

1

00:00:00,000 --> 00:00:04,000

Please, don't try anything you're about to see at home.

2

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

We're what you call experts.

3

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

They say home is where the heart is.

4

00:00:15,000 --> 00:00:20,000

But inside every house lurks a host of domestic dangers.

5

00:00:21,000 --> 00:00:25,000

So could your home actually be where the heart is?

6

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

The Mythbusters are finding out.

7

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

Whoa, Mythbusters job is never done.

8

00:00:32,000 --> 00:00:34,000

From exploding vacuum cleaners.

9

00:00:34,000 --> 00:00:37,000

I spilled the whole thing, oh no.

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00:00:37,000 --> 00:00:40,000

To sunscreen that could scorch your skin.

11

00:00:40,000 --> 00:00:42,000

Can't get sunburnt.

12

00:00:42,000 --> 00:00:43,000

Hey, we caught him on fire.

13

00:00:43,000 --> 00:00:45,000

There he's on fire.

14

00:00:45,000 --> 00:00:47,000

To pianos dropping out of the sky.

15

00:00:47,000 --> 00:00:49,000

Off the roof, off the other roof.

16

00:00:49,000 --> 00:00:51,000

Nothing but concrete.

17

00:00:51,000 --> 00:00:56,000

And finally to water heaters that might extinguish fires.

18

00:00:56,000 --> 00:00:57,000

Oh crap!

19

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

Boom!

20

00:00:58,000 --> 00:00:59,000

Wow.

21

00:00:59,000 --> 00:01:04,000

The Mythbusters are on the case with a horde of household disasters.

22

00:01:04,000 --> 00:01:06,000

Come on, come on, water heater.

23

00:01:06,000 --> 00:01:07,000

Whoa!

24

00:01:10,000 --> 00:01:12,000

Who are the Mythbusters?

25

00:01:13,000 --> 00:01:16,000

Adam Savage, this is science in action.

26

00:01:16,000 --> 00:01:17,000

And Jamie Heineman.

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00:01:17,000 --> 00:01:19,000

We're gonna have an adventure.

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00:01:19,000 --> 00:01:24,000

Between them more than 30 years of special effects experience.

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00:01:24,000 --> 00:01:26,000

Together with Carrie Byron.

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00:01:27,000 --> 00:01:28,000

Let's do it.

31

00:01:28,000 --> 00:01:29,000

Grant Imahara.

32

00:01:29,000 --> 00:01:30,000

Ah!

33

00:01:30,000 --> 00:01:31,000

And Tori Belachie.

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00:01:31,000 --> 00:01:33,000

Let's chop this car up!

35

00:01:33,000 --> 00:01:35,000

They don't just tell the Myths.

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00:01:35,000 --> 00:01:36,000

Oh yeah.

37

00:01:36,000 --> 00:01:38,000

They put them to the test.

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00:01:49,000 --> 00:01:50,000

Off the grid.

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00:01:51,000 --> 00:01:52,000

And undercover.

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00:01:54,000 --> 00:01:56,000

The Mythbusters are beginning.

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00:01:56,000 --> 00:01:58,000

This is the worst case scenario.

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00:01:58,000 --> 00:02:00,000

Fire in the hole!

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00:02:00,000 --> 00:02:02,000

By living dangerously.

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00:02:04,000 --> 00:02:06,000

All I want is something to blow up.

45

00:02:06,000 --> 00:02:07,000

Is that so much to ask?

46

00:02:10,000 --> 00:02:11,000

Wow!

47

00:02:14,000 --> 00:02:15,000

My boy!

48

00:02:15,000 --> 00:02:16,000

Nicely done.

49

00:02:16,000 --> 00:02:18,000

Good work everyone.

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00:02:20,000 --> 00:02:22,000

So they've started with a bang.

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00:02:23,000 --> 00:02:26,000

But how about we start at the beginning?

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00:02:28,000 --> 00:02:33,000

Well today what we have is a whole episode devoted to Myths about household disasters.

53

00:02:33,000 --> 00:02:35,000

And the first one is a doozy.

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00:02:35,000 --> 00:02:40,000

The Myth that sunscreen can make you vulnerable to bursting into flames.

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00:02:40,000 --> 00:02:42,000

Spontaneous human combustion.

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00:02:42,000 --> 00:02:44,000

I'm all for it.

57

00:02:44,000 --> 00:02:46,000

Great, let's go.

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00:02:47,000 --> 00:02:52,000

There's a myth out there that says that certain types of sunscreen may protect you from burning.

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00:02:52,000 --> 00:02:55,000

But they can also at the same time set you on fire.

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00:02:55,000 --> 00:02:59,000

And so with that in mind we've come out to one of our favorite places in the Bay Area

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00:02:59,000 --> 00:03:03,000

that we can legally and safely set things on fire.

62

00:03:03,000 --> 00:03:04,000

Yep.

63

00:03:04,000 --> 00:03:07,000

Inside this fireproof concrete bunker.

64

00:03:08,000 --> 00:03:09,000

Nice.

65

00:03:09,000 --> 00:03:12,000

The guys will attempt to light up some lotion.

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00:03:12,000 --> 00:03:13,000

Is that your fire suit?

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00:03:13,000 --> 00:03:14,000

It is indeed.

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00:03:14,000 --> 00:03:17,000

Good, well if you put that on we'll find out which one of these is flammable.

69

00:03:17,000 --> 00:03:18,000

Alright.

70

00:03:18,000 --> 00:03:22,000

With Adam suited, first up are the traditional creams.

71

00:03:22,000 --> 00:03:24,000

Just squirt those into the flame.

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00:03:24,000 --> 00:03:28,000

And possibly the most basic test ever on Mythbusters.

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00:03:28,000 --> 00:03:30,000

Alright, here goes nothing.

74

00:03:31,000 --> 00:03:33,000

Three, two, one.

75

00:03:35,000 --> 00:03:36,000

Not flammable.

76

00:03:36,000 --> 00:03:37,000

Nope.

77

00:03:38,000 --> 00:03:39,000

Alright, number two.

78

00:03:42,000 --> 00:03:43,000

Also not flammable.

79

00:03:44,000 --> 00:03:45,000

Nope.

80

00:03:45,000 --> 00:03:47,000

So why didn't the creams burn?

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00:03:47,000 --> 00:03:52,000

Well the creams are made up of chemicals and minerals but they're primarily an oil based product

82

00:03:52,000 --> 00:03:56,000

and just like the oil in your salad dressing it's pretty hard to get it to burst into flames.

83

00:03:56,000 --> 00:03:58,000

Not flammable.

84

00:03:58,000 --> 00:04:00,000

But we're just getting started.

85

00:04:00,000 --> 00:04:02,000

Now it's time to move on to the sprays.

86

00:04:04,000 --> 00:04:05,000

Oh!

87

00:04:06,000 --> 00:04:08,000

Alright, that's one for further study.

88

00:04:09,000 --> 00:04:10,000

Wow!

89

00:04:10,000 --> 00:04:13,000

Clearly this is one you shouldn't try at home.

90

00:04:13,000 --> 00:04:14,000

Woo!

91

00:04:15,000 --> 00:04:18,000

Because the sprays are adding fuel to the fire.

92

00:04:21,000 --> 00:04:22,000

Wow!

93

00:04:23,000 --> 00:04:25,000

Dude, these sprays are scary.

94

00:04:25,000 --> 00:04:28,000

And it's all down to the propellant.

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00:04:28,000 --> 00:04:32,000

So what are those propellants you'll find in an average can of spray sunscreen?

96

00:04:32,000 --> 00:04:34,000

Primarily butane and propane.

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00:04:34,000 --> 00:04:37,000

Butane you'll know as the stuff that's in your lighter.

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00:04:37,000 --> 00:04:41,000

And propane is the stuff you cook your burgers on.

99

00:04:41,000 --> 00:04:46,000

They're used primarily because they're self-pressurizing and they allow the manufacturer to make something that sprays

100

00:04:46,000 --> 00:04:49,000

without having to put a highly pressurized gas in this canister.

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00:04:49,000 --> 00:04:53,000

They're not meant to be flammable, not for this product anyway.

102

00:04:53,000 --> 00:04:56,000

The butane is fanning the flames of the myth.

103

00:04:56,000 --> 00:04:57,000

Alright.

104

00:04:58,000 --> 00:05:00,000

Time to get cooking.

105

00:05:00,000 --> 00:05:06,000

So now to find out if this summertime scenario really is a household hazard.

106

00:05:06,000 --> 00:05:07,000

Just in case.

107

00:05:08,000 --> 00:05:11,000

Our scenario here is pretty straightforward.

108

00:05:11,000 --> 00:05:18,000

Our dude here, the chef, is a barbecuing aficionado who's also very pale.

109

00:05:18,000 --> 00:05:22,000

So he is currently covering himself with sunscreen while barbecuing.

110

00:05:22,000 --> 00:05:26,000

We're going to wait until the meat gets good and greasy and get some fire coming up off of that.

111

00:05:26,000 --> 00:05:30,000

Then we're going to try and apply a little sunscreen to see what happens to our dude.

112

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

Alright, here we go.

113

00:05:32,000 --> 00:05:36,000

I may be barbecuing but it's been a while since I put sunscreen on.

114

00:05:36,000 --> 00:05:42,000

Barbecuing Buster is pale as a ghost, so Adam ensures he's thoroughly protected from the sun.

115

00:05:43,000 --> 00:05:45,000

Yeah, that's not so bad.

116

00:05:45,000 --> 00:05:50,000

But could that overzealous protection actually do Buster harm?

117

00:05:50,000 --> 00:05:53,000

Can't get sunburned. No, no sunburn for you.

118

00:05:55,000 --> 00:05:56,000

Oh, oh.

119

00:05:58,000 --> 00:06:00,000

Hey, we caught him on fire.

120

00:06:02,000 --> 00:06:03,000

He's on fire.

121

00:06:03,000 --> 00:06:04,000

Should I put him out?

122

00:06:04,000 --> 00:06:05,000

Yes.

123

00:06:06,000 --> 00:06:07,000

Excellent.

124

00:06:07,000 --> 00:06:09,000

Woo, that was close.

125

00:06:11,000 --> 00:06:18,000

We actually were able to get the fire to jump from the barbecue through the mist to the guy's arm and set him on fire.

126

00:06:18,000 --> 00:06:27,000

Pretty extreme circumstances, I know, but at this point his arm and even some of his clothing are on fire and he's in big trouble.

127

00:06:28,000 --> 00:06:31,000

Clearly this could be a home disaster waiting to happen.

128

00:06:32,000 --> 00:06:35,000

So cue Human Attalog 2.0.

129

00:06:36,000 --> 00:06:39,000

Ready for your 15 minutes of fame, little piggy?

130

00:06:46,000 --> 00:06:51,000

Next up, Kari Torian Grant gets a drop on a little house music.

131

00:06:52,000 --> 00:06:57,000

Are you guys ready for a super slapstick cartoon style house hazards myth?

132

00:06:57,000 --> 00:06:59,000

Yeah, okay, let's hear it.

133

00:06:59,000 --> 00:07:06,000

All right, so you know when a piano is dangling above a house dangerously, whenever it drops it crashes all the way through.

134

00:07:06,000 --> 00:07:09,000

Yeah, that leaves a perfect hole in the roof and every floor goes through.

135

00:07:09,000 --> 00:07:12,000

Well, that's what we're testing. Is that how it really happens?

136

00:07:14,000 --> 00:07:22,000

So to test this disastrous domestic drop, they found the perfect crib to crash the piano through.

137

00:07:22,000 --> 00:07:24,000

Oh, this place is creepy.

138

00:07:24,000 --> 00:07:32,000

Now to test this, we had to find a house and by some miracle, somebody has given us a house to crash a piano through.

139

00:07:32,000 --> 00:07:34,000

What is this place?

140

00:07:34,000 --> 00:07:37,000

Now before you freak out, oh, it's a house from the 1800s.

141

00:07:37,000 --> 00:07:43,000

This is ridden with rat poop. This is slated for tear down. This is going to be demolished anyway.

142

00:07:43,000 --> 00:07:45,000

We're just going to give it a head start.

143

00:07:47,000 --> 00:07:49,000

So this is the piano that we're going to be dropping on our roof.

144

00:07:49,000 --> 00:07:54,000

It weighs 700 pounds. We're going to take it up 50 feet above the roof and drop it.

145

00:07:54,000 --> 00:08:01,000

Now it's going to be traveling at 38 miles an hour and it's going to hit the rooftop with 12,000 pounds of force.

146

00:08:01,000 --> 00:08:05,000

And this is our roof. We'll be dropping the piano right on the bull's eye.

147

00:08:05,000 --> 00:08:12,000

Now at that target point, a roof of this design is capable of supporting a static load of approximately 2,200 pounds.

148

00:08:12,000 --> 00:08:14,000

Let me show you what it looks like inside.

149

00:08:15,000 --> 00:08:22,000

And we've specifically chosen the target point to be between the roof joists so that it has the best possibility of punching through.

150

00:08:22,000 --> 00:08:27,000

But that's not all. In order for this myth to be confirmed, it has to punch through the floor too.

151

00:08:27,000 --> 00:08:32,000

Now this floor is capable of supporting a static load of 4,200 pounds.

152

00:08:32,000 --> 00:08:37,000

And if you do all the math, that means we just might see a hole in the roof and a hole in the floor.

153

00:08:44,000 --> 00:08:47,000

Alright, time to raise the piano, huh?

154

00:08:47,000 --> 00:08:48,000

Let's do it.

155

00:08:48,000 --> 00:08:50,000

Got the straps.

156

00:08:50,000 --> 00:08:57,000

Now to get our piano airborne, this is our crane. It should easily be able to dangle that piano 50 feet above the rooftop.

157

00:08:57,000 --> 00:09:01,000

Alright, take a long look at this piano. This is the last time it's going to look this good.

158

00:09:01,000 --> 00:09:08,000

I think that the piano is going to break into pieces. The idea that it would keep going and go through the floor as well, it feels a little ludicrous to me.

159

00:09:08,000 --> 00:09:11,000

I think that we're going to get just through the roof and that's it.

160

00:09:11,000 --> 00:09:24,000

Carrie's instincts say no, but with a 700 pound piano dropping from 50 feet and striking the roof with a force of 12,000 pounds, it's going to be hard hitting.

161

00:09:24,000 --> 00:09:33,000

Okay, here we go. This is upright piano at 50 feet, drop through a house in three, two, one.

162

00:09:34,000 --> 00:09:42,000

Oh, off the roof, off the other roof. Not too much concrete.

163

00:09:42,000 --> 00:09:45,000

Oh, listen to that bounce. It's still playing.

164

00:09:45,000 --> 00:09:50,000

It's still going, but that's the music of, yeah, I think I know this tune. Busted.

165

00:09:50,000 --> 00:10:01,000

It seems the upright piano was too low key. Despite the force of the fall, it wasn't enough to carry the tune. But is there more to this myth?

166

00:10:01,000 --> 00:10:03,000

I think we're going to need a bigger piano.

167

00:10:03,000 --> 00:10:04,000

Yep.

168

00:10:07,000 --> 00:10:14,000

Wow, look at that. We splintered the beams. I think what happened was there was so much flex in the roof that we weren't able to punch through.

169

00:10:14,000 --> 00:10:17,000

So now I think we need a bigger piano.

170

00:10:23,000 --> 00:10:27,000

Coming up, the Mythbusters hit home with more domestic disasters.

171

00:10:27,000 --> 00:10:29,000

Come on, Waterheater.

172

00:10:32,000 --> 00:10:42,000

Sunscreen. It's meant to keep you from burning.

173

00:10:42,000 --> 00:10:47,000

But could it actually give you a very painful kind of tan?

174

00:10:47,000 --> 00:10:53,000

So far in this episode, our experiments have been concentrated around the aerosolization of spray sunscreen.

175

00:10:53,000 --> 00:10:59,000

That is when it creates a bilious cloud that gets near an open flame and can cause a whoo-shing fireball.

176

00:10:59,000 --> 00:11:01,000

Hey, we got them on fire.

177

00:11:01,000 --> 00:11:05,000

But that's not the only mechanism by which we've heard these sunscreens can be dangerous.

178

00:11:05,000 --> 00:11:11,000

We've heard reports of people applying it and then minutes later approaching an open flame and then catching on fire.

179

00:11:11,000 --> 00:11:15,000

That it may remain flammable for a period of time.

180

00:11:15,000 --> 00:11:19,000

But to test this, we can't use our fiberglass mannequin because its skin is hard.

181

00:11:19,000 --> 00:11:25,000

We need a more realistic human analog to skin that can absorb our sunscreen.

182

00:11:25,000 --> 00:11:28,000

Ready for your 15 minutes of fame, little piggy?

183

00:11:28,000 --> 00:11:30,000

Like that guy.

184

00:11:30,000 --> 00:11:36,000

The suggestion is that propellant-based sunscreen stays flammable long after application.

185

00:11:36,000 --> 00:11:38,000

Let's get to grilling.

186

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

There we go.

187

00:11:39,000 --> 00:11:43,000

But is that a scenario that will bring home the bacon?

188

00:11:43,000 --> 00:11:47,000

No, wait a little bit. Let the fat start to fry.

189

00:11:47,000 --> 00:11:53,000

For the first test, we're going to apply the sunscreen and then wait three minutes before we expose it to flame.

190

00:11:53,000 --> 00:11:57,000

All right, dude, I think we're close. You want to get ready to spray him and then count down three minutes?

191

00:11:57,000 --> 00:12:02,000

Okay, so how might it be that sunscreen remains flammable once applied to the skin?

192

00:12:02,000 --> 00:12:04,000

A whole bunch, all the way down the arm too.

193

00:12:04,000 --> 00:12:09,000

Well, solvents are used to dissolve the oils and minerals and carry them in suspension.

194

00:12:09,000 --> 00:12:15,000

And that is usually denatured alcohol at concentrations up to 75%.

195

00:12:15,000 --> 00:12:18,000

And as we know, alcohol is very flammable.

196

00:12:18,000 --> 00:12:20,000

That's the theory. And three minutes later...

197

00:12:20,000 --> 00:12:22,000

Three minutes.

198

00:12:22,000 --> 00:12:24,000

Porky has to sweat it out.

199

00:12:24,000 --> 00:12:27,000

There we go, pig.

200

00:12:27,000 --> 00:12:32,000

Adam fans the flames, but will the sunscreen still be flammable?

201

00:12:32,000 --> 00:12:35,000

Nothing. Nothing, man.

202

00:12:35,000 --> 00:12:38,000

Ah, no.

203

00:12:38,000 --> 00:12:40,000

Three minutes. I don't think you're flammable.

204

00:12:40,000 --> 00:12:42,000

Time to do one minute.

205

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

Let's go for brook.

206

00:12:44,000 --> 00:12:48,000

Next, they slap on a whole lot more sunscreen.

207

00:12:48,000 --> 00:12:52,000

And this time, grab the grill after just 60 seconds.

208

00:12:52,000 --> 00:12:55,000

Time's up. Go.

209

00:13:01,000 --> 00:13:04,000

Ah, one minute. Nothing.

210

00:13:04,000 --> 00:13:05,000

Nope.

211

00:13:05,000 --> 00:13:09,000

We've tested the application of spray sunscreen on our pig and exposed him to a barbecue fire

212

00:13:09,000 --> 00:13:15,000

after three minutes and one minute, and so far have yet to achieve any kind of burning pork.

213

00:13:15,000 --> 00:13:18,000

Now we're going to do it nearly instantaneously.

214

00:13:18,000 --> 00:13:23,000

We're going to apply the sunscreen to our pig, wait about five seconds for the billiest cloud to disperse,

215

00:13:23,000 --> 00:13:25,000

and then bring in the barbecue flames.

216

00:13:25,000 --> 00:13:26,000

There we go.

217

00:13:26,000 --> 00:13:27,000

Okay.

218

00:13:30,000 --> 00:13:32,000

There he's on fire.

219

00:13:32,000 --> 00:13:35,000

Is he on fire? No, my goodness.

220

00:13:38,000 --> 00:13:43,000

So as Porky feels the burn, there's definitely a residual risk.

221

00:13:43,000 --> 00:13:46,000

But it's only five seconds after application.

222

00:13:46,000 --> 00:13:50,000

So it seems that the alcohol in these sprays is evaporating very rapidly.

223

00:13:50,000 --> 00:13:58,000

But if you spray yourself down and then immediately expose that sprayed area to an open source of flame like the grill,

224

00:13:58,000 --> 00:14:01,000

you could be in serious trouble, like our guy.

225

00:14:07,000 --> 00:14:14,000

Before they tickle the ivories once again, first a different domestic disaster.

226

00:14:14,000 --> 00:14:17,000

Okay, a vacuum cleaner. And is that black powder?

227

00:14:17,000 --> 00:14:19,000

It is. All right, let me explain.

228

00:14:19,000 --> 00:14:22,000

Now this myth is about a guy who's making his own ammo in his living room.

229

00:14:22,000 --> 00:14:26,000

He knocks over a bunch of black powder on the carpet, decides to vacuum it up,

230

00:14:26,000 --> 00:14:30,000

but something in the vacuum cleaner ignites the black powder and the whole thing explodes.

231

00:14:30,000 --> 00:14:31,000

No way.

232

00:14:31,000 --> 00:14:34,000

Man, this has myth posters written all over it.

233

00:14:34,000 --> 00:14:38,000

It's a household hazard that you can't sweep under the rug,

234

00:14:38,000 --> 00:14:43,000

but will sucking up black powder really bring the house down?

235

00:14:43,000 --> 00:14:45,000

Well, at the bomb range.

236

00:14:45,000 --> 00:14:48,000

All right, the cleanup crews here.

237

00:14:48,000 --> 00:14:50,000

The guys get on with their chores.

238

00:14:50,000 --> 00:14:52,000

All heads on deck, get it?

239

00:14:52,000 --> 00:14:53,000

Hey!

240

00:14:53,000 --> 00:14:54,000

Woo-hoo, funny.

241

00:14:54,000 --> 00:14:56,000

As they lay first a floor.

242

00:14:56,000 --> 00:14:59,000

Oh my God, it's perfect.

243

00:14:59,000 --> 00:15:00,000

And then a carpet.

244

00:15:00,000 --> 00:15:03,000

Watch this. Boom!

245

00:15:03,000 --> 00:15:06,000

Wow, we actually got a carpet that goes with the colors of the bomb range.

246

00:15:06,000 --> 00:15:09,000

There's dirty brown and blasted brown.

247

00:15:09,000 --> 00:15:12,000

A little bit of burnt ochre.

248

00:15:13,000 --> 00:15:15,000

So now to bring in the vacuums.

249

00:15:15,000 --> 00:15:20,000

But how could something built to suck ignite the black powder?

250

00:15:20,000 --> 00:15:25,000

Well, number one, you have an electric motor that's generating heat.

251

00:15:25,000 --> 00:15:29,000

Number two, you have rotating parts moving at high speed.

252

00:15:29,000 --> 00:15:34,000

You could form static electricity and a static discharge could set it off.

253

00:15:34,000 --> 00:15:38,000

And finally, there could be an electrical problem inside of the vacuum,

254

00:15:38,000 --> 00:15:42,000

causing a large amount of heat to be generated in a small area.

255

00:15:42,000 --> 00:15:45,000

And because of that unholy trinity.

256

00:15:45,000 --> 00:15:48,000

Oh, Miss Buster's job is never done.

257

00:15:48,000 --> 00:15:51,000

The team is opting for some hands-free hoovering.

258

00:15:51,000 --> 00:15:53,000

So this is how it's going to go down.

259

00:15:53,000 --> 00:15:56,000

We're going to be vacuuming up a pound of black powder.

260

00:15:56,000 --> 00:15:57,000

That's a lot of black powder.

261

00:15:57,000 --> 00:15:59,000

The vacuum cleaner could potentially explode.

262

00:15:59,000 --> 00:16:04,000

So we'll be operating it remotely with my vacuuming robot.

263

00:16:04,000 --> 00:16:07,000

If you are not satisfied with the robot vacuum machine,

264

00:16:07,000 --> 00:16:12,000

your money is 100% 90%.

265

00:16:12,000 --> 00:16:15,000

It's about 50% guaranteed.

266

00:16:15,000 --> 00:16:19,000

With the robot firing on its one and only cylinder.

267

00:16:19,000 --> 00:16:22,000

Like one of those furniture testers.

268

00:16:22,000 --> 00:16:25,000

Grat adds the final ingredient.

269

00:16:25,000 --> 00:16:27,000

Oh, I spilled some more. Oh, no.

270

00:16:27,000 --> 00:16:30,000

I spilled the whole thing. Oh, no.

271

00:16:30,000 --> 00:16:36,000

This feels like the beginning of the best infomercial for a vacuum ever.

272

00:16:36,000 --> 00:16:42,000

Okay, this is black powder vacuum in three, two, one.

273

00:16:42,000 --> 00:16:45,000

All right, engaging RoboMaid.

274

00:16:48,000 --> 00:16:51,000

All right, let's let it run for a minute and see what happens.

275

00:16:51,000 --> 00:16:56,000

Slowly but surely, RoboMaid runs the vacuum over the powder.

276

00:16:56,000 --> 00:17:00,000

Yeah, she moves real slow, but she does a great job.

277

00:17:00,000 --> 00:17:05,000

But after a minute, although the vacuum is sucking, it's not blowing up.

278

00:17:05,000 --> 00:17:09,000

Didn't blow up. Okay, let's switch out the vacuum.

279

00:17:09,000 --> 00:17:14,000

So with a squadron of suckers standing by.

280

00:17:14,000 --> 00:17:16,000

We do windows too.

281

00:17:16,000 --> 00:17:18,000

Next, they try the uprights.

282

00:17:18,000 --> 00:17:20,000

All right, I think we can call it.

283

00:17:20,000 --> 00:17:21,000

Then the canisters.

284

00:17:21,000 --> 00:17:26,000

12 amp canister vacuum. Three, two, one.

285

00:17:26,000 --> 00:17:29,000

Then the high and the low amperages.

286

00:17:29,000 --> 00:17:32,000

Well, so far it's sucking.

287

00:17:32,000 --> 00:17:34,000

Oh, you're right. It is sucking.

288

00:17:34,000 --> 00:17:39,000

But after all that vacuuming, there's still 0 for 7 on explosions.

289

00:17:39,000 --> 00:17:42,000

This myth is totally busted.

290

00:17:42,000 --> 00:17:44,000

I'm standing in a virtual vacuum cleaner graveyard.

291

00:17:44,000 --> 00:17:47,000

We tried every vacuum cleaner we could find.

292

00:17:47,000 --> 00:17:51,000

We used a substantial amount of black powder and no boom.

293

00:17:51,000 --> 00:17:52,000

Busted.

294

00:17:52,000 --> 00:17:54,000

But we're going to end this way.

295

00:17:54,000 --> 00:17:58,000

MythBusters liked an experiment with a big blast.

296

00:17:58,000 --> 00:18:02,000

Yep, the team tested the circumstances and it sucked.

297

00:18:02,000 --> 00:18:05,000

So now it's time to replicate the result.

298

00:18:05,000 --> 00:18:07,000

It's time for our favorite part.

299

00:18:07,000 --> 00:18:11,000

MythBusters made service in three, two, one.

300

00:18:12,000 --> 00:18:14,000

Oh!

301

00:18:16,000 --> 00:18:20,000

Now that is an exploding vacuum cleaner.

302

00:18:20,000 --> 00:18:23,000

MythBusters.

303

00:18:37,000 --> 00:18:42,000

So, all episode long, we've been testing things that go horribly wrong in the house.

304

00:18:42,000 --> 00:18:44,000

For this story, we've got a bit of a twist.

305

00:18:44,000 --> 00:18:48,000

We're doing two things that go horribly wrong, except that they cancel each other out.

306

00:18:48,000 --> 00:18:49,000

Go on.

307

00:18:49,000 --> 00:18:53,000

Well, first you've got to picture a house that has a faulty hot water heater.

308

00:18:53,000 --> 00:18:56,000

A situation we know is very, very dangerous.

309

00:18:56,000 --> 00:19:00,000

At the same time as the water heater is about to blow, a fire starts.

310

00:19:00,000 --> 00:19:04,000

Then in some crazy coincidence, just as the fire is reaching its peak,

311

00:19:04,000 --> 00:19:07,000

the water heater explodes and bang!

312

00:19:07,000 --> 00:19:09,000

No more fire.

313

00:19:09,000 --> 00:19:14,000

So the water heater explodes and then it completely extinguishes the fire.

314

00:19:14,000 --> 00:19:15,000

Exactly.

315

00:19:15,000 --> 00:19:20,000

So what we need is a house that we can set on fire and a water heater that will fail

316

00:19:20,000 --> 00:19:25,000

precisely when we want it to, because in this one, timing is everything.

317

00:19:28,000 --> 00:19:30,000

Isn't it always?

318

00:19:30,000 --> 00:19:32,000

Yes, it is.

319

00:19:32,000 --> 00:19:35,000

So they'll fight fire with steam later,

320

00:19:35,000 --> 00:19:40,000

because first off, they need a water heater that will explode on cue.

321

00:19:40,000 --> 00:19:42,000

We've done a lot of stories in this location.

322

00:19:42,000 --> 00:19:44,000

Yes, we have.

323

00:19:44,000 --> 00:19:48,000

The main ingredient, they'll need that malfunctioning water heater.

324

00:19:48,000 --> 00:19:50,000

Nice.

325

00:19:51,000 --> 00:19:55,000

And for the firefighting contents, they've got to improvise.

326

00:19:55,000 --> 00:19:58,000

Resources are a little scarce out here at Pit 232,

327

00:19:58,000 --> 00:20:03,000

so Miles and Tori are using the Great All to get water in that trash can.

328

00:20:03,000 --> 00:20:06,000

Said trash can will then be transported over to our water heater,

329

00:20:06,000 --> 00:20:10,000

where soon we're going to turn it into steam, hopefully, catastrophically.

330

00:20:11,000 --> 00:20:15,000

That right there, that's some Mythbusters ingenuity.

331

00:20:20,000 --> 00:20:23,000

Straight from the lake, into the tank.

332

00:20:24,000 --> 00:20:27,000

For the next step, Jamie is bringing in some air support.

333

00:20:28,000 --> 00:20:31,000

But where does that fit with this overheated water heater?

334

00:20:32,000 --> 00:20:37,000

Now if you're familiar with our show, you know that this is not our first water heater explosion.

335

00:20:37,000 --> 00:20:40,000

Mavre things to blow up. Right here.

336

00:20:47,000 --> 00:20:52,000

Now in the past, when we've blown them up, we have gone with a very similar methodology for every single one.

337

00:20:52,000 --> 00:20:54,000

We've capped it off, heated up, and waited for it to blow.

338

00:20:54,000 --> 00:20:57,000

Ah, this fence is killing me.

339

00:20:57,000 --> 00:20:58,000

And waited.

340

00:20:58,000 --> 00:21:00,000

This is excruciating.

341

00:21:00,000 --> 00:21:01,000

And waited.

342

00:21:01,000 --> 00:21:03,000

I don't want to take my eyes off me.

343

00:21:03,000 --> 00:21:05,000

The waiting is the hardest part.

344

00:21:05,000 --> 00:21:07,000

I love this part.

345

00:21:08,000 --> 00:21:11,000

But in this case, we need the water heater to blow at a very specific point

346

00:21:11,000 --> 00:21:15,000

when the fire in our house is big enough to have passed the point of no return,

347

00:21:15,000 --> 00:21:18,000

but not big enough to have officially burned down the house.

348

00:21:18,000 --> 00:21:26,000

So this time, we are implementing an entirely new method of causing our water heater to blow exactly when we want it to.

349

00:21:27,000 --> 00:21:34,000

And that new method starts here, with this generator putting out 11,000 watts of power to the heating elements in our water heater.

350

00:21:34,000 --> 00:21:39,000

All those trusty electrons will transfer their energy into the water inside this sealed container,

351

00:21:39,000 --> 00:21:43,000

causing the water to expand, causing pressure to build inside it.

352

00:21:43,000 --> 00:21:50,000

And in our extensive experience with these, they'll blow somewhere between 320 and 340 pounds per square inch of pressure.

353

00:21:50,000 --> 00:21:54,000

So I figure I can make the tank blow whenever I want using this scuba tank.

354

00:21:54,000 --> 00:22:01,000

I'll wait until we get up into the 300 psi or so range, throw this lever, and when I do...

355

00:22:04,000 --> 00:22:06,000

KKKKK

356

00:22:08,000 --> 00:22:09,000

Oh crap!

357

00:22:12,000 --> 00:22:15,000

So when the tank reaches 300 psi...

358

00:22:15,000 --> 00:22:17,000

Power on!

359

00:22:18,000 --> 00:22:20,000

Now we wait.

360

00:22:20,000 --> 00:22:25,000

A little extra burst will push it past its threshold and boom.

361

00:22:25,000 --> 00:22:29,000

Well, that's the theory, so first, a proof-of-concept test.

362

00:22:29,000 --> 00:22:36,760

It's that familiar water heater wait as the pressure inside the tank slowly builds.

363

00:22:36,760 --> 00:22:42,040

As they close in on 300 psi, it's all down to their rig because if it can't trigger

364

00:22:42,040 --> 00:22:46,160

a boom, they won't be fighting fires anytime soon.

365

00:22:46,160 --> 00:22:49,280

We're at 226 folks.

366

00:22:49,280 --> 00:22:53,400

The anticipation is really exquisite at this point.

367

00:22:54,360 --> 00:22:59,160

Ten minutes later, it's time to give the heater its booster shot.

368

00:22:59,160 --> 00:23:01,880

It's go time. Here we go.

369

00:23:01,880 --> 00:23:06,560

Alright everybody, it's happening. I'll give a countdown.

370

00:23:06,560 --> 00:23:08,280

Jamie, you ready?

371

00:23:08,280 --> 00:23:09,200

I'm ready.

372

00:23:09,200 --> 00:23:18,200

Alright. High pressure hot water heater explosion in five, four, three, two, one, go.

373

00:23:24,040 --> 00:23:26,040

That pressure just dropped to zero.

374

00:23:28,040 --> 00:23:31,760

Oh, oh, oh, oh, it's up, it's up, it's up. I see it, I see it.

375

00:23:31,760 --> 00:23:35,760

It's coming down to the right. It's perfect. Not too far.

376

00:23:38,240 --> 00:23:41,080

Boom! Nice work, sir.

377

00:23:41,080 --> 00:23:44,080

Within a second.

378

00:23:44,080 --> 00:23:46,080

Well done.

379

00:23:46,080 --> 00:23:48,760

What a relief that works magnificently.

380

00:23:48,760 --> 00:23:50,120

Proof of concept.

381

00:23:50,120 --> 00:23:52,680

Let's go inspect the damage.

382

00:23:52,680 --> 00:23:54,680

Never get used to that feeling.

383

00:23:56,680 --> 00:24:00,400

That last shot in the arm overpressurized the water heater.

384

00:24:00,400 --> 00:24:07,400

And after a dramatic pause for effect, it exploded almost on cue.

385

00:24:07,400 --> 00:24:11,800

Smells wet and just like every other water heater explosion,

386

00:24:11,800 --> 00:24:18,360

there's the upside down concave now made convex that sends it on its journey.

387

00:24:18,360 --> 00:24:21,720

So as you can see, the ground is wet around here.

388

00:24:21,720 --> 00:24:25,440

It's about a 25 foot radius of moisture.

389

00:24:25,440 --> 00:24:28,920

That's the stuff that hopefully is going to put out our fire.

390

00:24:31,160 --> 00:24:33,960

You know, you know, a little welding, it'll be good as new.

391

00:24:35,880 --> 00:24:38,840

Well, that was beautiful.

392

00:24:38,840 --> 00:24:43,400

It would seem that even though we are old dogs, when it comes to detonating

393

00:24:43,400 --> 00:24:47,920

or exploding hot water heaters, we could still learn a few new tricks.

394

00:24:47,960 --> 00:24:52,960

We now know exactly how to set off a water heater when we want to.

395

00:24:52,960 --> 00:24:55,480

Now it's time to transfer that technology to a house on fire,

396

00:24:55,480 --> 00:24:58,960

because don't forget we're trying to put out a house fire

397

00:24:58,960 --> 00:25:01,720

with the energy of an exploding water heater.

398

00:25:01,720 --> 00:25:03,720

Should be good.

399

00:25:06,360 --> 00:25:10,160

Please don't try what you're about to see at home.

400

00:25:10,160 --> 00:25:12,040

We're what you would call experts.

401

00:25:12,480 --> 00:25:14,280

Welcome back.

402

00:25:14,280 --> 00:25:17,840

We have been testing a story about a house that is on fire,

403

00:25:17,840 --> 00:25:21,720

and that fire gets extinguished by an exploding hot water heater.

404

00:25:23,080 --> 00:25:26,320

In order to test this, we had to come up with an entirely new method

405

00:25:26,320 --> 00:25:29,240

of exploding a hot water heater on command.

406

00:25:29,240 --> 00:25:31,760

We tested it and it works perfectly.

407

00:25:31,760 --> 00:25:34,440

Boom! Nice work, sir.

408

00:25:34,440 --> 00:25:38,120

Now it's time to find out if that exploding hot water heater

409

00:25:38,120 --> 00:25:41,120

actually has fire extinguishing capabilities.

410

00:25:41,120 --> 00:25:45,120

Yep, and for that, they're going to need a house to set on fire.

411

00:25:46,120 --> 00:25:48,120

So this is our cozy little cottage.

412

00:25:48,120 --> 00:25:50,120

It's being built to code.

413

00:25:50,120 --> 00:25:52,120

It'll have all the modern amenities.

414

00:25:52,120 --> 00:25:54,120

It has a lovely lakeside view.

415

00:25:54,120 --> 00:25:56,120

Ain't she pretty?

416

00:25:56,120 --> 00:25:59,120

Well, at least she is right now.

417

00:26:01,120 --> 00:26:04,120

And every lake house needs a fire extinguisher.

418

00:26:04,120 --> 00:26:07,120

Installed and filled to the brim.

419

00:26:07,120 --> 00:26:10,120

Got a lovely siphon. It's like magic.

420

00:26:10,120 --> 00:26:12,120

And now the dressing will commence.

421

00:26:12,120 --> 00:26:14,120

Oh, like a magician.

422

00:26:14,120 --> 00:26:18,120

The mythbusters are replicating a lounge room scenario

423

00:26:18,120 --> 00:26:20,120

complete with shag carpet.

424

00:26:20,120 --> 00:26:24,120

That is some fuggly-ass carpet. Nice.

425

00:26:24,120 --> 00:26:26,120

Comfy couches.

426

00:26:26,120 --> 00:26:28,120

It's looking good.

427

00:26:28,120 --> 00:26:31,120

And plenty of combustible wood.

428

00:26:31,120 --> 00:26:33,120

It's looking good.

429

00:26:33,120 --> 00:26:35,120

And plenty of combustible contents.

430

00:26:35,120 --> 00:26:37,120

Home sweet home.

431

00:26:39,120 --> 00:26:43,120

I find it interesting we're repeatedly making spaces that feel somewhat homey

432

00:26:43,120 --> 00:26:47,120

but are only going to last for like 45 minutes before we burn them down.

433

00:26:47,120 --> 00:26:51,120

Or maybe put them out. We might put this fire out.

434

00:26:51,120 --> 00:26:56,120

They might, but to put it out, first they'll need to start it.

435

00:26:56,120 --> 00:26:58,120

All right, go ahead and fire it up.

436

00:26:59,120 --> 00:27:02,120

Nice. Shut it down.

437

00:27:02,120 --> 00:27:04,120

Oh, what is this?

438

00:27:04,120 --> 00:27:09,120

This is a little wastebasket fire starter that I built back in the shop yesterday.

439

00:27:09,120 --> 00:27:13,120

In order to replicate a real-world fire starting in a house

440

00:27:13,120 --> 00:27:16,120

we are going to create a way to start a fire in a wastebasket.

441

00:27:16,120 --> 00:27:19,120

We need to set a fire exactly when we want to

442

00:27:19,120 --> 00:27:22,120

and that means we're going to use our favorite ignition source,

443

00:27:22,120 --> 00:27:24,120

the 15,000-volt neon transformer.

444

00:27:24,120 --> 00:27:29,120

Now if everything goes according to plan, pushing this button should start a fire in this bucket.

445

00:27:29,120 --> 00:27:32,120

Three, two, one.

446

00:27:37,120 --> 00:27:39,120

And there it is.

447

00:27:39,120 --> 00:27:41,120

Wait, that's it.

448

00:27:42,120 --> 00:27:43,120

I think that's enough said.

449

00:27:43,120 --> 00:27:45,120

Oh, wait, there's one last detail.

450

00:27:45,120 --> 00:27:48,120

Everyone has a nice little bit of a throw.

451

00:27:48,120 --> 00:27:51,120

They put over the arm of their couch.

452

00:27:52,120 --> 00:27:54,120

Diabolical.

453

00:27:54,120 --> 00:27:57,120

The house is now a disaster waiting to happen,

454

00:27:57,120 --> 00:28:01,120

but to contain it, Jamie is digging the dirt.

455

00:28:01,120 --> 00:28:08,120

One of the problems with setting a house on fire is the question of what else you might set on fire if you do that.

456

00:28:08,120 --> 00:28:11,120

Well, it's fire season here in California

457

00:28:11,120 --> 00:28:16,120

and our experiment is going to make the fire department a little, well, nervous.

458

00:28:16,120 --> 00:28:21,120

So to put their minds at ease, I'm going to dig a nice fire break.

459

00:28:21,120 --> 00:28:24,120

And with that, their house is ready to burn.

460

00:28:27,120 --> 00:28:29,120

Visitor, who could it be?

461

00:28:29,120 --> 00:28:30,120

I think we're done.

462

00:28:30,120 --> 00:28:33,120

Not yet. Stand back just a little bit.

463

00:28:33,120 --> 00:28:35,120

Now we're done.

464

00:28:35,120 --> 00:28:38,120

Wipe your feet. The carpet's all nice.

465

00:28:39,120 --> 00:28:44,120

It's a silent movie classic that plays a devastating tune.

466

00:28:44,120 --> 00:28:49,120

But could this domestic disaster be fictional physics?

467

00:28:49,120 --> 00:28:55,120

Okay, so far we haven't had any luck punching through the roof with our upright piano, just like in the movies.

468

00:28:55,120 --> 00:29:00,120

But not giving up, we're going to upgrade to this baby grand piano.

469

00:29:00,120 --> 00:29:05,120

It has twice the weight of the upright and therefore twice the weight of the upright.

470

00:29:05,120 --> 00:29:09,120

It has twice the weight of the upright and therefore twice the energy.

471

00:29:09,120 --> 00:29:16,120

We'll find a new part of the roof to drop it on because the one we just used is compromised and we'll give it another shot.

472

00:29:16,120 --> 00:29:22,120

So will that grander piano weighing 1,400 pounds get the shingles to shatter?

473

00:29:22,120 --> 00:29:26,120

Though having a bigger piano gives us more kinetic energy,

474

00:29:26,120 --> 00:29:32,120

I'm thinking here that since it's spread out over a larger surface area, we're still going to get a bounce.

475

00:29:32,120 --> 00:29:38,120

I don't think this one's going through. After seeing that last piano, I just am less optimistic.

476

00:29:38,120 --> 00:29:41,120

But this is MythBusters. We've got to cover all our bases.

477

00:29:41,120 --> 00:29:45,120

We already had an upright piano now. Got to have one of these big boys.

478

00:29:45,120 --> 00:29:47,120

What are you doing back there?

479

00:29:47,120 --> 00:29:49,120

I'm turning.

480

00:29:52,120 --> 00:29:54,120

It's out.

481

00:29:55,120 --> 00:30:03,120

This is going to be good. This is going to be real good.

482

00:30:03,120 --> 00:30:08,120

It makes me very uncomfortable seeing something that heavy, that high in the air.

483

00:30:08,120 --> 00:30:14,120

Dangling 50 feet above the roof, will it be an instrument of massive destruction?

484

00:30:14,120 --> 00:30:18,120

Alright, this is grand piano through a roof.

485

00:30:18,120 --> 00:30:21,120

In three, two, one.

486

00:30:21,120 --> 00:30:24,120

Oh!

487

00:30:24,120 --> 00:30:30,120

It's stuck. That's awesome. I thought it was going through.

488

00:30:30,120 --> 00:30:32,120

That was awesome.

489

00:30:32,120 --> 00:30:33,120

That was hilarious.

490

00:30:33,120 --> 00:30:37,120

It didn't put a hole in it and it stuck to the roof. That was awesome.

491

00:30:37,120 --> 00:30:38,120

Alright.

492

00:30:38,120 --> 00:30:40,120

Let's go take a look.

493

00:30:40,120 --> 00:30:42,120

That was amazing.

494

00:30:42,120 --> 00:30:49,120

Amazing. But this myth is on its last legs, as they're the only things that penetrated the roof.

495

00:30:50,120 --> 00:30:53,120

Well, there's something you don't see every day.

496

00:30:53,120 --> 00:30:54,120

No.

497

00:30:54,120 --> 00:30:56,120

It just stuck to the roof. That's awesome.

498

00:30:56,120 --> 00:30:59,120

I think at this point we can pretty much call this one busted.

499

00:30:59,120 --> 00:31:02,120

We tried twice with two different kind of pianos and we didn't get a hole.

500

00:31:02,120 --> 00:31:06,120

No, and this is kind of an old rotten house.

501

00:31:08,120 --> 00:31:11,120

Alright, so we had the grand piano suspended 50 feet above the roof.

502

00:31:11,120 --> 00:31:15,120

We let it go and I thought for sure it was going through.

503

00:31:15,120 --> 00:31:18,120

But as you can see here, only the legs made it through.

504

00:31:18,120 --> 00:31:22,120

The rest of the piano is still on the roof.

505

00:31:22,120 --> 00:31:27,120

Fortunately, it doesn't work like it does in the movies. This one is busted.

506

00:31:28,120 --> 00:31:32,120

Busted, but it ain't over until the piano goes through the roof.

507

00:31:32,120 --> 00:31:36,120

Welcome back to the MythBusters Experimental Music Program.

508

00:31:37,120 --> 00:31:40,120

But now we are going to introduce sand.

509

00:31:41,120 --> 00:31:44,120

1500 pounds of sand.

510

00:31:44,120 --> 00:31:48,120

This is going to fill every nook and cranny of the piano and hopefully give us an advantage.

511

00:31:48,120 --> 00:31:51,120

Because right now the score is roof two, piano zero.

512

00:31:53,120 --> 00:31:58,120

In other words, they're stacking the odds by stacking the piano with sand.

513

00:31:58,120 --> 00:32:00,120

And with a little fine tuning.

514

00:32:02,120 --> 00:32:04,120

That sounds better.

515

00:32:05,120 --> 00:32:08,120

There'll be a lot of musicians out there that hate me right now.

516

00:32:08,120 --> 00:32:12,120

The now packed piano is ready for a jam session.

517

00:32:12,120 --> 00:32:14,120

Anybody know any Beach Boy?

518

00:32:14,120 --> 00:32:16,120

Uh, Rose, I can't sand it.

519

00:32:16,120 --> 00:32:20,120

Oh, you got it. Let's just get this thing in the air.

520

00:32:20,120 --> 00:32:22,120

Oh my God, that was great.

521

00:32:22,120 --> 00:32:24,120

I want you to drop the piano on my head though.

522

00:32:25,120 --> 00:32:27,120

Alright, bring in the crane.

523

00:32:27,120 --> 00:32:30,120

This is going to put a hole through the roof for sure.

524

00:32:32,120 --> 00:32:36,120

Now the first time we tried this, the upright piano weighed about 700 pounds.

525

00:32:36,120 --> 00:32:42,120

We've upped the weight of this one to 2600 pounds or 3.7 times more.

526

00:32:42,120 --> 00:32:44,120

It seems to be holding the sand.

527

00:32:44,120 --> 00:32:46,120

You guys want to get into position?

528

00:32:46,120 --> 00:32:51,120

Additionally, we're raising our height from 50 feet to 75 feet.

529

00:32:52,120 --> 00:32:54,120

We're going to raise up right from there.

530

00:32:55,120 --> 00:32:59,120

That's going to result in an impact force of over 55,000 pounds.

531

00:32:59,120 --> 00:33:05,120

Now bear in mind, that roof is only rated for a static load of 2,100 pounds.

532

00:33:05,120 --> 00:33:09,120

There's no doubt about it. This thing is going through.

533

00:33:09,120 --> 00:33:11,120

Alright, we're clear of the trees.

534

00:33:11,120 --> 00:33:17,120

Now dangling at 75 feet above the roof, it's time for the final movement,

535

00:33:17,120 --> 00:33:20,120

as this myth faces the music.

536

00:33:20,120 --> 00:33:24,120

Alright, so this is heavier piano from a higher height.

537

00:33:24,120 --> 00:33:27,120

In 3, 2, 1...

538

00:33:28,120 --> 00:33:29,120

Yeah!

539

00:33:30,120 --> 00:33:31,120

Whoa!

540

00:33:32,120 --> 00:33:33,120

Where's the roof?

541

00:33:34,120 --> 00:33:35,120

No resistance whatsoever.

542

00:33:35,120 --> 00:33:36,120

That's the hole of the roof.

543

00:33:36,120 --> 00:33:38,120

Holy crap!

544

00:33:38,120 --> 00:33:39,120

That was awesome.

545

00:33:39,120 --> 00:33:40,120

Good shot!

546

00:33:40,120 --> 00:33:46,120

Like a cartoon anvil, the piano drops straight through the roof.

547

00:33:50,120 --> 00:33:53,120

Yeah, check out the new skyline!

548

00:33:54,120 --> 00:33:56,120

That was sweet.

549

00:33:56,120 --> 00:34:03,120

This is kind of what I thought was going to happen with this first piano.

550

00:34:03,120 --> 00:34:06,120

It was just going to punch a hole through the roof and land on the floor.

551

00:34:06,120 --> 00:34:09,120

Luckily this piano had a couple extra things going for it.

552

00:34:09,120 --> 00:34:11,120

Height, we had it much, much higher.

553

00:34:11,120 --> 00:34:13,120

It was much, much heavier.

554

00:34:13,120 --> 00:34:18,120

And smaller surface area, compacting all that weight into a nice little...

555

00:34:18,120 --> 00:34:20,120

Just demolition ball.

556

00:34:20,120 --> 00:34:22,120

It's awesome.

557

00:34:22,120 --> 00:34:24,120

Alright, it might have taken a few tries,

558

00:34:24,120 --> 00:34:28,120

but we finally got a hole in the roof with the piano, but this one's still busted.

559

00:34:28,120 --> 00:34:32,120

Yeah, I mean, that was an upright piano weighing 2,600 pounds.

560

00:34:32,120 --> 00:34:35,120

Stuffed with sand, racist 75 feet.

561

00:34:35,120 --> 00:34:37,120

That's not a normal situation.

562

00:34:37,120 --> 00:34:40,120

Well, I'm pretty sure nobody's calling Mythbusters piano movers, are they?

563

00:34:40,120 --> 00:34:42,120

I'm sure someone would hire us.

564

00:34:42,120 --> 00:34:44,120

Somebody wants a skylight.

565

00:34:55,120 --> 00:34:58,120

Eagle-eyed viewers, this is for you.

566

00:34:58,120 --> 00:35:01,120

Oh, you want to know why I'm wearing a cast on my hand?

567

00:35:01,120 --> 00:35:03,120

Sure, of course you do.

568

00:35:03,120 --> 00:35:06,120

Well, when we first got to this location, before we even started shooting anything,

569

00:35:06,120 --> 00:35:09,120

we had to move around a bunch of things and pieces of equipment,

570

00:35:09,120 --> 00:35:12,120

and among them were our blast chamber section panels.

571

00:35:12,120 --> 00:35:15,120

These are inch-and-a-half thick, they weigh 150 pounds a piece,

572

00:35:15,120 --> 00:35:20,120

and one of them fell on my hand, actually crushing my second metacarpal

573

00:35:20,120 --> 00:35:23,120

at the first knuckle of my index finger.

574

00:35:23,120 --> 00:35:25,120

Ow!

575

00:35:35,120 --> 00:35:37,120

What am I doing up at the Crack of Dawn?

576

00:35:37,120 --> 00:35:40,120

I asked myself the same question this morning, but here's the thing.

577

00:35:40,120 --> 00:35:42,120

We are in Northern California, a gold country,

578

00:35:42,120 --> 00:35:45,120

and it is smack in the middle of prime fire season.

579

00:35:45,120 --> 00:35:49,120

The fire department has a real concern that when we set fire to our house

580

00:35:49,120 --> 00:35:52,120

and explode that hot water heater that we could cause a wildfire.

581

00:35:52,120 --> 00:35:55,120

They have given us permission to do this experiment,

582

00:35:55,120 --> 00:35:58,120

but only at eight or nine in the morning.

583

00:35:58,120 --> 00:36:02,120

So we have shown up at the ungodly hour of five a.m.

584

00:36:02,120 --> 00:36:06,120

to get all of our ducks in a row so that at eight a.m.

585

00:36:06,120 --> 00:36:09,120

we can push the button and set fire to this house

586

00:36:09,120 --> 00:36:13,120

and detonate this hot water heater and get done with this experiment.

587

00:36:13,120 --> 00:36:15,120

All without causing a fire, of course.

588

00:36:15,120 --> 00:36:18,120

Yep, and with the switch flicked...

589

00:36:18,120 --> 00:36:20,120

And here we go.

590

00:36:21,120 --> 00:36:24,120

At the water heater heating, the sun rises

591

00:36:24,120 --> 00:36:28,120

and the emergency crews prepare for the worst-case scenario.

592

00:36:28,120 --> 00:36:32,120

We expect that the building may simply, like,

593

00:36:32,120 --> 00:36:35,120

not be an interior structure anymore

594

00:36:35,120 --> 00:36:39,120

and be aware that that's a dangerous structure that could drop on anybody that goes in.

595

00:36:39,120 --> 00:36:44,120

I would recommend watching for large objects like that furniture that's traveling some distance.

596

00:36:44,120 --> 00:36:49,120

That's the worst thing that we can see that happens as far as putting fire out there.

597

00:36:49,120 --> 00:36:53,120

The sun is up. It's nice and early morning, and we are pretty much at go time.

598

00:36:53,120 --> 00:36:57,120

The hot water heater is pressured to 105 psi, which is within its safety rating,

599

00:36:57,120 --> 00:37:00,120

but that is time for us to all get under the safety of a bunker.

600

00:37:00,120 --> 00:37:03,120

I'm sitting at ground zero at the couch where my waste paper basket

601

00:37:03,120 --> 00:37:08,120

is properly fueled with some newspaper ready to set fire to the couch and the curtains.

602

00:37:08,120 --> 00:37:12,120

We're not much more than 10 minutes away, I must admit. I'm a little excited.

603

00:37:13,120 --> 00:37:15,120

The mythbusters fall back to the bunker,

604

00:37:15,120 --> 00:37:19,120

because soon that water heater is going to blow.

605

00:37:19,120 --> 00:37:21,120

We are at 200 psi.

606

00:37:21,120 --> 00:37:25,120

The question is, will it extinguish the impending fire?

607

00:37:26,120 --> 00:37:30,120

This is Command Central. We've got a view of the ignition point.

608

00:37:30,120 --> 00:37:34,120

We've got a view of the room where we expect the fire to occur.

609

00:37:34,120 --> 00:37:38,120

We've got our ignition switch and our pressure meter.

610

00:37:38,120 --> 00:37:40,120

We're all set.

611

00:37:40,120 --> 00:37:43,120

It's nice when our gauges match.

612

00:37:43,120 --> 00:37:48,120

I personally think the fire is going to take about two, two and a half minutes

613

00:37:48,120 --> 00:37:51,120

to get to the point of no return.

614

00:37:51,120 --> 00:37:55,120

And I think that our hot water heater is going to put it out when it explodes,

615

00:37:55,120 --> 00:37:58,120

but I think it's also going to destroy the house.

616

00:37:58,120 --> 00:38:01,120

This is the most tense part of the operation.

617

00:38:01,120 --> 00:38:06,120

So I think it will be a plus and a minus all at the same time.

618

00:38:06,120 --> 00:38:08,120

But we'll find out soon enough.

619

00:38:08,120 --> 00:38:13,120

After one and a half hours, the tank is closing in on the explosive butter zone.

620

00:38:13,120 --> 00:38:15,120

So it's over to our fire starter.

621

00:38:16,120 --> 00:38:18,120

All right, here we go. Set in the fire.

622

00:38:18,120 --> 00:38:21,120

Three, two, one.

623

00:38:22,120 --> 00:38:23,120

Uh-oh.

624

00:38:23,120 --> 00:38:25,120

Worked like a charm.

625

00:38:25,120 --> 00:38:26,120

That worked. Holy crap.

626

00:38:26,120 --> 00:38:27,120

Oh, wow.

627

00:38:27,120 --> 00:38:30,120

Inside the house, the flames quickly take hold.

628

00:38:31,120 --> 00:38:33,120

The smoke is obscuring.

629

00:38:33,120 --> 00:38:36,120

It's still going strong, but it's obscuring my upper camera.

630

00:38:36,120 --> 00:38:40,120

And with the fire raging and the water heater at 300 psi,

631

00:38:40,120 --> 00:38:44,120

they're ready to fight one disaster with another.

632

00:38:44,120 --> 00:38:47,120

All right, Jamie, I'm going to give you the countdown.

633

00:38:47,120 --> 00:38:48,120

Are you ready?

634

00:38:48,120 --> 00:38:49,120

You got a good fire?

635

00:38:49,120 --> 00:38:50,120

Yeah, I got a good fire.

636

00:38:50,120 --> 00:38:51,120

All right.

637

00:38:51,120 --> 00:38:52,120

Here we go.

638

00:38:52,120 --> 00:38:54,120

Fire in the hole.

639

00:38:54,120 --> 00:39:02,120

We are going to blow this hot water heater in five, four, three, two, one.

640

00:39:02,120 --> 00:39:03,120

Go.

641

00:39:03,120 --> 00:39:04,120

Come on back in.

642

00:39:07,120 --> 00:39:08,120

Come on.

643

00:39:08,120 --> 00:39:09,120

Come on, water heater.

644

00:39:09,120 --> 00:39:10,120

Whoa.

645

00:39:10,120 --> 00:39:11,120

It's up.

646

00:39:11,120 --> 00:39:12,120

It's up.

647

00:39:12,120 --> 00:39:13,120

It's up.

648

00:39:13,120 --> 00:39:14,120

I don't see it.

649

00:39:14,120 --> 00:39:15,120

I see it.

650

00:39:15,120 --> 00:39:16,120

It's coming down.

651

00:39:17,120 --> 00:39:18,120

Land.

652

00:39:18,120 --> 00:39:20,120

It landed on the land.

653

00:39:22,120 --> 00:39:23,120

There's no house left.

654

00:39:23,120 --> 00:39:25,120

I don't see any fire, though.

655

00:39:25,120 --> 00:39:27,120

I see some smoke.

656

00:39:28,120 --> 00:39:31,120

That was clearly a household disaster.

657

00:39:31,120 --> 00:39:35,120

And initially, it looks like a water heater extinguished.

658

00:39:35,120 --> 00:39:42,120

However, once the dust settles, it looks like we still have a little bit of a fire.

659

00:39:42,120 --> 00:39:46,120

It doesn't look like the water heater helped out very much.

660

00:39:53,120 --> 00:39:57,120

Bar chief, for your information, we have extinguished the fire,

661

00:39:57,120 --> 00:40:01,120

but there's still some small drips of a little water here and there.

662

00:40:01,120 --> 00:40:02,120

Take care.

663

00:40:02,120 --> 00:40:03,120

Finishing it off.

664

00:40:03,120 --> 00:40:07,120

And as the fire crew put out the smoldering wreckage,

665

00:40:07,120 --> 00:40:10,120

this is why we can't have nice things.

666

00:40:10,120 --> 00:40:16,120

It's clear an exploding water heater is not a fire extinguisher.

667

00:40:16,120 --> 00:40:18,120

That could not have been more spectacular.

668

00:40:18,120 --> 00:40:20,120

We had one household disaster.

669

00:40:20,120 --> 00:40:24,120

A small fire started in a waste basket compounded by a second household disaster

670

00:40:24,120 --> 00:40:29,120

and an exploding hot water heater that caused a lot of damage.

671

00:40:29,120 --> 00:40:36,120

A small water heater that caused a third and ultimately fatal to the house disaster

672

00:40:36,120 --> 00:40:39,120

that is completely destroying the house.

673

00:40:41,120 --> 00:40:44,120

Remember, the whole point of this was to find out if one household disaster,

674

00:40:44,120 --> 00:40:47,120

the water heater, could countermand the other one, the fire.

675

00:40:47,120 --> 00:40:52,120

Not only didn't it, it also took the entire house out while it went.

676

00:40:52,120 --> 00:40:54,120

Fantastic result.

677

00:40:54,120 --> 00:40:56,120

I can't make an OK sign with this hand.

678

00:40:56,120 --> 00:40:57,120

Yes!

679

00:40:57,120 --> 00:41:01,120

What amazes me is that there were no explosives involved here.

680

00:41:01,120 --> 00:41:05,120

This little piece of sheet metal, though, did that.

681

00:41:05,120 --> 00:41:07,120

Did it put out the fire?

682

00:41:07,120 --> 00:41:08,120

Some of it.

683

00:41:08,120 --> 00:41:10,120

Did we save the house?

684

00:41:10,120 --> 00:41:12,120

Oops.

685

00:41:12,120 --> 00:41:15,120

Well, I think it's pretty obvious how we should call this.

686

00:41:15,120 --> 00:41:16,120

What do you think?

687

00:41:16,120 --> 00:41:17,120

Yep.

688

00:41:17,120 --> 00:41:18,120

What do you think, guys?

689

00:41:18,120 --> 00:41:20,120

Busted!

690

00:41:20,120 --> 00:41:22,120

Let's go home.