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SPECIFICATIONS

TECHNICAL DATA

Performance-Manual Transaxle

Application	661LA	662NA	662LA	2.0L DOCH	2.3L DOCH	3.2L DOCH
Maximum Speed (Km/h)	140	137	148	154	165	176
Minimum Turning Radius (m)	5.8	5.8	5.8	5.8	5.8	5.8

Performance-Autumatic Transaxle

Application	661LA	662NA	662LA	2.3L DOCH	3.2L DOCH
Maximum Speed (Km/h)	140	137	140	160	170
Minimum Turning Radius (m)	5.8	5.8	5.8	5.8	5.8

0B-2 GENERAL INFORMATION

Engine

Application	661LA	662NA	662LA	2.0L DOCH	2.3L DOCH	3.2L DOCH
Engine Type	4Cylinder DIESEL	5Cylinder DIESEL	5Cylinder DIESEL	4Cylinder GASOLINE	4Cylinder GASOLINE	6Cylinder GASOLINE
Bore (mm)	89	89	89	89.9	90.9	89.9
Stroke (mm)	92.4	92.4	92.4	78.7	88.4	84
Total Displacement (cc)	2299	2874	2874	1998	2295	3199
Compression Ratio	22:1	22:1	22:1	9.6:1	10.4:1	10:1
Maximum Power (ps/rpm)	101/4000	95/4000	120/4000	135/5500	149/5500	222/5500
Maximum Torque (kg.m/rpm)	21.5/2400	19.6/2400	25.5/2400	19.3/4000	22.4/4000	31.6/3750

Ignition System

Application	2.0L DOHC	2.3L DOHC	3.2L DOHC
Ignition Type	Distributorless ignition		
Ignition Timing (BOTH)	6°± 2°	6°± 2°	8°± 2°
Ignition Sequence	1-3-4-2	1-3-4-2	1-5-3-6-2-4
Spark Plug Gap (mm)	0.8 ± 0.1	0.8 ± 0.1	0.8 ± 0.1
Spark Plug Maker	Bosch, Chapion, Beru		
Spark Plug Type	F8DC4(BOSCH) C11YCC(CHAMPION) 14F8DU4(BERU)		

Clutch - Manual Type

Application	661LA	662NA	662LA	2.0L DOHC	2.3L DOHC	3.2L DOHC
Type	Single Dry Diaphragm					
Outside Diameter (mm)	225	225	240	225	225	240
Inside Diameter (mm)	150	150	150	150	150	155
Thickness	9.2	9.2	9.2	9.2	9.2	9.3
Fluid	Common use :Brake Fluid					

Manual Transmission

Application	661LA	662NA	662LA	2.0L DOHC	2.3L DOHC	3.2L DOHC
Maker	TREMEC	TREMEC	TREMEC	TREMEC	TREMEC	TREMEC
Type or Model	T5	T5	T5	T5	T5	T5
Gear Ratio : 1st	3.969	3.969	3.969	3.969	3.969	3.969
2nd	2.341	2.341	2.341	2.341	2.341	2.341
3rd	1.457	1.457	1.457	1.457	1.457	1.457
4th	1.000	1.000	1.000	1.000	1.000	1.000
5th	0.851	0.851	0.851	0.851	0.851	0.851
Reverse	3.705	3.705	3.705	3.705	3.705	3.705
Final Drive Ratio	4.55	4.55	4.27	4.89	4.55	3.73
Oil Capacity (L)	3.4	3.4	3.4	3.4	3.4	3.4

Auto Transmission

Application	661LA	662LA	2.3L DOHC	3.2L DOHC
Maker	BTRA	BTRA	BTRA	BTRA
Type or Model	M74 4WD	M74 4WD	M74 4WD	M74 4WD
Gear Ratio : 1st	2.741	2.741	2.741	2.741
2nd	1.508	1.508	1.508	1.508
3rd	1.000	1.000	1.000	1.000
4th	0.708	0.708	0.708	0.708
Reverse	2.429	2.429	2.429	2.429
Final Drive Ratio	5.38	4.89	5.86	4.89
Oil Capacity (L)	9	9	9	9

Brake

Application	Specifications	
Booster Size	non-ABS	8inch + 9inch
	ABS 5.0	7inch + 8inch
	ABS 5.3	8inch + 9inch
Master Cylinder Diameter (mm)	£ 25.4	
Booster Ratio	5.6 : 1	
Front Brake : Disc Type	Ventilated	
Rear Brake : Disc Type	Solid	

Tire and Wheel

Application	Specifications
Standard Tire Size	P235/75 R15, 255/70 R15
Standard Wheel Size	7JJ ` 15
Inflation Pressure At Full Lode	
P235 / 75 : Front	30 Psi
Rear	30 Psi
P255 / 75 : Front	30 Psi
Rear	30 Psi

Steering System

Application	Specifications
Gear Type	RACK & PINION
Wheel Alignment:	
Front : Toe-in	0 - 4 mm
Front : Caster	± 30' ± 30'
Front : Camber	0° ± 30'
Oil Capacity	1L

0B-4 GENERAL INFORMATION

Suspension

Application	Specifications
Front Type	Double Wishbone
Rear Type	5 - Link

Fuel System

Application	Specifications
Fuel Pump Type	Electric Motor Pump
Fuel Capacity	70 L

Lubricating System

Lubricating Type	661LA	662NA	662LA	2.0L DOHC	2.3L DOHC	3.2L DOHC
Oil Pump Type	External Gear pump					
Oil Filter Type	Combination(Full & Part)			Full Flow		
Oil Capacity (L) (Including Oil Filter)	8.0	9.0	9.5	7.2	7.5	8.2

Cooling System

Cooling Type	661LA	662NA	662LA	2.0L DOHC	2.3L DOHC	3.2L DOHC
Coolant Capacity (L)	9.5-10	10.5	10.5 - 11	10.5	10.5	11.3
Radiator Type	Forced Circulation					
Water Pump Type	Centrifugal					

Electric System

Application	661LA	662NA	662LA	2.0L DOHC	2.3L DOHC	3.2L DOHC
Battery (MF)	12V - 90AH					
Generator	75A	75A	75A	75A	115A	115A
Starter	2.2kw	2.2kw	2.2kw	1.2kw	1.2kw	1.7kw

VEHICLE DIMENSIONS AND WEIGHTS**Vehicle Dimensions**

Application	Application
Overall Length (mm)	4330
Overall Width (mm)	1841
Overall Height (mm)	1840
Wheel Base (mm)	2840
Tread: Front (mm)	1510
Rear (mm)	1520

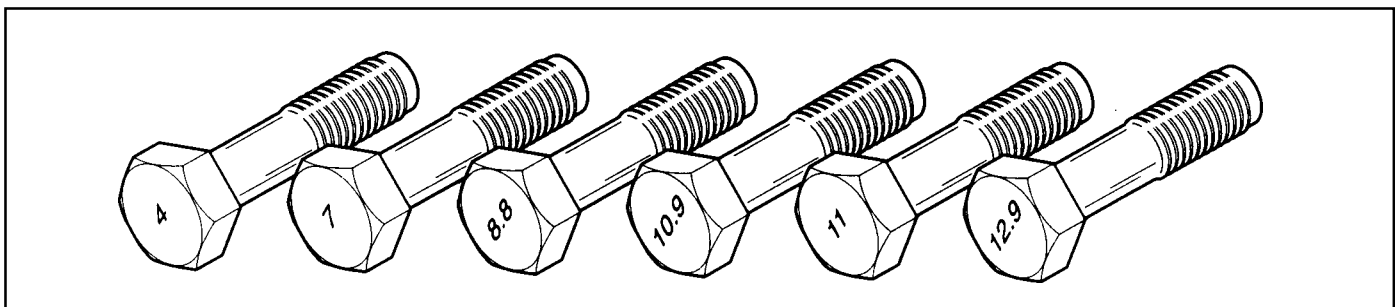
Vehicle Weights

Application	661LA	662NA	662LA	2.0L DOHC	2.3L DOHC	3.2L DOHC
Manual : Curb Weight (kg)	1790	1810	1830	1790	1790	1840
Gross Vehicle Weight (kg)	2515	2515	2515	2515	2515	2515
Automatic : Curb Weight (kg)	1810	1815	1850	-	1810	1860
Gross Vehicle Weight (kg)	2515	2515	2515	-	2515	2515
Passenger Capacity	5	5	5	5	5	5

STANDARD BOLTS SPECIFICATIONS

Bolt*	Torque (N·m / lb-in)					
	Standard			Limit		
	4T	7T	9T	4T	7T	9T
M3 ∅ 0.5	0.5 N·m (4.5 lb-in)	0.9 N·m (8 lb-in)	1.3 N·m (12 lb-in)	0.7 N·m (6.3 lb-in)	1.2 N·m (11 lb-in)	17 N·m (15 lb-in)
M4 ∅ 0.7	1.2 N·m (11 lb-in)	2.0 N·m (18 lb-in)	3.0 N·m (27 lb-in)	1.6 N·m (14 lb-in)	2.6 N·m (23 lb-in)	4.0 N·m (36 lb-in)
M5 ∅ 0.8	2.4 N·m (22 lb-in)	4.0 N·m (36 lb-in)	5.6 N·m (50 lb-in)	3.1 N·m (28 lb-in)	5.2 N·m (47 lb-in)	7.6 N·m (68 lb-in)
M6 ∅ 1.0	4.0 N·m (36 lb-in)	6.7 N·m (60 lb-in)	9.7 N·m (87 lb-in)	5.4 N·m (49 lb-in)	9.0 N·m (81 lb-in)	12.7 N·m (114 lb-in)
M8 ∅ 1.25	8.6 N·m (77 lb-in)	15.7 N·m (12 lb-in)	22.5 N·m (17 lb-in)	12.7 N·m (9 lb-in)	20.6 N·m (15.2 lb-in)	30.4 N·m (22 lb-in)
M10 ∅ 1.25	18.6 N·m (14 lb-in)	32.3 N·m (24 lb-in)	46.0 N·m (34 lb-in)	25.5 N·m (19 lb-in)	42.1 N·m (31 lb-in)	60.8 N·m (31 lb-in)
M10 ∅ 1.5	18.6 N·m (14 lb-in)	30.4 N·m (22 lb-in)	44.1 N·m (33 lb-in)	24.5 N·m (18 lb-in)	41.2 N·m (30 lb-in)	58.8 N·m (44 lb-in)
M12 ∅ 1.25	34.3 N·m (25 lb-in)	56.8 N·m (42 lb-in)	82.3 N·m (61 lb-in)	45.0 N·m (33 lb-in)	75.5 N·m (56 lb-in)	107.8 N·m (80 lb-in)
M12 ∅ 1.75	32.3 N·m (24 lb-in)	53.9 N·m (40 lb-in)	77.4 N·m (57 lb-in)	43.1 N·m (32 lb-in)	71.5 N·m (53 lb-in)	98.0 N·m (73 lb-in)
M14 ∅ 1.5	54.0 N·m (40 lb-in)	89.2 N·m (66 lb-in)	127.4 N·m (94 lb-in)	71.6 N·m (53 lb-in)	117.6 N·m (87 lb-in)	166.6 N·m (123 lb-in)
M16 ∅ 1.5	81.3 N·m (60 lb-in)	107.8 N·m (80 lb-in)	196.0 N·m (145 lb-in)	107.8 N·m (80 lb-in)	186.2 N·m (138 lb-in)	264.6 N·m (196 lb-in)
M18 ∅ 1.5	117.6 N·m (87 lb-in)	196.0 N·m (145 lb-in)	284.2 N·m (210 lb-in)	156.8 N·m (116 lb-in)	264.6 N·m (196 lb-in)	372.4 N·m (276 lb-in)
M20 ∅ 1.5	166.6 N·m (123 lb-in)	274.4 N·m (203 lb-in)	392.0 N·m (290 lb-in)	215.6 N·m (160 lb-in)	362.6 N·m (268 lb-in)	519.4 N·m (384 lb-in)
M22 ∅ 0.5	225.4 N·m (167 lb-in)	372.4 N·m (276 lb-in)	529.2 N·m (392 lb-in)	294.0 N·m (218 lb-in)	490.0 N·m (362 lb-in)	705.6 N·m (522 lb-in)
M24 ∅ 1.5	284.2 N·m (210 lb-in)	480.2 N·m (355 lb-in)	686.0 N·m (508 lb-in)	382.2 N·m (283 lb-in)	637.0 N·m (471 lb-in)	921.2 N·m (682 lb-in)
M24 ∅ 2.0	274.4 N·m (203 lb-in)	460.6 N·m (341 lb-in)	666.4 N·m (493 lb-in)	372.4 N·m (276 lb-in)	617.4 N·m (457 lb-in)	891.8 N·m (660 lb-in)

*Diameter ∅ pitch in millimeters



MAINTENANCE AND REPAIR

MAINTENANCE AND LUBRICATION

NORMAL VEHICLE USE

The maintenance instructions contained in the maintenance schedule are based on the assumption that the vehicle will be used for the following reasons:

- To carry passengers and cargo within the limitation of the tire inflation pressure. Refer to "Tire and Wheel" in section 2E.
- To be driven on reasonable road surfaces and within legal operating limits.

EXPLANATION OF SCHEDULED MAINTENANCE SERVICES

The services listed in the maintenance schedule are further explained below. When the following maintenance services are performed, make sure all the parts are replaced and all the necessary repairs are done before driving the vehicle. Always use the proper fluid and lubricants.

Engine Oil and Oil Filter Change

Always use above the API SH grade or recommended engine oil.

Engine Oil Viscosity

Engine oil viscosity (thickness) has an effect on fuel economy and cold weather operation. Lower viscosity engine oils can provide better fuel economy and cold weather performance; however, higher temperature weather conditions require higher viscosity engine oils for satisfactory lubrication. Using oils of any viscosity other than those viscosities recommended could result in engine damage.

Cooling System Service

Drain, flush and refill the system with new coolant. Refer to "Recommended Fluids And Lubricants" in this section.

Air Cleaner Element Replacement

Clean the air cleaner element every.

- Gasoline Engine : 15,000km (10,000 miles)
- Diesel Engine : 10,000km (6,000 miles)

Replace the air cleaner element every .

- Gasoline Engine : 60,000km (36,000 miles)
- Diesel Engine : 30,000km (18,000 miles)

Replace the air cleaner more often under dusty conditions

Fuel Filter Replacement

Replace the engine fuel filter every.

- Gasoline Engine : 60,000km (36,000 miles)
- Diesel Engine : 45,000km (24,000 miles)

Spark Plug Replacement

Replace spark plugs with same type.

- Type : BOSCH : F8DC4
BERU : 14F-8DU4
Champion : C11YCC

- Gap : 0.8 ± 0.1 mm

Spark Plug Wire Replacement

Clean wires and inspect them for burns, cracks or other damage. Check the wire boot fit at the Distributor and at the spark plugs. Replace the wires as needed.

Brake System Service

Check the disc brake pads or the drum brake linings. Check the pad and the lining thickness carefully.

Tire and Wheel Inspection and Rotation

Check the tires for abnormal wear or damage. To equalize wear and obtain maximum tire life, rotate the tires. If irregular or premature wear exists, check the wheel alignment and check for damaged wheels. While the tires and wheels are removed, inspect the brakes.

Tire Rotation (Left-hand Drive Type)

