



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.

FITTING INSTRUCTIONS

TOYOTA 100 SERIES

1. Remove air cleaner assembly for accessibility.
2. Remove the exhaust system from the manifold to the two bolt flange in front of the muffler including the exhaust support bracket on the flywheel housing.
3. Remove the exhaust manifold. Fit new gaskets if required.
4. Fit turbo and manifold assembly using original two cylinder manifold but without the inner sleeve. If EGR is fitted to vehicle, blank exhaust manifold end with solid stainless steel gasket is supplied. Refit the original Heatshield to the new manifold.
5. Drain oil and remove oil level switch from the side of the sump.
6. Mark the sump for the oil drain position to line up with the turbo outlet, then remove sump. Drill and weld in oil return sump elbow. Refill the sump with oil. Fit oil line support bracket and clamp to rear bolt on air crossover pipe flange. Fit large clamp to breather tube to locate oil hose.
7. Clean sump and refit with new sealing material. Connect oil drain to turbo with 3/4" hose and clamps supplied. Refill sump with oil.
8. Remove oil filter and collector tray to gain access to oil pressure sender. Remove oil pressure sender from block and fit Tee fittings with sender refitted in the vertical position angled forward. Seal fittings with Loctite 569 or similar.

NOTE: Water drain tap may have to be rotated to allow fitting.

9. Connect oil line from fittings to turbo and use clamps and brackets provided to prevent the hose from rubbing. Refit oil filter and tray. Replace filter if damaged on removal.

10. Connect the turbo outlet to engine crossover pipe using 2" and 2 3/4" turbo hoses with cast HZ001 turbo pipe.
11. Fit HZ03 Cast Elbow to the inlet of turbocharger with hose supplied (long end vertical). Fit HZ2B Casting to Air cleaner using 3" hose supplied and fit convoluted hose to castings.
12. Remove engine breather rubber pipe from rocker cover and crossover pipe and discard. Blank crossover pipe breather with 5/8 cap plug and clamp. Join rocker cover breather to HZ03 intake casting with 5/8 hose and clamps provided.
13. Remove all exhaust pipes. It will be necessary to cut them off as you are unable to remove them otherwise. Refit new exhaust system in order, leaving loose until all pipes are in place. Align and tighten.
14. Refit boost gauge and pyrometer.
15. Start engine and allow to idle for 5 minutes after oil pressure has been attained and check for leaks.
16. Dyno or road test vehicle and ensure maximum boost does not exceed 50KPA and exhaust gas temperature does not exceed 500°C under full load after adjusting maximum fuel screw. Set maximum boost to 50 KPA (7.5 PSI) and set maximum pyrometer reading to 500°C with clean fuel and air filters.

NOTE: Maximum exhaust temperature will not be attained until at least two minutes of full throttle operation on dyno or road test. If road testing, brakes or trailer may have to be used to keep within state speed laws.

WARNING TO ALL FITTING STATIONS

INSTALLATION OF DIESEL TURBOCHARGER EMISSION CONTROL SYSTEMS SHOULD NOT BE UNDERTAKEN UNLESS YOU HAVE A BOOST GAUGE AND A PYROMETER.

ALL DENCO DIESEL SYSTEMS RUN AT 50 KPA BOOST MAXIMUM AND A MAXIMUM OF 500° UNDER POWER LOAD UNLESS OTHERWISE STATED.

REMEMBER: OVER FUELLING NOT ONLY CAUSES BLACK SMOKE, IT ALSO GENERATES EXCESS HEAT. EXCESS HEAT CAN ALSO BE CAUSED BY AIR AND EXHAUST RESTRICTIONS SO CHECK ALL AIR CLEANERS AND DUCTING TO THEM FOR RESTRICTIONS BEFORE TESTING. EXHAUST BRAKES AND EXHAUST SYSTEMS SHOULD ALSO BE CHECKED FOR CORRECT OPERATION AND RESTRICTION.

EXCESS HEAT CAUSES MANY PROBLEMS INCLUDING HIGH N^oX EMISSIONS, LAMINATION OF TURBINE HOUSING AND MANIFOLD, STUD STRETCH AND PREMATURE ENGINE FAILURE.

DENCO DIESEL WILL NOT ACCEPT LIABILITY FOR ANY PARTS RETURNED FOR WARRANTY THAT SHOW ANY OF THE ABOVE SIGNS.

WARRANTY WILL NOT BE CONSIDERED IF REPAIRS ARE CARRIED OUT WITHOUT DENCO DIESEL'S AUTHORISATION.

ALL KITS NOW HAVE DUMP PIPES WITH THE PROVISION FOR VDO PYROMETERS.

REMEMBER: IF SET CORRECTLY OUR PRODUCT IS ENVIRONMENTALLY FRIENDLY AND SAFER TO THE ENVIRONMENT THAN PETROL ENGINES.

TOYOTA 100 SERIES**Check List**

NO.	QTY.	PART NO	DESCRIPTION	BIN NO.	CHECK.
PRE-ASSEMBLY OF THE FOLLOWING					
1		318276-51	Schwitzer S2A turbocharger with hi-flow turbine housing		
2	1	TDM312	Denco Diesel twin pulse manifold		
3	4	000-106	M10 studs	X30	
4	4	0366 7	1.25 X M10 exhaust nuts	X6	
5	1	3LD1 SP8-450504	Alloy oil in fitting ¼ BSP x 5/16 fitting x 45°	X21 T18R	
6	4	826 0651	8mm x 20mm bolt	X13	
7	4	826 7170	8mm spring washer	X10	
8	1	TDM106	1HZ oil out pipe	S8	
9	1	6020-002	V clamp (exhaust out)	H19	
10	2	DSF82	Manifold gasket	S7	
AIR IN					
11	1	670-BLK300	2 1/2" X 3" Turbo hose	V6	
12	2	HS48	No 48 Hose clamp	HCB13	
13	2	HS44	No 44 Hose clamp	HCB12	
14	1	TDM318	Cast elbow with breather fittings	S13	
15	1	HZ002B	Cast elbow	S14	
16	1	670-BLK275	2" of 2 ¾" Turbo hose	V5	
17	1	17881-64420	Convolute air hose		
18	2	HS44	No 44 Hose clamp	HCB12	
AIR OUT					
19	1	670-BLK200	2" x 2" turbo hose	V2	
20	2	HS32	No 32 Hose clamp	HCB9	
21	1	670-BLK275	2 x 2 ¾" turbo hose	V5	
22	2	HS44	No 44 Hose clamp	HCB12	
23	1	TDM198	Cast turbo air out pipe	S12	
24	1	A64-02	Boost gauge plug	T13	
OIL IN					
25	1	TDM005	Oil line support bracket	B13	
26	1	A35-02	1/8 BSP brass T piece	T14F	
27	1	A8-0502	1/8 BSP x 90° -5 fitting	T16F	
28	1	A27-02	1/8 x 1/8 BSP straight fitting	T15F	
29	1	HOS32	Oil Supply hose cont- 32"	H19	
30	2	5421215	12 x 15 pipe clamp	H4	
31	1	5421815	18 x 15 pipe clamp	H4	
32	1	57612	13 x 5mm bolt	C12	
33	1	36805	5mm nyloc nut	C12	
34	1	826 0602	20mm x 6mm bolt	U47	
35	1	826 6034	6mm nyloc nut		
OIL OUT					

36	1	TDM107	1HZ oil out elbow sump	S2	
37	1	LOL-12	¾" x 6" oil hose		
38	2	HS10	No 10 hose clamp	HCB5	
<u>ENGINE BREATHER</u>					
39	1	NG-FS6069	5/8 cap plug	B12	
40	3	HS10	No 10 hose clamp	HCB5	
41	1	LOL-10	5/8" oil hose x 17" long		
<u>EXHAUST</u>					
42	1	TDM212	Turbo exhaust dump pipe	S2	
43	1	TDM435	Bell housing replacement bracket		
44	1	DDHZ105R-2MB	No 2 pipe Toy 100		
45	1	TDM115	No 1 pipe hanger and clamp		
46	1	TR616CC250-GP	2 ½" muffler		
47	1	DDHZ105R-3MB	No 3 locating pipe		
48	1	TDM110	No 3 locating pipe and clamp		
49	1	DDHZJ105R-4MB	No 4 pipe over chassis		
50	1	DDHZJ105R-5MB	No 5 tail pipe		
51	1	TDM114	No 3 rear pipe hanger		
52	4	C12	Exhaust clamp	W11	
<u>EXTRAS</u>					
53	1	TDSTI	Stickers and instructions		
54	1	TDMLE680	EGR Blanking Plate Gasket		

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