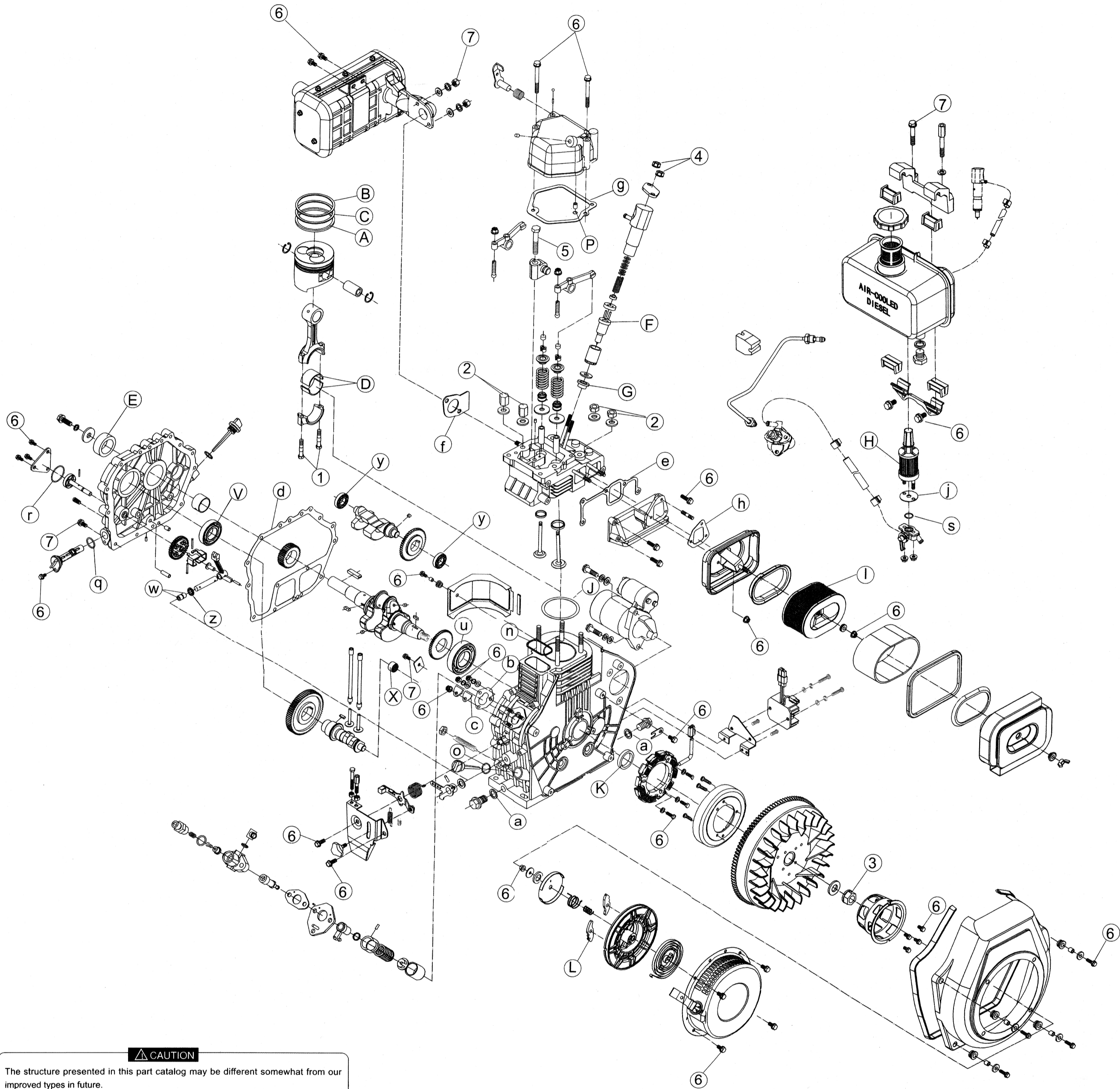


PARTS CATALOG

KM188F

KAMA



CAUTION
The structure presented in this part catalog may be different somewhat from our improved types in future.
Then You'd better refer parts catalog to the operation manual when using.

KAMA
DANGER
WARNING
DIESEL
WARNING: EXTREMELY FLAMMABLE

WARNING

TAGS

Ref No.	Part No.	Description	Qty.
1	KM178F-18003	Trade Marks Tag I	1
2	KM170F-18004	Start Operation Tag	1
3	KM170F-18005	Caution Tag	1
4	KM188F-18007	Model Tag II	1
5	KM170F-18009	Warning Tag	1
6	KM170F-18012	Air Cleaner Tag	1
7	KM170F-18013	Air Cooled Diesel Engine Tag	1

EASY DESTROYED PARTS

Ref No.	Part No.	Description	Qty.	Mounted to
A	KM188F-04100	First Air Ring	1	(4)Piston & Connecting Rod Assem.
B	KM188F-04001	Second Air Ring	1	(4)Piston & Connecting Rod Assem.
C	KM188F-04002	Oil Ring Unit	1	(4)Piston & Connecting Rod Assem.
D	KM188F-04005	Connecting Rod Bushing	2	(4)Piston & Connecting Rod Assem.
E	GB/T9877.1-1988	Oil Seal Sg35 × 50 × 8	1	(1)Cylinder Block Assem.
F	11.433.172.001	Nozzle	1	(8)Fuel Injection Valve Assem.
G	KM170F-02011	Heat Insulator	1	(2)Cylinder Head Assem.
H	KM186F-10300	Element Unit	1	(11)Fuel System
I	KM186F-07100	Air Cleaning Element Unit	1	(7)Air Intake System
J	KM186F-01013	Cylinder Head Gasket	1	(1)CylinderBlock Assem.
K	GB/T9877.1-1988	Oil Seal Sg35 × 50 × 8	1	(1)CylinderBlock Assem.
L	KM186F-14008	Starter Ratchet	2	(14)Manual Starting Assem.

O-RINGS

Ref No.	Part No.	Description	Qty.
m	KM186F-01008	Sheet Gasket	1
o	GB/T1235-1976	O-Ring 22.5 × 2.4	2
p	GB/T1235-1976	O-Ring 12 × 1.9	1
q	GB/T1235-1976	O-Ring 25 × 2.4	1
r	GB/T3452.1-1992	O-Ring 34 × 1.8	1
s	GB/T3452.1-1992	O-Ring 13.2 × 1.8	1

BEARING

Ref No.	Part No.	Description	Qty.
u	GB/T276-1994	Ball Bearing 6308/PS	1
w	GB/T290-1989	Needle Bearing 7941/6	2
x	GB/T290-1989	Needle Bearing HK1512	1
y	GB/T276-1994	Ball Bearing 6203/PS	2
v	GB/T276-1994	Ball Bearing 6207/PS	1

OIL SEAL

Ref No.	Part No.	Description	Qty.
z	KM170F-11008	Lever Shaft Oil Seal	1

WASHER KIT

Ref No.	Part Number	Description	Qty.
a	KM170F-01100	Washer Unit of Drain Plug	2
b	KM170F-10014	Fuel Injection Pump Washer	2-3
c	KM170F-10016	Joint Washer	1
d	KM186F-01015	Crankcase Cover Washer	1
e	KM186F-02014	Intake Pipe Washer	1
f	KM186F-02015	Exhaust Pipe Washer	1
g	KM186F-03003	Cylinder Head Cover Washer	1
h	KM186F-07001	Air Cleaner Washer	1
j	KM170F-10007	Fuel Filter Washer	1

FASTENING TORQUE OF MAIN BOLT&NUT
Unit: N.m

Ref No.	Description	Torque
①	Connecting Rod Nut	40-45
②	Cylinder Head Nut	62-66
③	Flywheel Nut	180-200
④	Nozzle Retainer Nut	7-11
⑤	Set Bolt of Rocker Arm Seat	30-33
⑥	Standard Bolt / Nut M6	7-11
⑦	Standard Bolt / Nut M8	20-23

(1) Cylinder Block Assem. (KM188F-01000)

Ref No.	Parts No.	Description	Qty.
1	KM170F-01018	Drain Plug Screw	2
1-1	KM188FGET-01018-01	Connecting bolt of drain plug	1
2	KM170F-01022	Washer Unit of Drain Plug	2
3	GB/T9877.1-1988	Oil Seal SG35×50×8(rear)	1
4	KM188F-01001	Cylinder Block	1
5	GB/T290-1989	Needle Bearing7941/8	2
6	GB/T1235-1976	O-Ring 22.5×2.4	2
7	KM178F-01002	Oil Dipstick	2
8	KM170F-11200	Fuel Controller Assem.	1
9	GB/T6173-2000	Nut M10×1.25	1
10	KM170F-01012	Forcing Stud of Fuel Injection Pump (short)	1
11	KM170F-01011	Forcing Stud of Fuel Injection Pump (long)	2
12	KM170F-10014	Fuel Injection Pump Washer	2-3
13	KM170F-10016	Joint Washer	1
14	KM170F-10015	Seal Plate	1
15	GB/T6177.1-2000	Nut M6	2
16	GB/T97.1-1985	Gasket 6	2
17	GB/T93-1987	Gasket 6	2
18	GB/T6170-2000	Nut M6	2
19	GB/T290-1989	Needle Bearing HK1512	2
20	KM170F-01009	Thrust Plate	1
21	GB/T5789-1986	Oil Dipstick	1
22	GB/T276-1994	Ball Bearing 6308/P5	1
23	KM178F-01203	Cushion blocking	1
24	KM186F-01211	Governor	1
25	KM178F-01201	Vibration isolation cushion block	1
26	KM178F-01202	Sheath Gasket	1
27	GB/T5789-1986	Bolt M6×8	1
28	KM186F-01003	Cylinder Head Stud Bolt (short)	2
29	KM186F-01006	Cylinder Head Stud Bolt (long)	2
30	KM186F-01008	Sheet Gasket	1
31	KM186F-01013	Cylinder Head Shim	1
32	KM186F-01005	Cylinder Head Nut Gasket	4
33	KM186F-01004	Cylinder Head Nut (Thin)	2
34	KM186F-01007	Cylinder Head Nut (Thick)	2
35	KM186F-01015	Crankcase Cover Washer	1
36	GB/T276-1994	Ball Bearing 6702/P5	1
37	KM186F-01014	Ball Bearing	1
38	GB/T9877.1-1988	Oil Seal SG35×50×8(front)	1
39	KM170F-01017	Hexagonal Internal Screw Plug	1
39-1	KM178FS-01015	Bolt M8×12	1
40	GB/T5789-1986	Bolt M8×3.5	16
41	KM186F-01016	Crankcase Cover	1
42	KM186FS-01016	Crankcase Cover	1
43	KM178F-01021	Plunger	3
44	KM178F-09003	Oil Conduit	1
45	GB/T119.1-2000	Pin 8×12	2
	KM188F-01000	Block	1

(3) Cylinder Head Assem. (KM188F-03000)

Ref No.	Parts No.	Description	Qty.
1	GB/T308-1989	Steel Ball 1/8G200	1
2	GB/T309-1984	Mechanical Seal 3×13.8	1
3	KM186F-03001	Cylinder Head Cover	1
4	KM170F-03007	Breather Seat	1
5	GB/T1235-1976	O-Ring 12×1.9	1
6	KM186F-03003	Cylinder Head Cover Washer	1
7	KM170F-01021	Plunger	1
8	KM170F-03004	Decompression Spring	1
9	KM170F-03100	Decompression Shaft Assem.	1
10	GB/T5789-1986	Bolt M6×70	2

(6) Camshaft Assem. (KM188F-06000)

Ref No.	Parts No.	Description	Qty.
1	KM186F-03100	Valve Push Rod Assem	2
2	KM186F-06003	Valve Tappet	2
3	KM186F-06002	Camshaft Timing Gear	1
4	GB/T1096-1979	Key 5×14	1
5	KM186F-06001	Camshaft	1
5-1	KM186FS-06001	Camshaft	1
KM186FS-06000		Camshaft	1
1	GB/T1096-1979	Key 8×40	1

(4) Piston & Connecting Rod Assem. (KM188F-04000)

Ref No.	Parts No.	Description	Qty.
1	KM188F-04001	First Air Ring	1
2	KM188F-04002	Second Air Ring	1
3	KM188F-04100	Oil Ring Assem.	1
4	KM188F-04003	Piston	1
5	KM188F-04004	Piston Pin	1
6	GB/T893.1-1986	Retainer Ring 23	2
7	KM188F-04007	Connecting Rod Block	1
8	KM186F-04005	Connecting Rod Shaft Bushing	2
9	KM188F-04006	Connecting Rod Cover	1
10	KM188F-04008	Connecting Rod Bolt	2

(7) Air Intake System (KM188F-07000)

Ref No.	Parts No.	Description	Qty.
1	KM186F-07401	Inlet Pipe	1
2	KM170F-07402	Tightening Bolt of Air Cleaner	1
3	KM186F-07001	Air Cleaning Washer	1
4	KM186F-07300	Air Cleaning Bottom Case Assem.	1
5	GB/T6177.1-2000	Nut M6	3
6	KM186F-07303	Shockproof Sheet Gasket II	1
7	KM186F-07100	Air Cleaner Element Assem.	1
8	KM186F-07101	Shockproof Unit	1
9	KM186F-07201	Sheet Gasket	1
10	KM186F-07203	Shockproof Sheet Gasket I	1
11	KM186F-07200	Air Cleaner Cover	1
11-1	KM186FGET-07200	Air Cleaner Cover	1
12	KM186F-07210	Shockproof Seal Assem.	1
13	GB/T62-1988	Nut M8	1
14	GB/T6177.1-2000	Nut M6	1

(2) Cylinder Head Assem. (KM188F-02000)

Ref No.	Parts No.	Description	Qty.
1	KM186F-02014	Intake Pipe Shim	1
2	KM186F-02202	Cylinder Cover	1
3	KM186F-02004	Intake Valve	1
4	KM186F-02003	Exhaust Valve Seat	1
5	KM186F-02203	Intake Valve Seat	1
6	KM186F-02204	Exhaust Valve Seat	1
7	GB/T899-1988	Stud AM6×20	1
8	KM186F-02015	Exhaust Pipe Washer	1
9	KM186F-02201	Valve Conduit	2
10	GB/T119.1-2000	Pin 4×8	2
11	KM186F-02007	Valve Spring Gasket	2
12	KM186F-02019	Valve Conduit Oil Seal	2
13	KM186F-02005	Valve Spring	2
14	KM186F-02002	Valve Spring Seat	2
15	KM186F-02001	Valve Retaining Clip	4
16	KM186F-02016	Valve Adjusting Cushion	2
17	KM186F-02008	Valve Clearance Adjusting Screw	2
18	KM170F-02019	Valve Clearance Adjusting Locknut	2
19	KM186F-02012	Exhaust Valve Rocker Arm	1
20	KM186F-02017	Set Bolt of Rocker Arm Seat	1
21	KM186F-02006	Rocker Arm Seat Assem.	1
22	KM186F-02013	Intake Valve Rocker Arm	1
23	GB/T6177.1-2000	Nut M6	2
24	KM170F-02009	Fuel Injection Valve Retainer	1
25	KM170F-02018	Heat Insulator Gasket	1
26	KM170F-02011	Heat Insulator	1
27	GB/T800-1986	Stud AM6×50	2
28	GB/T900-1988	Stud AM6×75	1
29	GB/T5789-1986	Bolt AM6×25	3
30	KM188FGET-02000		1
31	KM186FGET-02105	Rubber plug	1

(5) Crankshaft & Flywheel Assem. (KM188F-05000)

Ref No.	Parts No.	Description	Qty.
1	GB/T276-1994	Ball Bearing 6202/P5	2
2	KM186F-05301	Balance shaft	1
3	KM186F-05006	Key	2
4	KM186F-05004b	Timing Gear of Balance Shaft	1
5	KM186F-05007	Output End Set Bolt	1
6	GB/T93-1987	Gasket 10	1
7	KM178F-05008	Output End Gasket	1
8	KM186F-05203	Crankshaft Timing Gear	1
9	GB/T1096-1979	Key 6×50	1
10	KM186F-05201	Crankshaft	1
11	KM186F-05201	Crankshaft	1
12	KM186F-05201	Crankshaft	1
13	KM186F-05201	Crankshaft	1
14	GB/T1096-1979	Key 5×12	1
15	KM186F-05004	Drive Gear of Balance Shaft	1
16	GB/T1096-1979	Key 5×14	1
17	KM186F-05102	Flywheel Tooth	1
18	KM186F-05101	Flywheel	1
19	KM186F-05003	Flywheel Nut Gasket	1
20	GB/T5789-1986	Bolt M6×12	4

(8) Fuel Injection Valve Assem. (KM188F-13000)

Ref No.	Parts No.	Description	Qty.
1	KM170F-13200a	Fuel Injection Valve Block	1
2	GB/T879-1986	Pin 3×5	1
3	KM170F-13007	Volt-adjustment Washer	As Required
4	KM170F-13006	Volt-adjustment Spring	1
5	KM170F-13005	Mandril	1
6	KM170F-13003	Intermediate Block	1
7	KM170F-13004	Locating Pin	2
8	KM186F-13100	Fuel Injection Nozzle	1
9	KM170F-13002	Nozzle Forcing Nut	1
	KM186FA-13000	Fuel Injection Valve Assem	1

(9) Muffler Assem. (KM188F-08000)

Ref No.	Parts No.	Description	Qty.
1	KM188F-08000	Muffler Assem.	1
2	GB/T6170-2000	Bolt M8	2
3	GB/T93-1987	Gasket 8	2
4	GB/T97.1-1985	Gasket 8	2
5	GB/T5789-1986	Bolt M8×14	2

(11) Fuel System (KM188F-10000)

Ref No.	Parts No.	Description	Qty.
1	GB/T5789-1986	Bolt M8×45	1
2	KM170F-10003	Set Bolt of Fuel Tank Upper Support	1
3	GB/T97.1-1985	Gasket 8	1
4	KM186F-10001	Fuel Tank Upper Support	1
5	KM170F-10002	Cushion	4
6	KM170F-10012	Fuel Return Pipe	1
7	KM170FA-10012	Fuel Return Pipe	1
8	KM170F-10013	Fuel Return Pipe Clip	2
9	KM170F-10008	Drain Bolt Washer	1
10	GB/T5786-2000	Bolt M12×1.25×14	1
11	KM170F-10000	Fuel Tank Lower Support	1
12	GB/T5789-1986	Nut M6×14	2
13	GB/T6177.1-2000	Nut M6	2
14	KM170F-10400	Fuel Tank Switch Assem.	1
15	GB/T3452.1-1992	O-Ring 13.2×1.8	1
16	KM170F-10009	Fuel Pipe	1
17	KM170F-10011	Clip	2
18	KM170F-10007	Fuel Filter Washer	1
19	KM186F-10300	Element Assem.	1
20	KM188F-10500	High-pressure Fuel Pipe Unit	1
21	KM186FA-10500	High-pressure Fuel Pipe Unit	1
22	KM186FGET-10500	High-pressure Fuel Pipe Unit	1
23	KM188F-10200	Fuel Tank Weldment Assem.	1
24	KM170F-10004	Fuel Filler Screen	1
25	KM170F-10100	Fuel Tank Cap	1
26	KM186F-10014	Cushion	1
	KDE5000E-30000	Cushion	4
1	KDE5000E-30005	Sheath	1
2	KDE5000E-31000	Fuel Tank Weldment Assem.	1
3	KR180N-10100	Fuel Tank Cap	1
4	KM170F-10004	Fuel Filler Screen	1
5	KDE5000E-32000	Fuel Indicator Assem.	1
6	GB/T93-1987	Gasket 5	2
7	GB/T97.1-1985	Gasket 5	2
8	GB/T819.1-2000	Pin Screw M5×12	2
9	KM170F-10300	Element Assem.	1
10	KM170F-10007	Fuel Cleaner Washer	1
11	KDE5000E-31007	Joint Washer	1
12	KDE5000E-31006	Sealing Plate	1
13	GB/T819.1-2000	Pin Screw M5×8	3
14	GB/T3452.1-1992	O-Ring 13.2×1.8	1
15	KM170F-10400	Throttle Switch Assem.	1
16	GB/T6187-1986	Nut M6	2

(12) Fuel Injection Pump Assem. (KM188F-12000)

Ref No.	Parts No.	Description	Qty.
1	KM170F-12001	Fuel Delivery Valve Forcing Holder	1
2	KM170F-12002	Dumping Block	1
3	KM170F-12003	Fuel Delivery Valve Spring	1
4	KM170F-12011	High-pressure Sheet Gasket	2
5	KM170F-12100	Fuel Delivery Assembly	1
6	KM170F-12400a	Intake Oil Pipe	1
6-1	KM178FGET-12400	Outtake Oil Pipe	1
7	KM186F-12200	FIP Block Plunger Assembly	1
8	KM170F-12004	Volt-adjusting Washer	As Required
9	GB/T879-1986	Pin 2×6	2
10	KM170F-12005	FIP Connecting Plate	1
11	KM170F-12006	Fuel Limiting Sheath	1
12	GB/T879-1986	Pin 3×8	1
13	KM170F-12007	Spring Supporting Block	1
14	KM170F-12008	Plunger Spring	1
15	KM170F-12009	Spring Holder	1
16	KM170F-12300a	Tappet	1
	KM186FG-12000	Fuel Injection Pump Assem	1
	KM186FGET-12000		1
1	DF1305A	Starter Magnetic Valve	1
2	GB/T808-1986	Nut M10×1	1

(10) Lubricating System (KM188F-09000)

Ref No.	Parts No.	Description	Qty.
1	GB/T5789-1986	Bolt M6×12	3
2	KM170F-09003	Lube Oil Pump Cover	1
3	GB/T3452.1-1992	O-Ring 34×1.8	1
4	GB/T119.1-1986	Pin 3×16	1
5	KM170F-09100	Engine Oil Pump Unit	1
6	KM178F-09002	Drive Gear of Lube Oil Pump	1
7	KM170F-11001	Flying Weight	2
8	KM170F-11002	Flying Weight Pin	2
9	GB/T1235-1976	O-Ring 5×2.4	1
10	KM178F-09200	Lube Oil Filter Assem.	1
11	GB/T5789-1986	Bolt M6×4	1

(13) Governor & Controller Assem. (KM188F-110)

Ref No.	Parts No.	Description	Qty.
1	KM170F-11300	Control Handle	1
2	KM170F-11006	Return Spring II	1
3	KM170F-11401	Control Handle Support	1
4	KM170F-11301	Handle	1
5	GB/T5789-1986	Bolt M6×14	1
6	GB/T5789-1986	Bolt M6×18	1
7	GB/T6172.1-2000	Nut M6	2
8	KM170F-11403	Pull Bolt	1
9	KM170F-11402	High Speed Limit Screw	1
10	KM170F-11005	Return Spring I	1
11	KM186F-11007	Governor Spring	1