



GT Bharat LLP

Trade Execution Process - Laytime

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#GTBharat
SHAPING VIBRANT INDIA

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1

Setting the context

Setting the Context

Bunge Global SA is a global agribusiness and food company, incorporated in Geneva, Switzerland and headquartered in St. Louis, Missouri, United States. As well as being an international soybean exporter, it is also involved in food processing, grain trading, and fertilizer.

Bunge India Pvt. Ltd. is eager to leverage advanced AI solutions, namely, Agentic AI in its business to increase the top-line and optimize the bottom line. To do this, Bunge is looking for a partner who can help them identify use-cases with strong financial business case

At its core, Bunge is a trading company which is in the business of trading grains (& grain derived products, such as wheat, soybean, cornmeal, etc.) and edible oils (such as palm oil).

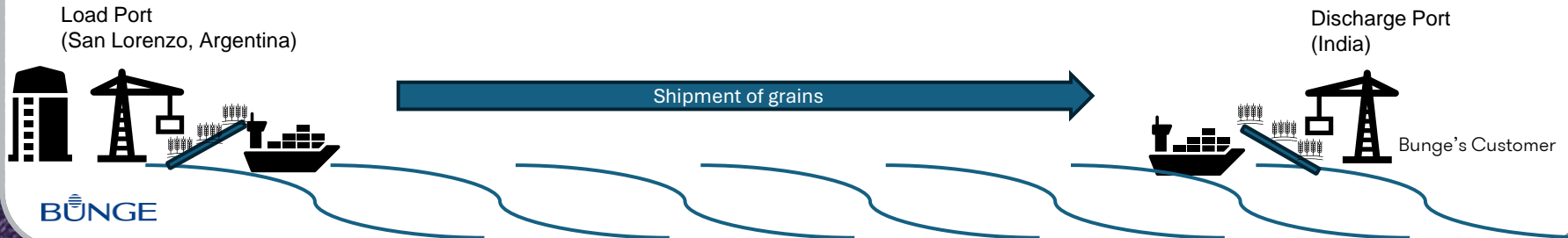
The trade execution process originates at the time of contracting and ends with Laytime.

The laytime helps Bunge to calculate the demurrage and despatch charges applicable at the time of loading cargo on ships or unloading cargo at destination port, depending on the contract terms with the customer.

A detailed view of the trade execution process is covered in the subsequent slides, along with additional details of considerations.

Gemini is the approved LLM service at Bunge, & hence, Vertex AI tool is also available.

As part of the pilot phase, Bunge is eager to evaluate how Agentic AI can be used in creation of Laytime as part of its trade execution activity.



Key activities that factor in Laytime

When loading or unloading cargo at a port, several key activities can trigger **laytime** (the agreed time allowed for loading/unloading) and corresponding **demurrage** (charges for exceeding that time) & **despatch** (charges for completing the job under time).

Arrival and Notice of Readiness (NOR)

- The vessel arrives at the port and issues/tenders a **Notice of Readiness** to the charterer or agent.
- Laytime typically starts counting from the time the NOR is accepted, depending on the charter party terms.

Berthing

- The vessel is assigned a berth and moored.
- Delays in berthing due to port congestion may or may not count towards laytime, depending on contract terms.

Shifting Within Port

- Moving the vessel from one berth to another within the same port.
- Time spent shifting may be included or excluded from laytime.

Cargo Handling Operations

- **Loading or unloading** of cargo using cranes, conveyors, or other equipment.
- Time taken for these operations is the core component of laytime.

Delays Due to Weather or Port Conditions

- Bad weather (e.g., rain, storms) or port strikes can halt operations.
- Whether this time counts toward laytime depends on the **"weather working days"** clause in the contract.

Customs and Port Clearance

- Inspections and documentation checks by customs, immigration, and port authorities.
- These formalities can delay operations and may or may not count against laytime.

Cargo Documentation and Inspection

- Time spent on tallying, sampling, or inspecting cargo.
- Can cause delays, especially for sensitive or regulated goods.

Completion and Departure

- Once loading/unloading is complete, the vessel prepares for departure.
- Any delays in clearing the berth may also impact demurrage if laytime has expired.

Key terms & their significance in Laytime

Arrival and Notice of Readiness (NOR)

- This is a formal document issues by the ship's captain to the chartered, consignee and port authority stating that the vessel has arrived at the designated port and is ready of load or discharge cargo.
- Purpose: Marks the official start of the laytime. **(Subject to terms in contract)**. Local time zone of the loading or discharge port is considered.
- Conditions for issuance:
 - The vessel must be at the agreed location (usually the port or berth).
 - It must be fully prepared to load or discharge (e.g., holds cleaned, equipment ready).
 - All necessary documentation and clearances must be in place.
- Format: It's usually a written statement, sometimes delivered electronically or physically.

Letter of Protest (LoP)

- Formal written communication issued by the ship captain usually to record a disagreement, objection or concern; notifying the parties of a perceived breach of contract, delay or operational issue.
- Common situations for issuing this are unsafe or improper handling of cargo, port congestion or berth unavailability, weather related interruptions, documentation related issues, etc.

Statement of Fact (SoF)

- An SoF is a detailed, chronological record of all significant events and operations that occur during a ship's stay at a port. Typically prepared by the ship's agent (sometimes Bunge would also assign their own agent) and signed by ship captain.
- Provides an accurate log of the vessel's activities at the port, which is then used for calculating laytime.
- Also used for resolving any disputes related to demurrage (cost implication for delays) or despatch (cost implication for early completion).
- Typical contents: vessel name & voyage number, port & terminal name, time of arrival, departure, anchoring, berthing, commencement & completion of loading/discharging, delays (weather, strikes, equipment failure, incidents or interruptions).

Pumping Log (only applicable for oil cargo)

- Chronological record maintained by the ship that tracks start and stop times, flow rates, tank sequences and any interruptions during pumping of cargo.
- Provided by the vessel
- For edible oils, the pumping log monitors the efficiency of discharge, pressure, identifies delays or stoppages, ensure compliance with charter party terms (for example, by recording temperature of the cargo).

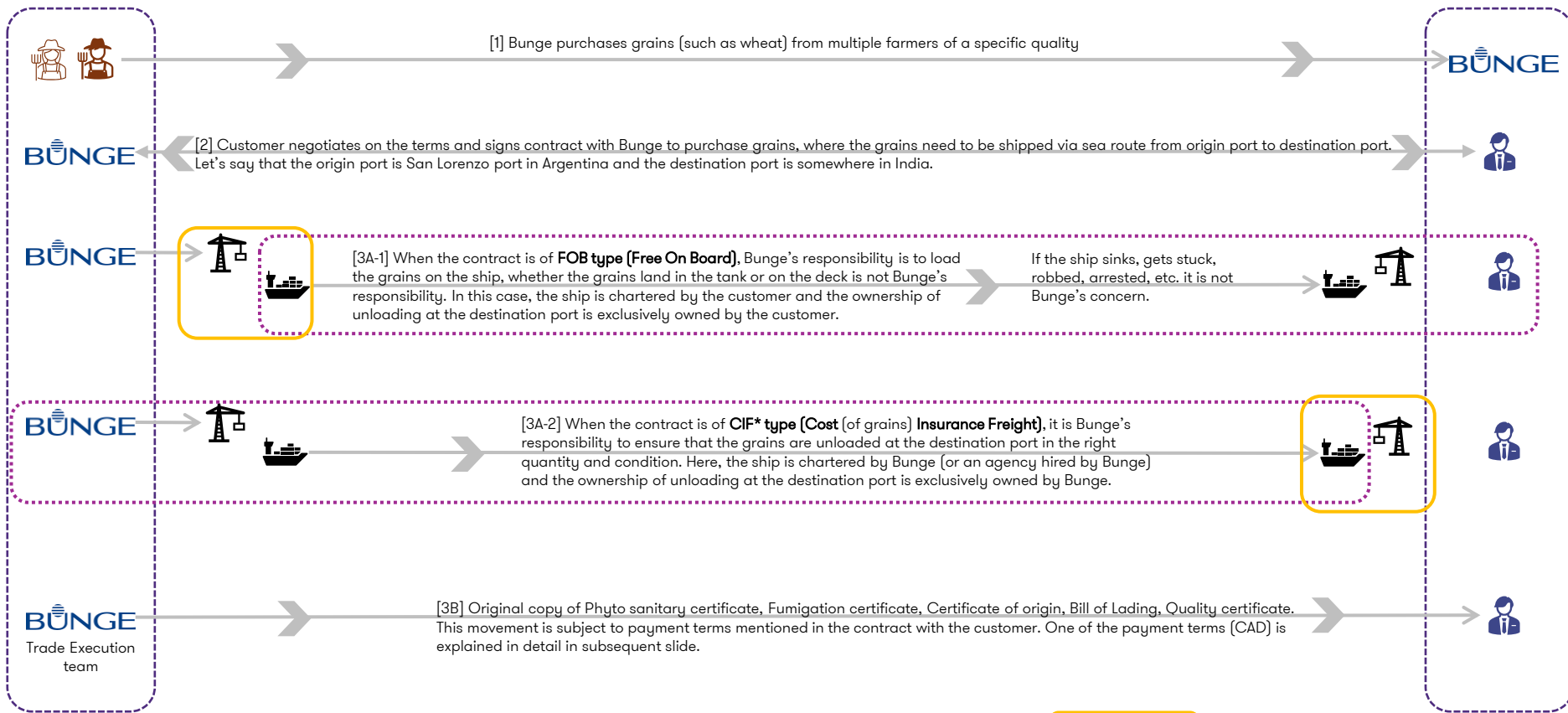
NoR, SoF and LoP are typically associated with 'bulk' cargo (grains), whereas in case of edible oils, Pumping log is an additional piece of information that is maintained. Samples of all 4 are provided in subsequent slides.



2

Illustrative process flows

Illustrative process flow of shipment



Grains are loaded in bulk (loose cargo)
Oil is transported in tanks & container
Bulk: Wheat, Soybean, Cornmeal, Soybean meal



Farmers



Bunge's Customer



Load Port



Destination Port



Ship

Laytime creation

Accountability owner

*CIF has further two types: CFRFO (Cost Freight Free Out) and CFRLO (Cost Freight Liner Out) where the buyer pays for insurance.

Illustrative flow in case of CAD (cash against document) terms





3

Illustrative sample documents

Sample format of a Notice of Readiness (NOR)

AI Generated

NOTICE OF READINESS

To: [Charterer / Agent / Terminal Operator]

From: Master of M.V. [Vessel Name]

Date: [DD/MM/YYYY]

Time: [HH:MM]

Location: [Port Name / Berth]

Dear Sir/Madam,

I, the undersigned Master of the M.V. **[Vessel Name]**, hereby give you notice that my vessel has arrived at **[Port Name]** on **[Date]** at **[Time]**, and is now in all respects ready to **[load/discharge]** the cargo as per the terms of the charter party.

The vessel is:

- Properly moored at [anchorage/berth]
- Holds/tanks are clean and ready
- All necessary documentation and clearances have been obtained
- Crew and equipment are prepared for cargo operations

Please acknowledge receipt of this Notice of Readiness.

Yours faithfully,

[Master's Name]

Master of M.V. **[Vessel Name]**

Sample format of an SoF

AI Generated

STATEMENT OF FACTS

Vessel Name: MV Grain Carrier

Port: Vancouver Grain Terminal

Cargo: Wheat

Quantity: 50,000 MT

Charterer: Global Grain Traders Ltd.

Shipper: Prairie Wheat Exporters Inc.

Consignee: Pacific Flour Mills Co.

Berth: Berth No. 3

Chronological Events

Date & Time	Event	Remarks
2023-08-01 06:00	Arrival at Anchorage	Awaiting berth availability
2023-08-01 14:00	Pilot On Board	
2023-08-01 15:00	All Fast at Berth No. 3	Mooring completed
2023-08-01 16:00	Hatch Inspection Completed	Holds found clean and ready
2023-08-01 17:00	Commenced Discharging	Discharging wheat via conveyor
2023-08-02 10:00	Discharging Suspended	Due to heavy rain
2023-08-02 14:00	Discharging Resumed	Weather improved
2023-08-03 08:00	Completed Discharging	Total 50,000 MT discharged
2023-08-03 10:00	Pilot On Board for Departure	
2023-08-03 11:00	Vessel Sailed	Departed from berth

Signed by:

Master of the Vessel: _____

Charterer's Representative: _____

Terminal Operator: _____

Sample format of a letter of protest

Letter of Protest

Vessel Name: MV Grain Carrier

Voyage Number: GC2023-045

Port of Discharge: Port of Vancouver

Date: 15/09/2023

To: Port Authority / Terminal Operator

Dear Sir/Madam,

I, the undersigned Master of MV Grain Carrier, hereby lodge this formal Letter of Protest regarding the delay in discharging operations at the Port of Vancouver.

The vessel arrived at the designated anchorage on 13/09/2023 at 08:00 hours and has been awaiting berth allocation since then. As of the date of this letter, no berth has been made available due to port congestion.

This delay is causing significant disruption to the vessel's schedule and may result in financial implications including demurrage. The vessel is in all respects ready to discharge the cargo of wheat as per the terms of the charter party.

We hereby reserve all rights to claim for any losses, damages, or expenses incurred due to this delay.

Please acknowledge receipt of this Letter of Protest.

Yours faithfully,
Master of MV Grain Carrier
(Signature)

AI Generated

Sample format of a pumping log

AI Generated

Pumping Log – Palm Oil Discharge

Date/Time	Tank No.	Start Time	Stop Time	Quantity (MT)	Temperature (°C)	Remarks
12/06/2025 08:00	1P	08:00	10:30	500	45	Normal
12/06/2025 10:45	2S	10:45	13:15	480	44	Short delay due to pump pressure
12/06/2025 13:30	3P	13:30	15:45	510	46	Normal
12/06/2025 16:00	4S	16:00	18:20	495	45	Minor temperature fluctuation



4

Laytime calculation

Sample laytime calculation sheet

A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	LAY TIME CALCULATIONS												
2	Vessel Name	MV AHSOKA			PORT	SLZO, ARGENTINA							
3	A/C	AMAGGI			QUANTITY	30,770.38							
4	TERMS	SATPMSEX (SAT 1200HRS TO MON 800HRS)	DISRATE	5000	NOR TENDERED	15-Jun-23 14:45	Thursday						
5	PRODUCT	BR SBS			NOR VALID	15-Jun-23 14:45	Thursday						
6	LTC AT:	LTC COMMENCE AT 1200 HRS AFTER AFTER VALID NOR			VESSEL ARRIVED	15-Jun-23 14:20	Thursday						
7	DEMMURAGE	\$ 22,000.00			VESSEL BERTHED	18-Jun-23 16:48	Sunday						
8	DESPATCH	\$ 11,000.00			COMMENCED CARGO	18-Jun-23 19:55	Sunday						
9	TIME TO START COUNTING				COMPLETED CARGO	21-Jun-23 19:00	Wednesday						
10	LAYTIME TO START COUNTING				DEAD FREIGHT	0.00							
11	TIME ALLOWED				ACTUAL QUANTITY	30,770.38							
12					LP LAYCAN								
13													
14													
15													
16	Date	Day	Laytime used	Count	Deductible	Deductible	Deduction	To count	Cumulative	Laytime Left			Remarks
17	16-Jun-23	Friday	FROM 2:45	TO 24:00	24:00	Rain & Crane 2:45 14:30	11:45						VESSEL UNDER UPRIVER NAVIGATION
18						14:30 18:24	3:54						VESSEL ANCHORED AT ROADS DUE TO MAX SALING DRAFT
19						18:24 24:00	5:36						VESSEL SHIFTED TO SAN PEDRO ROADS FOR DRAFT SURVEY
20						Total	21:15	2:45	0.1146	6.0395			
21	17-Jun-23	Saturday	0:00	24:00	24:00	0:00 24:00	24:00	0:00	0.0000	6.0395			HOLIDAY
22						Total	24:00	0:00	0.0000	6.0395			
23	18-Jun-23	Sunday	0:00	24:00	24:00	0:00 24:00	24:00	0:00	0.0000	6.0395			WEEKEND
24						Total	24:00	0:00	0.0000	6.0395			
25	19-Jun-23	Monday	0:00	24:00	24:00	0:00 24:00	24:00	0:00	0.0000	6.0395			HOLIDAY
26						Total	24:00	0:00	0.0000	6.0395			
27	20-Jun-23	Tuesday	0:00	24:00	24:00	0:00 24:00	24:00	0:00	0.0000	6.0395			HOLIDAY
28						Total	24:00	0:00	0.0000	6.0395			
29	21-Jun-23	Wednesday	0:00	19:00	19:00	11:15 12:00	0:45						RAIN
30						12:20 12:40	0:20						
31						Total	1:05	17:55	0.7465	5.2930			
32	TIME ALLOWED		6.1541	147:41:52									
33	TIME USED		0.8611	20:40:00									
34	DESPATCH		(5.2930)	5.29	139:00		118:20	20:40					
35	Rate US \$		11,000	\$98,222.62	5.7917	Days	4.9306	0.8611					0.8611
36													
37													
38													
39	CIF SELLER	SELLER WILL PAY TO BUYER			BUYER WILL PAY TO SELLER								
40	CIF BUYER	BUYER WILL RECEIVE FROM SELLER											
41													
42	VESSEL OWNER	CIF SELLER WILL RECEIVE FROM OWNER											

Since in this case, the contract mentioned that consideration time shall be considered 12 hours post tendering NoR

Since the time allowed in this case is 6.1541 days, the customer will not have to pay demurrage to Bunge if the discharge is executed within 6.1541 days.

A despatch of \$98,222.62 is payable by Bunge to the customer in this instance as Bunge is the CIF Seller here.

This amount is then charged to the vessel owner by Bunge. Most contracts are created on b2b terms to protect.

All the datapoints listed in the screenshot above is extracted from the NoR, SoF, LoP, Pumping Log (in case of oil) and Contract.

comments

Laytime calculation considerations

1. Laytime calculation happens between the following parties:
 - a) Vessel and Bunge, in case of time charter. This is recording in IMOS.
 - b) Head owner and Bunge, in case of voyage charter. This is recording in IMOS.
 - c) Bunge and Customer. This is recording in excel files.
2. NoR tender time is verified in the SoF from both, the header level timestamp and the timestamp mentioned in the table. In case of any discrepancies, the one listed in the table is considered.
3. The execution team also has access to the Emails sent by the ship captain which acts as another datapoint to confirm the tender time.
4. The reliance of information is in the following order: Ship captain > Agent > SoF data.
5. Holidays are usually mentioned in the SoF. BIMCO.org data is also considered to identify any local holidays at ports.
6. *Demurrage or despatch charges, at their core, is the cost to compensate or reward for poor or excellent adherence to timelines during loading/discharging cargo.*

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