

Turn Off Your Truck... Turn On Your EnPak®

A revolutionary,
fully integrated
power system for
mechanic's trucks



EnPak®
Miller



EnPak® Mechanic Series

Designed for mechanics' trucks, EnPak is a powerhouse combination of a diesel engine, air compressor, hydraulic pump and generator that is integrated into the truck's fuel and electrical supply allowing full functionality with the truck engine turned off.

Through its industry-exclusive design, EnPak provides...

- *Efficiency:* Lowers fuel use up to 30%
- *Idle reduction:* Idle hour reduction of over 50% extends the life of the drive train
- *Quiet:* Up to 10 dB less noise than a typical PTO system
- *Comfort:* Directs exhaust up and away from the work area
- *Capacity:* Provides more room in the truck and extra payload
- *Reliability:* Engineered and designed by Miller, with components from Miller, Kubota and Eaton

To learn more about EnPak® Mechanic Series,
contact your local Truck Equipment Dealer or visit

EnPak.com

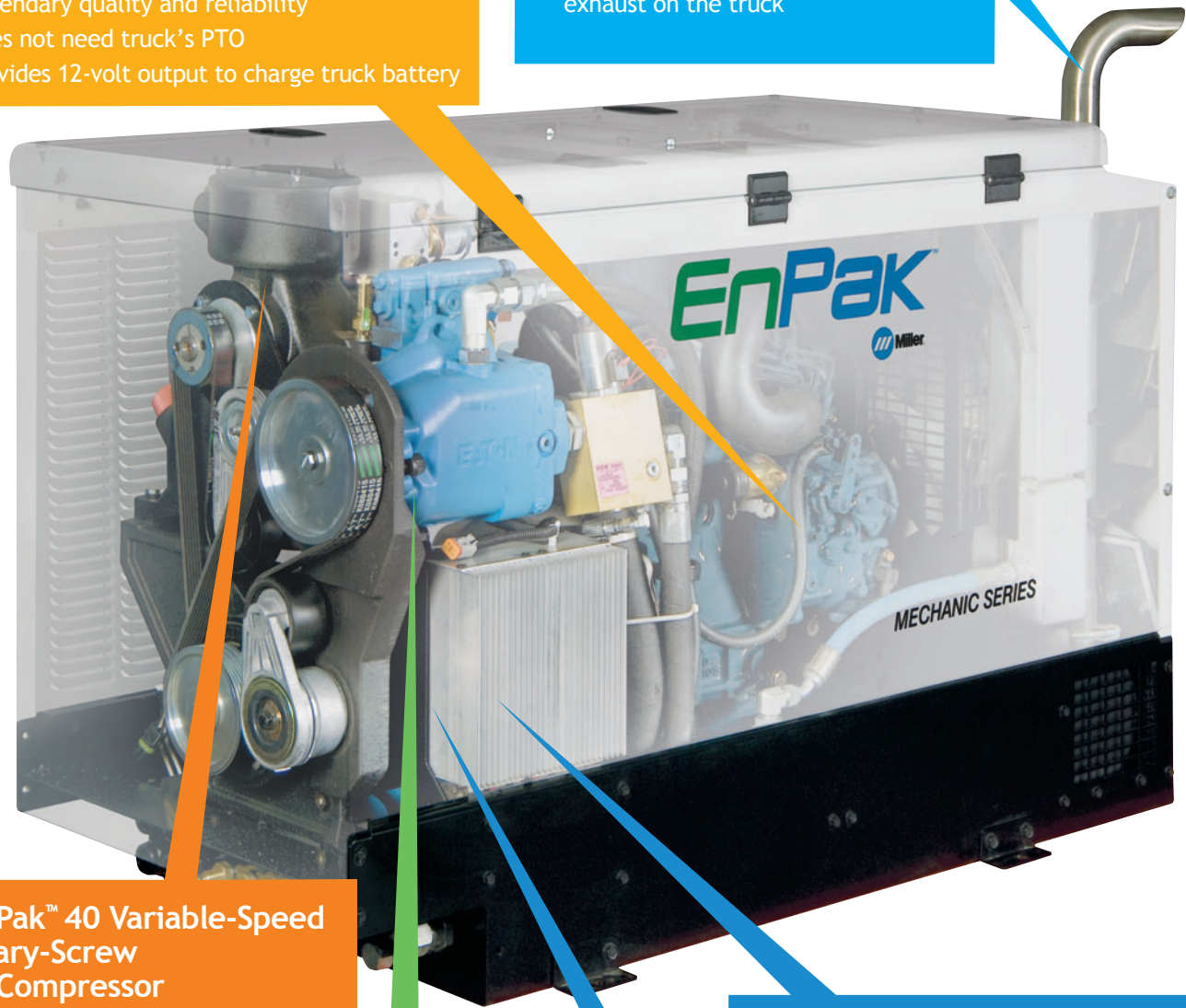
Key Features

Kubota Diesel Engine

- EnPak's 27 HP Kubota variable-speed 3-cylinder diesel engine shares the truck's fuel supply—only one tank to fill
- Legendary quality and reliability
- Does not need truck's PTO
- Provides 12-volt output to charge truck battery

Vertical Exhaust

- Eliminates exposure to exhaust fumes while working behind the truck
- Eliminates cost of putting vertical exhaust on the truck



Air Pak™ 40 Variable-Speed Rotary-Screw Air Compressor

- Rated at 40 CFM at 100 PSI, 104° F
- Rated at maximum PSI = 175
- 100% duty cycle
- Compact, high output

EnVerter™ Power (optional)

- Up to 2,400 continuous watts of power
- 120 VAC pure sine wave power available at all engine speeds

Eaton Variable-Displacement Piston Pump

- Runs standard cranes
- 20 GPM maximum pump capacity
- 3400 PSI system pressure
- Smooth operation and control for precise movement and seamless operation

Brushless Generator

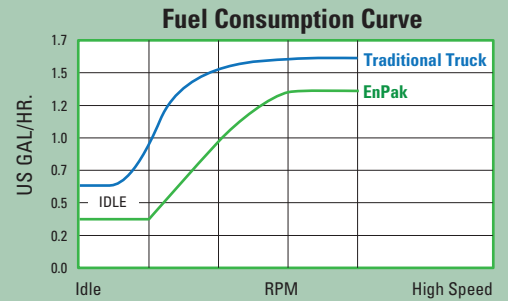
- 6,000 watts of auxiliary power for tools like Maxstar® welders, drills, and grinders
- Brushless—extends life of the generator because there is no brush maintenance

Key Benefits

Fuel Savings

Drive fuel efficiency and savings while powering all mechanic truck work functions with the truck turned off.

- Featuring a standard auto start/stop functionality designed to reduce fuel consumption, unnecessary EnPak engine idling, noise and emissions
- Reduced fuel consumption by up to 30%
- Empower technology adjusts Enpak engine speed to match load requirements to the lowest required speed
- Fleet savings over \$100k annually (Based on a fleet of 50 trucks)



Maintenance Savings

Maintain the 27 HP Enpak engine vs. the 300 HP truck engine.

- Lower truck engine operating hours yield lower annual maintenance costs
- Fleet savings over \$50k annually (Based on a fleet of 50 trucks)

Asset Life Extension

Eliminate non-productive drive train hours to maximize the useful life of your fleet assets.

- Idle hour reduction of over 50% extends the life of the drive train
- Fleet savings over \$100k annually (Based on a fleet of 50 trucks)

Savings Calculator

Operation Profile
Fuel Savings
Maintenance Savings
Asset Life Extension Savings
Detailed Summary

Maintenance Savings

Significant reductions in truck engine idle hours and total engine hours will contribute to lower maintenance costs by extending the time between required maintenance intervals.

Operating Days (per year)

Fleet Size

Payback (maintenance only)
4.90 Years

Conventional Truck Maintenance at Idle		
	Interval (hours)	Costs (USD)
Oil Change	200	\$150
Fuel Filter	400	\$95
Cooling System	3,000	\$150
Air Filter	1,000	\$95
Transmission	800	\$175
Total Maintenance Costs at Idle: \$1,689.06		

Note: Engine intervals and cost based on Ford 8.0 liter engine. Insert your own truck's maintenance intervals for greater accuracy.

Truck w/ EnPak EnPak Maintenance

Oil Change \$50

Fuel Filter \$60

Cooling System \$100

Air Filter \$60

Total Maintenance Costs at Idle: \$668.75

Annual Savings \$1,020

Annual Fleet Savings \$51,016

Life Cycle Fleet Savings
\$510,156

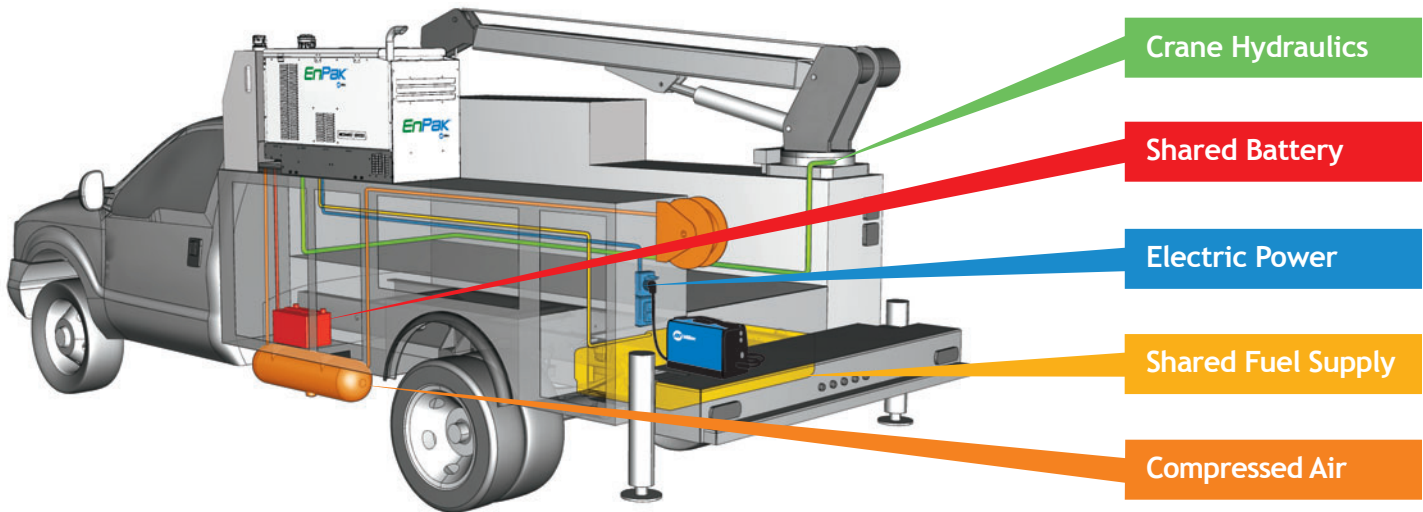
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The results are intended to illustrate the possible fuel savings, maintenance savings, and asset life extension savings using EnPak Mechanic Series and are based on user input. They do not constitute a proposal or a guarantee.



Calculate your savings at EnPak.com/calculator

Truck Integration



Mounting Options

EnPak® has two convenient mounting options that will allow you to maximize your truck bed space – load-space mount or side-pack mount.

Load-Space Mount



Side-Pack Mount



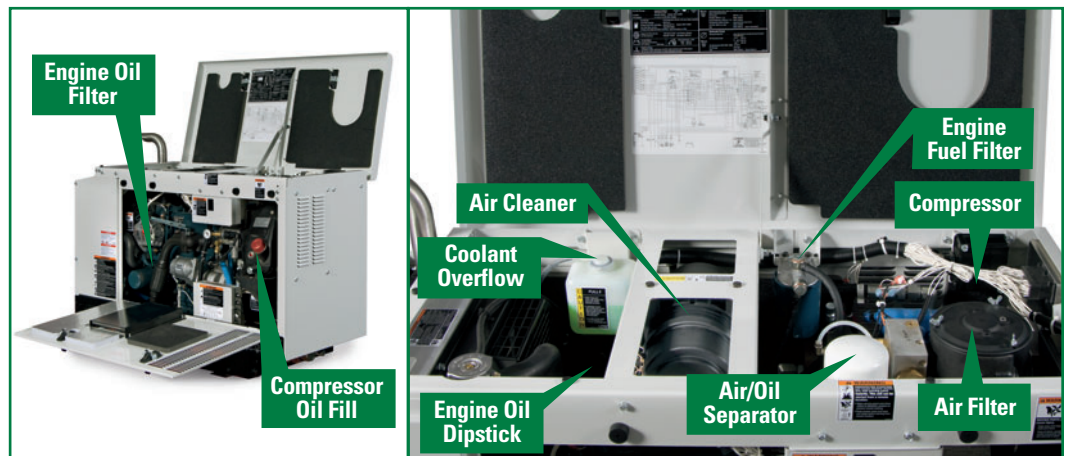
(Shown with optional hydraulic reservoir)

Side-pack mounted EnPak frees up almost 3 ft. of truck bed space providing the option to choose an 11 ft. truck body instead of a 14 ft.

Serviceability

Easy access to: engine oil filter, engine oil dipstick, engine fuel filter, coolant overflow, air cleaner, compressor oil fill, compressor, air filter, air/oil separator.

All filters and fluids are easily accessible, regardless of mounting placement.



Additional Features and Benefits

EnPower™ Technology

EnPower technology automatically adjusts engine speed to match load requirements. Under low loads, the engine runs at 1800 RPM. With increased loads, EnPower technology ramps up engine speed... but only as much as needed (and up to 3600 RPM for maximum output). The ability to vary engine speed further lowers average fuel use and noise, facts appreciated by fleet managers and mechanics.



Truck Space

- Replaces individual air compressor and welding generator
- Maximizes truck bed space (30 in. high x 21 in. wide x 47 in. deep, 762 x 533 x 1194 mm) – only 1 inch wider and 1 inch taller than a Miller Bobcat™
- Provides two mounting options – load-space mount or side-pack mount
- No loss of cabinet space when load-space mounted because the operator can operate EnPak remotely – no cut out needed



Crane Remote

- Full pendant control – same operation platform as today
- Crane manufacturer's wireless or tethered remotes work with EnPak – no need to retrain the operator



EnPak Remote Panel

Monitors and displays engine and air compressor status.

Engine Controls

- Hour meter
- Maintenance hour meter
- Coolant temperature
- Engine RPM
- Engine start/stop

Air Compressor Controls

- Hour meter
- Maintenance hour meter
- Minimum pressure set
- Air compressor start/stop
- Shutdown indication



Service Panel

Secondary manual controls are accessible through the side service panel. You can still work on the unit if the remotes are disabled, because the service panel overrides the EnPak Remote Panel and crane remotes.



Weld Capability

- Powerful enough to run Miller's most popular inverter welding machines – Maxstar® 150, Maxstar® 200, and Millermatic® Passport® Plus
- Miller reliability



Component Specifications

Air Compressor

Type	Features	Ratings	Duty Cycle	Automatic Compressor Shutdowns
Air Pak™ 40 variable-speed rotary-screw	Oil cooled Built-in check valve Air compressor hour meter Clutch controlled automatic shutdowns	90–175 PSI pressure range 40 SCFM at 100 PSI at 3600 RPM 35 SCFM at 100 PSI at 3200 RPM 28 SCFM at 100 PSI at 2600 RPM 18 SCFM at 100 PSI at 1800 RPM	100%	Oil temperature Air pressure (over pressure)

Hydraulic Pump

Features	Maximum Pressure	Maximum Flow Rate	Rated Output	Control
Eaton variable-displacement piston Pressure and flow compensated High-load tapered roller bearings	3400 PSI	20 GPM	8.5 GPM at 3000 PSI at 3200 RPM 50% duty cycle (dependent on hydraulic cooling system)	Power managed load control using variable flow rate

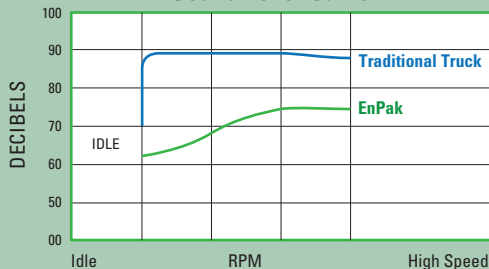
Engine

Features	HP	Type	Engine Speeds	Automatic Engine Shutdowns
Kubota electronic governor Multi-speed 60 A, 12 V alternator Engine hour meter Electric fuel pump Automatic shutdowns	27.7 HP/3600 RPM	Diesel EPA Tier 4 compliant	1800 RPM – idle 2600 RPM 3200 RPM 3600 RPM	Oil temperature Oil pressure Over speed

Generator/EnVerter™

Output	Benefits	EnVerter (Synthetic Power, optional)
6000 watts at 3600 RPM, continuous	120/240 V Single-phase, brushless generator Breaker protected	2400 watts at 2600–3600 RPM, continuous 300 watts at 1800 RPM (idle), continuous 120 V, single phase, pure sine wave Overload and breaker protected

Sound Level Curve



Sound Levels

- Because the engine is enclosed in a “quietized case”, EnPak lowers noise up to 10 dB.
- EnPak is 3–7 dB quieter than a traditional truck with a reciprocating compressor
- EnPak is 4–9 dB quieter than a traditional truck with a screw compressor



Weight: 870 lb. (395 kg)

Dimensions: 30 in. high x 21 in. wide x 47 in. deep (762 x 533 x 1194 mm)

Options and Accessories

Enpak® Hydraulic Tool Control (HTC) with Heat Exchanger



- Provides significant fuel savings by delivering hydraulic flow at the lowest engine speed
- Powers a crane and one 5- or 8-GPM hydraulic tool – or any two 5-GPM hydraulic tools – simultaneously
- Drives 5, 8, 10, and 5+5 GPM hydraulic tools*
- Reduces noise by idling down when a hydraulic tool isn't used

Stock #: 300 737

*Meets HTMA Class 1, 2, and RR specifications

Desiccant Air Dryer System



A regenerating inline air dryer system that virtually eliminates moisture in the air stream to prevent air tool freeze-ups in cold climates.

Stock #: 300 690

Hydraulic Reservoir



- 20-gallon (75.7 L) capacity
- 30 mesh filler-breather cap with 3 PSI relief
- In-tank return-line filter (3 micron) ISO 18/16/13 cleanliness rating, 25 PSI bypass setting
- Sight glass
- SAE-24 (F) orb suction port
- SAE-12 (F) orb case drain port

- SAE-16 (F) orb return line port (on filter housing)
- SAE-12 (F) orb port (for draining)
- 2.5-in. NPT (F) port (for optional immersion heater)

Weight: 82 lb. (37.2 kg) dry, 223 lb. (101.2 kg) with hydraulic fluids

Stock #: 300 550

Hydraulic Reservoir Oil Heater Option

Stock #: 300 546

Cold Weather Options

Air Pak™ 40 Compressor Heater

Required for -20 to -40°C

Stock #: 300 774

Enpak® Subzero Package

Stock #: 300 808

Stick (SMAW)/TIG (GTAW) Welding

Miller Maxstar® 150 S



- Weighs less than 14 lbs!
- 20 to 150 Amps
- Stick electrode sizes 1/16"–1/8" diameter
- Adaptive Hot Start™ helps prevent electrode from sticking at starts

Weight: 13.2 lb. (6 kg)

Dimensions: 9 in. high x 5.5 in. wide x 13.25 in. deep (228.6 x 139.7 x 336.6 mm)

Ratings: 70 A at 22.8 V, 100% duty cycle

Stock #: 907 134

Miller Maxstar® 200 STR



- 1 to 200 amps
- Stick electrode sizes 1/16"–3/16" diameter
- Carbon arc size 3/16" max.

Weight: 32 lb (14.5 kg)

Dimensions: 13.5 in. high x 7.5 in. wide x 17.5 in. deep (342.9 x 190.5 x 444.5 mm)

Stick Ratings: 150 A at 26 V, 60% duty cycle

TIG Ratings: 175 A at 17 V, 60% duty cycle

Stock #: 907 036-00-1

IMPORTANT: Be sure to enter the complete 9-digit stock number when ordering to ensure you receive the correct Maxstar model.

MIG/Flux Cored Welding



Miller Millermatic® Passport® Plus

- Inverter technology offers great starts, an extremely stable arc, and minimal spatter
- Welds 24 gauge–3/8" steel and 18 gauge–1/4" aluminum with Spoolmate 100 Series (1/8" on 115 V)

Weight: 45 lb. (20.4 kg)

Dimensions: 15.5 in. high x 12 in. wide x 20.5 in. deep (393.7 x 304.8 x 520.7 mm)

115 V Ratings: 115 A at 19.5 V, 20% duty cycle

230 V Ratings: 150 A at 21.5 V, 20% duty cycle

Stock #: 907 401

For more information on welding products, please visit MillerWelds.com

Notes

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