# **PREVENTATIVE MAINTENANCE GUIDE** P-G-R-T / L-P-G-R-S TRUCK

# **OPERATION TYPE AND DESCRIPTION**

**Operation Type 1 - Long distance transport** 

Typical Single Trailer long distance operation <45 tonnes

Idling and power take-off operation is less than 25% of the total operating time

Average speed is typically over 60 km/h

**Operation Type 2 - Heavy long distance transport up to 68 tonnes** 

Typical Bdouble long distance operation 45-68 tonnes

Like operation type 1, but with higher load on powertrain and chassis due to the higher gross weight or hilly topography

**Operation Type 3 - (Off-road) Construction operations** 

There are high or extremely high levels of the climate factors dust, dirt AND

Total idling and power take-off operation is more than 25% of the total operating time

**Operation Type 4 - Distribution** 

Total idling and power take-off operation is more than 25% of the total operating time OR

Traffic is extremely heavy, i.e. more than 250 stops or major decelerations per 100 km

Average speed is typically below 40 km/h

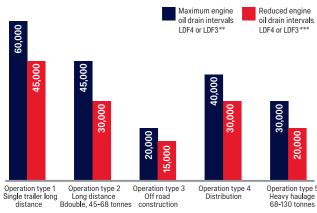
Operation Type 5 - Heavy long distance 68-130 tonnes

Heavy operations long distance between 68-130 tonnes

Like operation type 2, but with higher load on powertrain and chassis due to the higher gross laden weight

PLEASE NOTE: Operation types are given as general applications. A regular analysis of the vehicles stored operational data will give an accurate determination of the vehicles application and service intervals.

## ENGINE OIL DRAIN INTERVAL FOR RECOMMENDED MAINTENANCE SEQUENCE SMSL



- \*\* maximum engine oil drain intervals when loaded less than 60% of the time.
- \*\*\* maximum engine oil drain interval when loaded more than 60% of the time.

For all NTG vehicles only LDF4 should be used.

For PGRT V8 engines only LDF3 should be used.

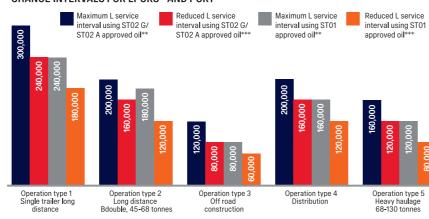
For PGRT with Euro 6 inline engines only LDF4 should be used.

730hp engines must run reduced oil drain intervals in all applications.

Oil drain interval recommendations are to suit Euro 4. 5 & 6 diesel engines.

Please contact Scania Australia for more information. (May Not Be Valid for all Scania Engine Types)

### RECOMMENDED AXLE AND GEARBOX OIL CHANGE INTERVALS FOR LPGRS^ AND PGRT



\*\* maximum L service interval when loaded less than 60% of the time. \*\*\* maximum L service interval when loaded more than 60% of the time.

Oil change intervals only apply to drive axles with filters.

\*For all NTG Axles and Gearboxes only STO2 A and STO G should be used. Oil drain must be carried out at least once every 3 years if stated km for application type are not met.

For Automatic gearbox oil drain intervals follow instructions in the latest issue Workshop Manual 00:16-01.

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Area	R-S TRUCK Component	Action	Recommendation
Engine (V8 only)	Oil Cooler	Replace O rings and seals	480,000km, (7200 hrs
Cooling system	Idler pulleys, belt &tensioners HPI/PDE engines	Replace	480,000km, (7200 hrs or 2 years*
Cooling system	Idler pulleys, belts & tensioners XPI engines	Replace	240,000km, (3600hrs or 2 years*
Cooling system	Water pump	Replace	600,000km, (9000hrs or 4 years
Cooling system	Coolant	Replace	600,000km, (9000hrs or 4 years
Cooling system	Radiator & Intercooler	External clean	Annually
Scania Gearbox	Shift / OPC cylinders	Replace O rings	750,000km, (11250hrs
Hubs and Wheels	Drive/Tag axle wheel bearings	Clean and re-pack	600,000km (9000hrs
Electrical	Batteries	Replace	2 years
Cab	Air Conditioning	Service	2 Years
<b>OPERATION TYPE 1</b>	- LONG DISTANCE TRANSPORT		
Area	Component	Action	Recommendation
Engine	Turbocharger(excluding VGT)	Replace	750,000km, (11250hrs
Fuel & exhaust	Unit Injectors (PDE)	Service or replace	750,000km, (11250hrs
Prop / Tail shaft	Universal joints	Replace	800,000km, (12000hrs
Brakes	Compressor	Replace	800,000km, (12000hr
Electrical	Starter motor	Replace	1,000,000km or 4 year
OPERATION TYPE	2 - HEAVY LONG DISTANCE TRANS	PORT UP TO 68 TONNES	
Area	Component	Action	Recommendation
Engine	Turbocharger(excluding VGT)	Replace	600,000km, (9000hr
Fuel & exhaust	Unit Injectors (PDE)	Service or replace	600,000km, (9000hr
Prop / Tail shaft	Universal joints	Replace	750,000km, (11250hrs
Brakes	Compressor	Replace	800,000km, (12000hr
Electrical	Starter motor	Replace	1,000,000km or 4 year
OPERATION TYPE	3 - (OFF-ROAD) CONSTRUCTION O 4 - DISTRIBUTION AND 5 - HEAVY LONG DISTANCE 68-130		
Area	Component	Action	Recommendation
Engine	Turbocharger(excluding VGT),	Replace	500,000km, (7500hr
Fuel & exhaust	Unit Injectors (PDE)	Service or replace	500,000km, (7500hr
Prop / Tail shaft	Universal joints	Replace	500,000km, (7500hrs
Brakes	Compressor	Replace	700,000km, (10500hr
Electrical	Starter motor	Replace	4 years reduce to 3 years with Increased Duty Cycle

ALL P-G-R/L-P-G-	Component	Action	Recommendation
Engine (V8 only)	Oil Cooler	Replace O rings and seals	480,000km, (7200 hrs)
Cooling system	Idler pulleys, belt &tensioners HPI/PDE engines	Replace	480,000km, (7200 hrs) 480,000km, (7200 hrs) or 2 years*
Cooling system	Idler pulleys, belts & tensioners XPI engines	Replace	240,000km, (3600hrs) or 2 years*
Cooling system	Water pump	Replace	600,000km, (9000hrs) or 4 years
Cooling system	Coolant	Replace	600,000km, (9000hrs) or 4 years
Cooling system	Radiator & Intercooler	External clean	Annually
Scania Gearbox	Shift / OPC cylinders	Replace O rings	750,000km, (11250hrs)
Hubs and Wheels	Drive/Tag axle wheel bearings	Clean and re-pack	600,000km (9000hrs)
Electrical	Batteries	Replace	2 years
Cab	Air Conditioning	Service	2 Years
<b>OPERATION TYPE 1</b>	- LONG DISTANCE TRANSPORT		
Area	Component	Action	Recommendation
Engine	Turbocharger(excluding VGT)	Replace	750,000km, (11250hrs)
Fuel & exhaust	Unit Injectors (PDE)	Service or replace	750,000km, (11250hrs
Prop / Tail shaft	Universal joints	Replace	800,000km, (12000hrs)*
Brakes	Compressor	Replace	800,000km, (12000hrs
Electrical	Starter motor	Replace	1,000,000km or 4 years
OPERATION TYPE	2 - HEAVY LONG DISTANCE TRANS	PORT UP TO 68 TONNES	
Area	Component	Action	Recommendation
Engine	Turbocharger(excluding VGT)	Replace	600,000km, (9000hrs
Fuel & exhaust	Unit Injectors (PDE)	Service or replace	600,000km, (9000hrs
Prop / Tail shaft	Universal joints	Replace	750,000km, (11250hrs)*
Brakes	Compressor	Replace	800,000km, (12000hrs
Electrical	Starter motor	Replace	1,000,000km or 4 years
<b>OPERATION TYPE</b>	3 - (OFF-ROAD) CONSTRUCTION O 4 - DISTRIBUTION AND 5 - HEAVY LONG DISTANCE 68-130		
Area	Component	Action	Recommendation
Engine	Turbocharger(excluding VGT),	Replace	500,000km, (7500hrs
Fuel & exhaust	Unit Injectors (PDE)	Service or replace	500,000km, (7500hrs
Prop / Tail shaft	Universal joints	Replace	500,000km, (7500hrs) <sup>*</sup>
Brakes	Compressor	Replace	700,000km, (10500hrs
Electrical	Starter motor	Replace	4 years reduce to 3 years with Increased Duty Cycle

ALL P-G-R/L-P-G-			
Area	Component	Action	Recommendation
Engine (V8 only)	Oil Cooler	Replace O rings and seals	480,000km, (7200 hrs)
Cooling system	Idler pulleys, belt &tensioners HPI/PDE engines	Replace	480,000km, (7200 hrs) or 2 years*
Cooling system	Idler pulleys, belts & tensioners XPI engines	Replace	240,000km, (3600hrs) or 2 years*
Cooling system	Water pump	Replace	600,000km, (9000hrs) or 4 years
Cooling system	Coolant	Replace	600,000km, (9000hrs) or 4 years
Cooling system	Radiator & Intercooler	External clean	Annually
Scania Gearbox	Shift / OPC cylinders	Replace O rings	750,000km, (11250hrs)
Hubs and Wheels	Drive/Tag axle wheel bearings	Clean and re-pack	600,000km (9000hrs)
Electrical	Batteries	Replace	2 years
Cab	Air Conditioning	Service	2 Years
<b>OPERATION TYPE 1</b>	- LONG DISTANCE TRANSPORT		
Area	Component	Action	Recommendation
Engine	Turbocharger(excluding VGT)	Replace	750,000km, (11250hrs)
Fuel & exhaust	Unit Injectors (PDE)	Service or replace	750,000km, (11250hrs)
Prop / Tail shaft	Universal joints	Replace	800,000km, (12000hrs)*
Brakes	Compressor	Replace	800,000km, (12000hrs)
Electrical	Starter motor	Replace	1,000,000km or 4 years
OPERATION TYPE	2 - HEAVY LONG DISTANCE TRANS	SPORT UP TO 68 TONNES	
Area	Component	Action	Recommendation
Engine	Turbocharger(excluding VGT)	Replace	600,000km, (9000hrs)
Fuel & exhaust	Unit Injectors (PDE)	Service or replace	600,000km, (9000hrs)
Prop / Tail shaft	Universal joints	Replace	750,000km, (11250hrs)*
Brakes	Compressor	Replace	800,000km, (12000hrs)
Electrical	Starter motor	Replace	1,000,000km or 4 years
<b>OPERATION TYPE</b>	3 - (OFF-ROAD) CONSTRUCTION O 4 - DISTRIBUTION AND 5 - HEAVY LONG DISTANCE 68-130		
Area	Component	Action	Recommendation
Engine	Turbocharger(excluding VGT),	Replace	500,000km, (7500hrs)
Fuel & exhaust	Unit Injectors (PDE)	Service or replace	500,000km, (7500hrs)
Prop / Tail shaft	Universal joints	Replace	500,000km, (7500hrs)*
Brakes	Compressor	Replace	700,000km, (10500hrs)
Electrical	Starter motor	Replace	4 years reduce to 3 years with Increased Duty Cycle

\* The condition of individual items should be assessed as part of a routine service program



# **PREVENTATIVE MAINTENANCE GUIDE** K-N BUS

## **OPERATION TYPE AND DESCRIPTION**

**Operation Type 1 - Long Services** 

Long distance services. For example a coach operating between major cities with fewer than 20 stops per 100km

Idle operation is less that 25% of total operating time

**Operation Type 2 - Suburban & Regular Services** 

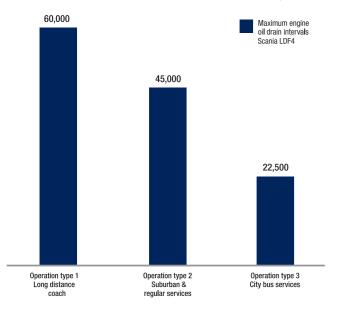
Regular services between cities or towns including shorter chartered services with 20-50 stops or major deceleration per 100km

Operation Type 3 - City Bus Services

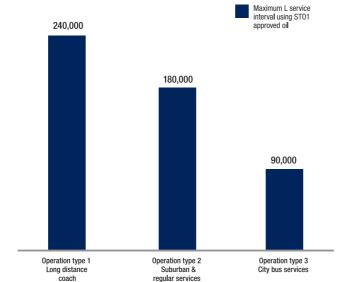
Regular city services with more than 50 stops or major deceleration per 100km

PLEASE NOTE: Operation types are given as general applications. A regular analysis of the vehicles stored operational data will give an accurate determination of the vehicles application and service intervals

## ENGINE OIL DRAIN INTERVALS FOR RECOMMENDED MAINTENANCE SEQUENCE SMSL



**RECOMMENDED L SERVICE INTERVAL** 



Engine oil drain intervals are considered as maximum. Only LDF4 should be used for Euro 6 KN vehicles. Engine oil drain intervals are considered as maximum for Euro 4, 5 and 6 engines.

Engine oil drain must be carried out at least once per year if stated km for application are not met. Please contact Scania Australia for more information. (May Not Be Valid for all Scania Engine Types)

Oil drains must be halved if gear oil is not STO1 approved. Oil drain must be carried out at least once every 2 years if stated km for application type are not met. For Automatic gearbox oil drain intervals follow instruction in the latest issue Workshop Manual 00:21-50

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RECOMMENDED PREVENTATIVE SCHEDULE MAINTENANCE SCHEDULE ALL K-N BUS				
Area	Component	Action	Recommendation	
Cooling system	Water pump	Replace	600,000km or 4 years	
Cooling system	Coolant	Replace	600,000km or 4 years	
Cooling system	Radiator & Intercooler	External clean	Annually	
Scania Gearbox	Shift / OPC cylinders	Replace O rings	750,000km	
Hubs and Wheels	Drive/Tag axle wheel bearings	Clean and re-pack	600,000km	
<b>OPERATION TYPE 1</b>	- LONG DISTANCE SERVICES			
Area	Component	Action	Recommendation	
Engine	Turbocharger(excluding VGT)	Replace	900,000km	
Cooling system	Idler pulleys, belts & tensioners	Replace	360,000km or 2 years*	
Fuel & exhaust	Unit Injectors (PDE)	Service or Replace	600,000km	
Prop / Tail shaft	Universal joints	Replace	750,000km*	
Brakes	Compressor	Replace	700,000km	
Electrical	Starter motor	Replace	600,000km	
OPERATION TYPE 2	2 - SUBURBAN & REGULAR SERVICES			
Area	Component	Action	Recommendation	
Engine	Turbocharger(excluding VGT)	Replace	400,000km	
Cooling system	Idler pulleys, belts & tensioners	Replace	180,000km or 2 years*	
Fuel & exhaust	Unit Injectors (PDE)	Service or Replace	400,000km	
Prop / Tail shaft	Universal joints	Replace	500,000km*	
Brakes	Compressor	Replace	400,000km	
Electrical	Starter motor	Replace	4 years	
OPERATION TYPE 3	3 - CITY BUS SERVICES			
Area	Component	Action	Recommendation	
Engine	Turbocharger(excluding VGT)	Replace	300,000km	
Cooling system	Idler pulleys, belts & tensioners	Replace	180,000km or 2 years*	
Fuel & exhaust	Unit Injectors (PDE)	Service or Replace	400,000km	
Prop / Tail shaft	Universal joints	Replace	500,000km*	
Brakes	Compressor	Replace	360,000km	
Electrical	Starter motor	Replace	4 years	
Body	Rubber bush for articulation attachment in articulated bus	Replace	400,000km	
Body	Bush securing articulation bellows in frame	Replace	400,000km	

\* The condition of individual items should be assessed as part of a routine service program

