

ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of -- )  
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Dan Rice Construction Co., Inc. ) ASBCA No. 52160  
 )  
Under Contract No. NAS10-11924 )

APPEARANCE FOR THE APPELLANT: Dawn Giebler Millner, Esq.  
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National Aeronautics and  
Space Administration  
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OPINION BY ADMINISTRATIVE JUDGE JAMES  
ON RESPONDENT'S MOTION FOR RECONSIDERATION

On 12 May 2004, respondent timely moved for reconsideration of claim items 7, 8 and 28 (VLD 101B) in our 7 April 2004 decision, *Dan Rice Construction Co., Inc.*, ASBCA No. 52160, 04-1 BCA ¶ 32,595. We grant the motion as to claim items 7 and 28 and deny it as to claim item 8. We revise our findings and decisions as to all these claim items.

Dan Rice Construction Co., Inc. (DRC) claim item 7 alleged that NASA forced DRC to revise its proposed weatherhood channel system to a complete tube steel girt design for VLD 101B, and its claim item 8 alleged that NASA forced DRC to revise its proposed girt header design to a truss system for VLD 102C, in both instances to provide a stiffer frame. We found that DRC's subcontractor Carco redesigned VLD 101B and 102C's girt frames by submittal No. 36E to rectangular tubes "due to" NASA's addition of fail safe sheaves, chain drives and gear motors (findings 26(e), 27(e)). We held "that the added mechanical devices were the first and preponderant cause of the increased sizes and rectangular members of the VLD frames so as to increase their stiffness and bring them into compliance with the frame deflection requirement" (04-1 BCA at 161,266).

DRC claim item 28 alleged that the specified weatherhood dimensions were inadequate to house the framing, sheaves and doors, thus requiring DRC to increase the weatherhood heights for both VLDs. We found that VLD 101B's weatherhood header

height increased from 14' 6" to 19' 6", citing our findings 26(b) and (e), "due to" the addition of dual sheaves and cables (claim item 6) and dual overhead gear boxes, chains and sprockets (claim items 33 and 34) (finding 46(b)).

Movant argues that "[c]areful reexamination of the evidence will show that, although NASA did require a fail safe feature and manually operable drives be incorporated into the design of the VLD, their incorporation did not have any impact on the various dimensions of the weatherhood or door header, and NASA should not have been found responsible for any increased costs related to the weatherhood and door header dimensional changes" (gov't mot at 1).

Appellant replies that the Board's finding that the addition of fail safe sheaves and cables to the VLD design caused the increases in the height, width and depth of the weatherhoods was not erroneous because such added components required extra width. Appellant argues that the Board's finding with respect to VLD 101B, that Carco's calculated 1.47" VLD deflection was noncompliant, was based on the wrong deflection tolerance (1/8 inch in 20 feet) for "fabrication" pursuant to specification § 08365, ¶ 2.1.2, rather than the "correct" tolerance of 39' 11"/120 (*i.e.*, L/120), which allows 3.99" in deflection pursuant to § 08365, ¶ 1.4. Appellant argues as to claim 8 that NASA specifically directed that the top section should be trussed (app. resp. at 5).

#### Claim Item 7 – VLD 101B

VLD 101B's girt width was 36' 4" in Carco's submittals 36, 36A, 36B and 36C. VLD submittal No. 36D of 1 March 1993 increased the girt width to 40' 6" which width remained approximately the same in later submittals. VLD 101B's weatherhood height was 14' 6" in submittals 36 and 36A, and increased to 19' 6" in submittal 36B and later submittals. (R4, folder 4, tabs A-H) Such increases in girt width and weatherhood height occurred before submittal No. 36F of 3 May 1993 added fail safe sheaves and cables, and dual chain drives and gear motors (findings 15, 25(e), 51(g)). Thus, such fail safe and dual components did not increase the size of the girt frames and weatherhood height of VLD 101B.

We next consider whether the added fail safe sheaves and cables, and dual chain drives and gear motors, caused Carco to redesign the girts from a channel to a tubular design for VLD 101B so as to provide a stiffer weatherhood frame, as we held. Movant contends that the weatherhood frame increased due to Carco's early design changes, and the fail safe and dual components were affixed to the dual I-beam support structure attached to the VLD towers independent of the weatherhood, and hence could not affect the weatherhood frame deflection or cause the girt design changes (gov't mot. at 8-10, ex. 2, Fig. 1, which is R4, folder 4, tab H at 7).

Our decision on claim item 7 was mistaken because submittal No. 36D of 1 March 1993 changed two of four VLD 101B girts from the previous channel girt design to a tubular girt design (R4, folder 4, tab E, dwg. 7) before submittal No. 36F added the fail safe and dual components to VLD 101B (findings 15, 25(e)). Moreover, the fail safe sheaves and cables, and dual chain drives and gear motors, were independent of the weatherhood or its supporting girts, because they were affixed to the dual I-beam support structure attached to the VLD towers, not to the girts (R4, folder 4, tab G, dwg. E-24, tab H, dwg. E6).

According to Carco's President Scott Feldman, because of the fail safe sheave drives, dual chain drives and gear motors, the VLD 101B header got larger, and NASA's concern about girt stiffness required Carco to change the girts to a "tube steel solid frame" (tr. 307). The source of NASA's alleged concern to stiffen girts was relayed from the field by Carco's Vice President, Raul Santos (tr. 306). But such statement was not corroborated by a NASA daily log entry. Mr. Feldman testified that he was not personally familiar with claim item 7 except for "a lot of discussions with our engineer" (tr. 305), who was unidentified and so Mr. Feldman's testimony was unsupported hearsay. On reconsideration we find that such testimony is not adequate proof that the fail safe and dual drive components caused Carco to stiffen the girts, and was outweighed by the contrary submittal drawings, cited above.

Appellant contends that our findings 26(e) and 27(e) that Carco's 1.47" VLD girt deflection calculation was noncompliant used the wrong deflection tolerance (1/8" in 20 feet), rather than the purportedly correct girt deflection tolerance of 39' 11"/120 (L/120), which allows 3.99" in deflection (app. resp. at 7, n.9). Appellant cites no record evidence to substantiate that contention. Carco's approved load calculations do not reflect use of the L/120 formula to determine girt deflection (R4, folder 4, tabs F-H). In any event, the girt deflection tolerance is immaterial to proving whether NASA caused the changed girt design.

Accordingly, we modify our findings and holdings on claim item 7 as follows:

Finding 26. Item 7. (a) Carco alleged: "7. **Modify Header to Tube Steel Girt (Door 101):** In order to receive approval for the header system, Carco was forced by NASA to design a complete tube steel girt system in lieu of the original channel system. This was to appease NASA in order to get final design approval after a series of delays. The reason for the change was to provide a much stiffer framing header system for the doors. NASA would not approve the design without the tube steel. This added delay costs, more engineering, fabrication, material and erection costs" (R4, tab 31). (b)

VLD 101B's girts were 36' 4" wide in submittals 36, 36A, 36B and 36C, and its weatherhood height was 14' 6" in submittals 36 and 36A. The weatherhood height was increased to 19' 6" in submittal 36B of 1 December 1992 and later submittals, and submittal No. 36D of 1 March 1993 increased the girt width to 40' 6" which width remained approximately the same in later submittals. (R4, folder 4, tabs A-H) (c) Those girt frame design changes antedated, and thus were not caused by, the fail safe sheaves and cables, and dual chain drives and gear motors added by submittal No. 36F (findings 25(e), 51(g)). (d) The added fail safe sheaves and cables, and dual chain drives and gear motors, were independent of the weatherhood and its supporting girts, because they were affixed to the dual I-beam support structure attached to the VLD towers, not to the girts or weatherhood (R4, tab G, dwg. E-24, tab H, dwg. E6). (e) The testimony of Carco's President Scott Feldman (tr. 305-07) is not adequate proof that the fail safe and dual drive components caused Carco to stiffen the girts, and was outweighed by Carco's submittal drawings which showed contrary facts. (f) No other NASA-responsible cause for the design changes has been proved.

Delete the text of the DECISION on claim items 7 and 8, 04-1 BCA at 161,266, and insert the following as the first paragraph of such decision:

Item 7. NASA insisted that Carco add fail safe sheaves and cables, and dual chain drives and gear motors, upon the supporting I-beams attached to the towers, and independent of the girts and weatherhood, for VLD 101B. Such added mechanical components were not affixed to the girts of VLD 101B (finding 26(d)). We hold that such additional components did not cause Carco to design a "complete tube steel girt system." No other NASA-responsible cause for the design changes has been proved. Therefore, such girt frame design changes were not constructive changes.

#### Claim Item 8 – VLD 102C

VLD 102C's girt width was 25' in Carco's submittals 36 to 36D. VLD submittal No. 36E of 21 April 1993 increased the girt width to 27' 8" which width remained

approximately the same in later submittals. VLD 102C's weatherhood height was 9' 11" in submittals 36 and 36A, and decreased to 9' 7" in later submittals. (R4, folder 4, tabs A-H) Such girt width increase occurred before submittal No. 36F added dual chain drives and gear motors, and submittal No. 36G added fail safe sheaves and cables, to VLD 102C (findings 15, 25(e), 51(g)). Thus, such fail safe and dual components did not increase the size of the girt frames of VLD 102C.

We next consider whether the added fail safe sheaves and cables, added by submittal No. 36G, and dual chain drives and gear motors, added by submittal No. 36F, caused Carco to redesign the girts from a channel to a truss design for VLD 102C so as to provide a stiffer weatherhood frame, as we held. The dual chain drives and gear motors and the fail safe sheaves and cables were affixed to the dual I-beam VLD support structure attached to the VLD towers independent of the weatherhood, and hence could not affect the deflection of the weatherhood frame or cause the girt design changes (gov't mot. at 8-10, ex. 2, Fig. 1; R4, folder 4, tabs G, dwg. E-24, tab H, dwg. E7). Thus, such fail safe and dual components could not affect the deflection of the weatherhood or cause the changed girt design of VLD 102C.

According to Carco's President Scott Feldman, because of the fail safe sheave drives, and chain drives and gear motors, the VLD 102C header space slightly increased to assure space for the added fail safe mechanical devices (tr. 315). We find such testimony no more probative with respect to VLD 102C, claim item 8, than we did with respect to VLD 101B, claim item 7.

Carco's submittal No. 36E of 21 April 1993 contained elevations of three girts above VLD 102C on Sketch 1. NASA's 13 May 1993 review of that submittal sketch contained a comment, "top section should be trussed" with an arrow pointing to the top girt and a depiction of "V" configured truss members connecting the top and middle girts. (R4, folder 4, tab F at 4) NASA's 20 May 1993 review comments on submittal No. 36F repeated the same statement on Carco's sketch 1 (R4, folder 4, tab G at 4). Thus, NASA ordered Carco to add the girt trusses without regard to fail safe or dual components to be affixed to the dual I-beam support structure attached to the VLD towers. In its motion papers, respondent does not articulate any explanation for such order.

Accordingly, we modify our findings and holdings on claim item 8 as follows:

Finding 27. Item 8. (a) Carco alleged: "8. **Modify Header from Girts to a Truss Design (Door 102):** In order to appease NASA and to promote shop drawing approval for Carco to proceed with work, Carco was forced to use a completely revised header design from a girt to a truss system. This replaced the girt system per NASA to provide a

stiffer frame. With both the doors these designs far exceeded the original scope requirements” (R4, tab 31). (b) VLD 102C’s girt width was 25’ in Carco’s submittals 36 to 36D, and its weatherhood height was 9’ 11” in submittals 36 and 36A. VLD submittal No. 36E of 21 April 1993 increased the girt width to 27’ 8” which width remained approximately the same in later submittals, and its weatherhood height decreased to 9’ 7” in submittal 36B and later submittals. (R4, folder 4, tabs A-H) (c) NASA’s 13 May 1993 review comments on submittal No. 36E, sketch 1, stated, “top section should be trussed” with a line pointing to the upper of three girts for VLD 102C, and with “V” configured truss members connecting the upper and middle girts, and its 20 May 1993 review comments repeated that comment on submittal No. 36F (R4, folder 4, tabs F at 4, G at 4). (d) Submittal No. 36G, sheet E-1, for the first time depicted channel girt frames with diagonal truss members between the upper girts (R4, folder 4, tab H).

Insert the following as the second paragraph under DECISION, 04-1 BCA at 161,266:

Item 8. NASA directed DRC/Carco to add truss members connecting the upper and middle girts for VLD 102C on 13 May 1993, and repeated such direction on 20 May 1993 (finding 27(c)). We hold that such direction constituted a constructive change.

#### Claim Item 28

Carco’s submittal No. 36B showed the upper gear box with a maximum elevation lower than the highest elevation of VLD 101B’s 48” drive sheave and of VLD 102C’s 20” drive sheave (R4, folder 4, tab C, dwgs. E-14, E-15). For VLD 101B, submittal No. 36F added 8” diameter fail safe sheaves and cables, and dual chain drives and gear motors with a maximum elevation lower than the top of the 48” drive sheave (R4, folder 4, tab G, dwgs. E-13, E-15). For VLD 102C, submittal No. 36F added dual chain drives and gear motors, and submittal No. 36G added 8” diameter fail safe sheaves and cables, with a maximum elevation no higher than the highest elevation of the 20” drive sheave (R4, folder 4, tabs G, H, dwg. E-11, -14).

Therefore, submittal No. 36B increased the height of VLD 101B and VLD 102C months before NASA ordered DRC to add the fail safe sheaves and cables, and dual

chain drives and gear motors, which first appeared in submittal No. 36F (for VLD 101B) and No. 36G (for VLD 102C), and the highest elevations of such added components did not exceed the highest elevations of the drive sheaves.

Accordingly, we modify our findings and decision as follows:

Finding 46. Item 28. (a) Carco alleged: **“28. Door Hood Height and Sheeting Modifications:** The entire height of the door header had to be increased in order to give the proper clearance for the door opening and for the framing, sheaves and doors all to fit into the header. The original design parameters provided were mis-stated and inadequate.” (R4, tab 31). (b) VLD 101B’s header height increased from 14’ 6”, in submittal No. 36, to 19’ 6”, in submittal 36B and later submittals (finding 26(b)). (c) VLD 101B’s increase in weatherhood height antedated, and was not caused by, the fail safe sheaves and cables, and dual chain drives and gear boxes added by submittal No. 36F (findings 25(e), 26(c), 51(g)). (d) VLD 102C’s header height decreased from 9’ 11” in submittals 36 and 36A to 9’ 7” as approved. (R4, folder 4, tabs A-H)

Modify the DECISION on claim item 28, 04-1 BCA at 161,273, to state the following:

VLD 101B’s 5-foot increase in header height in submittal No. 36B antedated, and was not caused by, the addition of fail safe sheaves and cables and dual chain drives and gear boxes added by submittal No. 36F (finding 46(b), (c)). VLD 102C’s header height decreased in height by four inches over the course of Carco’s submittals (finding 46(d)). Therefore, we hold that the header height revisions for VLDs 101B and 102C were not constructive changes.

In the DECISION, at our CONCLUSION, 04-1 BCA at 161,276, modify the first sentence to state:

We sustain the appeal with respect to appellant’s claim items 6, 8, 14, 16, 19, 21, 26, 30, 31, 33, and 34.

We grant respondent's motion for reconsideration and deny DRC's claim item 7 and the VLD 101B part of claim item 28.

Dated: 22 December 2004

I concur

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DAVID W. JAMES, JR.  
Administrative Judge  
Armed Services Board  
of Contract Appeals

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ALEXANDER YOUNGER  
Administrative Judge  
Armed Services Board  
of Contract Appeals

I concur

I concur

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MARK N. STEMLER  
Administrative Judge  
Acting Chairman  
Armed Services Board  
of Contract Appeals

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EUNICE W. THOMAS  
Administrative Judge  
Vice Chairman  
Armed Services Board  
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 52160, Appeal of Dan Rice Construction Co., Inc., rendered in conformance with the Board's Charter.

Dated:

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CATHERINE A. STANTON  
Recorder, Armed Services  
Board of Contract Appeals