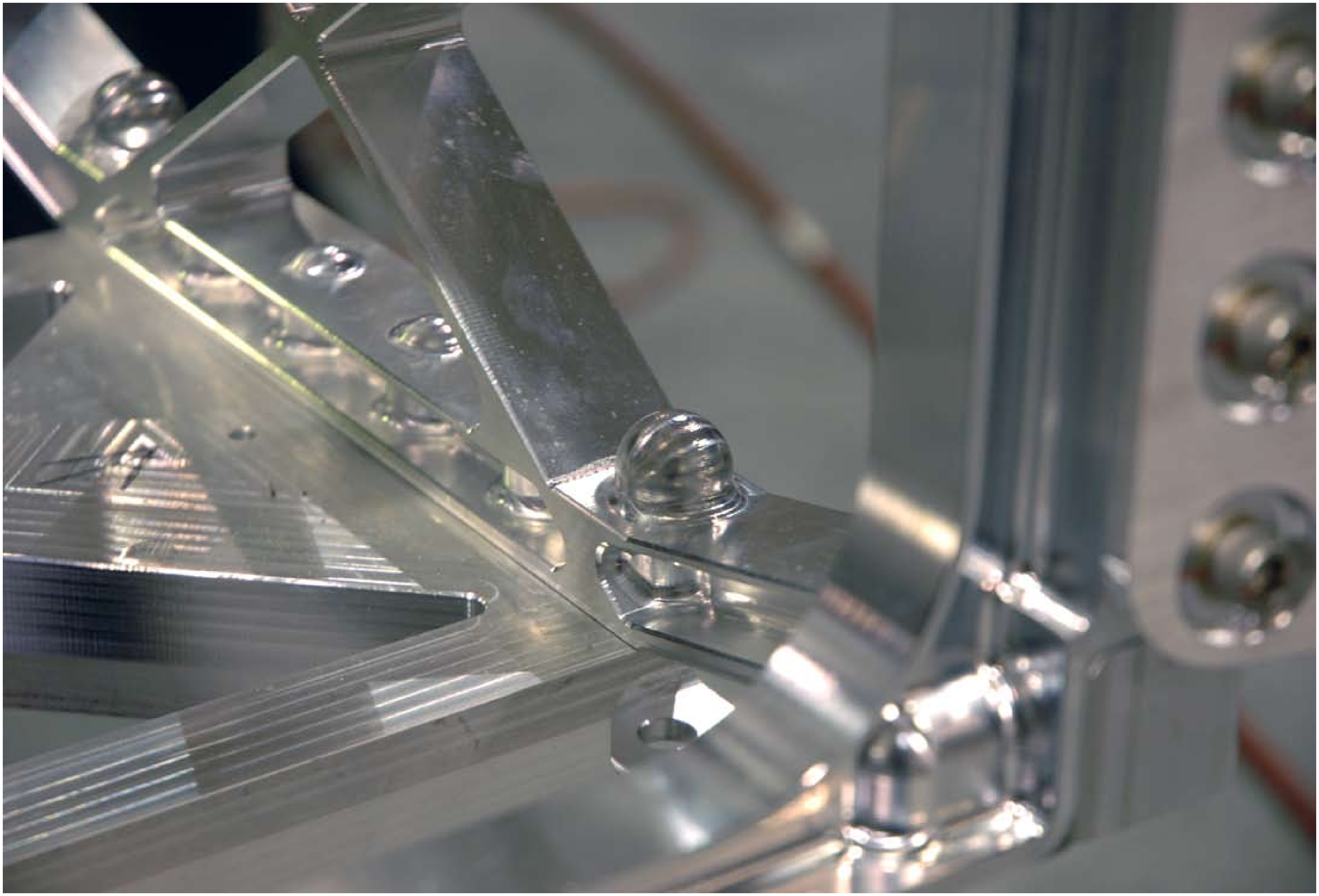
VERTICAL CHASSIS BUILD

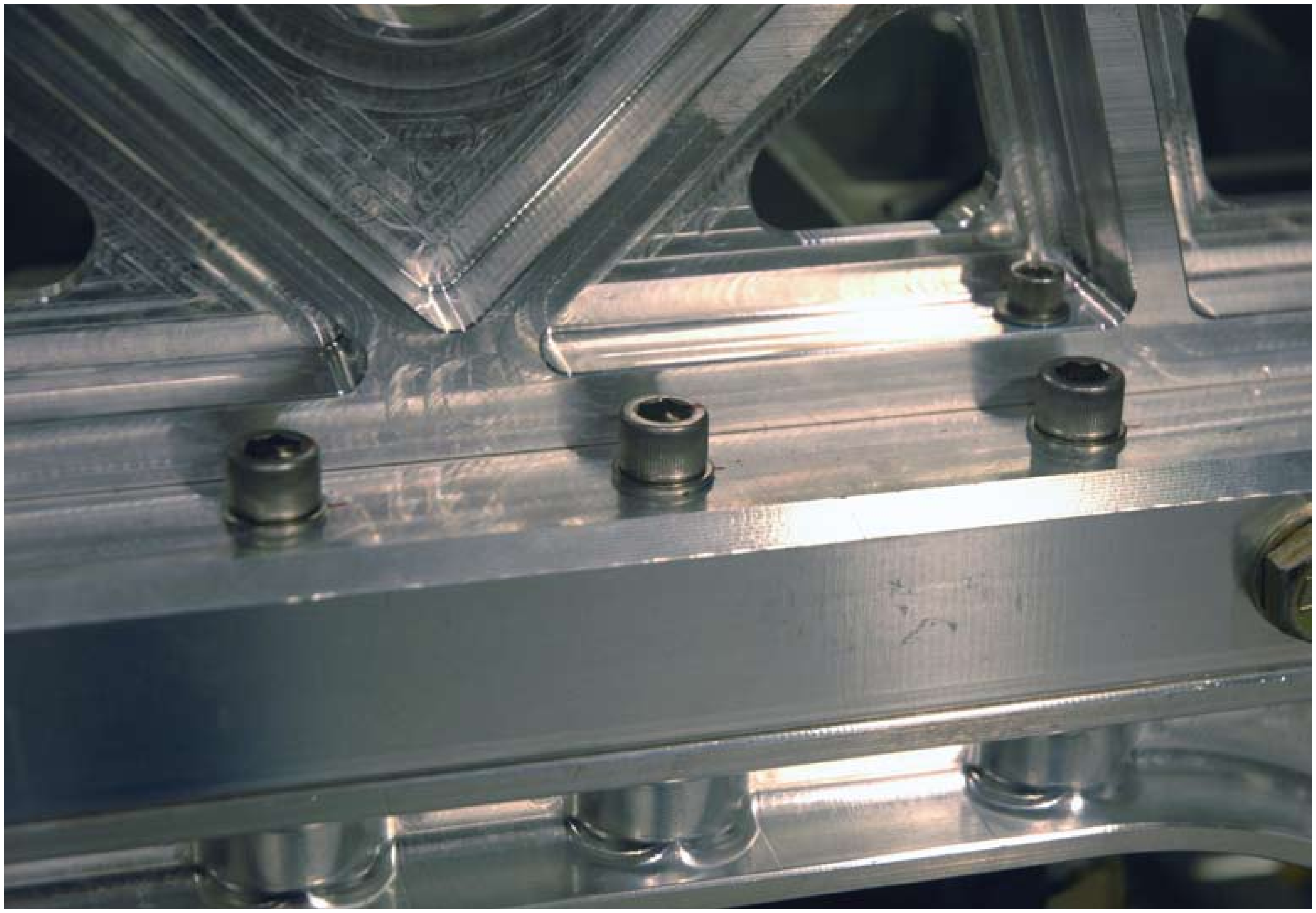
The difference between the impossible and the possible lies in a man's determination.

Tommy Lasorda



Front suspension box. Bosses were machined into the chassis wherever a bolt was used. The wall around the bolt was held to 1/4 inch—the same thickness as the webs throughout the chassis.

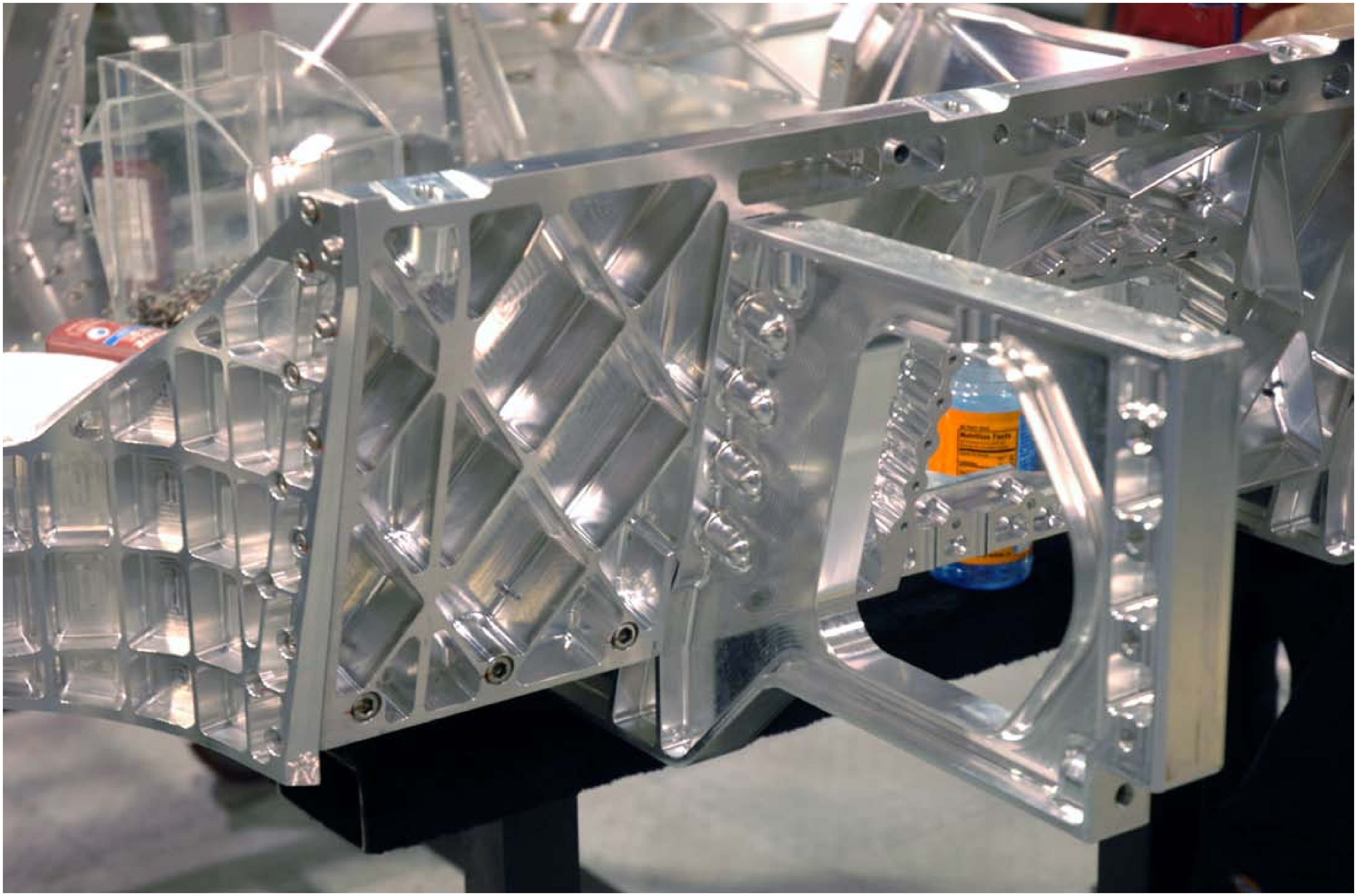
Front suspension box. The large stiffening plate in the lower left of the picture carries the loads from the front suspension to the footboxes.



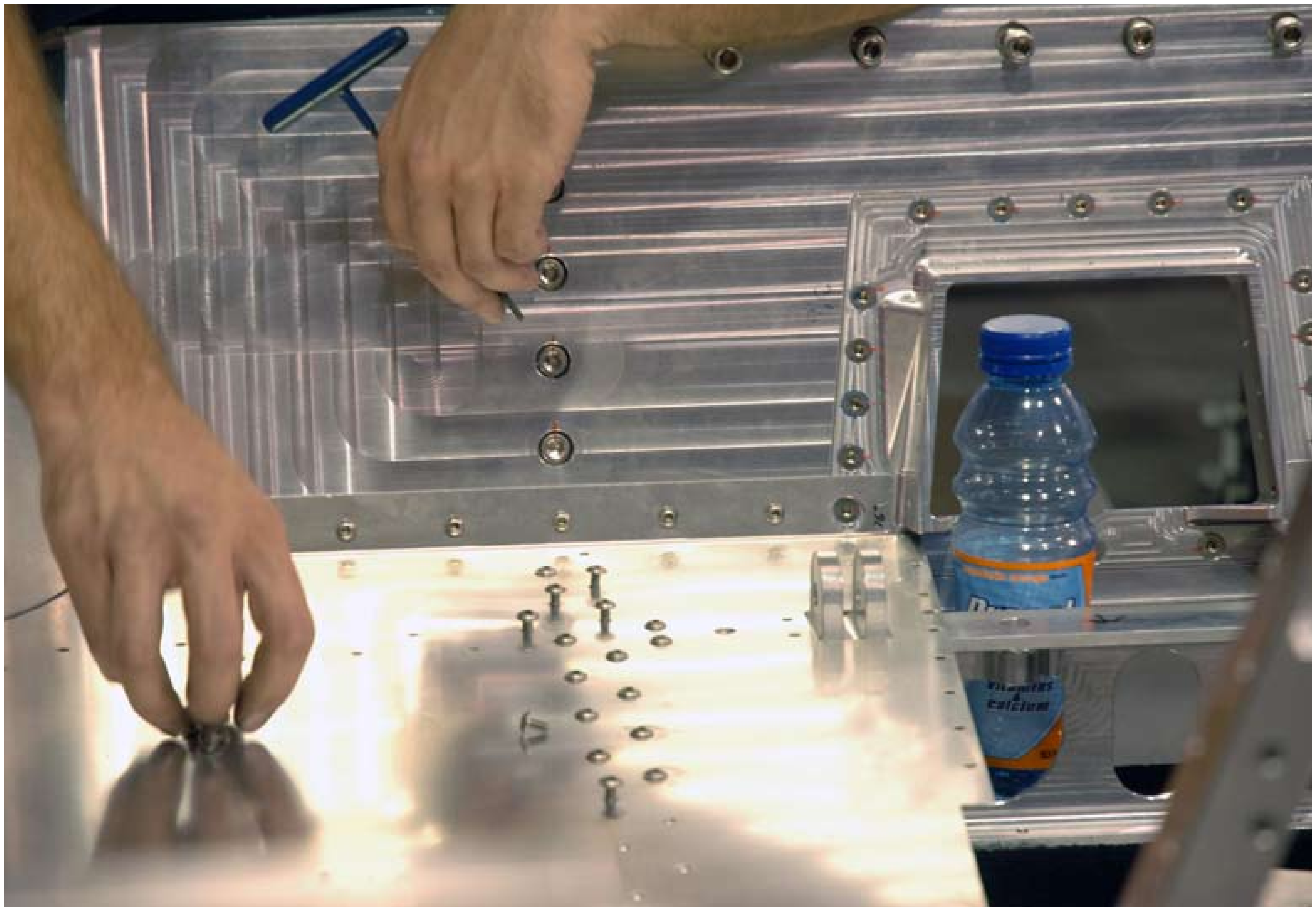
Stainless steel bolts and washers were used throughout the final chassis in all non-critical areas. We used aircraft fasteners in critical suspension applications.

The plate under the door sill was one of the first parts I drew on a piece of paper when we started this project. I knew that to increase chassis stiffness we had to move as much material as possible away from the neutral axis of the chassis. The only place to hide it was in the rockers.

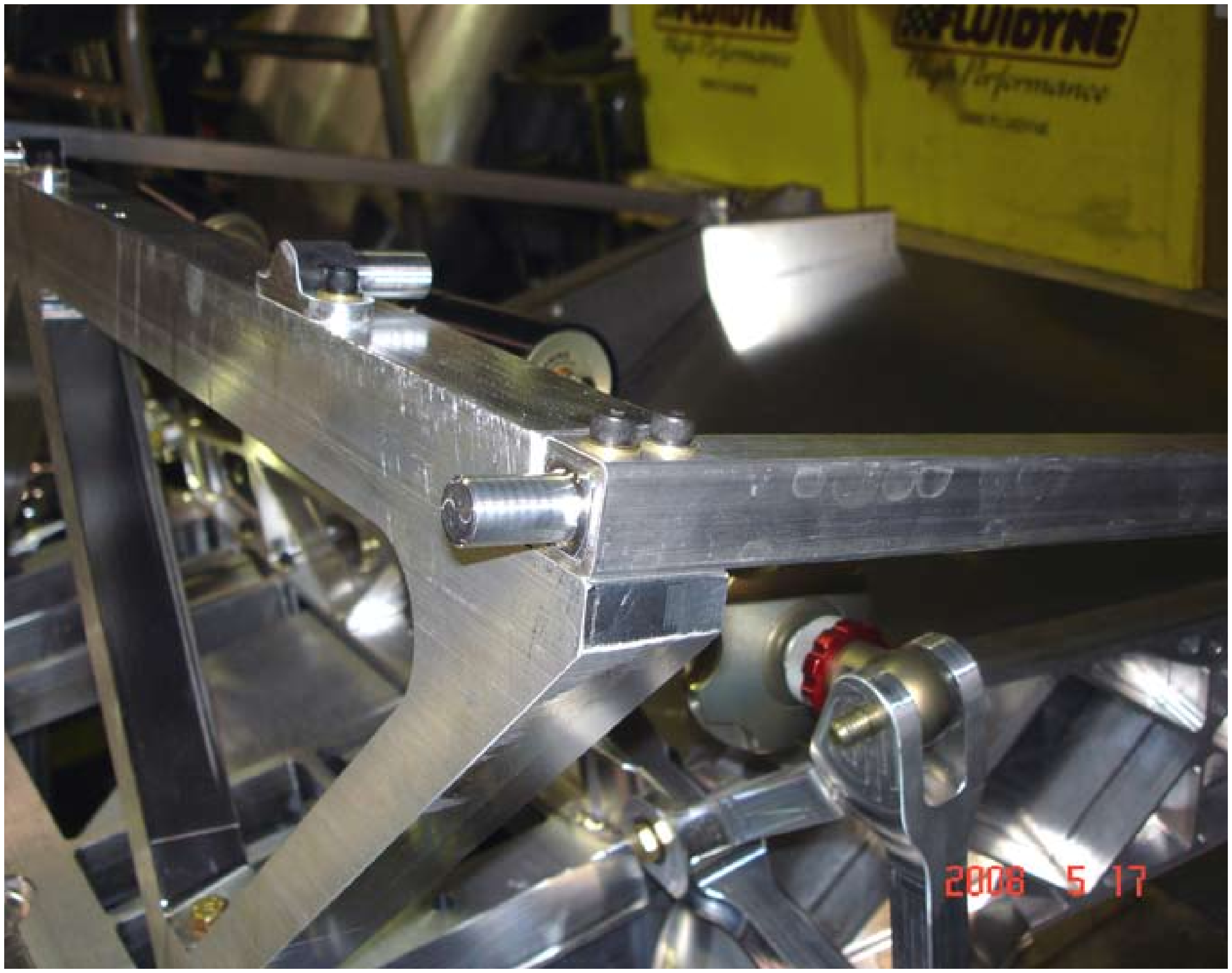
The bowl-shaped tub with tall rocker plates helped to stiffen the chassis.



This is a shot facing forward—looking at the back side of the rear bulkhead. Notice all of the material that was removed to save weight. Also, notice the stainless steel bolts; this is the actual chassis we delivered.

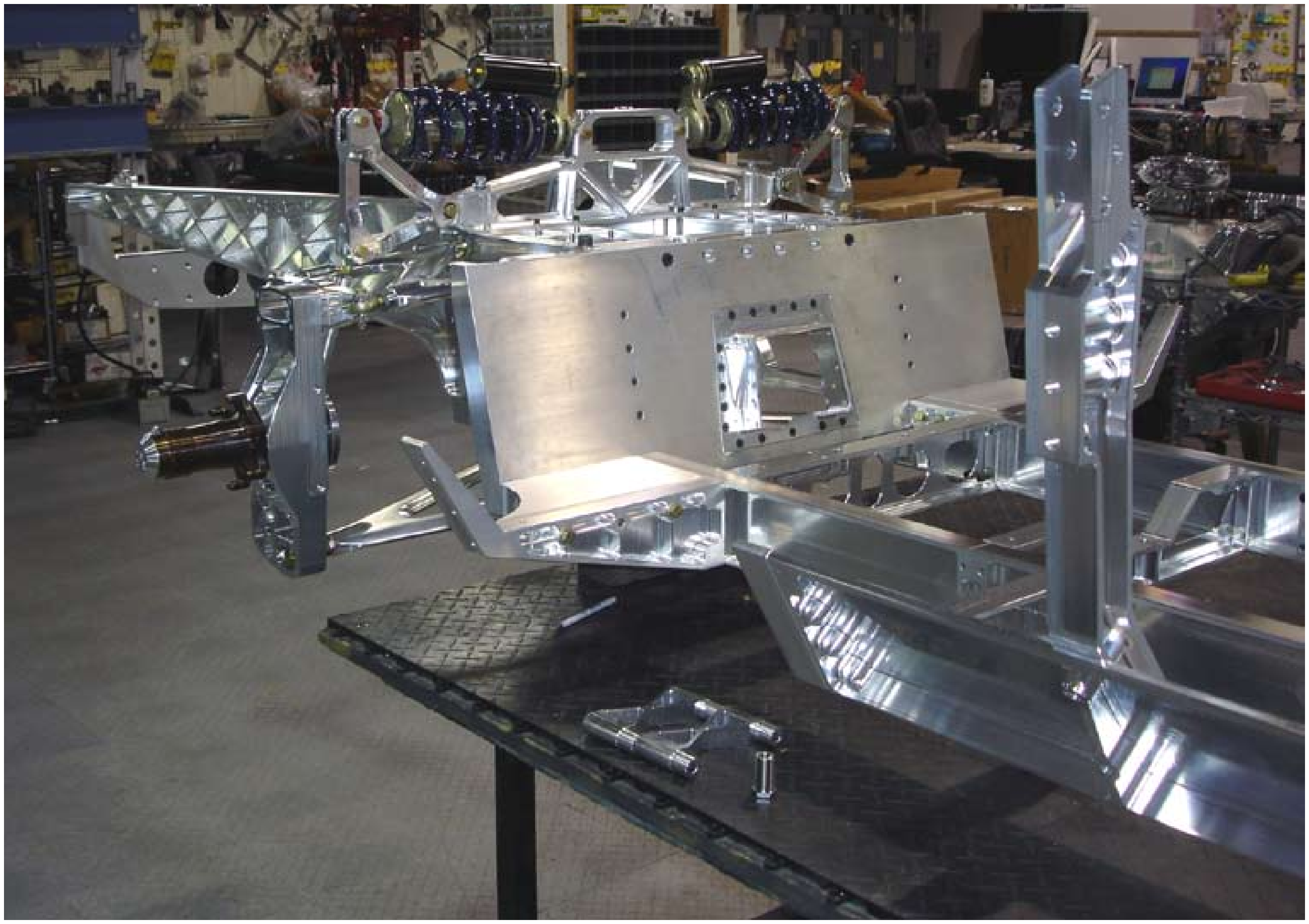


There were thousands of bolts in the car—every one had to be put in by hand and properly torqued.



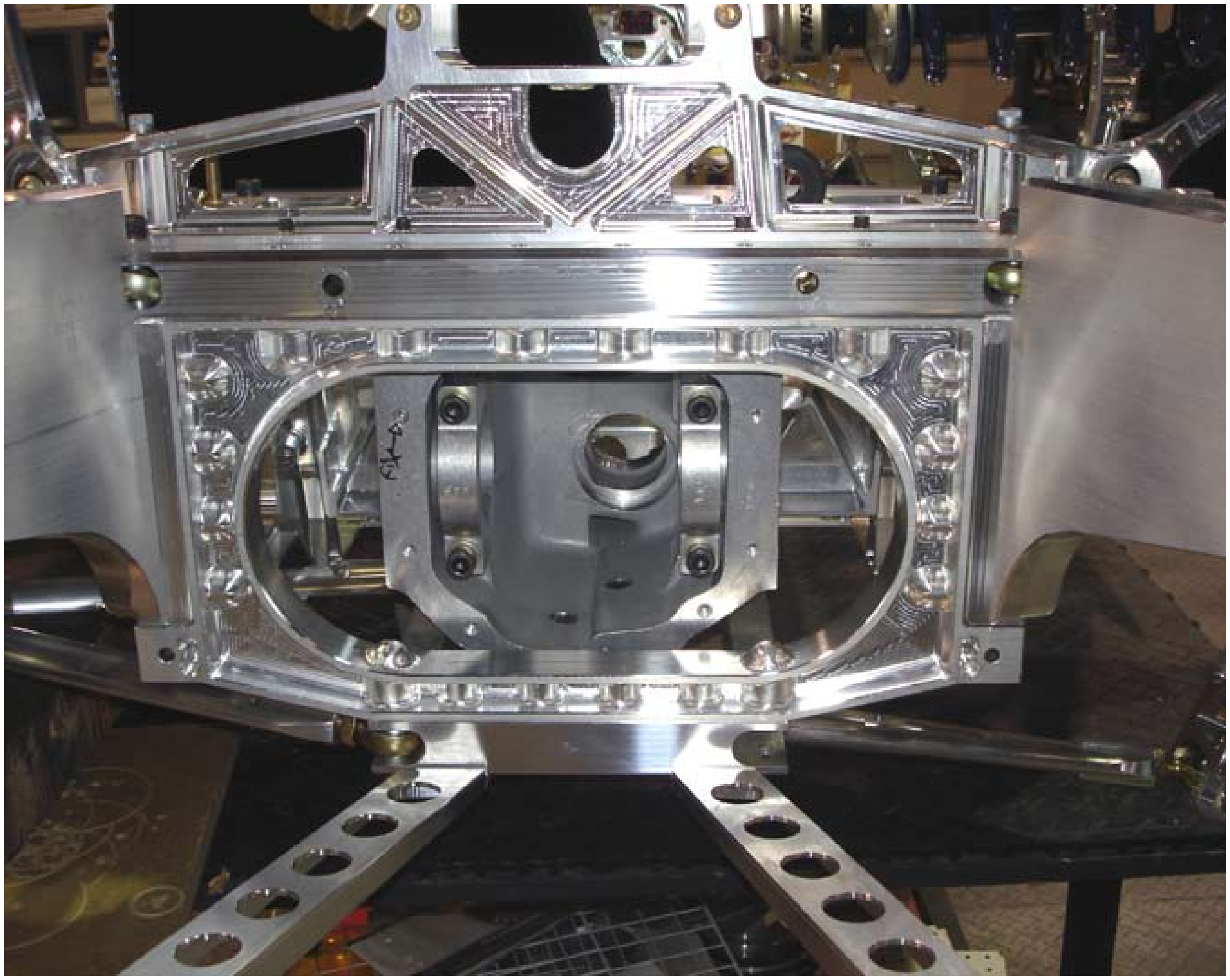
Many little parts had to be made to join pieces together. This adapter connects the round substructure tubes of the body to the chassis.

One of the critical parts is the cowl. The doors hinge on the cowl and the windshield bolts to the cowl structure.



Fitting the rear suspension to the chassis.

These large arms form the sides of the trunk and also must support the car when it is picked up by the jack hooks.

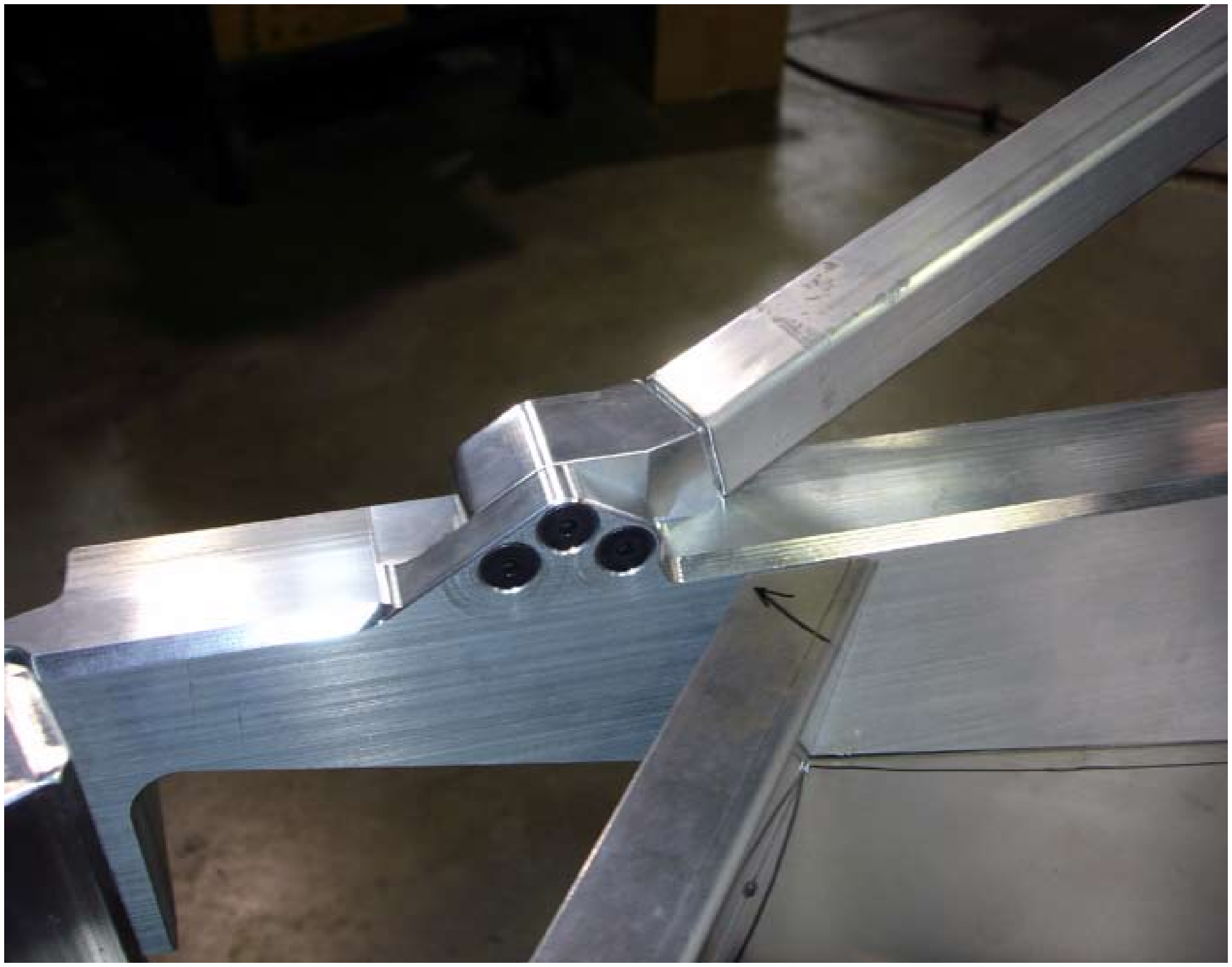


Looking from inside the trunk toward the differential. We mounted a bare differential case in the chassis to check clearances. You can also see the gas tank straps coming out just under the differential.

Once the suspension was installed, we ran it through its full range of motion to make sure nothing bound up.

This shot is taken from the rear of the car looking forward. The side arms actually form the sides of the trunk—again, the "sheet metal" was milled directly into the parts to make them as stiff as possible.

The jack hook bolts directly to the chassis.

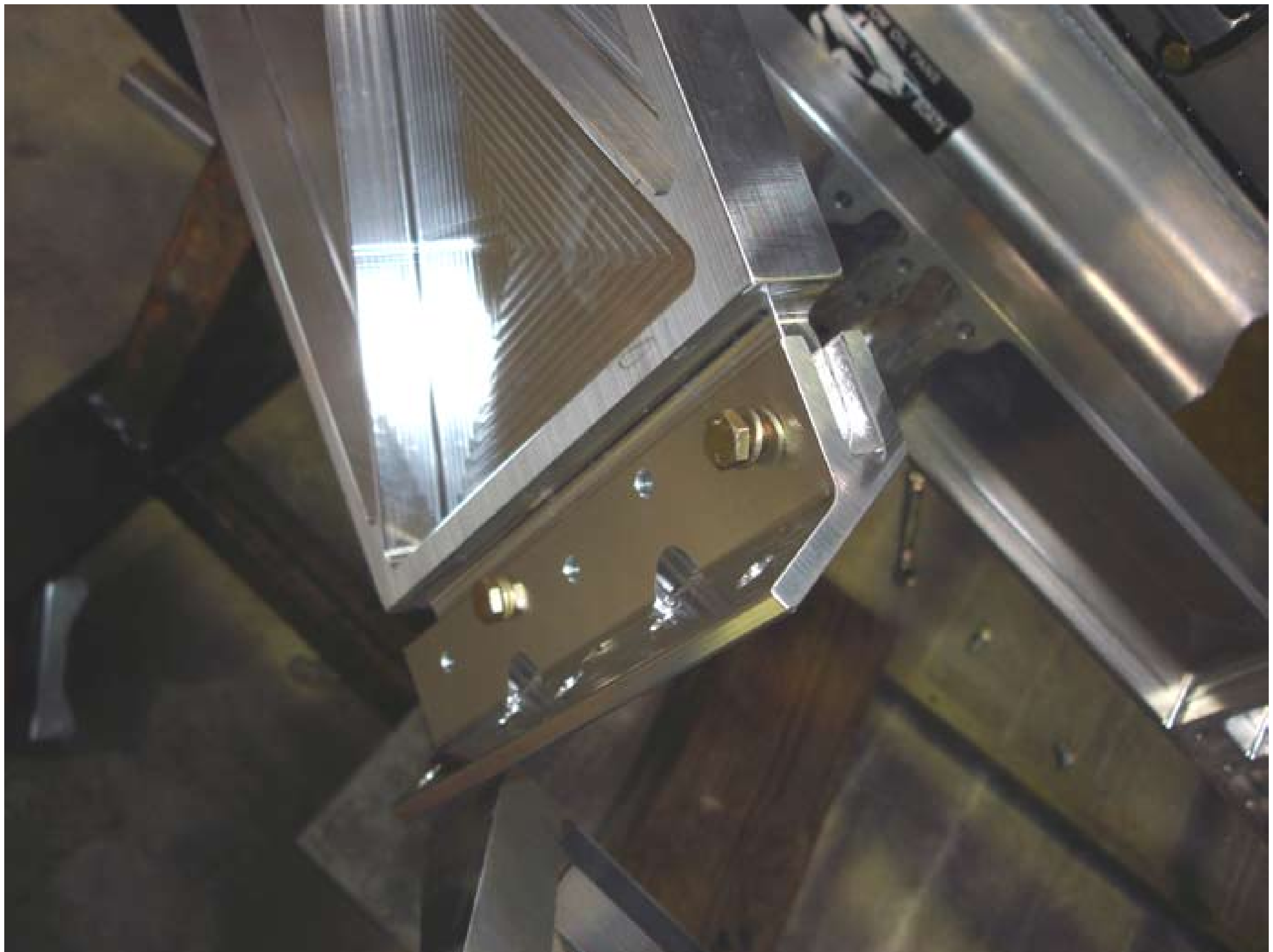


Many parts had multiple angles machined into them to accommodate the myriad angles of the chassis. This bracket is the rear support for the main "W" bracket that supports the entire rear substructure. The square tube was later welded to the bracket.

Wherever possible, we made every bracket have multiple functions. This bracket holds the gas tank strap on the bottom. The trunk substructure tubes are welded to the top.

The trunk floor is being installed. The trunk floor bolts to the bottom of the large side arms.

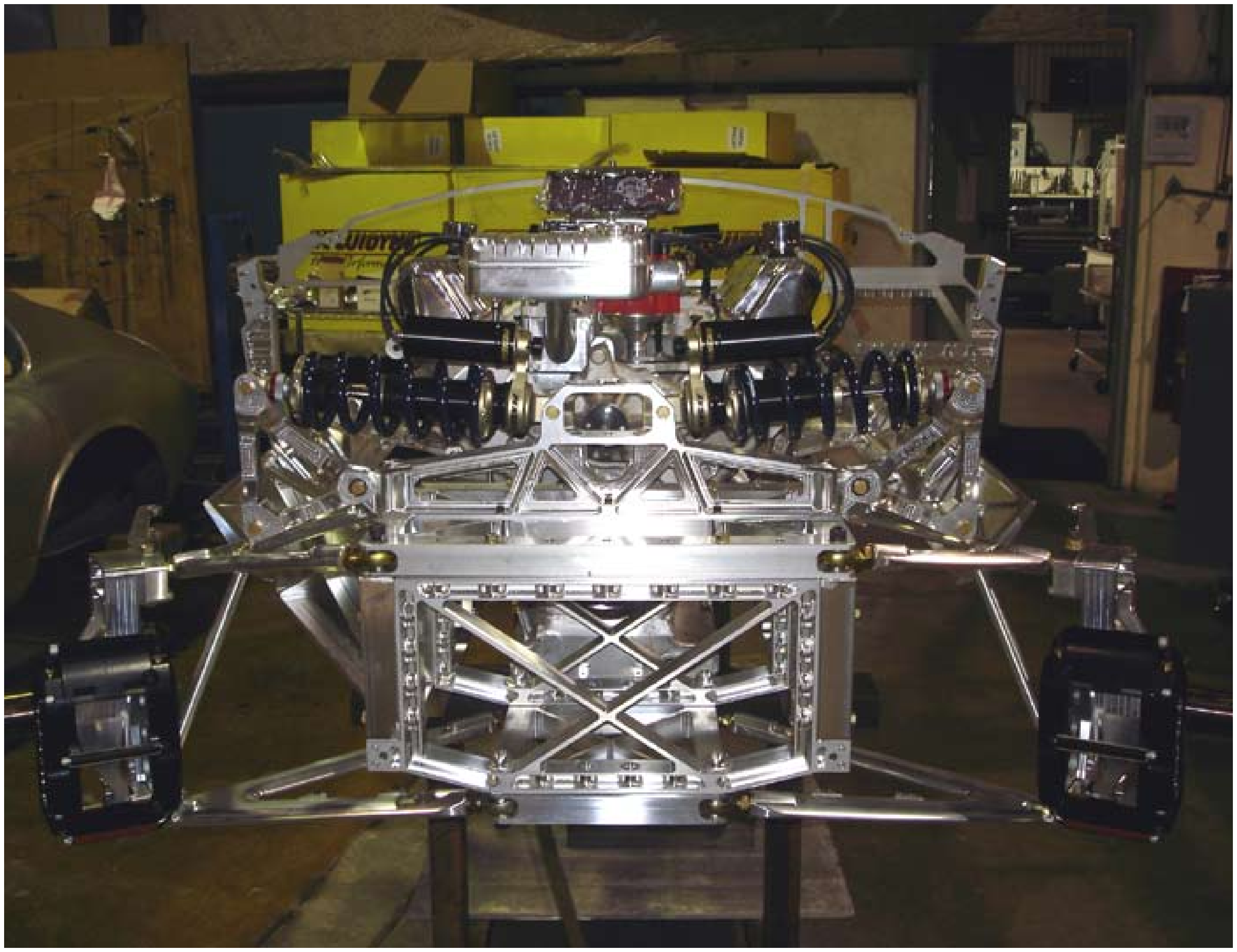
Many different angles and planes came together perfectly to make the front jack hook support.



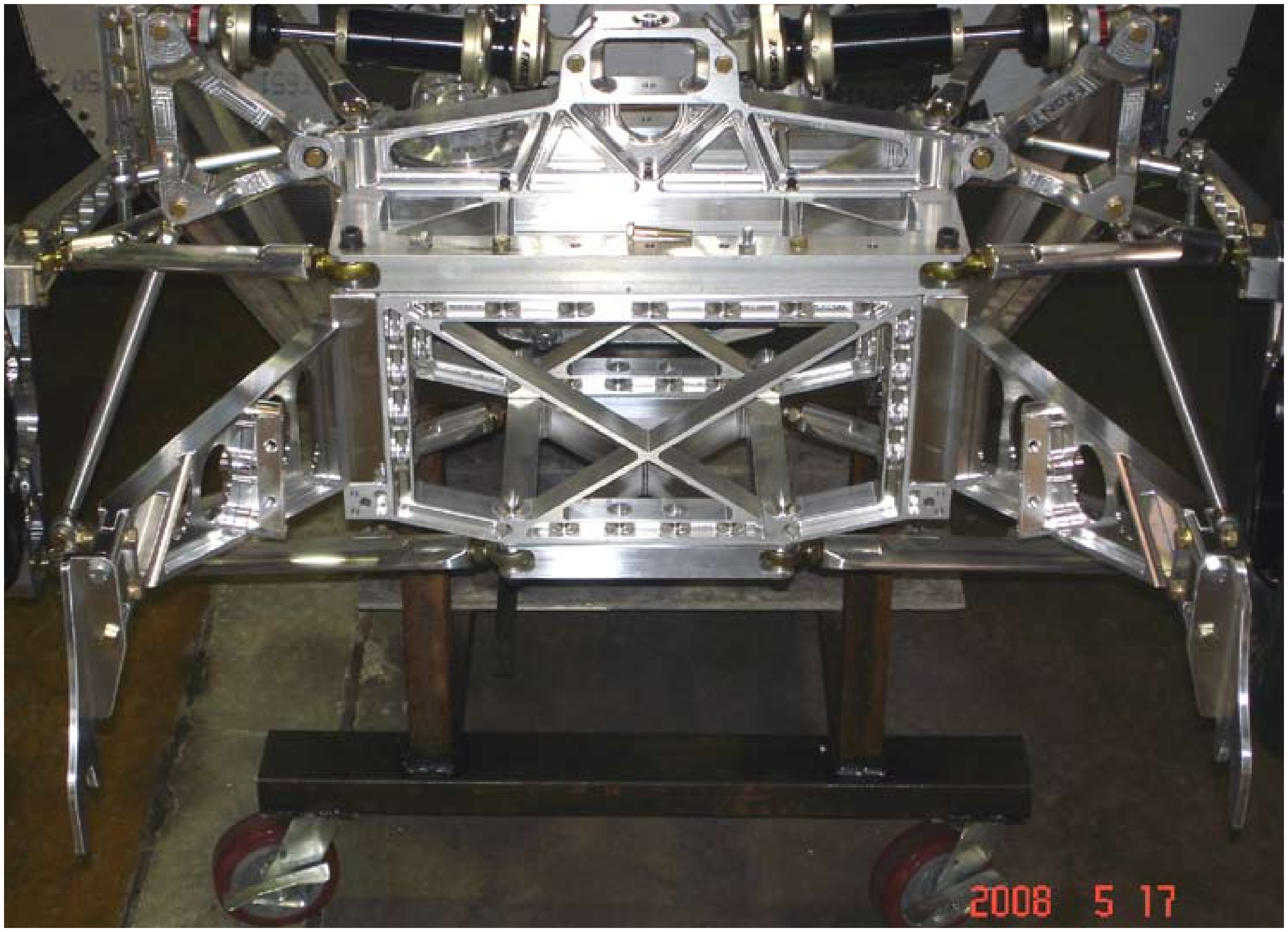
This bracket connects the stiffening side plates from the front suspension box to the footbox.

In the center of the chassis, you can see our nod to the original chassis with our billet "down tubes." Just like the original chassis, they connect the cowl structure to the main frame rails. This shot is taken from the rear, looking forward.

Here you can see plates under the door sills and the side cowl pillars that will support the door hinges. This shot is taken from the front—looking rearward.



The front suspension box is heavily gusseted to minimize any flexing as the suspension loads the chassis.



Front chassis arms that support the radiator and front jack hooks.