

Catalogue

WÄRTSILÄ

D234



Document

Catalogue

Engine type

TBD234 V6 / V8 / V12

Engine no.

Document file no.

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Introduction

The Spare Parts Catalogue provides the necessary information for ordering parts.

Arrangement of Catalogue

The Spare Parts Catalogue is composed of:

- Drawings with item numbers (S/N)
- Parts lists showing the item number (S/N), part number, denomination and quantity per (sub-)assembly of each part.

Ordering Parts

When ordering parts please include the following information:

Installation Data:

- Engine Serial Number (see name plate of the engine)
- Engine Type
- Name of Ship or Installation

Parts Data:

- Part Number and Description
- Number of Illustration
- Serial (unique) Number of the Part (if available)
- Quantity of required parts

Shipment Data:

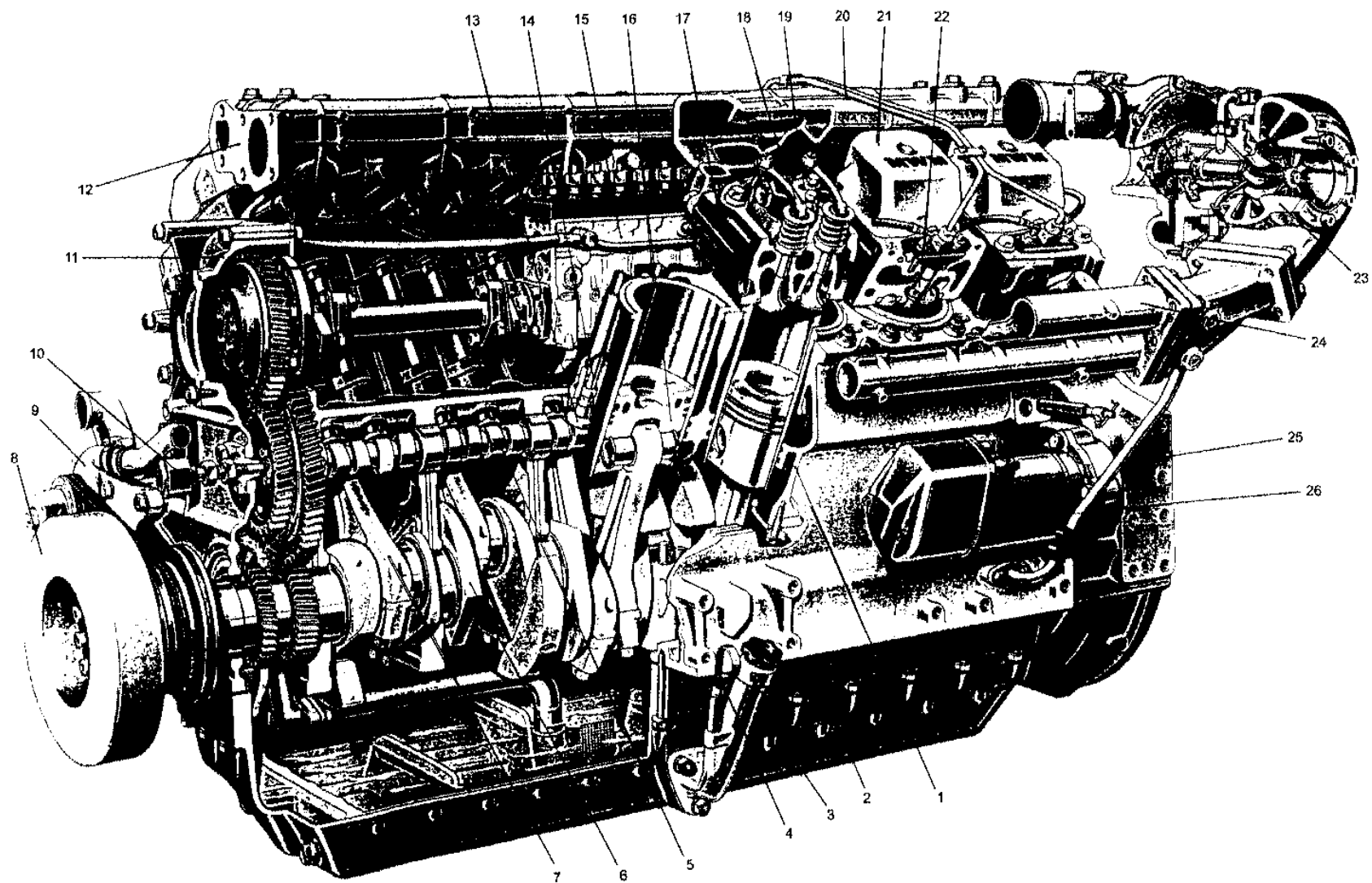
- Invoicing Address
- Forwarding Address
- Type of Shipment

The supply of spares is subject to our General Terms and Conditions for the sales of Spare Parts.

Ordering Address

The parts required should be ordered direct from Wärtsilä Netherlands B.V. or from one of the service stations, workshops and ship repair centres that form our service network in 70 countries worldwide.

Wärtsilä Netherlands B.V.
P.O. Box 10608, 8000 GB Zwolle
Office: Hanzelaan 95, 8017 JE Zwolle
The Netherlands
Tel. +31 38 425 32 53 (24 hrs)
Fax +31 38 422 35 64
service.sales.nl@wartsila.com



1. Crankcase 2. Oil pan 3. Oil filter 4. Diprod 5. Camshaft 6. Crankshaft 7. Connecting rod 8. Damper 9. Water pump 10. Speed transmitter 11. Front wall cover 12. Intake manifold 13. Tappet 14. Push rod 15. Injection pump 16. Piston 17. Cylinder head 18. Rocker arm 19. Support of rocker arm 20. Fuel pressure pipes 21. Cylinder head cover 22. Injector 23. Turbocharger 24. Exhaust pipe 25. Flywheel housing 26. Starter

Engine Type		TBD234V6			TBD234V8					TBD234V12		
Application		Marine Genset	Work Boat	High-speed Boat	Marine Genset	Work Boat	High-speed Boat	Stationary Main Engine	Stationary Engine	Marine Genset	Work Boat	High-speed Boat
Cylinder Bore (mm)		128			128					128		
Stroke (mm)		140			140					140		
Piston Displacement		10.8			14.4					21.6		
Compression Ratio		15:1			15:1					15:1		
Rated Speed (r/min)		1500	2100	2200	1500	2100	2200	2100	1500	1500	2100	2200
Rated Power (kW)	Continuous Power	186	242	302/2200	249	323	405/2200	333	281	373	485	605/2200
	2h/12h Power			332/2265			445/2265					665/2200
	0.5h/6h Power			347/2300			465/2300					695/2265
Mean Effective Pressure (Mpa)		1.38	1.28	1.53	1.38	1.28	1.53	1.32	1.56	1.38	1.38	1.53
Mean Piston Speed (m/s)		7.0	9.8	10.2	7.0	9.8	10.2	9.8	7.0	7.0	9.8	10.2
Specific Fuel Consumption at Continuous Power (g/kWh)		199	205	205	195	200	205	205	203	197	202	205
Lube oil Consumption (g/kWh)		1.4			1.4					1.4		
Firing Order		A1-B2-A3-B1-A2-B3			A1-B2-A3-B1-A4-B3-A2-B4					A1-B5-A5-B3-A3-B6 A6-B2-A2-B4-A4-B1		
Crankshaft Rotation (Facing the Flywheel)		Anti-Clockwise			Anti-Clockwise					Anti-Clockwise		
Starting Method		By Electricity or Compressed Air			By Electricity or Compressed Air				By Electricity	By Electricity or Compressed Air		
Engine Net Weight (kg)		1275			1485			1310		1960		
Outline Dimension LxWxH (mm)		1390×865×1135			1565×910×1130			2036×1130×1596		1835×910×1130		
Distance From Crankshaft Center to Lowest Point (mm)		370			365			382		365		

2.3 Engine type, design feature and main data (V6、V12)

Model	1257A	1257B	1252A	1252B	1258A	1258B	1258C	1260A	1261A	1263A	1271A	1273A	1273B	1557A	1560A	1561A	1563A	1563B	1568A	1571A	1571B	1573A	1590A	
Engine type	D234V6		TBD234V6												TBD234V12							D234V12		
kW Engine output	87	87	186	191	186	186	186	222	242	⊗347	227	250	250	373	444	485	⊗695	⊗695	444(IV)	455	455	580	194	
r/min Engine speed	1500	1500	1500	1500	1500	1500	1500	1800	2100	2300	1800	2100	2100	1500	1800	2100	2300	2300	1500	1800	1800	2100	1500	
% Overload capacity	10	10	10	10	10	10	10	10			10			10	10					10	10		10	
Cooling method	Indirect cooling	Fan cooling			Indirect cooling						Fan cooling			Indirect cooling					Fan cooling					
Intake method	Natural admission		Supercharged heart cooling																			Natural admission		
Oil pan form	Wet	Dry	Wet			Dry	Double start	Wet															Double start	
Governor type	Mechanical	Electronic	Mechanical			Electronic	Mechanical																	
Main application	Marine main genset			Emergency pump	Marine main genset			Marine main engine			Air compressor	Repair well engine	Marine main genset	Marine main engine				Emergency pump	Lash-up pump		Emergency pump	Marine gency genset		
Remark	Electronic and mechanical governor																							

Engine type, design feature and main data (V8)

Model	1353A	1353B	1353C	1354A	1354B	1356A	1356B	1356C	1356D	1356E	1356F	1358A	1358B	1363A	1365A	1371A	1371B	1373A	1373B	1373C	1373D	1359A	1390A	1391A
Engine type	TBD234V8																					D234V8		
^① kW Engine output	249	249	249	249	249	281	255	③ 281	267	249	281	296	296	323	② 465	303	303	333	333	③ 367	③ 367	117	117	138
r/min Engine speed	1500	1500	1500	1500	1500	1500	1500	1500	1600	1500	1500	1800	1800	2100	2300	1800	1800	2100	2100	2100	2100	1500	1500	1800
% Overload capacity	10	10	10	10	10	10	10			10	10	10	10			10	10					10	10	10
Cooling method	Indirect cooling					Fan cooling					Indirect cooling					Fan cooling					Indirect cooling	Fan cooling		
Intake method	Charge air cooling																					Natural admission		
Oil pan form	Wet	Dry	Double start	Wet																				
Governor type	Mechanical	Electronic	Mechanical																					
Main application	Marine main genset		Marine gency genset	Marine main engine	Fish main engine	Emergency pump		Emer gency pump	Cement vehicle	Marine gency genset	Emer gency pump	Marine main engine	Fish main engine	Marine main engine	Marine engine of high speed boat	Slurry pump	Cement vehicle	Slurry pump	Cement vehicle	Slurry pump	Cement vehicle	Marine genset	Marine gency genset	
Remark	Electronic and mechanical governor																							

① Ambient condition for normal power

Marine engine: Atmospheric pressure 100kPa, Intake temperature 45℃, Sea water temperature before charge air cooler 32℃, relative humidity 60%

Stationary engine: Atmospheric pressure 100kPa, Intake temperature 25℃, Air temperature before charge air cooler 25℃, relative humidity 30%

② Output is 15% of overload, half an hour within 6 hours

③ Output of one hour

Engine parts group content

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	01-4425A	Crankcase	35
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	01-6426A	Crankcase	44
2	03-0420B	Front wall cover	47
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3	03-9427B	Breathing pipes	51
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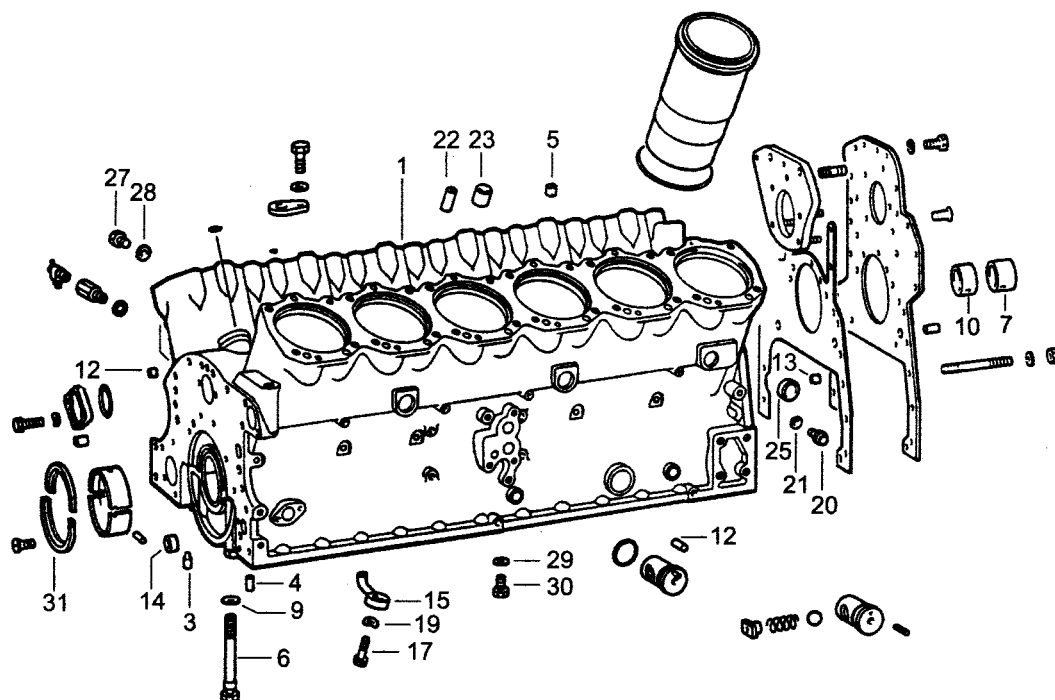
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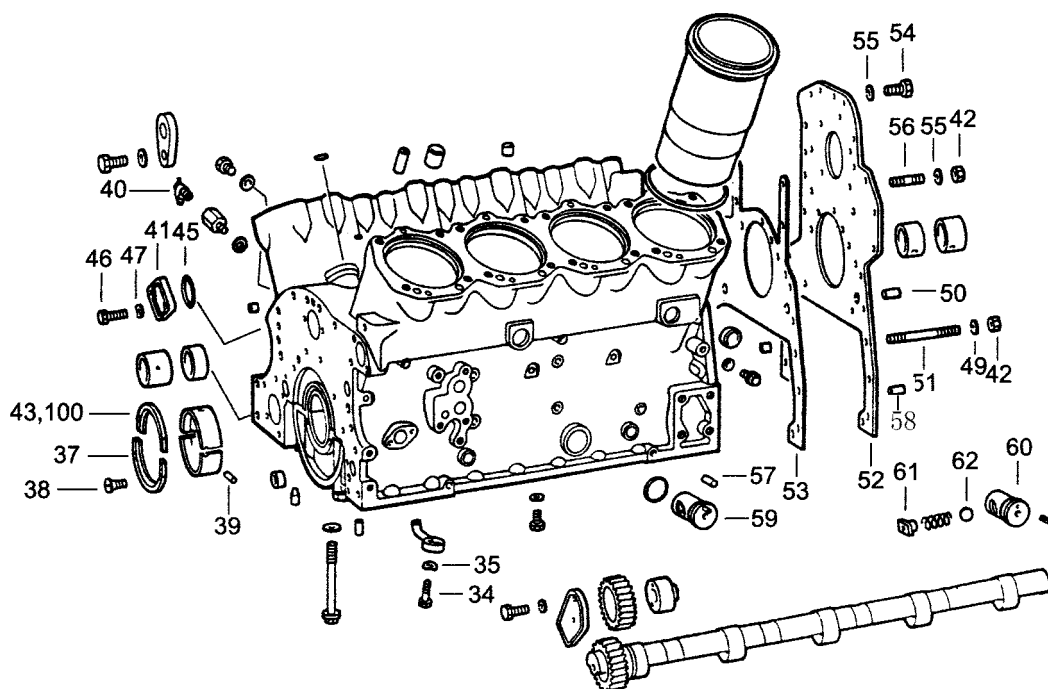
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Crankcase



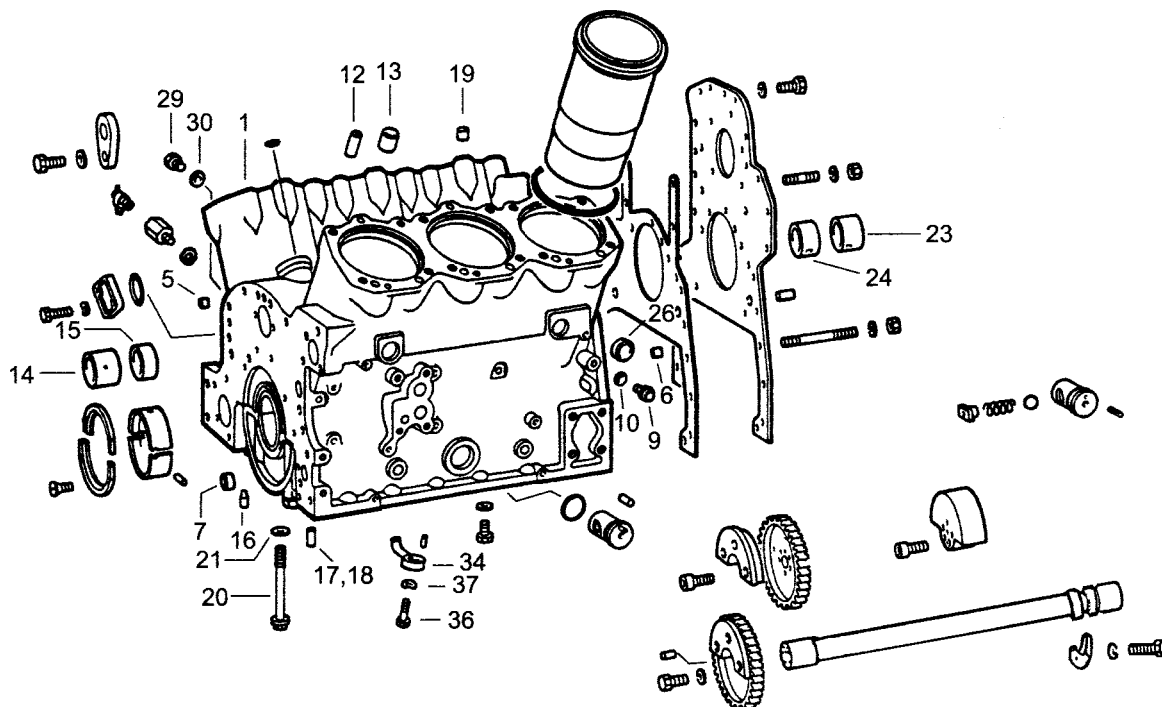
S/N	Drawing No	Specification	Denomination	Quantity
1	6.234.0.110.066.7		Cylinder crankcase, compl. consist of fig. No. 3-33, 72, 73	1
3	6.232.0.310.001.4		Straight pin	7
4	6.232.0.310.002.4		Straight pin	7
5	6.232.0.330.022.4		Bush	1
6	6.0200.01.8.1856	BM18× 165 DIN931-12.9	Hexagon screw	28
7	6.234.0.432.002.2		Bearing bush	2
9	6.0215.06.1.1851		Washer	28
10	6.234.0.432.001.2		Bearing bush	5
12	6.205.1.327.001.4	Φ 10mm	Plug	8
13	6.324.1.327.002.4	Φ 14mm	Plug	4
14	6.0215.21.8.0025	25 DIN443	Cap	6
15	6.234.0.465.001.5		Nozzle for cooling oil	12
17	6.0200.01.0.0845	M8× 45 DIN931-8.8	Hexagon screw	12
19	6.0216.03.1.0080	B8 DIN137	Spring washer	12
20	6.0206.05.0.1010	AM10× 1 DIN7604-5.8	Screw plug	1
21	6.0492.01.0.1014	A10× 14 DIN7603-Cu	Packing ring	1
22	6.232.0.330.014.4		Sleeve	24
23	6.234.0.330.011.4		Sleeve	24
25	6.0215.21.8.0030	30 DIN443	Cap	6
27	6.0206.05.0.1215	AM10× 1 DIN7604-5.8	Screw plug	1
28	6.0492.01.0.1218	A10× 14 DIN7603-Cu	Packing ring	1
29	6.300.0.340.001.4		Washer	1
30	6.0200.05.0.0815	M8× 16 DIN933-8.8	Hexagon screw	1
31	6.234.0.340.001.4		Ring half	2

Crankcase



S/N	Drawing No	Specification	Denomination	Quantity
34	6.0200.01.0.0845	M8× 45DIN931-8.8	Hexagon screw	8
35	6.0216.03.1.0080	B8 DIN137	Spring washer	6
37	6.234.0.340.001.4		Ring half	2
38	6.0203.21.0.0612	AM6× 12 DIN963-5.8	Countersunk screw	4
39	6.0220.15.0.0408	4× 8 DIN1481	Clamping sleeve	4
40	6.0452.04.8.0014	CM14× 1.5keg DIN71401	Exhaust valve	1
41	6.234.0.950.019.4		Cover	1
42	6.0210.05.4.0080	M8 DIN934m-10	Hexagon nut	14
43	6.234.0.340.002.4		Ring half (Series)	2
45	6.0493.10.4.0554		Round packing ring	1
46	6.0200.05.0.0825	M8× 25 DIN933-8.8	Hexagon screw	2
47	6.0216.03.1.0080	B8 DIN137	Spring ring	2
49	6.0216.01.0.0080	B8 DIN127	Spring ring	5
50	6.0220.10.0.1024	10m6× 24 DIN7	Straight pin	4
51	6.0201.10.1.0811	M8× 110 DIN939-5.8	Stud	4
52	6.232.0.788.002.4		Cover plate	1
53	6.232.0.853.015.4		Shaped gasket	
54	6.0200.05.0.0820	M8× 20 DIN933-8.8	Hexagon screw	14
55	6.0216.01.0.0080	B8 DIN27	Spring ring	9
56	4.234.0.355.750.4		Stud	1
57	6.0220.10.0.1024	10m6× 24 DIN7	Straight pin	
58	6.0220.15.0.0620		Straight pin	2
59	6.234.0.767.001.6		Overflow valve, compl. consist of fig. No. 60-64	
60	6.234.0.346.001.4		Valve insert	1
61	6.234.0.342.002.4		Spring plate	
62	6.0325.11.0.0024	3/4III DIN5401	Ball	

Crankcase



S/N	Drawing No	Specification	Denomination	Quantity
1	6.234.0.110.063.7		Cylinder crankcase, compl. consist of fig. No. 5-41, 93, 94	1
5	6.205.1.327.001.4	Φ 10mm	Plug	2
6	6.324.1.327.002.4	Φ 14mm	Plug	4
7	6.0215.21.8.0025	25DIN443	Cap	5
9	6.0206.05.0.1010	AM10× 1DIN7604-5.8	Screw plug	1
10	6.0492.01.0.1014	A10× 14DIN7603-Cu	Packing ring	1
12	6.232.0.330.014.4		Sleeve	12
13	6.234.0.330.011.4		Sleeve	12
14	6.232.0.432.007.4		Bearing bush	1
15	6.232.0.432.006.4		Bearing bush	1
16	6.232.0.310.001.4		Straight pin	4
17	6.232.0.310.002.4		Straight pin	3
18	6.232.0.310.003.4		Straight pin	1
19	6.232.0.330.022.4		Bush	1
20	6.0200.01.8.1856	BM18× 165DIN931-12.9	Hexagon screw	16
21	6.0215.06.1.1851		Washer	16
23	6.234.0.432.002.2		Bearing bush	2
24	6.234.0.432.001.2		Bearing bush	2
26	6.0215.21.8.0030	30DIN443	Cap	4
29	6.0206.05.0.1215	AM12× 1.5DIN7604-5.8	Screw plug	1
30	6.0492.01.0.1218	A12× 18DIN7603-Cu	Packing ring	1
	6.324.1.327.001.4		Plug	4