

# H M M W V



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This project evaluated DTI's compressible fluid suspension as a direct replacement to the standard coil/ shock arrangement to reduce impact forces mechanically transmitted to the HMMWV chassis during dynamic operation. The fixed weight range coil spring and shock absorber configuration cause the lightly loaded vehicles to ride stiffly damped with a high ride level. The more heavily loaded variants ride too low causing a loss of jounce stroke which leads to bottoming and possible structural and drive component failure and compromised mobility.

This DTI compressible fluid suspension system was designed and built to directly interface with the standard shock absorber mounting positions eliminating the heavy coil springs and the required space envelope for their large circumference. The DTI struts automatically adjust to maintain proper jounce stroke and ride height, providing improved overall mobility while accommodating a wide range of load carrying capacities for various vehicle variants. The system has a manual mode to raise lower tilt and to assist in cargo loading and tire changing.

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