

DYNomite™ Snowmobile Dyno #075-200-1K "Quick-Specs"

- 🕒 Reads true Hp
- 🕒 Clutch it right
- 🕒 Used by al pros
- 🕒 Test year round
- 🕒 Both ending & track dynos
- 🕒 Portable
- 🕒 Accurate
- 🕒 Affordable*

*Financing and leasing options available



www.land-and-sea.com

Summary overview of DYNomite Dynamometer #075-200-1K. For more details see related web site pages.

"This sheet represents only one of many possible configurations - call for details on other custom options!"

Standard dyno kit includes: 9" toroidal flow water brake absorber, electronic torque arm transducer, engine load control, DYNomite data acquisition computer with LCD and keypad interface option, AC power supply/recharger, stainless braided hoses, data wiring harness, and protective portable carrying case.

DYNomite Data Acquisition eliminate paper and pencil data logging. The DYNomite computer records true Hp, torque, RPM, elapsed time, etc. (at up to 1,000 readings per second) while automatically applying inertia compensation and SAE correction factors for air temperature, barometric pressure, and relative humidity. No running an engine to death getting a full test curve. Results display on the DYNomite's LCD and can be printed to an optional portable ASCII printer. It even doubles as a highly advanced on-sled racing data recorder!



Optional DYNO-MAX 2000 to PC interface software.

Reads TRUE crankshaft Hp using precision full-bridge temperature compensated strain gauge to directly measure torque, instead of estimating from hydraulic pressure or inertial acceleration. Only crankshaft dynamometers isolate Hp from the inconsistencies of belt efficiency, track tension, windage, etc. to provide the repeatable data serious developers need to compare against the OEM's and other engine builders' results.

300+ Hp* capacity with our industry proven, heavy-duty bearing, fast response 9" toroidal flow water brake absorber (mounts directly on the crankshaft). Test most performance engines from a 3/4" garden hose (or higher flow) water supply. (Other water or eddy current absorbers available to test any capacity snowmobile engine.)

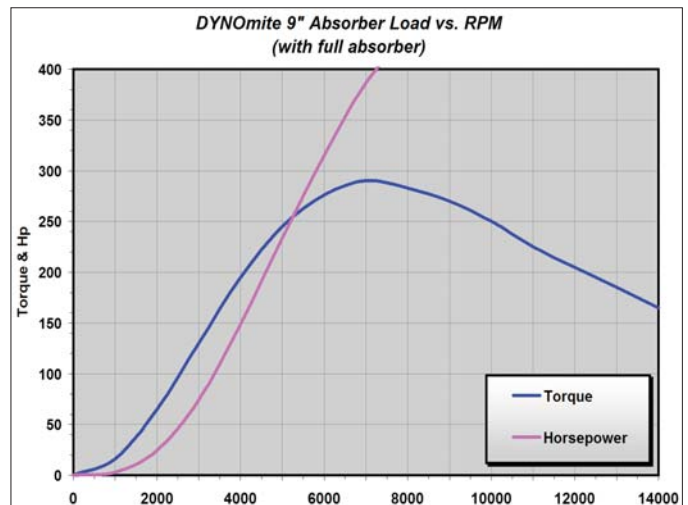
Precision designed and manufactured for strength, accuracy, and reliability. Each water absorption brake, torque arm, load-valve, etc. is beautifully CNC machined from anodized aircraft billet aluminum and heat-treated stainless steel.

Advanced standard features including: "Smart Record™," data dampening, spike filtering, auto-zeroing, instant playback, adjustable graph data averaging, atmospheric correction and integral engine rev-limiter.

Everything gets tested, right in the sled, the way you run it! Evaluate air box flow, throttle adjustment, fuel delivery system, exhaust routing, motor mount vibration problems... EVERYTHING.

Develop quicker sleds by pinpointing the exact RPM locations of horsepower loss or gain. Evaluate components, tuning changes, durability, etc. Learn things "you never knew - you never knew."

Isolate clutching efficiency gains from RPM calibration improvements, without endless trial and error field testing; as only true crankshaft and clutch dynamometers can do! All the OEMs use them.



Snowmobile Engine Dyno Kit #075-200-1K

Components for engine testing many snowmobiles to 300+ Hp.* Includes: 9" toroidal flow water brake absorber, strain gauge equipped torque arm, DYNomite-Pro data acquisition computer, manual load valve, 3-channel data harness, mounting hardware, stainless braided hoses with aircraft fittings, carrying case, banner, and manual.

DYNomite Data Acquisition Computer:

Expandable, surface mount, board system runs on 120-volt AC or 12-volt DC
"Pro" PC based 28, 56 or 112+ channel capable board sets, require DYNO-MAX software
"Lite" 3-channel (upgradeable to "Pro" above)
Optional portable "Pro" 28-channel capable hand-held with 168-character LCD & keypad
Up to 1,000 recordings per second (per channel)
Quick disconnect data harness
Non-volatile set-up memory
Rechargeable back-up battery option
Captures over 1-hour duration test runs
Real time and data playback displays
Observed and SAE corrected reports
"Smart Record" automated recorder triggering
RS-232 or USB output to optional printer or PC with DYNO-MAX 2000 software option

Torque Transducer:

Environment sealed strain gauge
½% of full scale typical accuracy
Semi-automatic zero offset calibration
Patented - moment arm length independent
Temperature compensated

Hp, Torque, and RPM Capacity*:

Actual load capacity depends on selected water brake absorber & test RPM (typical loading plots available) - minimum water brake supply is 1 gallon per minute @ 30 p.s.i. for every 20 continuous Hp
Hp from 15 to 300+ (engine dyno - single rotor)
Torque options from 5 to over 200 lb-ft
RPM from 1,000 to over 12,000 (standard) - optional absorbers to over 30,000

Engine Tachometer:

0 - 32,000+ RPM display
Quartz crystal calibrated
RPM pulse type is selectable from ½ to 12 pulses per revolution
Optional magnetic absorber pick-up available
Optional "clamp-on" inductive pick-up

Load Control:

Manual knob water brake load valve (standard)
Optional Auto-Load Servo
Optional Electronic Throttle Controller

Water Brake Absorber:

Fast response 9" toroid flow single-rotor, direct PTO mount - fits standard 3° and 4° tapers
CNC machined from aircraft aluminum
Dual heavy -duty sealed bearings
Stainless steel, heat treated arbor shaft
Adjustable load characteristics
External Zerk grease fittings
Optional "Auto-Lube" kit

Optional Small Engine Test Stand:

Professional - roll formed steel frame (wheeled)
Removable stand (or wall) mount console
Vibration isolation mounts
Battery compartment and universal throttle
Semi-universal engine mounting plate
Optional overhead "sky-hook" boom

Control Console Options:

"Pro" console - option includes:
billet aluminum throttle, mechanical cable, auxiliary analog gauges, 17" LCD monitor, Intel® Pentium™ PC, and wiring harness
Subsystem (with integral control relays)

Optional Portable Thermal Printer:

Rechargeable NiCad battery powered
120-volt AC charger adapter included
Parallel port interface to DYNomite-Pro
40 column standard ASCII font
Rugged, compact, and lightweight design

Approximate Dimensions and Weight:

Standard dyno kit (including carrying case) -
11"W x 28"L x 17"H
weight - 34 pounds
Sled Track Dyno Assembly -
48"W x 132"L x 13"H (with one ramp)
weight - 500 pounds

Data Collection Options:

Airflow turbines 3", 4", 6", 9"
Air/fuel ratio (calculated)
Air temperature, humidity, and barometric pressure
"Weather Station"
Brake specific air consumption (calculated)
Brake specific fuel consumption (calculated)
DYNO-MAX 2000 software
Engine temperature thermistors
Exhaust gas temperature thermocouple kits
Fuel flow turbine kits
Fuel/manifold pressure transducers
Jack shaft RPM/MPH magnetic pick-ups
Sparkplug temperature thermocouples

Other Options:

Calibration weight kits
Fuel hydrometer kits
Inertia "launch acceleration" Hp testing flywheel kits
Portable gasoline powered water pumps
Sling psychrometer

**other model, capacities, and options available - call.*