



POWERHAUL SERIES – UGL & GE'S MOST TECHNOLOGICALLY ADVANCED LOCOMOTIVE

The PowerHaul Series (PH37ACmai) is UGL & GE's most technologically advanced, fuel efficient and low emissions diesel electric freight locomotive to date. The PowerHaul Series also represents an important part of UGL's vision of providing the most efficient railroad technologies to our clients.

Designed for high haulage power to support lighter axle load applications, the PowerHaul Series locomotive is engineered to generate more horse power and tractive effort while lowering fuel consumption and greenhouse gas (GHG) emissions compared to competitive locomotives currently in use. The locomotive is equipped with a V-16, twin-turbo 3,700 GHP engine, an advanced AC traction system and dynamic braking.

FUEL EFFICIENT

Driven by the rugged PowerHaul Series P616 engine, the locomotive reduces fuel use by up to 5% compared to current operating fleet averages. Not only will this fuel savings reduce overall operating costs, it also reduces GHG emissions.

THE POWERHAUL SERIES AT A GLANCE

- Able to haul heavier loads with GE's industry-leading AC individual axle traction control technology that significantly increases adhesion
- Outstanding power output, equipped with a 3,700 GHP engine which endured overload and overspeed testing in excess of industry norms
- 5% better fuel consumption than current operating fleets of similar HP
- Reduced emissions UIC3a Emissions Certification (future ready)
- Extended overhaul limit - 30,000 MWhrs
- Isolated engine mounting to reduce vibration and noise transmission
- Ergonomically designed, low-noise operator cab embodies a well-organised clean and neat style for maximum efficiency

POWERHAUL SERIES LOCOMOTIVE



KEY FEATURES OF THE POWERHAUL SERIES P616 ENGINE

- Designed for greater hauling power
- Endured intense overload and overspeed testing in excess of industry norms
- Emits less carbon per gross-ton kilometre moved than electric locomotives, based on current fleets and coal power generation
- Incorporates advanced common-rail fuel injection and turbocharger technology
- Fixed geometry Miller Cycle optimised for NOx and fuel efficiency



AC TRACTION TECHNOLOGY

The PowerHaul Series locomotive can haul heavier loads because of GE’s industry-leading AC individual axle traction control technology that significantly reduces slippage on startups, inclines and suboptimal track conditions. Not only does this industry leading technology help optimise performance and reduce wasted energy, it substantially lowers maintenance costs and associated down time during the locomotives life compared to older DC traction systems.

The locomotive’s individual axle controlled AC traction system accommodates for greater wheel diameter variations between axles and bogies. Another advantage of the six inverter system is that if a traction motor becomes inoperative, the locomotive can complete an assignment with five operating traction motors.

EMISSIONS COMPLIANT

Compliant with EU Stage IIIa emissions standards, the PowerHaul Series reduces CO (GHG) by up to 9% compared to current operating fleet averages. The PowerHaul Series locomotive is one of GE’s ecomagination certified products. Ecomagination is a GE initiative to bring to market new technologies that will help clients meet their most pressing environmental challenges.

DYNAMIC BRAKING

The PowerHaul Series locomotive’s dynamic braking provides smoother handling when hauling heavier loads. GE’s advanced dynamic braking technology also harnesses and reuses energy generated during braking to drive auxiliary loads such as radiator and dynamic braking fans thus reducing fuel consumption even further.

COMFORTABLE

The PowerHaul’s cab is ergonomically designed and provides maximum operator efficiency. Understanding the needs of a locomotive’s crew, the drivers cab embodies a well organised, clean and neat style. The PowerHaul engine is secured on isolation mounts to reduce cab vibration and noise for optimal comfort. The cab also features dual air-conditioning, easy-to-read screens and an unobstructed front windscreen for a clear track view.

TECHNICAL INFORMATION

Engine	GE P616, V16
Power	2,750 kW
Weight	120 / 132 metric tonnes
Starting Tractive Effort	600 kN
Continuous Tractive Effort	460 kN
Axle Arrangement	Co’Co’
Axle Load	20 / 22 metric tonnes
Power Transmission	AC-AC
Fuel Capacity	7,500 / 10,500 litres
Maximum Speed	80 - 100 km/h
Emissions Standards	EU Stage IIIa (future IIIb)
Bogie	UGL Flexicurve high adhesion, narrow gauge fabricated bogie
Brakes	Wabtec Fastbrake ECP & Distributed Power Capable



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