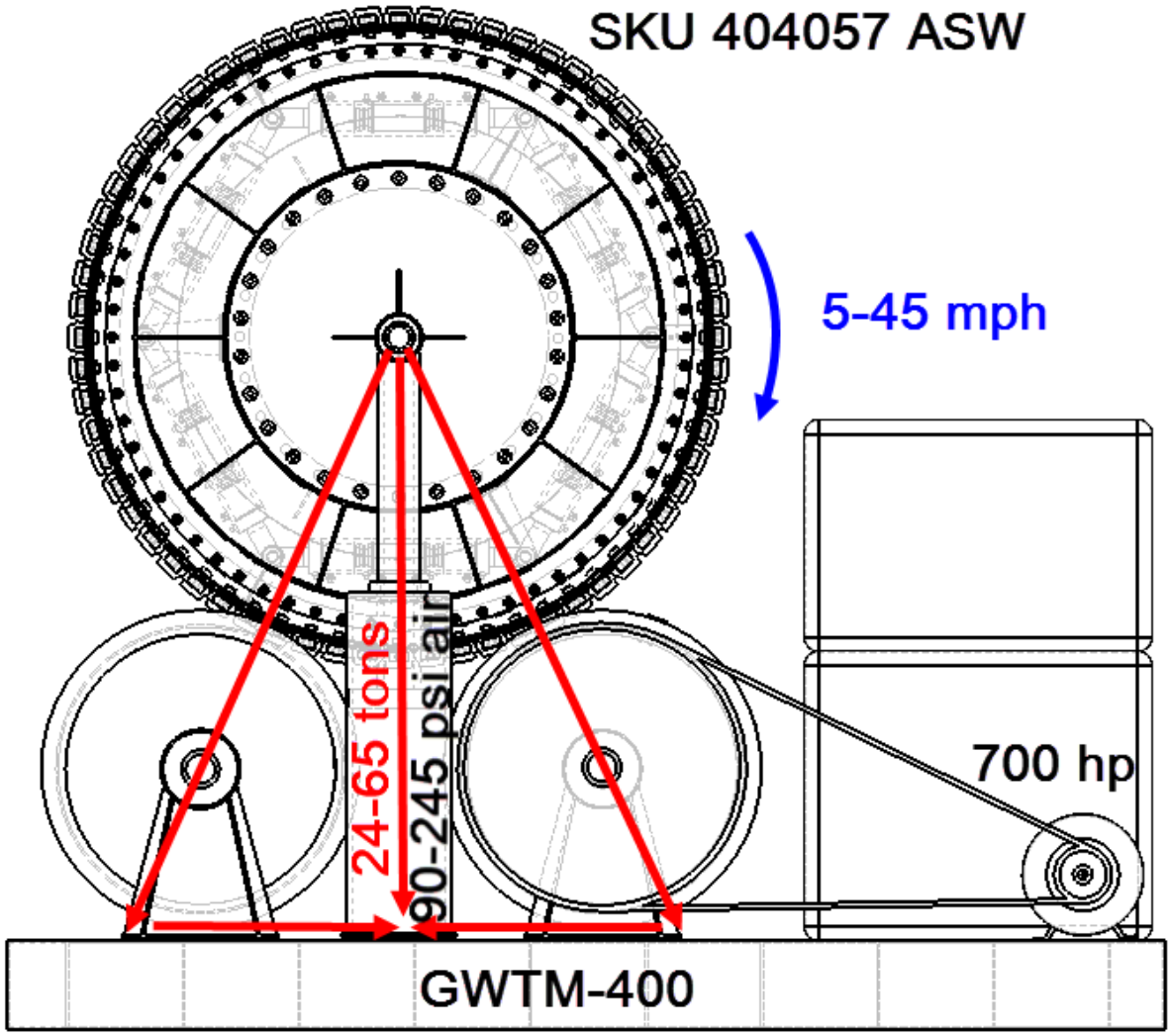
Testing air-cylinder steel wheels (ASWs) in giant-wheel testing-machine (GWTM)



GACW has been designed and scheduled to be built and operated a GWTM-400 by Sept. 2016.

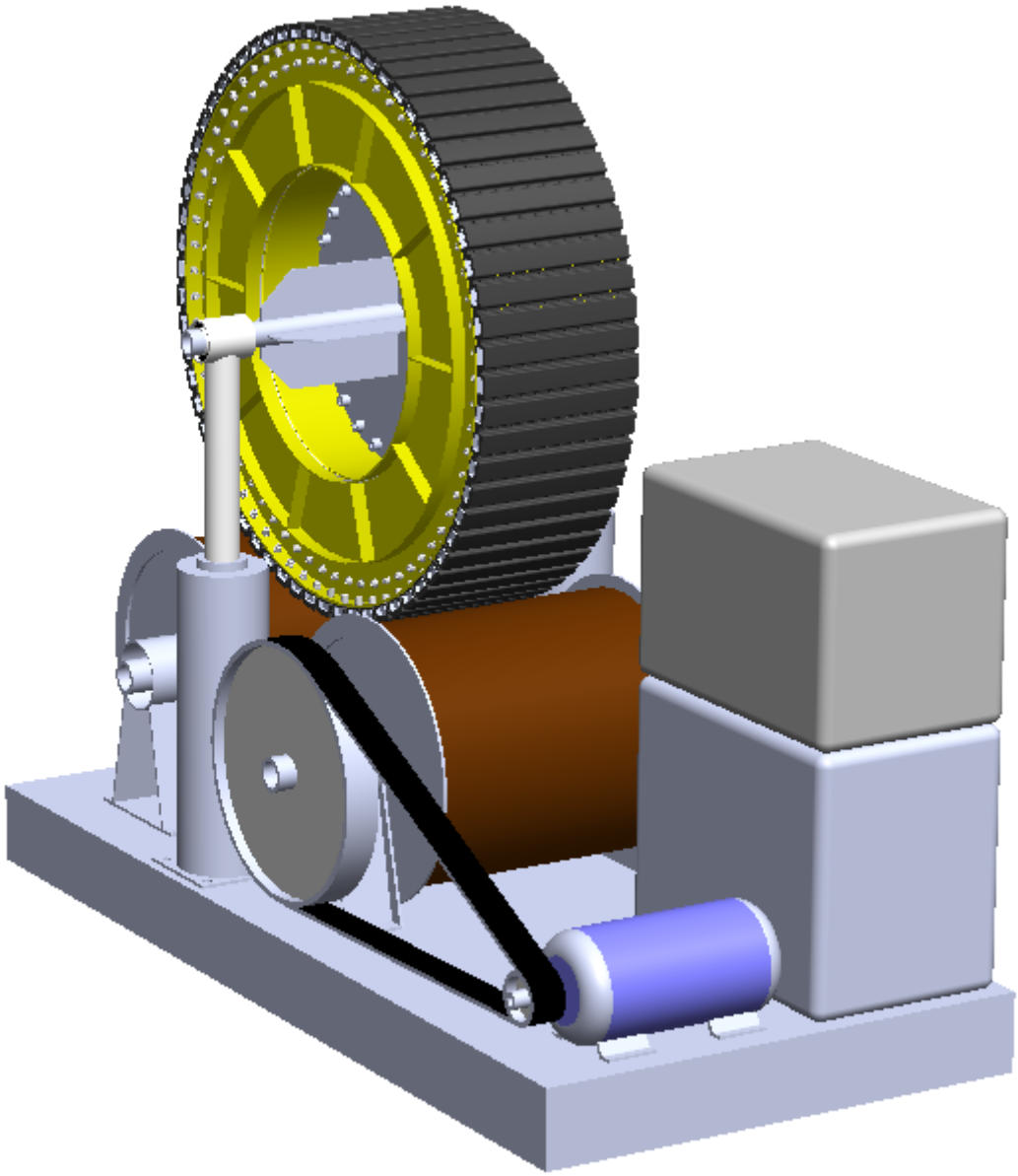
The GWTM-400 is capable to test giant rock truck wheels used on the CAT 797, which is a 400 tons payload truck requiring six 59/80R63 rubber tires or SKU 404057 air-suspension steel wheels (ASWs).

The GWTM-400 can test for accelerated wear, structural integrity, heat and noise, simulating harsh road conditions. It can test ASWs and their corresponding inflated rubber tire wheels (IRTWs) for same condition performance comparisons. Wheels of 5'-13' Ø x 2'-5' width and 1-16 tons weight fits.

Two 6' stroke 50 tons force air cylinders pulls down the wheel in testing over two 5' Ø drums, one which is driven by a 700 hp electrical motor. Pneumatics, electrical and electronics control

boxes are onboard. The test wheels can be run for weeks or months at 5-60 mph. Road impact can be simulated preprogrammed.

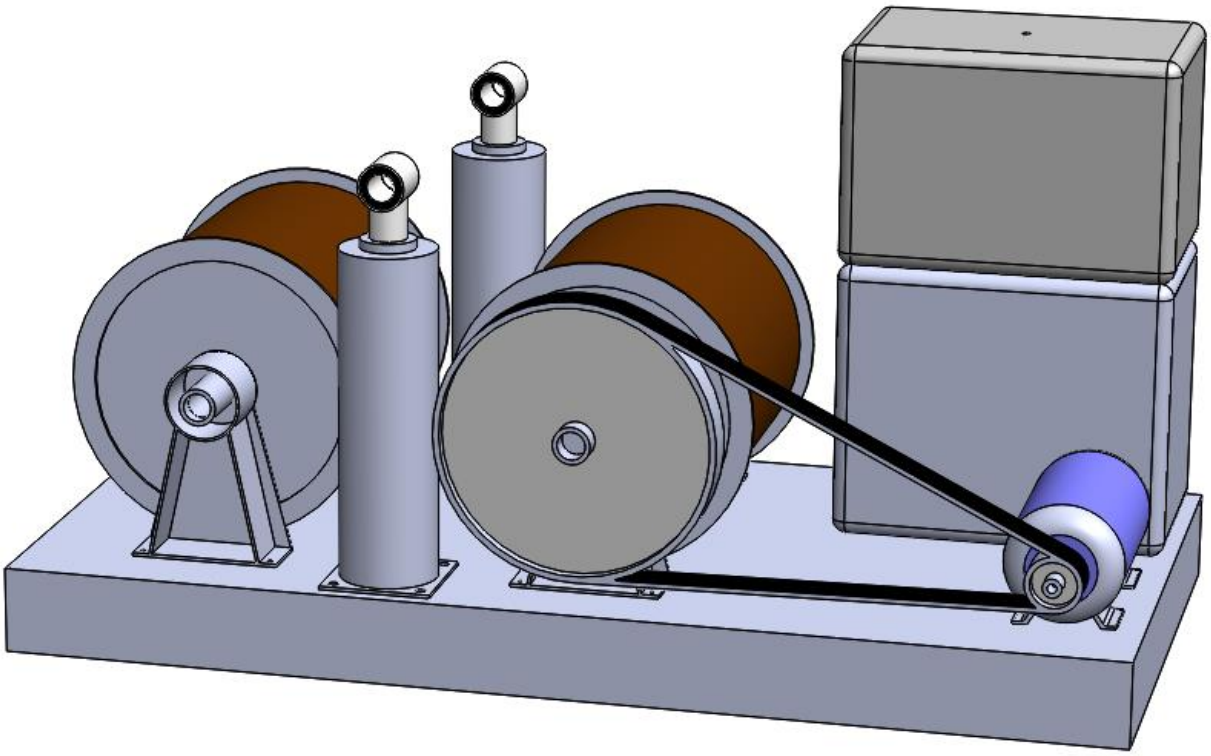
The GWTM-400 is owned by Global Air Cylinder Wheels (GACW). All certified wheel testings are monitored by independent third party experts. Testings are videotaped to capture failure, if any.



The driving and driven drums are coated with sand-and-gravel bonded in epoxy. The abrasive coating can be rejuvenated and the drums can be replaced with drums coated otherwise.

The GWTM-400 is transportable for tradeshows or for field testing or services.

An empty unit is illustrated below:



The overall size of the machine is 10’ W x 20’ L x 10’ H empty or 18’ H with the largest wheel on.

The drums and the air cylinder pistons has rubber bushings to allow for small movements.

The drive system is reinforced nylon belts with 1:1, 1:2, …, 1:6 speed transmission ratio. The motor speed is 1800 rpm. The wheel speed is kept constant during testing. A set of pulleys and belts are stored on shelves to service the testing machine.

The GWTM-400 is enclosed in climate chamber to simulate cold and hot climate wheel running.