

Telefax/Telecopy

Datum/Date: 08/11/02

Herschel

An/To: +44 1235 44 6667
RAL, Oxfordshire, UK
 E. Sawyer

Kopie an/
 Copy to: +44 1235 44 6667
RAL, Oxfordshire, UK
 J. Delderfield, Smith

+44 1483 278312
MSSL, UK
 B. Winter

+33 4 92 92 30 10
Alcatel Space, Cannes, F
 G. Lund

+31 71 565 32 44
ESTEC, Noordwijk, NL
 A. Heske

Abs./Sender: Horst Faas
 Abt./Dep.: ED 37/Herschel
 Tel./Phone: +49 75 45 8-3990
 Fax/Fax: +49 75 45 8-42 43
 E-Mail: Horst.Faas@astrium-space.com
 Ref.: HP-ASED-FX-0727-02

Seite/Page: 1 von/of 1 Seiten/Pages

Betreff/Subj.: Comments on Spire hoisting devices – Impact on the ASED instrument
 integration

Dear Eric,

With reference to the presented Spire hoisting device information (see Annex 4 of the Mech. IF Mtg MOM, HP-2-ASED-MN-0182), ASED has the following comments:

- ASED does not see the need to use protection frames for the cone foot and the A-frames. For the Spire CQM and FM integration a crane with a lowering rate of 3 mm/sec will be used. Additionally, a hydraset can be used which would allow to further reduce the lowering rate. Furthermore, the SPIRE cone foot protection on the +z-side of the SPIRE FPU requires min. 50 mm of space between the SPIRE and PACS FPU, which is not available, if PACS is already installed. Annex 1 shows a top view and a side view (from +y direction towards HIFI). Note: I/F drawings will be sent as well by email.
- The use of adjustment screws to lower the FPU will not be allowed on the Herschel Optical Bench.
- The use of hoisting device shall not impose a sequence for the instrument unit integration on the Herschel Optical Bench. The current U-shape fixation of the hoisting device with a depth of 62mm may not allow the integration of the SPIRE FPU after the integration of PACS.

Abs./Sender: Horst Faas
Datum/Date: 08.11.02
Seite/Page: 2



- ASED would propose to simplify the FPU hoisting device on the +z-side of the SPIRE FPU from the current U-Frame design to a fish plate design with a hole for a shackle. This would have the further advantage that minimum momentum is transferred to the FPU. See modified hoisting device drawing attached as Annex 2.
- FPU Level-0 Thermal straps side: Please clarify if the Level-0 thermal straps will be pre-mounted or will be fixed following the FPU integration on the Herschel OB. Background: Clearance between Level-0 Detector thermal strap and the Level-1 ventline is minimal and the details for FPU integration need to be check. Astrium has agreed at the Mech. IF Mtg. in September to deliver an Herschel OBA STEP file to support this activity.
- Detailed I/F drawings of the FPU cone foot (e.g. overall height) are required by ASED to clarify details of the integration procedure.

We would appreciate if we could discuss the raised items either at the next Spire I/F meeting or/and at the next dedicated AIT/AIV meeting.

Kind regards

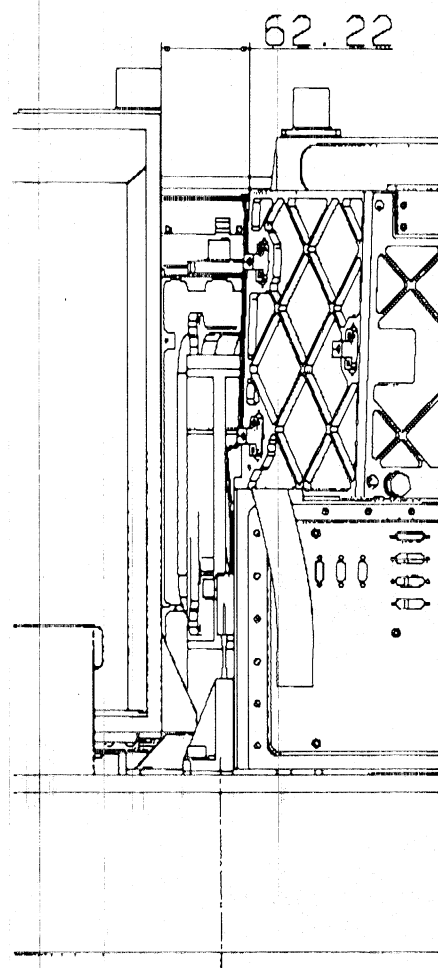
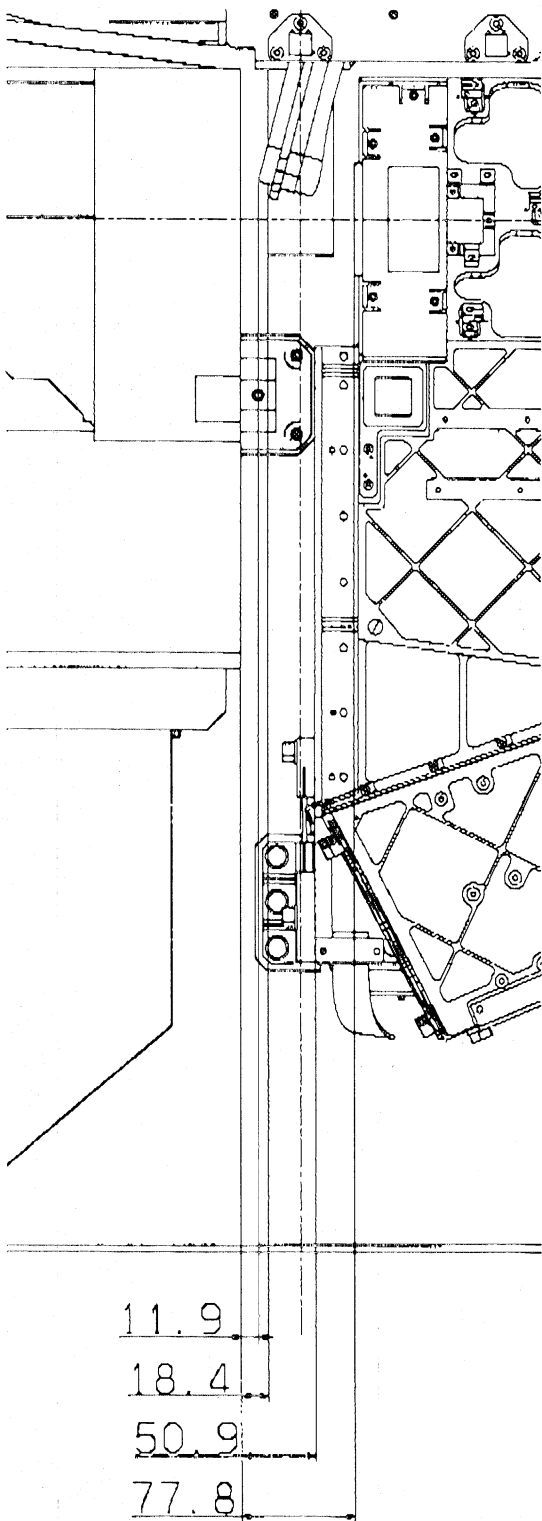
Astrium GmbH

i. V. W. Rühle

i. A. E. Hölzle

Fox ASED-727

Annex 1



Proposed modified design of Raising device

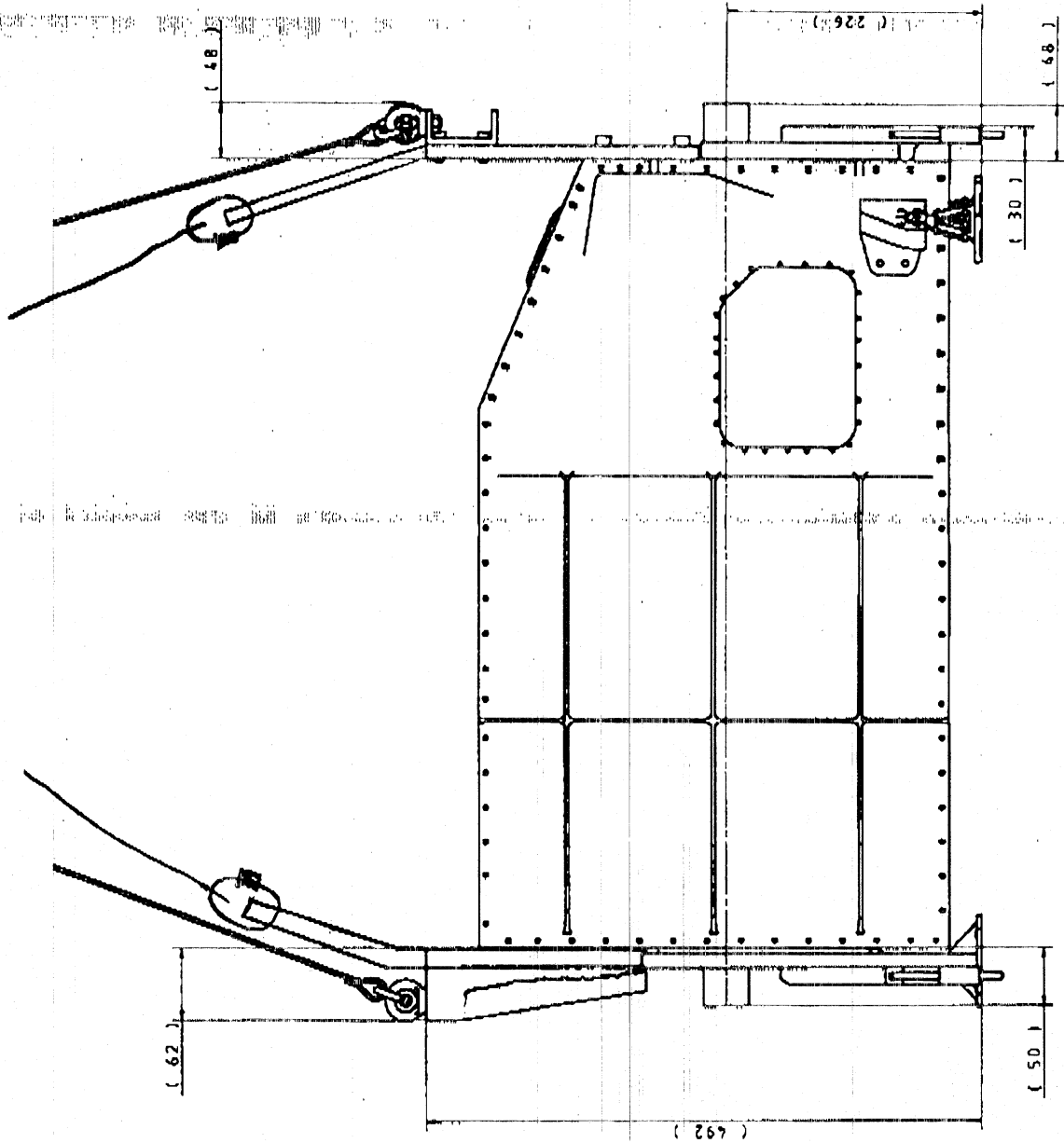
Fox ASED-727

Annex 2

REMOVE ALL BURRS & SHARP EDGES

DO NOT SCALE

THIRD ANGLE PROJECTION



DRAWING NO. A1

USED ON

CHECKED				
TRACED				
DRAWN				
D.M.B.				
SCALE	1			
DATE				
AUTHOR				
COMPUTER FILE				

PROTECTIVE FINISH				
INDICIA & SPEC.				
TO FINISH UNLESS OTHERWISE STATED -				
LINEAR	1:1	D.P.D		
ANGULAR	1:1	D.P.D		
ESTD BY				
ACCL BY				
DIMENSIONS IN mm				
SCALE				
TITLE				

DEPARTMENT OF SPACE AND CLIMATE PHYSICS
 UNIVERSITY COLLEGE LONDON
 MILLARD SPACE SCIENCE LABORATORY, MILLBURY ST., MARY, BOREING, SURREY.

DRAWING NO. A1