

## FAILURE MODES AND EFFECTS ANALYSIS

REFERENCE DESIGNATOR:  
NAME/QUANTITY:  
DRAWING REFERENCE:  
NAME/QUANTITY:  
DRAWING REFERENCE:

ODSL  
PIP PIN (1)  
SECTION 27254  
OPERATING LEVER (OPERATING HANDLE) ASSY  
SECTION 27245-913

PROJECT:  
LRU NAME/QUANTITY:  
LRU PART NUMBER:  
OPERATING LEVER (OPERATING HANDLE) ASSY

ODS CONTINGENCY HARDWARE  
ODS CLAMP ASSY (1)  
SECTION 27245

SUBSYSTEM: EVA Tools  
EFFECTIVITY: ALL ORBITERS

A-6

FAILURE MODE NUMBER ODSL-5	1R/3	FAILURE EFFECT	FAILURE DETECTION METHOD
<b>FUNCTION</b> The ODS Clamp will be used to hold the two halves of the Space Shuttle/Mir docking module when the bolts holding their flanges are being removed by EVA crewmembers.		<b>END ITEM</b> Unable to operate clamp nominally.	<b>FLIGHT</b> Visual
<b>FAILURE MODE AND CAUSE MODE</b> Unable to release clamp from flange.		<b>MISSION</b> None	<b>GROUND</b> Pre-Installation Acceptance Test and/or CEIT
<b>CAUSE(S)</b> 1. Lever (operating handle) comes loose from clamp assembly and not able to reinstall it. 2. Excessive force required to activate lever (operating handle). 3. Unable to remove pip pin.		<b>CREW / VEHICLE</b> None.	<b>CORRECTIVE ACTION</b> 1&2. Back out the load relief bolt completely and remove the clamp by pushing down to clear the lower jaw from the nut plates. Remove the whole assembly. 2. Use Payload Retention Device (PRD) to overcome excessive lever (operating handle) force. 3. Drive out pip pin.
<b>REDUNDANCY SCREENS</b> A - Pass B - Pass C - Pass	<b>REMAINING PATHS</b> Back out load relief bolt.	<b>INTERFACE</b> None	<b>REMARKS</b> None.
<b>MISSION PHASE</b>	<b>CORRECTIVE ACTION TIMES</b>		
	<b>TIME TO EFFECT</b>	<b>TIME TO CORRECT</b>	
EVA	N/A	N/A	