# GreenSteam Capture Fuel Meter Reader

**Customer challenge:** Obtaining regular, accurate fuel meter readings from all vessels, including those chartered in, to monitor and optimize performance.

**Potential solution:** GreenSteam Capture - available as an App or supplied on a tablet

**Ideal for:** Charterers, owners and operators who need accurate, validated fuel usage data where automated data collection is not available. This is a zero capex solution requiring no installation and is particularly suited to short-term charters. Any tablets provided can be transferred between vessels.

## SUMMARY OVERVIEW

GreenSteam Capture is designed to read all types of fuel flow meters where automatic data logging is not available. It eliminates the need for manually recorded readings which are error prone, burden the crew and are often submitted incomplete.

This improves the quality and frequency of fuel consumption reporting which is particularly important for short term time charter vessels relying on manually recorded data. GreenSteam Capture provides regular,

accurate fuel consumption data to track performance enabling operators and charterers to take remedial action and improve performance.

Ease of use helps crew acceptance. Every meter reading is stored to create an auditable trail which the crew can neither edit nor delete. This is helpful in the event of claims and useful to support environmental performance compliance.

## CUSTOMER BENEFITS

- Accurate fuel consumption data in near real time makes it realistic to take action to save fuel during a voyage
- Better control over fuel costs on charter vessels leading to cost savings
- Much cheaper alternative to installing auto-logging systems
- Quick to deploy - available pre-installed on a tablet or available to download as an App
- Flexible set up - configurable by the vessel's crew or remotely by ship performance team or GreenSteam
- Efficient operation - intuitive for users with simple-to-follow tasklist that alerts the crew to take readings within each 24 hour period

## PRODUCT FEATURES

- Utilises tried and tested Optical Character Recognition (OCR) technology
- Minimizes data storage and transfer issues by converting image into a small data file
- Readings sent to back-end server to provide audit, control and security
- GreenSteam Capture has a reporting option allowing meter readings to be used in vessel reports, or alternatively to be used with existing Noon report applications
- Has built in error detection to monitor missed readings, verify all data collected, logs every user action and stores all meter reading images

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## TURNKEY SERVICE AVAILABLE TO CHARTERERS

GreenSteam Capture allows you to outsource data collection. A tablet, pre-installed with the application is shipped direct to the vessel and meters are configured remotely or by the crew.

When the charter ends, the tablet returns from the vessel either to your office or to a new vessel.

## SECURE BY DESIGN

Tablets are supplied locked-down using Samsung "Knox" software to avoid "alternative uses" and to prevent changes to date/time stamp or deletion of audit meter images. Every user action is logged.

## DATA ACCURACY GUARANTEED

Optimizing vessel performance starts with accurate, trusted data. The design principles which guided this development were usability, data integrity and quality control.

Trials which compared GreenSteam Capture readings vs auto-logged fuel consumption data onboard vessels validated its accuracy.

GreenSteam Capture uses a six step validation process to ensure every meter reading is accurately captured*

## USER OPERATION IS INTUITIVE & COMPREHENSIVE

Simple operation with tasklist option and alarm reminders easily guides the ship's crew to the next meter reading event. No need for users to take photos, the device simply captures meter readings once it has recognised the gauge.

Where a ship's fuel gauges are damaged, dirty or cannot be read automatically there is an option for the crew to manually enter meter readings. An audit image is always taken and manual readings are highlighted as such and still must pass the data validation process.

Tablets are provided with multiple forms of communication - supplied with ethernet cable, WIFI, USB drive and an international SIM card.



Image of App home screen & example of reading history. User guides & instructions on configuration are provided.

## SIX STEP VALIDATION PROCESS

1. The meter's barcode / QR code (supplied) is checked against the vessel's configuration.

2. A QC image of the meter is recorded and securely stored on the locked-down device.

3. The number of digits read by the OCR is compared to the meter's configuration and any mismatch is flagged.

4. A close-up image of the meter digital display is captured and stored.

5. Each reading is confirmed as no lower than the last reading for that meter.

6. This meter reading is indelibly, instantaneously date and time stamped from the tablet's locked down internal clock.

## RELATED PRODUCTS

**GreenSteam Manager**

**GreenSteam Noon Report App**

## CONTACT US

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