



1
00:00:08,870 --> 00:00:02,629
steve let me know if i need to back out

2
00:00:08,880 --> 00:00:19,590
and the outer hatch is open on quest

3
00:00:25,990 --> 00:00:22,790
as the shuttle station complex sails 225

4
00:00:28,230 --> 00:00:26,000
miles over central asia this view

5
00:00:30,630 --> 00:00:28,240
from shuttle payload bay cameras looking

6
00:00:33,830 --> 00:00:30,640
up at the interface between the

7
00:00:35,110 --> 00:00:33,840
starboard three and four truss segments

8
00:00:37,350 --> 00:00:35,120
the area

9
00:00:39,270 --> 00:00:37,360
and the exclusive work site today for

10
00:00:41,270 --> 00:00:39,280
heidi piper and steve bowen as they

11
00:00:43,270 --> 00:00:41,280
begin to set up all of their equipment

12
00:00:44,869 --> 00:00:43,280
at that location

13
00:00:47,110 --> 00:00:44,879

for the solar alpha rotary joint

14

00:00:59,349 --> 00:00:47,120

lubrication and cleaning that will begin

15

00:01:04,549 --> 00:01:01,830

not as much debris as i saw under uh

16

00:01:16,950 --> 00:01:07,670

okay that's good info on houston

17

00:01:21,990 --> 00:01:19,990

flying over the south pacific ocean

18

00:01:23,830 --> 00:01:22,000

heidi piper at the top of your screen

19

00:01:25,670 --> 00:01:23,840

steve bowen at the bottom working on

20

00:01:26,469 --> 00:01:25,680

opposite ends of the solar alpha rotary

21

00:01:28,070 --> 00:01:26,479

joint

22

00:01:31,190 --> 00:01:28,080

as they work in the cleaning and

23

00:01:33,030 --> 00:01:31,200

lubrication of that rotary joint that

24

00:01:34,950 --> 00:01:33,040

operates

25

00:01:37,590 --> 00:01:34,960

as a paddle wheel

26

00:01:39,590 --> 00:01:37,600

to position the large starboard solar

27

00:01:41,190 --> 00:01:39,600

rays that you see flanking the two space

28

00:01:42,870 --> 00:01:41,200

walkers

29

00:01:44,789 --> 00:01:42,880

while the international space station

30

00:01:48,069 --> 00:01:44,799

orbits the earth enabling those arrays

31

00:01:51,990 --> 00:01:49,990

just basically what i found is that it

32

00:01:54,310 --> 00:01:52,000

may look like a lot of grease but once

33

00:01:55,830 --> 00:01:54,320

you start scraping um a lot of debris

34

00:01:58,310 --> 00:01:55,840

starts flying and so you'd like to have

35

00:02:00,630 --> 00:01:58,320

extra grease good

36

00:02:02,230 --> 00:02:00,640

thanks heidi i'll check that out sounds

37

00:02:04,310 --> 00:02:02,240

like the right answer but steve you're

38

00:02:06,870 --> 00:02:04,320

uh putting the grease down on the out

39

00:02:08,790 --> 00:02:06,880

patter cannon still yeah

40

00:02:17,350 --> 00:02:08,800

i'm just trying to get through all this

41

00:02:25,750 --> 00:02:18,470

hiding next for you we're going to

42

00:02:30,070 --> 00:02:27,910

heidi piper having uh secured the

43

00:02:32,229 --> 00:02:30,080

trundle bearing assembly number two and

44

00:02:35,509 --> 00:02:32,239

mating its connector

45

00:02:37,509 --> 00:02:35,519

the clamp uh one of the 12 such trundle

46

00:02:39,750 --> 00:02:37,519

bearing assemblies that clamp both the

47

00:02:42,150 --> 00:02:39,760

inboard and outboard race rings of the

48

00:02:43,830 --> 00:02:42,160

rotary joint together she will move now

49

00:02:47,030 --> 00:02:43,840

to her right

50

00:02:48,229 --> 00:02:47,040

as you orient her towards the truss

51
00:02:51,030 --> 00:02:48,239
to remove

52
00:02:52,470 --> 00:02:51,040
two more covers covers 11 and 12 and do

53
00:02:54,710 --> 00:02:52,480
a replacement of trundle bearing

54
00:02:57,990 --> 00:02:54,720
assembly number 12.

55
00:03:02,830 --> 00:02:59,830
okay next for you you'll be removing

56
00:03:07,190 --> 00:03:02,840
trundle bearing 12.

57
00:03:08,630 --> 00:03:07,200
okay let's go pick up the empty tv

58
00:03:10,869 --> 00:03:08,640
good plan

59
00:03:13,509 --> 00:03:10,879
on either side of the tba

60
00:03:17,830 --> 00:03:13,519
um but there's

61
00:03:19,830 --> 00:03:17,840
a lot more and probably about

62
00:03:23,589 --> 00:03:19,840
about half an inch

63
00:03:27,030 --> 00:03:23,599

wide

64

00:03:28,550 --> 00:03:27,040

about oh maybe a quarter of inch

65

00:03:29,830 --> 00:03:28,560

half an inch in length quarter of an

66

00:03:31,670 --> 00:03:29,840

inch in width

67

00:03:33,509 --> 00:03:31,680

and i don't know about any how much of a

68

00:03:36,470 --> 00:03:33,519

build up it is

69

00:03:38,869 --> 00:03:36,480

six hours into the spacewalk

70

00:03:41,110 --> 00:03:38,879

heidi piper's now carefully secured the

71

00:03:43,990 --> 00:03:41,120

covers in place where they will remain

72

00:03:46,710 --> 00:03:44,000

until the task is completed on the

73

00:03:48,789 --> 00:03:46,720

fourth spacewalk inside the quest

74

00:03:50,470 --> 00:03:48,799

airlock the two commanders chris

75

00:03:53,429 --> 00:03:50,480

ferguson space shuttle endeavour

76

00:03:56,229 --> 00:03:53,439

commander and mike fink expedition 18

77

00:03:57,750 --> 00:03:56,239

commander assisting the two spacewalking

78

00:03:59,030 --> 00:03:57,760

astronauts heidi

79

00:04:01,670 --> 00:03:59,040

piper

80

00:04:03,110 --> 00:04:01,680

on the left in the suit with the red

81

00:04:05,910 --> 00:04:03,120

stripe on her