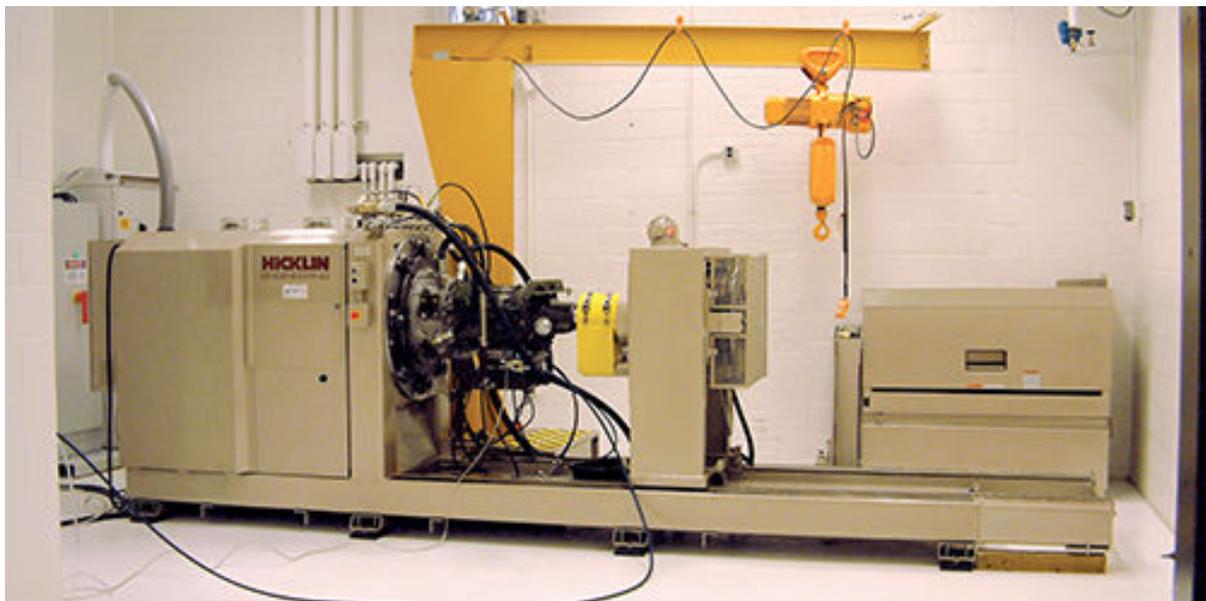


HICKLIN EDECT TRANSMISSION DYNAMOMETER

The Hicklin EDECT heavy-duty transmission dynamometer is designed to handle the toughest inline, v-drive and angle drive transmissions. The EDECT is also available in custom configurations to meet your needs.

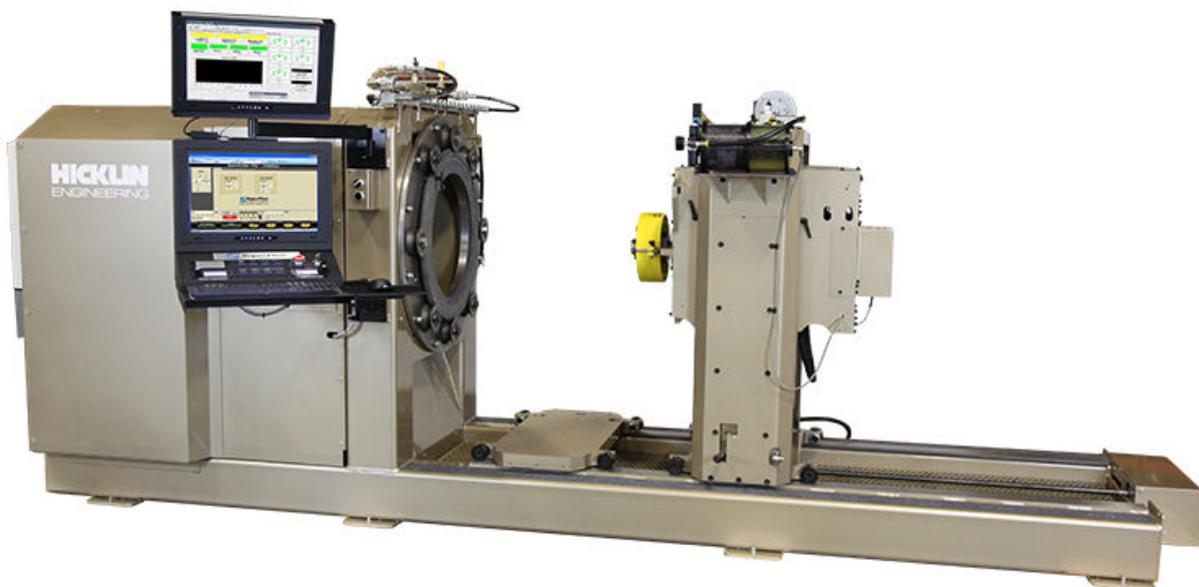


Overview

The Hicklin® EDECT transmission dynamometer is designed for heavy-duty transmissions, including all inline, v-drive and angle drive configurations. The EDECT will test the entire family of Allison® transmissions, Dana/Spicer®, Voith®, ZF®, and Renk® transmissions plus many military and off-road applications like CAT® and Clark®. The EDECT accommodates all sizes of off-highway transmissions, powershift and manual shift, including drop-box and remote mounted configurations. It comes standard with a 150 hp (112 kW) direct drive AC Electric motor which is controlled by a precise, variable frequency drive controller. The electric motor delivers full torque capacity from 0 to 4000 RPM bidirectional. The EDECT was designed for extreme versatility so it also easily accommodates several other motor sizes ranging from 100 hp to 2,000 hp should testing requirements specify a different power level.

Dynamic load control is achieved using an air-cooled eddy current load unit which can absorb up to 1,500 lbs-ft (2034 N-m) of torque. The eddy current load unit makes the entire operation nearly maintenance free (no hydrostatic oil... no filters... no leaks). It is also extremely reliable with just one moving part, the flywheel assembly. The eddy current load unit absorbs up to 800 hp (597 kW) intermittently and up to 200 hp (149 kW) continuously allowing you to perform true full throttle, load-induced downshifts. The load unit can actually push test transmissions into first gear and hold them there, even with the drive system set at full throttle. This creates a test integrity never before possible in service level equipment. Precise load control allows you to infinitely select everything from no-load to full-load with unmatched precision and the stability to perform pinpoint shift detection.

The EDECT's standard SuperShifter Pro[®] software system gives the operator full digital control of both the dyno and the transmission from a simple laptop computer. The laptop is conveniently mounted on a movable tray so the operator can spot oil and pressure leaks, check hydraulic and system controls, and makes minor adjustments while the transmission is mounted on the tester. The EDECT can be upgraded with a WinDyn[®] Data Acquisition system for applications requiring high level data analysis and advanced testing capabilities.



Product Specifications

Power Requirements	460 V 3-phase, 60 Hz (3 wire)
Air Requirements	1/2" lines (12.8 mm), 100 psi (689 kPa) minimum
Weight	6,000 lbs. (2,722 kg)
Dimensions	162 in. x 42 in. x 60 in. (411 cm x 107 cm x 152 cm)

Product Options

Adapter Plates

Choice of 15 precision alignment adapter packages.

Auto Shift

The linear shift actuator controls the manual detent position of the transmission. Since it uses a cable, the Auto shift can connect to most every transmission. It can be fitted with torque measurement, up to 50 lb-ft.



Auto Stall

The eddy current brakes on the 97000 are outfitted with hydraulic disc brakes to test stall speed. Auto Stall automates this process by replacing the foot operated stall pedal with an electronic actuator.

AWD Load Unit

The AWD Third Load Unit equips the 97000 to test most AWD transmissions. The floor mounted unit is equipped with an eddy current absorber and an operator interface with load percentage adjustment, digital RPM display, load power on/off switch and emergency stop. With a separate potentiometer, it can also set the same load percentage or be modified to check the differential. An adjustable side-to-side and up/down table shuttle moves 10" (25cm) side-to-side from center and 3 1/2" (8.9 cm) up/down from center.

Base Extensions

Optional base extensions for angle-drive and v-drive transmissions are available should your testing needs require. These extensions make the EDECT the most versatile heavy-duty transmission dynamometer on the market today.

Heavy Duty Transmission Shift Consoles

Shift Consoles allow you to exercise the control several brands of transmissions while outside the vehicle. These control consoles have the capacity to hold up to four Transmission Control Modules (TCMs) and they will operate transmissions on any test stand. Consoles are available for Allison, Voith and ZF transmissions.

Inline Cooler

The inline oil cooler connects to the transmission cooler lines to maintain proper oil temperature during extended test sequences. It is ideal for long test sequences or endurance testing.



Input Torque

This custom input shaft is instrumented with a torque transducer to measure torque directly before the converter for highly accurate readings. 60 pulse per revolution encoder. 450 lb-ft rating.

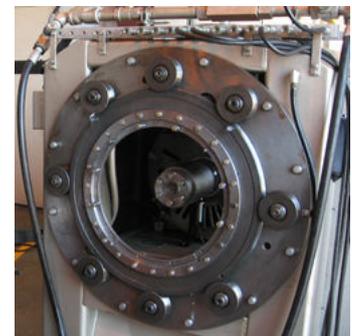
Output Torque

Optional load cell to measure static or dynamic torque.



Power Indexing

Power indexing enables operators to rotate transmissions to any angle for easy access, without having to drain the fluid.



WinDyn CAN Control

SuperFlow's innovative WinDyn CAN Control (WCC) system adds optional Mechatronic control to the VBT 8000. WCC simulates the vehicle's CAN network so the TCM can make shift decisions like it would in the vehicle rather than following along to a replay of driving data. What this means is the mechatronic will react to the input torque and throttle position set by the operator or automated test sequence and vary the shift points accordingly. This is a much more complete way to test the transmission and it will ensure your comeback rate drops quickly.

Call or email Promand today to discuss your application and dyno test requirements in detail.

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