Cream Chiller in London Needs Further Attention

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Introduction

Myself

Time served refrigeration and Air-conditioning engineer
Completed installation service and repair
Bespoke refrigeration design build projects including,
Naval domestic, operational chilled water systems and
Typhon wing tip computer cooling systems and recovery.
Moved into service mangers roles and currently the UK service Manager Aermec UK responsibility for Service delivery, Warranty and technical Report.

Aermec

Aermec Group

Large scale family owned HVAC company with manufacturing facilities,

Equipment portfolio:

- Air/Water cooled chillers –
- Free cooling units
- CRAHs and CRACs
- Adiabatic units
- Dry air coolers
- Fan Coils & controls

Aermec UK

- Sales for all Aermec products
- UK technical support
- Service and warranty
- Spares

My role

Responsible for UK Service department and support staff.
Running internal and service partners in PPM/Service delivery
Managing Call out 24Hr Cover / 4Hr Response 365 days a year
Warranty management and reports for all new products
Service repair quotes and service delivery
Identification/Supplying Parts

Service Reporting

Cream Chiller in London Needs Further Attention

Engineers are well known and it is essential that they know their trade and are the service managers/clients friend in the event of issues. Getting equipment operating and or early identification is time critical.
As good engineers it is my experience that reports tend to be an area of contention for engineers, clients and back room office process.

When I first moved to a service managers role most engineers did not have Lap tops, Reports where all had written including service, commissioning and warranty.
Capturing all the information was then and as much so now very important.
Engineers are very focused on fixing equipment put paper work is not always a priority

To complete a repairs quote all of the below information is required
The Where. Site Address, Unit position, Client Name, (**In London**)
The What. The full Model serial and any relevant information (**Cream Chillers**)
The Why. Details of failure, parts required, remedial actions and time scales (**Needs Further attention**)

Example of typical early report sheet.

This report has some of the where, little to no unit details not even a full model number no serial numbers and very little details on the faults and whys.

SERVICE SHEET

Customer	CBRE	Chiller Model	NSB
Site/Project	55 Baker Street	Chiller Serial No	
Engineer's Name	XXXXXXXXXXX	Chiller Comm	
Date	4/1/15	Chiller Site Ref	Essential chiller

Details of Work

South Essential chiller 2 : Failing SIA module. Replaced with new item - All fine

North essential chiller 1 : Compressor overload alarm - inactive Ran tested machine, fault did not re-appear.

Solution

Some years ago we supplied our lead techs with Lap tops, Created all our report sheets in excel, invested in phone based service reporting tools.
This in itself helped with better presentation and ability to save images to sent to the client but still relies on engineers to fill in all the details.

Customer	CBRE	Chiller Model	NSB360DXEVFOF2
Site/Project	55 Baker St	Chiller Serial No	0610667637000
Engineer's Name	Chris Maher	Chiller Comm	609398
Date	03-05-19	Chiller Site Ref	North Non-Essential Chiller 2 - (1)

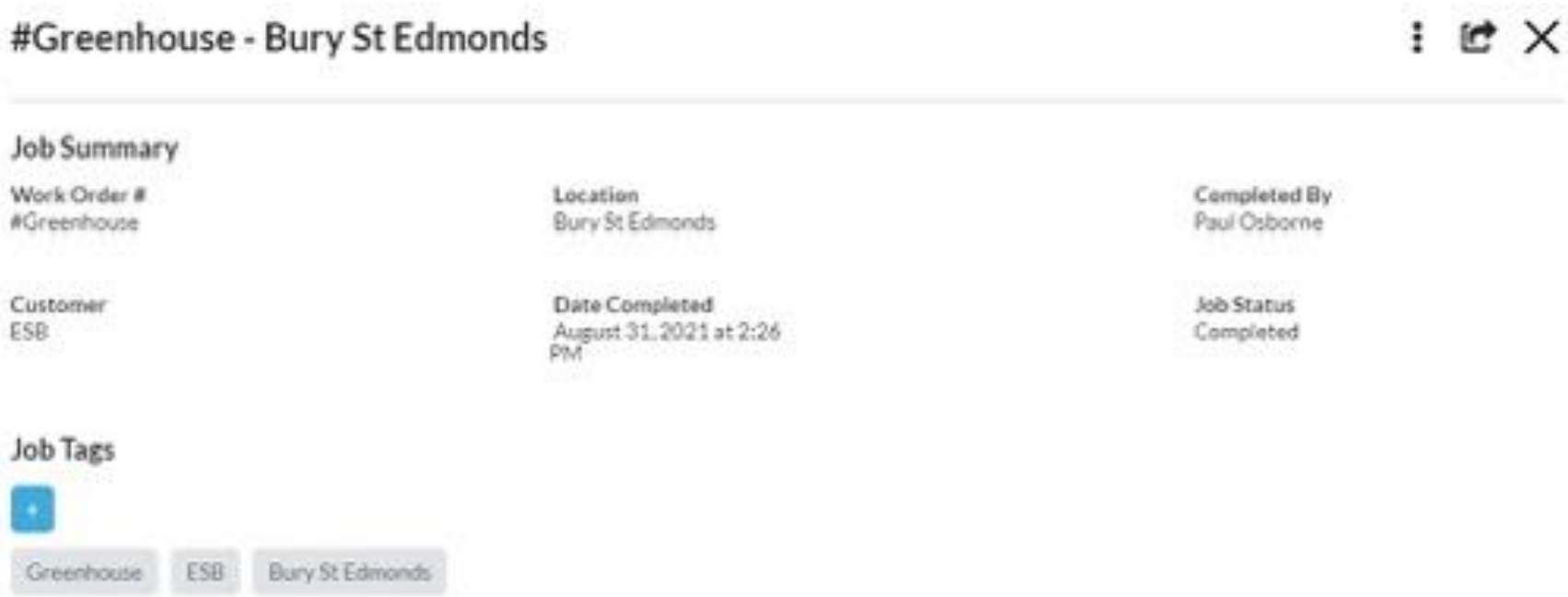
Details of Work: Carried out EXV and Driver Replacement on North Non-Essential Chiller 2 Circuit 2.
Circuit 1 - Recovered 98kgs of refrigerant into cylinders LM017264 + LM017921 + LM018042.
Removed Damaged EXV and Brazed in a New EXV. Replaced EXV Driver with New Driver.
Pressure tested system overnight to 14bar ok. Changed Liquid Line Driers and Evacuated overnight.
Once the vacuum reached 0.95torr a successful rise test of 1hr was completed.
Recharged System with 98kgs of Recovered R134a from above cylinders; a further 30kgs on new R143a is required.
Ran system up to full load and took log data, See additional log sheet.
Left Chiller fully operational.

The Solution.

App based reporting tool which can identify information and transcribe. Record photo and video with audio and transcribe in a compressed format with cloud based.
Allow for eternal reports to be unloaded to these reports. Easy share of content to clients / factory.

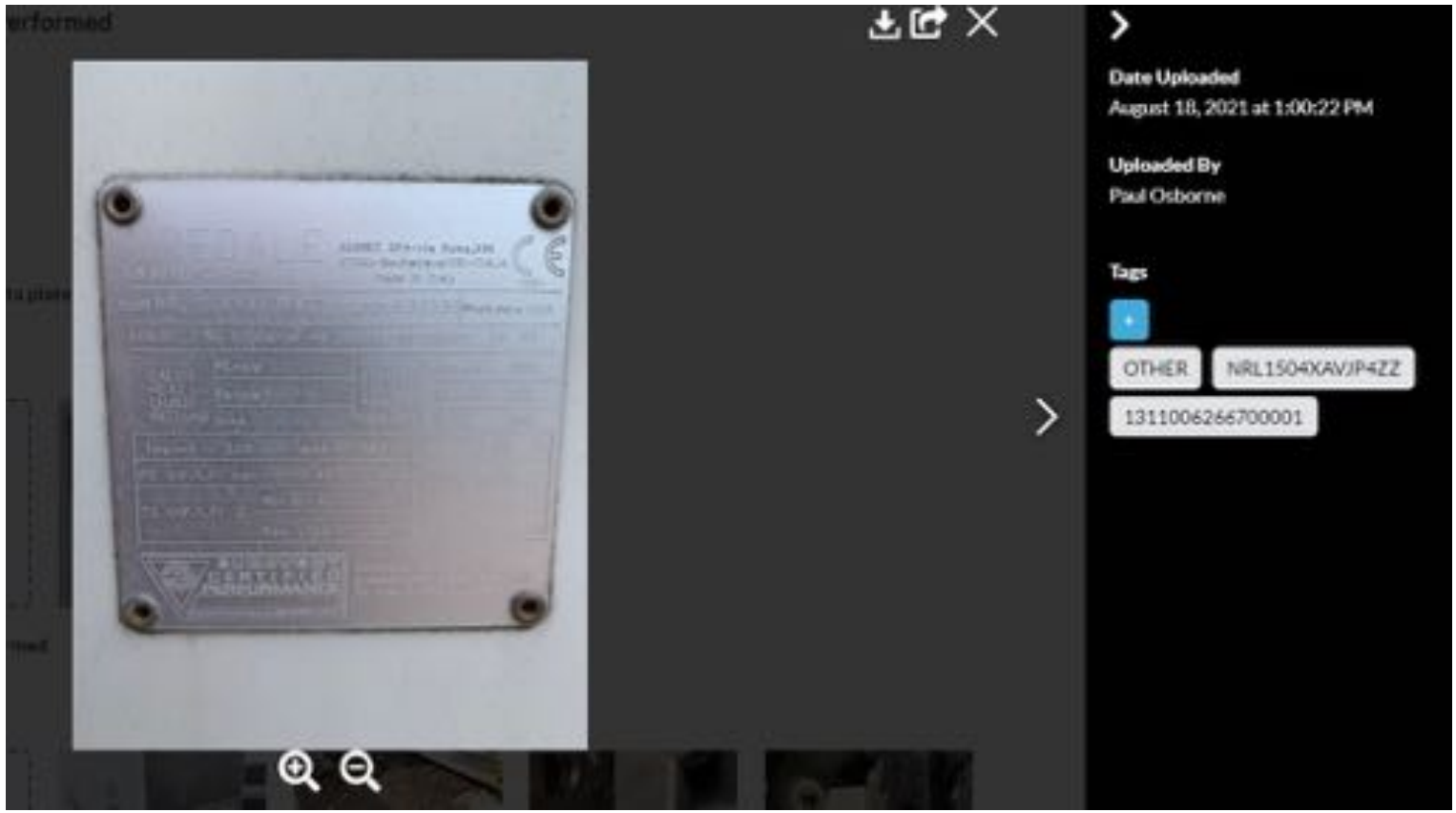
This app based system has a lot of the above and a few more.

The where. *The app allows the engineer open the job and before they can get to inputting the job work details he has to input a work order/Job number, the site details and the client.*



Inverter Screw Air Cooled Chillers

The what. The engineers first step of any workflow is to take an image of the units data plate. This is then transcribed by the app and the information is to the right. Within the software we can review the details including the full model reference, serial number and build standard allowing quicker parts and history identification.



The why. Tailored work flows for all activities allow the engineers to record pictures, videos, work sheets, gauge readings and much more

Pressure test readings

Vacuum testing

System operations either pictorial or video

Pictorial details of internal parts ades identification of Parts without the reliance on factory support.

Waste transfer notes held within the report for customer compliance

One of the advantages that has proven very valuable is the ability to raise multiple visual inspections. In the image here this is of vandalism to new chillers at a well known south west London sporting event. The image was captured from a video walk round. We also have the coils from a few month earlier prior before the damage was done. This give us and the end user a clear time line and more importantly the responsibility of the main contractor for any repairs which will run into tens of thousands.