DYNATRAC® FOUNDATION BRAKE PROGRAM

The Dynatrac Foundation Brake Program provides the optimal braking solutions for the needs of tactical vehicles.

# WHAT IS THE DYNATRAC FOUNDATION BRAKE PROGRAM:

- At its core, the Dynatrac Foundation Brake Program provides complete engineering services focused on developing foundation brake systems for specific vehicle programs
- Ideally suited for military applications that include low-speed, off-road and cold-temperature brake-holding power such as when holding a vehicle in place on a steep incline
- Optimized for both high- and low-temperature brake torque performance that is common in military applications requiring a wide range of maneuverability, high-mobility in difficult terrain and must also perform very well in high-speed maneuvers
- Industry-leading low-cost acquisition prices and low-cost sustainment
- We are ideally suited for low- and mid-volumes of military vehicle programs without sacrificing cost savings
- Dynatrac Foundation Brake systems use OEM COTS service components for cost-effective service wherever the vehicles are deployed around the world

# WHY DID WE DEVELOPE THE DYNATRAC FOUNDATION BRAKE PROGRAM:

- Tactical vehicles built on existing platforms are significantly heavier than the original vehicles, therefore the brakes are undersized
- Existing aftermarket brake upgrades are based on racing applications that are not appropriately designed for the duty-cycles of military tactical vehicles

# HOW DOES THE DYNATRAC FOUNDATION BRAKE PROGRAM WORK:

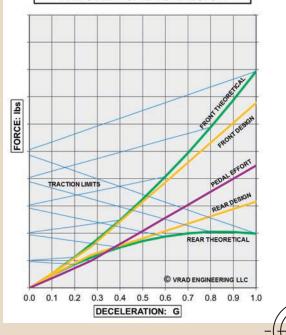
- Our engineering team works with your vehicle development team to identify the specific braking needs, objectives and duty-cycle
- Using our decades of brake-system engineering experience, we do a full system foundation brake analysis
- We use an analytical approach to source off-the-shelf brake rotors, calipers, friction materials, master cylinder and related brake components
- We source the brake components from the world's leading brake suppliers, including Bendix, Bosch, Continental, Hayes, Honeywell, Linemar, TI Automotive and TRW
- We work with your engineering team to integrate, test and validate the brake system
- Dynatrac can provide the brake system components or a BOM for your team to procure components directly from the specified supplier

# ADVANTAGES OF THE DYNATRAC FOUNDATION BRAKE PROGRAM:

- Your brake system will be engineered for the specific GVWR of your tactical vehicle, ready to perform as expected with armor and cargo loads
- Balanced front and rear rotor thermal mass is an essential requirement to minimize fade in severe-duty applications – our engineering analytics optimize rotor mass and diameter to provide maximum performance at minimum weight



# BRAKE SYSTEM PERFORMANCE THEORETICAL vs. DESIGN



- We use commonly-available brake components in a system engineered for your specific vehicle
- Reduced R&D cost and time
- OEM components have already been engineered and validated only complete system testing and validation is needed
- Service items are readily available world-wide at low cost

# DYNATRAC® IS A FULL-SERVICE SOLUTIONS SUPPLIER

# **MILITARY EXPERIENCE**

- Combat-proven drivetrain solutions
- 17 customers in the U.S. and abroad
- Dynatrac drivetrain solutions are in use in 22 different military vehicles deployed globally

# **ENGINEERING**

- In-house, professional, system-level integration to component-level design
- Complete SME on drivetrain, suspension, vehicle dynamics, foundation brakes
- Maximize value and reduce cost with extensive leverage of COTS components
- Optimization of cost, weight, durability and performance
- Foundation brake program development that is cost-effective to deploy, uses COTS service parts and provides braking performance specifically engineered for combat vehicles

### **PRODUCTION**

- All U.S. made castings, forgings and materials
- In-house machining, fabrication and assembly
- Scalable production rates from 1 to 1,000 units

### **TRAININ**

- Drivetrain sustainment and reset processes
- Vehicle operations
- Off-road mobility and vehicle preservation skills

### DYNATRAC VEHICLE-SPECIFIC DRIVETRAIN SOLUTIONS

- Custom designs that meet unique mission and packaging requirements
- Dynatrac serves vehicle requirements from 5K lbs. (2,270 kg) to 25K lbs. (11,340kg)
- Demanding vehicle packaging for internal air transport (CH/MH-47, V-22)
- Direct-fit and plug-in solutions for existing platforms
- Jeep JK and J8
- Land Rover Defender
- Toyota HiLux; Tacoma; Land Cruiser 76, 79 and 200
- Ford F-550, domestic and foreign vehicles
- Purpose-built vehicles

## DYNATRAC DRIVETRAIN SOLUTIONS

	Dynatrac Axle	Front/Rear	Independent/ Beam
	ProRock 60-IFS/IRS™	Front and Rear	Independent
	ProRock XD60-IFS/IRS™	Front and Rear	Independent
	ProRock 80-IFS/IRS™	Front and Rear	Independent
	ProRock XD60™	Front and Rear	Beam
	ProRock 80®	Front and Rear	Beam
H- Ord	ProRock 44™	Front	Beam





