



New FORCAR forwarder with Allison automatic launched

This innovative vehicle, with a 15-ton payload capacity, is fitted with an Allison 3000 Series fully-automatic transmission for better handling, greater safety and smoother descents on forest pathways.

MADRID, Spain - Spanish company FORCAR (FORESTAL CARDELLE), headquartered in La Coruña, has equipped its forwarders with an automatic transmission for the first time. The FORCAR F210 is a productive vehicle designed for rapid movement on the narrow forest pathways of northern Spain. In addition to other new features, the latest model introduces an important drive train innovation: an Allison fully-automatic transmission equipped with a torque converter, which ensures superior performance and increases safety as compared to manual or hydrostatic gearboxes.

Torque Converter Technology

According to FORCAR's Director, Alberto Cardelle, "Allison's torque converter technology with low speed lock-up provides the FORCAR F210 with a number of advantages. It combines the speed and lower fuel consumption of manual gearboxes with the driving comfort and smoothness of progressive gear selection afforded by hydrostatic transmissions."

"The main advantage of the Allison 3500ORS transmission in forest applications is that it takes advantage of full engine power and with automatic low speed lock-up, ensures direct mechanical connection enabling steep grades to be descended safely, while maintaining stable speed in accordance with operator requirements," Cardelle continued.

Moreover, the electronic shift selector allows the operator to administer descent at the desired pace by offering manual gear pre-selection.

Additionally, the patented Allison torque converter multiplies engine torque at vehicle launch, delivering superior performance during take-off and hill starts, while also facilitating manoeuvring on complicated and unpredictable terrain.

"The automatic transmission makes the FORCAR more agile and also provides driving comfort for operators working long shifts," explained Cardelle. "By simply pushing a button on the selector incorporated into the seat, the operator selects the best gear for each working situation. In short, in lower ranges, gear ratios of Allison 3500ORS transmissions ensure greater reduction than manual gearboxes. In higher gears, the automatic transmission turns the forwarder into a faster, more agile vehicle than it would be with a manual."

Considerable Fuel Savings

Allison's direct mechanical connection and electronic controls ensure optimal engine rpm and contribute to reduced fuel consumption.

"Over longer distances in automatic mode, it is possible to achieve even more moderate fuel consumption, thanks to Allison's seamless gear shifting and optimized gear shift schedules," said Cardelle. "If we compare the same vehicles, one equipped with a hydrostatic transmission and the other an Allison 3500 fully-automatic transmission, considerable fuel savings can be achieved with the latter. This is because a hydrostatic transmission requires the same engine rpms for ascending and descending grades, leading to significantly higher fuel consumption."

FORCAR Customers Recognize Quality

The FORCAR F210 was showcased in June at the Asturforesta 2013 trade fair, held in Tineo (Asturias). "Although I did not have previous experience with Allison, I do have very positive feelings as a result of the warm reception from our clients at the launch of the FORCAR F210," said Cardelle.

Two years ago, at the last Asturforesta fair, FORCAR asked several customers who owned machines fitted with both manual and hydrostatic transmissions about the possibility of using automatic transmissions in their forwarders instead. Cardelle pointed out that the responses were the same: "We would like to install automatics, but we fear that this type of transmission will not hold the loaded vehicle in gear when it descends on steep grades."

He added, "But we have learned now that there is nothing to fear."

The operators accustomed to mechanical transmissions welcomed the fully-automatic transmission option for reasons of comfort, greater mechanical protection and smooth gear shifts. On the other hand, users of vehicles equipped with hydrostatic transmissions were impressed by the speed the fully-automatic transmission provides, both when carrying out forestry work and while driving on public roads. They also very much appreciated the reduced fuel consumption, achieved without sacrificing the handling comfort provided by hydrostatic transmissions.

"We now have a machine that combines the greatest virtues of both mechanical and hydrostatic transmissions: speed of movement, moderate fuel consumption, driving comfort, and above all, the automatic with low speed torque converter lock-up for smoother, safer descents. The result of our FORCAR F210 forwarder launch was, as expected, a great success."

FORCAR F210 - An Ideal Solution

The FORCAR F210 forwarder is fitted with a John Deere 6-cylinder diesel engine, NAF's front and rear differential locks, a Mesera LOGLIFT high-performance forwarder crane and hydraulic components from PARKER and DANFOSS. The engineering and installation of the John Deere engine and the Allison transmission was carried out by Transdiesel SL, the official distributor for both American brands in Spain.

"We had excellent references with respect to the quality of Allison automatic transmissions and their warranty coverage. This was a decisive factor in choosing Allison as the transmission supplier for the new F210 forwarder. A value added to all this is the quality of Transdiesel's technical staff. Their ability to advise us about the most suitable Allison model and configuration for our forestry application was a key factor," finished Cardelle.

FORCAR developments are known for innovation and efficiency. They differentiate their products by offering solutions to match operators' specific requirements. The FORCAR F210 6x6 forwarder was specially designed for use in forests where negotiating long drives and steep grades is necessary to reach isolated wooded areas. Forwarders have to maneuver on continuously changing terrain, even transporting loads directly to the storage areas. All of these factors were considered when designing this machine, so that it would move swiftly and with great agility over narrow rural roads and forest pathways without harming the natural environment.

Moreover, the compact dimensions of the FORCAR F210 (2.5-meters wide), facilitate access to these pathways. This also enables the vehicle to be driven on certain public roads and thoroughfares without the need for special authorisation or escort cars.

Click here to watch the FORCAR F210 video: <http://www.youtube.com/watch?v=GHaT3yOkB8o>

FORCAR F210 Technical Data

- Payload capacity: 15 tons
- Engine: John Deere 6068H.FC.93 Diesel Turbo Intercooler 129 kw DIN (173HP) at 1600 RPM
- External width: 2.45 meters
- Allison 3500ORS fully-automatic transmission with torque converter, lock-up and torsional damper.

About FORCAR

Based in A Coruña, FORCAR, S.A.U. (FORestal CARDelle) was founded in 1986 to design, manufacture and sell forestry machinery, as well as to provide after-sales service to clients. FORCAR is now an undisputed benchmark amongst professionals in the sector in many countries, thanks to the company's technical capacity and its commitment to ongoing development of forestry machinery in general, most particularly in the area of forwarders.

FORCAR boasts a comprehensive range of 6- and 8-wheel drive forwarders for the loading and transportation of up to 17 tons. The company manufactures four different models with different payload capacities, three differentiated transmission types and the option of different external widths within the maximum legal width of 2.55 meters set out in road traffic legislation. Further information is available at www.forestalcardelle.com.

About Allison Transmission

Allison Transmission (NYSE: ALSN) is the world's largest manufacturer of fully automatic transmissions for medium- and heavy-duty commercial vehicles and hybrid-propulsion systems for city buses. Allison transmissions are used in a variety of applications including refuse, construction, fire, distribution, bus, motorhomes, defense and energy. Founded in 1915, the company is headquartered in Indianapolis, Indiana, USA and employs approximately 2,800 people worldwide. With a market presence in more than 80 countries, Allison has regional headquarters in the Netherlands, China and Brazil with manufacturing facilities in the U.S., Hungary and India. Allison also has approximately 1,400 independent distributor and dealer locations worldwide. For more information, visit allisontransmission.com.

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