Flex Shaft Steering
Originator: Suspension Strategy Brainstorm Session
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Analyst: Patrick Montalbano

Concept Description:
Implement a flex shaft to span the solid shafts (as shown) or use a continuous flex shaft to reroute the steering wheel along the “nose” frame tubes and link to the steering box from the front. A tie rod behind the shock has caused the steering column to trap the drivers feet, and creates a significant bulge in the foot pan.

Strengths:
• Removes steering shaft from foot box
• Eliminates bad universal joints
• Constant velocity

Weaknesses:
• Possibility of ‘different’ steering feel

Opportunities:
• Choice of steering box position
• Design report points
• Weight reduction opportunity
• Innovative

Threats:
• Team acceptance
• Unknown Durability

Notes: elliottmfg.com. Developer and sales of John Deere 4000 series flex shaft steering