

Refurbishment Instruction for friction gear truss – Frisbee Assemblies 29.009-1 and 29.009.E-1 Relating refurbishment drawing: 29.009.S-2

Basis for refurbishment is drawing no. 29.009.S-2. Damages might occur at two and/or three positions:

- 1. Crack in circulation direction inside the jacket plate (Pos. 1, 29.009.S-2), below the flange level (Pos. 4, 29.009.S-2).(marked with 11)
- 2. Crack at the edge of the seam between Pos. 5 and Pos. 4 outside the jacket plate (29.009.S-2) (marked with 12)
- 3. Crack in the seam between Pos. 5 and Pos. 1 (29.009.S-2) (marked with 13).

First, the crack under point 1 must be repaired. This must be worked out carefully, at least until a depth where the crack completely disappears. The assumed diffusion direction is going off beveled, possibly until the melting zone of the lower fillet weld between pos. 4 and Pos. 1. The adjacent interior faces of the jacket plate (Pos. 1) must be cleansed from rust and dirt. The welding is an continuous welding in several layers, whose surface must be finished evenly.

Secondly, the ring Pos. 5 must be deleted. For that purpose, the seams at the marks 12 and 13 must be abraded. At mark 12 it is a Half-V butt joint with not full cross-sections, i.e. dependant on the melting zone, a wedge-shaped countersinking with each 8-9 mm in the cross-section triangle blade would be sufficient (if not, the measurements of the countersinking shall be increased gradually until this part separates. Caution! The basic cross-section of Pos. 1 and 4 may – as far as possible – not be destroyed!) Afterwards, Pos. 5 must be cut at two areas in the reversed condition and deleted.

Now, the possible broadening of the cracks with marks 12 and/or 13 can be tested. Executing the refurbishment goes necessarily into the jacket plate until the end of the crack. The refilling refurbishment welding must recondition the basic cross-section thickness of Pos. 1 and 4. Furthermore, a fillet weld must be accomplished between Pos. 1 and Pos. 4. at the top around the released edge according to the drawing.

For reinforcing purposes, a total of 11 ribs must be welded afterwards from the interior to the jacket plate (see drawing 29.009.S-2). The new separation plates must, however, be adapted to the ribs, manufactured and welded into according to the drawing (Pos. 6 and 7). Therefore, the left-overs of the interior separation plates must be deleted kerf-free.

After the corrosion protection works only the upper closing plate must be welded into.

Recommendation for a better identification of crack distribution: during gouging the crack should be done with co/bow arc.



Envision a boring Bohrungen for a later borescope examination; <u>do not close!</u> <i>Examination borings should be closed permanently (at least water-tight).

Provided that possibly detected cracks in the outside area (see our Service-Letter 29-07) were refurbished according to the above-mentioned measurements and that the test for cracks according to our Service-Letter 29-07/1 turns out negatively (no cracks), you are allowed to operate your Frisbee ride until the end of the season 2006 without further inspection. In case the test for cracks (our Service-Letter 29-07/1) may turn out positively, the refurbishment measurement provided by us must be effected.

Encl.: Drawing 29.009.S-2

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