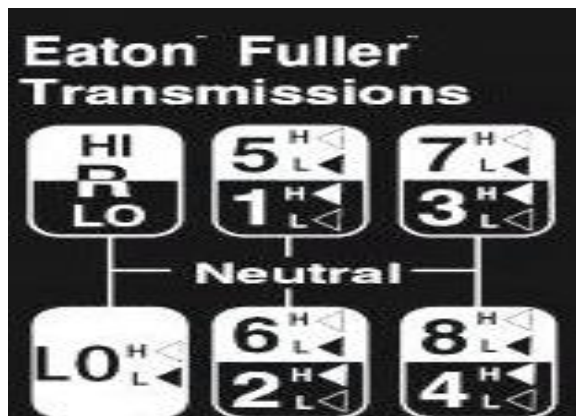




GEARBOX INFORMATION



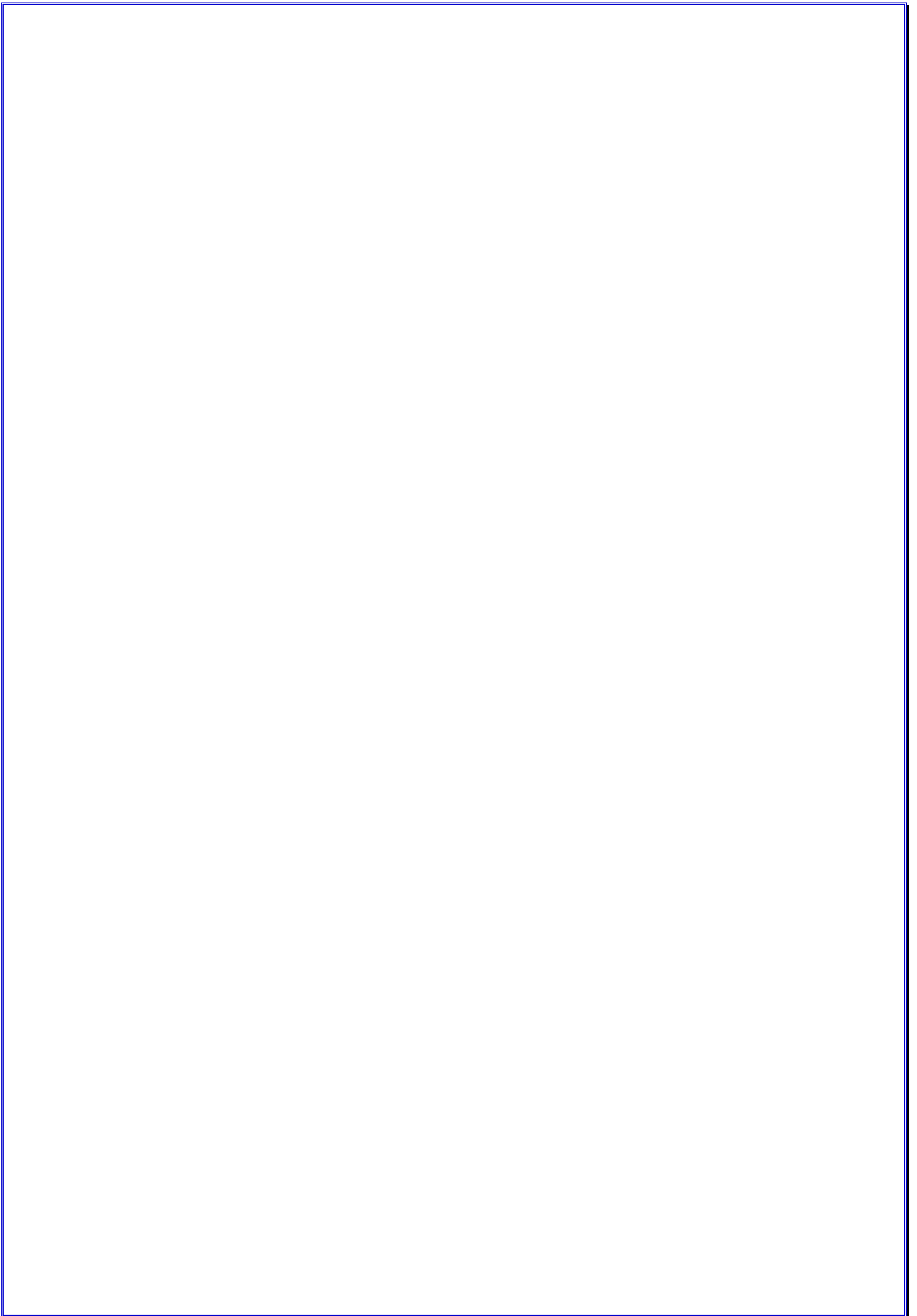
Keens Truck Driver Training

Bunbury

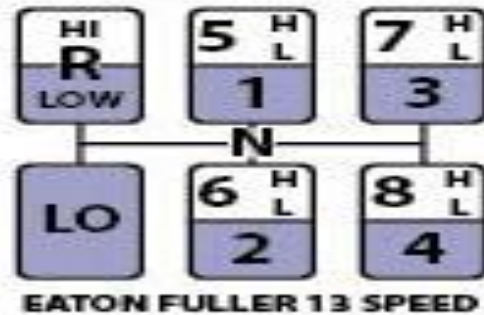
34 Shanahan Rd DAVENPORT WA

6230

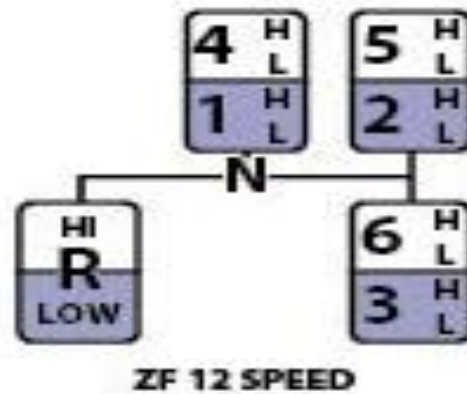
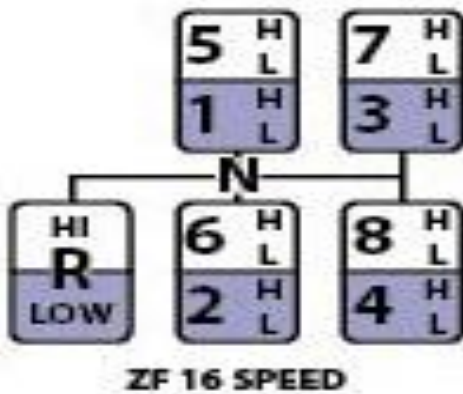
Ph: 08 97260530



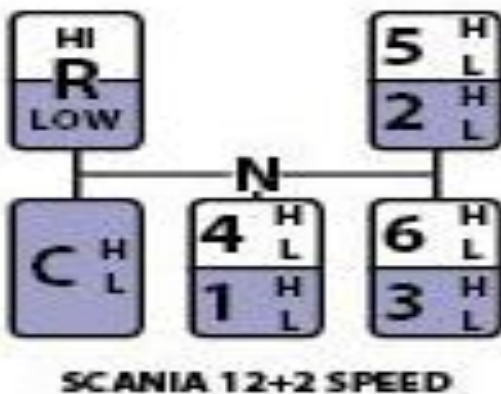
POPULAR US, GEARBOXES. DAF INSTALLS 18 SPEED MODEL AS STANDARD
 MANUAL BOX FOR XF 105'S SOLD IN AUSTRALIA
 Kenworth, Sterling, Eagle, Western Star.



ZF GEARBOX FITTED STANDARD IN,
 IVECO, DAF MAN AND RENAULT TRUCKS,



GEARBOX FITTED STANDARD IN,
 SCANIA, VOLVO



Which Gear Box Should I Learn?

You have decided that you want to get your truck licence, the next question is then what gear box should you learn to drive?

There are a number of factors that come into making that decision but first let's look at the three options.

Roadranger Gearbox

Unrestricted, Roadranger, Crash box, Constant mesh

All the above names describe the un-restricted gearbox with the most common brand being the Road Ranger and these gearboxes come in a 9, 13, 15 or 18 speed, depending on the truck and application.

What makes this gearbox different is that the driver has to match the road speed (KM) and engine speed (revs) to enable a gear change to take place. These gearboxes require more driver input to ensure that you are able to change gears smoothly or at all. This process is called doubling the clutch. (Double declutch)

This is not to be confused with the gearbox having a high and low range lever as these come in both constant mesh and synchromesh forms.

So when changing gears in basic terms this is how it's done:

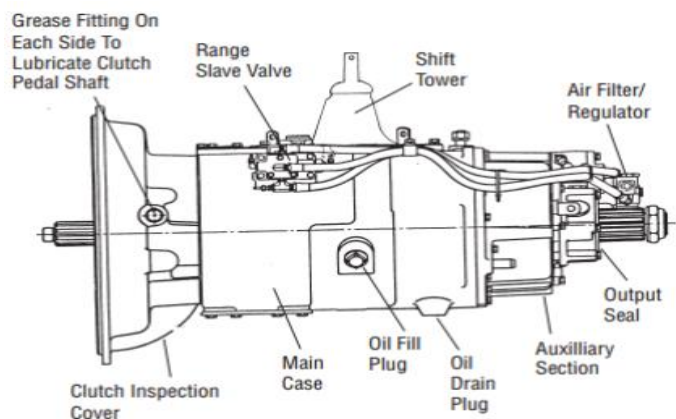
Up Changes

- Accelerate to the appropriate road speed.
- Clutch in.
- Out of gear into neutral
- Clutch out
- Clutch in
- Select next gear at appropriate revs approx 1500 rpm
- Clutch out

Down Changes

- Slow to the appropriate road speed eg for 5 low 25 kph
- Clutch in
- Our of gear into neutral
- Clutch out
- Rev engine to appropriate revs approx. 1400 rpm
- Select next gear
- Clutch out

The road speed and revs required changes, depending on the road conditions, e.g. going uphill or downhill.



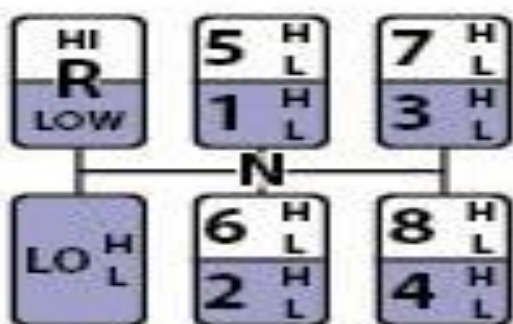
Every truck used to have this type of gearbox, however they have become less common over the years as new technologies have been developed however they are still common in a large number of heavy duty trucks particularly US trucks.

The main advantage of this gearbox is its simplicity, strength and durability. Almost any truck mechanic repaired this type of gearbox as it is common across a number of brands of truck. The strength comes from there being no synchro's so there is more metal delivering engine power to the road.

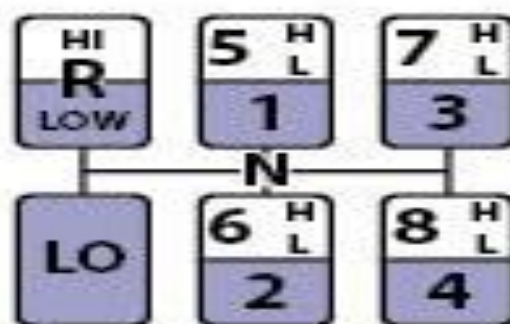
From a drivers point of view there is a lot more to think about and do when driving this style of truck with the big thing being to plan what you are going to do i.e. what gear to select and give yourself time to make the gear change. Many drivers do prefer this type of gearbox as it gives them more control and are rewarding to drive when you get it right.

If you get your licence with this gearbox you will be allowed to drive this gearbox and the Synchro/Automatic types. (unrestricted)

Roadranger / Double Clutch Information



EATON FULLER 18 SPEED



EATON FULLER 13 SPEED

Eaton Fuller Transmissions

Neutral

18 SPEED (RTO)

SPLITTER SELECTOR
MAY BE SHIFTED
IN ALL GEAR SHIFT
LEVER POSITIONS

RANGE SELECTOR

PRE-SELECT ALL RANGE SHIFTS
MOVE RANGE SELECTOR BEFORE MOVING SHIFT LEVER

UPSHIFTING
START WITH RANGE SELECTOR DOWN
SHIFT LO-1-2-3-4 RAISE RANGE SELECTOR
SHIFT 5-6-7-8

DOWNSHIFTING
SHIFT 8-7-6-5 MOVE RANGE SELECTOR DOWN
SHIFT 4-3-2-1-LO

DO NOT CHANGE RANGE WHILE MOVING IN REVERSE

WARNING

PUT TRANSMISSION IN NEUTRAL
BEFORE STARTING ENGINE

21628

Synchromesh Gearbox

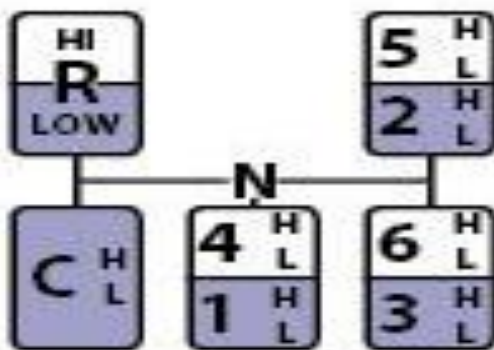
Synchromesh, Standard Gearbox Single Clutch Information

The main difference between this and the constant mesh gearbox is there is no need to double the clutch as the gearbox has syncho rings which match the road speed and the engine speed so the gear can be changed. This takes the job away from the driver.

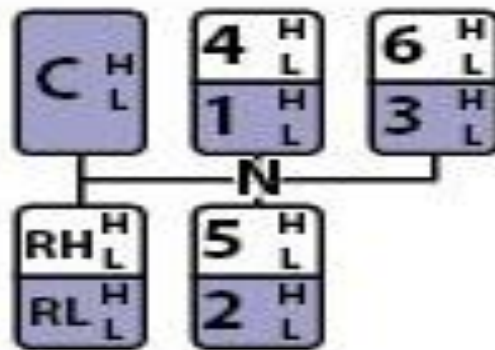
A significant number of trucks come with this type of gearbox as it is easier to drive than the road ranger gearbox. It comes in a variety of shift patterns from a standard 5 or 6 speed to a 12 speed with range change.

Most round town trucks doing local delivery's, such as those run by Toll or Linfox use this type of gearbox as it is easier for the driver to operate and there are more potential employees.

If you get your licence in this style of vehicle you will not be licenced to drive the Crash gearbox (road ranger), this is a restricted licence to driving Synchromesh & Automatic's only.



SCANIA 12 + 2 SPEED



VOLVO 14 (12 + 2) SPEED

HI / LO Range
Selector

Splitter



Automatic Gearbox

More and more trucks are being purchased with an automatic transmission as the technology has improved significantly over the last 10 years. They range from the small round town delivery trucks to the instate B Doubles and road trains.

Some trucks are a two pedal auto ie brake and accelerator while others are knows as a three pedal auto have a clutch pedal, the clutch is only used when stopping and starting the vehicle or in some cases the clutch pedal is only used in slow speed manoeuvres such as reversing.

The advantages are the ease of operation and also as the transmission can be programed to ensure the truck is driven with the best fuel economy in mind, which can significantly reduce running costs for major companies over the large number of trucks they have and can save millions of dollars a year for a company such as Toll.

Automatic trucks are different to an automatic car in that they are an automated manual transmission or AMT. This means that there is an auto shifter changing the gears in a manual gearbox. For a driver this means that while it is an auto, you need to allow the truck time to change gears and sometimes you will have to override the transmission and select gears in the manual mode to ensure the truck and safely traverse the route.

If you have a manual car licence and you get you truck licence in an Automatic vehicle you will be restricted to driving automatic Trucks and Busses only, this is a restricted licence to driving Automatic's only.



Conclusion

So which type of truck will you choose? It normally comes down to a number of key factors.

- What truck do you need to drive which is often determined by the job your, applying for.
- Are you up for a challenge and want to open more employment opportunities?
- What's your budget?