

Full-Race Nissan SR20DET Turbo Manifold Test ProStreet Tubular Manifold vs. Log Style Manifold.

Abstract

Full-Race Motorsports conducted a back to back manifold experiment testing the performance gains of our ProStreet manifold versus a log or cast style manifold. All variables during this experiment were held constant as possible. The test proved that Full-Race ProStreet manifold offers greater performance than a log or cast style manifold! The Full-Race ProStreet manifold generated a peak gain of **60whp** and a peak gain of **35 ft/lb** after tuning. Midrange and overall powerband gains where also greater with the ProStreet manifold when compared to the log or cast style manifold.

Introduction

A back to back manifold test was conducted to determine the performance difference between a Full-Race ProStreet turbo manifold and a traditional log or cast style turbo manifold. Every possible aspect and or variable of the experiment was controlled. The only variable that was manipulated was the swapping of manifolds. The car used for testing was a Nissan 240sx with the following modifications:

Test #1

- SR20DET
- CP Pistons 9.0:1 CR
- Stock Rods w/ ARP rod bolts
- ARP Headstuds
- Greddy Headgasket
- HKS 264 Step 2's
- RAS
- Greddy valvesprings
- Greddy Intake Manifold
- Garrett GT3040R Turbo
- ROM tune - Z32 MAF, 96# injectors
- Log Manifold**
- HKS Intercooler

Test #2

- SR20DET
- CP Pistons 9.0:1 CR
- Stock Rods w/ ARP rod bolts
- ARP Headstuds
- Greddy Headgasket
- HKS 264 Step 2's
- RAS
- Greddy valvesprings
- Greddy Intake Manifold

- Garrett GT3040R Turbo
- ROM tune - Z32 MAF, 96# injectors
- FR ProStreet SR20DET turbo manifold
- HKS Intercooler

Results

The results were quite astonishing, but do make a lot of sense. The log manifold spooled the turbo about 100 rpm sooner than the equal length. From ~ 4100 rpm on the log manifold could not keep up with the ProStreet manifold. Overall, the ProStreet manifold generated a peak gain of ~60whp and a peak gain of ~35 ft/lb after tuning.

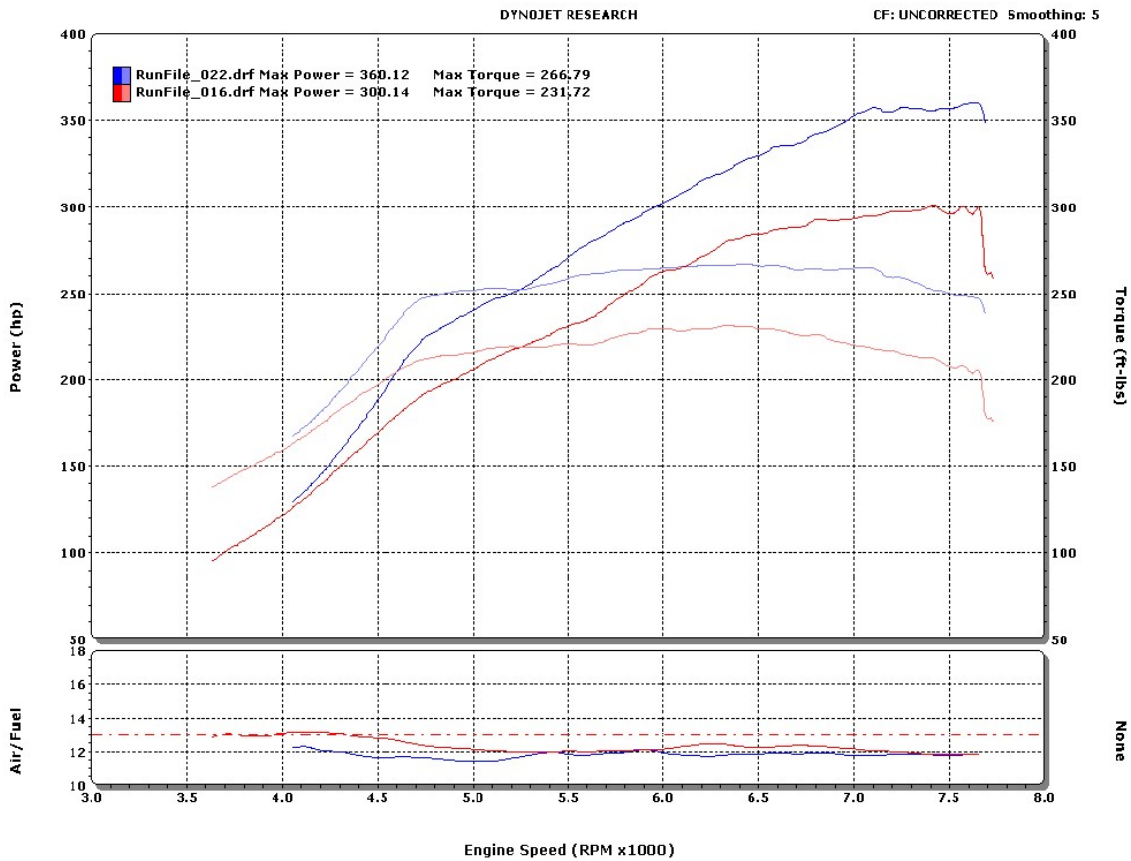


Figure 1. Log manifold (red graph) vs. ProStreet manifold (blue graph) at 12.8 psi.

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