Part History Reporting Proposal

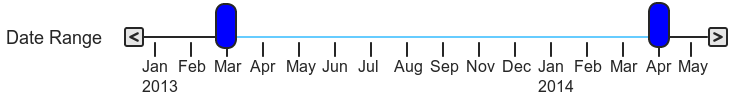
# Summary

The part history reporting module will enable Ace Pump customers to collect and analyze all the repairs Ace Pump has done on their pumps. To do this, Netsmith has come up with five dashboards, information panels that concentrate historical customer information onto a single screen. Each dashboard analyzes the data from a different perspective. The customer can jump around between the dashboards just by clicking. Each dashboard also updates in real time as the customer adjusts their filters.

In future scopes, Netsmith will be able to add, modify, or remove individual widgets from each dashboard. We can even add an entirely new dashboard.

# Filters

All the dashboards will have three main filter controls: a date range slider, a lease drop down, and a well drop down.



The date range slider lets the user easily specify what time period they are interested in. As the customer slides either end of the date range slider, they can watch the charts update in real time.

The lease and well drop downs allow the customer to limit the data they see to only refer to a given lease or well. For more detailed and targeted lease or well information, see the lease or well dashboard.

# Customer Dashboard

The main customer portal for analyzing their historical pump failure data. From here, the customer sees an overview of all their pumps and leases consolidated into charts and graphs. The dashboard has a large date filter control at the top to specify a time range to view information about.

The dashboard shows all of the following information panels. All the panels update automatically as the customer adjusts the date range, leases, or wells to view.

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|  | The average amount the customer paid to repair pumps each day.  If the cost has gone up, this shows up in red. If it has gone down, this shows up in green. If it is the same, this shows in black. |
|  | The average number of pulls made over the past three months at all the specified leases and/or wells.  If the cost has gone up, this shows up in red. If it has gone down, this shows up in green. If it is the same, this shows in black. |
|  | A pie chart showing the top reasons Ace Pump shop techs are repairing pumps. The number of reasons to show is adjustable with the spinner right below the chart.  This chart gets its data from the reason the shop tech listed on every repair ticket they did for the customer during the time period.  The customer can click on any reason to jump to the reasons repaired dashboard for that reason. |
|  | A pie chart showing which pump parts are failing the most often. This chart can be organized by category (the default) or by specific part. The customer can also choose how many parts to show in the chart.  The customer can click on any part to jump to the parts dashboard for that part. |
|  | A line chart showing the fluctuations in daily repair cost over the course of the specified time. Each day shows up on the line chart as a point. |
|  | This bar chart shows one bar for each reason Ace Pump repaired one of the customers pump. The bar shows the *total* amount the customer spent repairing parts for that reason, not an average.  Service charges are not considered when calculating the total repair cost.  The customer can click on any reason to jump to the reasons repaired dashboard for that reason. |
|  | Helps the customer identify when the most pulls are happening. This chart can show pulls either by quarter or by month. |
|  | One bar for each well or lease (selectable by the customer). The bar shows the average length of time a pump in the ground at that location was able to run before being pulled.  The average runtime is the length of time that passed from when the pump was installed in the well until it was pulled back out. The reason for the pull is not considered when calculating the runtime.  The customer can click on any pump to jump to the pump dashboard for that pump. More detailed information on part runtime is available on the parts dashboard. |

# Reason Repaired Dashboard

A focused view on the reasons pumps are breaking. The data for this dashboard comes from every repair ticket Ace Pump does for the customer. The more tickets available, the more useful the data.

Also has a drop down filter to choose which reason repaired to view data for.

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|  | The number of pumps with this failure where the repair cost was more than the cost of a brand new pump. |
|  | The total amount the customer has spent fixing pumps with this problem. This counts only the amount the customer spent fixing this problem itself and does not consider the cost of fixing other broken parts of the pump or service charges. |
|  | The average amount the customer has spent fixing pumps with this problem. This counts only the amount the customer spent fixing this problem itself and does not consider the cost of fixing other broken parts of the pump or service charges. |
|  | This pie chart shows a breakdown of the leases where this happens most often. This can help the customer identify reasons that may be contributing to failures like a poorly trained foreman or bad terrain at a particular lease.  The customer can click on any lease to jump to the lease dashboard for that lease. |
|  | This bar chart shows one bar for every other failure that showed up in a pump with this problem. The height of the bar is determined by the number of times the failure showed up.  The customer can click on any bar to jump to the reasons repaired dashboard for that reason. |
|  | This bar chart shows one bar for each part where this failure happened. The height of the bar is determined by the number of times that part failed with this reason.  The customer can click on any bar to jump to the part dashboard for that reason. |

# Lease Dashboard

A focused view on one lease. Summarizes data for all the wells at that lease.

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|  | The total amount the customer has spent fixing pumps on the chosen lease within the time range specified. |
|  | The average amount the customer paid to repair pumps each day at this lease within the chosen date range. |
|  | The average number of pulls made over the past three months at the specified leases. |
|  | A grid listing all tickets the customer opened at the specified lease.    The customer can click on a ticket to jump to the screen for the chosen delivery ticket. |
|  | The number of pulls at this lease over the selected period of time. |
|  | A pie chart showing the top reasons Ace Pump shop techs are repairing pumps at the chosen lease. The number of reasons to show is adjustable with the spinner right below the chart.    This chart gets its data from the reason the shop tech listed on every repair ticket they did for the customer during the time period at the chosen lease.    The customer can click on any reason to jump to the reasons repaired dashboard for that reason. |
|  | A line chart showing the fluctuations in daily repair cost over the course of the specified time at the chosen lease. Each day shows up on the line chart as a point. |

# Well Dashboard

A focused view on a specific well. Summarizes data for all the pumps which have been in that well and provides a snapshot of the current run in that well.

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|  | The total number of times a pump was pulled out of this well during the specified time period. |
|  | The total amount spent on repairing pumps at this well across the time period. |
|  | The total amount spent on the last pump repair divided out over the length of time since the repair happened. Compared with the daily cost of the previous run. |
|  | One bar for each part in the pump currently in the well. The height of the bar indicates how long that part has been running without fail.  The bars in this chart cannot be clicked. |
|  | A list of all the tickets at this well |

# Part Dashboard

A focused view of a specific part. Summarizes data for all pumps the customer owns which have that part, not just one particular part. Has a drop down to choose part category and part.

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|  | Considers all the pumps the customer currently has with this part inside and takes the average amount of time the part has functioned.  Part runtime is counted for all the time the part is in the ground without needing repair. |
|  | The total number of times this part has failed in any pump the customer owns. |
|  | Shows one bar for each well (or lease) where the customer has a pump with this part in it. The height of the bar is the length of time that part has been running without fail.  In lease mode, the customer can click on a lease to jump to the lease dashboard for that lease. |
|  | A pie chart showing the top reasons Ace Pump shop techs have repaired this part. The number of reasons to show is adjustable with the spinner right below the chart.  The customer can click on any reason to jump to the reasons repaired dashboard for that reason. |

# Default Customer Tax Rate

Currently, all new delivery tickets have a default tax rate of 7.5% regardless of customer. This will give Tonya the ability to set a default tax rate for each customer from the customer page. That system will use that tax rate for all new delivery tickets made for the customer. Tickets for customers with no tax rate set will still have the 7.5% tax rate by default.

# Changes to the Current System

In addition to the new Part History Reporting system, Netsmith will also make several changes to the current software to make it easier to use.

1. The shop techs will no longer need to click “Save” on each line of a repair ticket. Instead, they will be able to update the entire ticket and click “Save” a single time for everything.
2. The shop techs will be able to tab between lines on a repair ticket.
3. Tonya will be able to specify which line she wants to add a part to on a pump template
4. The shop techs will see a drop down list of employees for the user completed on tickets
5. More friendly error messages will show up on grid pages in the system