



**Massachusetts Bay  
Transportation Authority**

# MotivePower HSP46 Locomotive Overhaul (40) Units

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Presenter: William G. Wolfgang

December 18, 2025

# Summary and Purpose

*The HSP46 Locomotive Overhaul Program represents a critical investment in the MBTA's commuter rail fleet, intended to ensure long-term reliability, safety, and efficiency of passenger operations.*

- Today's presentation outlines the overall strategy and program scope for overhauling the fleet of forty (40) HSP46 locomotives.
- Vehicle Engineering intends to advance an OEM-led overhaul of 40 units under Contract No. FC197F-24 with Westinghouse Air Brake Technologies Corporation (Wabtec).
- Delivery of the overhauled locomotives is scheduled to begin in January 2029, with full fleet completion expected by March 2032.



# MotivePower HSP46

Manufacturer: MotivePower In Partnership with GE  
40 Total Locomotives, Purchased By the MBTA:



- Quantity: 40
- Contract Awarded August 2010
- In revenue-service beginning April 2014
- Locomotive 25-year useful life



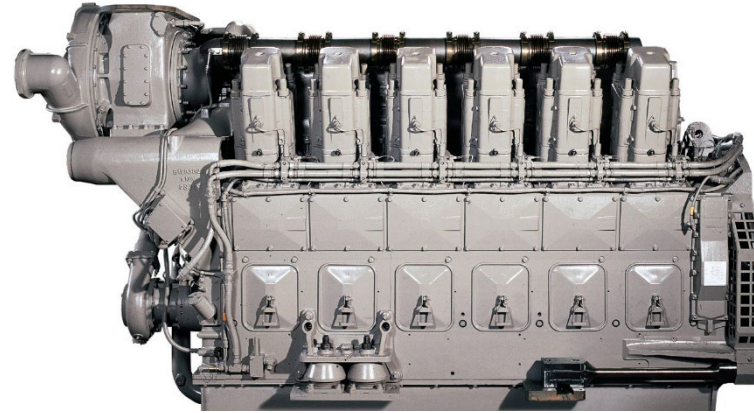
# Background

- Vehicle Engineering conducted a comprehensive condition assessment to evaluate overall fleet health and define the scope and need for an overhaul and reliability improvement program.
- Vehicle Engineering has completed a competitive RFP process and Wabtec, the original equipment manufacturer, will perform the fleet overhaul and key reliability upgrades.
- The Contractor will also provide an obsolescence management plan to ensure parts and technology availability that supports at least a 15-year service life.
- The program will also enable the agency to bridge the service gap and maintain reliable operations while next-generation battery and zero-emission technologies continue to mature.



# HSP46 Overhaul Strategy

- The overhaul program will address critical maintenance requirements, address identified deficiencies through targeted modifications, replace obsolete components, and integrate modernized technologies across the fleet.
- Long-standing reliability concerns affecting performance and reliability will be evaluated in the pilot phase, with corrective actions incorporated into full production.
- The project will also introduce functional improvements that enhance maintainability, operational efficiency, and overall lifecycle value of the locomotives.
- Through extensive, multi-phase acceptance testing by both the contractor and vehicle engineering, the overhaul will ensure each locomotive returns to service in a safe, reliable, and sustainable condition.



# Timeline

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- Board Award Wabtec 40 HSP46 Overhaul Today
- Locomotive Design review Summer 2026
- Pilot Locomotive Delivery December 2028
- Production Delivery Begins February 2029
- Production Delivery Completed March 2032



# Project Budget

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The total estimated budget for this project is as follows:

• Material Procurement to Overhaul 40 HSP46	\$222,695,746
• Force account (in-house labor)	\$4,242,410
• Project administration and internal capital oversight	\$5,110,000
• Professional Services	\$11,976,372
• Contingency	\$9,134,243
<b><i>Estimated total budget:</i></b>	<b><i>\$253,158,771</i></b>



# Request of the MBTA Board of Directors

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Vehicle Engineering requests that the MBTA Board of Directors authorize the General Manager & CEO, or his designee, to proceed with the overhaul of forty (40) HSP46 Locomotives by Westing House Air Brake Technologies (Wabtec) and approve Contract No. FC197F-24 for a total delivered amount not to exceed \$222,695,746.00 and to execute any necessary or ancillary documents in the name of and on behalf of the MBTA to effectuate this Agreement.

