

Clocking procedure for Borg-Warner small frame turbochargers.

Depending on the application, it may be necessary to adjust the compressor cover clocking on your new turbocharger. This is necessary as there is some application overlap for various replacement turbos. Proper clocking of the compressor cover (matching the turbo being replaced) should be verified prior to fitting the new turbo to reduce installation complications. The compressor cover is the outer aluminum housing onto which the turbo inlet pipe and compressor outlet hose are attached.

More specifically, if fitting the turbo to the BEW engine code, the compressor cover should be clocked with the outlet roughly perpendicular to the back of the engine block as shown in fig. 1:



Fig. 1

If fitting the turbo to the ALH engine code, the compressor cover should be clocked with the outlet roughly horizontal to the back of the engine block as shown in fig. 2:



Fig. 2

Note the indentations on the compressor cover adjacent to the oil supply line bung nestled between the compressor and turbine housings (fig. 3).

Regardless of the orientation, one of the indentations in the compressor cover should be centered on the oil supply bung to allow for clearance of the wrench flats of the oil supply line flare nut.



Fig. 3

In order to rotate or 're-clock' the compressor cover, simply use a quality snap-ring plier (fig. 4) to compress the snap ring which retains the

compressor cover to the center cartridge (fig. 5). Once the snap ring is compressed, the compressor cover can be removed and clocked (fig. 6).



Fig. 4



Fig. 5



Fig. 6

Take care to ensure that the snap ring is completely seated in the groove once proper orientation is achieved. Be advised that the compressor wheel is delicate. Avoid harsh contact between the compressor cover and the compressor.