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## ***ARGUS FREIGHT***

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The most up-to-date Argus Freight methodology is available on [www.argusmedia.com](http://www.argusmedia.com)

## Methodology overview

### Methodology rationale

Argus strives to construct methodologies that reflect the way the market trades. Argus aims to produce price assessments which are reliable and representative indicators of commodity market values and are free from distortion. As a result, the specific currencies, volume units, locations and other particulars of an assessment are determined by industry conventions.

In the freight markets, Argus publishes physical market prices in the open market as laid out in the specifications and methodology guide. Argus uses the trading period deemed by Argus to be most appropriate, in consultation with industry, to capture market liquidity. In order to be included in the assessment process, deals must meet the minimum volume, delivery, timing and specification requirements in our methodology. In illiquid markets, and in other cases where deemed appropriate, Argus assesses the range within which product could have traded by applying a strict process outlined later in this methodology.

### Survey process

Argus price assessments are informed by information received from a wide cross section of market participants, including producers, consumers and intermediaries. Argus reporters engage with the industry by proactively polling participants for market data. Argus will contact and accept market data from all credible market sources including front and back office of market participants and brokers. Argus will also receive market data from electronic trading platforms and directly from the back offices of market participants. Argus will accept market data by telephone, instant messenger, email or other means.

Argus encourages all sources of market data to submit all market data to which they are a party that falls within the Argus stated methodological criteria for the relevant assessment. Argus encourages all sources of market data to submit transaction data from back office functions.

Throughout all markets, Argus is constantly seeking to increase the number of companies willing to provide market data. Reporters are mentored and held accountable for expanding their pool of contacts. The number of entities providing market data can vary significantly from day to day based on market conditions.

For certain price assessments identified by local management, if more than 50pc of the market data involved in arriving at a price assessment is sourced from a single party the supervising editor will engage in an analysis of the market data with the primary reporter to ensure that the quality and integrity of the assessment has not been affected.

### Market data usage

In each market, Argus uses the methodological approach deemed to be the most reliable and representative for that market. Argus will utilise various types of market data in its methodologies, to include:

- Transactions
- Bids and offers
- Other market information, to include spread values between grades, locations, timings, and many other data.

In many markets, the relevant methodology will assign a relatively higher importance to transactions over bids and offers, and a relatively higher importance to bids and offers over other market information. Certain markets however will exist for which such a hierarchy would produce unreliable and non-representative price assessments, and so the methodology must assign a different relative importance in order to ensure the quality and integrity of the price assessment. And even in markets for which the hierarchy normally applies, certain market situations will at times emerge for which the strict hierarchy would produce non-representative prices, requiring Argus to adapt in order to publish representative prices.

### Verification of transaction data

Reporters carefully analyse all data submitted to the price assessment process. These data include transactions, bids, offers, volumes, counterparties, specifications and any other information that contributes materially to the determination of price. This high level of care described applies regardless of the methodology employed. Specific to transactions, bids, and offers, reporters seek to verify the price, the volume, the specifications, location basis, and counterparty. In some transactional average methodologies, reporters also examine the full array of transactions to match counterparties and arrive at a list of unique transactions. In some transactional average methodologies, full details of the transactions verified are published electronically and are accessible by subscribers. The deals are also published in the daily report.

Several tests are applied by reporters in all markets to transactional data to determine if it should be subjected to further scrutiny. If a transaction has been identified as failing such a test, it will receive further scrutiny. For assessments used to settle derivatives and for many other assessments, Argus has established internal procedures that involve escalation of inquiry within the source's company and escalating review within Argus management. Should this process determine that a transaction should be excluded from the price assessment process, the supervising editor will initiate approval and, if necessary, documentation procedures.

### Primary tests applied by reporters

- Transactions not transacted at arm's length, including deals between related parties or affiliates.
- Transaction prices that deviate significantly from the mean of all transactions submitted for that day.
- Transaction prices that fall outside of the generally observed lows and highs that operated throughout the trading day.
- Transactions that are suspected to be a leg of another transaction or in some way contingent on an unknown transaction.
- Single deal volumes that significantly exceed the typical transaction volume for that market.
- Transaction details that are identified by other market participants as being for any reason potentially anomalous and perceived by Argus to be as such.

- Transaction details that are reported by one counterparty differently than the other counterparty.
- Any transaction details that appear to the reporter to be illogical or to stray from the norms of trading behaviour. This could include but is not limited to divergent specifications, unusual delivery location and counterparties not typically seen.
- Transactions that involve the same counterparties, the same price and delivery dates are checked to see that they are separate deals and not one deal duplicated in Argus records.

**Secondary tests applied by editors for transactions identified for further scrutiny**

**Transaction tests**

- The impact of linkage of the deal to possible other transactions such as contingent legs, exchanges, options, swaps, or other derivative instruments. This will include a review of transactions in markets that the reporter may not be covering.
- The nature of disagreement between counterparties on transactional details.
- The possibility that a deal is directly linked to an offsetting transaction that is not publicly known, for example a “wash trade” which has the purpose of influencing the published price.
- The impact of non-market factors on price or volume, including distressed delivery, credit issues, scheduling issues, demurrage, or containment.

**Source tests**

- The credibility of the explanation provided for the outlying nature of the transaction.
- The track record of the source. Sources will be deemed more credible if they
  - Regularly provide transaction data with few errors.
  - Provide data by Argus’ established deadline.
  - Quickly respond to queries from Argus reporters.
  - Have staff designated to respond to such queries.
- How close the information receipt is to the deadline for information, and the impact of that proximity on the validation process.

**Assessment guidelines**

When insufficient, inadequate, or no transaction information exists, or when Argus concludes that a transaction based methodology will not produce representative prices, Argus reporters will make an assessment of market value by applying intelligent judgment based on a broad array of factual market information. Reporters must use a high degree of care in gathering and validating all market data used in determining price assessments, a degree of care equal to that applying to gathering and validating transactions. The information used to form an assessment could include deals done, bids, offers, tenders, spread trades, exchange trades, fundamental supply and demand information and other inputs.

The assessment process employing judgment is rigorous, replicable, and uses widely accepted valuation metrics. These valuation metrics mirror the process used by physical commodity traders

to internally assess value prior to entering the market with a bid or offer. Applying these valuation metrics along with sound judgment significantly narrows the band within which a commodity can be assessed, and greatly increases the accuracy and consistency of the price series. The application of judgment is conducted jointly with the supervising editor, in order to be sure that guidelines below are being followed. Valuation metrics include the following:

**Relative value transactions**

Frequently transactions occur which instead of being an outright purchase or sale of a single commodity, are instead exchanges of commodities. Such transactions allow reporters to value less liquid markets against more liquid ones and establish a strong basis for the exercise of judgment.

- Exchange one commodity for a different commodity in the same market at a negotiated value.
- Exchange delivery dates for the same commodity at a negotiated value.
- Exchange a commodity in one location for the same commodity at another location at a negotiated value.

**Bids and offers**

If a sufficient number of bids and offers populate the market, then in most cases the highest bid and the lowest offer can be assumed to define the boundaries between which a deal could be transacted.

**Comparative metrics**

The relative values between compared commodities are readily discussed in the market and can be discovered through dialogue with market participants. These discussions are the precursor to negotiation and conclusion of transactions.

- Comparison to the same commodity in another market centre.
- Comparison to a more actively traded but slightly different specification commodity in the same market centre.
- Comparison to the same commodity traded for a different delivery timing.
- Comparison to the commodity’s primary feedstock or primary derived product(s).
- Comparison to trade in the same commodity but in a different modality (as in barge versus oceangoing vessel) or in a different total volume (as in full cargo load versus partial cargo load).

**Volume minimums and transaction data thresholds**

Argus typically does not establish thresholds strictly on the basis of a count of transactions, as this could lead to unreliable and non-representative assessments and because of the varying transportation infrastructure found in all commodity markets. Instead, minimum volumes are typically established which may apply to each transaction accepted, to the aggregate of transactions, to transactions which set a low or high assessment or to other volumetrically relevant parameters.

For price assessments used to settle derivatives, Argus will seek to establish minimum transaction data thresholds and when no such

threshold can be established Argus will explain the reasons. These thresholds will often reflect the minimum volumes necessary to produce a transaction-based methodology, but may also establish minimum deal parameters for use by a methodology that is based primarily on judgment.

Should no transaction threshold exist, or should submitted data fall below this methodology's stated transaction data threshold for any reason, Argus will follow the procedures outlined elsewhere in this document regarding the exercise of judgment in the price assessment process.

### Transparency

Argus values transparency in energy markets. As a result, where available, we publish lists of deals in our reports that include price, basis, counterparty and volume information. The deal tables allow subscribers to cross check and verify the deals against the prices. Argus feels transparency and openness is vital to developing confidence in the price assessment process.

### Swaps and forwards markets

Argus publishes forward assessments for numerous markets. These include forward market contracts that can allow physical delivery and swaps contracts that swap a fixed price for the average of a floating published price. Argus looks at forward swaps to inform physical assessments but places primary emphasis on the physical markets.

### Publications and price data

Freight rates are published in the Argus Freight report. Subsets of these prices appear in other Argus market reports and newsletters in various forms. The price data are available independent of the text-based report in electronic files that can feed into various databases. These price data are also supplied through various third-party data integrators. The Argus website also provides access to prices, reports and news with various web-based tools. All Argus prices are kept in a historical database and available for purchase. Contact your local Argus office for information.

A publication schedule is available at [www.argusmedia.com](http://www.argusmedia.com)

### Corrections to assessments

Argus will on occasion publish corrections to price assessments after the publication date. We will correct errors that arise from clerical mistakes, calculation errors, or a misapplication of our stated methodology. Argus will not retroactively assess markets based on new information learned after the assessments are published. We make our best effort to assess markets based on the information we gather during the trading day assessed.

### Ethics and compliance

Argus operates according to the best practices in the publishing field, and maintains thorough compliance procedures throughout the firm. We want to be seen as a preferred provider by our subscribers, who are held to equally high standards, while at the same time maintaining our editorial integrity and independence. Argus has a strict ethics policy that applies to all staff. The policy can be

found on our website at [www.argusmedia.com](http://www.argusmedia.com). Included in this policy are restrictions against staff trading in any energy commodity or energy related stocks, and guidelines for accepting gifts. Argus also has strict policies regarding central archiving of email and instant messenger communication, maintenance and archiving of notes, and archiving of spreadsheets and deal lists used in the price assessment process. Argus publishes prices that report and reflect prevailing levels for open-market arms length transactions (please see the [Argus Global Compliance Policy](#) for a detailed definition of arms length).

### Consistency in the assessment process

Argus recognises the need to have judgment consistently applied by reporters covering separate markets, and by reporters replacing existing reporters in the assessment process. In order to ensure this consistency, Argus has developed a programme of training and oversight of reporters. This programme includes:

- A global price reporting manual describing among other things the guidelines for the exercise of judgment
- Cross-training of staff between markets to ensure proper holiday and sick leave backup. Editors that float between markets to monitor staff application of best practices
- Experienced editors overseeing reporting teams are involved in daily mentoring and assisting in the application of judgment for illiquid markets
- Editors are required to sign-off on all price assessments each day, thus ensuring the consistent application of judgment.

### Review of methodology

The overriding objective of any methodology is to produce price assessments which are reliable and representative indicators of commodity market values and are free from distortion. As a result, Argus editors and reporters are regularly examining our methodologies and are in regular dialogue with the industry in order to ensure that the methodologies are representative of the market being assessed. This process is integral with reporting on a given market. In addition to this ongoing review of methodology, Argus conducts reviews of all of its methodologies and methodology documents on at least an annual basis.

Argus market report editors and management will periodically and as merited initiate reviews of market coverage based on a qualitative analysis that includes measurements of liquidity, visibility of market data, consistency of market data, quality of market data and industry usage of the assessments. Report editors will review:

- Appropriateness of the methodology of existing assessments
- Termination of existing assessments
- Initiation of new assessments.

The report editor will initiate an informal process to examine viability. This process includes:

- Informal discussions with market participants
- Informal discussions with other stakeholders
- Internal review of market data

Should changes, terminations, or initiations be merited, the report editor will submit an internal proposal to management for review and approval. Should changes or terminations of existing assessments be approved, then formal procedures for external consultation are begun.

### Changes to methodology

Formal proposals to change methodologies typically emerge out of the ongoing process of internal and external review of the methodologies. Formal procedures for external consultation regarding material changes to existing methodologies will be initiated with an announcement of the proposed change published in the relevant Argus report. This announcement will include:

- Details on the proposed change and the rationale
- Method for submitting comments with a deadline for submissions
- For prices used in derivatives, notice that all formal comments will be published after the given consultation period unless submitter requests confidentiality.

Argus will provide sufficient opportunity for stakeholders to analyse and comment on changes, but will not allow the time needed to follow these procedures to create a situation wherein unrepresentative or false prices are published, markets are disrupted, or market participants are put at unnecessary risk. Argus will engage with industry throughout this process in order to gain acceptance of proposed changes to methodology. Argus cannot however guarantee universal acceptance and will act for the good order of the market and ensure the continued integrity of its price assessments as an overriding objective.

Following the consultation period, Argus management will commence an internal review and decide on the methodology change. This will be followed by an announcement of the decision, which will be published in the relevant Argus report and include a date for implementation. For prices used in derivatives, publication of stakeholders' formal comments that are not subject to confidentiality and Argus' response to those comments will also take place.

## Introduction

Argus Freight is a daily market report that publishes prices and market commentary on the international shipping spot market for crude, petroleum products, LPG, coal, petroleum coke and fertilizers together with prices for bunker fuel in the main bunkering centres.

Assessments are of typical and repeatable freight rates discussed in the market. The assessed prices are based on prices from the open spot market whenever possible. Argus Freight assessments are of the prices at which vessels have been fixed and could be fixed. A fixture does not need to be concluded with subjects lifted in order for a rate to be taken into account when making an assessment. Offers of and bids for tonnage and discussed market levels will also be considered for inclusion in the assessment if deemed to be representative of an achievable market rate.

Argus assessments are of the prevailing market rate within the parameters defined in this document.

Rates are based on fixtures and market discussion for forward periods specified below. Argus takes into account liquidity outside this period and market structure.

Argus does not independently calculate or include an allowance for low-sulphur fuel costs within the Baltic and North Sea, North America and Caribbean Emissions Control Areas (ECAs). If the market in a given sector evolves to incorporate an allowance for increased fuel costs within the ECA as a convention, Argus will exercise its discretion in assessing the prevailing spot price.

Argus market specialists conduct comprehensive daily surveys of key industry participants to collect trade information and gauge prevailing market sentiment. Argus price assessments for Argus Freight include market information gathered on fixtures and daily bid/ask spreads for each route under standardised specifications and under the general terms and conditions employed for the standard contracts in common use.

The market surveys are balanced in their approach and are conducted by well-trained specialists who are part of a dedicated team responsible for the Argus Freight report.

The Argus methodology relies on a common sense approach and informed analysis of all market data. The market surveys involve more than 30 market participants contacted by telephone or electronically. Market participants each day include ship owners, oil company charterers and ship brokers. The information is verified and analysed. The approach is methodical and standardised and the assessments are tested against the views of other market participants. Argus Freight does not use the Baltic Exchange for its freight assessments.

Information from the survey is verified as best possible and archived in databases.

Assessments are of prevailing market levels at the end of the trading day or week in the region of loading.

Regional freight data will become available at the close of business in Asia, Europe-Africa, and the Americas.

## Oil and refined products

Argus Freight contains assessments of the prevailing Worldscale spot rates for generic routes for dirty and clean tankers and also US dollars per tonne costs for all routes reported. Market commentary is provided for the main routes. The key benchmark Mideast Gulf\* to east route is based on double hull ships.

The assessment, whenever possible, will be based on tonnage that has passed two major oil companies' vetting procedure in the previous 12 months. If fixing activity for well approved tonnage

constitutes a minority of the total market activity in a sector, Argus will consider any other relevant market information in making the Argus assessment. Fixtures and bid/ask ranges outside of the Argus specifications are considered when assessing prices if market participants believe they have affected market values for the routes under the standardised terms reported in the Argus Freight report.

All day information is taken into account but if the market shows high intra-day volatility, Argus will weight the assessments towards trading activity at the end of the working day up to the cut-off time in the specifications listed below.

*\* Mideast Gulf. This stretch of water is traditionally referred to as the Persian Gulf but some reference prices used by the industry refer to it as the Arab Gulf. Argus Freight uses Mideast Gulf to avoid any contractual confusion.*

### Units of measurement

Argus Freight assessments for dirty and clean tankers are made in Worldscale spot rates and are inter-regional (regions defined below) and are not port specific. The conversion from Worldscale spot rates assessed by Argus to a \$/t figure in the Argus Freight report is made using an average of the three most typically-used Worldscale flat rates in a region. An exception is the Mideast Gulf-Singapore 55,000t gasoil rate which is based on an average of the two most typically-used Worldscale flat rates in the region. This does not mean that only fixtures for those routes are taken into account; these routes are used only to derive a typical Worldscale flat rate which is then applied to the inter-regional Worldscale spot assessment.

All assessments and formulas refer to the price of the product on the day of the published report and expressed in Worldscale spot rates and/or US dollars a tonne unless otherwise stated. The prices are for contracts under whatever general terms and conditions are accepted as standard and prevailing in that particular market. Price changes refer to the last published report.

References to t or tonnes are metric tonnes.

### Age of vessels

Ships are assumed to be less than 20 years old. Ships more than 20 years old will not be taken into account unless their rates or market discussions concerning these vessels are adjudged by Argus to have altered the market for ships less than 20 years old.

### Clean and dirty vessels

“Dirty” refers to shipping that is chartered for the shipment of crude, fuel oil and vacuum gasoil. “Clean” refers to shipping that is chartered for the shipment of gasoline, naphtha and middle distillates.

### Vessel type

To be considered for inclusion in oil and refined products freight rate assessments, vessels must be double hull and double bottomed with segregated ballast tanks.

### Assumed cargo sizes

- VLCCs are assumed to be vessels carrying 260,000t to 280,000t of oil
- LR1 vessels are assumed to be carrying 55,000t of oil
- LR2 vessels are assumed to be carrying 75,000t to 90,000t of oil
- MR vessels are assumed to be carrying 30,000t to 40,000t of oil
- Suezmax are assumed to be carrying 130,000t to 140,000t
- Aframax are assumed to be carrying 80,000t of oil
- Panamax are assumed to be carrying 50,000t to 55,000t of oil

Clean rates in the Mediterranean and Black Sea assume a base rate for gasoil.

See the complete list of assessed [clean](#) and [dirty](#) oil and refined freight rates and their specifications below.

### Dry bulk

Argus Freight includes freight rates for the main coal and iron ore trading routes for Capesize and Panamax vessels in the Atlantic and Pacific basins.

These freight rates are assessed as a result of communication with leading shipping brokers and international traders of coal and iron ore. Rates may also be calculated according to reported differentials from fixtures on other routes.

### Timing

Argus dry-bulk freight assessments are for fixtures contracted on the day of publication for timing over the next 90 days.

See the complete list of assessed dry bulk freight rates and their specifications [below](#).

### Americas coal exports

Argus Freight includes freight rates for the some of the main export routes for Americas coal. These freight rates are assessed weekly as a result of communication with leading shipping brokers and international traders of coal.

### Timing

Argus Americas coal export freight assessments are for fixtures contracted since the last publication for timing over the next 90 days.

See the complete list of assessed Americas coal export freight rates and their specifications [below](#).

### Petroleum coke

Argus Freight includes petroleum coke freight rates.

See the complete list of assessed petroleum coke freight rates and their specifications [below](#).



**LPG**

**VLGC Ras Tanura-Chiba**

Prices are in US dollars/tonne. Spot freight assessments provided daily for refrigerated very large gas carrier (VLGC) size cargoes loading Ras Tanura in the Mideast Gulf to Chiba, Japan, contracted for loading in 10-35 days.

**1,800t Tees-Lisbon**

Prices are in US dollars/tonne. Spot freight assessments provided daily for Tees, UK, to Lisbon, Portugal, 1,800t pressurised LPG carriers contracted on day of publication.

**1,800t Tees-ARA**

Prices are in US dollars/tonne. Spot freight assessments provided daily for Tees, UK, to ARA (Amsterdam-Rotterdam-Antwerp) 1,800t pressurised LPG carriers contracted on day of publication.

**Ras Tanura-Chiba time charter equivalent (TCE) daily/monthly**

Prices are published in US dollars/day and US dollars/month, respectively. The Ras Tanura to Chiba \$/t assessment is used to calculate time charter equivalent (TCE) values. The TCE calculation uses standard industry figures for the key components as set out in the table below. Fuel costs are derived from implied consumption and the price assessment for Fujairah 380cst bunker fuel and Singapore 380cst bunker fuel.

| <b>VLGC Ras Tanura-Chiba TCE</b>          |  |                |
|---|--|----------------|
|   | <b>Figures used in TCE calculation</b> |                |
|   | <b>Laden</b>                           | <b>Ballast</b> |
| Intake (t LPG)                            | 46,200                                 | 0              |
| Speed L+B (knots)                         | 16                                     | 16.5           |
| Consumption at sea (t/d)                  | 47                                     | 45.25          |
| Consumption in port (t/d)                 | 11                                     | 11             |
| Laytime                                   | 48hrs+6hrs NOR                         | 48hrs+6hrs NOR |
| Distance RT/Chiba/RT (nautical miles)     | 6,674                                  | 6,666          |
| Distance + 5% sea margin (nautical miles) | 7,014                                  | 7,005          |
| Port charges (\$)                         | 12,000                                 | 75,000         |
| Bunkering time                            | 6hrs                                   | 6hrs           |

**Propane VLGC Houston-Chiba**

See the [Argus NGL Americas methodology](#).

**Propane VLGC Houston-Flushing**

See the [Argus NGL Americas methodology](#).

**Handysize Houston-east coast Mexico**

See the [Argus NGL Americas methodology](#).

**Derived Houston-Chiba VLGC Ras Tanura-Chiba equivalent**

Prices are in US dollars/tonne. The derived Houston-Chiba VLGC freight rate is the implied \$/t freight rate that would provide the equivalent monthly earnings as a VLGC operating on the Ras Tanura-Chiba

route. The calculation uses standard industry figures for the key components for distances, fuel consumption and port fees.

Fuel costs are derived from implied consumption and fuel price assessments reflecting sulphur emission control area (ECA) stipulations and likely routes.

The Houston gasoil bunker price assessment (\$/t) is used as the inside-ECA fuel price. Fuel costs for the rest of the journey are based on the price assessment for Houston fuel oil bunker 380cst (\$/t) and Singapore 380cst bunker fuel.

A 46,200t parcel size is assumed.

**Derived Houston-Flushing VLGC Ras Tanura-Chiba equivalent**

Prices are in US dollars/tonne. The derived Houston-Flushing VLGC freight rate is the implied \$/t freight rate that would provide the equivalent monthly earnings as a VLGC operating on the Ras Tanura-Chiba route.

The calculation uses standard industry figures for the key components of distances, fuel consumption and port fees. Fuel costs are derived from implied consumption and fuel price assessments reflecting sulphur emission control area (ECA) stipulations and likely routes.

The Houston gasoil bunker price assessment (\$/t) is used as the inside-ECA fuel price. Fuel costs for the rest of the journey are based on the assessment of the Houston fuel oil bunker 380cst price (\$/t). The Rotterdam fuel oil bunker 380cst (\$/t) price assessment will be used for the return leg. A 46,200t parcel size is assumed.

**Derived Houston- Bahia Blanca VLGC Ras Tanura-Chiba equivalent**

Prices are in US dollars/tonne. The derived Houston-Bahia Blanca VLGC freight rate is the implied \$/t freight rate that would provide the equivalent daily earnings as a VLGC operating on the Ras Tanura-Chiba route.

The calculation uses standard industry figures for the key components of distances, fuel consumption and port fees. Fuel costs are derived from implied consumption and fuel price assessments reflecting sulphur emission control area (ECA) stipulations and likely routes.

The Houston gasoil bunker price assessment (\$/t) is used as the inside-ECA fuel price. Fuel costs for the rest of the journey are based on the assessment of the Houston fuel oil bunker 380cst price (\$/t). A 46,200t parcel size is assumed.

## Bunker prices

Argus Freight includes bunker prices republished from Argus Marine Fuels — see the [Argus Marine Fuels methodology](#).

- Fujairah: HS 380cst, HS 180cst, MGO 0.1%S
- South Korea: HS 380cst, HS 180cst, MGO 0.1%S
- Singapore: HS 500cst, HS 380cst, HS 180cst, LSFO 0.5%S, MGO 1%S, MGO 0.1%S,
- Antwerp: HS 380cst, HS 180cst, MGO 0.1%S
- Rotterdam: HS 380cst, HS 180cst, MGO 0.1%S
- Los Angeles: HS 380cst, HS 180cst
- Seattle: HS 380cst, HS 180cst
- Houston: HS 380cst, HS 180cst
- New York: HS 380cst, HS 180cst

Note: US bunker fuel prices are published for the US business day immediately preceding the date of publication

## Fertilizer freight rates

Argus publishes prices for international bulk shipping markets for fertilizers and their raw materials. Assessments of the prevailing spot rates for the major bulk fertilizer trade routes and relevant vessel sizes are published on a Thursday evening, London time, alongside Argus spot physical fertilizer assessments in the relevant weekly report. For example, spot freight rate assessments for phosphates will be published in the Argus Phosphates report. Argus fertilizer freight assessments are repeated in full on the following Friday in the Argus Freight report.

For each assessment, Argus stipulates the product, route and tonnage. Rates provide indication of a normal market fixture for vessels loading in the 10-20 days following the date of each Thursday's assessment.

Mideast Gulf assessments include Iranian fixtures. Mideast Gulf excluding Iran assessments exclude Iranian fixtures.

Rates include charges for loading or unloading at standard market loading and discharging rates including bunkering costs, and any other costs relating to shipment. Assessments are made at assumed market average loading and discharge rates.

Assessments are of spot business based on actual fixtures and/or the level at which vessels could be fixed given prevailing market conditions. Offers of and bids for tonnage and discussed market levels will also be considered for inclusion in the assessment if deemed to be representative of an achievable market rate.

### Urea

- Mideast Gulf-US Gulf\*
- Mideast Gulf-Thailand\*
- Mideast Gulf-Brazil\*
- Baltic-east coast Mexico
- Baltic-west coast Mexico

- Baltic-Brazil
- China-west coast Mexico
- Egypt-French bay
- Nigeria-Brazil

\*excluding Iran

### Finished phosphates

- Tampa-west coast India
- Morocco-Brazil
- Tampa-Brazil
- Baltic-Brazil
- Baltic-India
- Saudi Arabia-East coast India

### Phosphate rock

- Morocco-south Brazil
- Red Sea-west coast/east coast India
- Red Sea-Indonesia
- Morocco-US

### Potash

- Baltic-US Nola
- Baltic-China
- Hamburg-Brazil
- Red Sea-west coast India
- Vancouver-Brazil
- Vancouver-China
- Vancouver-southeast Asia

### Sulphur

- Vancouver-China
- Mideast Gulf-east coast India
- Mideast Gulf-North river China
- Mideast Gulf-south China
- Mideast Gulf-Brazil
- Mideast Gulf-north Africa
- Black Sea-north Africa
- Black Sea-Brazil
- Baltic Brazil
- Baltic-north Africa
- US Gulf-Brazil



| <b>Dirty freight rate specifications</b>  |   |   |                        |                  |
|---|---|---|------------------------|------------------|
| <b>Assessment</b>   | <b>Origin</b>   | <b>Destination</b>  | <b>Chartered cargo</b> | <b>Timing</b>    |
| <b>Middle East/East Asia</b>  |   |   |                        |                  |
| Mideast Gulf-East (double hull) 270,000t  | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)  | Singapore, China (including Hong Kong), South Korea, Taiwan and Japan   | 270,000t of oil        | 30-40 days ahead |
| Mideast Gulf-UKC/Med 280,000t   | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)  | Northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports; Mediterranean from Gibraltar to Canakkale/Dardanelles | 280,000t of oil        | 30-40 days ahead |
| Mideast Gulf-US Gulf 280,000t   | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)  | Gulf of Mexico centred on the Loop crude discharge terminal.  | 280,000t of oil        | 30-40 days ahead |
| Mideast Gulf-East – fuel oil 80,000t  | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)  | Singapore, China (including Hong Kong), South Korea, Taiwan and Japan   | 80,000t of fuel oil.   | 15-30 days ahead |
| SE Asia-east coast Australia 80,000t  | ports in the region around Indonesia and Malaysia, including Singapore  | east coast Australia  | 80,000t of oil         | 15-30 days ahead |
| Red Sea-China 80,000t   | Red Sea   | China   | 80,000t of oil         | 15-30 days ahead |
| Indonesia-Japan 80,000t   | Indonesia   | Japan   | 80,000t of oil         | 15-30 days ahead |
| Kozmino-Yosu 100,000t (\$ lumpsum)  | the Russian far east port of Kozmino on the Sea of Japan  | Yosu, South Korea   | 100,000t of oil        | 15-30 days ahead |
| Kozmino-north China 100,000t (\$ lumpsum)   | the Russian far east port of Kozmino on the Sea of Japan  | ports located from Yingkou in Liaoning province to Qingdao in Shandong province on the east coast of China  | 100,000t of oil        | 15-30 days ahead |
| Kozmino-Chiba 100,000t (\$ lumpsum)   | the Russian far east port of Kozmino on the Sea of Japan  | Chiba, Japan  | 100,000t of oil        | 15-30 days ahead |
| Kozmino-Singapore 100,000t (\$ lumpsum)   | the Russian far east port of Kozmino on the Sea of Japan  | Singapore   | 100,000t of oil        | 15-30 days ahead |
| <b>Northern Europe</b>  |   |   |                        |                  |
| North Sea-northeast Asia 270,000t lumpsum*  | loading locations of Hound Point, Scapa Flow Southwold, and Skaw  | China, South Korea and Japan  | 270,000t of oil        | 30-40 days ahead |
| <i>*VLCC fuel oil shipments from ARA (Amsterdam-Rotterdam-Antwerp) to Singapore will not contribute to this assessment.</i> |   |   |                        |                  |
| UKC-US Gulf 260,000t  | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports                                  | Gulf of Mexico centred on the Loop crude discharge terminal.  | 260,000t of oil        | 30-40 days ahead |
| Cross UKC 135,000t  | from one port to another port in northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports |   | 135,000t of oil        | 7-10 days ahead  |
| UKC-US Gulf 135,000t  | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports                                  | Gulf of Mexico centred on the Loop crude discharge terminal.  | 135,000t of oil        | 7-10 days ahead  |
| Cross UKC 80,000t   | from one port to another port in northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports |   | 80,000t of oil         | 7-10 days ahead  |
| UKC-USAC 80,000t  | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports                                  | US Atlantic coast north of Cape Hatteras to Portland, Maine centred on Philadelphia, New York and Boston  | 80,000t of oil         | 7-10 days ahead  |
| Primorsk-UKC 100,000t   | Primorsk  | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports  | 100,000t of oil        | 10-20 days ahead |
| UKC-US Gulf 55,000t fuel oil  | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports                                  | Gulf of Mexico centred on the Loop crude discharge terminal.  | 55,000t of fuel oil    | 7-10 days ahead  |
| Baltic-UKC 30,000t fuel oil   | ports in Finland, Baltic Russia, Estonia, Latvia, Lithuania, Poland, Baltic Germany and Baltic Sweden   | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports  | 30,000t of fuel oil    | 7-10 days ahead  |
| Baltic-Med 30,000t fuel oil   | ports in Finland, Baltic Russia, Estonia, Latvia, Lithuania, Poland, Baltic Germany and Baltic Sweden   | Gibraltar to Canakkale/Dardanelles  | 30,000t of fuel oil    | 7-10 days ahead  |
| <b>West Africa</b>  |   |   |                        |                  |
| West Africa-US Gulf 260,000t  | Gulf of Guinea, centred on the crude loading terminals located in the Bight of Bonny and Bight of Benin   | Gulf of Mexico centred on the Loop crude discharge terminal.  | 260,000t of oil        | 30-40 days ahead |

| <b>Dirty freight rate specifications</b>      |  |   |                        |                  |
|---|--|---|------------------------|------------------|
| <b>Assessment</b>                             | <b>Origin</b>  | <b>Destination</b>  | <b>Chartered cargo</b> | <b>Timing</b>    |
| West Africa-China 260,000t                    | Gulf of Guinea, centred on the crude loading terminals located in the Bight of Bonny and Bight of Benin                  | China   | 260,000t of oil        | 30-40 days ahead |
| West Africa-West coast India 260,000t lumpsum | Gulf of Guinea, centred on the crude loading terminals located in the Bight of Bonny and Bight of Benin                  | west coast India  | 260,000t of oil        | 30-40 days ahead |
| West Africa-India 130,000t lumpsum            | Gulf of Guinea, centred on the crude loading terminals located in the Bight of Bonny and Bight of Benin                  | India   | 130,000t of oil        | 15-30 days ahead |
| West Africa-US Gulf 130,000t                  | Gulf of Guinea, centred on the crude loading terminals located in the Bight of Bonny and Bight of Benin                  | Gulf of Mexico centred on the Loop crude discharge terminal.  | 130,000t of oil        | 15-30 days ahead |
| West Africa-UKC/Med 130,000t                  | Gulf of Guinea, centred on the crude loading terminals located in the Bight of Bonny and Bight of Benin                  | Northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports; Mediterranean from Gibraltar to Canakkale/Dardanelles | 130,000t of oil        | 15-30 days ahead |
| <b>Black Sea/Mediterranean</b>                |  |   |                        |                  |
| Novorossiysk-Med 140,000t                     | the Black Sea port of Novorossiysk   | Gibraltar to Canakkale/Dardanelles  | 140,000t of oil        | 15-20 days ahead |
| Black Sea-Med 135,000t                        | Black Sea ports north and east of the Bosphorus  | Gibraltar to Canakkale/Dardanelles  | 135,000t of oil        | 15-20 days ahead |
| Cross Med 135,000t                            | from one port to another port in the Mediterranean from Gibraltar to Canakkale/Dardanelles                               |   | 135,000t of oil        | 10-14 days-ahead |
| Med/Black Sea-US Gulf 135,000t                | Gibraltar to Canakkale/Dardanelles, Black Sea ports north and east of the Bosphorus                                      | Gulf of Mexico centred on the Loop crude discharge terminal.  | 135,000t of oil        | 10-14 days-ahead |
| Med/Black Sea-East 135,000t (lumpsum)         | Gibraltar to Canakkale/Dardanelles, Black Sea ports north and east of the Bosphorus                                      | Singapore, China (including Hong Kong), South Korea, Taiwan and Japan   | 135,000t of oil        | 10-14 days-ahead |
| Cross Med 80,000t                             | from one port to another port in the Mediterranean from Gibraltar to Canakkale/Dardanelles                               |   | 80,000t of oil         | 10-14 days-ahead |
| Black Sea-Med 80,000t                         | Black Sea ports north and east of the Bosphorus  | Gibraltar to Canakkale/Dardanelles  | 80,000t of oil         | 15-20 days ahead |
| Med/Black Sea-US Gulf 80,000t                 | Gibraltar to Canakkale/Dardanelles, Black Sea ports north and east of the Bosphorus                                      | Gulf of Mexico centred on the Loop crude discharge terminal.  | 80,000t of oil         | 10-25 days ahead |
| Med-US Gulf 55,000t fuel oil                  | Gibraltar to Canakkale/Dardanelles   | Gulf of Mexico centred on the Loop crude discharge terminal.  | 55,000t of fuel oil    | 10-14 days-ahead |
| Cross Med 30,000t fuel oil                    | from one port to another port in the Mediterranean from Gibraltar to Canakkale/Dardanelles                               |   | 30,000t of fuel oil    | 10-14 days-ahead |
| Black Sea-Med 30,000t fuel oil                | Black Sea ports north and east of the Bosphorus  | Gibraltar to Canakkale/Dardanelles  | 30,000t of fuel oil    | 15-20 days ahead |
| Black Sea-Med Suezmax demurrage \$/day        | Black Sea ports north and east of the Bosphorus  | Gibraltar to Canakkale/Dardanelles  | 130,000-135,000t       | 15-20 days ahead |
| Black Sea-Med Aframax demurrage \$/day        | Black Sea ports north and east of the Bosphorus  | Gibraltar to Canakkale/Dardanelles  | 70,000-80,000t         | 15-20 days ahead |
| Days delay at Turkish straits – southbound    | the Turkish straits are the Bosphorus and Dardanelles. The number of days delay includes the days on the owner's account |   |                        |                  |
| Days delay at Turkish straits - northbound    | the Turkish straits are the Bosphorus and Dardanelles. The number of days delay includes the days on the owner's account |   |                        |                  |
| <b>Americas</b>                               |  |   |                        |                  |
| Caribbean-Singapore 270,000t (lumpsum)        | centred on the export region in and around northern Venezuela and on the Atlantic coast of Colombia                      | Singapore   | 270,000t of oil        | 30-40 days ahead |
| Caribbean-China 270,000t (lumpsum)            | centred on the export region in and around northern Venezuela and Colombia   | China   | 270,000t of oil        | 30-40 days ahead |
| USGC-China 270,000t (lumpsum)                 | export ports around the Gulf of Mexico   | centred on the port of Ningbo   | 270,000t of oil        | 30-40 days ahead |
| Caribbean-west coast India 270,000t (lumpsum) | centred on the export in and around northern Venezuela and Colombia  | west coast India  | 270,000t of oil        | 30-40 days ahead |
| Brazil-China 260,000t                         | Brazil   | China   | 260,000t of oil        | 30-40 days ahead |
| USGC/Caribbean-Singapore 130,000t             | centred on the export ports around the Gulf of Mexico  | Caribbean is centred on the export in and around northern Venezuela and on the Atlantic coast of Colombia   | 130,000t of oil        | 7-15 days ahead  |
| USGC-China 130,000t (lumpsum)                 | centred on the export ports around the Gulf of Mexico  | centred on the port of Ningbo   | 130,000t of oil        | 7-15 days ahead  |

**Dirty freight rate specifications**

| Assessment                     | Origin   | Destination  | Chartered cargo | Timing          |
|--------------------------------|--|--|-----------------|-----------------|
| USGC-Europe 150,000t           | centred on the export ports around the Gulf of Mexico  | Europe is from Hamburg, through Gibraltar to Canakkale/Dardanelles on the Mediterranean, and includes the United Kingdom and the North Sea ports | 150,000t of oil | 7-15 days ahead |
| Caribbean-USGC 130,000t        | centred on the export in and around northern Venezuela and on the Atlantic coast of Colombia | Gulf of Mexico centred on the Loop crude discharge terminal.   | 130,000t of oil | 7-15 days ahead |
| Caribbean-UKC 150,000t         | centred on the export in and around northern Venezuela and on the Atlantic coast of Colombia | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports                                 | 150,000t of oil | 7-15 days ahead |
| Caribbean-Panama 130,000t      | centred on the export in and around northern Venezuela and on the Atlantic coast of Colombia | centred on Chiriqui Grande on the Atlantic coast of Panama   | 130,000t of oil | 7-15 days ahead |
| Caribbean-USGC 70,000t         | centred on the export in and around northern Venezuela and on the Atlantic coast of Colombia | Gulf of Mexico centred on the Loop crude discharge terminal.   | 70,000t of oil  | 7-10 days ahead |
| USGC-Europe 70,000t            | centred on the export ports around the Gulf of Mexico  | Europe is from Hamburg, through Gibraltar to Canakkale/Dardanelles on the Mediterranean, and includes the United Kingdom and the North Sea ports | 70,000t of oil  | 7-10 days ahead |
| USGC-East coast Canada 70,000t |  |  | 70,000t of oil  | 7-10 days ahead |
| East coast Mexico-USGC 70,000t | ports of Tuxpan, Tampico, Pajaritos, Progreso and Ciudad Madero                              | Gulf of Mexico centred on the Loop crude discharge terminal.   | 70,000t of oil  | 7-10 days ahead |
| Caribbean-UKC 70,000t          | centred on the export in and around northern Venezuela and on the Atlantic coast of Colombia | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports                                 | 70,000t of oil  | 7-10 days ahead |
| Caribbean-USGC 50,000t         | centred on the export in and around northern Venezuela.                                      | Gulf of Mexico centred on the Loop crude discharge terminal.   | 50,000t of oil  | 7-10 days ahead |
| Ecuador-US west coast 50,000t  |  |  | 50,000t of oil  | 7-10 days ahead |
| East coast Mexico-USGC 50,000t |  | Gulf of Mexico centred on the Loop crude discharge terminal.   | 50,000t of oil  | 7-10 days ahead |

**Clean freight rate specifications**

| Assessment  | Origin   | Destination  | Chartered cargo    | Timing           |
|---|--|--|--------------------|------------------|
| <b>Black Sea/Mediterranean</b>  |  |  |                    |                  |
| Cross Med 30,000t   | from one port to another port in the Mediterranean from Gibraltar to Canakkale/Dardanelles |  | 30,000t of oil     | 10-14 days ahead |
| Black Sea-Med 30,000t   | Black Sea ports north and east of the Bosphorus  | Gibraltar to Canakkale/Dardanelles   | 30,000t of oil     | 10-20 days ahead |
| Med-UKC 30,000t   | Gibraltar to Canakkale/Dardanelles   | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | 30,000t of oil     | 10-14 days ahead |
| Med-US Atlantic coast 37,000t   | Gibraltar to Canakkale/Dardanelles   | north of Cape Hatteras to Portland, Maine centred on Philadelphia, New York and Boston                           | 37,000t of oil     | 10-14 days ahead |
| Med 30,000t naphtha premium*  | Gibraltar to Canakkale/Dardanelles   |  | 30,000t of oil     | 10-14 days ahead |
| <i>*The naphtha premium is the premium that is currently available in the market for naphtha expressed in Worldscale spot rates points</i>      |  |  |                    |                  |
| Med 30,000t mogas premium*  | Gibraltar to Canakkale/Dardanelles   |  | 30,000t of oil     | 10-14 days ahead |
| <i>*The mogas premium is the premium that is currently available in the market for motor gasoline expressed in Worldscale spot rates points</i> |  |  |                    |                  |
| Med 30,000t jet premium*  | Gibraltar to Canakkale/Dardanelles   |  | 30,000t of oil     | 10-14 days ahead |
| <i>*The jet premium is the premium that is currently available in the market for jet expressed in Worldscale spot rates points</i>              |  |  |                    |                  |
| Cross Med 30,000t naphtha*  | from one port to another port in the Mediterranean from Gibraltar to Canakkale/Dardanelles |  | 30,000t of naphtha | 10-14 days ahead |
| <i>*Incorporates naphtha premium</i>  |  |  |                    |                  |
| Cross Med 30,000 mogas  | from one port to another port in the Mediterranean from Gibraltar to Canakkale/Dardanelles |  | 30,000t of mogas   | 10-14 days ahead |
| <i>*incorporates mogas premium</i>  |  |  |                    |                  |

| <b>Clean freight rate specifications</b>                 |  |  |                        |                  |
|--|--|--|------------------------|------------------|
| <b>Assessment</b>  | <b>Origin</b>  | <b>Destination</b>   | <b>Chartered cargo</b> | <b>Timing</b>    |
| Cross Med 30,000 jet<br><i>*incorporates jet premium</i> | from one port to another port in the Mediterranean from Gibraltar to Canakkale/Dardanelles                       |  | 30,000t of jet         | 10-14 days ahead |
| Med-UKC 30,000t naphtha                                  | Gibraltar to Canakkale/Dardanelles   | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | 30,000t of naphtha     | 10-14 days ahead |
| Med-UKC 30,000t mogas                                    | Gibraltar to Canakkale/Dardanelles   | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | 30,000t of mogas       | 10-14 days ahead |
| Med-UKC 30,000t jet                                      | Gibraltar to Canakkale/Dardanelles   | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | 30,000t of jet         | 10-14 days ahead |
| Med-Japan 60,000t (lumpsum)                              | Gibraltar to Canakkale/Dardanelles   | Japan  | 60,000t                | 15-30 days ahead |
| <b>Middle East/East</b>                                  |  |  |                        |                  |
| Mideast Gulf-UKC 90,000t (lumpsum)                       | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)                                   | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | 90,000t of oil         | 15-30 days ahead |
| Mideast Gulf-Japan 75,000t                               | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)                                   | Japan  | 75,000t of oil         | 15-30 days ahead |
| Mideast Gulf-Japan 55,000t                               | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)                                   | Japan  | 55,000t of oil         | 15-30 days ahead |
| Mideast Gulf-Japan 35,000t                               | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)                                   | Japan  | 35,000t of oil         | 15-30 days ahead |
| Mideast Gulf-UKC 65,000t (lumpsum)                       | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)                                   | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | 65,000t of oil         | 15-30 days ahead |
| Mideast Gulf-Singapore 55,000t gasoil                    | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)                                   | Singapore  | 55,000t of gasoil      | 15-30 days ahead |
| Mideast Gulf-Singapore 35,000t                           | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)                                   | Singapore  | 35,000t of oil         | 15-30 days ahead |
| Mideast Gulf-East Africa 35,000t                         | all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz)                                   | a range of ports from Mombasa to Dar es Salaam   | 35,000t of oil         | 5-15 days ahead  |
| Singapore-Japan 30,000t                                  | Singapore  | Japan  | 30,000t of oil         | 15-30 days ahead |
| South Korea-Singapore 35,000t (lumpsum)                  | South Korea  | Singapore  | 35,000t of oil         | 15-30 days ahead |
| South Korea-US west coast 35,000t (lumpsum)              | South Korea  | US west coast  | 35,000t of oil         | 15-30 days ahead |
| SE Asia-east coast Australia 30,000t                     | southeast Asia and refers to ports in the region around Indonesia and Malaysia, including Singapore              | east coast Australia   | 30,000t of oil         | 15-30 days ahead |
| <b>Northern Europe</b>                                   |  |  |                        |                  |
| UKC-US Atlantic coast 37,000t                            | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | US Atlantic coast north of Cape Hatteras to Portland, Maine centred on Philadelphia, New York and Boston         | 37,000t of oil         | 7-10 days ahead  |
| UKC-east coast of Mexico 37,000t                         | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | ports of Tuxpan, Tampico, Pajaritos, Progreso and Ciudad Madero  | 37,000t                | 7-10 days ahead  |
| UKC-South America 37,000t                                | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | Atlantic coast ports ranging from northern Brazil to northern Argentina  | 37,000t                | 7-10 days ahead  |
| UKC-west Africa, 60,000t                                 | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | range of ports centred on Bonny and Lagos  | 60,000t of oil         | 5-15 days ahead  |
| UKC-west Africa 37,000t                                  | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports | range of ports centred on Bonny and Lagos  | 37,000t of oil         | 5-15 days ahead  |

| Clean freight rate specifications  |   |   |                 |                 |
|--|---|---|-----------------|-----------------|
| Assessment   | Origin  | Destination   | Chartered cargo | Timing          |
| Cross UKC 22,000t  | from one port to another port in northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports |   | 22,000t of oil  | 7-10 days ahead |
| Cross UKC 30,000t  | from one port to another port in northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports |   | 30,000t of oil  | 7-10 days ahead |
| Baltic-UKC 30,000t   | ports in Finland, Baltic Russia, Estonia, Latvia, Lithuania, Poland, Baltic Germany and Baltic Sweden   | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports  | 30,000t of oil  | 7-10 days ahead |
| <b>Americas</b>  |   |   |                 |                 |
| Caribbean-USAC 38,000t   | centred on the export ports in and around northern Venezuela.   | US Atlantic coast north of Cape Hatteras to Portland, Maine centred on Philadelphia, New York and Boston  | 38,000t of oil  | 7-10 days ahead |
| USGC/Caribbean-UKCM 38,000t  | USGC is centred on the export ports around the Gulf of Mexico, Caribbean is centred on the export ports in and around northern Venezuela          | Northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports; Mediterranean from Gibraltar to Canakkale/Dardanelles | 38,000t of oil  | 7-10 days ahead |
| USGC-Chile 38,000t (lumpsum)   | centred on the export ports around the Gulf of Mexico   | centred on ports not south of but including Coronel   | 38,000t of oil  | 7-10 days ahead |
| USGC-Quintero 38,000t (lumpsum)*   | centred on the export ports around the Gulf of Mexico   | Quintero, Chile   | 38,000t of oil  | 7-10 days ahead |
| <i>*This rate for discharge in Quintero, Chile is assessed as a differential to the USGC-Chile rate. The differential is also published.</i>                                 |   |   |                 |                 |
| USGC-Caldera 38,000t (lumpsum)*  | centred on the export ports around the Gulf of Mexico   | Caldera, Chile  | 38,000t of oil  | 7-10 days ahead |
| <i>*This rate for discharge in Caldera, Chile is assessed as a differential to the USGC-Chile rate. The differential is also published.</i>                                  |   |   |                 |                 |
| USGC-Mejillones/Antofagasta 38,000t (lumpsum)*   | centred on the export ports around the Gulf of Mexico   | Chilean ports of Mejillones and Antofagasta   | 38,000t of oil  | 7-10 days ahead |
| <i>*This rate for discharge in the Chilean ports of Mejillones and Antofagasta is assessed as a differential to the USGC-Chile rate. The differential is also published.</i> |   |   |                 |                 |
| USGC-Argentina/Brazil 38,000t  | centred on the export ports around the Gulf of Mexico   | Brazil  | 38,000t of oil  | 7-10 days ahead |
| USGC-Dominican Republic 38,000t (lumpsum)  | centred on the export ports around the Gulf of Mexico   | port of Rio Haina, near Santo Domingo   | 38,000t of oil  | 3-8 days ahead  |
| USGC-Peru 38,000t  | centred on the export ports around the Gulf of Mexico   | the port of Mollendo  | 38,000t of oil  | 7-10 days ahead |
| USGC-Callao/Conchan 38,000t (lumpsum)*   | centred on the export ports around the Gulf of Mexico   | Peruvian ports of Callao and Conchan  | 38,000t of oil  | 7-10 days ahead |
| <i>*Assessed as a differential to the USGC-Peru rate. The differential is also published.</i>  |   |   |                 |                 |
| USGC-Ecuador 38,000t   | centred on the export ports around the Gulf of Mexico   | port of Esmeraldas  | 38,000t of oil  | 7-10 days ahead |
| USGC-east coast Canada 38,000t   | centred on the export ports around the Gulf of Mexico   | centred on the ports of Dartmouth, Quebec and Montreal.   | 38,000t of oil  | 7-10 days ahead |
| USGC-Japan 38,000t   | centred on the export ports around the Gulf of Mexico   | ports of Mizushima, Chiba and Kashima   | 38,000t of oil  | 7-10 days ahead |
| USGC-east coast of Mexico 38,000t (lumpsum)  | centred on the export ports around the Gulf of Mexico   | ports of Tuxpan, Tampico, Pajaritos, Progreso and Ciudad Madero   | 38,000t of oil  | 3-8 days ahead  |
| USGC-Las Minas 38,000t (lumpsum)   | centred on the export ports around the Gulf of Mexico   | Las Minas on the Atlantic coast of Panama.  | 38,000t of oil  | 3-8 days ahead  |
| USGC-Pozos 38,000t (lumpsum)   | centred on the export ports around the Gulf of Mexico   | Pozos, Colorados in Colombia  | 38,000t of oil  | 3-8 days ahead  |
| USAC-UKC 38,000t   | US Atlantic coast north of Cape Hatteras to Portland, Maine centred on Philadelphia, New York and Boston  | northwest Europe from Le Havre to Hamburg, centred on ARA (Amsterdam-Rotterdam-Antwerp), and the North Sea ports  | 38,000t of oil  | 3-8 days ahead  |
| East coast Canada-USAC 38,000t   | centred on Come by Chance, Newfoundland   | US Atlantic coast north of Cape Hatteras to Portland, Maine centred on Philadelphia, New York and Boston  | 38,000t of oil  | 3-8 days ahead  |
| USGC-Lazaro Cardenas 38,000t   | centred on the export ports around the Gulf of Mexico   | Lazaro Cardenas, on the Pacific coast of southern Mexico  | 38,000t of oil  | 7-10 days ahead |
| USGC-Rosarito 38,000t  | centred on the export ports around the Gulf of Mexico   | Rosarito, on the Pacific coast of northern Mexico   | 38,000t of oil  | 7-15 days ahead |
| USGC-Guaymas 12,000t*  | centered on the export ports around the Gulf of Mexico  | Guaymas   | 12,000t         | 7-10 days ahead |

**Clean freight rate specifications**

| Assessment  | Origin   | Destination   | Chartered cargo | Timing          |
|---|--|---|-----------------|-----------------|
| <i>*Assessed in \$/t, medium range (MR) vessels, assumes partial discharge of 12,000t</i>   |  |   |                 |                 |
| USWC-Rosarito 38,000t   | centered on the export ports of LA and San Francisco   | Rosarito, on the Pacific coast of northern Mexico   | 38,000t of oil  | 7-15 days ahead |
| USWC-Guaymas 12,000t*   | centered on the export ports of LA and San Francisco   | Guaymas   | 12,000t         | 7-15 days ahead |
| <i>*Assessed in \$/t, medium range (MR) vessels, assumes partial discharge of 12,000t</i>   |  |   |                 |                 |
| USWC-Topolobampo 19,000t*   | centred on the export ports of LA and San Francisco  | Topolobampo   | 19,000t         | 7-15 days ahead |
| <i>*Assessed in \$/t, medium range (MR) vessels, assumes partial discharge of 19,000t</i>   |  |   |                 |                 |
| USWC-Lazaro Cardenas 38,000t  | centred on the export ports of LA and San Francisco  | Lazaro Cardenas, on the Pacific coast of Mexico     | 38,000t of oil  | 7-15 days ahead |
| USWC-Chile 38,000t  | centred on the export ports of LA and San Francisco  | centred on ports not south of but including Coronel | 38,000t of oil  | 7-15 days ahead |
| USWC-Quintero 38,000t (lumpsum)*  | centred on the export ports of LA and San Francisco  | Quintero, Chile                                     | 38,000t of oil  | 7-10 days ahead |
| <i>*This rate for discharge in Quintero, Chile is assessed as a differential to the USWC-Chile rate. The differential is also published.</i>                                |  |   |                 |                 |
| USWC-Caldera 38,000t (lumpsum)*   | centred on the export ports of LA and San Francisco  | Caldera, Chile                                      | 38,000t of oil  | 7-10 days ahead |
| <i>*This rate for discharge in Caldera, Chile is assessed as a differential to the USWC-Chile rate. The differential is also published.</i>                                 |  |   |                 |                 |
| USWC-Mejillones/Antofagasta 38,000t (lumpsum)*  | centred on the export ports of LA and San Francisco  | Chilean ports of Mejillones and Antofagasta         | 38,000t of oil  | 7-10 days ahead |
| <i>*This rate for discharge in the Chilean ports of Mejillones and Antofagasta is assessed as a differential to the USWC-Chile rate. The differential is also published</i> |  |   |                 |                 |
| Atlantic coast Americas MR demurrage \$/day   | The price of demurrage for a medium-range (MR) tanker loading on the Atlantic coast of the Americas  |   |                 | 3-10 days ahead |
| <b>Others</b>   |  |   |                 |                 |
| ARA to Walvis Bay   | ARA to Walvis Bay is calculated by multiplying the percentage of the UKC to west Africa 37,000t daily Worldscale spot rate assessments to a basket of typical Worldscale flat rates for ARA ports to Walvis Bay. ARA refers to the Antwerp/Rotterdam/Amsterdam range of ports. Assessments are made in \$/t.   |   |                 |                 |
| ARA to Durban   | ARA to Durban is calculated by multiplying the percentage of the UKC to west Africa 37,000t daily Worldscale spot rate assessments to a basket of typical Worldscale flat rates for ARA ports to Durban. ARA refers to the Antwerp/Rotterdam/Amsterdam range of ports. Assessments are made in \$/t.   |   |                 |                 |
| Mideast Gulf to Walvis Bay  | Mideast Gulf to Walvis Bay is calculated by multiplying the percentage of the Mideast Gulf to east Africa 35,000t daily Worldscale spot rate assessments to a basket of typical Worldscale flat rates for Mideast Gulf ports to Walvis Bay. Mideast Gulf refers to all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz). Assessments are made in \$/t.                       |   |                 |                 |
| Mideast Gulf to Durban  | Mideast Gulf to Durban is calculated by applying the Mideast Gulf to east Africa 35,000t daily Worldscale spot rate assessment, minus a differential to reflect the longer voyage, to a basket of typical Worldscale flat rates for Mideast Gulf ports to Durban. Mideast Gulf refers to all ports in the Arab Gulf/Persian Gulf up to Quoin Island (Straits of Hormuz). Assessments are made in \$/t. |   |                 |                 |

**Dry bulk freight rate specifications (\$/t)**

| Assessment                               | Origin  | Destination  | Chartered cargo |
|--|---|--|-----------------|
| Murmansk-Rotterdam 70,000t Panamax       | Murmansk, Russia  | Rotterdam, Netherlands                                       | 70,000t Panamax |
| Richards Bay-Rotterdam 70,000t Panamax   | Richards Bay, South Africa  | Rotterdam, Netherlands                                       | 70,000t Panamax |
| Puerto Bolivar-Rotterdam 70,000t Panamax | Puerto Bolivar, Colombia  | Rotterdam, Netherlands                                       | 70,000t Panamax |
| EC Australia-Japan 70,000t Panamax       | Abbot Point, Dalrymple Bay, Gladstone, Hay Point, Newcastle and Port Kembla   | Chiba, Fukuyama, Kashima, Kure, Mizushima, Oita and Soma     | 70,000t Panamax |
| EC Australia-S Korea 70,000t Panamax     | Abbot Point, Dalrymple Bay, Gladstone, Hay Point, Newcastle and Port Kembla   | Gwangyang (Kwangyang), Pohang, Ulsan and Yosu                | 70,000t Panamax |
| EC Australia-S China 70,000t Panamax     | Abbot Point, Dalrymple Bay, Gladstone, Hay Point, Newcastle and Port Kembla   | Fangcheng and Guangzhou                                      | 70,000t Panamax |
| EC Australia-EC India 70,000t Panamax    | Abbot Point, Dalrymple Bay, Gladstone, Hay Point, Newcastle and Port Kembla   | Dhamra, Ennore, Gangavaram, Krishnapatnam, Paradip and Vizag | 70,000t Panamax |
| Indonesia-S China 70,000t Panamax        | South Kalimantan Island ports, including Balikpapan, Bontang Coal Terminal, Lubuk Coal Terminal, north and south Pulau Laut Coal Terminals, Samarinda port, Taboneo port and Tanjung Bara Coal Terminal | Fangcheng and Guangzhou                                      | 70,000t Panamax |



**Dry bulk freight rate specifications (\$/t)**

| Assessment                                   | Origin  | Destination  | Chartered cargo   |
|--|---|--|-------------------|
| Indonesia-EC India 70,000t Panamax           | South Kalimantan Island ports, including Balikpapan, Bontang Coal Terminal, Lubuk Coal Terminal, north and south Pulau Laut Coal Terminals, Samarinda port, Taboneo port and Tanjung Bara Coal Terminal | Krishnapatnam, Dhamra, Ennore, Gangavaram, Vizag and Paradip | 70,000t Panamax   |
| Indonesia-Japan 70,000t Panamax              | South Kalimantan Island ports, including Balikpapan, Bontang Coal Terminal, Lubuk Coal Terminal, north and south Pulau Laut Coal Terminals, Samarinda port, Taboneo port and Tanjung Bara Coal Terminal | Chiba, Fukuyama, Kashima, Kure, Mizushima, Oita and Soma     | 70,000t Panamax   |
| Indonesia-S Korea 70,000t Panamax            | South Kalimantan Island ports, including Balikpapan, Bontang Coal Terminal, Lubuk Coal Terminal, north and south Pulau Laut Coal Terminals, Samarinda port, Taboneo port and Tanjung Bara Coal Terminal | Gwangyang (Kwangyang), Pohang, Ulsan and Yosu                | 70,000t Panamax   |
| Richards Bay-Rotterdam 150,000t Capesize     | Richards Bay, South Africa  | Rotterdam, Netherlands                                       | 150,000t Capesize |
| Puerto Bolivar-Rotterdam 150,000t Capesize   | Puerto Bolivar, Colombia  | Rotterdam, Netherlands                                       | 150,000t Capesize |
| EC Australia-S China 150,000t Capesize       | Abbot Point, Dalrymple Bay, Gladstone, Hay Point, Newcastle and Port Kembla   | Fangcheng and Guangzhou                                      | 150,000t Capesize |
| Richards Bay-S China 150,000t Capesize       | Richards Bay, South Africa  | Fangcheng and Guangzhou                                      | 150,000t Capesize |
| Richards Bay-Krishnapatnam 150,000t Capesize | Richards Bay, South Africa  | Krishnapatnam  | 150,000t Capesize |
| Saldanha Bay-Qingdao 160,000t Capesize       | Saldanha Bay, South Africa  | Qingdao, north China   | 160,000t Capesize |
| WC Australia-N China 160,000t Capesize       | Dampier and Port Hedland  | Dalian, Qingdao, Qinhuangdao and Rizhao                      | 160,000t Capesize |
| Tubarao-Antwerp 160,000t Capesize            | Tubarao, Brazil   | Antwerp, Belgium   | 160,000t Capesize |
| Tubarao-Qingdao 160,000t Capesize            | Tubarao, Brazil   | Qingdao, north China   | 160,000t Capesize |
| Queensland-Rotterdam 160,000t Capesize       | centred around the ports of Hay Point and Dalrymple Bay, although fixtures from Gladstone will also be taken into account, adjusted for distance and port costs   | Rotterdam, Netherlands                                       | 160,000t Capesize |

**Americas coal export freight rate specifications (\$/t)**

| Assessment                                     | Origin                                 | Destination      | Chartered cargo   |
|--|--|------------------|-------------------|
| US east coast-ARA 75,000t Panamax              | US east coast (north of Cape Hatteras) | ARA              | 75,000t Panamax   |
| US east coast-Japan 75,000t Panamax            | US east coast (north of Cape Hatteras) | Japan            | 75,000t Panamax   |
| US east coast-India 75,000t Panamax            | US east coast (north of Cape Hatteras) | east coast India | 75,000t Panamax   |
| US east coast-ARA 140,000t Capesize            | US east coast (north of Cape Hatteras) | ARA              | 140,000t Capesize |
| US east coast-India 140,000t Capesize          | US east coast (north of Cape Hatteras) | east coast India | 140,000t Capesize |
| West coast North America-ARA 60,000t Panamax   | West coast North America               | ARA              | 60,000t Panamax   |
| West coast North America-Japan 75,000t Panamax | West coast North America               | Japan            | 75,000t Panamax   |
| Puerto Bolivar-US Gulf 70,000t Panamax         | Puerto Bolivar                         | US Gulf          | 70,000t Panamax   |
| Puerto Bolivar-US east coast 30,000t handysize | Puerto Bolivar                         | US east coast    | 30,000t handysize |
| US Gulf-ARA 70,000t Panamax                    | US Gulf                                | ARA              | 70,000t Panamax   |

| <b>Petroleum coke freight rate specifications (\$/t)</b>  |                      |                    |                        |                       |
|---|----------------------|--------------------|------------------------|-----------------------|
| <b>Assessment</b>   | <b>Origin</b>        | <b>Destination</b> | <b>Chartered cargo</b> | <b>Timing</b>         |
| US Gulf-ARA 45,000-50,000t                                | USGC                 | ARA                | 50,000t                | loading in 10-30 days |
| Venezuela-ARA 45,000-50,000t                              | Venezuela            | ARA                | 50,000t                | loading in 10-30 days |
| US Gulf-Turkey 45,000-50,000t                             | USGC                 | Turkey             | 45,000-50,000t         | loading in 10-30 days |
| US Gulf-Brazil 45,000-50,000t                             | USGC                 | Brazil             | 45,000-50,000t         | loading in 10-30 days |
| US west coast-Japan 60,000t                               | US west coast        | Japan              | 60,000t                | loading in 10-30 days |
| US Gulf-China 45,000-50,000t                              | USGC                 | China              | 45,000-50,000t         | loading in 10-30 days |
| US Gulf-east coast India 45,000-50,000t                   | US Gulf              | east coast India   | 45,000-50,000t         | loading in 10-30 days |
| East coast Saudi Arabia - west coast India 45,000-50,000t | Jubail, Saudi Arabia | Kandla, India      | 45,000-50,000t         | loading in 10-30 days |