

## Three In for Restoration, Three Out with Near-New Performance

### Project Overview

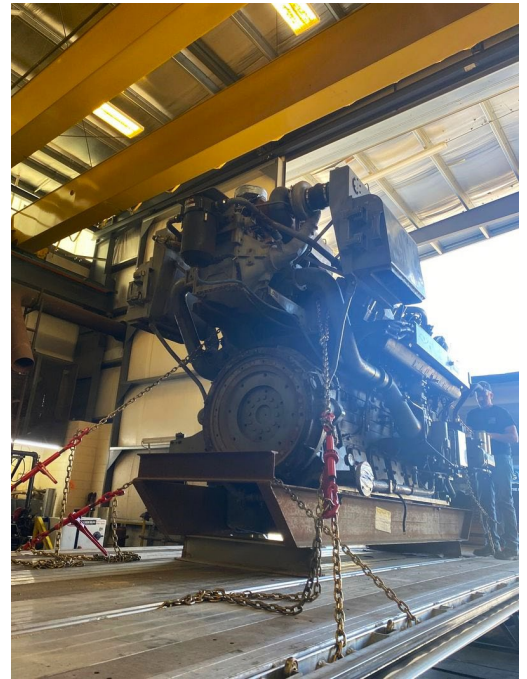
WPI's Bloomfield location recently completed a high-profile engine overhaul project for the McDonald Island natural gas storage facility in the Sacramento-San Joaquin River Delta. McDonald Island is an essential natural gas storage field with connections to 87 wells for gas withdrawal and 81 wells for injections. It can meet up to 25% of Northern California's peak winter gas demand. Given the facility's critical role in the energy infrastructure, the overhaul project was important to ensure its continued reliability and efficiency.

Strategically positioned near one of the largest natural gas-producing regions in the United States, the Bloomfield facility is ideally situated to serve the area's abundant energy needs. With over 40,000 natural gas wells, the San Juan Basin is a key play in the national energy landscape.

### Scope of Work

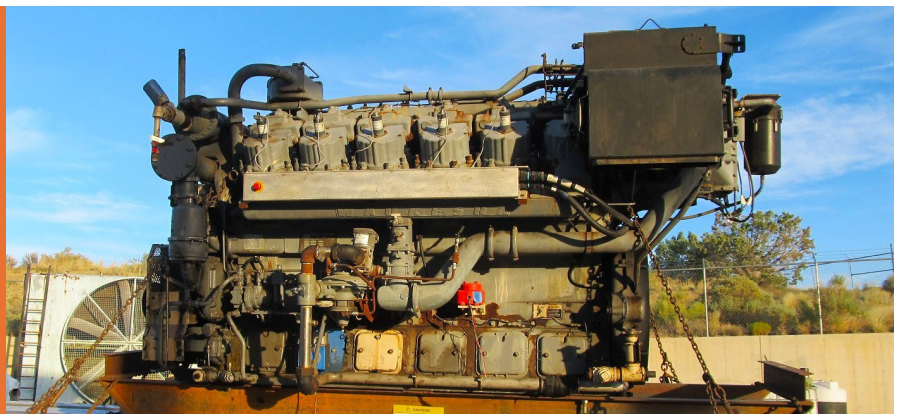
WPI was tasked with overhauling three Waukesha L7044 GSI ESM engines. Each engine drives an Ariel JGD/4 compressor that is not included in this scope of work. The overhaul aimed to restore the engines to near-new condition, ensuring optimal performance and compliance with operational standards, including meeting Air Permit Limits.

The overhaul process involved a 25-step breakdown and reassembly procedure, meticulously adhering to the OEM standards. The engines were completely disassembled, and every component was carefully inspected, cleaned, repaired, or replaced as necessary. This comprehensive approach ensured that the engines would meet performance standards and fully comply with regulatory requirements, especially regarding emissions control.



*"As expected, WPI did a terrific job. We can always count on them - their attention to detail, expertise, and responsiveness. Energy Link recommends WPI Bloomfield."*

Ray Miller, President, Energy Link Industrial Services



## Key Steps in the Overhaul Process

1. **Disassembly**—Each engine was broken down into its core components, allowing for a thorough inspection.
2. **Cleaning and Inspection**—To restore components to their original performance levels, they were cleaned and inspected for wear and damage.
3. **Recondition and Testing**—Components are reconditioned or replaced to restore them to their original performance levels. All wear components were replaced based on the SOW.
4. **Reassembly**—Engines were reassembled to OEM specifications.
5. **Dyno Testing**: Each engine was subjected to dyno testing to verify performance under load conditions.
6. **Commissioning and Tuning**—The engines were re-tuned and optimized for efficiency.
7. **Air Permit Compliance**—Emission controls were updated to ensure compliance with California's stringent air quality standards.

## Challenges and Execution

Despite the scope of work, this project faced no significant challenges, thanks to WPI's highly skilled team and thorough planning. The project was executed as an ordinary day-to-day operation for the field service crew, demonstrating WPI's expertise and efficiency in handling complex overhauls. With precision and adherence to timelines, the engines were successfully overhauled and ready for shipment back to McDonald Island within the planned 8-week timeframe.

## Outcomes

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The overhaul process was completed to the client's satisfaction, with all engines restored to near-new condition. WPI's efforts ensure the McDonald Island facility can operate reliably and meet California's energy demands during peak periods. By following stringent OEM and environmental standards, WPI enhanced the performance of the compressor packages and contributed to the overall sustainability of the region's energy infrastructure.

## Conclusion

WPI's Bloomfield facility continues to be a cornerstone in supporting the energy sector with high-quality overhaul services. This successful project highlights WPI's ability to deliver comprehensive, timely, and environmentally compliant solutions that meet the critical needs of the natural gas industry.

