



New ARION 500/600 CMATIC

CLAAS adds to its infinitely variable CMATIC family

Harsewinkel / Hanover, November 2013. The new ARION 500/600 model series have been on the market as CIS and CEBIS versions with a HEXASHIFT transmission since September 2012. For Agritechnica 2013, CLAAS is extending its infinitely variable CMATIC family with the addition of the ARION 500/600 CMATIC in the 140-184 hp power class.

The advantages of infinitely variable transmission are particularly evident when tractors are used to carry out a wide variety of different tasks – from slow field maintenance to heavy cultivation or power take-off work through to fast transport. The new EQ 200 infinitely variable transmission from CLAAS – supplied by CLAAS Industrietechnik (CIT) in Paderborn – has been installed in the ARION 500/600 CMATIC. It was jointly developed by CIT and CLAAS Tractor (CT), France, for use in medium-sized tractors and is made according to ISO automotive standards in Paderborn, where it is tested in one of the world's most advanced testing and validation centres.

CIT has been successfully working in drive technology, electronics and hydraulics for over 55 years. Numerous components, such as the transmission and axles for harvesting machinery or the TERRA TRAC track roller unit, which has been a worldwide success, are used in CLAAS machines and those of other manufacturers.

Highly efficient

Proven transmission components have been intelligently combined with one another in the EQ 200 in such a way that the transmission exhibits a particularly high level of efficiency – more or less constantly at any speed. These components include a multi-step planetary gearbox, a hydrostatic unit and two multi-plate clutches.

Automatically changing gear alters not only the transmission ratio, but also the entire power flow through the transmission. When accelerating, the two clutch shafts gradually adjust their speeds to match each other until they have reached the same speed. The multi-plate clutches then change gear in perfect sync. This means that the gear changes – even under load – without abruptly increasing speed and torque, which leads to consistently steady acceleration from 0 to 50 km/h. Even the driver does not notice that the gear has changed automatically. Furthermore, the tractor can be driven at a top speed of 50 km/h with fuel-saving engine speeds of only 1500 rpm.

New transmission housing design

The design for the transmission housing on the ARION 500/600 CMATIC lowers the oil level in the oil pan, which prevents oil from being lost through splashing. This saves diesel when driving quickly on the road. Nevertheless, up to 40 l of oil is available for external hydraulic power, such as when using large tipping trailers.

Always drive in the right gear

CLAAS has made the ARION 500/600 CMATIC as comfortable to operate as its bigger brother the AXION 900 CMATIC. The driver can switch between driving forwards and reversing simply by using the REVERSHIFT lever on the steering wheel or the CMOTION ground speed control lever on the arm rest. In the ARION 500/600 CMATIC,

there is no need to change to first or second gear manually. The transmission always automatically operates in the correct gear, which means that the driver does not have to do anything and it is impossible to drive in the incorrect gear. The ARION 500/600 CMATIC also boasts an active stop feature for additional safety when stopping or when approaching inclines. As in CLAAS other tractors, CEBIS is used to set-up the optimum configuration for the transmission and vehicle. The driver can select the appropriate driving mode at the touch of a button whilst on the move and drives using either the pedals or CMOTION.

ARION 500/600 model series engine powers:

ARION Model	Rated output kW/hp* at 2200 rpm	Max. kW/hp* at 2000 rpm
650	129/175	135/184
640	124/169	130/177
630	117/159	121/165
620	110/150	116/158
550	116/158	120/163
540	110/150	114/155
530	103/140	107/145

*Values according to ECE R 120

The ARION 500/600 CMATIC will be available from summer 2014.



CLAAS HEXASHIFT transmission



CLAAS infinitely variable transmission EQ 200