



1  
00:00:02,340 --> 00:00:05,180  
(upbeat music)

2  
00:00:07,200 --> 00:00:14,030  
How do you assemble the largest  
rocket ever made?

3  
00:00:14,030 --> 00:00:17,420  
With very, very large cranes!

4  
00:00:19,220 --> 00:00:25,380  
The Space Launch System or SLS will be the most powerful rocket we've ever built.

5  
00:00:25,380 --> 00:00:32,850  
The fueled-up core stage weighs around 2.3 million pounds and measures 212 feet long.

6  
00:00:33,060 --> 00:00:37,440  
That's taller than the Leaning Tower of Pisa.

7  
00:00:37,880 --> 00:00:42,100  
We're getting ready for the countdown to send  
SLS into space.

8  
00:00:46,580 --> 00:00:50,960  
We have only one shot to get everything stacked  
up right.

9  
00:00:51,660 --> 00:00:56,120  
Here we are in High Bay 3 of the Vehicle Assembly  
Building.

10  
00:00:56,920 --> 00:01:00,320  
This is where the magic happens.

11  
00:01:00,330 --> 00:01:05,350  
Our crane operators are specially trained  
to handle loads as enormously important as

12

00:01:05,350 --> 00:01:06,620  
SLS.

13  
00:01:07,600 --> 00:01:11,920  
Some even helped assemble the original space shuttle.

14  
00:01:11,929 --> 00:01:17,289  
We need to make sure our people and our equipment are safe during this huge lift.

15  
00:01:17,289 --> 00:01:23,289  
That's why we use digital simulations to practice lifting the fuel tank and assembling the solid

16  
00:01:23,289 --> 00:01:25,220  
rocket booster.

17  
00:01:25,220 --> 00:01:31,149  
Then we will use a replica of the tank to practice the lift before the real deal.

18  
00:01:31,149 --> 00:01:35,530  
Our crane operators perch at the very top of the high bay to coordinate the lift.

19  
00:01:35,530 --> 00:01:38,500  
So you'd better not be scared of heights.

20  
00:01:39,800 --> 00:01:44,540  
During every step of the process, the lifting crew will constantly be using radios to check in,

21  
00:01:44,680 --> 00:01:50,060  
and quickly stop the lift in case of emergency.

22  
00:01:50,920 --> 00:01:55,119  
And s you can see, it's going to be a huge rocket with a lot of huge lifts.

23  
00:01:55,119 --> 00:02:00,849  
When the dress rehearsal is over, it will

finally be time to stack the actual rocket.

24

00:02:00,849 --> 00:02:03,919

Will all that practice pay off?

25

00:02:03,920 --> 00:02:06,420

You bet!