

# Press Information

### FOR IMMEDIATE RELEASE

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#### 21YM HONDA GL1800 GOLD WING TOUR



Model updates: Honda's luxurious Gold Wing 'Tour' – a flagship completely reborn in 2018 – with radical weight reduction, double wishbone front suspension, brand-new, flat six-cylinder engine and 7-speed Dual Clutch Transmission option, glides into 2021 featuring more luggage capacity, a more relaxed pillion position, new seat material and upgraded audio quality. The comprehensive spec sheet includes 7-inch TFT screen, gyrocompass navigation, Apple CarPlay™, Android Auto™, electric screen, Smart Key operation, 4 riding modes, HSTC and Hill Start Assist – underlining its status as a flagbearer for new technology.

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### 1. Introduction

The Honda Gold Wing, since its introduction as a naked 1000cc machine in 1975, has always represented the ultimate in two-wheeled travel. And it's a motorcycle that's been very much on its own journey, growing in physical size and displacement over the decades, all the while creating an enduring and unrivalled reputation for luxury, quality and comfort.

For 2018, in response to the evolution of demographics and the motorcycle market, it made a radical departure from what would have been a traditional update trajectory. The GL1800 Gold Wing\* and Gold Wing 'Tour' took a new direction and, brand new from the wheels-up, became sleeker, lighter and more agile – very much a rider's motorcycle – while adding a host of new features to cement the Gold Wing's reputation as a technological flagship, including the option of 7-speed Dual Clutch Transmission (DCT).

And, as a result, the Gold Wing Tour's appeal became instantly broader, reaching out to a younger generation of motorcyclists that may have overlooked – or simply not been aware of – the previous incarnation. In 2020, standard-fit LED fog lights, larger pillion grab handles plus improvements to suspension and slow speed manoeuvrability further complemented the evocative, flat six-cylinder engine beating at the heart of Honda's premium tourer.

For 2021, the Gold Wing Tour gains carrying capacity, improved pillion comfort and an audio upgrade, further cementing its standalone desirability.

\*See separate Gold Wing press kit.

2. Model Overview

The Gold Wing Tour's engine and chassis were designed in unison for the 2018 rebirth, to move the riding position forward and create a much more compact motorcycle. The aluminium beam frame is constructed around a double wishbone front fork, which allows the engine to sit forward in the machine – as the front wheel moves up and down in a more vertical plane – while providing high quality suspension control and front-end stability thanks to its stiffness and reduced friction. Suspension damping adjusts electrically.

Optimised for size, the 24V flat six-cylinder engine lost none of its power, avalanche of torque or addictive power delivery. The addition of Throttle By Wire (TBW) control brought with it 4 rider modes: TOUR, SPORT, ECON and RAIN; the operation of the Dual Combined Brake System (D-CBS) alters depending on the mode selected. Hill Start Assist (HSA) and Idling Stop (on the DCT option) offer ease of use and improved fuel efficiency. Honda Selectable Torque Control (HSTC) maintains rear wheel traction.

The manual transmission is 6-speed, while DCT features 7-speeds, with clutch feel, shift speed and rpm range of up/downshifts tailored specifically to each riding mode. It also features a 'creep' forward and back function. The manual machine employs the same electric reverse system as featured on previous designs.

The Gold Wing Tour offers a total sense of freedom, with sheer riding enjoyment and performance matched by stylish design. An aerodynamically efficient fairing channels air around the rider, while the extended electric screen adjusts for preference; the seats, too provide all-day comfort and, for 2021 feature a new suede/synthetic leather cover. The angle of the pillion back rest is also more relaxed. Upgraded, speakers show off vivid sound quality. And features like Smart Key operation, Apple CarPlay™, Android Auto™ and Bluetooth™ add modern-day convenience and connectivity.

The 2021 GL1800 Gold Wing Tour is available in the following colour options:

- Gunmetal Black Metallic
- Candy Ardent Red (available with DCT only)

3. Key Features

## 3.1 Styling & Equipment

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• Taut lines with a contemporary edge show off the motorcycle underneath

- Ample luggage capacity for weekend touring; top box grows to 61L
- New suede/synthetic leather seats, more relaxed pillion back rest angle
- Upgraded audio quality
- Electric windscreen adjustable for angle and height
- Cruise control operates smoothly via Throttle By Wire (TBW)
- 7-inch TFT display provides riding, navigation and audio information
- Apple CarPlay<sup>™</sup> and Android Auto<sup>™</sup> allow smartphone use
- Full LED lighting, LED fog lights and auto-cancelling indicators
- Smart Key control adds convenience for ignition and luggage
- Two USB Type-C sockets

The Gold Wing Tour's lines exude a honed, athletic ethos. The styling presents a unique silhouette and counterpoints comfort with the dynamic abilities of chassis and engine, with the traditional Gold Wing premium level of fit, finish and materials. Its 'face' is daringly forward-slanting; combined with the compact fairing proportions, it presents an energetic frontal signature.

The key line of the body, stretching front to back, highlights the differing upper and lower bodywork functions. A central element is the fairing, with its sharp and solid flat surfaces, and its nuanced aerodynamic detailing. It adds a tension that hints at the performance potential on offer.

Also on display is the motorcycle itself – the double wishbone front suspension, flat six-cylinder engine, exhausts – in all their functional beauty. Drawn together, the design elements create cutting edge style, underpinned by incredible levels of engineering and electronics

Comfort, heat management and, most importantly, air management are also high on the Gold Wing Tour's agenda. The fairing channels airflow around the rider and pillion, effectively providing a pleasant cooling breeze.

An extended electric screen operated from the left handlebar provides excellent wind protection yet, at the same time, a sense of space and freedom when required. Screen angle and height adjustment is step-less. Available as options are a larger screen, a fully-adjustable deflector for the arms and upper body and fixed deflectors for the lower legs and feet.

From a seating perspective, rider and pillion are separated. The rider can enjoy a total focus on riding the bike. The rider's seat shape is comfortable and supportive while allowing movement and easy ground reach. Both rider and pillion now benefit from a

luxurious new suede/synthetic leather seat cover; the angle of the pillion back rest also relaxes, from 16° to 23°.

All lighting is LED and the Gold Wing Tour is equipped with dual LED fog lights. The lower portion of the headlights use 5 polished optical lenses on both sides to create a *Jewel-Eye* low beam light signature. Using high beam (in the upper portion) creates a stereoscopic impression. The front indicators are housed in the mirrors and the indicators also autocancel; the system compares front and rear wheel speed difference and calculates when to cancel the indication relative to the riding situation.

When riding, the speed that's been set with the cruise control switch (located on the right handlebar) is shown in the bottom left area of the speedometer. Through TBW the system achieves a smooth transition to the specified speed and an ultra-smooth operation, especially when going uphill. In the case of the manual transmission models, squeezing the clutch or brake, or twisting the throttle cancels cruise control.

For the DCT variant (in AT mode) after completing the deceleration with the cruise control system in operation – and resuming the previous speed – the Gold Wing returns to the pre-set with an appropriate shifting schedule.

Luxurious instrumentation creates a unique cockpit. Different low-contrast colours with dark tones are applied to the dials, of which the peripheral areas form cone-shaped slopes to create a feeling of depth. A ring with a metal texture surrounds each dial, and the graduations glow in LED, giving concrete depth and a calm, cool image.

The 7-inch full-colour TFT liquid crystal display screen provides all the information for the audio and navigation systems, as well as managing riding modes and suspension adjustment. Information is displayed in differentiated segments in a very functional order, so the rider can get all the relevant data with the minimum of eye movement.

Brightness adjusts automatically (with the maximum luminous intensity of the screen being 1000 cd) and the rider can also choose from 8 brightness levels. Tyre pressure is displayed as a numerical figure in the bottom left area of the instruments.

Pride of place – on the centre console and Smart Key – is the Gold Wing emblem. Its crisp 3D, two-tone chrome design merges the strength and dignity of a lion's head with the majestic wings of an eagle ready to pounce with open talons. It activates all the motorcycle's systems and also incorporates the emergency key. The ignition and handlebar lock can be turned on or off while just carrying the Smart Key.

For 2021, an additional 11L for the rear top box brings total capacity to 121L. Exclusively-designed inner bags are available as an option. Luggage operation is simple. With the Smart Key present, a push button opens all of the boxes. It's also possible to temporarily unlock via remote control; the unlock button on the Smart Key enables the passenger instant pannier access. Hydraulic dampers smooth the opening and closing. Pushing and holding the call button results in the indicators flashing.

The Gold Wing Tour is compatible with Apple CarPlay™ and Android Auto™, so the rider can utilise the personalised information and content inside their smartphone, such as telephone numbers and music playlists. Bluetooth connectivity has been adopted and there are two USB Type-C sockets to plug in to.

Newly upgraded, lightweight speakers achieve superb sound quality with vivid presence. A passenger audio control switch is available to ensure an even more pleasant riding experience; the switches are located on the upper part of the right pannier and adjusting the volume, switching the source and fast forwarding is possible.

The navigation system is displayed on the 7-inch, full-colour TFT liquid crystal display screen in the central area of the instruments and includes a gyrocompass – which means guidance is continued even inside a tunnel. Cancellation of any waypoint or 'go home' instruction operation while riding is also possible. Maps are updated and also offer the possibility of entering up to 99 different waypoints for detailed journey planning.

The capacity of the fuel tank is 21 litres with fuel economy of 5.6 litres/100km.

#### 3.2 Chassis

- Die-cast, aluminium twin-beam frame
- Double wishbone front suspension and Pro-Arm rear
- Front and rear damping level adjusts to suit riding mode selected
- Rear spring preload electrically adjustable
- ABS and Dual-Combined Braking System (D-CBS)

The Gold Wing Tour's die-cast, aluminium twin-beam frame is designed to package the engine in a tight space; its structural thickness is optimised in each area to deliver a smooth and stable ride, from walking speed upwards, whether on tight city streets or out on the open road.

Aside from moving the front wheel forward under full suspension compression, another benefit of the double wishbone front suspension is the reduction in sliding friction (from bump deflection and steering input) that a standard telescopic fork creates, as the stanchions travel up and down in the fork leg. Bearings are used in all shaft bush areas for steering and suspension stroke, further reducing friction.

The steering input – via the dual fork holders – is also separated from the suspension provided by the single shock absorber, and the Gold Wing Tour's yaw moment make it nimble and easier to steer. In addition, patented steering cross tie-rods connect the handlebars to the front axle and the handlebar pivot, delivering an entirely natural feel to the rider.

Rake and trail are set at 30.5°/109mm, with wheelbase of 1695mm. The Gold Wing Tour weighs 380kg wet; the DCT version 383kg.

The Dual Combined Brake System (D-CBS) optimally distributes braking forces to the front and rear wheels. The use of a single, light circulation type ABS modulator – integrated with the brake ECU – keeps weight down within the braking system. It also operates in linkage with the current riding mode of choice, automatically adjusting the braking characteristics to the riding situation. Dual 320mm front discs are gripped by 6-piston calipers, the rear 316mm disc by a 3-piston caliper.

The Gold Wing Tour also benefits from a Pro-Arm swingarm, which attaches to the frame on its left side. The right side serves as a maintenance access. This allows much greater freedom of design and makes the machine easier to manage; it also contributes to stability. Pro-Link provides progressive suspension action and comfort while spherical joints are used throughout, cancelling out torsion.

Damping level adjusts electrically relative to riding mode. Stepper motors housed within the front and rear shock absorbers move needles to control oil flow, tailoring damping force for the riding situation. Rear spring preload is also electrically adjusted. Separate from the 4 riding modes, there are 4 settings of preload relative to load from soft to hard: single rider; rider with luggage; rider with pillion, and rider with pillion fully loaded with luggage. The setting is displayed on the TFT screen and adjusted via switch.

# 3.3 Engine

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- Horizontally-opposed, flat six-cylinder SOHC 24-valve engine
- Throttle By Wire (TBW) with 4 rider modes to tailor power output
- Honda Selectable Torque Control (HSTC)
- Riding modes also manage HSTC, suspension damping and brake force
- Idling Stop and Integrated Starter Generator (ISG) on DCT version
- Hill Start Assist (HSA)
- 6-speed manual gearbox with assist/slipper clutch and electric reverse

To realise the handling potential of the chassis – and maintain the addictive power delivery and feel that's so much part of this icon's appeal – the Gold Wing Tour's 1,833cc engine was completely redrawn. Still as a horizontally-opposed flat six, but with four valves per cylinder rather than two, much more compact in size and 6.2kg lighter.

Peak power of 93kW arrives @ 5,500rpm, with peak torque of 170Nm delivered @ 4,500rpm. The bore size of 73mm matches the stroke of 73mm; the left and right cylinders are offset 4mm and the cylinder sleeves are aluminium. Compression ratio is set at 10.5:1.

The Unicam cylinder heads – the inlet valves are operated by finger-follower rocker arm, the exhaust valves by roller rocker arms – also employ a co-axial rocker-arm shaft for both inlet and exhaust.

The combustion chambers are a 4-valve 'pentroof' design with the inlet ports designed to promote 'tumble' flows inside the cylinders thus improving efficiency. The piston skirts wear a molybdenum coating to reduce friction. Throttle By Wire (TBW) engine management adds 4 rider modes to alter character and power delivery, linked to suspension damping and the Dual Combined Brake System (D-CBS):

**TOUR** mode is the base setting for comfort and power. It gives a direct 100% opening ratio between throttle grip and throttle body butterfly, with 'default' damping and front/rear brake force distribution.

**SPORT** serves up the highest throttle to butterfly ratio and delivers strong acceleration, with firmer damping and rear brake lever pressure.

**ECON** mode offers maximum fuel economy and easy cruising, with lower throttle to butterfly ratio and default damping and brake force.

**RAIN** turns the dial down to suit wet and slippery conditions, with lowest throttle to butterfly ratio, default braking force distribution and soft suspension damping.

Honda Selectable Torque Control (HSTC) also seamlessly monitors and maintains rear wheel traction, in all riding conditions, for an extra layer of riding confidence. Its level of input, too adjusts via TBW relative to riding mode selection.

There are two air intake ducts sited front left and right rear. This structure generates swirling as the air is drawn in – the result is more effective use of the air filter's entire surface area and reduction in resistance. The internal shaping of both ducts is optimised to align with the intake pulses of the engine's low-rpm range, improving response and torque from smaller throttle openings. A single throttle body speeds up airflow and improves response.

To complement the engine's deep bass signature the exhausts emit a powerful throb, without excessive noise. The cross-sectional areas of the exhaust pipes for two out of the six cylinders are reduced 20%, bringing the sound volume and depth.

The ISG (Integrated Starter Generator) combines the generator and starter motor into one component, with the generator effectively becoming the starter motor when supplied with reverse power. Its 2.4 kg lighter than a standard system. Helical gears are employed for the ISG driving gears, reducing mechanical noise.

Key characteristics of Idling Stop (on the DCT option) are the ultra-quiet start-up of the engine thanks to the use of ISG, and the smooth starting feeling achieved through a combination of DCT and TBW control. When stopping at a traffic light with Idling Stop on, the engine automatically stops after 3 seconds and, when restarting, the rider only needs to turn the throttle, which immediately starts the engine.

The system is controlled so that hydraulic oil pressure is applied in advance to the DCT line that activates the clutch when the engine starts, so the time lag from when the rider opens the throttle to movement is reduced. To curb any abruptness the TBW makes the throttle butterfly open gradually following the throttle opening – thus the smooth acceleration befitting of a Gold Wing Tour. Idling Stop can be turned ON or OFF from the right handlebar switch.

Hill starts on a conventional motorcycle often involve simultaneously releasing the brakes, opening the throttle and engaging the clutch according to the grade of the slope. To ease this effort, the Gold Wing Tour has Hill Start Assist (HSA) on both Manual and DCT

versions.

After stopping on a slope, further squeezing the brake lever quickly results in the ABS modulator generating hydraulic pressure for the rear brake caliper. When setting off – even when the brake lever is released – the hydraulic pressure temporarily retains braking force (for about 3 seconds) so starting on the uphill slope with the throttle is possible. When in operation, the HSA indicator is switched on to inform the rider.

The 6-speed manual gearbox is also fitted with a 'cam damper' between the clutch and transmission, separating each inertial mass, reducing noise and improving shift quality/durability. A cam assist and slipper clutch (with fewer discs and reduced hydraulic friction in the release mechanism) replace the traditional hydraulic assist clutch. This reduces clutch load at the lever by 20% and also smooths downshifts; the slipper mechanism also contributes to the high-quality downshift feel. An electric reverse is a familiar feature from the previous design.

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## 3.4. Dual Clutch Transmission (DCT)

- Third-generation 7-speed DCT
- Smoother, quieter with faster upshifts and downshifts
- Walking mode allows machine to 'creep' forward or back
- The 4 riding modes also manage DCT for optimised response
- Optimised low speed manoeuvrability for 2020

Honda's DCT technology is now in its eleventh year of production, and over 140,000 units of DCT-equipped Honda two-wheelers have been sold in Europe. It delivers consistent, seamless gear changes up or down and very quickly becomes second nature in use. It uses two clutches: one for start-up and 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup>, the other for 2<sup>nd</sup>, 4<sup>th</sup> and 6<sup>th</sup>, with the mainshaft for each clutch located inside the other for compact packaging.

Each clutch is independently controlled by its own electro-hydraulic circuit. When a gear change occurs, the system pre-selects the target gear using the clutch not currently in use. The first clutch is then electronically disengaged as, simultaneously, the second clutch engages.

The result is a consistent, fast and seamless gear change. Furthermore, as the twin clutches transfer drive from one gear to the next with minimal interruption of the drive to the rear wheel, any gear change shock and pitching of the machine is minimised, making the change feel direct as well as smooth. Extra benefits include durability (as the gears cannot be damaged by missing a gear) impossibility of stalling, low stress urban riding,

reduced rider fatigue and increased ability to focus on riding lines, braking and acceleration points.

The DCT system offers two distinct riding approaches – the Automatic settings, with preprogrammed shift patterns which constantly read vehicle speed, gear selected and engine rpm to decide when a shift should occur, and the Manual Transmission setting for gear changes using the paddle-shift style triggers on the left handlebar.

Employing the third generation – and the first to have 7-speeds – the Gold Wing's DCT is specifically designed for long-distance cruising; it's also extremely smooth and fast shifting.

It is also optimised for low speed manoeuvrability, with close ratios reducing shift-shock. In the higher speed range, they are set wider apart to reduce engine rpm. In both speed ranges comfort is improved as shifting up or down is of the highest quality.

Shift noise and shock were addressed throughout the development of the third generation, with noise damper rubbers on both ends of the fork guide and the master arm greatly reducing any impact sound during gear changes.

A spring damper is installed between the clutch and the main shaft in order to absorb the torque in the rotational direction, thus reducing the noise and shock of the contact between the clutch and main shaft when shifting gears.

The Gold Wing's DCT features a 1.8km/h forward Walking Mode with reverse of 1.2km/h, operated instantly from a +/- switch on the left handlebar.

The main shaft has a double tube structure, with the outer main shaft (connected with the even-number gears) linked to the inner shaft with a chain, by way of the gears on the counter shaft. This structure gives the outer main shaft the role of the reverse idle shaft, which has resulted in a lightweight reverse mechanism with a compact structure - with no need for any reverse idle shaft.

When activating Walking Mode the two clutches of DCT are utilised to enable moving backward with clutch #1 and moving forward with clutch #2. In this way, moving forward or backward at walking speed is now possible with only clutch control, without any need for gear shifting. Furthermore, the throttle-by-wire system controls speed by minutely controlling the clutch capacity, while maintaining a certain engine speed, assuring controllability with a sense of security in wide-ranging situations.

The 4 riding modes are interleaved with DCT. All share the same engine character, delivery and suspension settings as the MT model but add extra DCT-specific parameters:

**TOUR** uses the default setting for smooth clutch engagement and gearshifts in AT mode, with a low-to-high rpm range for gear shifts.

**SPORT** deploys a more direct clutch engagement, with gear shifts programmed in a mid-to-high rev range.

**ECON** has a soft clutch engagement, with low-to-mid rpm gear hold and default shifting feel.

**RAIN** also operates a soft clutch, low-to-high rpm gear hold range and slower shifting in AT mode.

# 4. Technical Specifications

ENGINE	
Туре	Liquid-cooled 4-stroke 24 valve SOHC flat-6
Displacement	1,833cc
Valves per cylinder	4
Bore x Stroke	73mm x 73mm
Compression Ratio	10.5:1
Max. Power Output	93kW/5500rpm
Max. Torque	170Nm/4500rpm
Oil Capacity	4.4 litres (MT) / 5.6 litres (DCT)
CO <sub>2</sub> emissions	Gold Wing and Gold Wing 'Tour' MT version:  128 g/km  Gold Wing 'Tour' with DCT and air bag: 131

	g/km
FUEL SYSTEM	
Carburation	PGM-FI electronic fuel injection
Throttle Bore	50mm
Air cleaner	Viscous, cartridge type paper filter
Fuel Tank Capacity	21.1 litres
Fuel Consumption	5.6 litres/100km
ELECTRICAL SYSTEM	
Starter	Integrated Starter Generator system
Battery Capacity	12V/20AH
ACG Power Generation Capacity	12V/120A
DRIVETRAIN	
Clutch Type	(MT) Hydraulic, wet, multiplate with coil springs, assist slipper cam (DCT) Hydraulic, wet, multiplate with oil pressure
Transmission Type	6 speed MT (including overdrive. Plus electric reverse) 7-speed forward and reverse DCT
Primary Reduction	1.795 (79/44)
Gear Ratios	(DCT) 1 <sup>st</sup> : 2.167 2 <sup>nd</sup> : 1.696 3 <sup>rd</sup> : 1.304 4 <sup>th</sup> : 1.038 5 <sup>th</sup> : 0.821 6 <sup>th</sup> : 0.667 7 <sup>th</sup> : 0.522 Rev: 1.190 (MT) 1 <sup>st</sup> : 2.200 2 <sup>nd</sup> : 1.417 3 <sup>rd</sup> : 1.036 4 <sup>th</sup> : 0.821 5 <sup>th</sup> : 0.667 6 <sup>th</sup> : 0.522
Final Reduction	Engine side 0.972 Rear Wheel side 2.615
Final Drive	Enclosed shaft

FRAME	
Туре	Aluminum die-cast, twin tube
CHASSIS	
Dimensions (L'W'H)	Gold Wing 'Tour' L: 2,615mm W: DCT 905mm / MT 925mm H: 1,430mm
Wheelbase	1695mm
Caster Angle	30.5°
Trail	109mm
Turning radius	3.4m
Seat Height	745mm
Ground Clearance	130mm
Kerb Weight	Gold Wing: MT 365kg / DCT 364kg  Gold Wing 'Tour': MT 380kg /  DCT with Air Bag 383kg
SUSPENSION	
Type Front	Double Wishbone
Type Rear	Pro Link
WHEELS	
Type Front	130/70R 18
Type Rear	200/55R 16
Rim Size Front	18 x MT3.5

Rim Size Rear	16 x MT6.0
BRAKES	
System Type	Electronically-controlled combined ABS system
Type Front	320mm x 4.5mm dual hydraulic disc with 6- piston calliper, floating rotors and sintered metal pads
Type Rear	316mm x 11mm ventilated disc with 3-piston calliper and sintered metal pads

All specifications are provisional and subject to change without notice.

<sup>\*\*</sup> Please note that the figures provided are results obtained by Honda under standardised testing conditions prescribed by WMTC. Tests are conducted on a rolling road using a standard version of the vehicle with only one rider and no additional optional equipment. Actual fuel consumption may vary depending on how you ride, how you maintain your vehicle, weather, road conditions, tire pressure, installation of accessories, cargo, rider and passenger weight, and other factors.