

Restoration Project Description

Land Rover Santana IIa Series 88

February 2022 through October 2023

CHASSIS STRUCTURE

The truck was fully restored starting in February 2022 through October 2023. We carried out a frame-off disassembly of the full cabin and body, and the full chassis was sandblasted to remove rust from the structure. To ensure a full chassis restoration to new vehicle conditions, we replaced, repaired or reinforced structural segments employing Mig and Tig welding techniques where appropriate. We replaced the rear crossmember and crossmember bellhousing with custom-fit, replicated parts and reinforced and restored the pad bump stops.

MOTOR

We removed and fully disassembled the engine for specialized rebuild at a certified vertical mill shop including installation of new accessories and internal components: camshaft, engine sleeves, STD pistons with rings, exhaust and cylinder head valves, intake valves cylinder head, exhaust valve guides, intake valve guides, engine connecting rod bushings, set of adjusting half-moons, valve guide rubbers, engine gasket, crankshaft seal, cam cover seal, flywheel motor bushing, set of caps and connecting rods, set of Kran caps. See videos here of discussion with mill shop technicians about [replacing the camshaft](#) and another [detailing the engine](#), both with clear images of internal components.

The crankshaft was swapped with a restored, newer one with more usable life in it, along with the, connecting rod of the engine, with close-up [photo of newer, installed crankshaft here](#).

Engine was fully tested with engine compression results touching 120 across all four pistons, [with video link here](#).

BODY AND CABIN

As part of the frame off restoration, we fully removed the body and repainted it sectionally in a high quality polyurethane yellow finish developed by a professional colorist. Inspired by the off-road race, the body color is a modern take on the vintage Land Rover Camel Trophy Yellow. We custom-fit new metal oxide tinted glass for the front windscreen and side windows, with new seals and trims. We installed new aluminum zinc-coated window locks and trims, and installed newly restored original door locks. We restored the truck's steering wheel and the transmission tunnel cover. We custom-made the following structural pieces in aluminum: back door talboard, full front wing fenders, on both truck front sides interior door panel plates, top door assembly, internal mudflap plates, and a rear angle mounting for the floor board. We purchased from a national authorized Land Rover distributor a new bonnet (front hood) safety assembly including the striker and catch, and internal grease seals for the axles. In the body reassembly process, we ensured a straight body line from the truck's front wing fenders along the doors, rear end panel to the tailboard. We replaced over 90% of the truck's hardware with a combination of new hardware along the whole truck body, and freshly zin treated, refurbished original Santana hardware specifically along the hinges of the doors. The truck is fitted with new Hankook Dynapro MT LT 245 / 75 R16 tires.

SUSPENSION

We carried out a complete suspension disassembly and repair, including replacement with new spare parts: Clips, clamps and screws, long spring bases, series suspension, chassis bushings, spring bushings, front and rear spring clip kit, short pins, long pin bushings, safety nuts. We also carried out a full suspension alignment. Replacement of bolts, thread repair, nuts and washers to give adjustment to the bodywork. We refurbished the driveshaft and replaced the universal joint of the driveshaft to reduce clicking and improve traction.

BRAKES

Full maintenance of brake drum with new bands, swapped in new brake cylinders, plates, lines and hoses, replaced all suspension bushings, joints, belts, springs, bearings, and replaced brake, clutch and accelerator pedal springs. We installed a new brake booster, and carried out a full fluid change (brakes, hydraulics, gearbox).

TRANSMISSION

We installed hydraulic power steering, carried a full maintenance and calibration of gearbox and transmission with new seals and fluid change.

ELECTRICITY

We carried out a full brand new electrical harness installation. We ran new wiring using Centelsa brand cables. Purchased from our authorized distributor, we installed a Torica ignition switch, Bearmach new assemblies for halogen headlamps, number plate lamp, flasher lamps, stop tail lights assemblies (bulbs, grommet, bowls, lens ect...), and new panel light switch, relays, Lucas fuse box, and hardware (connectors, screw, sealing bushes, tie cables ect...). We fully tested and restored the instrument panel (speed, battery charge, and temperature gauges). We also installed and fully tested a power inverter mentioned above, and a brand new Eveready 1100 AMP battery, newly fitted..

The engine ignition and starter electrical parts and components were fully tested, and the engine synchronized in coordination with the engine specialists working on the truck, replacing the wiresets and spark plugs. We installed new Torica windscreen wiper motors and arms/blades assemblies.

ACCESSORIES

Lastly, in terms of accessories, we restored all of the truck's metallic trims with new or newly restored zinc-coated or galvanized pieces based on their intended use and exposure to moisture. From Rimmer Bros, in January of 2023 we installed a new sand canvas color Exmoor full hood (soft top), and custom-made the hardware assembly (hood supports and sticks). Purchased

from our authorized distributor, we installed a new retaining strip, rear clamps, rope tie downs, strap staples and screws. We custom made aluminum side valance panels, and a tailboard (tailgate) and its accessories (locking plate, hinges, hooks, chain). Installed a new loaded ball mount for the hitch.

Purchased from our authorized distributor, we installed new round external side mirrors and a rectangular rear-view mirror, new Britpart rubber pedal cover kit, external seal protector for gear shifter and four wheel drive levers, new ventilator pins and screens, and we restored the toolbox hinges.

We custom-made real high quality leather upholstery for the original front split-bench and rear cargo-area inward-facing jump seats. We sandblasted and painted all five wheel rims in electrostatic paint with new Britpart grease caps. We swapped out the old exhaust for a new silencer, front exhaust, and tail pipe, all manufactured in stainless steel to prevent discoloration over time. We also custom-made and fit a foldable and easily removable leak wood floor panel for the back bed.

We kept a close eye on Land Rover Santana originality and heritage, installing bronze door hinge pin kits, new rivets across the full body true to original design, we custom-made new original Land Rover and Santana nameplates and door screws featuring the emblematic engraved A from Metalúrgica de Santa Ana.