

# PROJECT SPOTLIGHT

## Tow Dynamometer for Davis Dam Tests in Australia



### *Mustang Advanced Engineering Delivers Tow Dynamometer to Australia's AEP Engineering*

Mustang Advanced Engineering (MAE), an American manufacturer of quality, industry-leading testing equipment, dynamometers, and related products, has delivered a tow dynamometer to AEP Engineering (AEP) to perform the Society of Automotive Engineers (SAE) J2807 Davis Dam simulation. AEP is an Australian company that aims to deliver exceptional quality products that solve its client's mechanical engineering and manufacturing challenges.

SAE released the J2807 standard in 2008 titled "Performance Requirements for Determining Tow-Vehicle Gross Combination Weight Rating and Trailer Weight Rating" which creates standardized performance requirements to determine tow-vehicle gross combination weight ratings and trailer weight ratings. J2807 details the test procedures and test equipment for certifying a vehicle's maximum payload and tow ratings.

The MAE supplied tow dynamometer simulates large two axle box type trailers to be driven on the Davis Dam simulation. The test is to verify if the vehicle can tow the simulated trailer weight (3,500 to 4,500 kg) on the Davis Dam profile. This test can be performed on internal combustion and electric vehicles. The testing requires the truck and trailer to maintain at least 40 mph (35 mph for dual rear wheeled pickups) over an 11.4 mile stretch of Arizona's Davis Dam grade with the AC on full. It sets additional standards for allotting the weight of the driver and any additional equipment. No vehicle component failures or fault codes can be thrown during the test. Additionally, no cooling system failures can occur. For electric vehicles, the battery system needs to support the towing vehicle during the entire test.

### SNAPSHOT

Project: Tow Dynamometer  
Customer: AEP Engineering  
Where: Townsville City, Australia  
Purpose: SAE J2807 Davis Dam Simulation Test for custom Australian heavy-duty vehicles



MAE can also provide tow dynamometers that perform the many other requirements of the J2807 test procedures including an acceleration test, which requires a vehicle to accelerate from 0 to 30 mph in at least 12 seconds, 0 to 60 mph in at least 30 seconds, and from 40 to 60 mph in at least 18 seconds for a given trailer weight. The purpose of these tests is to certify engine, drivetrain, and cooling system performance for a given trailer weight.

“To meet SAE standards, AEP Engineering was looking for a solution, so when Australia can’t go to the mountain, MAE brings the mountain to Australia, or at least the Davis Dam

test,” said David Ganzhorn, V.P. Sales. “As the worldwide tow dynamometer supplier of choice, MAE was selected to provide a tow dynamometer capable of the rigorous requirements of SAE J2807 Highway Gradeability,” Ganzhorn continued. “Our rugged design philosophy along with state-of-the-art control technology provides our customers unparalleled performance in these challenging applications.”

*“...When Australia can’t go to the mountain, MAE brings the mountain to Australia, or at least the Davis Dam test as simulation.”*

*- David Ganzhorn,  
V.P. Sales at MAE*



**Mustang Advanced Engineering**  
2300 Pinnacle Parkway  
Twinsburg, OH 44087  
Phone: (330) 963-5400  
Fax: (330) 425-3310  
Email: Sales@MustangAE.com  
**MustangAE.com**

### About MAE

Mustang Advanced Engineering is a leading supplier of advanced, custom engineered testing and measurement systems. Located in Twinsburg, Ohio since 1986, MAE delivers world-class testing solutions, custom design support, technical assistance, backed by a dedicated factory service team, making them a trusted source of expertise for the global industrial market. Visit [MustangAE.com](http://MustangAE.com) for more information. Follow them on Facebook, Twitter, LinkedIn, and Instagram

