

GENERAL INFORMATION

SECTION 0B MAINTENANCE AND LUBRICATION

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MAINTENANCE SCHEDULE

For General Export

When performing the checks on the following items, regular inspection items should also be checked.

Abbreviations

I : Inspect, clean and correct or replace as necessary

A : Adjust

R : Replace or change

T : Tighten to specified torque

L : Lubricate

[V] : Variation (optional on some models).

[OPT] : Optional equipment.

[4JG] : For 4JG2 engine model.

[4JH] : For 4JH1-TC engine model.

[4J] : For 4J engine models.

[4HF1-2] : For 4HF1-2 engine model.

[4HK1-TC] : For 4HK1-TC engine model.

[4H] : For 4H engine model.

[MT] : For manual transmission model only.

[SA] : For Smoother model only.

*Marks: Under severe driving conditions, more frequent maintenance is required. Refer to "Maintenance schedule under severe driving conditions".

Maintenance Schedule

Use odometer reading or months whichever comes first

[illegible]

SERVICE INTERVAL:	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
	or months	1	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Drive belt tension and damage		I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
[4JH] Drive belt tension and damage		Every 7,500 km (4,500 miles) Inspect																				
Radiator coolant		—	—	—	—	—	—	—	—	R	—	—	—	—	—	—	—	R	—	—	—	—
*Exhaust pipes and mounting damage or looseness		—	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I
Cooling system		—	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I
Engine operation condition		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
[4H] ENGINE																						
*Engine oil		—	—	R	—	R	—	R	—	R	—	R	—	R	—	R	—	R	—	R	—	R
[4HK1-TC] *Engine oil		—	—	—	—	R	—	—	—	R	—	—	—	R	—	—	—	R	—	—	—	R
*Oil filter		—	—	R	—	R	—	R	—	R	—	R	—	R	—	R	—	R	—	R	—	R
[4HK1-TC] *Oil filter		—	—	—	—	R	—	—	—	R	—	—	—	R	—	—	—	R	—	—	—	R
Fuel filter: Main fuel filter		—	—	—	—	R	—	—	—	R	—	—	—	R	—	—	—	R	—	—	—	R
[OPT] Main fuel filter and Sub fuel filter: With sub fuel filter		—	—	—	—	—	—	—	—	R	—	—	—	—	—	—	—	R	—	—	—	—
*Air cleaner element		—	—	I	—	I	—	I	—	R	—	I	—	I	—	I	—	R	—	I	—	I
Idling speed and acceleration		—	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I
Valve clearances		I	—	—	—	—	—	—	—	A	—	—	—	—	—	—	—	A	—	—	—	—
Feed pump strainer (Except [4HF1-2])		—	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I
Fuel tank cap & fuel pipes for loose connections or damage		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—
Drive belt tension and damage		I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Radiator coolant		—	—	—	—	—	—	—	—	R	—	—	—	—	—	—	—	R	—	—	—	—

0B-4 MAINTENANCE AND LUBRICATION

SERVICE INTERVAL:	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
	or months	1	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
*Exhaust pipes and mounting damage or looseness		—	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I
Cooling system		—	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I
Engine operation condition		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
[MT] CLUTCH																						
Clutch fluid		—	—	I	—	I	—	I	—	R	—	I	—	I	—	I	—	R	—	I	—	I
Clutch pedal travel and free play		—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
TRANSMISSION																						
*Manual transmission oil		—	—	I	—	I	—	I	—	R	—	I	—	I	—	I	—	R	—	I	—	I
[SA] Smoother clutch fluid		—	—	I	—	I	—	I	—	R	—	I	—	I	—	I	—	R	—	I	—	I
Gear control mechanism for looseness		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—
Gear control cable		—	—	—	—	A	—	—	—	A	—	—	—	A	—	—	—	A	—	—	—	A
TRANSMISSION WITH TRANSFER CASE (NPS model only)																						
*Transmission with transfer case oil		—	—	I	—	I	—	I	—	I	R	I	—	I	—	—	I	R	—	R	—	I
Gear control mechanism for looseness		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—
Gear control cable		—	—	—	—	A	—	—	—	A	—	—	—	A	—	—	—	A	—	—	—	A
REAR PROPELLER SHAFT																						
*Universal joints and sliding sleeve		—	—	—	—	L	—	—	—	L	—	—	—	L	—	—	—	L	—	—	—	L
Loose connections		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Splines for excessive wear		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—

SERVICE INTERVAL:	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
	or months	1	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Bearings and related parts for looseness		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—
Center bearing		—	—	—	—	L	—	—	—	L	—	—	—	L	—	—	—	L	—	—	—	L
FRONT PROPELLER SHAFT (NPS model only)																						
*Universal joints, double cardan joint and sliding sleeve		—	—	—	L	—	—	L	—	—	L	—	—	L	—	—	L	—	—	L	—	—
Loose connections		—	—	—	I	—	—	I	—	—	I	—	—	I	—	—	I	—	—	I	—	—
Splines for excessive wear		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—
REAR AXLE																						
*Differential gear oil		—	—	I	—	I	—	I	—	R	—	I	—	I	—	I	—	R	—	I	—	I
FRONT AXLE																						
*Kingpin		—	—	L	—	L	—	L	—	L	—	L	—	L	—	L	—	L	—	L	—	L
Differential gear oil (NPS model only)		—	—	—	I	—	—	I	—	—	I/R	—	—	I	—	—	I	—	—	I/R	—	—
STEERING																						
Manual steering gear oil		—	—	—	—	—	—	I	—	—	—	—	—	I	—	—	—	—	—	I	—	—
[OPT] Power steering system oil leakage		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
[OPT] Power steering fluid		—	—	—	—	—	—	—	—	R	—	—	—	—	—	—	—	R	—	—	—	—
* [OPT] Power steering system for looseness or damage		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Fitting of knuckles and front axle for looseness		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Steering mechanism for looseness or damage		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—

0B-6 MAINTENANCE AND LUBRICATION

[illegible]

SERVICE INTERVAL:	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
	or months	1	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Parking brake lever travel		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Lining for wear		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—
Drum for wear or damage		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—
Ratchet for wear or damage		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—
SUSPENSION																						
Spring leaves for damage		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Torsion bar Spring (Independent suspension model only)		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Ball joint boots for damage (Independent suspension model only)		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Mount for looseness or damage		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Rear spring, spring pin and shackle pin (NPS model only)		—	—	L	—	L	—	L	—	L	—	L	—	L	—	L	—	L	—	L	—	L
Shock absorbers for oil leakage		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Shock absorbers mount for looseness		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Ball joint for excessive play (Independent suspension model only)		—	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—
Upper links (Independent suspension model only)		—	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
WHEELS																						
Wheel pins and nuts		T	—	—	—	T	—	—	—	T	—	—	—	T	—	—	—	T	—	—	—	T
Wheel disc for damage		—	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I

0B-8 MAINTENANCE AND LUBRICATION

SERVICE INTERVAL:	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
	or months	1	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Hub bearing grease		—	—	—	—	—	—	—	—	R	—	—	—	—	—	—	—	R	—	—	—	—
Tire pressure and damage		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
ELECTRICAL EQUIPMENT																						
Specific gravity of battery electrolyte		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
OTHERS																						
Lights, horn, windshield, wiper and washer		—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
Drive shaft dust boots for damage (NPS model only)		—	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I
Bolts and nuts on chassis and body		I	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	I	—	—	—	—

Maintenance Schedule under Severe Driving Conditions

Severe driving conditions

A : Repeated short trips

B : Driving on rough roads

C : Driving on dusty roads

D : Driving extremely cold weather and/or on salted roads

Item	Interval	Condition				
		A	B	C	D	A+D
[4JB] [4JG] Engine oil	Change every 2,500 km (1,500 miles)			○		○
[4H] Engine oil	Change every 5,000 km (3,000 miles)			○		○
[4JB] [4JG] [4H] Engine oil filter	Replace every 5,000 km (3,000 miles)			○		○
Exhaust pipes and mounting	Inspect every 10,000 km (6,000 miles)	○	○		○	
Air cleaner element	Replace every 20,000 km (12,000 miles)			○		
Steering system for looseness or damage	Inspect every 5,000 km (3,000 miles)		○			
Universal joints and sliding sleeve grease	Lubricate every 10,000 km (6,000 miles)		○			
Manual transmission and differential gear oil	Change every 20,000 km (12,000 miles)		○			
[SA] Smoother clutch fluid	Change every 20,000 km (12,000 miles)		○			
Brake lining and drum for wear	Inspect every 10,000 km (6,000 miles)	○	○	○		
Disc brake pads and discs for wear	Inspect every 5,000 km (3,000 miles)	○	○	○		
[4JH] Engine oil	Change every 7,500 km (4,500 miles)			○		○

Item	Interval	Condition				
		A	B	C	D	A+D
[4JH] Engine oil filter	Replace every 7,500 km (4,500 miles)			○		○
[4JH] Air cleaner element	Replace every 10,000 km (6,000 miles)			○		

[illegible]

0B-12 MAINTENANCE AND LUBRICATION

SERVICE INTERVAL: (Use odometer reading or months Whichever comes first)	× 1,000 km	10	20	30	40	50	60	70	80	90	100	
	× 1,000 mile	6	12	18	24	30	36	42	48	54	60	
PARKING BRAKE												
Parking brake cables		I	I	I	I	I	I	I	I	I	I	or every 6 months
Parking brake function		I	I	I	I	I	I	I	I	I	I	or every 6 months
Parking brake lever travel		I	I	I	I	I	I	I	I	I	I	or every 6 months
Linings for wear		—	—	—	I	—	—	—	I	—	—	or every 24 months
Drum for wear or damage		—	—	—	I	—	—	—	I	—	—	or every 24 months
Ratchet for wear or damage		—	—	—	I	—	—	—	I	—	—	or every 24 months
SUSPENSION												
Spring leaves for damage		I	I	I	I	I	I	I	I	I	I	or every 6 months
Torsion bar spring (Independent suspension model only)		I	I	I	I	I	I	I	I	I	I	or every 6 months
Ball joint boots for damage (Independent suspension model only)		I	I	I	I	I	I	I	I	I	I	or every 6 months
Ball joints for excessive play (Independent suspension model only)		—	—	—	I	—	—	—	I	—	—	or every 24 months
Mounts for looseness or damage		I	I	I	I	I	I	I	I	I	I	or every 6 months
Shock absorbers for oil leakage		I	I	I	I	I	I	I	I	I	I	or every 6 months
Shock absorbers mount for looseness		I	I	I	I	I	I	I	I	I	I	or every 6 months
Upper links (Independent suspension model only)		L	L	L	L	L	L	L	L	L	L	or every 6 months
WHEELS												
Wheel pins and nuts		—	T	—	T	—	T	—	T	—	T	or every 12 months
Wheel discs for damage		—	I	—	I	—	I	—	I	—	I	or every 12 months
Hub bearings grease		—	—	—	R	—	—	—	R	—	—	or every 24 months
Tire pressures and damage		I	I	I	I	I	I	I	I	I	I	or every 6 months
ELECTRICAL EQUIPMENT												
Specific gravity of battery electrolyte		I	I	I	I	I	I	I	I	I	I	or every 6 months
OTHERS												
Lights, horn, windshield, wiper and washers		I	I	I	I	I	I	I	I	I	I	or every 6 months
Bolts and nuts on chassis and body		—	—	—	I	—	—	—	I	—	—	or every 24 months

(I): Inspect and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

Maintenance Schedule: 4JH1-TC Engine Model (Engine Oil that Meets or Exceeds ACEA B3 Specification)

[illegible]

0B-14 MAINTENANCE AND LUBRICATION

[illegible]

SERVICE INTERVAL: (Use odometer reading or months Whichever comes first)	× 1,000 km	15	30	45	60	75	90	105	120	135	150	
	× 1,000 mile	9	18	27	36	45	54	63	72	81	90	
Torsion bar spring (Independent suspension model only)		I	I	I	I	I	I	I	I	I	I	or every 9 months
Ball joint boots for damage (Independent suspension model only)		I	I	I	I	I	I	I	I	I	I	or every 9 months
Ball joints for excessive play (Independent suspension model only)		—	—	—	I	—	—	—	I	—	—	or every 36 months
Mounts for looseness or damage		I	I	I	I	I	I	I	I	I	I	or every 9 months
Shock absorbers for oil leakage		I	I	I	I	I	I	I	I	I	I	or every 9 months
Shock absorbers mount for looseness		I	I	I	I	I	I	I	I	I	I	or every 9 months
Upper links (Independent suspension model only)		L	L	L	L	L	L	L	L	L	L	or every 9 months
WHEELS												
Wheel pins and nuts		—	T	—	T	—	T	—	T	—	T	or every 18 months
Wheel discs for damage		—	I	—	I	—	I	—	I	—	I	or every 18 months
Hub bearings grease		—	—	—	R	—	—	—	R	—	—	or every 36 months
Tire pressures and damage		I	I	I	I	I	I	I	I	I	I	or every 9 months
ELECTRICAL EQUIPMENT												
Specific gravity of battery electrolyte		I	I	I	I	I	I	I	I	I	I	or every 9 months
OTHERS												
Lights, horn, windshield, wiper and washers		I	I	I	I	I	I	I	I	I	I	or every 9 months
Bolts and nuts on chassis and body		—	—	—	I	—	—	—	I	—	—	or every 36 months

(I): Inspect and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

[illegible]

0B-18 MAINTENANCE AND LUBRICATION

SERVICE INTERVAL: (Use odometer reading or months Which-ever comes first)	km	11250	22500	33750	45000	56250	67500	78750	90000	
	mile	7000	14000	21000	28000	35000	42000	49000	56000	
Shock absorbers for oil leakage		I	I	I	I	I	I	I	I	or every 7 months
Shock absorbers mount for looseness		I	I	I	I	I	I	I	I	or every 7 months
WHEELS										
Wheel pins and nuts		T	T	T	T	T	T	T	T	or every 7 months
Wheel discs for damage		I	I	I	I	I	I	I	I	or every 7 months
Hub bearings grease		—	—	—	R	—	—	—	R	or every 28 months
Tire pressures and damage		I	I	I	I	I	I	I	I	or every 7 months
ELECTRICAL EQUIPMENT										
Specific gravity of battery electrolyte		I	I	I	I	I	I	I	I	or every 7 months
OTHERS										
Lights, horn, windshield, wiper and washers		I	I	I	I	I	I	I	I	or every 7 months
Bolts and nuts on chassis and body		—	—	—	I	—	—	—	I	or every 28 months

(I): Inspect and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque
(L): Lubricate

Maintenance schedule: 4HK1-TC engine model

SERVICE INTERVAL: (Use odometer reading or months Which-ever comes first)	km	11250	22500	33750	45000	56250	67500	78750	90000	
	mile	7000	14000	21000	28000	35000	42000	49000	56000	
ENGINE										
*Engine oil	Change every 20,000 km (12,000 miles)									or every 12 months
*Engine oil filter	Change every 20,000 km (12,000 miles)									or every 12 months
Fuel filter: Main fuel filter	—	R	—	R	—	R	—	R		or every 14 months
[OPT] Main fuel filter and Sub fuel filter: with Sub fuel filter	—	—	—	R	—	—	—	R		or every 28 months
*Air cleaner element	I	I	I	R	I	I	I	R		or every 28 months
Idling speed and acceleration	—	I	—	I	—	I	—	I		or every 14 months
Valve clearances	—	—	—	A	—	—	—	A		or every 28 months
Feed pump strainer	—	I	—	I	—	I	—	I		or every 14 months
Fuel tank cap and fuel pipes for loose connections or damage	—	—	—	I	—	—	—	I		or every 28 months
Drive belt tension and damage	I	I	I	I	I	I	I	I		or every 7 months
Radiator coolant	—	—	—	R	—	—	—	R		or every 28 months
*Exhaust pipes and mountings for looseness or damage	—	I	—	I	—	I	—	I		or every 14 months
Cooling system for water leakage	—	I	—	I	—	I	—	I		or every 14 months
Engine operation condition	I	I	I	I	I	I	I	I		or every 7 months
CLUTCH										
Clutch fluid	I	I	I	R	I	I	I	R		or every 28 months
Clutch pedal travel and free play	I	I	I	I	I	I	I	I		or every 7 months
TRANSMISSION										
*Manual transmission oil	I	I	I	R	I	I	I	R		or every 28 months
[SA] Smoother clutch fluid	I	I	I	R	I	I	I	R		or every 24 months
Gear control mechanism for looseness	—	—	—	I	—	—	—	I		or every 21 months
Gear control cables	—	A	—	A	—	A	—	A		or every 14 months
TRANSMISSION WITH TRANSFER CASE (NPS model only)										
*Transmission with transfer case oil	I	I	I	R	I	I	I	R		or every 28 months
Gear control mechanism for looseness	—	—	—	I	—	—	—	I		or every 21 months
Gear control cables	—	A	—	A	—	A	—	A		or every 14 months

0B-20 MAINTENANCE AND LUBRICATION

[illegible]

SERVICE INTERVAL: (Use odometer reading or months Which-ever comes first)	km	11250	22500	33750	45000	56250	67500	78750	90000	
	mile	7000	14000	21000	28000	35000	42000	49000	56000	
Parking brake function		I	I	I	I	I	I	I	I	or every 7 months
Parking brake lever travel		I	I	I	I	I	I	I	I	or every 7 months
Linings for wear		—	—	—	I	—	—	—	I	or every 28 months
Drum for wear or damage		—	—	—	I	—	—	—	I	or every 28 months
Ratchet for wear or damage		—	—	—	I	—	—	—	I	or every 28 months
SUSPENSION										
Spring leaves for damage		I	I	I	I	I	I	I	I	or every 7 months
Mounts for looseness or damage		I	I	I	I	I	I	I	I	or every 7 months
Shock absorbers for oil leakage		I	I	I	I	I	I	I	I	or every 7 months
Shock absorbers mount for looseness		I	I	I	I	I	I	I	I	or every 7 months
WHEELS										
Wheel pins and nuts		T	T	T	T	T	T	T	T	or every 7 months
Wheel discs for damage		I	I	I	I	I	I	I	I	or every 7 months
Hub bearings grease		—	—	—	R	—	—	—	R	or every 28 months
Tire pressures and damage		I	I	I	I	I	I	I	I	or every 7 months
ELECTRICAL EQUIPMENT										
Specific gravity of battery electrolyte		I	I	I	I	I	I	I	I	or every 7 months
OTHERS										
Lights, horn, windshield, wiper and washers		I	I	I	I	I	I	I	I	or every 7 months
Bolts and nuts on chassis and body		—	—	—	I	—	—	—	I	or every 28 months

(I): Inspect and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

0B-22 MAINTENANCE AND LUBRICATION

Maintenance Schedule under Severe Driving Conditions

Severe driving conditions

A : Repeated short trips

B : Driving on rough roads

C : Driving on dusty roads

D : Driving in extremely cold weather and/or on salted roads

Item	Interval	Condition				
		A	B	C	D	A+D
Engine oil	Change every 5,000 km (3,000 miles)			○		○
Engine oil filter	Replace every 5,000 km (3,000 miles)			○		○
Air cleaner element	Replace every 20,000 km (12,000 miles)			○		
Exhaust pipes and mountings for looseness or damage	Inspect every 10,000 km (6,000 miles)	○	○		○	
Manual transmission oil and differential gear oil	Change every 20,000 km (12,000 miles)		○			
[SA] Smoother clutch fluid	Change every 20,000 km (12,000 miles)		○			
Universal joints and sliding sleeve grease	Lubricate every 10,000 km (6,000 miles)		○			
Kingpins	Lubricate every 5,000 km (3,000 miles)			○	○	
Steering system for looseness or damage	Inspect every 5,000 km (3,000 miles)		○			
Brake linings and drums for wear	Inspect every 5,000 km (3,000 miles)	○	○	○		
Disc brake pads and discs for wear	Inspect every 5,000 km (3,000 miles)	○	○	○		

0B-24 MAINTENANCE AND LUBRICATION

SERVICE INTERVAL: (Use odometer reading or months Whichever comes first)	× 1,000 km	20	40	60	80	100	120	
	× 1,000 mile	12	24	36	48	60	72	
Loose connections		I	I	I	I	I	I	Or every 6 months
Splines for excessive wear		—	—	I	—	—	I	Or every 24 months
Bearings and related parts for looseness		—	—	I	—	—	I	Or every 24 months
Center bearing		L	L	L	L	L	L	Or every 12 months
REAR AXLE								
*Differential gear oil		I	I	R	I	I	R	Or every 24 months
FRONT AXLE								
*Kingpins		L	L	L	L	L	L	Or every 9 months
STEERING								
Power steering system oil leakage		I	I	I	I	I	I	Or every 9 months
Power steering system for looseness or damage		I	I	I	I	I	I	Or every 9 months
Power steering fluid		—	—	R	—	—	R	Or every 36 months
Power steering hoses		—	—	—	—	—	R	Or every 72 months
Fitting of knuckles and front axle for looseness		I	I	I	I	I	I	Or every 9 months
Steering mechanism for looseness or damage		—	—	I	—	—	I	Or every 36 months
Ball joints for damage (Independent suspension model only)		I	I	I	I	I	I	Or every 9 months
Ball joints for excessive play (Independent suspension model only)		I	I	I	I	I	I	Or every 9 months
Relay lever shaft for excessive play (Independent suspension model only)		I	I	I	I	I	I	Or every 9 months
Steering wheel play		I	I	I	I	I	I	Or every 9 months
Steering function		I	I	I	I	I	I	Or every 9 months
Wheel alignment		—	—	I	—	—	I	Or every 36 months
SERVICE BRAKES								
Brake fluid		I	I	R	I	I	R	Or every 36 months
Brake system for fluid leakage		I	I	I	I	I	I	Or every 9 months
*Brake linings and drums for wear		I	I	I	I	I	I	Or every 9 months
*Disc brake pads and discs for wear		I	I	I	I	I	I	Or every 9 months
Brake pedal travel and free play		I	I	I	I	I	I	Or every 9 months
Pipes and hoses for loose connections or damage		I	I	I	I	I	I	Or every 9 months
PARKING BRAKE								

SERVICE INTERVAL: (Use odometer reading or months Whichever comes first)	× 1,000 km	20	40	60	80	100	120	
	× 1,000 mile	12	24	36	48	60	72	
Parking brake cables		I	I	I	I	I	I	Or every 9 months
Parking brake function		I	I	I	I	I	I	Or every 9 months
Parking brake lever travel		I	I	I	I	I	I	Or every 9 months
Linings for wear		—	—	I	—	—	I	Or every 36 months
Drum for wear or damage		—	—	I	—	—	I	Or every 36 months
Ratchet for wear or damage		—	—	I	—	—	I	Or every 36 months
SUSPENSION								
Spring leaves for damage		I	I	I	I	I	I	Or every 9 months
Torsion bar spring (Independent suspension model only)		I	I	I	I	I	I	Or every 9 months
Ball joint boots for damage (Independent suspension model only)		I	I	I	I	I	I	Or every 9 months
Ball joints for excessive play (Independent suspension model only)		—	—	I	—	—	I	Or every 36 months
Mounts for looseness or damage		I	I	I	I	I	I	Or every 9 months
Shock absorbers for oil leakage		I	I	I	I	I	I	Or every 9 months
Shock absorbers mount for looseness		I	I	I	I	I	I	Or every 9 months
Upper links (Independent suspension model only)		L	L	L	L	L	L	Or every 9 months
WHEELS								
Wheel pins and nuts		—	T	—	T	—	T	Or every 18 months
Wheel discs for damage		—	I	—	I	—	I	Or every 18 months
Hub bearings grease		—	—	R	—	—	R	Or every 36 months
Tire pressures and damage		I	I	I	I	I	I	Or every 9 months
ELECTRICAL EQUIPMENT								
Specific gravity of battery electrolyte		I	I	I	I	I	I	Or every 9 months
OTHERS								
Lights, horn, windshield, wiper and washers		I	I	I	I	I	I	Or every 9 months
Bolts and nuts on chassis and body		—	—	I	—	—	I	Or every 36 months

(I): Inspect and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

Maintenance Schedule: 4JH1-TC Engine Model (ACEA B2 Specification Engine Oil)

[illegible]

[illegible]

0B-28 MAINTENANCE AND LUBRICATION

SERVICE INTERVAL: (Use odometer reading or months Whichever comes first)	× 1,000 km	15	30	45	60	75	90	105	120	135	150	
	× 1,000 mile	9	18	27	36	45	54	63	72	81	90	
Torsion bar spring (Independent suspension model only)		I	I	I	I	I	I	I	I	I	I	or every 9 months
Ball joint boots for damage (Independent suspension model only)		I	I	I	I	I	I	I	I	I	I	or every 9 months
Ball joints for excessive play (Independent suspension model only)		—	—	—	I	—	—	—	I	—	—	or every 36 months
Mounts for looseness or damage		I	I	I	I	I	I	I	I	I	I	or every 9 months
Shock absorbers for oil leakage		I	I	I	I	I	I	I	I	I	I	or every 9 months
Shock absorbers mount for looseness		I	I	I	I	I	I	I	I	I	I	or every 9 months
Upper links (Independent suspension model only)		L	L	L	L	L	L	L	L	L	L	or every 9 months
WHEELS												
Wheel pins and nuts		—	T	—	T	—	T	—	T	—	T	or every 18 months
Wheel discs for damage		—	I	—	I	—	I	—	I	—	I	or every 18 months
Hub bearings grease		—	—	—	R	—	—	—	R	—	—	or every 36 months
Tire pressures and damage		I	I	I	I	I	I	I	I	I	I	or every 9 months
ELECTRICAL EQUIPMENT												
Specific gravity of battery electrolyte		I	I	I	I	I	I	I	I	I	I	or every 9 months
OTHERS												
Lights, horn, windshield, wiper and washers		I	I	I	I	I	I	I	I	I	I	or every 9 months
Bolts and nuts on chassis and body		—	—	—	I	—	—	—	I	—	—	or every 36 months

(I): Inspect and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

Maintenance schedule: 4HK1-TC engine model

SERVICE INTERVAL: (Use odometer reading or months Which-ever comes first)	km	11250	22500	33750	45000	56250	67500	78750	90000	
	mile	7000	14000	21000	28000	35000	42000	49000	56000	
ENGINE										
*Engine oil		Change every 20,000 km (12,000 miles)								or every 12 months
*Engine oil filter		Change every 20,000 km (12,000 miles)								or every 12 months
Fuel filter: Main fuel filter		—	R	—	R	—	R	—	R	or every 14 months
[OPT] Main fuel filter and Sub fuel filter: with Sub fuel filter		—	—	—	R	—	—	—	R	or every 28 months
*Air cleaner element		I	I	I	R	I	I	I	R	or every 28 months
Idling speed and acceleration		—	I	—	I	—	I	—	I	or every 14 months
Valve clearances		—	—	—	A	—	—	—	A	or every 28 months
Feed pump strainer		—	I	—	I	—	I	—	I	or every 14 months
Fuel tank cap and fuel pipes for loose connections or damage		—	—	—	I	—	—	—	I	or every 28 months
Drive belt tension and damage		I	I	I	I	I	I	I	I	or every 7 months
Radiator coolant		—	—	—	R	—	—	—	R	or every 28 months
*Exhaust pipes and mountings for looseness or damage		—	I	—	I	—	I	—	I	or every 14 months
Cooling system for water leakage		—	I	—	I	—	I	—	I	or every 14 months
Engine operation condition		I	I	I	I	I	I	I	I	or every 7 months
CLUTCH										
Clutch fluid		I	I	I	R	I	I	I	R	or every 28 months
Clutch pedal travel and free play		I	I	I	I	I	I	I	I	or every 7 months
TRANSMISSION										
*Manual transmission oil		I	I	I	R	I	I	I	R	or every 28 months
[SA] Smoother clutch fluid		I	I	I	R	I	I	I	R	or every 24 months
Gear control mechanism for looseness		—	—	—	I	—	—	—	I	or every 21 months
Gear control cables		—	A	—	A	—	A	—	A	or every 14 months
PROPELLER SHAFT										
*Universal joints and sliding sleeve grease		—	L	—	L	—	L	—	L	or every 14 months
Loose connections		I	I	I	I	I	I	I	I	or every 7 months
Splines for excessive wear		—	—	—	I	—	—	—	I	or every 28 months
Bearings and related parts for looseness		—	—	—	I	—	—	—	I	or every 28 months
Center bearing		—	L	—	L	—	L	—	L	or every 14 months

0B-30 MAINTENANCE AND LUBRICATION

[illegible]

SERVICE INTERVAL: (Use odometer reading or months Which-ever comes first)	km	11250	22500	33750	45000	56250	67500	78750	90000	
	mile	7000	14000	21000	28000	35000	42000	49000	56000	
Shock absorbers for oil leakage		I	I	I	I	I	I	I	I	or every 7 months
Shock absorbers mount for looseness		I	I	I	I	I	I	I	I	or every 7 months
WHEELS										
Wheel pins and nuts		T	T	T	T	T	T	T	T	or every 7 months
Wheel discs for damage		I	I	I	I	I	I	I	I	or every 7 months
Hub bearings grease		—	—	—	R	—	—	—	R	or every 28 months
Tire pressures and damage		I	I	I	I	I	I	I	I	or every 7 months
ELECTRICAL EQUIPMENT										
Specific gravity of battery electrolyte		I	I	I	I	I	I	I	I	or every 7 months
OTHERS										
Lights, horn, windshield, wiper and washers		I	I	I	I	I	I	I	I	or every 7 months
Bolts and nuts on chassis and body		—	—	—	I	—	—	—	I	or every 28 months

(I): Inspect and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

0B-32 MAINTENANCE AND LUBRICATION

Maintenance Schedule under Severe Driving Conditions

Severe driving conditions

A : Repeated short trips

B : Driving on rough roads

C : Driving on dusty roads

D : Driving in extremely cold weather and/or on salted roads

Item	Interval	Condition				
		A	B	C	D	A+D
Engine oil	Change every 5,000 km (3,000 miles)			○		○
Engine oil filter	Replace every 5,000 km (3,000 miles)			○		○
Air cleaner element	Replace every 20,000 km (12,000 miles)			○		
Exhaust pipes and mountings for looseness or damage	Inspect every 10,000 km (6,000 miles)	○	○		○	
Manual transmission oil and differential gear oil	Change every 20,000 km (12,000 miles)		○			
[SA] Smoother clutch fluid	Change every 20,000 km (12,000 miles)		○			
Universal joints and sliding sleeve grease	Lubricate every 10,000 km (6,000 miles)		○			
Kingpins	Lubricate every 5,000 km (3,000 miles)			○	○	
Steering system for looseness or damage	Inspect every 5,000 km (3,000 miles)		○			
Brake linings and drums for wear	Inspect every 5,000 km (3,000 miles)	○	○	○		
Disc brake pads and discs for wear	Inspect every 5,000 km (3,000 miles)	○	○	○		

RECOMMENDED FLUIDS, LUBRICANTS AND DIESEL FUELS

Recommended Fluids, Lubricants and Diesel Fuels

In order to obtain maximum performance and longest service life from ISUZU vehicles, it is very important to select and use correctly best lubricants and diesel fuels.

When lubricating, be sure to use ISUZU genuine lubricants or recommended lubricants listed below, according to the maintenance schedule for each vehicle model.

The lubrication intervals in the maintenance schedule and the coverage and period of new vehicle warranty are based on the use of ISUZU genuine lubricants or recommended lubricants as given in the chart which will serve as a guide for selecting lubricants of proper brand name.

LUBRICATION	MAKER	BRAND/TYPE	GRADE		
			API	ACEA	JASO
Diesel engine crankcase	ISUZU GENUINE	BESCO MULTI-Z TYPE CF-4 (10W-30)	CF-4		
	ISUZU GENUINE	BESCO S-3 (10W, 20W, 30, 40)	CD		
	Caltex/Chevron	Delo CXJ (15W-40/20W-50/40)	CF		DH-1
		Delo 400 Multigrade (15W-40)	CE/CF/CI-4	E3/E5	DH-1
	Shell	Rimula X (15W-40)	CH-4	E3	DH-1
		Rimula D (15W-40/30/40)	CF		
	Elf	Perfo 3F (15W-40)	CF-4/CE	B2/E2	
	Total	Rubia XT (15W-40)	CF-4	E2	
	Castrol	RX Super Plus (15W-40)	CH-4	E3	
		Tection J Plus (15W-40)	CH-4	E3/B3	DH-1
	BP	BP Vanellus C6 (15W-40)	CH-4	E3	
	ExxonMobil	Essolube XTJ (15W-40)	CF-4		DH-1
		Exxon/Essolube XD-3 (15W-40)	CI-4		
Differential	ISUZU GENUINE	BESCO GEAR OIL SH (80W-90, 90, 140)	GL-5		
	Caltex	Thuban GL-5 EP (80W-90/85W-140)	GL-5		
	Shell	Spirax A (140)	GL-5		
	Elf	Tranself Type B (80W-90/85W-140)	GL-5		
	Total	Transmission TM (80W-90/85W-140)	GL-5		
	Castrol	EPX 90 (90)	GL-5		
		Dynadrive (80W-90)	GL-5		
	BP	Energear Hypo (90)	GL-5		
		Energear EP (80W-90)	GL-5		
	ExxonMobil	Mobilube HD (80W-90)	GL-5		
		Esso Gear Oil GX (80W-90)	GL-5		

0B-34 MAINTENANCE AND LUBRICATION

LUBRICATION	MAKER	BRAND/TYPE	GRADE		
			API	ACEA	JASO
Differential (Limited slip differential)	ISUZU GENUINE	BESCO GEAR OIL LSD (140)	*GL-5		
	Caltex	Gear Oil LSD (90)	GL-5		
	Shell	Spirax A LS 90 (90)	GL-5		
	Elf	Tranself Type BLS (90)	GL-5		
	Total	Transmission DA (85W-90)	GL-5		
	Castrol	Hypoy LSX (90)	GL-5		
	BP	Energear LS-M (90)	GL-5		
	ExxonMobil	Mobilube LS (85W-90)	GL-5		
		Esso Gear Oil LSA (85W-90)	GL-5		
Manual transmission Transfer case	ISUZU GENUINE	BESCO GEAR OIL TRANSAXLE (5W-30)	SG		
	Caltex/Chevron	Delo 400 Multigrade (15W-40)	CD/CE/CF/CI-4	E3/E5	DH-1
	Shell	Helix Plus (15W-50)	SJ/CF	A3/B3	
	Elf	Super Sporti (15W-40)	SG/CD		
	Total	Quartz 5000 (15W-40/20W-50)	SJ/CF	A2/B2	
	Castrol	RX Super Plus (15W-40)	CD/CE/CF		
	BP	BP Vanellus C6 (15W-40)	CD/CE/CF		
Power steering Hydro brake booster	ISUZU GENUINE	BESCO ATF II, ATF III			
	Caltex/Texaco	Texamatic 1888 (Dexron III)			
	Shell	Donax TG (Dexron III)			
	Elf	ELFMATIC G3 (Dexron III)			
	Total	Total Fluid AT 42 (Dexron III)			
	Castrol	TQ Dexron III (Dexron III)			
	BP	Autoran DX3 (Dexron III)			
Clutch (Smoother)	ISUZU GENUINE	BESCO ATF III or equivalent to BESCO ATF III			
Center bearing King pin Upper links (Multi purpose grease)	ISUZU GENUINE	BESCO L-2 GREASE (No.2), L-3 GREASE (No.3)			
	Caltex/Texaco	Starplex-2 (No.2)			
	Shell	Retinax LX2 (No.2)			
	Total	Multis EP2/EP3 (No.2/No.3)			
	Castrol	LM Grease (No.2/No.3)			
	BP	Energear LS (No.2/No.3)			
Propeller shaft sliding yoke Universal joint (Multi purpose grease containing molybdenum disulfide)	ISUZU GENUINE	ONE LUBER MO GREASE			
	Caltex	Molytex Grease EP2 (No.2)			
	Shell	Retinax HDX2 (No.2)			
	Total	Total Multis MS2 (No.2/No.3)			

LUBRICATION	MAKER	BRAND/TYPE	GRADE		
			API	ACEA	JASO
Engine cooling system	ISUZU GENUINE Caltex/Texaco/ Chevron	BESCO LLC SUPER TYPE E			
		Extended Life Coolant			
		Havoline XLC			
		Delo XLC			

* If GL-5 Limited Slip Differential Lubricant is not available, use GL-5 Lubricant together with Limited Slip Differential Lubricant additive (Parts No. 8-01052-358-0) or equivalent.

FLUID	TYPE
Clutch and brake fluid reservoir	Besco brake fluid SUPER Hydraulic brake fluid SAE J1703 FMVSS 116 DOT.3 grade

DIESEL FUEL/APPLICABLE STANDARD	
JIS (JAPANESE INDUSTRIAL STANDARD)	Based on K2204 GAS OIL
DIN (DEUTSCHE INDUSTRIE NORMEN)	Based on EN590: 1997
SAE (SOCIETY OF AUTOMOTIVE ENGINEERS)	Based on SAE J-313C
BS (BRITISH STANDARD)	Based on BS EN590-1997

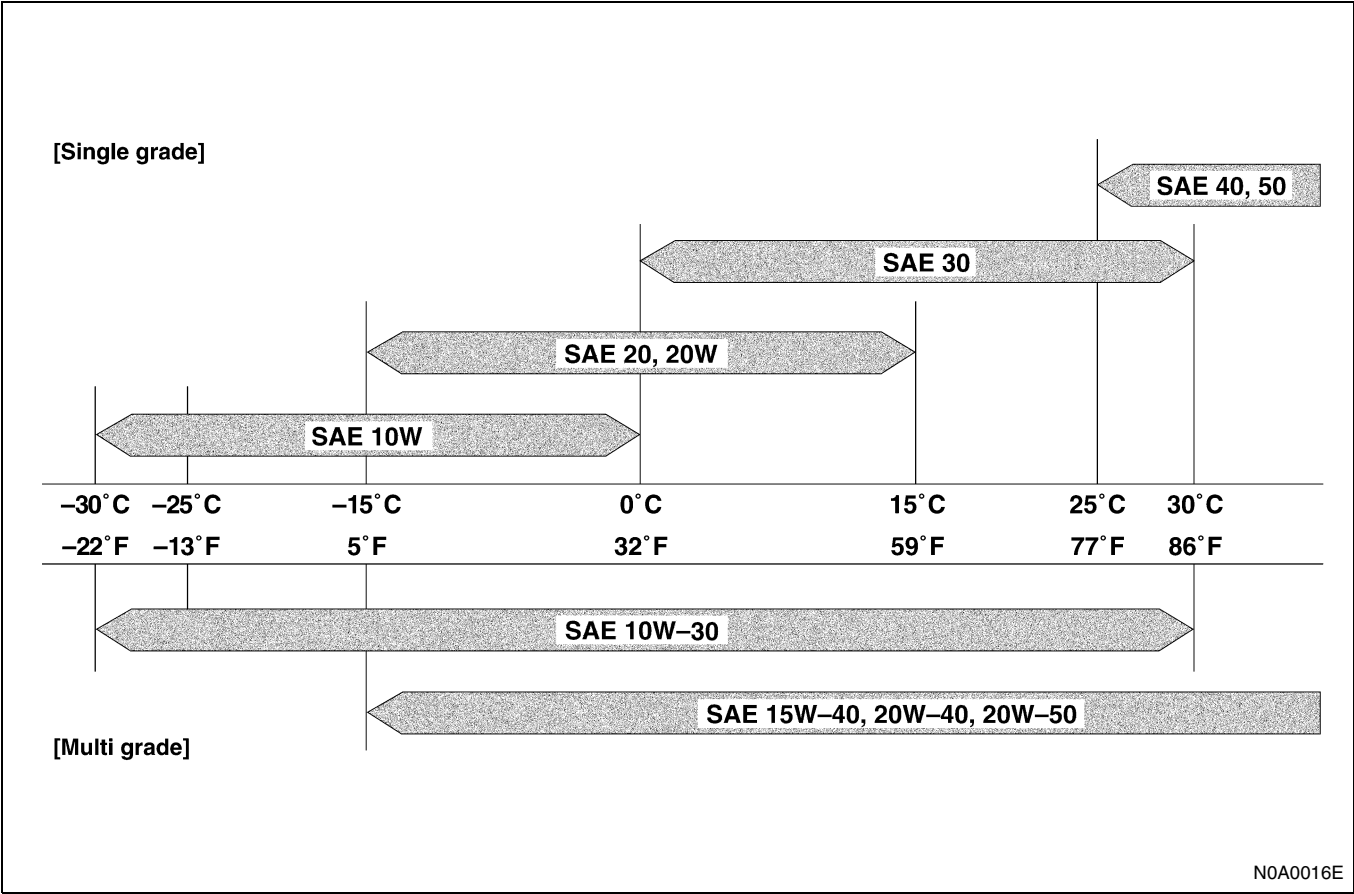
Notice:

When the recommended lubricants are specified in this manual, follow them.

OIL VISCOSITY CHART

Engine Oil

Engine Oil Viscosity Grade - Ambient Temperature

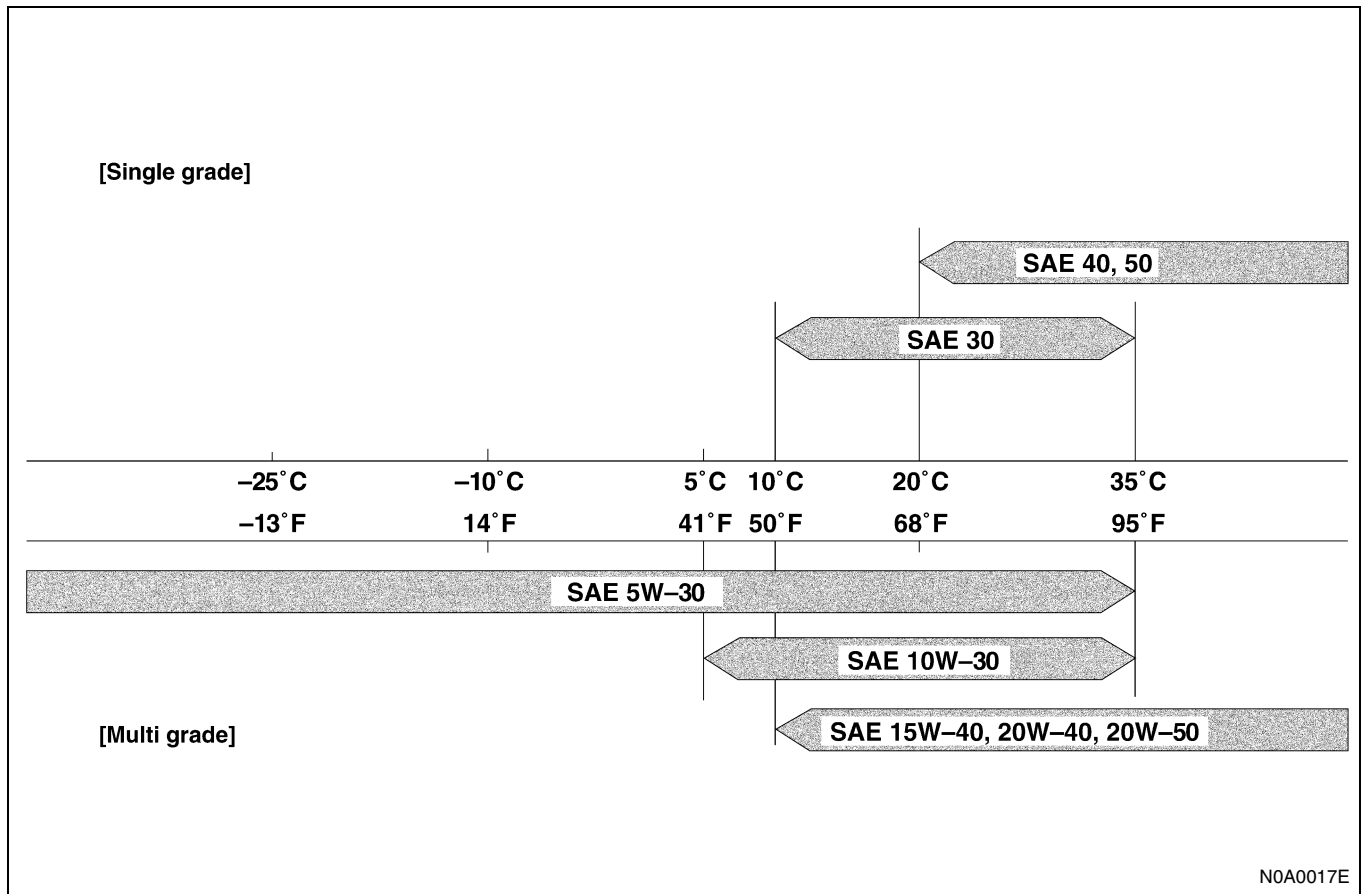


DO NOT USE SYNTHETIC OILS.

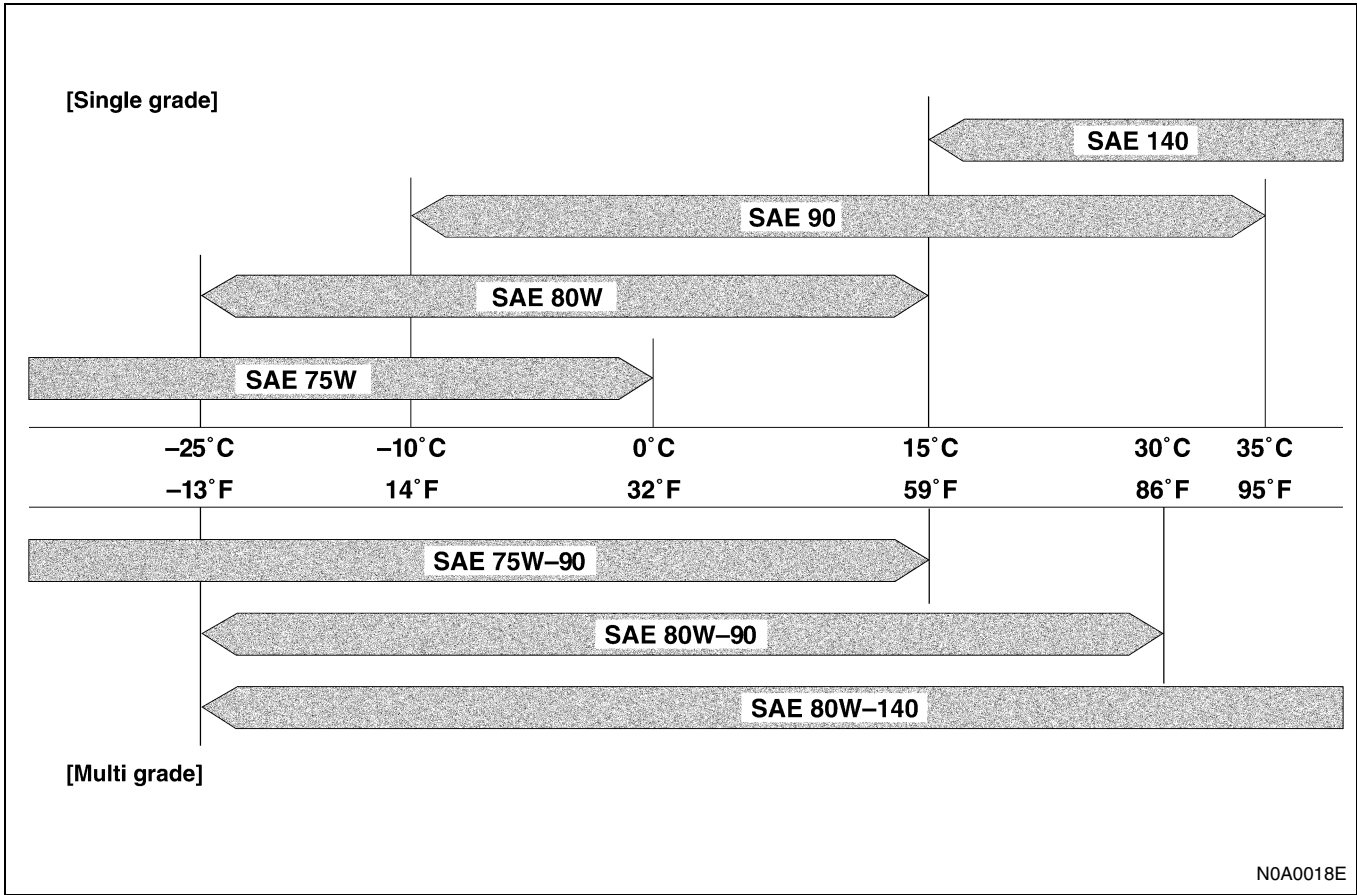
* At ambient temperatures below -25°C (-13°F), starting aids (oil pan heater, block heater, etc.) are recommended to prevent hard starting and other engine problems.

Manual Transmission and Transfer Case Oil (Engine Oil)

Viscosity Grade - Ambient Temperature

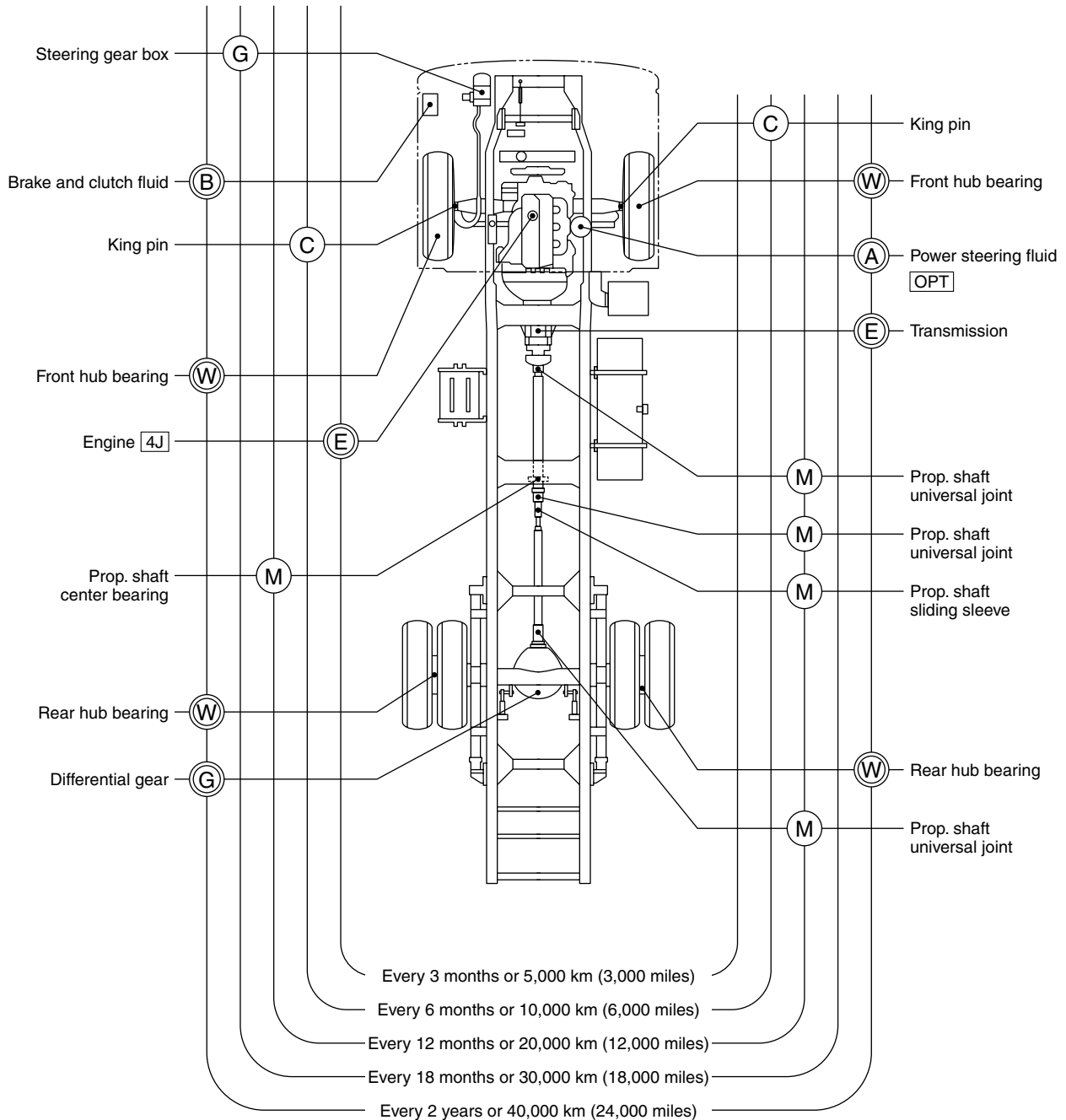


Front Axle and Rear Axle Oil
Gear Oil Viscosity Grade - Ambient Temperature



LUBRICATION CHART

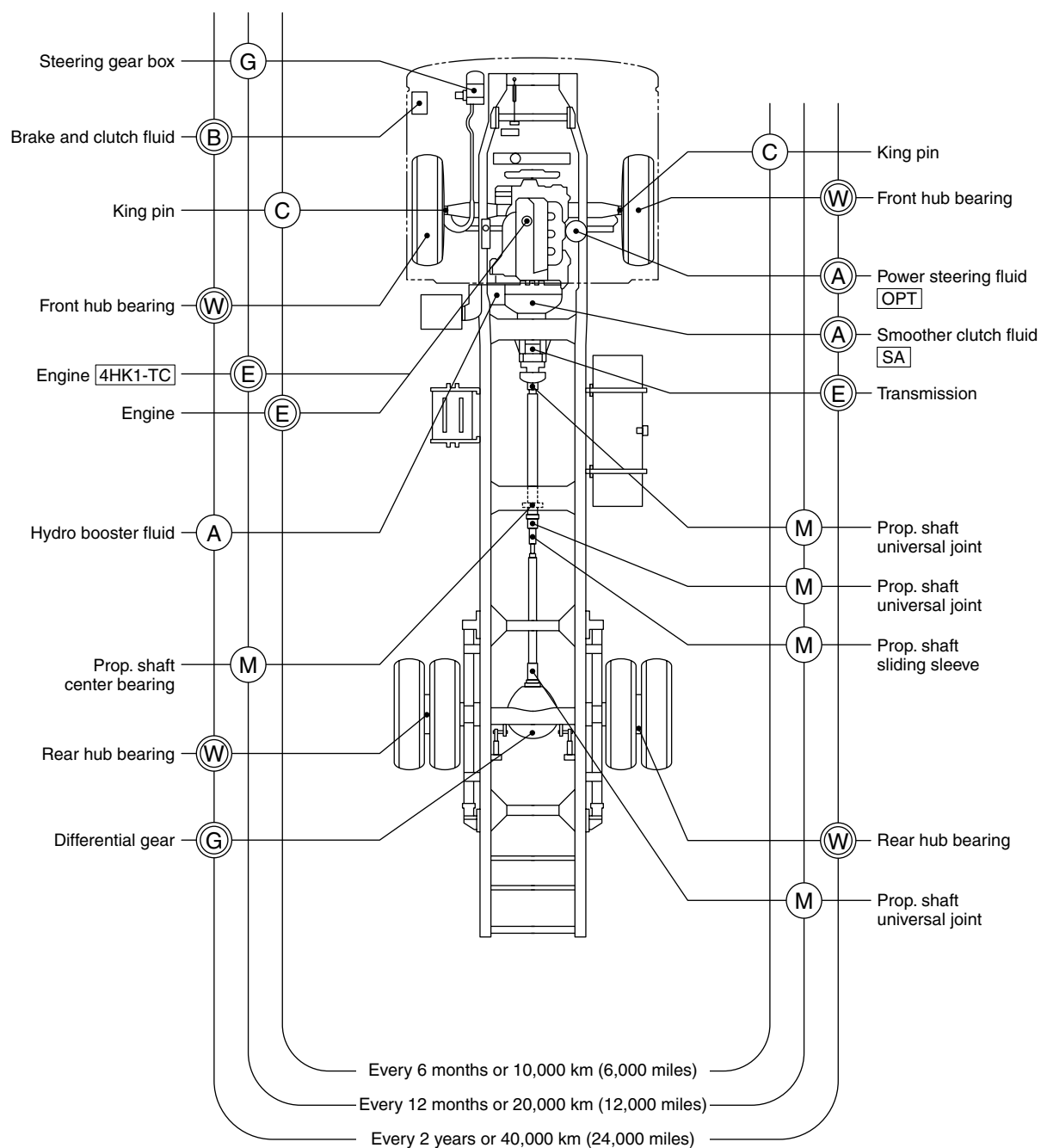
NHR55/69 Models



○ : Change
 ○ : Check and Replenish or Lubricate
 E : Engine oil
 G : Gear oil

W : Wheel bearing grease
 C : Multipurpose type grease
 M : MoS₂ contained type grease
 B : Brake fluid
 A : Automatic transmission fluid

NKR66/71, NPR66/70/71/75, NQR66/70/71/75 Models



⊙ : Change

○ : Check and Replenish or Lubricate

E : Engine oil

G : Gear oil

W : Wheel bearing grease

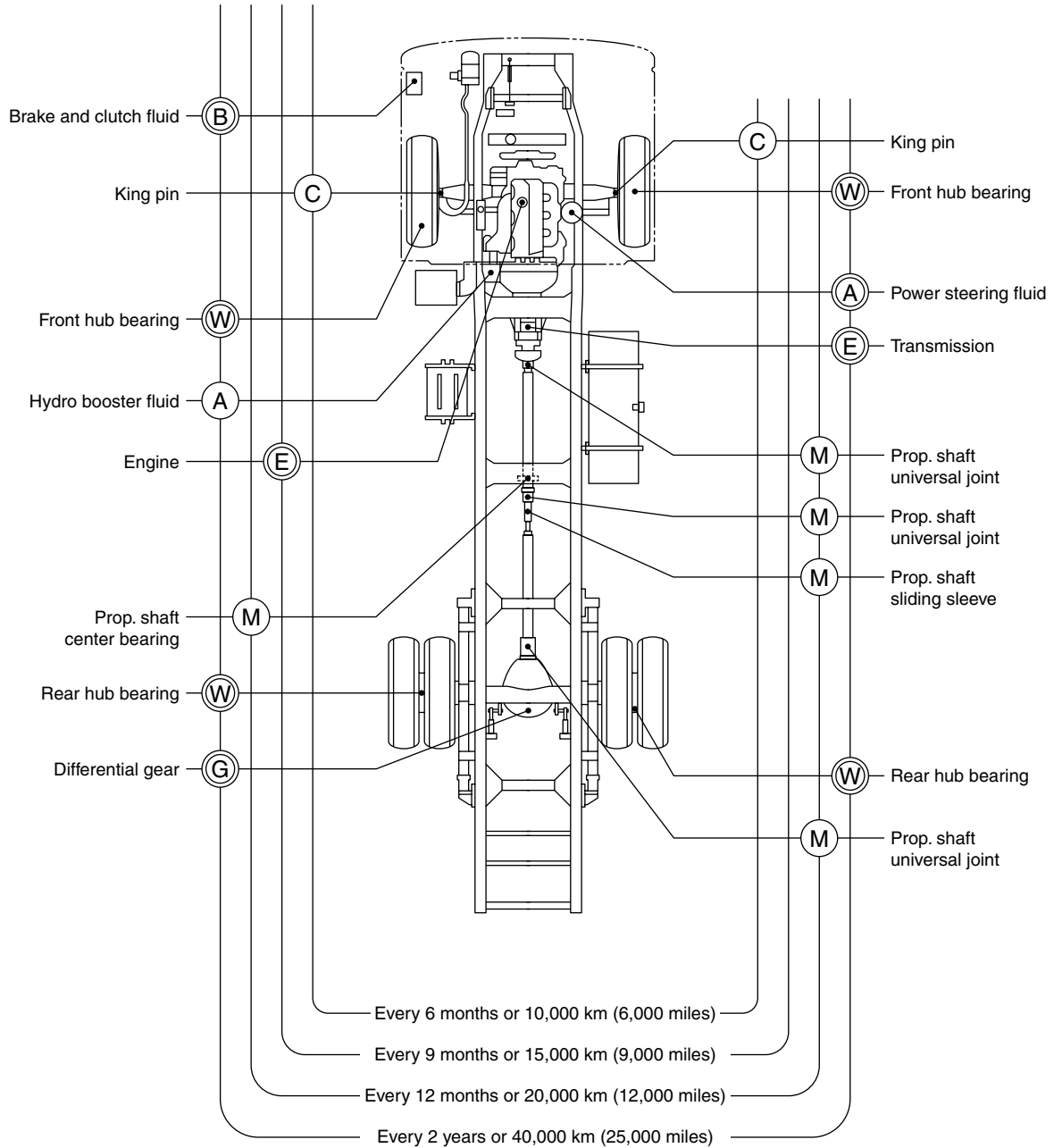
C : Multipurpose type grease

M : MoS₂ contained type grease

B : Brake fluid

A : Automatic transmission fluid

NKR77 and NPR77 (Front Rigid Suspension) Models



⊙ : Change

○ : Check and Replenish or Lubricate

E : Engine oil

G : Gear oil

W : Wheel bearing grease

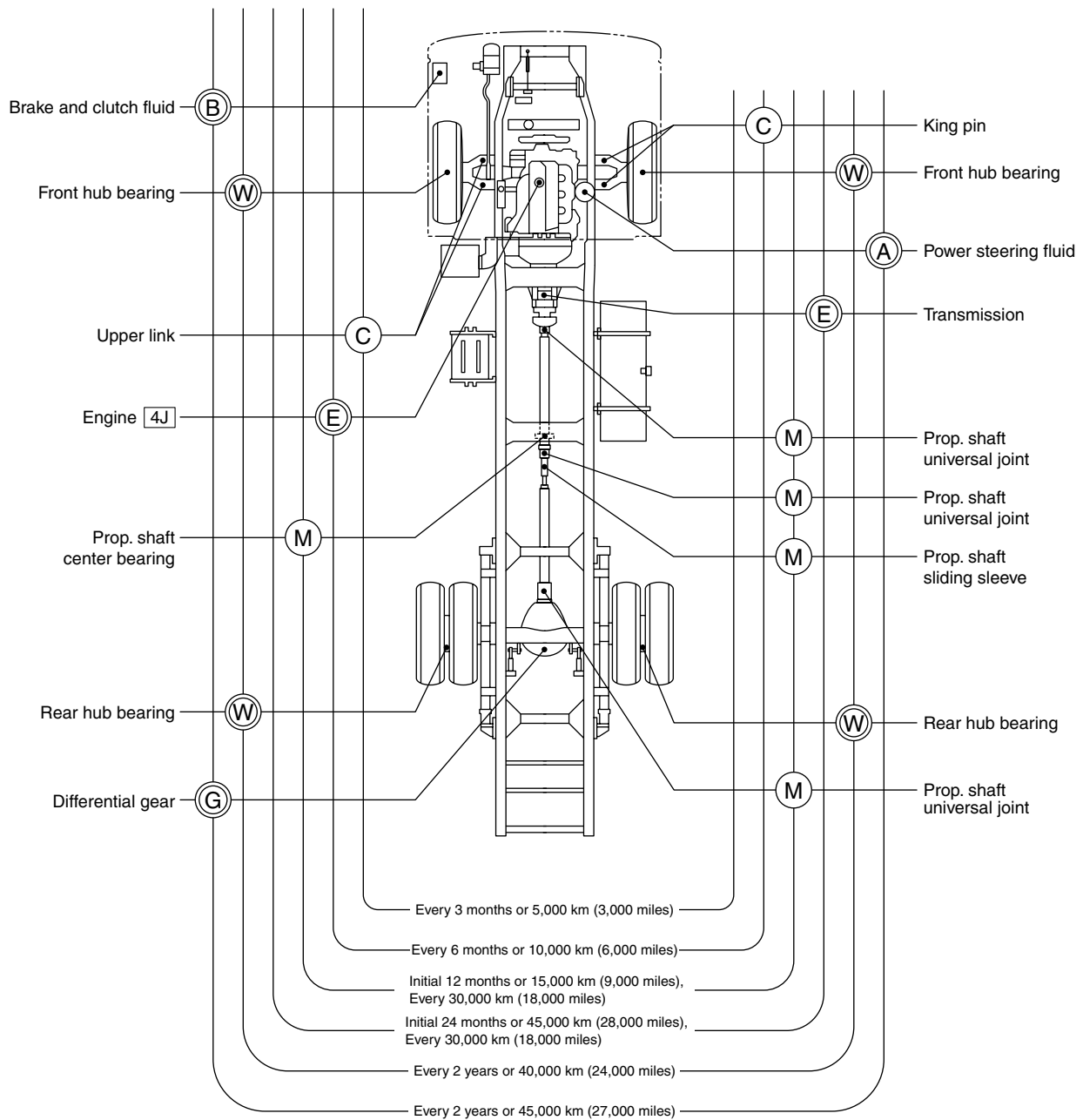
C : Multipurpose type grease

M : MoS₂ contained type grease

B : Brake fluid

A : Automatic transmission fluid

NKR77 (Front Independent Suspension) Model



⊙ : Change

○ : Check and Replenish or Lubricate

E : Engine oil

G : Gear oil

W : Wheel bearing grease

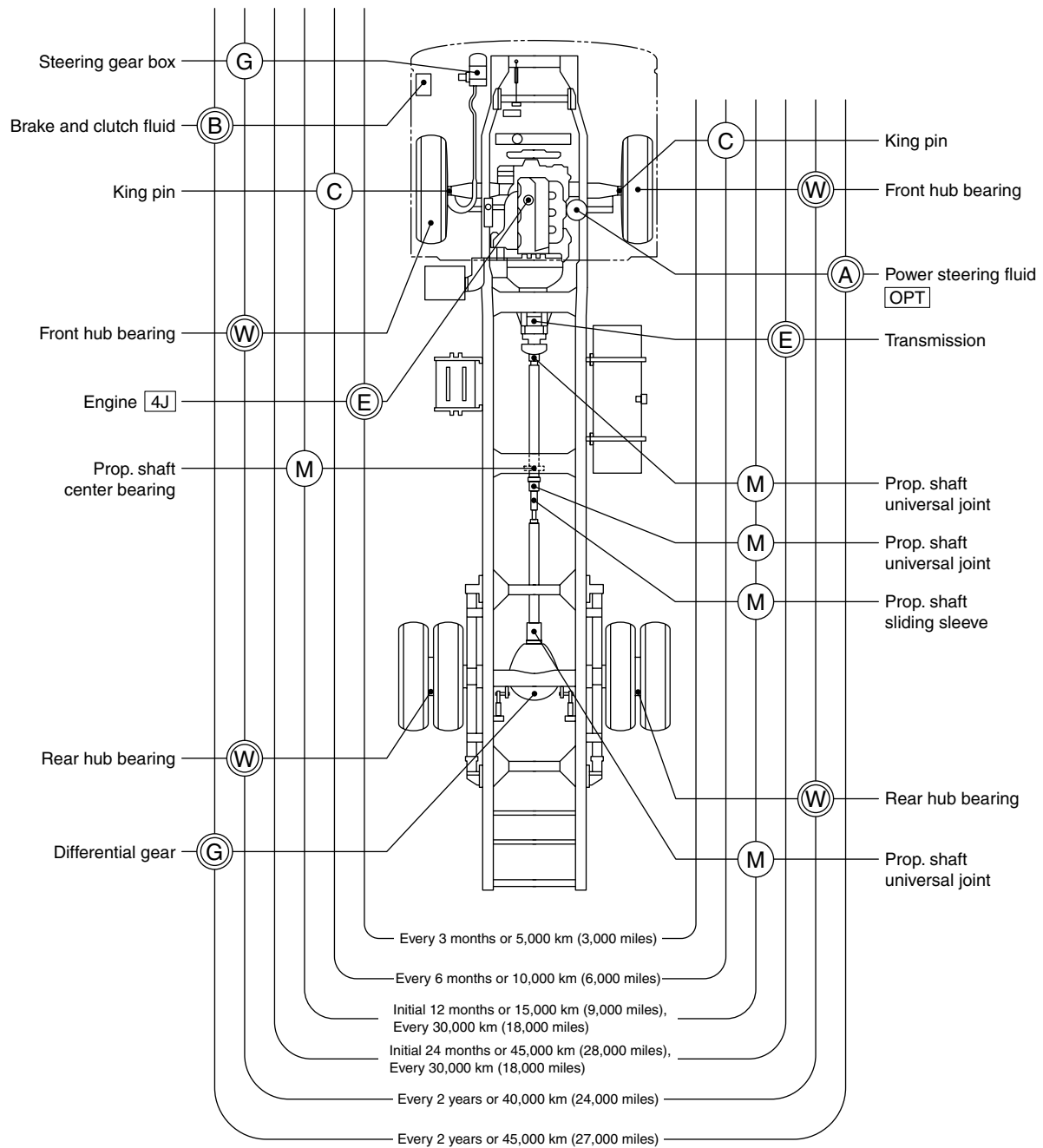
C : Multipurpose type grease

M : MoS₂ contained type grease

B : Brake fluid

A : Automatic transmission fluid

NKR55 Model



⊙ : Change

○ : Check and Replenish or Lubricate

E : Engine oil

G : Gear oil

W : Wheel bearing grease

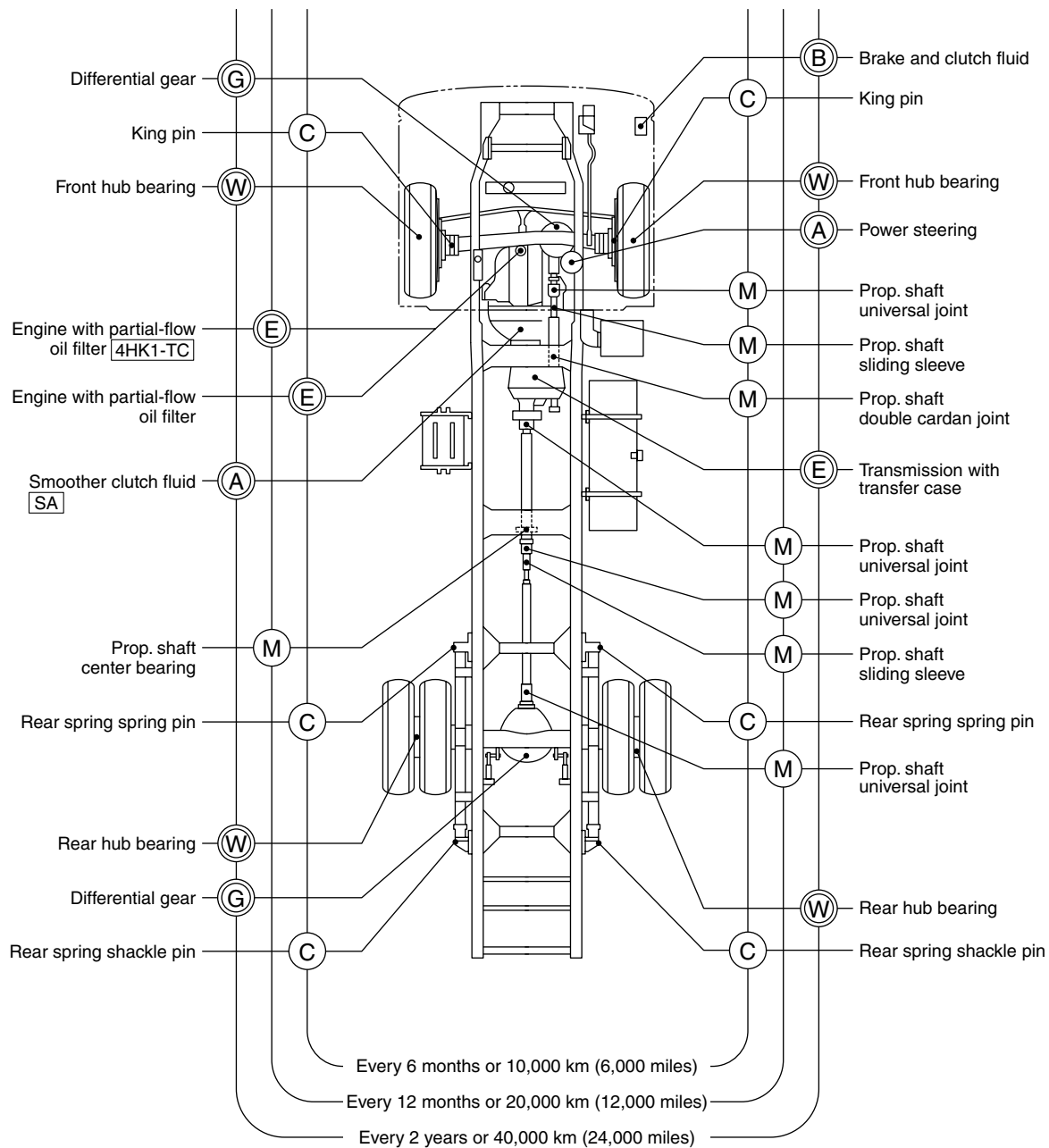
C : Multipurpose type grease

M : MoS₂ contained type grease

B : Brake fluid

A : Automatic transmission fluid

NPS71/75 Models



⊙ : Change

○ : Check and Replenish or Lubricate

E : Engine oil

G : Gear oil

W : Wheel bearing grease

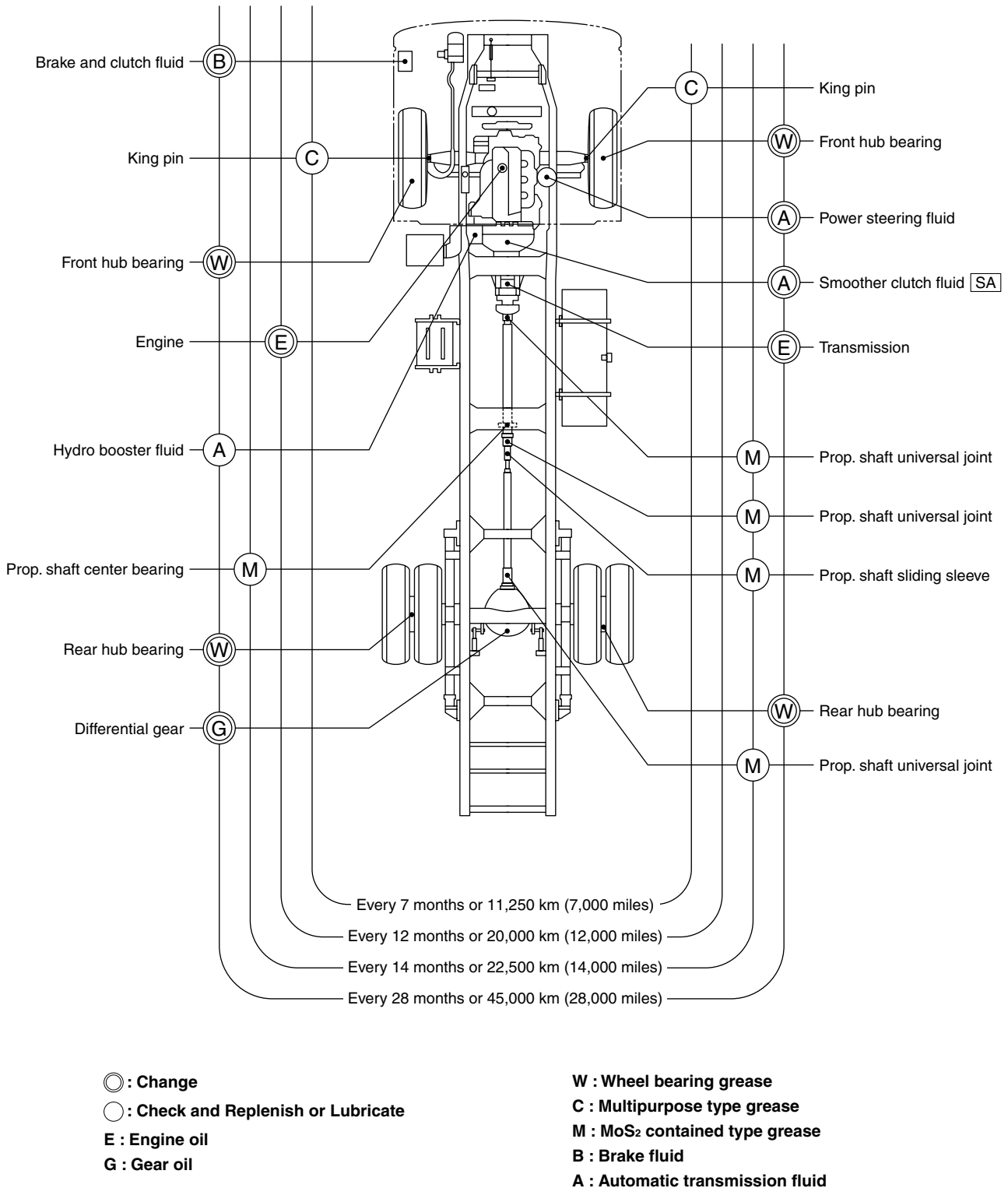
C : Multipurpose type grease

M : MoS₂ contained type grease

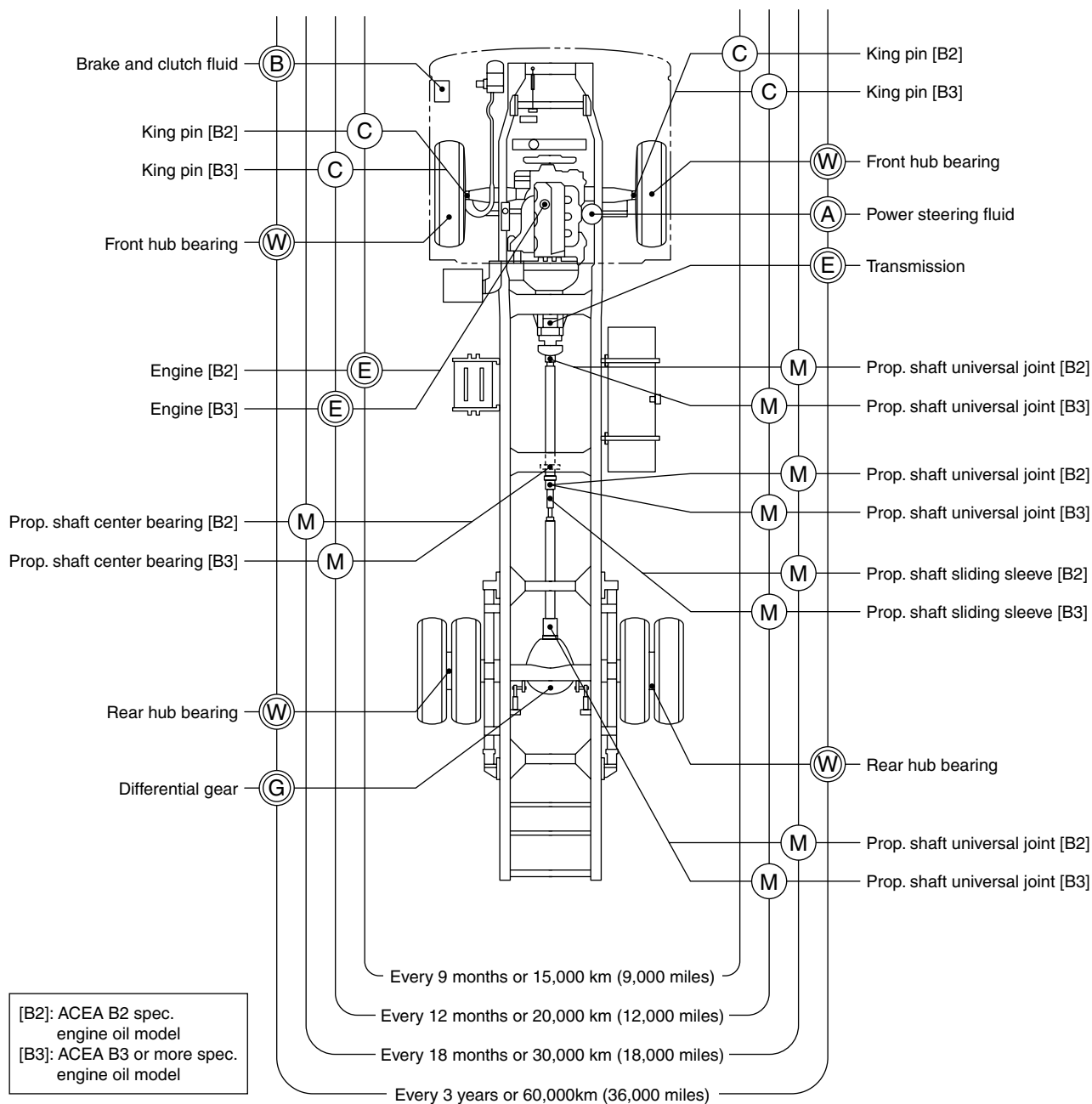
B : Brake fluid

A : Automatic transmission fluid

NPR75 and NQR75 Models (For Europe)



NKR77 and NPR77 (Front Rigid Suspension) Models (For Europe)



⊙ : Change

○ : Check and Replenish or Lubricate

E : Engine oil

G : Gear oil

W : Wheel bearing grease

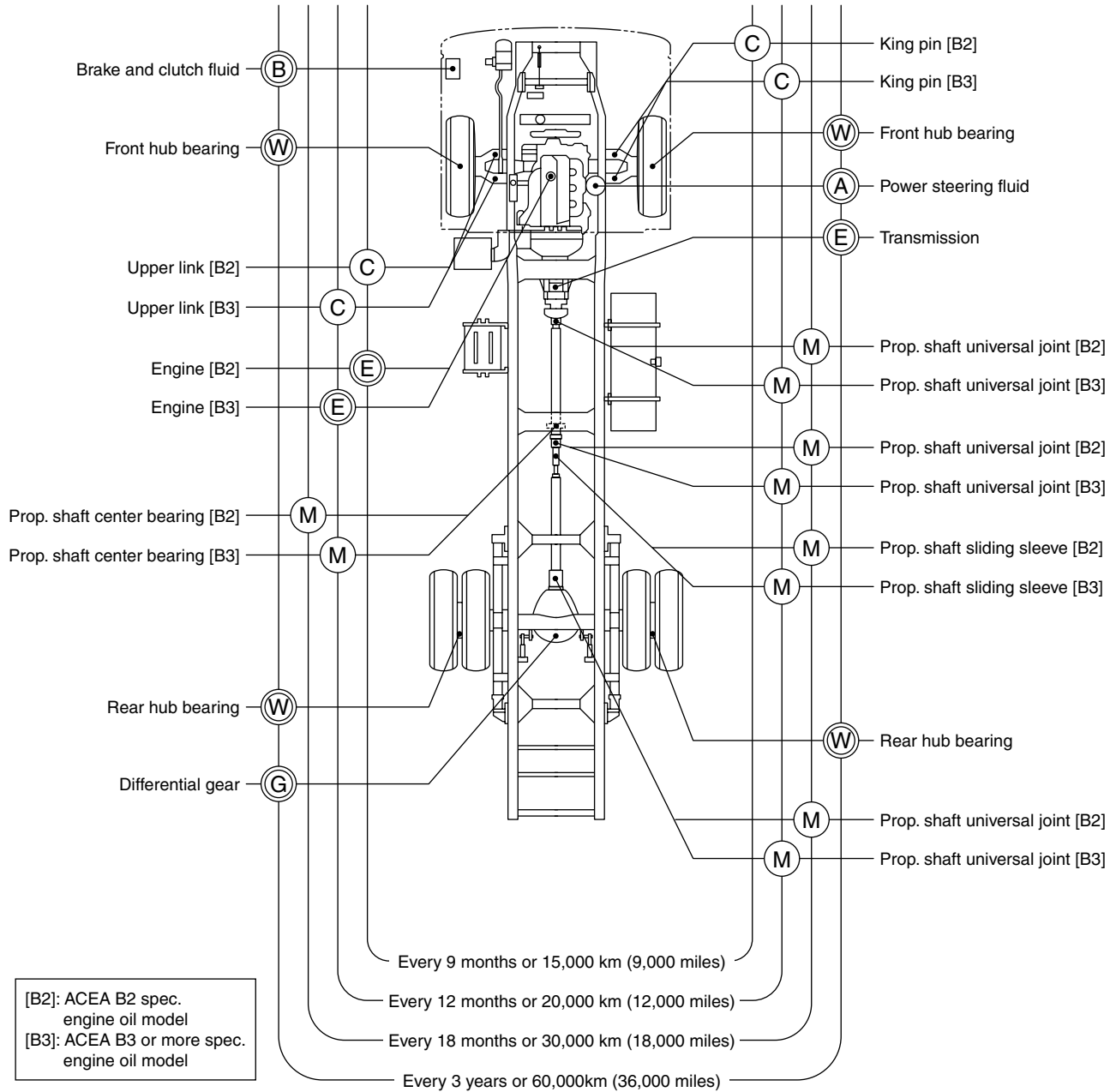
C : Multipurpose type grease

M : MoS₂ contained type grease

B : Brake fluid

A : Automatic transmission fluid

NKR77 (Front Independent Suspension) Model (For Europe)



⊙ : Change

○ : Check and Replenish or Lubricate

E : Engine oil

G : Gear oil

W : Wheel bearing grease

C : Multipurpose type grease

M : MoS₂ contained type grease

B : Brake fluid

A : Automatic transmission fluid

