Follow the Guiding Light for Gas Turbine Parts Management
Software to simplify the management of your facility's parts life cycle - increasing overall performance.

LODESTAR
Turbine Parts Management

# FAQ

**What it is...**

Lodestar was designed to facilitate the life-cycle tracking of hot section capital parts in gas turbines.

This includes complete gas turbine history, inspections, inspection reports, applied TILS – cloud-based data presented in an extremely user-friendly HMI. Lodestar provides maintenance managers and fleet owners with a very clear picture of what parts are driving their upcoming outage decisions and why, and how to manage the assignment of parts to various units within a fleet based on remaining life.

**What it isn't...**

Lodestar is not intended as a replacement for inventory management software or enterprise software and is not constructed to mimic the functions of these software packages. Lodestar can exchange information with these systems but for any individual customer the definition of the data to be exchanged must be tailored based how the enterprise system is set up.

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| **What are the allotted hours for data review and upload in the initial set up service included?** | The setup includes both manhours and software setup costs. Cost of setup is dependent on the number of gas turbine units and age of the units (the older the unit, the more inspections and therefore the more data to be loaded). This does not include any organization of the data from parts books, operating logs, inspection reports or any other raw data source into a format suitable for direct transfer to the Lodestar database (i.e. formatted Excel spreadsheets for data and .pdf, Word or Excel files for stored reports). This data and document organization work can be done internally by Suncor or on a contract basis by TTS. |
| **Is there a difference with the single component tracking module?** | Yes, single component tracking requires much more part data to be uploaded to the database. This module tracks each individual component in a set instead of simply tracking the complete set as a whole. For example, a complete turbine bucket (blade) set can include almost 100 individual buckets and each of those will not only have to be uploaded (using excel template) but also tested to confirm correct operation. Basically 100 times the work for the single set. |
| **What are the anticipated hours for data review and upload in the basic software package initial set up service?** | For 2 units each with an average 48, 000 fired hours and with 12,000 fired hour inspection intervals then we estimate needing 92 hours initially. |
| **What are the anticipated hours for data review and upload in the single component package initial set up service?** | For 2 units each with an average 48, 000 fired hours and with 12,000 fired hour inspection intervals then we estimate needing 122 hours initially. |
| **What index does TTS use to calculate escalation rates?** | Employment Cost Index published by the US Labor Bureau. |

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| **Does refreshing data from existing sources require submittal to Lodestar in same template format?** | *Once the unit historical information is loaded into the database, the only data that is refreshed on a scheduled basis is the unit operating information (fired hours, starts, trips etc.). This very small amount of data is extremely easy to update manually on a scheduled basis (typically weekly or monthly) although as discussed on our last call the data update function can be automated when connected to a PI system.*<br><br>Inspection records and other documents are uploaded when they are provided. Same with part repair reports. TILs can be uploaded as you receive them from the OEM. |
| **Are all historical serial number references saved and available to view by service/usage period?** | Serial number of parts do not change (or should not). Each part will have its serial number until it reaches the end of its operational life. We recommend that original serial numbers are used whether part is repaired by OEM or a 3$^{rd}$ party. However, you can add multiple serial numbers into the serial number field if for some reason the numbers change. |
| **Is the purchase order data able to be uploaded?** | You can upload the PO to the part history as a pdf file but it is not actively managed as a data field in the software. |
| **Are estimated order lead times included in part data?** | Yes. The intent of putting this information into Lodestar is to set an alarm function which will activate once the remaining life of a part becomes less than the part lead time. |
| **Are purchase requirement lists generated for ordering based on lead times and planned inspections/maintenance activities?** | Lodestar creates a list of future inspection(s) with planned inspection dates and a list of parts that should be purchased or repaired based on component life expectancy calculations. This information is normally manually transferred by clients into their inventory management or enterprise software in order to draw replacement parts from inventory, buy new parts or issue repair orders. |
| **Can Inventory Locations be a considered variable for inspection activity readiness?** | As location is one value associated with each part, this capability can be developed. Currently, this functionality is not available but we take improvement ideas from end users all the time and develop software accordingly. |
| **How is a part status updated?** | Lodestar updates parts status automatically when an inspection is created. Parts identified as coming out are automatically "out not repaired" and parts identified as going into service are automatically "in operation". After that, the changing of status must be done by the end user when they send the parts for repair like "out not repaired "→" under repair". Normally all "out not repaired" parts are reviewed after inspection and sent for repair. As the parts arrive at the repair shop, the owner or the repair vendor (if they have access to Lodestar) can change the status to "under repair". When the parts arrive back from a repair shop, the owner or repair vendor uploads the final inspection and arrival inspection reports and at the same time changes status to "repaired in stock".  New parts entered into the system automatically get the status "new in stock". |
| **Data exchange with external systems like SAP?** | As both software programs are connected to the Internet, data can be exchanged but a detailed specification is required to define what information is to be exchanged and how. |