

# Ubuntu Fleet: LNG Dual Fuelled Bulk Carriers

I am, because you are.

---

Anglo American has invested and committed to the building and employment of ten 190,000 deadweight tonnage (DWT) liquefied natural gas (LNG) dual fuelled bulk carriers. The vessels are known as the Ubuntu Fleet.

The Ubuntu Fleet are the most fuel-efficient bulk carriers of their type on the water. The new build LNG-fuelled vessels offer significant environmental benefits, including a c.35% cut in CO<sub>2</sub> emissions compared to standard marine fuelled ship of the same size, while also using new technology to eliminate the release of unburnt methane, or so-called “methane slip”.

Plans for the Ubuntu fleet started in 2019 with the objective to enable low carbon ocean freight that could connect Anglo American’s essential metals and minerals with our global customer base in a way that is sustainable as well as effective.

From its inception, the project has been a collaborative one, bringing together like-minded players and engaging them around a set of clear goals, bringing to life the principles set out in Anglo American’s Sustainable Mining Plan while also shaping an attractive commercial proposition for all parties involved.

## Low Carbon Emission Freight

The fleet will consist of highly efficient vessels transporting high quality raw materials with a significantly lower emissions footprint.

LNG marine fuel offers significant environmental advantages over traditional fuel oil and is fast expanding in its availability through an established global network of infrastructure. Compared to conventional fuel options, the use of LNG eliminates sulphur oxides, considerably reduces nitrogen oxides and particulate matter from vessel exhausts and cuts CO<sub>2</sub> emissions by approximately 25%.

Designed to be larger than, but remain as flexible as, a conventional capesize vessel, the Ubuntu Fleet will optimise cargo transport by increasing cargo lifting and improving overall cost effectiveness and with the design improvements and use of selected energy efficiency devices, these vessels will be able to reduce total CO<sub>2</sub> emissions by approximately 35%. The fleet is currently being built by Shanghai Waigaoqiao Shipbuilding in China, with the first vessels due to be delivered by end of 2022.

The transition to LNG also provides key opportunities for the deployment of bio-LNG, a biofuel with the same chemical composition of traditional LNG that has the potential to provide a fully renewable fuel source for the maritime industry.

## Decarbonisation ambition

The Ubuntu fleet will be instrumental in helping Anglo American deliver on its ocean freight decarbonisation ambition, we outlined in our 2021 Climate Change Report:

An important component of our Scope 3 emissions are those associated with transportation and more.

# 30%

Reduction in equity CO<sub>2</sub> emissions from controllable ocean freight by 2030 (2020 base)

# Net Zero

Equity CO<sub>2</sub> emissions from controllable ocean freight by 2040 (2020 base)

## Ubuntu – the story behind the name

Ubuntu is the Zulu word meaning ‘humanity to others’. It is often described as reminding us that ‘I am what I am because of who we all are’.



## Specifications

Correct as of February 2023

<b>Deadweight</b>	189,688 ton		
<b>Type of Vessel</b>	Bulk Carrier, Gearless LNG Dual Fuel		
<b>Flag(s)</b>	Singapore and UK		
<b>Classification Society</b>	DNV; 1A Bulk Carrier CSR ESP BC(A) Grab(35) Holds(2,4,6&8) may be empty COAT-PSPC(B) Gas fuelled LNG ER(SCR, Tier III) EO BIS TMON(Oil lubricated) BWM(T) LCS Recyclable Clean(Tier III) DBC		
<b>Gross Tonnage</b>	~102,039		
<b>Net Tonnage</b>	~62,331		
<b>Dimensions</b>	LOA	299.8 m	
	LBP	294 m	
	Breath(Moulded)	47.5 m	
	Depth(Moulded)	24.7 m	
	Designed draft(Moulded)	16.10 m	
	Scantling draft(moulded)	18.25 m	
	Air Draft / Keel to Mast Top	61.750 m	
	Number of Holds	9	
<b>Cargo Hatch Dimensions</b>	NO 1	17.19 m X 16.5 m	
	NO 2	17.19 m X 22.0 m	
	NO 3-8	15.28 m X 22.0 m	
	NO 9	18.145 m X 16.5 m	
<b>Hold Dimensions</b>	NO 1	29.605 m X 36.272 m / 47.276 m X 23.86 m	
	NO 2	28.650 m X 47.5 m X 23.86 m	
	NO 3	25.785 m X 47.5 m X 23.86 m	
	NO 4	25.785 m X 47.5 m X 23.86 m	
	NO 5	25.785 m X 47.5 m X 23.86 m	
	NO 6	25.785 m X 47.5 m X 23.86 m	
	NO 7	25.785 m X 47.5 m X 23.86 m	
	NO 8	25.785 m X 47.5 m X 23.86 m	
	NO 9	29.605 m X 47.5 m X 23.86 m	
<b>Compartment Capacity (Including Hatch Coaming)</b>	NO 1	786,249.28 ft <sup>3</sup>	22,264.1 m <sup>3</sup>
	NO 2	899,701.18 ft <sup>3</sup>	25,476.7 m <sup>3</sup>
	NO 3	808,642.31 ft <sup>3</sup>	22,898.2 m <sup>3</sup>
	NO 4	808,642.31 ft <sup>3</sup>	22,898.2 m <sup>3</sup>
	NO 5	808,529.30 ft <sup>3</sup>	22,895.0 m <sup>3</sup>
	NO 6	715,789.45 ft <sup>3</sup>	20,268.9 m <sup>3</sup>
	NO 7	807,999.58 ft <sup>3</sup>	22,880.0 m <sup>3</sup>
	NO 8	797,030.85 ft <sup>3</sup>	22,569.4 m <sup>3</sup>
	NO 9	806,664.69 ft <sup>3</sup>	22,842.2 m <sup>3</sup>
	TOTAL	7,239,248.95 ft <sup>3</sup>	204,992.7 m <sup>3</sup>
<b>Water Ballast Capacity</b>	~61,900 m <sup>3</sup> ~82,168.9 m <sup>3</sup> (with heavy weather ballast)		
<b>Fresh Water</b>	475 m <sup>3</sup>		
<b>Fuel</b>	LNG	5,612 m <sup>3</sup> (100%)	
	LSFO	2,201 m <sup>3</sup> (100%)	
	LSMGO	491.3 m <sup>3</sup> (100%)	
<b>Fuel Specifications</b>	LNG	Liquid LNG del. onboard @ temperature -162.5°C, calorific value of 50,000 kJ/kg, Max SG: 0.50 t/m <sup>3</sup>	
	LSFO	ISO 8217:2016, Sulphur <0.5%	
	LSMGO	ISO 8217 / 2010 DMG - max 0,1% Sulphur content	
<b>Range Endurance</b>	~18,000 - 19,000 NM		
<b>Main Engine</b>	MAN B&W 6G70ME-C10.5 with HP SCR Tier III	18,600 kw X 78 RPM	
	NMCR	15,081 kw X 71 RPM	
	SMCR	10,858 kw X 63.6 RPM	
	NCR		
<b>Auxiliary Engine</b>	Wärtsilä Qiyao 2 X 1,200 kw + 1 X 900 kw (Duel Fuel - operated on BOG)		
<b>Speed</b>	Lowest speed	11 knots	
	Highest speed	15.7 knots	
<b>FGSS</b>	GloryHolder Liquified Gas machinery with SBR		
<b>LNG Tank Type</b>	"C" Type X 2, 2,800 m <sup>3</sup> each; Located on the side of the accommodation		
<b>Ballast Pump</b>	2 X @ 2,800 m <sup>3</sup>		
<b>Windlass/Mooring</b>	2 - Windlass / 18 Winch drums		

The Ubuntu Fleet is specifically designed to support the safe, reliable and low carbon delivery of Anglo American products.

Anglo American is a leading global mining company and our products are the essential ingredients in almost every aspect of modern life. Our portfolio of world-class competitive operations, with a broad range of future development options, provides many of the future-enabling metals and minerals for a cleaner, greener, more sustainable world and that meet the fast growing every day demands of billions of consumers.

### Anglo American Shipping Pte Limited

10 Collyer Quay  
Level 38, Ocean Financial Centre  
Singapore 049315

chartering@angloamerican.com  
operations@angloamerican.com

[www.angloamerican.com](http://www.angloamerican.com)