



Dingo[®] 320-D

Compact Utility Loader

Model No. 22303—230000001 and Up

Parts Catalog

Ordering Replacement Parts

To order replacement parts, please supply: the part number, the quantity, and the description of each part desired.

Understanding Reference Numbers

Each identified part in an illustration has a reference number. The reference number for a part also appears in the parts list, along with other information about the part.

This catalog uses two special reference number formats, one to indicate parts in a service assembly and another to indicate the quantity of a given part in an illustration.

Service Assembly Reference Numbers

Parts in service assemblies have reference numbers in the form **a:b**. The **a** represents the reference number of the entire service assembly and the **b** represents a sequential number unique to each part within the service assembly.

For example, a wheel assembly might be identified by reference number **6**, the tire by **6:1**, the valve by **6:2**, and the wheel by **6:3**. When you order the assembly identified by reference number **6**, you receive all parts identified by reference numbers **6:1**, **6:2**, and **6:3**. However, you may also order any part individually.

Reference numbers of this type appear in illustrations and in part lists.

Reference Numbers Indicating Quantity

In an illustration, if a reference number indicates more than one part, the reference number has the form **nX y**. The **n** represents the quantity of the part, the **X** is the multiplication symbol, and the **y** represents the reference number.

For example, in an illustration, the reference number **2X 37** means that two of the parts identified by reference number **37** are indicated.

Contents

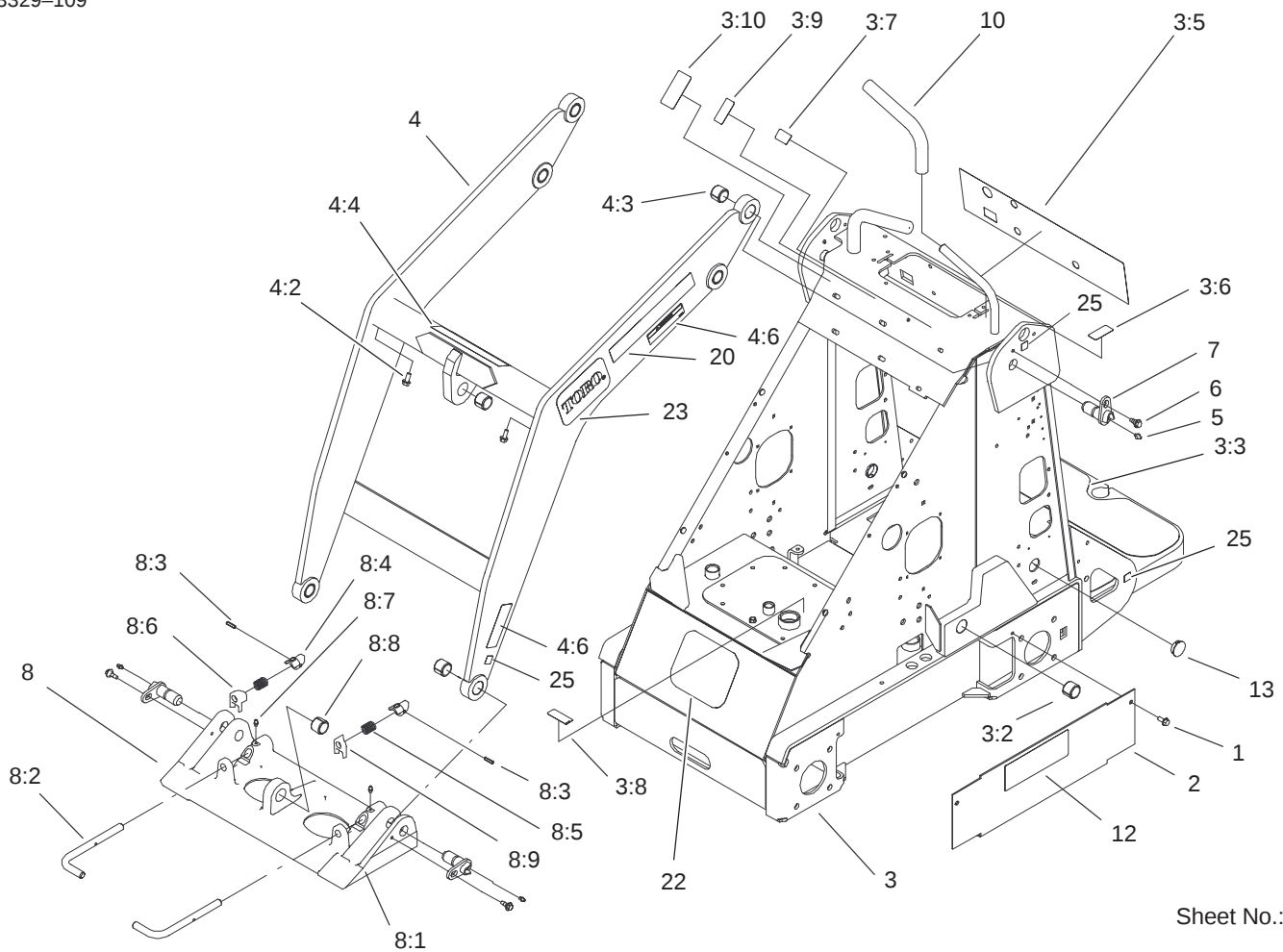
Description	Page	Description	Page
Frame and Loader Arm Assembly	4	Gear Case Assembly	33
Hood and Screen Assembly	5	Head Cover Assembly	34
Wheel and Motor Assembly	6	Dipstick and Guide Assembly	35
Hydraulic Motor Assembly No. 99-3052	7	Main Bearing Case Assembly	36
Engine Assembly	8	Camshaft Assembly	37
Engine Mount Assembly	9	Piston and Crankshaft Assembly	38
Fuel Tank and Air Filter Assembly	10	Flywheel Assembly	39
Air Cleaner Assembly No. 99-3160	11	Fuel Camshaft Assembly	40
Radiator Mount Assembly	12	Engine Stop Lever Assembly	41
Hydraulic Tank and Filter Assembly	13	Injection Pump Assembly	42
Auxiliary Control Lever Assembly	14	Injection Pump (Complete Parts)	43
Hydraulic Valve Assembly	15	Governor Assembly	44
Hydraulic Valve Assembly No. 99-3077	16	Speed Control Plate Assembly	45
Hydraulic Valve Assembly No. 104-4221	17	Nozzle Holder and Glow Plugs Assembly	46
Hydraulic Valve Assembly No. 99-3072	18	Nozzle Holder (Complete Parts)	47
4-Spool Valve Assembly	19	Fuel Pump (Mechanical)	49
Hydraulic Valve Assembly No. 99-3070	20	Dynamo and Pulley Assembly	50
Hydraulic Motor Assembly	21	Dynamo (Complete Parts)	51
Counterbalance Valve Assembly No. 99-3040	22	Starter Assembly	52
Hydraulic Cylinder Assembly	23	Starter (Complete Parts)	53
Hydraulic Cylinder Assembly No. 100-4163	24	Oil Switch and Thermoswitch Assembly	54
Rear Cover Assembly	25	Water Flange and Thermostat Assembly	55
Battery Mount Assembly	26	Water Pump Assembly	56
Electrical Components Assembly	27	Water Pipe Assembly	57
Electrical Schematic	28	Valve and Rocker Arm Assembly	58
Hydraulic Schematic	29	Inlet Manifold Assembly	59
Crankcase Assembly	30	Exhaust Manifold Assembly	60
Oil Pan Assembly	31	Gasket Kit	61
Cylinder Head Assembly	32		

Part Description Abbreviations

Part descriptions in this catalog may include the following abbreviations.

Abbreviation	Meaning
AR	as required
ASM	assembly
CARR	carriage
DEG	degrees
FH	flat head
GA	gauge
HF	hex flange
HH	hex head
HHF	hex head flange
HLH	hex lag head
HJ	hex jam
HOC	height-of-cut
HS	hex socket
HSBH	hex socket button head
HSFH	hex socket flat head
HSH	hex socket head
HWH	hex washer head
HWHTF	hex washer head thread forming

Abbreviation	Meaning
HYD	hydraulic
INC	incorporated
LH	left hand
NI	nylon insert
PPH	Phillips pan head
PTH	Phillips truss head
PTO	power take off
RH	right hand
SFH	slotted fillister head
SHH	slotted hex head
SQH	square head
SHWH	slotted hex washer head
SPH	slotted pan head
SRH	slotted round head
STD	standard
TAP	self tapping
TTH	Torx truss head
WH	wing head

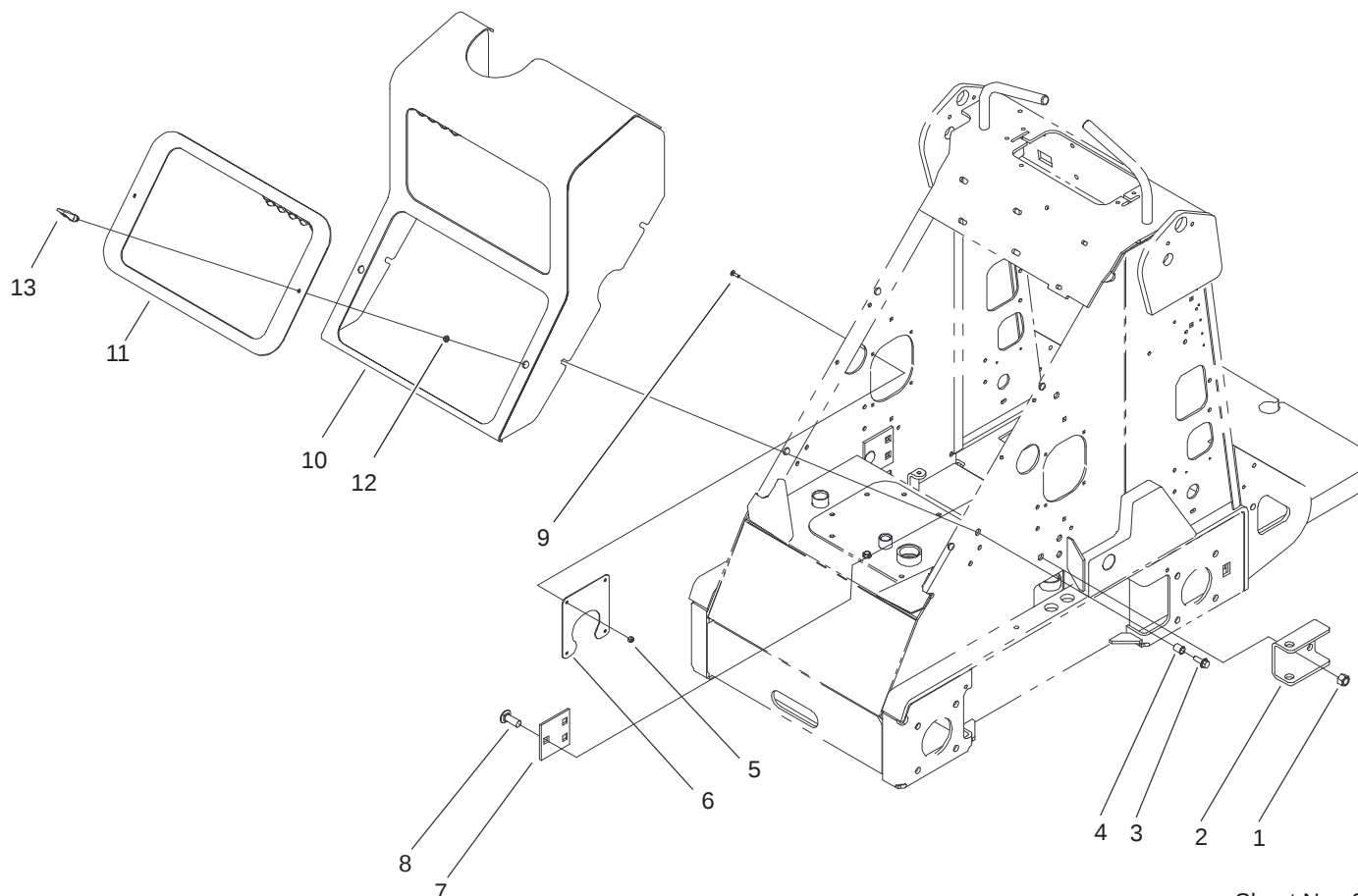


Sheet No.: 2

Frame and Loader Arm Assembly

Ref. No.	Part No.	Qty.	Description
1	32144-70	6	Screw-HH
2	99-3020-01	2	Cover-Hose
3	105-8375	1	Frame ASM
3:2	98-4871	2	Bushing-Tension
3:3	98-9947	2	Tread-Foot
3:5	99-3157	1	Decal-Panel, Control
3:6	98-8219	1	Decal-Throttle
3:7	98-8220	1	Decal-Limiter, Speed
3:8	105-8432	1	Decal-Oil, Hydraulic
3:9	98-8235	1	Decal-Selector
3:10	98-4677	1	Decal-Power, Auxiliary
4	105-8366	1	Loader ASM
4:2	32144-70	2	Screw-HH
4:3	98-4871	7	Bushing-Tension
4:4	98-4682	1	Decal-Caution
4:6	100-6141	4	Decal-Pinch
5	302-5	4	Fitting-Grease
6	99-5105	4	Bolt-Shoulder
7	99-1414	4	Pin-Pivot
8	105-8364	1	Quick Attach ASM
8:1	105-0245-03	1	Mount-Attach, Quick
8:2	105-8367	2	Pin-Locking
8:3	3285-1	2	Pin-Grooved
8:4	105-0246	2	Cam
8:5	98-4694	2	Spring-Compression

Ref. No.	Part No.	Qty.	Description
8:6	104-5909	1	Stop-RH
8:7	302-5	2	Fitting-Grease
8:8	98-4871	1	Bushing-Tension
8:9	104-5903	1	Stop-LH
10	98-4845	2	Grip-Cushion
12	105-8429	2	Decal-4 Paw
13	94-1402	2	Plug-Hole
20	105-8428	2	Decal-Dingo 320d
22	62-5550	1	Decal
23	93-7340	2	Decal-Toro
25	93-9084	6	Decal-Point, Lift

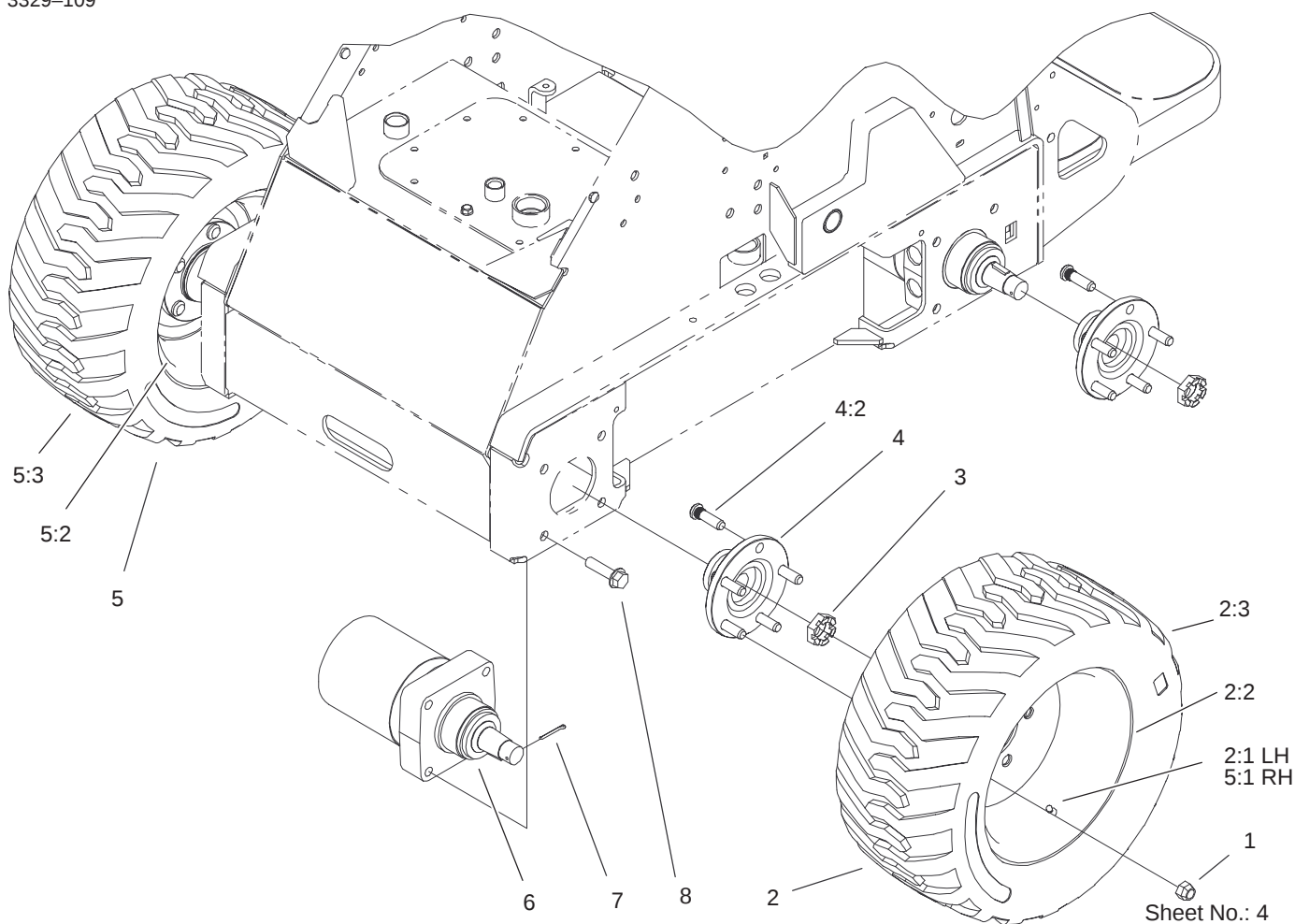


Sheet No.: 3

Hood and Screen Assembly

Ref. No.	Part No.	Qty.	Description
1	3296-23	6	Nut-Lock, NI
2	100-4122-01	2	Bracket-Anchor
3	3234-29	4	Screw-HHF
4	32148-8	4	Insert-Threaded
5	3296-2	4	Nut-Lock
6	99-1427-03	1	Guard-Muffler
7	100-4116-01	2	Plate-Anchor
8	3233-26	6	Screw-CARR
9	3229-34	4	Bolt-CARR
10	99-3120-03	1	Hood ASM
11	99-3118-03	1	Cover ASM
12	99-3058	2	Washer
13	74-5950	2	Latch-Swell

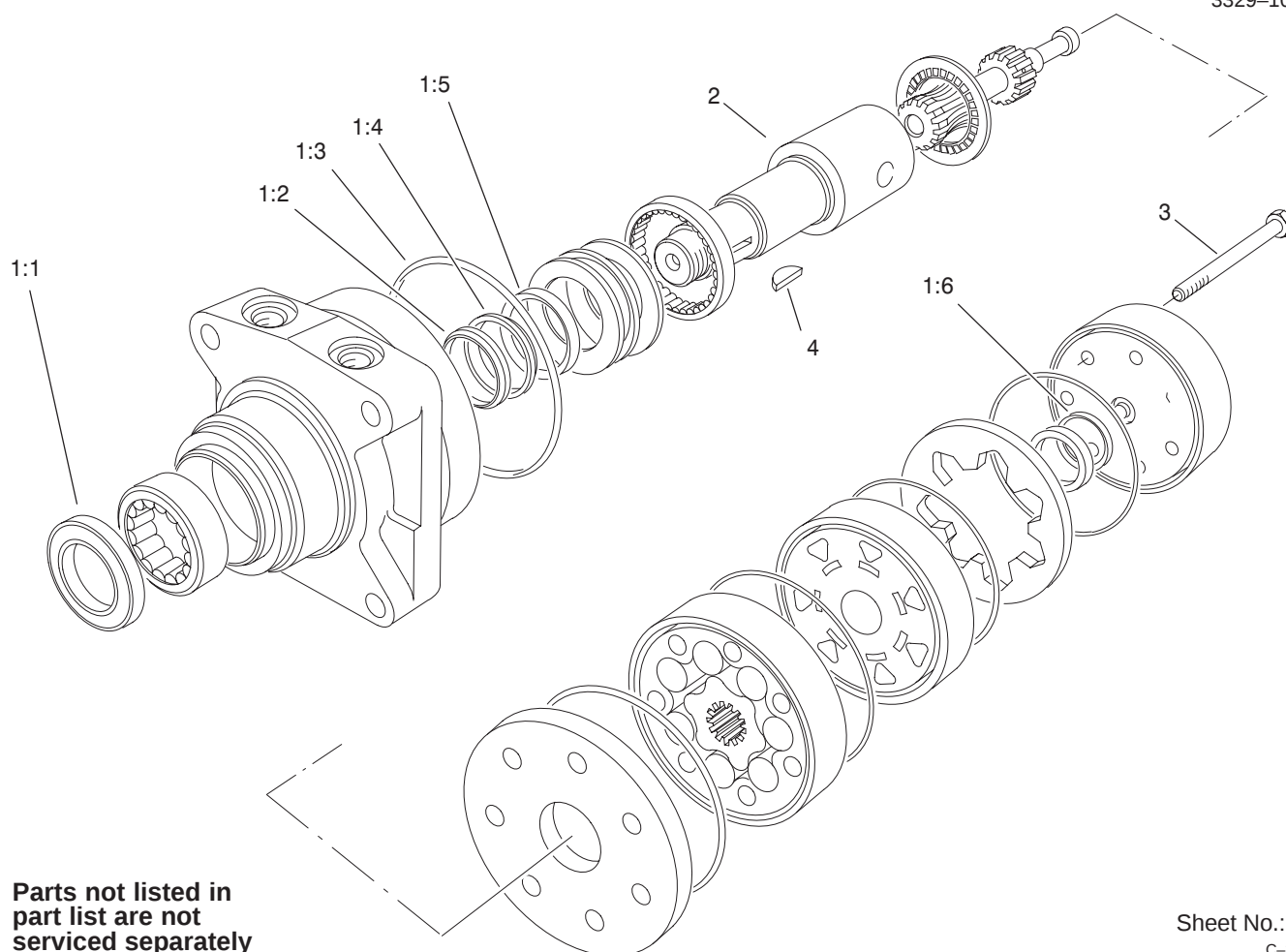
Ref. No.	Part No.	Qty.	Description



Wheel and Motor Assembly

Ref. No.	Part No.	Qty.	Description
1	242-50	20	Nut-Lug
2	98-2747	2	LH Wheel And Tire ASM
2:1	232-27	1	Stem-Valve
2:2	98-2748	1	Wheel
2:3	98-2749	1	Tire-Loader Style
3	99-3139	4	Nut
4	99-3064	4	Hub ASM
4:2	10-6830	5	Stud-Type, Drive
5	99-1447	2	RH Wheel And Tire ASM
5:1	232-27	1	Stem-Valve
5:2	98-2748	1	Wheel
5:3	98-2749	1	Tire-Loader Style
6	99-3052	4	Hydraulic Motor ASM
7	99-3171	4	Pin-Cotter
8	3234-27	16	Screw-Flange

Ref. No.	Part No.	Qty.	Description



**Parts not listed in
part list are not
serviced separately**

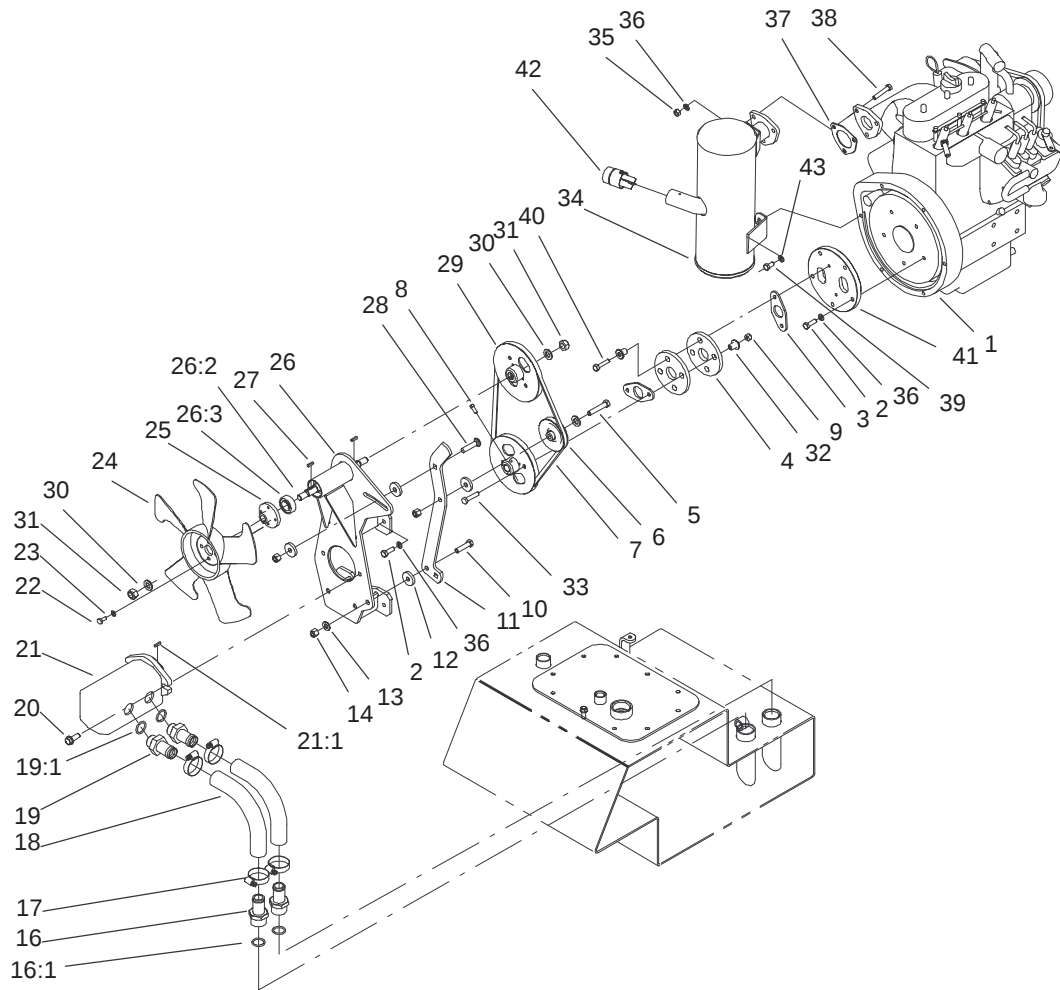
Sheet No.: A1
C-2980

Hydraulic Motor Assembly No. 99-3052

Ref. No.	Part No.	Qty.	Description
1	94-8178	1	Seal Kit
☆1:1		1	Seal-Dirt And Water
☆1:2		1	Washer-Backup
☆1:3		5	Seal-Ring
☆1:4		1	Washer-Backup
☆1:5		1	Seal-Inner
☆1:6		1	Seal-Commutator
2	99-3090	1	Coupling-Shaft
3	99-3091	7	Screw-Cap, HH
4	3257-42	1	Key-Woodruff

Ref. No.	Part No.	Qty.	Description

☆ Not serviced separately



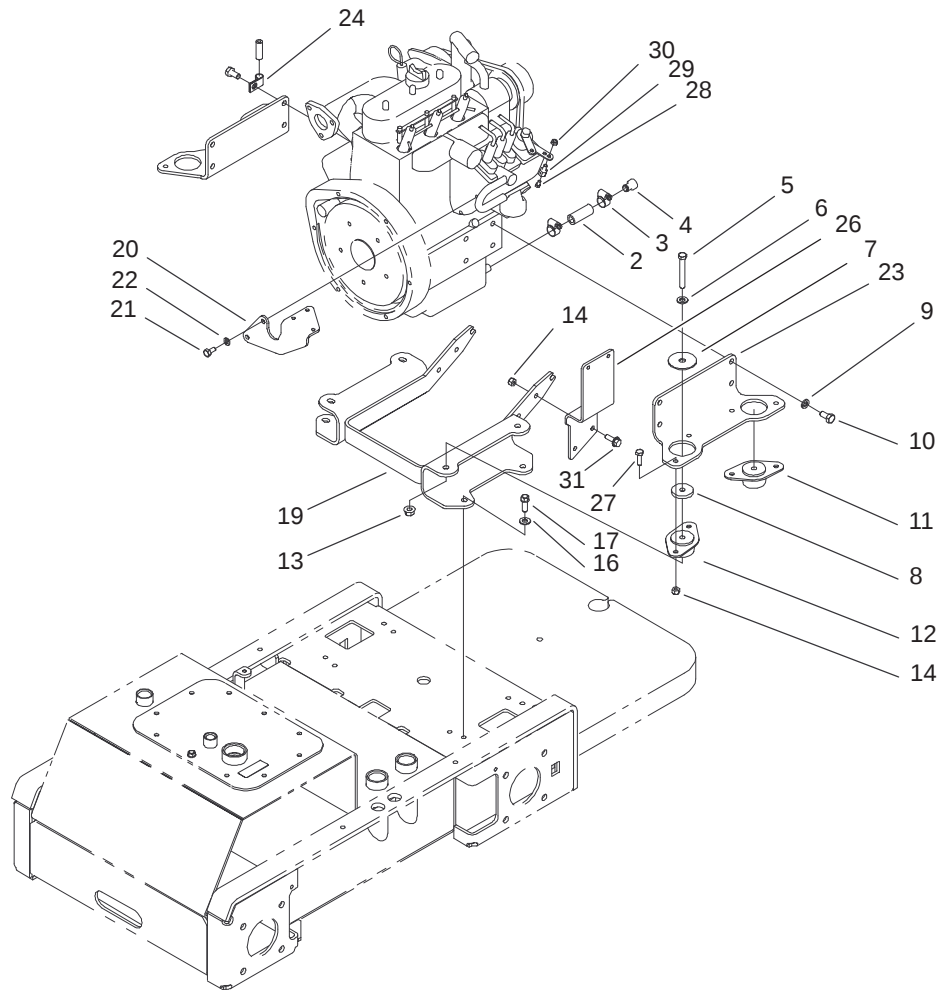
Sheet No.: 5

Engine Assembly

Ref. No.	Part No.	Qty.	Description
1	98-4661	1	Engine-Kubota, D722-E
2	99-5131	9	Bolt
3	99-1430	2	Spacer-Coupler
4	44-2230	2	Coupling-Rubber
5	323-10	1	Screw-HH
6	63-8140	1	Pulley-Idler
7	92-8876	1	V-Belt
8	3241-5	2	Screw-Set
9	104-9469	2	Nut-Lock
10	323-8	1	Screw-HH
11	100-1727-01	1	Mount-Tensioner
12	99-5121	4	Spacer
13	3256-24	2	Washer-Flat
14	3296-39	3	Nut-Lock, NI
16	354-78	2	Connector-Hose
16:1	237-146	1	O-Ring
17	2412-111	4	Clamp
18	99-3046	2	Hose-Suction, Formed
19	99-3017	2	Fitting
19:1	237-81	1	O-Ring
20	66-9300	2	Screw-HF
21	98-4702	1	Pump-Gear, Tandem
21:1	98-4700	1	Key-Square
*21:2	99-1353	1	Kit-Seal

Ref. No.	Part No.	Qty.	Description
22	321-2	4	Screw-HH
23	3253-3	4	Washer-Lock
24	43-1911	1	Fan
25	105-8383	1	Adapter-Fan
26	99-1449	1	Pump Mount ASM
26:2	98-0068	1	Shaft-Fan
26:3	38-7820	2	Bearing-Ball
27	100-1715	2	Key-Square
28	3231-5	1	Screw-CARR
29	99-5111	2	Pulley-Keyed
30	33096-00	2	Washer-Flat
31	98-8089	2	Nut-Lock
32	71-4411	4	Spacer
33	5-1470	2	Capscrew
34	105-8390	1	Muffler-Diesel
35	3217-6	3	Nut-Hex
36	3253-4	12	Washer-Lock
37	100-2238	1	Gasket-Muffler
38	322-9	3	Screw-HH
39	99-5132	1	Bolt
40	99-5133	2	Bolt
41	99-1431	1	Adapter-Flywheel
42	75-6880	1	Screen-Arrester, Spark
43	88-7200	1	Washer-Flat

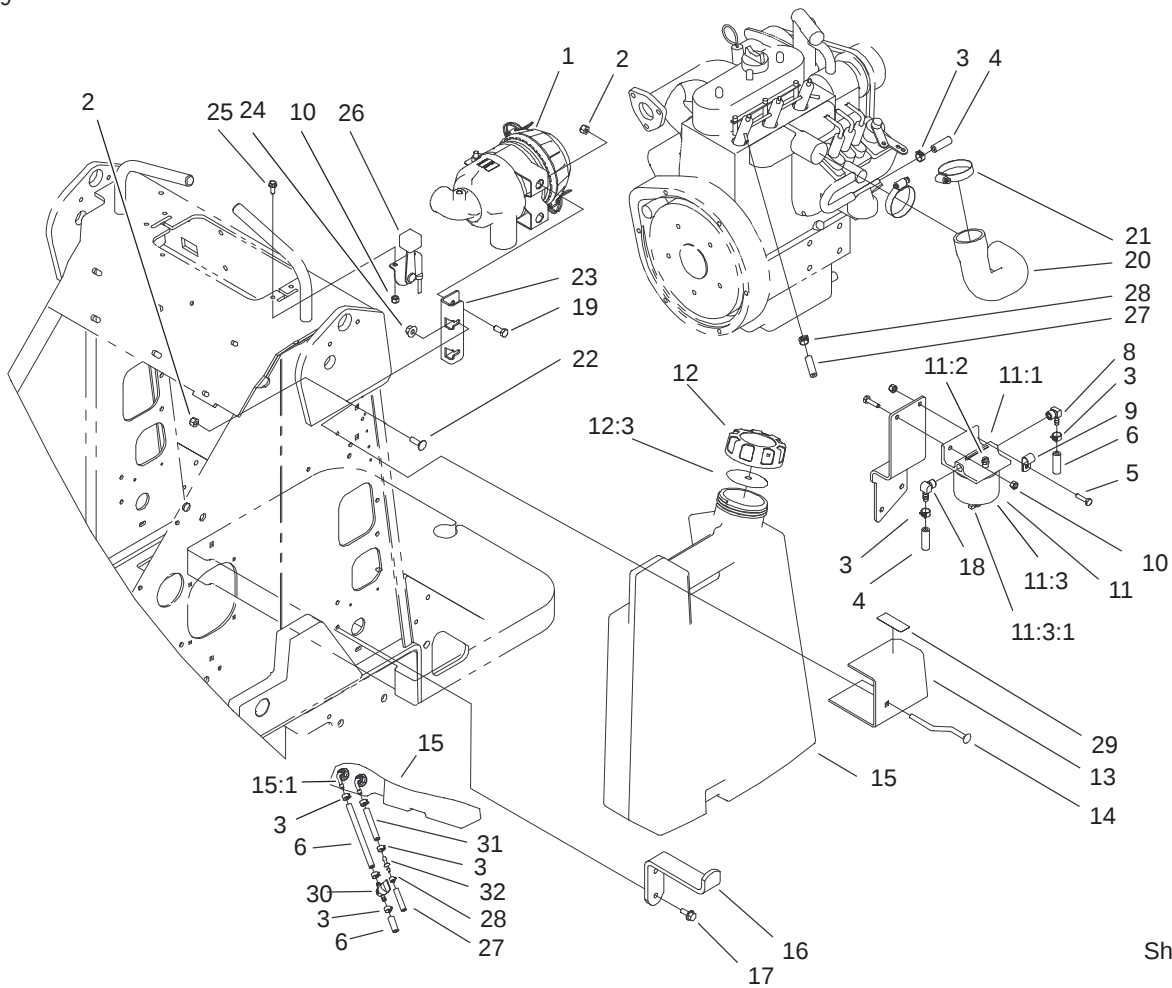
* Not illustrated



Sheet No.: 6

Engine Mount Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
2	56-2230	1	Hose-Fuel	29	93-0021	1	Swivel-Cable, Throttle
3	2412-36	2	Clamp-Hose	30	3296-13	1	Nut-Lock NI
4	99-1445	1	Plug-Oil	31	3234-29	2	Screw-HHF
5	323-13	4	Screw-HH				
6	3256-24	4	Washer-Flat				
7	87-5100	4	Washer-Snubbing				
8	98-4596	4	Washer-Mount, Engine				
9	42-9600	6	Lockwasher-Spring				
10	99-5130	8	Bolt				
11	83-1030	2	Mount-Engine				
12	93-5265	2	Mount-Engine				
13	32128-29	4	Locknut-Flange				
14	3296-29	10	Nut-Lock, NI				
16	3256-80	4	Washer-Flat				
17	95-1726	4	Screw-Taptite W/Patch				
19	98-0066-01	1	Mount-Engine				
20	105-4054-01	1	Mount-Solenoid				
21	99-5132	2	Bolt				
22	3253-4	2	Washer-Lock				
23	98-0055-01	2	Plate-Mount, Engine				
24	2412-138	1	R-Clamp				
26	98-0059-01	1	Mount-Filter, Fuel				
27	322-5	8	Screw-HH				
28	25-8640	1	Screw-HH				

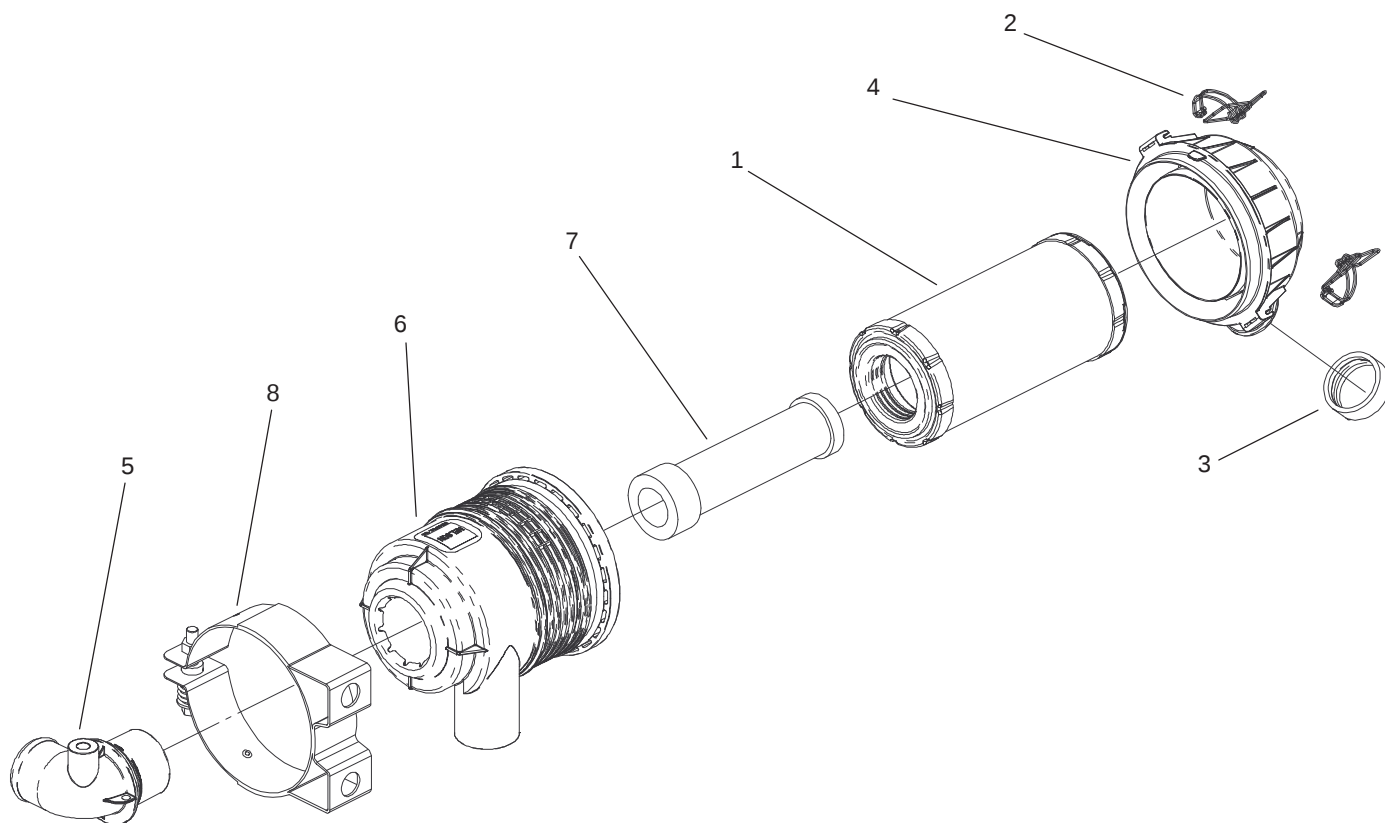


Sheet No.: 7

Fuel Tank and Air Filter Assembly

Ref. No.	Part No.	Qty.	Description
1	99-3160	1	Air Cleaner ASM
2	3296-29	3	Nut-Lock, NI
3	92-2379	8	Clamp-Hose
4	63-7627	1	Hose-Fuel
5	321-6	2	Screw-HH
6	47-2980	2	Hose-Fuel
8	304-96	1	Elbow
9	2412-73	1	Clamp-R
10	3296-42	4	Nut-Lock, NI
11	63-7650	1	Separator-Filter/Water
11:1	63-8280	1	Head ASM
11:2	63-8290	1	Vent-Air
11:3	63-8300	1	Element-Spin-On
11:3:1	63-8310	1	Valve-Drain
12	104-7419	1	Cap-Fuel, Diesel
12:3	104-7420	1	Gasket-Vented
13	99-1444-03	1	Plate-Mount, Left
14	98-4657	1	Bolt-Mount
15	105-8438	1	Fuel Tank ASM, Diesel LH
15:1	103-2615	2	Fitting-Fuel, Bulkhead
16	98-4656-03	1	Mount-Bottom, Tank
17	32144-70	2	Screw-HH
18	353-781	1	Fitting-Elbow
19	322-3	2	Screw-HH
20	99-5041	1	Hose-Cleaner, Air

Ref. No.	Part No.	Qty.	Description
21	2412-92	2	Clamp-Hose
22	3230-2	2	Bolt-CARR
23	99-3080-03	1	Mount-Cleaner, Air
24	32128-20	2	Nut-HF
25	3234-33	2	Screw-HHF
26	99-1422	1	Control-Throttle
27	99-3498	1	Return-Line, Fuel
28	2412-80	2	Clamp-Line, Fuel
29	93-6680	1	Decal-Diesel
30	1-603770	1	Valve-Fuel
31	99-5101	1	Hose-Fuel
32	106-8150	1	Fitting-Straight



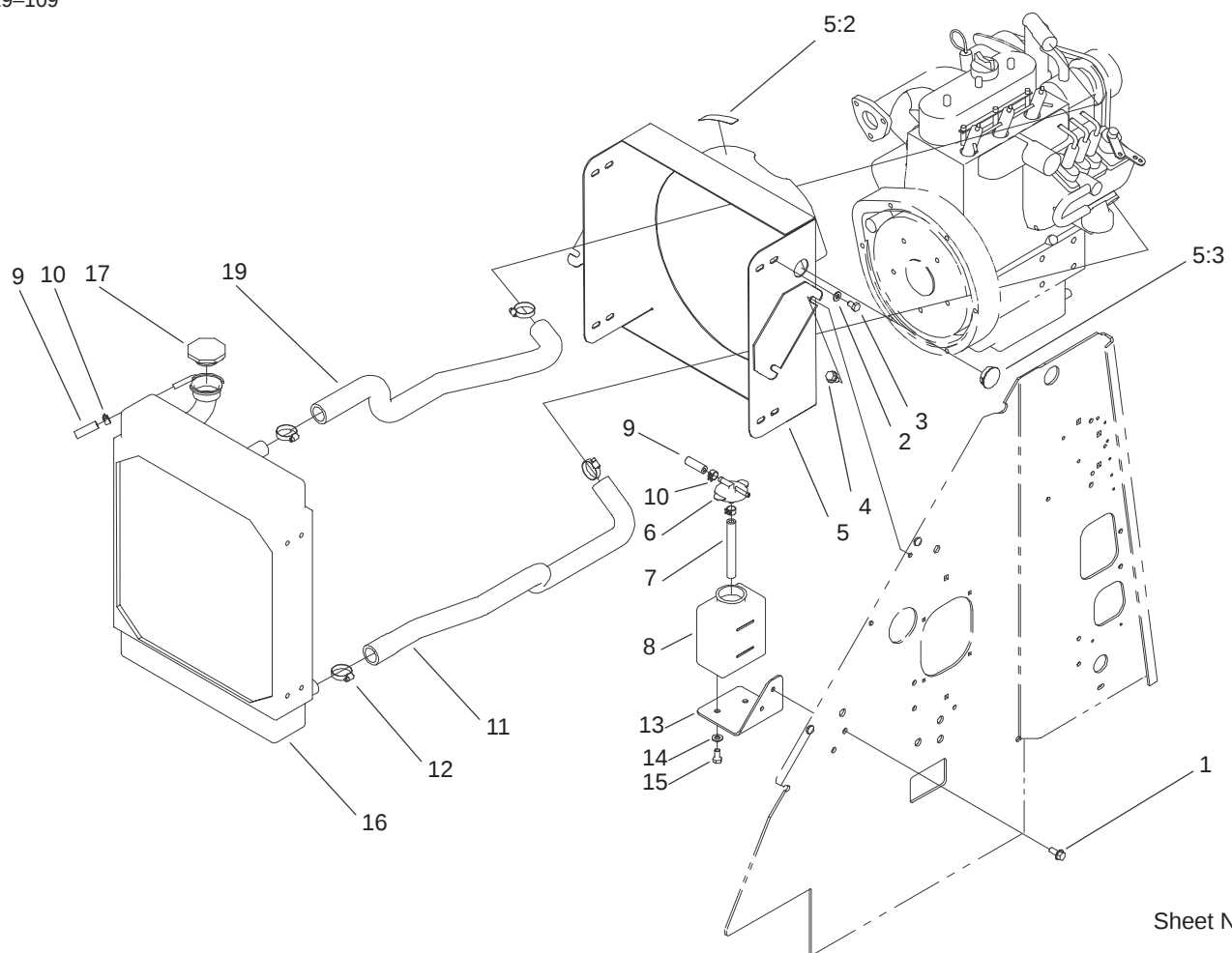
Sheet No.: A3

C-3006

Air Cleaner Assembly No. 99-3160

Ref. No.	Part No.	Qty.	Description
1	99-3173	1	Element-Filter, Air
2	99-3174	2	Clip-Cleaner, Air
3	99-3175	1	Valve-Ejector, Dust
4	99-3176	1	Cover
5	99-3183	1	Tube ASM
6	99-3184	1	Housing
7	99-3198	1	Filter-Safety
8	99-3197	1	Mounting Bracket ASM

Ref. No.	Part No.	Qty.	Description

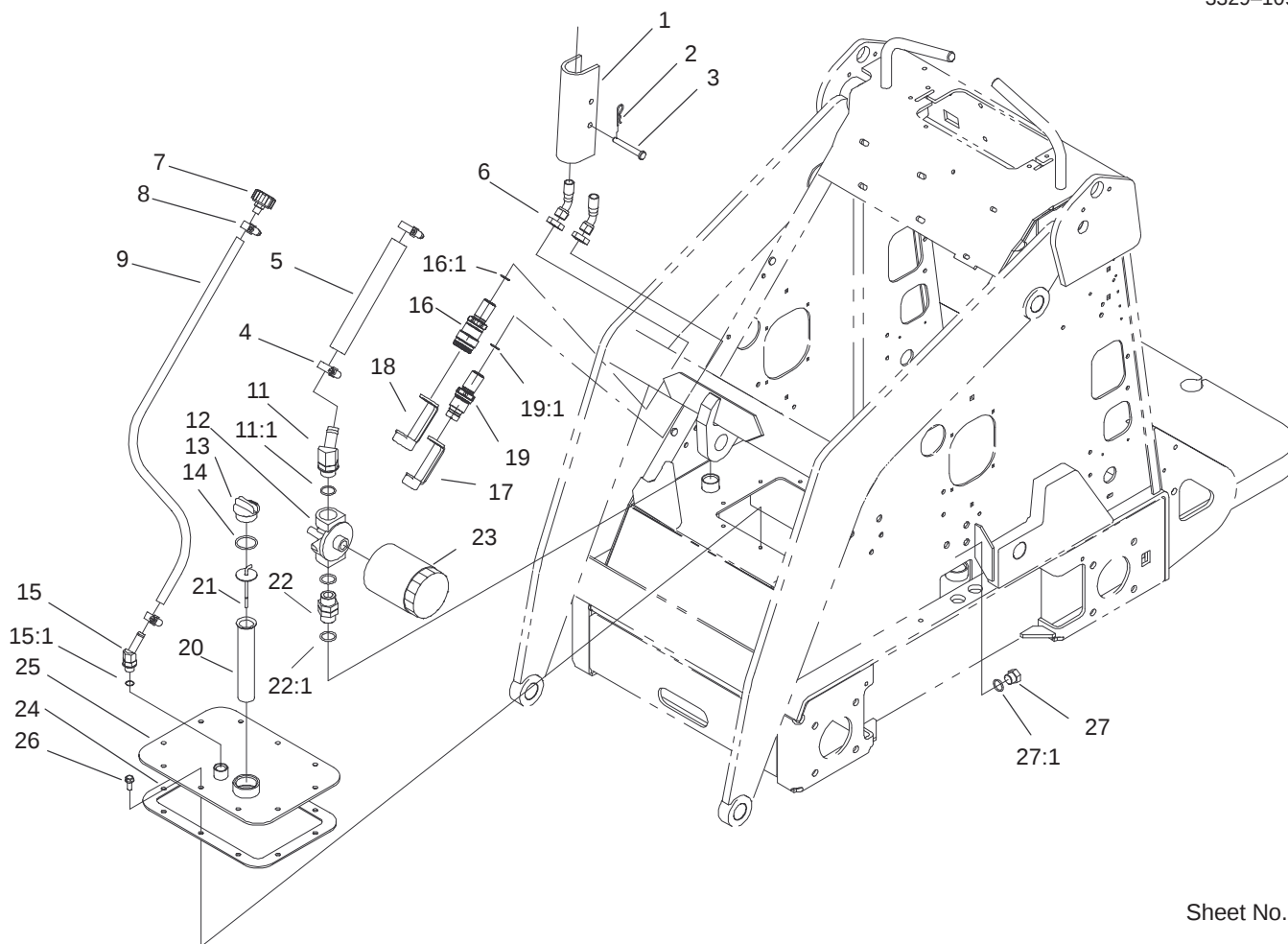


Sheet No.: 8

Radiator Mount Assembly

Ref. No.	Part No.	Qty.	Description
1	32144-70	6	Screw-HH
2	3256-82	8	Washer-Flat
3	322-1	8	Screw-HH
5	104-4648	1	Mount-Radiator
5:2	93-6681	1	Decal-Warning, Fan
5:3	94-1402	1	Plug-Hole
6	93-2048	1	Cap-Tank, Overflow
7	94-1348	1	Hose-Fuel
8	93-2049	1	Tank-Overflow
9	71-3383	1	Hose-Fuel
10	92-2379	3	Clamp-Hose
11	99-5042	1	Hose-Radiator, Lower
12	2412-34	4	Clamp-Hose
13	99-1446-01	1	Mount-Tank, Overflow
14	3256-23	2	Washer-Flat
15	99-5132	2	Bolt
16	99-5125	1	Radiator ASM
17	66-3240	1	Cap-Radiator
19	99-5043	1	Hose-Radiator, Upper

Ref. No.	Part No.	Qty.	Description

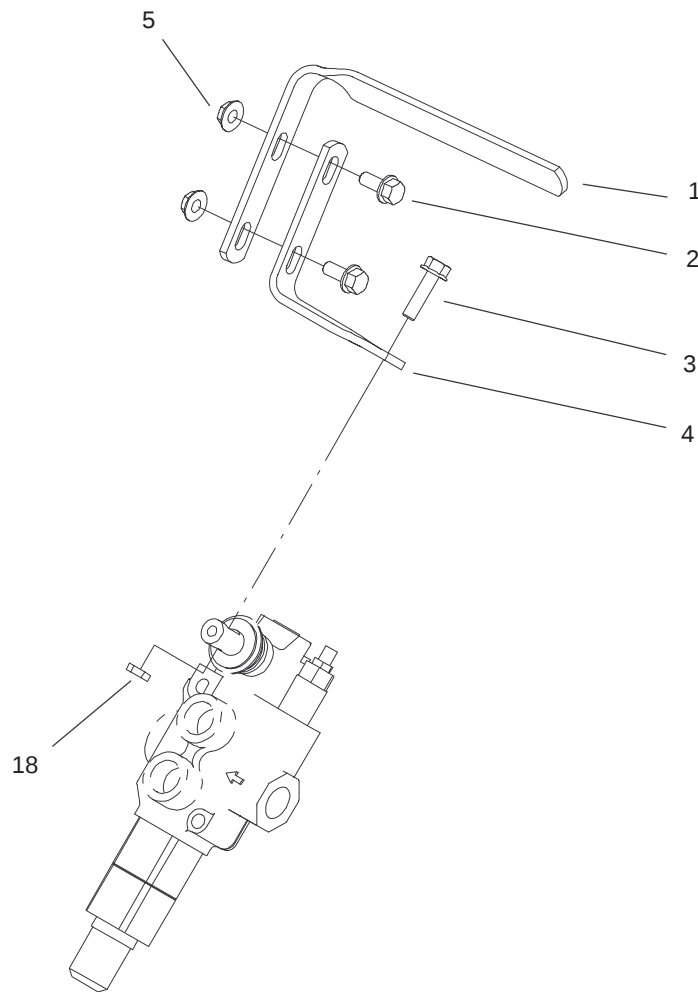


Sheet No.: 9

Hydraulic Tank and Filter Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	98-4675-01	2	Lock-Cylinder	21	100-2097	1	Dipstick-Oil
2	3290-467	2	Pin-Hair	22	98-9906	1	Fitting-Thread, Straight
3	283-52	2	Pin-Clevis	22:1	237-81	2	O-Ring
4	2412-129	2	Clamp-Hose	23	54-0110	1	Filter-Oil, Transmission
5	98-2713	1	Hose-Suction, HYD	24	98-9927	1	Gasket-Cover
6	340-74	2	Locknut-Bulkhead	25	100-1713-01	1	Cover ASM
7	68-6150	1	Breather	26	98-9940	10	Screw
8	2412-36	2	Clamp-Hose	27	353-988	1	Plug-Hex, Hollow
9	100-1748	1	Hose-Vent	27:1	237-79	1	O-Ring
11	354-127	1	Elbow-45°				
11:1	237-81	1	O-Ring				
12	92-5821	1	Filter Head ASM				
13	93-7498	1	Plug-Plastic				
14	237-123	1	O-Ring				
15	354-126	1	Fitting-HYD, 45°				
15:1	237-79	1	O-Ring				
16	105-8394	1	Bulkhead Coupler ASM				
16:1	237-65	1	O-Ring				
*16:2	105-8396	1	Seal Kit				
17	100-8815	1	Cap-Dust, Nipple				
18	100-8816	1	Cap-Dust, Coupler				
19	105-8395	1	Bulkhead Nipple ASM				
19:1	237-65	1	O-Ring				
*19:2	100-6120	1	Seal Kit				
20	61-2790	1	Filter-Screen				

* Not illustrated

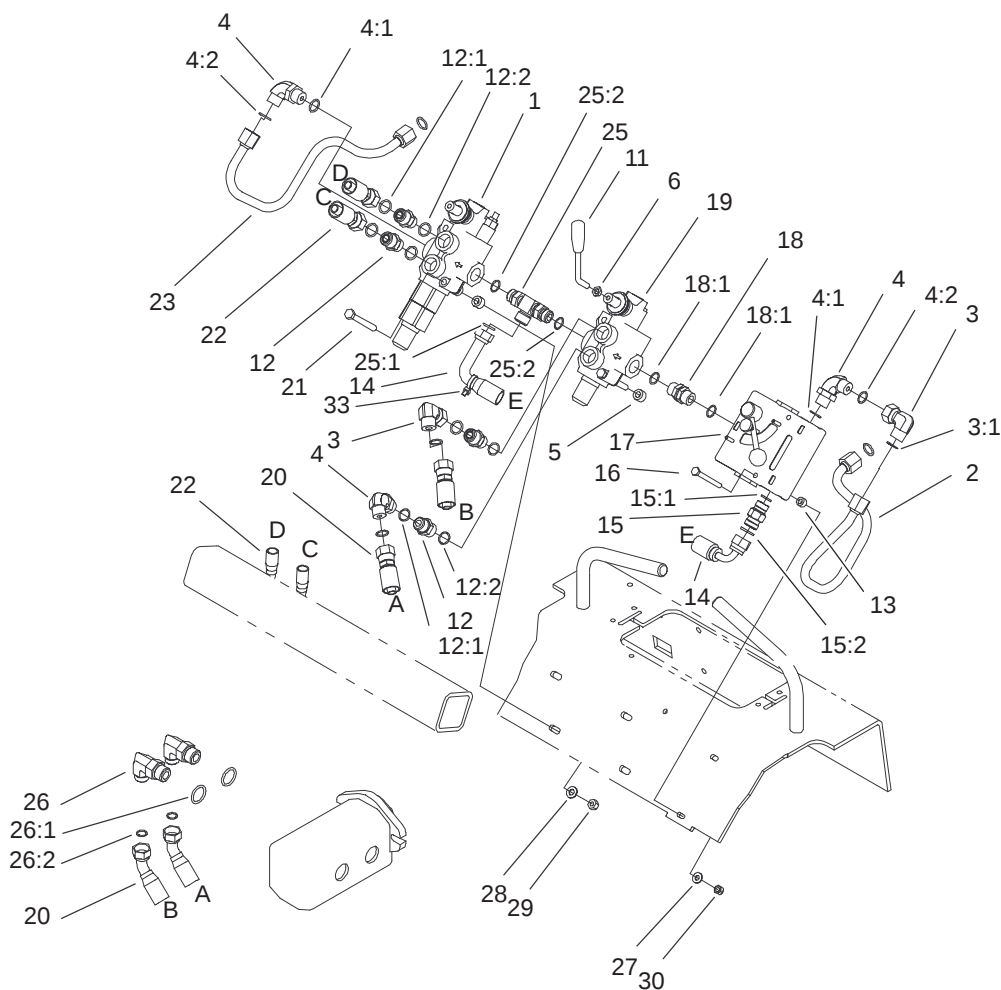


Sheet No.: 10

Auxiliary Control Lever Assembly

Ref. No.	Part No.	Qty.	Description
1	98-9090	1	Grip-Control
2	3234-5	2	Screw
3	33104-030	1	Screw-HHF
4	99-1376	1	Mount-Control
5	32128-44	2	Nut
18	42-9580	1	Nut-Hex

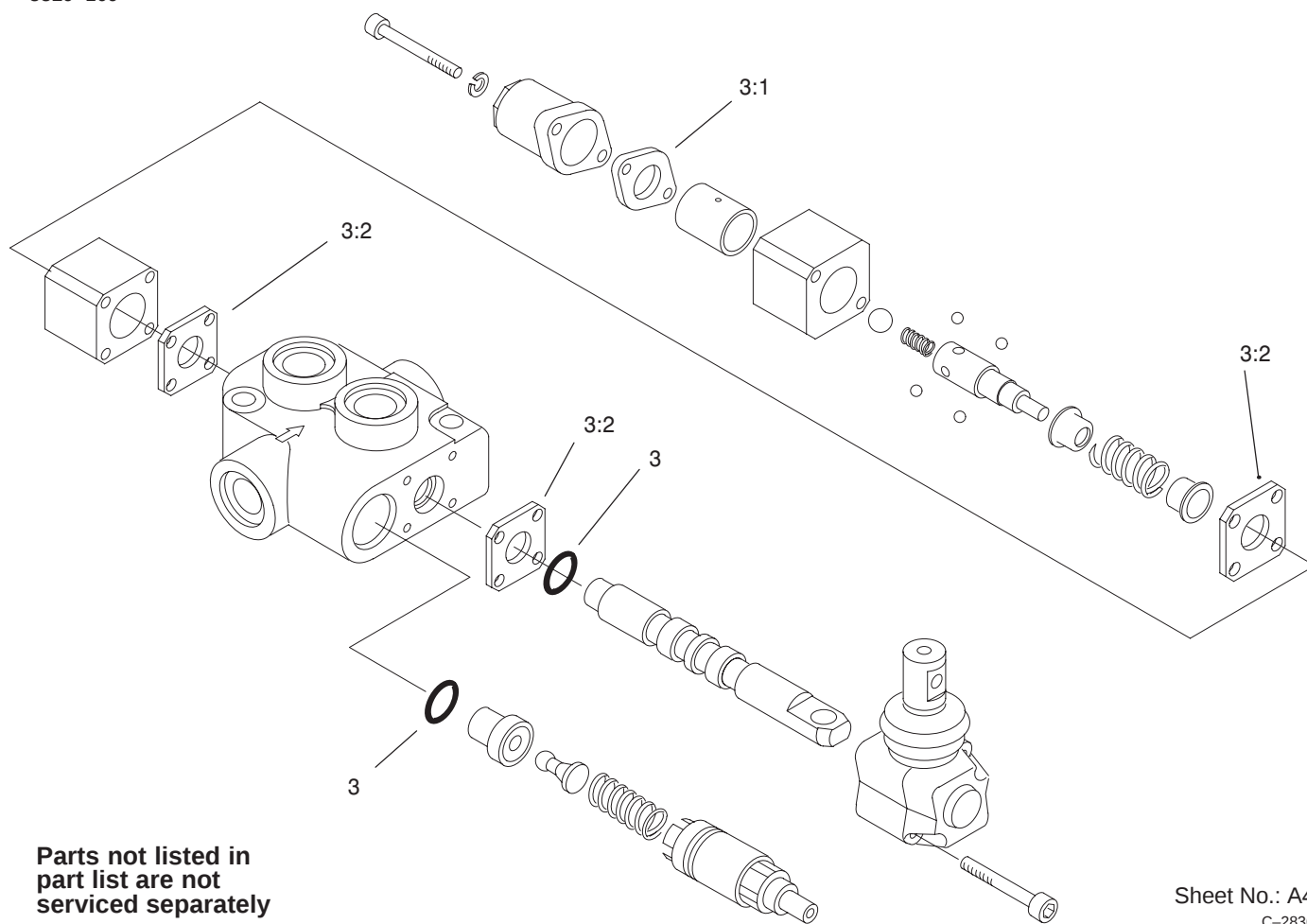
Ref. No.	Part No.	Qty.	Description



Sheet No.: 11

Hydraulic Valve Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	99-3077	1	Valve-HYD, Auxiliary	22	100-8817	2	HYD Hose ASM
2	99-3030	1	HYD Tube ASM	23	98-4724	1	HYD Tube ASM
3	94-6031	2	Fitting-HYD	25	98-9079	1	Adapter-Tee, Adjustable
3:1	237-30	1	O-Ring	25:1	237-30	1	O-Ring
4	340-98	3	Fitting-HYD, 90°	25:2	237-79	2	O-Ring
4:1	237-79	1	O-Ring	26	340-105	2	Fitting-HYD, 90°
4:2	237-30	1	O-Ring	26:1	237-80	1	O-Ring
5	98-4695	4	Spacer	26:2	237-30	1	O-Ring
6	42-9580	1	Nut-Hex	27	3256-22	2	Washer-Flat
11	98-4729	1	Lever-Valve	28	3256-23	4	Washer-Flat
12	340-4	4	Adapter-HYD	29	3296-29	4	Nut-Lock, NI
12:1	237-30	1	O-Ring	30	3296-42	2	Nut-Lock, NI
12:2	237-79	1	O-Ring	33	3290-379	18	Tie-Cable
13	98-4799	2	Tube-Spacer				
14	100-2245	1	Hose ASM				
15	98-4735	1	Valve-Check, HYD				
15:1	237-30	1	O-Ring				
15:2	237-79	1	O-Ring				
16	321-14	2	Screw-HH				
17	104-4221	1	Kit-Valve, HYD				
18	95-3209	1	Fitting-Thread, Straight				
18:1	237-79	2	O-Ring				
19	99-3072	1	Valve-Selector				
20	100-1730	2	Hose-Pump, HYD				
21	322-13	4	Screw-HH				

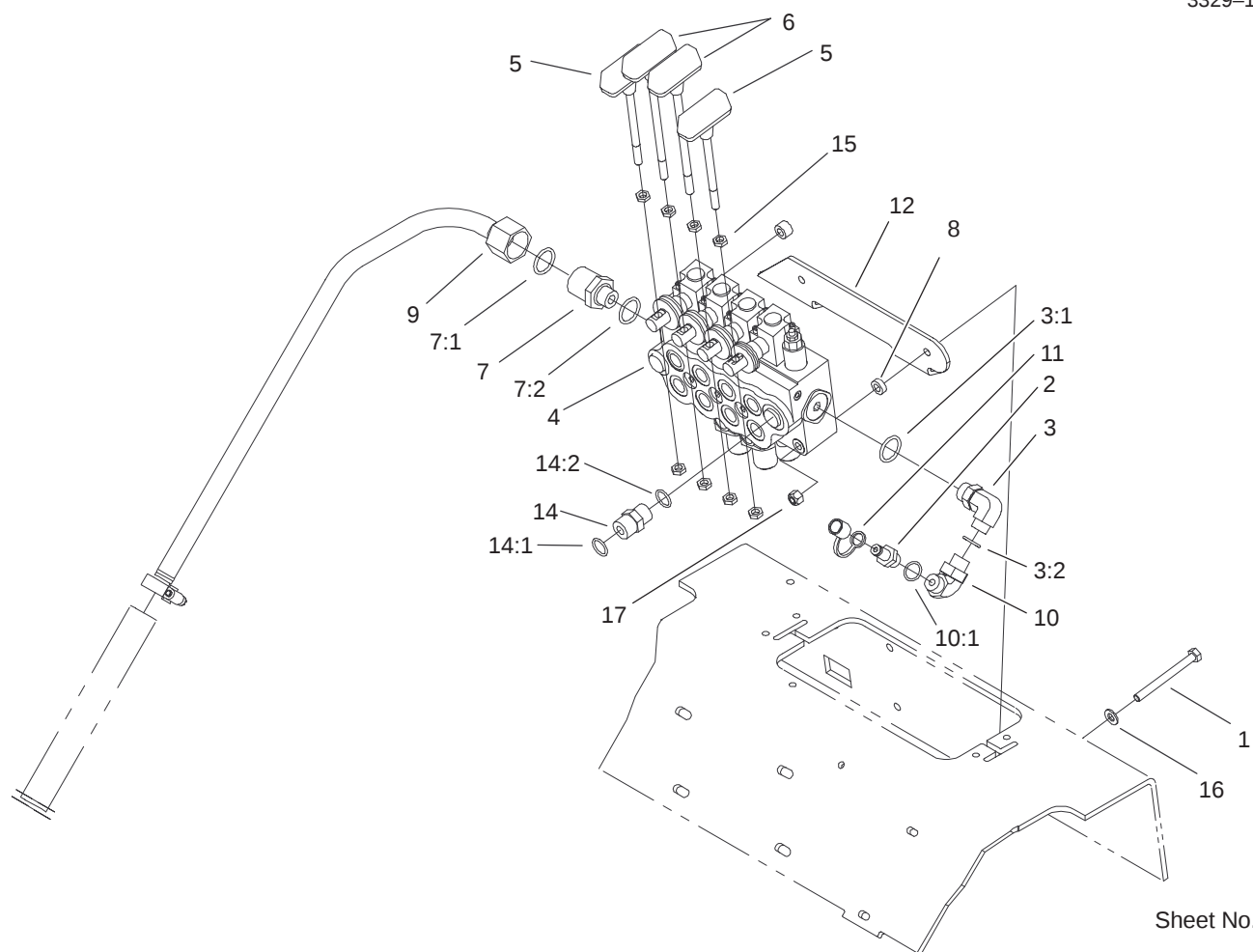


Sheet No.: A4
C-2836

Hydraulic Valve Assembly No. 99-3077

Ref. No.	Part No.	Qty.	Description
3	99-4391	1	Seal Kit
3:1	99-3074	1	Gasket
3:2	99-3075	3	Gasket

Ref. No.	Part No.	Qty.	Description



Sheet No.: 12

4-Spool Valve Assembly

Ref. No.	Part No.	Qty.	Description
1	322-20	3	Screw-HH
2	86-5480	1	Nipple-Test
3	340-18	1	Fitting-HYD, 90°
3:1	237-79	1	O-Ring
3:2	237-22	1	O-Ring
4	99-3070	1	Valve-HYD, 4-Spool
5	98-4671	2	Cylinder Handle ASM
6	98-4670	2	Drive Handle ASM
7	98-9921	1	Fitting-Thread, Straight
7:1	237-145	1	O-Ring
7:2	237-79	1	O-Ring
8	99-3078	2	Spacer
9	99-3021	1	HYD Tube ASM
10	340-159	1	Fitting-HYD, 90°
10:1	237-22	2	O-Ring
11	354-79	1	Cap-Dust
12	104-4222-03	1	Bracket-Cover, Mount
14	340-4	2	Adapter-HYD
14:1	237-30	1	O-Ring
14:2	237-79	1	O-Ring
15	42-9580	8	Nut-Hex
16	3256-23	3	Washer-Flat
17	3296-29	3	Nut-Lock, NI
18	98-4695	1	Spacer

Ref. No.	Part No.	Qty.	Description

Exploded view diagram of a hydraulic valve assembly. The diagram shows the following components and their assembly relationships:

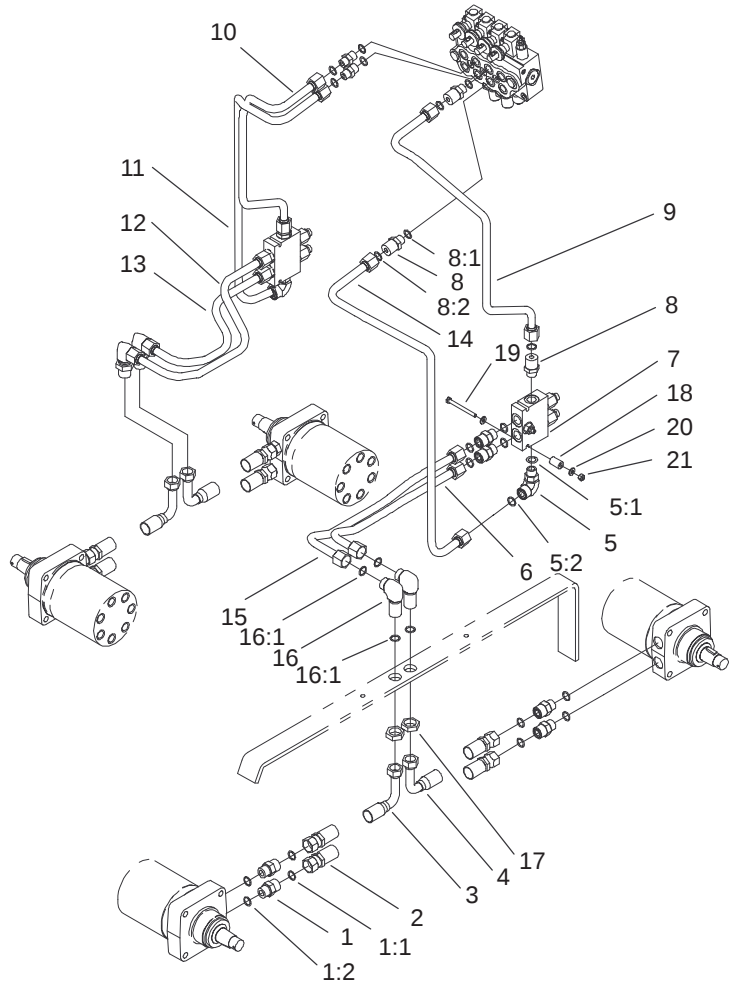
- 1**: Main valve body with multiple ports.
- 2**: Spring-loaded plunger/poppet assembly that fits into the main body.
- 3:1** and **3:2**: Two different types of O-rings used for sealing.
- 4**: A long, threaded rod or pin.
- 5**: A small, cylindrical component, possibly a seal or bush.
- 6**: A small, cylindrical component, possibly a seal or bush.
- 7**: A small, cylindrical component, possibly a seal or bush.
- 8**: A small, cylindrical component, possibly a seal or bush.
- 9**: A long, threaded rod or pin, similar to 4 but with different threading.
- 10**: A small, cylindrical component, possibly a seal or bush.
- 11**: A small, cylindrical component, possibly a seal or bush.
- 12**: A small, cylindrical component, possibly a seal or bush.
- 13**: A small, cylindrical component, possibly a seal or bush.
- 14**: A small, cylindrical component, possibly a seal or bush.

The diagram illustrates the assembly of the valve, showing how the plunger (2) is inserted into the body (1) and how the various O-rings (3:1, 3:2) and pins (4, 9) are used to secure the components.

Sheet No.: A7
C-2984

Ref. No.	Part No.	Qty.	Description
3	99-4390	1	Kit-Seal
3:1	99-3074	4	Gasket
3:2	99-3075	8	Gasket
5	100-8801	4	Kit-Spring, High Force
6	100-8802	8	Screw-Cap, End
7	100-8803	4	Screw
8	100-8804	2	Block-Mount, Switch
9	100-8805	1	Valve-Relief
10	100-8806	8	Screw
11	100-8807	4	Operator ASM
14	100-8829	4	Boot

Ref. No.	Part No.	Qty.	Description

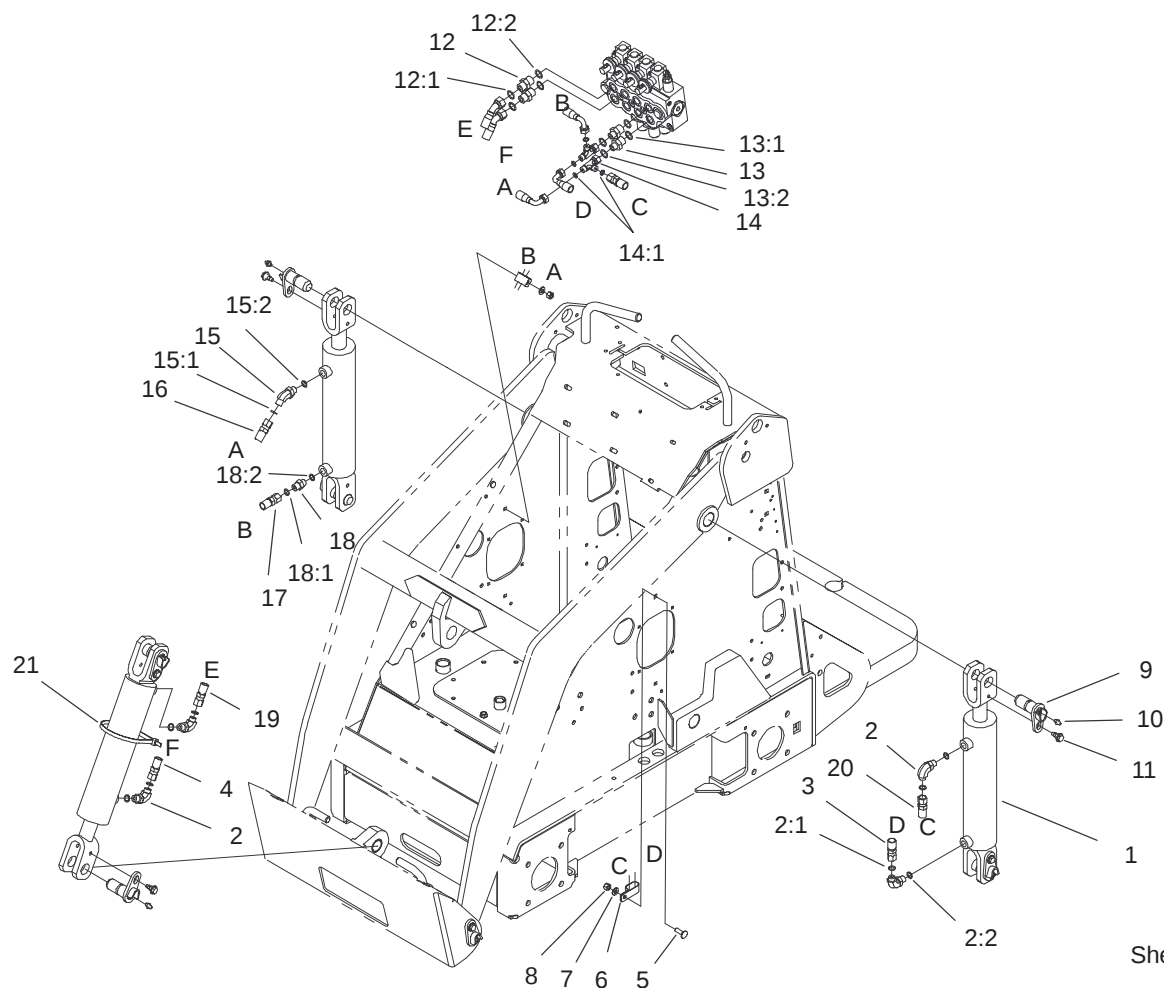


Sheet No.: 13

Hydraulic Motor Assembly

Ref. No.	Part No.	Qty.	Description
1	340-7	8	Adapter
1:1	237-65	1	O-Ring
1:2	237-80	1	O-Ring
2	99-3012	2	HYD Hose ASM
3	99-3010	2	HYD Hose ASM
4	99-3011	2	HYD Hose ASM
5	340-153	2	Fitting-HYD
5:1	237-79	1	O-Ring
5:2	237-151	1	O-Ring
6	99-3022	1	HYD Tube ASM
7	99-3040	2	Valve-Counterbalance
8	340-155	10	Fitting-HYD
8:1	237-79	1	O-Ring
8:2	237-151	1	O-Ring
9	99-3027	1	HYD Tube ASM
10	99-3024	1	HYD Tube ASM
11	99-3029	1	HYD Tube ASM
12	99-3025	1	HYD Tube ASM
13	99-3028	1	HYD Tube ASM
14	99-3023	1	HYD Tube ASM
15	99-3026	1	HYD Tube ASM
16	340-72	4	Fitting-HYD, Bulkhead, 90°
16:1	237-65	2	O-Ring
17	340-74	4	Locknut-Bulkhead
18	99-3057	2	Spacer-Valve

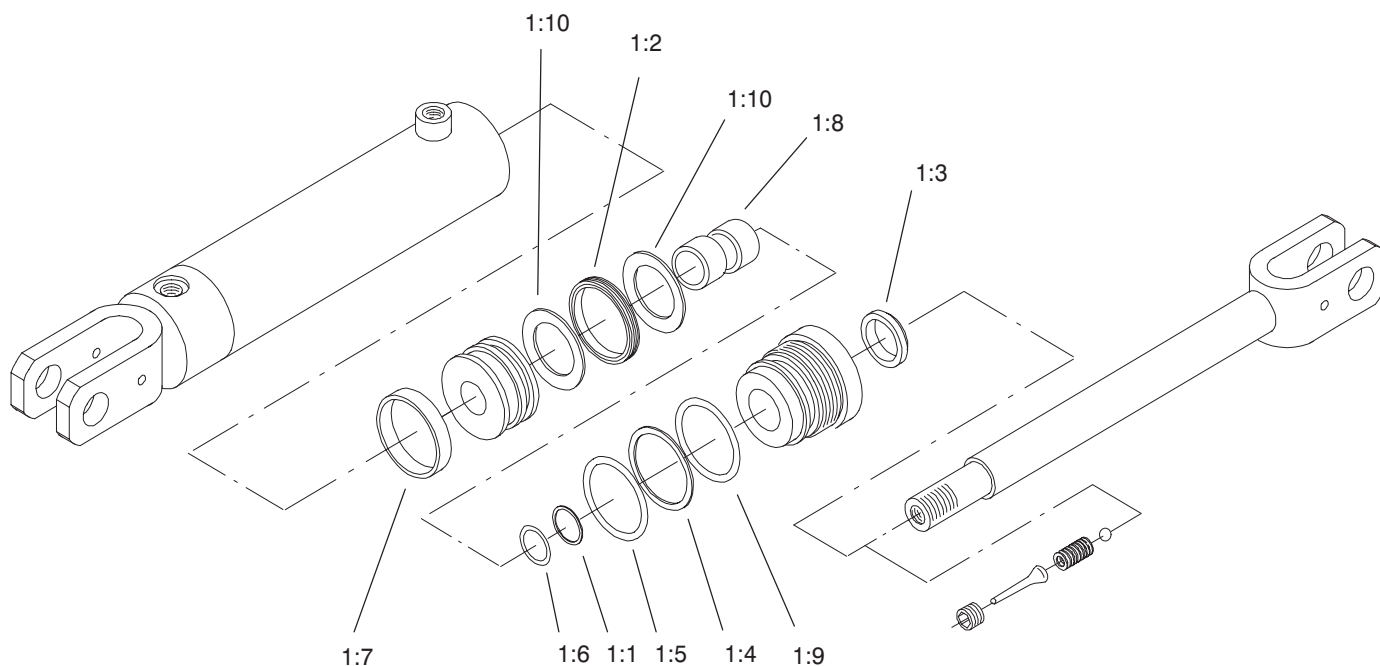
Ref. No.	Part No.	Qty.	Description
19	321-23	2	Screw-HH
20	3256-22	4	Washer-Flat
21	3296-42	2	Nut-Lock, NI



Sheet No.: 14

Hydraulic Cylinder Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	100-4163	3	Kit-Cylinder	18	340-1	1	Adapter
2	340-82	4	Adapter	18:1	237-35	1	O-Ring
2:1	237-42	1	O-Ring	18:2	237-42	1	O-Ring
2:2	237-21	1	O-Ring	19	98-4727	1	Hose-HYD
3	98-4748	1	HYD Hose ASM	20	99-3109	1	HYD Hose ASM
4	98-4726	1	Hose-HYD	21	3334-945	1	Tie-Cable
5	3230-2	2	Bolt-CARR				
6	2412-137	2	Clamp-Tube				
7	3256-23	2	Washer-Flat				
8	3296-29	2	Nut-Lock, NI				
9	99-1414	6	Pin-Pivot				
10	302-5	6	Fitting-Grease				
11	99-5105	6	Bolt-Shoulder				
12	340-3	2	Adapter				
12:1	237-22	1	O-Ring				
12:2	237-79	1	O-Ring				
13	340-133	2	Adapter				
13:1	237-79	1	O-Ring				
13:2	237-21	1	O-Ring				
14	340-151	2	Fitting				
14:1	237-75	3	O-Ring				
15	340-137	1	Fitting				
15:1	237-21	1	O-Ring				
15:2	237-42	1	O-Ring				
16	98-4725	1	HYD Hose ASM				
17	100-1731	1	Hose-HYD, Right				



**Parts not listed in
part list are not
serviced separately**

Sheet No.: A9

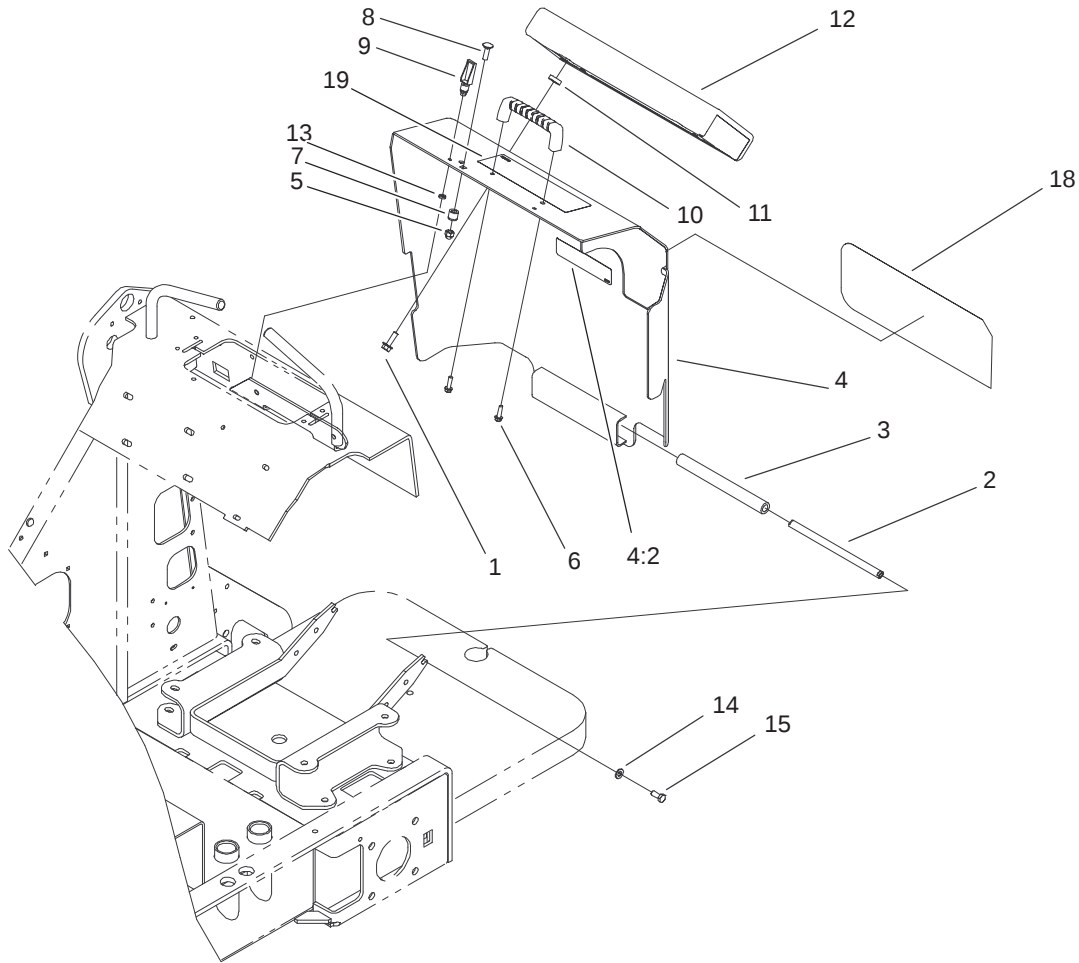
C-2985

Hydraulic Cylinder Assembly No. 100-4163

Ref. No.	Part No.	Qty.	Description
1	99-3065	1	Kit-Seal
☆1:1		1	Washer-Backup
☆1:2		1	Psp Seal
☆1:3		1	Rod-Wiper
☆1:4		1	Washer-Backup
☆1:5		1	O-Ring
☆1:6		1	Polypack
☆1:7		1	Wear Ring
☆1:8		1	Wear Ring
☆1:9		1	O-Ring
☆1:10		1	Washer-Backup

Ref. No.	Part No.	Qty.	Description

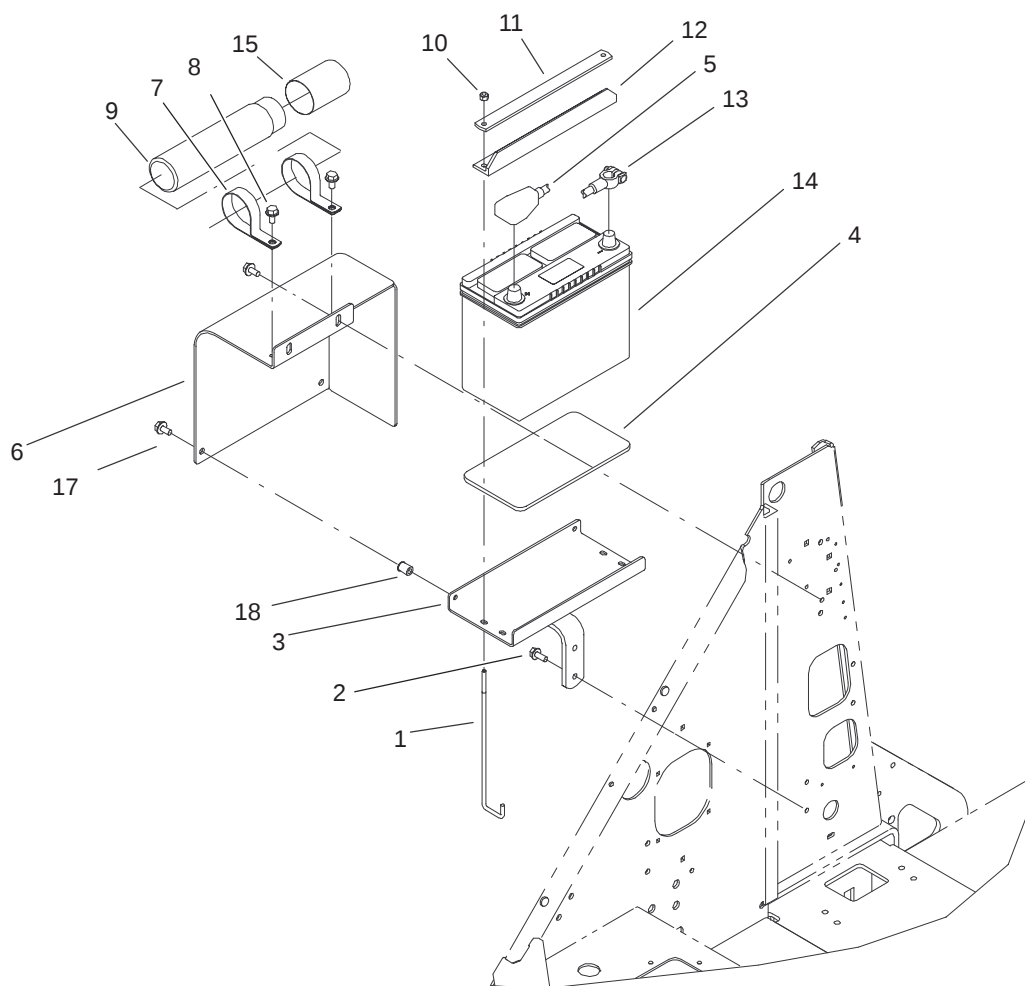
☆ Not serviced separately



Sheet No.: 15

Rear Cover Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	3234-29	4	Screw-HHF				
2	99-3083	1	Bar-Hinge				
3	99-3085	1	Hose-Hinge				
4	104-9450	1	Cover ASM				
4:2	93-7814	1	Decal-Danger				
5	32111-8	1	Locknut-Acorn				
6	46-8091	2	Screw-HWH				
7	99-3035	1	Spacer-Guide				
8	3230-22	1	Screw-CARR				
9	74-5950	2	Latch-Swell				
10	65-5100	1	Handle-Door				
11	26-4840	4	Spacer-Pin, Mounting				
12	99-3101	1	Cover-Pad				
13	99-3058	2	Washer				
14	3256-23	2	Washer-Flat				
15	322-3	2	Screw-HH				
18	93-7340	1	Decal-Toro				
19	98-9051	1	Decal-Danger				

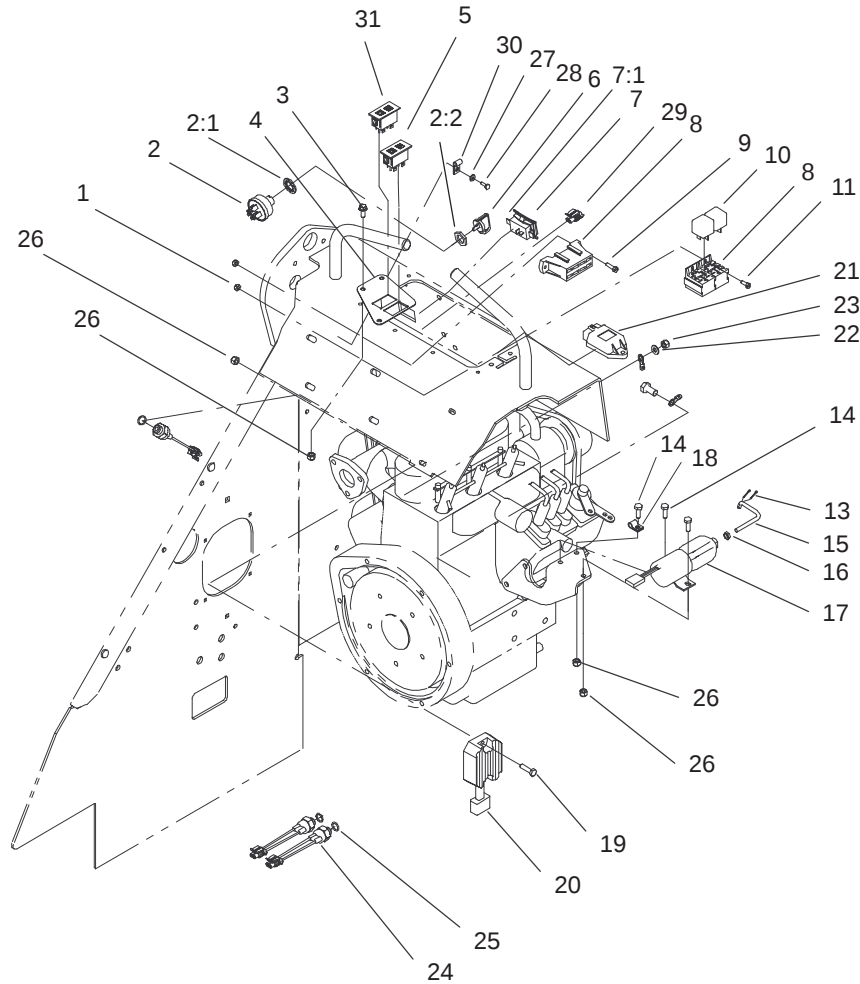


Sheet No.: 17

Battery Mount Assembly

Ref. No.	Part No.	Qty.	Description
1	99-5035	2	Retainer-Battery
2	32144-70	2	Screw-HH
3	98-2665-03	1	Battery Mount
4	99-5030	1	Pad-Battery
5	100-1708	1	Cable-Battery, Positive
6	98-2670-03	1	Cover-Battery
7	2412-133	2	R-Clamp
8	32144-14	4	Screw-HWH
9	104-7050	1	Housing-Manual
10	3296-42	2	Nut-Lock, NI
11	99-5008-01	1	Retainer-Battery
12	99-5039	1	Retainer-Battery
13	100-1709	1	Cable-Battery, Negative
14	99-1441	1	Battery
15	104-7048	1	Cap-Housing
17	3234-29	2	Screw-HHF
18	32148-7	2	Insert-Nut

Ref. No.	Part No.	Qty.	Description



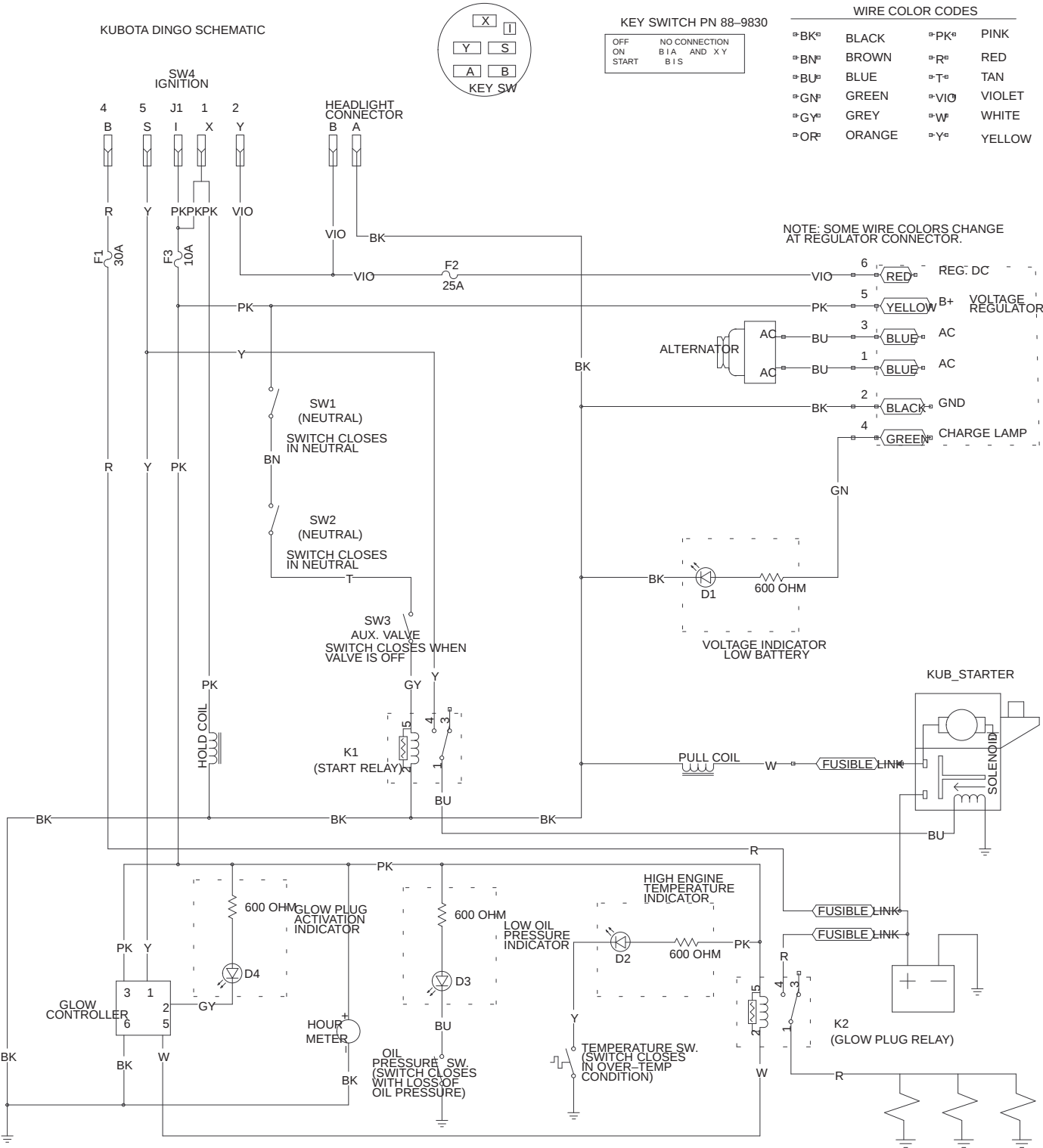
Sheet No.: 18

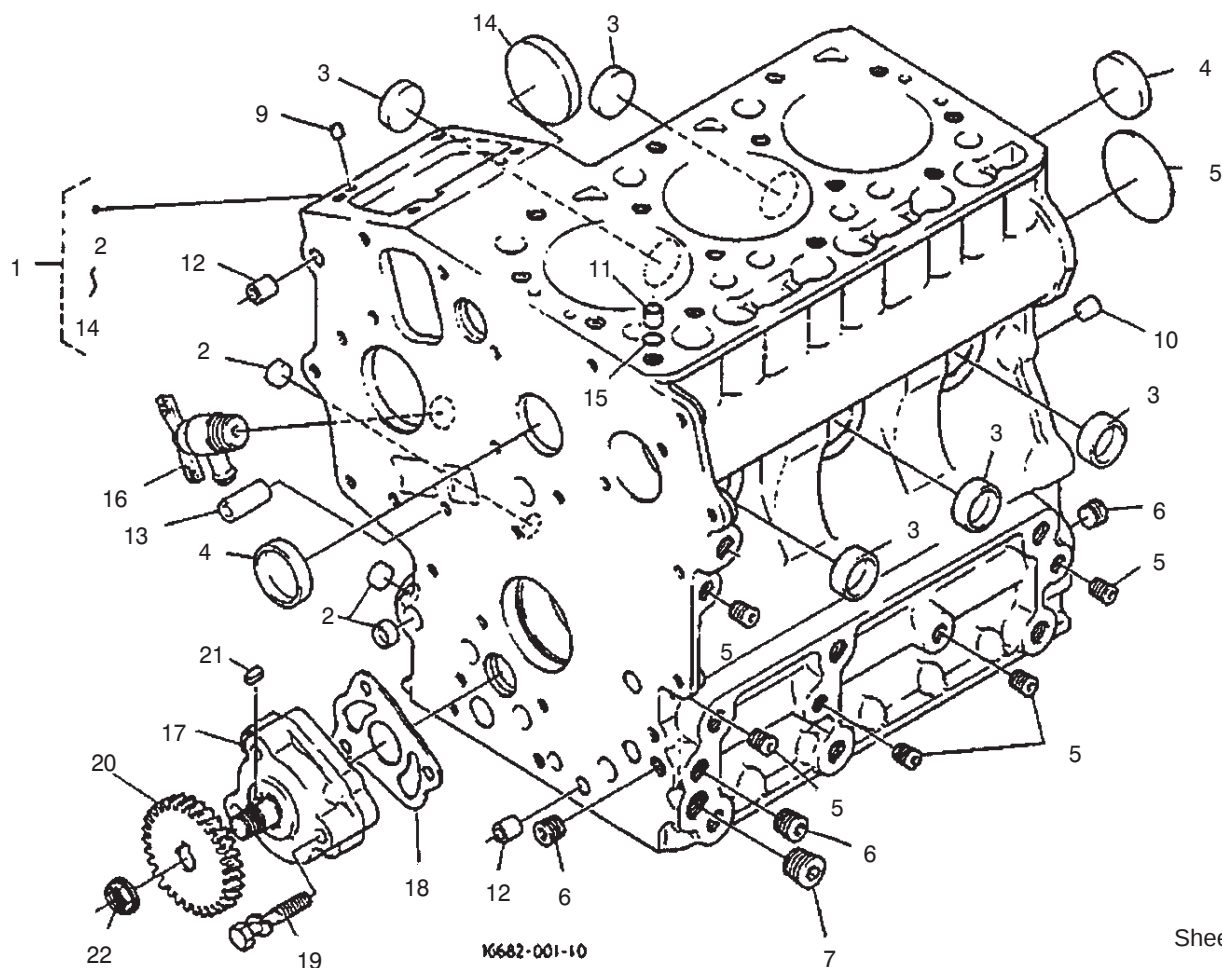
Electrical Components Assembly

Ref. No.	Part No.	Qty.	Description
1	3296-12	4	Nut-Lock
2	88-9830	1	Key Switch ASM
2:1	3254-5	1	Washer-Tooth
2:2	218-461	1	Nut-HH
3	3234-33	3	Screw-HHF
4	105-1249-01	1	Mount-Lamp, Warning
5	100-8070	1	Lamp-Warning
6	63-8360	2	Key-Ignition
7	104-7429	1	Meter-Hour
7:1	104-4234	1	Clip-Mounting
8	105-4069	1	Harness-Wire
9	32105-13	2	Screw-SHH
10	98-7249	2	Relay
11	32105-8	1	Screw
13	3272-1	2	Pin-Cotter
14	321-4	3	Screw-HH
15	105-6243	1	Rod-Linkage
16	3220-1	1	Nut-Jam
17	99-5006	1	Solenoid
18	2412-31	1	Clamp-Boden
19	321-6	3	Screw-HH
20	100-2057	1	Regulator ASM
21	98-7611	1	Controller-Glow
22	100-2215	1	Washer-Spring
23	100-2171	1	Nut-Hexagon
24	72-4310	3	Switch-Ball

Ref. No.	Part No.	Qty.	Description
25	237-42	3	O-Ring
26	3296-42	9	Nut-Lock, NI
27	3256-21	1	Washer-Flat
28	32144-87	1	Screw-Forming, Thread
29	99-1433	2	Connector-Female
30	2412-72	1	Clip-Closed, Insulated
31	100-8071	1	Lamp-Warning

Electrical Schematic



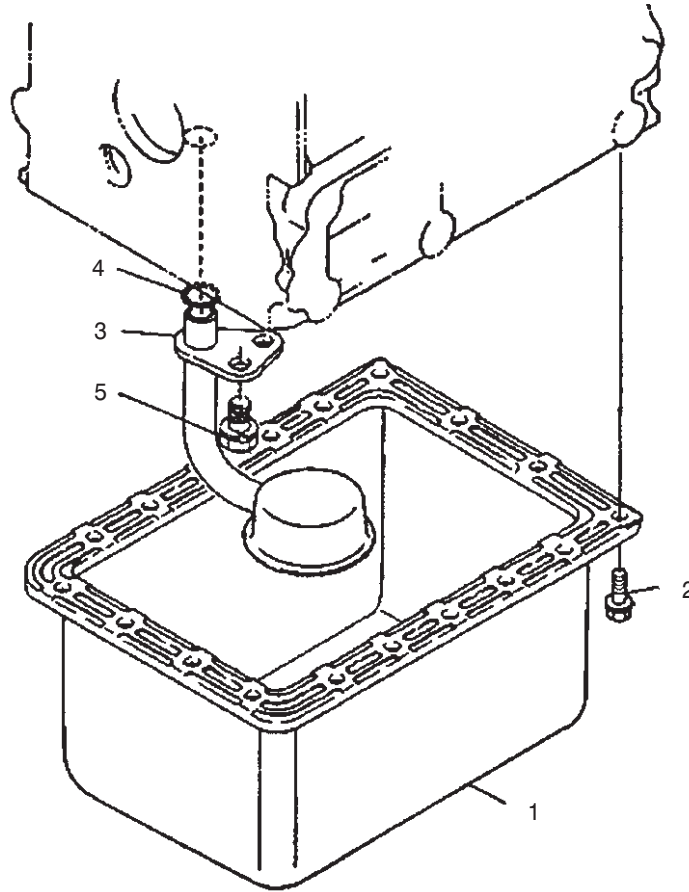


Sheet No.:2

Crankcase Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2167	1	Crankcase-Comp.
2	100-2019	3	Cap-Sealing
3	100-2020	5	Cap-Sealing
4	98-9398	2	Cap-Sealing
5	98-7540	5	Cap-Sealing
6	98-7487	3	Plug
7	98-7488	1	Plug
8	100-1851	1	Plug
9	98-9375	2	Pin-Straight
10	98-9377	2	Pin-Straight
11	98-7506	1	Pin-Pipe
12	98-9387	2	Pin-Pipe
13	100-2051	2	Pin-Pipe
14	100-1991	1	Cover-Fuel, Camshaft
15	98-7509	1	O-Ring
16	98-9436	1	Drain Cock ASM
17	100-2002	1	Oil Pump ASM
18	100-2003	1	Gasket-Pump, Oil
19	100-1923	3	Bolt
20	100-1893	1	Gear-Drive, Oil Pump
21	98-7658	1	Key-Feather
22	100-1779	1	Nut-Flange

Ref. No.	Part No.	Qty.	Description



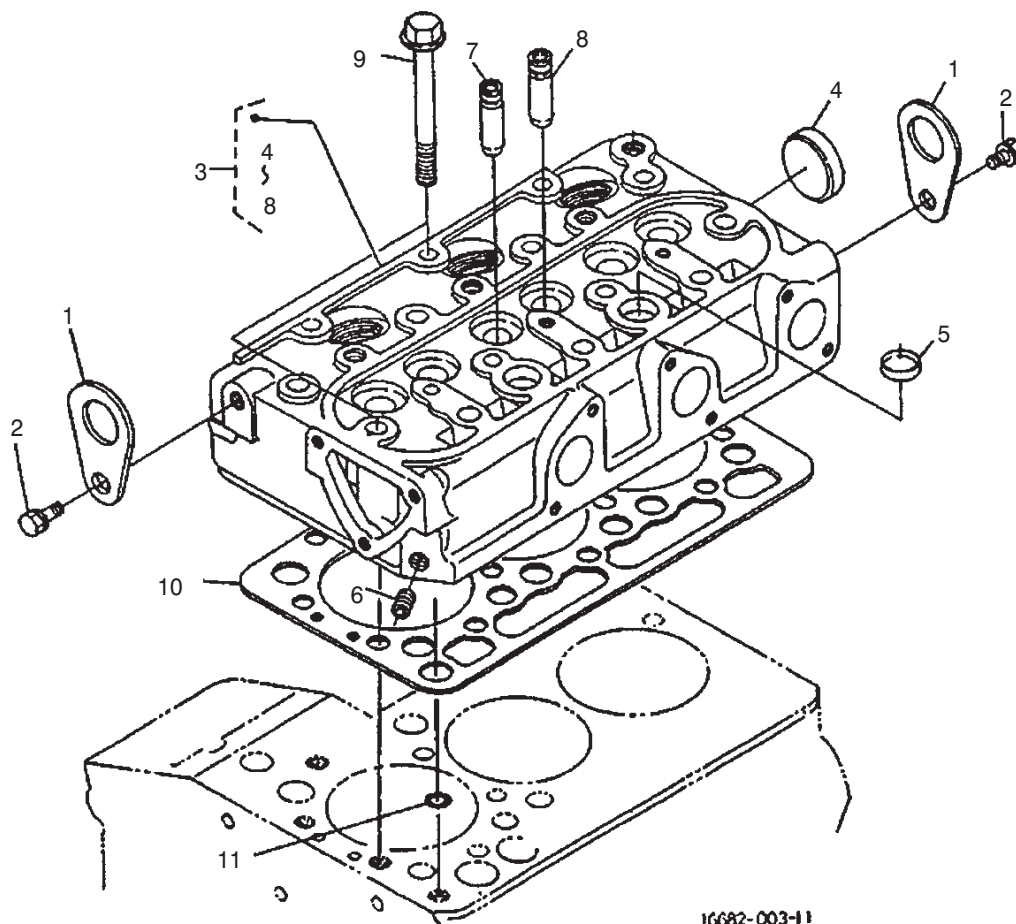
16602-002-10

Sheet No.:3

Oil Pan Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2239	1	Pan-Oil, Comp.
2	98-9350	18	Bolt
3	100-2001	1	Filter-Oil
4	100-2205	1	O-Ring
5	98-7585	1	Bolt

Ref. No.	Part No.	Qty.	Description



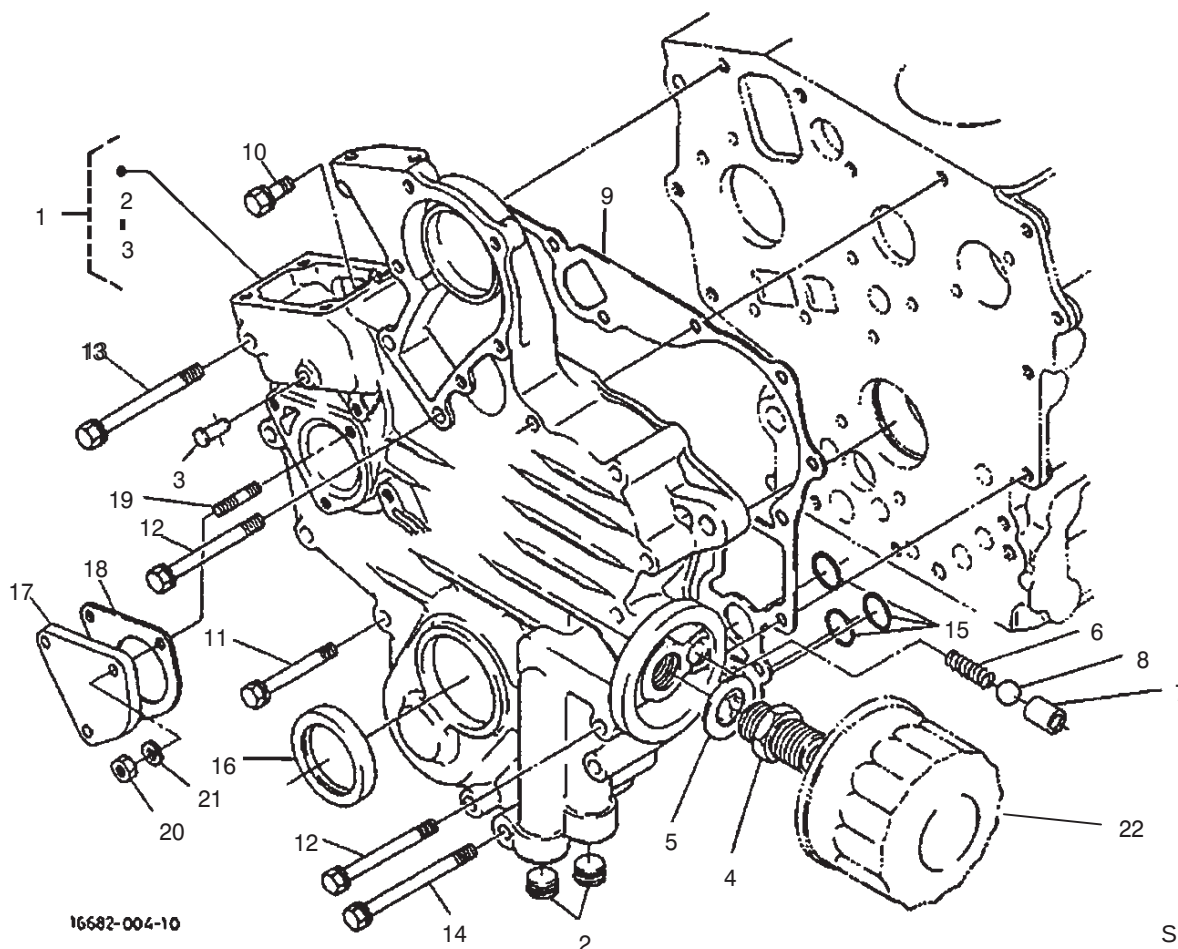
16682-003-11

Sheet No.:4

Cylinder Head Assembly

Ref. No.	Part No.	Qty.	Description
1	98-7531	2	Hook-Engine
2	98-7526	2	Bolt
3	100-2246	1	Head-Cylinder, Comp.
4	98-9395	1	Cap-Sealing
5	98-9389	2	Cap-Sealing
6	98-7540	1	Cap-Sealing
7	100-1882	3	Guide-Valve, Inlet
8	100-1883	3	Guide-Valve, Exhaust
9	100-1820	14	Bolt-Head, Cylinder
10	100-2043	1	Gasket-Head, Cylinder
11	98-7509	1	O-Ring

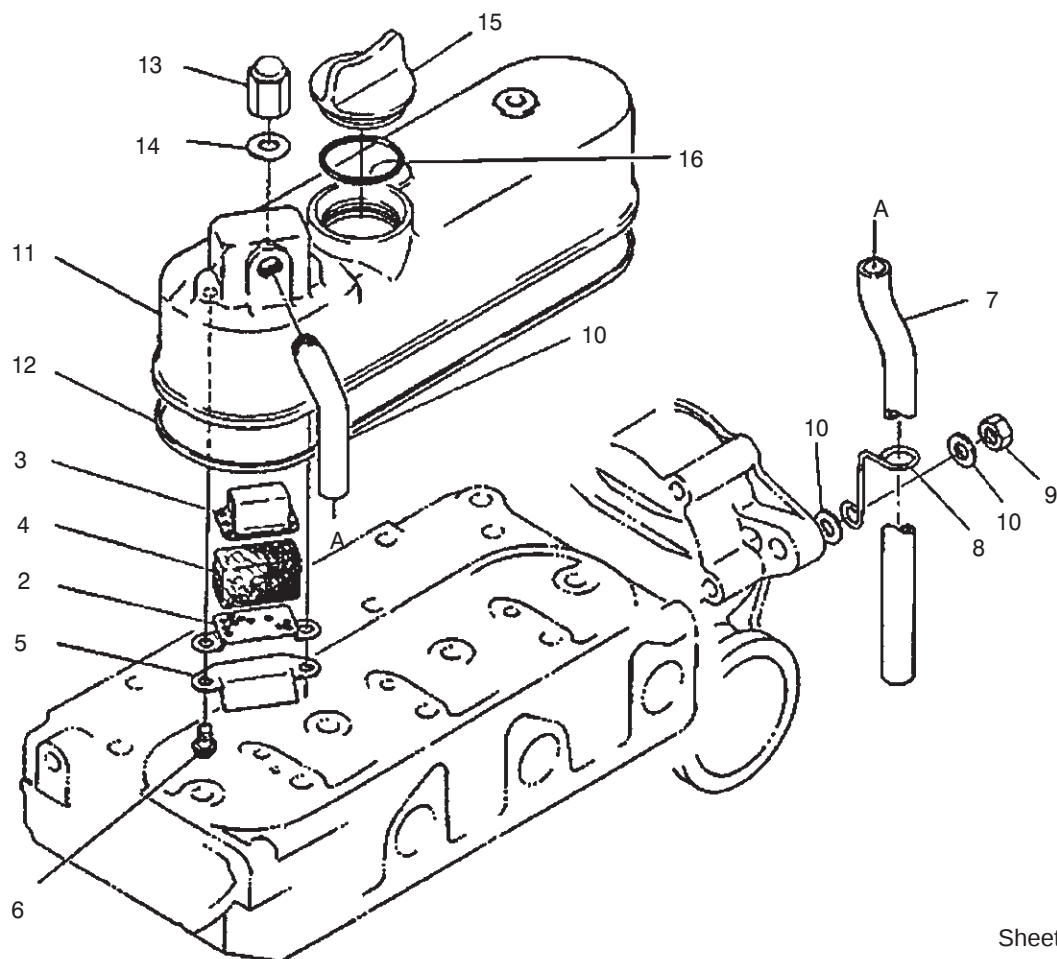
Ref. No.	Part No.	Qty.	Description



Sheet No.:5

Gear Case Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2048	1	Case-Gear, Comp.
2	98-7546	2	Plug
3	100-1910	1	Pin-Spring, Start
4	98-9388	1	Joint-Pipe
5	100-1926	1	Washer-Plain
6	100-2004	1	Spring
7	100-1894	1	Seat-Valve
8	100-1792	1	Ball
9	100-1954	1	Gasket-Case, Gear
10	98-7605	1	Bolt
11	100-2201	8	Bolt
12	100-1922	5	Bolt
13	100-1766	1	Bolt
14	100-1767	1	Bolt
15	100-2206	3	O-Ring
16	100-1971	1	Seal-Oil
17	100-2060	1	Cover
18	100-2061	1	Gasket-Gearcase, H/M
19	98-7571	3	Stud
20	98-7572	3	Nut
21	98-9367	3	Washer-Spring
22	100-1892	1	Cartridge-Filter, Oil

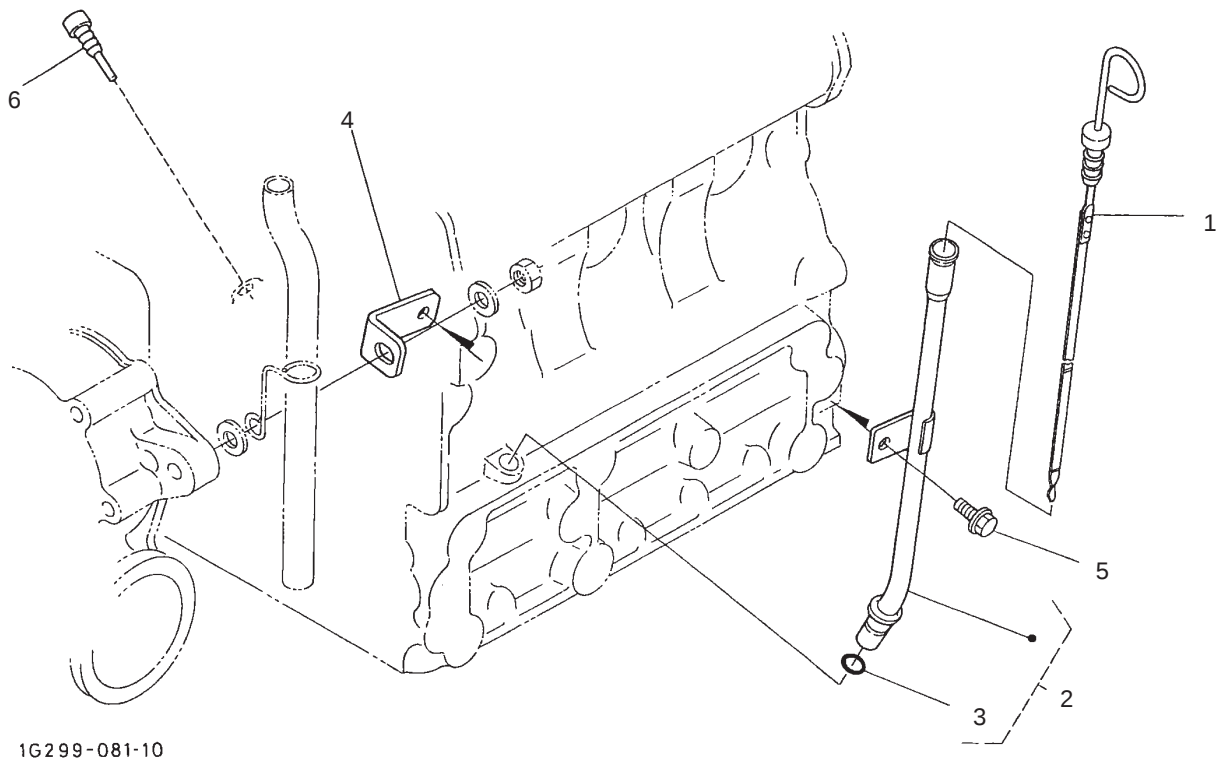


Sheet No.:6

Head Cover Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1972	1	Joint-Pipe, Breather
2	100-1877	1	Plate-Element
3	100-1878	1	Plate-Element
4	100-1881	1	Element-Breather
5	100-1879	1	Breather-Shield, Oil
6	100-2040	2	Screw
7	100-1880	1	Pipe-Breather
8	100-1973	1	Clamp-Pipe
9	98-7739	1	Nut
10	98-7660	2	Washer-Plain
11	100-2029	1	Cover-Head, Cylinder
12	100-2030	1	Gasket-Cover, Head
13	98-7655	3	Nut-Cap
14	98-7654	3	Gasket
15	98-9449	1	Plug-Filler, Oil
16	99-3446	1	O-Ring

Ref. No.	Part No.	Qty.	Description

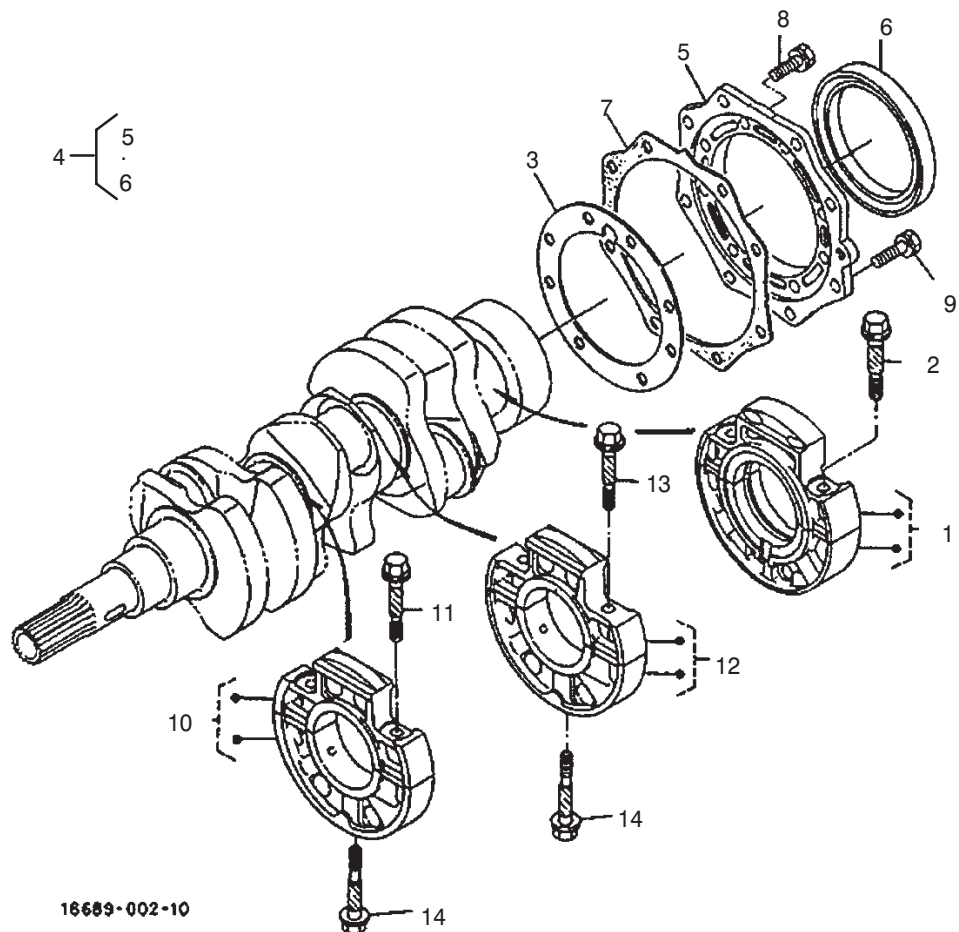


Sheet No.:7

Dipstick and Guide Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2247	1	Gauge-Oil
2	100-2249	1	Oil Gauge Guide ASM
3	98-9374	1	O-Ring
4	100-2248	1	Support-Guide, Gauge
5	100-1774	1	Bolt-Flange
6	100-2229	1	Plug-Rubber

Ref. No.	Part No.	Qty.	Description

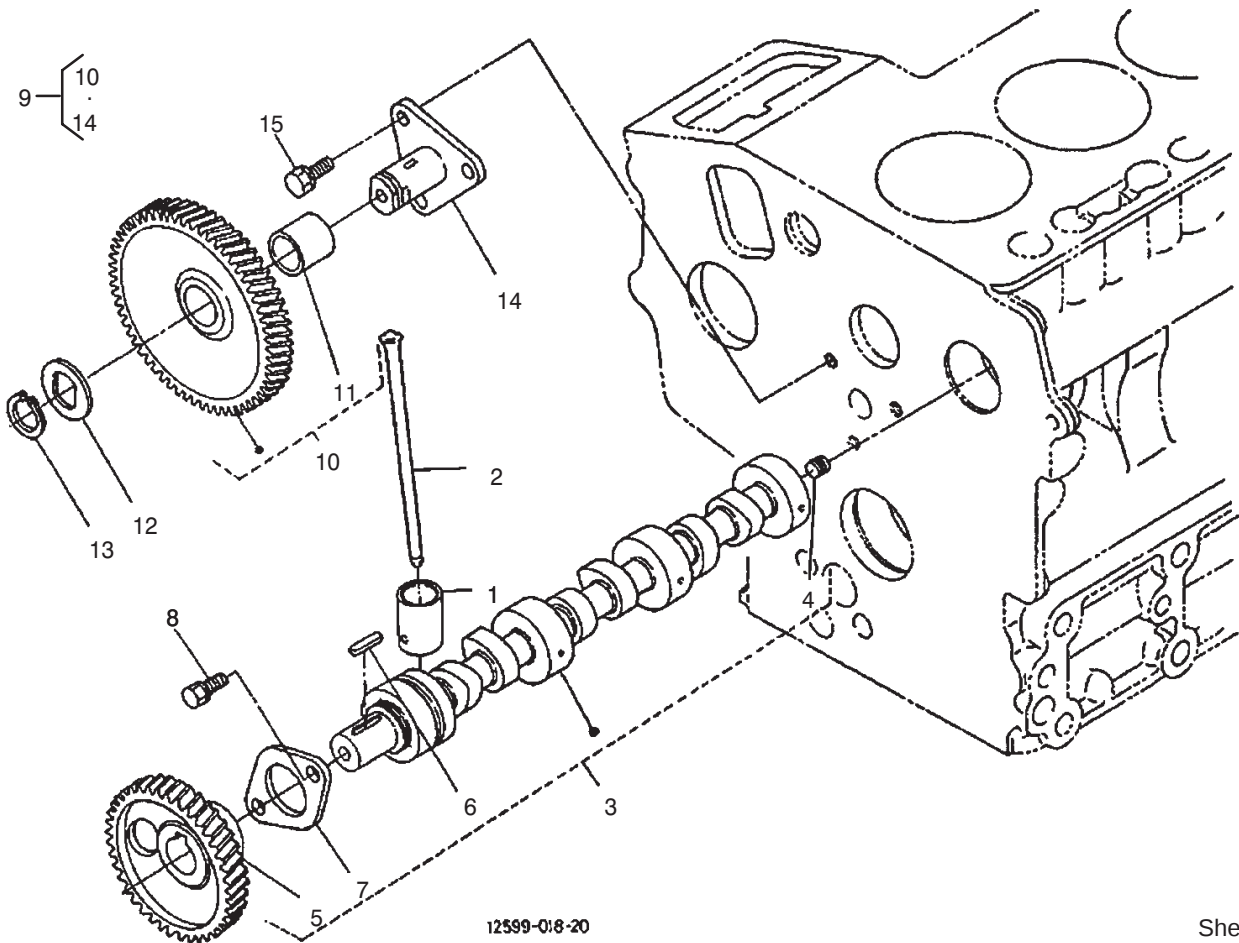


Sheet No.:8

Main Bearing Case Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1988	1	Main Brg. Case ASM
2	100-1757	2	Bolt-Case, Bearing
3	100-1929	1	Gasket-Case, Bearing
4	100-2233	1	Bearing Case Cover ASM
5	100-1875	1	Cover-Case, Bearing
6	100-2055	1	Seal-Oil
7	100-1876	1	Gasket-Case, Bearing
8	98-7568	8	Bolt
9	100-1750	8	Bolt
10	100-1987	1	Main Bearing Case ASM
11	100-1757	2	Bolt-Case, Bearing
12	100-2027	1	Main Bearing Case ASM
13	100-1757	2	Bolt-Case, Bearing
14	100-1874	2	Bolt-Case, Bearing

Ref. No.	Part No.	Qty.	Description

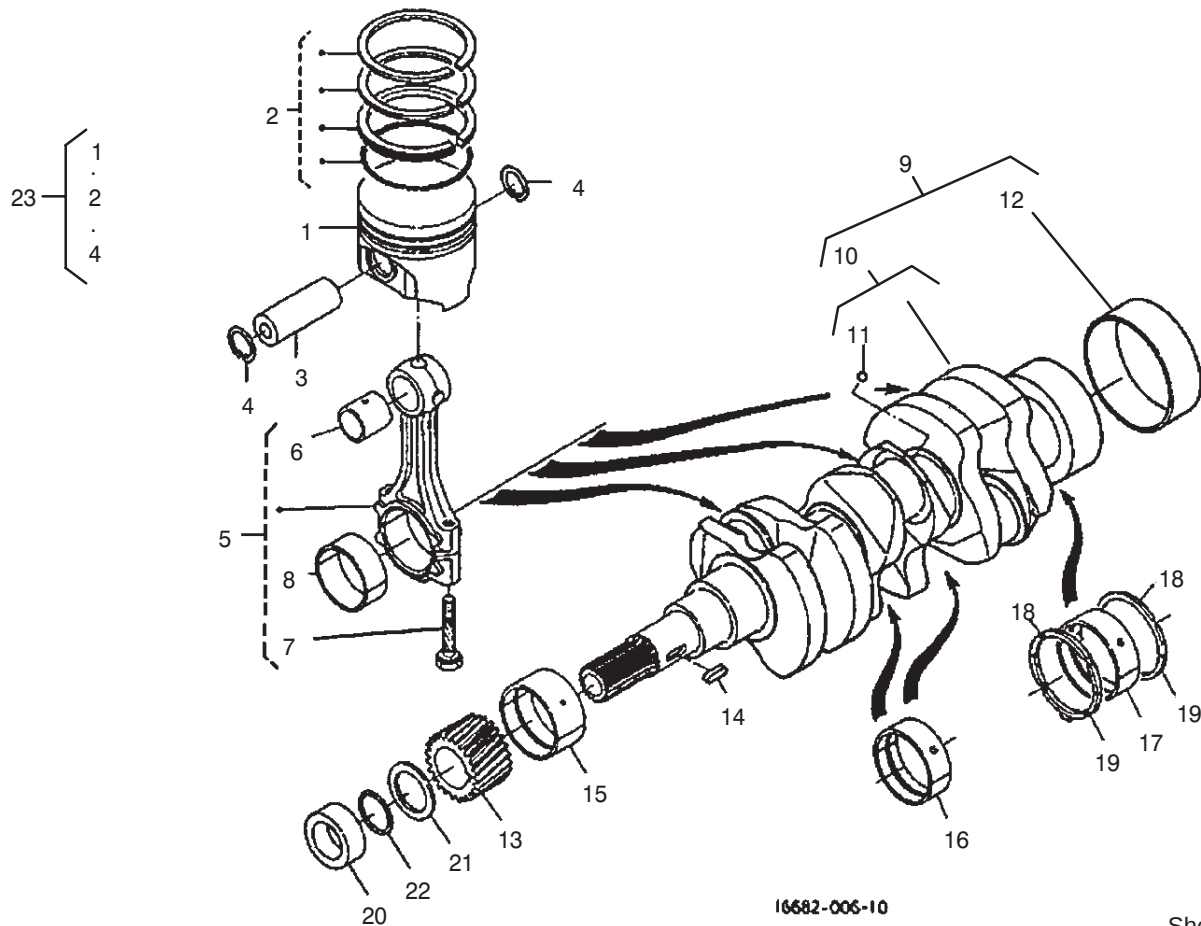


Sheet No.:9

Camshaft Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1990	6	Tappet
2	100-1989	6	Rod-Push
3	100-2162	1	Camshaft ASM
4	98-7449	1	Screw-Set
5	100-2163	1	Gear-Cam
6	98-9378	1	Key-Feather
7	100-1887	1	Camshaft-Stopper
8	98-9350	2	Bolt
9	100-2240	1	Ser/V Idle Gear ASM
10	100-1966	1	Gear-Idle, Comp.
11	100-1968	1	Bush
12	100-1970	1	Collar-Gear, Idle
13	100-1969	1	Ring-Snap
14	100-1967	1	Shaft-Gear, Idle
15	98-9351	3	Bolt

Ref. No.	Part No.	Qty.	Description



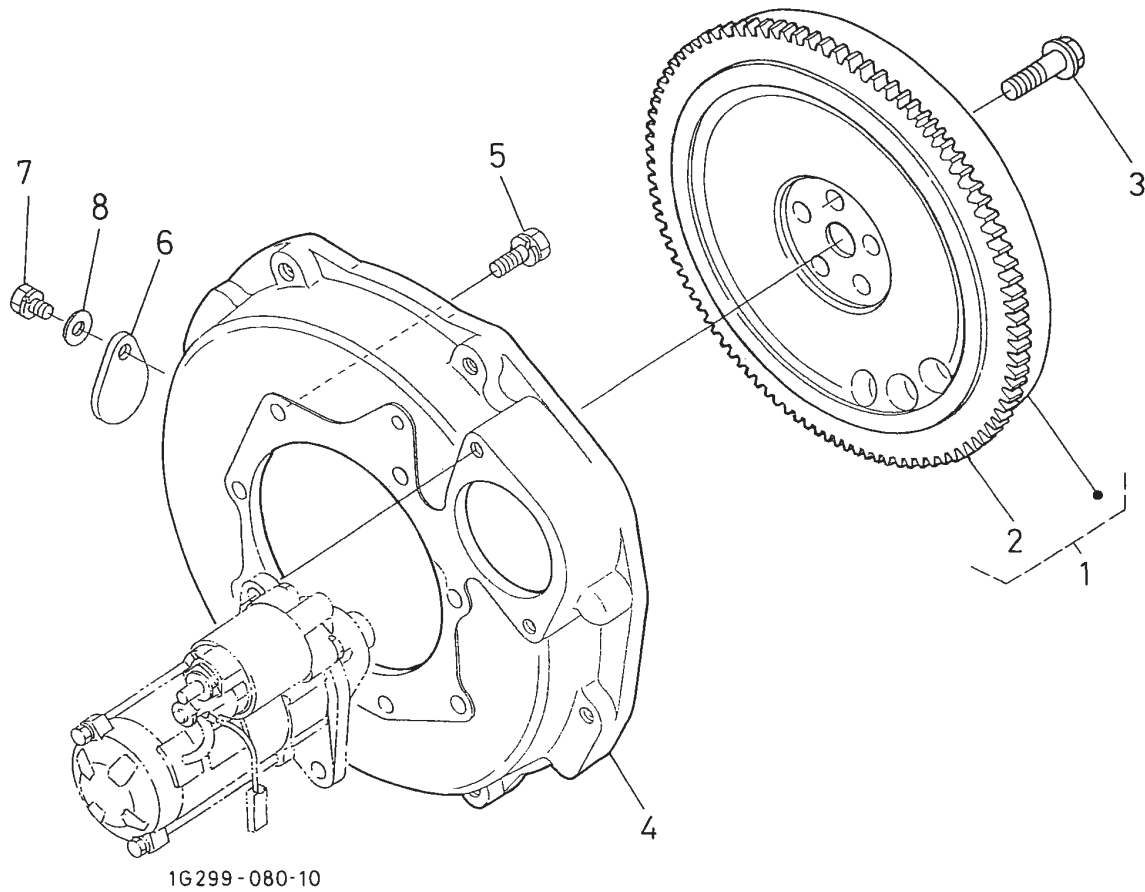
I6682-006-10

Sheet No.:10

Piston and Crankshaft Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1994	3	Piston (STD.)
1	100-1996	3	Piston (+0.25 Mm)
2	100-2158	3	Piston Ring ASM
2	100-2159	3	Piston Ring ASM
3	100-1995	3	Pin-Piston
4	100-1835	6	Cir-Cup, Piston Pin
5	100-1998	3	Connecting Rod ASM
6	100-1997	3	Bush-Pin, Piston
7	100-1999	6	Bolt-Rod, Connecting
8	100-1942	3	Crankpin-Metal (-0.2 Mm)
8	100-1943	3	Crankpin-Metal (-0.4 Mm)
8	100-2000	3	Crankpin-Metal (STD.)
9	100-2161	1	Crankshaft ASM
10	100-2160	1	Crankshaft-Comp.
11	100-1791	3	Ball
12	100-2054	1	Sleeve-Crankshaft
13	100-1891	1	Gear-Crankshaft
14	100-1752	1	Key-Feather
15	100-1944	1	Crankshaft-Metal (STD.)
15	100-1947	1	Crankshaft-Metal (-0.2 Mm)
15	100-1948	1	Crankshaft-Metal (-0.4 Mm)

Ref. No.	Part No.	Qty.	Description
16	100-1945	2	Crankshaft-Metal (-0.2 Mm Set)
16	100-1946	2	Crankshaft-Metal (-0.4 Mm Set)
16	100-2033	2	Crankshaft-Metal (STD. Set)
17	100-1870	1	Crankshaft-Metal (-0.2 Mm Set)
17	100-1871	1	Crankshaft-Metal (-0.4 Mm Set)
17	100-2032	1	Crankshaft-Metal (STD. Set)
18	100-1836	2	Metal-Side (STD.)
18	100-1838	2	Metal-Side (+0.2 Mm)
18	100-1839	2	Metal-Side (+0.4 Mm)
19	100-1837	2	Metal-Side (STD.)
19	100-1840	2	Metal-Side (+0.2 Mm)
19	100-1841	2	Metal-Side (+0.4 Mm)
20	100-1890	1	Collar-Crankshaft
21	100-1974	1	Slinger-Oil
22	100-2209	1	O-Ring
23	100-2164	1	Kit-Piston

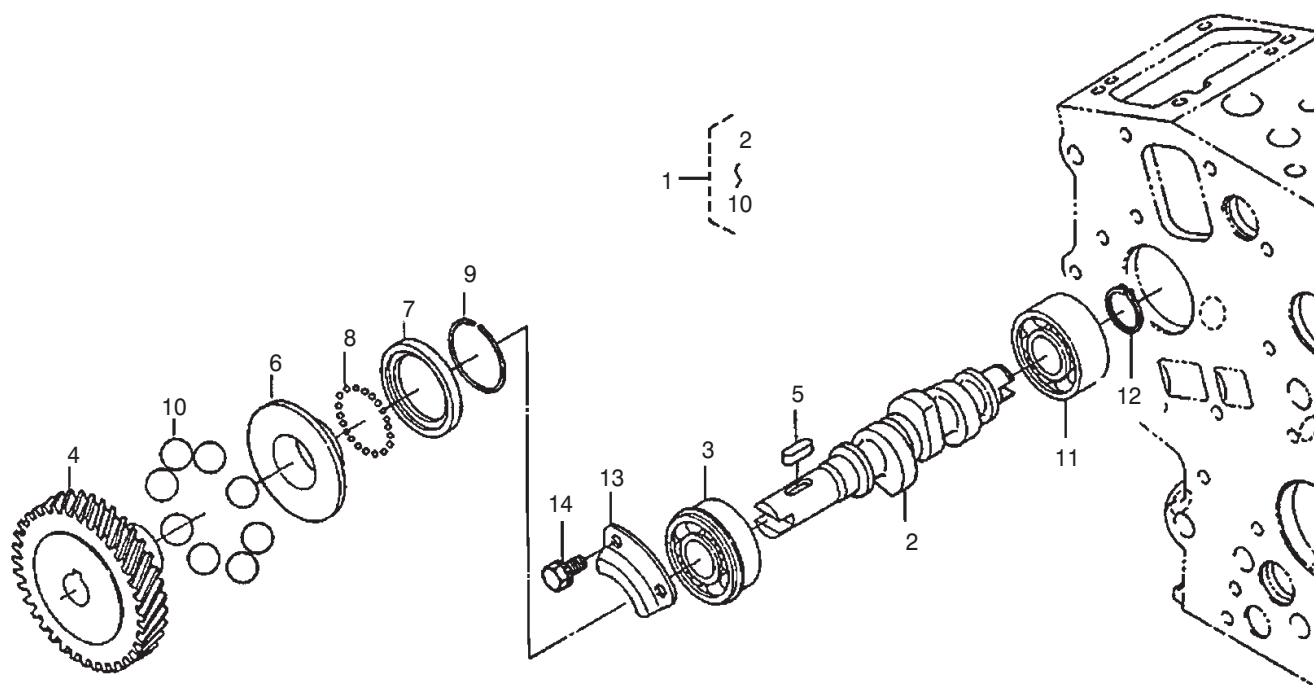


Sheet No.:11

Flywheel Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2034	1	Flywheel-Comp.
2	100-2156	1	Gear-Ring
3	100-1930	1	Bolt-Flywheel
4	100-2234	1	Housing-Flywheel
5	98-9359	10	Bolt
6	100-2177	1	Cover
7	98-7585	1	Bolt
8	98-7660	1	Washer-Plain

Ref. No.	Part No.	Qty.	Description



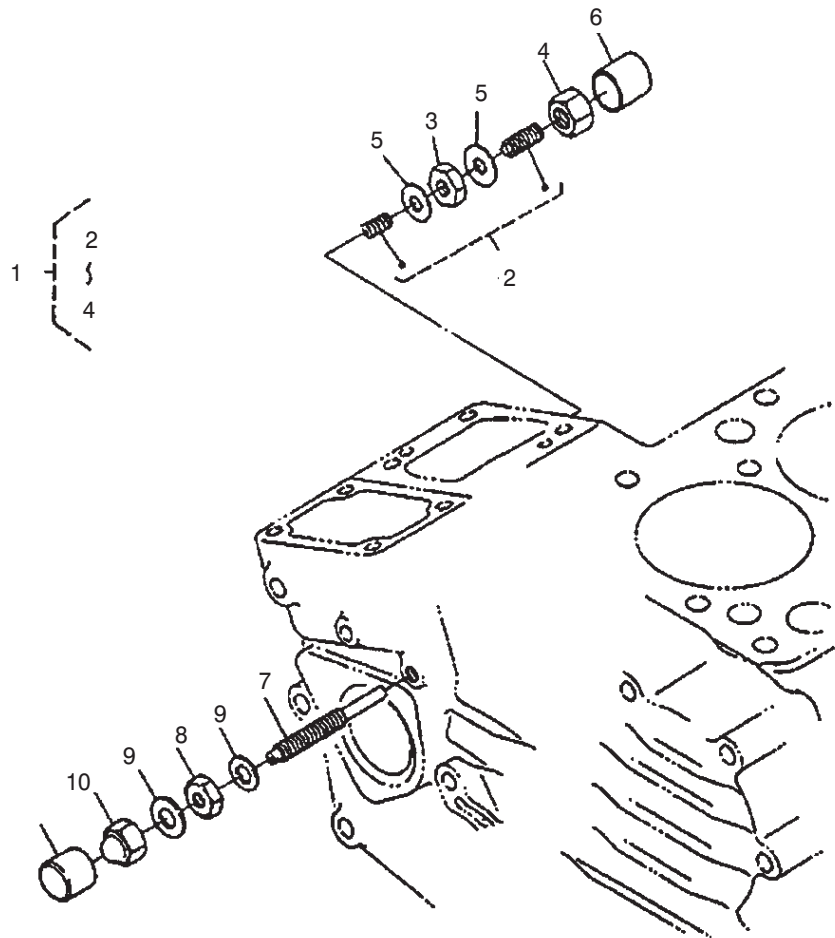
16682-007-10

Sheet No.:12

Fuel Camshaft Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2031	1	Fuel Camshaft ASM
2	100-1965	1	Camshaft
3	100-1795	1	Bearing-Ball
4	100-2006	1	Gear-Pump, Injection
5	100-1752	1	Key-Feather
6	100-1903	1	Sleeve-Governor
7	100-1904	1	Case-Ball, Governor
8	100-1790	32	Ball
9	100-1843	1	Cir-Clip, Gov. Sleeve
10	100-1793	8	Ball
11	100-1794	1	Bearing-Ball
12	100-1784	1	Cir-Clip, External
13	100-1888	1	Stopper-Fuel, C/Shaft
14	98-9350	2	Bolt

Ref. No.	Part No.	Qty.	Description

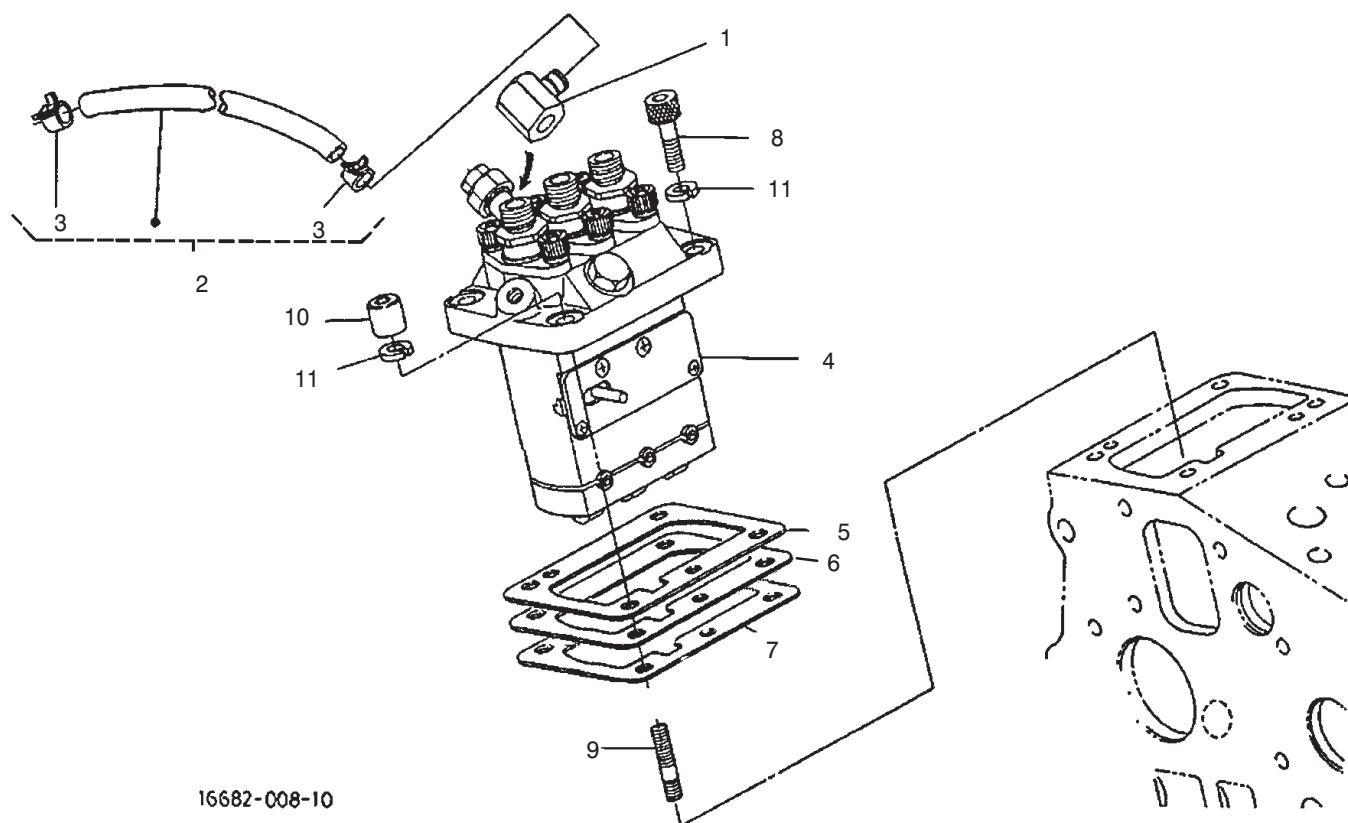


Sheet No.:13

Engine Stop Lever Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1898	1	Idle Appartus ASM
2	100-1899	1	Adjusting Bolt ASM
3	100-1846	1	Nut
4	100-1901	1	Nut-Cap
5	98-7428	2	Gasket
6	100-1902	1	Cap
7	100-1900	1	Bolt-Adjusting
8	100-2175	1	Nut-Lock
9	98-7654	2	Gasket
10	98-9441	1	Nut-Cap

Ref. No.	Part No.	Qty.	Description

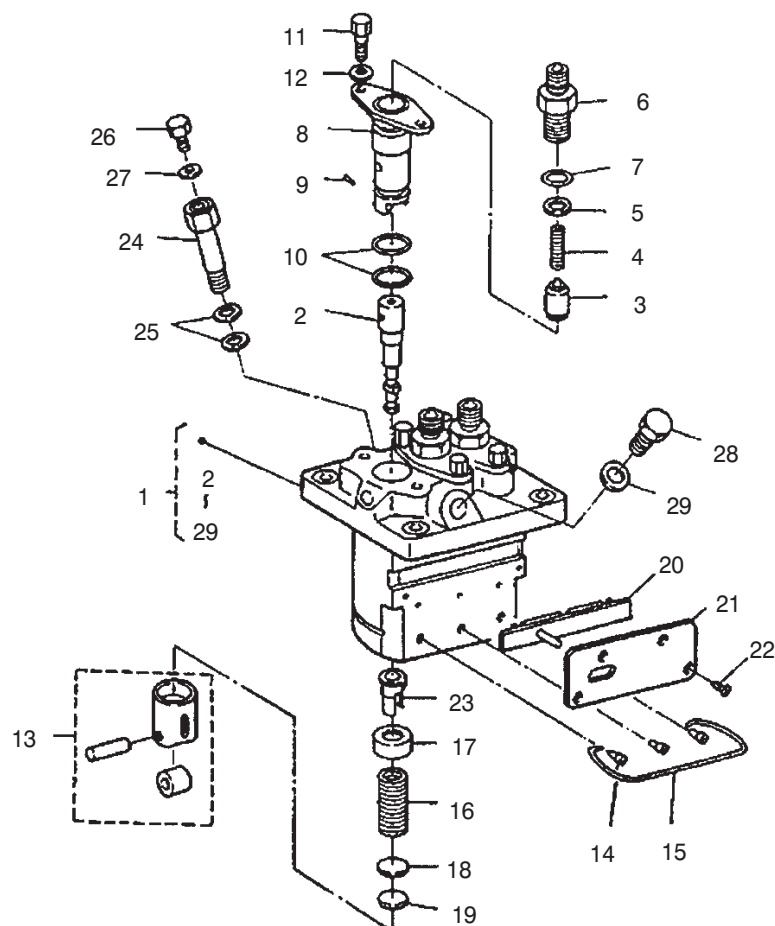


Sheet No.:14

Injection Pump Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1928	1	Joint-Eye
2	100-1842	1	Fuel Pipe ASM
3	100-2217	2	Clip-Pipe
4	100-1759	1	Inj. Pump ASM
5	98-9456	1	Shim (0.2mm)
6	98-9457	1	Shim-Injection (0.25mm)
7	98-9458	1	Shim-Injection (0.30mm)
8	98-9361	2	Bolt-HSH
9	98-9438	2	Stud
10	98-9440	2	Nut-Cap
11	98-9367	4	Washer-Spring

Ref. No.	Part No.	Qty.	Description

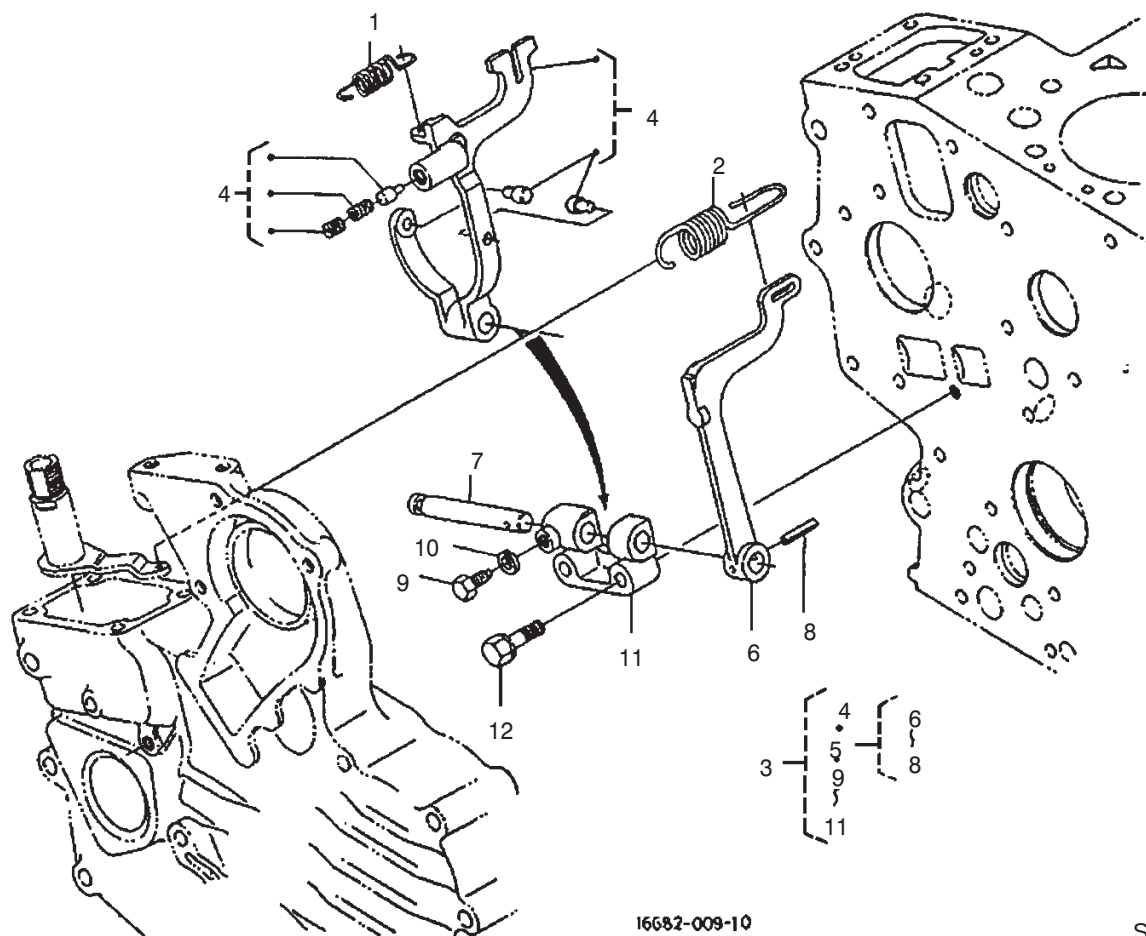


16689-009-10

Sheet No.:15

Injection Pump (Complete Parts)

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	100-1759	1	Inj. Pump ASM	26	98-9430	1	Screw
2	100-2005	3	Plunger-Pump	27	98-9446	1	Gasket
3	98-9421	3	Valve-Delivery	28	100-1953	1	Bolt
4	98-9424	3	Spring-Valve, Delivery	29	98-9451	1	Gasket
5	98-9425	3	Gasket-Valve, Delivery				
6	100-2007	3	Holder-Valve, Deliv.				
7	98-9447	3	O-Ring				
8	98-9434	3	Flange-Sleeve				
9	98-9443	3	Pin-Joint				
10	100-1895	6	O-Ring				
11	98-9452	6	Screw				
12	100-1931	6	Washer				
13	98-9422	3	Tappet ASM				
14	98-9426	3	Pin-Guide, Tappet				
15	98-9450	1	Pin-Clamp				
16	98-9428	3	Spring-Plunger				
17	98-9427	3	Seat-Spring, Upper				
18	98-9429	3	Seat-Spring, Lower				
19	98-9433	3	Shim				
20	100-1949	1	Rack-Control				
21	100-1950	1	Plate				
22	98-9442	4	Screw				
23	98-9432	3	Sleeve-Control				
24	100-1896	1	Screw-Hollow				
25	98-9445	2	Gasket				



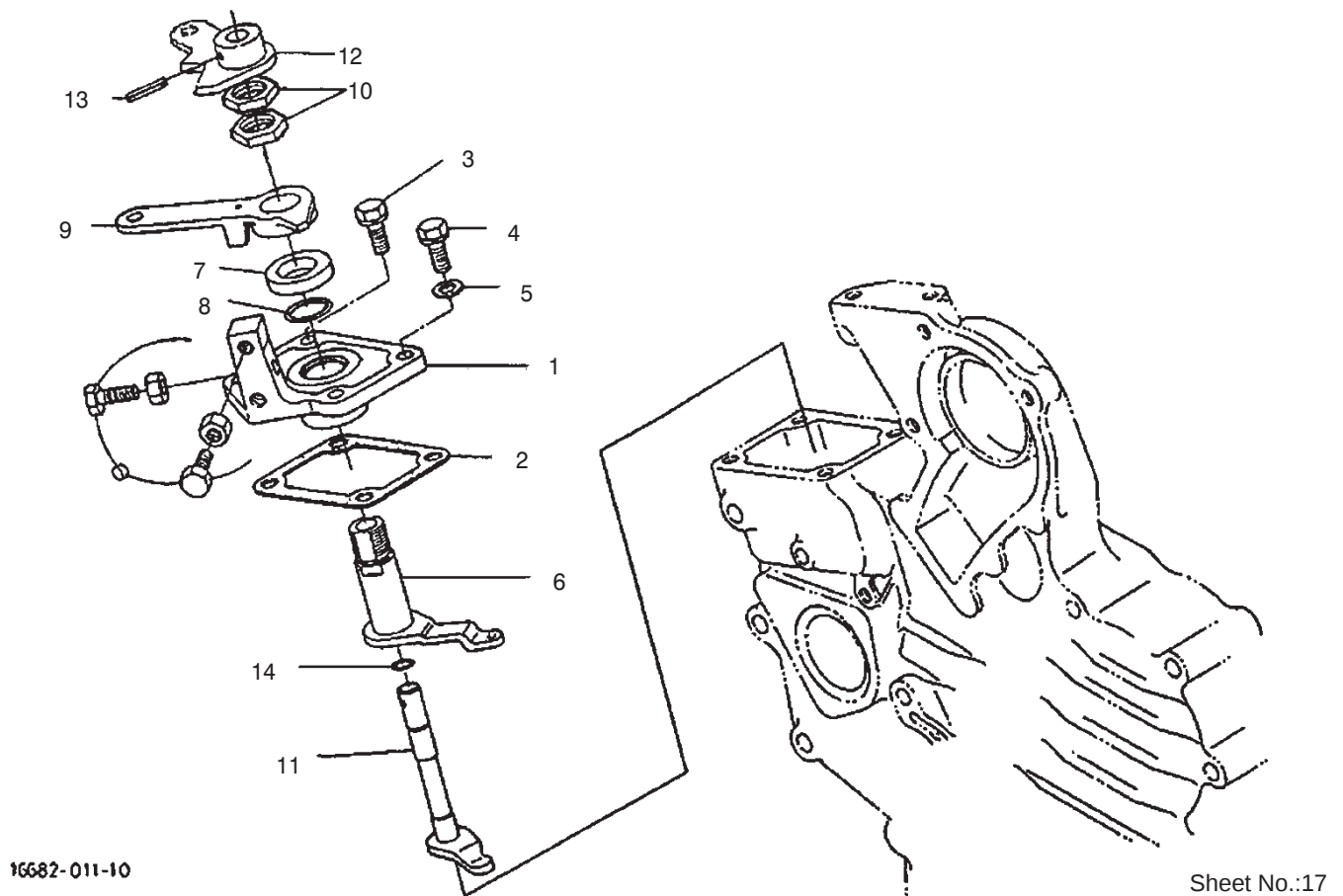
16682-009-10

Sheet No.:16

Governor Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1911	1	Spring-Start
2	100-2059	1	Spring-Governor
3	100-1981	1	Fork Lever ASM
4	100-2241	1	Lever-Fork, Comp.
5	100-1905	1	Fork Lever ASM
6	100-1907	1	Lever-Fork
7	100-1908	1	Shaft-Lever, Fork
8	100-1751	1	Pin-Spring
9	100-1845	1	Bolt
10	100-2204	1	Washer-Spring
11	100-1909	1	Holder-Lever, Fork
12	100-1763	2	Bolt

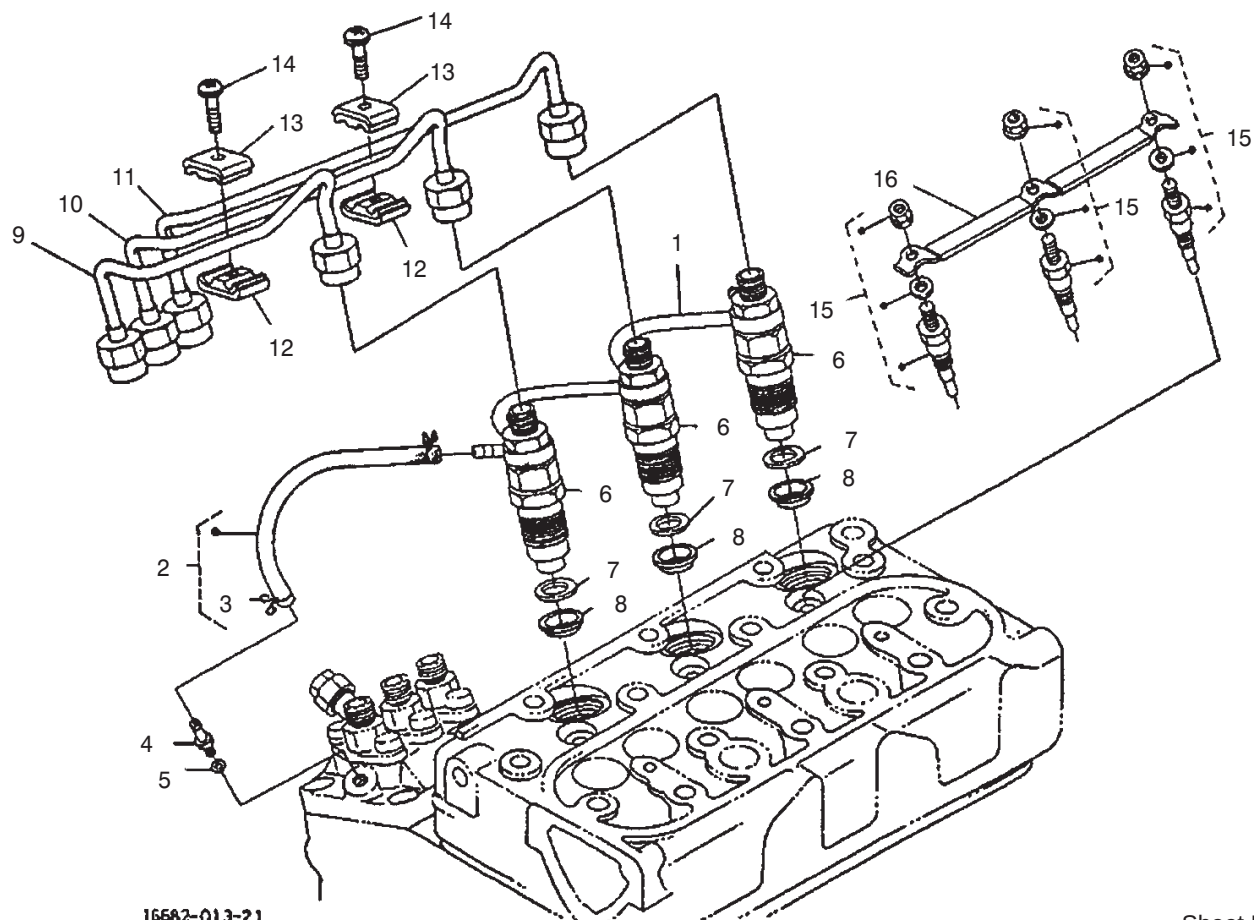
Ref. No.	Part No.	Qty.	Description



Speed Control Plate Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1912	1	Plate-Speed, Cont.
2	100-1914	1	Gasket
3	98-7605	2	Bolt
4	100-1769	2	Bolt
5	98-7654	2	Gasket
6	100-2172	1	Lever-Governor
7	100-1915	1	Collar
8	100-2208	1	O-Ring
9	100-1986	1	Lever-Cont., Speed
10	100-1925	2	Nut
11	100-2050	1	Shaft-Lever
12	100-2173	1	Lever-Stop, Engine
13	100-1751	1	Pin-Spring
14	100-2207	1	O-Ring

Ref. No.	Part No.	Qty.	Description

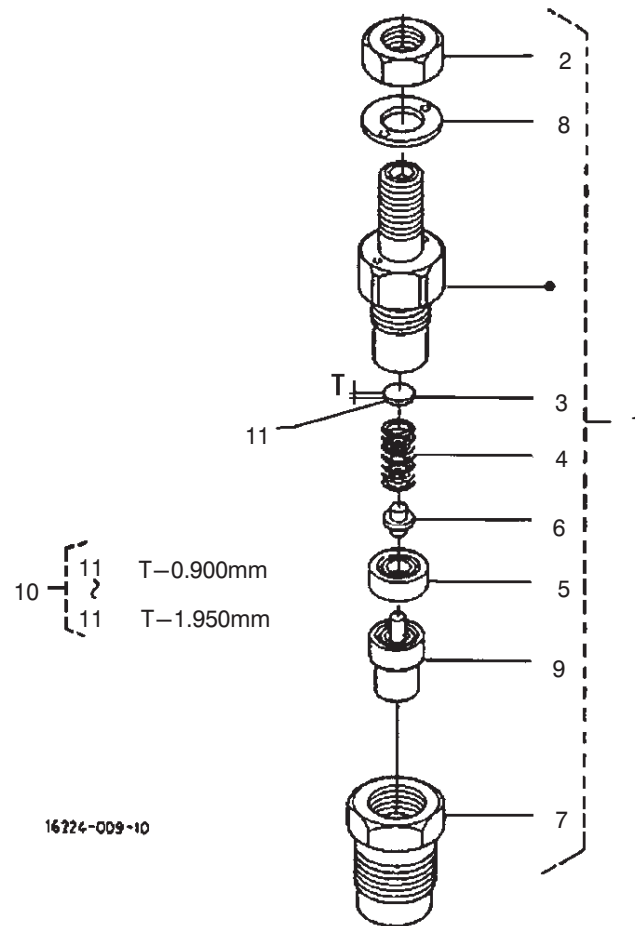


Sheet No.:18

Nozzle Holder and Glow Plugs Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1960	1	Over Flow Pipe ASM
2	98-9420	1	Over Flow Pipe ASM
2:1	98-7671	1	Clip-Pipe
3	98-7671	2	Clip-Pipe
4	98-9431	1	Screw-Bleeder
5	98-7654	1	Gasket
6	100-1758	3	Nozzle Holder ASM
7	98-7676	3	Gasket
8	98-7677	3	Seal
9	100-2011	1	Pipe-Injection
10	100-2013	1	Pipe-Injection
11	100-2036	1	Pipe-Injection
12	98-7682	2	Clamp-Pipe
13	98-7683	2	Clamp-Pipe
14	98-7684	2	Screw W/Washer
15	100-1854	3	Plug-Glow
16	100-2037	1	Cord-Plug, Glow

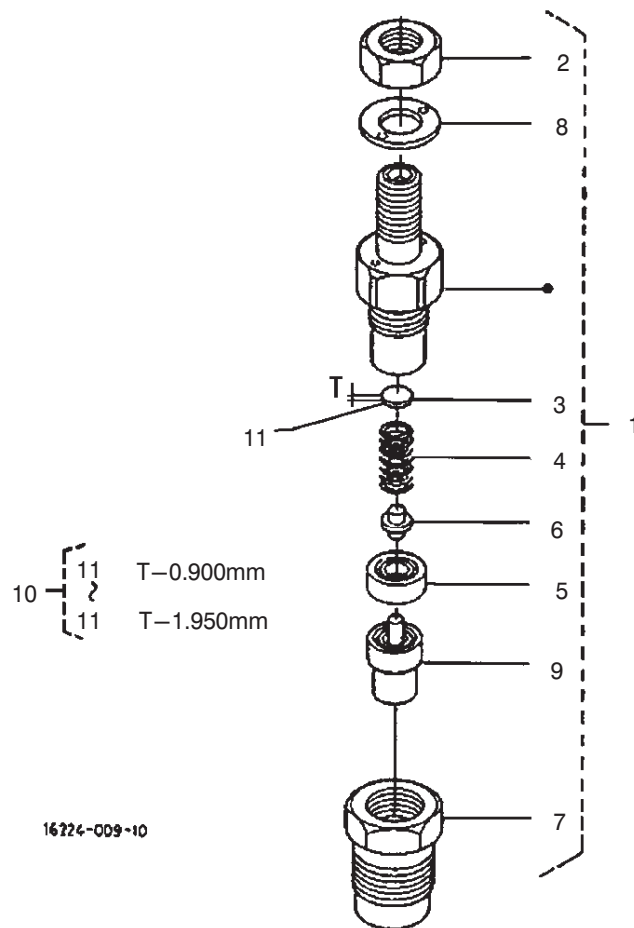
Ref. No.	Part No.	Qty.	Description



Sheet No.:19

Nozzle Holder (Complete Parts)

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	100-1758	3	Nozzle Holder ASM	11	98-7856	3	Washer-Adjusting
2	98-7613	3	Nut	11	98-7857	3	Washer-Adjusting
3	98-7642	3	Washer-Adjusting	11	98-7858	3	Washer-Adjusting
4	98-7647	3	Spring-Nozzle	11	98-7859	3	Washer-Adjusting
5	98-7665	3	Piece-Distant	11	98-7860	3	Washer-Adjusting
6	98-7666	3	Rod-Push	11	98-7861	3	Washer-Adjusting
7	100-2242	3	Nut-Nozzle	11	98-7862	3	Washer-Adjusting
8	98-7668	3	Washer	11	98-7863	3	Washer-Adjusting
9	100-2009	3	Piece-Nozzle	11	98-7864	3	Washer-Adjusting
10	98-9448	3	Adj Washer ASM	11	98-7865	3	Washer-Adjusting
11	98-7642	3	Washer-Adjusting	11	98-7866	3	Washer-Adjusting
11	98-7841	3	Washer-Adjusting	11	98-7867	3	Washer-Adjusting
11	98-7842	3	Washer-Adjusting	11	98-7868	3	Washer-Adjusting
11	98-7843	3	Washer-Adjusting	11	98-7869	3	Washer-Adjusting
11	98-7844	3	Washer-Adjusting	11	98-7870	3	Washer-Adjusting
11	98-7845	3	Washer-Adjusting	11	98-7871	3	Washer-Adjusting
11	98-7846	3	Washer-Adjusting	11	98-7872	3	Washer-Adjusting
11	98-7847	3	Washer-Adjusting	11	98-7873	3	Washer-Adjusting
11	98-7848	3	Washer-Adjusting	11	98-7874	3	Washer-Adjusting
11	98-7849	3	Washer-Adjusting	11	98-7875	3	Washer-Adjusting
11	98-7850	3	Washer-Adjusting	11	98-7876	3	Washer-Adjusting
11	98-7851	3	Washer-Adjusting	11	98-7877	3	Washer-Adjusting
11	98-7852	3	Washer-Adjusting	11	98-7878	3	Washer-Adjusting
11	98-7853	3	Washer-Adjusting	11	98-7879	3	Washer-Adjusting
11	98-7854	3	Washer-Adjusting	11	98-7880	3	Washer-Adjusting
11	98-7855	3	Washer-Adjusting	11	98-7881	3	Washer-Adjusting

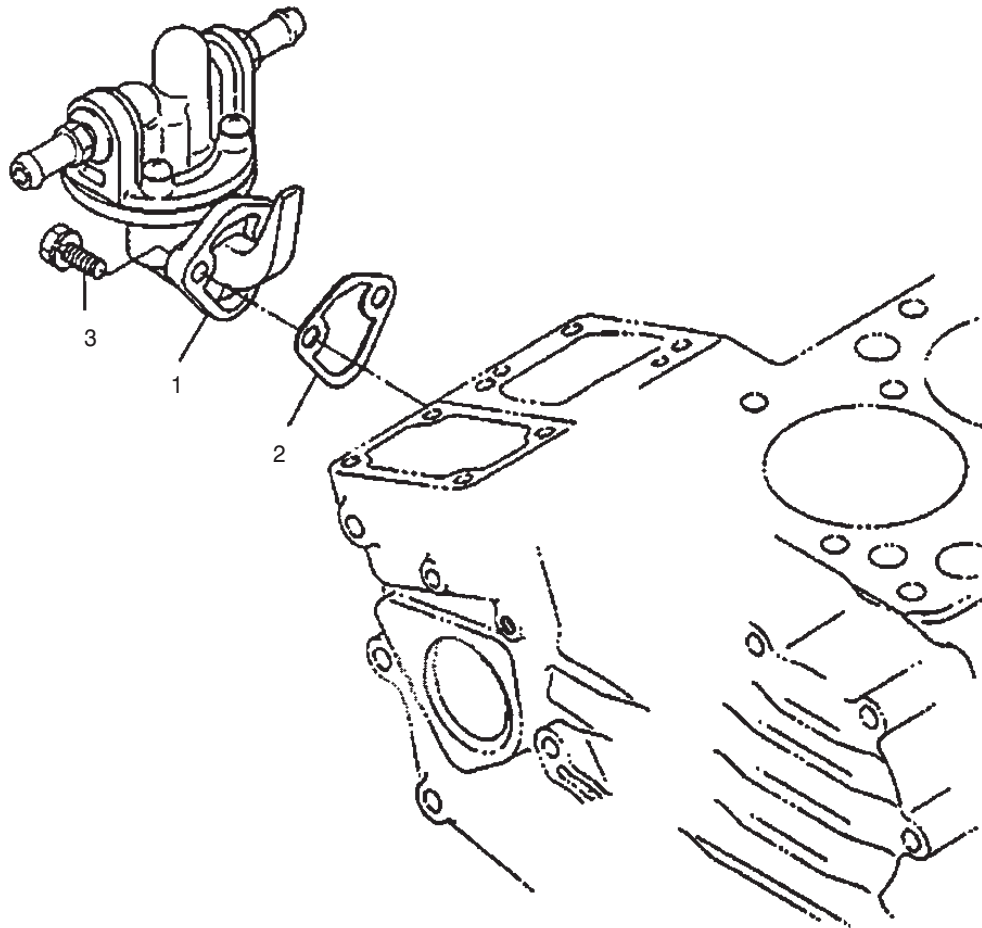


Sheet No.:19

Nozzle Holder (Complete Parts Continued)

Ref. No.	Part No.	Qty.	Description
11	98-7882	3	Washer-Adjusting

Ref. No.	Part No.	Qty.	Description

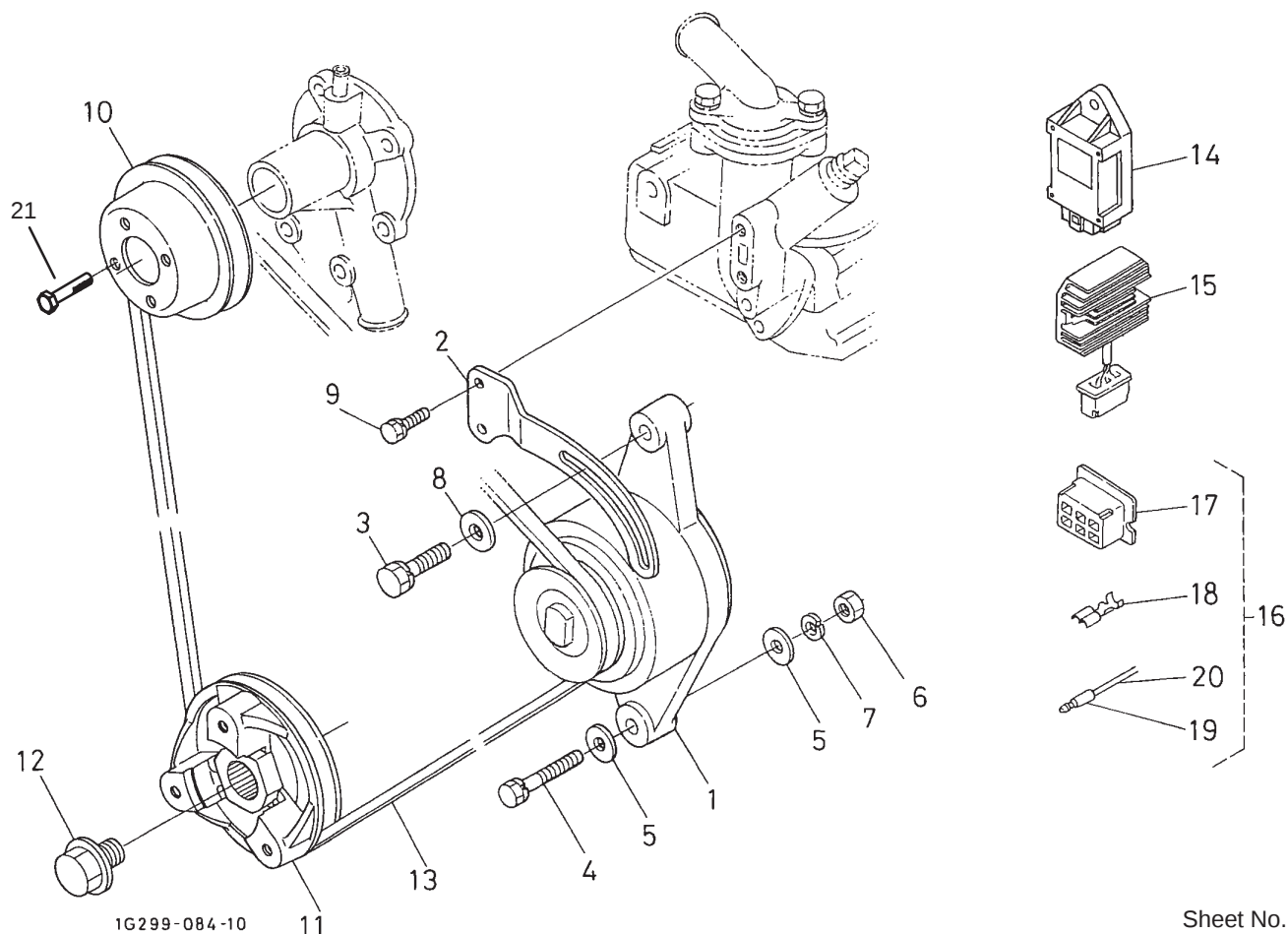


Sheet No.:20

Fuel Pump (Mechanical)

Ref. No.	Part No.	Qty.	Description
1	100-2232	1	Fuel Pump ASM
2	98-9636	1	Gasket-Pump, Fuel
3	98-7692	2	Bolt

Ref. No.	Part No.	Qty.	Description

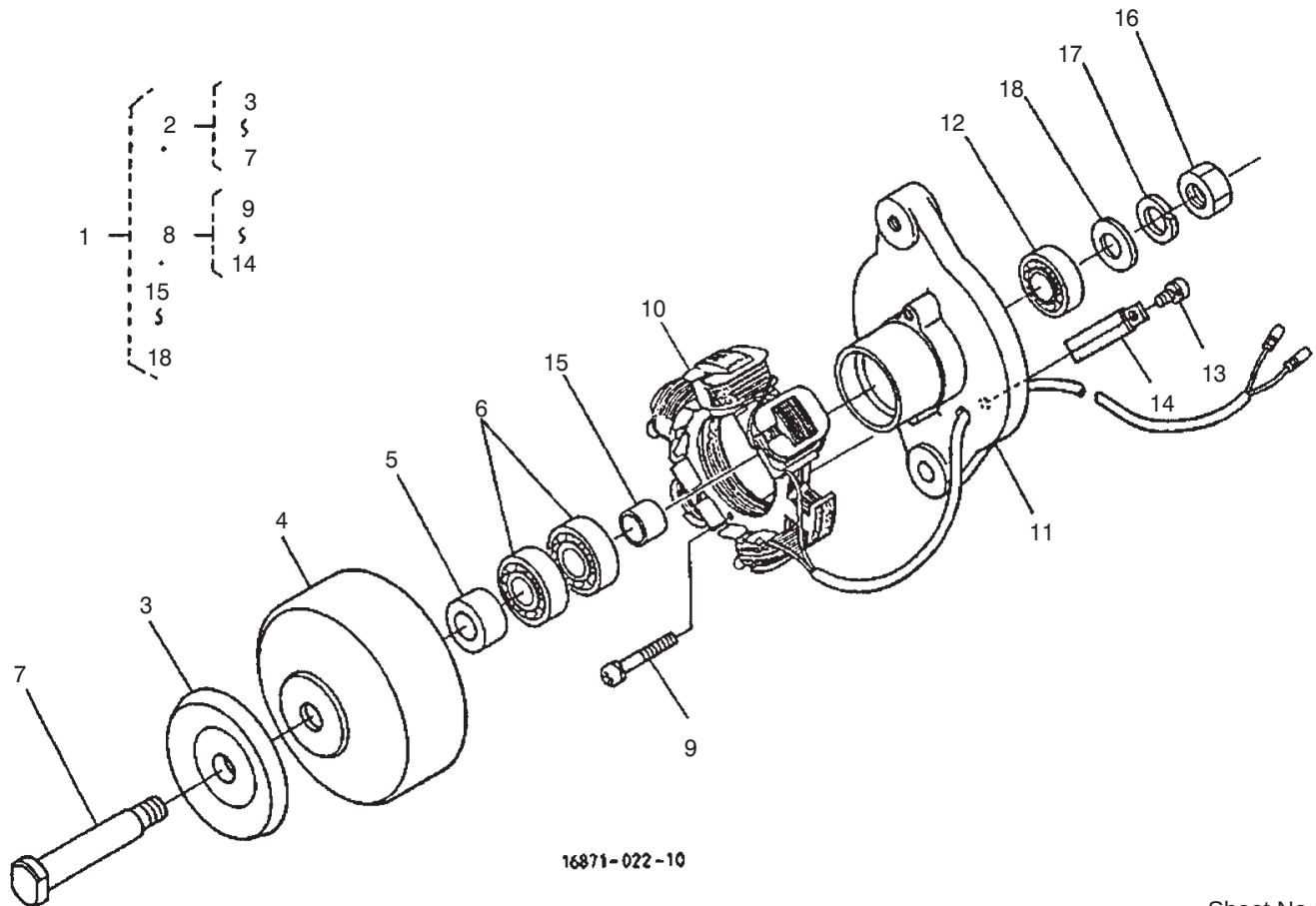


Sheet No.:21

Dynamo and Pulley Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2168	1	Dynamo ASM
2	100-2214	1	Stay-Dynamo
3	98-7697	1	Bolt
4	100-1771	1	Bolt
5	98-7660	2	Washer-Plain
6	98-7739	1	Nut
7	98-7535	1	Washer-Spring
8	100-1782	1	Washer-Plain
9	98-7692	2	Bolt
10	100-1921	1	Pulley-Fan
11	100-2039	1	Pulley-Drive, Fan
12	100-1978	1	Bolt
13	100-1979	1	V-Belt
14	98-7611	1	Controller-Glow
15	100-2057	1	Regulator ASM
16	100-2058	1	Coupler ASM
17	100-2056	1	Connector
18	98-9699	6	Terminal
19	98-9701	2	Terminal
20	98-9702	2	Sleeve
21	100-1773	4	Bolt-Flange

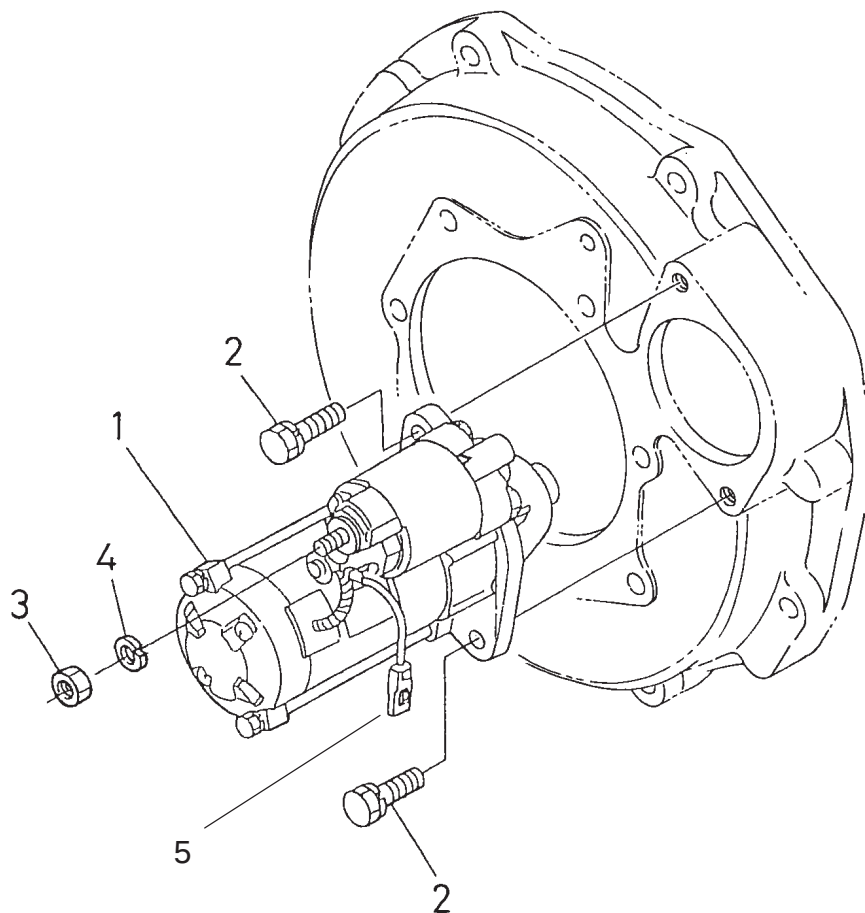
Ref. No.	Part No.	Qty.	Description



Sheet No.:22

Dynamo (Complete Parts)

Ref. No.	Part No.	Qty.	Description
1	100-2168	1	Dynamo ASM
2	100-1862	1	Rotor-Comp.
3	100-2228	1	Pulley
4	100-1860	1	Rotor
5	100-2184	1	Collar
6	100-1756	2	Bearing-Ball
7	100-1867	1	Shaft-Fan
8	100-1866	1	Stator-Comp.
9	100-1848	2	Screw-Head, Round
10	100-1865	1	Stator
11	100-1861	1	Plate
12	100-1756	1	Bearing-Ball
13	100-1868	1	Screw-Head, Round
14	100-1864	1	Clamp-Cord
15	100-1844	1	Collar
16	100-1847	1	Nut
17	100-1850	1	Washer-Spring
18	100-1849	1	Washer-Plain



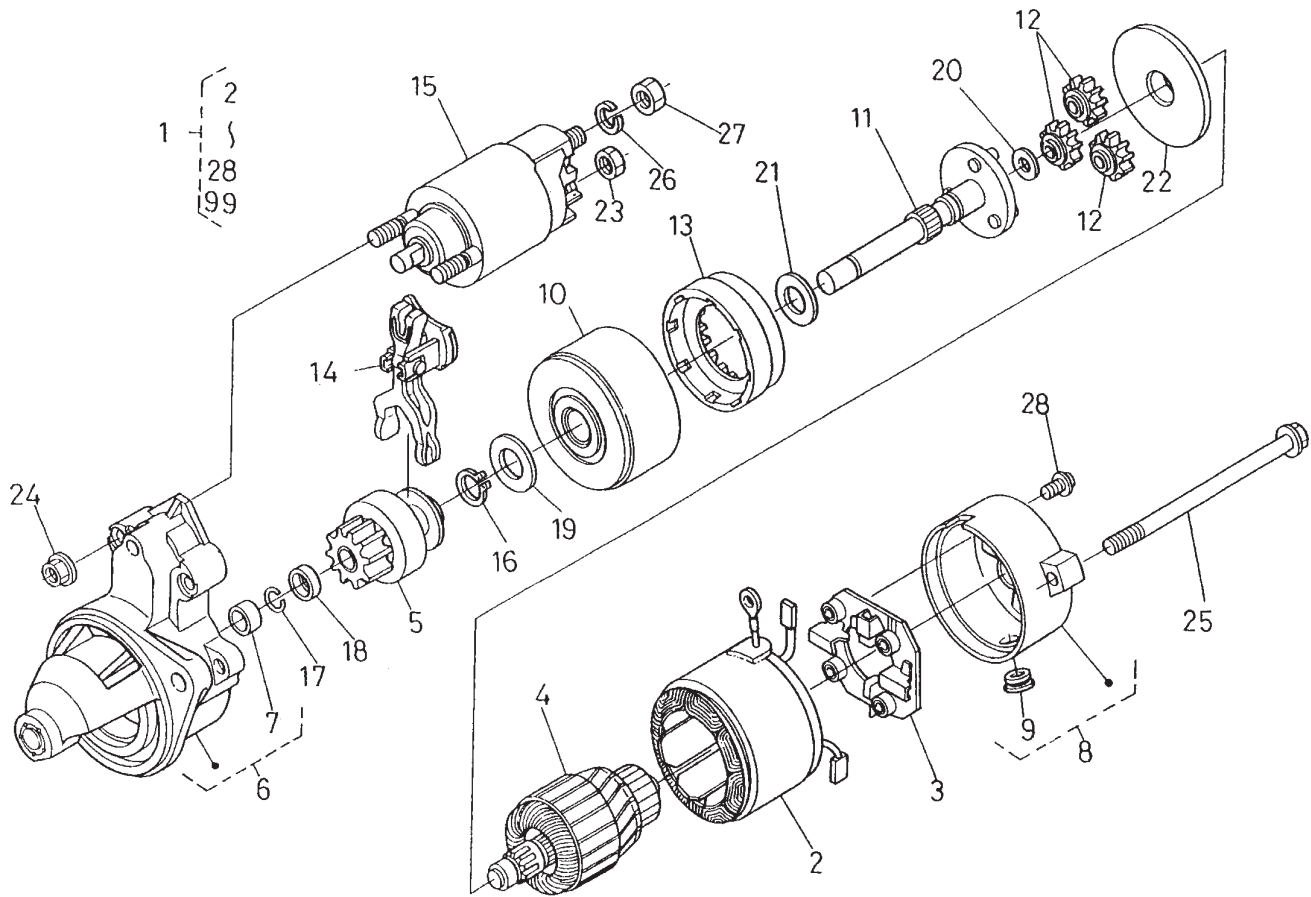
1G299-085-10

Sheet No.:23

Starter Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2179	1	Starter ASM
2	98-7438	2	Bolt
3	98-7739	1	Nut
4	98-7535	1	Washer-Spring
5	99-1434	1	Wire-Lead

Ref. No.	Part No.	Qty.	Description

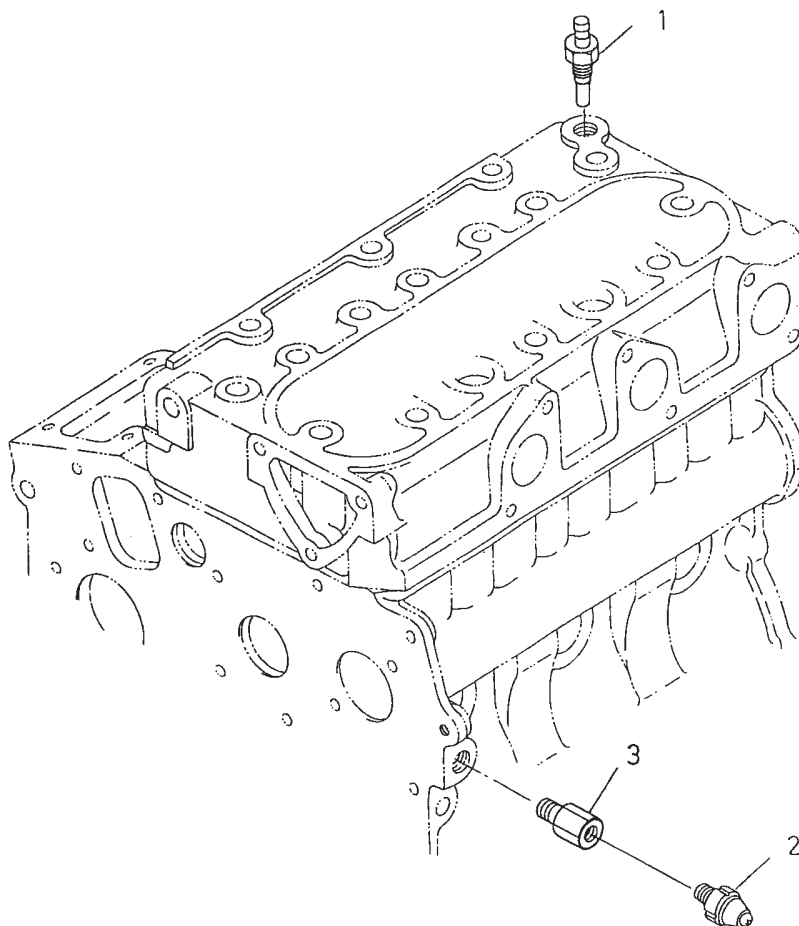


67992-001-10

Sheet No.:24

Starter (Complete Parts)

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	100-2179	1	Starter ASM	27	100-2171	1	Nut-Hexagon
2	100-2181	1	Starter Yoke ASM	28	100-2188	2	Screw
3	100-2222	1	Holder ASM	99	99-1434	1	Wire-Lead
4	100-2182	1	Armature ASM				
5	100-2185	1	Starter Clutch ASM				
6	100-2180	1	Starter Housing ASM				
7	100-2183	1	Bearing				
8	100-2186	1	Frame ASM				
9	100-2213	1	Cover				
10	100-2223	1	Bearing ASM				
11	100-2187	1	Starter Shaft ASM				
12	100-2220	3	Gear				
13	100-2221	1	Gear				
14	100-2218	1	Lever				
15	100-2211	1	Magnetic Switch ASM				
16	100-2219	1	Ring-Snap				
17	100-2212	1	Ring-Snap				
18	100-2216	1	Collar				
19	100-2224	1	Washer-Plain				
20	100-2225	1	Washer-Plain				
21	100-2226	1	Washer-Plain				
22	100-2227	1	Plate				
23	100-2243	1	Nut-Hexagon				
24	100-1813	2	Nut				
25	100-2210	2	Bolt-Through				
26	100-2215	1	Washer-Spring				



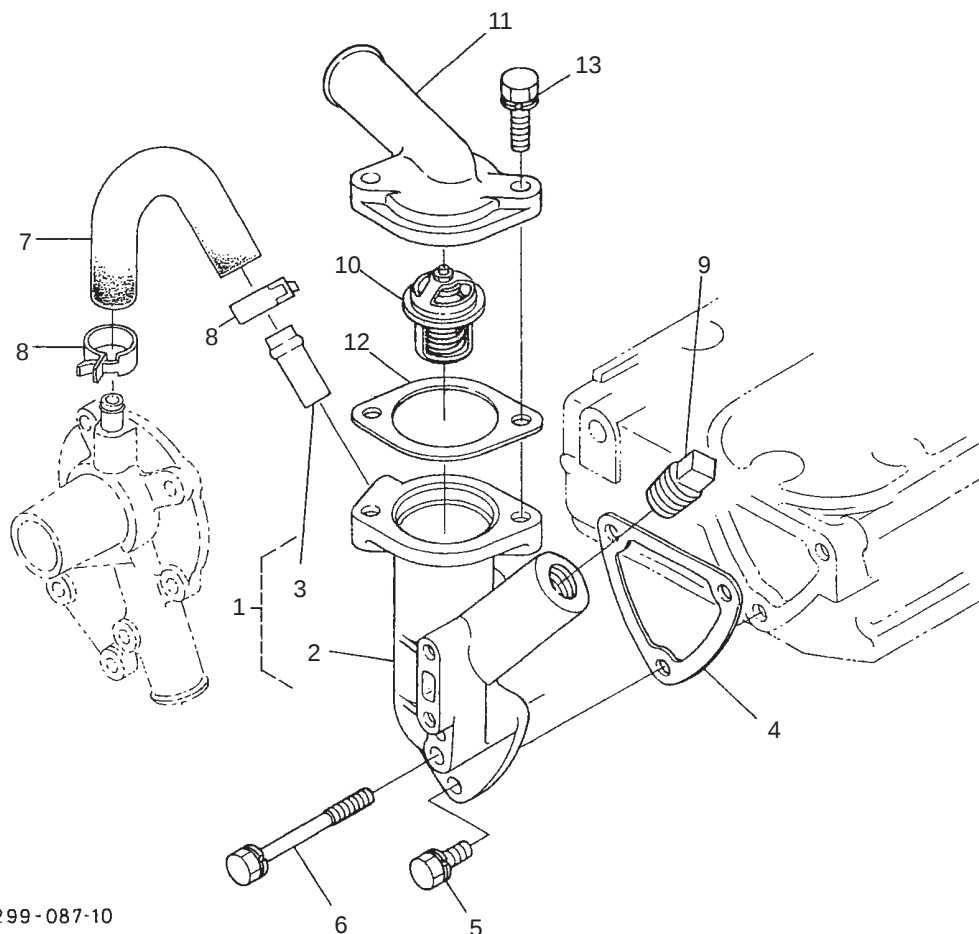
1G299-086-10

Sheet No.:25

Oil Switch and Thermostwitch Assembly

Ref. No.	Part No.	Qty.	Description
1	99-3582	1	Thermoswitch
2	98-7764	1	Switch-Oil
3	100-2170	1	Holder-Signal, Oil

Ref. No.	Part No.	Qty.	Description



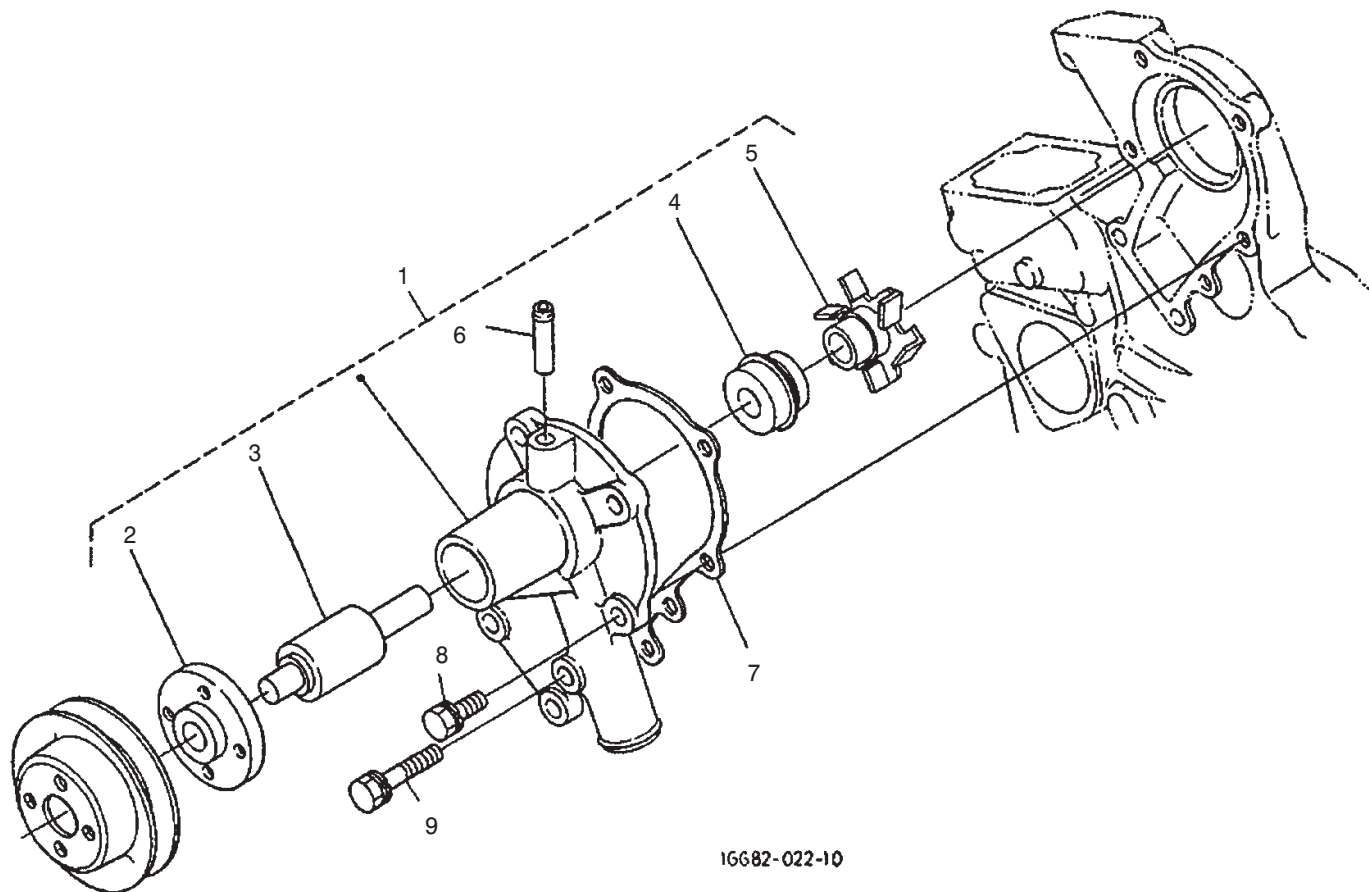
1G299-087-10

Sheet No.:26

Water Flange and Thermostat Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2165	1	Flange-Water, Comp.
2	100-2166	1	Flang-Water
3	98-9580	1	Pipe-Return, Water
4	100-1919	1	Gasket-Flange, Water
5	98-7692	2	Bolt
6	100-2201	1	Bolt
7	100-2017	1	Pipe-Return, Water
8	98-9579	2	Band-Pipe
9	100-2169	1	Plug
10	100-2053	1	Thermostat ASM
11	100-2231	1	Cover-Thermostat
12	100-2157	1	Gasket-Thermostat
13	98-9353	2	Bolt

Ref. No.	Part No.	Qty.	Description

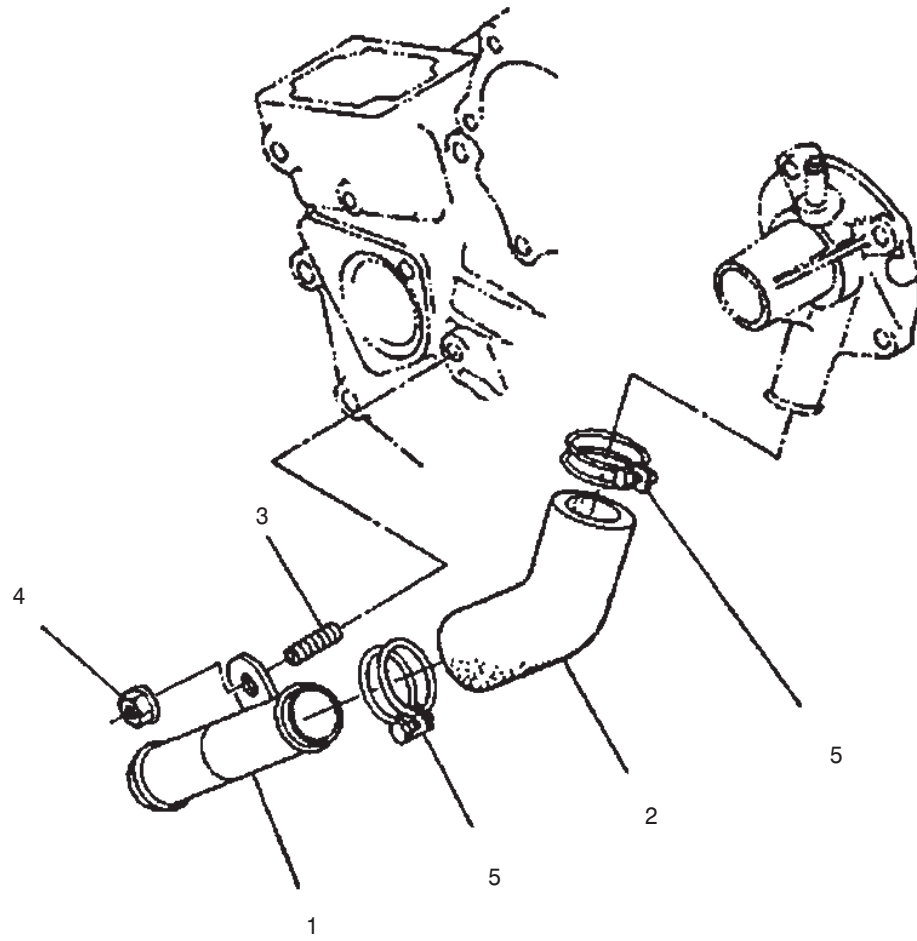


Sheet No.:27

Water Pump Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2065	1	Water Pump ASM
2	100-1933	1	Flange-Pump, Water
3	100-1934	1	Bearing-Ball
4	99-3518	1	Water Pump Seal ASM
5	100-2067	1	Impeller-Pump, Water
6	100-1932	1	Pipe-Return, Water
7	100-1976	1	Gasket-Pump, Water
8	100-1750	4	Bolt
9	100-1764	1	Bolt

Ref. No.	Part No.	Qty.	Description

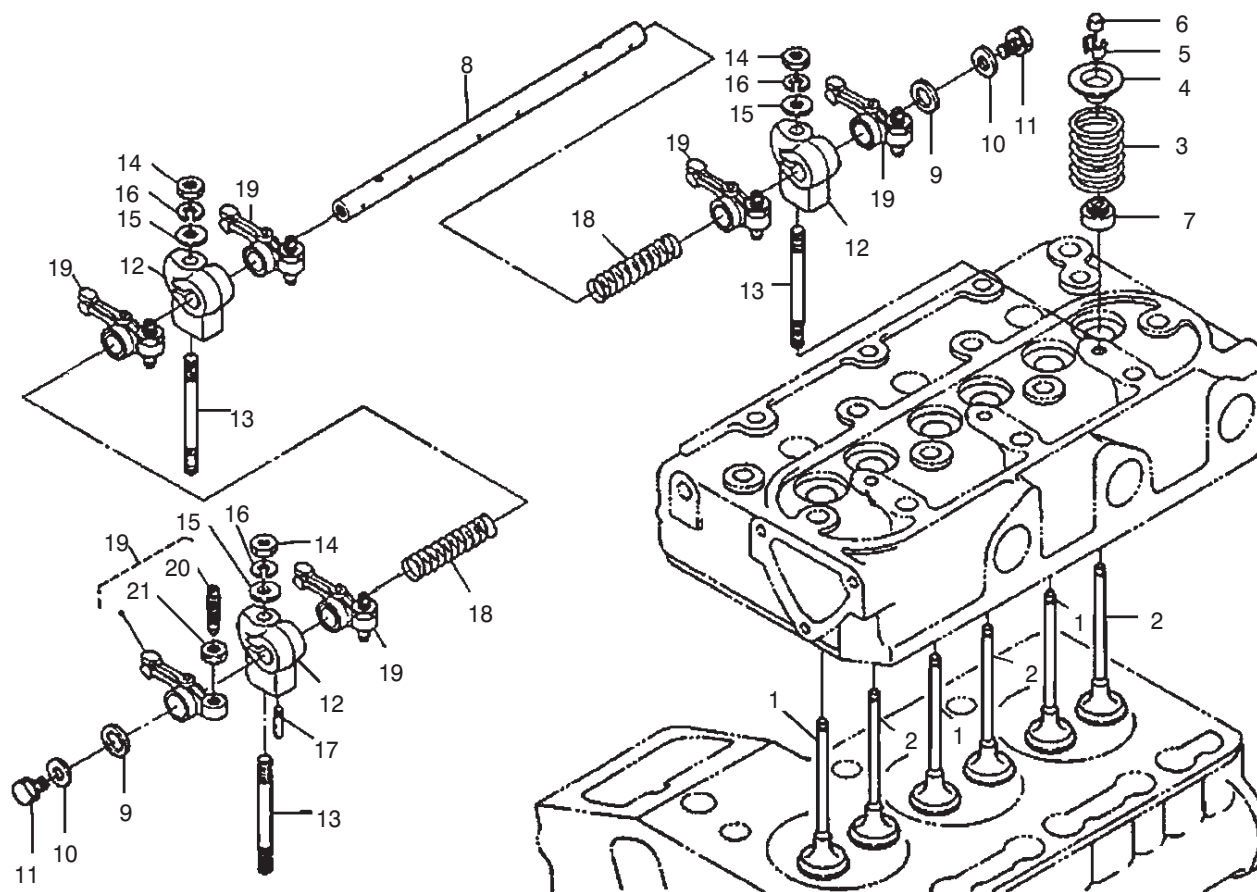


Sheet No.:28

Water Pipe Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1918	1	Pipe-Water
2	100-1975	1	Pipe-Water
3	100-1924	1	Stud
4	100-2203	1	Nut-Flange
5	100-1753	2	Clamp-Hose

Ref. No.	Part No.	Qty.	Description



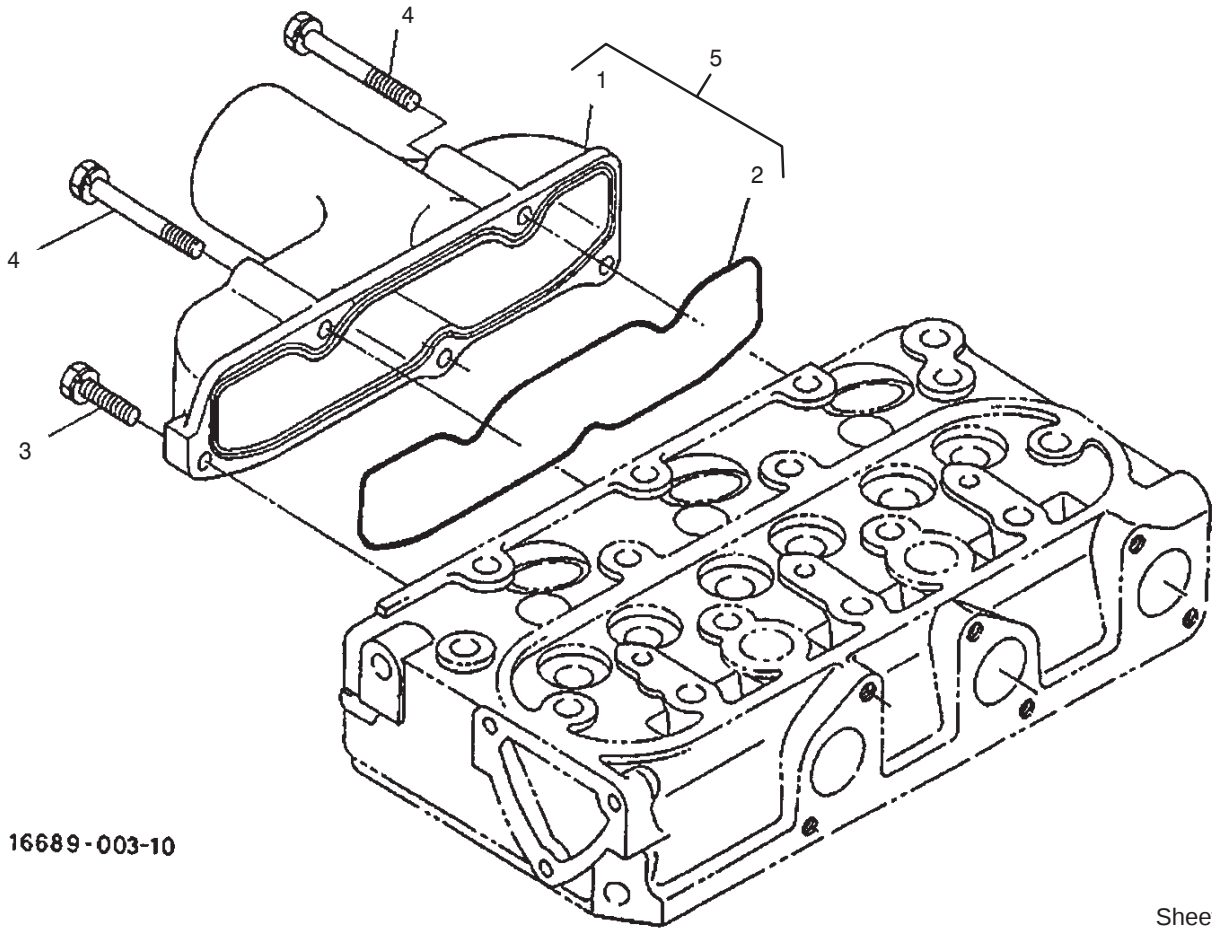
12691-026-10

Sheet No.:29

Valve and Rocker Arm Assembly

Ref. No.	Part No.	Qty.	Description
1	100-1821	3	Valve-Inlet
2	100-1822	3	Valve-Exhaust
3	100-1823	6	Spring-Valve
4	100-1825	6	Retainer-Valve, Sp.
5	100-1826	6	Collet-Spring, Valve
6	100-2155	6	Cap-Valve
7	100-1797	6	Seal-Stem, Valve
8	100-2237	1	Shaft-Arm, Rocker
9	100-2044	2	Washer
10	100-1927	2	Washer-Plain
11	100-1762	2	Bolt
12	100-1886	3	Bracket-Arm, Rocker
13	100-1829	3	Stud
14	98-7572	3	Nut
15	98-7648	3	Washer-Plain
16	98-9367	3	Washer-Spring
17	98-7602	1	Pin-Spring
18	100-1828	2	Spring-Arm, Rocker
19	100-1884	6	Rocker Arm ASM
20	100-1885	6	Screw-Adjusting
21	100-1827	6	Nut

Ref. No.	Part No.	Qty.	Description



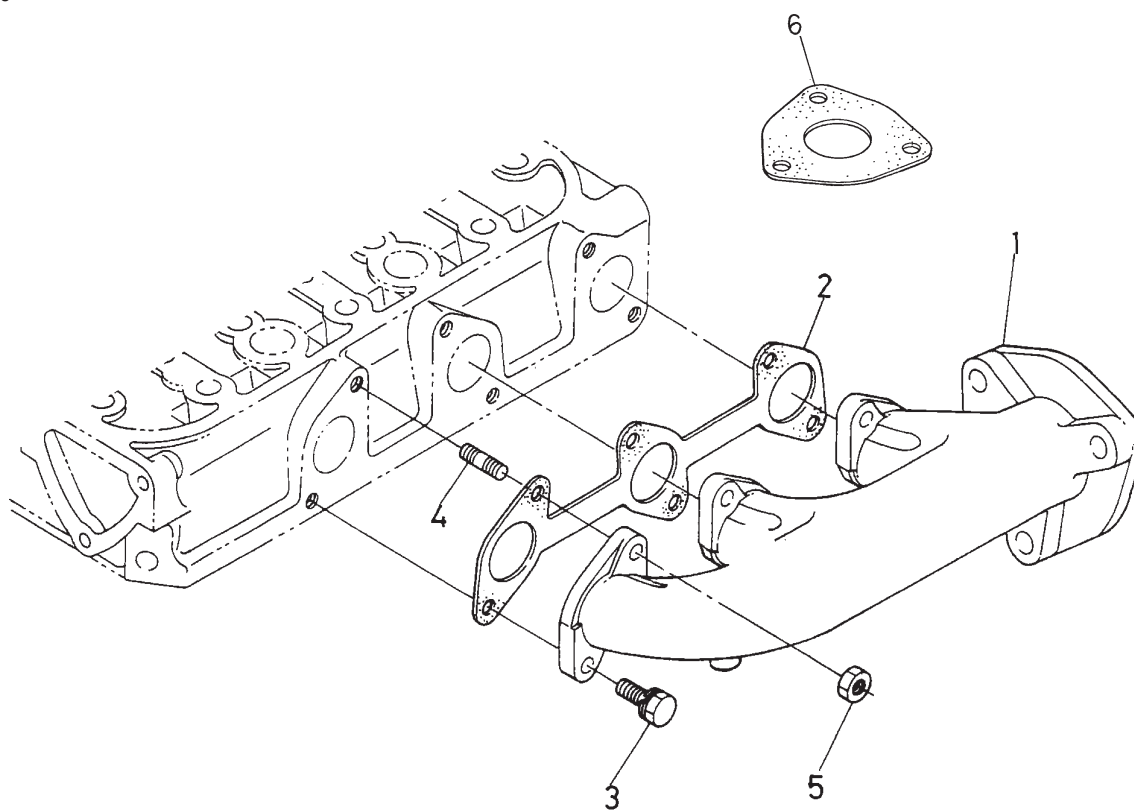
16689-003-10

Sheet No.:30

Inlet Manifold Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2235	1	Manifold-Inlet
2	100-1937	1	Gasket-In-Manifold
3	98-7605	2	Bolt
4	100-1765	3	Bolt
5	100-2236	1	Inlet Manifold ASM

Ref. No.	Part No.	Qty.	Description



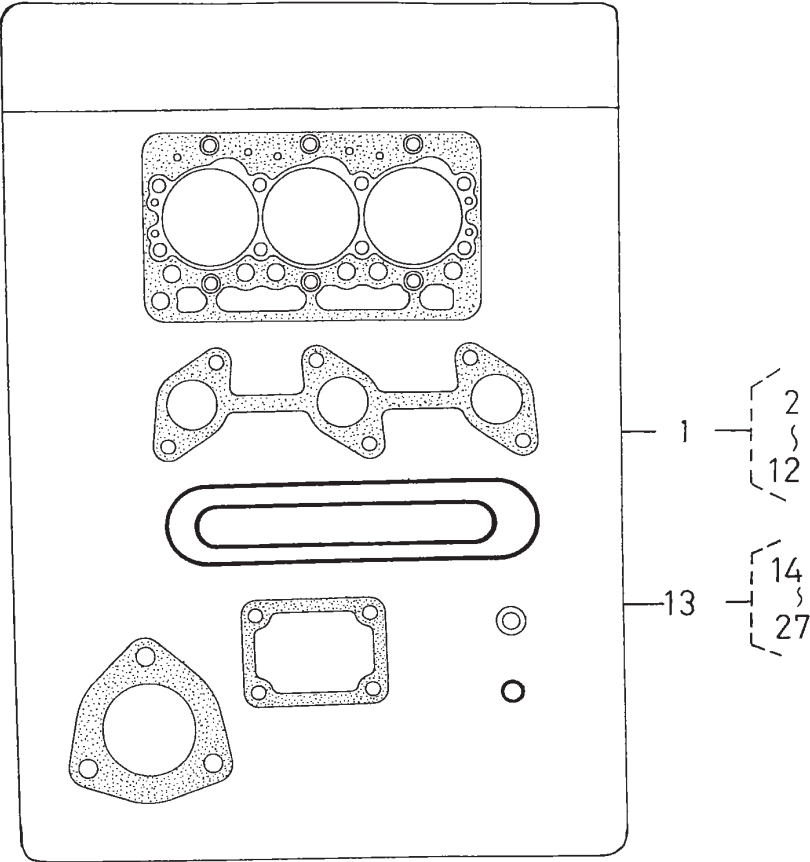
1G228-006-10

Sheet No.:31

Exhaust Manifold Assembly

Ref. No.	Part No.	Qty.	Description
1	100-2244	1	Manifold-Exhaust
2	100-1957	1	Gasket
3	100-1775	3	Bolt-Ubs
4	100-2202	3	Stud
5	100-1778	3	Nut-Ubs
6	100-2238	1	Gasket-Muffler

Ref. No.	Part No.	Qty.	Description



194 49-018-10

Sheet No.:32

Gasket Kit

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	100-2176	1	Kit-Gasket, Upper	25	98-7428	2	Gasket
2	98-7509	1	O-Ring	26	100-2208	1	O-Ring
3	100-2043	1	Gasket-Head, Cylinder	27	100-2207	1	O-Ring
4	100-1937	1	Gasket-In-Manifold				
5	100-1957	1	Gasket				
6	100-1797	6	Seal-Stem, Valve				
7	100-2030	1	Gasket-Cover, Head				
8	98-7654	3	Gasket				
9	99-3446	1	O-Ring				
10	100-1919	1	Gasket-Flange, Water				
11	100-2157	1	Gasket-Thermostat				
12	100-2238	1	Gasket-Muffler				
13	100-2174	1	Kit-Gasket, Lower				
14	100-1976	1	Gasket-Pump, Water				
15	100-1954	1	Gasket-Case, Gear				
16	100-2206	3	O-Ring				
17	100-1929	1	Gasket-Case, Bearing				
18	100-1876	1	Gasket-Case, Bearing				
19	100-2209	1	O-Ring				
20	100-2205	1	O-Ring				
21	100-2003	1	Gasket-Pump, Oil				
22	98-9636	1	Gasket-Pump, Fuel				
23	100-2061	1	Gasket-Gearcase, H/M				
24	100-1914	1	Gasket				

Maintenance Record

[illegible]

Maintenance Record

[illegible]

