

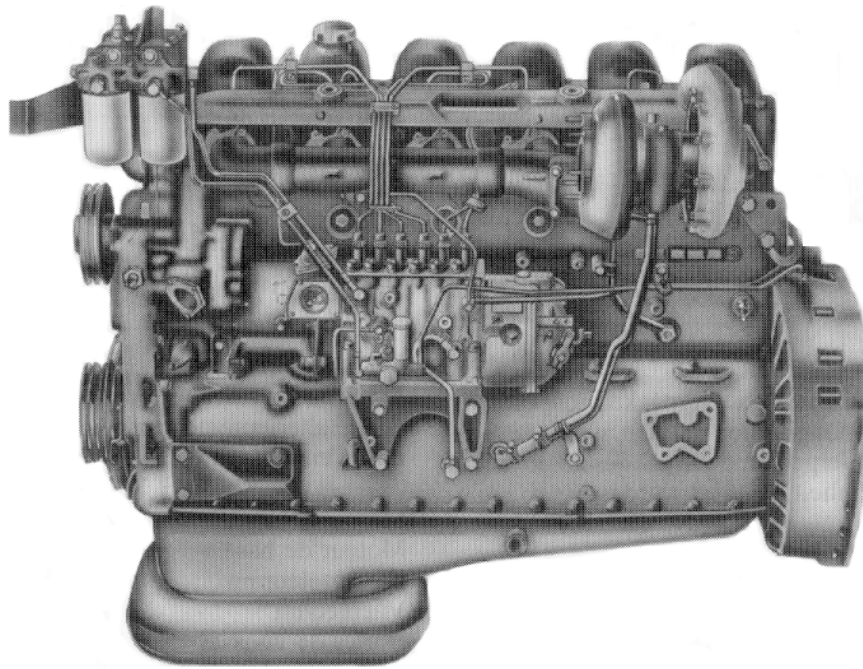
**Volvo Exchange Reference Guide**

This guide includes exchange and core number cross over listings and is designed to ensure that returned cores meet acceptance requirements for condition, packaging and cleaning. Additionally, information is included to assist in identifying core markings. Refer to the Parts Operations Manual, Chapter 11, for complete policies and procedures for Volvo Exchange cores.

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### **Section 1 Engines (Function Group 2102)**

To ensure the proper engine part number is selected, the truck serial number should be entered in **Impact on DCS**. This production number should be entered in Vision Exchange **Cross Reference**.



### **CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- The block must have no visible cracks or holes.
- It must be possible to turn the engine over manually or with the help of the starter motor.
- Oil and water must be drained.
- Protective plugs must be transferred from Exchange Component to core.
- EGR unit must be protected during shipping by using the EGR bracket supplied on the replacement Exchange engine.
- The unit must be complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

**Return Packaging**

The core should be returned on the same engine stand as the Exchange Component was delivered on, with the plastic sheeting. Ensure ID tag is right side up. Units equipped with an EGR bracket must be returned with this bracket in place to ensure no damage to the EGR.

Failure to package the unit properly will result in a \$750 charge be debited to your account.

**Cleaning Charges**

The returned core must be clean from grime and oil. If the procedure is not followed, a cleaning charge will be applied to your account.

**MARKINGS****New Engines**

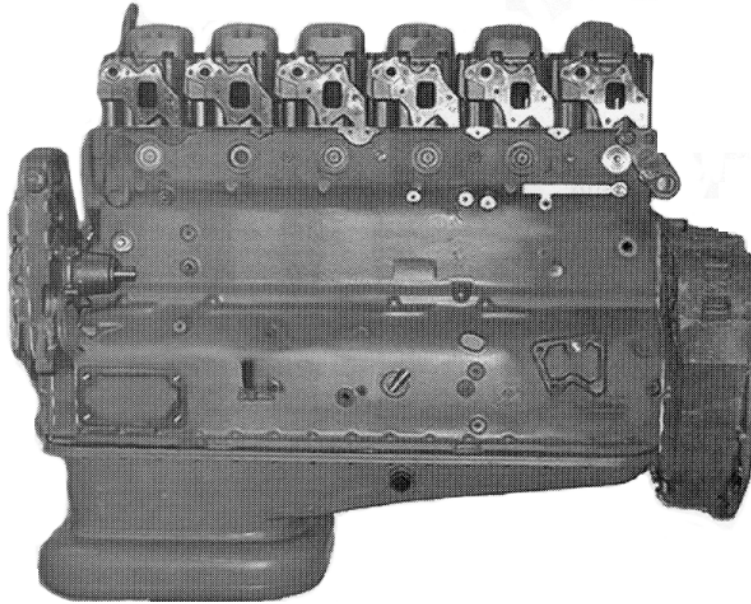
(Example) **TD120A 302 30040**

<b>TD120A</b>	= Engine Model
<b>302</b>	= Last three digits of engine production number
<b>30040</b>	= Engine serial number

**Remanufactured Engines:**

The marking is placed in the same position as on new models, but has changed its appearance. The engine is still identified by the last three digits in the production number however. There may also be a sign with an Exchange part number, if so, this number should be used as identification.

**Section 2  
Long Block Engines (Function Group 2102)**

**CORE INSTRUCTIONS****The returned core must meet the following requirements:**

- The block must have no visible cracks.
- It must be possible to turn the engine over manually or with the help of the starter motor.
- Oil and water must be drained.
- Protective plugs must be transferred from Exchange Component to core.
- The unit must be complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

**This assembly does not contain:**

- Starter motor
- Alternator
- Turbo
- Water pump
- Injection system
- Oil filter
- Oil filter holder
- Flywheel
- Pulleys
- Induction manifold
- Exhaust manifold

**Return Packaging**

The core should be returned on the same engine stand as the Exchange Component was delivered on with the plastic sheeting. Ensure unit ID tag is right side up. Failure to package the unit properly will result in a \$750 charge be debited to your account.

**Cleaning Charges**

The returned core must be clean from grime and oil. If the procedure is not followed, a cleaning charge will be applied to your account.

**MARKINGS****New Engines**

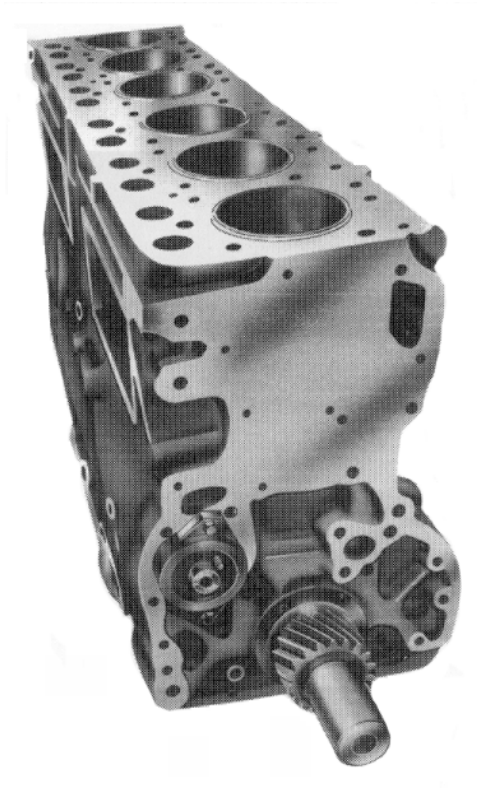
(Example) **TD120A 302 30040**

<b>TD120A</b>	= Engine Model
<b>302</b>	= Last three digits of engine production number
<b>30040</b>	= Engine serial number

**Remanufactured Engines:**

The marking is placed in the same position as on new models, but has changed its appearance. The engine is still identified by the last three digits in the production number however. There may also be a sign with an Exchange part number, if so this number should be used as identification.

**Section 3  
Short Block Engines (Function Group 2105)**

**CORE INSTRUCTIONS****The returned core must meet the following requirements:**

- The block must have no visible cracks or holes.
- The unit must be complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

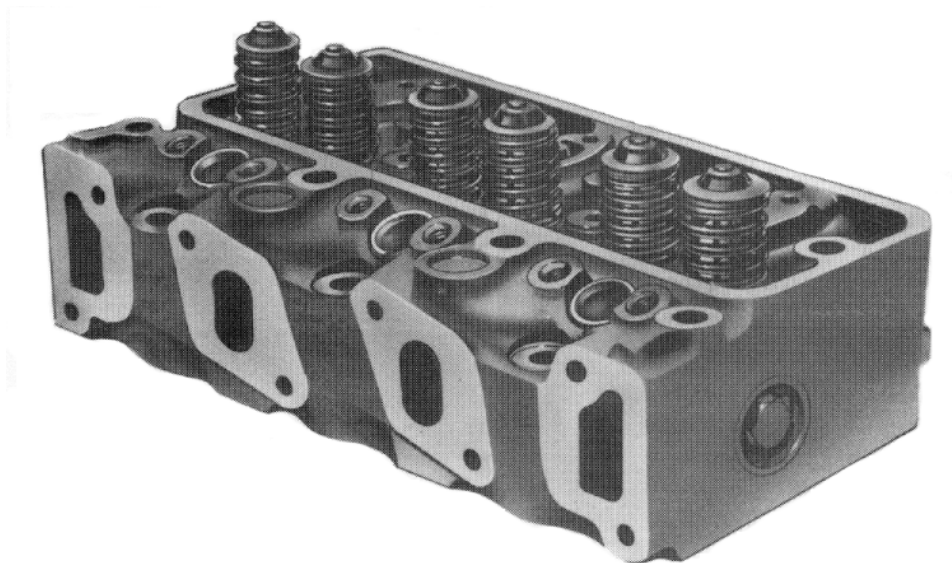
**Return Packaging**

Pack the return short block with the marking turned to face upwards so that it is clearly visible when unpacking. The core should be returned on the same engine stand as the Exchange Component was delivered on. Ensure unit ID tag is right side up. Failure to package the unit properly will result in a \$750 charge be debited to your account.

**Cleaning Charges**

The returned core must be clean from grime and oil. If the procedure is not followed, a cleaning charge will be applied to your account.

**Section 4**  
**Cylinder Heads (Function Group 2111)**

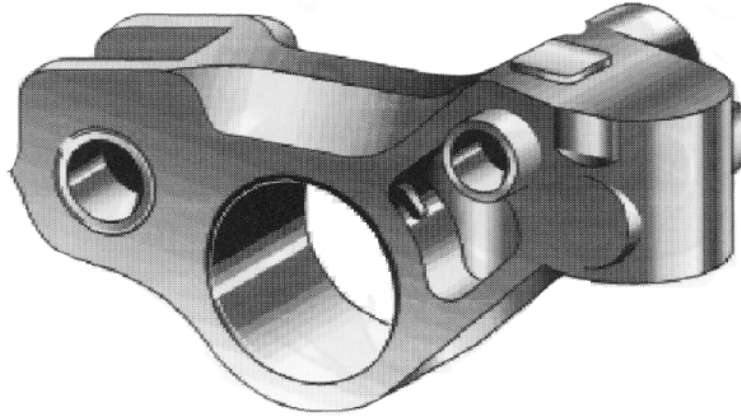


**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- It is complete and assembled with valves and springs.
- Heat cracks are on the seal surface, but nowhere else.

**Section 5**  
**Injector Rocker Arm (Function Groups 2145 & 2371)**



**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- Core must have no visible cracks.



**Section 6  
Crankshafts (Function Group 2161)**



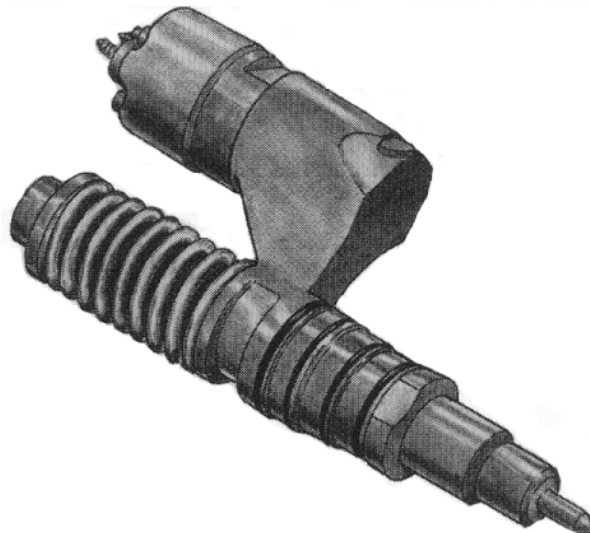
**NOTE: Rod bearings, main bearings and thrust washers are included.**

**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- If it has no indications of serious radial cracks.
- It has no permanent discoloration (dark blue in appearance).
- Surface of the rod or main journals cannot be scored due to bearing failure.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

**Section 7**  
**Injection Pumps/Unit Injector (Function Group 2361)**

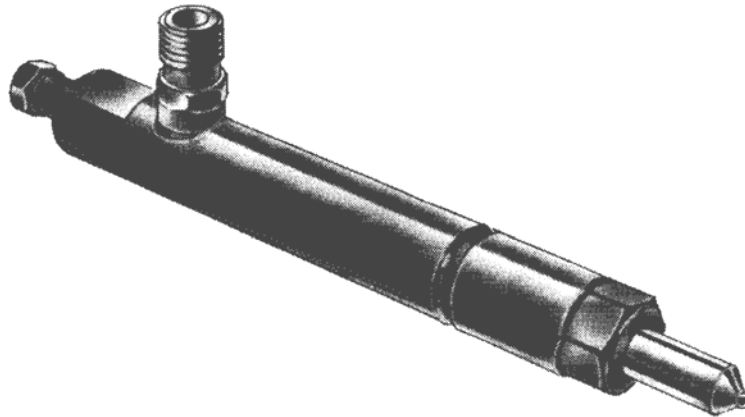


**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- It is complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

**Section 8**  
**Injectors (Function Group 2371 & 2374)**

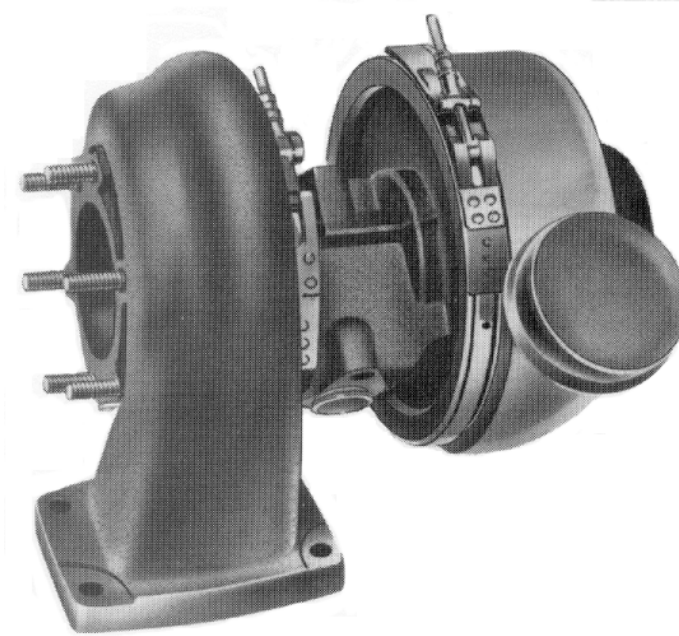


**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- The unit does not have a deformed retainer.
- The unit must be complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

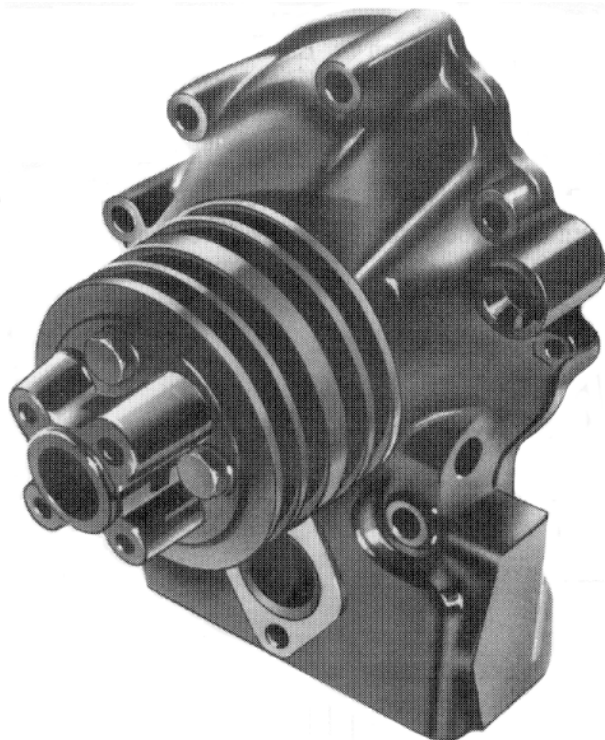
**Section 9  
Turbo Chargers (Function Group 2551)**

**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- The housing has to be intact, no holes are accepted.
- The unit is complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- Cores with missing ID plates are not accepted.

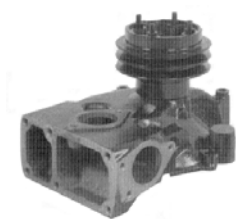
**Section 10**  
**Water Pumps/Coolant Pump/Bearing Housing (Function Group 2621)**

**CORE INSTRUCTIONS**

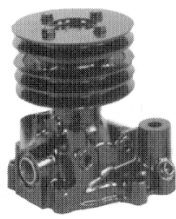
**The returned core must meet the following requirements:**

- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- It is complete and assembled with pulleys and drive.
- It shows no visible cracks.
- It must be drained of fluid.

## **WATER PUMP MARKINGS**



**TYPE 1**



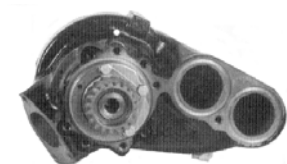
**TYPE 2**



**F4, FL4, B10R**



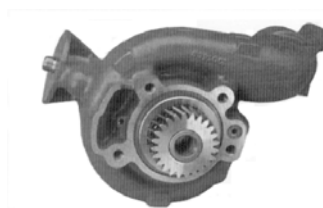
**3 CONNECTIONS IN  
DIFFERENT  
DIRECTIONS**



**SPECIAL MODELS  
WITH GEAR DRIVE**



**WITH V-SHAPED  
CONNECTION**

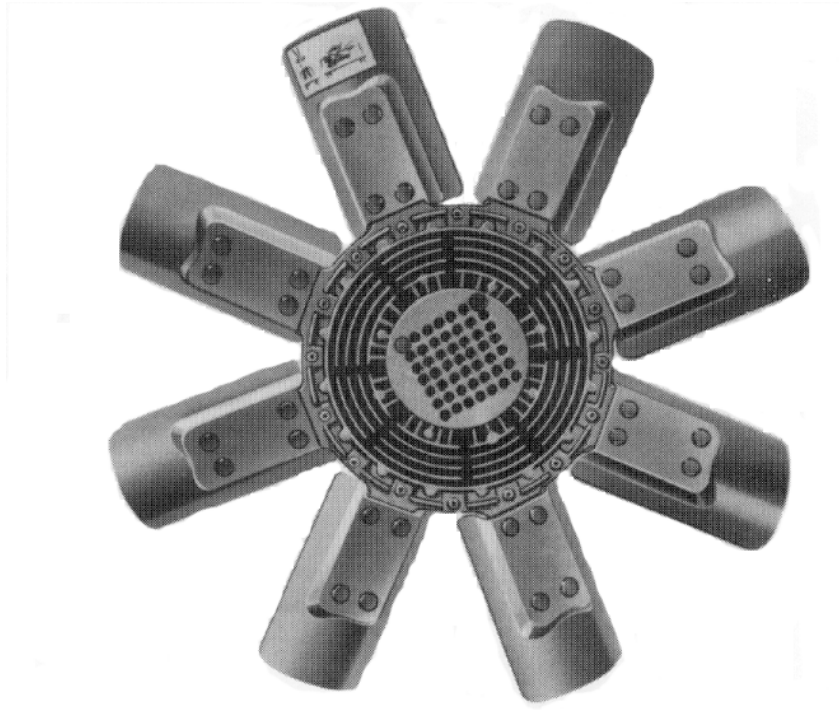


**D12/D12A/D12B**



**F16, FH16**

**Section 11**  
**Thermostat/Viscous Fans (Function Group 2631)**

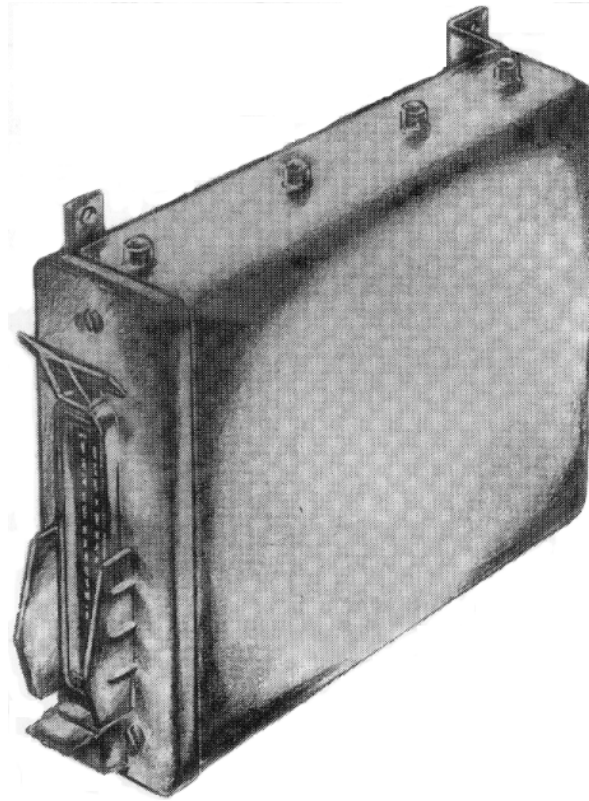


**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- Core is not damaged by non-operational causes such as rust, rough handling or fire.

**Section 12  
Control Units (Function Group 2841)**



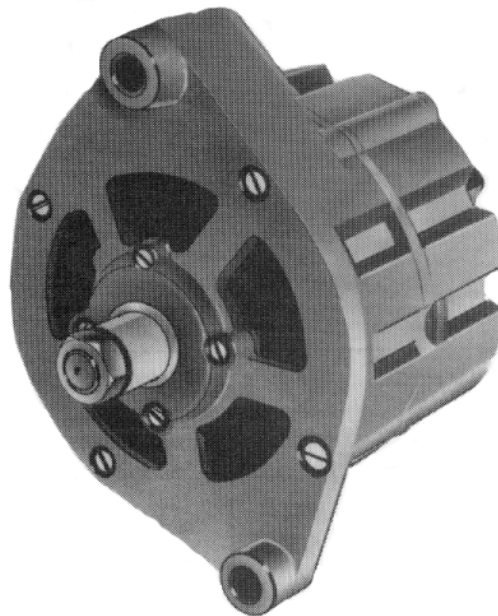
## **CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- It is complete and assembled.



**Section 13  
Alternators (Function Group 3211)**

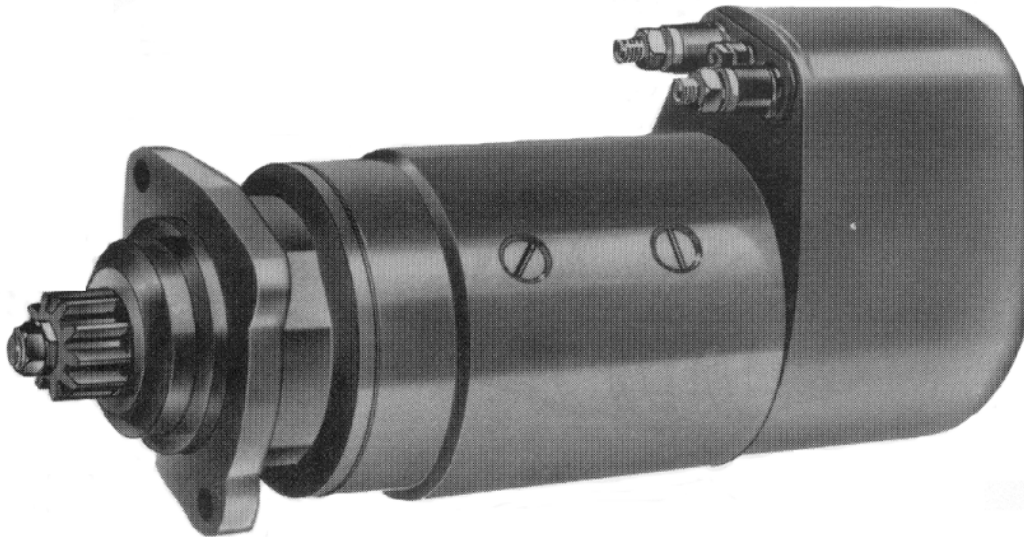


**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- It is complete and assembled.

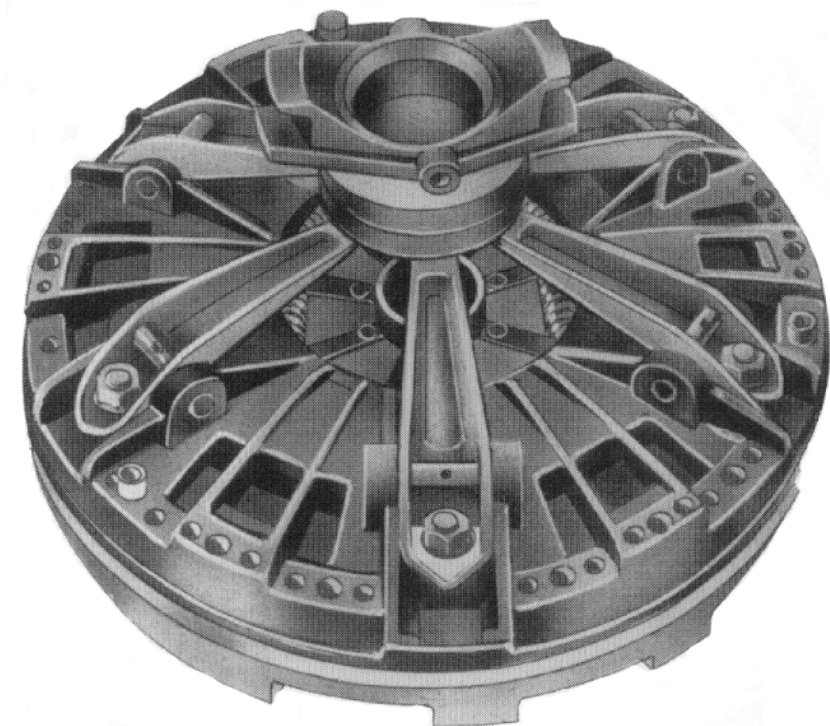
**Section 14  
Starter Motors (Function Group 3311)**



**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- It is complete and assembled.

**Section 15  
Clutch Kits (Function Group 4111)****CORE INSTRUCTIONS**

**Kit core returns will be credited by individual component. See below for breakdown.**

- Unit must be complete.
- The disc centers must not be loose.
- No springs can be missing.
- The clutch disc must have no damage to the splines in the center.
- There must be no cracks in the pressure plate.
- The unit is to be returned in the packaging supplied together with the Exchange Unit.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

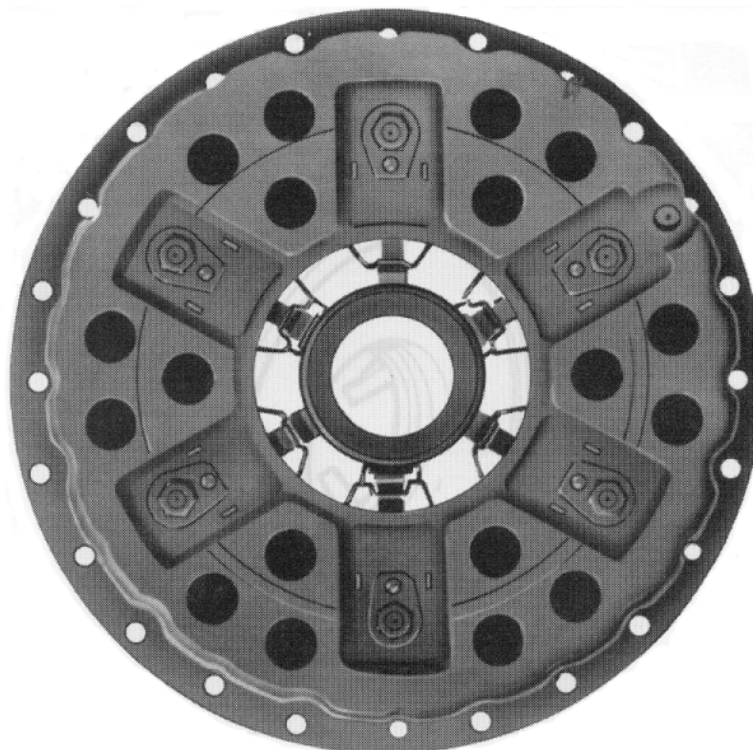
**3919067 Clutch Kit****Kit Core Number 85103960**

8112600	Front Disc	8118600 Core
8112601	Rear Disc	8118601 Core
8112602	Exchange Clutch	8118602 Core

**3919079 Clutch Kit****Kit Core Number 85103961**

8112340	Release Bearing	8118340 Core
8112597	Exchange Clutch	8118597 Core

**Section 16**  
**Pressure Plates (Function Group 4112)**

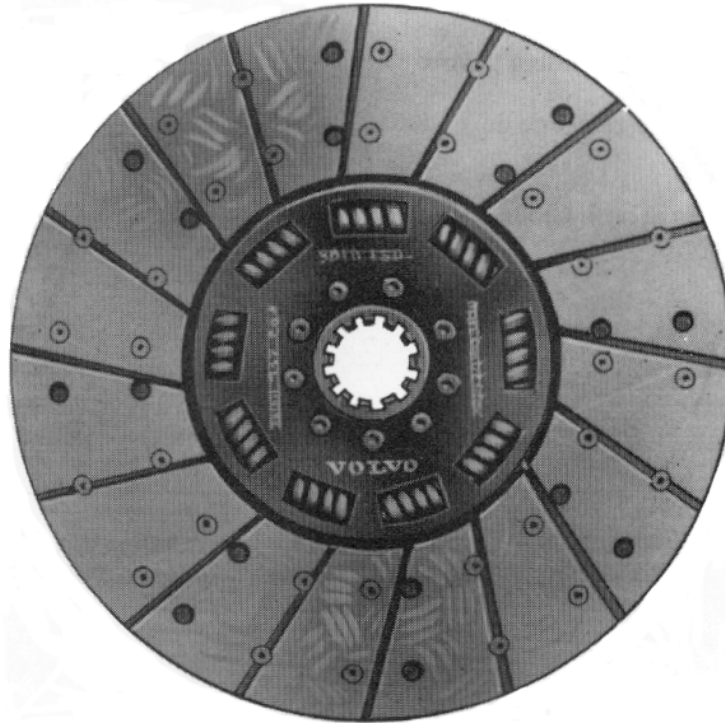


**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- It must be complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- There must be no cracks in the plate or housing.

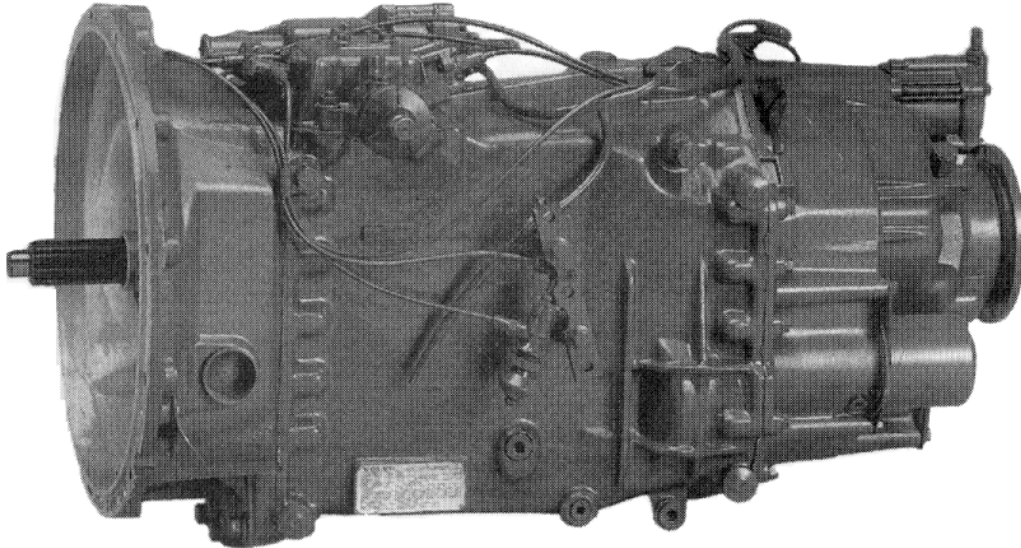
**Section 17**  
**Clutch Discs/Driven Plates (Function Group 4117)**

**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- The clutch disc must be complete and assembled.
- The clutch disc must not be cracked.
- The clutch disc must have no damage to the splines in the center.
- The disc center must not be loose.
- No springs can be missing.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

**Section 18**  
**Transmissions/Gear Boxes (Function Group 4311)**

**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- It must be cleaned, complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- The transmission is to be emptied of oil (see below re: Cleaning Charges).
- The core is to be returned in the same packaging material the Exchange Component was delivered.
- The transmission housing must have no visible cracks.
- It must be possible to turn the input shaft by hand with the gear engaged.

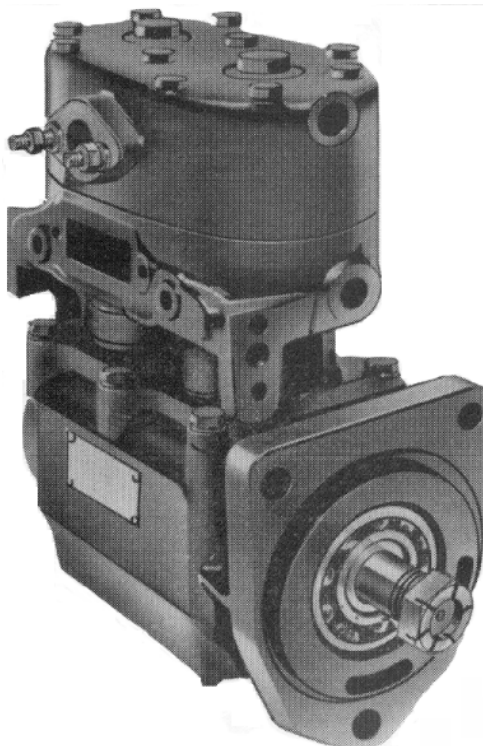
**Return Packaging**

The core should be returned using the same packaging the Exchange Component was delivered in. Ensure unit ID tag is right side up. Failure to package the unit properly may result in a charge debited to your account.

**Cleaning Charges**

The returned core must be clean from grime and oil. If the procedure is not followed, a cleaning charge will be applied.

**Section 19**  
**Air Compressors (Function Group 5611)**

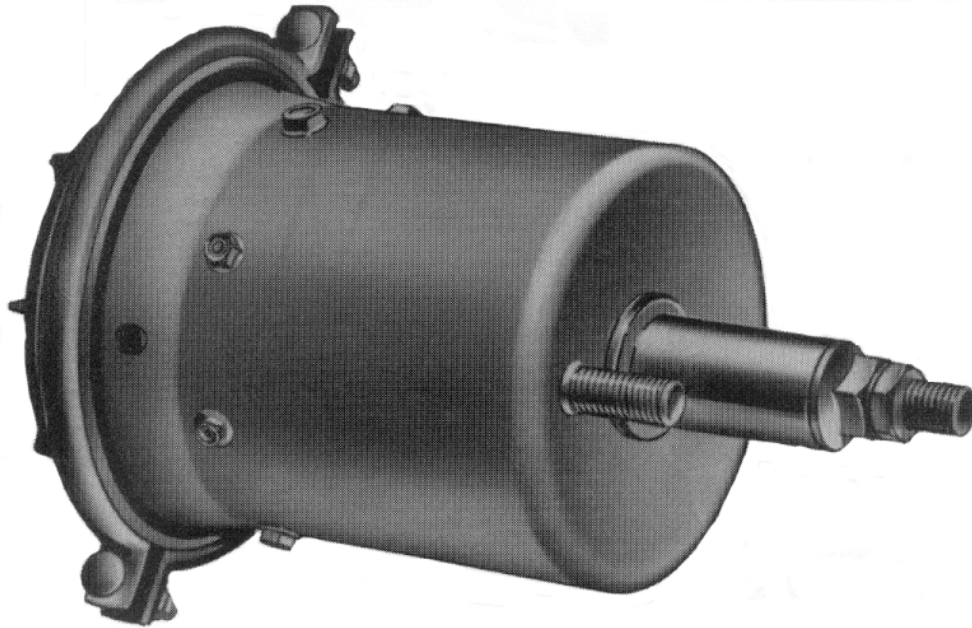


**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

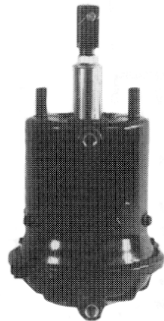
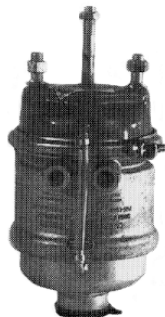
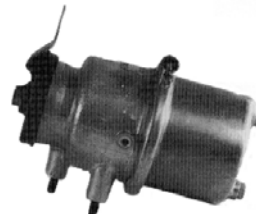
- It must be complete and assembled.
- The crankshaft is not broken. (It can be turned.)
- The housing has no visible cracks or holes.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

**Section 20**  
**Brake Chamber/Cylinders (Function Group 5641)**

**CORE INSTRUCTIONS**

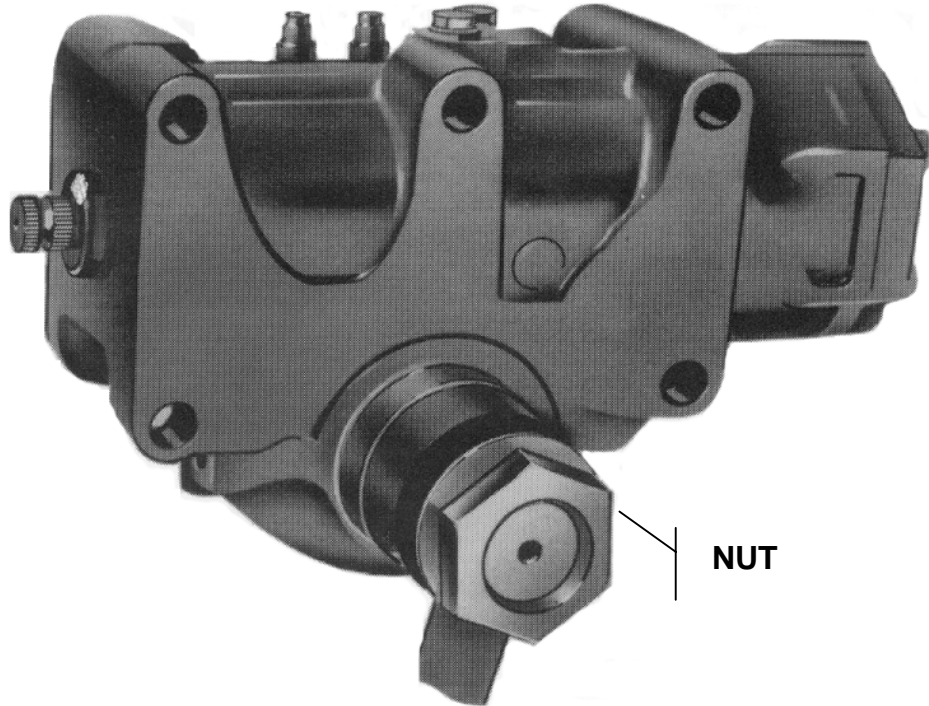
**The returned core must meet the following requirements:**

- It must be complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.
- The housing has no visible cracks or holes.

**MARKINGS****TYPE 1****MAXIBRAKE**  
(Membrane in rear  
part, thick stainless rod)**MGM-Model**  
(Membrane in front part,  
thin rod)**DBA (Unic)****AP (Unic)**



**Section 21**  
**Steering Gears (Function Group 6422)**

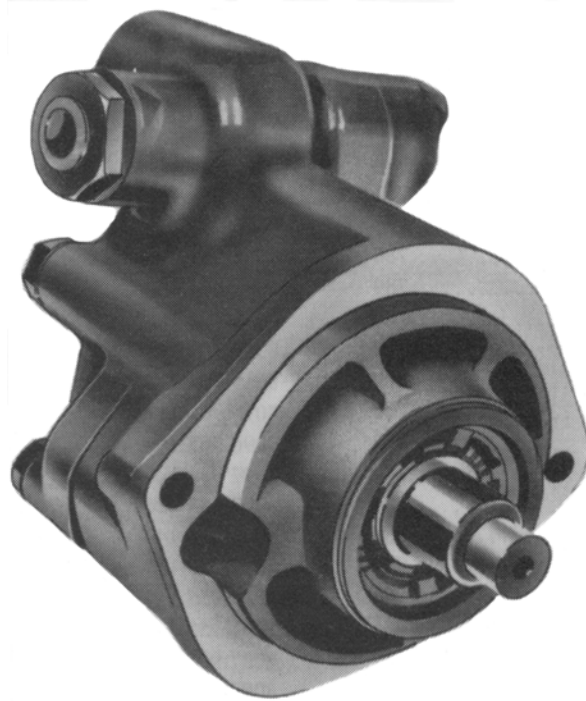


**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- It must be complete and assembled.
- There must be no visible cracks in the housing.
- Nut on output shaft must be screwed into shaft.
- The core must be returned in the same packaging material as the Exchange Component is delivered.
- Plastic plugs must be transferred.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

**Section 22**  
**Steering Pumps/Servo Pumps (Function Group 6453)**

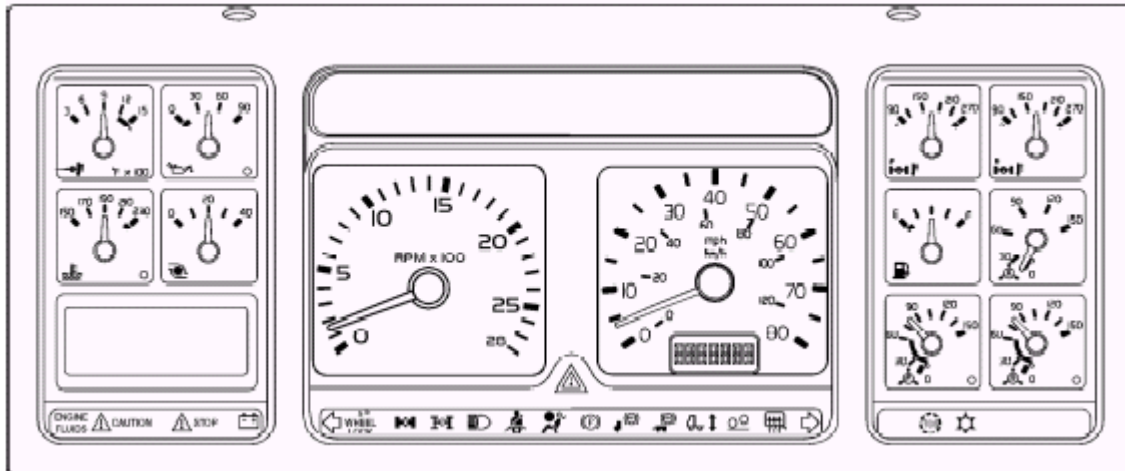
**CORE INSTRUCTIONS**

**The returned core must meet the following requirements:**

- It must be complete and assembled.
- Core is not damaged by non-operational causes such as rust, rough handling or fire.

## Section 23

### Instrument Clusters (Function Group 3811)



## CORE INSTRUCTIONS

**The returned core must meet the following requirements:**

1. Core must be returned in original carton with packing material that reman unit was shipped in.
2. Cores are allowed on a strict like for like basis.
3. Core is complete and not disassembled.
4. Core is not damaged by non-operational causes such as rust, rough handling or fire.

<u>New #</u>	<u>Reman #</u>
85102024	85001106
85102029	85000224
85102006	85000225
85102011	85000226
85102022	85000227
85102025	85000228
85102007	85000232