



OUTSTANDING FLEXIBILITY AND PERFORMANCE THAT MAXIMISES OPERATIONAL EFFECTIVENESS

UGL's C44ACi is the latest generation of high performance diesel electric locomotive developed with a focus on operational requirements and varying track conditions throughout Australia. In collaboration with technology partner, GE Transportation, UGL has produced a 4,500 GHP AC locomotive solution that can be configured to suit a wide range of haulage requirements. This flexibility of design allows for both heavy haul and high speed freight operation and is considered to be a major attribute of the locomotive.

ADVANCED AC TRACTION TECHNOLOGY

The C44ACi 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.

A feature of the locomotive's AC traction system is an individual inverter per traction motor. These accommodate for greater wheel diameter variations between axles. 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.

THE C44ACi AT A GLANCE

- The flexibility to operate both heavy haul applications and high-speed freight operations
- Haul heavier loads with GE's industry-leading AC individual-axle traction control technology that significantly reduces slippage
- Outstanding power equipped with a 4,500 GHP engine
- GE's advanced dynamic braking technology
- Isolated operator cab mounting to reduce vibration and noise transmission
- Ergonomically designed low-noise operator cab embodies a well-organised clean and neat style for maximum efficiency

C44ACI LOCOMOTIVE



KEY FEATURES OF UGL'S C44ACI FABRICATED BOGIES

- A bogie frame which successfully completed UIC fatigue testing in Europe
- Increased wheel performance with high hardness Comsteel micro alloy wheels
- GEB30 AC traction motors are a proven and reliable design in service on over 300 locomotives worldwide
- A robust design that imparts high resistance to frame distortion
- A secondary suspension design which reduces rotational stiffness while maintaining control over the occurrence of hunting



A CONTINUOUS EVOLUTION

UGL's technology partner has continued to refine the AC product to maximise the benefits available to operators. Most recently, GE has further optimised traction control software to maximise the advantages of the individual axle control system. By using creep control algorithms the latest C44ACi locomotives are delivering adhesion performance previously unseen in Australian heavy haul.

FUEL EFFICIENT

The C44ACi locomotive achieves greater fuel efficiency through various means, such as the Bosch electronic fuel injection system and auxiliaries driven by AC motors. Further enhancements in fuel efficiency can also be realised by incorporating UGL's advanced fuel saving products, such as 'EcoRun™'.

COMFORTABLE

The C44ACi's operator cab is ergonomically designed and provides maximum efficiency. Understanding the needs of a locomotive's crew, this low-noise operator cab embodies a well organised, clean and neat style whilst providing excellent driver visibility. Features include air conditioning, easy-to-read screens, modern amenities and an unobstructed front windscreen for a clear track view.

PROVEN FLEET PERFORMANCE IN THE HUNTER VALLEY

By driving product quality and continuous reliability improvement, coupled with the only open access and commercially focused maintenance facility in the Hunter Valley (UGL's Hunter Valley Maintenance Centre), UGL delivers fleet availability higher than any other provider. UGL and GE are constantly monitoring the performance of the C44ACi family and invest in every aspect that requires improvement from locomotive design and manufacture, through to in-service support. Essentially, maximum uptime is the assurance C44ACi operators gain from UGL's ongoing investment in reliability growth.

TECHNICAL INFORMATION

Engine	GE 7FDL, V16
Power	3,356 kW
Weight	134 - 139 metric tonnes
Starting Tractive Effort	600 kN
Continuous Tractive Effort	525 kN
Axle Arrangement	Co'Co'
Axle Load	22.5 - 23.13 metric tonnes
Power Transmission	AC-AC
Fuel Capacity	13,500 litres (limited to 7,300 litres in 134 tonnes configuration)
Maximum Speed	115 km/h
Bogie	UGL high adhesion, fabricated bogie
Brakes	Wabtec Fastbrake or NYAB CCB II ECP & Distributed Power Capable



UGL
 Locked Bag 903
 Level 5, 40 Miller St
 North Sydney NSW 2060
 P: +61 2 8925 8925
 F: +61 2 8925 8926
 E: uglinfo@ugllimited.com

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www.ugllimited.com