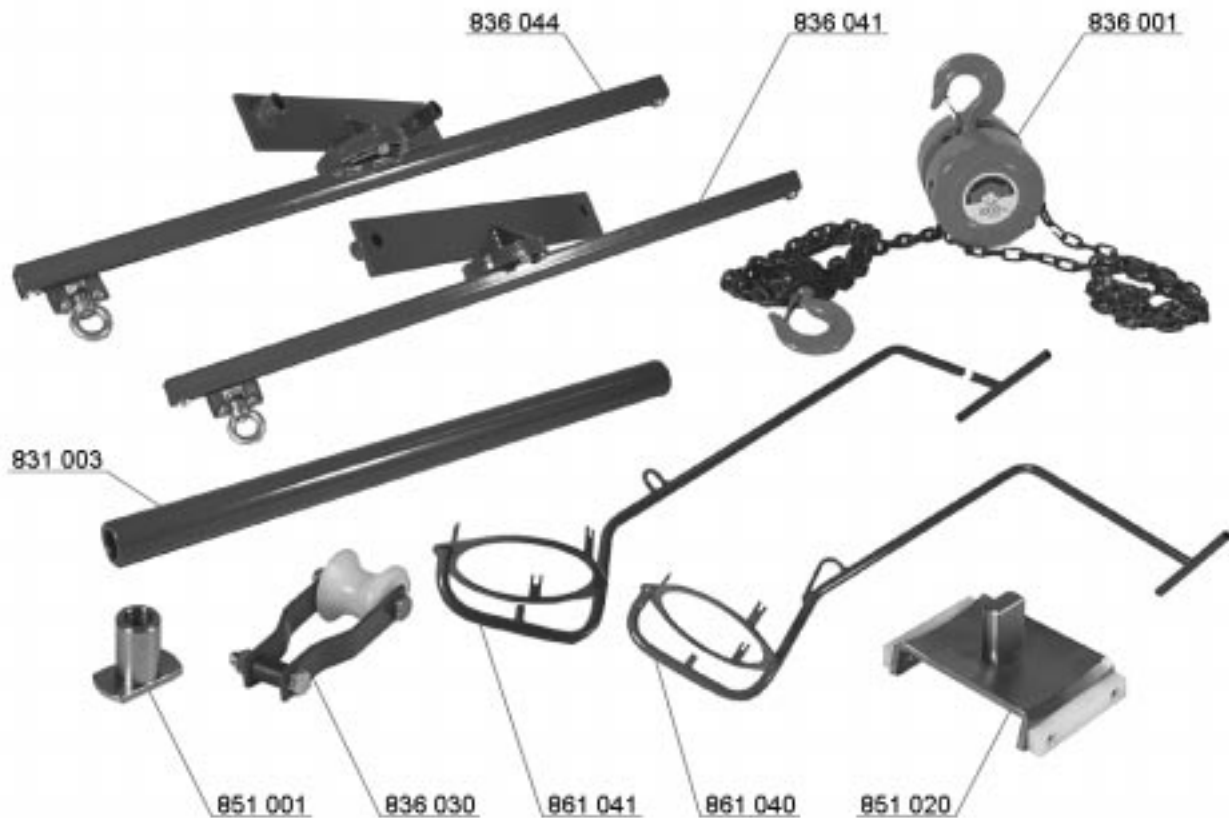


Main Bearings

Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
831003	Bar for lifting tool	1	0083C011800	
836001	Chain tackle 1000 kg	1	008680119	
836030	Transport tool	1	0083C013400	
836041	Transport tool for crankcase	1	0083C016500	V
836044	Transport tool for crankcase	1	0083C016900	L
851001	Turning tool for main bearing shell	1	0085B002000	
851020	Turning tool for thrust washers and bearing shell	1	0085B002100	
861040	Lifting tool for hydraulic cylinder	1	0086B014000	L
861041	Lifting tool for hydraulic cylinder	1	0086B014500	V

Main Bearings

Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
803004	Stud remover M56	1	0084G018900	
860175	High pressure pump (1000 bar)	1	0086A003900	
860179	Flexible hose 4000 mm, including quick couplings	2	0086A007000	
860180	Flexible hose 1000 mm, including quick couplings	1	0086A003902	
860181	Low pressure pump (150 bar)	1	0086A007400	
860182	Flexible hose 4000 mm, including quick couplings (low p. pump)	1	0086A007500	
861009	Distance sleeve M56	2	0086B003900	
861010	Pin for tightening of nuts M56	1	0086B000200	
861100	Hydraulic cylinder M56	2	0086B007900	
861143	Hydraulic tools M90×6	2	0086B010600	
861146	Pin for tightening of nuts M90×6	1	0086B008600	

Cylinder Liner

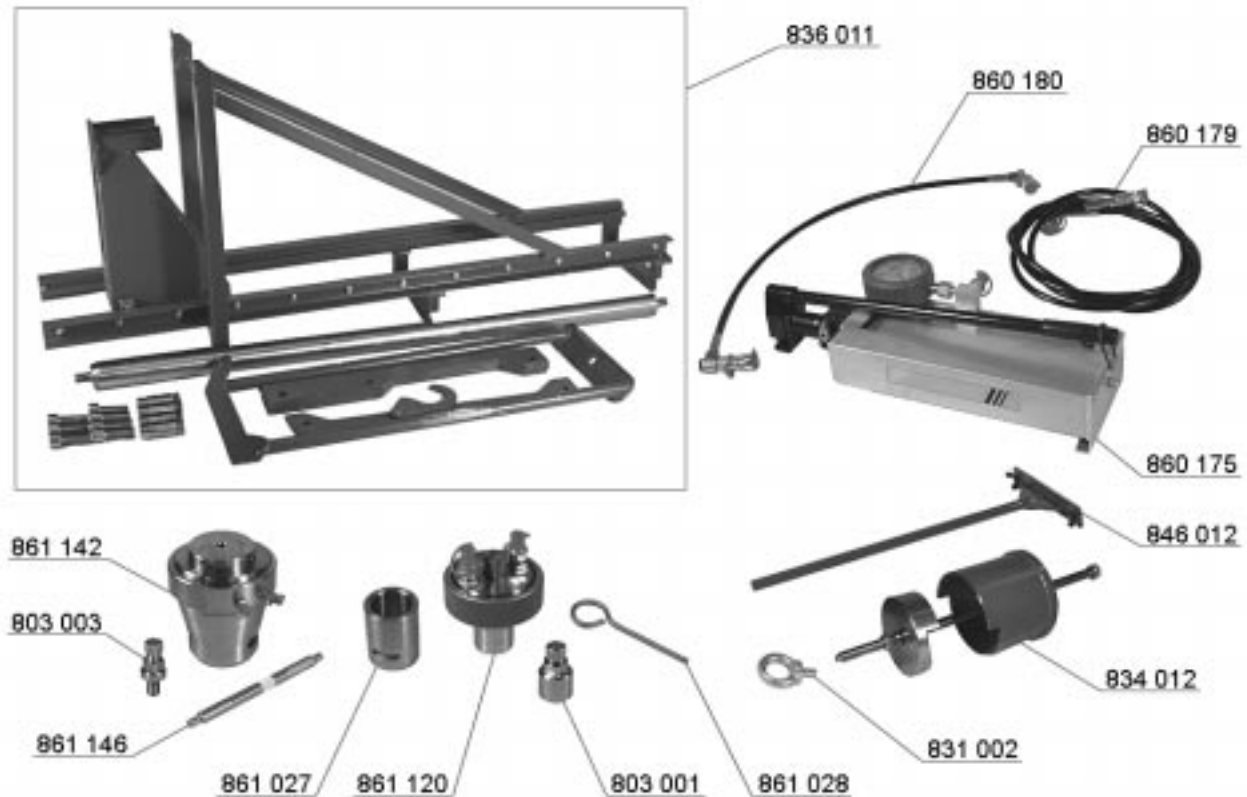
Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
834050	Hydraulic extractor	1	0083E006800	
836009	Lifting tool for cylinder liner	1	0083G008100	
836032	Support for lifting tool	1	0083G009600	L
836033	Support for lifting tool	1	0083G006300	V
836039	Yoke for lifting of cylinder liner	1	0083G008700	
836043	Dismantling tool for antipolishing ring	1	0083G009000	
842014	Honing tool	1	0084C002400	
842025	Honing stones 25×25×250, coarse, including holder	3	008760196	
842026	Honing stones 25×25×250, fine, including holder	3	008760197	
847001	Measuring rail for cylinder liner	1	0084K005100	
848012	Inside micrometer for cylinder liner	1	008610045	
860175	High pressure pump (1000 bar)	1	0086A003900	
860179	Flexible hose 4000 mm, including quick couplings	2	0086A007000	

Connecting Rod, L-engine

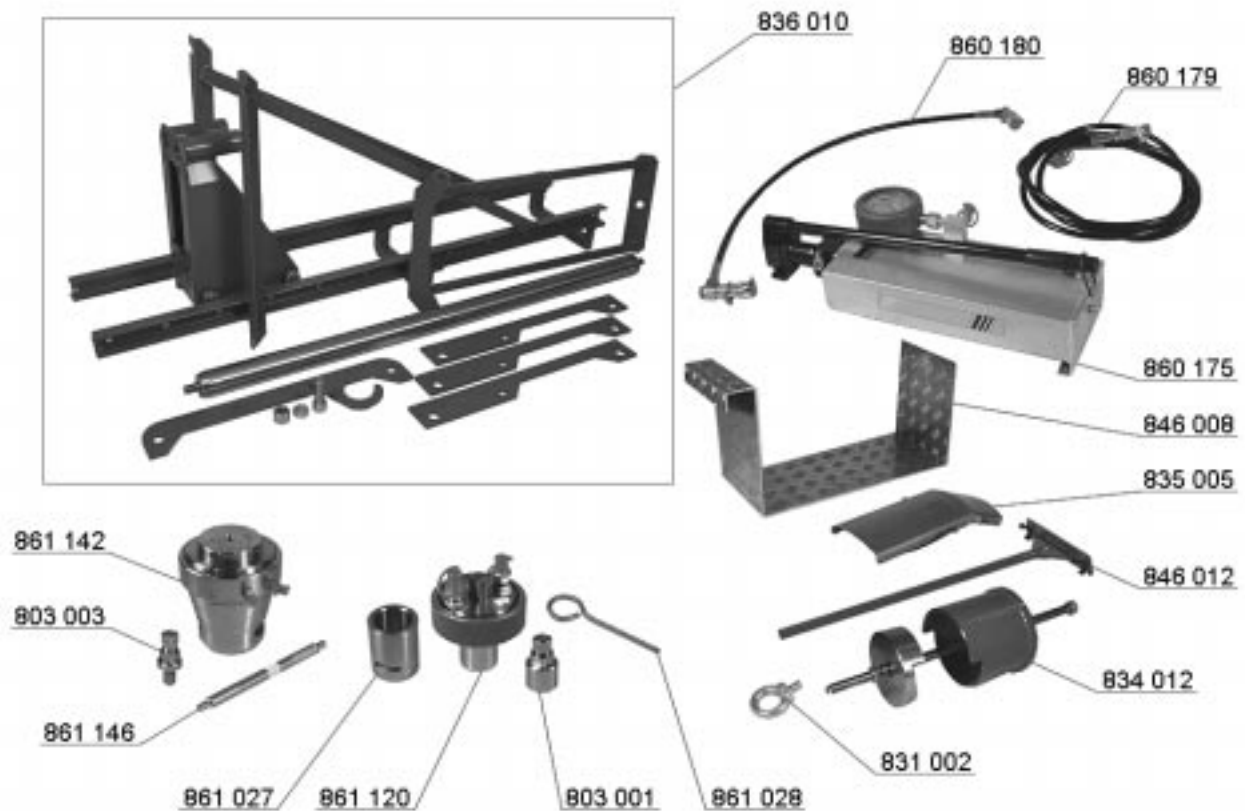
Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
803001	Stud remover M42	1	0080D002800	
803003	Stud remover M72×6	1	0080D002100	
831002	Lifting eye bolt M12	2	004470011	
834012	Mounting & dismantling tool for gudgeon pin bearing	1	0083H015600	
836011	Mounting tool for big end bearing	1	0083L001400	L
846012	Guide lever	1	0083F010600	
860175	High pressure pump (1000 bar)	1	0086A003900	
860179	Flexible hose 4000 mm, including quick couplings	2	0086A007000	
860180	Flexible hose 1000 mm, including quick couplings	1	0086A003902	
861027	Distance sleeve M42	2	0086B023200	
861028	Pin for tightening of nuts M42	1	0086B001100	
861120	Hydraulic cylinder M42	2	0086B017800	
861142	Hydraulic tools M72×6, including distance sleeve	2	0086B013200	
861146	Pin for tightening of nuts M72×6	1	0086B008600	

Connecting Rod, V-engine

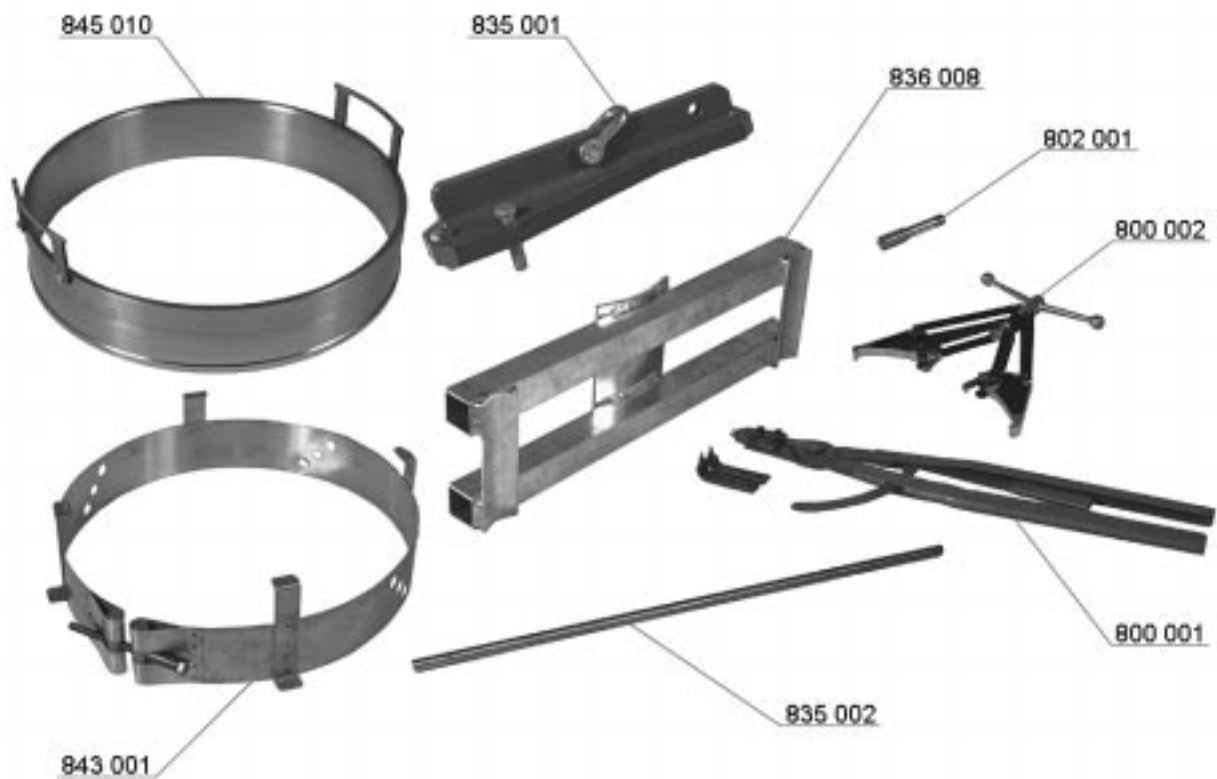
Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
803001	Stud remover M42	1	0080D002800	
803003	Stud remover M72×6	1	0080D002100	
831002	Lifting eye bolt M12	2	004470011	
834012	Mounting & dismantling tool for gudgeon pin bearing	1	0083H015600	
835005	Protecting sleeve for connecting rod	1	0083F016100	V
836010	Mounting tool for big end bearing	1	0083L001500	V
846008	Lock & foot support for big end bearing	2	0083F010400	V
846012	Guide lever	1	0083F010600	
860175	High pressure pump (1000 bar)	1	0086A003900	
860179	Flexible hose 4000 mm, including quick couplings	2	0086A007000	
860180	Flexible hose 1000 mm, including quick couplings	1	0086A003902	
861027	Distance sleeve M42	2	0086B023200	
861028	Pin for tightening of nuts M42	1	0086B001100	
861120	Hydraulic cylinder M42	2	0086B017800	
861142	Hydraulic tools M72×6, including distance sleeve	2	0086B013200	
861146	Pin for tightening of nuts M72×6	1	0086B008600	

Piston

Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
800001	Pliers for securing ring	1	008650009	
800002	Piston ring pliers	1	008650121	
802001	Tap M16	1	008770071	
835001	Lifting tool	1	0083F009800	
835002	Guide lever for piston assembly	1	0083F010900	
836008	Assembly guide for piston	1	0083F010700	V
843001	Clamp tool for piston rings	1	0084D002400	
845010	Piston assembly ring	1	0083F010800	

Cylinder Head

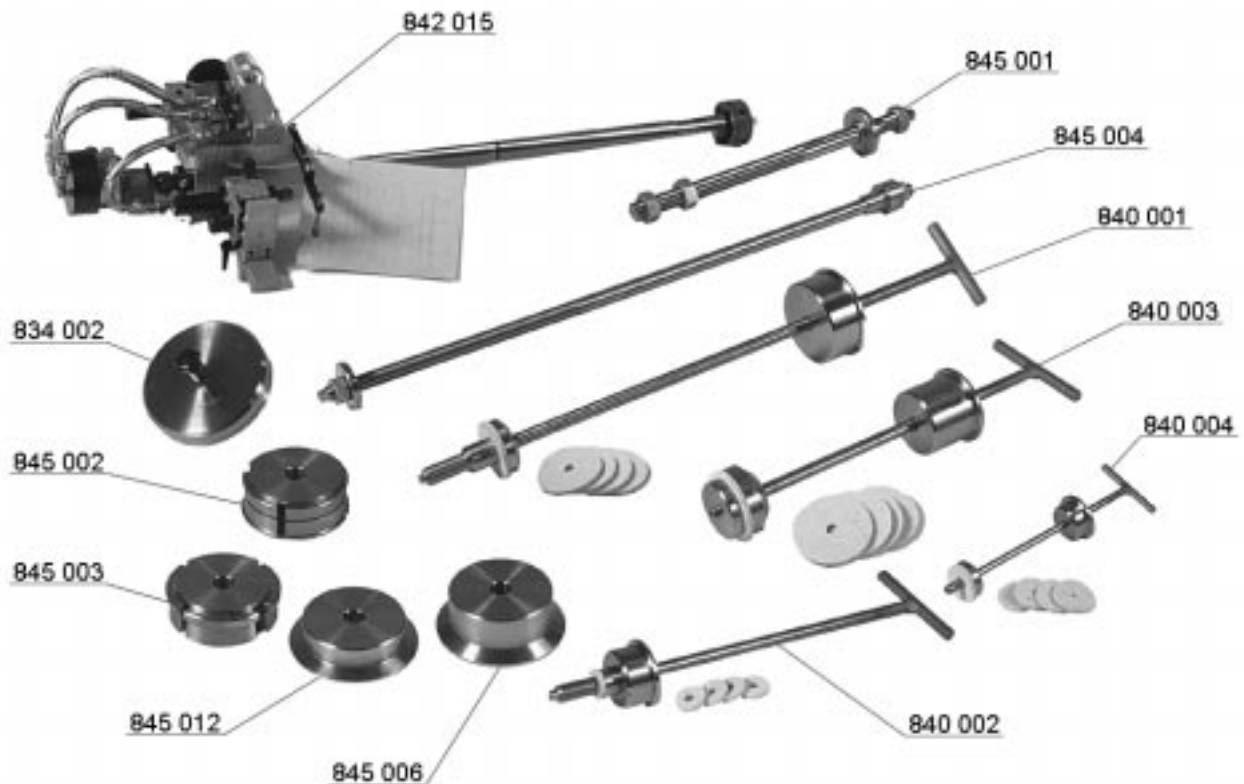
Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
805001	Eye bolt for injection valve	1	0083C011700	
808001	T-wrench for indicator valve	1	0080K000600	
832001	Lifting tool for cylinder cover	1	0083C012300	
834001	Mounting tool for valves	1	0083E013800	
834045	Lifting tool for hydraulic tools	1	0083L001300	
834050	Hydraulic extractor	1	0083E006800	
836031	Lifting tool for rocker arm bracket	1	0084G035600	
841010	Lapping tool for valve	1	0084B013900	
845005	Bed for tension cylinder	1	0083E008300	
845011	Bed for tension cylinder	1	0083E009000	
848001	Valve clearance feeler gauge	1	0084K005000	
860170	Air operated hydraulic unit	1	005410194	
860175	High pressure pump (1000 bar)	1	0086A003900	
860179	Flexible hose 4000 mm, including quick couplings	2	0086A007000	
860180	Flexible hose 1000 mm, including quick couplings	3	0086A003902	
861143	Hydraulic tools M90×6	4	0086B010600	
861146	Pin for tightening of nuts M90×6	1	0086B008600	

Cylinder Head

Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
834002	Holding tool for valves	1	0084G029900	
840001	Lapping tool for injection valve sealing surface	1	0084B015900	
840002	Lapping tool for pilot injection valve sealing surface	1	0084B016300	
840003	Lapping tool for starting valve sealing surface	1	0084B016700	
840004	Lapping tool for safety valve sealing surface	1	0084B017300	
842015	Valve seat grinder	1	008760190	
845001	Spindle for valve seat rings	1	0083E008100	
845002	Removing tool for exhaust valve seat ring	1	0083E009300	
845003	Removing tool for inlet valve seat ring	1	0083E009400	
845004	Spindle for valve guide removing tools	1	0083E008200	
845006	Assembly tool for exhaust valve seat ring	1	0083E009100	
845012	Assembly tool for inlet valve seat ring	1	0083E009200	

Camshaft

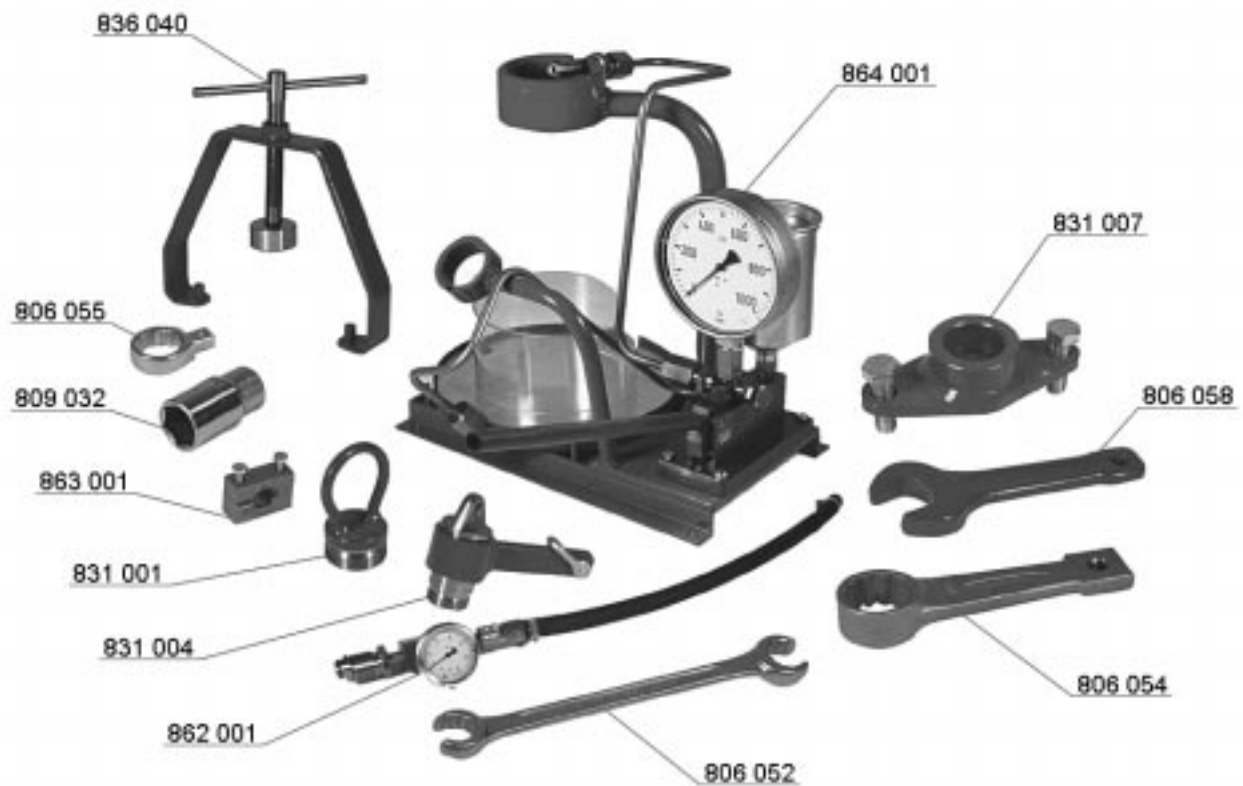
Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
834010	Mounting & removing tool for camshaft bearing	1	0083H011800	
834050	Hydraulic extractor	1	0083E006800	
834053	Locking tool for camshaft	1	0084G029200	
836017	Lifting tool for camshaft end piece	1	0084G027900	
836018	Lifting tool for camshaft end piece	1	0084G028100	
836019	Connecting piece for camshaft extension piece lifting tool	1	0084G028600	
836024	Lifting tool for camshaft pieces	1	0083C016000	
836029	Lifting tool for camshaft piece	1	0084G028000	
845013	Locking bar for valve tappet	18	0084G032700	V
845014	Locking bar for injection pump tappet	9	0084G032800	L
845020	Camshaft mounting tool	1	0084G036600	
845030	Camshaft mounting tool	1	0084G036200	
860175	High pressure pump (1000 bar)	1	0086A003900	
860179	Flexible hose 4000 mm, including quick couplings	2	0086A007000	

Injection Equipment

Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
806052	Flare nut wrench, double end, 30-32	1	008640158	
806054	Special key for main nozzle	1	0082A003500	
806055	Box insert tool 36 mm	1	008640271	
806058	Special key for main nozzle	1	0082A003700	
809032	Long socket wrench 36 mm - 3/4"	1	0080H002100	
831001	Lifting tool for injection pump	1	0083A018300	L
831004	Lifting tool for injection pump	1	0083A018500	V
831007	Yoke for lifting tool L46GD/D	1	0083C019900	
836040	Withdrawing tool for injection pump spindle	1	0084G029700	
862001	Timing tool for injection pump	1	0086C005800	
863001	Limiter for fuel rack movement	2	0022K025300	
864001	Testing tool for injection valve	1	0086E005400	

Tightening Tools

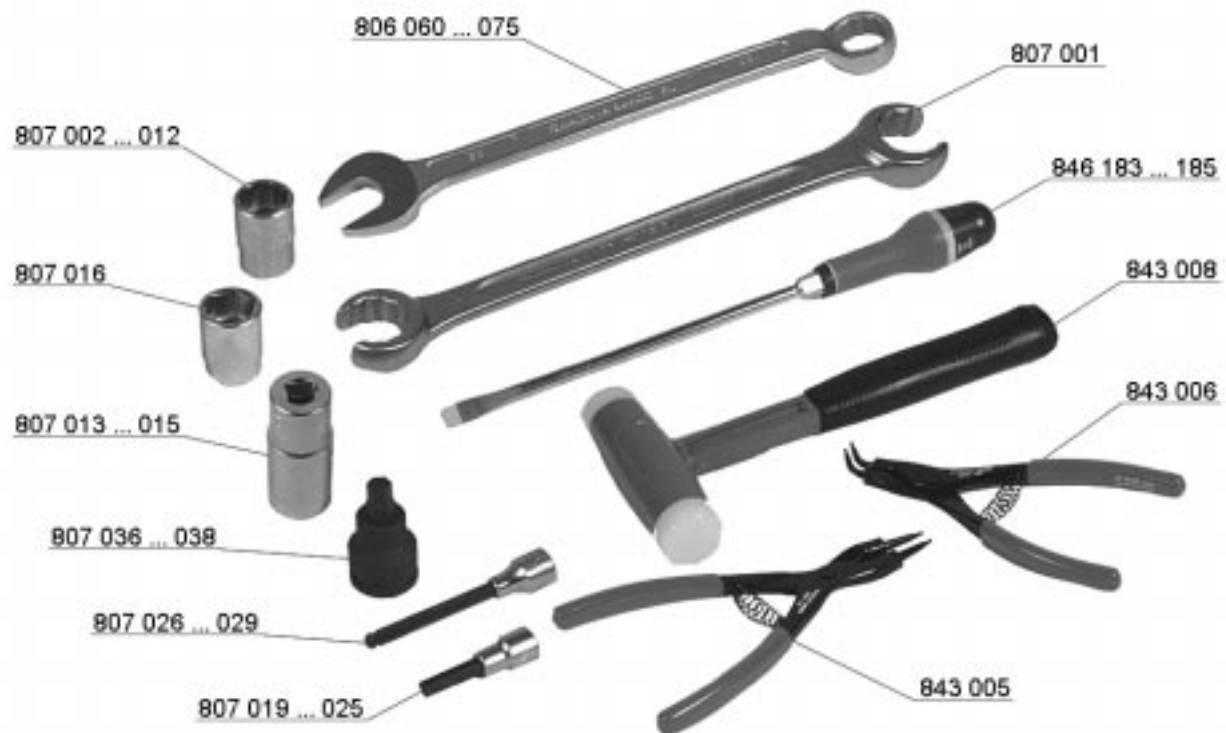
Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
807017	Ratchet handle 12.5×300 with 1/2" square drive	—	008640041	
807018	Ratchet handle 20×630 with 3/4" square drive	—	008640152	
807031	Extension bar B12.5×250 with 1/2" square drive	—	008640149	
807032	Extension bar B12.5×125 with 1/2" square drive	—	008640021	
807033	Extension bar B12.5×52 with 1/2" square drive	—	008640287	
807034	Universal joint C12.5×80 with 1/2" square drive	—	008640259	
807035	Adapter socket wrench A20×12.5 with 3/4"×1/2"	—	008640148	
807039	Extension bar B20×400 with 3/4" square drive	—	008640108	
807040	Extension bar B20×200 with 3/4" square drive	—	008640258	
807041	Universal joint C20×110 with 3/4" square drive	—	008640322	
807042	Adapter socket wrench A12.5×20 with 1/2"×3/4"	—	008640256	
820008	Torque wrench 40-200 Nm	—	008640269	
820009	Torque wrench 150-800 Nm	—	008640275	
820010	Torque wrench 15-60 Nm	—	008640307	

Hand Tools

Wärtsilä 46

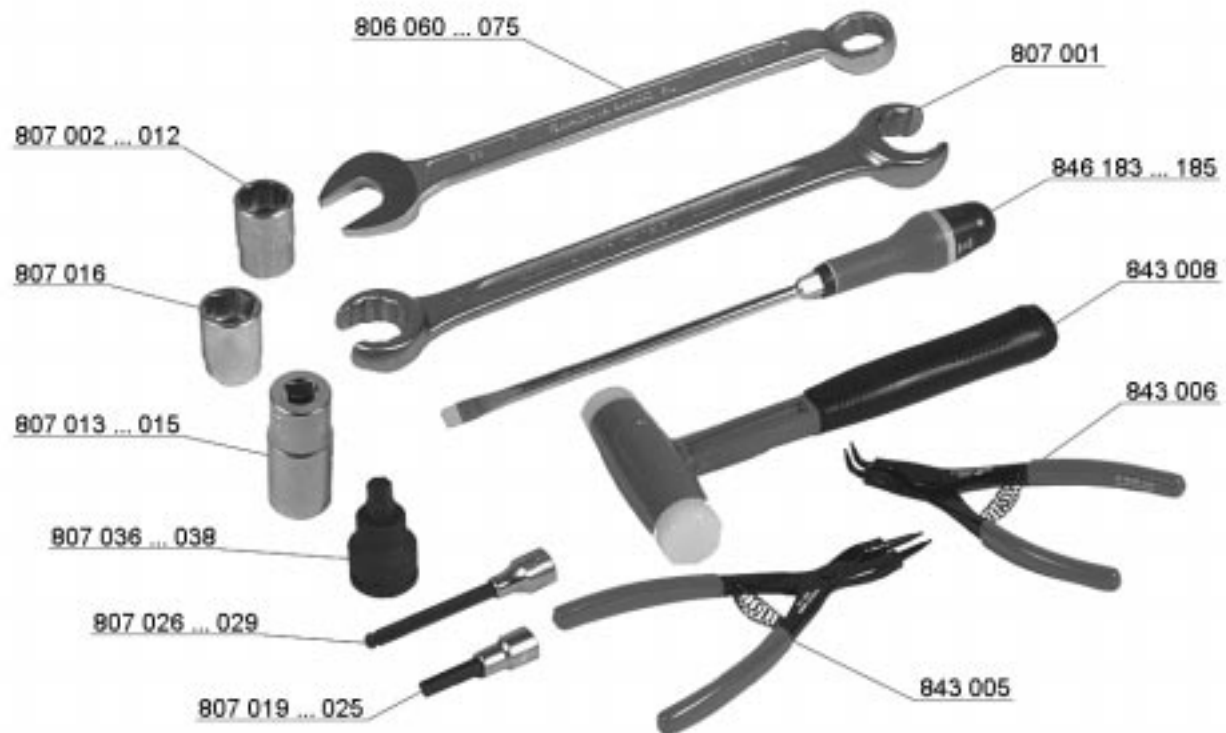


Not illustrated: 807 030, 843 002, 843 003, 843 004, 843 007

Part No	Description	Qty	Mat No	Remarks
806060	Combination wrench 8	—	008640232	
806061	Combination wrench 10	—	008640234	
806062	Combination wrench 12	—	008640236	
806063	Combination wrench 13	—	008640181	
806064	Combination wrench 14	—	008640238	
806065	Combination wrench 15	—	008640239	
806066	Combination wrench 17	—	008640241	
806067	Combination wrench 19	—	008640243	
806068	Combination wrench 22	—	008640245	
806069	Combination wrench 24	—	008640247	
806070	Combination wrench 27	—	008640249	
806071	Combination wrench 30	—	008640250	
806072	Combination wrench 32	—	008640251	
806073	Combination wrench 36	—	008640252	
806074	Combination wrench 46	—	008640255	
806075	Combination wrench 55	—	008640320	
807001	Flare nut wrench, double end, 30-32	—	008640158	

Hand Tools

Wärtsilä 46

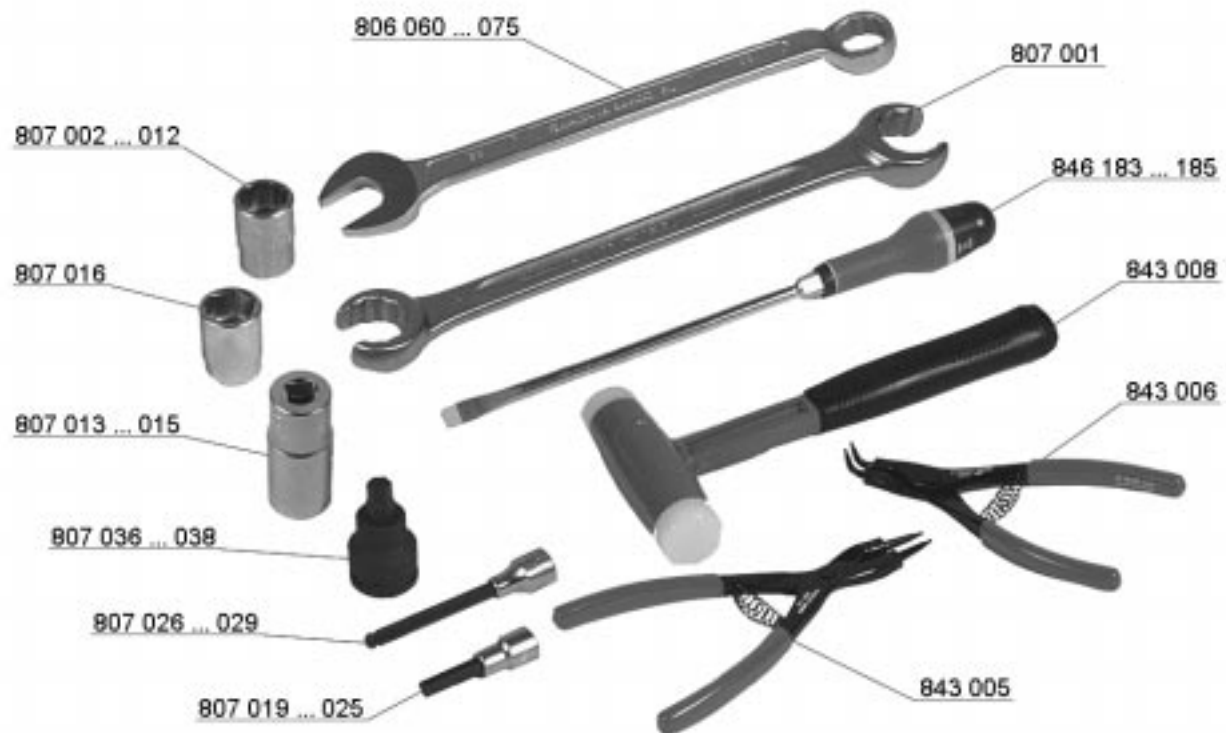


Not illustrated: 807 030, 843 002, 843 003, 843 004, 843 007

Part No	Description	Qty	Mat No	Remarks
807002	Socket wrench 10×12.5 with 1/2" square drive	—	008640150	
807003	Socket wrench 12×12.5 with 1/2" square drive	—	008640206	
807004	Socket wrench 13×12.5 with 1/2" square drive	—	008640043	
807005	Socket wrench 15×12.5 with 1/2" square drive	—	008640208	
807006	Socket wrench 17×12.5 with 1/2" square drive	—	008640007	
807007	Socket wrench 19×12.5 with 1/2" square drive	—	008640008	
807008	Socket wrench 22×12.5 with 1/2" square drive	—	008640212	
807009	Socket wrench 24×12.5 with 1/2" square drive	—	008640074	
807010	Socket wrench 27×12.5 with 1/2" square drive	—	008640213	
807011	Socket wrench 30×12.5 with 1/2" square drive	—	008640075	
807012	Socket wrench 32×12.5 with 1/2" square drive	—	008640088	
807013	Long socket wrench 13×12.5L with 1/2" square drive	—	008640174	
807014	Long socket wrench 24×12.5L with 1/2" square drive	—	008640159	
807015	Long socket wrench 27×12.5L with 1/2" square drive	—	008640321	
807016	Socket wrench 46×20 with 3/4" square drive	—	008640217	

Hand Tools

Wärtsilä 46

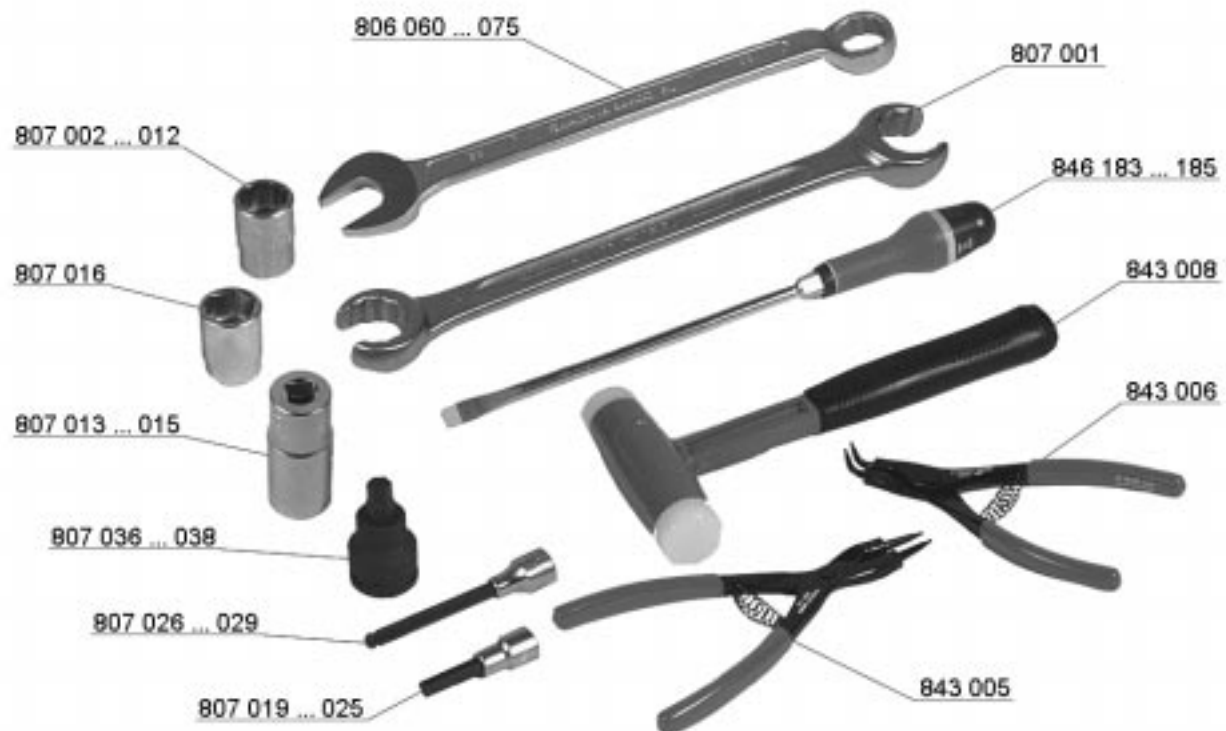


Not illustrated: 807 030, 843 002, 843 003, 843 004, 843 007

Part No	Description	Qty	Mat No	Remarks
807019	Bit, hexagon socket screw 4 with 1/2" square drive	_	008640218	
807020	Bit, hexagon socket screw 5 with 1/2" square drive	_	008640219	
807021	Bit, hexagon socket screw 6 with 1/2" square drive	_	008640013	
807022	Bit, hexagon socket screw 7 with 1/2" square drive	_	008640220	
807023	Bit, hexagon socket screw 8 with 1/2" square drive	_	008640014	
807024	Bit, hexagon socket screw 10 with 1/2" square drive	_	008640015	
807025	Bit, hexagon socket screw 12 with 1/2" square drive	_	008640221	
807026	Bit socket with ball head 5 with 1/2" square drive	_	0080G005201	
807027	Bit socket with ball head 6 with 1/2" square drive	_	0080G005202	
807028	Bit socket with ball head 8 with 1/2" square drive	_	0080G005203	
807029	Bit socket with ball head 10 with 1/2" square drive	_	0080G005204	
807036	Bit, hexagon socket screw 14 with 3/4" square drive	_	008640156	
807037	Bit, hexagon socket screw 17 with 3/4" square drive	_	008640084	
807038	Bit, hexagon socket screw 19 with 3/4" square drive	_	008640157	

Hand Tools

Wärtsilä 46

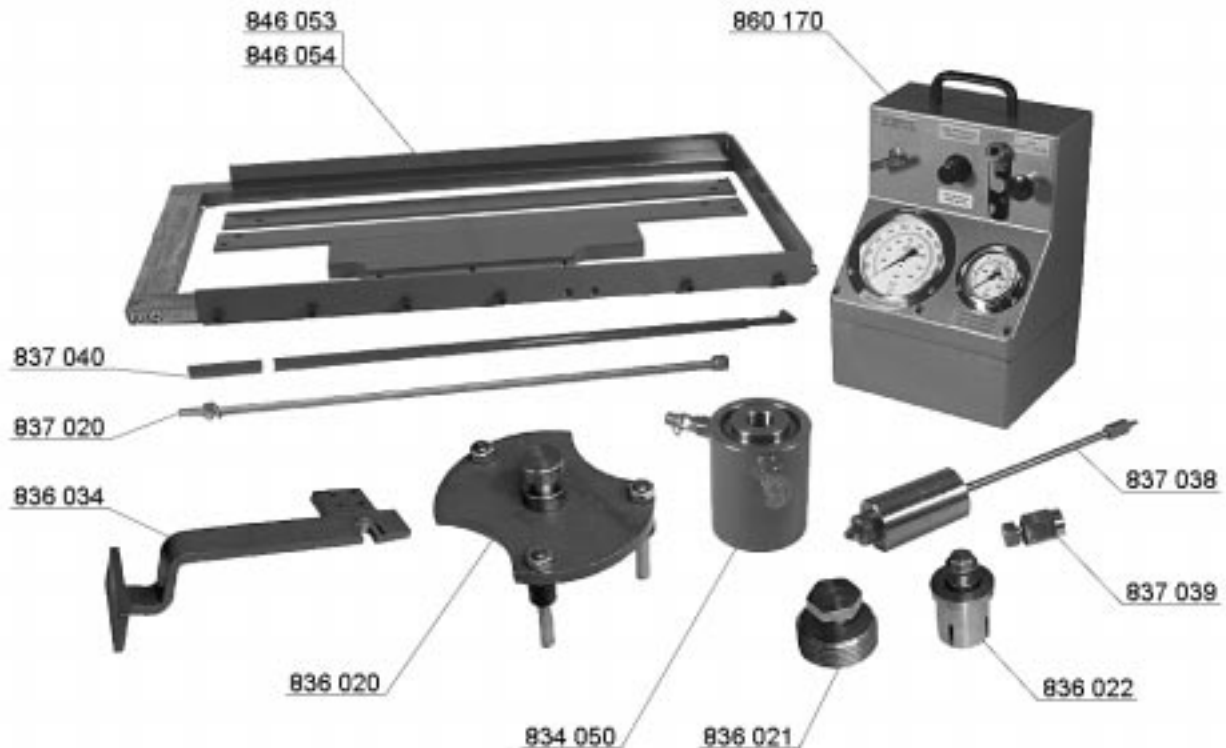


Not illustrated: 807 030, 843 002, 843 003, 843 004, 843 007

Part No	Description	Qty	Mat No	Remarks
807030	Nut spinner, flex head 12.5×400	—	008640289	
843002	Internal circlip pliers C19-60	—	008650131	
843003	Internal circlip pliers, bent D40-100	—	008650132	
843004	Internal circlip pliers, bent D85-165	—	008650133	
843005	External circlip pliers A19-60	—	008650134	
843006	External circlip pliers, bent B19-60	—	008650010	
843007	Multiple slip joint pliers 240	—	008650069	
843008	Non recoiling hammer D40	—	008650021	
846183	Screwdriver for slotted head screws 3.5×100	—	008650135	
846184	Screwdriver for slotted head screws 5.5×125	—	008650077	
846185	Screwdriver for slotted head screws 10×200	—	008650136	

Miscellaneous Tools

Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
834050	Hydraulic extractor	1	0083E006800	
836020	Lifting tool for camshaft drive gear	1	0084L002400	
836021	Lifting tool for bigger intermediate gear	1	0084G028200	
836022	Lifting tool for smaller intermediate gear	1	0084L002300	
836034	Lifting bar for drive gear	1	0084G028800	
837020	Mounting tool for overspeed cylinder & elastic link rod	1	0083H011600	
837038	Universal puller	1	0083H011500	
837039	Stud remover M20	1	0080D002400	
837040	Lever for draw of overspeed cylinder	1	0080K001500	
846053	Mounting tool for air cooler	1	0084G026200	L
846054	Mounting tool for air cooler	1	0084G029100	V
860170	Air operated hydraulic unit	1	005410194	

Miscellaneous Tools

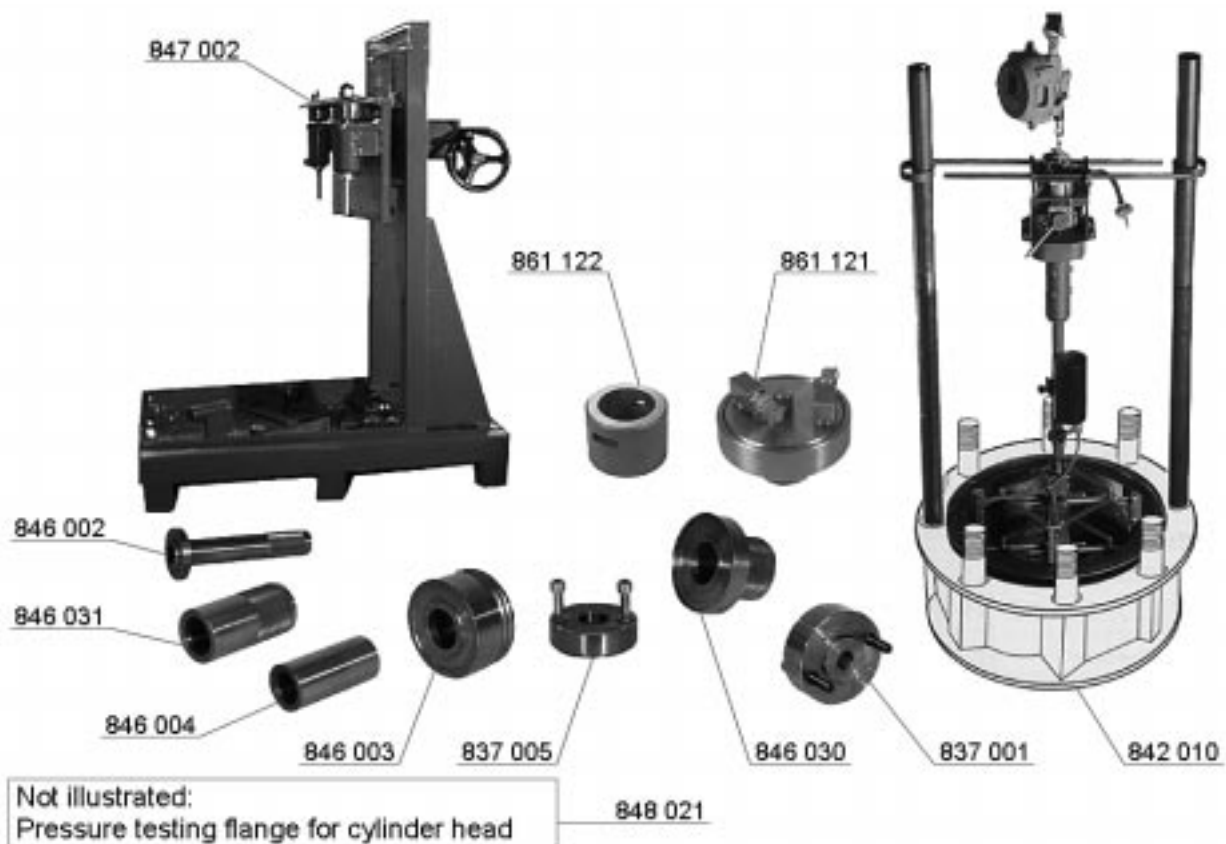
Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
831002	Lifting eye bolt M12	2	004470011	
831005	Lifting eye bolt M10	2	004470007	
831006	Lifting eye bolt M16	2	004470010	
833002	Shackle A 0.4	2	009160003	
833003	Shackle A 0.6	2	009160004	
833004	Shackle A 1.6	2	009160006	
833005	Lifting bend 500 kg, 1500 mm	2	005510014	
843186	Box magazine for tools	1	0080L000800	
848020	Checking tool for cylinder tightness	1	0084K003900	
848111	Deflection indicator	1	0084K005800	

Optional Tools

Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
837001	Extractor for water pump WD-200L impeller	1	0083H021000	V
837005	Extractor for water pump WD-125L impeller	1	0083H020800	L
842010	Honing machine with crane*	1	008760187	L
846002	Assembling tool for WD-125L water pump front bearing	1	0084G044200	L
846003	Assembling tool for WD-125L water pump back bearing	1	0084G044300	L
846004	Assembling tool for water pump WD-125L sealings	1	0084G044400	L
846030	Assembling tool for WD-200L water pump bearing	1	0084G048600	V
846031	Assembling tool for water pump WD-200L sealings	1	0084G048700	V
847002	Assembly ring for cylinder head	1	0084L002600	L
848021	Pressure testing flange for cylinder head	1	0084H004300	L
861121	Hydraulic cylinder M48×3	1	0086B012700	
861122	Distance sleeve M48×3	1	0086B018400	

*) Available with Counter Spring Balancer or Air-driven Hoist (not included in 842010)

High Pressure Pump

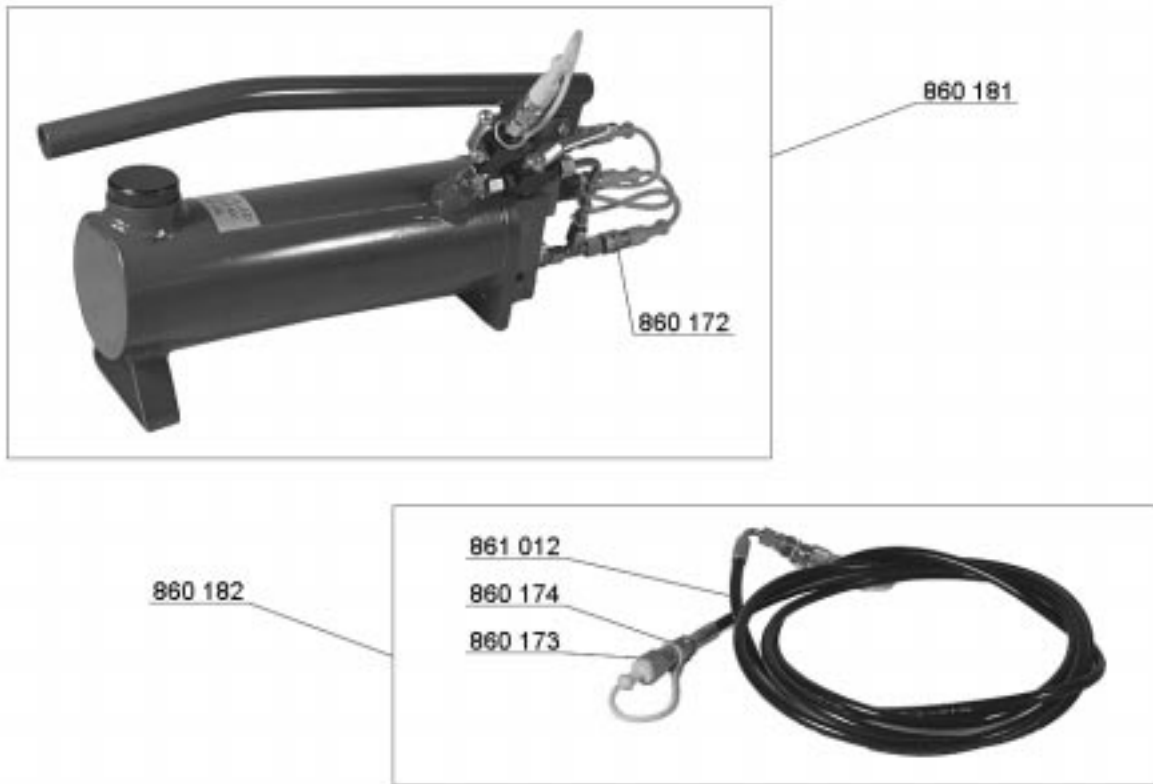
Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
860175	High pressure pump (1000 bar)	—	0086A003900	
860176	Quick coupling, female	—	006190146	
860177	Quick coupling, male	—	006190145	
860179	Flexible hose 4000 mm, including quick couplings	—	0086A007000	
860180	Flexible hose 1000 mm, including quick couplings	—	0086A003902	
861011	Flexible hose 1000 mm	—	006190092	
861012	Flexible hose 4000 mm	—	006190093	

Low Pressure Pump

Wärtsilä 46



Part No	Description	Qty	Mat No	Remarks
860172	Quick coupling, male	–	009470465	
860173	Quick coupling, female	–	009470464	
860174	Straight male stud	–	006230497	
860181	Low pressure pump (150 bar)	–	0086A007400	
860182	Flexible hose 4000 mm, including quick couplings	–	0086A007500	
861012	Flexible hose 4000 mm	–	006190093	

Spare Parts Wärtsilä 46

Cylinder Head with Valves

120 080



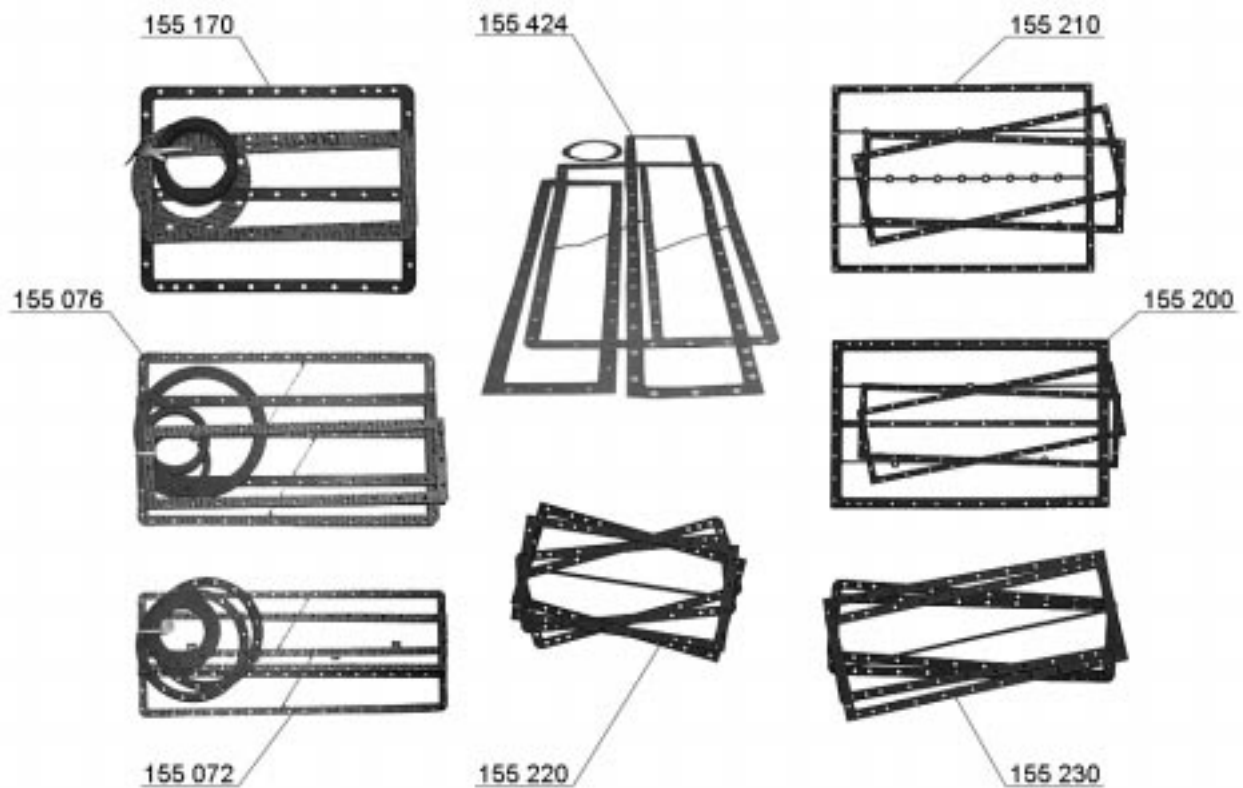
120 070



Part No	Description	Qty	Mat No	Remarks
120070	Sealing set for cylinder head (minor)	—	4692L001000	
120080	Repair kit for cylinder head (major)	—	4692L000900	

Spare Parts Wärtsilä 46

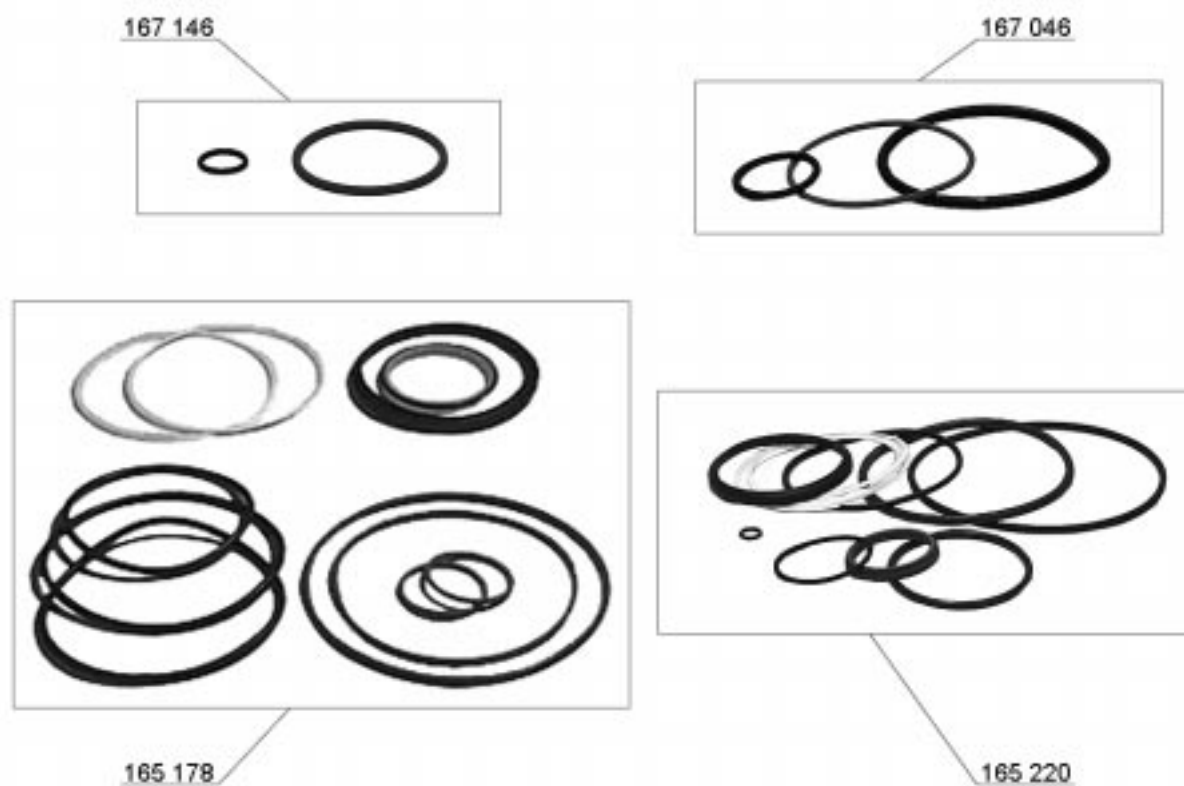
Charge Air System



Part No	Description	Qty	Mat No	Remarks
155072	Gasket set for charge air cooler GEA 8R46/9R46	—	4692L002100	
155076	Gasket set for charge air cooler GEA 6R46	—	4692L002000	
155170	Gasket set for two-stage charge air cooler GEA 6R46	—	4692L002800	
155200	Gasket set for charge air cooler WT149/149/VESTAS	—	4692L003300	
155210	Gasket set for charge air cooler WT151/151/VESTAS	—	4692L003400	
155220	Gasket set for charge air cooler WT91/128/VESTAS	—	4692L003500	
155230	Gasket set for charge air cooler WT133/187/VESTAS	—	4692L003600	
155424	Gasket set for charge air cooler	—	4692L001900	

Spare Parts Wärtsilä 46

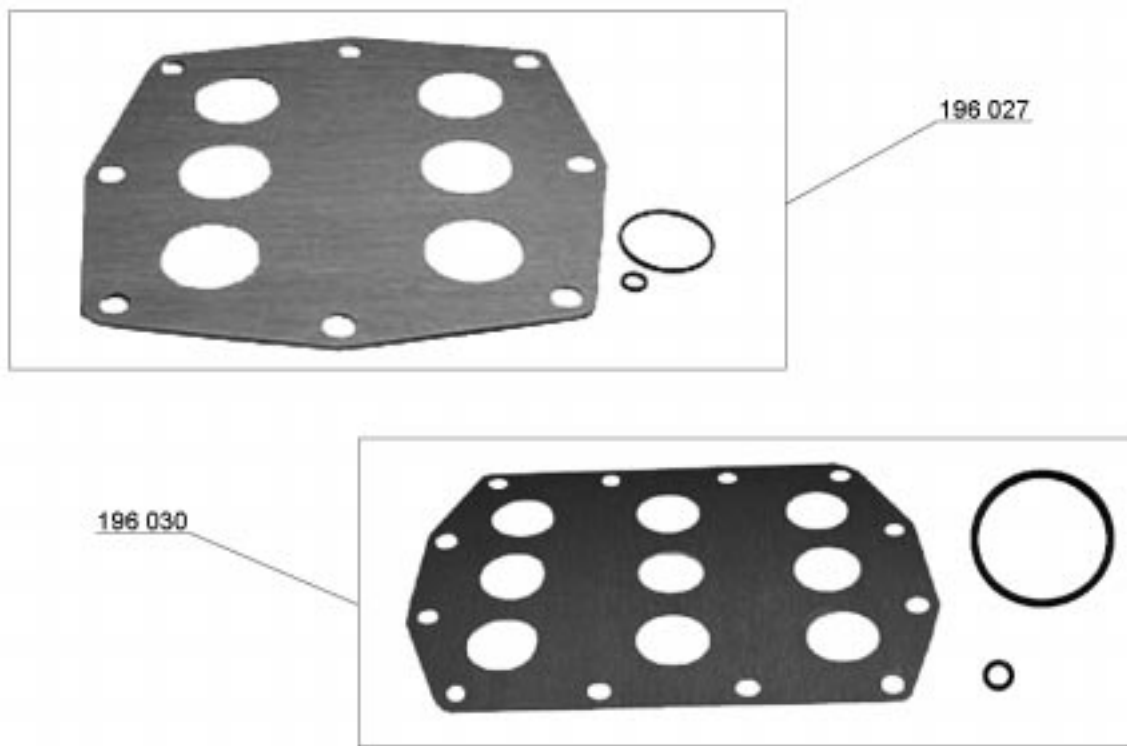
Injection Equipment, Fuel Feed Pumps



Part No	Description	Qty	Mat No	Remarks
165178	Sealing set for injection pump	–	4692L002300	
165220	Gasket set for injection pump	–	4692L002700	GD
167046	Sealing set for injection valve	–	4692L001200	
167146	Sealing set for pilot valve	–	4692L001300	

Spare Parts Wärtsilä 46

Cooling Water Pumps, Thermostatic Valves



Part No	Description	Qty	Mat No	Remarks
196027	Sealing set for thermostat valve, DN125	—	006720163	
196030	Sealing set for thermostat valve, DN150	—	006720155	

Spare Parts Wärtsilä 46

Regulating Mechanism



Part No	Description	Qty	Mat No	Remarks
228230	Repair kit for pressure regulator 20AG-X4	—	006750035	
228267	Repair kit for filter 19KK50	—	005450218	

Spare Parts Wärtsilä 46

Manifold (Fuel, Lube Oil, Cooling Water, Starting Air etc.)

357 165



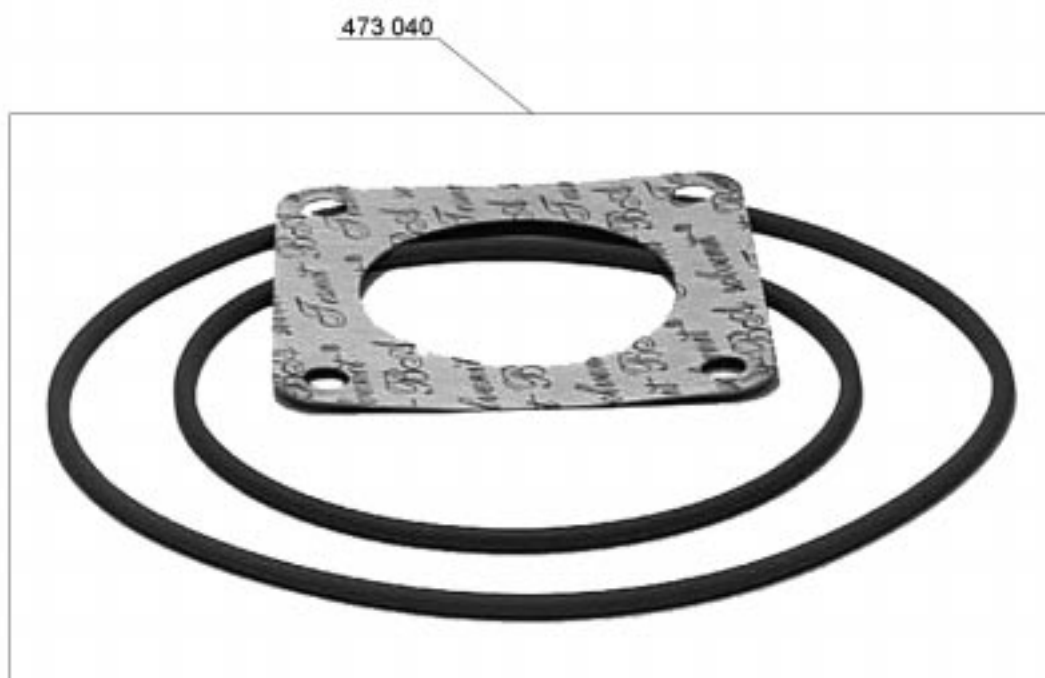
Not illustrated:
Repair kit for main starting valve, AMOT

357 240

Part No	Description	Qty	Mat No	Remarks
357165	Repair kit for main starting valve, SEITZ 1723	—	4692L003000	
357240	Repair kit for main starting valve, AMOT	—	4692L003200	

Spare Parts Wärtsilä 46

Filters, Coolers



Part No	Description	Qty	Mat No	Remarks
473040	Sealing set for centrifugal filter GF600	—	0092L072400	

Main Bearings

Wärtsilä 32

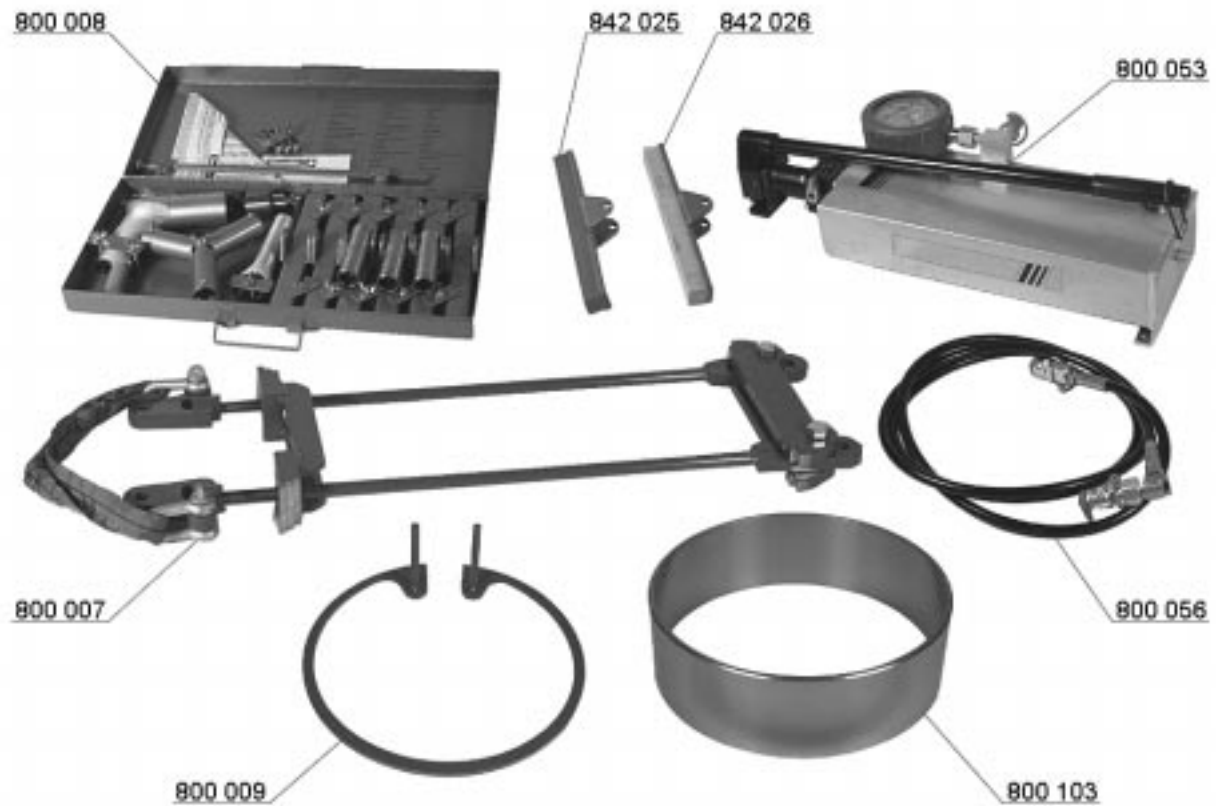


Part No	Description	Qty	Mat No	Remarks
800004	Turning tool for main bearing shell	1	0085B002400	
800005	Turning tool for thrust bearing shell*	1	0085B002600	L
800005	Turning tool for thrust bearing shell*	1	0085B003100	V
800041	Hydraulic cylinder M42	2	0086B007800	
800042	Distance sleeve M42	2	0086B004600	
800043	Pin for tightening of nuts M42	1	0086B001100	
800044	Stud remover M42	1	0080D002800	
800046	Hydraulic tools M56, including 800095	4	0086B021800	
800048	Stud remover M56	1	0084G018900	
800049	Pin for tightening of nuts M56	1	0086B000200	
800050	Lifting tool for hydraulic cylinders M56	1	0087B005400	
800051	Lifting tool for hydraulic cylinder M56	1	0086B028800	
800053	High pressure pump (1000 bar)	1	005410192	
800055	Flexible hose 800 mm, including quick couplings	1	3286A000300	
800056	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
800059	Low pressure pump (150 bar)	1	0086A001800	
800060	Flexible hose 3000 mm, including quick couplings (low p. pump)	1	3286A000400	
800095	Distance sleeve M56	4	0086B021700	

*) State engine configuration (L or V) when ordering.

Cylinder Liner

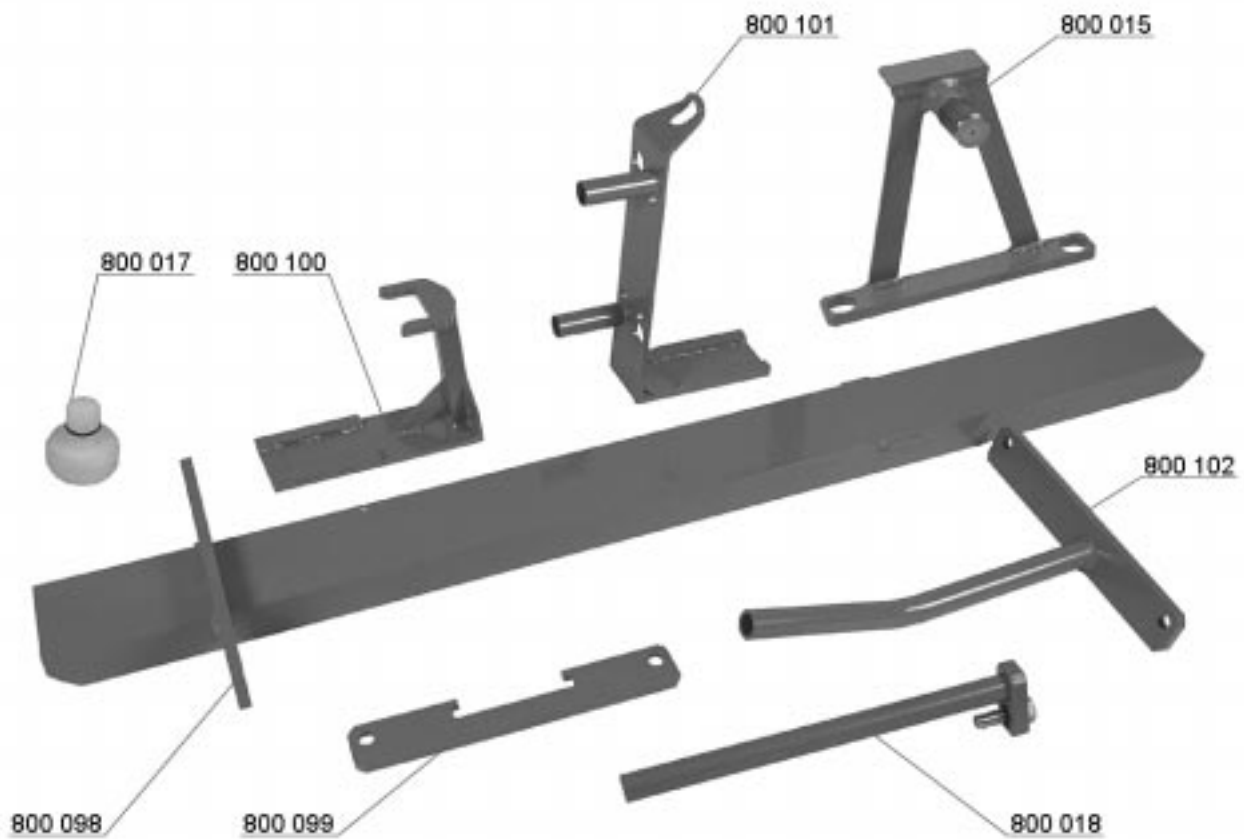
Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800007	Extracting & lifting tool	1	0083G007800	
800008	Honing equipment	1	0084C003100	
800009	Dismantling tool for antipolishing ring	1	0083G007700	
800053	High pressure pump (1000 bar)	1	005410192	
800056	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
800103	Assembly tool for piston	1	0083F013500	
842025	Honing stones 25×25×250, coarse, including holder	3	008760196	
842026	Honing stones 25×25×250, fine, including holder	3	008760197	

Connecting Rod, L-engine

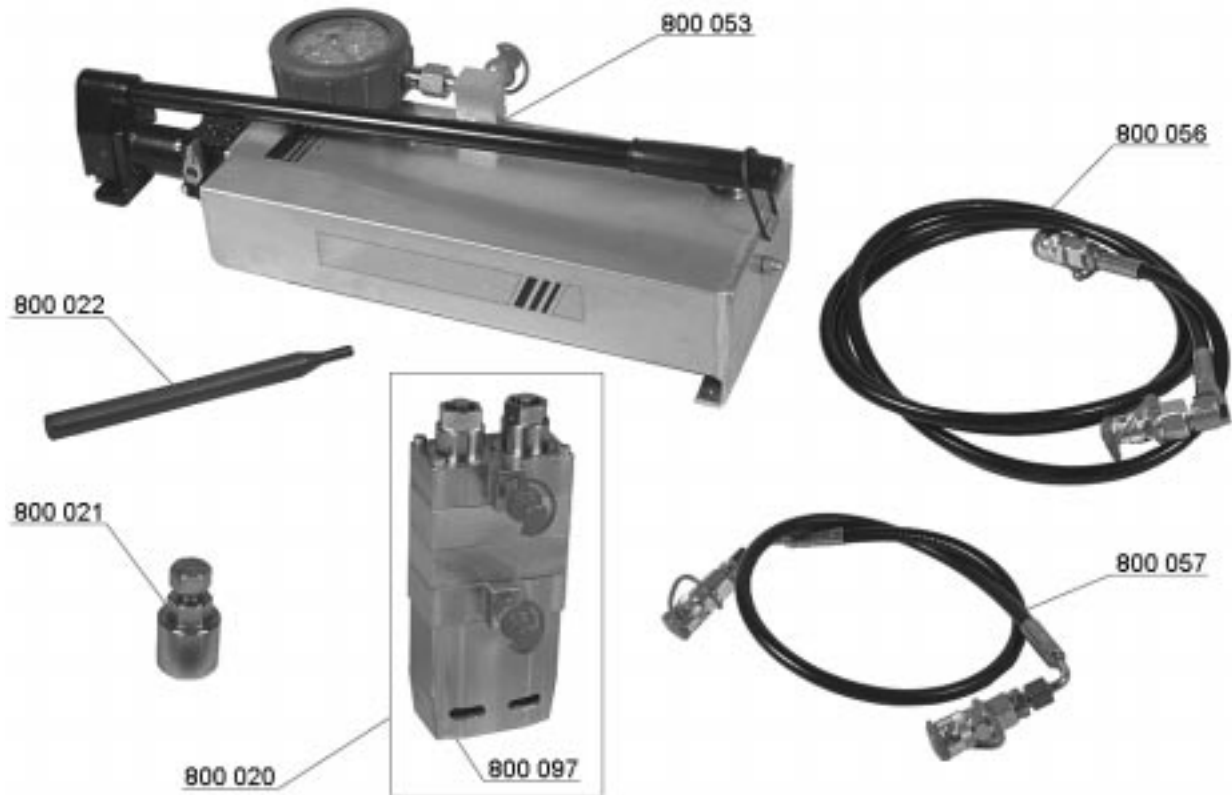
Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800015	Locking tool for connecting rod big end	1	0083F020000	L
800017	Guiding plug	1	0083F015700	L
800018	Limiter	1	0083F015600	L
800098	Assembly rail	1	0083F018300	L
800099	Support	1	0083F018600	L
800100	Mounting sledge	1	0083F019100	L
800101	Mounting sledge	1	0083F018900	L
800102	Mounting support	1	0083F019600	L

Connecting Rod, L-engine

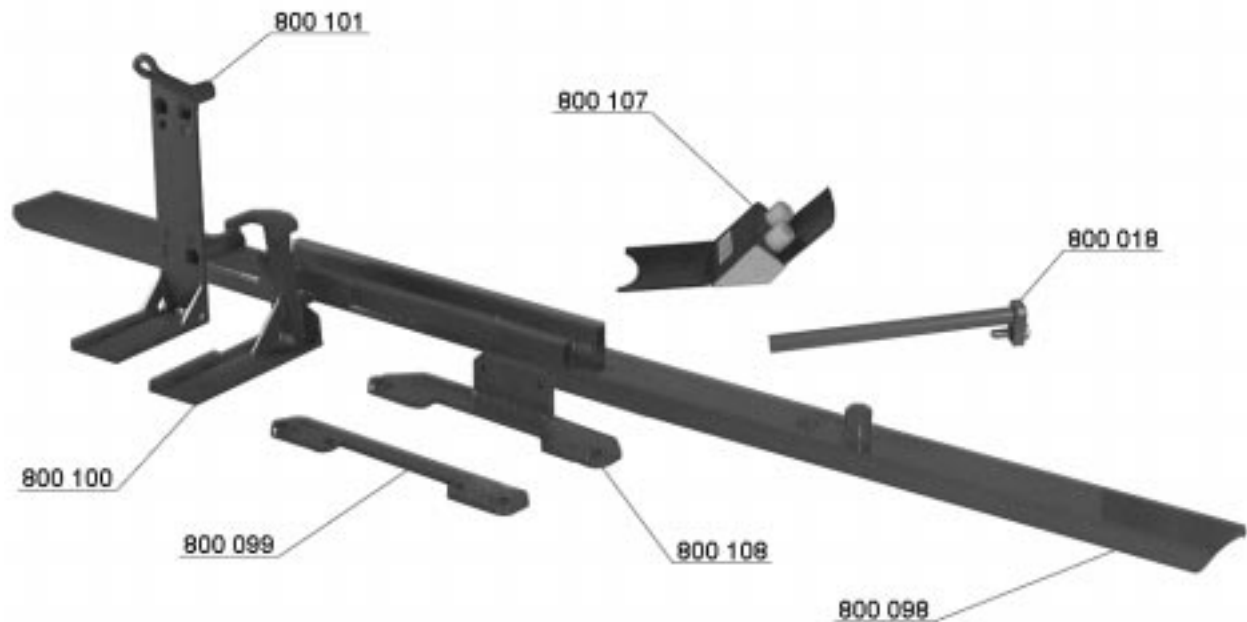
Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800020	Hydraulic tools M27×2, including 800097	2	0086B021400	
800021	Stud remover M27×2	1	0080D003200	
800022	Pin for tightening of nuts M27×2	1	0086B023100	
800053	High pressure pump (1000 bar)	1	005410192	
800056	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
800057	Flexible hose 1100 mm, including quick couplings	1	3286A000800	
800097	Distance sleeve M27×2	2	0086B020800	

Connecting Rod, V-engine

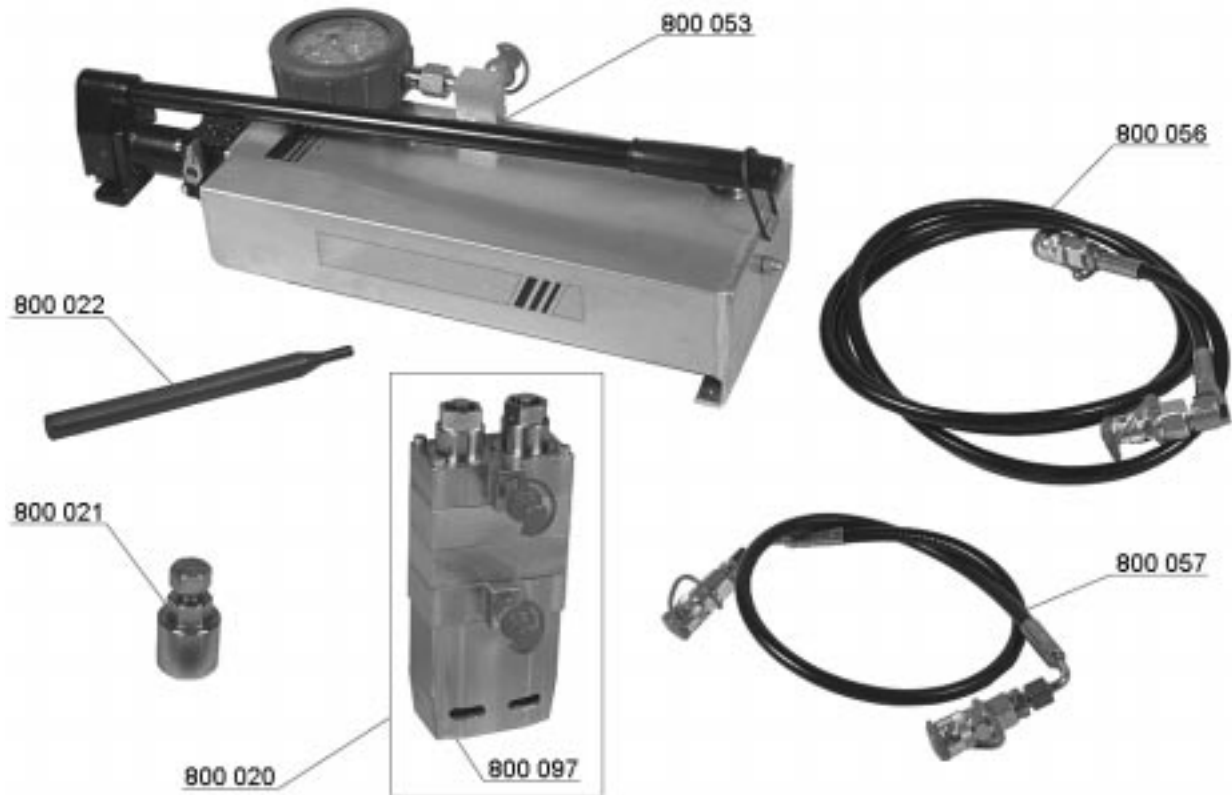
Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800018	Limiter	1	0083F015600	V
800098	Assembly rail	1	0083F023800	V
800099	Support	1	0083F024000	V
800100	Mounting sledge	1	0083F019100	V
800101	Mounting sledge	1	0083F018900	V
800107	Tool	1	0083F024900	V
800108	Support	1	0083F024100	V

Connecting Rod, V-engine

Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800020	Hydraulic tools M27×2, including 800097	2	0086B021400	
800021	Stud remover M27×2	1	0080D003200	
800022	Pin for tightening of nuts M27×2	1	0086B023100	
800053	High pressure pump (1000 bar)	1	005410192	
800056	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
800057	Flexible hose 1100 mm, including quick couplings	1	3286A000800	
800097	Distance sleeve M27×2	2	0086B020800	

Piston

Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800001	Piston ring pliers	1	008650018	
800002	Pliers for securing ring	1	008650009	
800012	Lifting tool	1	0083F023400	
800013	Clamp tool for piston rings	1	0084D001100	
800105	Measurement tool for piston ring grooves, micrometer 5-30 mm	1	008610044	
800106	Spare tips for pliers 800002, straight	1	008650123	
802000	Tap M12	1	008770001	

Cylinder Head

Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800000	Pliers for securing ring	1	008650020	
800010	Stud remover 5-20	1	008640182	
800026	Lifting tool	1	0083C019100	
800027	Mounting & dismantling tool for valves	1	0083E014600	
800029	Removing tool for injection & starting valve	1	0083H020200	
800030	Valve clearance feeler gauge	1	0084K003500	
800031	T-wrench for indicator valve	1	0080K000600	
800047	Hydraulic tools M56, including 800096	4	0086B022400	
800049	Pin for tightening of nuts M56	1	0086B000200	
800053	High pressure pump (1000 bar)	1	005410192	
800055	Flexible hose 800 mm, including quick couplings	3	3286A000300	
800056	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
800063	Hydraulic extractor	1	0083E006100	
800094	Box wrench head 24 mm	1	008640178	
800096	Distance sleeve M56	4	0086B022200	

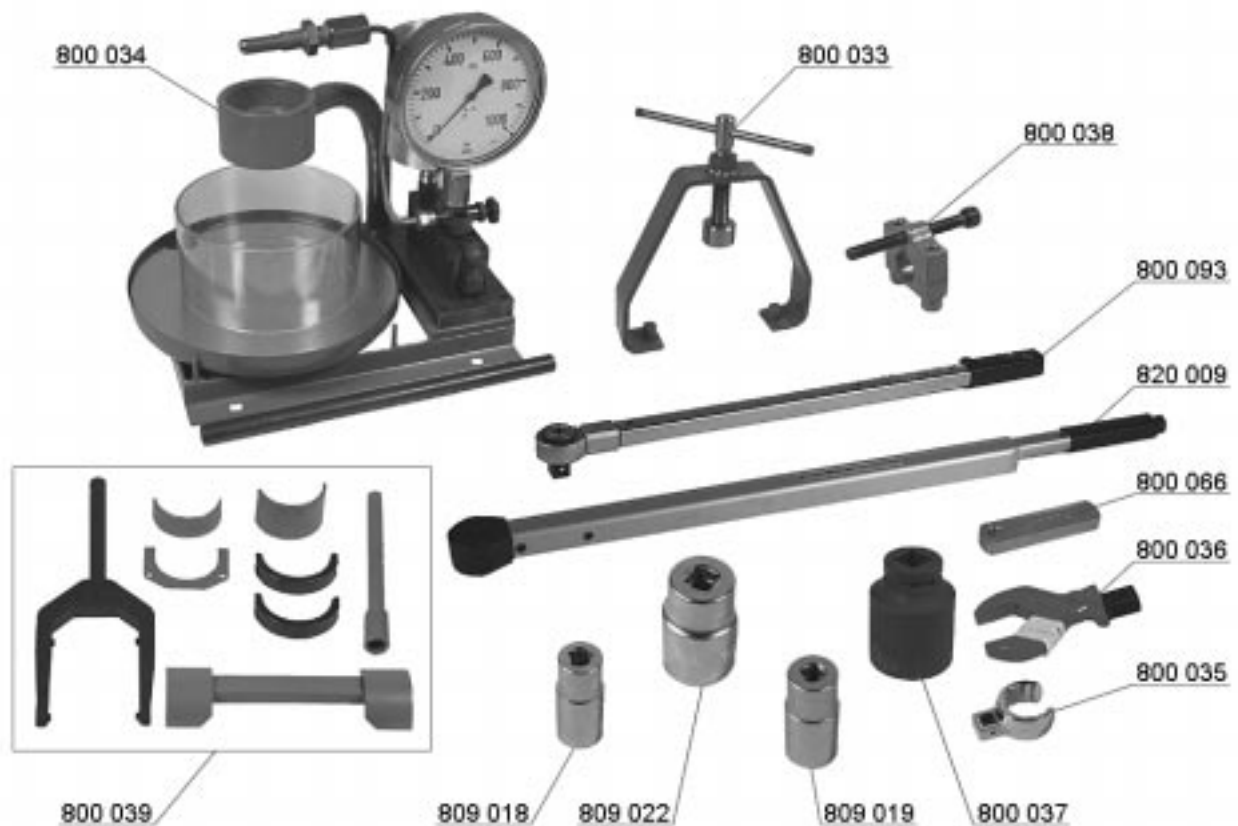
Assembly Tool for Intermediate gear Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800024	Extractor plate	1	0083H020100	
800046	Hydraulic tools M56 for intermediate gears, including 800095	4	0086B021800	
800048	Stud remover M56	2	0084G018900	
800049	Pin for tightening of nuts M56	1	0086B000200	
800053	High pressure pump (1000 bar)	1	005410192	
800056	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
800062	Mounting & removing tool	1	0083H016700	
800063	Hydraulic extractor	2	0083E006100	
800095	Distance sleeve M56 for intermediate gears	1	0086B021700	

Injection Equipment

Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800033	Dismantling tool	1	0084G040600	
800034	Testing tool for injection valve	1	0086E011500	
800035	Flare nut wrench for tightening of injection pipes 36 mm	1	008640155	
800036	Flare nut wrench for tightening of injection pipes 41 mm	1	0080G005000	
800037	Socket wrench 55 mm for nozzle cap nut	1	0080H002400	
800038	Limiter for fuel rack movements	2	0086D000500	
800039	Moving tool for fuel pipe sleeves	1	0080G004300	
800066	Locking plate for injection pump tappet	1/CYL	0083E012100	
800093	Torque wrench 75-400 Nm	1	008640177	
809018	Long socket wrench 24×12.5L with 1/2" square drive	1	008640159	
809019	Long socket wrench 27×12.5L	1	008640012	
809022	Long socket wrench 41×20L with 3/4" square drive	1	008640151	
820009	Torque wrench 150-800 Nm	1	008640275	

Turbocharger

Wärtsilä 32

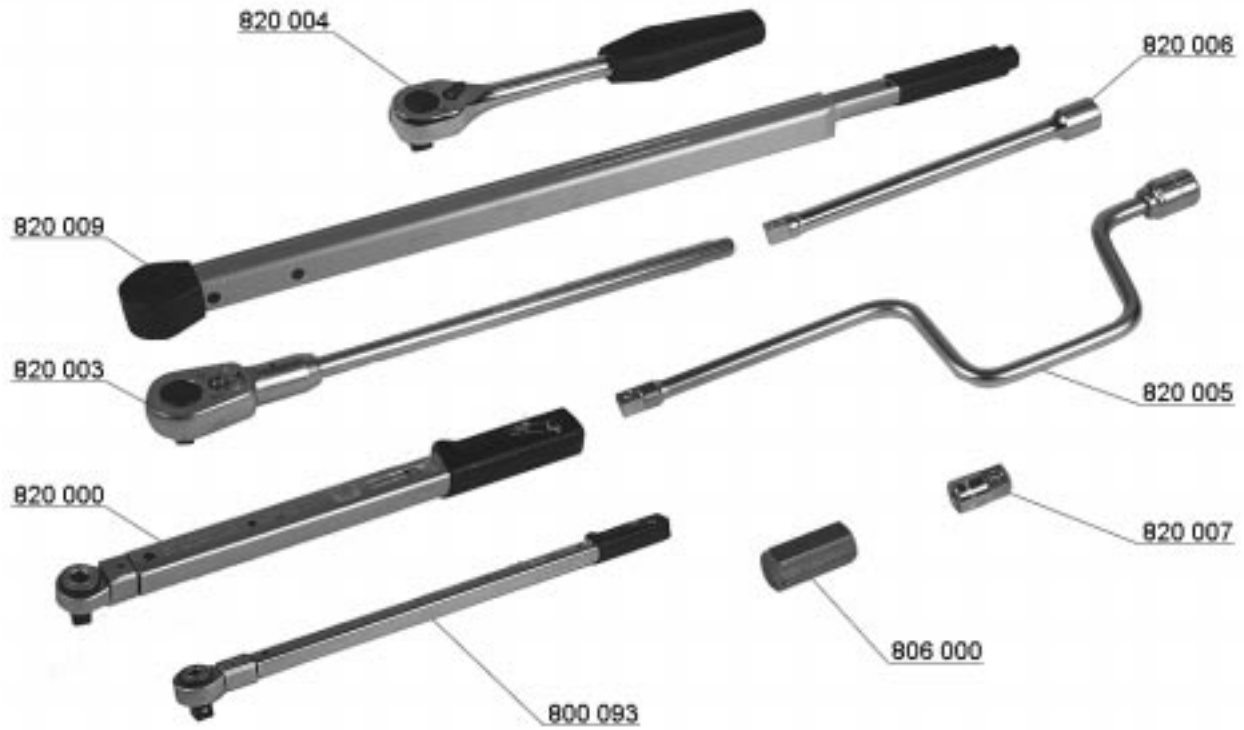


Part No	Description	Qty	Mat No	Remarks
800070	Tools for turbocharger EGT 295i*	1	009500042	6L, 12V
800071	Tools for turbocharger EGT 355i* 8L,9L,16V,18V	1	009500043	
800078	Tools for turbocharger TPL 65*	1	009500072	6L, 12V
800079	Tools for turbocharger TPL 69* 8L,9L,16V,18V	1	009500073	

*) State engine number, turbocharger type and serial number/HT number when ordering.

Tightening Tools

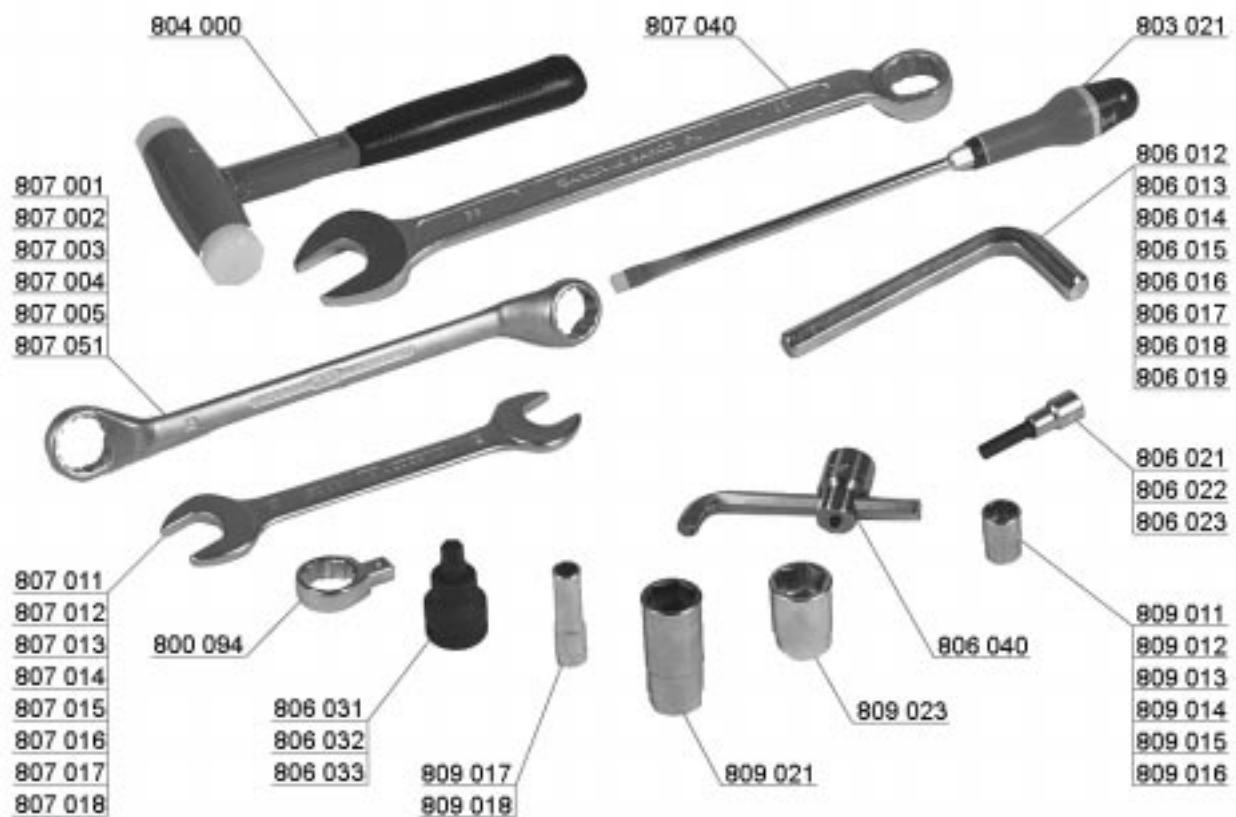
Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800093	Torque wrench 75-400 Nm	—	008640177	
806000	Hexagon bar kW 27	—	0080G001800	
820000	Torque wrench 20-100 Nm	—	008640153	
820003	Ratchet handle 20×630 with 3/4" square drive	—	008640152	
820004	Ratchet handle 12.5×300 with 1/2" square drive	—	008640041	
820005	Speed brace B12.5×500 with 1/2" square drive	—	008640022	
820006	Extension bar B12.5×250 with 1/2" square drive	—	008640149	
820007	Adapter socket wrench A20×12.5 with 3/4"×1/2"	—	008640148	
820009	Torque wrench 150-800 Nm	—	008640275	

Hand Tools

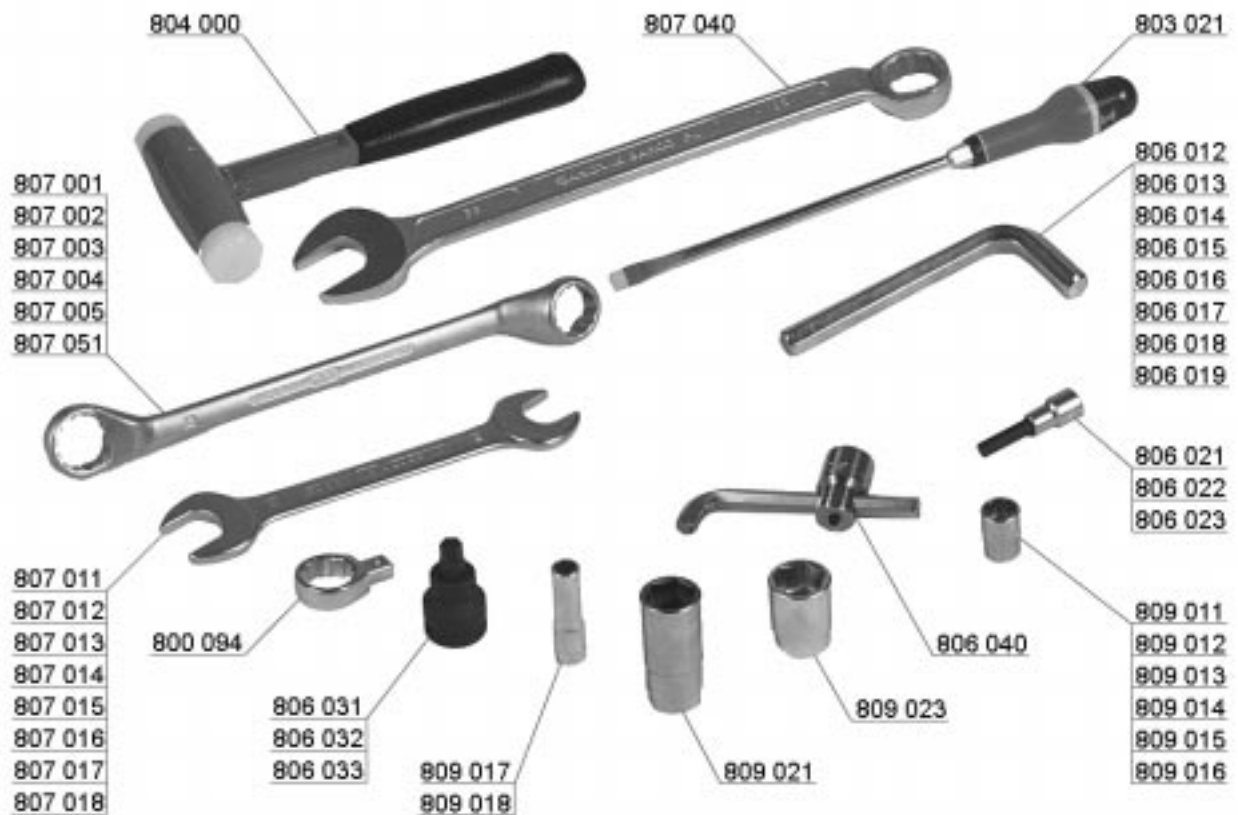
Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800094	Box wrench head 24 mm	—	008640178	
803021	Screwdriver 2×12M	—	008650019	
804000	Non recoiling hammer D40	—	008650021	
806012	Key for hexagon socket screw 4	—	008640047	
806013	Key for hexagon socket screw 5	—	008640002	
806014	Key for hexagon socket screw 6	—	008640003	
806015	Key for hexagon socket screw 8	—	008640004	
806016	Key for hexagon socket screw 10	—	008640005	
806017	Key for hexagon socket screw 12	—	008640042	
806018	Key for hexagon socket screw 14	—	008640048	
806019	Key for hexagon socket screw 17	—	008640049	
806021	Bit, hexagon socket screw 6 with 1/2" square drive	—	008640013	
806022	Bit, hexagon socket screw 8 with 1/2" square drive	—	008640014	
806023	Bit, hexagon socket screw 10 with 1/2" square drive	—	008640015	
806031	Bit, hexagon socket screw 14 with 3/4" square drive	—	008640156	
806032	Bit, hexagon socket screw 17 with 3/4" square drive	—	008640084	
806033	Bit, hexagon socket screw 19 with 3/4" square drive	—	008640157	
806040	Special key for hexagon socket screw 10	—	0080G001700	

Hand Tools

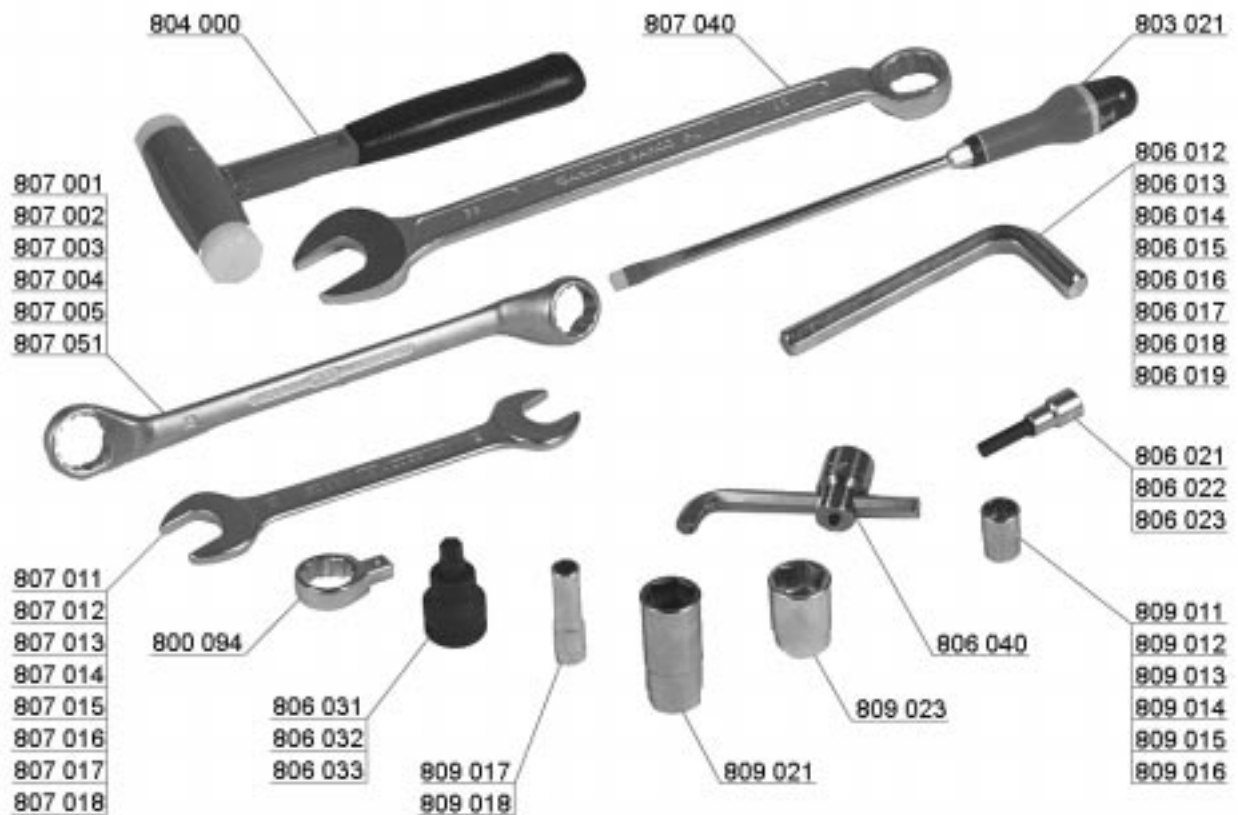
Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
807001	Box wrench 10-11	—	008640161	
807002	Box wrench 12-14	—	008640163	
807003	Box wrench 13-17	—	008640164	
807004	Box wrench 19-22	—	008640165	
807005	Box wrench 30-32	—	008640167	
807011	Engineers wrench 10-11	—	008640061	
807012	Engineers wrench 12-14	—	008640062	
807013	Engineers wrench 13-17	—	008640029	
807014	Engineers wrench 19-22	—	008640031	
807015	Engineers wrench 24-27	—	008640032	
807016	Engineers wrench 30-32	—	008640033	
807017	Engineers wrench 36-41	—	008640054	
807018	Engineers wrench 46-50	—	008640103	
807040	Combination wrench AL36	—	008640160	
807051	Box wrench 24-27	—	008640026	

Hand Tools

Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
809011	Socket wrench 10×12.5 with 1/2" square drive	—	008640150	
809012	Socket wrench 13×12.5 with 1/2" square drive	—	008640043	
809013	Socket wrench 17×12.5 with 1/2" square drive	—	008640007	
809014	Socket wrench 19×12.5 with 1/2" square drive	—	008640008	
809015	Socket wrench 24×12.5 with 1/2" square drive	—	008640074	
809016	Socket wrench 27×12.5 with 1/2" square drive	—	008640213	
809017	Long socket wrench 13×12.5L with 1/2" square drive	—	008640174	
809018	Long socket wrench 24×12.5L with 1/2" square drive	—	008640159	
809021	Long socket wrench 30×20L with 3/4" square drive	—	008640011	
809023	Socket wrench 30×20 with 3/4" square drive	—	008640009	

Miscellaneous Tools

Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800062	Mounting & removing tool for camshaft bearing bush	1	0083H016700	
800063	Hydraulic Extractor	1	0083E006100	
800064	Checking tool for cylinder/valves tightness	1	3284K000100	
800065	Deflection indicator	1	0084K005800	
800066	Locking plate for injection pump tappet	1/CYL	0083E012100	
800067	Securing pin for valve tappet	2/CYL	0083E012400	
800068	Lifting eye bolt M12	1	004470011	
800069	Lifting eye bolt M16	1	004470010	
800074	Wrench for centrifugal filter	1	0080G004900	
846059	AMP hand crimping tool	1	0084G047501	
849001	Tool locker	1	008550001	

High Pressure Pump

Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800053	High pressure pump (1000 bar)	–	005410192	
800054	Sign plate	–	0052B047600	
800055	Flexible hose 800 mm, including quick couplings	–	3286A000300	
800056	Flexible hose 3000 mm, including quick couplings	–	3286A000200	
800057	Flexible hose 1100 mm, including quick couplings	–	3286A000800	
860150	Manometer	–	006910053	
861016	Quick coupling, female	–	006190146	
861101	Quick coupling, male	–	006190145	
861147	Flexible hose 800 mm	–	006190307	
861148	Flexible hose 3000 mm	–	006190308	
861183	Flexible hose 1100 mm	–	0086A005500	

Low Pressure Pump

Wärtsilä 32



Part No	Description	Qty	Mat No	Remarks
800059	Low pressure pump (150 bar)	–	0086A001800	
800060	Flexible hose 3000 mm, including quick couplings	–	3286A000400	
860074	Straight male stud	–	006230497	
860076	Quick coupling, male	–	009470465	
860079	Quick coupling, female	–	009470464	
860080	Flexible hose 3000 mm	–	006190308	

Spare Parts Wärtsilä 32

Miscellaneous



Part No	Description	Qty	Mat No	Remarks
929001	Sealing ring set	—	3292L000100	

Spare Parts Wärtsilä 32

Hydraulic Tightening Tool

Not illustrated:
Sealing set for hydraulic tightening tools

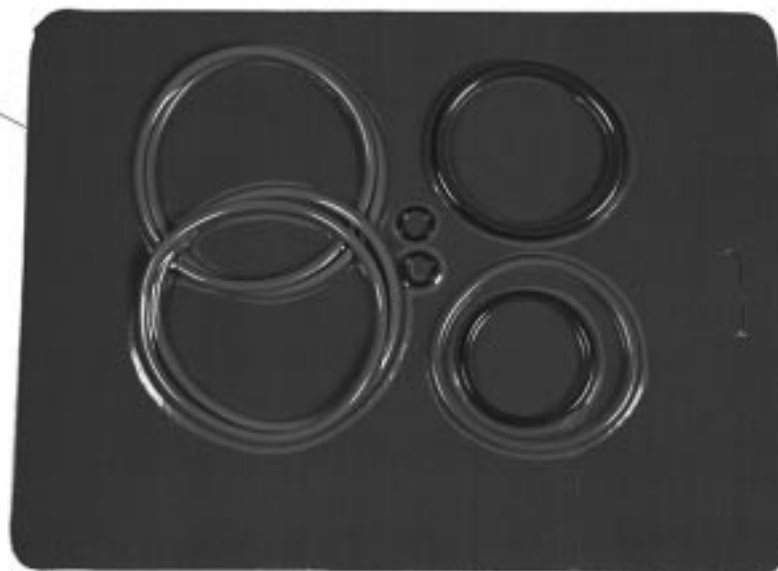
800 090

Part No	Description	Qty	Mat No	Remarks
800090	Sealing set for hydraulic tightening tools	—	4092L001000	

Spare Parts Wärtsilä 32

Bearings, Oil Sump, Covers

100 142



Not illustrated:
Sealing set for crankcase, camshaft

107 235

Part No	Description	Qty	Mat No	Remarks
100142	Sealing set for hydraulic jack	—	4092L000200	
107235	Sealing set for crankcase, camshaft	—	4092L000400	

Spare Parts Wärtsilä 32

Cylinder Head with Valves



Not illustrated:
Sealing set for cylinder head replacement

120 015

Part No	Description	Qty	Mat No	Remarks
120015	Sealing set for cylinder head replacement	—	4092L001300	
120054	Sealing set for cylinder head overhaul	—	4092L000100	

Spare Parts Wärtsilä 32

Injection Equipment, Fuel Feed Pumps

167 044



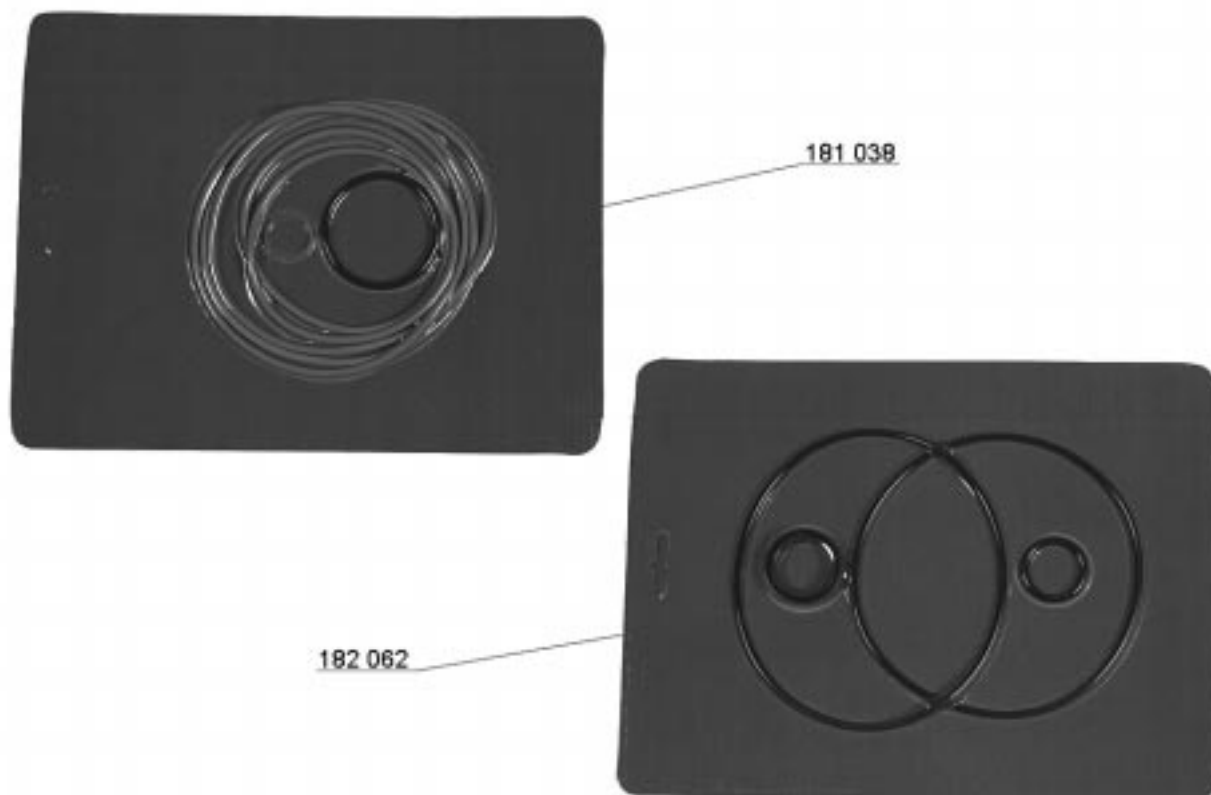
Not illustrated:
Sealing set for injection pump

165 080

Part No	Description	Qty	Mat No	Remarks
165080	Sealing set for injection pump	–	4092L000300	
167044	Sealing set for injection valve	–	4092L000500	

Spare Parts Wärtsilä 32

Lube Oil Pumps, Thermostatic Valves

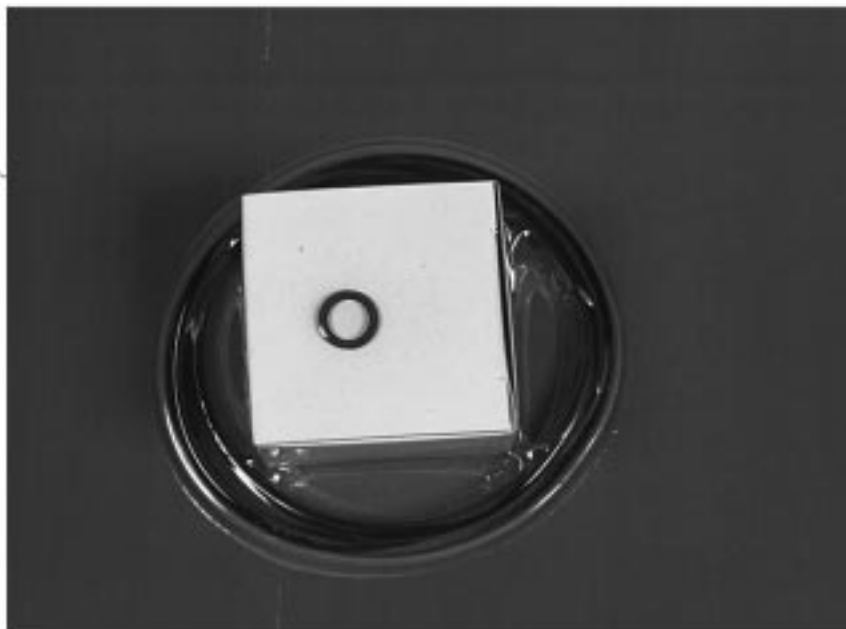


Part No	Description	Qty	Mat No	Remarks
181038	Sealing set for lubricating oil pump	–	4092L000600	
182062	Sealing set for prelubricating oil pump	–	4092L000700	

Spare Parts Wärtsilä 32

Cooling Water Pumps, Thermostatic Valves

191 051



Part No	Description	Qty	Mat No	Remarks
191051	Sealing set for LT/HT water pump	—	4092L000800	

Spare Parts Wärtsilä 32

Filters, Coolers



Not illustrated:
Sealing set for automatic filter, DN80

471 125

Not illustrated:
Sealing set for automatic filter, DN100

471 126

Not illustrated:
Sealing set for lubricating oil cooler

474 043

Part No	Description	Qty	Mat No	Remarks
471125	Sealing set for automatic filter, DN80	–	4092L001100	
471126	Sealing set for automatic filter, DN100	–	4092L001200	
473117	Sealing set for centrifugal filter	–	4092L000900	
474043	Sealing set for lubricating oil cooler	–	4092L001400	

Main Bearings

Vasa 32, 32 L , 32 , 32 L , 32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
803000	Stud remover M42	1	0080D001200	
846058	Stud remover M56	1	0084G018900	
851000	Turning tool for main bearing shell	1	0085B002300	L
851010	Turning tool for main bearing shell	1	0085B001600	V
851020	Turning tool for thrust washers & bearing shell	1	0085B001500	
860081	Flexible hose 3000 mm, including quick couplings (low p. pump)	1	3286A000400	
860082	Low pressure pump (150 bar)	1	0086A001800	
860100	High pressure pump (1000 bar)	1	005410192	
861009	Distance sleeve M56	2	0086B003900	
861010	Pin for tightening of nuts M56	1	0086B000200	
861011	Flexible hose 800 mm, including quick couplings	1	3286A000300	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
861027	Distance sleeve M42	2	0086B004600	
861028	Pin for tightening of nuts M42	1	0086B001100	
861040	Lifting tool for hydraulic cylinders M56	1	0086B005200	
861100	Hydraulic cylinder M56	2	0086B007900	
861120	Hydraulic cylinder M42	2	0086B007800	
861186	Extension piece M42 for main bearing side screws*	1	0086B013300	
861187	Distance sleeve M42 for main bearing side screws*	1	0086B013400	

*) Only for flexible mounted engines equipped with rubber cushions in V-configuration.

Cylinder Liner

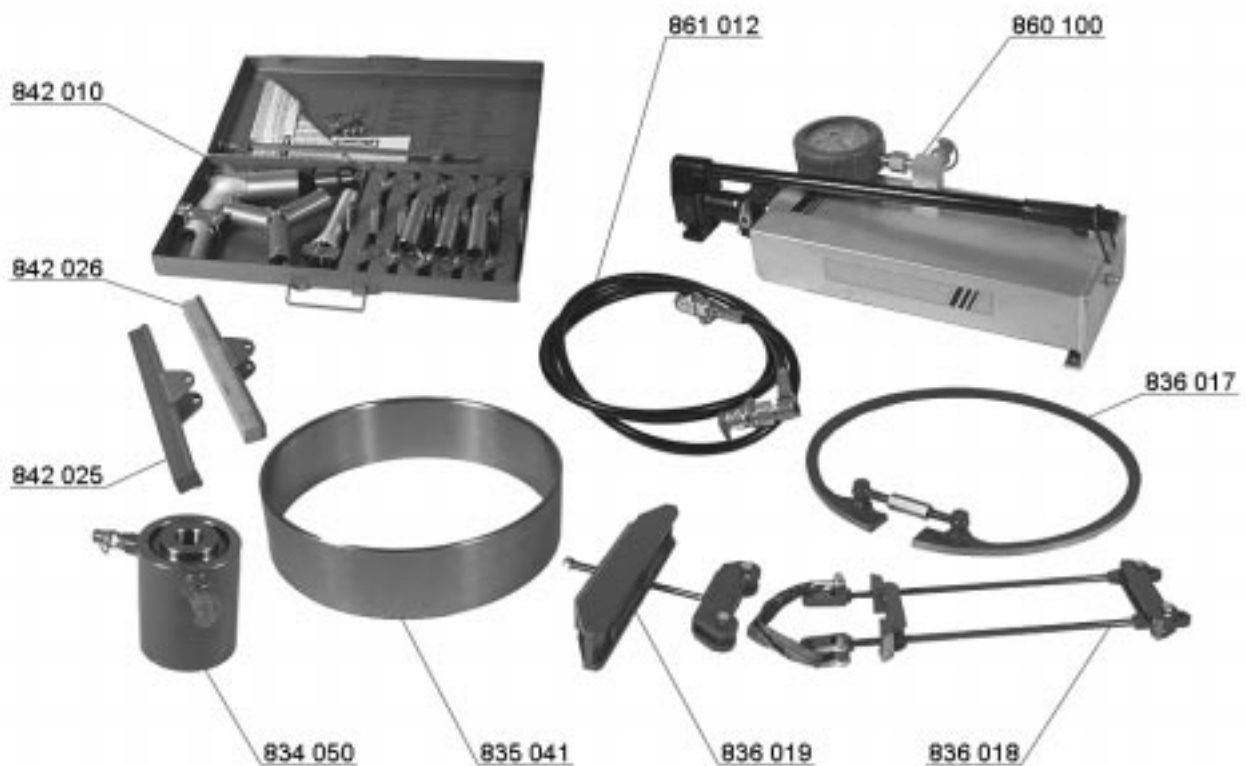
Vasa 32, 32 L , 32 , 32 L , 32 F



Part No	Description	Qty	Mat No	Remarks
800009	Dismantling tool for antipolishing ring	1	0083G007700	32 DF
834050	Hydraulic extractor	1	0083E006100	
835041	Assembly tool for antipolishing ring	1	0083F010500	
836000	Suspending & removing tool, complete	1	3283G000200	
836017	Dismantling tool for antipolishing ring FOR 32 DF	1	0083G007300	NOT
836018	Lifting tool	1	0083G007800	
836019	Extractor	1	0083H017100	
842010	Honing equipment	1	0084C003100	
842025	Honing stones 25×25×250, coarse, including holder	3	008760196	
842026	Honing stones 25×25×250, fine, including holder	3	008760197	
860100	High pressure pump (1000 bar)	1	005410192	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	

Cylinder Liner

Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
834050	Hydraulic extractor	1	0083E006100	
835041	Assembly tool for piston when using antipolishing ring	1	0083F015800	V
836017	Dismantling tool for antipolishing ring	1	0083G010800	V
836018	Lifting tool	1	0083G009400	V
836019	Extractor	1	0083H017100	
842010	Honing equipment	1	0084C003100	
842025	Honing stones 25×25×250, coarse, including holder	3	008760196	
842026	Honing stones 25×25×250, fine, including holder	3	008760197	
860100	High pressure pump (1000 bar)	1	005410192	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	

Connecting Rod, O-Profile Vasa 32



Part No	Description	Qty	Mat No	Remarks
803000	Stud remover M42	1	0080D001200	
835010	Protecting sleeve for connecting rod tooth	1	0083F006200	V
835020	Protecting sleeve for connecting rod tooth	1	0083F006300	V
846000	Lifting tool for big end bearing cap	1	0084G019100	V
860100	High pressure pump (1000 bar)	1	005410192	
861011	Flexible hose 800 mm, including quick couplings	1	3286A000300	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
861027	Distance sleeve M42	2	0086B004600	
861028	Pin for tightening of nuts M42	1	0086B001100	
861120	Hydraulic cylinder M42	2	0086B007800	

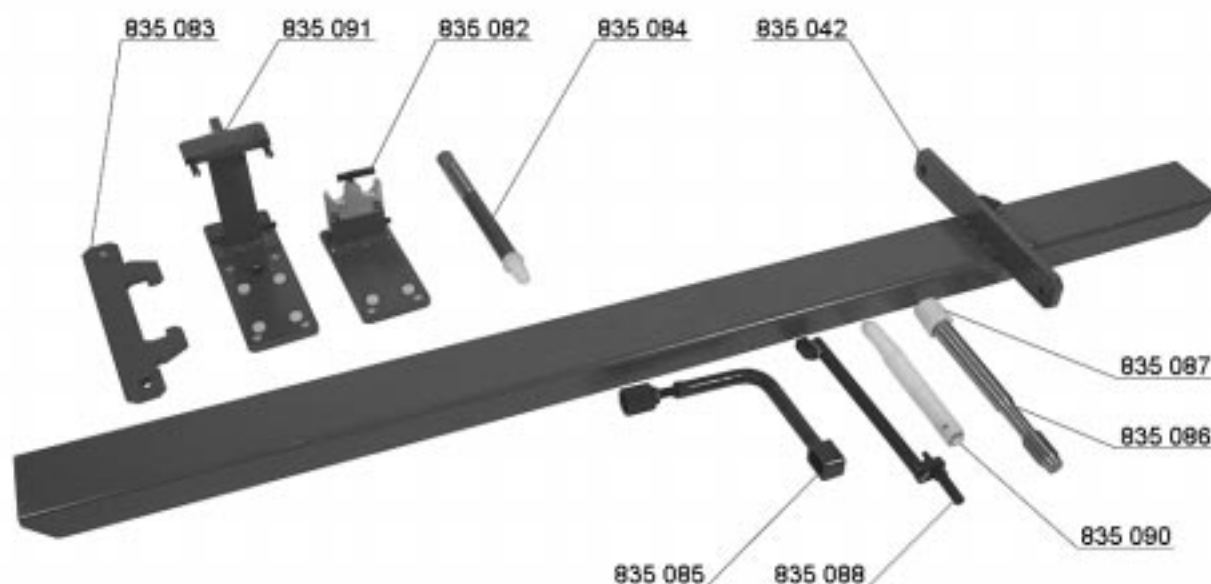
Connecting Rod, H-Profile Vasa 32, 32



Part No	Description	Qty	Mat No	Remarks
803005	Stud remover M45×3	1	0080D002000	
835010	Protecting sleeve for connecting rod tooth	1	0083F008200	V
835020	Protecting sleeve for connecting rod tooth	1	0083F008300	V
835030	Mounting screw M45×3	1	0083F008400	
835040	Locking nut for mounting screw	1	0083F008500	
846000	Lifting tool for big end bearing cap	1	0084G023600	V
860100	High pressure pump (1000 bar)	1	005410192	
861011	Flexible hose 800 mm, including quick couplings	1	3286A000300	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
861028	Pin for tightening of nuts M45	1	0086B001100	
861039	Distance sleeve M45×3, long	2	0086B010200	L
861039	Distance sleeve M45×3, short	2	0086B013600	V
861130	Hydraulic cylinder M45×3	2	0086B013900	
861141	Extension piece	2	0086B013700	L

Connecting Rod, Marine Head, R-engine

32 L , 32 L



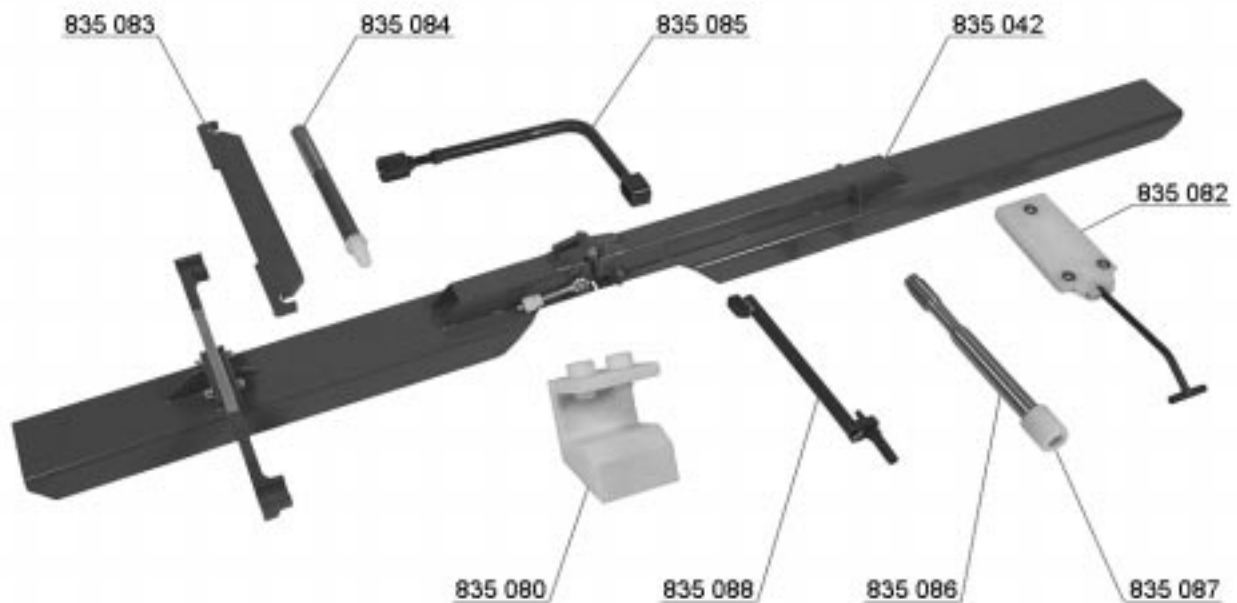
Part No	Description	Qty	Mat No	Remarks
835042	Assembly rail	1	0083F021500	L
835082	Sledge	1	0083F021200	L
835083	Support	1	0083F021400	L
835084	Support arm	1	0083F016300	
835085	Support arm	1	0083F021700	L
835086	Mounting screw M30	2	0083F018000	
835087	Protecting cap for screw M30	2	0086B026900	
835088	Limiter for piston	1	0083F017800	
835090	Fastening arm	1	0083F021100	L
835091	Sledge	1	0083F021300	L

Connecting Rod, Marine Head, R-engine 32 L , 32 L



Part No	Description	Qty	Mat No	Remarks
803022	Stud remover M30	1	0080D002600	
803023	Stud remover M24	1	0080D003000	
860100	High pressure pump (1000 bar)	1	005410192	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
861028	Pin for tightening of nuts M30	1	0086B001100	
861156	Hydraulic tools M30, including 861157	2	0086B018600	
861157	Distance sleeve M30	2	0086B018700	
861163	Hydraulic tools M24, including 861164	2	0086B020100	
861164	Distance piece M24	2	0086B020400	
861184	Pin for tightening of nuts M24	1	0086B003400	
861190	Flexible hose 1100 mm, including quick couplings	1	3286A000800	

Connecting Rod, Marine Head, V-engine 32 L , 32 L



Part No	Description	Qty	Mat No	Remarks
835042	Assembly rail	1	0083F017100	V
835080	Protecting cover	1	0011T071800	V
835082	Sledge	2	0083F016500	V
835083	Support	1	0083F016600	V
835084	Support arm	1	0083F016300	
835085	Support arm	1	0083F017700	V
835086	Mounting screw M30	2	0083F018000	
835087	Protecting cap for screw M30	2	0086B026900	
835088	Limiter for piston	2	0083F017800	

Connecting Rod, Marine Head, V-engine 32 L , 32 L



Part No	Description	Qty	Mat No	Remarks
803022	Stud remover M30	1	0080D002600	
803023	Stud remover M24	1	0080D003000	
860100	High pressure pump (1000 bar)	1	005410192	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
861028	Pin for tightening of nuts M30	1	0086B001100	
861156	Hydraulic tools M30, including 861157	2	0086B018600	
861157	Distance sleeve M30	2	0086B018700	
861163	Hydraulic tools M24, including 861164	2	0086B020100	
861164	Distance piece M24	2	0086B020400	
861184	Pin for tightening of nuts M24	1	0086B003400	
861190	Flexible hose 1100 mm, including quick couplings	1	3286A000800	

Connecting Rod, V-engine

32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
835042	Assembly rail	1	0083F017100	V
835082	Sledge	2	0083F016500	V
835083	Support	1	0083F016600	V
835084	Support arm	1	0083F016300	
835085	Support arm	1	0083F017700	V
835086	Mounting screw M30	2	0083F018000	
835087	Protecting cap for screw M30	2	0086B026900	

Connecting Rod, V-engine

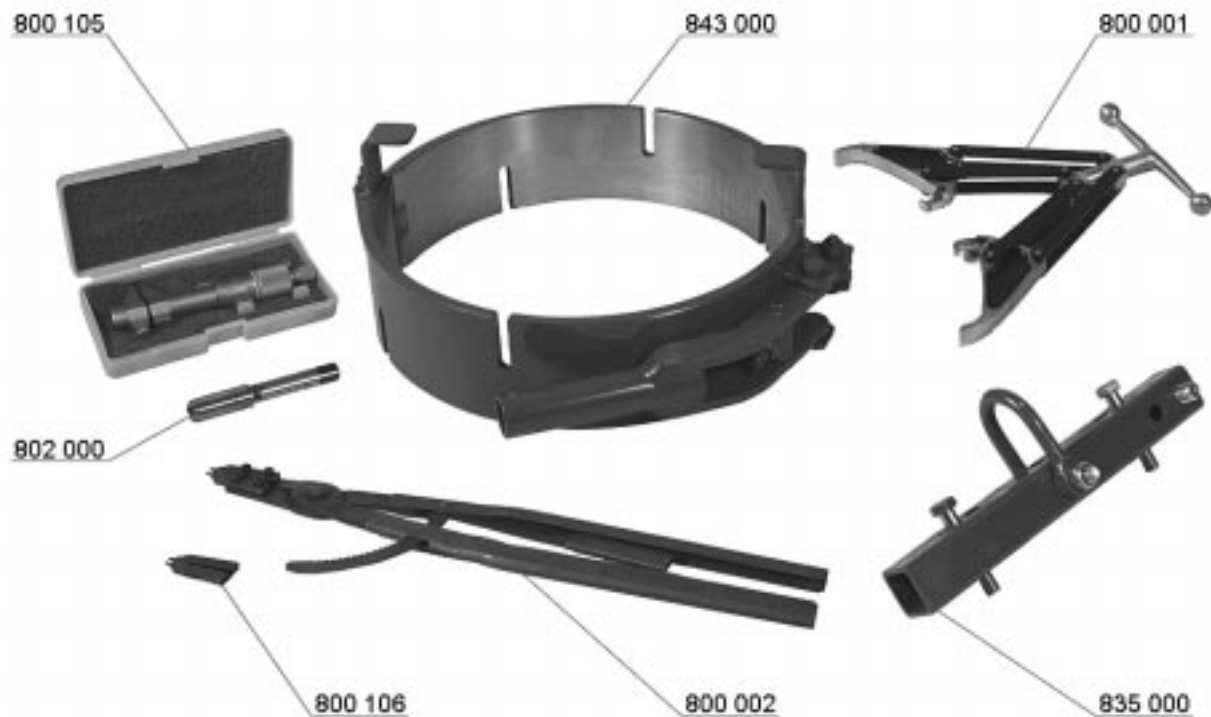
32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
803022	Stud remover M30	1	0080D002600	
803023	Stud remover M24	1	0080D003000	
860100	High pressure pump (1000 bar)	1	005410192	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
861028	Pin for tightening of nuts M30	1	0086B001100	
861156	Hydraulic tools M30, including 861157	2	0086B018600	
861157	Distance sleeve M30	2	0086B018700	
861163	Hydraulic tools M24, including 861164	2	0086B020100	
861164	Distance piece M24	2	0086B020400	
861184	Pin for tightening of nuts M24	1	0086B003400	
861190	Flexible hose 1100 mm, including quick couplings	1	3286A000800	

Piston

Vasa 32, 32



Part No	Description	Qty	Mat No	Remarks
800001	Piston ring pliers	1	008650018	
800002	Pliers for securing ring	1	008650009	
800105	Measurement tool for piston ring grooves, micrometer 5-30 mm	1	008610044	
800106	Spare tips for pliers 800002, straight	1	008650123	
802000	Tap M12	1	008770001	
835000	Lifting tool	1	0083F005800	
843000	Clamp tool for piston rings	1	0084D001100	

Piston

32 L , 32 L



Part No	Description	Qty	Mat No	Remarks
800001	Piston ring pliers	1	008650018	
800002	Pliers for securing ring	1	008650009	
800105	Measurement tool for piston ring grooves, micrometer 5-30 mm	1	008610044	
800106	Spare tips for pliers 800002, straight	1	008650123	
802000	Tap M12	1	008770001	
835000	Lifting tool	1	0083F015900	
843000	Clamp tool for piston rings	1	0084D001100	

Piston, V-engine

Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
800001	Piston ring pliers	1	008650018	
800002	Pliers for securing ring	1	008650009	
800105	Measurement tool for piston ring grooves, micrometer 5-30 mm	1	008610044	
800106	Spare tips for pliers 800002, straight	1	008650123	
835000	Lifting tool	1	0083F019200	V
835088	Limiter for piston	1	0083F020400	
835089	Extension for connecting rod	1	0083F019000	V
843000	Clamp tool for piston rings	1	0084D004300	

Piston, V-engine

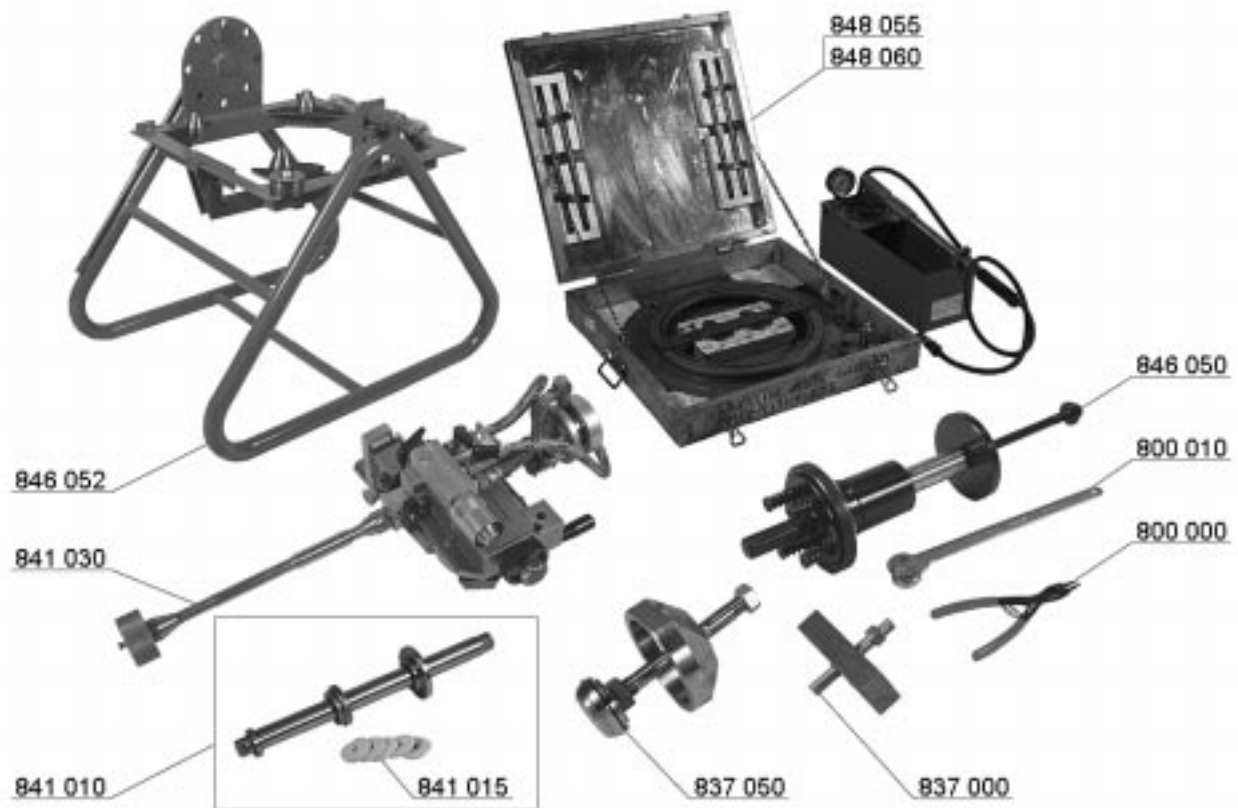
32 F



Part No	Description	Qty	Mat No	Remarks
800001	Piston ring pliers	1	008650018	
800002	Pliers for securing ring	1	008650009	
800105	Measurement tool for piston ring grooves, micrometer 5-30 mm	1	008610044	
800106	Spare tips for pliers 800002, straight	1	008650123	
835000	Lifting tool	1	0083F022100	V
835088	Limiter for piston	1	0083F020400	
835089	Extension for connecting rod	1	0083F019000	V
843000	Clamp tool for piston rings	1	0084D004300	

Cylinder Head

Vasa 32, 32 L , 32 , 32 L



Part No	Description	Qty	Mat No	Remarks
800000	Pliers for securing ring	1	008650020	
800010	Stud remover 5-20	1	008640182	
837000	Removing tool for injection & starting valve	1	0083H007700	
837050	Extractor for exhaust valve seat ring	1	00T19018900	
841010	Grinding tool for seal surface for injection valve	1	0084B011700	
841015	Felt washer for grind tool	1	0084B011100	
841030	Valve seat grinder	1	008660004	
846050	Mounting tool for seat rings (inlet & exhaust)	1	00T17041502	
846052	Service trestle for cylinder head	1	00T22038700	
848055	Pressure test tool for water jacket D 450 mm	1	00T29031000	
848060	Pressure test tool for water jacket D 440 mm	1	00T22040100	

Cylinder Head

Vasa 32, 32 L , 32 , 32 L



Part No	Description	Qty	Mat No	Remarks
808000	T-wrench for indicator valve	1	0080K000600	
832000	Lifting tool	1	0083C006000	
834000	Mounting & dismantling tool for valves	1	0084G035200	
834050	Hydraulic extractor	1	0083E006100	
841000	Grinding tool for valves	1	0084B010800	
848000	Valve clearance feeler gauge	1	0084K003500	
860100	High pressure pump (1000 bar)	1	005410192	
861009	Distance sleeve M56	4	0086B003900	
861010	Pin for tightening of nuts M56	1	0086B000200	
861011	Flexible hose 800 mm, including quick couplings	3	3286A000300	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
861100	Hydraulic cylinder M56	4	0086B007900	

Cylinder Head, V-engine

32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
800000	Pliers for securing ring	1	008650020	
800010	Stud remover 5-20	1	008640182	
837050	Extractor for valve seat ring	1	00T19018900	
841030	Valve seat grinder	1	008660004	
846050	Mounting tool for seat gas rings (inlet & exhaust)	1	00T17041502	
846052	Service trestle for cylinder head	1	00T22038700	
848055	Pressure test tool for water jacket D 450 mm	1	00T29031000	

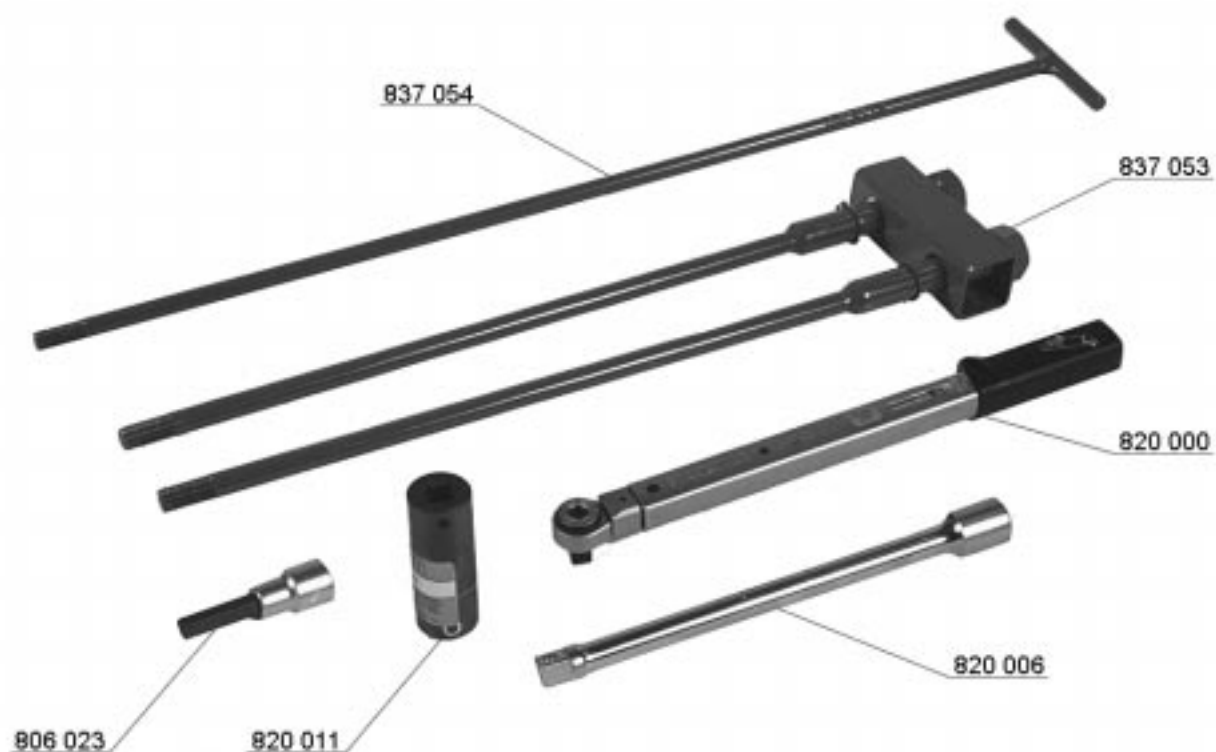
Cylinder Head, V-engine

32 F, Wärtsilä 34 S



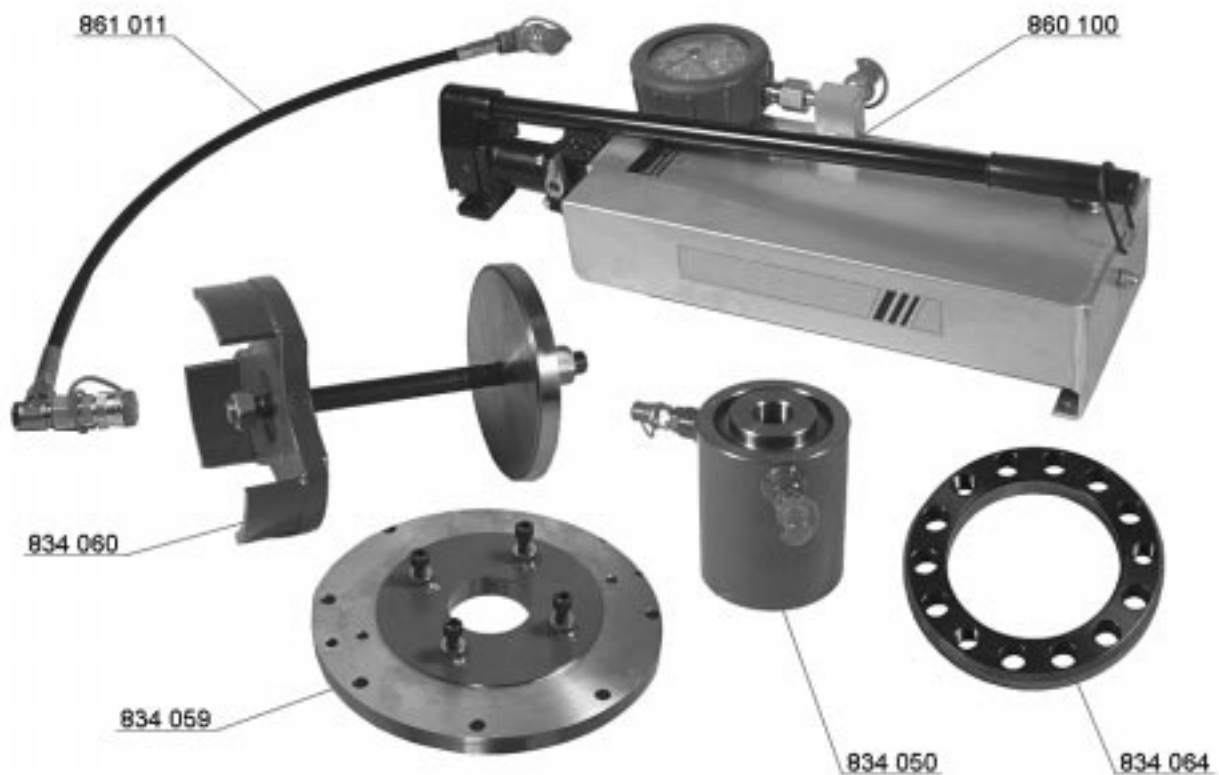
Part No	Description	Qty	Mat No	Remarks
832000	Lifting tool	1	0083C006000	
834000	Mounting & dismantling tool for valves	1	0084G035200	
834050	Hydraulic extractor	1	0083E006100	
841000	Grinding tool for valves	1	0084B010800	
848000	Valve clearance feeler gauge	1	0084K003500	
860100	High pressure pump (1000 bar)	1	005410192	
861009	Distance sleeve M56	4	0086B003900	
861010	Pin for tightening of nuts M56	1	0086B000200	
861011	Flexible hose 800 mm, including quick couplings	3	3286A000300	
861012	Flexible hose 3000 mm, including quick couplings	2	3286A000200	
861100	Hydraulic cylinder M56	4	0086B007900	

Tools for Pre Chamber, V-engine Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
806023	Bit, hexagon socket screw 10 with 1/2" square drive	1	008640015	
820000	Torque wrench 20-100 Nm	1	008640153	
820006	Extension bar B12.5x250 with 1/2" square drive	2	008640149	
820011	spark plug socket	1	0012T027300	
837053	Extractor	1	0083H017600	
837054	Extractor for check valve	1	0083H017500	

Assembly Tool for Planetary gear, R-engine 32 L



Part No	Description	Qty	Mat No	Remarks
834050	Hydraulic extractor	1	0083E006100	
834059	Mounting tool	1	0083E013500	L
834060	Mounting tool	1	0083E013700	L
834064	Guiding ring	1	0084G037700	L
860100	High pressure pump (1000 bar)	1	005410192	
861011	Flexible hose 800 mm, including quick couplings	2	3286A000300	

Injection Equipment

Vasa 32, 32



Part No	Description	Qty	Mat No	Remarks
806050	Flare nut wrench for tightening of injection pipe 36 mm	1	008640155	
809018	Long socket wrench 24×12.5L with 1/2" square drive	1	008640159	
809019	Long socket wrench 27×12.5L	1	008640012	
809022	Long socket wrench 41×20L with 3/4" square drive	1	008640151	
820001	Torque wrench 70-330 Nm	1	008640154	
831000	Eye bolt for lifting	1	0083B000100	
845020	Nozzle cleaning kit, complete	1	3284F000100	
845021	Brass wire brush	1	009460137	
845022	Shaft for nozzle needles	1	009410507	
845023	50 nozzle needles	1	009420113	
862000	Funnel for flowing	1	0086C002900	
863000	Limiter for fuel rack movements	2	0086D000400	
864000	Testing tool for injection valve	1	3286E000100	
864006	Pipe	1	0086E002900	
864011	Pressure gauge (400 bar)	1	009421382	

Injection Equipment

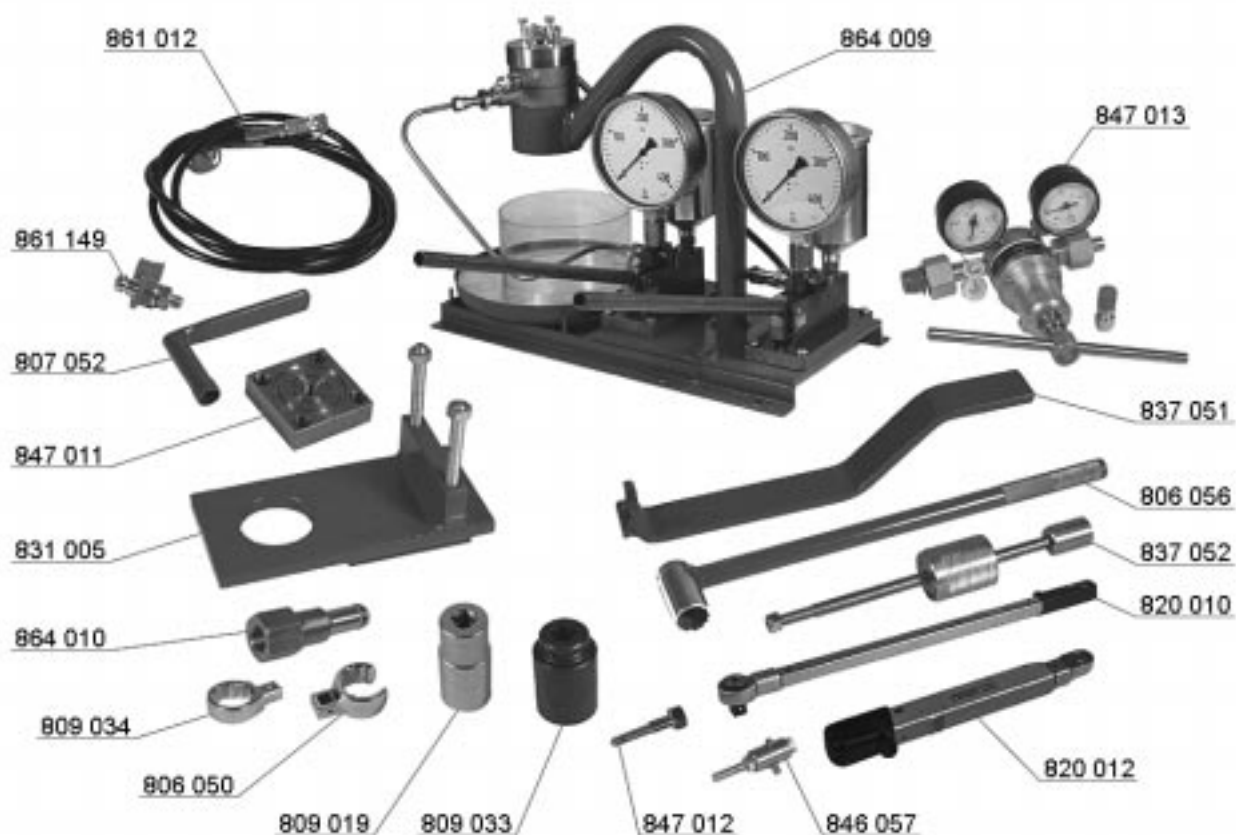
32 L , 32 L



Part No	Description	Qty	Mat No	Remarks
806050	Flare nut wrench for tightening of injection pipe 36 mm	1	008640155	
809018	Long socket wrench 24x12.5L with 1/2" square drive	1	008640159	
809019	Long socket wrench 27x12.5L	1	008640012	
809022	Long socket wrench 41x20L with 3/4" square drive	1	008640151	
820001	Torque wrench 70-330 Nm	1	008640154	
831000	Eye bolt for lifting	1	0083B000100	
845020	Nozzle cleaning kit, complete	1	3284F000100	
845021	Brass wire brush	1	009460137	
845022	Shaft for nozzle needles	1	009410507	
845023	50 nozzle needles	1	009420113	
862000	Funnel for flowing	1	0086C002900	
863000	Limiter for fuel rack movements	2	0086D000400	
864000	Testing tool for injection valve	1	0086E010000	
864006	Pipe	1	0086E002900	
864012	Pressure gauge (1000 bar)	1	006910207	

Tools for Multi-needle Injection Valve

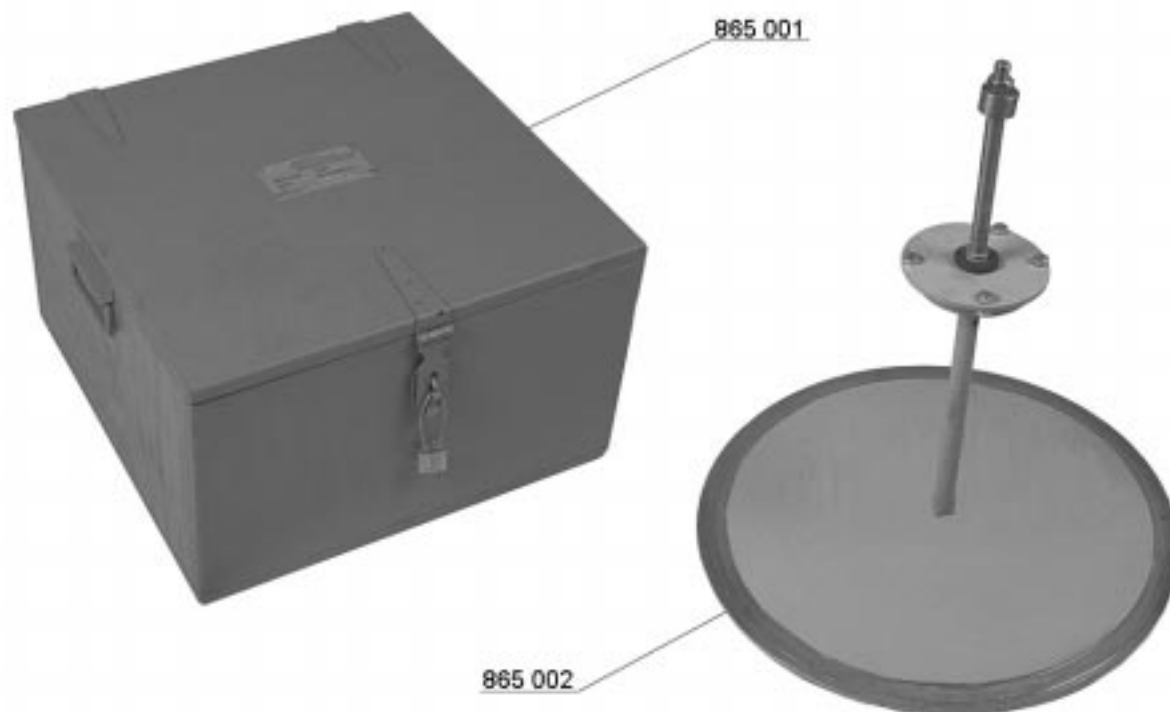
32 , 32 L



Part No	Description	Qty	Mat No	Remarks
806050	Flare nut wrench for tightening of injection pipe 36 mm	1	008640155	
806056	Tightening tool for gas injection valve	1	0080G003500	
807052	Socket wrench	1	0080H001700	
809019	Long socket wrench 27×12.5L	1	008640012	
809033	Long socket wrench 56×12.5L	1	008640278	
809034	Box wrench head 13	1	008640310	
820010	Torque wrench 75-400 Nm	1	008640177	
820012	Torque wrench 8-40 Nm	1	008640311	
831005	Fixing tool for injection valve	1	0084G026300	
837051	Lifting tool	1	0083H016300	
837052	Extractor for gas connection pipe	1	0083H016200	
846057	Assembly tool for gas nozzle	1	0084G033400	
847011	Flange for pressure test	1	0084H005700	
847012	Plug for connection piece	20	0031E021200	
847013	Pressure reducing valve	1	0084H006800	
861012	Flexible hose 3000 mm, including quick couplings	1	3286A000200	
861149	Quick coupling, male	2	006190145	
864009	Testing tool for injection valve	1	0086E009100	
864010	Adapter for nitrogen gas fuel connection	1	0086E011000	

Turbocharger

Vasa 32, 32 L , 32 , 32 L , 32 F, Wärtsilä 34 S

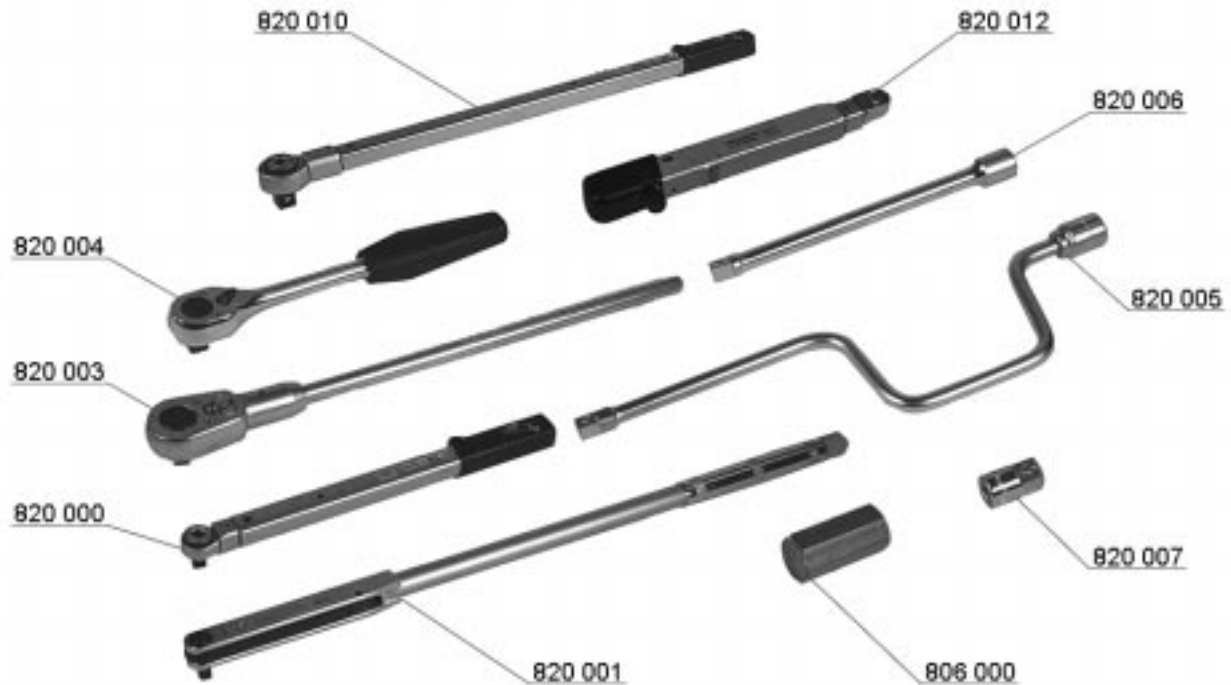


Part No	Description	Qty	Mat No	Remarks
865001	Maintenance tools*	1	DEPENDS	
865002	Blanking tool for turbocharger*	1	DEPENDS	

*) State engine number, turbocharger type and serial number/HT number when ordering.

Tightening Tools

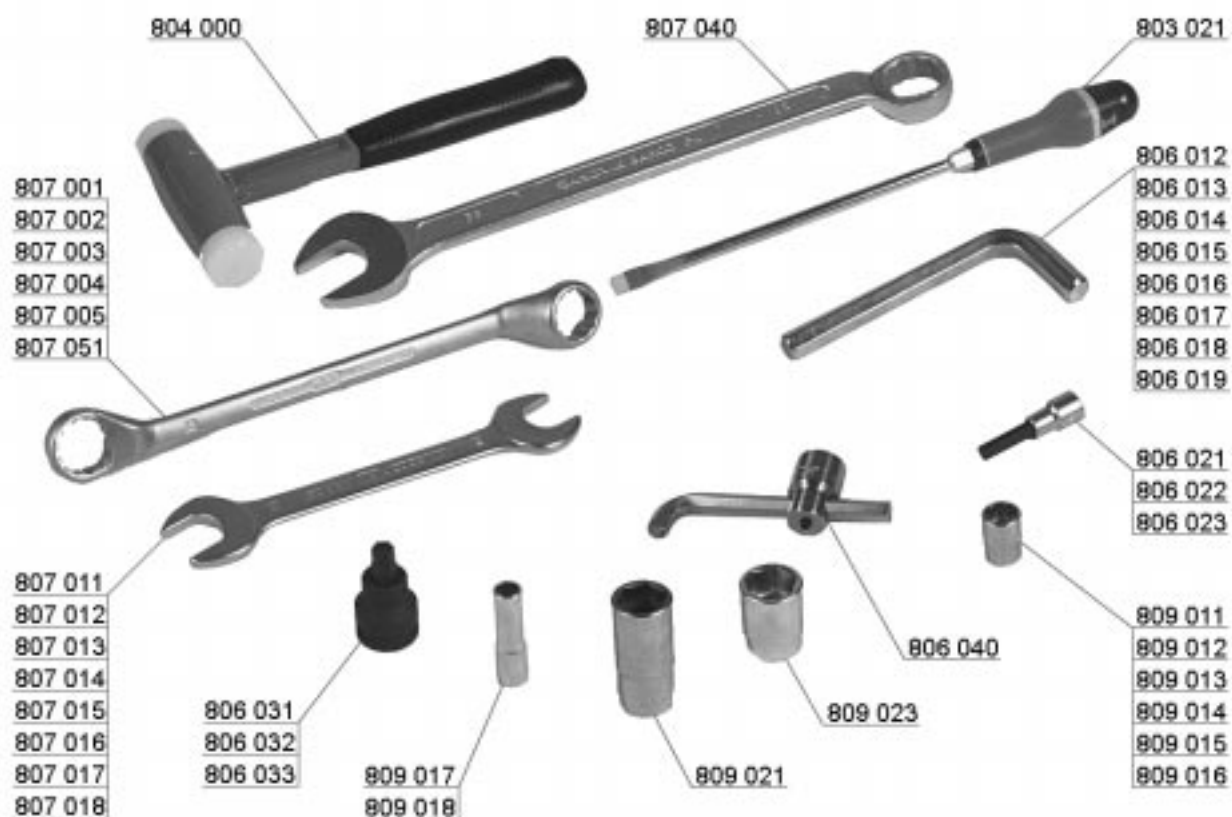
Vasa 32, 32 L , 32 , 32 L , 32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
806000	Hexagon bar kW 27	—	0080G001800	
820000	Torque wrench 20-100 Nm	—	008640153	
820001	Torque wrench 70-330 Nm	—	008640154	
820003	Ratchet handle 20×630 with 3/4" square drive	—	008640152	
820004	Ratchet handle 12.5×300 with 1/2" square drive	—	008640041	
820005	Speed brace B12.5×500 with 1/2" square drive	—	008640022	
820006	Extension bar B12.5×250 with 1/2" square drive	—	008640149	
820007	Adapter socket wrench A20×12.5 with 3/4"×1/2"	—	008640148	
820010	Torque wrench 75-400 Nm	—	008640177	GD, LNGD
820012	Torque wrench 8-40 Nm	—	008640311	GD, LNGD

Hand Tools

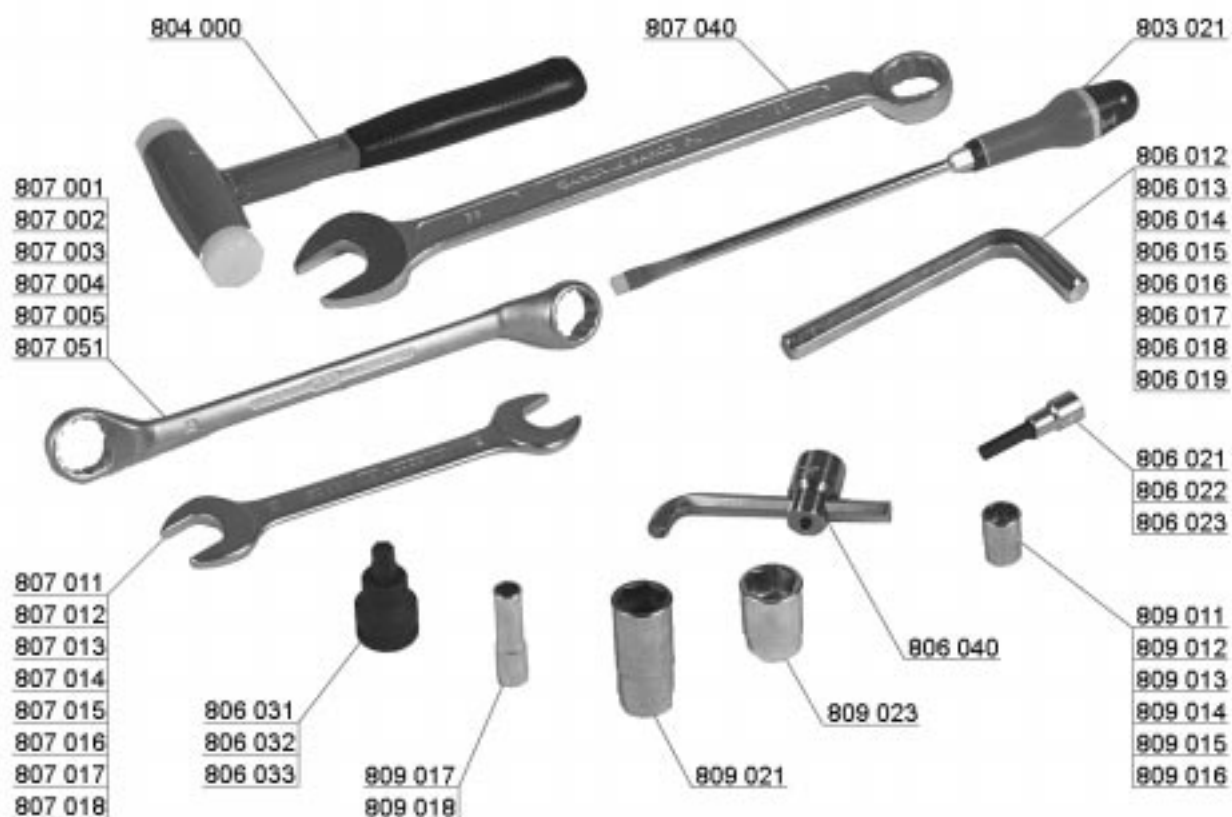
Vasa 32, 32 L , 32 , 32 L , 32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
803021	Screwdriver 2×12M	—	008650019	
804000	Non recoiling hammer D40	—	008650021	
806012	Key for hexagon socket screw 4	—	008640047	
806013	Key for hexagon socket screw 5	—	008640002	
806014	Key for hexagon socket screw 6	—	008640003	
806015	Key for hexagon socket screw 8	—	008640004	
806016	Key for hexagon socket screw 10	—	008640005	
806017	Key for hexagon socket screw 12	—	008640042	
806018	Key for hexagon socket screw 14	—	008640048	
806019	Key for hexagon socket screw 17	—	008640049	
806021	Bit, hexagon socket screw 6 with 1/2" square drive	—	008640013	
806022	Bit, hexagon socket screw 8 with 1/2" square drive	—	008640014	
806023	Bit, hexagon socket screw 10 with 1/2" square drive	—	008640015	
806031	Bit, hexagon socket screw 14 with 3/4" square drive	—	008640156	
806032	Bit, hexagon socket screw 17 with 3/4" square drive	—	008640084	
806033	Bit, hexagon socket screw 19 with 3/4" square drive	—	008640157	
806040	Special key for hexagon socket screw 10	—	0080G001700	

Hand Tools

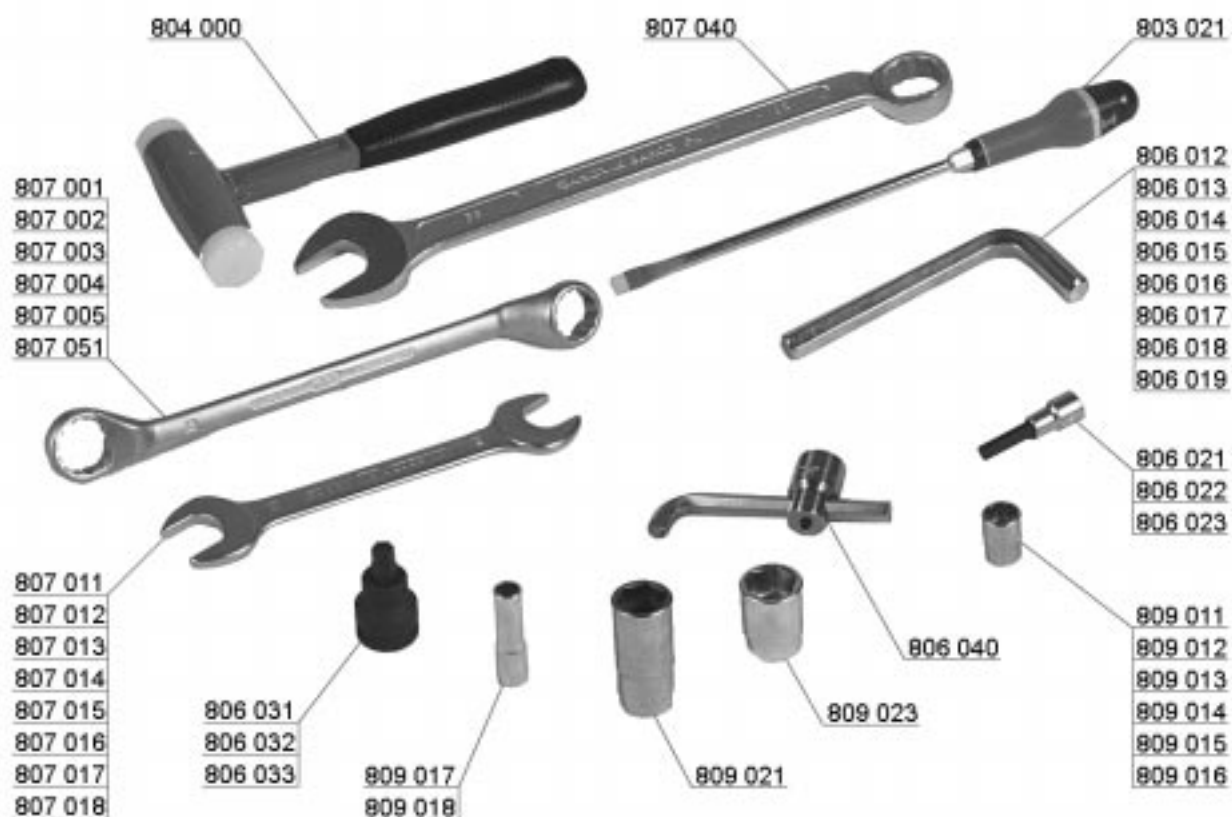
Vasa 32, 32 L , 32 , 32 L , 32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
807001	Box wrench 10-11	—	008640161	
807002	Box wrench 12-14	—	008640163	
807003	Box wrench 13-17	—	008640164	
807004	Box wrench 19-22	—	008640165	
807005	Box wrench 30-32	—	008640167	
807011	Engineers wrench 10-11	—	008640061	
807012	Engineers wrench 12-14	—	008640062	
807013	Engineers wrench 13-17	—	008640029	
807014	Engineers wrench 19-22	—	008640031	
807015	Engineers wrench 24-27	—	008640032	
807016	Engineers wrench 30-32	—	008640033	
807017	Engineers wrench 36-41	—	008640054	
807018	Engineers wrench 46-50	—	008640103	
807040	Combination wrench AL36	—	008640160	
807051	Box wrench 24-27	—	008640026	

Hand Tools

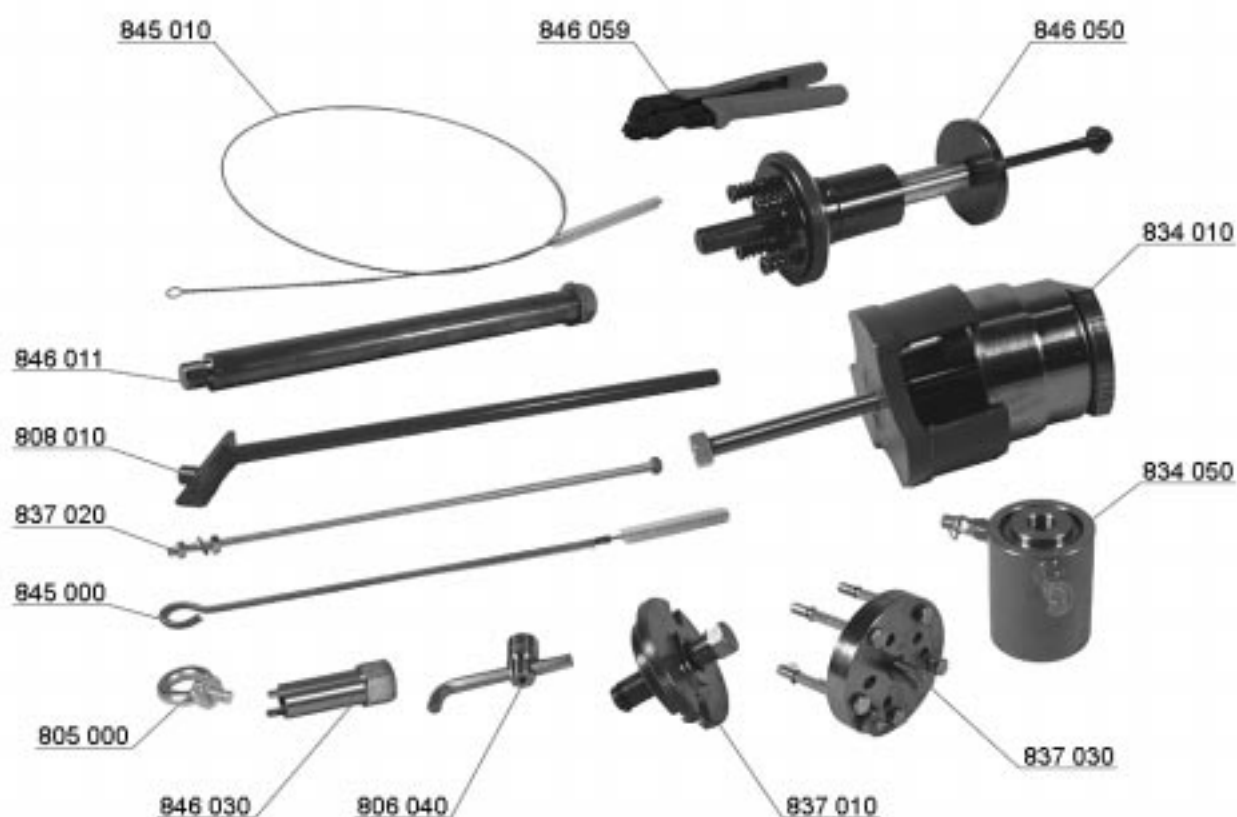
Vasa 32, 32 L , 32 , 32 L , 32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
809011	Socket wrench 10×12.5 with 1/2" square drive	–	008640150	
809012	Socket wrench 13×12.5 with 1/2" square drive	–	008640043	
809013	Socket wrench 17×12.5 with 1/2" square drive	–	008640007	
809014	Socket wrench 19×12.5 with 1/2" square drive	–	008640008	
809015	Socket wrench 24×12.5 with 1/2" square drive	–	008640074	
809016	Socket wrench 27×12.5 with 1/2" square drive	–	008640213	
809017	Long socket wrench 13×12.5L with 1/2" square drive	–	008640174	
809018	Long socket wrench 24×12.5L with 1/2" square drive	–	008640159	
809021	Long socket wrench 30×20L with 3/4" square drive	–	008640011	
809023	Socket wrench 30×20 with 3/4" square drive	–	008640009	

Miscellaneous Tools

Vasa 32, 32 L , 32 , 32 L



Part No	Description	Qty	Mat No	Remarks
805000	Eye bolt screw M10	1	004470007	
806040	Special key for camshaft flange connection screws	1	0080G001700	
808010	Resetting tool for overspeed trip	1	0080K000900	
834010	Mounting & removing tool for camshaft bearing bush * 3283E000500/3283E000200	1		
834050	Hydraulic extractor	1	0083E006100	
837010	Extractor for water pump impeller	1	3283H000200	L
837020	Mounting tool for overspeed trip & elastic link rod	1	0083H007300	
837030	Extractor for water pump impeller	1	3283H000100	V
845000	Brushes for cleaning of charge air cooler (3-pack)	1	009460856	
845010	Brushes for cleaning of lubricating oil cooler (3-pack)	1	009450231	L
846011	Mounting screw for plate heat exchanger	2	0084G023400	
846030	Adjusting tool for mechanical overspeed trip device release	1	0084G023200	
846050	Mounting tool for seat rings (inlet & exhaust)	1	00T17041502	
846059	AMP hand crimping tool	1	0084G047501	VASA
32, LN				

*) Two versions. Specify inner diameter, (165/150 or 180/165) of camshaft bearing bush when ordering.

Miscellaneous Tools

Vasa 32, 32 L , 32 , 32 L



Part No	Description	Qty	Mat No	Remarks
842024	Service-box for schaller oil mist detect	1	009420483	32, 32LN
848010	Measure gauge for crankshaft deflection	1	008610001	
848020	Checking tool for cylinder/valves tightness	1	3284K000100	
849001	Tool locker	1	008550001	
860170	Air operated hydraulic unit	1	005410194	
861050	Distance sleeve for small counterweight mounting	2	0086B004800	9R32
861055	Distance sleeve for big counterweight mounting	2	0086B008100	4,6,8R, V
866011	U-manometer for measuring of crankcase pressure	1	0086G003700	

Miscellaneous Tools

32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
805000	Eye bolt screw M10	1	004470007	
806040	Special key for camshaft flange connection screws	1	0080G001700	
834010	Mounting & removing tool for camshaft bearing bush*	1	0083H017300	
834050	Hydraulic extractor	1	0083E006100	
837030	Extractor for water pump impeller	1	3283H000100	
845000	Brushes for cleaning of charge air cooler (3-pack)	1	009460856	
846025	Mounting tool for charge air cooler	1	3284G000200	
846050	Mounting tool for gas seat rings (inlet & exhaust)	1	00T17041502	
846059	AMP hand crimping tool	1	0084G047501	
848010	Measure gauge for crankshaft deflection	1	008610001	
848020	Checking tool for cylinder/valves tightness	1	3284K000200	SG
849001	Tool locker	1	008550001	
860170	Air operated hydraulic unit	1	005410194	
861055	Distance sleeve for big counterweight mounting	2	0086B008100	V
864013	Testing tool for ignition timing	1	3286G000100	SG

*) Two versions. Specify inner diameter, (165/150 or 180/165) of camshaft bearing bush when ordering.

Additional Tools for V-engine and 4R32

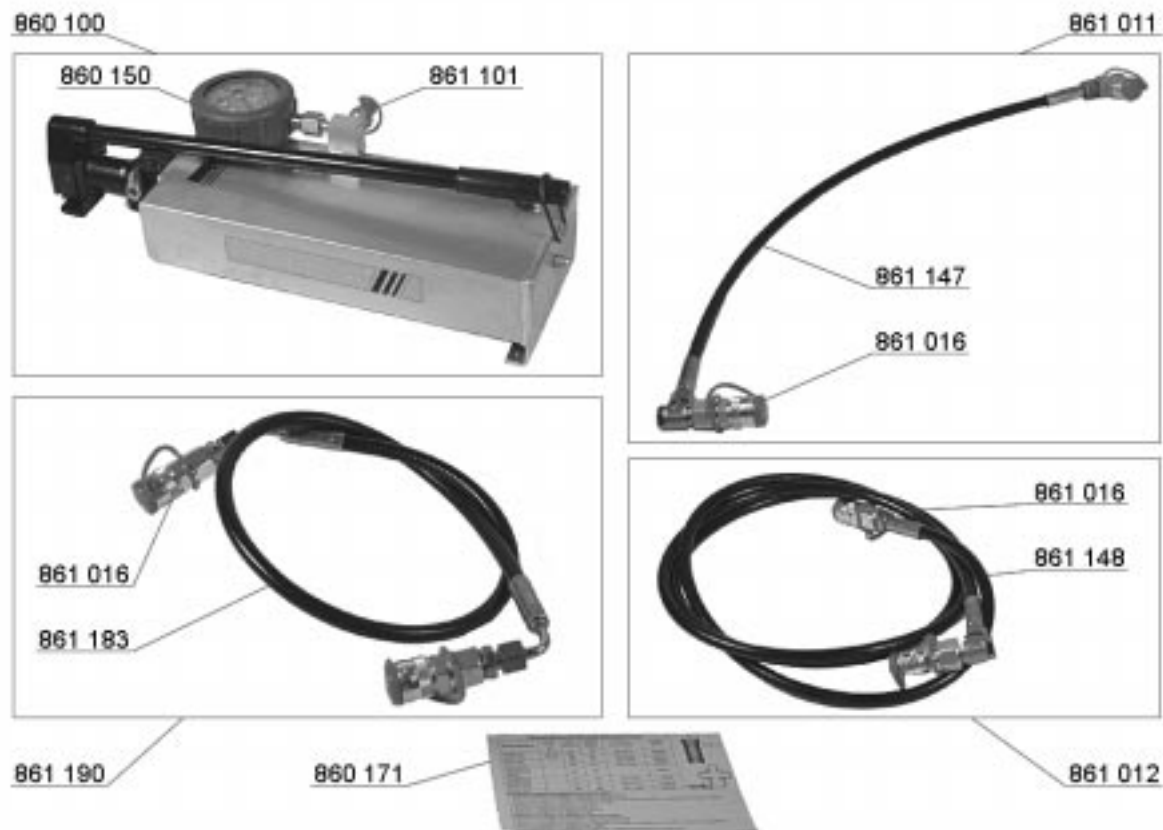
Vasa 32, 32 L , 32 , 32 L , Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
806051	Swivel head 3/4" square drive	1	008640172	V
834040	Mounting & removing tool for balancing shaft bearing bush	1	3283E000300	4R32
837030	Extractor for water pump impeller	1	3283H000100	V
846040	Dismantling tool for thermostat valve	1	0084G021800	V
866010	Intermediate piece for measuring gauge	1	0086G003300	V

High Pressure Pump

Vasa 32, 32 L , 32 , 32 L , 32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
860100	High pressure pump (1000 bar)	–	005410192	
860150	Manometer	–	006910053	
860171	Sign plate	–	005850483	
861011	Flexible hose 800 mm, including quick couplings	–	3286A000300	
861012	Flexible hose 3000 mm, including quick couplings	–	3286A000200	
861016	Quick coupling, female	–	006190146	
861101	Quick coupling, male	–	006190145	
861147	Flexible hose 800 mm	–	006190307	
861148	Flexible hose 3000 mm	–	006190308	
861183	Flexible hose 1100 mm	–	0086A005500	LN, SG, DF
861190	Flexible hose 1100 mm, including quick couplings	–	3286A000800	LN, SG, DF

Low Pressure Pump

Vasa 32, 32 L , 32 , 32 L , 32 F, Wärtsilä 34 S



Part No	Description	Qty	Mat No	Remarks
860074	Straight male stud	–	006230497	
860076	Quick coupling, male	–	009470465	
860079	Quick coupling, female	–	009470464	
860080	Flexible hose 3000 mm	–	006190308	
860081	Flexible hose 3000 mm, including quick couplings	–	3286A000400	
860082	Low pressure pump (150 bar)	–	0086A001800	

Spare Parts Vasa 32

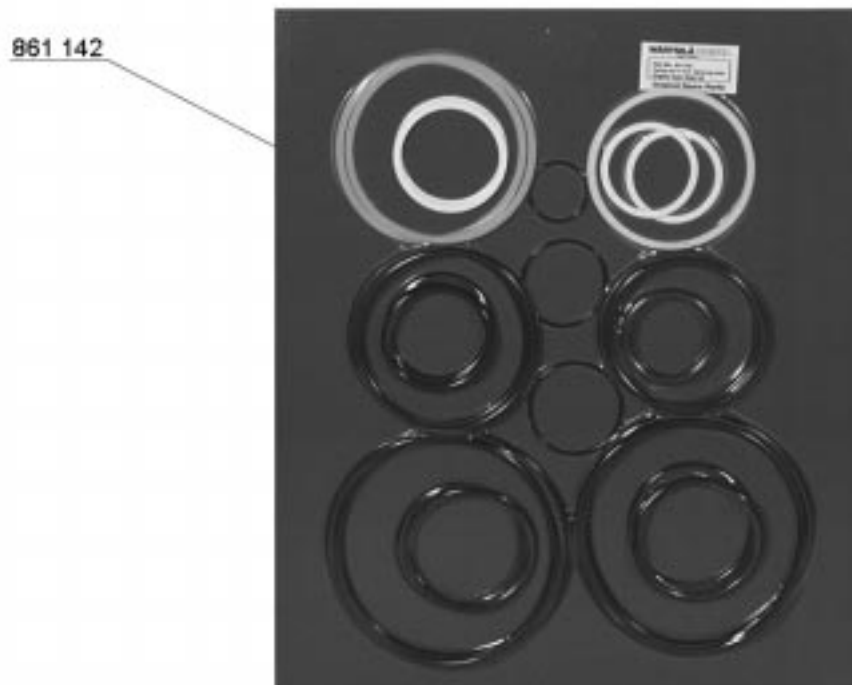
Miscellaneous



Part No	Description	Qty	Mat No	Remarks
929001	Sealing ring set	—	3292L000100	

Spare Parts Vasa 32

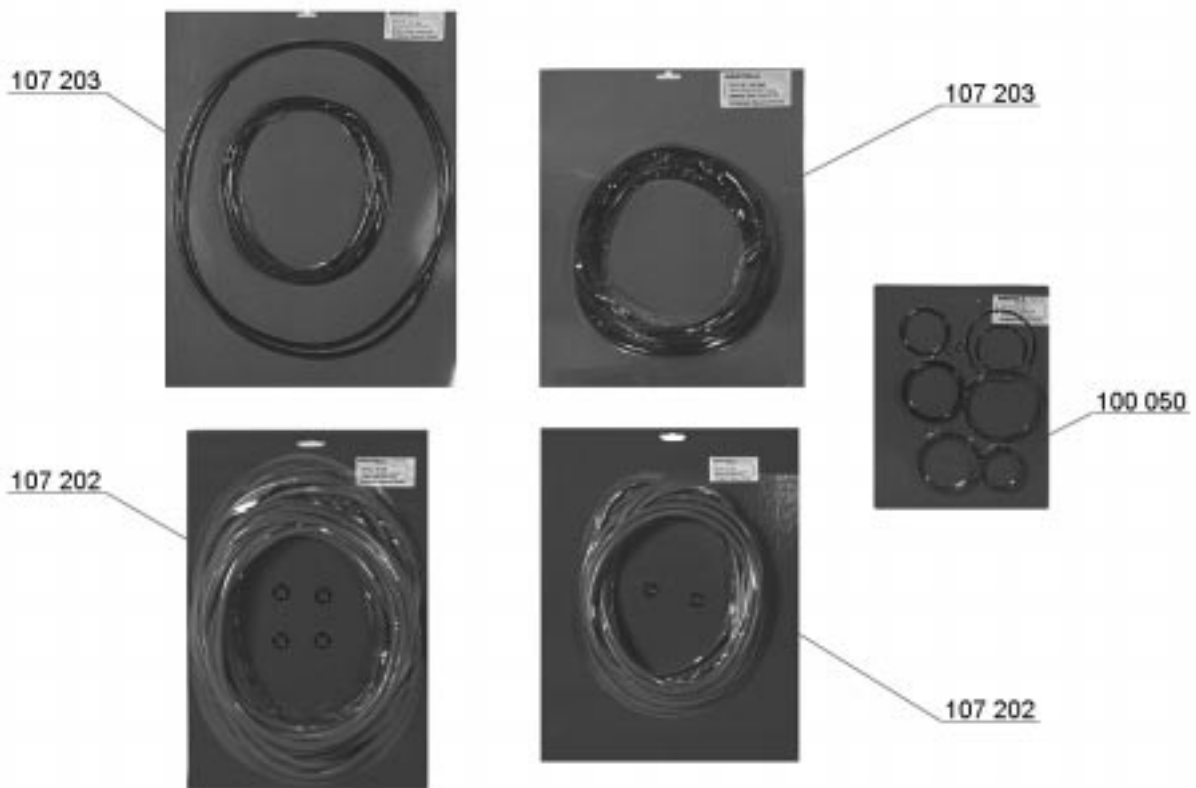
Hydraulic Tightening Tool



Part No	Description	Qty	Mat No	Remarks
861142	Sealing set for hydraulic tightening tools	—	0092L087900	

Spare Parts Vasa 32

Bearings, Oil Sump, Covers



Part No	Description	Qty	Mat No	Remarks
100050	Sealing set for hydraulic jack main bearing cap	–	0092L031800	
107202	Spare part kit for crankcase, camshaft & cylinder head covers	–	0092L090000	V
107202	Spare part kit for crankcase, camshaft & cylinder head covers	–	0092L090100	L
107203	Spare part kit for end covers	–	0092L090200	V
107203	Spare part kit for end covers	–	0092L090300	L

Spare Parts Vasa 32

Piston



Part No	Description	Qty	Mat No	Remarks
113013	Piston ring set with two compression rings	—	0092L092800	
113013	Piston ring set with three compression rings	—	0092L102700	

Spare Parts 32 L

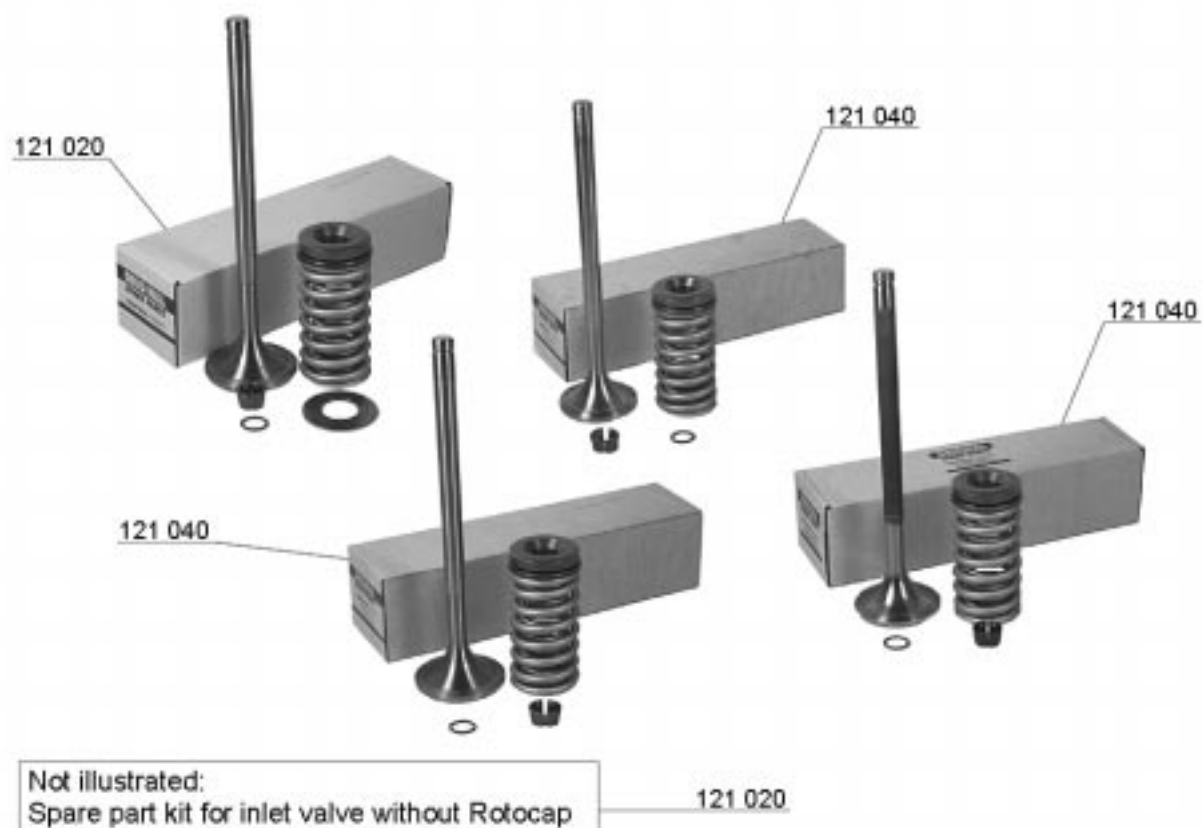
Piston



Part No	Description	Qty	Mat No	Remarks
113013	Piston ring set for Low NOx	—	0092L113100	LN

Spare Parts Vasa 32

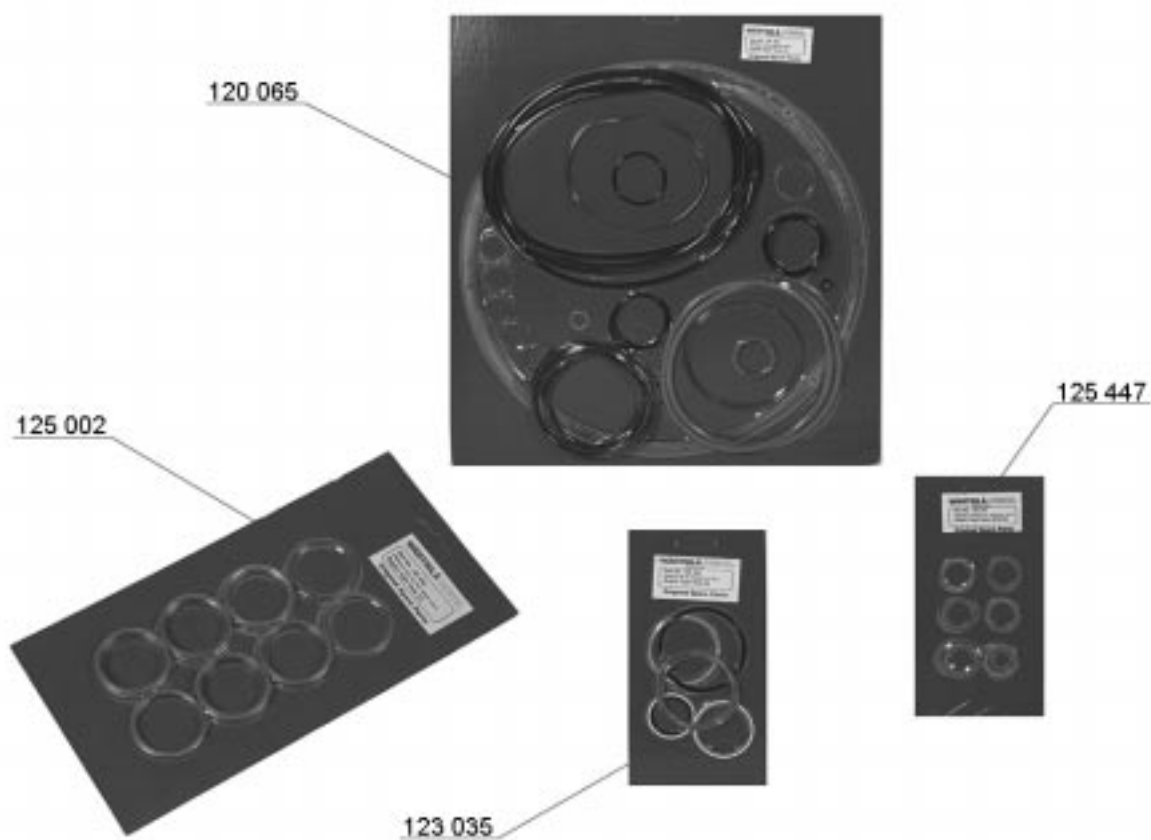
Cylinder Head with Valves



Part No	Description	Qty	Mat No	Remarks
121020	Spare part kit for inlet valve without Rotocap	–	3212B000700	
121020	Spare part kit for inlet valve with Rotocap	–	3212B000800	
121040	Spare part kit for exhaust valve with Rotocap	–	3212B000200	
121040	Spare part kit for exhaust valve with Rotocap, Nimonic	–	3212B001300	
121040	Spare part kit for exhaust valve without Rotocap	–	3212B001700	

Spare Parts Vasa 32

Cylinder Head with Valves



Part No	Description	Qty	Mat No	Remarks
120065	Sealing set for cylinder head	–	3292L000300	
123035	Sealing set for starting valve	–	3292L000500	
125002	Distance ring selection for safety valve	–	3212F000200	
125447	Sealings selection for indicator valve	–	3212G000100	

Spare Parts Wärtsilä 34 S

Cylinder Head with Valves



Part No	Description	Qty	Mat No	Remarks
120065	Sealing set for cylinder head	—	3292L035300	SG

Spare Parts Vasa 32

Valve Mechanism

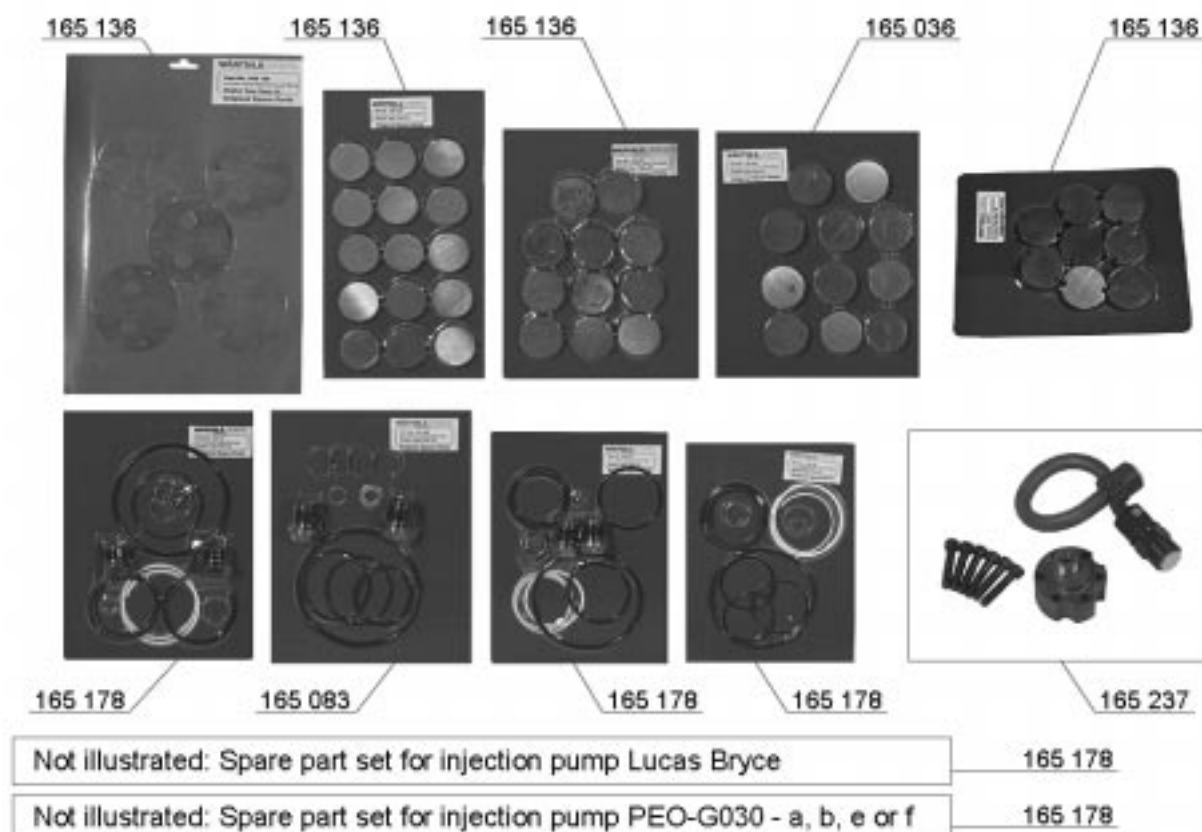
145 026



Part No	Description	Qty	Mat No	Remarks
145026	Spare part kit for valve tappet with guide block	—	0092L089200	

Spare Parts Vasa 32

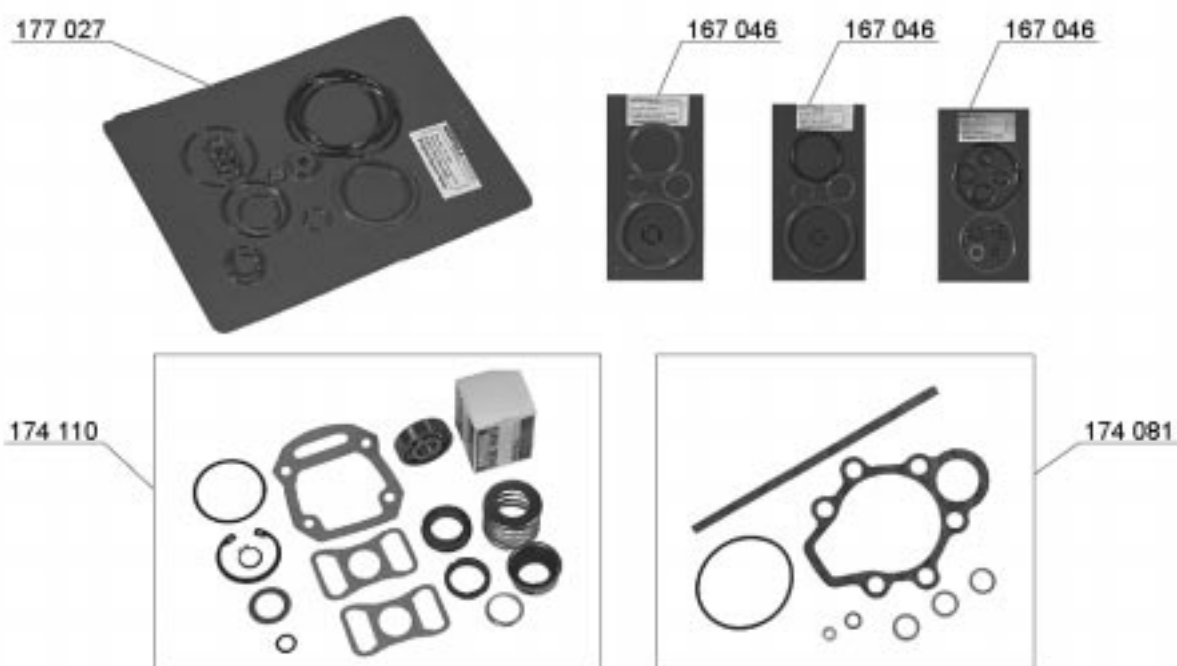
Injection Equipment, Fuel Feed Pumps



Part No	Description	Qty	Mat No	Remarks
165036	Calibration disc set for injection pump PEO-G019	—	3216F000200	
165083	Spare part kit for injection pump PEO-G019	—	0092L081100	
165136	Calibration disc set for injection pump PEO-G024	—	3216F000100	
165136	Calibration disc set for injection pump, Lucas Bryce	—	3216F000500	
165136	Calibration disc set for injection pump PEO-G030	—	3216F000600	
165136	Calibration disc set for injection pump PFR1DY 320/901	—	3216F000700	
165178	Spare part set for injection pump PEO-G024	—	0092L081200	
165178	Spare part set for injection pump PEO-G030	—	0092L085500	
165178	Spare part kit for injection pump, Lucas Bryce	—	0092L085700	
165178	Spare part set for injection pump PEO-G030 a, b, e or f	—	0092L094800	
165178	Sealing set for injection pump Bosch PFR1DY 320/901	—	0092L094900	
165237	Modification kit for injection pump PEO-G024 (Shield)	—	0092L094600	

Spare Parts Vasa 32

Injection Equipment, Fuel Feed Pumps



Not illustrated: Sealing set set for injection valve, L'Orange GD	167 046
Not illustrated: Sealing set set for injection valve, Bosch	167 046
Not illustrated: Sealing set set for quick closing valve, natural gas	177 027

Part No	Description	Qty	Mat No	Remarks
167046	Sealing set for injection valve, L Orange	—	0092L032100	GD
167046	Sealing set for injection valve, L Orange	—	0092L032200	
167046	Sealing set for injection valve, DUAP	—	0092L084700	
167046	Sealing set for injection valve, Bosch	—	0092L087800	
167046	Sealing set for injection valve Multineedle L Orange	—	3292L033000	
174081	Sealing set for fuel feed pump, Allweiler SPF	—	009340178	
174110	Sealing set for fuel feed pump, IMO ACE-025-038*	—	009340371	
177027	Sealing set for quick closing valve	—	0092L094000	
177027	Sealing set for quick closing valve, natural gas	—	3292L033100	

*) State pump size when ordering.

Spare Parts Vasa 32

Lube Oil Pumps, Thermostatic Valves



Part No	Description	Qty	Mat No	Remarks
182069	Front bearing assembly for ACG 045 pump	–	0092L073900	
182069	Front bearing assembly for ACG 052 pump	–	0092L074000	
182105	Sealing set for prelubricating oil pump, IMO ACE 038	–	0092L091500	
182105	Sealing set for prelubricating oil pump, IMO ACG 052	–	009340375	

Spare Parts Vasa 32

Cooling Water Pumps, Thermostatic Valves



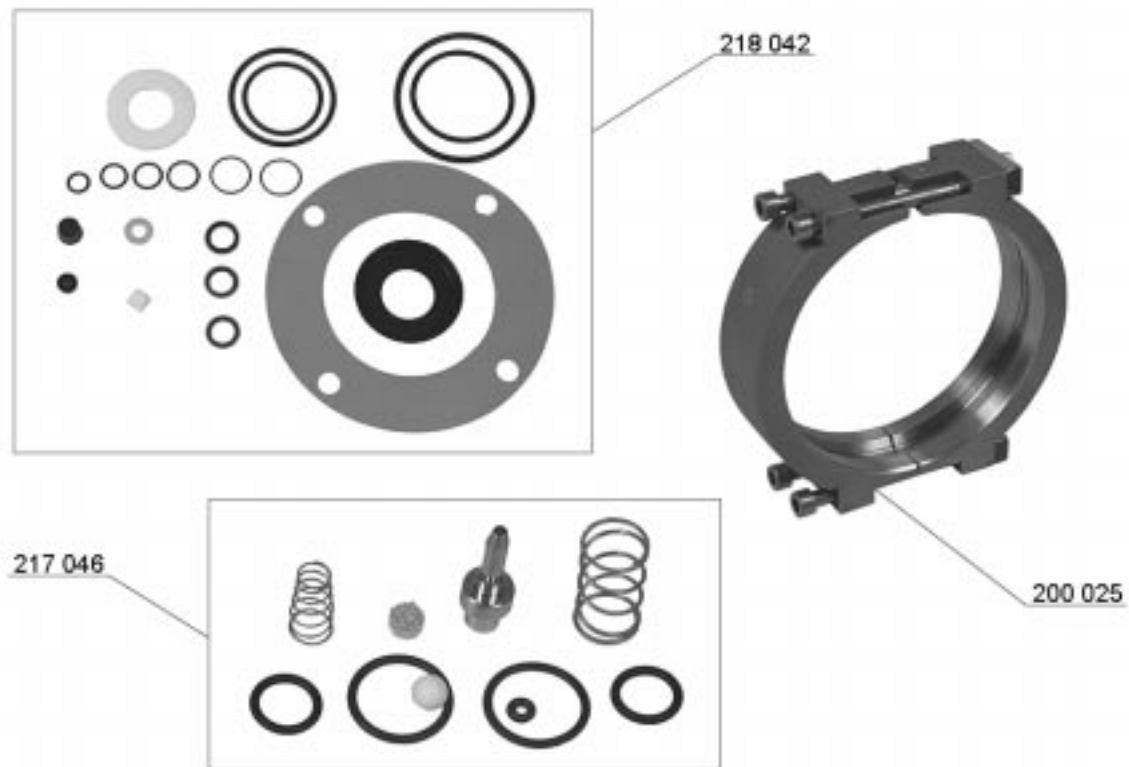
Not illustrated:
Spare part kit for circulation water pump, R32, (ccw)

191 073

Part No	Description	Qty	Mat No	Remarks
191073	Spare part kit for water pump, R32, (clockwise)	–	0092L087300	L
191073	Spare part kit for water pump, V32	–	0092L091200	V
191073	Spare part kit for water pump, R32, (counter clockwise)	–	3292L036500	L

Spare Parts Vasa 32

E haust Manifold, Starting Equipment



Part No	Description	Qty	Mat No	Remarks
200025	Spare part kit with two-part ring for exhaust system	–	0020A119100	
217046	Spare part set for bonnet assembly	–	009420718	
218042	Spare part kit for starting motor	–	009420444	

Spare Parts Vasa 32

Regulating Mechanism

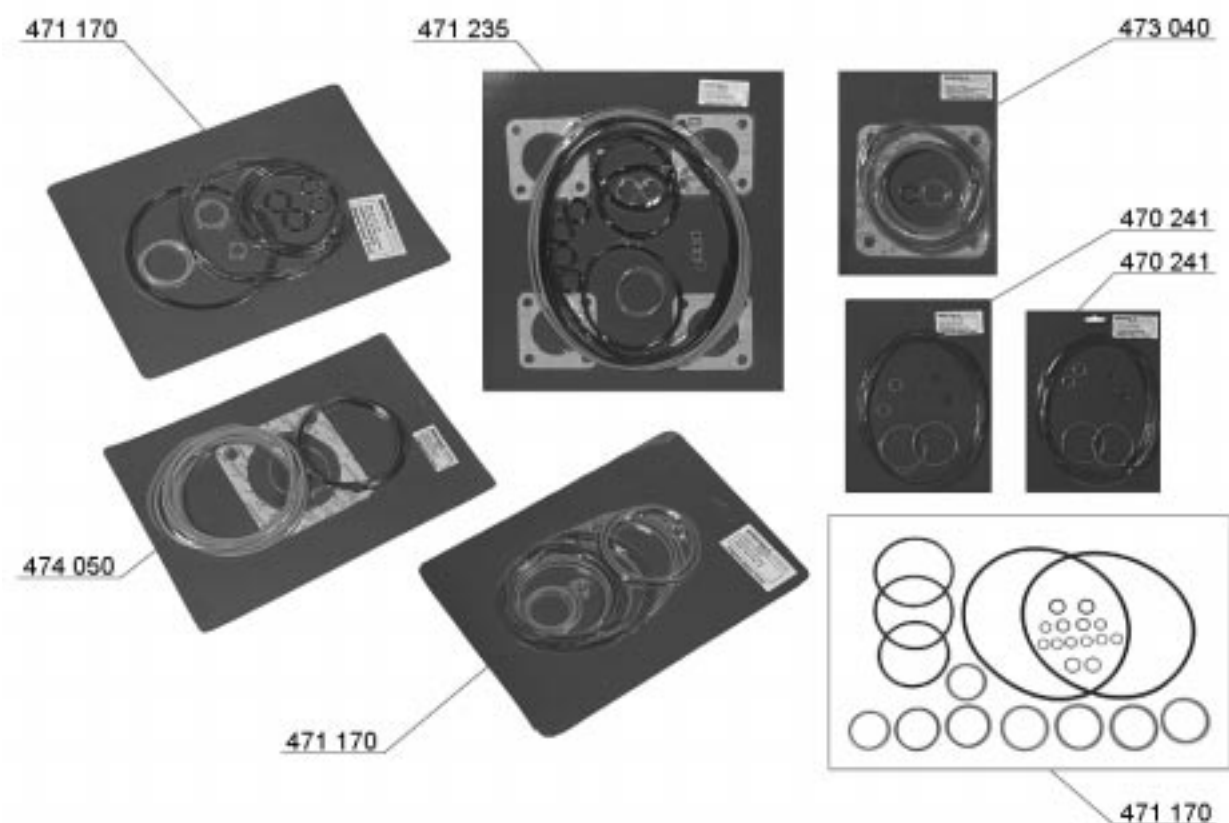
223 055



Part No	Description	Qty	Mat No	Remarks
223055	Spare part kit for UG-8 governor	—	0092L088200	

Spare Parts Vasa 32

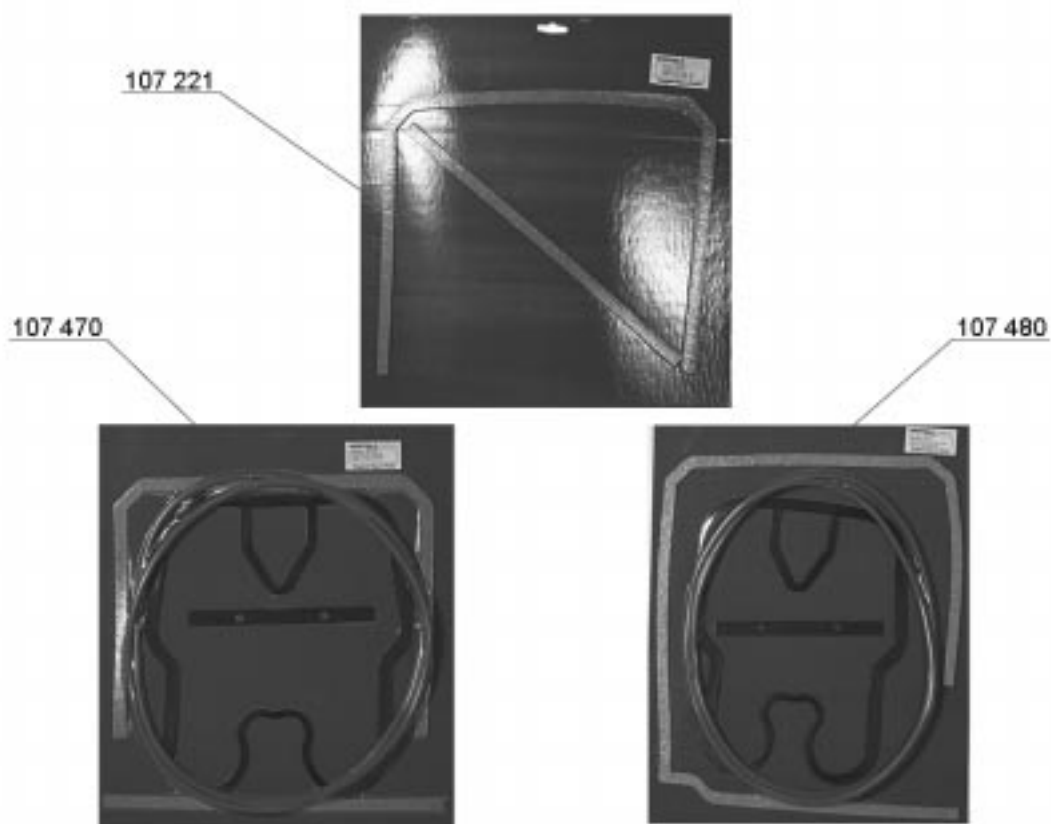
Filters, Coolers



Part No	Description	Qty	Mat No	Remarks
470241	Sealing set for fuel filter, Finn Filter	–	0092L039600	
470241	Sealing set for fuel filter, Mann & Hummel	–	0092L087400	
471170	Sealing set for lubricating oil filter, Mann & Hummel	–	006820163	
471170	Sealing set for lubricating oil filter FFP-320035A(B)	–	0092L080000	
471170	Sealing set for lubricating oil filter FFP-32035A(B)-15	–	0092L097900	
471235	Sealing set for lubricating oil filter V32	–	0092L039500	V
473040	Sealing set for centrifugal filter GF600	–	0092L072400	
474050	Gasket set for lubricating oil cooler, (tube model)	–	0092L091100	

Spare Parts Vasa 24

Bearings, Oil Sump, Covers



Part No	Description	Qty	Mat No	Remarks
107221	Sealing set for covers	–	0010G000100	
107470	Spare part kit for covers	–	0092L089400	
107480	Spare part kit for covers at flywheel end	–	0092L089500	

Spare Parts Vasa 24

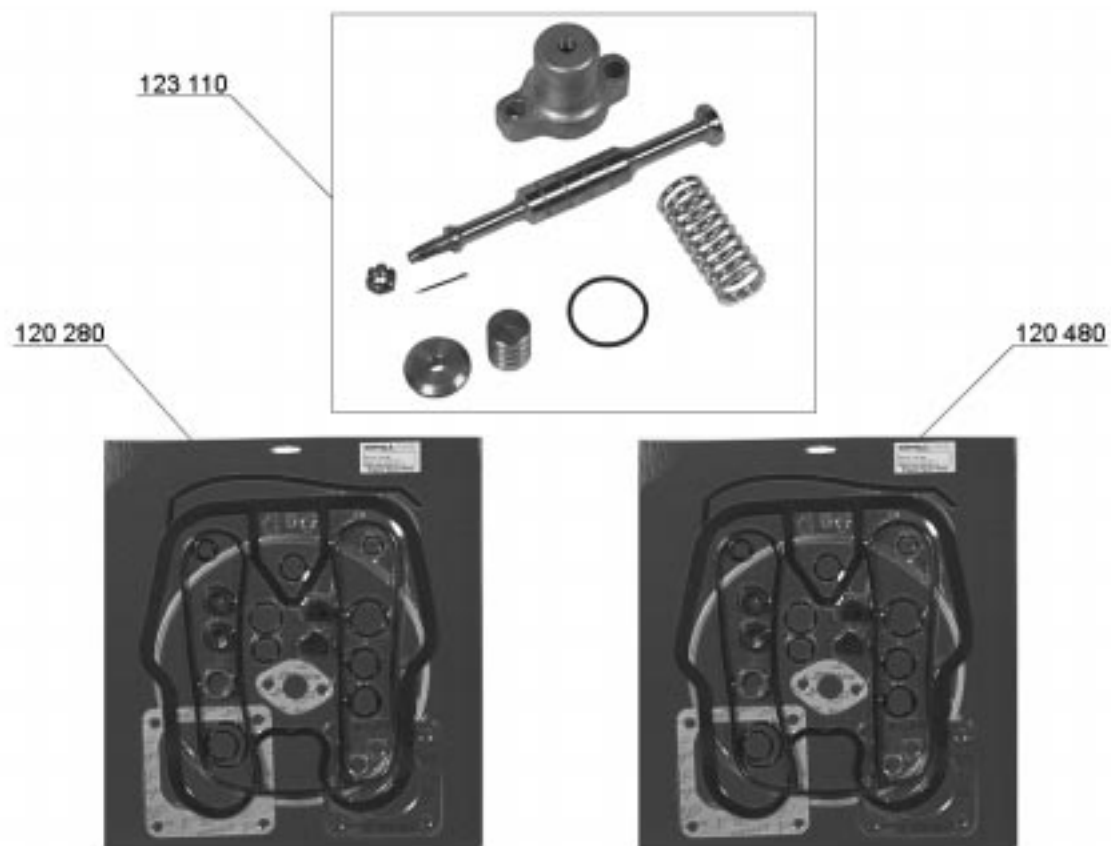
Piston



Part No	Description	Qty	Mat No	Remarks
113500	Piston ring set	—	2492L092400	

Spare Parts Vasa 24

Cylinder Head with Valves



Part No	Description	Qty	Mat No	Remarks
120280	Gasket set for cylinder head for 14TK	–	1492L073000	
120480	Gasket set for cylinder head for 24TK	–	1492L073000	
123110	Spare part kit for starting valve	–	1412D000100	

Main Bearings

Vasa 22



Part No	Description	Qty	Mat No	Remarks
803001	Bit hexagon socket screw 22 with 1" square drive	1	008640040	
822001	Torque multiplier X-4	1	008640020	
832003	Lifting tool for bearing cap	1	2283C000200	
851001	Turning tool for main bearing shell	1	0085B000700	L
851002	Turning tool for main bearing shell	1	0085B001200	V
851005	Turning tool for thrust washer & bearing shell	1	0085B000800	L
851006	Turning tool for thrust washer & bearing shell	1	0085B001700	V
860000	High pressure pump (1000 bar)	1	005410002	
861025	Pin for tightening of nuts	1	0086B001100	
861031	Distance sleeve	2	0086B006700	
861034	Hydraulic cylinder	2	0086B008200	
861166	Flexible hose 600 mm, including quick couplings	1	2286A000100	
861167	Flexible hose 3000 mm, including quick couplings	2	2286A000200	

Cylinder Liner

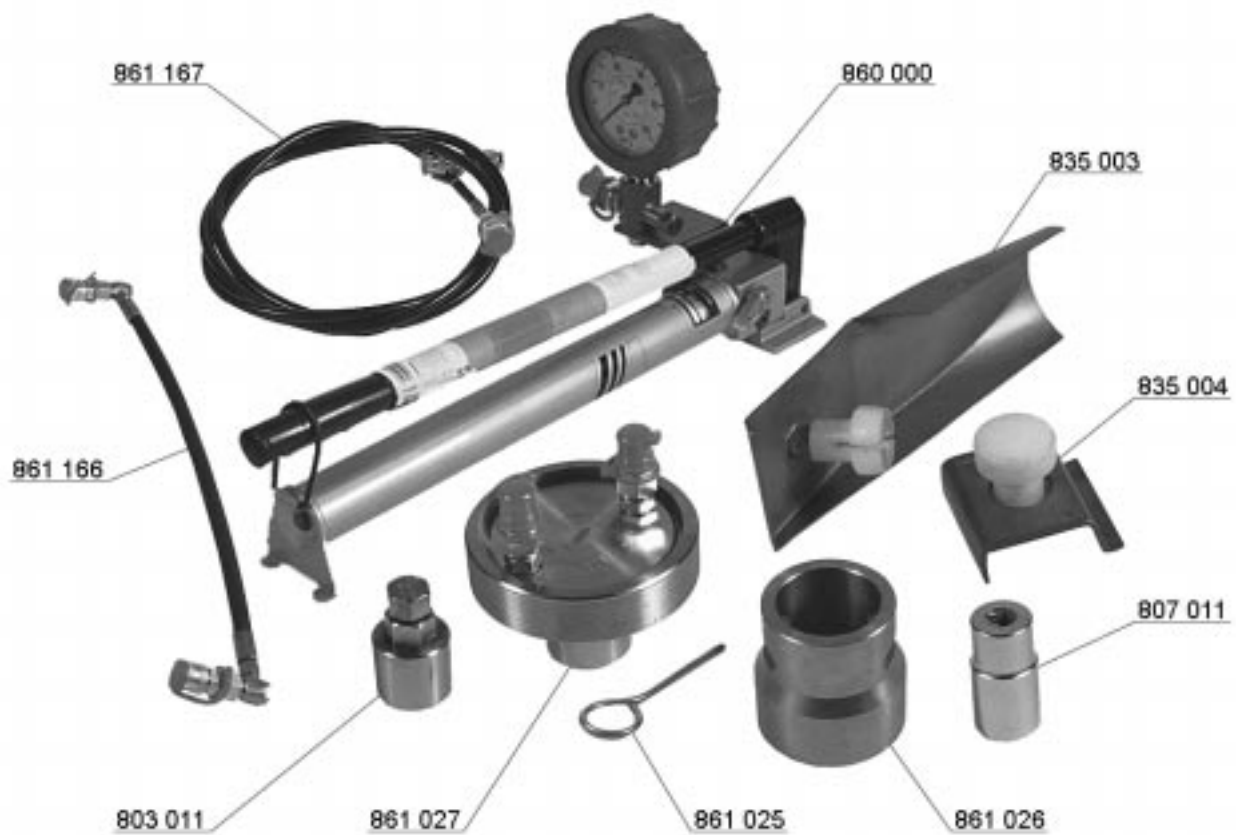
Vasa 22



Part No	Description	Qty	Mat No	Remarks
836001	Extracting & lifting tool for cylinder liner	1	2283G000200	
841009	Honing tool for cylinder liner	1	00T22008800	
841010	Drilling machine for honing tool	1	008660002	
842025	Honing stones 25×25×250, coarse, including holder	3	008760196	
842026	Honing stones 25×25×250, fine, including holder	3	008760197	

Connecting Rod, V-engine

Vasa 22



Part No	Description	Qty	Mat No	Remarks
803011	Stud remover M30×2	1	0080D001800	
807011	Long socket wrench 27×12.5L	1	008640012	
835003	Protecting sleeve for connecting rod, upper	1	0083F007100	V
835004	Protecting sleeve for connecting rod, lower	1	0083F006800	V
860000	High pressure pump (1000 bar)	1	005410002	
861025	Pin for tightening of nuts	1	0086B001100	
861026	Distance sleeve	2	0086B014100	V
861027	Hydraulic cylinder	2	2286B000600	
861166	Flexible hose 600 mm, including quick couplings	1	2286A000100	
861167	Flexible hose 3000 mm, including quick couplings	2	2286A000200	

Connecting Rod, L-engine

Vasa 22



Part No	Description	Qty	Mat No	Remarks
803011	Stud remover M30×2	1	0080D001800	
807011	Long socket wrench 27×12.5L	1	008640012	
860000	High pressure pump (1000 bar)	1	005410002	
861025	Pin for tightening of nuts	1	0086B001100	
861027	Hydraulic cylinder	2	2286B000600	
861032	Distance piece	2	0086B007100	L
861033	Distance sleeve	2	0086B014200	L
861166	Flexible hose 600 mm, including quick couplings	1	2286A000100	
861167	Flexible hose 3000 mm, including quick couplings	2	2286A000200	

Piston

Vasa 22



Part No	Description	Qty	Mat No	Remarks
832002	Lifting tool	1	0083C006400	
832008	Mounting tool when using antipolishing ring	1	0074L003700	
836007	Dismantling tool for antipolishing ring	1	0010T136600	
843002	Clamp tool for piston rings	1	0084D001000	
843003	Piston ring pliers	1	008650012	
843004	Pliers for retaining rings	1	008650009	
843005	Spare tips for pliers 843004, straight	1	008650123	
845001	Tap M12	1	008770001	

Cylinder Head

Vasa 22



Part No	Description	Qty	Mat No	Remarks
808001	T-wrench for indicator valve	1	0080K000600	
832005	Lifting tool for cylinder head	1	0083C008200	
832006	Service trestle for cylinder head	1	00T20052400	
834002	Fitting tool for exhaust valve seat ring	1	2283E000200	
837016	Extractor for push rod protection pipe	1	0083H009700	
837019	Extractor for inlet valve seat ring	1	2283E000300	
841001	Lapping tool for valves	1	2284B000200	
841008	Cleaning tool for injection sleeve bottom	1	2284B000300	
841021	Felt for cleaning tool	1	0084B007100	
843001	Circlip pliers	1	008650010	
846010	Dismantling tool for valve springs	1	2284G000400	
848003	Valve clearance feeler gauge	1	0084K004700	
860000	High pressure pump (1000 bar)	1	005410002	
861020	Hydraulic tightening tools, complete	1	2286B000900	
861025	Pin for tightening of nuts	1	0086B001100	
861031	Distance sleeve	4	0086B006700	
861034	Hydraulic cylinder	4	0086B008200	
861166	Flexible hose 600 mm, including quick couplings	3	2286A000100	
861167	Flexible hose 3000 mm, including quick couplings	2	2286A000200	

Injection Equipment

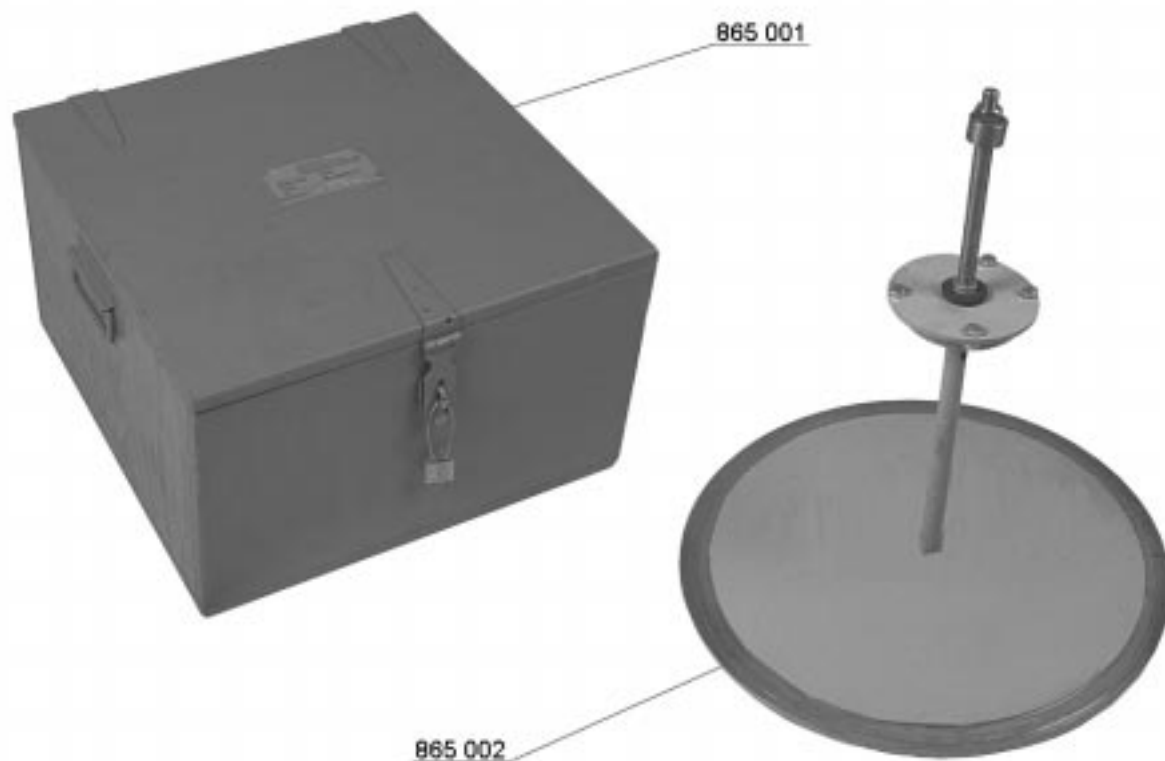
Vasa 22



Part No	Description	Qty	Mat No	Remarks
806005	Special socket wrench 19 for flange nuts	1	008640173	
806009	Crowfoot wrench 27 for injection pipes	1	008640183	
806010	Adapter A10×12.5	1	008640168	
807004	Long socket wrench 22×12.5L for connecting piece	1	008640085	
807010	Long socket wrench 30×12.5L for nozzle nut	1	008640087	
837017	Extractor for injection valve (L Orange)	1	0083H009800	
845006	Shaft for nozzle needles	1	009410507	
845008	Brass wire brush	1	009460137	
845014	Nozzle needles 0.36, 50 pack	1	009470297	
846008	Mounting tool for injection pump tappet	1	2284G000200	
862007	Checking tool for fuel injection timing	1	2286C000100	
864011	Testing tool for injection valve	1	2286E000200	

Turbocharger

Vasa 22

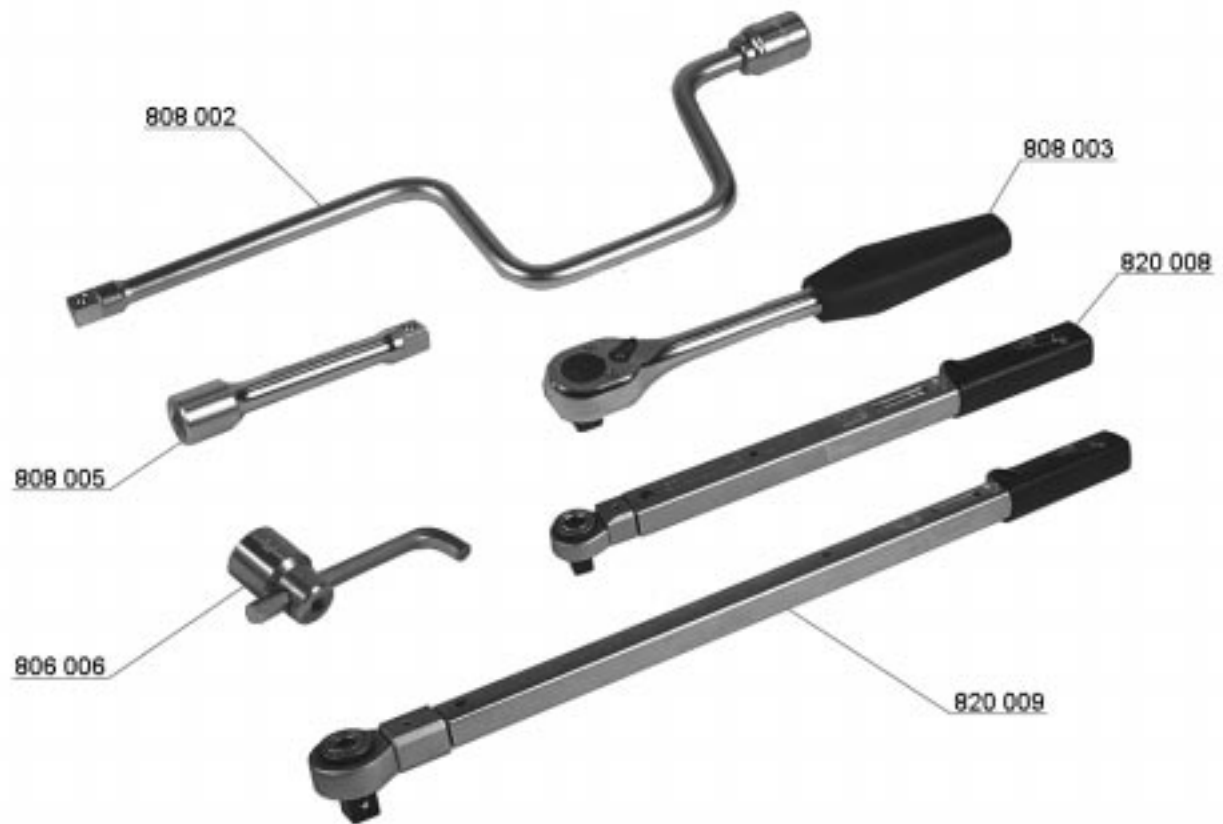


Part No	Description	Qty	Mat No	Remarks
865001	Maintenance tools VASA 22*	1	DEPENDS	
865002	Blanking tool for turbocharger*	1	DEPENDS	

*) State engine number, turbocharger type and serial number/HT number when ordering.

Tightening Tools

Vasa 22



Part No	Description	Qty	Mat No	Remarks
806006	Special key for hexagon camshaft flange	—	0080G002100	
808002	Speed brace B12.5×500 with 1/2" square drive	—	008640022	
808003	Ratchet handle 12.5×300 with 1/2" square drive	—	008640041	
808005	Extension bar B12.5×125 with 1/2" square drive	—	008640021	
820008	Torque wrench 20-100 Nm	—	008640153	
820009	Torque wrench 75-400 Nm	—	008640177	

Hand Tools

Vasa 22



Part No	Description	Qty	Mat No	Remarks
800001	Double head open end wrench 41-46	—	008640035	
800002	Double head open end wrench 32-36	—	008640034	
800003	Double head open end wrench 30-32	—	008640033	
800004	Double head open end wrench 24-27	—	008640032	
800005	Double head open end wrench 19-22	—	008640031	
800006	Double head open end wrench 14-17	—	008640030	
800007	Double head open end wrench 13-17	—	008640029	
800008	Double head open end wrench 10-12	—	008640028	
801001	Ring wrench 24-27	—	008640166	
801002	Ring wrench 19-22	—	008640165	
801003	Ring wrench 13-17	—	008640164	
801004	Ring wrench 10-12	—	008640023	
801005	Open ring spanner 30-32	—	008640158	

Hand Tools

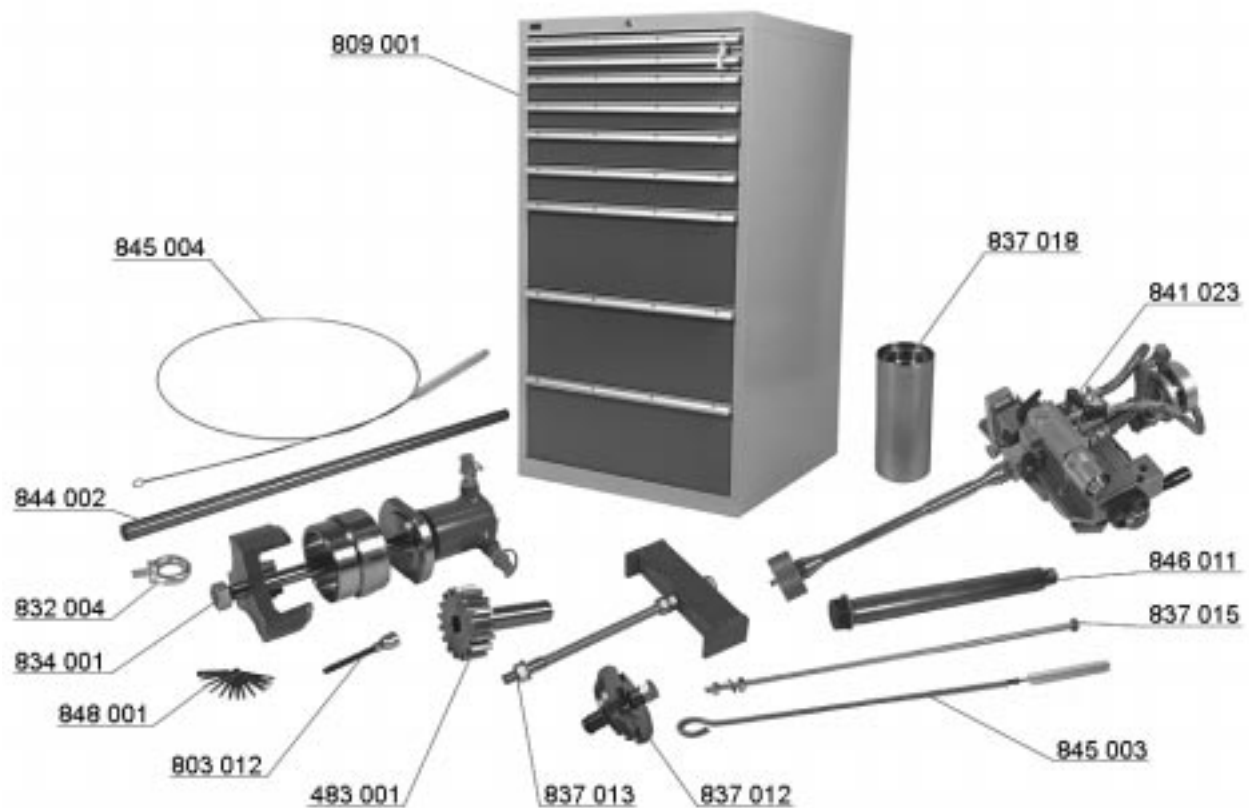
Vasa 22



Part No	Description	Qty	Mat No	Remarks
803002	Key for hexagon socket screw 12	—	008640042	
803003	Key for hexagon socket screw 10	—	008640005	
803004	Key for hexagon socket screw 8	—	008640004	
803005	Key for hexagon socket screw 6	—	008640003	
803006	Key for hexagon socket screw 5	—	008640002	
803007	Bit, hexagon socket screw 6 with 1/2" square drive	—	008640013	
803008	Bit, hexagon socket screw 10 with 1/2" square drive	—	008640015	
803009	Bit, hexagon socket screw 14 with 1/2" square drive	—	008640016	
803010	Bit, hexagon socket screw 17 with 1/2" square drive	—	008640044	
807005	Socket wrench 13×12.5 with 1/2" square drive	—	008640043	
807006	Socket wrench 17×12.5 with 1/2" square drive	—	008640007	
807007	Socket wrench 19×12.5 with 1/2" square drive	—	008640008	
807008	Socket wrench 24×12.5 with 1/2" square drive	—	008640074	
807011	Long socket wrench 27×12.5L	—	008640012	
808006	Screwdriver 2×12M	—	008650019	

Miscellaneous Tools

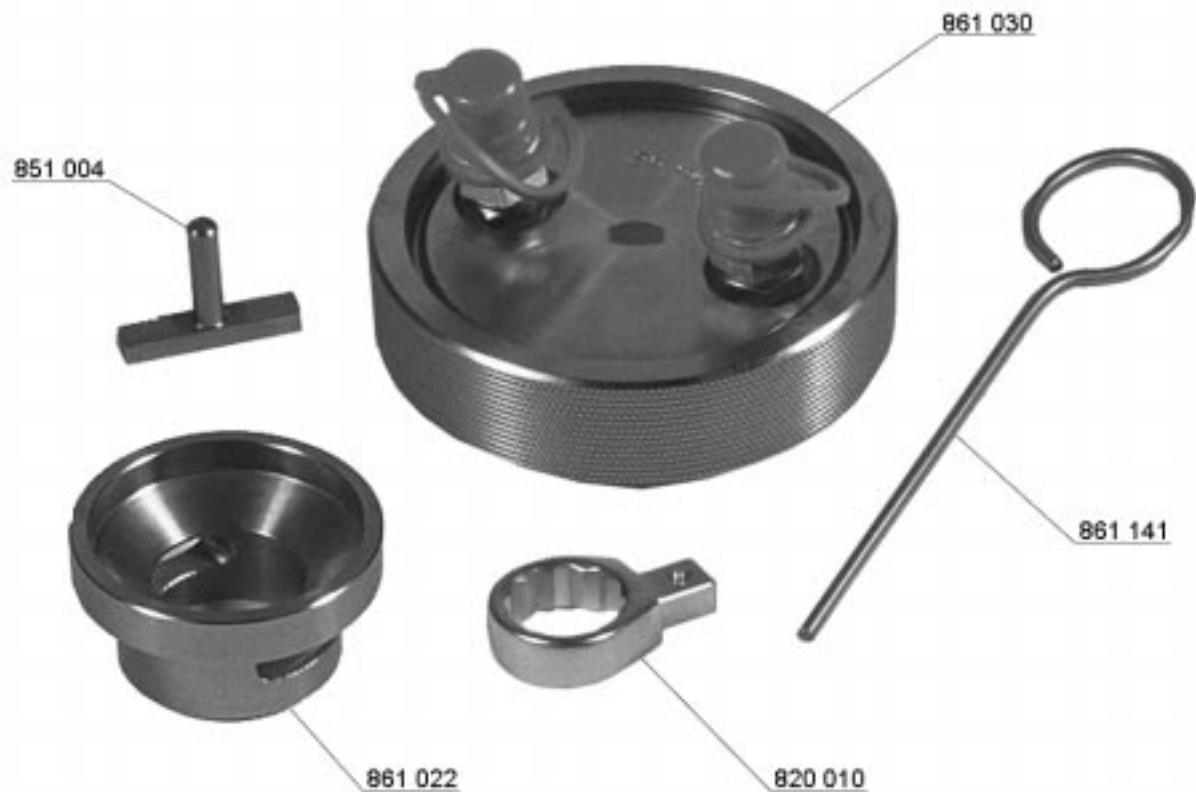
Vasa 22



Part No	Description	Qty	Mat No	Remarks
483001	Turning tool	1	0048D003800	V
803012	Wrench combinatin for dismantling electric motor	1	0080D001600	L
809001	Tool locker	1	008550002	
832004	Eye bolt for charge air cooler insert	1	004470011	
834001	Mounting & removing tool for camshaft bearing bush	1	2283E000100	
837012	Extractor for gear wheels	1	2283H000200	
837013	Dismantling tool for centrifugal filter rotor	1	006820092	
837015	Mounting tool for overspeed trip tool	1	0083H007300	
837018	Mounting tool for water pump sealing	1	0084G017700	
841023	Valve seat grinder	1	008660004	
844002	Barring lever	1	0084E000100	L
845003	Brushes for cleaning of charge air cooler (3-pack)	1	009460856	
845004	Brushes for cleaning oil & circulation water coolers	1	009450231	
846011	Mounting screw for plate heat exchanger	2	2284G000600	
848001	Feeler gauge set	1	008610002	

Additional Tools for Engines with Shield Bearing

Vasa 22



Part No	Description	Qty	Mat No	Remarks
820010	Change key for torque wrench 24 mm	1	008640178	
851004	Turning tool for shield bearing shell	1	0085B001000	
861022	Distance sleeve for shield bearing	2	0086B006500	
861030	Hydraulic cylinder for shield bearing	2	2286B000800	
861141	Pin for tightening of nuts	1	0086B003400	

Additional Tool for 4R22 and 8V22

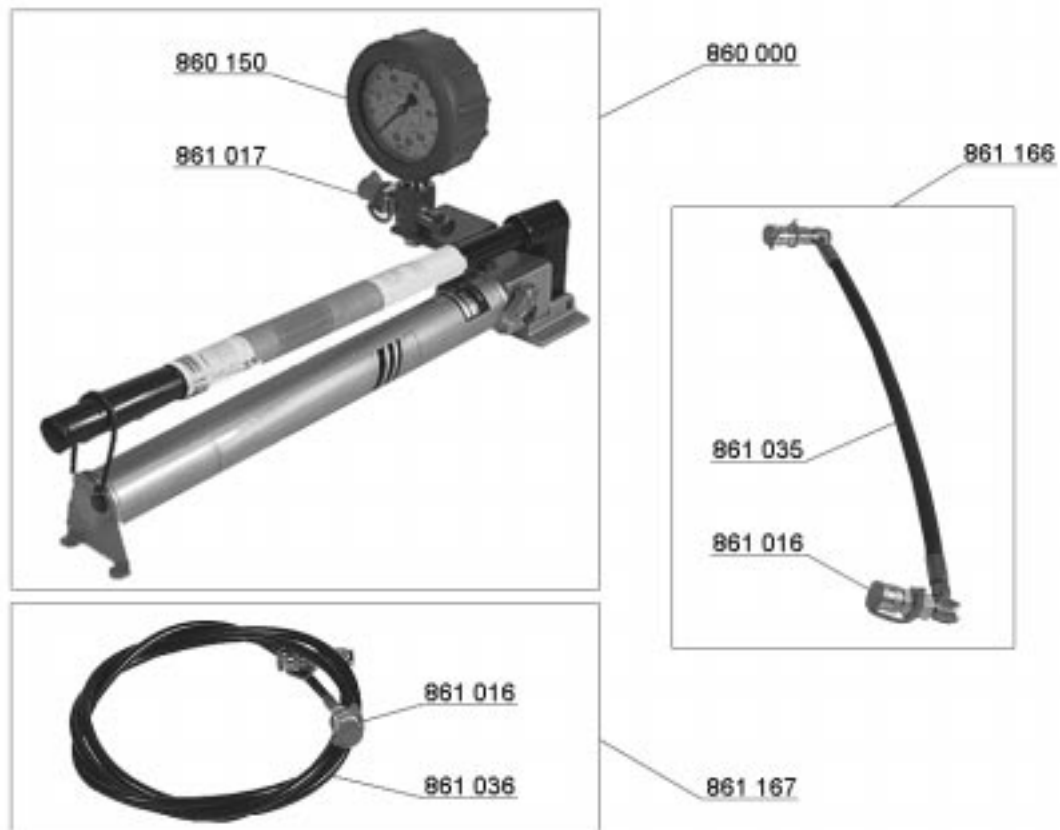
Vasa 22



Part No	Description	Qty	Mat No	Remarks
332001	Guide pin for mounting of pump cover	1	0033C002800	8V
803013	Bit, hexagon socket screw 14 with 3/4" square drive	1	008640156	4R
807012	Socket wrench for balancing shafts 30×20	1	008640009	8V
808008	Extension lever for balancing shaft 3/4"	1	0080K001200	8V

High Pressure Pump

Vasa 22



Part No	Description	Qty	Mat No	Remarks
860000	High pressure pump (1000 bar)	–	005410002	
860150	Manometer	–	006910053	
861016	Quick coupling, female	–	006190146	
861017	Quick coupling, male	–	006190200	
861035	Flexible hose 600 mm	–	009470117	
861036	Flexible hose 3000 mm	–	006190093	
861166	Flexible hose 600 mm, including quick couplings	–	2286A000100	
861167	Flexible hose 3000 mm, including quick couplings	–	2286A000200	

Spare Parts Vasa 22

Miscellaneous



Part No	Description	Qty	Mat No	Remarks
929001	Sealing ring set	—	3292L000100	

Spare Parts Vasa 22

Hydraulic Tightening Tool

Not illustrated:
Sealing set for hydraulic tightening tools — 861 168

Part No	Description	Qty	Mat No	Remarks
861168	Sealing set for hydraulic tightening tools	—	2292L081100	

Spare Parts Vasa 22

Bearings, Oil Sump, Covers



Part No	Description	Qty	Mat No	Remarks
107248	Spare part kit for crankcase, camshaft & cylinder head covers	–	0092L089600	V
107248	Spare part kit for crankcase, camshaft & cylinder head covers	–	0092L089800	L
107249	Spare part kit for gear covers	–	0092L089700	V
107249	Spare part kit for camshaft & gear covers	–	0092L089900	L

Spare Parts Vasa 22

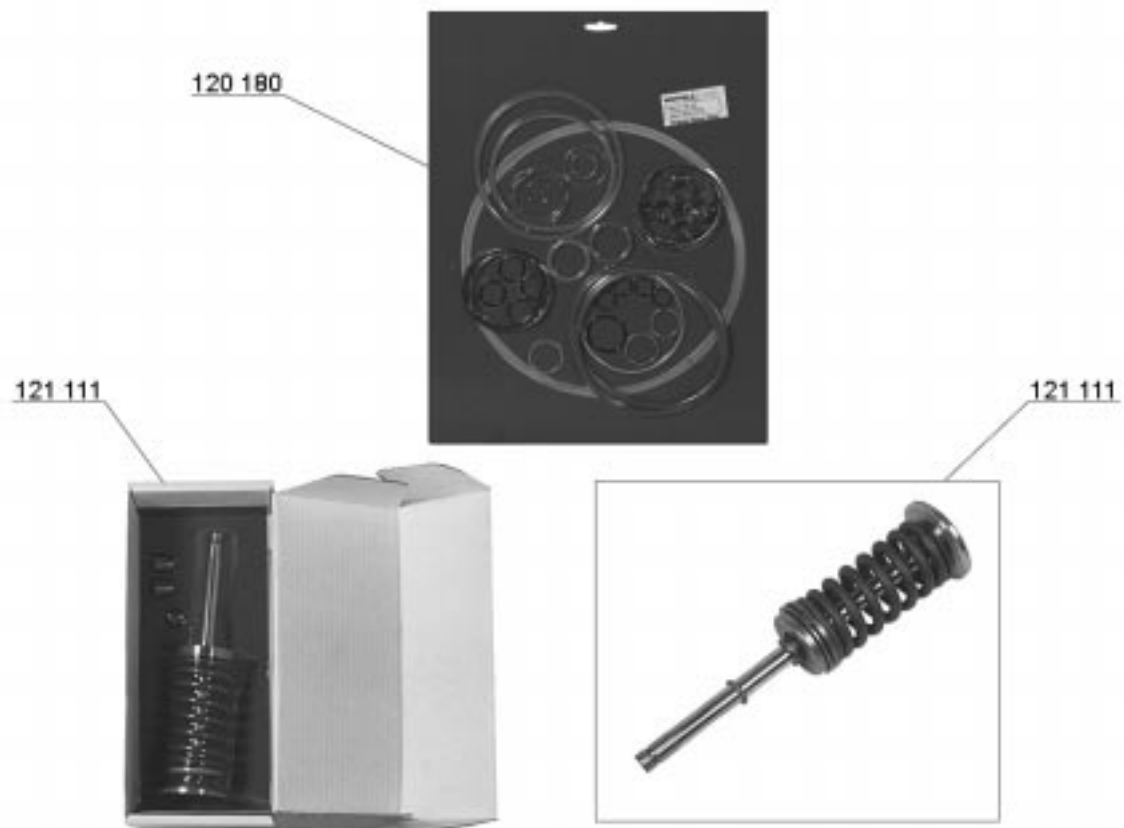
Piston



Part No	Description	Qty	Mat No	Remarks
113115	Piston ring set	–	0011L017400	

Spare Parts Vasa 22

Cylinder Head with Valves



Part No	Description	Qty	Mat No	Remarks
120180	Gasket set for cylinder head	–	2292L000100	
121111	Spare part kit for exhaust valve (30) with Rotocap	–	2212B002100	
121111	Spare part kit for exhaust valve (30) without Rotocap	–	2212B002200	

Spare Parts Vasa 22

Valve Mechanism

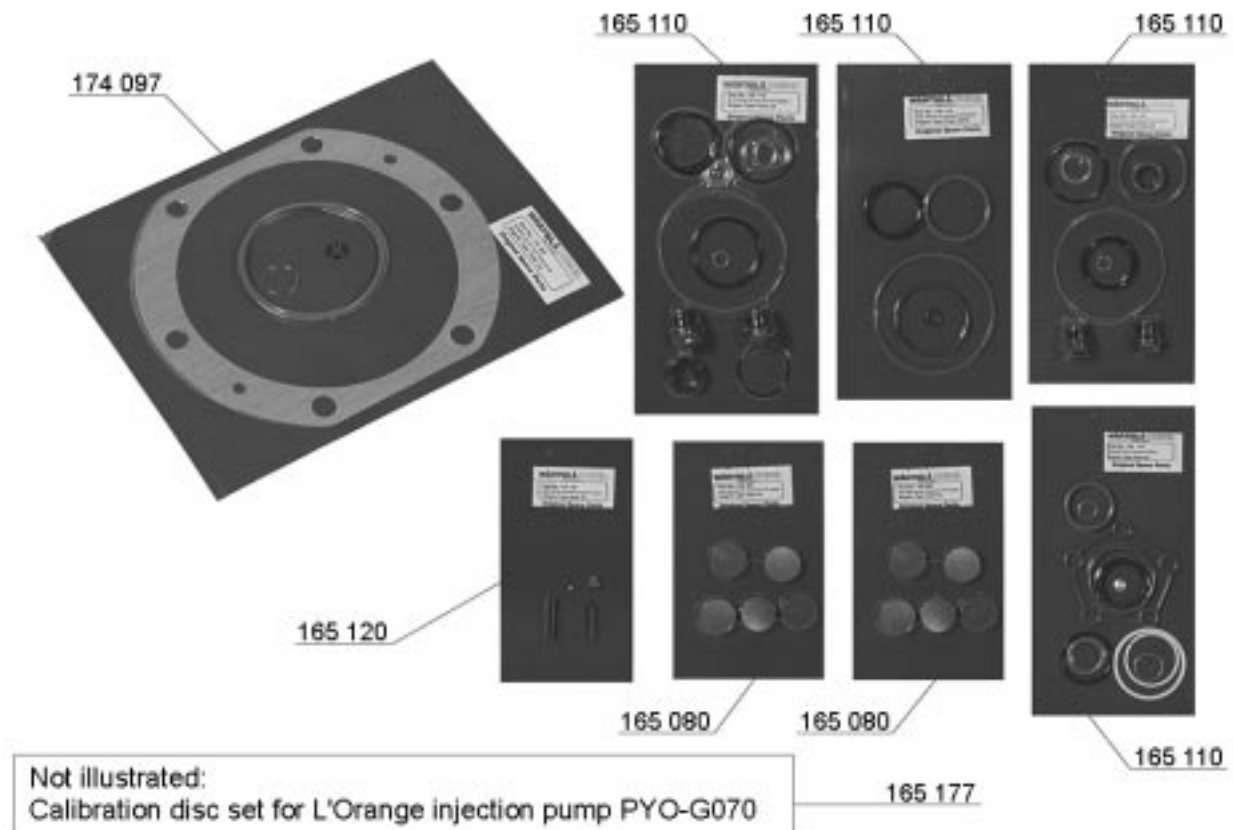


145 032

Part No	Description	Qty	Mat No	Remarks
145032	Spare part kit for valve tappet & guide block	—	0092L089000	

Spare Parts Vasa 22

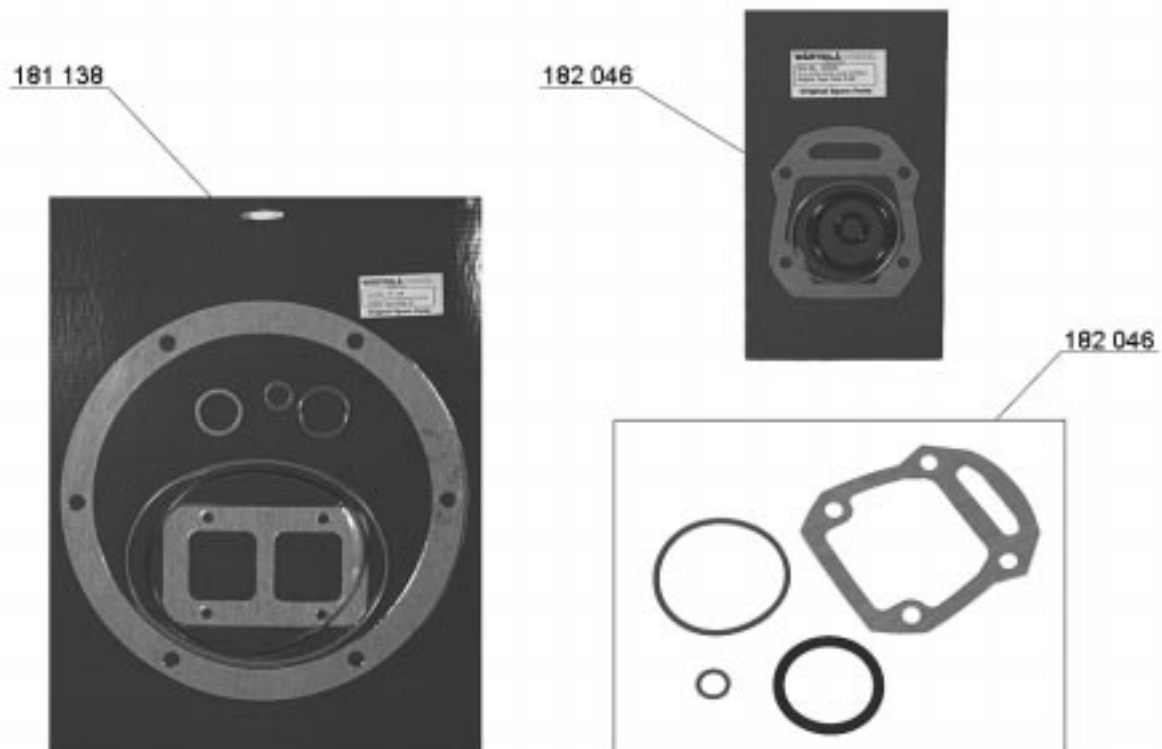
Injection Equipment, Fuel Feed Pumps



Part No	Description	Qty	Mat No	Remarks
165080	Calibration disc set for injection pump, L Orange, PYO-G056	—	2216F000000	
165080	Calibration disc set for injection pump, L Orange, PYO-G063	—	2216F000300	
165110	Spare part kit for injection pump PYO-G070	—	0092L066500	
165110	Spare part kit for injection pump PYO-G056-1	—	0092L089300	
165110	Sealing set for injection pump, Bosch	—	0092L092300	
165110	Spare part kit for injection pump PYO-G063/1	—	2292L081000	
165120	Spare part kit for constant pressure valve	—	0092L057600	
165177	Calibration disc set for injection pump, L Orange, PYO-G070	—	2216F000200	
174097	Sealing set for fuel feed pump	—	0092L091400	

Spare Parts Vasa 22

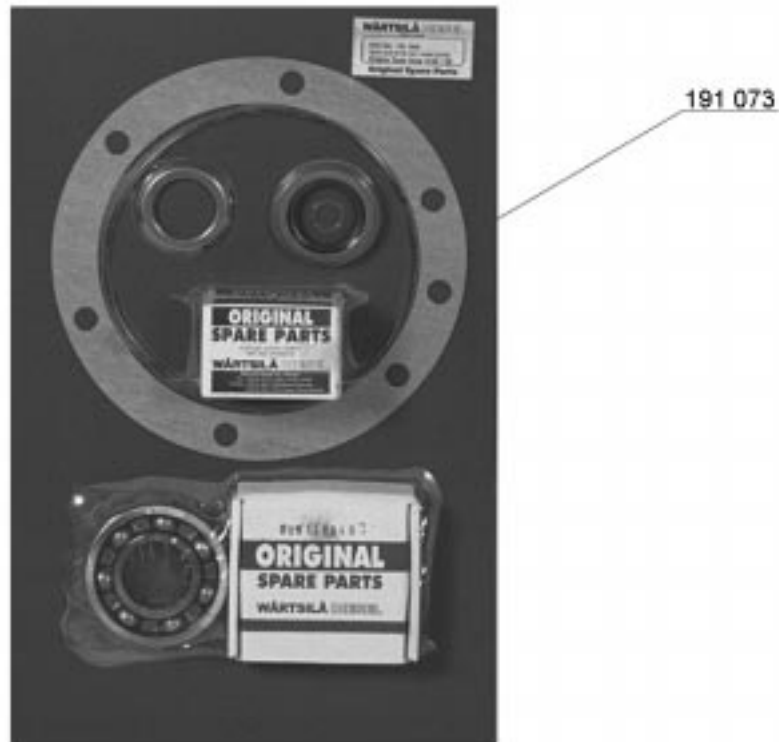
Lube Oil Pumps, Thermostatic Valves



Part No	Description	Qty	Mat No	Remarks
181138	Sealing set for lubricating oil pump	–	0092L091600	
182046	Sealing set for prelubricating pump ACE 38-2	–	0092L091500	V
182046	Sealing set for prelubricating pump ACE 25-2	–	0092L091900	L

Spare Parts Vasa 22

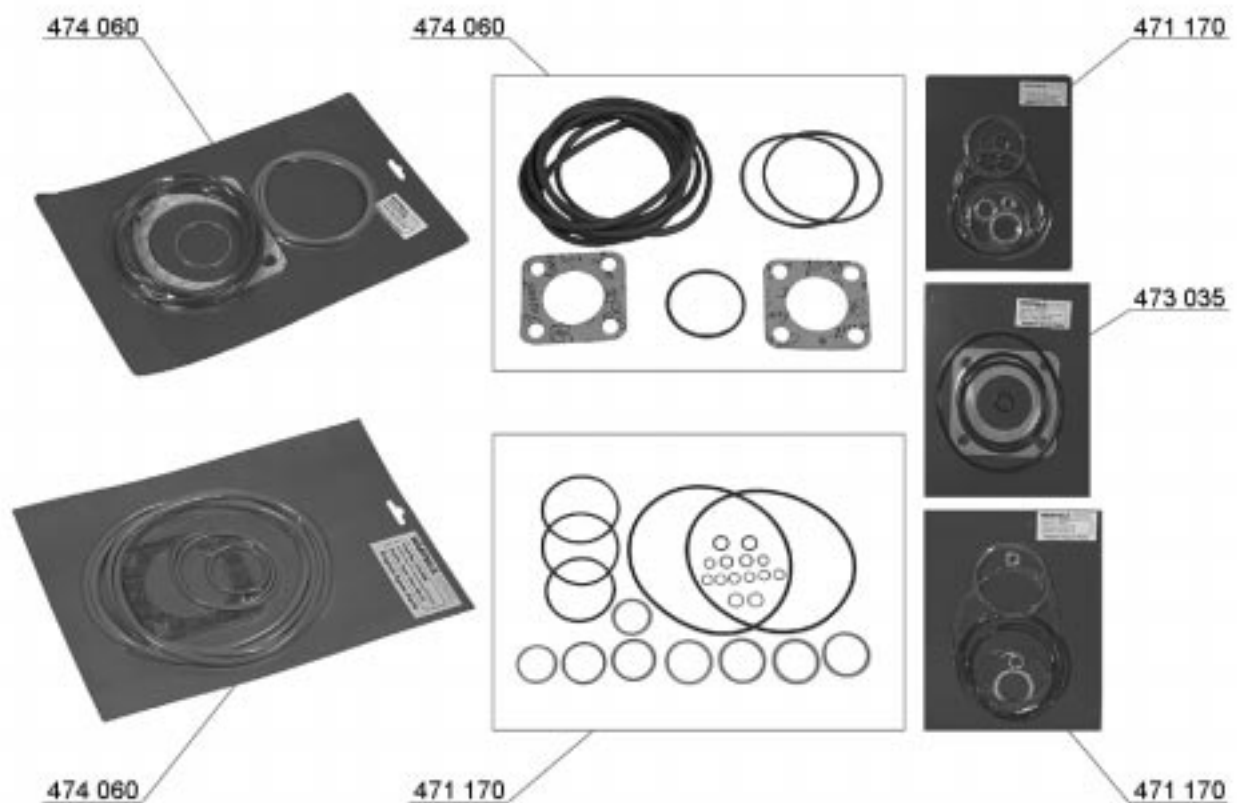
Cooling Water Pumps, Thermostatic Valve



Part No	Description	Qty	Mat No	Remarks
191073	Spare part kit for water pump (clockwise)	—	0092L087300	

Spare Parts Vasa 22

Filters, Coolers



Part No	Description	Qty	Mat No	Remarks
471170	Sealing set for lubricating oil filter, Mann & Hummel	–	006820163	
471170	Sealing set for lubricating oil filter, Finn Filter	–	0092L080000	
471170	Sealing set for lubricating oil filter	–	0092L097900	
473035	Sealing set for centrifugal filter GF200	–	0092L090700	
474060	Gasket set for lubricating oil cooler (Tube type)	–	0092L090800	V
474060	Gasket set for lubricating oil cooler (Tube type)	–	0092L090900	6L, 8L
474060	Gasket set for lubricating oil cooler (Tube type)	–	0092L091000	4L

Main Bearings

Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
803001	Bit, hexagon socket screw 22 with 1" square drive	1	008640040	
820009	Torque wrench 75-400 Nm	1	008640177	
822001	Torque multiplier X-4	1	008640020	
832003	Lifting tool for main bearing cup	1	0083C018200	
851001	Turning tool for main bearing shell	1	0085B000700	
861025	Pin for tightening of nuts	1	0086B003400	
861156	Distance sleeve	2	0086B022600	
861159	Hydraulic cylinder	2	0086B022500	
861161	High pressure pump (1000 bar)	1	0086A005100	
861164	Flexible hose 360 mm, including quick couplings	1	2086A000200	
861165	Flexible hose 3000 mm, including quick couplings	2	2086A000100	
864013	Extension bar B20×400 with 3/4" square drive	1	008640108	
864014	Extension bar B25×200 with 3/4" square drive	1	008640319	

Cylinder Liner

Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
836001	Extracting & lifting tool	1	0083G009100	
836002	Dismantling tool for antipolishing ring	1	0083G007500	
836003	Holder for cylinder liner	1	0083G007900	
841009	Honing tool for cylinder liner	1	00T02972600	
841010	Drilling machine for honing tool	1	008660002	
842001	Protecting pot for dirty honing oil	1	0084C003000	
842025	Honing stones 25×25×250, coarse, including holder	3	008760196	
842026	Honing stones 25×25×250, fine, including holder	3	008760197	

Connecting Rod

Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
803011	Stud remover M30	1	0080D002600	
861025	Pin for tightening of nuts	1	0086B003400	
861153	Distance sleeve	2	0086B016600	
861157	Distance piece	2	0086B022900	
861159	Hydraulic cylinder	2	0086B022500	
861161	High pressure pump (1000 bar)	1	0086A005100	
861164	Flexible hose 360 mm, including quick couplings	1	2086A000200	
861165	Flexible hose 3000 mm, including quick couplings	2	2086A000100	

Piston

Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
832002	Lifting yoke	1	0083C017200	
835005	Mounting tool for piston crown	1	0083F020100	
843002	Clamp tool for piston rings	1	0084D003200	
843003	Piston ring pliers unistress, stergaard	1	008650122	
843004	Pliers for retaining rings	1	008650009	
843005	Spare tips for pliers 843004, straight	1	008650123	
848006	Measurement tool for piston ring grooves, micrometer 5-30 mm	1	008610044	
856002	Piston holder	1	0085G001400	

Cylinder Head

Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
802001	Tap M48x2	1	008770100	
827029	Extractor for yoke pin	1	00T03009200	
834050	Hydraulic extractor	1	0083E006100	
836006	Service trestle for cylinder head	1	0083G011300	
837018	Extractor tool for inlet seat insert	1	0083H019200	
837024	Extractor tool for exhaust seat insert	1	0083H018300	
837028	Extractor for injection valve sleeve	1	0074L005000	
837030	Dismantling tool for valve guides	1	0083H020600	
837031	Extractor tool for yoke pin	1	0083H020700	
837032	Assembly spindle for exhaust valve seat	1	00T28095900	
837033	Assembly spindle for inlet valve seat	1	00T02895600	
837034	Assembly spindle for injection valve sleeve	1	00T28095500	
847004	Pressure test tool for cylinder head, with coupling	1	0084H006900	
847005	Pressure test tool for cylinder head	1	0084H007000	

Cylinder Head

Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
808001	T-wrench for indicator valve	1	0080K000600	
832004	Lifting tool for cylinder head	1	0083C016400	
841001	Grinding tool for valves	1	0084B017900	
846010	Dismantling tool for valves	1	0084G037600	
848004	Valve clearance feeler gauge	1	0084K005200	
861025	Pin for tightening of nuts	1	0086B003400	
861156	Distance sleeve	4	0086B022600	
861158	Hydraulic tightening tool, complete	1	2086B001200	
861159	Hydraulic cylinder	4	0086B022500	
861161	High pressure pump (1000 bar)	1	0086A005100	
861164	Flexible hose 360 mm, including quick couplings	3	2086A000200	
861165	Flexible hose 3000 mm, including quick couplings	2	2086A000100	

Injection Equipment

Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
806009	Crowfoot wrench 27 for injection pipes	1	008640183	
806010	Adapter A10×12.5	1	008640168	
807004	Long Socket wrench 22×12.5L	1	008640085	
830001	Extractor for injection valve	1	0083A018800	
841020	Cleaning tool for injection valve sealing surface	1	2084B000100	
846016	Pressing tool for injection pump	1	2084G000100	
846017	Tool for injection pump plunger	1	0084G034900	
846019	Tool for injection valve	1	0084G035100	
846022	Extractor tool for injection pump	1	0084G043900	
848041	Dial indicator	1	008610023	
864012	Testing tool for injection valve	1	0086E014900	
869001	Injection timing tool	1	0086T000500	

Miscellaneous Tools

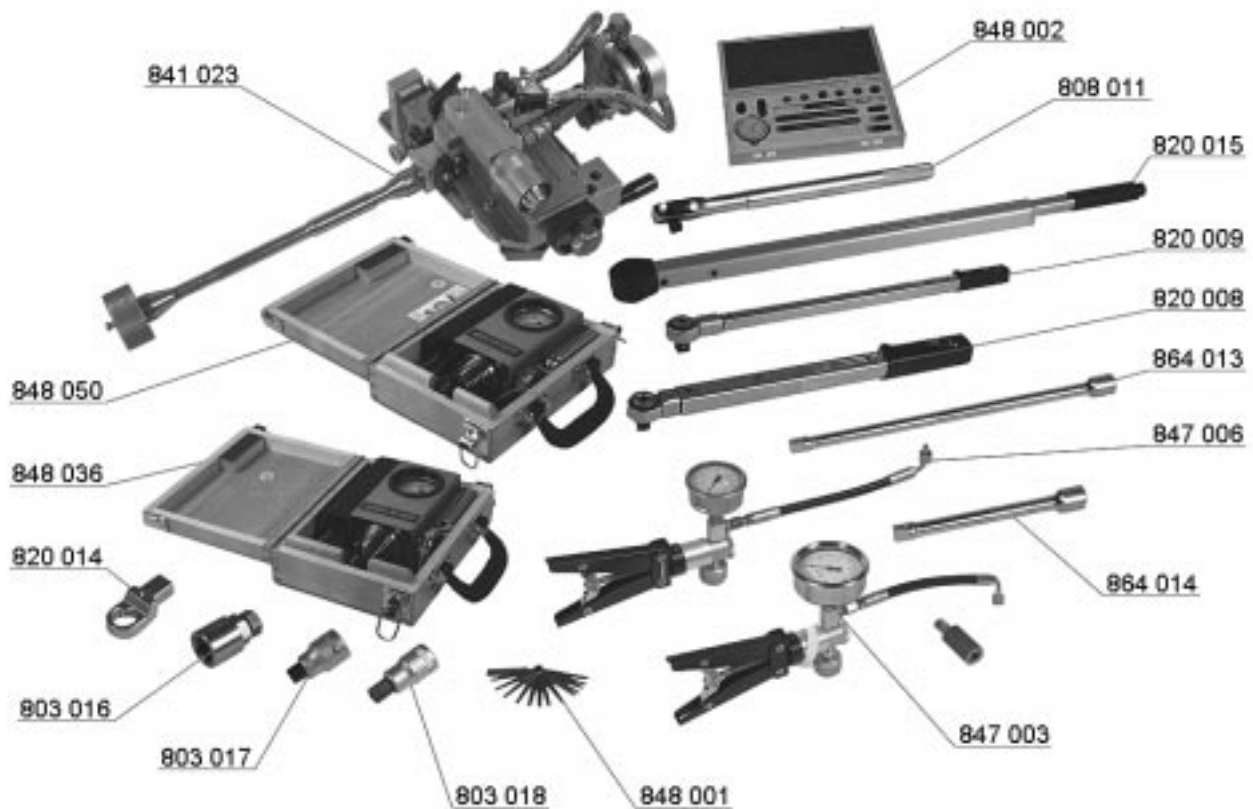
Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
800065	Deflection indicator	1	0084K005800	
832009	Lifting tool for lube oil thermostatic housing	1	0083C026600	
834003	Extractor & mounting tool for intermediate gear bearing	1	0083E013200	
836004	Mounting tool for camshaft	1	0083G010000	
836005	Mounting tool for balancing shaft bearings	1	0083G010500	
837021	Mounting tool for camshaft bearings	1	0083H019700	
837025	Extractor for balancing shaft bearings	1	0083H017000	
837026	Extractor for impeller of water pump	1	0083H017200	
837027	Extractor tool for HT-thermostat bush	1	0083H018800	
846014	Lifting tool for charge air cooler	1	0084G033000	6L20, 8L20, 9L20
846015	Lifting tool for charge air cooler	1	0084G033800	4L20
846020	Guiding mandrel for shaft of water pump	1	0084G035400	
846021	Mounting tool for seal of water pump	1	0084G035300	
847002	Pressure test flanges for charge air cooler	1	0084H006300	
848005	Tool for inspection of backlash on water pump	1	0084K005900	

Miscellaneous Tools

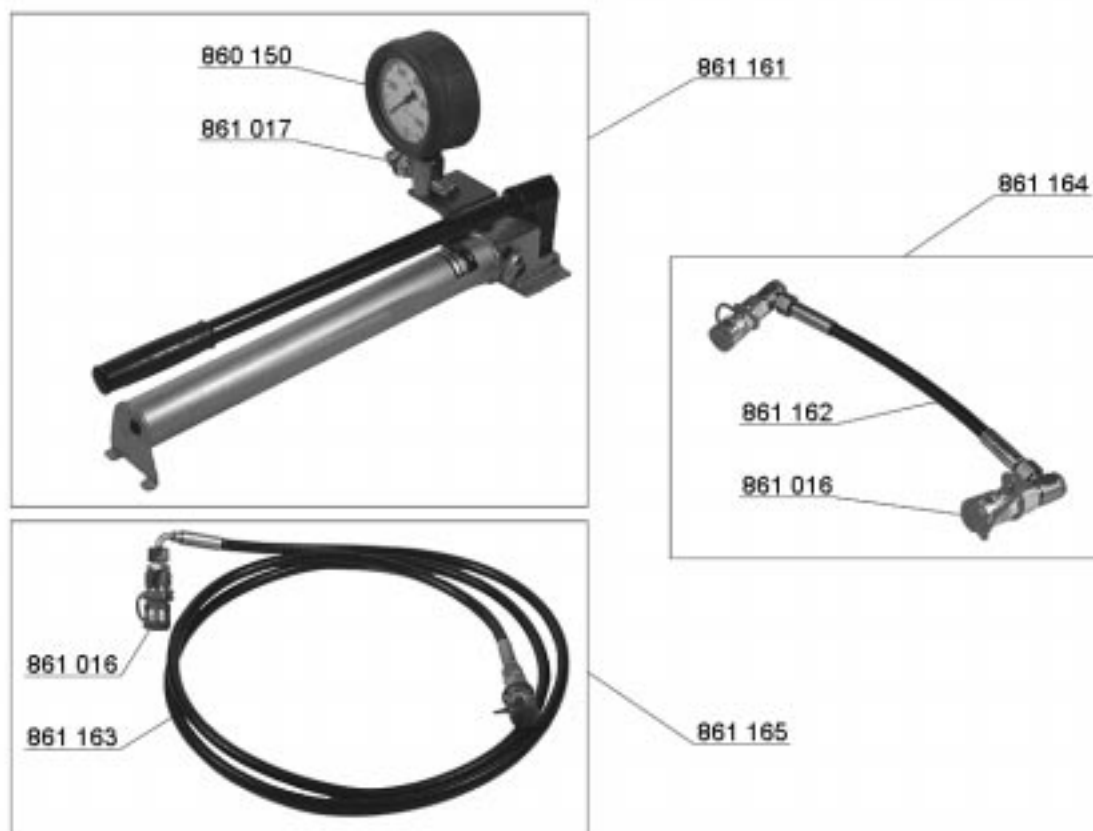
Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
803016	Stud remover M36	1	0080D002700	
803017	Hexagon socket wrench 19	1	008640305	
803018	Bit, hexagon socket screw 17 with 3/4" square drive	1	0080L000900	
808011	Ratchet handle 20x630 with 3/4" square drive	1	008640152	
820008	Torque wrench 20-100 Nm	1	008640153	
820009	Torque wrench 75-400 Nm	1	008640177	
820014	Ring insert wrench 19	1	008640304	
820015	Torque wrench 150-800 Nm	1	008640275	
841023	Valve seat grinder	1	008660004	
847003	Testing tool for pressure switch	1	0084H006400	
847006	Testing tool for difference pressure sensor FPC	1	0084H009100	
848001	Feeler gauge set	1	008610002	
848002	Measure gauge for crankshaft deflection	1	008610001	
848036	Peak pressure indicator 180	1	008610039	
848050	Peak pressure indicator 220	1	008610043	
864013	Extension bar B20x400 with 3/4" square drive	1	008640108	
864014	Extension bar B25x200 with 3/4" square drive	1	008640319	

High Pressure Pump

Wärtsilä 20



Part No	Description	Qty	Mat No	Remarks
860150	Manometer	–	006910053	
861016	Quick coupling, female	–	006190146	
861017	Quick coupling, male	–	006190200	
861161	High pressure pump (1000 bar)	–	0086A005100	
861162	Flexible hose 360 mm	–	0086A004700	
861163	Flexible hose 3000 mm	–	0086A004800	
861164	Flexible hose 360 mm, including quick couplings	–	2086A000200	
861165	Flexible hose 3000 mm, including quick couplings	–	2086A000100	

Spare Parts Wärtsilä 20

Miscellaneous



Part No	Description	Qty	Mat No	Remarks
929001	Sealing ring set	—	3292L000100	

Spare Parts Wärtsilä 20

Hydraulic Tightening Tool



861 154

Part No	Description	Qty	Mat No	Remarks
861154	Sealing set for hydraulic tightening tools	—	2092L001000	

Spare Parts Wärtsilä 20

Bearings, Oil Sump, Covers



107 017

Part No	Description	Qty	Mat No	Remarks
107017	Sealing set for covers	—	2092L000700	

Spare Parts Wärtsilä 20

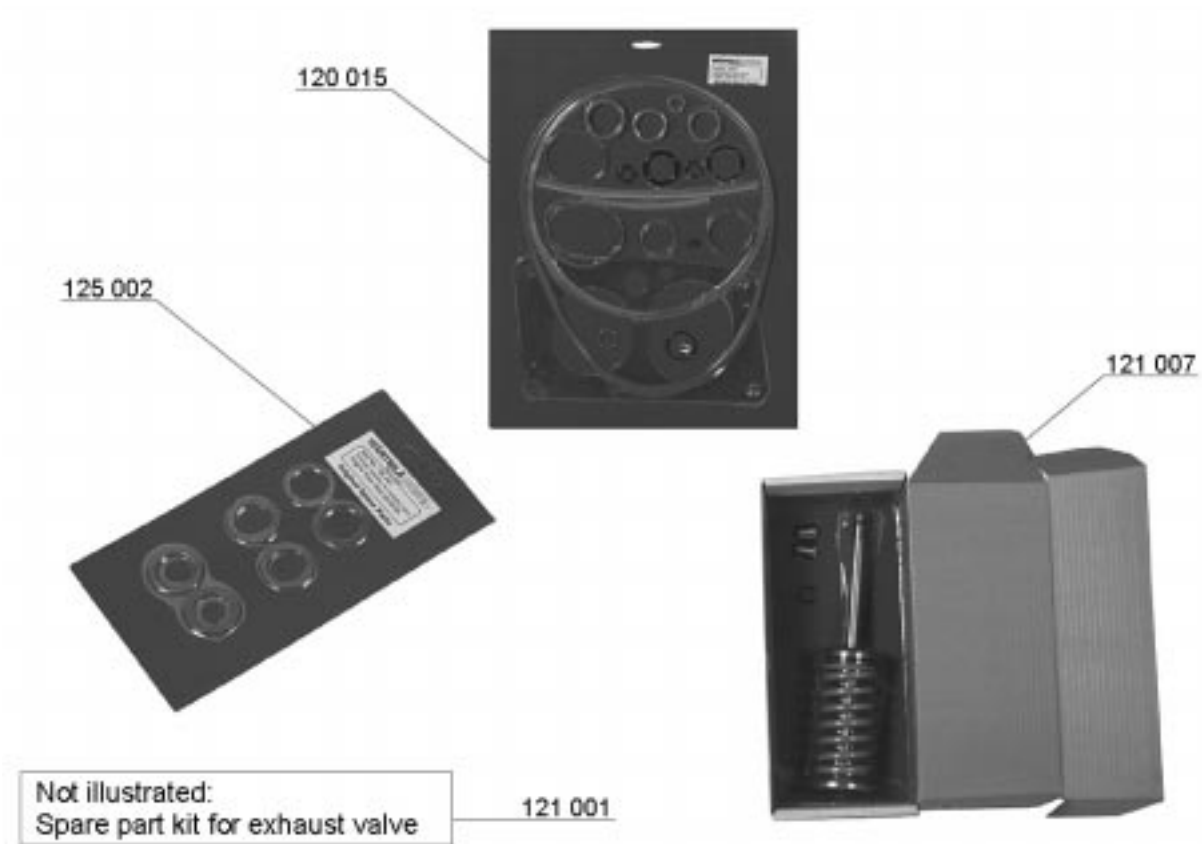
Piston



Part No	Description	Qty	Mat No	Remarks
113012	Piston ring set	—	0092L108200	

Spare Parts Wärtsilä 20

Cylinder Head with Valves



Part No	Description	Qty	Mat No	Remarks
120015	Sealing set for cylinder head	–	2092L000200	
121001	Spare part kit for exhaust valve	–	2012B000100	
121007	Spare part kit for inlet valve	–	2012B000200	
125002	Sealing set for indicator valve	–	2012G000100	

Spare Parts Wärtsilä 20

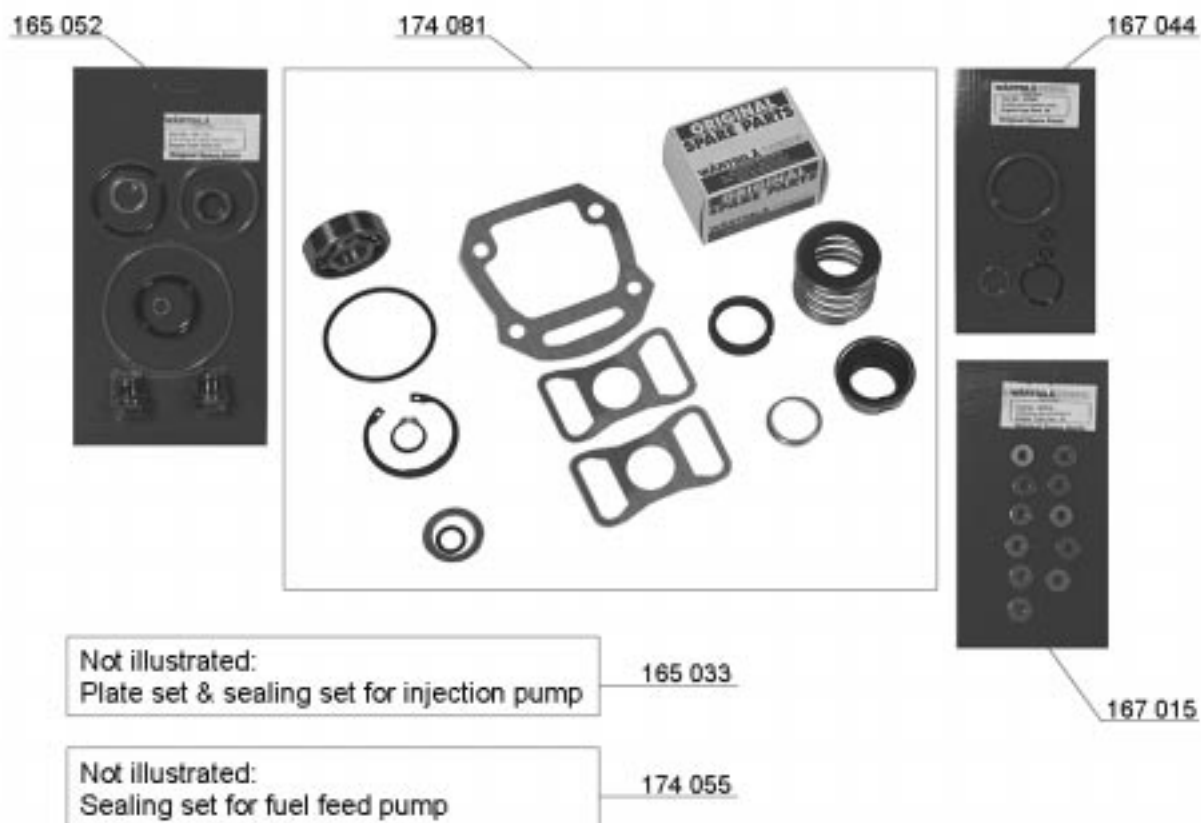
Valve Mechanism



Part No	Description	Qty	Mat No	Remarks
145015	Spare part kit for valve tappet	—	2092L000100	

Spare Parts Wärtsilä 20

Injection Equipment, Fuel Feed Pumps



Part No	Description	Qty	Mat No	Remarks
165033	Plate set for injection pump	–	2016F001100	
165052	Sealing set for injection pump	–	2092L000300	
167015	Calibration disc set for injection valve	–	2016F001300	
167044	Sealing set for injection valve	–	2092L000600	
174055	Sealing set for fuel feed pump	–	2092L001300	
174081	Sealing set for electrically operated fuel feed pump	–	009340357	

Spare Parts Wärtsilä 20

Lube Oil Pumps, Thermostatic Valves



182 039

Part No	Description	Qty	Mat No	Remarks
182039	Sealing set for prelubricating oil pump	—	2092L000800	

Spare Parts Wärtsilä 20

Cooling Water Pumps, Thermostatic Valves

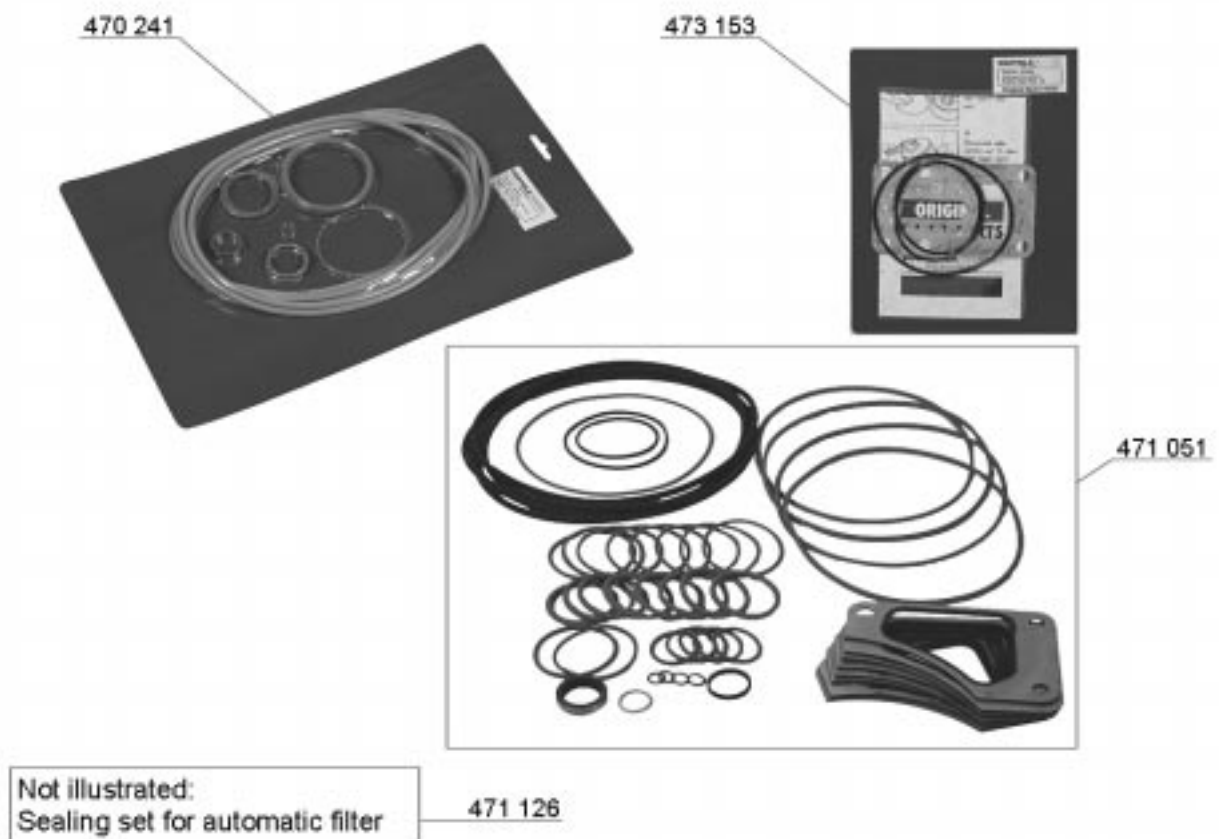


191 041

Part No	Description	Qty	Mat No	Remarks
191041	Sealing set for LT/HT-water pump	—	2092L000900	

Spare Parts Wärtsilä 20

Filters, Coolers



Part No	Description	Qty	Mat No	Remarks
470241	Sealing set for fuel filter, Finn Filter	–	0092L039600	
471051	Sealing set for lubricating oil module	–	2092L000400	
471126	Sealing set for automatic filter	–	2092L001200	
473153	Sealing set for centrifugal filter	–	2092L000500	

Measuring and Testing Equipment



Part No	Description	Qty	Mat No	Remarks
847010	Pressure switch tester	—	3284H000100	
848030	Tachometer	—	008610030	
848031	Temperature transducer control equipment	—	008610029	
848032	Cylinder pressure indicator, rod spring model	—	009410726	
848033	Cylinder pressure indicator, electronic model	—	008610032	
848034	Voltmeter	—	008610036	
848035	Multimeter	—	008610035	
848036	Peak pressure indicator 180	—	008610039	
848050	Peak pressure indicator 220	—	008610043	

Measuring and Testing Equipment



Part No	Description	Qty	Mat No	Remarks
800065	Deflection indicator	—	0084K005800	
848002	Measure gauge for crankshaft deflection	—	008610001	22/20
848008	Pneumatic test equipment for injection pump*	—	00T27023500	22
848009	Flange*	—	00T23072700	22
848010	Measure gauge for crankshaft deflection	—	008610001	32
848039	Micrometer 0-25 mm	—	008610033	
848040	Cylinder gauge 160-280 mm	—	008610026	22
848040	Cylinder gauge 280-410 mm	—	008610027	32
848041	Dial indicator	—	008610023	
848042	Bar micrometer 75-475 mm	—	008610034	
848043	Endoscope	—	008610037	
848044	Pneumatic test equipment for injection pump*	—	00T26069800	32
848048	Flange*	—	00T26008000	32
848051	Measuring tool for injection nozzle needle lift	—	00T24089400	
848111	Deflection indicator	—	0084K005800	46

*) Flanges to be ordered separately. NOTE State injection pump type when ordering.

Instruction Manuals and Spare Part Catalogues



Part No	Description	Qty	Mat No	Remarks
324	Instruction manual Vasa 32	—	INSTR32	A4 SIZE
324	Instruction manual Wärtsilä 32	—	INSTR32F	A4 SIZE
324	Spare parts catalogue Vasa 32	—	SPARE32	A4 SIZE
324	Spare parts catalogue Wärtsilä 32	—	SPARE32F	A4 SIZE
326 SIZE	Instruction manual Vasa 32	—	008860006	POCKET
326 SIZE	Spare parts catalogue Vasa 32	—	008860011	POCKET
326 SIZE	Instruction manual Wärtsilä 32	—	008860020	POCKET
326 SIZE	Spare parts catalogue Wärtsilä 32	—	008860021	POCKET
464	Instruction manual Wärtsilä 46	—	INSTR46	A4 SIZE
464	Spare parts catalogue Wärtsilä 46	—	SPARE46	A4 SIZE
466 SIZE	Instruction manual Wärtsilä L46	—	008860018	POCKET
466 SIZE	Instruction manual Wärtsilä V46	—	008860019	POCKET

Instruction Manuals and Spare Part Catalogues



Part No	Description	Qty	Mat No	Remarks
4	Technical after sales Information file	–	DEPENDS	A4 SIZE
204	Instruction manual W rtsil 20	–	INSTR20	A4 SIZE
204	Spare parts catalogue W rtsil 20	–	SPARE20	A4 SIZE
206 SIZE	Instruction manual W rtsil 20	–	008860016	POCKET
206 SIZE	Spare parts catalogue W rtsil 20	–	008860017	POCKET
224	Instruction manual Vasa 22	–	INSTR22	A4 SIZE
224	Spare parts catalogue Vasa 22	–	SPARE22	A4 SIZE
226 SIZE	Instruction manual Vasa 22	–	008860003	POCKET
226 SIZE	Spare parts catalogue Vasa 22	–	008860010	POCKET
244	Instruction manual & spare parts catalogue Vasa 24	–	008860009	A4 SIZE

Videocassettes VHS

Systems TSC, M-PAL, -PAL, SECAM



Part No	Description	Qty	Mat No	Remarks
Main overhaul of Wärtsilä				
1	Wärtsilä NSD power plants	—		
101	Diesel engine speed measuring system - DESPEMES*	—		
111	Assembly of Vasa 24 TS diesel engine*	—		
116	Overhaul of a high pressure fuel injection pump*	—		
117	Overhaul of the fuel injection valve, Vasa 32/22	—		
120	Overhaul of major components, Wärtsilä 20	—		
121	Inspection of LT-thermostat function, Wärtsilä 20	—		
133	Overhaul procedures of cylinder head, Vasa 32	—		
812	Power plant operation	—		
913	Maintenance tools for Vasa 32 diesel engine*	—		
10322	Overhaul procedures of Vasa 22 diesel engine	—		
10332	Wärtsilä Vasa 32, overhaul of major components*	—		

*) Also available in Spanish. NOTE The films are available in the VHS-format for the following systems NTSC, M-PAL, N-PAL, SECAM. When ordering, please specify system and language

Wärtsilä S overalls, blue

Part No	Description	Qty	Mat No	Remarks
10746	Overall, size 46	–	008830086	
10748	Overall, size 48	–	008830087	
10750	Overall, size 50	–	008830088	
10752	Overall, size 52	–	008830089	
10754	Overall, size 54	–	008830091	
10756	Overall, size 56	–	008830093	
10758	Overall, size 58	–	008830094	
10760	Overall, size 60	–	008830085	