
Mack T12 Engine Test Update

March 31 2005



- Mack T-12
- Based on Mack T10 & Mack T11
 - With ULSD Fuel
 - Length - ~ 300 Hours
 - Two Phase Test
 - Phase 1 100 hr (4.0 % Soot)
 - Phase 2 200 hr (EOT of 6 % Soot)
 - Phase 2 260 F Oil Temp
 - Increased EGR Flow (Heavy EGR)
(35% Phase 1 – 15-% Phase 2)
 - Precision Matrix Required



•2 Production EGR Coolers (Breadboard) Replaces Tube Cooler

Now 90C IMT – Phase 1

T12 Conversion Kits Sent to Labs

•T12 TASK FORCE –

Numerous Teleconferences,

**Oct 20 Mtg in San Antonio – Meeting Nov 22nd @ ExxonMobil- Next Mtg Jan 12th
in San Antonio - Meeting – Feb 22nd SWRI – ExMob-March 17th**

•Test Procedure (Draft 3 Completed)- T12 Parts List Completed

•Completed 7 Test on 820-2 (T10 Ref Oil)

• Data From 9 PC10 Prototype Oils

•Engines in 5 Labs Running week of March 28th

•Approved Operational Data

•Lab Visitations Complete

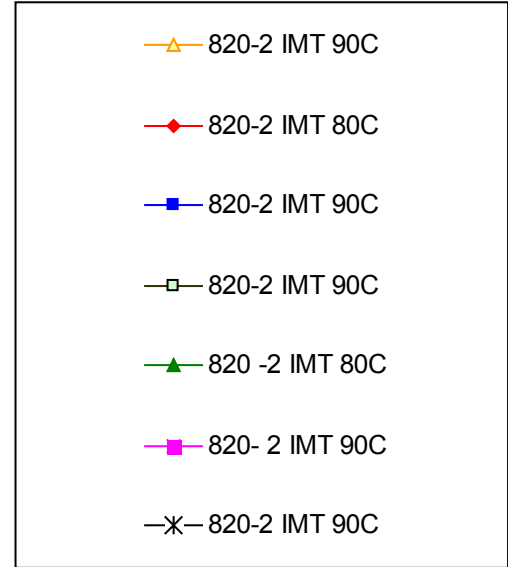
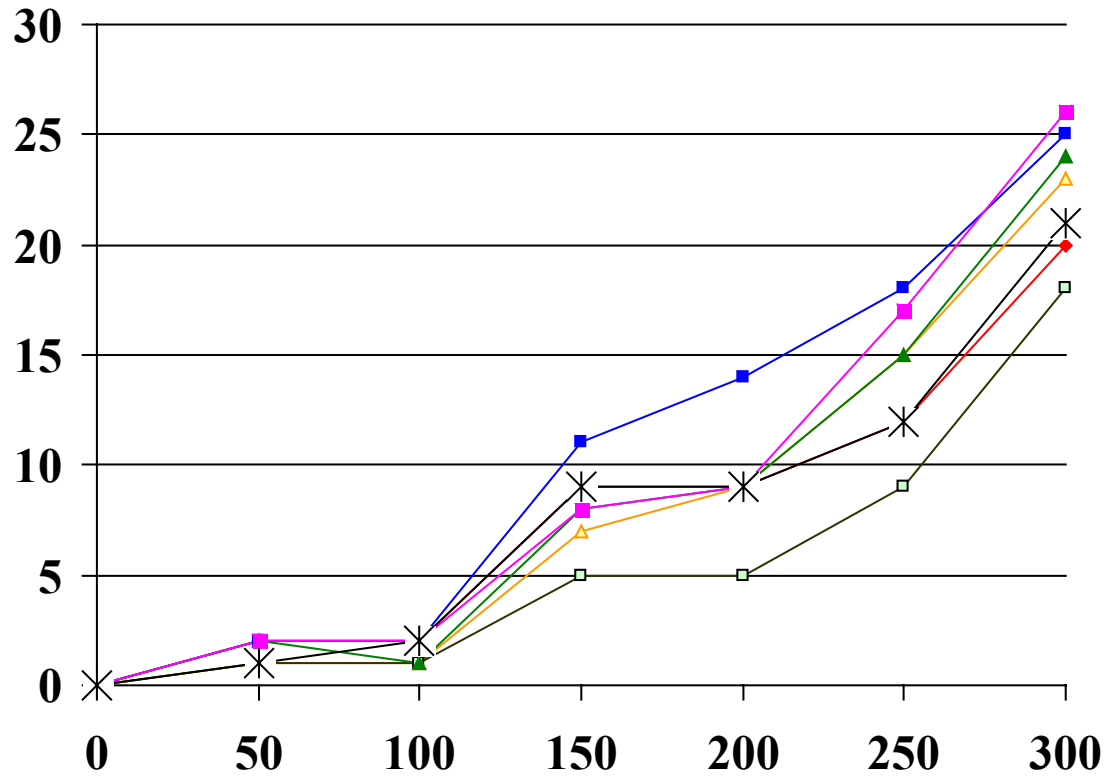
• Reviewed Data for Initial Precision & Discrimination

• 820-2 Will be Part of Precision Matrix



T12 820-2 Pb (ppm)

P
b



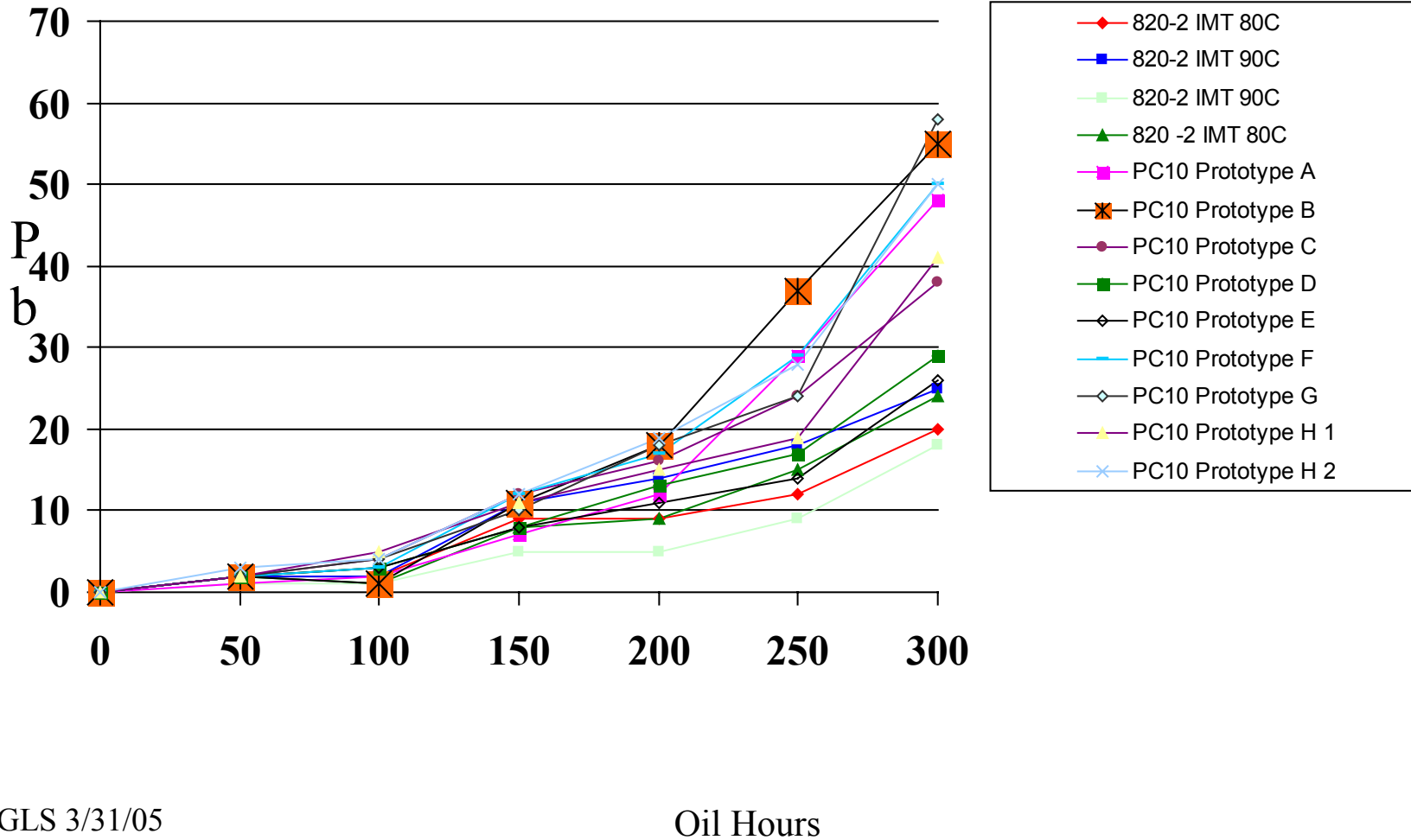
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Oil Hours



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T12 Pb (ppm) Discrimination

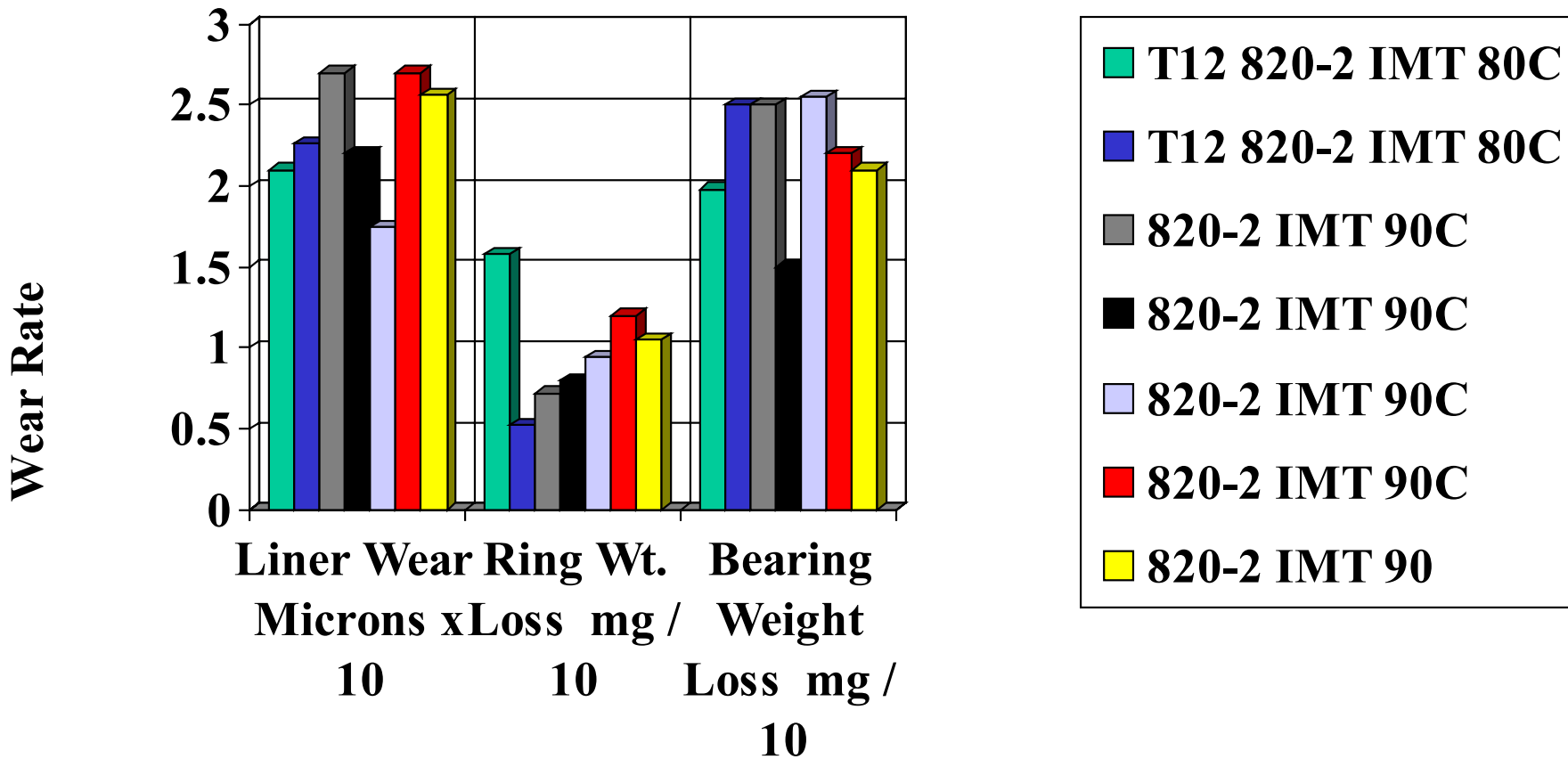


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T12-820

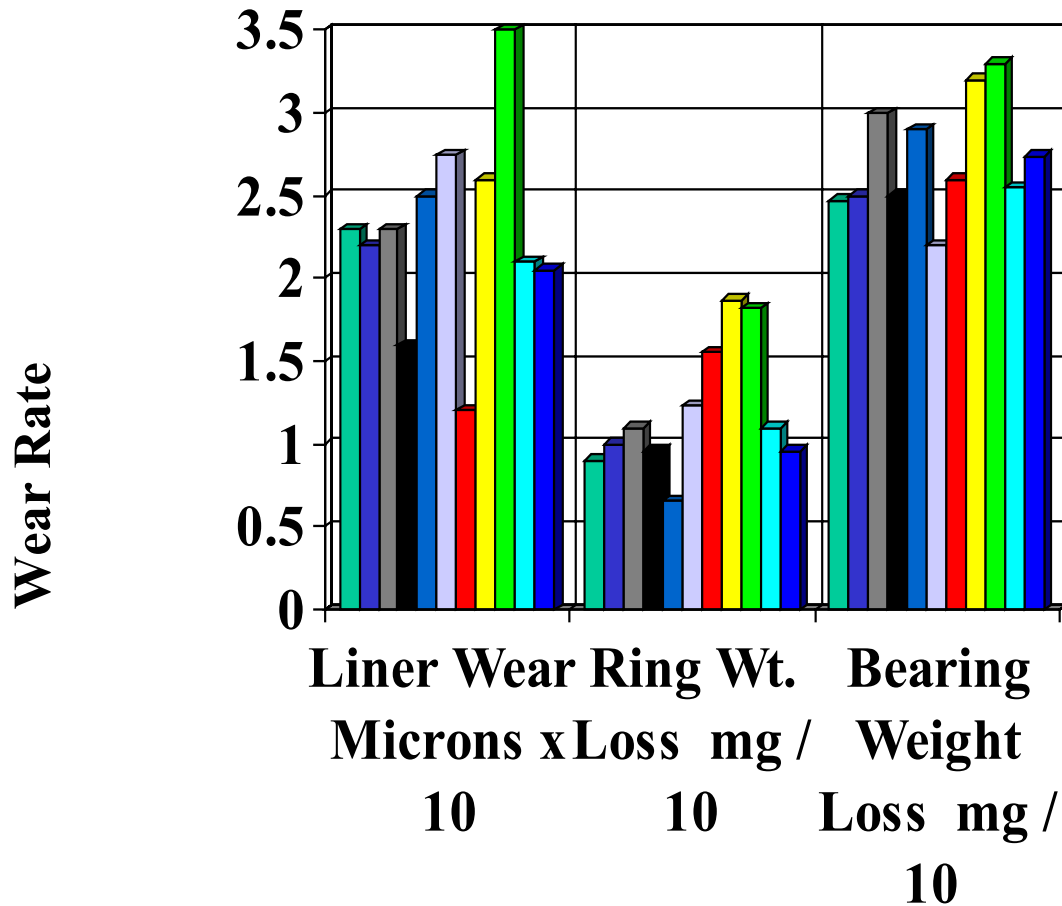


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T12-820-2 vs. PC10 Prototype



- T12 820-2
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- T12 PC10 Proto A
- T12 PC10 Proto B
- T12 PC10 Proto C
- T12 PC10 Proto D
- T12 PC10 Proto E
- T12 PC10 Proto F
- T12 PC10 Proto G
- T12 PC10 Proto H-1
- T12 PC10 Proto H-2



PC 10 Prototype Oil 2 Labs

		Oil H	Oil H		
		Lab 1	Lab 2		
		T12	T12		
TRWL		110.3	94.8		
2ndRWL		33.7	32.8		
EOTPB		41	50.5		
250-300PB		22	18.5		
O.C.		64.6	68.8		
FTIROXID		334.8	510		
URBWL		254.2	274.6		
Liner Wear		21.1	20.4		



Task Force Recommends T12 is Ready for Matrix

