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

FITTING INSTRUCTIONS

NISSAN GQ FORD MAVERICK

WITH TD42 DIESEL MOTOR

LONG WHEEL BASE WAGON, COIL SPRING UTE AND LEAF SPRING UTE

1. Remove exhaust manifold being careful not to damage steel gaskets. Fit new gaskets if vehicle is not new.
2. Remove air cleaner and all mounting brackets and air cleaner adaptor from intake manifold. Remove oil pressure switch from RHS near oil filter to facilitate oil pressure feed line and T piece. Fit short union and T piece into oil sender hole and relocate sender unit to end of T piece, connect oil hose to T piece and turbo.
3. Remove exhaust system.
4. Remove vacuum pump oil drain fitting from front of block on LHS under alternator 96 and later models remove 3/8 plug on block under alternator to facilitate turbo oil drain fittings. Fit oil return pipe to turbo to face forwards, fit 3/8 elbow tail piece to engine block under vacuum pump, and fit 3/4 hose tail. Connect oil return with 3/4 oil hose and clamps, and connect vacuum pump oil drain to end of fitting. On models without alternator mounted vacuum pump then block end of fitting with 1/8 BSP plug.
5. Fit Turbo Dynamics exhaust manifold with Schwitzer-Turbo Dyn S2A waste-gate turbocharger to engine.

Fit new H section air cleaner mounting plate to rear of intake manifold, longest section facing out.

6. Fit 4 hole cast elbow with new bolts and washers to intake manifold (using new gasket and gasket cement) with outlet facing towards turbo to connect to turbo using crossover pipe, turbo hose and clamps.

7. Fit cast exhaust dump pipe to turbo outlet using V clamp. Then fit 90° elbow pipe.
8. Now fit original hose to rocker cover breather and fit air cleaner to brackets using original bolts and connect rocker cover breather to fitting under new air cleaner (make sure breather tube does not crimp. If hose crimps severe oil usage will result) to hose elbow under air cleaner. Re-mount restriction gauge sender unit on intake manifold and connect to fitting under air cleaner with capillary tube.
9. Connect air cleaner to turbo using TD424A U casting.
10. Connect air in snorkel tube to air cleaner using original 6 mm bolt.
11. Fit a test boost gauge to hole in cast inlet elbow and set max. boost to 60 KPA under load conditions by adjusting the waste-gate control rod. Fit pyrometer to exhaust dump pipe.
12. Increase max. fuel by 1/4 turn in or re-calibrate fuel pump to 57cc for 1000 inj. at 1600 RPM. Exhaust temperature should not exceed 500°C under full power load conditions. If temperature exceeds 550°C check for air restrictions or cut fuel back. Set maximum boost to 60 KPA (8.5 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 a trailer may have to be used to keep within state speed laws.

13. OPTIONAL EXTRA

Remove oil filter to facilitate oil cooler adaptor if applicable (optional extra).
Remove radiator grill ready for fitment of oil cooler if applicable (optional extra)

Fit oil cooler adaptor in place at front oil filter (after fitting hoses and clamps).
Face hoses towards bottom of fuel pump then up through hole near RHS radiator hose. Locate oil cooler on RHS of radiator. Fit hoses before attaching cooler.
(CAUTION: Do not use hose clamps on ridge of fittings as they cut the hose.)
Wrap the 2 hoses with electrical tape at any rub points (optional extra).

NOTE: Some air conditioners may have fan on RHS, in this case fit cooler on opposite side.

PLEASE NOTE: On models with air pre-cleaner, these pre-cleaner elements must be replaced with finer filter FF-9807 foam pre-cleaner elements as the original paper element has to high restriction readings for a turbo application.

CAUTION: Fit original air cleaner lid to new cast air cleaner assembly and gently tap with rubber mallet around outer edge so as lid will fit properly. Now fit air cleaner element and lightly grease top cover sealing rubber. Re-assemble air cleaner and tension top cover with wing nuts. Now remove top cover and check that grease has touched all the way round the air cleaner element. Failure to do this may result in dust by passing element and premature engine failure.

Maximum exhaust temperature should not exceed 500°C. See "Warning to fitting stations" below.

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 TURBO-DYN SYSTEMS RUN AT 60 KPA BOOST MAXIMUM AND A MAXIMUM OF 500°C 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 NO_x EMISSIONS, LAMINATION OF TURBINE HOUSING AND MANIFOLD, STUD STRETCH AND PREMATURE ENGINE FAILURE.

DENCO DIESEL AND TURBO 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 AND TURBO'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.

**PARTS LIST FOR
NISSAN TD42**

ITEM	QTY	PART NO.	DESCRIPTION	BIN NO	
Turbo Assembly 311301-52					
1	1	311301	Core assembly S2A		
2	1	TDM142.52	Hi-flow turbine housing	TH52	
3	1	318048	Wastegate kit		
4	1	TDM125	Turbine housing backplate		
5	5	826.0651	8mm x 20 mm bolts	X13	
6	2	826.717	8mm Stainless Spring washer	X11	
7	1	TDM009	Actuator bracket	X22	
8	2	826 0650	8mm x 16 mm Bolt	X12	
9	1	6020-002	3" V Clamp exhaust out	D19	
10	1	312617	Gasket		
11	1	TDM304	Compressor Cover		
Manifold and Fittings					
12	1	TDM244	Turbo Dynamics TD42 manifold		
13	1	TDM020	Stainless Steel Heatshield	E11F	
14	2	826 0650	8mm x 16mm Bolt	X12	
15	2	826 7170	8mm Stainless Spring washer	X11	
16	4		10MM x 40MM incanol stud		
17	4		10m x 1.25 nut copper plated		
18	4	826.7096	3/8 x Grade 8 washer	X8	
19	2	826.0651	8mm x 20mm bolt	E14R	
20	2	826.717	8mm Stainless Steel Spring Washer	E7	
21	6	DSF128	Manifold gasket	E13	
22	1	TDM019	Air cleaner bracket LHS	X11	
Oil in & out for Turbocharger Assembly					
23	1	3LD1	Oil in adaptor	X21	
24	1	a8-0504	Elbow 90° 5/16 x ¼	T15R	
25	1	147837	Oil in gasket	X7	
26	2	826.0651	8mm x 20mm Bolt	E13	
27	2	826.7075	8mm Spring washers	E11H4	
28	1	TDM012	Oil out pipe	E22	

29	1	148062	Oil out gasket	X7	
30	2	826.0651	8mm x 20mm Bolt	X13	
31	2	826.7075	8mm Spring washers	X10	
Air in					
32	1	TD420A	Cast Air Cleaner assembly (TDM249)		
33	1	EFV1003	830mm x 3/16 hose	W7	
34	1	TD423A	Cast alloy air pipe (TDM249)		
35	1	BP6-0806	1/2 x 3/8 BSP tail fitting	C11R	
36	2	827-0000	6mm Thread		
37	2	826.6034	6mm Nylok nut	G9	
38	1	TD424A	Cast U piece (TDM251)	E6	
39	1	TDM018	RHS Air cleaner bracket	E8	
40	1		2 1/2 X 2 3/4 HOSE		
41	1		2 X 2 3/4 HOSE		
41	4	HS44	No 44 Hose clamps	HCB12	
42	1	TD422	Cast elbow drilled for boost (TDM252)	E9	
43	1	A64-02	1/8 Blanking plug	T15F	
44	1	5421520	15 X 20 pipe clamp	H4	
45	1	TDMG03	Gasket Inlet 4 bolt	E14F	
46	1	826.7078	8mm x 30mm Bolt	X15	
47	3	826.7082	8mm x 25mm bolts	X14	
48	4	826.7075	8mm Spring washers	X10	
49	1	670BLK-200	2 1/2" x 2" Turbo hose	V2	
50	2	HS32	No 32 Hose clamp	HCB9	
	2	HS36	No 36 Hose clamp	HCB10	
51	1	670BLK-225	2 1/2" x 2 1/4" turbo hose	V3	
52	1	TD425 (TDM250)	Cast crossover drilled for bolt on clamp	E4	
53	1	57612	6 X 12 bolt	C12	
54	1		6mm Spring washers		
55	1	5421215	Pipe clamp	H4	
Oil in					
56	1	A27-02	1/8 BSP male nipple	T15F	
57	1	A35-02	1/8 BSP female "T" piece	T14F	

58	1	A7-0502	1/8 - DASH 5 nipple	T16F	
59	1	HOS32	Hose oil supply 32" Teflon s/s	H18	
Oil out with return from vacuum pump					
60	1	LOL-12	Piece 3/4 oil hose 10 inches long		
61	2	HS10	No 10 hose clamps	HCB 5	
62	1	SPP13-0606	1/2" x 3/8 BSP x special fitting	E13F	
63	1	SPP10-1206	3/4" X 3/8 BSP special fitting	E12R	
Oil out fitting needed if vacuum return not used					
64	1	A64-02	1/8 BSP Plug	T13	
Vacuum line relocation					
65	1	BVH910	Hose vacuum 16" long	W3	
Dump pipe					
66	1	TDS1	Cast dump pipe with pyro boss		
67	1	TDM-PLUG	Pyrometer plug	H6	
68	1	TDM021	Heat shield dump pipe	E11R	
69	3	826 0650	8mm x 16mm Bolts	X12	
70	3	826 7170	8mm Stainless spring washer	X11	
Exhaust out LWB station wagon & coil spring ute					
71	1	DDTD42-2MB	2 ½ " x 90° exhaust pipe expanded/notched on long end		
72	1	DDTD42-3MB	Long engine pipe expanded/notched bent end		
73	1	TR616CC250-GP	2½" high flow muffler		
74	1	DDTD42-4MB	2½" x 45° pipe		
75	1	DDTD42-5MB	Tail pipe expanded/notched bent end		
76	4	C12	2 5/8 exhaust clamps	W11	
77	1	TDM 013	Support bracket 1 hole type	E21	
78	1	TDM014	Support bracket 2 hole type	E18	
79	1	TDM015	Angle support bracket	E19	
80	1	TDM016	Rear "L" shaped bracket	E20	
81	1	TDM017	Engine pipe bracket (late type)	E17	
Exhaust out leaf spring ute					
82	1	DDTD42LU-2MB	2 ½ " x 90° exhaust pipe expanded/ notched on long end		
83	1	DDTD42LU-	2 ½ " x 45° long engine pipe expanded/notched		

		3MB	on long end		
84	1	TR616CC250- GP	2½" high flow muffler		
85	1	DDTD42LU- 4MB	Ute tail pipe		
86	4	C12	2 5/8 exhaust clamps	W11	
87	1	TDM024	Support bracket behind cab	E26	
88	1	TDM025	Centre bracket (ute) above diff bracket	E26	
89	1	TDM016	Rear "L" shaped bracket (ute)	E20	
GU parts					
90	1	TDM092	GU Heater hose relocation bkt	E10	
91	1	TDM095	GU Rear hanger weld	E10	
92	1	TDM093	GU Above diff bkt	E10	
93	2	TDM094	GU Muffler stay bkt	E10	
94	1	TDM013	Support bracket 1 hole type	E10	
95	1	TDM017	Engine pipe bracket (late type)	E17	
Accessories					
96	1	150077010	Boost gauge		
97	1	397015003	Pyrometer		
98	1	FF9807	Finer Filter (if pre cleaner fitted)		
99	1	BES-624/NIS	Turbo Timer		
100	1	TDM196	Turbine housing heat shield (Japan)		
101	1	HZBF	Brass oil out fitting for sump		