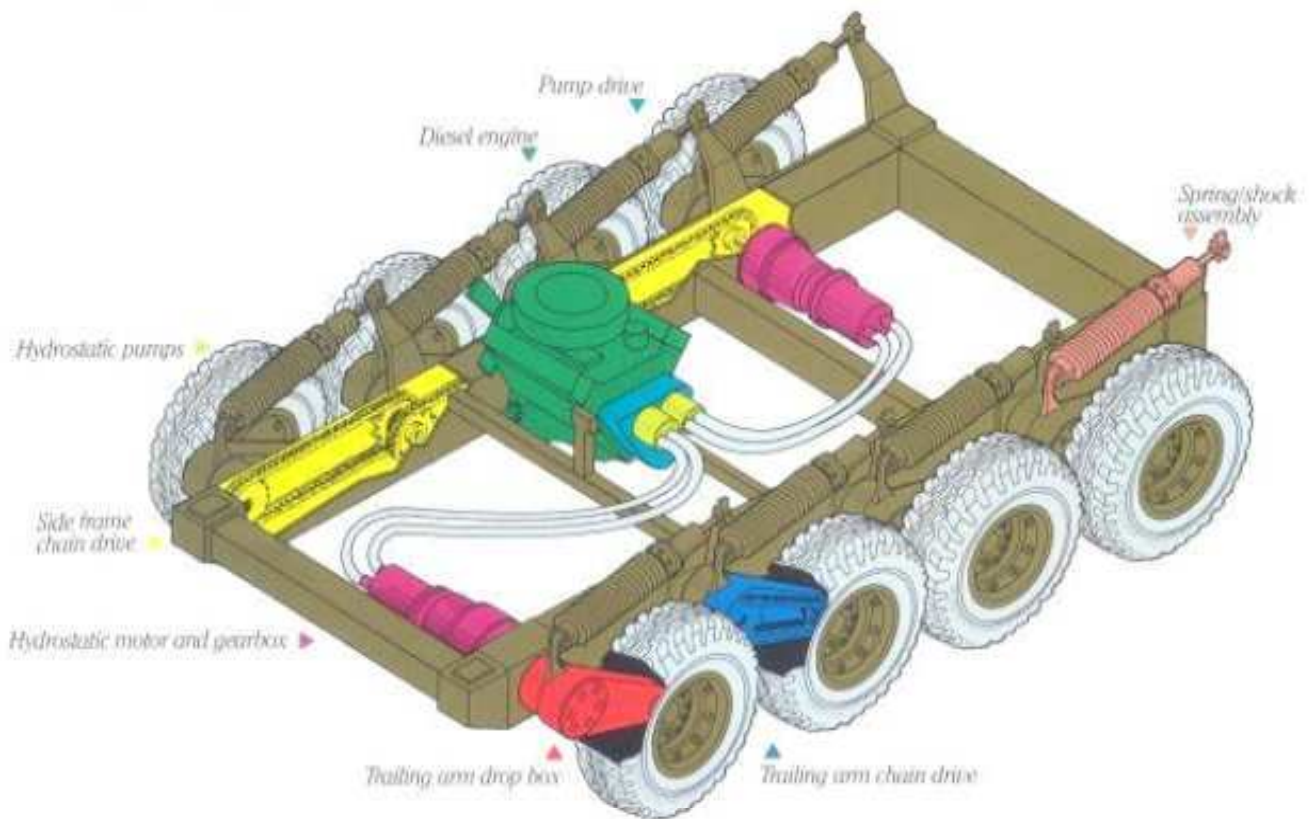


The Standard Tactical Vehicle with Trailing Arm Drive™

**High-speed,
all-terrain combat mobility
with our revolutionary
multi-role vehicle.**



A unique concept in undercarriage suspension and drive systems provides mission capabilities unmatched by conventional wheeled or tracked vehicles.

This is the Standard Tactical Vehicle (STV), representing a family of versatile, multi-role tactical vehicles built around our revolutionary 8W12 Trailing Arm Drive (TAD) concept.

It's the vehicle that can easily negotiate battlefield terrain which even tracked vehicles find difficult to handle.

It's the vehicle that can negotiate inclines of 60% or greater, depending on available traction—maneuver over vertical step obstacles up to 24" high. And it's the vehicle that can make 360° turns twice as fast as most other vehicles.

Finally, it's the revolutionary, multi-role vehicle that is currently performing a wide range of combat missions in configurations from the U.S. Army's Vulcan Wheeled Carrier (VWC) to transport vehicles, to radar systems, to mobile rocket and missile systems and more.

The basis for the STV's almost limitless mission fulfillment capabilities comes from Standard Manufacturing Company's unique Trailing Arm Drive (TAD) Undercarriage Suspension System with Hydrostatic Drive. Our TAD design features an 8-wheel independent suspension system coupled with hydrostatic trailing arm drive and braking. A look at Standard's TAD will give you a clear picture of why and how the STV offers capabilities unmatched by conventional vehicles.

All wheel drive and continuous all wheel power keep Standard's TAD in gear and on the run.

Our TAD undercarriage suspension system design puts individual hydraulic cylinders and a trailing arm at each wheel's spring/shock mechanism. A single, direct cylinder control allows the operator to raise or lower a single wheel, or any combination of side or end wheels, independently of the others. The overall vehicle profile can be raised or lowered 12", allowing for easy air

transportability and a dramatic reduction in vehicle silhouette when emplaced.

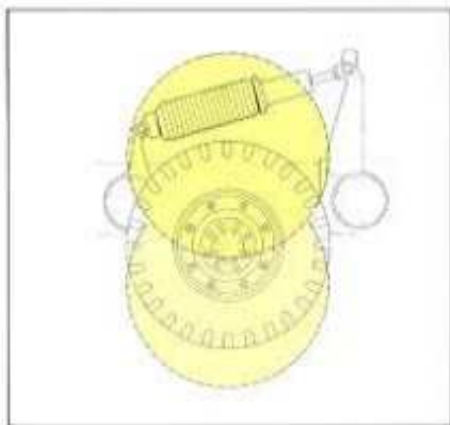
There are other advantages to Standard's unique TAD system. Since the trailing arms to each wheel are jointly driven from a gearbox common to each side, all wheel drive is provided. This *all wheel drive* means continuous *all wheel power*. While conventional vehicles are shifting gears, or locking out the differential, or switching to 4-wheel drive, the STV with Standard's TAD system is in gear and on the run.

A brief look at the technical highlights of STV's major system components.

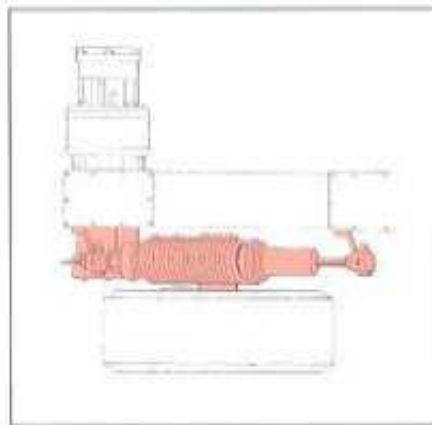
TAD System—The TAD System is a hydrostatically driven, eight wheel unit with independent wheel suspension, capable of



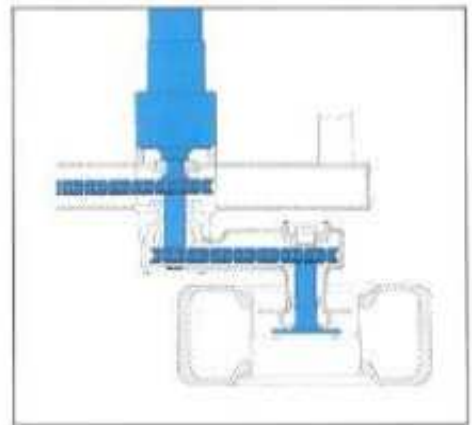
MCT — Medium Combat Truck



TAD wheel oscillation



TAD assembly



TAD power train

traveling over rough terrain and improved surfaces at speeds up to 45 MPH.

Power is provided by a 150 HP water cooled diesel engine, which operates dual hydrostatic pumps. Each of these pumps provides hydraulic power to sideframe drive motors which, in turn, power drive sprockets. All wheels of each sideframe are chain driven from the drive sprockets. All drive chains, both inside the frame assemblies and inside the drop boxes to the wheel assemblies are totally enclosed and operate in an oil bath.

Drop Boxes — Drop boxes support each wheel assembly and transfer the drive from the main frame assemblies to the wheels. A roller chain and two sprockets are contained in each drop box to transmit the drive from the sideframe assemblies to the wheels.

Spring/Shock Assembly — The combination of a heavy duty, hot-wound alloy coil spring and a high capacity shock absorber used to support each drop box/wheel assembly permits individual wheel oscillation during operation. This wheel oscillation isolates the shock load from the operator and payload. A hydraulically actuated cylinder is integral with the spring/shock assembly to allow independent raising and lowering of the wheel assemblies.

Hydrostatic Drive System — unique design provides high reliability, low maintenance, long operating life.

The undercarriage uses hydrostatic drive to obtain the optimum torque and RPM at the wheels that provide the STV with its superior high-speed, all-terrain combat mobility. Engine torque and speeds are used to drive hydrostatic pumps which convert the engine torque and RPM into hydrostatic pressure and flow.



VWC — Vulkan Wheeled Carrier

This pressure and flow is transferred from the pumps directly to the hydrostatic motors where it is converted back to torque and RPM. Each hydrostatic motor drives through a planetary gearbox to a high capacity chain which in turn drives the other wheels of the side frame to provide all-wheel power. Hydrostatic drive allows for the utilization of full engine horsepower at all speeds. Standard's drive system can also be mounted in various chassis locations to provide vehicles in a broad range of configurations.

Electronic steering control system provides precise maneuverability in the field.

Control and maneuverability of the undercarriage is achieved by varying the drive speed on one side of the vehicle. With hydrostatic drive, this is accomplished by altering the flow from the hydraulic pumps and/or altering the displacement of the hydraulic motors. A conventional steering wheel activates an electronic displacement control which regulates the pump flow and motor speed.

Braking system provides sure-footed control on any road or terrain surface.

Normal vehicle braking functions utilize the inherent hydrostatic braking provided by the hydrostatic drive system. The service brakes are actuated by hydraulic system pressure and regulated by a foot operated valve. Caliper disc assemblies are utilized for service and parking brakes. In addition to normal braking operations, an electrically operated control valve on either side of the vehicle controls brakes on that side for emergency brake-steer capability.



STV — Standard Tactical Vehicle

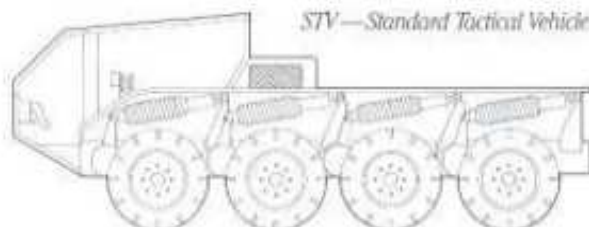
Central Tire Inflation system

For operation in soft soils, sand, mud, and snow the STV is equipped with a Central Tire Inflation (CTI) system for improved mobility characteristics. The CTI system allows the operator to adjust the air pressure in the tires from 35 psi to 10 psi. This provides increased traction and up to a 200% increase in the flat plate foot print area. All CTI controls are located in the operators cab and can be actuated while moving.

Standard is currently building the Standard Tactical Vehicle in a variety of configurations under contract for the U.S. Army. TAD vehicles are available in sizes ranging up to 100,000 pound GVW. We would like to discuss the many ways our TAD can meet your requirements. Let us show you how this highly versatile vehicle can meet your needs for a high-speed, all-terrain tactical support system.

Vehicle Specifications

Model	8W12	Speed Range	0-45 M.P.H.
Weight (Empty)	11,000 Lbs.	Engine:	
Weight (G.V.W.)	18,000 Lbs.	Model	Detroit Diesel 6.2 Liter
Payload Capacity	7,000 Lbs.	Type	4 Cycle 8 Cylinder Diesel
Drive System	All-Wheel Hydrostatic	Horsepower	150 H.P. @ 3,600 rpm
Suspension System	8-Wheel Independent Trailing Arm Drive	Hydraulic Fluid	SAE 10W Per MIL-L-2104
Steering	Pivot Automotive Type Control	Fuel Tank Capacity	50 Gals.
Overall Dimensions		Hydraulic Tank Capacity	25 Gals.
Length	213"	Tires	36/12.50-16.5 Equipped with Run Flat Devices and Central Tire Inflation on all wheels.
Width	102"	Tire Pressure	35 psi
Height to Top of Cab (Variable)	73" maximum 61" minimum	Ground Pressure	8.9 psi
Variable Ground Clearance	10 Inch to 22 Inch	Slope Negotiation	60% Longitudinal 40% Side Slope
Brakes	Hydrostatic Braking and All Wheel Power Disc	Towing Capability	Vehicle of Equal Weight
Lights	Combat Service with Blackout Feature		
Operating Pressure			
Drive System	6,000 psi		
Wheel Positioning System	2,000 psi		
Brake System	1,500 psi		
Charge System	350 psi		



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