

INT FREIGHT DECISIONS

MULTIMODAL & TRANSPORT MANAGEMENT

QR Company is located in Angoulême and is specialized in dry cells and reloading batteries. The company imports finished products from IPG Ltd in Hong Kong.

QR buying EXW Hong Kong, is looking for the best transport organization at the cheapest cost and is asking several forwarders to send a quotation and to suggest transport plan.

The main market of the company located in Bordeaux are :

Location	sales depletion
In Germany close to Hamburg	30%
In Italy close to Milano	15%
In Toulouse area	15%
In Praha Czech Republic	40%

With a total of 10 000 000 batteries

Peak season with 60% of sales is from June to October

Out of stock situation was experimented last year for 15% of sales which is a real concern for the coming year.

QUESTIONS

1)

- What is the proper multimodal solution to manage logistics cost and time to market ?**
- What is the DDP destination cost ?**

2) **From your multimodal knowledge, suggest possible alternatives and argue.**

A research work is needed here.

APPENDIX

1- About the market

What every battery user should know

A major concern arises if static electricity or a faulty charger has destroyed the battery's protection circuit. Such damage can permanently fuse the solid-state switches in an ON position without the user knowing. A battery with a faulty protection circuit may function normally but does not provide protection against abuse.

Another safety issue is cold temperature charging. Consumer grade lithium-ion batteries cannot be charged below 0°C (32°F). Although the packs appear to be charging normally, plating of metallic

lithium occurs on the anode while on a sub-freezing charge. The plating is permanent and cannot be removed. If done repeatedly, such damage can compromise the safety of the pack. The battery will become more vulnerable to failure if subjected to impact, crush or high rate charging.

Asia produces many non-brand replacement batteries that are popular with cell phone users because of low price. Many of these batteries don't provide the same high safety standard as the main brand equivalent. A wise shopper spends a little more and replaces the battery with an approved model. Our Hong-Kong supplier is however reliable.
Annual market to manage is 1 900 000 batteries.

Product details

Unit gross weight per case 0.95 kg

EXW Hong Kong price per case 30 USD

Each case contains 48 units dimensions size = 0.45x0.2x0.2 m

Exchange rates : 1 HKD = 0.40 € ; 1 USD = 1.40 €

2- Air shipment collection

Noyber Hong Kong is using Few Chou to carry by road to Hong Kong airport including formalities :

Collection in Hong Kong city 3.2 HKD/ kg

Export customs formalities : 315 HKD

3- Air shipment quotation from Noyber Hong Kong by ULD pallets

General tariff €

M	53.00
N	5.20
45	3.20
500	2.60
1000	1.95

Per ULD tariff €

From HK to Paris CDG

ULD size	n° 2	n°5
Dimensions in cms	317.5x223x244	317.5x223x160
Pivot weight	2300 kg	1600 kg
Maximum gross weight	6800 kg	4615 kg
Tare	150 kg	115 kgs
Freight	7676.55	4262.61

Other charges related to airway bill

Fixed tax per AWB	87 HKD
Registration tax	125.11 HKD
BAF	0.36 HKD per kg
Security tax in HKD	
Per kg of goods	0.76
Minimum per shipment	86.72
Maximum per shipment	1516.50

Insurance charge of the risk

Per kg	1.14 HKD
Minimum per shipment	56.87 HKD
Maximum per shipment	2274.75 HKD

Option 2 by air

Consolidation price Hong Kong Paris	
M 80 EUR	
N 3 EUR per kg	
Till 100 kgs	2.80 EUR
Till 200 kg	2.60 EUR
Till 300 kg	2.40 EUR
Till 500 kg	2.00 EUR
More than 500 kg	1.75 EUR
Insurance rate	0.45 % of CPT + 10%
CHC (fixed)	16 EUR
AWA Tax	7 EUR
Collection cost	: 40 EUR per pallet

4- Postcarriage

Batteries arrive in CDG Paris airport on Friday during the day. When arriving they are repacked on 4 european pallets (tare 23 kg). Pallets cannot be stacked. Then they are stored in the airport warehouse from 5 am to 11 pm till their loading.

Noyber delivers From Toulouse to CDG each Monday a full trailer. However the 4 pallets to load from Roissy to Toulouse are not sufficient to fulfill the trailer. Other goods are needed to make the trailer full and they use the Freight exchange place. Goods are shipped on Tuesday to Toulouse. Arrival is expected at 11 pm the latest.

Trailer

Length 13.40 m width 2.45 m Height 2.50 m tare 5 t Total weight 32 mt

Distance from CDG to Toulouse 665 kms

Toll cost 82.40 €

5- Freight offers at the freight exchange place on Tuesday

Number Sodiviande CDG Toulouse general cargo Trailer 20 euro pallets 12 t with daily drive of 9 hours

Average speed 70 km/h without any time stop

Loading time : 45 mm

Disloading time : 45 mm

6-

40t loading cost per km : 0,399 €

Daily fixed cost : 159,80 €

7- Norboy transport from CDG to Toulouse

1 pallet	80 €	7 pallets	230 €	13 pallets	301 €
2 pallets	114 €	8 pallets	248 €	14 pallets	315 €
3 pallets	140 €	9 pallets	258 €	15 pallets	325 €
4 pallets	160 €	10 pallets	268 €	16 pallets	335 €
5 pallets	208 €	11 pallets	280 €	17 pallets	343 €
6 pallets	215 €	12 pallets	290 €	18 pallets	353 €
19 pallets	365 €	20 pallets	376 €	21 pallets	385 €
22 pallets	395 €	23 pallets	405 €	24 pallets	420 €
25 pallets	430 €	26 pallets	440 €	27 pallets	450 €

8-Extra information

Paris CDG is the entry point border in the European border

70% of the airfreight cost is outside the European Union.

Storage cost in Roissy = 28 € per pallet

Combined nomenclatura code 85065010 batteries

Duties 2.7 %

VAT rate 20 %

9- sea transport offer

Breakbulk

190 USD W/M from pier to pier

BAF + 10% CAF 1%

Insurance 1.2%

Precarriage 350 USD

Export clearance 80 USD

Dry 20' container and Dry 40' container

Pre carriage 850 USD

Export formalities 60 USD

Insurance cost 0.5% on CFR+10%

THC Genova 275 € Le Havre 500 € Rotterdam and Hamburg 450 €

Commodity description/packing	Container Rates US\$
Commodity = piles	
Per 20ft ctr	1550
Per 40 ft ctr	2340
To Genova per ctr	2119
To Le Havre Per 40ft ctr	1820
To Rotterdam Per 40' ctr	1896
To Hamburg Per 20' ctr	1675
Per 40' ctr	2125

Post carriage Genova / Milan : 500 € per FEU

Post carriage Hambourg Praha : 600 € per FEU

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	Ship		Concert Express	Companion Express	Dusseldorf Express	Atlantic Compass	Nuernberg Atlantic	Atlantic Cartier	Stuttgart Express	Atlantic Conveyor	Koeln Atlantic	Concert Express
Closing time		voyage	0202	0203	0803	0204	0804	0205	0805	0206	0806	0207
FCL	LCL	Port										
24	48	Shanghai	29.05	5.06		12.06		19.06		26.06		03.07
12	24	Hong-Kong	31.05	7.06	4.06	14.06	11.06	21.06	18.06	28.06	25.06	05.07
12	24	Dubai			30.06		7.07		14.07		21.07	
12	24	Genova	15.06	30.06	5.07	7.06	12.07	14.07	19.07	21.07	26.07	28.07
	24	Le Havre	20.06	7.07	12.07	24.06	19.07	1.08	26.07	5.08	3.08	15.08
		Rotterdam	22.06	19.07	14.07	26.06	21.07	3.08	28.07	10.08	5.08	17.08
	24	Hamburg			18.07		25.07		2.08		9.08	

Shipping schedule example

All In offer

From Hong Kong to Hamburg / Rotterdam

USD 1950 per 20' container, maximum load 17.778 t

CAF and BAF included

Examples of departure

89087 C. BEAVER 26/05
 89089 C. CARIBOU 31/05
 89091 C. HUSKY 05/06
 89093 C. POLARBEAR 10/06
 89095 C. MUSKOX 15/06
 89097 C. OTTER 20/06
 89099 C. BEAVER 26/06
 99101 C. HUSKY 03/07
 89103 C. CARIBOU 08/07

USD 3000 per 40' container

Transit time 25 days

Container sizes

40' Dry weight capacity 26T450 volume 11.998x2.33x2.35 m

20' Dry weight capacity 18T 300 5.900x2.35x2.38 m