

ELECTRIFYING KART

ElectricLouis Electric GoKart. It takes a tough clutch to transfer up to 250 ft-lbs of torque from the motor to the drive wheels of this 144V high-efficiency-battery electric kart. The 6-inch Advanced DC (www.adcmotors.com) series-wound forklift motor can handle upwards of 800A for 3 seconds, for a 12-sec quarter mile and a speed of 102 mph (potential performance is 150 mph in 8 sec). With an electric motor, clutch components are more stressed at low rpms when it produces peak torque. And President Louis Finkle says mechanical clutches were too slow in actuation. "It had to shift within a couple hundred milliseconds, tops, not the half second or more of a mechanical clutch," he adds. Thus engineers needed a rugged, fast-acting clutch with minimal slip during launch that could be mounted on the output shaft. Finkle notes the economical solution was the Ogura (www.ogura-clutch.com) ST1W stock mobile electric clutch, "with its double flux armature design and heavy-duty construction and return springs". *President: Louis Finkle, louie@electriclouie.com (www.electriclouie.com)*