



NATIONAL TRANSPORTATION SAFETY BOARD

**Office of Aviation Safety
Western Pacific Region**

ON-SCENE & EXAMINATION INFORMATION

**NTSB Accident: WPR16LA056
Accident Date: January 22, 2016**

Examination Dates: January 25, 2016

This document contains 21 embedded images
All Images Courtesy FAA

A. ACCIDENT

Location: North Las Vegas, NV
Date: January 22, 2016
Aircraft: Robinson R22, N7020U, Serial # 2837
NTSB IIC: Michael Huhn

B. EXAMINATION PARTICIPANTS:

Paul Alukonis
Airworthiness Inspector
Federal Aviation Administration
Las Vegas, NV

C. SUMMARY

On January 22, 2016, about 1100 Pacific standard time, a Robinson R22, N7020U, sustained substantial damage following the student pilot's loss of directional control when the pilot was attempting to transition from a hover taxi to a climbing departure, while practicing near a concrete levee of a flood control basin. The pilot was not injured.

An FAA Inspector traveled to the accident location on the day of the accident, and conducted a follow-up examination 3 days later. The helicopter came to rest upright, facing uphill, approximately 2/3 of the way down the sloped levee wall.

The pilot was practicing along the level upper portion of the levee, and lost control there. Scrape marks from inadvertent ground contact were limited to the sloped portion of the levee. The lower vertical stabilizer was bent towards the helicopter starboard (right), consistent with ground contact while spinning helicopter nose right.

No evidence of preimpact mechanical malfunction was noted during the examination of the helicopter. Refer to the public docket for this accident for additional examination details.

D. ON SCENE INFORMATION



Figure 1 - Helicopter on Sloped Levee Wall



Figure 2 - Helicopter and Airframe Sheet Metal



Figure 3 - Scrape Marks on Levee



Figure 4 - Front View of Helicopter



Figure 5 - Front Right View of Helicopter



Figure 6 - Right View of Tail



Figure 7 - Left View of Tail



Figure 8 -Fracture-Separated Tail Rotor Blade Segment



Figure 9 - Buckled Tail Boom

E. EXAMINATION INFORMATION

The FAA inspector examined the recovered helicopter 3 days after the accident, at the facility of Apex Aviation at North Las Vegas airport. All "Telatemp" indicators indicated normal operating temperatures (no exceedances), and all flight controls exhibited unrestricted and full travel throughout their design ranges.



Figure 10 - Full Left TR Pedal Travel

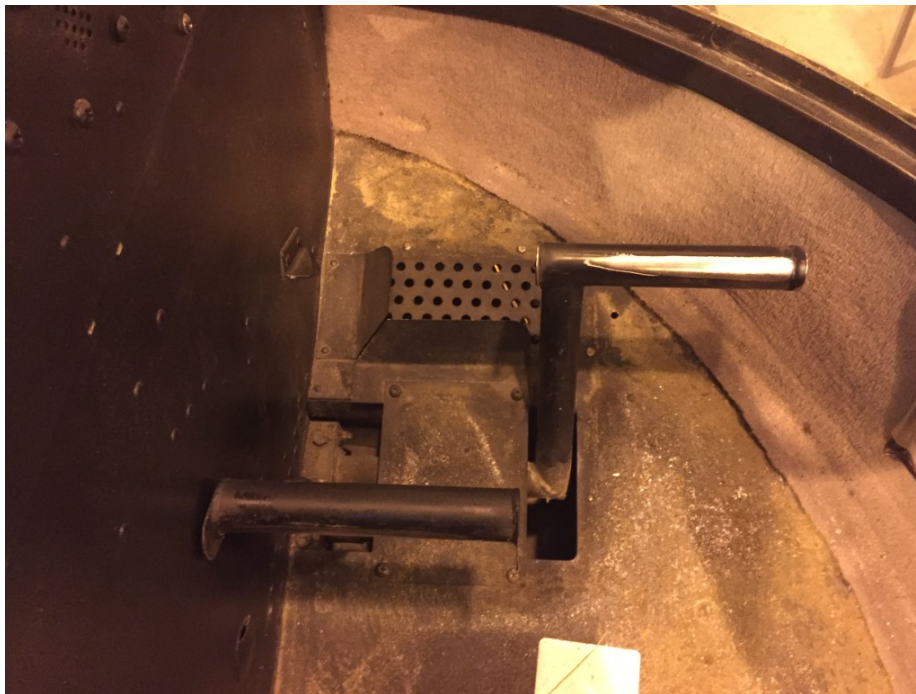


Figure 11 - Full Right TR Pedal Travel



Figure 12 - Full Travel TR Linkage



Figure 13 - Full Travel (Opposite Direction) TR Linkage

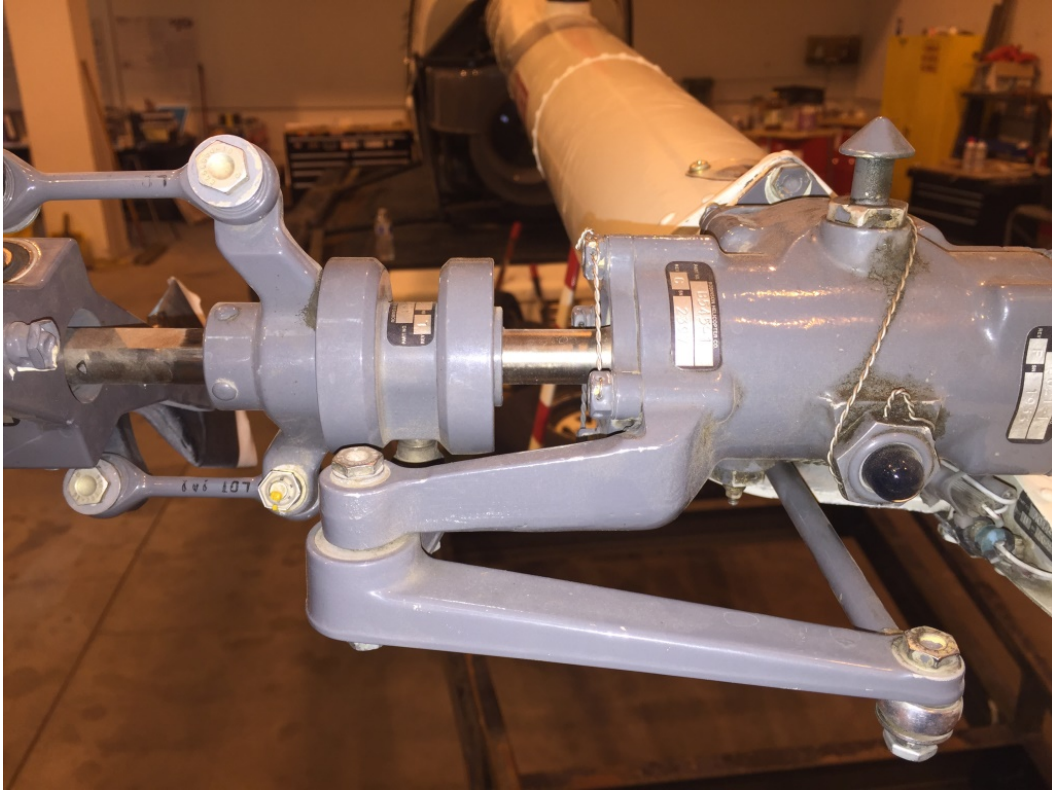


Figure 14 - Full Travel TR Linkage

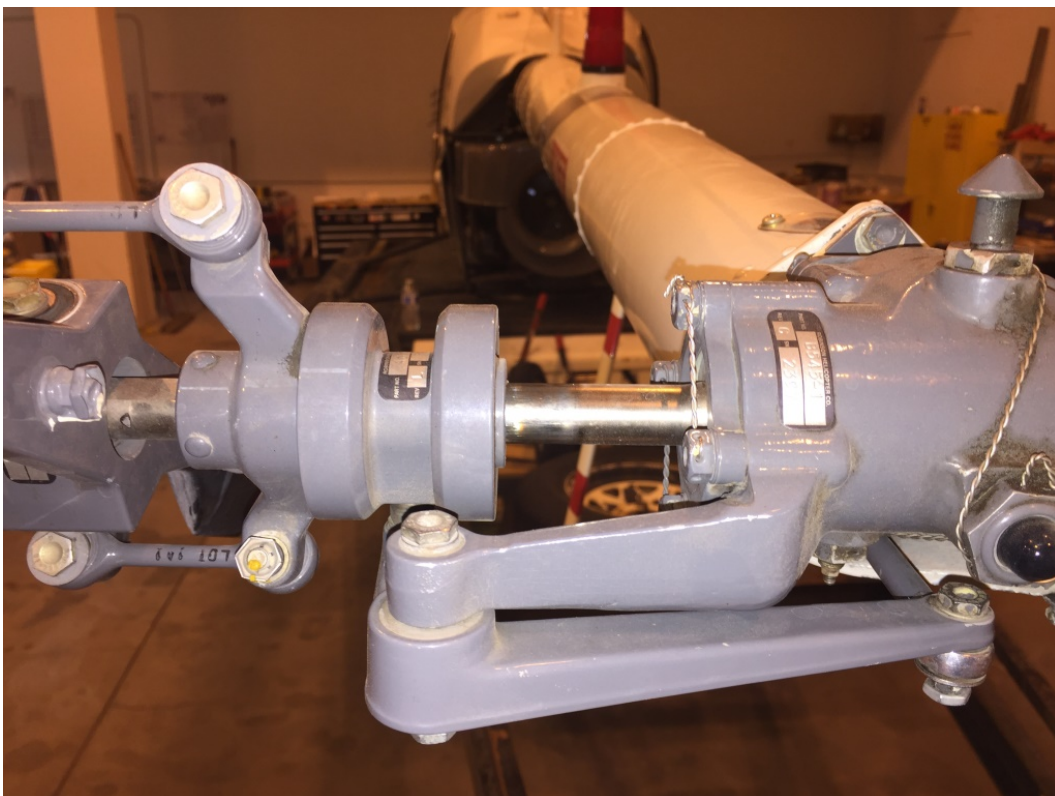


Figure 15 - Full Travel (Opposite Direction) TR Linkage

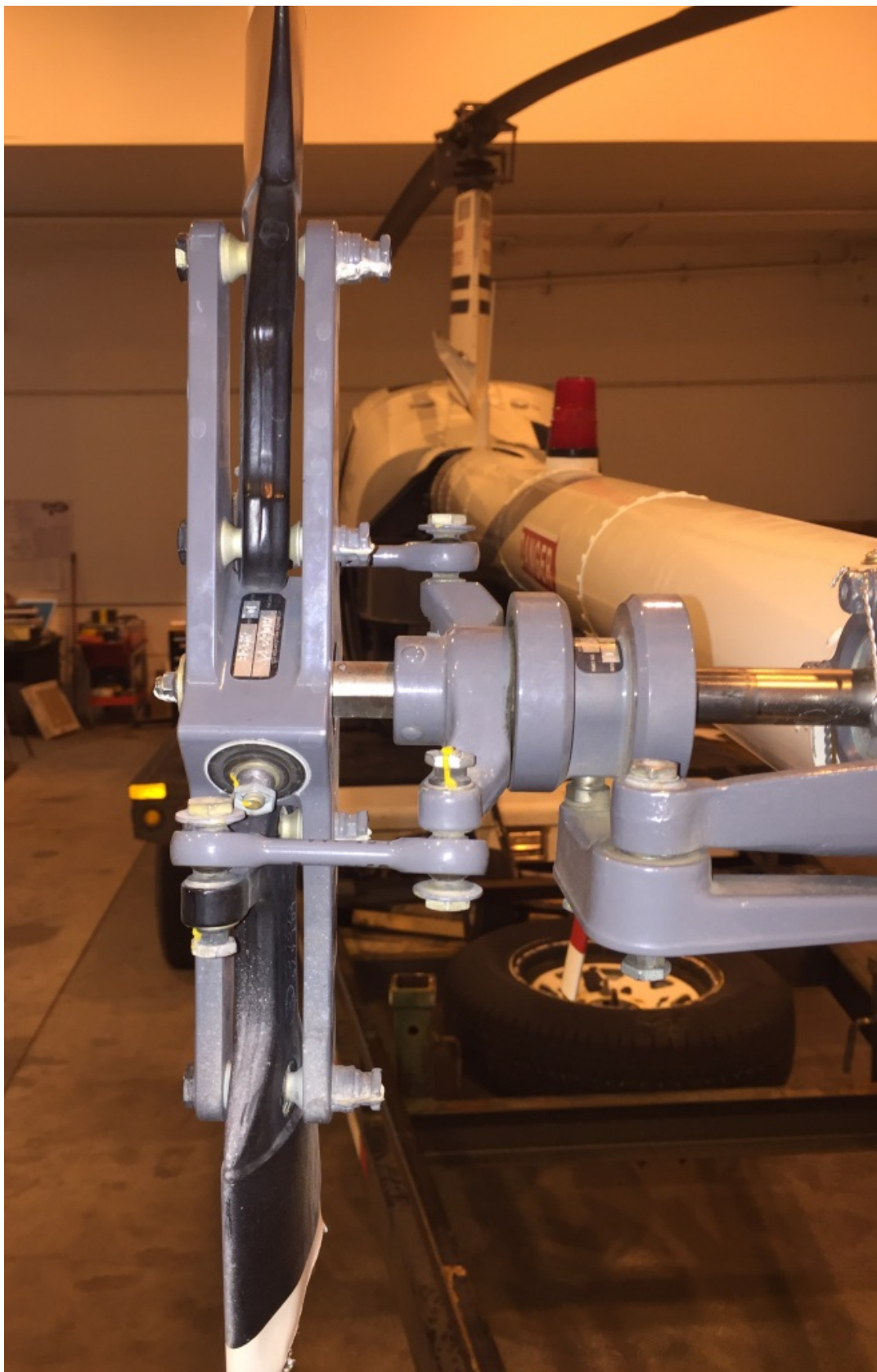


Figure 16 - Full Travel TR Blades



Figure 17 - Full Travel (Opposite Direction) TR Blades

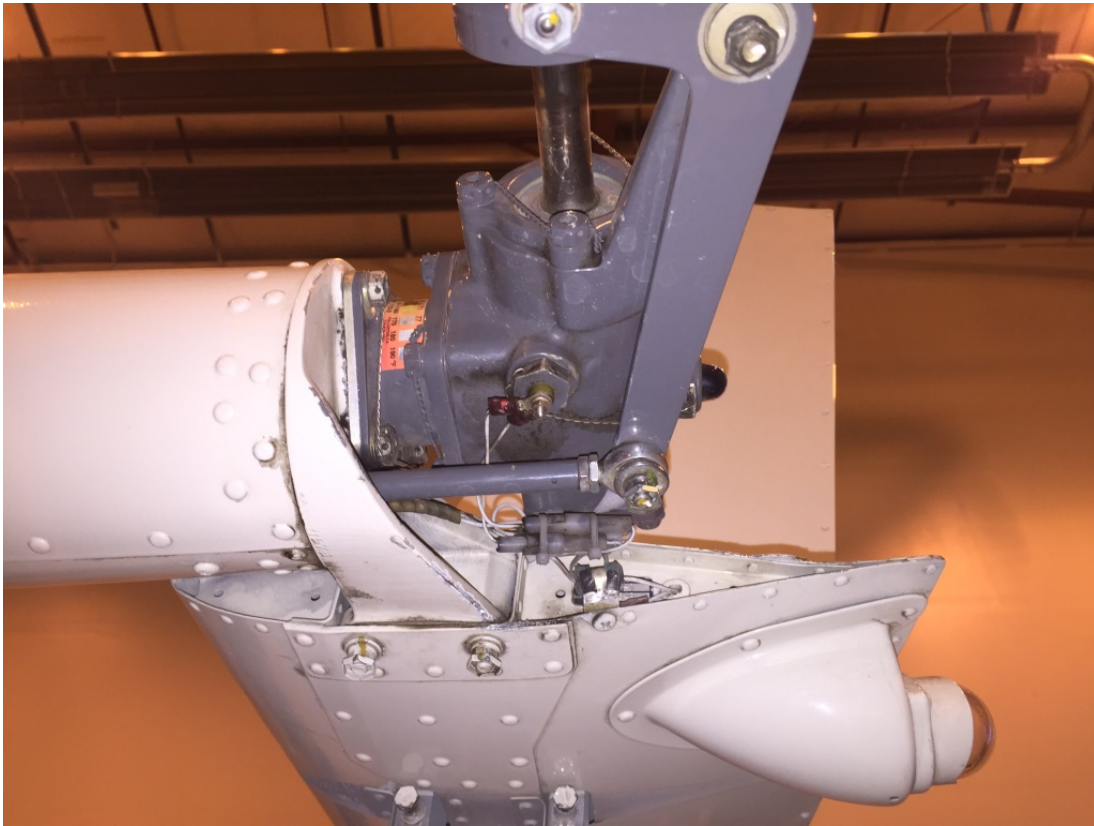


Figure 18 - Underside of TR Gearbox and Linkage



Figure 19 - TR Drive Shaft and Flex Coupling

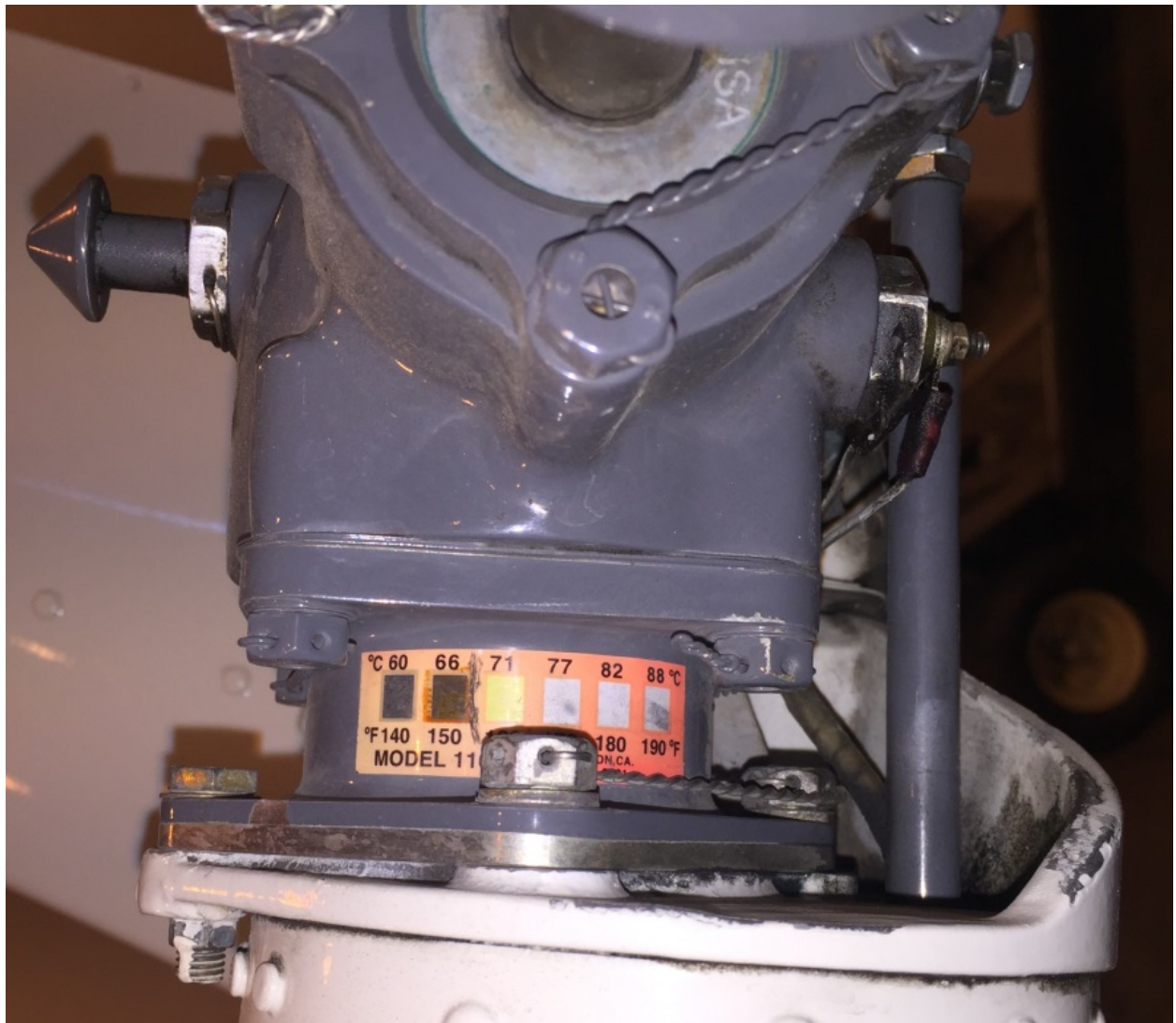


Figure 20 - Telatemp on TR Gearbox



Figure 21 - Telatemp on Clutch Actuator Sheave at Intermediate Flex Coupling