



LD Ports & Logistics



A LOUIS DREYFUS ARMATEURS GROUP COMPANY

LD Ports & Logistics

LDPL offers a one-stop solution providing maritime logistics services across the full life cycle of projects.

The company leverages its strong maritime experience and sense of innovation to cope with the most challenging maritime projects, proposing a wide range of integrated services through a global approach.

CONSULTING

The best strategy
to implement

DESIGNING VESSELS

Tailor-made design of logistic
assets

OPERATE

Fleet management
day-to-day operations

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- Simulation
- Operation



AN HISTORICAL LEADER IN BULK HANDLING

Louis Dreyfus Armateurs, founded more than 165 years ago, is a French family-owned group active in maritime transportation and services worldwide.

PROVIDING INTEGRATED LOGISTICS SOLUTIONS

The group offers its clients tailor-made industrial maritime solutions for iron ore, coal, bauxite, grain, oil and other materials.

COMMITTING TO LONG-TERM PARTNERSHIPS

At LDA, we focus on building long term strategic partnerships with customers. The group is recognized for its value-adding approach, sense of innovation and excellence.

Health, Safety & Environment

Our commitments : Louis Dreyfus Armateurs prides itself in conducting all its operations, under strict safety procedures. Many improvements in safety at sea, now widely adopted, have been developed within Louis Dreyfus Armateurs fleet operations. Our group was a front-runner in ordering double-hull Capesize vessels and instrumental in having the Blue Charter adopted by the members of Armateurs de France as their commitment to safety and to the protection of the environment.



Our people make us different. We are energetic about solving our client's challenges, with a unique culture and approach to delivering enduring results, true to each client's specific situation. LDPL employees come from all over the world, with a broad diversity of educational and professional backgrounds. The entrepreneurial culture, the exciting missions and vision, our strong sense of innovation offer a challenging environment that attract the best talents in the industry to steer our way to success and deliver high value added solutions.



Louis Dreyfus
ARMATEURS



Tailor Made Solutions

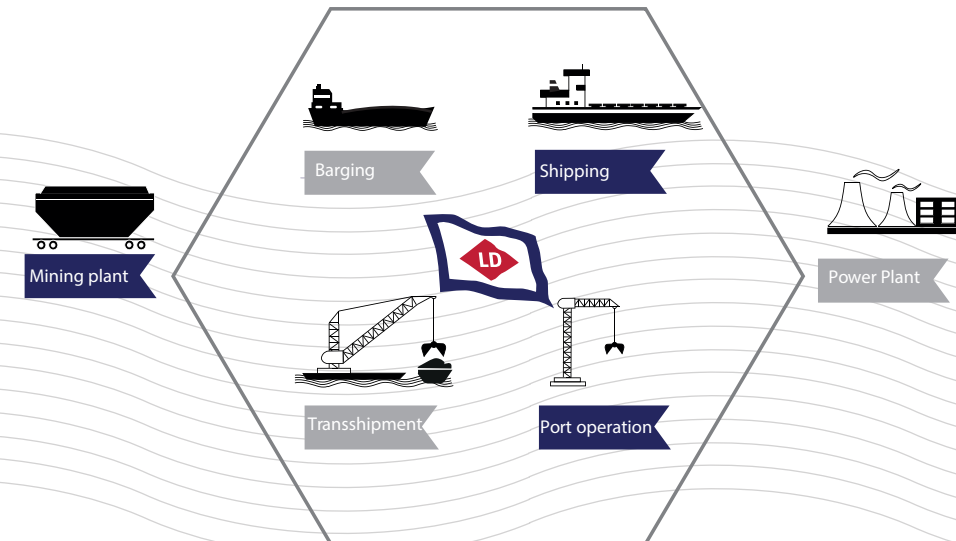


LDPL focuses on offering a **one-stop solution**, from the mining or power plants to the end users, with an expertise that covers the entire maritime value chain:

- **Port Operations**
- **Barging**
- **Transshipment**
- **Shipping**

At LDPL, we take a broader view on the maritime sector and develop innovative solutions

We believe the efficient delivering of maritime supply through an integrated solution is critical to achieving the best market return on investment, hence providing competitive advantages to our clients and partners.



FAZEL

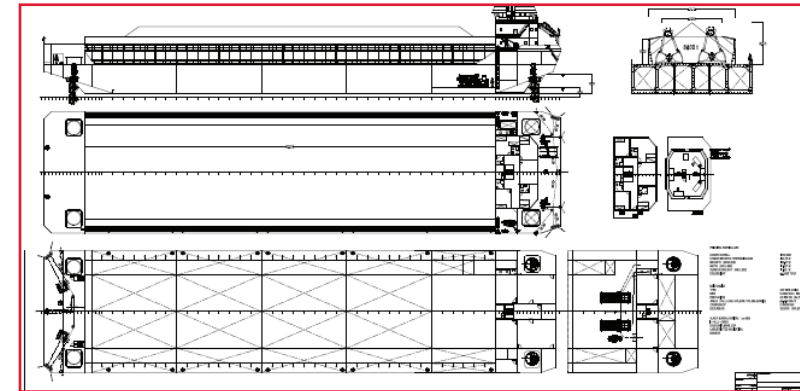


FAZEL flat-top barges are deck carriers (unrestricted navigation) **perfectly adapted** for transshipment operations.

They are self-propelled **4 azimuth thrusters**. They are able to keep and hold their position as a dynamic positioning system that guarantee an **ultra-high manoeuvrability**.

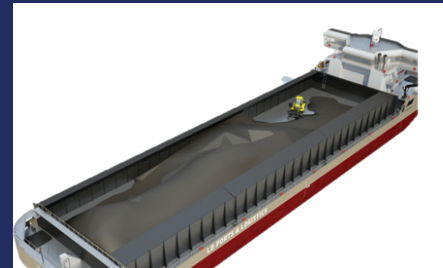
They are double ended, thus enabling much reduced infrastructure for berthing and manoeuvring and **no need of turning basin**. Such performance cannot be reached by conventional sets (tugs + barges).

FULL **AZIMUTHAL** **ELECTRICAL** PROPULSION



Characteristics:

- LOA 100 m
 - Beam 24.6 m
 - Draft 4 m
 - Capacity 6,000 mT
- Propulsion Diesel electric
with 4 Azimuth thrusters



DCS

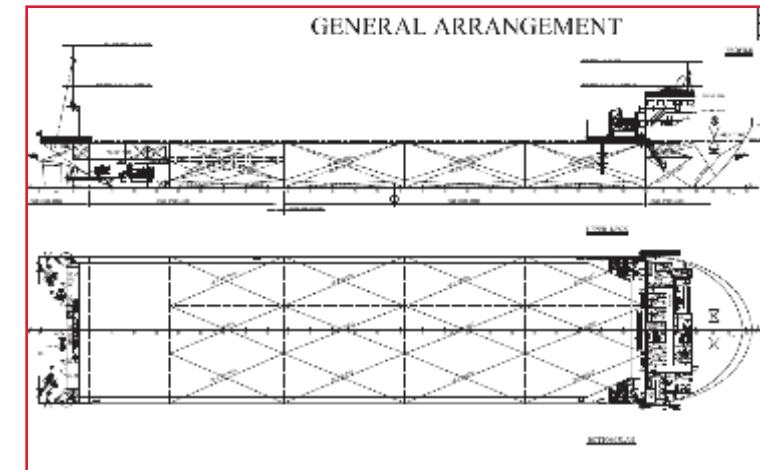


DCS are able to sail **much faster than traditional sets of barge and tugs** while generating substantial savings on fuel thanks to economies of scale and optimized bodylines. They are self-propelled by either fuel or LNG main engines.

They guarantee **a high manoeuvrability** coping with river bends and allowing self-berthing, with bow thruster flap-rudder. The wide cargo space is the key to **efficient loading and unloading operations**, with a high performance crane operator that can effortlessly position the grab safely into the barge, even during heavy swells off coast.



DECK CARGO SHIPS



Characteristics:

- LOA 127.7 m
- Beam 26.0 m
- Draft 5.7 m
- Capacity 13 000Mt
- Propulsion 2x 1600Kw
- Max Speed >12kts





Efficient Solutions



LDPL large track record allows to offer efficient solutions in every step of the activity. LDPL is able to design different transhipper units, fitting its clients' needs.

We are aiming at providing a suitable and reliable performance.

LDPL is optimising loading and unloading operations of Ocean Going Vessels by means of transhipper units, thanks to :

- **DFS (Decisional Feasibility Study)**
- **Cycle Simulation**
- **Production analysis**
- **Financial analysis**
- **Risk management...**

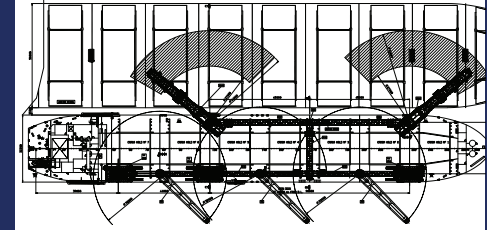


TSV

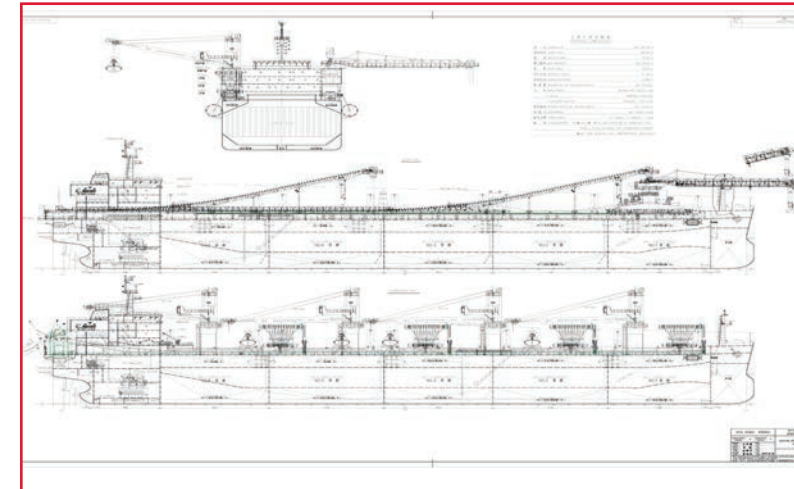


TSV are designed to transfer cargo from a vessel to another one. TSV is the most performing equipment in term of rate transfer. LDPL uses SUPRAMAX design to define transhipper vessels with **storage capacity**.

The equipment available on a TSV ensure **efficient rate, reliability and safety**, even in difficult weather condition. Therefore there is a notable financial gain. In addition the number of cranes available allows a **high rate of transfer: over 4,000tph**.

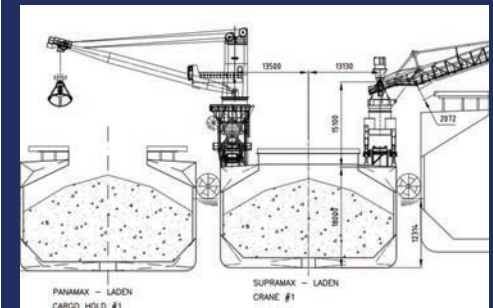


TRANSSHIPPER VESSEL



TSV with Buffer Characteristics:

- LOA 193.9 m
 - Beam 32.26 m
 - Draft 12.8 m
- Buffer Capacity up to 59 000 t
Cranes up to 4 @ 50mT SWG
Boom Elevation : 18° / -15°



FCTU

FCTU are **self-propelled transshipment unit**. Their advance technology ensures efficient, reliable and safe off-shore transfer of cargo, with capabilities to realize most of the critical repair and maintenance autonomously

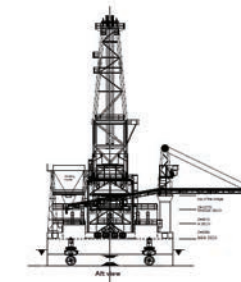
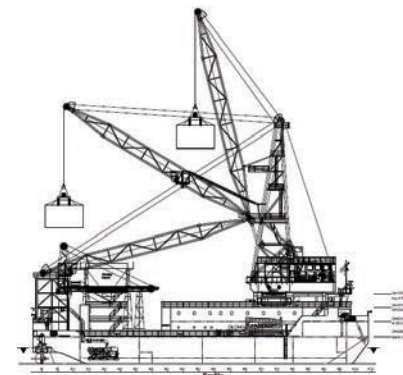
- The lattice boom crane ensures maximum weight reduction and optimizes dynamic performance.
- Its fully redundant power system features a programmable logic controller that can control the power outputs to grant the FCTU an unrivaled reliability to unleash true performance unimpeded by any waves conditions.
- Full electrical system avoiding any



Characteristics:

• LOA	64.20m
• Beam	24.00m
• Draft	2.95m
Gross tonnage	2.148mT
Working Radius	17.0-40.0m
Hoisting speed	0-105m/min
Luffing time	30sec
Slewing speed	0-1.44rpm

FLOATING CRANE TRANSHIPPER UNIT



Optimized Solutions

BATOS

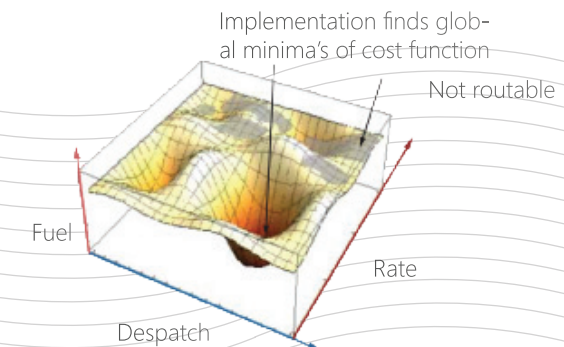
by
LDPL

LDPL goal is to offer a flexible, efficient solution, in addition of an optimized solution.

During an activity, variables can evolve as weather alteration, customer and clients needs, bottleneck ...Through BATOS, the solution can be improved at any step of the activity.

LDPL has developed its own software, **BATOS**, in order to provide the best cycle and to ensure the improvement of our activities through a constant monitoring.

Therefore, **LDPL centralizes and analyzes DATAS** to provide updated information to its clients.



Realize savings on freight and demurrage



- **Optimize first, then simulate** BATOS is far more than an ordinary simulation software. Built on a unique combination of **simplex** and sophisticated **genetic algorithms** BATOS core function is to **optimize** floating terminal **operations** and create value to the end user allowing significant savings on **freight** and **demurrage**.

For any transshipment configuration (number and size of barges, loading jetties, transshippers and bulk carrier), BATOS calculates, searches and tests thousands of possible permutations in order to identify the ultimate loading or unloading sequence. BATOS is an unrivaled software that manages and schedules transshipment operations and stockpile management, unlocking value in the whole export process.

- **Stick to the reality of maritime challenges** BATOS is the first software designed with a **specific** and exclusive focus on **transshipment**. As a specialized software, BATOS integrates an exhaustive list of **marine parameters**, enabling a very **high degree of realism** in the modeling.

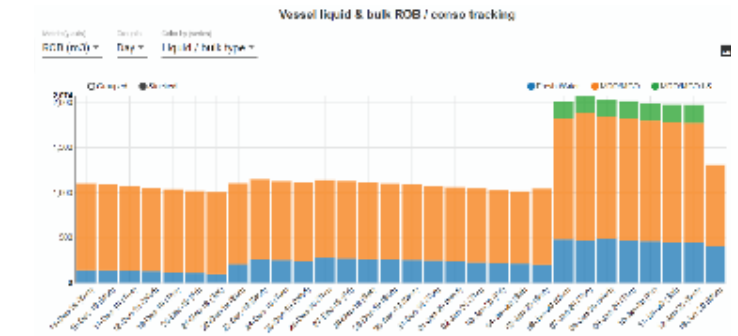
The high level of details addresses maritime challenges with confidence and designs transshipment solutions perfectly adapted to each project.



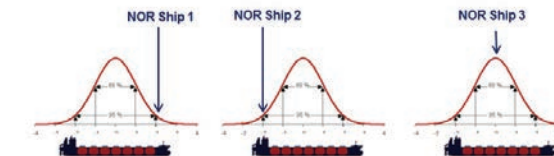
Operating and Technical Fleet management



- **Live Tracking Operation** A centralized Fleet Management is provided to ensure the required availability (spare parts and repair operation management) and eventual replacement (additional charter).



- **Strong Partnership** BATOS inform the client of the activity at any time. LDPL keeps an eye on the Key Performance Indicator and improve the solution according to analysis from BATOS data.



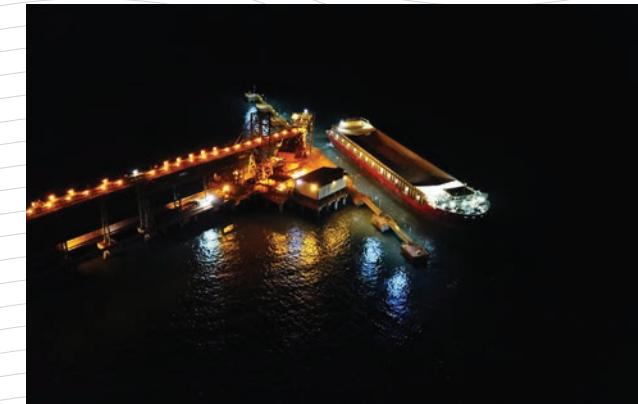
Operations over the last 10 years



"We draw upon our deep international experience in bulk handling and local expertise to provide our clients with technical advice and marine solutions that can meet complex challenges, thus making a real difference."



REACTIVITY



INNOVATION



“My word is my bond!”
– Leopold Louis-Dreyfus - Founder
of Louis Dreyfus Group



For more than 165 years, the group has continuously been a leader in the field of maritime bulk transportation and logistics whilst branching out and forging partnerships with leading industrial groups around the world.

Our know-how together with the quality and skills of our crews and office-based personnel are well known to our clients. Our excellent reputation is also based on the fact that we have always honored our commitments. This remains as one of our core values. These assets enable us to sail serenely ahead.

We keep a weather eye open on changes in our markets, retaining volatility in perspective to readily adjust our speed and course. It is vital for us to maintain a high level of adaptability, a quality which has always been one of our most recognized strengths.

Many challenges lie ahead of us to offer our customer the best maritime experience.

I am confident that, the values we uphold will enable us to embrace these challenges.

Edouard Louis-Dreyfus
President





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