

4. Port Overview

4.1 Port of Gqeberha (Port of Port Elizabeth)

The Port of Gqeberha is a major South African port located in Algoa Bay in the Eastern Cape. It handles a diverse range of cargo, including bulk commodities, containerized goods, and vehicles. The port is particularly noted for its automotive industry, serving as a hub for vehicle assembly and the import and export of vehicles through its dedicated car terminal.



Figure 2: Port of Gqeberha - (Source: Satellite Image 2023 Airbus CNES)

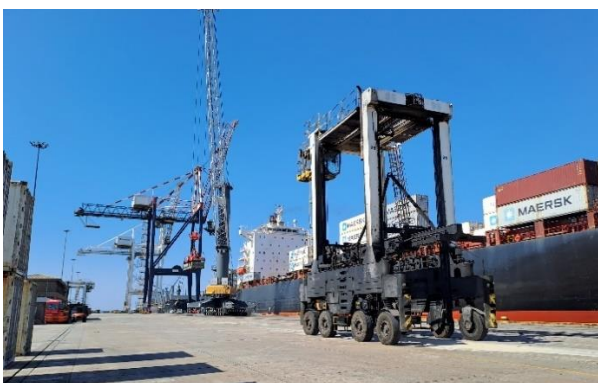


Figure 3: Container Berth



Figure 4: Automotive Berth

Port Characteristics

Characteristic	Details
Location	Eastern Cape, South Africa, along the Indian Ocean
Latitude	34° 01'00' S,
Longitude:	25° 42'00 E,
Port Type	Multi-purpose port
Annual Throughput (2022)	12.95 million tons, 135,518 TEU, 145,868 FBU (Motor Vehicles)
Main Activities	automotive exports, Container handling, bulk cargo (manganese export), fruit exports, liquid bulk
Container Handling Capacity	400,000 TEU
Maximum Vessel Length (m)	no limitation
Maximum Vessel Beam (m):	no limitation
Max Ship Draft (m)	Container: 11.2m, Automotive: 11m, Break Bulk/Bulk: 12.1m, Tanker: 9.6m
Quay Length	Charl Malan Quay (container & automotive) 1050m, bulk berths totaling 360m, tanker berth of 242m
Equipment	4 STS container cranes, mobile cranes, 25 straddle carrier
Container Storage Area	22ha container storage area with 5400 ground slots, 1000 Reefer plugs
Connectivity	Road and rail links connecting to the interior of South Africa. Direct Rail link between Ngqura port and the Port of Gqeberha
Security Standards	ISPS-compliant, with modern security infrastructure
Customs Efficiency	Operates under South African Revenue Service (SARS) guidelines; electronic clearance systems in place
Environmental Practices	Waste management, eco-friendly operations, spill response mechanisms
Competing Ports	Durban, Cape Town, East London in South Africa
Economic Importance	Significant role in the Eastern Cape's economy, especially in the automotive sector
Expansion Plans	Various initiatives and plans depending on the needs and strategies of Transnet National Ports Authority, highly dependent on future commodity share with the port of Ngqura

Technical Summary

The port's main activities encompass a diverse range of operations such as automotive exports, container handling, the export of bulk cargo like manganese, fruit exports, and the management of liquid bulk commodities. The container handling capacity of the port stands at 400,000 TEUs, showcasing its capability to handle a significant volume of containerized freight.

The entrance channel and turning basin are designed to accommodate Panamax-sized vessels, with a dredged depth sufficient for the safe navigation of these large vessels. Additionally, the port is not constrained by maximum vessel length or beam. However, operational draft limits at the berth are set according to the cargo type: 11.2 meters for container ships, 11 meters for automotive vessels, 12.1 meters for break bulk and bulk carriers, and 9.6 meters for tankers.

The quays at Port Elizabeth are segmented by purpose: the Charl Malan Quay, stretching 1050 meters, is dedicated to container and automotive traffic. The quay is equipped with four ship-to-shore gantry cranes, and it enhances its operational capacity with a LHM 600 mobile crane that has a maximum load capacity of 208 tons and an outreach of 61 meters. For container mobilization, there are 25 one-over-two straddle carriers (3 high), six haulers, and 14 trailers. The reach stacker adds efficiency in empty container handling. The container storage area spans 22 hectares, providing 5400 ground slots, and is equipped with 1000 reefer plugs for refrigerated containers. The container handling capacity of the port stands at 400,000 TEUs per year. The space utilization at the container yard is not perfect, because due to the limited stacking height of the straddle carriers, only double stacking of the containers is operational possible. With modernization of the equipment and the sourcing of one-over-three straddle carriers (4 high), the storage capacity could be increased by 50% with enhancing the possibility of triple stacking.

There are also 360 meters of bulk only berths and a 242-meter tanker berth. The manganese storage area is located on the east side of the terminal. The manganese terminal at the Port of Gqeberha is a critical node in the export of South African manganese ore, with an installed capacity to handle up to 6 million tons per annum (Mtpa). In 2022, it managed 5.4 Mtpa of manganese. Due to open storage, strong winds can lead to dust pollution at the harbor and the adjacent city waterfront.



Figure 5: Manganese Terminal- Gqeberha (Source: Transnet)

Ship's gear is mandatory for bulk loading/unloading. The railway links direct into the port and to the berths. Manganese ore, pivotal to the port since 1976, is railed in from mines near Hotazel in the Northern Cape and is primarily exported to industrial powerhouses like India and China. Since 2015, the port also uses a skiptainer operation to utilize also the container berth for manganese export.

Available Equipment:

- 4 ship to shore gantry cranes
- 1 LHM 600 mobile crane,
maximum load 208t, maximum outreach 61 m
- 6 haulers and 14 trailers
- 1 Reach Stacker for empty Container Handling
- 25 one-over-two straddle carrier



Figure 6: Port of Gqeberha - Bulk operations

Challenges:

The port of Gqeberha while playing a pivotal role in the maritime economy, is not without its challenges. The extensive use of road networks surrounding the port has led to less-than-ideal road conditions. This not only impacts the efficiency of cargo movement but also raises maintenance and operational costs.

Additionally, the port faces some periodic congestion issues. These are not constant but are observed to fluctuate with the seasons, influenced by the peaks in the handling of specific goods. For instance, the agricultural seasons can lead to increased activity and consequently, heightened congestion.

Warehouse on Quayside (Shed 101)

Located directly on the main quay, the warehouse Shed 101 offers approximately 7,500 square meters of floor space. It was found to be in excellent condition during the assessment and was also very clean.

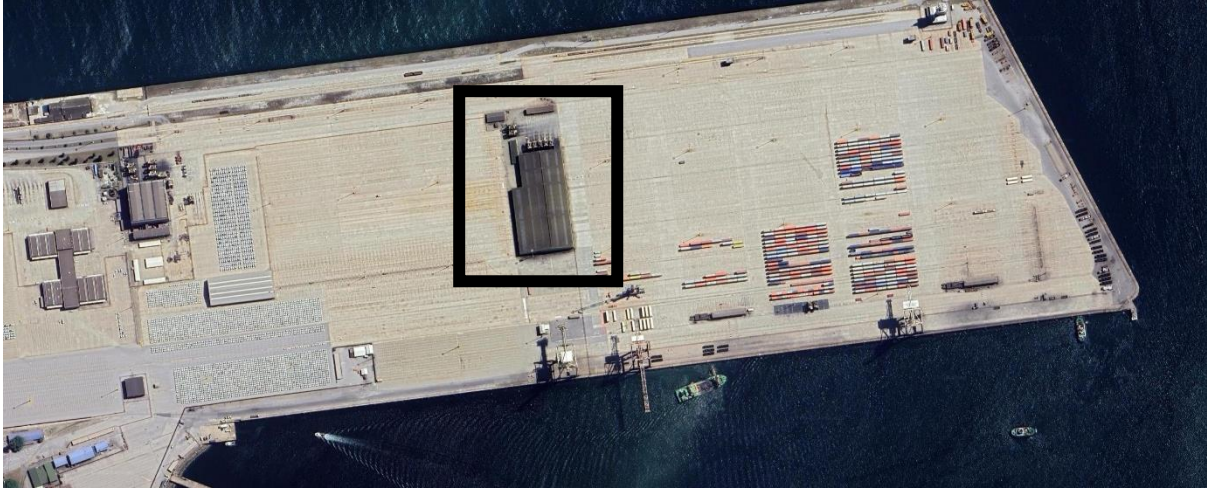


Figure 7: Shed 101 - Located on Charl Malan Quay



Figure 8: Shed 101 - Outside View



Figure 9: Shed 101 - Inside View

The warehouse was used for a lot of different purposes in the past, including foodstuff.

During the 2015-2016, season Shed 101 was utilized as a flat silo by BLG South Africa for the storage and dispatch of Soya Meal, a commodity imported from Brazil and used for animal feed. The facility managed a volume of 40,000 metric tons annually. The stored Soya Meal was distributed using road truck tipper trailers.

Additionally, Shed 101 boasts proximity to the port's rail siding, being approximately 300 meters away, offering the potential for rail transport options.