-duty pto drive shaft
Absorber speed / RPM regulation	via electronic control module
Absorber method	forced air cooled (with 2 fans) eddy current absorber with PWM controlled power electronics
Bidirectional capability	yes
Power requirements (for absorber)	none
Throttle (torque/power) regulation	electronic throttle control of power, rpm and load (in%) - automatic test for specific rpm range

Dimensions and Weight

Docking module assembly	steel frame with integrated trailering package
Width	61" (156 cm)
Length casing	51 1/2" (131 cm)
Length with tongue	83 1/2" (213 cm)
Height (at input shaft) - typical	27" (69 cm)
Height (casing+wheels) - typical*	57 1/3" (146 cm)
Weight	~1500 lbs (680 kg)
*May slightly vary depending on the tire pressure	

PRUFSTAND OS - Software

Features	easy to use one screen touch operation - no extra laptop/PC necessary
Notable trademarks	Yes, OE screen on request
Software versions	2.0.0.1 - OTA (over the air) - Updates & new features free for lifetime
Test functions	Customized cycle programs available

Console and Computer extras

Computer housing	yes
Screen	9.7" Touchscreen unit
Wireless remote operation	End 2016
Wireless keyboard	optional
USB kit	yes
Printer Kit	Thermal printer