



Improved F-16 Nosewheel Steering Actuator

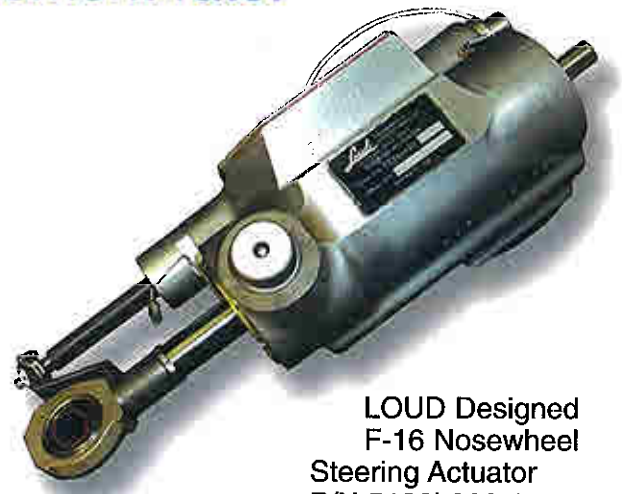
The NEW Loud F-16 Nosewheel Steering Actuator reduces maintenance costs by extending service life and lowering the replacement rate.

At the request of engineers at Hill AFB, Loud Engineering has designed and manufactured an integrated Nosewheel Steering Actuator assembly incorporating both the Feedback Potentiometer and Actuator units.

With the introduction of this new design, aircraft availability and reliability will be greatly improved. Installation time is significantly reduced.

LOUD's new steering actuator design eliminates side load bending of guide rod, bending of potentiometer shaft and potentiometer exposure to harsh environmental conditions.

Our steering actuator unit has successfully completed qualification testing and flight testing. It has been estimated that the increased reliability and ease of installation of this unit could result in F-16 fleet maintenance savings of over \$15,000,000 in the United States alone.



LOUD Designed
F-16 Nosewheel
Steering Actuator
P/N 5136L000-1

Design Improvements

- Integrated One-Piece Assembly
- Requires NO Aircraft Modification
- Eliminates Shims, Brackets and Loose Parts



Improved

F-16 Nosewheel Steering Actuator

Steering Actuator Comparison Chart

LOUD Actuator Advantages	Present Actuator Unit
<ul style="list-style-type: none">• Integrated Actuator and Feedback Potentiometer are in an environmentally sealed one piece cavity/housing.• Eliminates Shims, Brackets and Loose Parts.• Integrated Potentiometer and Actuator is preadjusted and calibrated at the factory.• Weight Savings: 1 pound, 3.8 lbs. per unit.• Integrated Actuator Shaft Wiper and Seal keep environmental contaminants out of unit.• Unique one-piece design eliminates bending load on Potentiometer.	<ul style="list-style-type: none">• Separate Potentiometer and Actuator.• Multiple shims, brackets, and loose parts are required for assembly of separate Actuator and Potentiometer.• Replacement of Actuator and/or Potentiometer requires extensive hanger adjustment and calibration.• Heavier Weight: 4.8 lbs. per unit.• Feedback Potentiometer is exposed to harsh environmental conditions; Sand & dust, Salt fog & Humidity, Fungus, Kick up debris from nosewheel.• Aircraft misalignment induced bending loads cause permanent Potentiometer Shaft deformation.



F-16 Landing Gear ▲

For over 30 years LOUD Engineering has performed a broad range of Design, Prototyping, Manufacturing and Testing/Qualification services for Landing Gear Systems, Actuators, Steering Damping Actuators, Valves, Manifolds, and Ground Support Equipment for the Aerospace Industry.

LOUD's Manufacturing operations are located in Ontario, California in a modern 77,000 sq. ft. facility. LOUD's quality system is ISO 9001-2000 and AS9100 compliant. LOUD is an authorized FAA Repair Station, Certificate Number JN3R611L.

Do you have a specific program, project or engineering challenge?

LOUD is your TOTAL SOLUTIONS PARTNER

Loud Engineering

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