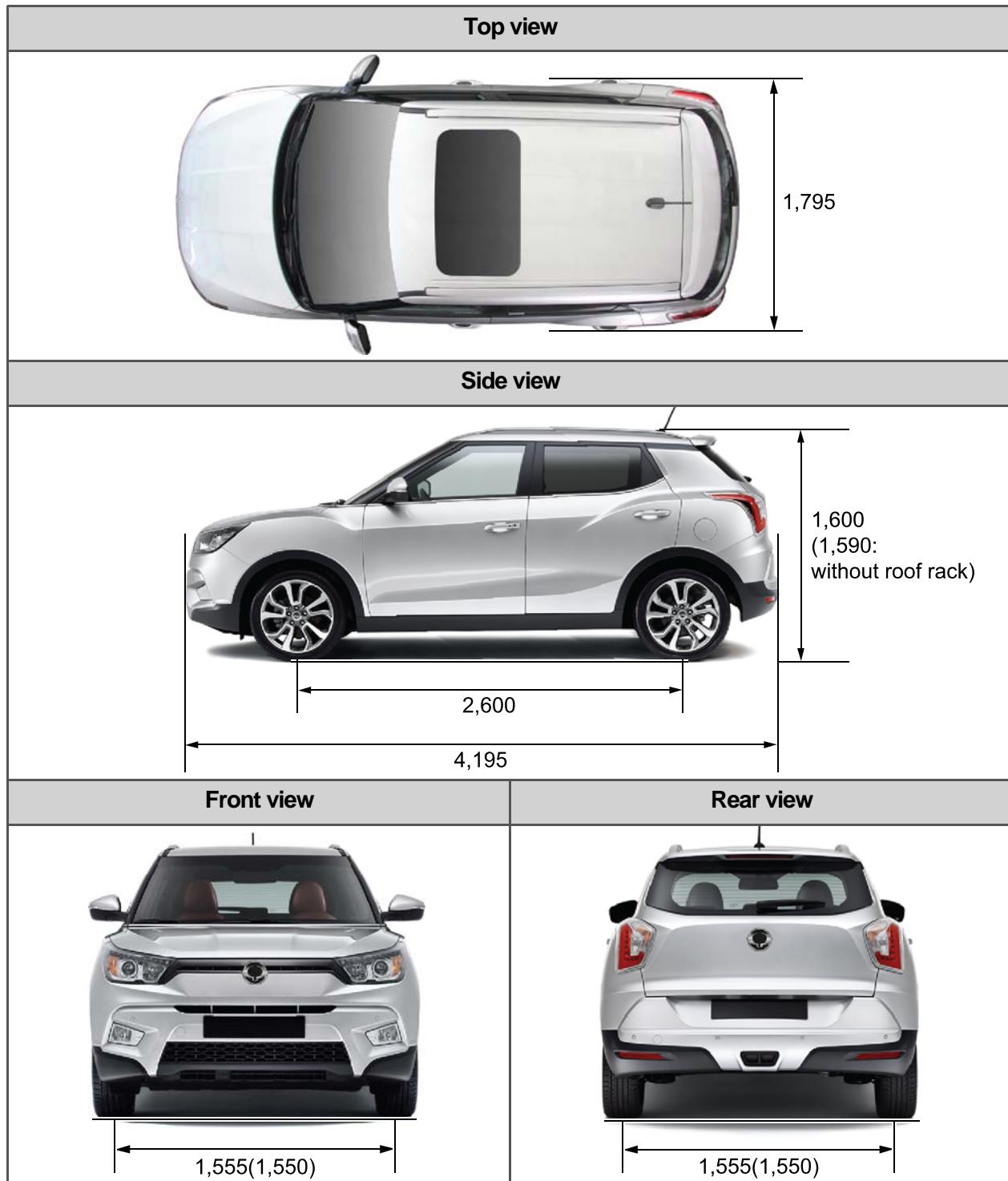


**VEHICLE GENERAL****0000-00****VEHICLE GENERAL****1. SPECIFICATIONS AND IDENTIFICATION****1) Exterior Dimensions (TIVOLI)**

Unit: mm



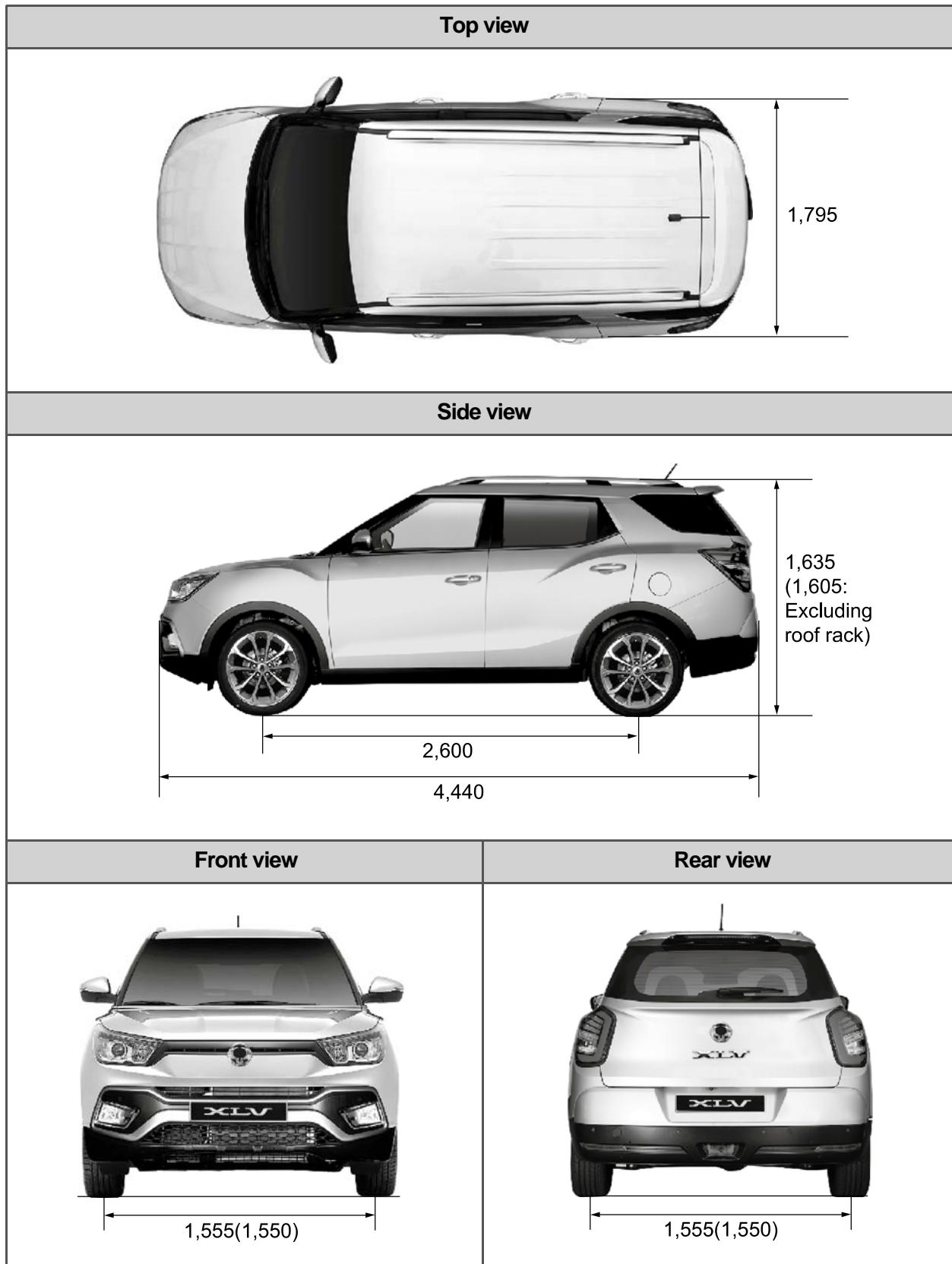
Modification basis	
Application basis	
Affected VIN	

VEHICLE GENERAL

TIVOLI 2016.03

## 2) Exterior Dimensions (XLV)

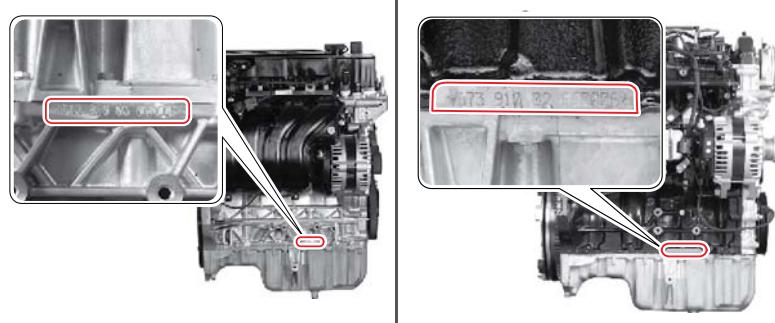
Unit: mm



Modification basis	
Application basis	
Affected VIN	

### 3) Vehicle (Engine) Identification

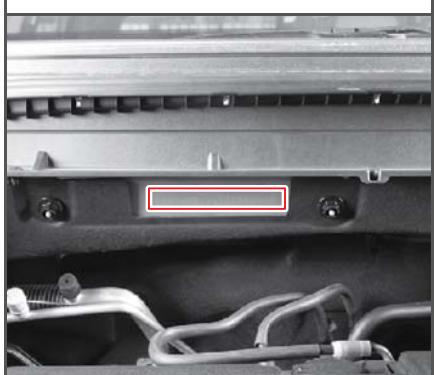
#### 1. Engine number



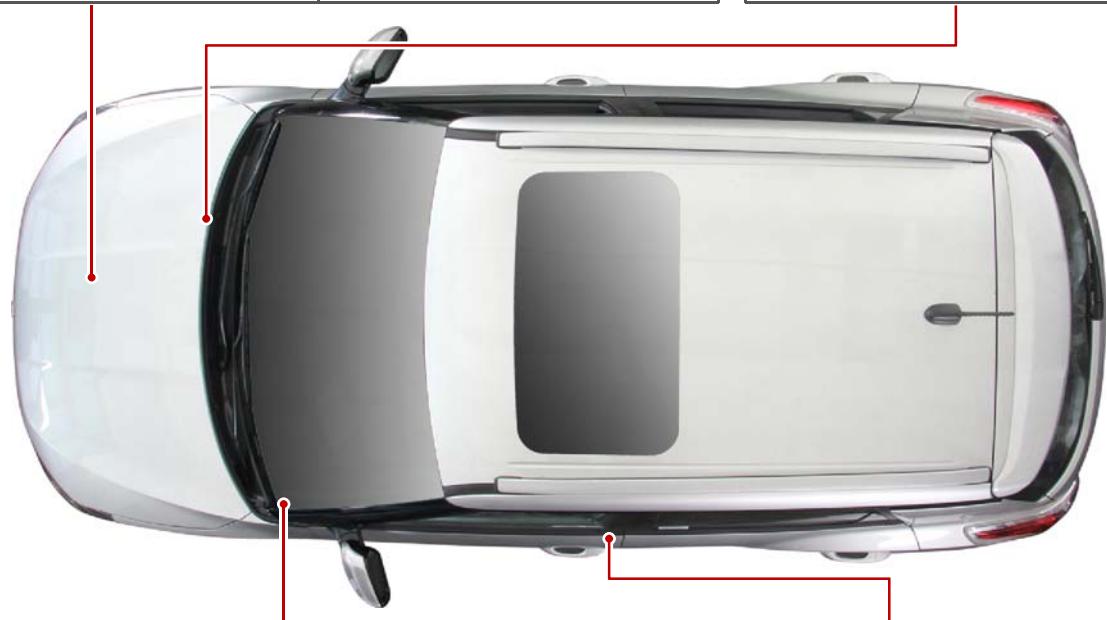
**Gasoline engine:** The engine number is stamped lower area of cylinder block in intake manifold side.

**Diesel engine:** The engine number is stamped on the lower area of cylinder block in intake manifold side.

#### 2. VIN Number



The VIN number is stamped on the passenger side fire wall.



#### 3. Visual VIN Label



Visual VIN label is located on the driver's side instrument panel.

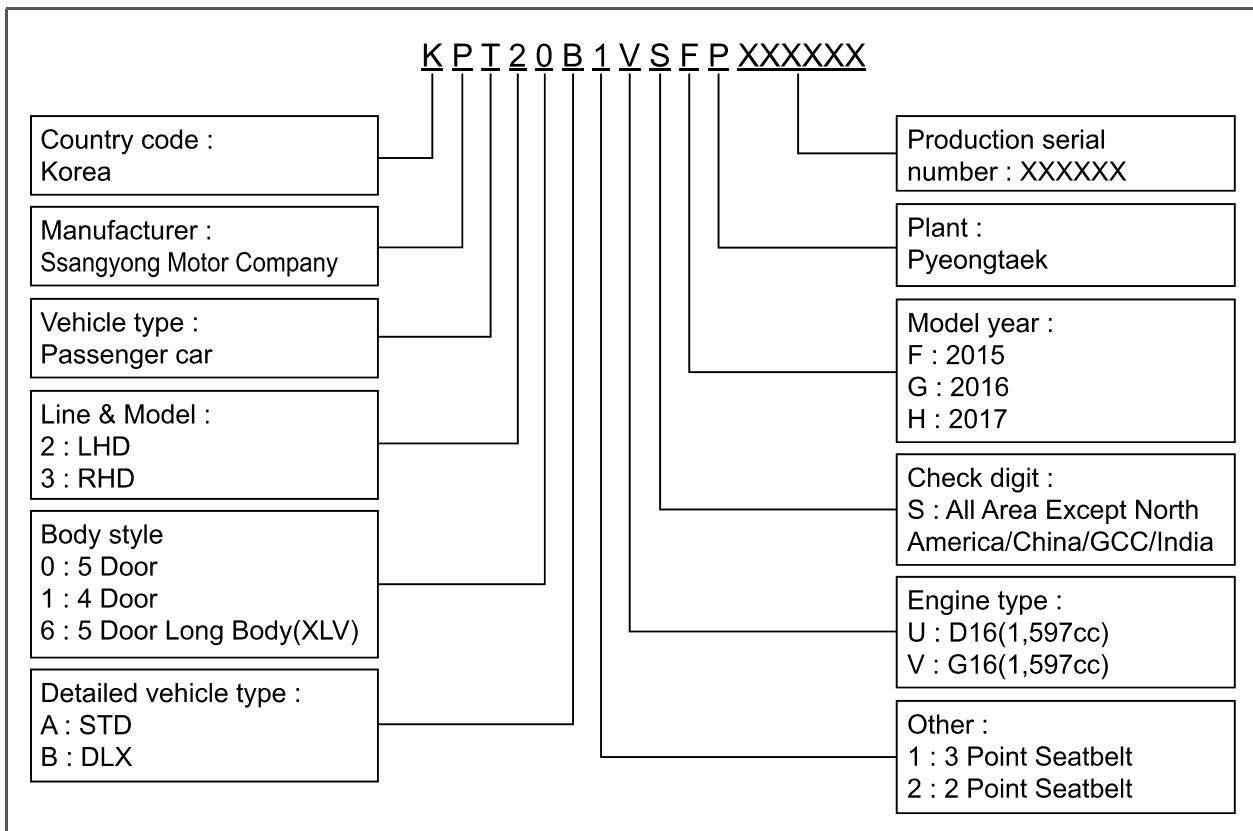
#### 4. Certification Label



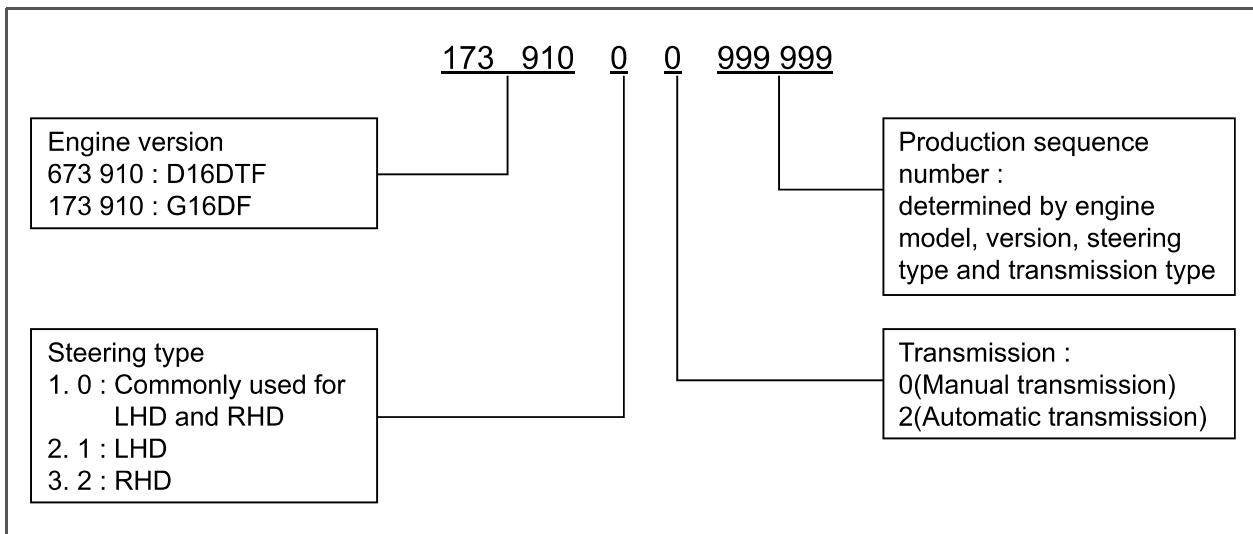
The certification label is located on the driver's door sill.

Modification basis	
Application basis	
Affected VIN	

### ► Vehicle identification number



### ► Engine identification number



## 2. SPECIFICATIONS AND CHECK ITEMS

### 1) Specifications for Each Unit

#### ► TIVOLI

Descriptions		Diesel 1.6 Engine	Gasoline 1.6 Engine
General	Overall length (mm)	4202	←
	Overall width (mm)	1798	←
	Overall height (mm)	1590 (1600: including roof rack)	←
	Gross vehicle weight (kg)	4WD: 2010, 2WD: 1920	4WD: 1900, 2WD: 1810
	Curb vehicle weight (kg)	A/T 4WD: 1480, 2WD: 1390 M/T 4WD: 1455, 2WD: 1355	4WD: 1400, 2WD: 1300 4WD: 1370, 2WD: 1270
	Fuel	Diesel	Gasoline
	Fuel tank capacity (l)	47	←
Engine	Engine	D16DTF	G16DF
	Number of cylinders / Compression ratio	4 / 15.5:1	4 / 10.5:1
	Total displacement (cc)	1597	←
	Camshaft arrangement	DOHC	←
	Max. power	115 ps / 3400~4000 rpm	128 ps / 6000 rpm
	Max. torque	300 Nm / 1500~2500 rpm	160 Nm / 4600 rpm
	Idle speed	A/T 780 ± 50 rpm M/T 780 ± 50 rpm	690 ± 50 rpm 690 ± 50 rpm
	Cooling system	Water-cooled / forced circulation	←
	Coolant capacity (l)	7.5	6.5
	Lubrication type	Vane Pump feeding type, forced circulation	←
	Max. oil capacity (l) (when shipping)	5.0	4.0
	Turbocharger and cooling type	Turbocharger, Air-cooled	-

\* ( ) The options, vehicle weight and gross vehicle weight listed here are the maximum value of each item and vary depending on the vehicle options and specifications.

Modification basis	
Application basis	
Affected VIN	

Descriptions		Diesel 1.6 Engine	Gasoline 1.6 Engine
<b>Manual Transaxle</b>	Operating type	Floor change type	←
	1st	3.538	3.769
	2nd	1.913	2.080
	3rd	1.152	1.387
	4th	0.829	1.079
	5th	0.689	0.927
	6th	0.587	0.791
	Reverse	3.000	3.077
<b>Automatic Transaxle</b>	Model	Electronic 6-speed	←
	Operating type	Floor change type	←
	1st	4.148	4.044
	2nd	2.370	2.371
	3rd	1.556	1.556
	4th	1.155	1.159
	5th	0.859	0.852
	6th	0.686	0.672
	Reverse	3.394	3.193
	Model	AWD	←
<b>Transfer Case</b>	Type	On demand type	←
<b>Clutch (M/T)</b>	Operating type	Hydraulic (CSC) type	←
	Disc type	Dry single diaphragm type	←
<b>Power Steering</b>	Type	Rack and pinion (EPS)	←
	Steering angle	Inner	37.67°
		Outer	31.10°
<b>Rear Axle</b>	Drive shaft type	Independent suspension	Ball joint type
	Axe housing type		IRDA type

Modification basis	
Application basis	
Affected VIN	

Descriptions			Diesel 1.6 Engine	Gasoline 1.6 Engine
<b>Brake</b>	Master cylinder type		Tandem type	←
	Booster type		Vacuum assisted booster type	←
	Brake type	Front wheel	Disc	←
		Rear wheel	Disc	←
Parking brake			Mechanical type	←
<b>Suspension</b>	Front suspension		Macpherson + Coil spring	←
	Rear suspension		Torsion bar/Multi link + Coil spring	←
<b>Air Conditioner</b>	Refrigerant (capacity)	EU	R-1234yf (500 ± 30g)	←
		GEN	R-134a (500 ± 30g)	←
<b>Electrical</b>	Battery type / Capacity (V-AH)	ISG	AGM / 12 - 70	←
		NON-ISG	MF / 12 - 80	MF / 12 - 50
	Starter capacity (V-KW)	ISG	12 - 1.8	12 - 1.4
		NON-ISG	12 - 1.7	12 - 0.9
	Alternator capacity (V-A)	ISG	14V - 140A	14V - 120A
		NON-ISG	14V - 120A	←

Modification basis	
Application basis	
Affected VIN	

## ► XLV

Descriptions		Diesel 1.6 Engine	Gasoline 1.6 Engine
General	Overall length (mm)	4440	←
	Overall width (mm)	1798	←
	Overall height (mm)	1605 (1635: including roof rack)	←
	Gross vehicle weight (kg)	4WD: 2060, 2WD: 1970	4WD: 1950, 2WD: 1870
	Curb vehicle weight (kg)	4WD: 1535, 2WD: 1425 M/T	4WD: 1450, 2WD: 1345 4WD: 1505, 2WD: 1405
	Fuel	Diesel	Gasoline
	Fuel tank capacity (l)	47	←
Engine	Engine	D16DTF	G16DF
	Number of cylinders/ Compression ratio	4 / 15.5:1	4 / 10.5:1
	Total displacement (cc)	1597	←
	Camshaft arrangement	DOHC	←
	Max. power	115 ps / 3400~4000 rpm	128 ps / 6000 rpm
	Max. torque	300 Nm / 1500~2500 rpm	160 Nm / 4600 rpm
	Idle speed	A/T 780 ± 50 rpm M/T 780 ± 50 rpm	690 ± 50 rpm 690 ± 50 rpm
	Cooling system	Water-cooled / forced circulation	←
	Coolant capacity (l)	7.5	6.5
	Lubrication type	Variable oil pump with ON/OFF solenoid valve, forced circulation	←
	Max. oil capacity (l) (when shipping)	5.0	4.0
	Turbocharger and cooling type	Turbocharger, Air-cooled	-

\* ( ) The options, vehicle weight and gross vehicle weight listed here are the maximum value of each item and vary depending on the vehicle options and specifications.

Modification basis	
Application basis	
Affected VIN	

Descriptions			Diesel 1.6 Engine	Gasoline 1.6 Engine
<b>Manual Transaxle</b>	Operating type		Floor change type	←
	Gear ratio	1st	3.538	3.769
		2nd	1.913	2.080
		3rd	1.152	1.387
		4th	0.829	1.079
		5th	0.689	0.927
		6th	0.587	0.791
	Reverse		3.000	3.077
<b>Automatic Transaxle</b>	Model		Electronic 6-speed	←
	Operating type		Floor change type	←
	Gear ratio	1st	4.148	4.044
		2nd	2.370	2.371
		3rd	1.556	1.556
		4th	1.155	1.159
		5th	0.859	0.852
		6th	0.686	0.672
		Reverse	3.394	3.193
<b>Transfer Case</b>	Model		AWD	←
	Type		On demand type	←
<b>Clutch (M/T)</b>	Operating type		Hydraulic (CSC) type	←
	Disc type		Dry single diaphragm type	←
<b>Power Steering</b>	Type		Rack and pinion (EPS)	←
	Steering angle	Inner	37.67°	←
		Outer	31.10°	←
<b>Rear Axle</b>	Drive shaft type	Independent suspension	Ball joint type	←
	Axe housing type		IRDA type	←

Modification basis	
Application basis	
Affected VIN	

Descriptions			Diesel 1.6 Engine	Gasoline 1.6 Engine
Brake	Master cylinder type		Tandem type	←
	Booster type		Vacuum assisted booster type	←
	Brake type	Front wheel	Disc	←
		Rear wheel	Disc	←
Parking brake			Mechanical type	←
Suspension	Front suspension		Macpherson + Coil spring	←
	Rear suspension		Torsion bar/Multi link + Coil spring	←
Air Conditioner	Refrigerant (capacity)	EU	R-1234yf (500 ± 30g)	←
		GEN	R-134a (500 ± 30g)	←
Electrical	Battery type / Capacity (V-AH)	ISG	AGM / 12 - 70	←
		NON-ISG	MF / 12 - 80	MF / 12 - 50
	Starter capacity (V-KW)	ISG	12 - 1.8	12 - 1.4
		NON-ISG	12 - 1.7	12 - 0.9
	Alternator capacity (V-A)	ISG	14V - 140A	14V - 120A
		NON-ISG	14V - 120A	←

Modification basis	
Application basis	
Affected VIN	

## 2) Fluid Specifications And Capacity

### ► TIVOLI

Descriptions			Capacity	Specifications
Engine Oil	Diesel Engine	D16DTF	≒ 5.0 ℥	Quality class (DPF): Ssangyong genuine engine oil or Approved by MB 229.51 5W30 or MB 229.52 5W30
	Gasoline Engine	G16DF	≒ 4.0 ℥	Quality class: Ssangyong genuine engine oil or Approved by MB 229.51 5W30 or MB 229.52 5W30 or API SN / ILSAC GF-5 5W20
Engine Coolant	Diesel Engine	D16DTF	≒ 7.5 ℥	Ssangyong genuine coolant Anti-Freeze: SYC-1025
	Gasoline Engine	G16DF	≒ 6.5 ℥	Anti-Freeze: Water = 50:50 ORGANIC ACID TYPE, COLOR:BLUE
Automatic Transaxle Fluid	Diesel Engine	D16DTF	≒ 7.0 ℥	Ssangyong genuine oil (AW-1)
	Gasoline Engine	G16DF	≒ 6.1 ℥	
Manual Transaxle Fluid			≒ 1.95 ℥	Ssangyong genuine oil (SAE 70W)
Transfer Case (PTU) Fluid (AWD)	Diesel Engine	A/T (M/T)	≒ 0.25 ℥ (≒ 0.5 ℥)	Ssangyong genuine oil (SAE 80W/90, API GL-5)
	Gasoline Engine	A/T (M/T)	≒ 0.6 ℥ (≒ 0.5 ℥)	
Rear Axle Oil		AWD	≒ 0.6 ℥	Ssangyong genuine oil (SAE 80W/90, API GL-5)
Brake / Clutch Fluid			As required	Ssangyong genuine oil (DOT4)



### WARNING

- Use only Ssangyong recommended fluids and lubricants.
- Do not mix any different types or brands of oils or fluids. This may cause damages.
- When changing or topping up each oil (fluid), use the oil level gauge.

Modification basis	
Application basis	
Affected VIN	

## ► XLV

Descriptions			Capacity	Specifications
Engine Oil	Diesel Engine	D16DTF	≒ 5.0 ℥	Quality class (DPF): Ssangyong genuine engine oil or Approved by MB 229.51 5W30 or MB 229.52 5W30
	Gasoline Engine	G16DF	≒ 4.0 ℥	Quality class: Ssangyong genuine engine oil or Approved by MB 229.51 5W30 or MB 229.52 5W30 or API SN / ILSAC GF-5 5W20
Engine Coolant	Diesel Engine	D16DTF	≒ 7.5 ℥	Ssangyong genuine coolant Anti-Freeze: SYC-1025
	Gasoline Engine	G16DF	≒ 6.5 ℥	Anti-Freeze: Water = 50:50 ORGANIC ACID TYPE, COLOR:BLUE
Automatic Transaxle Fluid	Diesel Engine	D16DTF	≒ 7.0 ℥	Ssangyong genuine oil (AW-1)
	Gasoline Engine	G16DF	≒ 6.1 ℥	
Manual Transaxle Fluid			≒ 1.95 ℥	Ssangyong genuine oil (SAE 70W)
Transfer Case (PTU) Fluid (AWD)	Diesel Engine	A/T (M/T)	≒ 0.25 ℥ (≒ 0.5 ℥)	Ssangyong genuine oil (SAE 80W/90, API GL-5)
	Gasoline Engine	A/T (M/T)	≒ 0.6 ℥ (≒ 0.5 ℥)	
Rear Axle Oil		AWD	≒ 0.6 ℥	Ssangyong genuine oil (SAE 80W/90, API GL-5)
Brake / Clutch Fluid			As required	Ssangyong genuine oil (DOT4)

 **WARNING**

- Use only Ssangyong recommended fluids and lubricants.
- Do not mix any different types or brands of oils or fluids. This may cause damages.
- When changing or topping up each oil (fluid), use the oil level gauge.

Modification basis	
Application basis	
Affected VIN	

### 3) Periodic Checkup And Change Interval (TIVOLI/XLV)

#### (1) Diesel Engine(EU)

\* Use only approved Ssangyong genuine parts.

Maintenance service and record retention are the owner's responsibility. You should retain evidence that proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service chart.

MAINTENANCE ITEM	MAINTENANCE INTERVAL	Kilometers (miles) or time in months, whichever comes first							
		x1000 km	20	40	60	80	100	120	140
		x1000 miles	12.5	25	37.5	50	62.5	75	87.5
	Months	12	24	36	48	60	72	84	96

#### ENGINE CONTROL SYSTEM

Drive belt	I	I	I	I	I	I	I	I	I
* Engine oil & filter * <sup>1</sup> (1)* (3)* (4)*	R	R	R	R	R	R	R	R	R
Shorten the service interval under severe conditions									
Cooling system hose & connections	I	I	I	I	I	I	I	I	I
Engine coolant (3)* (4)									
Change every 200000 km or 5 years. And, inspect and replenish if necessary.									
Fuel filter (1)*	I	R	I	R	I	R	I	R	I
Fuel line & connections									
Air cleaner (2)*									
Shorten the service interval under severe conditions									

#### Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

\*1 Check the engine oil level and leak every 3000 km (2000 miles) or before starting a long trip.

R- Replace or change.

(1)\*If vehicle is operated under severe condition:

Shorten the service interval.

- Frequent stop-and-go traffic, extended idling, short driving distance below 6 km, driving distance below 16 km when the outside temperature remains below freezing
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- High load driving such as trailer towing
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

(2)\* If vehicle is operated under severe condition, driving in dusty condition or sandy condition, pollutant area or off-road driving, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)\*More frequent maintenance is required if under dusty driving condition.

(4)\*Refer to "Recommended fluids, coolant and lubricants".

Modification basis	
Application basis	
Affected VIN	

MAINTENANCE INTERVAL	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	20	40	60	80	100	120	140	160
MAINTENANCE ITEM	x1000 miles	12.5	25	37.5	50	62.5	75	87.5	100
	Months	12	24	36	48	60	72	84	96

## CHASSIS AND BODY

Exhaust pipes & mountings	I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*	Change every 2 years (inspect frequently)							
Parking brake / Brake pads (Front & Rear) (4)*	I	I	I	I	I	I	I	I
Brake line & connections (including booster)	I	I	I	I	I	I	I	I
Manual transaxle oil (5)*	Inspect and replenish every 60000 km (or 3 years) (Severe driving condition: Change every 120000 km)							
Clutch & brake pedal free play	I	I	I	I	I	I	I	I
Power transfer unit oil (6)*	I	I	I	I	I	I	I	I
	Severe driving condition: Change every 60000 km							
Rear axle oil	Inspect every 20000 km, change every 100000 km (Frequent check of oil leak)							
Automatic transaxle fluid (6)*	Change every 100000 km under severe condition							
Check play/tightness for lower bolt/nut and ball joint grease leak on chassis and body (6)*	Check frequently and adjust or replace if necessary							

### Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R- Replace or change.

(3)\*Refer to "Recommended fluids and lubricants".

(4)\*More frequent maintenance is required if the vehicle is operated under any of the following conditions:

- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain, or
- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)\*Inspect and replenish every 60000 km (or 3 years)

Normal driving condition: Fill for Life

(Severe driving condition: Change every 120000 km)

(6)\*If vehicle is operated under severe condition: Shorten the service interval.

- Towing a trailer or off-road driving (Inspect the leak of fluid at any time, occasionally)
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)
- Frequent stop-and-go traffic, extended idling, short driving distance
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- Driving frequently at high speed over 170 km/hour
- Driving frequently in area where heavy traffic under the ambient temperature above 32°C

Modification basis	
Application basis	
Affected VIN	

MAINTENANCE ITEM	MAINTENANCE INTERVAL	Kilometers (miles) or time in months, whichever comes first								
		x1000 km	20	40	60	80	100	120	140	160
		x1000 miles	12.5	25	37.5	50	62.5	75	87.5	100
	Months		12	24	36	48	60	72	84	96

**CHASSIS AND BODY**

Tire condition & inflation pressure	Check frequently and adjust or replace if necessary							
Wheel alignment (7)*	Inspect when abnormal condition is noted							
Steering wheel & linkage	I	I	I	I	I	I	I	I
Outer ball joint inspection and replacement	I	I	I	I	R	I	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch	Check frequently and adjust or replace if necessary							
Wheel bearing grease	I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	R	R	R	R	R	R	R
	Shorten the service interval under severe conditions							

**Chart Symbols:**

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.  
R- Replace or change.

(7)\*If necessary, rotate and balance wheels.

(8)\*After completion of off-road operation, the drive shaft boots should be inspected.

(9)\*Inspect propeller shaft grease every 5000 km or 3 months if the vehicle is mainly driven under severe condition.

- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain.

(10)\*Severe Conditions in Air Conditioner Filter

- Pollutant area or off-road driving, extended air conditioner or heater operation

Modification basis	
Application basis	
Affected VIN	

## (2) Diesel Engine(GEN)

\* Use only approved Ssangyong genuine parts.

Maintenance service and record retention are the owner's responsibility. You should retain evidence that proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service chart.

MAINTENANCE ITEM	MAINTENANCE INTERVAL	Kilometers (miles) or time in months, whichever comes first								
		x1000 km	15	30	45	60	75	90	105	120
		x1000 miles	10	20	30	40	50	60	70	80
		Months	12	24	36	48	60	72	84	96

### ENGINE CONTROL SYSTEM

Drive belt	I	I	I	I	I	I	I	I	I
* Engine oil & filter * <sup>1</sup> (1)* (3)* (4)* (11)* (Initial change: 7500 km)	R	R	R	R	R	R	R	R	R
Shorten the service interval under severe conditions									
Cooling system hose & connections	I	I	I	I	I	I	I	I	I
Engine coolant (3)* (4)									
Change every 200000 km or 5 years. And, inspect and replenish if necessary.									
Fuel filter (1)*	I	R	I	R	I	R	I	R	I
	Drain the water from fuel filter when the warning light comes on								
Fuel line & connections	I	I	I	I	I	I	I	I	I
Air cleaner (2)*	I	R	I	R	I	R	I	R	I
	Shorten the service interval under severe conditions								

#### Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

\*1 Check the engine oil level and leak every 3000 km (2000 miles) or before starting a long trip.

R- Replace or change.

(1)\*If vehicle is operated under severe condition:

Shorten the service interval.

- Frequent stop-and-go traffic, extended idling, short driving distance below 6 km, driving distance below 16 km when the outside temperature remains below freezing
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- High load driving such as trailer towing
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

(2)\*If vehicle is operated under severe condition, driving in dusty condition or sandy condition, pollutant area or off-road driving, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)\*More frequent maintenance is required if under dusty driving condition.

(4)\*Refer to "Recommended fluids, coolant and lubricants".

(11)\*EURO5 or EURO6 emission regulation countries:

Initial change 15000 km (severe conditions: 7500 km)

Modification basis	
Application basis	
Affected VIN	

MAINTENANCE ITEM	MAINTENANCE INTERVAL	Kilometers (miles) or time in months, whichever comes first							
		x1000 km	15	30	45	60	75	90	105
		x1000 miles	10	20	30	40	50	60	80
	Months		12	24	36	48	60	72	84
									96

**CHASSIS AND BODY**

Exhaust pipes & mountings	I	I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*	Change every 2 years (inspect frequently)								
Parking brake / Brake pads (Front & Rear) (4)*	I	I	I	I	I	I	I	I	I
Brake line & connections (including booster)	I	I	I	I	I	I	I	I	I
Manual transaxle oil (5)*	Inspect and replenish every 60000 km (or 3 years) (Severe driving condition: Change every 120000 km)								
Clutch & brake pedal free play	I	I	I	I	I	I	I	I	I
Power transfer unit oil (6)*	I	I	I	I	I	I	I	I	I
	Severe driving condition: Change every 60000 km								
Rear axle oil	Inspect every 15000 km, change every 100000 km (Frequent check of oil leak)								
Automatic transaxle fluid (6)*	Change every 100000 km under severe condition								
Check play/tightness for lower bolt/nut and ball joint grease leak on chassis and body (6)*	Check frequently and adjust or replace if necessary								

**Chart Symbols:**

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R- Replace or change.

(3)\*Refer to "Recommended fluids and lubricants".

(4)\*More frequent maintenance is required if the vehicle is operated under any of the following conditions:

- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain, or
- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)\*Inspect and replenish every 60000 km (or 3 years)

Normal driving condition: Fill for Life

(Severe driving condition: Change every 120000 km)

(6)\*If vehicle is operated under severe condition: Shorten the service interval.

- Towing a trailer or off-road driving (Inspect the leak of fluid at any time, occasionally)
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)
- Frequent stop-and-go traffic, extended idling, short driving distance
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- Driving frequently at high speed over 170 km/hour
- Driving frequently in area where heavy traffic under the ambient temperature above 32°C

Modification basis	
Application basis	
Affected VIN	

MAINTENANCE ITEM	MAINTENANCE INTERVAL	Kilometers (miles) or time in months, whichever comes first							
		x1000 km	15	30	45	60	75	90	105
		x1000 miles	10	20	30	40	50	60	80
	Months		12	24	36	48	60	72	96

**CHASSIS AND BODY**

Tire condition & inflation pressure	Check frequently and adjust or replace if necessary							
Wheel alignment (7)*	Inspect when abnormal condition is noted							
Steering wheel & linkage	I	I	I	I	I	I	I	I
Outer ball joint inspection and replacement	I	I	I	I	I	R	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch	Check frequently and adjust or replace if necessary							
Wheel bearing grease	I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	R	R	R	R	R	R	R
	Shorten the service interval under severe conditions							

**Chart Symbols:**

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R- Replace or change.

(7)\*If necessary, rotate and balance wheels.

(8)\*After completion of off-road operation, the drive shaft boots should be inspected.

(9)\*Inspect propeller shaft grease every 5000 km or 3 months if the vehicle is mainly driven under severe condition.

- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain.

(10)\*Severe Conditions in Air Conditioner Filter

- Pollutant area or off-road driving, extended air conditioner or heater operation

Modification basis	
Application basis	
Affected VIN	

### (3) Gasoline Engine

\* Use only approved Ssangyong genuine parts.

Maintenance service and record retention are the owner's responsibility. You should retain evidence that proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service chart.

MAINTENANCE ITEM	MAINTENANCE INTERVAL	Kilometers (miles) or time in months, whichever comes first							
		x1000 km	15	30	45	60	75	90	105
		x1000 miles	10	20	30	40	50	60	80
		Months	12	24	36	48	60	72	96

#### ENGINE CONTROL SYSTEM

Drive belt	I	I	I	I	I	I	I	I	I
Engine oil & engine oil filter (1)* (3)* (Initial check: 7500 km)	R**	R	R	R	R	R	R	R	R
Shorten the service interval under severe conditions									
Cooling system hose & connections	I	I	I	I	I	I	I	I	I
Engine coolant (3)*									
Change every 200000 km or 5 years. And, inspect replenish if necessary.									
Fuel filter (2)*	Inspect every 30000 km (if using poor quality of fuel, replace every 50000 km)								
Fuel line & connections	I	I	I	I	I	I	I	I	I
Air cleaner (2)*	I	R	I	R	I	R	I	R	
	Shorten the service interval under severe conditions								
Ignition timing	I	I	I	I	I	I	I	I	I
Spark plugs (G16DF)	Change every 100000 km or 5 years.								
Charcoal canister & vapor lines	-	I	-	I	-	I	-	I	I

#### Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R- Replace or change.

\*\*- In order to secure engine long life and effective break-in, first oil (factory filled) would be recommended to drain within 10000 km.

(1)\*If vehicle is operated under severe condition:

Shorten the service interval.

- Frequent stop-and-go traffic, extended idling, short driving distance below 6 km, driving distance below 16 km when the outside temperature remains below freezing
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- High load driving such as trailer towing
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

(2)\*If vehicle is operated under severe condition, pollutant area or off-road driving, driving in dusty condition or sandy condition, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)\*Refer to "Recommended fluids and lubricants".

Modification basis	
Application basis	
Affected VIN	

MAINTENANCE INTERVAL	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	15	30	45	60	75	90	105	120
	x1000 miles	10	20	30	40	50	60	70	80
MAINTENANCE ITEM	Months	12	24	36	48	60	72	84	96

## CHASSIS AND BODY

Exhaust pipes & mountings	I	I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*	Change every 2 years (inspect frequently)								
Parking brake / Brake pads (Front & Rear) (4)*	I	I	I	I	I	I	I	I	I
Brake line & connections (including booster)	I	I	I	I	I	I	I	I	I
Manual transaxle oil (5)*	Inspect and replenish every 60000 km (or 3 years) (Severe driving condition: Change every 120000 km)								
Clutch & brake pedal free play	I	I	I	I	I	I	I	I	I
Power transfer unit oil (6)*	I	I	I	I	I	I	I	I	I
	Severe driving condition: Change every 60000 km								
Rear axle oil	Inspect every 15000 km, change every 100000 km (Frequent check of oil leak)								
Automatic transaxle fluid (6)*	Change every 100000 km under severe condition								
Check play/tightness for lower bolt/nut and ball joint grease leak on chassis and body (6)*	Check frequently and adjust or replace if necessary								

### Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R- Replace or change.

(3)\*Refer to "Recommended fluids and lubricants".

(4)\*More frequent maintenance is required if the vehicle is operated under any of the following conditions:

- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain, or
- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)\*Inspect and replenish every 60000 km (or 3 years)

Normal driving condition: Fill for Life

(Severe driving condition: Change every 120000 km)

(6)\*If vehicle is operated under severe condition: Shorten the service interval.

- Towing a trailer or off-road driving (Inspect the leak of fluid at any time, occasionally)
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)
- Frequent stop-and-go traffic, extended idling, short driving distance
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- Driving frequently at high speed over 170 km/hour
- Driving frequently in area where heavy traffic under the ambient temperature above 32°C

Modification basis	
Application basis	
Affected VIN	

MAINTENANCE ITEM	MAINTENANCE INTERVAL	Kilometers (miles) or time in months, whichever comes first							
		x1000 km	15	30	45	60	75	90	105
		x1000 miles	10	20	30	40	50	60	80
	Months		12	24	36	48	60	72	96

**CHASSIS AND BODY**

Tire condition & inflation pressure	Check frequently and adjust or replace if necessary							
Wheel alignment (7)*	Inspect when abnormal condition is noted							
Steering wheel & linkage	I	I	I	I	I	I	I	I
Outer ball joint inspection and replacement	I	I	I	I	I	R	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch	Check frequently and adjust or replace if necessary							
Wheel bearing grease	I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	R	R	R	R	R	R	R
	Shorten the service interval under severe conditions							

**Chart Symbols:**

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.  
R- Replace or change.

(7)\*If necessary, rotate and balance wheels.

(8)\*After completion of off-road operation, the drive shaft boots should be inspected.

(9)\*Inspect propeller shaft grease every 5000 km or 3 months if the vehicle is mainly driven under severe condition.

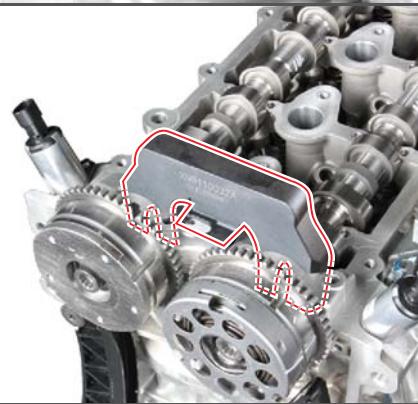
- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain.

(10)\*Severe Conditions in Air Conditioner Filter

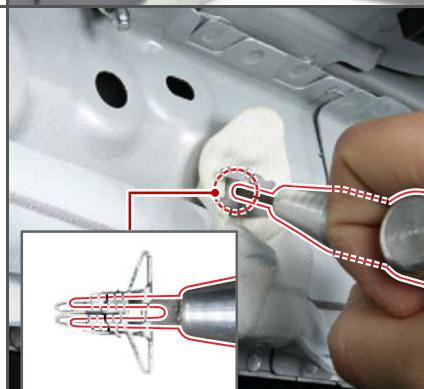
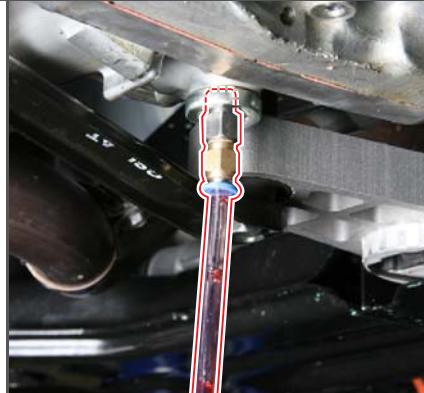
- Pollutant area or off-road driving, extended air conditioner or heater operation

Modification basis	
Application basis	
Affected VIN	

## 4. SPECIAL TOOL

PN & Name	Special Tool	Use
<b>PN:</b> X9911 0010A (G16DF, D16DTF) <p><b>Name:</b> Stopper - Flywheel ring gear</p> <p><b>Use:</b> Fixed on the flywheel ring gear to prevent the engine from rotating when tightening the crankshaft pulley bolts and flywheel bolts.</p>		
<b>PN:</b> X9911 0032A (G16DF Only) <p><b>Name:</b> Camshaft retaining jig</p> <p><b>Use:</b> Used to secure the intake and exhaust camshaft when installing the timing chain, and to remove the cam sprocket.</p>		
<b>PN:</b> X9911 0040A (G16DF Only) <p><b>Name:</b> Wrench for installing/removing engine oil filter cap</p> <p><b>Use:</b> Used to install and remove the oil filter.</p>		

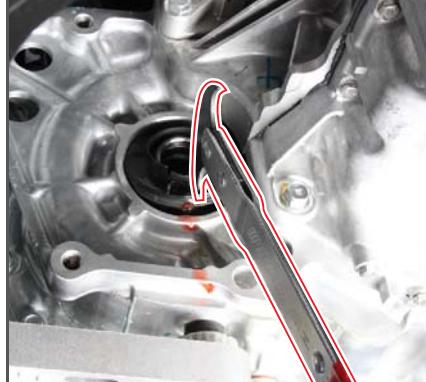
Modification basis	
Application basis	
Affected VIN	

PN & Name	Special Tool	Use
<b>PN:</b> X9948 0052A  <b>Name:</b> Rear brake piston fitting tool  <b>Use:</b> Used to fit the brake piston when installing the rear brake pad.		
<b>PN:</b> X9941 0060A  <b>Name:</b> HUF_TPMS wheel module removrer/installer  <b>Use:</b> Used to remove and fit valve body of TPMS wheel module		
<b>PN:</b> X9988 0070A  <b>Name:</b> Used to remove curtain air bag clip  <b>Use:</b> Used to remove retaining clip for curtain air bag		
<b>PN:</b> X9936 0080A (G16DF, D16DTF)  <b>Name:</b> AISIN 6 A/T housing bottom oil filler adapter  <b>Use:</b> Oil filler adapter for filling with oil at AISIN 6 A/T housing bottom		

Modification basis	
Application basis	
Affected VIN	

PN & Name	Special Tool	Use
<b>PN:</b> X9936 0090A (G16DF 2WD Only) <p><b>Name:</b> AISIN 6A/T oil seal installer (RH side)</p> <p><b>Use:</b> For fitting A/T RH oil seal</p>		
<b>PN:</b> X9936 0100A (G16DF 2WD Only) <p><b>Name:</b> AISIN 6A/T oil seal installer (LH side)</p> <p><b>Use:</b> For fitting A/T LH oil seal</p>		
<b>PN:</b> X9936 0110A (2WD, AWD A/T Only) <p><b>Name:</b> AISIN 6A/T oil seal installer (oil pump)</p> <p><b>Use:</b> For fitting A/T oil pump oil seal</p>		
<b>PN:</b> X9936 0120A (2WD, AWD A/T Only) <p><b>Name:</b> AISIN 6 A/T oil seal installer (manual shaft)</p> <p><b>Use:</b> For fitting A/T manual shaft oil seal</p>		

Modification basis	
Application basis	
Affected VIN	

PN & Name	Special Tool	Use
<b>PN:</b> X9936 0130A  <b>Name:</b> AISIN 6A/T oil seal puller (LH & RH side)  <b>Use:</b> For removing A/T LH & RH oil seal		
<b>PN:</b> X9936 0140A  <b>Name:</b> AISIN 6 A/T oil seal puller (oil pump)  <b>Use:</b> For removing A/T oil pump oil seal		

Modification basis	
Application basis	
Affected VIN	

## Memo