



364 Edward Street P. +61 2 6925 4348  
Wagga Wagga NSW 2650 F. +61 2 6925 3314

**if it's diesel injection or turbo DENCO DO IT.**

## **(LHD) FITTING INSTRUCTIONS**

### **TOYOTA HILUX WITH 3L DIESEL ENGINE**

1. Remove exhaust manifold.
2. Remove oil pressure plug from rear of oil gallery and fit nipple, T piece and flare nipple then loosely fit oil supply line. If oil pressure sender unit is fitted at rear of block then relocate to end of T piece otherwise block off T piece with plug.
3. Remove oil drain on block for vacuum pump. Now fit banjo assembly with extended hose banjo bolt and connect vacuum pump oil return to banjo and fit oil drain hose for turbo with elbow to bottom.
4. Remove oil drain on block for vacuum pump. Now fit banjo assembly with extended hose banjo bolt and connect vacuum pump oil return to banjo and fit oil drain hose turbo with elbow to bottom.
5. Fit exhaust manifold with assembled turbo to engine using new gasket if required. Now connect turbo oil feed line and oil return line. When you have oil feed and return line situated so they don't rub on anything, tighten both ends using a spanner and hose clamps respectively.
6. Note: oil feed line should be facing around the back of the engine, then over rocker cover to turbo - keep away from heat source.
7. Remove engine breather from intake manifold and rocker cover, now block the outlet on the intake manifold with rubber cap plug and clamp. Attach the new breather hose loosely to rocker cover ready for attaching to new position.
8. Fit aluminium casting and crossover pipe and connect to intake manifold with turbo hose and clamps supplied. Now connect air cleaner using cast elbows, turbo hose and clamps. You may now connect engine breather to brass elbow making sure that breather pipe does not kink as this will cause turbo to pass oil.

9. Fit dump pipe to turbo. No exhaust supplied
11. Fit boost gauge and pyrometer start engine and allow to idle for 5 minutes whilst checking for air and oil leaks. Re tighten clamps, pipes etc if necessary.
12. Road or dyno test vehicle and set maximum turbo boost to 60 KPA by adjustment of actuator rod. Set maximum fuel approximately → turn in from factory standard and check pyrometer reading (with clean air cleaner) does not go above 500°C maximum.

## **Notice to all Fitting Stations**

### **Subject-high exhaust gas temperatures.**

Constantly high exhaust gas temperatures can have a detrimental effect on engine, exhaust, manifold and turbocharger life.

One or more of the following can cause high exhaust gas temperatures:

- ✓ Over-fuelling
- ✓ Blocked or restricted air cleaner
- ✓ Restriction of air inlet system including pre-cleaner
- ✓ Worn or damaged turbocharger
- ✓ Air or exhaust leaks on turbo engines
- ✓ Excessive or prolonged load and/or speed
- ✓ Blocked exhaust
- ✓ Worn injectors
- ✓ Incorrect or 'doctored' fuel
- ✓ Leaking intercooler or fitting

It is for these reasons Denco Diesel and Turbo now strongly recommend the use of 'on board' boost gauges and pyrometers so that the driver can constantly monitor the performance of their engine and adjust their driving, or maintenance in order to be assured of trouble-free motoring.

For vehicles under extreme conditions such as extreme dust, extreme Temperatures and extreme loads, we strongly recommend the aforementioned gauge and pyrometer.

Denco distribute and recommend the world-renowned V.D.O range of gauges and can supply them ex-stock at excellent prices.

Our Company also strongly recommends that air cleaners be checked more regularly on turbo-charged vehicles and that vehicles return to their fitting stations for an annual boost and pyrometer check.

# TOYOTA 3L 2.8 HILUX LHD

## FITTING INSTRUCTIONS

### CHECK LIST.

NO.	QTY.	PART NO.	DESCRIPTION.	BIN NO.	CHECK
1	1	313297	S1BG Turbocharger Assy		
2	1	TDMTOY 5L	Turbo exhaust manifold		
3	1	S1END	Turbo inducer sleeve		
4	1	TDM058	5L Actuator bracket		
5	1	TDM059	Manifold heatshield		
6	2	826.0650	M8 x 16 Heatshield bolts		
7	2	826.7170	M8 s/s springwashers		
8	4	TDM010	M8 Incanol manifold studs		
9	4	3652	M8 Wurth Lock nuts		
10	1	SP3- 0407	¼' hose x 7/16 x 24 UNS		
11	1	80-025	24cm Purosil hose		
12	2	MS8241	Goss hose clips		
13	1	TDM060	Oil out pipe assy		
14	5	826.0652	M8 x 25 bolt and s/sws		
15	1	DSF52	Manifold Gasket		
<b><u>AIR IN.</u></b>					
16	2	TD3L001	90° x 2 ½" casting		
17	1	BP6- 0806	½" x 3/8 BSP hose elbow		
18	3	670- BLK250	2 ½" turbo hose 2 ½" long		
19	6	HS040P	No 40 Hose clamp		
20	1	WC12B	½" blanking rubber		
21	1	HS06P	No 6 Hose clamp		
22	1	Fh1013	1 Metre ½ breather hose		
23	1	HS44	No 44 Hose Clamps		
<b><u>AIR OUT.</u></b>					
24	1	TD5L003	Air out casting		
25	1	TDM440	Crossover pipe		
26	1	A64-02	1/8 BSP plug for boost gauge		
27	2	670- BLK250	2 ½" turbo hose 2 ½" long		
28	4	HS040P	No 40 Hose clamp		
29	1	670- BLK200	2" turbo hose 2" long		
30	2	HS032P	No 32 Hose clamp		
<b><u>OIL IN.</u></b>					
31	1	HOS26	26" stainless steel oil supply hose		
32	1	A27-02	1/8 BSP hex nipple		
33	1	A35-02	1/8 BSP T piece		

34	1	A64-02	1/8 BSP plug		
35	1	A7-0402	1/8 BSP X 5/16		
<b><u>OIL OUT.</u></b>					
36	1	TD80X27 0X16	90° Oil out hose		
37	2	HS010P	No 10 Hose clamp		
38	1	PRE162	5/8 Adaptor		
39	2	NW5-43	Copper Washer		
41	1	P1-777	Banjo		
<b><u>EXHAUST.</u></b>					
42	1	TDM439	Dump pipe		