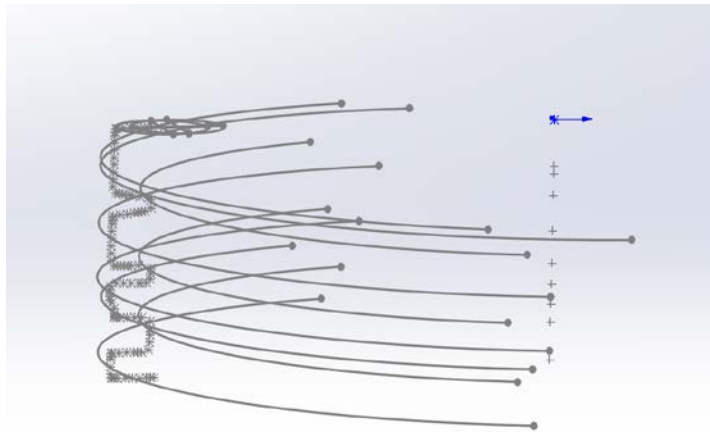


# Mack T-12 Batch E and F Piston Crown Comparison

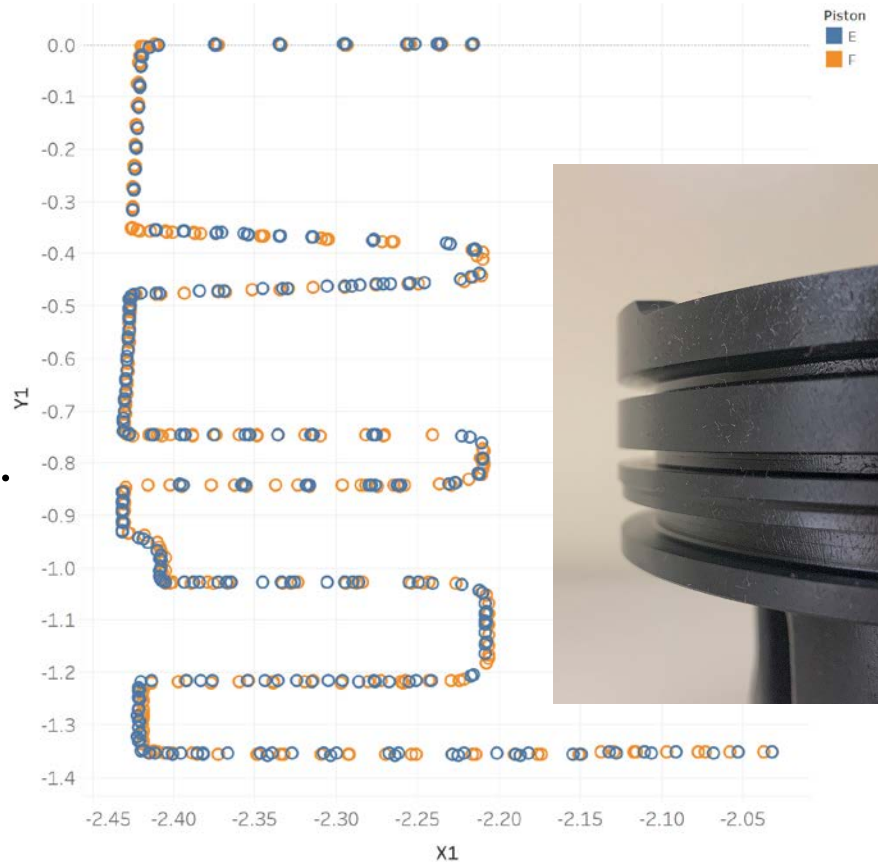
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- Three pistons from both batches (E/F) were scanned
  - Scanning head along each land and bottom of each groove for average radius
  - Touch head tracing of side profile moving along Z axis.

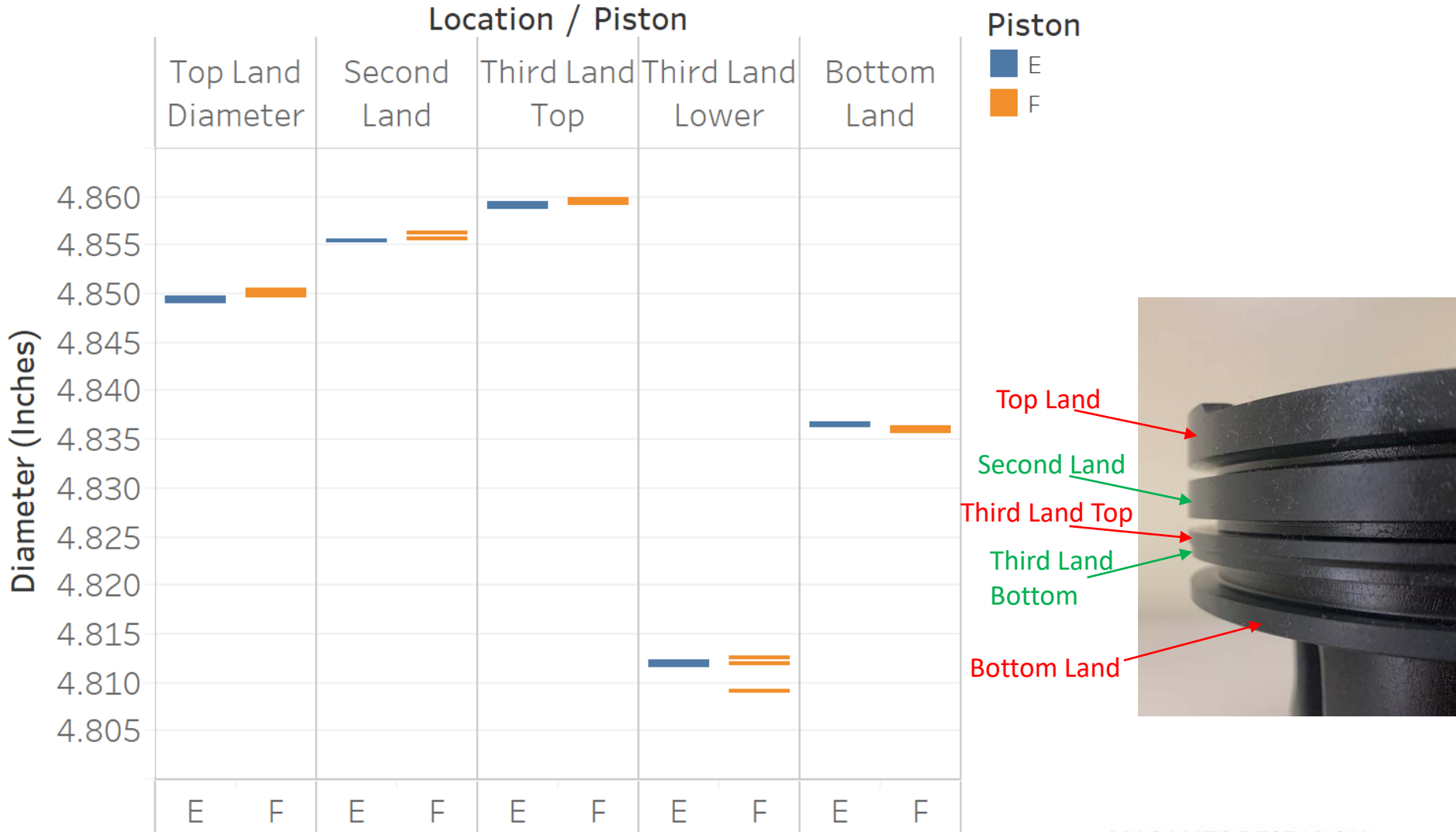


Piston Profile



# Average Land Diameters

## T-12 Piston Land Diameters



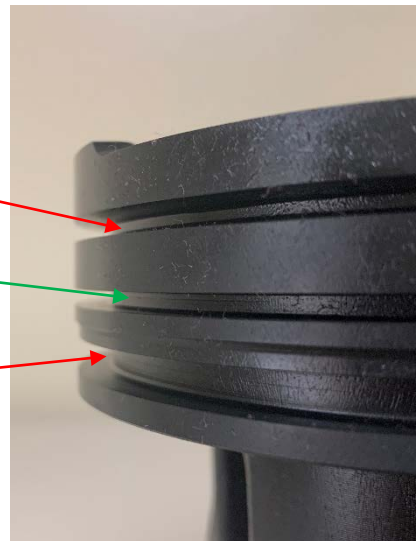
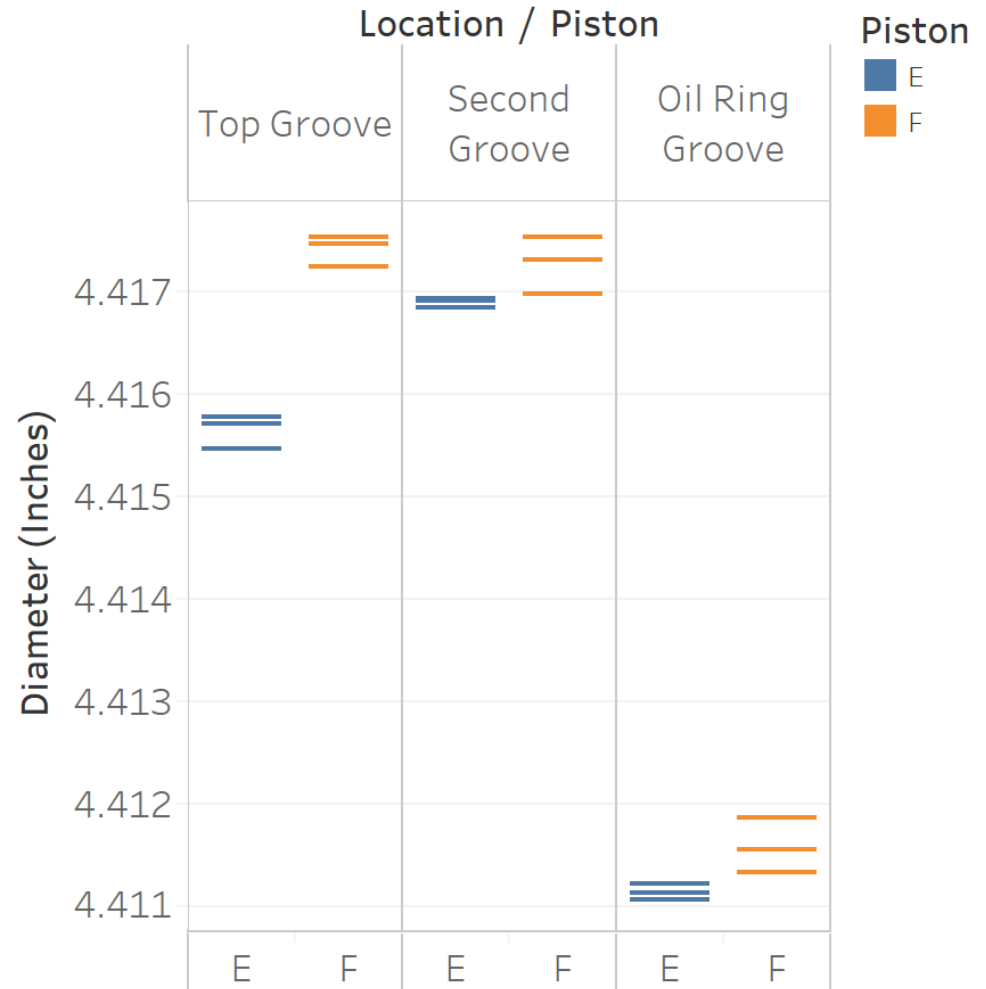
# Average Land Diameters

Piston Batch	Top Land	Second Land	Third Upper Land	Third Lower Land	Bottom Land
E	4.8496	4.8556	4.8593	4.8122	4.8367
F	4.8501	4.8558	4.8598	4.8114	4.8362
Delta	-0.0005	-0.0002	-0.0005	-0.0008	0.0005

# Average Groove Diameter

Piston Batch	Top Groove	Second Groove	Oil Ring Groove
E	4.4158	4.4169	4.4112
F	4.4175	4.4175	4.4117
Delta	-0.0018	-0.0006	-0.0005

T-12 Piston Groove Diameters



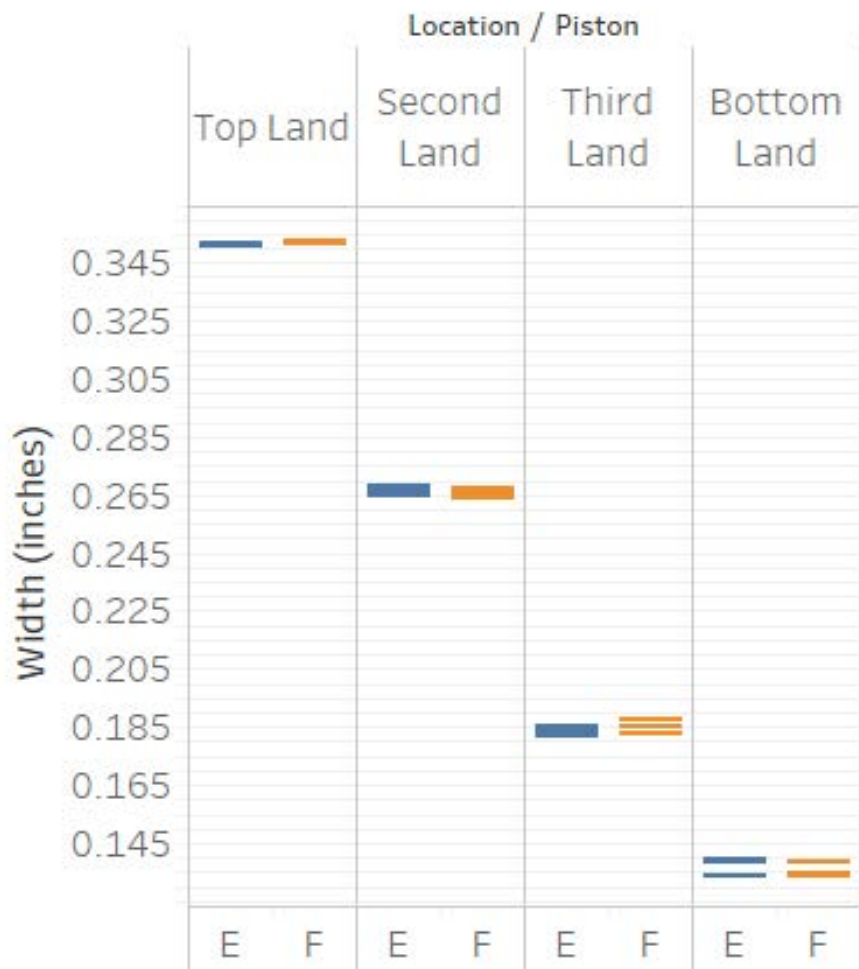
Top Groove

Second Groove

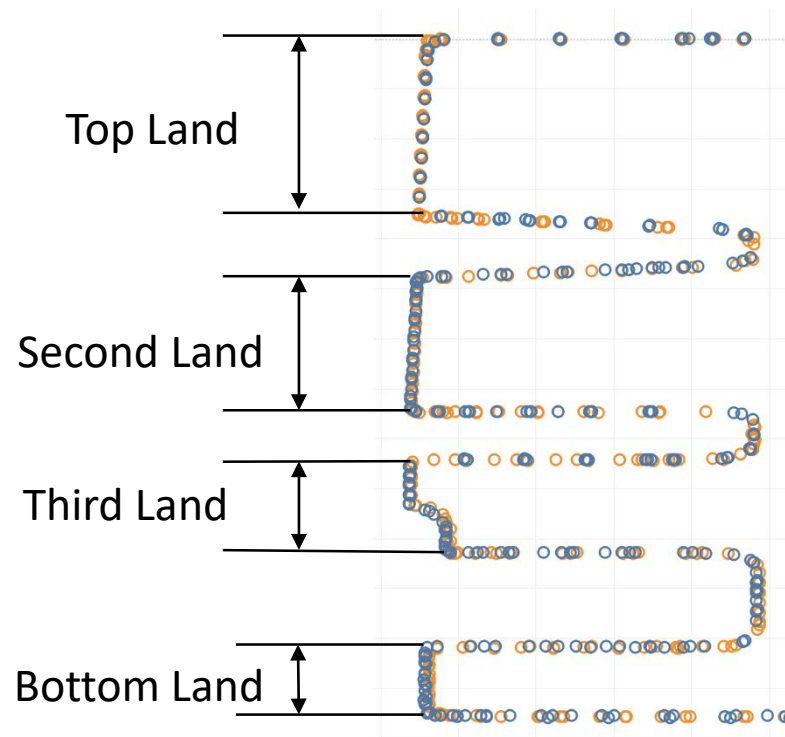
Oil Ring Groove

# Average Land Widths

Land Widths at Outer Face



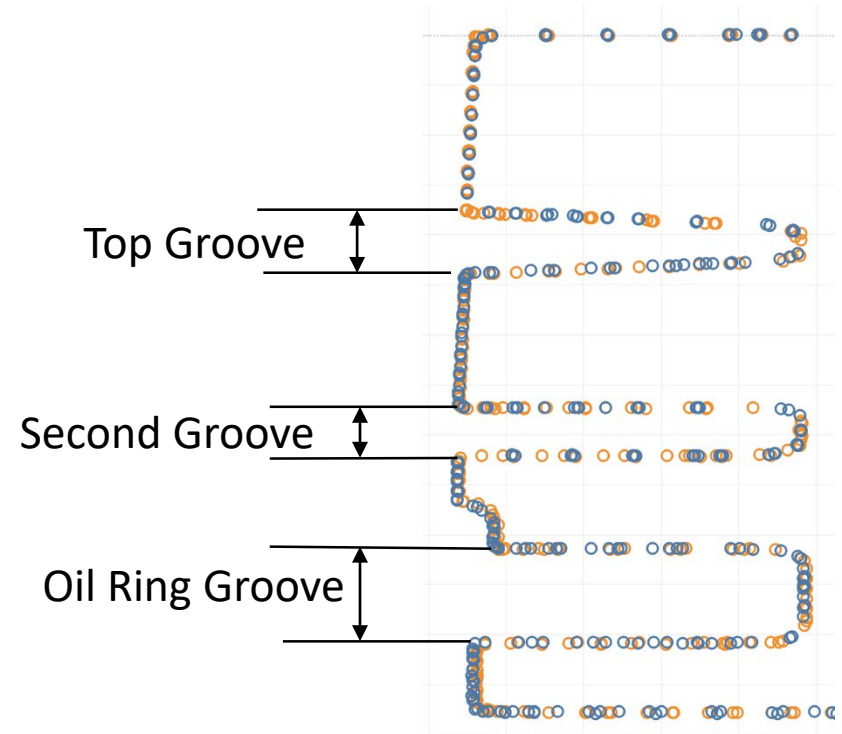
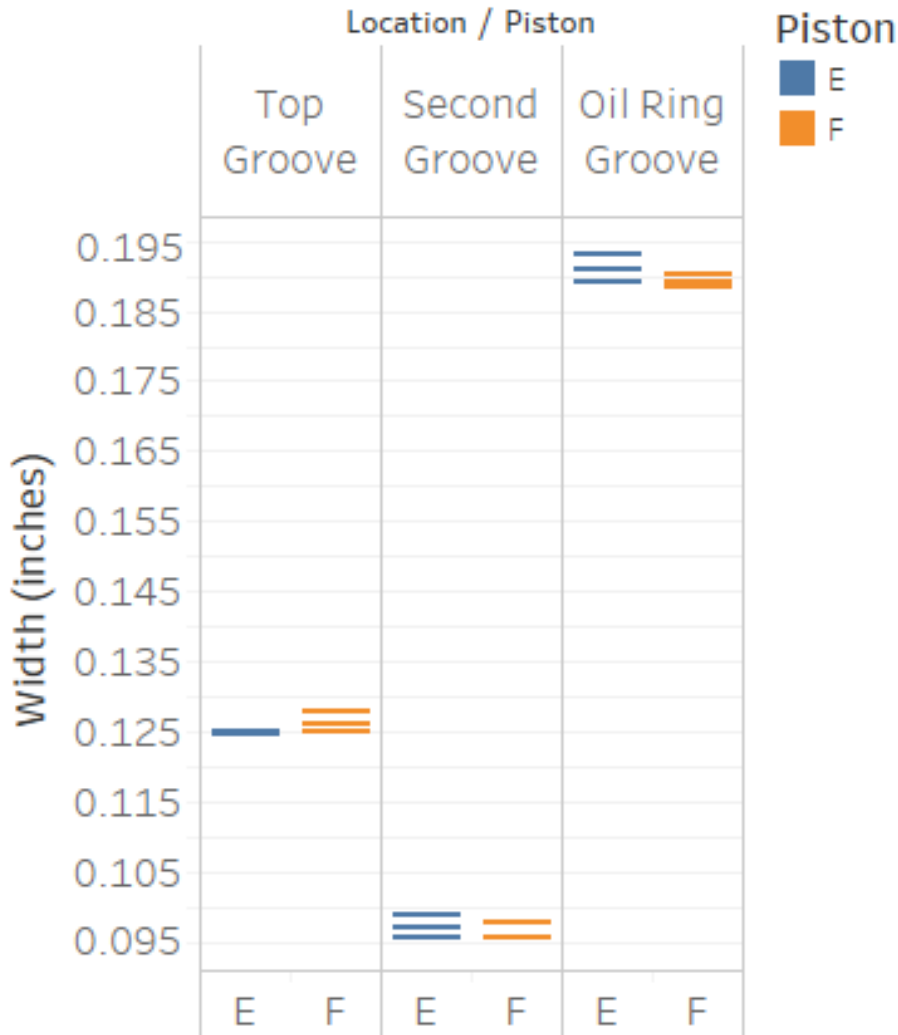
Piston



Piston Batch	Top Land	Second Land	Third Land	Bottom Land
E	0.3520	0.2671	0.1844	0.1378
F	0.3531	0.2665	0.1858	0.1350
Delta	-0.0011	0.0006	-0.0014	0.0028

# Average Groove Width at Opening

Groove Width at Opening



Piston Batch	Top Groove	Second Groove	Oil Ring Groove
E	0.1253	0.0975	0.1914
F	0.1267	0.0967	0.1895
Delta	-0.0015	0.0008	-0.0018

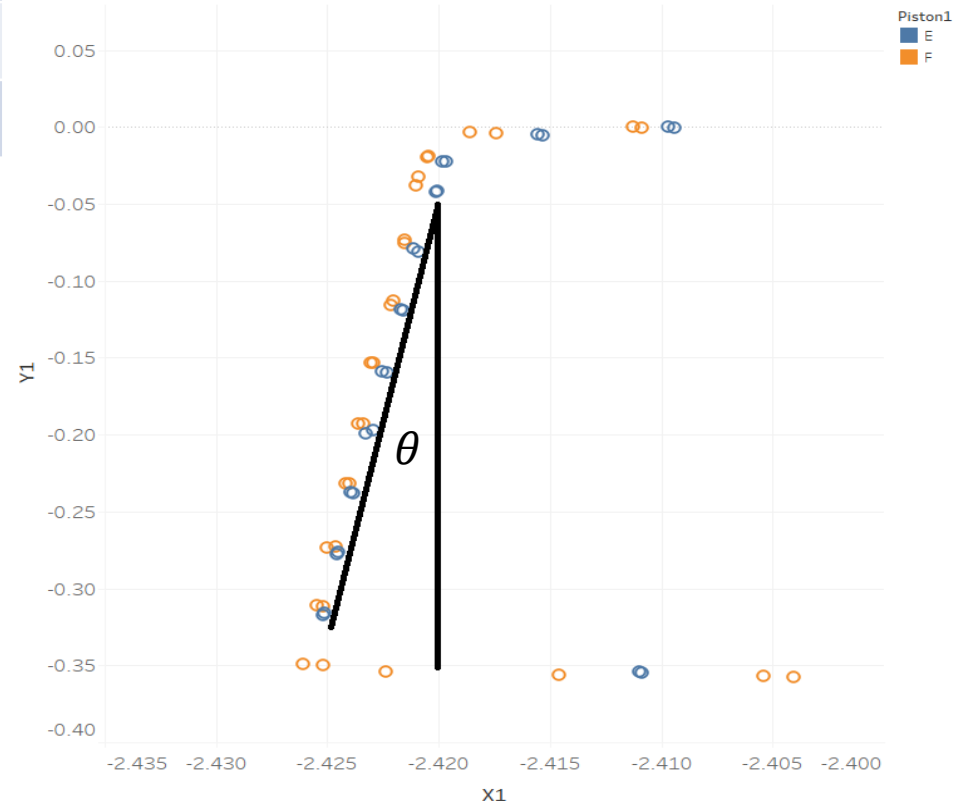
# Land Taper Angles

Piston Batch	Top Land	Second Land
E	1.1556°	1.1558°
F	0.9602°	0.8654°
Delta	0.1954°	0.2904°

Land Taper Angles (from normal to top of piston plane)



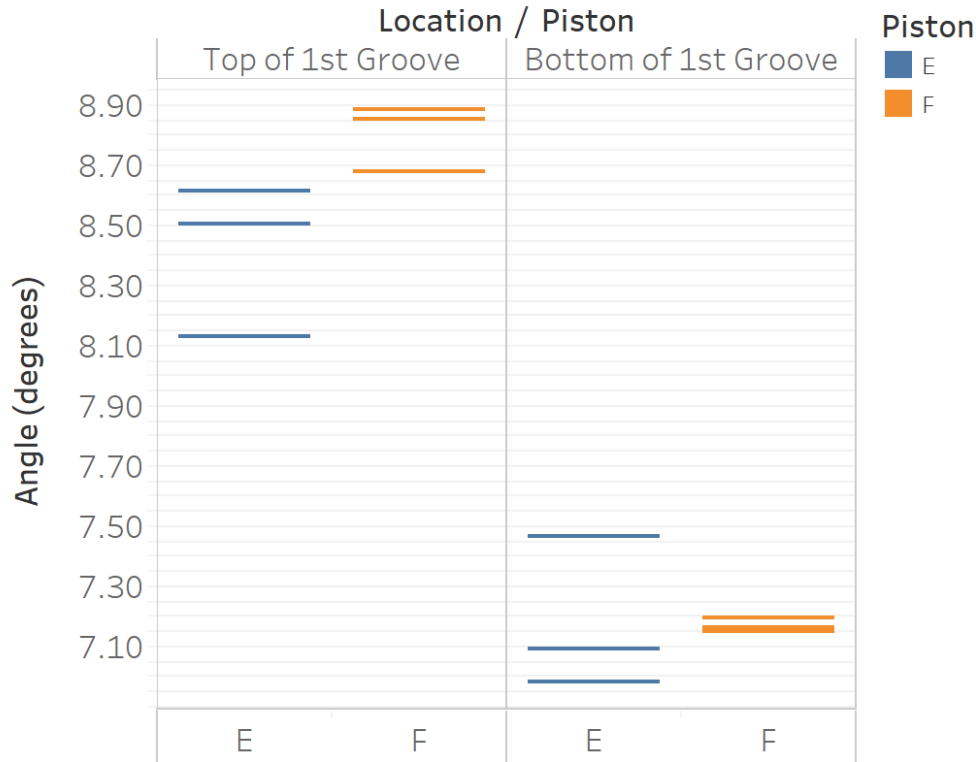
Piston Profile





# Top Groove Taper Angles

Top Groove Taper (from top of piston plane)



Piston Batch	Top Ring Groove Taper-Top	Top Ring Groove Taper-Bottom
E	8.4232°	7.1885°
F	8.8136°	7.1768°
Delta	-0.3904°	0.0117°

