
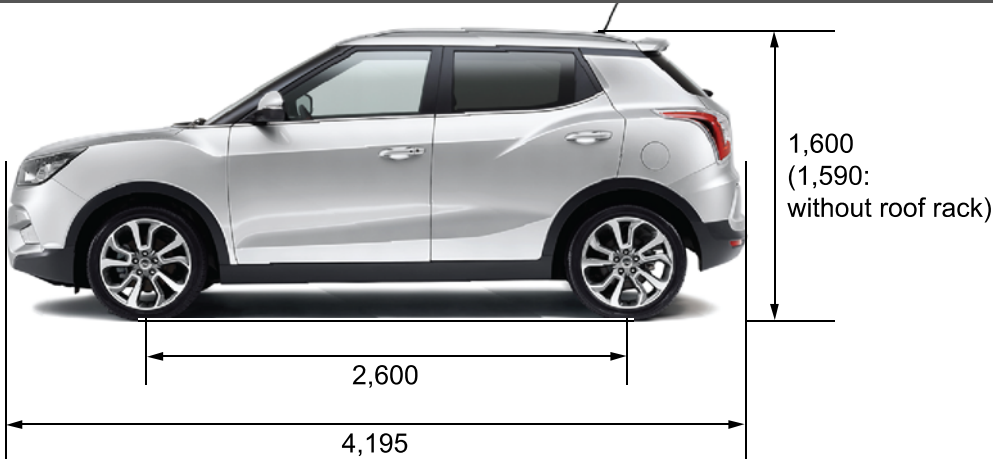




VEHICLE GENERAL**0000-00****VEHICLE GENERAL****1. SPECIFICATIONS AND IDENTIFICATION****1) Exterior Dimensions (TIVOLI)**

Unit: mm

Top view	
	
Side view	
	
Front view	Rear view
	


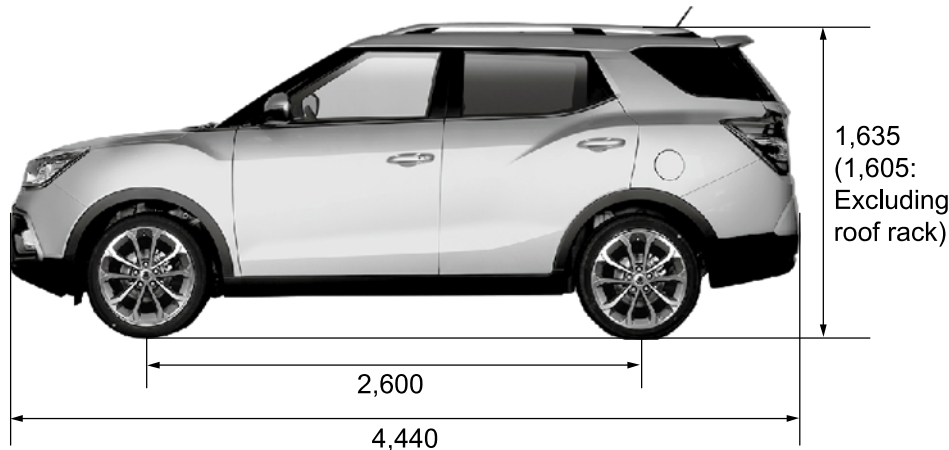


Modification basis	
Application basis	
Affected VIN	

VEHICLE GENERAL

TIVOLI 2016.03

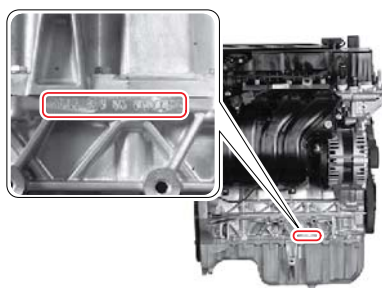
2) Exterior Dimensions (XLV)

Unit: mm

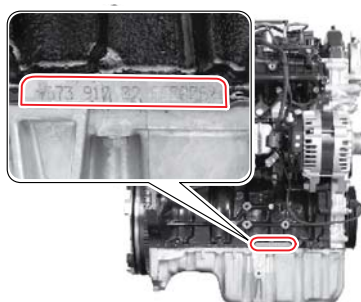
Top view	
	
Side view	
	
Front view	Rear view
	

3) Vehicle (Engine) Identification

1. Engine number

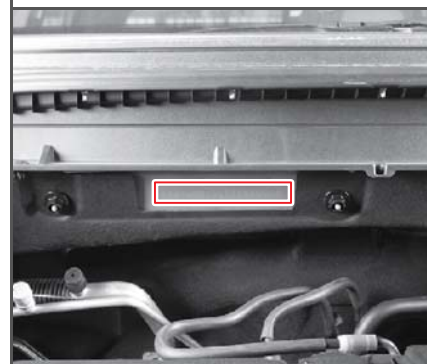


Gasoline engine: The engine number is stamped lower area of cylinder block in intake manifold side.

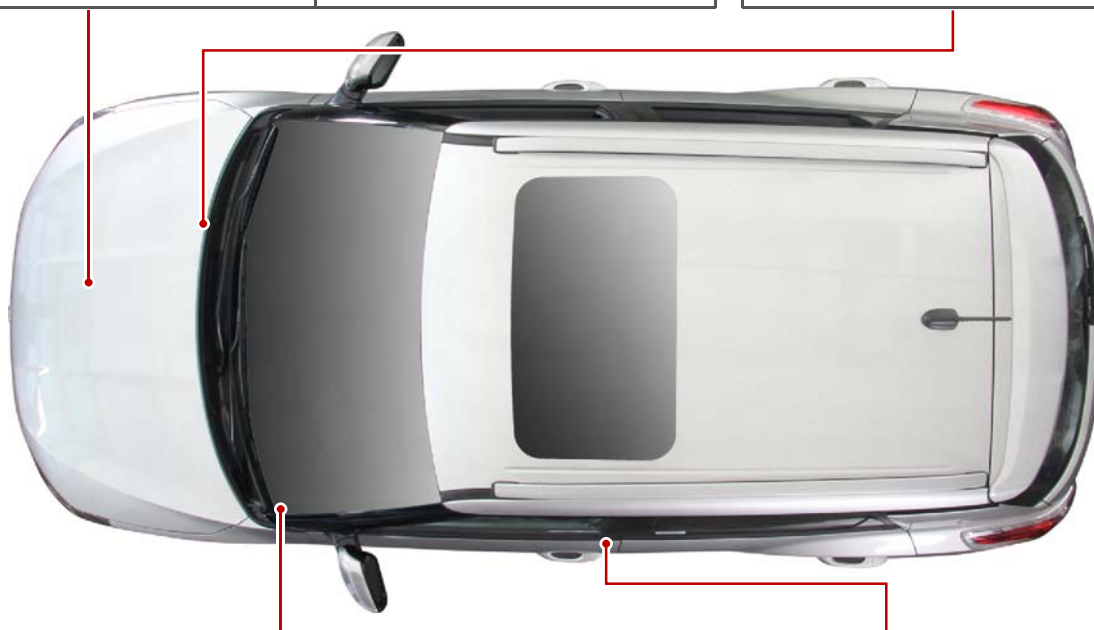


Diesel engine: The engine number is stamped on the lower area of cylinder block in intake manifold side.

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.

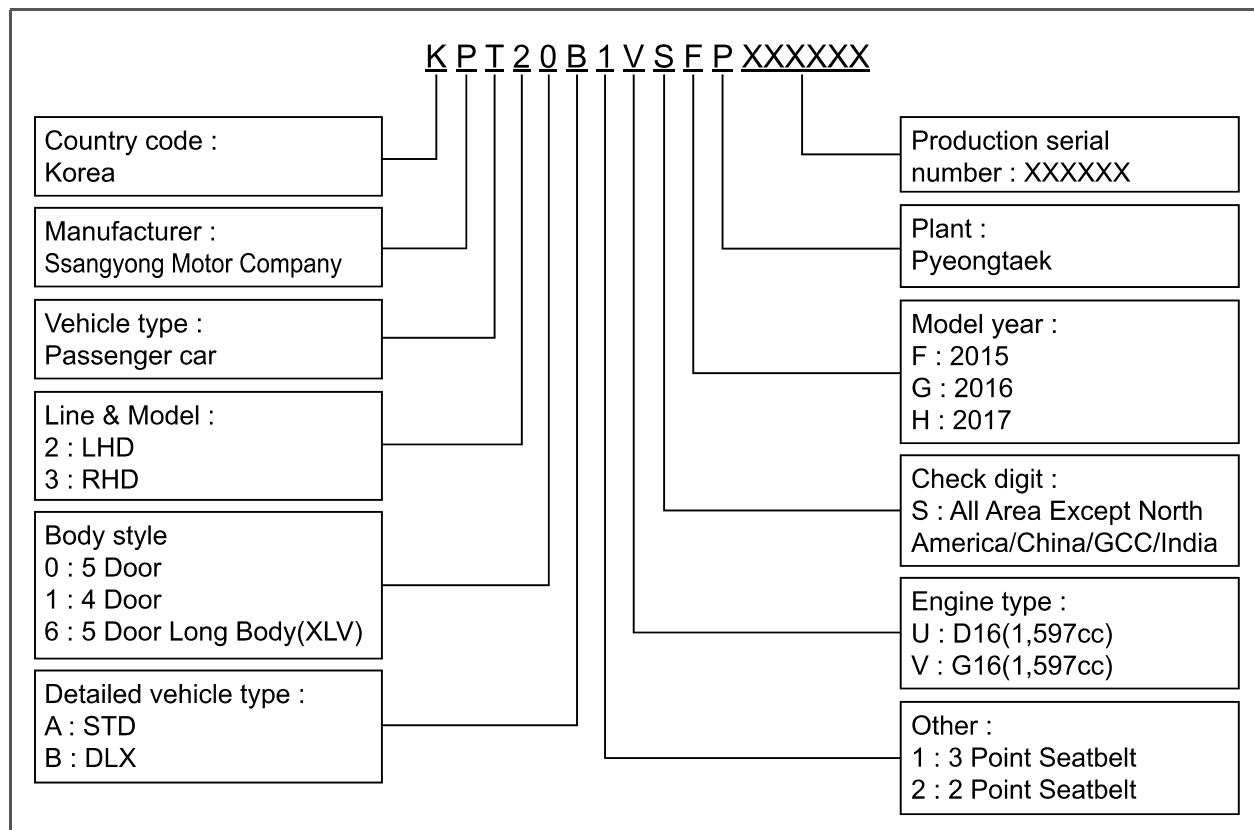
4. Certification Label



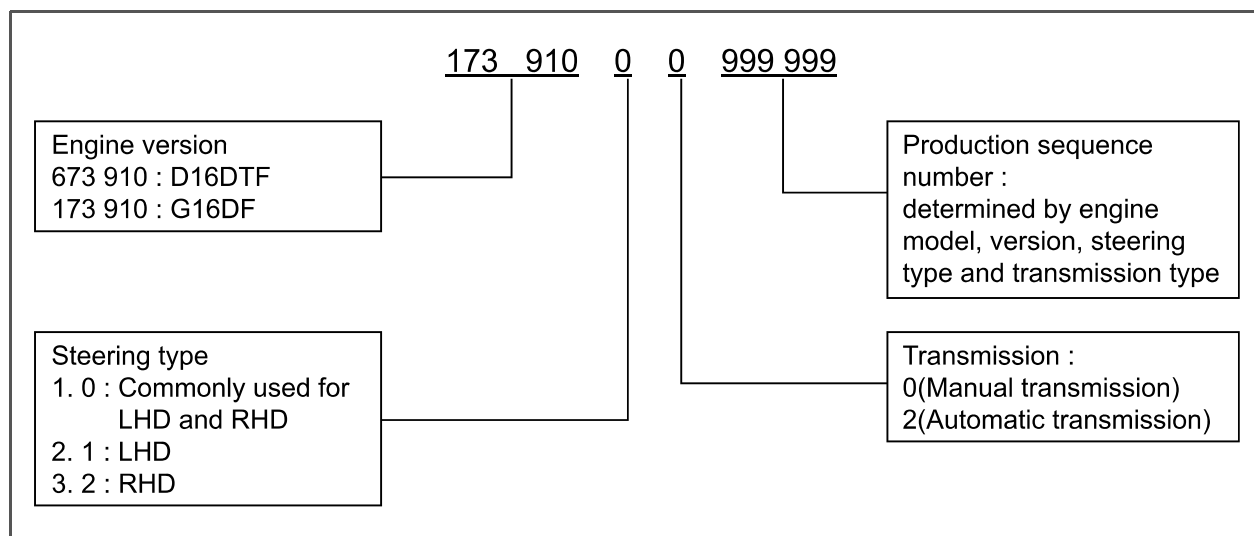
The certification label is located on the driver's door sill.

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	4WD: 1400, 2WD: 1300
		M/T	4WD: 1455, 2WD: 1355	4WD: 1370, 2WD: 1270
	Fuel		Diesel	Gasoline
Engine	Fuel tank capacity (ℓ)		47	←
	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	690 ± 50 rpm
		M/T	780 ± 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
Manual Transaxle	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
Automatic Transaxle	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
Transfer Case	Model		AWD	←
	Type		On demand type	←
Clutch (M/T)	Operating type		Hydraulic (CSC) type	←
	Disc type		Dry single diaphragm type	←
Power Steering	Type		Rack and pinion (EPS)	←
	Steering angle	Inner	37.67°	←
		Outer	31.10°	←
Rear Axle	Drive shaft type	Independent suspension	Ball joint type	←
	Axle housing type		IRDA type	←

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	

► 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)	A/T	4WD: 1535, 2WD: 1425	4WD: 1450, 2WD: 1345
		M/T	4WD: 1505, 2WD: 1405	4WD: 1415, 2WD: 1315
	Fuel		Diesel	Gasoline
Engine	Fuel tank capacity (ℓ)		47	←
	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	690 ± 50 rpm
		M/T	780 ± 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.

Descriptions			Diesel 1.6 Engine	Gasoline 1.6 Engine
Manual Transaxle	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
Automatic Transaxle	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
Transfer Case	Model		AWD	←
	Type		On demand type	←
Clutch (M/T)	Operating type		Hydraulic (CSC) type	←
	Disc type		Dry single diaphragm type	←
Power Steering	Type		Rack and pinion (EPS)	←
	Steering angle	Inner	37.67°	←
		Outer	31.10°	←
Rear Axle	Drive shaft type	Independent suspension	Ball joint type	←
	Axle 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	←

2) Fluid Specifications And Capacity

► TIVOLI

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

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 INTERVAL MAINTENANCE ITEM	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

ENGINE CONTROL SYSTEM

Drive belt	I	I	I	I	I	I	I	I
* Engine oil & filter * ¹ (1)* (3)* (4)*	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
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
	Drain the water from fuel filter when the warning light comes on							
Fuel line & connections	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							

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 MAINTENANCE ITEM	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

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 INTERVAL MAINTENANCE ITEM	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 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
* Engine oil & filter * ¹ (1)* (3)* (4)* (11)* (Initial change: 7500 km)	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
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
	Drain the water from fuel filter when the warning light comes on							
Fuel line & connections	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							

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)

MAINTENANCE INTERVAL MAINTENANCE ITEM	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

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 INTERVAL MAINTENANCE ITEM	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

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	I
Outer ball joint inspection and replacement	I	I	I	I	I	R	I	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	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	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	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

(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 INTERVAL MAINTENANCE ITEM	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
Engine oil & engine oil filter (1)* (3)* (Initial check: 7500 km)	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
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
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
Spark plugs (G16DF)	Change every 100000 km or 5 years.							
Charcoal canister & vapor lines	-	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 MAINTENANCE ITEM	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

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 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

MAINTENANCE INTERVAL MAINTENANCE ITEM	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

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	I
Outer ball joint inspection and replacement	I	I	I	I	I	R	I	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	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	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	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




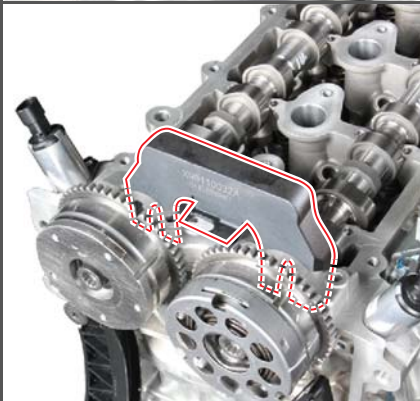


- In hilly or mountainous terrain.

(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	


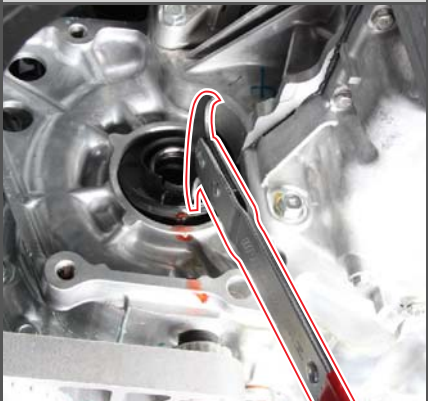

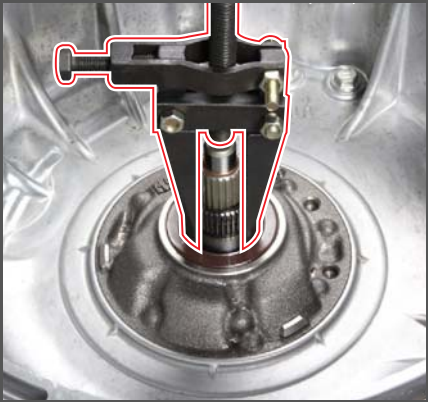
4. SPECIAL TOOL

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

PN & Name	Special Tool	Use
PN: X9948 0052A Name: Rear brake piston fitting tool Use: Used to fit the brake piston when installing the rear brake pad.		
PN: X9941 0060A Name: HUF_TPMS wheel module remover/installer Use: Used to remove and fit valve body of TPMS wheel module		
PN: X9988 0070A Name: Used to remove curtain air bag clip Use: Used to remove retaining clip for curtain air bag		
PN: X9936 0080A (G16DF, D16DTF) Name: AISIN 6 A/T housing bottom oil filler adapter Use: 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
PN: X9936 0090A (G16DF 2WD Only) Name: AISIN 6A/T oil seal installer (RH side) Use: For fitting A/T RH oil seal		
PN: X9936 0100A (G16DF 2WD Only) Name: AISIN 6A/T oil seal installer (LH side) Use: For fitting A/T LH oil seal		
PN: X9936 0110A (2WD, AWD A/T Only) Name: AISIN 6A/T oil seal installer (oil pump) Use: For fitting A/T oil pump oil seal		
PN: X9936 0120A (2WD, AWD A/T Only) Name: AISIN 6 A/T oil seal installer (manual shaft) Use: For fitting A/T manual shaft oil seal		

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

Modification basis	
Application basis	
Affected VIN	

Memo

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