

1

00:00:00,000 --> 00:00:07,540

I know it looks like we have fun on this show, but we spend weeks and sometimes months planning how to do our myths safely.

2

00:00:07,540 --> 00:00:10,540

So please, don't try this at home.

3

00:00:15,180 --> 00:00:17,340

On this episode of Mythbusters,

4

00:00:19,220 --> 00:00:22,020

it's an evolution revolution.

5

00:00:23,940 --> 00:00:27,220

As the team takes five fan favorites and

6

00:00:28,160 --> 00:00:31,680

and focuses on a fascinating new facet for each.

7

00:00:33,180 --> 00:00:37,840

First, Adam and Jamie give Waterheater Rocket a whole new story.

8

00:00:38,620 --> 00:00:43,860

Then they think outside the box with the Hollywood car classic hanging there.

9

00:00:45,460 --> 00:00:50,340

Meanwhile, Carrie Grant and Tori pick a cool coda to liquid nitrogen.

10

00:00:50,780 --> 00:00:51,900

Cups are on their way.

11

00:00:52,200 --> 00:00:57,580

Then they take a tangent with Bend a bullet, turning it into the myth of the corner shot.

12

00:00:58,480 --> 00:00:59,280

Mama like it.

13

00:00:59,680 --> 00:01:06,280

And finally they focus on the missing link of snow plow split with some rocket powered evolution.

14

00:01:15,780 --> 00:01:17,120

Who are the Mythbusters?

15

00:01:18,360 --> 00:01:19,320

Adam Savage.

16

00:01:19,380 --> 00:01:20,640

I'm ready to go, man.

17

00:01:21,120 --> 00:01:22,320

And Jamie Heinemann.

18

00:01:24,360 --> 00:01:28,200

Between them more than 30 years of special effects experience.

19

00:01:30,120 --> 00:01:30,800

Joining them,

20

00:01:31,760 --> 00:01:32,600

Carrie Byron,

21

00:01:34,560 --> 00:01:35,720

Grant Imahara

22

00:01:37,260 --> 00:01:38,520

and Tori Bellachy.

23

00:01:39,880 --> 00:01:41,320

They don't just tell the myth.

24

00:01:42,060 --> 00:01:43,960

They put them to the test.

25

00:01:49,320 --> 00:01:52,320

Myth Evolution. What are we testing Darwin?

26

00:01:52,320 --> 00:01:54,000

Darwin doesn't need our help.

27

00:01:54,000 --> 00:01:59,320

This episode is called Myth Evolution because it has to do with the fact that every time we air a new episode of Mythbusters,

28

00:01:59,320 --> 00:02:04,200

hundreds, thousands of fans write to us to comment on that episode.

29

00:02:04,200 --> 00:02:06,720

Yeah, a lot of them just want to tell us what we got wrong.

30

00:02:06,720 --> 00:02:11,000

Some of them want to say things we screwed up. Others want to suggest other tests we missed.

31

00:02:11,000 --> 00:02:12,920

And some of them want to say things we screwed up.

32

00:02:12,920 --> 00:02:15,000

Others want to suggest other tests we missed.

33

00:02:15,080 --> 00:02:16,800

And some of them want to say things we screwed up.

34

00:02:16,800 --> 00:02:19,280

Others want to suggest other tests we missed.

35

00:02:19,280 --> 00:02:23,080

And some of them just want us to go down different tangents of stories we've already done

36

00:02:23,080 --> 00:02:25,800

because they have other ideas about things we could explore.

37

00:02:25,800 --> 00:02:27,680

Okay, well, what's on the roster?

38

00:02:27,680 --> 00:02:32,560

Well, we do have an evolution of the hanging on the roof of a car story.

39

00:02:32,560 --> 00:02:35,000

But first up is Water Heater Rocket.

40

00:02:36,000 --> 00:02:39,600

In one of the all-time most memorable myth-busting moments,

41

00:02:40,960 --> 00:02:44,480

Adam and Jamie confirmed that in a worst-case scenario,

42

00:02:45,000 --> 00:02:49,080

a water heater could blast through your roof like a rocket.

43

00:02:49,080 --> 00:02:51,520

Did you know what was lurking in your basement?

44

00:02:52,480 --> 00:02:57,480

But fansite message board murmurings have moved this myth to the next level.

45

00:02:57,480 --> 00:02:58,520

Literally.

46

00:02:58,520 --> 00:03:02,600

Not only have you demanded a two-story extension to the story,

47

00:03:02,600 --> 00:03:06,920

you also want to know exactly how high a water heater can fly.

48

00:03:08,200 --> 00:03:10,680

So how are we evolving Water Heater Rocket?

49

00:03:10,680 --> 00:03:15,880

Well, last time we successfully demonstrated that a water heater under the worst-case scenario

50

00:03:15,880 --> 00:03:20,200

can actually behave just like a rocket and shoot up through the roof with one story house.

51

00:03:20,200 --> 00:03:21,840

And a lot of fans complained about that.

52

00:03:21,840 --> 00:03:27,000

They said they lived in two-story houses and that simple fact might have changed our results.

53

00:03:27,000 --> 00:03:31,640

Okay, well, let's build the two-story house and do it to California Code, see what happens.

54

00:03:31,640 --> 00:03:35,440

Now, hold on. Before we do that, I think we actually have some important questions to answer

55

00:03:35,440 --> 00:03:39,440

in terms of the energy involved, the speed the hot water heater left the ground at,

56

00:03:39,440 --> 00:03:41,040

and the total height that it went to.

57

00:03:41,040 --> 00:03:44,720

As I recall, we got up to about 500 feet on that last one.

58

00:03:44,720 --> 00:03:47,040

Yeah, it turns out there's some dispute about that.

59

00:03:47,040 --> 00:03:49,200

And because it's a burning question of the fans,

60

00:03:49,200 --> 00:03:53,600

I think we should answer it by setting a hot water heater out with nothing for it to go through,

61

00:03:53,600 --> 00:03:57,040

nothing in its way, and accurately see how high it goes.

62

00:03:57,040 --> 00:03:57,920

I love it. Let's go.

63

00:03:59,120 --> 00:04:02,960

So it's Water Heater Rocket Part 2 in two parts.

64

00:04:02,960 --> 00:04:05,280

Can the rocket make it through two stories?

65

00:04:05,840 --> 00:04:07,280

This place is great.

66

00:04:07,280 --> 00:04:08,240

Works for me.

67

00:04:08,240 --> 00:04:12,560

But before that, the boys need that controversial altitude answer,

68

00:04:12,560 --> 00:04:16,720

which has brought them to an all-new detonation destination.

69

00:04:16,720 --> 00:04:23,280

I'm standing smack dab in the middle of 240 square miles of methane-producing landfill,

70

00:04:23,280 --> 00:04:26,080

actually waste management's ultimate landfill, to be exact.

71

00:04:26,080 --> 00:04:30,080

And if you throw some trash out in San Francisco, this is where it ends up.

72

00:04:31,120 --> 00:04:34,960

It's the perfect place to launch this stripped-back household heater

73

00:04:34,960 --> 00:04:38,880

and confirm once and for all how far and fast it goes.

74

00:04:40,080 --> 00:04:44,400

This still can right here is actually the pressure vessel at the heart of your average

75

00:04:44,400 --> 00:04:46,320

household hot water heater.

76

00:04:46,320 --> 00:04:50,800

We are going to pressurize it until it explodes in hopes that watching it explode like this

77

00:04:50,800 --> 00:04:53,600

will illuminate some of its performance characteristics.

78

00:04:53,600 --> 00:04:58,400

And the recipe for that all-important explosion is the same as last time.

79

00:04:58,400 --> 00:05:04,480

Seal off all of the safety release valves, give it a hot rod paint job, add water,

80

00:05:04,480 --> 00:05:09,760

turn on the power, add some blankets to hurry the heating, and sit back and wait.

81

00:05:09,760 --> 00:05:11,760

What's the butter zone for the explosion again?

82

00:05:11,760 --> 00:05:14,320

About 350 psi.

83

00:05:14,320 --> 00:05:14,720

All right.

84

00:05:15,360 --> 00:05:18,880

This test is all about recording the height and the speed that the water heater achieves

85

00:05:18,880 --> 00:05:19,840

when it goes off.

86

00:05:19,840 --> 00:05:23,040

We've got a video camera aimed at the whole scene,

87

00:05:23,040 --> 00:05:28,480

and we should be able to estimate how high the thing is going if we can see it.

88

00:05:28,480 --> 00:05:30,880

Okay, we're at 150 psi.

89

00:05:30,880 --> 00:05:32,000

Halfway there.

90

00:05:32,080 --> 00:05:34,560

Everybody into your safety positions.

91

00:05:34,560 --> 00:05:36,560

We're in the red zone.

92

00:05:36,560 --> 00:05:37,920

I'm getting a prediction.

93

00:05:37,920 --> 00:05:38,400

Hold on.

94

00:05:38,400 --> 00:05:39,440

It's coming in.

95

00:05:39,440 --> 00:05:40,560

It's coming in.

96

00:05:40,560 --> 00:05:40,960

All right.

97

00:05:40,960 --> 00:05:45,440

I predict that we are slowly going to watch pressure buildup on a computer.

98

00:05:45,440 --> 00:05:47,040

200 psi.

99

00:05:48,640 --> 00:05:49,760

We're getting close.

100

00:05:50,320 --> 00:05:54,480

While we stare at a steel can that does nothing for maybe 40 minutes.

101

00:05:54,480 --> 00:05:55,280

Okay, folks.

102

00:05:55,280 --> 00:05:57,360

We're up to 300 psi.

103

00:05:57,360 --> 00:05:58,320

Hold on to your hats.

104

00:05:59,200 --> 00:06:02,240

And then the steel can is going to disappear and I'm up to smoke.

105

00:06:02,240 --> 00:06:05,040

315 psi.

106

00:06:05,040 --> 00:06:06,880

And Jamie Heinemann is going to make this sound.

107

00:06:10,080 --> 00:06:10,960

That's my prediction.

108

00:06:16,000 --> 00:06:17,760

It takes so long to come down.

109

00:06:17,760 --> 00:06:18,320

Why is it?

110

00:06:19,360 --> 00:06:20,000

Here it comes.

111

00:06:24,880 --> 00:06:26,240

I never get tired of that.

112

00:06:26,240 --> 00:06:27,680

No, hence the coming down.

113

00:06:27,680 --> 00:06:28,880

That's the fun part.

114

00:06:28,880 --> 00:06:30,000

Let's go check it out.

115

00:06:30,000 --> 00:06:30,320

All right.

116

00:06:30,320 --> 00:06:31,200

Let's do it.

117

00:06:31,200 --> 00:06:34,000

This is what I love about hot water heaters.

118

00:06:34,000 --> 00:06:36,080

I'm going to start referring to them as old faithful.

119

00:06:37,440 --> 00:06:40,880

A lot of times when we're trying to get stuff to fail, it's like a one in a million shot.

120

00:06:43,280 --> 00:06:45,760

It's like a one to one shot with these hot water heaters.

121

00:06:46,640 --> 00:06:46,960

Poop.

122

00:06:47,280 --> 00:06:56,160

Consistent calibrated carnage means atoms in myth buster heaven.

123

00:06:56,960 --> 00:06:59,520

But what about the all important flight data?

124

00:07:00,800 --> 00:07:01,680

What do we got?

125

00:07:01,680 --> 00:07:02,240

Oh, okay.

126

00:07:02,960 --> 00:07:05,520

First of all, that is a fracking cool shot.

127

00:07:07,200 --> 00:07:11,760

Second of all, I'm calculating by measuring the height of the hot water heater as it leaves

128

00:07:11,760 --> 00:07:15,680

frame in the high speed shot that it's leaving frame at about 350 miles an hour,

129

00:07:15,680 --> 00:07:19,760

which is pretty spot on to the speed I calculated the first time we did this.

130

00:07:19,760 --> 00:07:21,360

It hung in the air for 12 seconds.

131

00:07:21,360 --> 00:07:25,600

If I calculate the 12 seconds with air resistance plus the speed it's leaving the ground,

132

00:07:25,600 --> 00:07:29,600

I come up with a total height reached of about 560 feet,

133

00:07:29,600 --> 00:07:33,760

which is also close enough to our estimate last time to tell me that we were right.

134

00:07:33,760 --> 00:07:35,360

Well, that's without obstructions.

135

00:07:35,360 --> 00:07:36,000

That's correct.

136

00:07:36,000 --> 00:07:37,920

Well, let's put some obstructions in.

137

00:07:37,920 --> 00:07:38,720

Absolutely.

138

00:07:46,560 --> 00:07:51,200

All right, so what do we got?

139

00:07:51,200 --> 00:07:52,400

Remember curving a bullet?

140

00:07:52,400 --> 00:07:52,960

Totally.

141

00:07:52,960 --> 00:07:54,000

Totally busted.

142

00:07:54,000 --> 00:07:54,480

For sure.

143

00:07:54,480 --> 00:07:58,320

But there was another scene in the same movie where a bullet needs to get around an obstacle

144

00:07:58,320 --> 00:08:00,320

and the fans want us to check it out.

145

00:08:00,320 --> 00:08:01,600

Well, we missed one.

146

00:08:01,600 --> 00:08:02,320

Which one?

147

00:08:02,320 --> 00:08:04,400

Well, Angelina Jolie's character is in a shootout.

148

00:08:04,400 --> 00:08:08,240

She pulls out this amazing gun that literally shoots 90 degrees around a corner.

149

00:08:08,240 --> 00:08:10,560

So the fans want to find out if that even exists?

150

00:08:10,560 --> 00:08:11,200

Yep.

151

00:08:11,200 --> 00:08:11,440

All right.

152

00:08:11,440 --> 00:08:15,600

Well, while you do that, why don't Tori and I do two other Hollywood techniques?

153

00:08:15,920 --> 00:08:20,240

Yeah, action hero corner shots that you've seen in every action movie ever made.

154

00:08:20,240 --> 00:08:21,680

We'll see if they actually work.

155

00:08:21,680 --> 00:08:22,000

Cool.

156

00:08:23,520 --> 00:08:28,320

Our trio of gun toting gunslingers have already busted the bullet-bending antics

157

00:08:28,320 --> 00:08:30,480

as illustrated in the movie Wanted.

158

00:08:32,320 --> 00:08:34,720

There's no deviation whatsoever.

159

00:08:34,720 --> 00:08:39,920

But fantasy physics isn't the only method used in that film of shooting around an obstacle.

160

00:08:40,800 --> 00:08:43,040

There was also some fancy hardware.

161

00:08:43,040 --> 00:08:46,320

And to find out if this corner shot is fact or fiction,

162

00:08:47,600 --> 00:08:50,800

Carrie and an overly excited Grand and Tori

163

00:08:52,160 --> 00:08:57,280

have come to Alameda County Sheriff Department's live firehouse.

164

00:08:59,920 --> 00:09:02,800

It's like a playground, a very dangerous playground.

165

00:09:03,840 --> 00:09:07,280

But to make it more playground and less dangerous,

166

00:09:07,680 --> 00:09:12,160

Sergeant Rob McElroy has brought along some specially modified guns and ammo.

167

00:09:12,160 --> 00:09:16,160

What we've got is a special paint marking cartridge that we convert an actual firearm

168

00:09:16,160 --> 00:09:17,840

that it will only accept this round.

169

00:09:17,840 --> 00:09:22,160

And what it has is a small plastic capsule with a paint or dye inside of it

170

00:09:22,160 --> 00:09:24,960

that'll allow you to see where it hits and it will function the firearm.

171

00:09:26,960 --> 00:09:32,800

And first up, contract killer Carrie is going to show us if the corner shot is the real deal.

172

00:09:34,240 --> 00:09:35,760

Right to over the job.

173

00:09:35,840 --> 00:09:37,040

Right to over the job.

174

00:09:38,000 --> 00:09:43,200

And it's so far so good because the movie's machinery really does exist.

175

00:09:43,200 --> 00:09:47,440

Pop a handgun in the contraption and hey presto, you're good to go.

176

00:09:47,440 --> 00:09:48,560

Mama like.

177

00:09:48,560 --> 00:09:49,840

Yeah, what mama got.

178

00:09:50,800 --> 00:09:52,000

This is a corner shot.

179

00:09:52,000 --> 00:09:55,760

It's the real life version of what Angelina Jolie used in the movie.

180

00:09:55,760 --> 00:09:59,440

She pulled out this little compact cute weapon that shot around a corner.

181

00:09:59,440 --> 00:10:00,960

This is what you'd really use.

182

00:10:00,960 --> 00:10:03,760

And you could bend it around corners to take the shot.

183

00:10:03,760 --> 00:10:08,240

Yeah, it's got this little screen right here so you can see what you're shooting at with the crosshairs and bam.

184

00:10:08,240 --> 00:10:09,520

I love it.

185

00:10:09,520 --> 00:10:11,760

All right, show us what you got.

186

00:10:11,760 --> 00:10:12,720

Stand back.

187

00:10:12,720 --> 00:10:16,400

I think the boys were thoroughly impressed with my surprise piece of technology here.

188

00:10:16,400 --> 00:10:20,240

I mean, how amazing is it to be able to shoot around a corner

189

00:10:20,240 --> 00:10:22,720

without actually putting yourself in harm's way.

190

00:10:34,160 --> 00:10:37,520

So take note fans, that's score one for the movies.

191

00:10:37,520 --> 00:10:39,920

The corner shot is clearly the real deal.

192

00:10:40,800 --> 00:10:42,560

But the team ain't done yet.

193

00:10:42,560 --> 00:10:48,800

The guys want to try two other corner shot techniques any action movie fan will be familiar with.

194

00:10:48,800 --> 00:10:51,680

The question is, will they work in real life?

195

00:10:52,400 --> 00:10:59,360

My technique is to put only my arm around the corner, thus keeping my body out of the line of fire.

196

00:10:59,360 --> 00:11:00,320

Rob, clear the load.

197

00:11:00,320 --> 00:11:01,040

Clear the load.

198

00:11:02,000 --> 00:11:08,080

Got a specially modified pistol that shoots these gel markers so that we can see how well I do.

199

00:11:08,080 --> 00:11:09,200

You guys ready?

200

00:11:09,200 --> 00:11:09,520

Yeah.

201

00:11:14,000 --> 00:11:14,640

Where to hit?

202

00:11:14,640 --> 00:11:15,760

I didn't hit the target.

203

00:11:15,760 --> 00:11:16,720

You missed your target.

204

00:11:20,720 --> 00:11:24,320

And the target's still alive.

205

00:11:24,320 --> 00:11:28,480

Okay, so still intact, didn't hit the target at all.

206

00:11:28,560 --> 00:11:32,320

Blind firing around a corner is pretty much as you would expect.

207

00:11:32,320 --> 00:11:33,360

It's random.

208

00:11:33,360 --> 00:11:36,880

So, you know, if you can't see the target, how are you going to hit it?

209

00:11:38,000 --> 00:11:39,360

The clue is in the title.

210

00:11:40,320 --> 00:11:44,880

The one shot blind corner kill from the movies is clearly unrealistic.

211

00:11:46,160 --> 00:11:50,240

Now this next technique is definitely not taught by the Alameda County Sheriff's Department,

212

00:11:50,240 --> 00:11:52,640

but it is one that you see in tons of Hollywood movies.

213

00:11:52,640 --> 00:11:56,240

And that is flying into a room, surprising your target,

214

00:11:56,240 --> 00:11:58,320

and shooting your target as you're flying through the air.

215

00:12:00,960 --> 00:12:02,240

I think that'll work.

216

00:12:02,240 --> 00:12:04,880

All right, so there's action hero technique.

217

00:12:04,880 --> 00:12:06,000

Whenever you're ready.

218

00:12:06,000 --> 00:12:06,960

All right, here we go.

219

00:12:06,960 --> 00:12:09,920

Do you guys realize I've been practicing this technique since I was eight years old?

220

00:12:14,640 --> 00:12:16,240

That looks like you hit it.

221

00:12:16,240 --> 00:12:17,440

Yeah, got him.

222

00:12:18,080 --> 00:12:18,880

That is a kill.

223

00:12:19,520 --> 00:12:24,480

So that's one action movie move that does seem to work in real life.

224

00:12:25,520 --> 00:12:34,480

Not that you'll be seeing it in the Alameda County Sheriff's Training Manual anytime soon.

225

00:12:36,880 --> 00:12:38,640

Okay, so where does that leave us?

226

00:12:38,640 --> 00:12:41,120

Well, the hardware was not a figment of Hollywood's imagination.

227

00:12:41,120 --> 00:12:42,880

The corner shot is reality.

228

00:12:42,880 --> 00:12:44,000

Yeah, and I hit my target.

229

00:12:44,000 --> 00:12:46,160

I mean, dive me through a door with guns blazing.

230

00:12:46,160 --> 00:12:47,040

Seems to work.

231

00:12:47,040 --> 00:12:49,760

In a movie context, but without a mattress.

232

00:12:49,760 --> 00:12:51,600

And nobody shooting back at you.

233

00:12:51,600 --> 00:12:55,840

I mean, the chances of you getting away scot-free without any injury, pretty slim.

234

00:12:55,840 --> 00:12:57,280

Man, you guys are just jealous.

235

00:12:57,280 --> 00:12:58,000

All right, fine.

236

00:12:58,000 --> 00:12:58,640

Plausible.

237

00:12:58,640 --> 00:13:01,280

And as for your blind shot technique.

238

00:13:01,280 --> 00:13:03,440

Okay, that one is busted.

239

00:13:03,440 --> 00:13:06,960

Sticking your gun around the corner and blindly firing, you're not going to hit anything.

240

00:13:06,960 --> 00:13:07,520

Look at that.

241

00:13:07,520 --> 00:13:08,560

We got a full set.

242

00:13:08,560 --> 00:13:09,520

Yeah, confirmed.

243

00:13:09,520 --> 00:13:10,720

Plausible and busted.

244

00:13:10,720 --> 00:13:11,760

Is that a first?

245

00:13:11,760 --> 00:13:12,320

Probably not.

246

00:13:17,040 --> 00:13:20,720

Later, the myth of the snow plow split gets super sized.

247

00:13:20,720 --> 00:13:22,720

Two, one, fire.

248

00:13:24,080 --> 00:13:27,200

But next, car roof cling gets boxed in.

249

00:13:27,200 --> 00:13:27,760

Here we go.

250

00:13:36,240 --> 00:13:42,400

Before Adam and Jamie unnaturally select the story of the two-story water heater rocket,

251

00:13:42,400 --> 00:13:46,000

they're tackling a tall tail tangent from Tinseltown.

252

00:13:47,040 --> 00:13:48,960

Next is sort of a tangent.

253

00:13:48,960 --> 00:13:52,960

Do you remember the day that we spent hanging onto the roof and hanging onto the hood of a car

254

00:13:52,960 --> 00:13:54,720

while the other one kept trying to shake us off?

255

00:13:54,720 --> 00:13:55,040

Yeah.

256

00:13:55,040 --> 00:13:58,960

Well, fans say that we missed a crucial Hollywood element to that story.

257

00:13:59,520 --> 00:14:01,280

The cardboard box.

258

00:14:01,280 --> 00:14:06,080

You mean the cardboard boxes that inhabit every single Hollywood back alley?

259

00:14:06,080 --> 00:14:06,880

Absolutely.

260

00:14:06,880 --> 00:14:09,600

They said, if you're going to shake someone off a car in a Hollywood movie,

261

00:14:09,600 --> 00:14:11,680

you got to drive through a big stack of boxes.

262

00:14:12,480 --> 00:14:12,880

I'm there.

263

00:14:13,840 --> 00:14:18,160

In car roof cling, Adam and Jamie got a grip Hollywood style.

264

00:14:18,160 --> 00:14:19,040

Give me all you got.

265

00:14:20,000 --> 00:14:27,600

To see if you could really hold onto a moving car through zips, zags, and even sudden stops.

266

00:14:29,280 --> 00:14:31,840

I'm actually seeing some stars from that.

267

00:14:31,840 --> 00:14:33,760

But you weren't satisfied.

268

00:14:33,760 --> 00:14:38,480

Apparently, the guys missed out on the most obvious car cling cliché of all.

269

00:14:38,480 --> 00:14:43,920

Can you really hang in there when the baddie drives through an encumbrance of cardboard?

270

00:14:43,920 --> 00:14:48,400

Well, it looks like it's time to dust off the old car crane and set up some boxes,

271

00:14:48,400 --> 00:14:51,760

drive through them at, what, 45 miles an hour?

272

00:14:51,760 --> 00:14:52,320

Yeah.

273

00:14:52,320 --> 00:14:56,640

Tell you what, I'll set up the cardboard boxes and why don't you take the first trip through them

274

00:14:56,640 --> 00:14:58,240

just to make sure it's all safe?

275

00:14:59,120 --> 00:14:59,440

OK.

276

00:15:00,720 --> 00:15:04,720

So Jamie will be the car cling human Hoosier guinea pig.

277

00:15:04,720 --> 00:15:06,800

But first, the car needs some work.

278

00:15:06,800 --> 00:15:11,600

You may remember that the last thing that we did on the car cling episode was take it through a car wash.

279

00:15:12,160 --> 00:15:13,120

Oh, that's cool.

280

00:15:17,360 --> 00:15:18,480

Now we've got to put it back.

281

00:15:19,360 --> 00:15:21,920

Cue the Mythbusters editing cure-all.

282

00:15:21,920 --> 00:15:25,920

A timely time lapse with a slab dash of split screen.

283

00:15:25,920 --> 00:15:32,480

And with the rig ready to roll, it's back to the Alameda Naval Base, where Adam, for one, is excited.

284

00:15:32,480 --> 00:15:36,000

I'd like to set the scene for you if I might.

285

00:15:36,000 --> 00:15:40,720

I will be playing the driver as such I will be driving.

286

00:15:42,960 --> 00:15:51,680

And in some time in the past, I have insulted the mustachioed Hoosier played by Jamie.

287

00:15:55,360 --> 00:15:59,040

And he has come after me and I cannot shake him.

288

00:15:59,040 --> 00:16:03,760

It's six months and he's running after every train and flying after every plane.

289

00:16:03,760 --> 00:16:07,200

And now he's all my car and I can't shake him.

290

00:16:07,200 --> 00:16:13,040

Will the fan request of a box blockade really be enough to knock Jamie down and out?

291

00:16:13,040 --> 00:16:16,720

Sure enough, these boxes are filled with nothing but air, but just to make this one a little more interesting.

292

00:16:18,320 --> 00:16:20,640

I'm going to have Jamie do it with the windows up.

293

00:16:21,600 --> 00:16:25,120

But is the man of steel worried? Not one eye over.

294

00:16:25,120 --> 00:16:28,800

I don't even think I need to hold on when we're going through the boxes because

295

00:16:28,800 --> 00:16:33,920

other than get stuck on the big pink thing over my head, I don't see the problem here.

296

00:16:34,560 --> 00:16:40,640

With Jamie as nonchalant as ever, Adam secures the rig.

297

00:16:40,640 --> 00:16:41,440

All right, it's ready.

298

00:16:42,960 --> 00:16:46,880

Then Jamie clips in and checks that the crane can still take his weight,

299

00:16:48,080 --> 00:16:52,080

providing a visual treat that's too good for Adam to resist.

300

00:16:52,640 --> 00:16:55,520

You know how like vulcanized rubber was invented by accident?

301

00:16:55,600 --> 00:16:56,640

Wee.

302

00:16:56,640 --> 00:17:02,320

I think this may lead to a spate of Jamie Heineman pinatas all around the country.

303

00:17:02,320 --> 00:17:06,960

Once people see the moustache who's are floating around the front of the car in this test,

304

00:17:06,960 --> 00:17:09,280

they're going to want their own and they're going to want it for their birthday.

305

00:17:10,240 --> 00:17:14,080

But before any birthday celebrations, it's time to get myth busted.

306

00:17:15,920 --> 00:17:21,440

Slowly but surely, Adam accelerates up to a white knuckle 45 miles an hour.

307

00:17:21,440 --> 00:17:23,120

I'm going to get into character.

308

00:17:23,120 --> 00:17:24,480

Who's that? Oh my God.

309

00:17:25,680 --> 00:17:27,280

I couldn't shake them off.

310

00:17:27,280 --> 00:17:28,960

Oh, look, there's some boxes.

311

00:17:28,960 --> 00:17:32,880

I'll drive right through those and they'll get rid of them right away.

312

00:17:32,880 --> 00:17:33,360

Oh, no.

313

00:17:33,360 --> 00:17:34,000

There we go.

314

00:17:38,320 --> 00:17:42,800

Remarkably, Jamie sticks to the car like a gecko covered in glue.

315

00:17:42,800 --> 00:17:46,960

Even though he releases his grip to lessen the blow, he doesn't budge at all.

316

00:17:48,080 --> 00:17:50,640

We were moving pretty quick when we hit these boxes.

317

00:17:50,720 --> 00:17:53,680

It's just like the boxes in any Hollywood movie.

318

00:17:53,680 --> 00:17:56,640

These things are full of air, and so there's not that much to them.

319

00:17:56,640 --> 00:18:02,000

And any Hollywood stuntman, villain is going to be able to hang onto a car quite easily

320

00:18:02,000 --> 00:18:02,800

and go right through them.

321

00:18:03,440 --> 00:18:09,040

So it was plain sailing for Jamie, but will it be such a breeze for Adam on the hood?

322

00:18:09,040 --> 00:18:11,120

Well, it's my turn to be shaking off this car.

323

00:18:11,120 --> 00:18:17,040

I'm going to be trying it from the hood, and we have an added wrinkle that it's raining.

324

00:18:17,680 --> 00:18:18,560

But so what?

325

00:18:18,560 --> 00:18:20,880

Even if that makes it harder, rain happens in the real world.

326

00:18:20,880 --> 00:18:21,680

We can work with it.

327

00:18:22,240 --> 00:18:24,960

But rain is not the only wrinkle Adam's facing.

328

00:18:24,960 --> 00:18:25,680

That won't.

329

00:18:25,680 --> 00:18:27,760

Now it's time for Jamie to get a little payback.

330

00:18:27,760 --> 00:18:32,800

He's using both a lot more boxes than I did, and he stacked them in the way to provide the

331

00:18:32,800 --> 00:18:35,760

maximum amount of resistance to me for holding on.

332

00:18:36,880 --> 00:18:38,560

I still think I'm going to be able to hold on though.

333

00:18:41,040 --> 00:18:44,640

Adam and he'll be able to hold on just like in the movies.

334

00:18:44,720 --> 00:18:47,600

Jamie floors it while Adam freaks out.

335

00:18:47,600 --> 00:18:48,160

Here we go.

336

00:18:57,840 --> 00:19:00,000

Yeah, I stayed on.

337

00:19:00,000 --> 00:19:00,800

They nail it.

338

00:19:01,760 --> 00:19:07,120

At 45 miles an hour, Adam's grip held, and you could say he's rather pleased.

339

00:19:09,360 --> 00:19:12,240

I'd say if that tests, it's boxes zero.

340

00:19:13,040 --> 00:19:14,880

Adam as a super villain won.

341

00:19:15,760 --> 00:19:18,720

But on closer inspection, Jamie's not so sure.

342

00:19:19,600 --> 00:19:21,920

In the box test, Adam didn't get thrown off the car.

343

00:19:21,920 --> 00:19:23,360

He didn't get hurt or anything.

344

00:19:23,360 --> 00:19:27,120

But when we went back and looked at the footage, we saw something really interesting,

345

00:19:27,120 --> 00:19:31,040

and that was that for a second, Adam lost his grip on the hood,

346

00:19:31,040 --> 00:19:33,440

and he actually got plastered against the windshield.

347

00:19:36,240 --> 00:19:38,400

It was a blink and you'll miss it moment.

348

00:19:39,360 --> 00:19:41,680

But Adam did momentarily let go.

349

00:19:43,120 --> 00:19:45,520

But he got his grip back before he slid off.

350

00:19:46,240 --> 00:19:46,640

Yeah.

351

00:19:47,600 --> 00:19:49,040

So how do you want to call this one?

352

00:19:49,040 --> 00:19:53,120

Well, I'd say the myth that you can hang on while driving through a pile of boxes is

353

00:19:53,680 --> 00:19:54,800

pretty well confirmed.

354

00:19:54,800 --> 00:19:58,960

I mean, it was a little disconcerting hitting all those boxes at high speed,

355

00:19:58,960 --> 00:20:02,160

but I wasn't in any danger of getting pushed off.

356

00:20:02,160 --> 00:20:06,320

Now, this is helped by the fact that all the boxes you drive through in Hollywood seem to be empty.

357

00:20:06,320 --> 00:20:09,680

I think if you were driving through a shipment of VCRs or anvils,

358

00:20:09,680 --> 00:20:11,200

it would be a totally different story.

359

00:20:12,160 --> 00:20:13,520

Yeah, especially anvils.

360

00:20:13,520 --> 00:20:14,960

Yeah, but it's confirmed for now.

361

00:20:18,400 --> 00:20:22,160

Still to come, the Water Heater Story goes two-story.

362

00:20:22,160 --> 00:20:23,440

I love the hot water heaters.

363

00:20:23,440 --> 00:20:24,880

They're my favorite explosions.

364

00:20:24,880 --> 00:20:29,200

But coming up, the guys go lock picking with liquid nitrogen.

365

00:20:29,200 --> 00:20:31,440

Dic doc, buddy. Cops are on their way.

366

00:20:34,800 --> 00:20:40,880

Next up for an evolution revolution is one of the coolest stories the team has ever tackled.

367

00:20:41,440 --> 00:20:44,720

Okay, so our next myth evolution comes from one of our recent episodes,

368

00:20:44,720 --> 00:20:45,520

liquid nitrogen.

369

00:20:45,520 --> 00:20:46,720

All right, so where's this one going?

370

00:20:46,720 --> 00:20:49,040

Well, the fans want us to test another LN2 myth,

371

00:20:49,040 --> 00:20:51,600

this time that it can be used as a lock pick.

372

00:20:51,600 --> 00:20:54,320

Yeah, I've seen that on TV, like MacGyver or Burn Notice.

373

00:20:54,320 --> 00:20:56,480

They spray liquid nitrogen into a lock,

374

00:20:56,480 --> 00:20:58,800

and then they can shatter it with a gun butt or a hammer.

375

00:20:58,800 --> 00:20:59,760

Well, this sounds pretty simple.

376

00:20:59,760 --> 00:21:01,280

The test will just set up some locks,

377

00:21:01,280 --> 00:21:03,440

we'll try to break in with the regular burglar kit,

378

00:21:03,440 --> 00:21:06,640

and then we'll try to break in using liquid nitrogen and we'll see which one's faster.

379

00:21:06,640 --> 00:21:08,480

What is a regular burglar kit?

380

00:21:08,480 --> 00:21:10,800

You know, like crowbars, hammers, stuff like that.

381

00:21:10,800 --> 00:21:12,240

You guys don't have a burglar kit?

382

00:21:12,240 --> 00:21:13,040

No.

383

00:21:13,040 --> 00:21:13,280

No.

384

00:21:15,840 --> 00:21:18,320

The last time it tackled liquid nitrogen,

385

00:21:18,320 --> 00:21:20,800

the fables the team faced were frightening.

386

00:21:24,160 --> 00:21:25,760

They look just like the movie.

387

00:21:26,480 --> 00:21:27,360

And festive.

388

00:21:29,920 --> 00:21:32,400

But now they want to pick a lock or two,

389

00:21:32,400 --> 00:21:36,800

and to find out if freezing your locks off is really fact or fiction,

390

00:21:36,800 --> 00:21:38,480

Tori is starting with the control.

391

00:21:39,040 --> 00:21:44,320

A simple padlock at room temperature versus a hammer and crowbar combination.

392

00:21:44,720 --> 00:21:46,640

Okay, control padlock.

393

00:21:46,640 --> 00:21:48,160

Three, two, one.

394

00:21:52,880 --> 00:21:53,920

Four seconds.

395

00:21:53,920 --> 00:21:55,600

That's the reference point.

396

00:21:55,600 --> 00:22:00,240

Now to find out what difference soaking the lock in liquid nitrogen will make.

397

00:22:00,240 --> 00:22:02,880

So we're on to test two, which is the liquid nitrogen part of this test.

398

00:22:02,880 --> 00:22:05,280

We're going to pour liquid nitrogen directly on the lock

399

00:22:05,280 --> 00:22:07,600

and let it soak for a few minutes so it gets good and frozen,

400

00:22:07,600 --> 00:22:10,320

and then Tori's going to give it the same bash that he gave the control lock.

401

00:22:11,200 --> 00:22:12,160

Okay, hose is off.

402

00:22:12,720 --> 00:22:16,480

Personally, I'm hoping for some sort of cartoon-like shatter here.

403

00:22:16,480 --> 00:22:18,480

In three, two, one.

404

00:22:22,480 --> 00:22:22,960

Okay.

405

00:22:22,960 --> 00:22:23,920

We're looking at that.

406

00:22:23,920 --> 00:22:25,360

We'll get one second.

407

00:22:25,360 --> 00:22:28,240

I see we made a difference with the liquid nitrogen.

408

00:22:28,240 --> 00:22:29,280

That is cool.

409

00:22:31,280 --> 00:22:32,880

So it's looking good for the myth.

410

00:22:33,600 --> 00:22:38,320

But considering the padlock was so easy to break, even without the LM2,

411

00:22:38,320 --> 00:22:40,160

the team wants a tougher challenge.

412

00:22:41,040 --> 00:22:43,440

All right, if anybody needs me, I'll be in my office.

413

00:22:43,440 --> 00:22:45,520

For that, they want a deadbolt.

414

00:22:45,520 --> 00:22:50,480

And as before, Tori is first going to smash through for a control comparison.

415

00:22:51,280 --> 00:22:53,040

This always reminds me of elementary school.

416

00:22:54,320 --> 00:22:55,200

School of hard knocks.

417

00:22:56,320 --> 00:22:58,720

So I broke through the deadbolt using the pick and the sledgehammer.

418

00:22:58,720 --> 00:23:00,960

Tick tock, buddy. Cops are on their way.

419

00:23:01,920 --> 00:23:03,520

But it took me five and a half minutes.

420

00:23:03,520 --> 00:23:05,520

It was very hard. It was very loud.

421

00:23:06,160 --> 00:23:07,200

There you go.

422

00:23:07,200 --> 00:23:08,720

Pretty sure somebody would have called the cops.

423

00:23:08,720 --> 00:23:09,360

Go, go, go.

424

00:23:09,920 --> 00:23:10,800

Okay.

425

00:23:10,800 --> 00:23:13,120

Five minutes and 37 seconds.

426

00:23:13,120 --> 00:23:17,360

Five minutes and 37 seconds for the control.

427

00:23:17,360 --> 00:23:20,880

Now let's soak it in liquid nitrogen and see if it blasts through that lock faster.

428

00:23:20,880 --> 00:23:25,280

With a full four minutes exposure to liquid nitrogen's mind boggling

429

00:23:25,360 --> 00:23:31,280

minus 321 degrees Fahrenheit, the lock is ready for our not so subtle burglar.

430

00:23:31,280 --> 00:23:32,720

In three, two, one.

431

00:23:35,280 --> 00:23:36,240

Oh my gosh.

432

00:23:38,240 --> 00:23:39,760

That's incredible.

433

00:23:39,760 --> 00:23:41,760

One shot in the lock already broke.

434

00:23:41,760 --> 00:23:42,880

Keep going, keep going.

435

00:23:42,880 --> 00:23:46,080

Oh my God. That's hilarious.

436

00:23:46,080 --> 00:23:49,440

Why is liquid nitrogen making it easier to break these locks?

437

00:23:49,440 --> 00:23:51,280

Well, all metal has a ductility to it,

438

00:23:51,280 --> 00:23:55,600

which means if I smash this lock with a hammer, it's going to deform the metal.

439

00:23:55,600 --> 00:23:58,800

Whereas if I introduce the liquid nitrogen to the lock,

440

00:23:58,800 --> 00:24:03,360

we are going to lower the temperature, causing all the particles that are in constant motion

441

00:24:03,360 --> 00:24:06,640

to slow down, removing energy, making it brittle,

442

00:24:06,640 --> 00:24:10,080

so that if I now smash it with a hammer, it's actually going to shatter.

443

00:24:12,640 --> 00:24:14,720

Nice. That is incredible.

444

00:24:14,720 --> 00:24:15,440

What's the time?

445

00:24:15,440 --> 00:24:16,400

One minute, four seconds.

446

00:24:16,400 --> 00:24:18,880

That is way less than half your time.

447

00:24:18,880 --> 00:24:21,120

One shot and the lock shattered.

448

00:24:21,680 --> 00:24:23,280

This myth is totally confirmed.

449

00:24:23,280 --> 00:24:27,280

I know, and I just can't believe how big of a difference it made using the liquid nitrogen.

450

00:24:27,280 --> 00:24:31,520

Wait, did we just give our audience a guide to making breaking and entering easier?

451

00:24:31,520 --> 00:24:32,480

Yeah, pretty cool, huh?

452

00:24:32,480 --> 00:24:36,480

Yeah, okay. That did occur to me, but this is a difficult technique to use.

453

00:24:36,480 --> 00:24:40,400

One, you need to carry around a thermally isolated vat of liquid nitrogen.

454

00:24:40,400 --> 00:24:42,800

Two, you need a large amount of safety equipment.

455

00:24:42,800 --> 00:24:45,920

Three, you need to apply it to the lock for at least five minutes.

456

00:24:45,920 --> 00:24:48,800

And four, you need three people to pull it off.

457

00:24:48,880 --> 00:24:51,600

Yes, it's successful, but you know what?

458

00:24:51,600 --> 00:24:53,680

It's not the most subtle technique out there.

459

00:24:53,680 --> 00:24:55,520

Yeah, I agree. It's probably not going to catch on.

460

00:24:55,520 --> 00:24:58,320

You know what, though? This myth is still confirmed.

461

00:24:58,320 --> 00:24:58,960

Confirmed.

462

00:25:15,200 --> 00:25:18,320

I'm calculating a total height reached of about 560 feet.

463

00:25:19,120 --> 00:25:19,680

Okay, good.

464

00:25:20,400 --> 00:25:22,640

Now in part two, you want to know,

465

00:25:23,360 --> 00:25:26,480

will the tech break through the roof of a two-story house?

466

00:25:27,200 --> 00:25:28,960

We're going to start putting down floors.

467

00:25:28,960 --> 00:25:29,760

One in the basement.

468

00:25:29,760 --> 00:25:30,880

Good, good, good.

469

00:25:30,880 --> 00:25:34,000

One here on the first floor, put up a ceiling and a roof,

470

00:25:34,000 --> 00:25:35,840

and then it's time to plum up a hot water heater.

471

00:25:39,360 --> 00:25:40,240

That's that.

472

00:25:40,240 --> 00:25:44,560

And with the major construction complete, now begins the delicate task

473

00:25:46,240 --> 00:25:48,160

of hoisting the pieces into place.

474

00:25:49,600 --> 00:25:51,920

Well, the moment we sent a hot water heater up through the roof

475

00:25:51,920 --> 00:25:54,800

of our little red shack, fans rode to us and said,

476

00:25:54,800 --> 00:25:57,040

yeah, but dude, that's like a bungalow.

477

00:25:57,040 --> 00:25:59,200

In my house, the hot water heater's in the basement.

478

00:25:59,200 --> 00:26:01,840

You got to do it again because it's got to have more obstacles

479

00:26:01,840 --> 00:26:02,880

to be realistic.

480

00:26:02,880 --> 00:26:05,200

And we actually spent a lot of time and energy

481

00:26:05,200 --> 00:26:07,440

looking for two-story houses to destroy.

482

00:26:08,000 --> 00:26:10,160

And then we realized we could just build one.

483

00:26:12,480 --> 00:26:13,920

In fact, not only could we just build one,

484

00:26:13,920 --> 00:26:16,240

we can build one without sides so that we can see

485

00:26:16,240 --> 00:26:18,560

exactly what was happening because it's not about the walls.

486

00:26:18,640 --> 00:26:19,520

It's about the floors.

487

00:26:19,520 --> 00:26:21,680

It's about the obstacles in the way of the hot water heater.

488

00:26:21,680 --> 00:26:25,280

So we came up with this system, bolting together upright,

489

00:26:25,280 --> 00:26:29,520

four-by-four inch pieces of steel, two holding together a steel frame

490

00:26:29,520 --> 00:26:31,840

on which we could place each of our three floors,

491

00:26:31,840 --> 00:26:34,480

basement, first floor, ceiling, and roof.

492

00:26:34,480 --> 00:26:37,920

All the obstacles we need to place in the way of our hot water heater.

493

00:26:37,920 --> 00:26:38,480

That's perfect.

494

00:26:39,600 --> 00:26:41,120

I'm about to dress the top floor.

495

00:26:41,680 --> 00:26:44,400

This right here is my interior decorating tool.

496

00:26:44,400 --> 00:26:46,400

Ha ha ha.

497

00:26:47,920 --> 00:26:48,880

There you go, Buster.

498

00:26:48,880 --> 00:26:50,080

All the comforts of home.

499

00:26:50,640 --> 00:26:53,120

Jamie is plumbing the hot water heater down below.

500

00:26:53,120 --> 00:26:54,240

And there we go.

501

00:26:54,240 --> 00:26:57,200

Soon we're going to find out if this thing can actually go through

502

00:26:57,200 --> 00:26:58,240

all of our model house.

503

00:27:01,600 --> 00:27:02,080

Boom!

504

00:27:02,960 --> 00:27:05,920

Coming right up, take one snowplow wedge,

505

00:27:05,920 --> 00:27:09,760

add 12 rockets, and mix well with one car.

506

00:27:09,760 --> 00:27:10,720

We're ready to launch.

507

00:27:14,480 --> 00:27:18,640

Next up, it's time for Carrie, Tori, and Grant to split.

508

00:27:19,600 --> 00:27:21,520

Okay, so what's evolving for us?

509

00:27:21,520 --> 00:27:24,000

Snowplow split from the Alaska Special.

510

00:27:24,000 --> 00:27:27,760

Okay, that's the story where a car hits a snowplow, splits clean in half,

511

00:27:27,760 --> 00:27:29,440

a perfect bifurcation.

512

00:27:29,440 --> 00:27:30,560

Yeah, we busted that one.

513

00:27:30,560 --> 00:27:34,240

The rear engine car got a great split, but still didn't make it all the way through.

514

00:27:34,240 --> 00:27:34,960

Yeah, you're right.

515

00:27:34,960 --> 00:27:36,640

However, the fans want more.

516

00:27:36,640 --> 00:27:39,120

They've been sending us hundreds of emails saying,

517

00:27:39,120 --> 00:27:40,400

yes, the testing was good.

518

00:27:40,400 --> 00:27:41,840

Yes, the results were accurate.

519

00:27:41,840 --> 00:27:44,720

However, we did not replicate the results of the myth.

520

00:27:44,720 --> 00:27:49,760

So the fans basically want some sort of monster crash scenario that cuts a car in half.

521

00:27:49,760 --> 00:27:50,960

Sounds spectacular.

522

00:27:50,960 --> 00:27:52,880

Kind of hard, but spectacular.

523

00:27:52,880 --> 00:27:56,400

It was an Alaskan anecdote that was snow-joe.

524

00:27:56,400 --> 00:28:01,600

A car allegedly plowed into a plow and was split completely in two.

525

00:28:01,600 --> 00:28:03,920

But then again, maybe not.

526

00:28:03,920 --> 00:28:07,200

Because back in the real world, two incomplete splits

527

00:28:07,200 --> 00:28:09,280

That is not busted!

528

00:28:09,280 --> 00:28:11,520

meant the myth was well and truly busted.

529

00:28:12,800 --> 00:28:14,800

But that wasn't good enough for you.

530

00:28:15,680 --> 00:28:21,280

Because you've asked us to find out if under any super-sized circumstances

531

00:28:21,280 --> 00:28:24,000

a car could ever be split in twain.

532

00:28:24,720 --> 00:28:27,680

So in that last test, we got the car going 70 miles an hour.

533

00:28:27,680 --> 00:28:31,120

It smashed into that snow plow, split through the front end of the vehicle,

534

00:28:31,120 --> 00:28:33,440

the front axle, and the dashboard.

535

00:28:33,440 --> 00:28:37,360

It stopped before it even got through the toughest part of the car, the engine block.

536

00:28:37,360 --> 00:28:41,520

Yeah, to get through that, we need impact forces 10 times that amount.

537

00:28:41,520 --> 00:28:44,880

Which would mean our car would be going close to the speed of sound.

538

00:28:44,880 --> 00:28:48,240

Now to most people that might sound very difficult, but we're myth busters

539

00:28:48,240 --> 00:28:50,080

and I think I know just the place.

540

00:28:50,080 --> 00:28:50,960

Where?

541

00:28:50,960 --> 00:28:54,880

So where do you go when you need to make a rocket-powered superplow?

542

00:28:54,880 --> 00:28:56,720

Well, New Mexico Tech.

543

00:28:56,720 --> 00:29:02,560

They actually have a rocket sled here that can propel materials in an excess of 500 miles an hour.

544

00:29:02,560 --> 00:29:06,880

Now just to put that into perspective for you, that is faster than a jet airplane.

545

00:29:07,600 --> 00:29:12,560

Last time the team used this straight-track rocket roller coaster,

546

00:29:12,560 --> 00:29:15,040

they more than pancaked a car.

547

00:29:15,040 --> 00:29:18,160

And in a world first, Adam was speechless.

548

00:29:20,880 --> 00:29:25,600

This time the man with the launch codes is our old friend Dr. Van Romero.

549

00:29:25,600 --> 00:29:28,720

So this is the rocket sled for our superplow?

550

00:29:28,720 --> 00:29:32,720

Right, this is kind of the generic sled that we use to run down the track.

551

00:29:32,720 --> 00:29:34,800

We load rocket engines in here.

552

00:29:34,800 --> 00:29:38,080

Brust comes out the back and the business end of the sled is on the front.

553

00:29:40,560 --> 00:29:45,600

And jolking of the business end, it's time to beef up the plow part of the equation.

554

00:29:45,600 --> 00:29:48,320

Because this time they're switching things around.

555

00:29:48,320 --> 00:29:51,040

You can't just go to the store and buy an off-the-shelf plow.

556

00:29:51,040 --> 00:29:53,920

I mean it would explode, it would disintegrate.

557

00:29:53,920 --> 00:29:58,880

So we've got to make our own plow from scratch using this giant pile of steel.

558

00:29:58,880 --> 00:30:02,560

We're going to weld it into a plow shape, attach it to the rocket sled,

559

00:30:02,560 --> 00:30:04,800

and send it down the track at the car.

560

00:30:08,720 --> 00:30:12,960

Yep, unlike the previous experiment where the car was towed into the plow,

561

00:30:14,000 --> 00:30:17,360

this time the plow will be thrust into the car.

562

00:30:17,360 --> 00:30:19,120

But first, they've got to make it.

563

00:30:19,920 --> 00:30:21,440

Well this shouldn't take too long.

564

00:30:21,440 --> 00:30:24,000

Now we'll be done by lunchtime tomorrow.

565

00:30:24,720 --> 00:30:26,080

We're thinking about making this wedge.

566

00:30:26,080 --> 00:30:28,240

We're thinking it had to be as thin as possible.

567

00:30:28,240 --> 00:30:30,800

And it had to be basically a solid piece of steel.

568

00:30:30,800 --> 00:30:33,600

Now to get a solid piece of steel that big would be too hard.

569

00:30:33,600 --> 00:30:39,520

So what we did is we've taken many layers of steel, stacked them together to make that wedge shape.

570

00:30:39,520 --> 00:30:40,720

And then we've welded it together.

571

00:30:40,720 --> 00:30:42,880

Now we're grinding it so that it has a sharp point.

572

00:30:44,080 --> 00:30:48,480

While Grant and Tori have been prepping the replicate the result super plow,

573

00:30:48,480 --> 00:30:51,520

Carrie has been pimping the soon-to-be-pulped car.

574

00:30:52,560 --> 00:30:53,120

Alaska!

575

00:30:54,400 --> 00:30:56,160

You ready to see our super plow?

576

00:30:56,160 --> 00:30:57,520

Yeah, how is it?

577

00:30:57,520 --> 00:30:58,880

Oh, it looks good.

578

00:30:58,880 --> 00:31:00,240

I think the car's going to lose.

579

00:31:00,960 --> 00:31:05,760

Yep, but will it be cleanly bifurcated as per the fans' demands?

580

00:31:05,760 --> 00:31:08,800

The only way to find out is to get it off the truck.

581

00:31:09,600 --> 00:31:10,880

Okay, here we go.

582

00:31:10,880 --> 00:31:11,840

And onto the track.

583

00:31:14,560 --> 00:31:19,760

And with a plow in place, all the Mythbusters need to do now is come back tomorrow

584

00:31:19,760 --> 00:31:21,600

and strap on those rockets.

585

00:31:22,400 --> 00:31:24,720

That looked like about 500 miles an hour to me.

586

00:31:24,720 --> 00:31:25,360

At least.

587

00:31:26,160 --> 00:31:30,000

Next up, will the water heater rocket ram its way through the roof?

588

00:31:30,000 --> 00:31:31,200

It'll happen anytime now.

589

00:31:38,160 --> 00:31:40,800

This is either a hot water heater or it's a bomb.

590

00:31:40,800 --> 00:31:42,400

If it's a hot water heater, there's no problem.

591

00:31:42,400 --> 00:31:44,240

It just heats the water in your house.

592

00:31:44,240 --> 00:31:49,760

If it's a bomb, it fails catastrophically, sending the bottom shooting out,

593

00:31:49,760 --> 00:31:51,920

sending the top shooting up.

594

00:31:51,920 --> 00:31:55,440

This floor isn't going to offer much resistance to that water heater.

595

00:31:55,520 --> 00:32:00,000

The question we want to know is, what's it going to do when it hits this roof?

596

00:32:00,560 --> 00:32:04,880

Is it going to make a nice clean, round hole I can stare all the way into the basement through?

597

00:32:04,880 --> 00:32:09,360

Or is it going to be interrupted on its journey into the sky and never make it out of the house?

598

00:32:09,360 --> 00:32:10,960

That's what we want to find out.

599

00:32:10,960 --> 00:32:13,360

We're wired, we're plumbed, we're ready to go.

600

00:32:13,360 --> 00:32:16,240

All I need to do is fire the jennies up and wait.

601

00:32:16,880 --> 00:32:21,040

And with that generator up and running, the heating element inside the tank

602

00:32:21,040 --> 00:32:23,040

begins to slowly warm the water.

603

00:32:23,280 --> 00:32:28,640

Deep in Buster's basement, changes are occurring in his water heater.

604

00:32:28,640 --> 00:32:31,440

Changes that could affect his life.

605

00:32:31,440 --> 00:32:32,560

Oh look, we've turned red.

606

00:32:32,560 --> 00:32:34,640

175 psi.

607

00:32:34,640 --> 00:32:37,760

Ah, this fence is killing me.

608

00:32:37,760 --> 00:32:40,880

I think it's going to make it quite a ways through the building.

609

00:32:40,880 --> 00:32:43,040

It might just make it out the top.

610

00:32:43,040 --> 00:32:44,480

Beyond that, I don't know.

611

00:32:45,360 --> 00:32:47,440

Wow, an actual prediction.

612

00:32:47,440 --> 00:32:48,080

That's awesome.

613

00:32:48,080 --> 00:32:50,800

Now it's really starting to accelerate.

614

00:32:50,800 --> 00:32:52,400

All that potential is waiting.

615

00:32:53,040 --> 00:32:56,640

It's really nice seeing it exposed like that, our visible house.

616

00:32:56,640 --> 00:33:00,800

It's really extraordinary to see the whole thing clear as day.

617

00:33:00,800 --> 00:33:01,200

I know.

618

00:33:01,200 --> 00:33:02,320

It's really elegant, isn't it?

619

00:33:02,320 --> 00:33:02,820

Yeah.

620

00:33:06,000 --> 00:33:11,040

What's interesting to me here is that this is just a transfer of energy for E25.

621

00:33:11,040 --> 00:33:13,040

Oh, god, it's any second now.

622

00:33:13,040 --> 00:33:14,880

I don't want to turn back and look at the pressure anymore.

623

00:33:15,680 --> 00:33:17,680

I don't want to take my eyes off of it.

624

00:33:17,680 --> 00:33:21,200

Starting with the diesel fuel that's powering the generator,

625

00:33:21,200 --> 00:33:26,400

it's creating electricity that allows us to heat up this water in a container that releases all that

626

00:33:26,400 --> 00:33:27,840

energy all at once.

627

00:33:27,840 --> 00:33:31,920

It's really kind of interesting in a zen sort of way when you think about it.

628

00:33:31,920 --> 00:33:32,720

330.

629

00:33:37,520 --> 00:33:39,440

Okay, I'm going to do some live math here.

630

00:33:39,440 --> 00:33:42,000

The hot water heater itself is 18 inches in diameter.

631

00:33:42,000 --> 00:33:47,200

Now for the area of that, it's pi r squared, which equals 254 square inches of the bottom.

632

00:33:47,200 --> 00:33:50,480

Now you've got a pounds per square inch pressure inside of 336.

633

00:33:50,480 --> 00:33:51,360

Multiply that.

634

00:33:51,360 --> 00:33:56,720

By 254, you get 85,500 pounds of pressure.

635

00:33:56,720 --> 00:33:57,600

Let me say that again.

636

00:33:57,600 --> 00:34:02,560

85,500 pounds of pressure pushing against the bottom of the heater.

637

00:34:03,280 --> 00:34:04,640

You would fail too.

638

00:34:04,640 --> 00:34:05,600

335.

639

00:34:17,760 --> 00:34:18,560

You know what I see?

640

00:34:19,520 --> 00:34:21,440

I see a hole in the roof, man.

641

00:34:22,240 --> 00:34:23,520

Holy cow.

642

00:34:23,520 --> 00:34:26,560

Now that's what I call mission accomplished.

643

00:34:26,560 --> 00:34:30,240

I wish you could be here for this kind of explosion because when the hot water is finally

644

00:34:30,240 --> 00:34:35,920

bluest, you're staring right at it because we know where the zone is and the thud that comes out of it is so

645

00:34:36,640 --> 00:34:40,160

deeply guttural and still one kind of thud.

646

00:34:41,920 --> 00:34:42,720

It's great.

647

00:34:42,720 --> 00:34:43,360

Watch it again.

648

00:34:48,560 --> 00:34:53,520

Give me some skin there.

649

00:34:53,520 --> 00:35:01,520

Looking at the damage the water heater did to the building, it left some neat holes in the first floor

650

00:35:01,520 --> 00:35:09,520

and through the roof, which is no big deal, but looking more carefully, you realize what a shock the entire building took.

651

00:35:09,520 --> 00:35:10,320

Wow.

652

00:35:10,320 --> 00:35:13,360

Yeah, look at how much damage it did to the plywood right here.

653

00:35:13,440 --> 00:35:20,720

The cinder blocks that I put underneath the ground floor are actually shattered from the downward push.

654

00:35:20,720 --> 00:35:26,480

It actually lifted the entire roof off of its seat and then set it down.

655

00:35:27,360 --> 00:35:30,160

You know, this would pretty much ruin your house.

656

00:35:36,160 --> 00:35:36,880

Look at that, man.

657

00:35:36,880 --> 00:35:41,360

It tipped the TV table over, but Buster's still in the couch.

658

00:35:41,360 --> 00:35:43,360

What does all this carnage mean for our man?

659

00:35:43,360 --> 00:35:44,560

I'm glad you asked.

660

00:35:44,560 --> 00:35:47,360

I think it handily plausibleizes it.

661

00:35:47,360 --> 00:36:01,360

I think absolutely if you manage to idiotically cap off all the safety systems on the hot water heater in the basement of your house, it's going to go up through the floor, up through the ceiling, up through the roof and leave a hole in its wake.

662

00:36:01,360 --> 00:36:03,360

Let's check out the water heater.

663

00:36:03,360 --> 00:36:04,160

All right.

664

00:36:04,160 --> 00:36:06,160

Well, there's your problem.

665

00:36:06,160 --> 00:36:10,160

Well, the water heater did its job pretty much on target.

666

00:36:10,960 --> 00:36:12,960

It went through the building just.

667

00:36:12,960 --> 00:36:14,960

It spun around up here and then banged.

668

00:36:14,960 --> 00:36:16,960

We caught it back on our scaffolding.

669

00:36:18,960 --> 00:36:20,960

That's pretty hot.

670

00:36:20,960 --> 00:36:22,960

That's a good day.

671

00:36:22,960 --> 00:36:24,960

Yep, it has been a good day.

672

00:36:24,960 --> 00:36:26,960

A satisfying explosion or two.

673

00:36:26,960 --> 00:36:30,960

A new water heater rocket world record at 560 feet.

674

00:36:31,760 --> 00:36:41,760

Plus a plausible conclusion to the myth that a water heater can blast through the roof of your two-story home, albeit only just.

675

00:36:41,760 --> 00:36:45,760

Well, that's not bad day's work and a plausible myth to boot.

676

00:36:45,760 --> 00:36:51,760

Yeah, your hot water heater could just be a ticking time bomb in your basement.

677

00:36:51,760 --> 00:36:53,760

Ha ha ha.

678

00:37:01,760 --> 00:37:03,760

That was one of the coolest things I've ever seen.

679

00:37:09,760 --> 00:37:13,760

Our intrepid trio are evolving the third installment in the snow plow trilogy.

680

00:37:13,760 --> 00:37:15,760

Oh, crap. Somebody graffiti it all over our sled.

681

00:37:15,760 --> 00:37:23,760

And the means that the mythbusters are going to use is a cool 75,000 pounds of rocket thrust.

682

00:37:23,760 --> 00:37:27,760

But what's not so cool is the art Carrie has brought to the plow project.

683

00:37:28,560 --> 00:37:32,560

I added some finishing touches so that it'll look better on high speed. Now it's bright.

684

00:37:32,560 --> 00:37:34,560

Oh, you did this?

685

00:37:34,560 --> 00:37:36,560

Yeah. Isn't it pretty?

686

00:37:36,560 --> 00:37:38,560

Perfect.

687

00:37:38,560 --> 00:37:40,560

Good job.

688

00:37:42,560 --> 00:37:46,560

So this is it. The final experiment for snow plow and this is how it's going to go down.

689

00:37:46,560 --> 00:37:48,560

This is our superplow that we're going to load up with 12 rockets.

690

00:37:48,560 --> 00:37:54,560

It's going to propel this sled 750 feet down the track going 500 miles an hour.

691

00:37:57,760 --> 00:38:06,560

But we actually need the sled to travel 770 feet because for the last 20 feet it's going to come off the track and fly through the air.

692

00:38:06,560 --> 00:38:14,560

It hit our target. This car, if all goes according to plan, only the wedge part of the superplow should cut right through the car and the rocket sled should slide right underneath.

693

00:38:16,560 --> 00:38:20,560

So the sled we're going to use for our experiment. How many rockets are going to be on that?

694

00:38:20,560 --> 00:38:25,760

We're going to use 12 of these five inch HVARs. Each one has about 6,500 pounds of thrust.

695

00:38:25,760 --> 00:38:29,760

So total we should get about 75,000 pounds of thrust on that one sled.

696

00:38:29,760 --> 00:38:33,760

So do you have any extras of these laying around?

697

00:38:33,760 --> 00:38:35,760

Yeah, don't touch that.

698

00:38:35,760 --> 00:38:43,760

And while the New Mexico Tech Techs lock and load their rockets, the mythbusters are predicting the end of the road for the car.

699

00:38:43,760 --> 00:38:49,760

So far we have not been able to split a car all the way in half with the snow plow. We used a front engine vehicle. That didn't work.

700

00:38:49,760 --> 00:38:51,760

We used a rear engine vehicle. That didn't work.

701

00:38:51,760 --> 00:38:59,760

But now we have a rocket powered superplow. This thing is going to be going 500 miles an hour. I don't think it really matters where the engine is on this vehicle.

702

00:38:59,760 --> 00:39:07,760

Is it going to split it right in half? I don't think so. I have a feeling once it hits that engine, wherever the engine is, it's just going to shred that car into a bunch of little pieces.

703

00:39:07,760 --> 00:39:16,760

Now I know what this rocket sled can do. And I've seen what a snow plow with a really sharp pointy tip can do to a car at 70 miles an hour.

704

00:39:16,760 --> 00:39:22,760

Now when this rocket sled is going 500 miles an hour into this car, I think it doesn't have a chance.

705

00:39:22,760 --> 00:39:28,760

It's not only going to split into two, but it's going to explode into a million pieces just in two directions.

706

00:39:28,760 --> 00:39:32,760

All the rockets are loaded. That thing has to weigh like two tons by now.

707

00:39:32,760 --> 00:39:36,760

And remember there's 12 rockets on there for a total of 75,000 pounds of thrust.

708

00:39:36,760 --> 00:39:41,760

And this thing is going to be going 500 miles an hour. If this doesn't split the car, I don't know what will.

709

00:39:41,760 --> 00:39:44,760

Well, the safest place to be is in the bunker, so let's get inside.

710

00:39:44,760 --> 00:39:48,760

I thought one of us was going to ride it. Let's see how it goes this time and maybe next time, Buckaroo.

711

00:39:48,760 --> 00:39:50,760

Come on. Where's your sense of adventure?

712

00:39:50,760 --> 00:39:53,760

Denied a Dr. Strange Love rocket ride.

713

00:39:53,760 --> 00:39:54,760

Lockdown!

714

00:39:56,760 --> 00:39:57,760

We're ready to launch.

715

00:39:57,760 --> 00:40:00,760

Tori hunkers in the bunker with the rest of the team.

716

00:40:01,760 --> 00:40:08,760

And a strange eerie silence settles on the scene. The proverbial calm before the storm.

717

00:40:09,760 --> 00:40:21,760

This is rocket powered superplow versus front engine vehicle going at 500 miles an hour in five,

four, three, two, one.

718

00:40:27,760 --> 00:40:30,760

That was one of the coolest things I've ever seen.

719

00:40:31,760 --> 00:40:34,760

That went so much faster than I thought it was going to.

720

00:40:34,760 --> 00:40:35,760

That was great.

721

00:40:35,760 --> 00:40:38,760

It was like here one second and then gone.

722

00:40:38,760 --> 00:40:48,760

Gone in a sixth of a second, the rocket's fired and 75,000 pounds of thrust throw the superplow along the track.

723

00:40:50,760 --> 00:40:54,760

The spectacular 550 miles per hour.

724

00:40:55,760 --> 00:41:00,760

And when the dust and shrapnel settle, the team discovers a spectacular result.

725

00:41:01,760 --> 00:41:02,760

We split it.

726

00:41:03,760 --> 00:41:05,760

I cannot believe we split the car in half.

727

00:41:05,760 --> 00:41:07,760

Look at it. It went right down the tape line.

728

00:41:08,760 --> 00:41:11,760

We have two perfect halves of the car.

729

00:41:11,760 --> 00:41:13,760

It actually split the engine in half.

730

00:41:13,760 --> 00:41:15,760

Yeah, check it out.

731

00:41:15,760 --> 00:41:18,760

This is what we couldn't do in Wisconsin. We split the engine block.

732

00:41:18,760 --> 00:41:22,760

Well, when you get that much force, that is crazy.

733

00:41:23,760 --> 00:41:30,760

With that complete bifurcation, the guys got exactly what they came for and what you wanted.

734

00:41:30,760 --> 00:41:32,760

Except there seems to be something missing.

735

00:41:32,760 --> 00:41:33,760

Oh, the sled.

736

00:41:33,760 --> 00:41:35,760

But where is the plow?

737

00:41:36,760 --> 00:41:38,760

The rocket went so much faster than I expected.

738

00:41:38,760 --> 00:41:39,760

It would just shoot.

739

00:41:41,760 --> 00:41:45,760

And the car, we couldn't even see it was split in two till we walked up here because there was just so much dirt in the air.

740

00:41:45,760 --> 00:41:48,760

We got up here, half a blue car, half a yellow car.

741

00:41:48,760 --> 00:41:49,760

Still can't find the wedge.

742

00:41:50,760 --> 00:41:53,760

That's because it's in a thousand tiny pieces.

743

00:41:54,760 --> 00:42:01,760

After cutting a slice through the car, the solid steel superplow disintegrated on impact with a concrete barrier.

744

00:42:05,760 --> 00:42:07,760

That was one of the coolest things I've ever seen.

745

00:42:10,760 --> 00:42:12,760

I mean, we do a lot of explosions on the show.

746

00:42:12,760 --> 00:42:18,760

We do a lot of car crashes, but I have never seen a rocket-powered superplow cut a car in half.

747

00:42:18,760 --> 00:42:21,760

And we did it. We replicated the results of this myth.

748

00:42:23,760 --> 00:42:26,760

It still busted, but we replicated the result.

749

00:42:27,760 --> 00:42:33,760

So this, my friends, is the hood of our former target car cut perfectly in half right down the line.

750

00:42:33,760 --> 00:42:36,760

Now you can only succeed in cutting the car in half.

751

00:42:36,760 --> 00:42:41,760

This myth still busted because this is the ramped-up superplow version,

752

00:42:41,760 --> 00:42:45,760

not the sort of energy you could run into on the street every day.

753

00:42:47,760 --> 00:42:49,760

I don't think we're ever going to find the wedge.

754

00:42:49,760 --> 00:42:52,760

I still cannot believe we cut a car in half.

755

00:42:52,760 --> 00:42:56,760

Well that, my friends, is the end of another excellent experiment.

756

00:43:06,760 --> 00:43:07,760

What's up, boy?

757

00:43:07,760 --> 00:43:09,760

I know that was really cool.

758

00:43:09,760 --> 00:43:13,760

And if you want to see it too, you can log on to [Discovery.com](http://Discovery.com) slash MythBusters.

759

00:43:13,760 --> 00:43:14,760

Who's a good boy?

760

00:43:16,760 --> 00:43:18,760

You need a bath.