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ENGINE SWAP OF 2016 TOYOTA TACOMA WITH LAND CRUISER V8

Client Success Story – Used Engine For Sale

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Client Overview

Client Name: Ethan Brooks
Location: Dallas, Texas

Client is Ethan Brooks, from Dallas Texas. He wanted more torque from his 2016 Toyota Tacoma. But being almost a decade old, it was not possible. He was looking for a possible engine swap. He had a 2016 Toyota Tacoma TRD Off-Road 4x4 crew cab. The 3.5L V6 just wasn't sufficient for his needs. He already had Land Cruiser 100 Series with the 4.7L 2UZ-FE V8, a motor in which he had the utmost confidence. Putting that tried and tested V8 into the Tacoma was really his simple-minded idea.

Challenges Faced By Ethan Brooks

The engine lacked sufficient torque, especially under load. Over 3,000 pounds of towing gave the feeling of an underpowered Tacoma, especially at higher elevations. He sought the assurance that came with the 2UZ-FE. Toyota, however, never supplied the Tacoma with that option. It was anything but plug and play.

Objectives:

Drop the Land Cruiser's V8 into the Tacoma without affecting daily reliability. Factory-level integration was the idea. The truck had to be street legal with a clean look and was to be fully functional (A/C, 4WD, cruise control, etc.

Vehicle and Engine Details:

- **Vehicle:** 2016 Toyota Tacoma TRD Off-Road, 6-speed manual
- **Swapped Engine:** 4.7L 2UZ-FE V8 (from 2004 Toyota Land Cruiser)
- **Transmission:** Original Tacoma 6-speed retained with custom adapter

Solution Provided By Used Engine For Sale

Reasons for Engine Selection:
The 2UZ-FE is reliable, torquey, and built to last. Compared to modern turbo setups, it's low-stress and mechanical. No complicated electronics. It also handles heat and heavy loads better. The client wanted something he could depend on without tuning every six months.

Cost Breakdown:

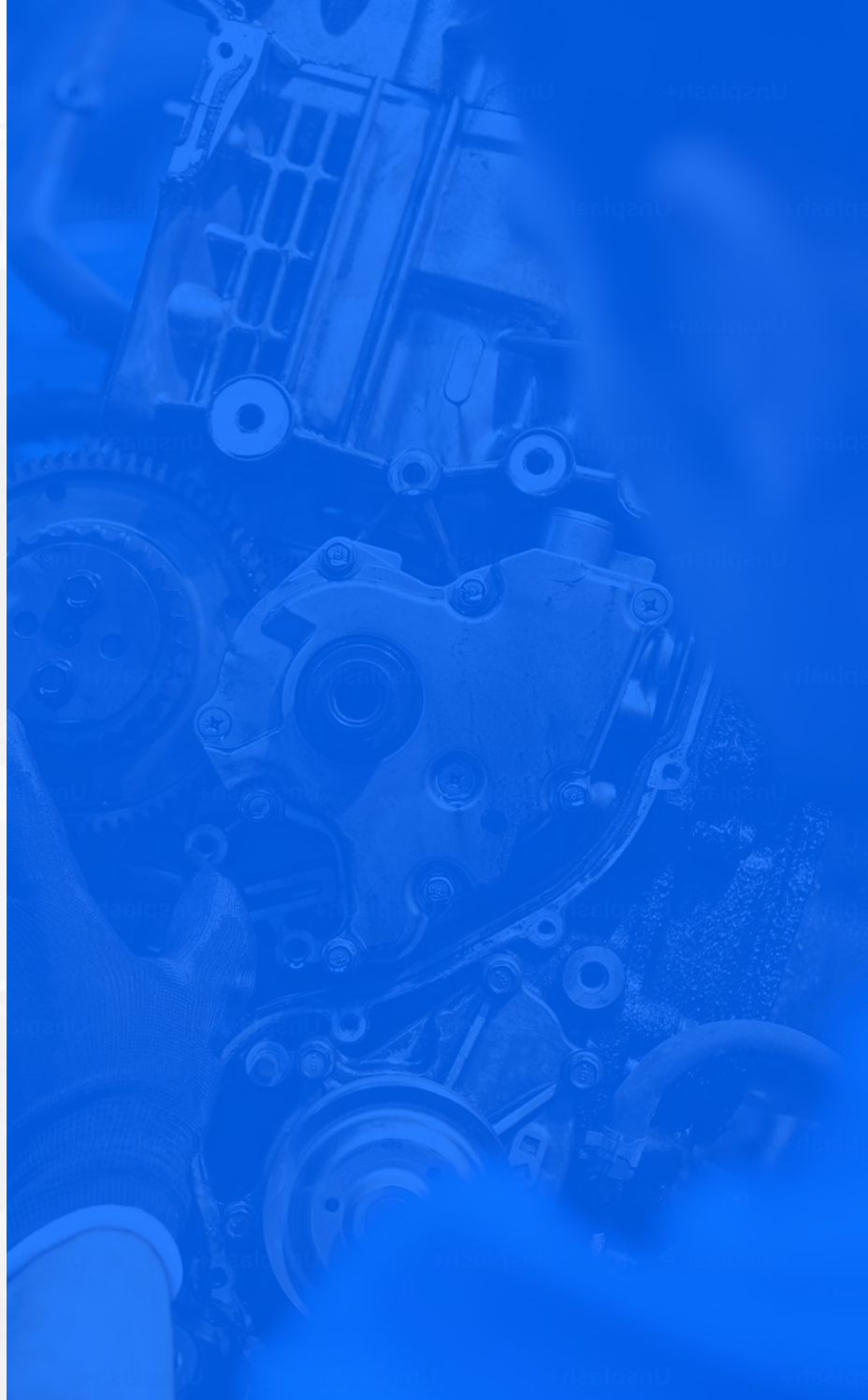
Physical Fitment: The 2UZ is larger. We had to notch the firewall slightly and relocate the battery. Custom mounts were needed, and we had to shift the radiator forward.

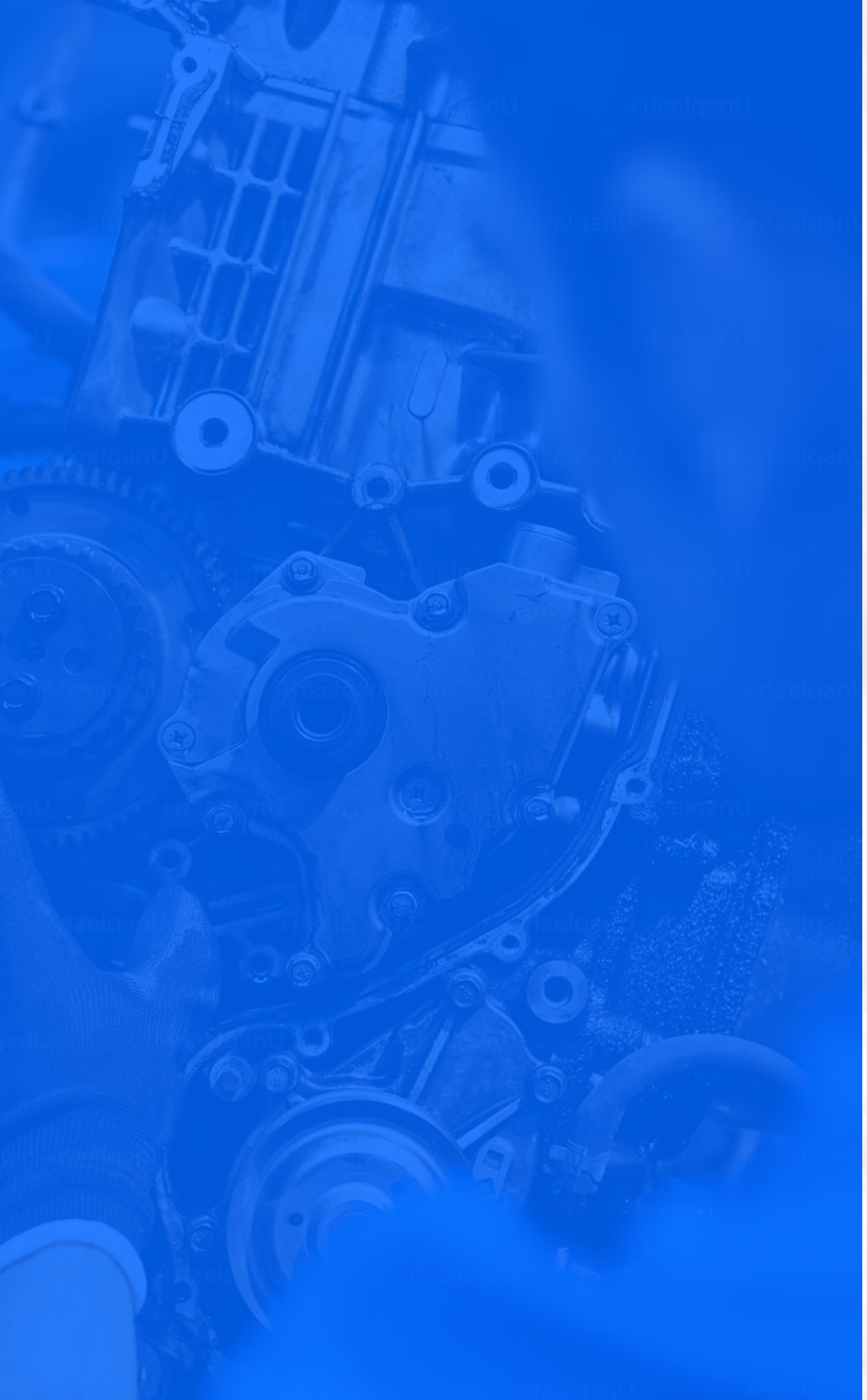
Transmission & Drivetrain Compatibility: We retained the stock Tacoma 6-speed manual. A bellhousing adapter and custom flywheel were sourced from a swap kit vendor. Driveshaft angles needed correcting.

Electrical & ECU Considerations: This was the hardest part. We used a standalone ECU for the engine (Haltech Elite), while keeping the Tacoma body ECU for accessories. CANbus signal splitting was needed to retain gauge cluster function.

Cost Estimation:

Component	Estimated Cost (USD)
Used 2UZ-FE Engine	$2,000
Custom Mounts + Fabrication	$800
Transmission Adapter Kit	$1,200
Standalone ECU + Wiring	$1,500
Radiator & Cooling Mods	$600
Labor	$3,000
Miscellaneous	$600
Total	$9,700





Required Tools & Equipment:

MIG welder
Engine hoist
Angle grinder
Torque wrenches
Custom wiring tools
Laptop with ECU tuning software
Oscilloscope (for CAN signal diagnostics)
Plasma cutter (for radiator support mods)

Implementation & Installation

- **Removal of Original Engine:** Pulled the 3.5L V6 out with all accessory components. Engine bay was cleaned and minor firewall reshaping done.

- **Custom Engine Mounts:** Fabricated from 1/4" steel plate, gusseted, and test-fit multiple times before final weld-in.

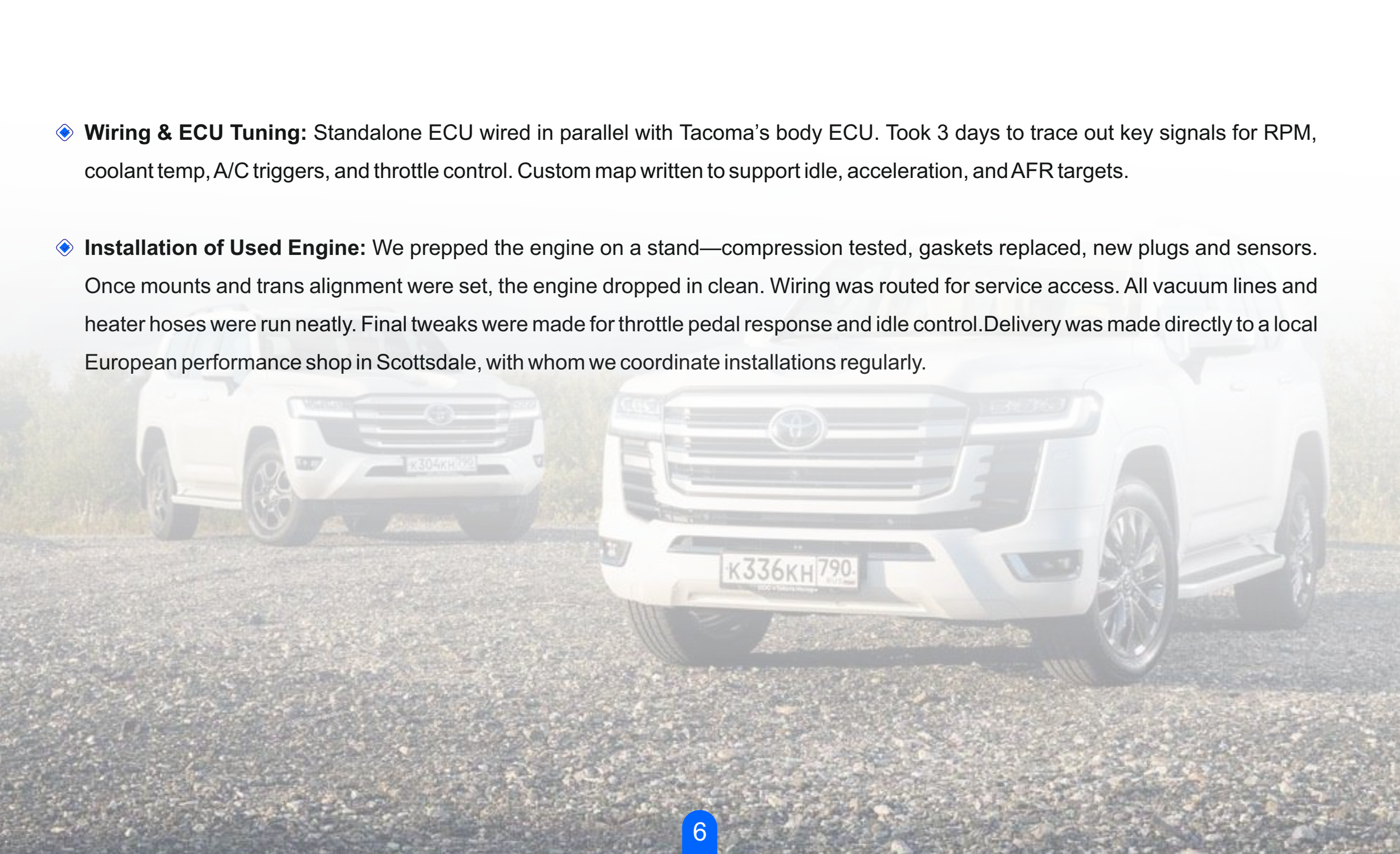
- **Driveshaft & Transmission Adaptation:** We kept the rear Tacoma driveshaft, modified the front shaft. Used a custom cross-member to support the new geometry.

- **Cooling System Changes:** A larger radiator from a Tundra V8 was fitted, along with dual electric fans. Oil cooler added using AN fittings.

- **Fuel System Upgrades:** High-flow fuel pump from Walbro installed. Return-style system set up to match the 2UZ-FE's original design.

- **Wiring & ECU Tuning:** Standalone ECU wired in parallel with Tacoma's body ECU. Took 3 days to trace out key signals for RPM, coolant temp, A/C triggers, and throttle control. Custom map written to support idle, acceleration, and AFR targets.

- **Installation of Used Engine:** We prepped the engine on a stand—compression tested, gaskets replaced, new plugs and sensors. Once mounts and trans alignment were set, the engine dropped in clean. Wiring was routed for service access. All vacuum lines and heater hoses were run neatly. Final tweaks were made for throttle pedal response and idle control.Delivery was made directly to a local European performance shop in Scottsdale, with whom we coordinate installations regularly.



Testing & Performance Evaluation

Initial Startup & Tuning:

First fire-up went smooth after adjusting crank angle sensor settings. AFR was rich initially, corrected during dyno tuning.

Performance Metrics:

Metric	Before (V6)	After (V8)
Horsepower (wheel)	236 hp	275 hp
Torque (wheel)	265 lb-ft	310 lb-ft
0–60 mph (unloaded)	8.3 sec	6.5 sec
Average MPG (real world)	17.2 mpg	15.0 mpg

Weight Distribution:

Front-heavy now. Gained 80–90 lbs on the nose. Slight spring rate bump planned next.

Drivability:

Very smooth. Idle is quiet, but you feel the torque down low. Perfect for towing. Cruise control, A/C, and 4WD—all work.

Reliability Check:

No overheating. Oil pressure strong. No vibrations at highway speeds. Startup is clean, cold or hot.

Results & Conclusion

Success Metrics: Project was a success. Objectives met: more torque, factory function retained, and no mechanical bugs.

Cost vs. Benefit Analysis: Yes, it cost more than expected. But compared to buying a new truck with a V8 and modifying that, this made more sense for the client. Plus, he already owned the Tacoma. $9,700 for a one-of-a-kind build that performs like a factory sleeper.

Final Thoughts:

Although it took time, testing, and some deep electrical work, this swap is for everyone. But for someone who needs more power in a proven chassis and wants OEM reliability, it was the right call. A used 2UZ-FE Land Cruiser engine with low miles was select from our own stock, i.e. Used Engine For Sale. No internal work needed. Their support team helped confirm ECU compatibility and shipping was on time.

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Thank You!

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