

CW-515 FRONT SPAR  
A-618  
RED

This section of the front spar is about 24" X 22" and attaches to CW-504 at the bottom and CW-502 on the right side. The upper connection separated along the radius of the upper skin/spar chord. The bottom separated by a tearing action.

The stiffeners at LBL 75.82, 83.24 and 91.14 broke off at 18", 15" and 12" from the top respectively. These stiffener fractures match the fracture surfaces of the stiffeners as described in CW-504. The shear ties on the stiffener remained attached to the stiffener, except for LBL 75.82. The horizontal flange of the shear tie remained attached to the upper skin at LBL 75.82.

The shear tie fracture surface exhibited evidence of a fatigue crack at the aft end of the vertical flange. Detail documentation of this fatigue crack is in the metallurgical field notes.

*See Fire & Explosion Group Notes For Documentation*

~~There is no evidence of any fire damage to this section of~~ The front spar and the remaining fracture surfaces exhibited no evidence of any pre-existing cracking or corrosion.

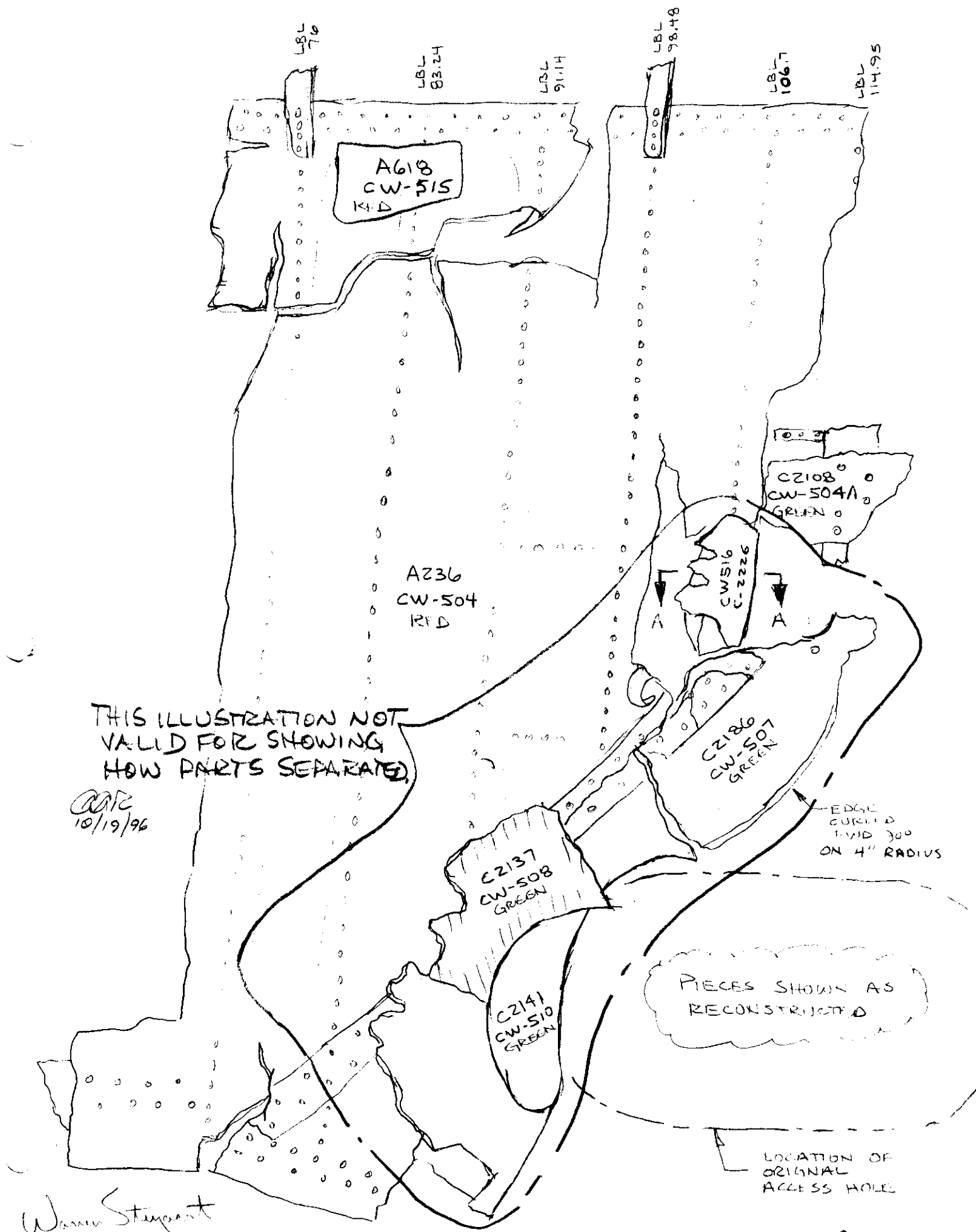
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THIS ILLUSTRATION NOT VALID FOR SHOWING HOW PARTS SEPARATED

WTC  
10/19/96

PIECES SHOWS AS RECONSTRUCTED

LOCATION OF ORIGINAL ACCESS HOLE

Warren Sturgant  
8-30-96

VIEW LOOKING AFT AT LEFT  
CENTER SECTION FRONT SIDE

SKETCH FILED IN # 5777 10-31-96

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