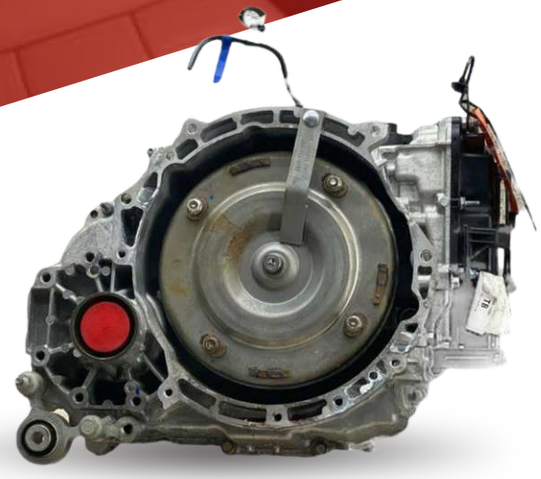
CASE STUDY: TRANSMISSION SWAP OF 2014 FORD MAVERICK

Client Success Story – Gearshift Auto Part



GearShift AUTO PARTS

Scan the QR Code

Client Overview

Client Name: John Brown

Location: Scranton, Pennsylvania

Background of the Client & Problem:
This transmission swap came from a clients who uses their 2014 Ford Maverick for regular highway runs and light hauling. The truck had logged just a bit more than 108,000 miles in its lifetime. Problems started as slipping gears, late shifts, and ultimately, no reverse. Upon inspection by the client, the stock 6-speed automatic transmission was determined to be worn, beyond repair. Repair costs were almost as much as replacement and downtime was going on and on.

Objectives:
Simply put, the client wanted the worn stock unit out and a stronger, more responsive used transmission in. This one was supposed to do better with daily use and less problems. The client wanted some smoother downshifts and less throttle lag, as those were the downshifts' faults.

Vehicle & Transmission Specs:
Vehicle: 2014 Ford Maverick, 2.0L Eco-Boost
Original Transmission: Ford 6F35 automatic
Chosen Replacement: Used, low-mileage 6F50 (from a 2015 Ford Edge)

Planning & Preparation

Reason for Transmission Selection:
The 6F50 was chosen due to its better internal clutch setup and improved cooling capacity. It's more robust than the 6F35 and handles torque slightly better. It also shares most mounting points and electrical architecture with the 6F35, which cut down the amount of custom work needed.

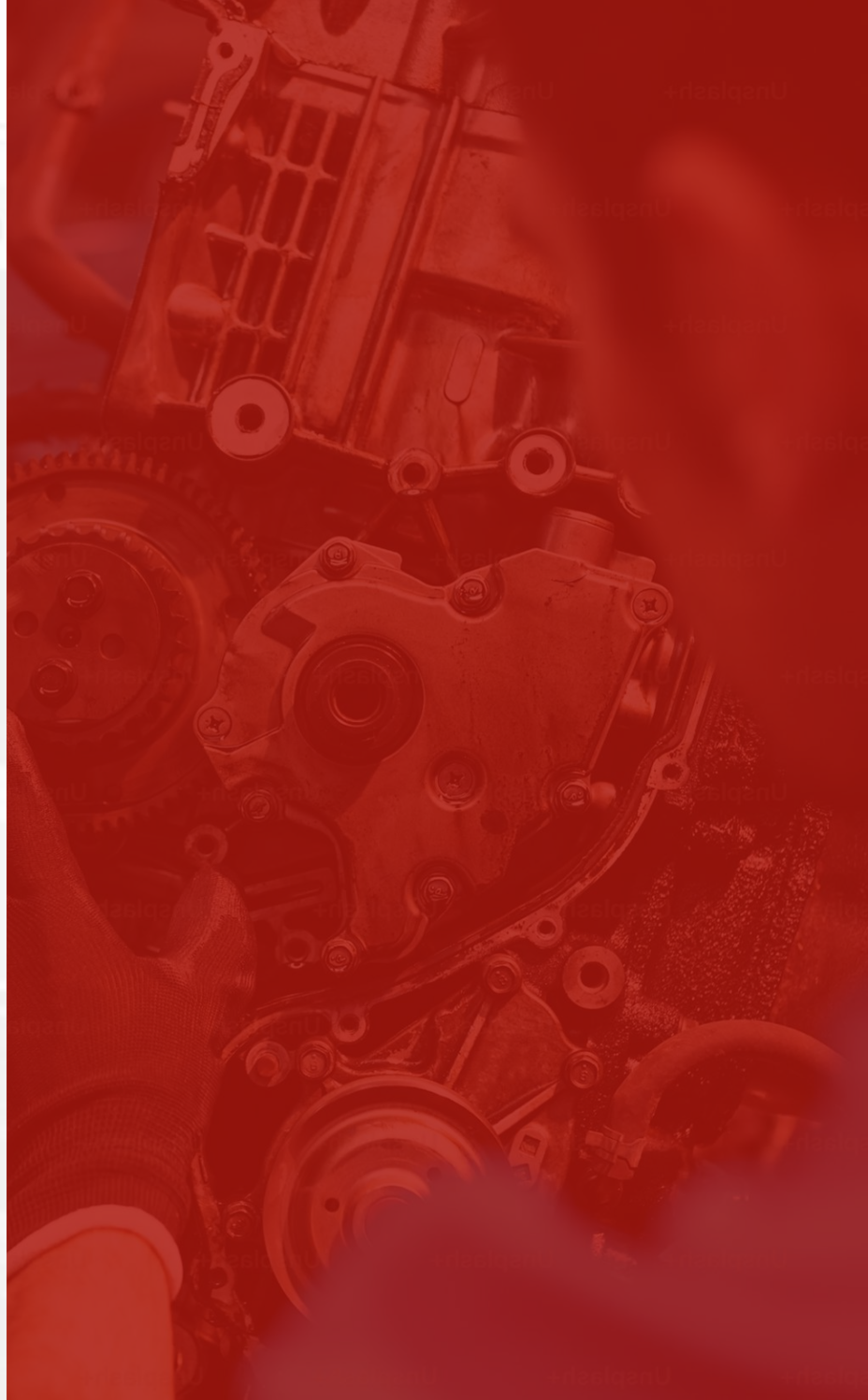
Compatibility Analysis
:
Physical Fitment: Mounting locations matched. Only one mount bracket needed trimming.

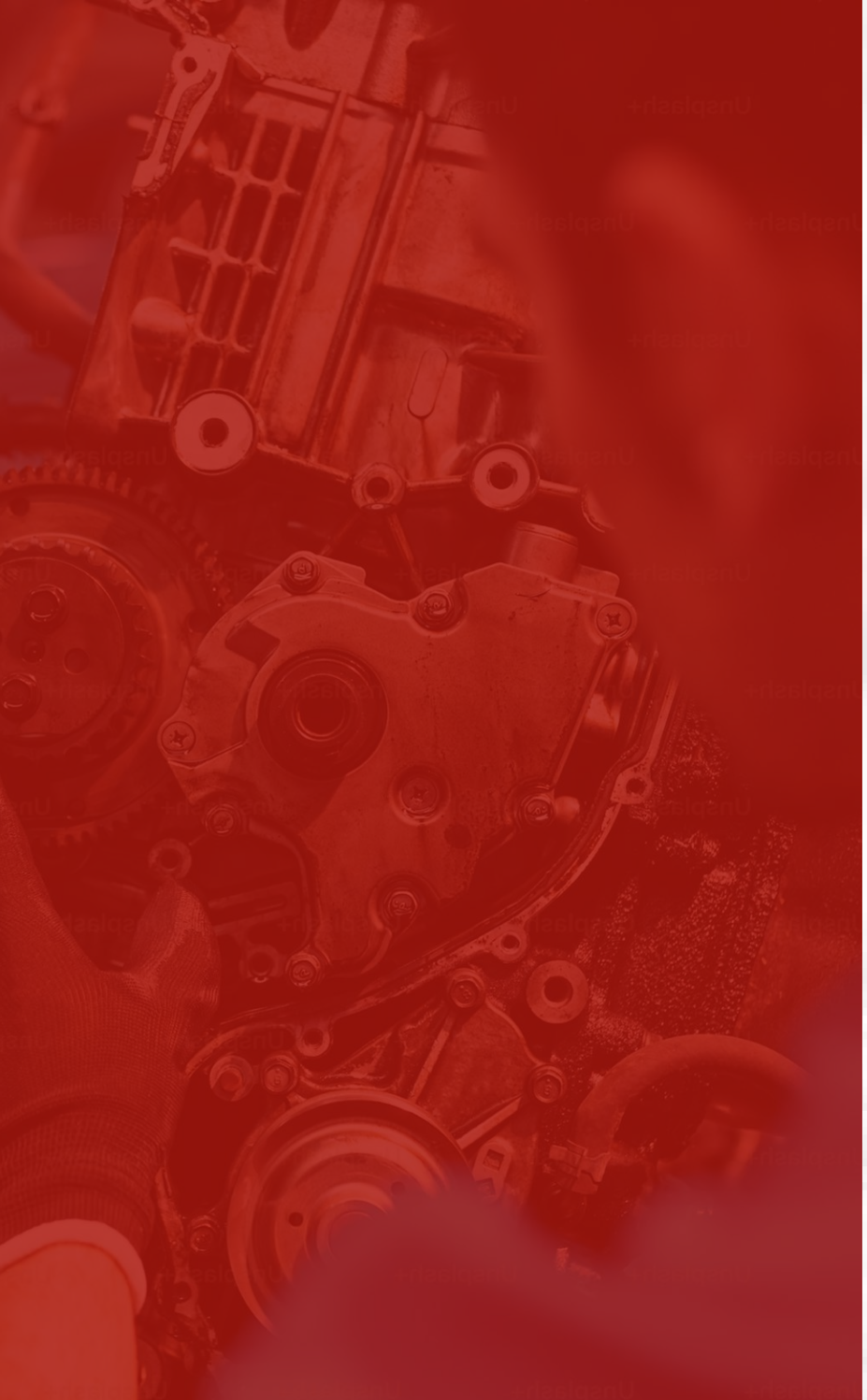
Axle & Drivetrain Match: Axle length and spline matched up, though a slight adjustment was needed on the passenger side driveshaft boot.

Electrical/ECU: Same style connector. Programming needed a VIN update to avoid shift errors.

Cost Estimation:

Transmission (used, tested):	$578
Custom mount & fabrication:	$60
Labor (removal/install):	$145
Fluids, gaskets, cooler lines:	$48
ECU Reprogramming (with Ford IDS):	$42
Total Estimated Cost:	$873





Required Tools & Equipment:

Engine support bar
Hydraulic transmission jack
Standard and deep socket set
Welding torch and steel for bracket fabrication
OBD2 scanner with Ford-specific software (Ford IDS)
Torque wrench, pry bars, fluid funnel, and a laptop for ECU

Execution of the Swap

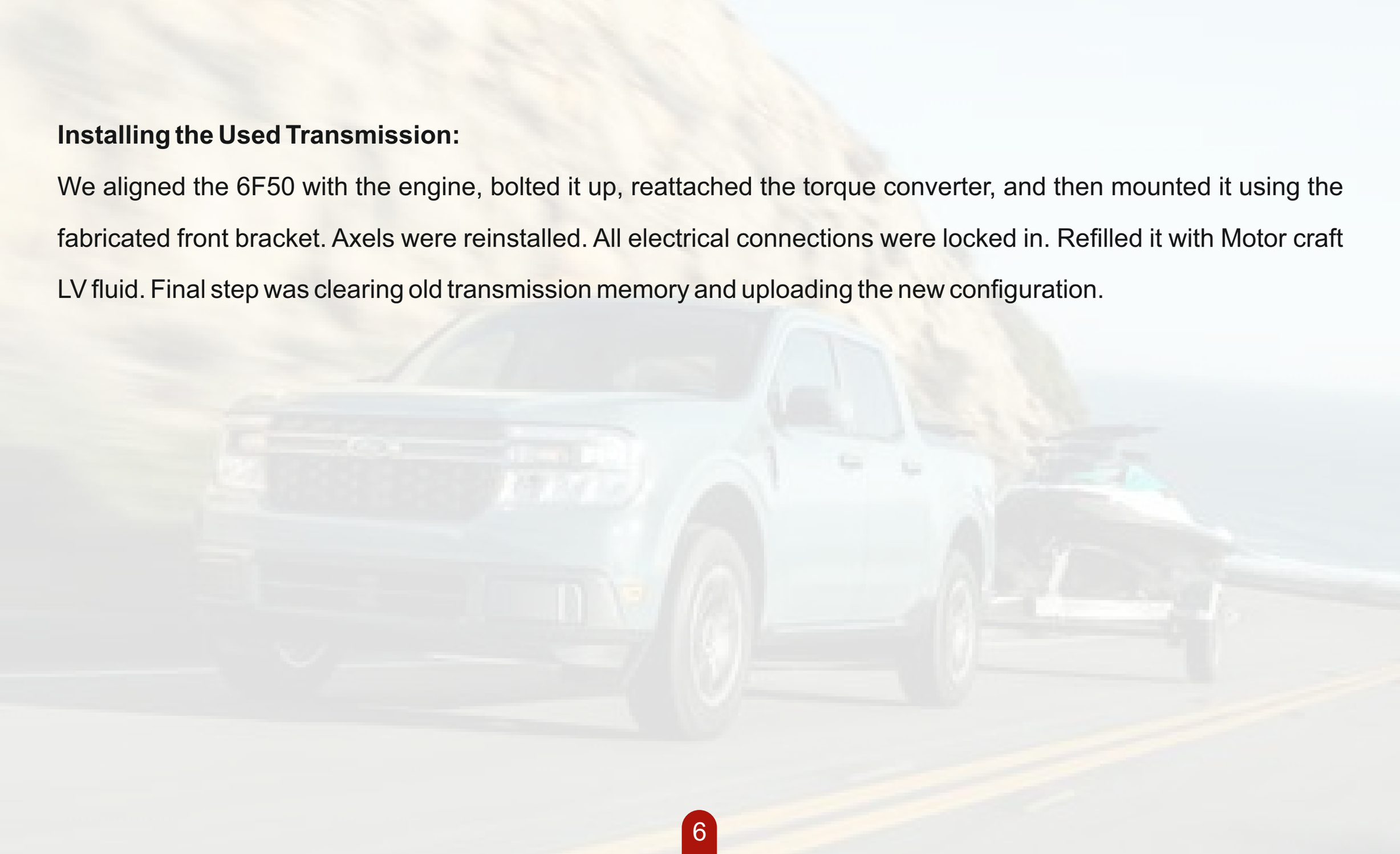
Removing the Original Transmission:
The vehicle was lifted on a 2-post hoist. After removing the battery, airbox, and ECU access panels, we unbolted the transmission from the block and mounts. Driveshaft came out next, followed by cooler lines and wiring harnesses.

Adaptations Made:

- **Custom Mounts:** Front bracket needed a custom steel plate welded and drilled.
- **Driveshaft:** Stock shafts used. Passenger side boot needed repositioning to avoid rubbing.
- **Cooling System:** Used the existing cooler. Fittings matched. New ATF lines routed.
- **Fuel System:** No change required as engine-fuel interface remained untouched.
- **Wiring & ECU:** Wiring loom plugged in directly. However, vehicle wouldn't shift properly without ECU recognizing new transmission. VIN was updated and shift points recalibrated using Ford IDS software.

Installing the Used Transmission:

We aligned the 6F50 with the engine, bolted it up, reattached the torque converter, and then mounted it using the fabricated front bracket. Axels were reinstalled. All electrical connections were locked in. Refilled it with Motor craft LV fluid. Final step was clearing old transmission memory and uploading the new configuration.



Testing & Performance Evaluation

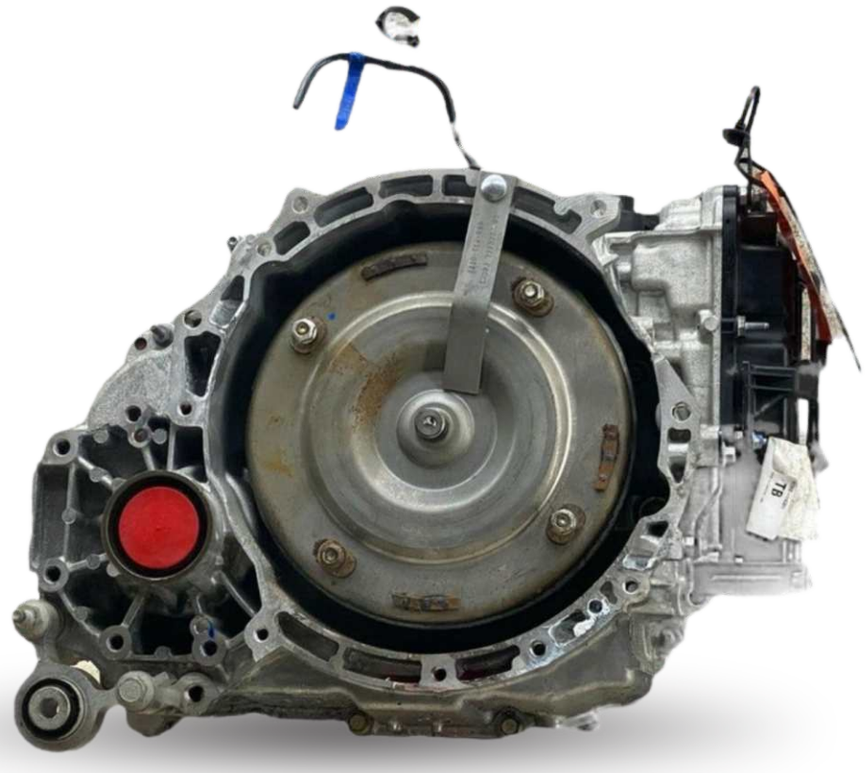
Initial Startup & Tuning:

Startup was clean. No check lights. We let the vehicle idle for 15 minutes to reach temperature, then began shift-learning using a mix of light throttle and braking. Dyno run was skipped, but torque response was checked using live data.

Performance Metrics:

- **Before:** Delayed 1–2 shifts, harsh downshifts, sluggish in reverse
- **After:** Crisp shifts, smoother throttle response, reverse engagement restored
- **Weight Distribution:** No noticeable change

  Daily Driving: Smooth, consistent. Handled load better. No shift flare.
- **Track Use:** Not tested, not required by client



Reliability Check:

No leaks after 3 days & no overheating. Fluid retained its original color after 100 km. No harsh engagement. Engine-transmission behavior was synced well under normal use.

Results & Conclusion

Success Metrics: The project met all the metrics. The new 6F50 transmission gave the Maverick a smoother drive, stronger gear holding under load, and eliminated the problems the client had tolerated for months. No fault codes, no limp mode, and no grinding or shift delays.

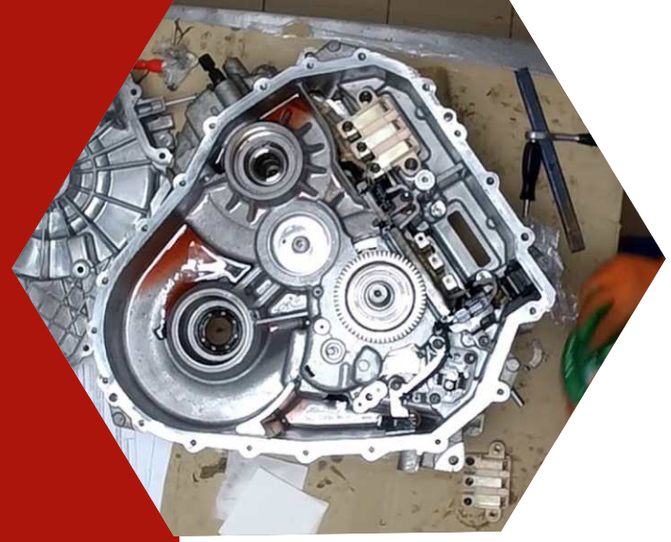
Cost vs. Benefit Analysis: $873 for a used transmission swap is less than half of what a brand-new unit or full rebuild would have cost. The client saved time and money, and got better performance as a bonus.

Final Thoughts: The 6F50 turned out to be a solid upgrade for the 2014 Maverick. The client got their truck back with minimal downtime and no software nightmares. The job was handled with practical planning, clean execution, and parts that actually worked.

Looking for tested, reliable used parts?

gearshiftauto.part supplies verified used transmissions, engines, and driveline components with fitment support, solid pricing, and zero surprises.

Get it right the first time. Only at gearshiftauto.part.



GearShift
AUTO PARTS

Thank You!

For Choosing Our Products

Call 855-475-5657

www.gearshiftauto.parts

info@gearshiftauto.parts