

## USED ENGINE

### ABOUT the used engine

Our range of used engines is carefully selected. Only engines with low hours and in good running condition are stocked for sale. About 800 used engines of different brands are available in our HAMOFA Warehouse. Before the engine is shipped to the customer the used engine is tested on the test bench. Power rate and a compression test per cylinder are some of the tests. The cylinder liners are video inspected. Parts that are checked are crankshaft bearings and connection rod bearings. Oil pressure and water temperature are also verified. These checks guarantee that a good used engine is made available to our customers.

### WHY a used engine?



#### Low Cost

Sometimes a low-cost solution is needed. The lifetime of your machine or vehicle will be extended without a large investment.



#### Perfect Solution

Some engine types are out of production or no longer available on the market 'new'. Choosing a reconditioned engine is the perfect solution.



#### Tested

The used engine is tested before shipping.











































#### Warranty

A 3 month warranty is guaranteed without limiting the working hours.



# TECHNICAL INFORMATION: COMPOSITION OF THE USED ENGINE

	USED	NEW	TO CONVERT <sup>(1)</sup>	NOT INCLUDED
 <b>CYLINDER BLOCK</b>	✓			
 <b>CYLINDER HEAD</b>	✓			
 • valves, guides, springs	✓			
 • cylinder head bolts	✓			
 • cylinder head gasket	✓			
 <b>LINER</b>	✓			
 <b>CRANKSHAFT</b>	✓			
 • main bearings	✓			
 <b>CONNECTION ROD</b>	✓			
 • conrod bolts	✓			
 • bearings	✓			
 <b>CAMSHAFT</b>	✓			
 • bearings	✓			
 <b>INTAKE MANIFOLD <sup>(2)</sup></b>	✓		✓	
 <b>EXHAUST MANIFOLD <sup>(2)</sup></b>	✓		✓	
 <b>TURBO CHARGER <sup>(2)</sup></b>	✓		✓	
 <b>INJECTION PUMP <sup>(2)</sup></b>	✓		✓	
 <b>FUEL SYSTEM</b>	✓			
 • injector	✓			
 <b>FRONT PULLEY &amp; V-belt <sup>(2)</sup></b>	✓		✓	

	USED	NEW	TO CONVERT <sup>(1)</sup>	NOT INCLUDED
 <b>VALVE TAPPET, pushers, valve lifters</b>	✓			
 • timing chain, rocker-arms and tubes	✓			
 <b>WATER PUMP</b>	✓			
 <b>OIL PAN <sup>(2)</sup></b>	✓		✓	
 <b>OIL PUMP <sup>(2)</sup></b>	✓		✓	
 <b>OIL FILTER</b>		✓		
 <b>FUEL FILTER</b>		✓		
 <b>AIR FILTER</b>				✓
 <b>FLYWHEEL <sup>(2)</sup></b>	✓		✓	
 <b>FLYWHEEL HOUSING <sup>(2)</sup></b>	✓		✓	
 <b>PISTON (complete set)</b>	✓			
 <b>STARTER</b>			✓	✓
 <b>ALTERNATOR</b>			✓	✓
 <b>COMPRESSOR</b>			✓	✓
 <b>PTO's</b>			✓	✓
 <b>ENGINE MOUNTS/STANDS</b>			✓	✓
 <b>ELECTRIC SENSORS</b>			✓	✓
 <b>ECU</b>			✓	✓
 <b>WIRING</b>			✓	✓
 <b>GASKET SET COMPLETE</b>	✓			

✓ = INCLUDED

✓ = NOT INCLUDED

<sup>(1)</sup> Parts to convert from the old engine by the customer.

<sup>(2)</sup> The used engine comes 'as is', dissimilar parts need to be converted by the customer.

PARTS THAT ARE NOT INCLUDED CAN BE REQUESTED

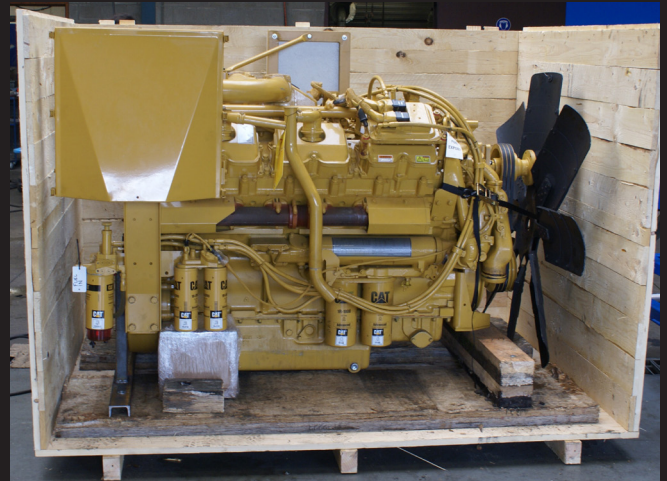
This is general information. Depending on the engine model, modifications are possible.

## PACKAGING



Every engine, supplied by Hamofa, is carefully prepared for safe transportation.

For road transport within the EU borders, the engines are securely fixed on a safety pallet and wrapped with special packing foil.



Every engine, supplied by Hamofa, for intercontinental transport by SEA or AIR, is professionally packed in a certified wooden box.

## TRANSPORT

HAMOFA Logistics Solutions offers transport by road, sea or air. The engine can be delivered to the nearest customs terminal, sea or air port, as well as to the final destination address.

