

# 2007

# TRX680FA / TRX680FGA

## PRESS INFORMATION

Featuring the massive power of a fuel-injected, liquid-cooled 675cm<sup>3</sup> engine, a Hondamatic automatic transmission, independent rear suspension, powerful front disc brakes, and a GPS navigation system, the TRX680 delivers strong and dependable off-road performance that puts it in a class of its own.

### Colour

- **Patriot Red**

## Features & Benefits

### Unique Features

- Honda's largest liquid-cooled four-stroke ATV features a 675cm<sup>3</sup> OHV single-cylinder engine that provides tremendous torque and dependable power.
- Honda's automotive-style automatic ATV transmission draws power through a hydraulic torque converter to drive three forward gears and one reverse.
- The TRX650 features Honda's fully independent ATV rear suspension for comfortable cruising over the toughest terrain.
- Extensive weight-saving measures include the use of strong yet lightweight aluminium for the following components: forged front upper control arms, rear upper and lower control arms, rear knuckles, front and rear wheels.
- Exciting SUV styling features flowing fenders with integrated headlights and taillights.

- TRX680FGA features GPScape unit with easy-to-read LCD display. GPScape is contained within the standard meter assembly and features storage for up to 100 waypoints, digital compass function indicating travel direction and an automatic compensating clock. When travelling or returning to a designated waypoint, GPScape will tell the rider distance and direction from present location.

## **Engine/Drivetrain**

- Liquid-cooled, fuel-injected four-stroke, four-valve overhead-valve 675cm<sup>3</sup> single-cylinder engine is mounted longitudinally in the frame, allowing direct driveshaft alignment to front and rear wheels for improved drivetrain operating efficiency.
- Liquid cooling ensures consistent engine operating temperature in extreme conditions for maximum power output and long engine life.
- Camshaft is located adjacent to the cylinder head, reducing engine height. Together with the semi-dry-sump crankcase design, engine height is further reduced for a low centre-of-gravity and excellent handling.
- Four-valve cylinder head with two short pushrods provides a broad powerband for optimum performance and engine efficiency.
- Snorkel-type air intake system is specially designed for water crossings.
- Fuel injection system features 40mm throttle body, 12-hole two-pattern injector, and IACV (Idle Air Control Valve) for easier starting and smooth, consistent operation.
- Reliable cold weather starting.
- Consistent engine performance at high altitudes.
- Remote-mounted fuel pump with internal fuel reservoir maintains consistent fuel injection performance in rough and varying terrain.
- Engine design produces low emissions that meet all local European off-road emission standards.
- New transistorised electronic ignition with electronic advance for excellent performance and reliability.

- Unique semi-dry-sump oiling system locates the oil tank inside the engine cases, lowering engine height and allowing optimum engine placement for excellent ground clearance and superb handling.
- Standard high-flow oil cooler assures optimal engine lubrication under difficult operating conditions.
- Highly effective multiple-scavenging oil system utilises an oil pump with three sintered steel rotors (one for feed, two for scavenge) to provide a stable oil supply in diverse riding conditions.
- Unique temperature indicator uses two sensors to monitor both oil and coolant temperatures.
- High-capacity coolant radiator is rated at 20.2kW for efficient engine cooling in extreme operating conditions.
- Flat-shaped radiator fan motor is lightweight and compact, contributing to optimum engine placement.
- Rubber-cushion engine mounting system and gear-driven counter-balancer reduce engine vibration.
- Closed crankcase vent system safeguards against engine oil contamination.
- Rugged stainless steel exhaust system ensures superior corrosion resistance while minimising noise levels.
- Exhaust system silencer equipped with internationally approved spark arrester.
- TraxLok is easily engaged by pushing a switch on the right-side handlebar. An electromagnetic mechanical clutch unit (EMCU) located on the centre of the propeller shaft engages 4WD with a quiet two-way roller clutch. Unlike mechanical designs, TraxLok ensures smooth operation by employing a magnetic switching mechanism that engages when front and rear wheel speeds vary by less than 10km/hr.
- Torque-sensitive front differential provides superior traction compared to conventional limited-slip designs, and reduces torque steer substantially for less steering effort in 4WD mode.
- The rear driveshaft joins the rear final-drive gearcase at a 77° angle, eliminating the weight and complexity of an additional shaft and joints. The design also contributes to the Rincon's considerable 203mm of rear wheel travel.

## **Honda Automatic Transmission**

- Automotive-style Honda automatic transmission features a hydraulic torque converter, three hydraulic clutches and an electronic control unit (ECU) to automatically select one of three forward gears and one reverse gear. ECU monitors throttle opening, vehicle speed, engine rpm, gear selector position, brake application and engine oil temperature.
- Honda automatic transmission shifts electronically—eliminating unsightly and trouble-prone vacuum lines—and features helpful engine braking capability, unlike conventional belt-drive designs.
- Honda automatic transmission features a filtration system to protect against external contamination. Its compact, maintenance-free design means there are no belts to wear out and replace. Using multi-filtered engine oil as hydraulic fluid, the design also simplifies maintenance and ensures an adequate oil supply in all operating conditions.
- Electric Shift Program (ESP) allows the rider to manually select gears by simply pressing two push-buttons mounted on the left handlebar.
- Handlebar-mounted control switches the automatic transmission between ESP mode and automatic operation.
- Convenient column-style shift lever permits the rider to easily select Drive, Neutral or Reverse.

## **Chassis/Suspension**

- Rugged steel perimeter-style frame and four-wheel independent suspension provide an exceptional 254mm of ground clearance.
- Separate rear frame utilises the final-drive gear case as a stressed member, reducing overall vehicle weight.
- The TRX650's steering mechanism design provides light steering effort combined with a tight turning radius of 3.3 metres.

- Independent double-wishbone front suspension uses premium shock absorbers to provide 175mm of suspension travel for a plush, comfortable ride.
- Honda's independent rear suspension uses a double-wishbone design and features forged aluminium knuckles and upper/lower A-arms to substantially reduce unsprung weight. Rear knuckle pivots use lightweight metal bushings in place of conventional ball joints and radius arms, eliminating toe-in as the rear suspension travels through its stroke. This simple design maintains rear wheel alignment and further reduces unsprung weight, contributing to responsive overall handling.
- Lightweight single-tube gas-charged rear shocks and an anti-sway bar provide plush, well-controlled damping throughout the TRX650's exceptional 203mm of wheel travel.
- Dual front disc brake callipers feature a patented built-in scraper system to remove mud and snow from inside the front wheel to help prevent build-up of debris between calliper and rim to ensure consistent braking performance.
- Brake pads feature thick, long-wear material with improved mud durability, feel and control. Pads feature internal scraper that gives audible warning when pad life is low.
- A centrally located rear hydraulic disc brake and self-adjusting mechanical rear parking brake are mounted on the rear drive-shaft, further reducing unsprung weight and contributing to the TRX650's considerable ground clearance.
- SUV-type radial tyres provide a smooth ride and exceptional handling. Tough, large-diameter 25 × 8–12 front tyres and 25 × 10–12 rear tyres provide added ground clearance.
- Attractive SUV-style large-diameter 305mm cast aluminium wheels further reduce unsprung weight and contribute to superb handling.

## **Additional Features**

- Multi-function LCD digital instrumentation is compact, tough and waterproof, featuring large readouts for gear selector position, speedometer, odometer, resettable tripmeter and hour meter/clock. Instrument housing includes LED indicators for Drive, Neutral, Reverse, temperature warning and FI warning

indicator. A fuel gauge located within the instrument housing comes as standard equipment.

- Durable, comfortable, easy-to-use controls include a keyed ignition switch for added security, a parking brake and a handlebar-mounted choke lever.
- Convenient electric starter, with a lightweight auxiliary recoil starter and automatic internal decompression system.
- Tough rubber cover protects the gear-shift button from dirt, water and mud.
- Handlebar switches, controls, indicator lights and warning labels use internationally approved ISO graphic symbols.
- Tough 18-ampere battery for increased performance.
- Powerful, 360-watt AC generator.
- Waterproof accessory socket provides 10 amperes of 12-volt power output with a built-in temperature-type fuse.
- Thickly padded seat uses dual-density foam to provide all-day riding comfort.
- Large, lightweight plastic fuel tank with 17-litre capacity, including 3.8-litre reserve.
- Washable foam air filter for easy maintenance and consistent performance.
- Low-fuel warning light
- Side-opening compartment has 4 litres of storage capacity and can be opened when the rider is seated.
- Dual headlight covers are integrated into the flowing front fender design. Inner reflectors are adjustable and feature computer-designed multi-reflector 40-watt halogen bulbs. Brake-/taillight covers complement the rear fender design and house dual-filament 21-watt bulbs.
- Uniquely designed floorboards allow the rider's feet to grip the footrests while keeping mud and debris away from the rider's feet.
- Integrated skid plates protect the undercarriage from rocks and debris.
- Large front and rear cargo racks are rated at 30kg and 60kg respectively.
- Optional heavy-duty trailer hitch with towing capacity of 385kg.

- Constant-velocity-joint boot guards help prevent damage to boot covers.
- Maximum rated carrying capacity is 509kg.
- Tough, 14 amp-hours maintenance-free battery.
- Standard tool kit includes a tyre pressure gauge.

## **Available Accessories**

- Flag kit, trailer hitch.

# Specifications TRX680FA / TRX680FGA U-type

## Engine

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Type	Longitudinally mounted liquid-cooled semi-dry-sump 4-stroke OHV single-cylinder
Displacement	675cm <sup>3</sup>
Bore x Stroke	102 x 82.6mm
Compression Ratio	9.2 : 1
Max. Power Output	24.6kW / 6,000min <sup>-1</sup>
Max. Torque	50.1Nm / 5,000min <sup>-1</sup>

## Fuel System

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Carburation	Electronic fuel injection with IACV idle control
Fuel Tank Capacity	17 litres (including 3.1-litre reserve)

## Electrical System

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Ignition System	Fully transistorised with electronic advance
Starter	Electric with auxiliary recoil

## Drivetrain

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Transmission	Automatic with hydraulic torque converter; 3-speed forward, 1-speed reverse; electronic control
Final Drive	Direct front and rear driveshafts with torque-sensitive front differential

## Chassis

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Dimensions	(LxWxH)	2,113 x 1,189 x 1,207mm
Wheelbase		1,289mm
Turning Radius		3.3m
Seat Height		875mm
Ground Clearance		254mm
Dry Weight		277kg

## Suspension

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Type	Front	Independent double-wishbone; 175mm travel
	Rear	Independent double-wishbone; 203mm travel

## Wheels

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Type	Front	Cast aluminium
	Rear	Cast aluminium
Rim Size	Front	12 x AT6
	Rear	12 x AT7.5
Tyre Size	Front	25 x 8 12
	Rear	25 x 10 12

## Brakes

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Type	Front	180mm triple-sealed hydraulic drum x 2
	Rear	160mm single hydraulic single-piston calliper disc

*All specifications are provisional and subject to change without notice.*