

# XHP DURAMAX CONVERSION KIT

## X-TREME HUMMER PERFORMANCE INSTRUCTIONS

### Step 1

- Remove Hood
  - Remove Exhaust
  - Disconnect battery cables & remove completely.
  - Remove Front & Rear Driveshafts
  - Remove Fuel Tank
  - Disconnect steering shaft from gearbox
  - Disconnect Brake Lines from master cylinder
  - Disconnect Engine & Trans Harness & shift linkage.
  - Remove Body Bolts & Lift Body off of the chassis.
  - Remove old engine and transmission. Including Engine Mounts and Crossmember.
  - Determine which major frame components are to be replaced or rebuilt i.e., suspension, steering and portal boxes.
- \*Optional upgrade: New chassis hardware
- \*\* Recommendation: Have the frame sandblasted and painted to check for rust or damage and inspect all chassis hardware.

### Step 2

Install engine mounting brackets [1] & [2] and transmission cross member [3].

\*Optional upgrades to install at this time: Highly Recommended Air Dog Fuel Lift Pump to be mounted on the frame. Dual-Tank Transfer system. Run Brake lines. Install new suspension and steering components.



[1] DS



[2] PS



[3] + Lift Pump Mounting



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### Step 3

Prep Engine for install. \*It is recommended to replace the following stock engine components. Thermostats, Serpentine Belt, Idler Pulley, Belt Tensioner, Water pump and Glow plugs. (We offer complete maintenance package kits)

\*\*For LML Engines install CP3 conversion kit provided (See Conversion Kit Engine Prep instructions)

Install the following kit parts on the engine: Engine Cooling Fan Blade [22] Thermostat Housing [20], Oil Fill Tube [21], CP3 inlet fitting [28], Ported Fuel-rail fitting [29], Race Valve [30].



[28] CP3 inlet



[29] at DS Fuel Rail (front)



[30] at DS Fuel Rail (rear)

Modify PS Turbo up pipe. Install Y-Bridge [B]. Install new Thermostat Housing [20], Oil Fill Tube [21], Engine Cooling Fan [22]. (Requires Fan Clutch #216017 Car quest)



Modified Up Pipe



[B] Y-Bridge



Y-Bridge vs Stock



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### Step 4

Drive Train Assembly: Bolt supplied engine mounts [14] & [15] to the engine block in OEM location. Attach Transmission mount to transmission (OEM transmission mount not supplied) Install Engine/Transmission into chassis by lowering the drivetrain onto the engine mount brackets and transmission crossmember. Install hardware but do not tighten until final alignment is checked. Install Turbo Downpipe [G] with clamp [25]



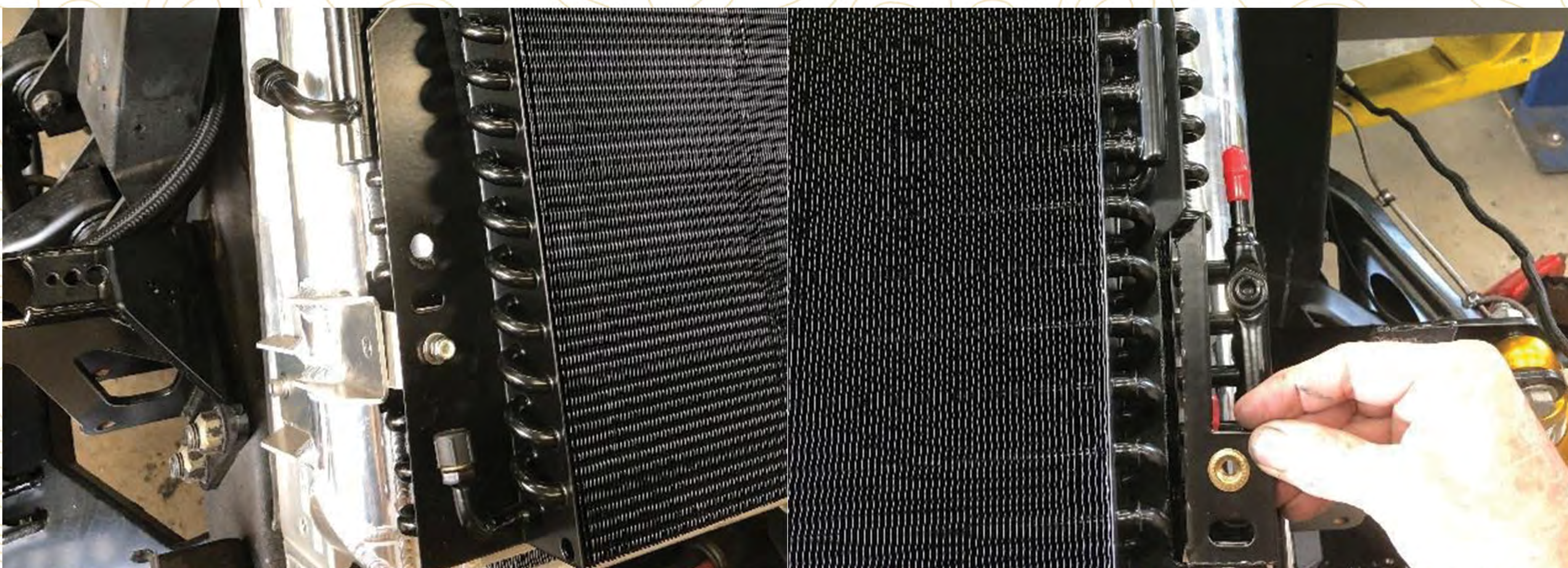
Duramax mounted



[G] & [25] Downpipe installed

### Step 5

Install Cooling Stack: Mount fan shroud to radiator [4], mount intercooler [5] to radiator using bolts provided in mounting kit [6]. Mount radiator/intercooler assembly to stock mounting brackets on vehicle. (these may need to be adjusted for proper alignment). Install intercooler mounting brackets [6] to OEM oil/trans cooler which now serves as trans/power steering cooler. Installing bolts from the bottom up.





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### Step 5 (cont.)

Next Mount trans/ps cooler to intercooler with large fittings on RH side facing down. make alterations to A/C condenser to attach brackets. (We offer new coolers & condenser as well as custom CNC condenser fans w/brackets)

### Step 6

Plumb Engine: Install Lower Radiator Hose Assembly [4], Fabricate and Route Trans cooler hoses and fittings [7],[8]  
Run Fuel system plumbing to lift pump, Install upper hose [26].

### Step 7

Assemble Driveshaft: Install Yoke [10], Conversion U-Joint [11], and Driveshaft boot [27] onto front drive shaft.  
Install Rear Driveshaft [9]

\*\*Check fan clearance and adjust engine position as required. Tighten mounting hardware



[10],[11],[27]

[9] Rear Driveshaft Installed

### Step 8

Lower Body onto chassis: While lowering body down install Body Lift Pucks [12] with provided hardware [13].

\*\*Installing a Duramax into any Hummer or HMMWW that does not have a 6.5L requires the XHP Engine cover to clear the turbo charger. This product can be found on our website.

### Step 9

Install Fuel Tank: First install aluminum spacer blocks [23] to the underside of the body. Next, replace stock straps with provided Fuel Tank Lowering straps [23].



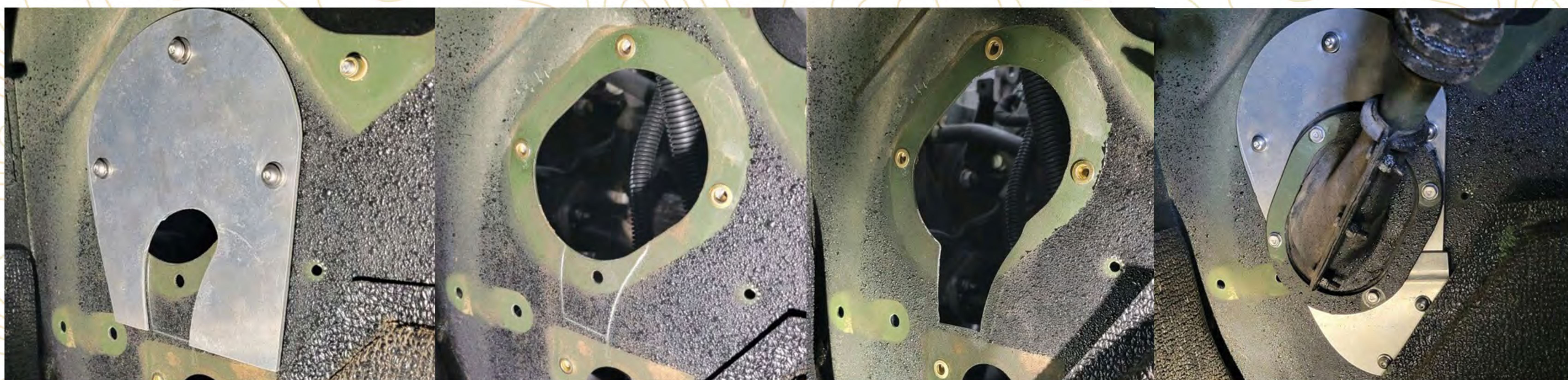
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### Step 10

Body modifications:

- Use steering shaft cover plate [16] to mark shaft opening
- Enlarge steering shaft opening.
- Install Steering Shaft Cover Plate [16]
- Install Gas Pedal Mounting Bracket [17], Hood Hinge Riser Block [19] with spacers [24], Hood Latch Spacers [18]



[16] Mounted

Firewall marked and modified

[16] Installed

### Step 11

Finish Engine Assembly, install:

- DS Intercooler Tube [C],
- PS Intercooler tube [D],
- Cold Air Intake [E],
- Turbo Inlet Pipe [F].

