



Casa Performance

Cyclone 5 Speed production Batch information & Versions 2012 – 2018

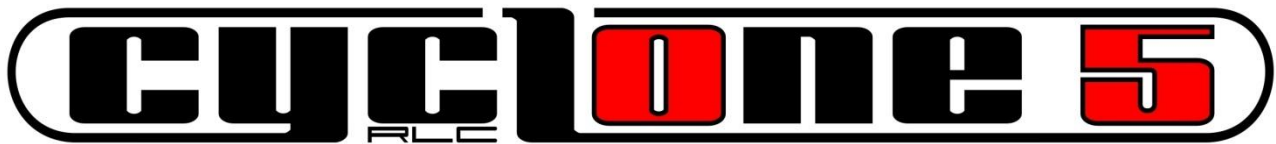
Manufacturers

Over the years, we have continuously sought to upgrade and improve the 'Cyclone 5 Speed' gearboxes to keep abreast of engine development in the Lambretta World, where power and torque outputs have increasing at an incredible rate. This is a list of the various Versions and Batches, along with their manufacturers and ID numbers, for the Cyclone gearboxes that have been produced since their conception in 2012. Please bear in mind that there are some (DRT manufactured) cross-over gearboxes with ID numbers that may differ to those listed here.

There have been three manufacturers to date. The first was **DRT** and their parts have a letter & number ID system that indicates month and year of production i.e. 'D13' indicates April 2013. The letters are used on the basis of A= January, B= February, C = March etc. and the following number indicates the year i.e. 13 = 2103. DRT gearboxes were produced in 4 Batches form 2012 until 2014, of which most were good but the complete Batch 3 (the components are marked with an '**A13**' prefix) was recalled (this was only done at RLC's insistence) due to a manufacturing errors and inconsistency of heat treatment of the cluster.

In 2014 we had a very small production run of 10 x prototype gearboxes produced by **Crimaz** but these were afflicted by very poor manufacturing methods making them unable to cope with power output from reedvalved engines and subsequently all were recalled (and customers received one of our own 'PZ' manufactured gearboxes). Of note, as we subsequently refused to purchase a batch of 50 x gearboxes ordered from Crimaz, as the manufacturer was unwilling to make the necessary changes or offer any form of guarantee, they sold these on to various shops regardless. Crimaz gearboxes are easy to identify as the steel used is a silvery colour and they have three small pins inserted from the underside. These gearboxes are to be avoided.

At that point, after extensive testing, we initiated the manufacture of our gearboxes with a third manufacturer and these are simply marked '**PZ**' on all components. Batch 5 through to Batch 9 (and all current production) were, and still are, produced by RLC in Italy using this new manufacturer and the quality has been both superb and consistent. **With hundreds of gearboxes sold to date (Feb.2018) these are the best 5 speed gearboxes for Lambretta scooters on the market bar none.**



Batch Identification Info

Batch 1 : 2012. The first 50 Cyclone gearboxes released were identical to the 3 prototypes gearboxes we used for initial testing. As standard these are the only Cyclone's that use a cluster with a 10-tooth 1st gear on the cluster mating with a 50-tooth loose gear, which has a ratio of 5.00:1. These gearboxes do NOT have drilled clusters for the Innocenti type clutch pressure plate push-rod. The parts are marked **E12 & DRT**.

Batch 2 : 2012-2013. These gearboxes use a cluster with a 9-tooth 1st gear on the cluster mating with a 45-tooth loose gear, still maintaining a ratio of 5.00:1. These gearboxes have drilled clusters for the clutch pressure plate push-rod. The parts are marked **I12 & DRT**. These were produced by DRT in late 2012.

Batch 3 : 2013. This batch was afflicted by manufacturing problems of the 3rd gear on the cluster and were subject to a recall, on RLC's insistence. These are marked **A13**. Replacement clusters sent out to customers also have 'Supreme' etched on the underside of the main cluster shaft. Unfortunately, as some customers did not send back their **A13** clusters, despite receiving a replacement part, occasionally one turns up for sale : avoid these as the 3rd will break.

Batch 4 : 2013-2014. The next batch were marked **F13 & G13 / DRT** and as a safety measure we advised these to only be fitted to NON-reedvalved engines up to 20bhp. Some late Batch clusters were marked **E14 / Supreme**. The hole for the clutch pressure-plate push-rod was eliminated.

***2014.** To eliminate the manufacturing problems, a small batch of Cyclones were produced by DRT entirely in a higher-grade steel and each gearbox has all parts with the same set number (i.e. **38**) and all parts are marked **Supreme**. These were the last of the DRT manufactured gearboxes.

***2014.** A very small production run of gearboxes was produced by Vespa parts manufacturer Crimaz but these were all recalled as they were deemed unfit for use. These gearboxes are easy to identify as their clusters have 3 visible pins inserted from the underside.

Batch 5 + 6 + 7 : 2015 / 2016 / 2017. We changed manufacturer and all gearboxes were now marked **PZ** along with a **production date**. These were (and still are) made exactly to RLC's design and specifications. All previous manufacturing problems were immediately eliminated and the gearboxes were even used for scooter racing (with Championship wins as a result). The only similarities with earlier DRT produced gearboxes are the general appearance, number of teeth and the actual tooth profile.

Batch 8 : 2017. In a bid to reduce the noise of the gearboxes (especially the back-lash noise when on tick-over) we produced a Batch of gearboxes with a different tooth profile and these have all components marked **S4 / PZ** along with a **production date**. *Please note that both the loose cogs and clusters from these **S4** gearboxes are NOT compatible with parts from any other Cyclone gearboxes.*

Cyclone 5 Pro : 2018 (current production). With the advent of the new [very high power SSR engines from Casa Performance](#), we decided to review the Cyclones and have come out with a definitive, top-end version designed to replace everything produced to date. This is called the **Cyclone 5 Pro**. We made a lot of modifications to the design and this has greatly improved the gearboxes in almost every aspect. They have much better lubrication both between the actual gear cogs and for the cluster needle bearing. Unlike all the

predecessors, the actual gears are now all full-width (i.e. with no spaces between each other) on the cluster with these same cogs are interlocking between each another. The loose cogs are also much wider. Every single tooth is also individually surface-machined. The appearance of the **Cyclone 5 Pro** components is also much brighter as everything is subjected to a special surface treatment leaving it all gleaming. The end result is that these Cyclone gearboxes are now much stronger, much quieter in operation and super-smooth in operation compared to anything produced to date. Each part is marked **FW** ('Full Width') along with other numbers and a **production date**. *Please note that the **Cyclone 5 Pro** components are NOT interchangeable with any previously manufactured Cyclones (for which spare parts are available in any case).*

CYCLONE 5

PRO



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