



Twister[®] 1600

Utility Vehicle

Model No. 12004—230000001 and Up

Model No. 12004TC—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.

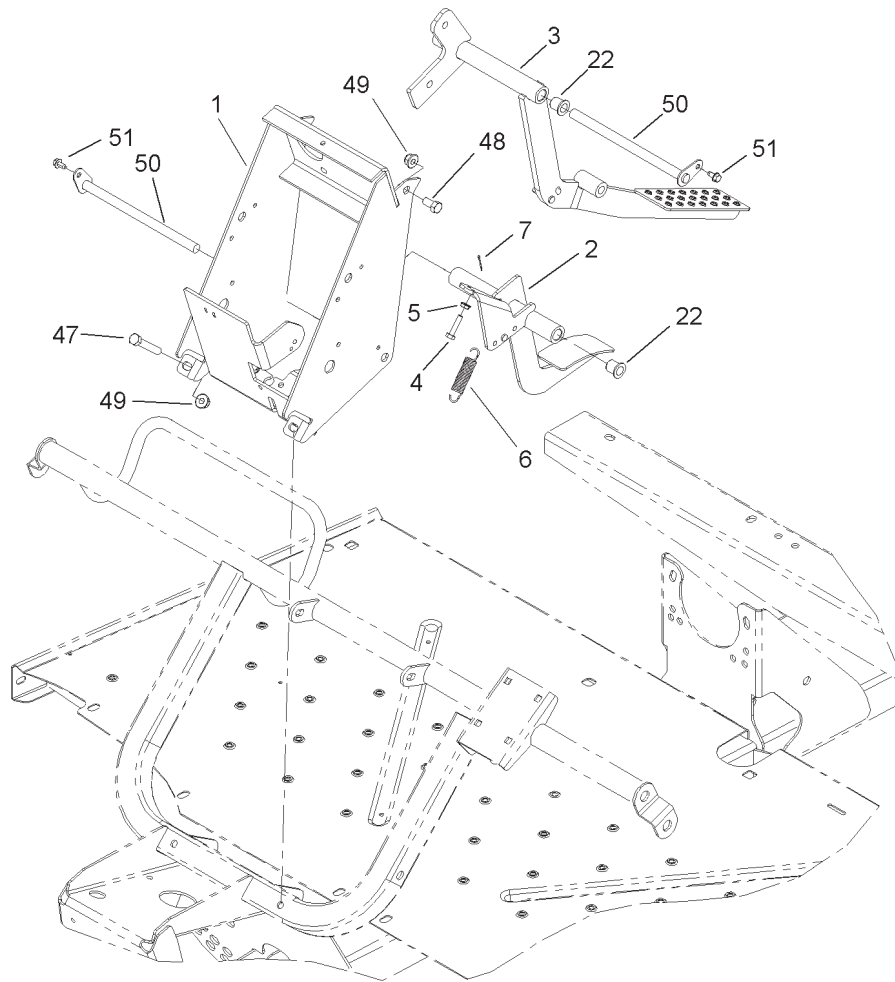
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Part Description Abbreviations

Part descriptions in this catalog may include the following abbreviations.

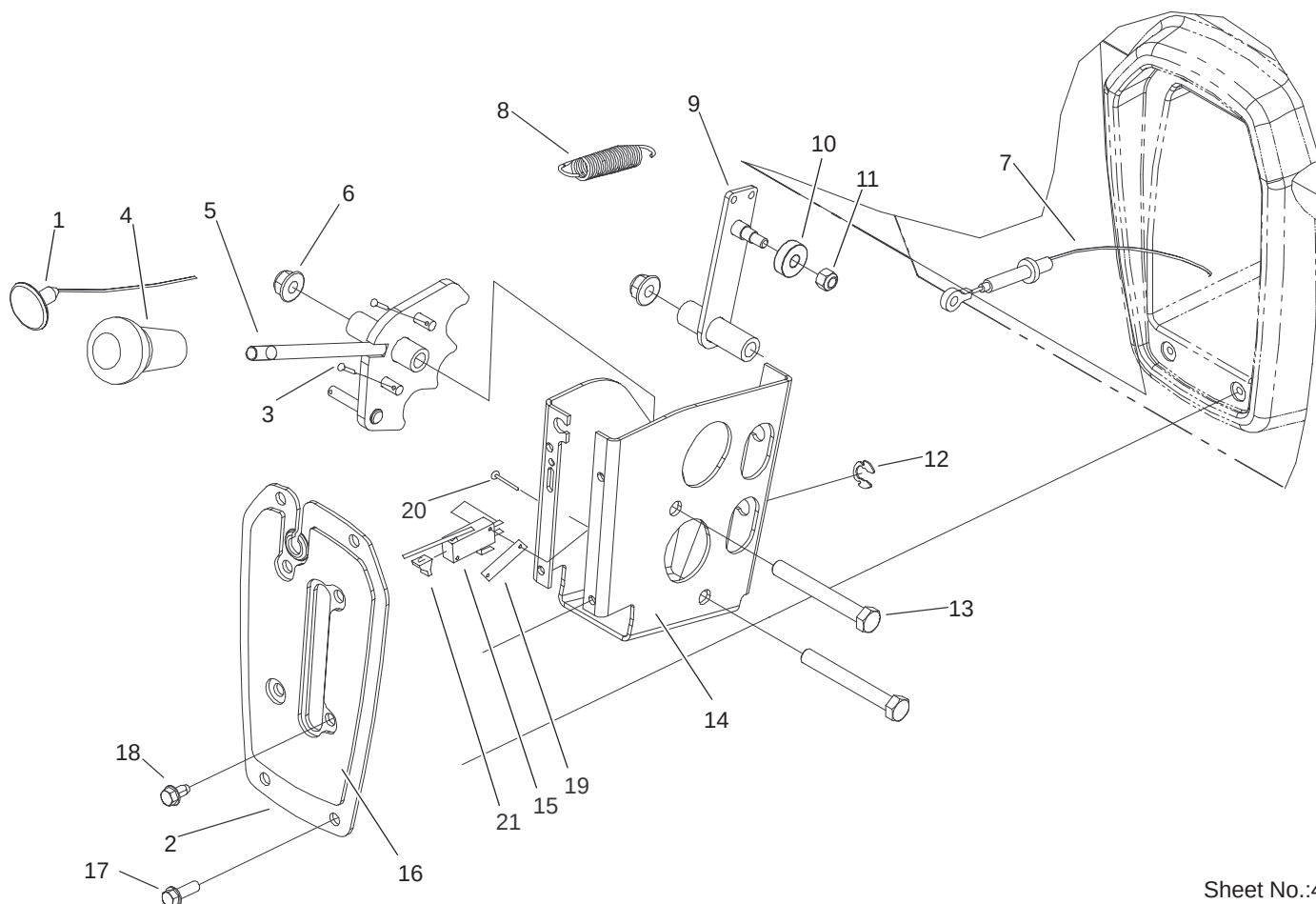
Abbreviation	Meaning	Abbreviation	Meaning
AR	as required	HYD	hydraulic
ASM	assembly	INC	incorporated
CARR	carriage	LH	left hand
DEG	degrees	NI	nylon insert
FH	flat head	PPH	Phillips pan head
GA	gauge	PTH	Phillips truss head
HF	hex flange	PTO	power take off
HH	hex head	RH	right hand
HHF	hex head flange	SFH	slotted fillister head
HLH	hex lag head	SHH	slotted hex head
HJ	hex jam	SQH	square head
HOC	height-of-cut	SHWH	slotted hex washer head
HS	hex socket	SPH	slotted pan head
HSBH	hex socket button head	SRH	slotted round head
HSFH	hex socket flat head	STD	standard
HSH	hex socket head	TAP	self tapping
HWH	hex washer head	TTH	Torx truss head
HWHTF	hex washer head thread forming	WH	wing head



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Pedal Assembly

Ref. No.	Part No.	Qty.	Description
1	104-7160-03	1	Frame-Pedals
2	104-7165-03	1	Pedal-Throttle
3	104-7170-03	1	Pedal-Brake
4	321-7	1	Screw-HH
5	32149-2	1	Nut
6	104-6415	1	Spring-Return, Pedal
7	3272-4	1	Pin-Cotter
22	256-155	4	Bushing-Flange
47	323-11	2	Screw-HH
48	323-4	2	Screw-HH
49	104-8301	4	Nut-Flange, NI
50	104-7164	2	Pivot-Pedals
51	12-3270	2	Screw



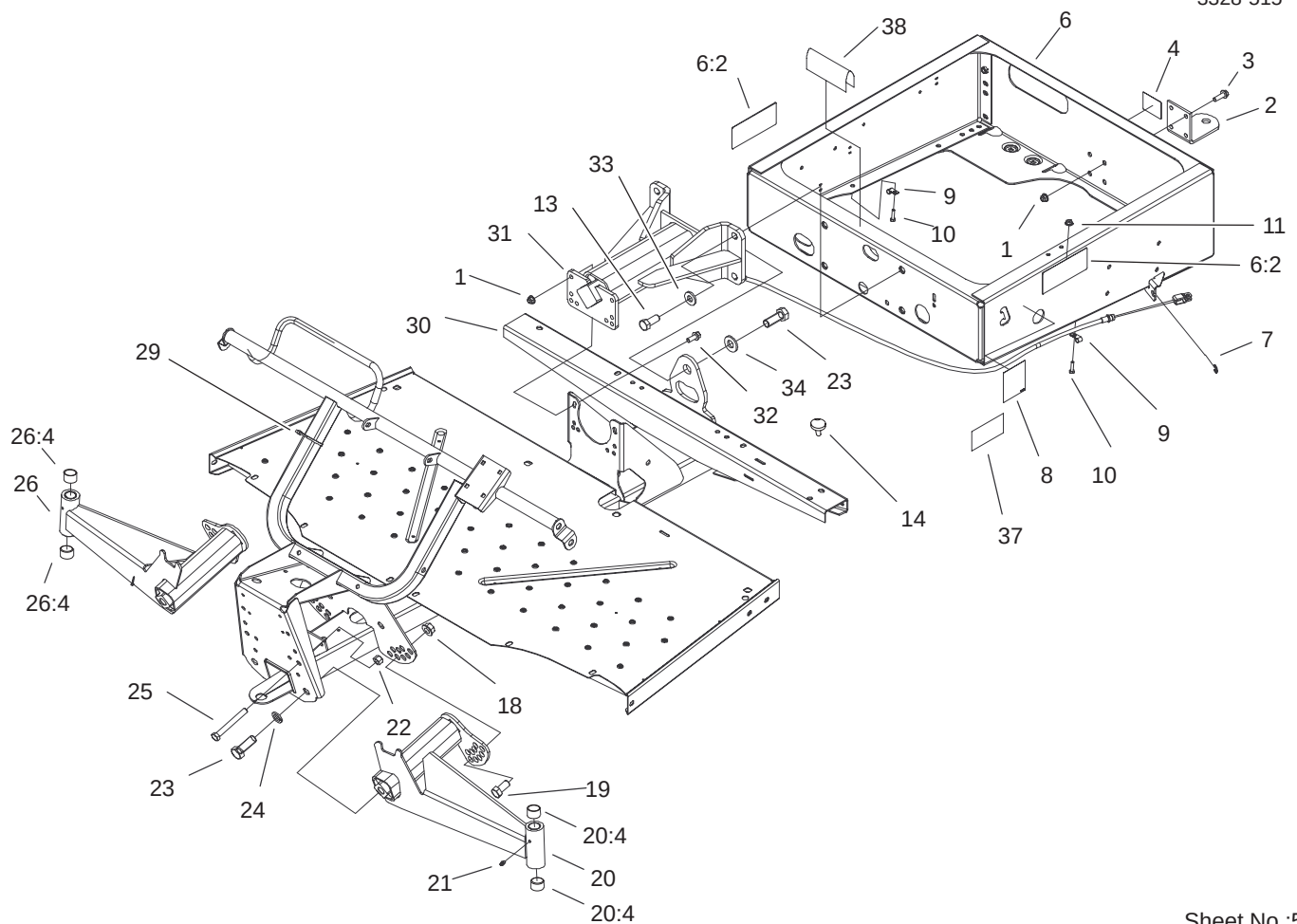
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Shifter Assembly

Ref. No.	Part No.	Qty.	Description
1	99-71 11	1	Cable-Choke
2	99-7887-03	1	Plate-Shift
3	3272-5	2	Pin-Cotter
4	99-7981	1	Knob-Grip, Soft
5	99-7879	1	Lever-Shift
6	104-8301	2	Nut-Flange, NI
7	104-6896	2	Cable-Shift
8	104-6415	1	Spring-Return, Pedal
9	99-7176	1	Detent
10	251-307	1	Bearing-Ball
11	3296-42	1	Nut-Lock, NI
12	32151-101	2	E-Ring
13	323-14	2	Screw-HH
14	104-6509-03	1	Bracket-Shift
15	88-9932	1	Switch-Micro
16	99-7952	1	Decal-Shift
17	32105-15	4	Screw
18	12-3270	4	Screw
19	3290-354	1	Nut-Speed
20	3290-313	2	Screw-PH
21	93-3240	1	Plunger-Seal

Ref. No.	Part No.	Qty.	Description

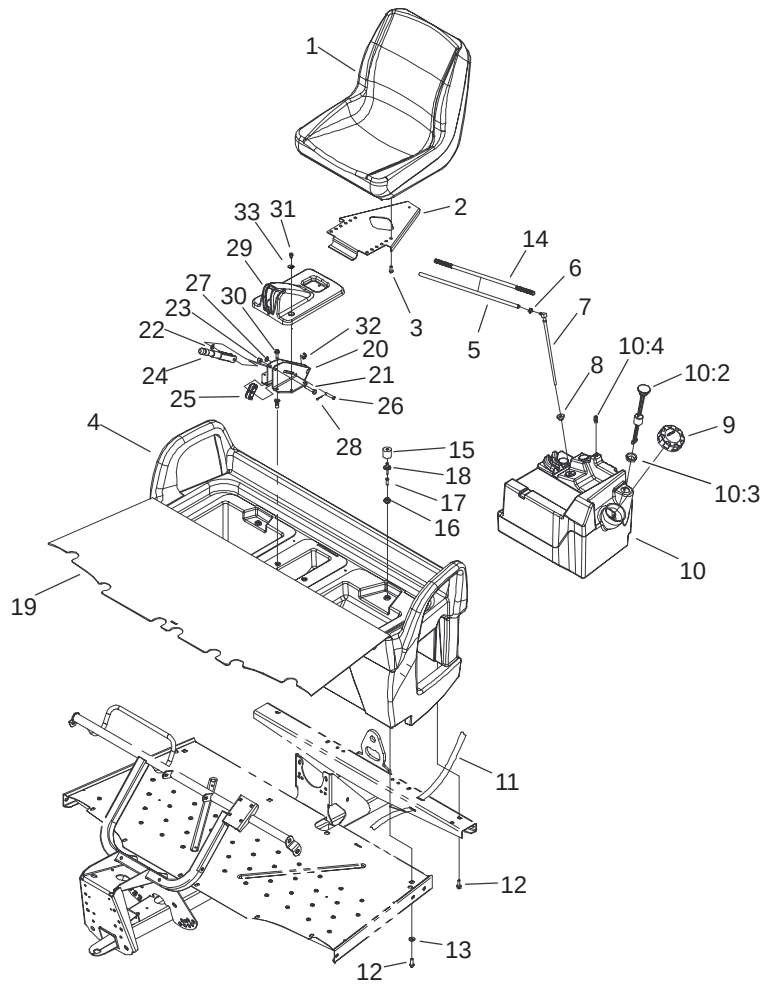


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Frame Assembly

Ref. No.	Part No.	Qty.	Description
1	104-8301	8	Nut-Flange, NI
2	99-7654-03	1	Hitch-Duty , Light
3	3234-24	4	Screw-HHF
4	99-7350	1	Decal-Information
6	99-7362	1	Rear Frame ASM
6:2	99-7345	2	Decal-Warning
7	32120-47	2	Ring-Retaining, External
8	99-7349	1	Decal-Information, Boxlatch
9	2412-89	2	Clamp
10	321-6	2	Screw-HH
11	32128-33	2	Nut-HF
13	327-4	4	Screw-HH
14	87-2440	1	Bumper-Rubber
18	32128-54	2	Nut-Flange
19	3214-2	2	Screw-HH
20	99-7685	1	LH A-Arm ASM
20:4	3-0348	2	Bushing
21	302-5	2	Fitting-Grease
22	3296-23	2	Nut-Lock, NI
23	328-24	5	Screw-HH
24	3254-7	4	Washer-Lock, Int
25	325-17	2	Screw-HH
26	99-7684	1	RH A-Arm ASM
26:4	3-0348	2	Bushing

Ref. No.	Part No.	Qty.	Description
29	3290-379	12	Tie-Cable
30	104-7197-03	1	Front Frame ASM
31	99-7700	1	Pivot Yoke ASM
32	3234-11	4	Screw-HHF
33	99-7667	4	Washer-Flat
34	87-3060	1	Washer-Hardened
37	104-6592	1	Decal-Capacity (Ce)
38	95-5686	1	Trim

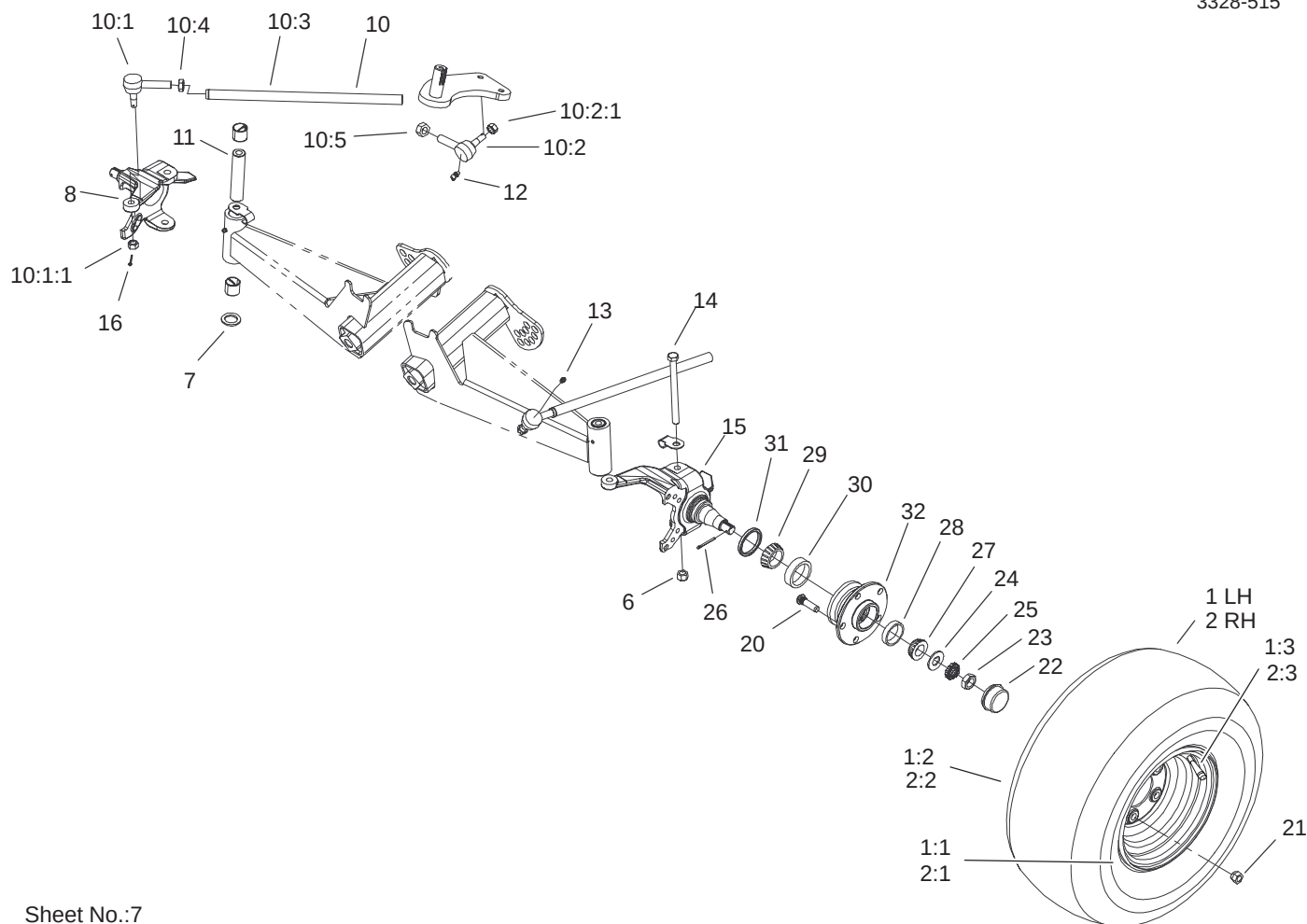


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Seatbase Assembly

Ref. No.	Part No.	Qty.	Description
1	99-7281	2	Seat
2	99-7829	2	Bracket-Seat
3	33114-016	8	Screw-HH
4	104-6847	1	Seat Base ASM
5	99-7187	1	Hose-Fuel
6	2412-98	1	Clamp
7	99-7264	1	Pipe-Stand
8	46-6560	1	Bushing
9	95-4192	1	Unleaded Gas Cap ASM
10	99-7323	1	Fuel Tank ASM
10:2	99-7262	1	Gauge-Fuel
10:3	95-8972	1	Grommet
10:4	99-7267	1	Vent-Air
11	3339-175	1	Strapping-W eb, 48in
12	3234-17	8	Screw-HHF
13	88-7200	4	Washer-Flat
14	99-7129	1	Conduit-Line, Fuel
15	99-7830	2	Rubber Receptical ASM
16	99-7833	2	Post-Holding
17	32108-5	2	Screw-FH
18	3290-412	2	Rivet
19	104-6590	1	Mat-Floor
20	104-6844-03	1	Support-Brake, Park
21	323-10	1	Screw-HH

Ref. No.	Part No.	Qty.	Description
22	3290-477	1	Washer-Curved
23	3296-39	1	Nut-Lock, NI
24	104-6842	1	Lever-Brake, Park
25	87-3480	1	Bracket-Equalizer , Cable
26	94-3829	1	Pin-Clevis
27	3256-23	1	Washer-Flat
28	3272-6	1	Pin-Cotter
29	104-7014	1	Cover-Brake, Parking
30	3234-17	4	Screw-HHF
31	12-3270	2	Screw
32	32120-47	2	Ring-Retaining, External
33	3256-1	2	Washer-Flat

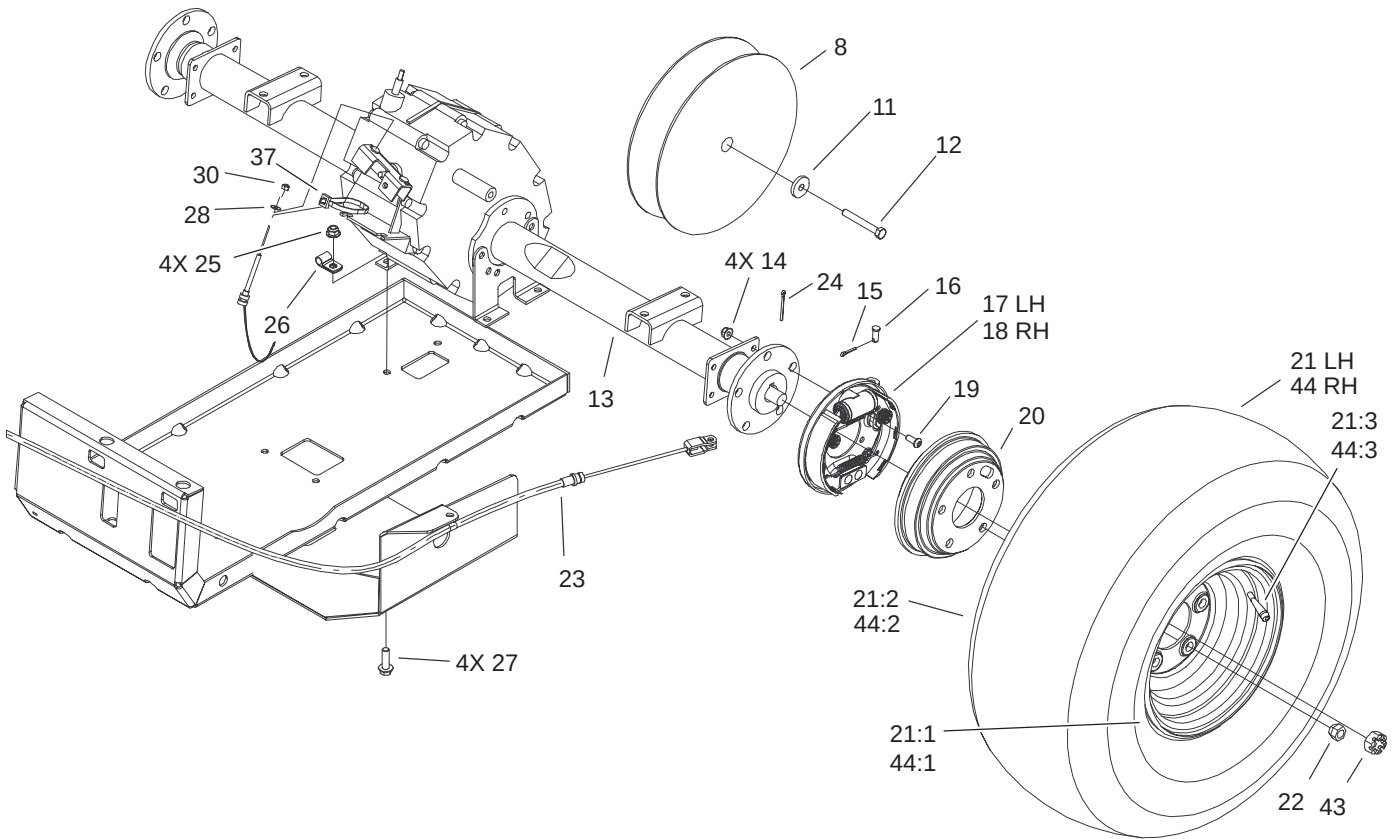


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Front Tire and Steering Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	104-6831	1	Tire And Wheel ASM	20	10-6830	10	Stud-T ype, Drive
1:1	104-6889	1	Wheel-5 Bolt	21	242-50	10	Nut-Lug
1:2	104-7062	1	Tire	22	241-1 19	2	Cap-Dust
1:3	232-27	1	Stem-V Valve	23	3220-7	2	Nut-Jam
2		1	Tire And Wheel ASM	24	93-0309	2	Washer-Tab
2:1	104-6889	1	Wheel-5 Bolt	25	93-0307	2	Nut-Lock, Retainer
2:2	104-7062	1	Tire	26	3272-12	2	Pin-Cotter
2:3	232-27	1	Stem-V Valve	27	254-94	2	Bearing-Cone, Taper
6	3296-23	2	Nut-Lock, NI	28	254-72	2	Bearing-Cup, Tapered
7	256-115	2	Washer-Thrust	29	254-106	2	Cone-Bearing, Tapered
8	104-6877-03	1	Spindle-Machined, RH Disc	30	254-107	2	Bearing-Cup, Tapered
★10		2	Tie Rod ASM	31	87-3590	2	Seal-Bearing
10:1	112772	1	Joint-Ball, RH	32	104-6809-03	2	Hub (Machined)
10:1:1	915031	1	Nut				
10:2	112771	1	Joint-Ball, LH				
10:2:1	915031	1	Nut				
10:3	99-7600-03	1	Rod-T ie				
10:4	3220-11	1	Nut-Jam				
10:5	3218-21	1	Nut-Jam				
11	99-7499	2	Sleeve-Kingpin				
12	302-60	2	Fitting-Grease				
13	302-5	2	Fitting-Grease				
14	325-20	2	Screw-HH				
15	104-6876-03	1	Spindle-Disc, LH				
16	3272-7	4	Pin-Cotter				

★ Not serviced separately



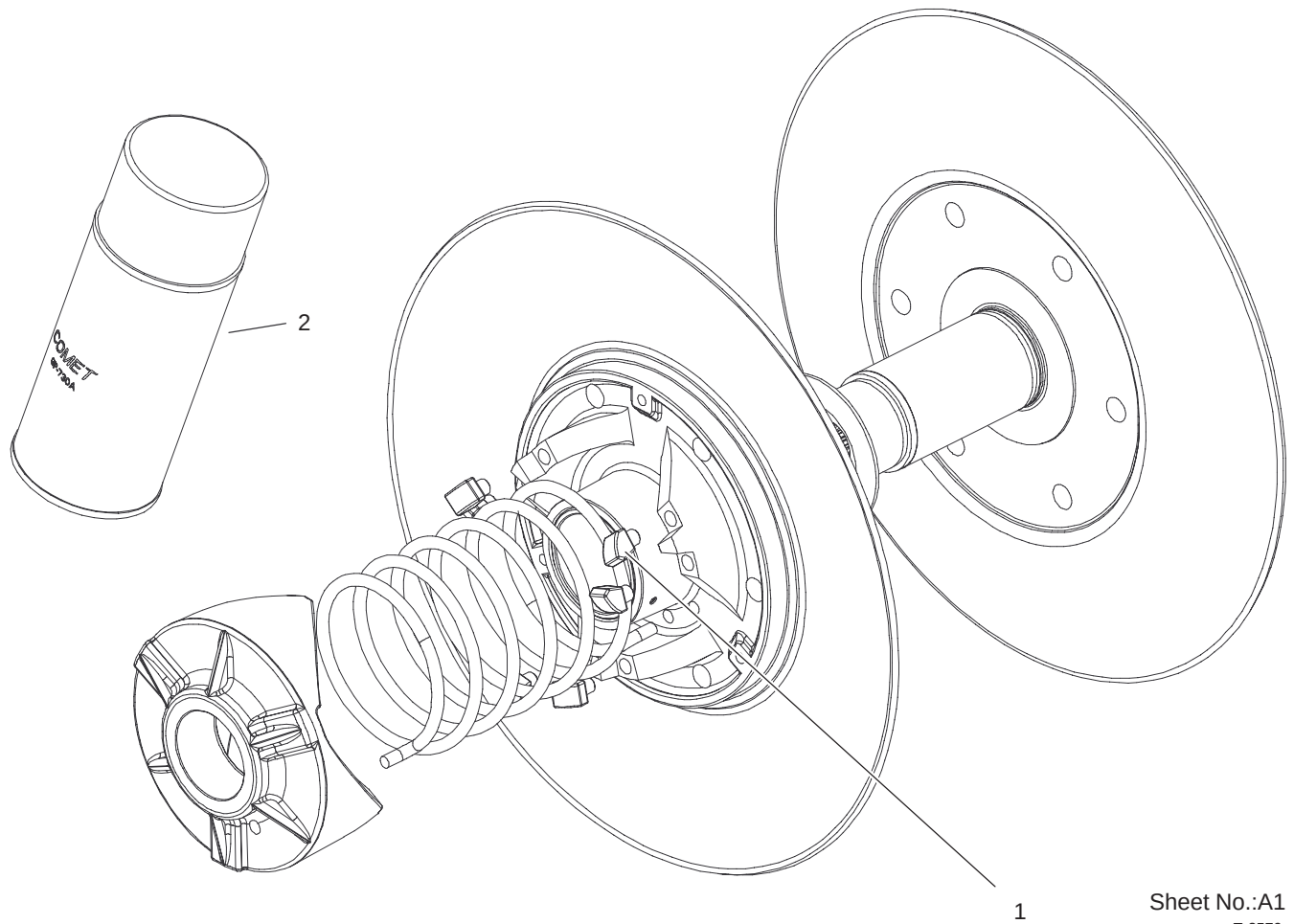
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Rear Tire and Transaxle Assembly

Ref. No.	Part No.	Qty.	Description
8	99-7104	1	Clutch-Driven
11	104-6563	1	Washer-Stepped
12	104-6564	1	Screw-HH
13	104-6898	1	Transaxle
14	104-8300	8	Nut-Flange, NI
15	3272-10	2	Pin-Cotter
16	283-62	2	Pin-Clevis
17	104-6807	1	LH Brake ASM
18	104-6806	1	RH Brake ASM
19	3274-55	8	Screw-HSBH
20	104-6500	2	Drum-Brake
21	104-6830	1	Tire And Wheel ASM
21:1	104-6889	1	Wheel-5 Bolt
21:2	104-7061	1	Tire
21:3	232-27	1	Stem-V valve
22	242-50	10	Nut-Lug
23	104-6846	2	Cable-Brake, Park
24	3272-42	2	Pin-Cotter
25	104-8301	4	Nut-Flange, NI
26	2412-10	1	R-Clamp
27	3234-24	4	Screw-HHF
28	3256-49	2	Washer-Flat
30	3296-2	2	Nut-Lock
37	3290-378	1	Tie-Cable
43	104-1656	2	Nut-Castle
☆44		1	Tire And Wheel ASM

Ref. No.	Part No.	Qty.	Description
44:1	104-6889	1	Wheel-5 Bolt
44:2	104-7061	1	Tire
44:3	232-27	1	Stem-V valve

☆ Not serviced separately



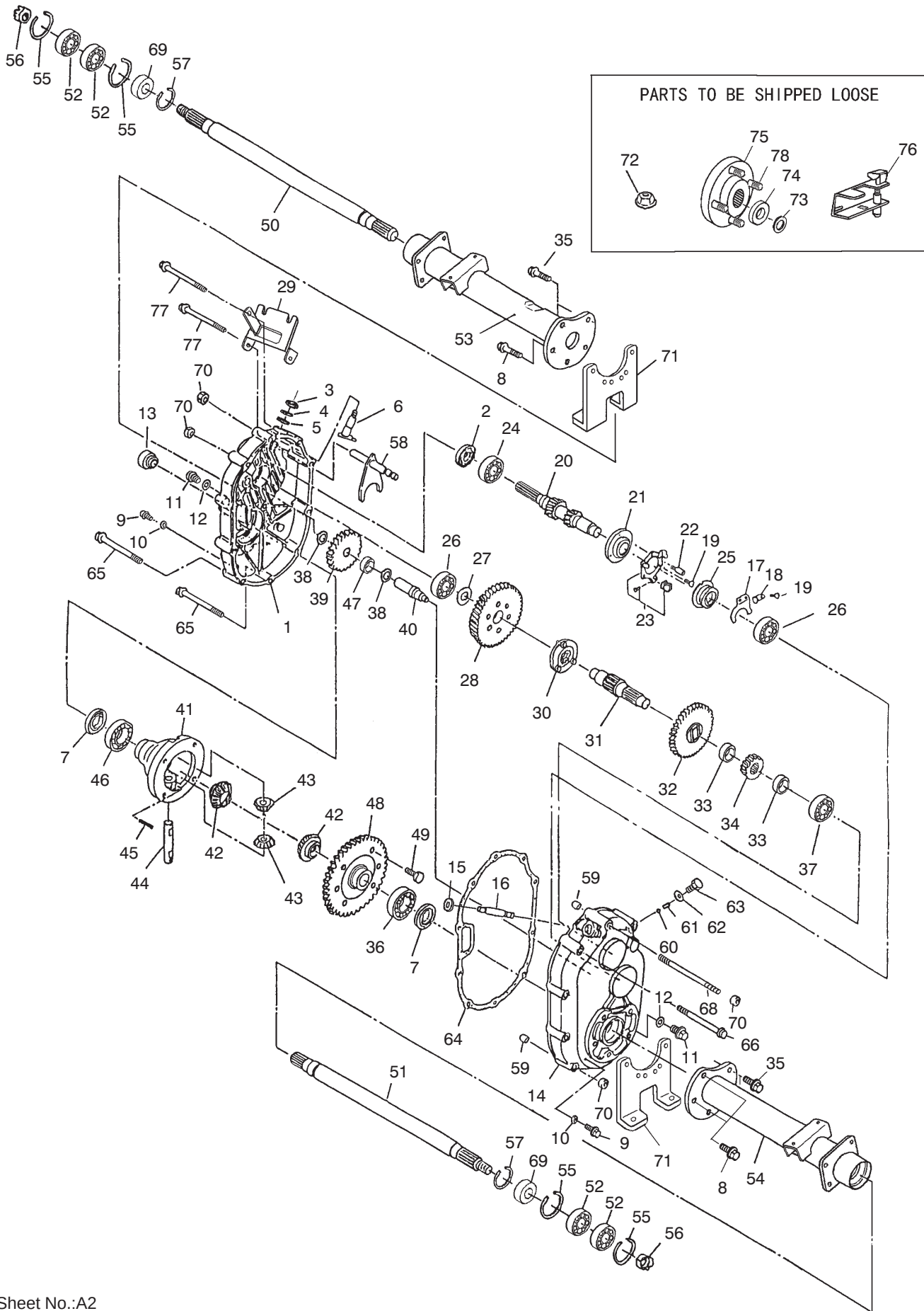
Sheet No.:A1
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Driven Clutch Assembly No. 99-7104

Ref. No.	Part No.	Qty.	Description
1	104-4256	6	Pivot Bolt And Nut Kit
2	104-7011	1	Lubricant-Dry

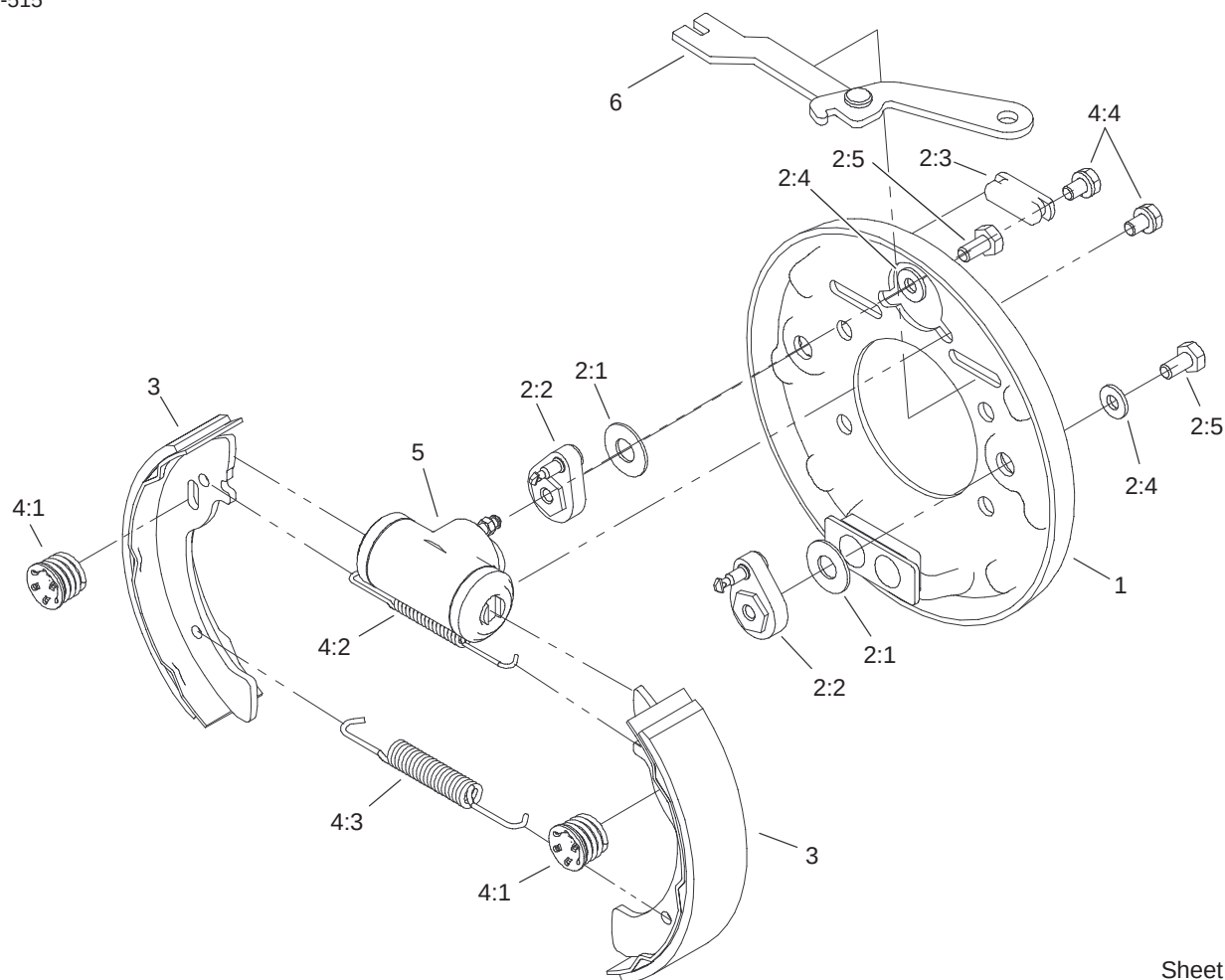
Ref. No.	Part No.	Qty.	Description

Transaxle Assembly No. 104-6898



Transaxle Assembly No. 104-6898

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	104-1601	1	Case-LH, Complete	60	104-1660	1	Ball-Steel
2	104-1602	1	Seal-Oil	61	104-1661	1	Spring
3	104-1603	1	Seal-Oil	62	104-1662	1	Gasket
4	104-1604	1	Ring-Snap	63	104-1663	1	Bolt
5	104-1605	1	Spacer	64	104-1664	1	Gasket
6	104-1606	1	Shaft-Selector	65	104-1665	6	Bolt-Flange
7	104-1607	2	Seal-Oil	66	104-1666	1	Bolt-Flange
8	104-1608	4	Bolt-Flange	68	104-6866	1	Bolt
9	104-1609	2	Plug-Check, Oil	69	104-6867	2	Collar
10	104-1610	2	Gasket	70	33004-00	11	Nut-HF
11	104-1611	2	Plug-Drain, Oil	71	104-1671	2	Bracket-Axle
12	104-1612	2	Gasket	72	104-1672	1	Nut-Lock
13	104-1613	1	Plug-Filler, Oil	73	104-1673	2	Washer-Spring
14	104-1614	1	Case-Complete, RH	74	104-1674	2	Washer
15	104-1615	1	Seal-Oil	75	104-1675	2	Hub
16	104-1616	1	Shaft-Governor	76	104-6860	1	Lever-Select
17	104-1617	1	Fork-Governor	77	104-6869	2	Bolt-Flange
18	104-1618	1	Stopper	78	104-8649	10	Stud
19	104-1619	4	Screw And Washer ASM				
20	104-7002	1	Shaft-Input, Complete				
21	104-1621	1	Base-Governor				
22	104-1622	1	Pin-Lock				
23	104-1623	1	Unit-Plate, Governor				
24	104-1624	1	Bearing-Ball				
25	104-1625	1	Sleeve-Governor				
26	104-1626	2	Bearing-Ball				
27	104-1627	1	Spacer				
28	104-1628	1	Gear				
29	104-1629	1	Bracket-Wire, Change				
30	104-1630	1	Clutch-Pin				
31	104-1631	1	Shaft-Center				
32	104-1632	1	Gear-47				
33	104-1633	2	Collar				
34	104-1634	1	Gear				
35	104-1635	6	Bolt-Flange				
36	104-1636	1	Bearing-Ball				
37	104-1637	1	Bearing-Ball				
38	104-1638	2	Spacer				
39	104-1639	1	Gear-34				
40	104-1640	1	Shaft-Counter				
41	104-1641	1	Case-Dif ferential				
42	104-1642	2	Gear-Side, Differential				
43	104-1643	2	Pinion-Dif ferential				
44	104-1644	1	Shaft-Dif ferential				
45	104-1645	1	Pin				
46	104-1646	1	Bearing-Ball				
47	104-1647	1	Bearing-Needle				
48	104-1648	1	Gear-62				
49	104-1649	6	Bolt				
50	104-1650	1	Shaft-Axle, LH				
51	104-1651	1	Shaft-Axle, RH				
52	104-1652	4	Bearing-Ball				
53	104-1653	1	Case-Axle, LH				
54	104-1654	1	Case-Axle, RH				
55	104-1655	4	Ring-Snap				
56	104-1656	2	Nut-Castle				
57	104-1657	2	Ring-Snap				
58	104-6870	1	Shaft-Shift, Complete				
59	104-1659	2	Knock-Pipe				



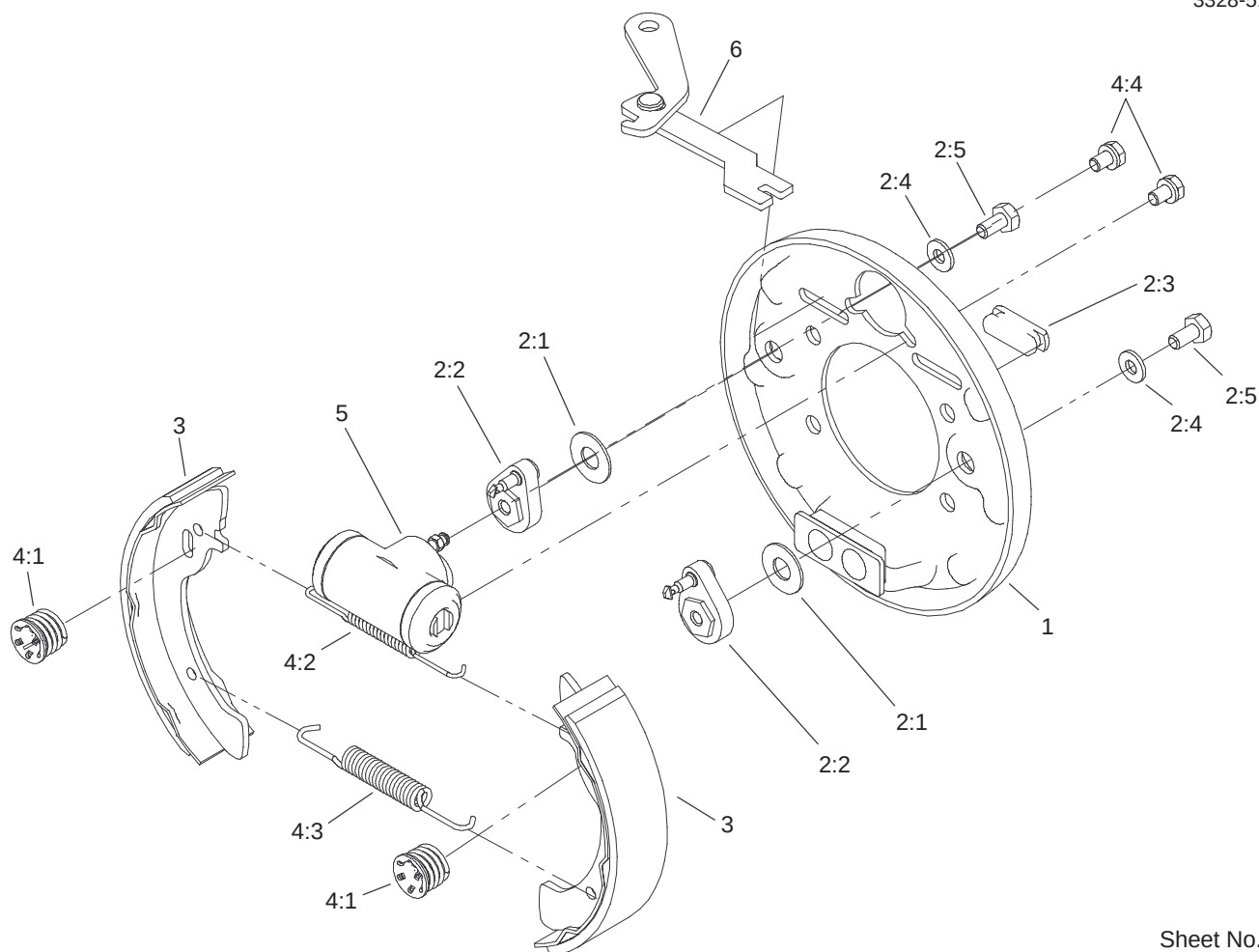
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Left Hand Brake Assembly No. 104-6807

Ref. No.	Part No.	Qty.	Description
1	100-8586	1	Backing Plate ASM
2	104-6820	1	Adjuster Kit
2:1	100-8585	2	Washer-Bellville
2:2	100-8588	2	Adjuster Lever ASM
2:3	100-8584	2	Cover-Dust
☆2:4		2	Washer
☆2:5		2	Bolt
3	104-6818	4	Shoe & Lining Kit
4	104-6819	1	Hardware Kit
4:1	100-8583	2	Shoe Hold Down Spring ASM
4:2	100-8581	2	Spring-Upper
4:3	100-8582	2	Spring-Lower
☆4:4		2	Bolt & Washer
5	104-6824	1	Wheel Cylinder ASM
6	104-6825	1	LH Park Brake Lever ASM

Ref. No.	Part No.	Qty.	Description

☆ Not serviced separately



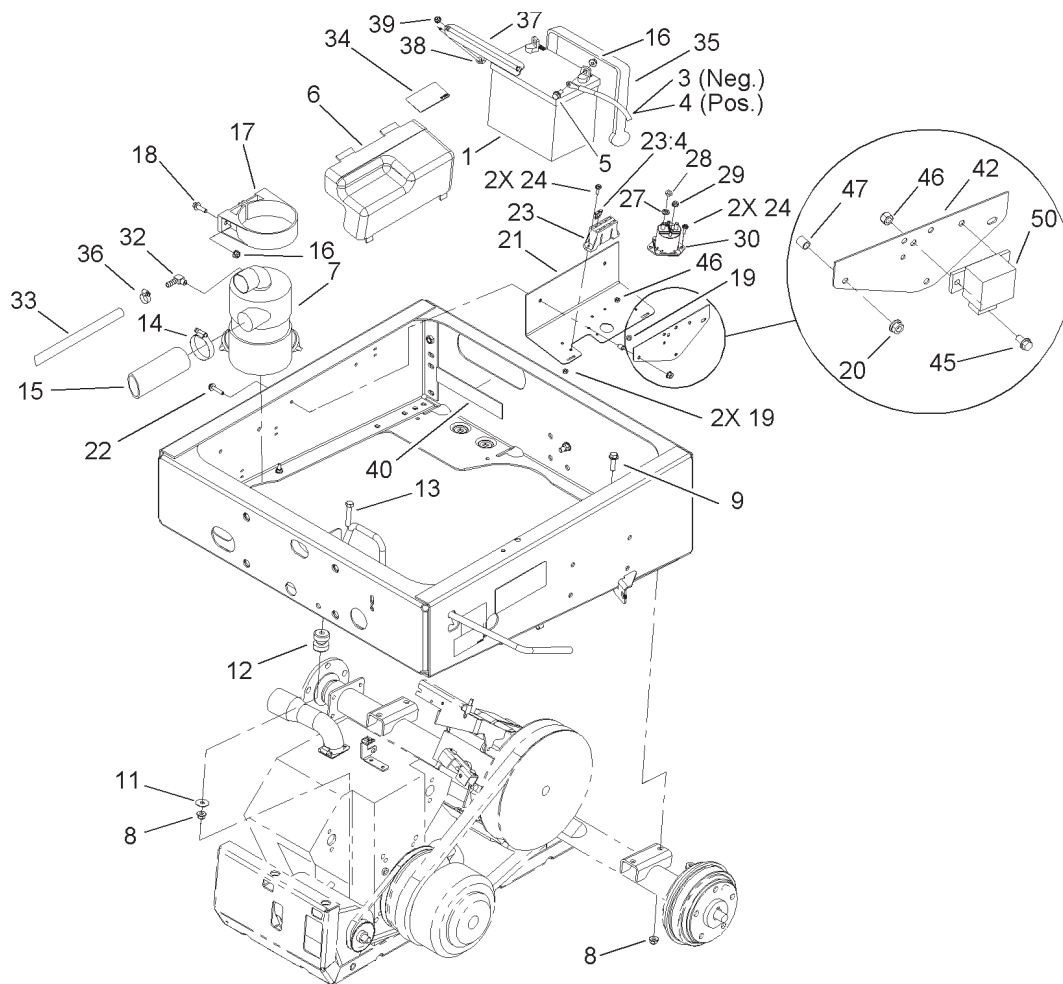
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Right Hand Brake Assembly No. 104-6806

Ref. No.	Part No.	Qty.	Description
1	100-8586	1	Backing Plate ASM
2	104-6820	1	Adjuster Kit
2:1	100-8585	2	Washer-Bellville
2:2	100-8588	2	Adjuster Lever ASM
2:3	100-8584	2	Cover-Dust
☆2:4		2	Washer
☆2:5		2	Bolt
3	104-6818	4	Shoe & Lining Kit
4	104-6819	1	Hardware Kit
4:1	100-8583	2	Shoe Hold Down Spring ASM
4:2	100-8581	2	Spring-Upper
4:3	100-8582	2	Spring-Lower
☆4:4		2	Bolt & Washer
5	104-6824	1	Wheel Cylinder ASM
6	104-6826	1	RH Park Brake Lever ASM

Ref. No.	Part No.	Qty.	Description

☆ Not serviced separately

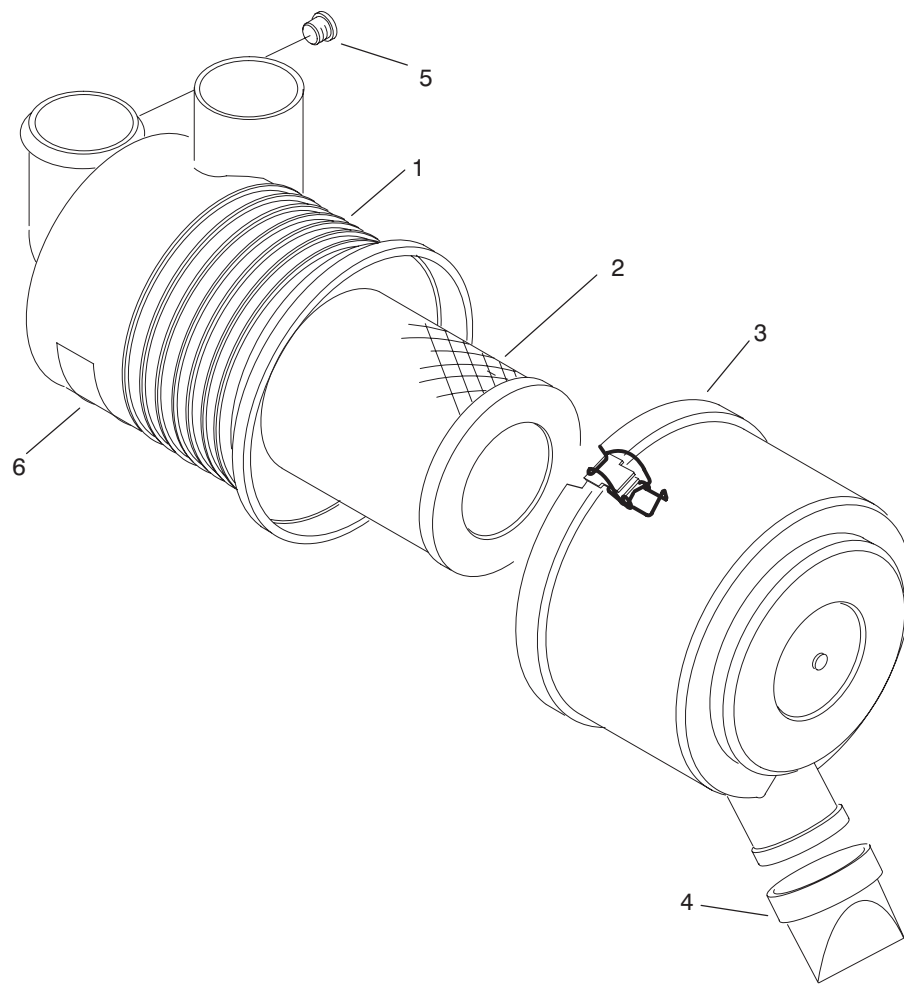


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Drivetrain Mount Assembly

Ref. No.	Part No.	Qty.	Description
1	104-8162	1	Battery
3	99-7428	1	Cable-Negative
4	99-7404	1	Cable-Positive
5	3234-5	2	Screw
6	99-7325	1	Cover-Electrical
7	99-7120	1	Filter-Air
8	104-8301	6	Nut-Flange, NI
9	3234-24	4	Screw-HHF
11	3256-35	2	Washer-Flat
12	95-2596	2	Mount-Iso
13	323-10	2	Screw-HH
14	2412-130	1	Clamp-Hose
15	104-6528	1	Hose-Intake
16	104-8300	4	Nut-Flange, NI
17	95-5806	1	Bracket-Mounting
18	3234-17	2	Screw-HHF
19	3296-2	4	Nut-Lock
20	32128-32	2	Nut-HHF
21	99-7051-03	1	Mount-Component
22	3234-21	2	Screw-Cap
23	99-7439	1	Harness-Wire, Main
23:4	218-578	3	Fuse-10 Amp
24	32105-13	4	Screw-SHH
27	3255-8	2	Washer-Lock
28	3218-2	2	Nut-Jam
29	32149-8	2	Nut-Keps

Ref. No.	Part No.	Qty.	Description
30	28-4210	1	Solenoid
32	99-7230	1	Fitting-90 °
33	99-7842	1	Hose-Breather
34	99-7958	1	Decal-Information
35	99-7197	1	Strap-Epdm (only on: 12004tc)
36	2412-36	2	Clamp-Hose
37	92-5018	1	Clamp-Battery
38	95-4042	2	Hook-Retain, Battery
39	104-7201	2	Nut-HF
40	104-7102	1	Pad-Battery
42	99-7370-03	1	Bracket-Ignition
45	3234-13	2	Screw-HHF
46	3296-42	2	Nut-Lock, NI
47	68-0610	2	Spacer
50	66-8800	1	Relay



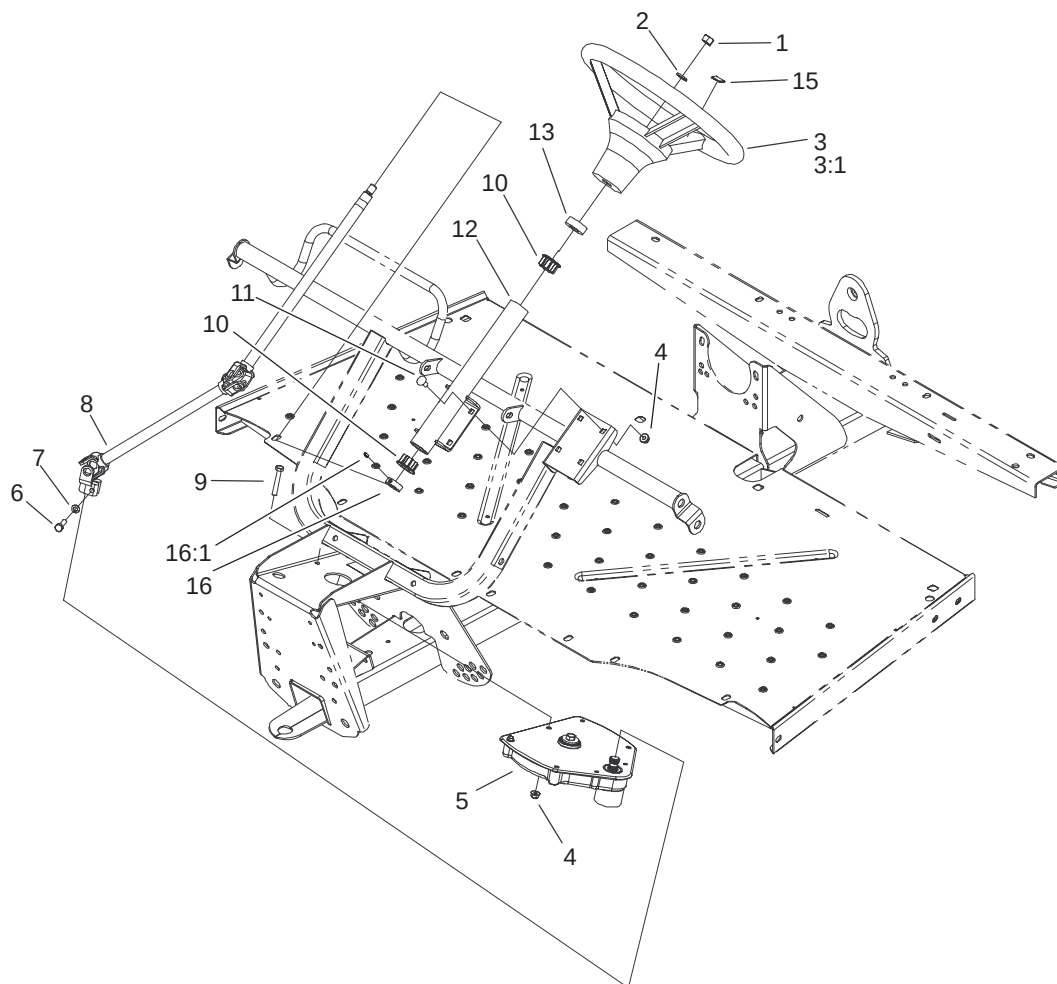
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Air Filter Assembly No. 99-7120

Ref. No.	Part No.	Qty.	Description
☆1		1	Body
2	93-2195	1	Filter
3	94-3652	1	Cover ASM
4	87-9400	1	Valve-Vacuator
☆5		1	Plug
☆6		1	Marking

Ref. No.	Part No.	Qty.	Description

☆ Not serviced separately

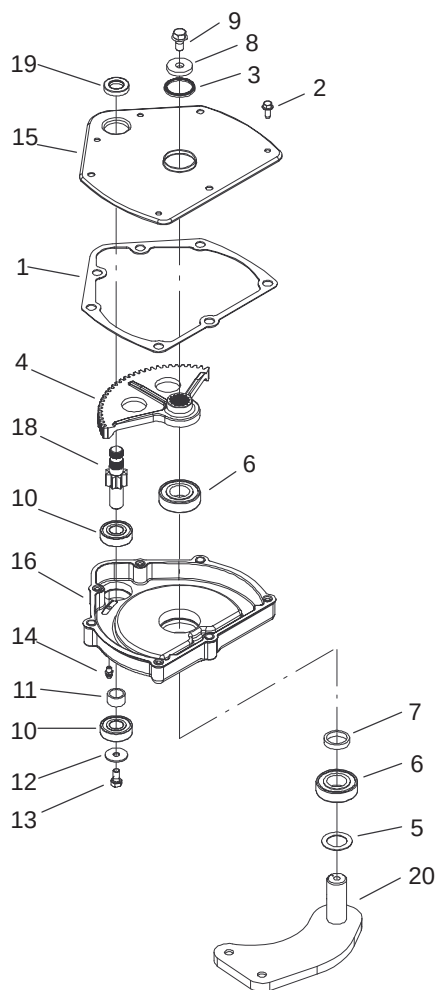


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Upper Steering Assembly

Ref. No.	Part No.	Qty.	Description
1	3277-1	1	Nut-Hex
2	48-8070	1	Washer-Lock
3	98-1471	1	Wheel-Steering
3:1	98-1468	1	Cover-Wheel, Steering
4	104-8300	7	Nut-Flange, NI
5	99-7660	1	Steering Gearbox ASM
6	48-7730	1	Screw-HH
7	3253-4	1	Washer-Lock
8	99-7653	1	Shaft-Steering
9	322-10	3	Screw-HH
10	93-1 146	2	Bushing-Upper , Steering
11	3230-1	4	Bolt-CARR
12	99-7651-03	1	Column-Steering
13	21-9260	1	Cover-Dust
15	98-1459	1	Decal-Toro
16	111383	1	Collar
16:1	3245-32	1	Screw-HS

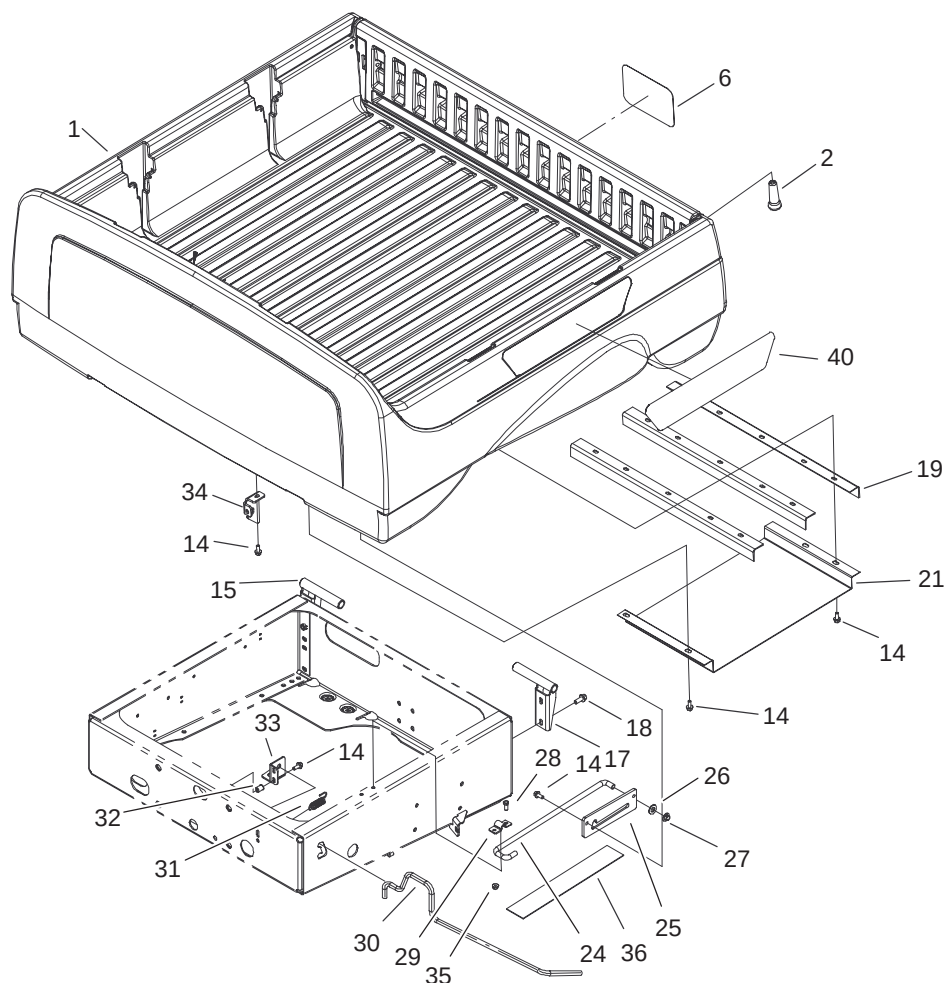
Ref. No.	Part No.	Qty.	Description



Sheet No.:A6

Steering Gearbox Assembly No. 99-7660

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	94-2135	1	Gasket				
2	32144-10	4	Screw-HWH				
3	103118	1	Seal				
4	99-7843	1	Sector-Gear				
5	3256-42	1	Washer-Flat				
6	251-82	2	Bearing-Ball				
7	94-2218	1	Spacer-Shaft, Output				
8	104-6563	1	Washer-Stepped				
9	104-7156	1	Screw-HHF				
10	38-7820	2	Bearing-Ball				
11	94-2217	1	Spacer-Shaft, Input				
12	3256-82	1	Washer-Flat				
13	98-3498	1	Screw-HH				
14	302-5	1	Fitting-Grease				
15	99-7656-03	1	Cover-Housing, Steering				
16	99-7658	1	Housing-Steering				
18	99-7650	1	Gear-Pinion				
19	99-7657	1	Seal-Oil				
20	99-7601-03	1	Arm-Pitman				



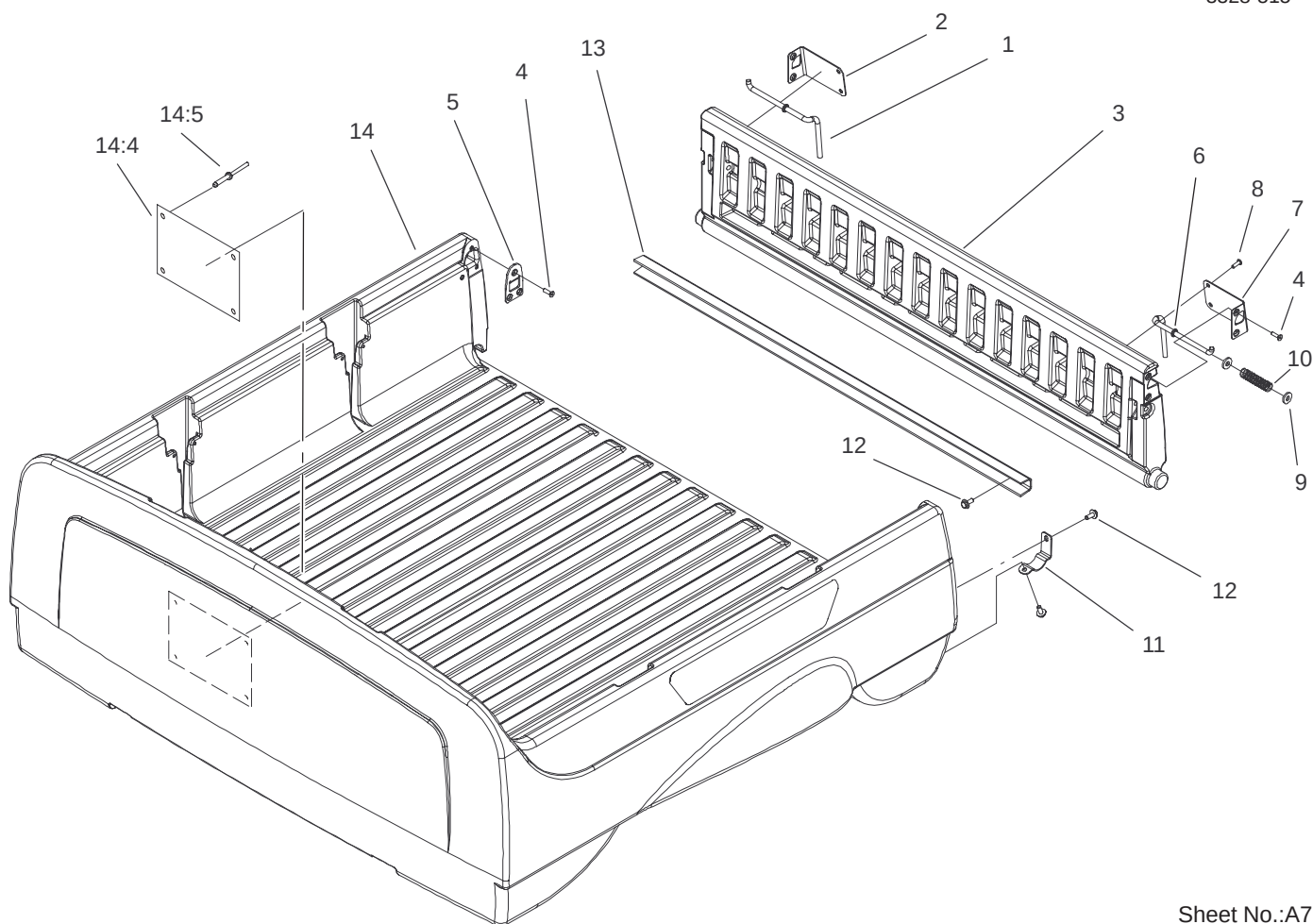
Sheet No.:12

Box and Tailgate Installation Assembly

Ref. No.	Part No.	Qty.	Description
☆1		1	Box And Tailgate ASM
2	99-7984	2	Knob-Soft Grip, Push-On
6	104-7213	1	Decal-Tailgate, Toro
14	3234-5	18	Screw
15	99-7309-03	1	RH Pivot Bracket ASM
17	99-7308-03	1	LH Pivot Bracket ASM
18	3234-11	4	Screw-HHF
19	99-7864-03	3	Brace-Box
21	99-7870	1	Shield-Heat
24	99-7895	1	Rod-Prop
25	99-7894	1	Bracket-Rod, Prop
26	3256-26	1	Washer-Flat
27	32112-14	1	Nut-Push
28	3234-17	2	Screw-HHF
29	99-7896	1	Bracket-U, Prop Rod
30	99-7745	1	Rod-Latch
31	5-7290	1	Spring
32	32148-7	2	Insert-Nut
33	99-7744-03	1	Bracket-Latch
34	99-7742-03	1	Hook-Latch, RH
35	104-8300	1	Nut-Flange, NI
36	104-6859	1	Shield-Heat
40	104-7266	2	Decal-Bed

Ref. No.	Part No.	Qty.	Description

☆ Not serviced separately

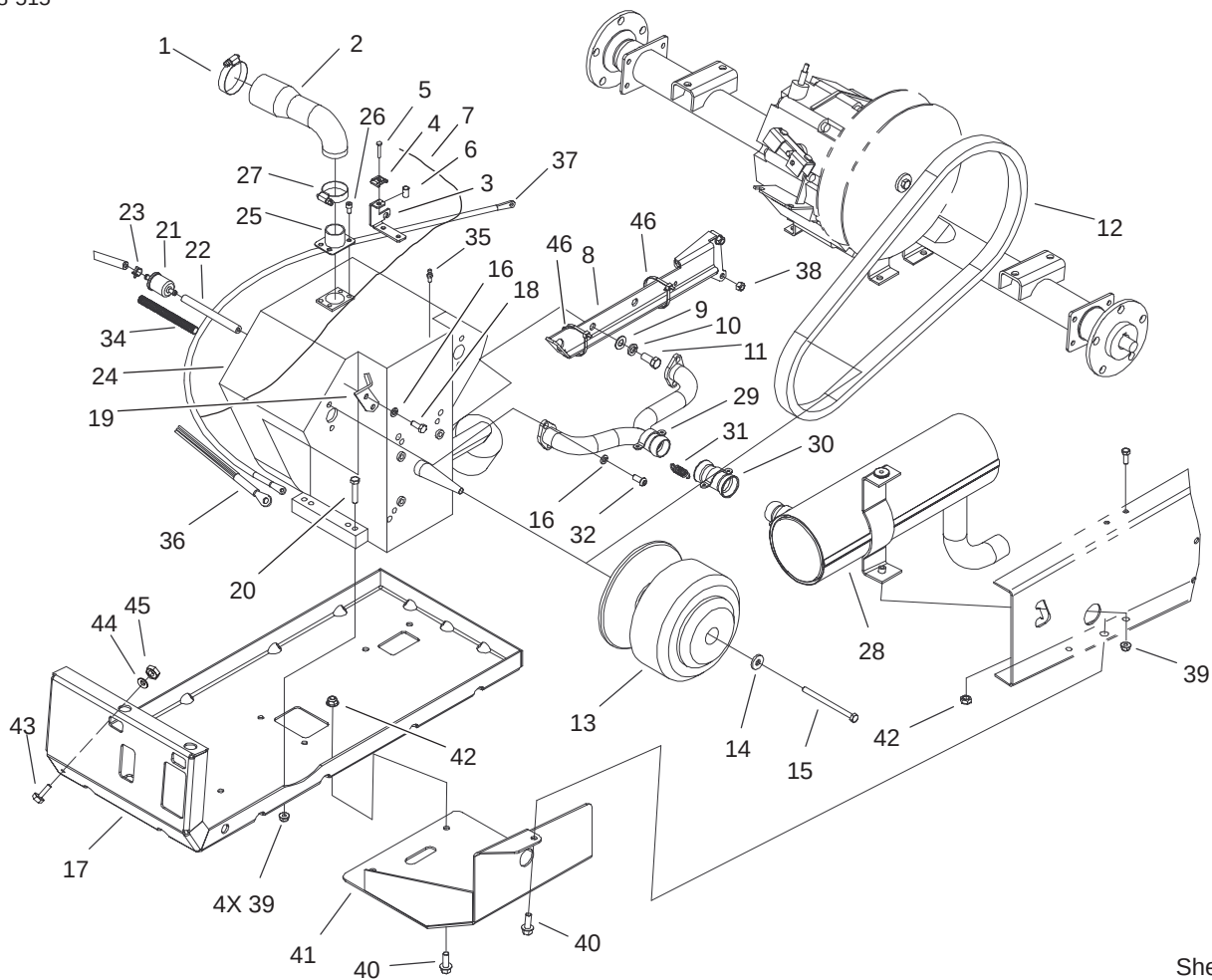


Sheet No.:A7

Box and Tailgate Assembly

Ref. No.	Part No.	Qty.	Description
1	99-7860	1	Rod-Latch, Right
2	99-7858	1	Bracket-T ailgate Latch, Right
3	99-7893	1	Tailgate ASM
4	99-7334	10	Screw
5	99-7852	2	Plate-Striker
6	99-7859	1	Rod-Latch, Left
7	99-7857	1	Bracket-T ailgate Latch, Left
8	99-7335	4	Screw
9	99-7861	4	Washer-Latch
10	61-8880	2	Spring
11	99-7286	2	Bracket-Pivot, Tailgate
12	3234-5	10	Screw
13	99-7867	1	Channel-Tailgate
14	104-7203	1	Box ASM
14:4	99-7954	1	Decal-Plate, No Riders
14:5	3290-415	4	Rivet

Ref. No.	Part No.	Qty.	Description

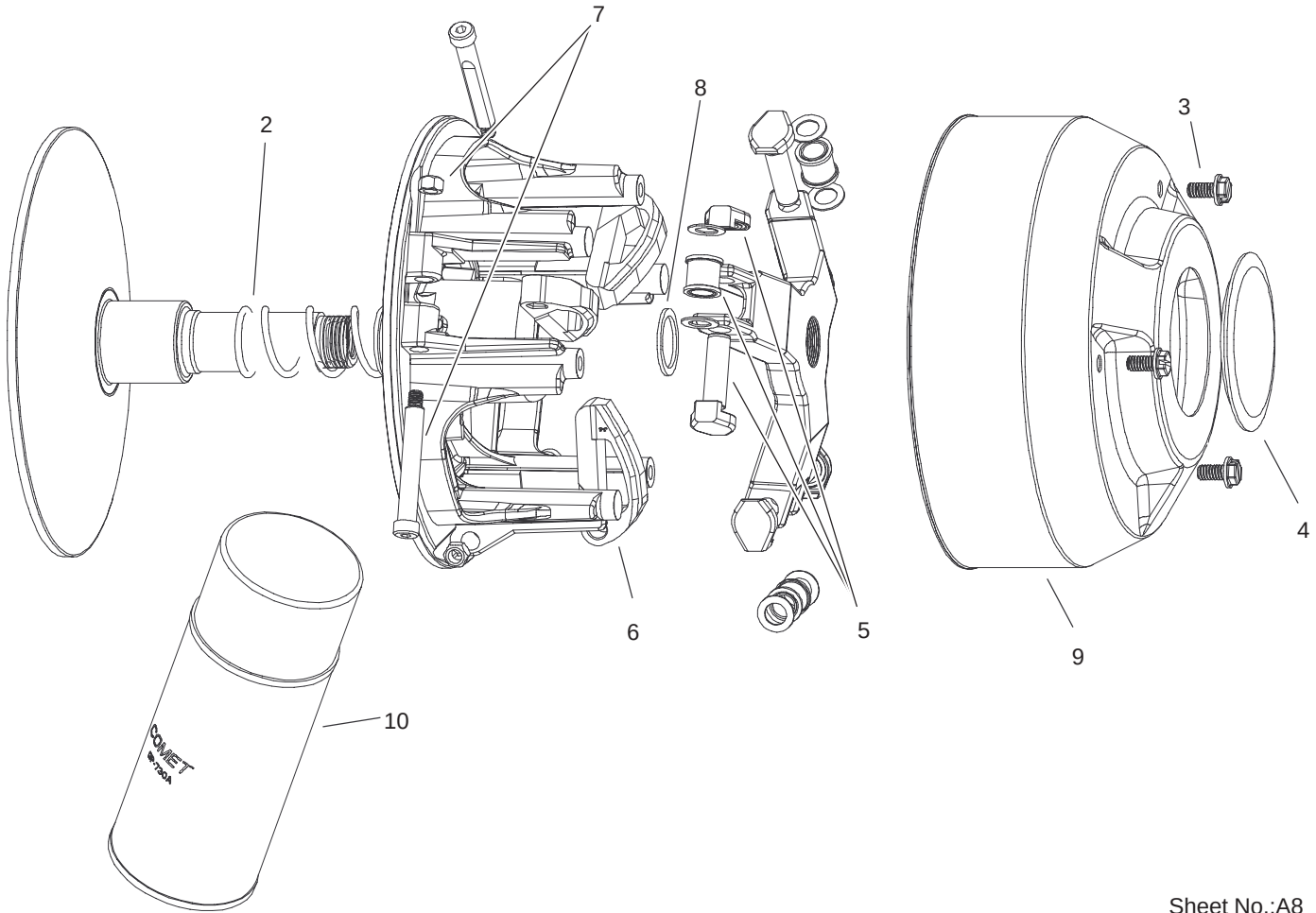


Sheet No.:15

Engine and Clutch Assembly

Ref. No.	Part No.	Qty.	Description
1	2412-130	1	Clamp-Hose
2	99-7106	1	Hose-Intake
3	99-7097	1	Bracket-Cable
4	81-1690	1	Clamp-Cable
5	3290-432	1	Screw-HH
6	32148-14	1	Insert-Threaded
7	104-7169	1	Cable-Accelerator
8	104-6631-03	1	Torque Arm ASM
9	3256-25	2	Washer-Flat
10	3253-6	2	Washer-Lock
11	324-4	2	Screw-HH
12	99-7144	1	Belt-Drive
13	99-7939	1	Clutch-Drive
14	5-0838	1	Washer
15	99-7201	1	Screw-HH
16	3253-4	6	Washer-Lock
17	104-6433-03	1	Mount-Engine
18	66-3160	2	Screw-Cap
19	104-7152	1	Bracket-Cable, Throttle
20	322-8	4	Screw-HH
21	94-2690	1	Filter-Fuel
22	47-2966	1	Hose-Fuel
23	2412-98	3	Clamp
24	104-6649	1	Engine-B/S
25	99-7083	1	Bracket-Intake

Ref. No.	Part No.	Qty.	Description
26	99-7202	4	Screw
27	2412-3	1	Clamp-Hose
28	104-6475	1	Muffler-Engine
29	104-6476	1	Manifold-Engine
30	104-6477	1	Coupler-Exhaust
31	104-6478	4	Spring-Coupler, Exhaust
32	3274-96	4	Screw
34	99-7377	1	Conduit-Line, Fuel
35	99-7847	1	Ball-Stud
36	99-7426	1	Harness-Wire, Engine
37	28-3894	1	Positive Red Wire ASM
38	33024-00	2	Nut-Lock
39	104-8300	5	Nut-Flange, NI
40	3234-1.1	3	Screw-HHF
41	104-6408-03	1	Clutch-Guard
42	104-8301	3	Nut-Flange, NI
43	321-4	1	Screw-HH
44	3255-8	1	Washer-Lock
45	32128-32	1	Nut-HHF
46	3290-379	2	Tie-Cable

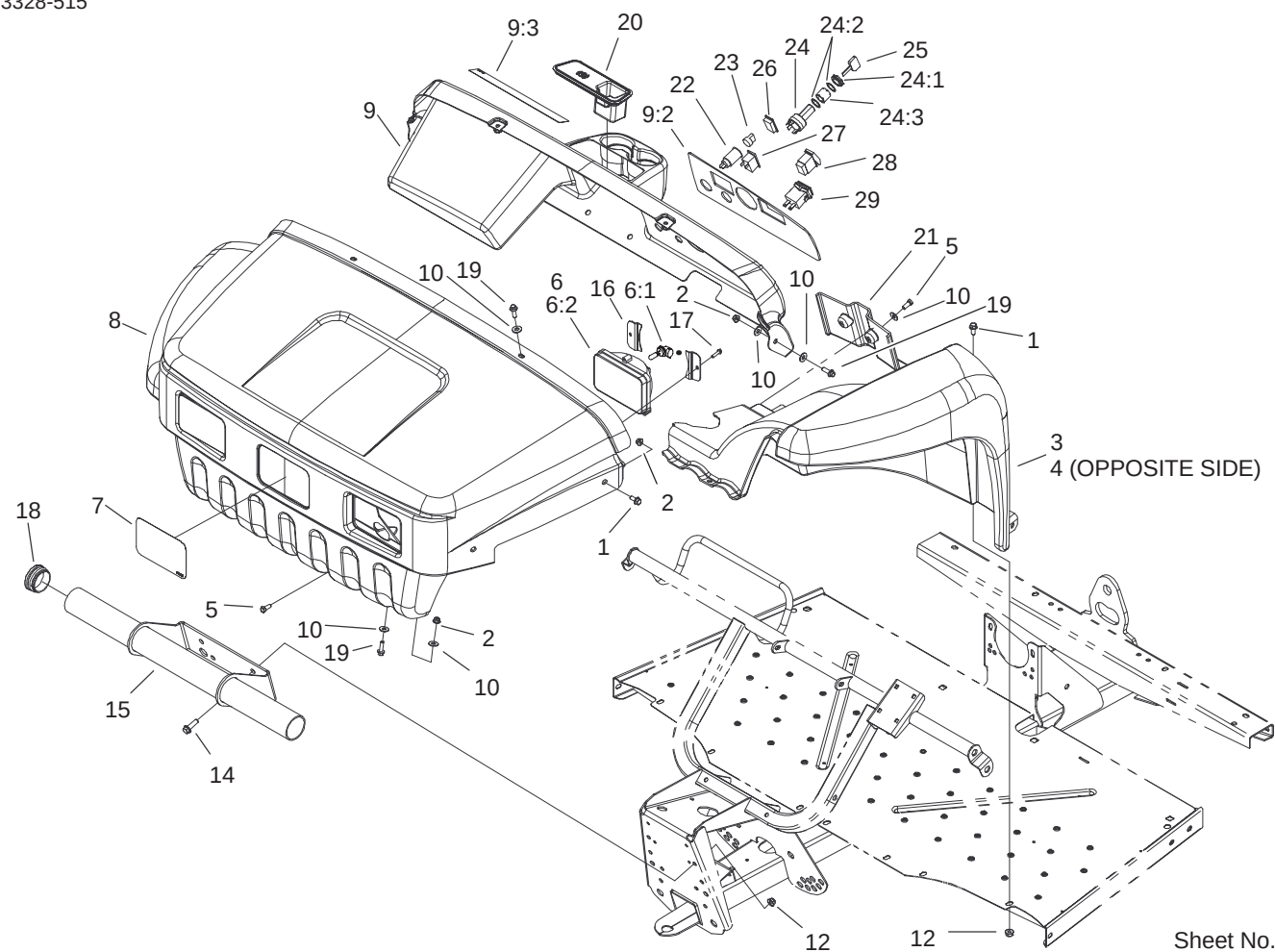


Sheet No.:A8

Drive Clutch Assembly No. 99-7939

Ref. No.	Part No.	Qty.	Description
2	104-7046	1	Spring
3	3234-26	3	Screw
4	104-1690	1	Cap
5	104-1697	1	Spider Roller Kit
6	104-7043	1	Cam Arm
7	104-4257	1	Button Kit
8	104-1687	1	Spacer
9	104-1691	1	Cover
10	104-7011	1	Lubricant-Dry

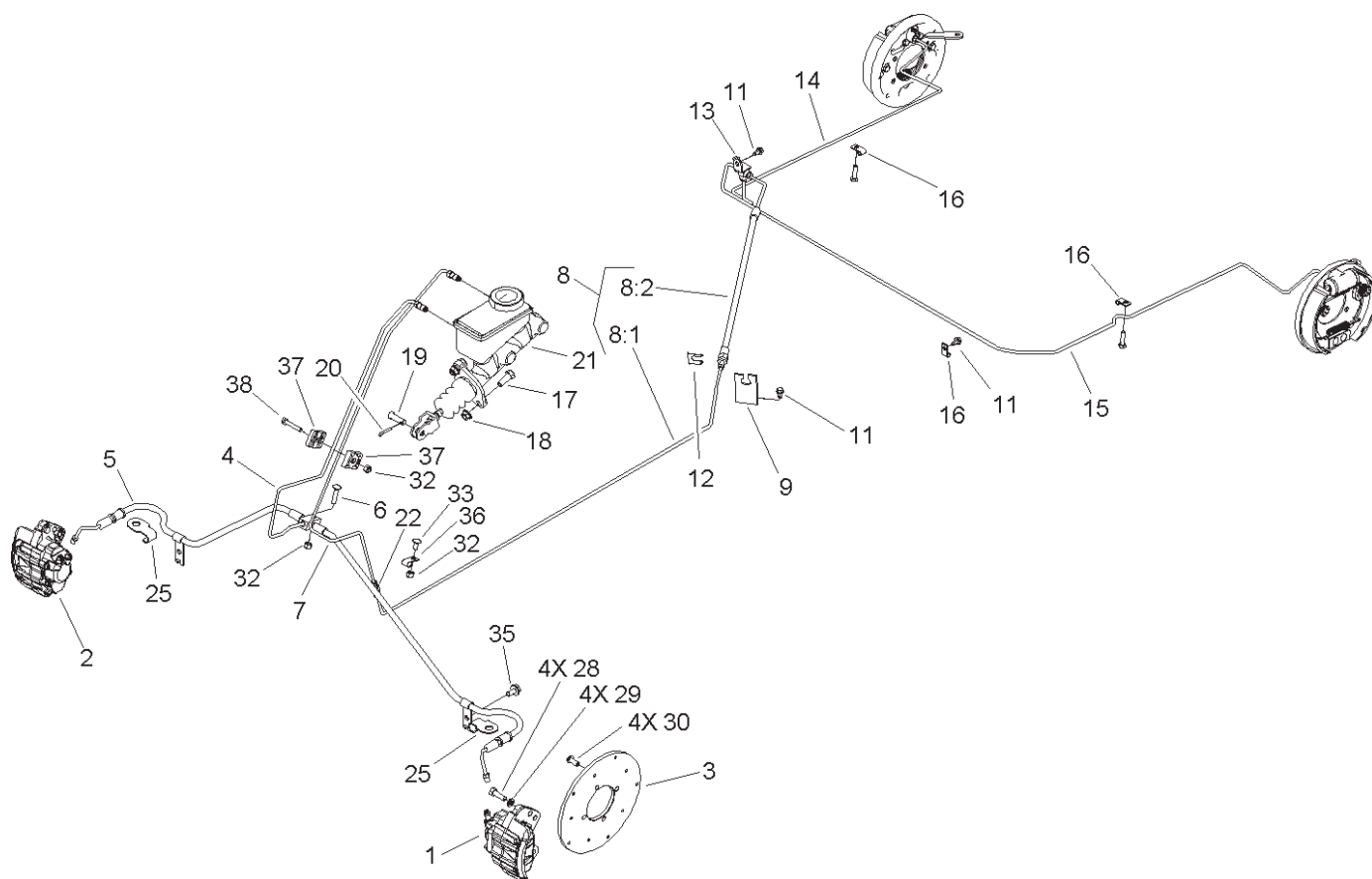
Ref. No.	Part No.	Qty.	Description



Hood and Fender Assembly

Ref. No.	Part No.	Qty.	Description
1	3234-5	12	Screw
2	104-8300	14	Nut-Flange, NI
3	104-7078	1	LH Fender ASM
4	104-7079	1	RH Fender ASM
5	104-7206	4	Screw Hfh
6	87-2120	2	Headlight
6:1	95-0909	1	Lamp-12 Volt
6:2	87-6330	1	Lens-Headlight
7	62-5550	1	Decal-Toro
8	99-7379	1	Hood ASM
9	104-6848	1	Dash ASM
9:2	99-7951	1	Decal-Warning, Dash
9:3	104-6581	1	Decal-Danger
10	3256-3	10	Washer-Flat
12	104-8301	6	Nut-Flange, NI
14	32144-67	4	Screw
15	99-7840-03	1	Bumper-T ube
16	99-7947	4	Bracket-Headlight
17	99-7331	4	Screw-HWH
18	2410-42	2	Cap-End
19	3234-17	6	Screw-HHF
20	104-6930	1	Plug-Rubber
21	104-7075	1	Cover-Channel
22	99-7411	1	Point-Power
23	99-7416	1	Cap
24	104-6929	1	Switch-Ignition

Ref. No.	Part No.	Qty.	Description
24:1	104-7042	1	Nut-Switch, Plastic
24:2	104-7019	2	Washer-Lock, Internal
24:3	104-7021	1	Spacer-Switch
25	99-7418	2	Key-Ignition
26	99-7420	1	Plug-Hole
27	99-7410	1	Light-Oil
28	95-8999	1	Switch
29	94-4208	1	Hourmeter



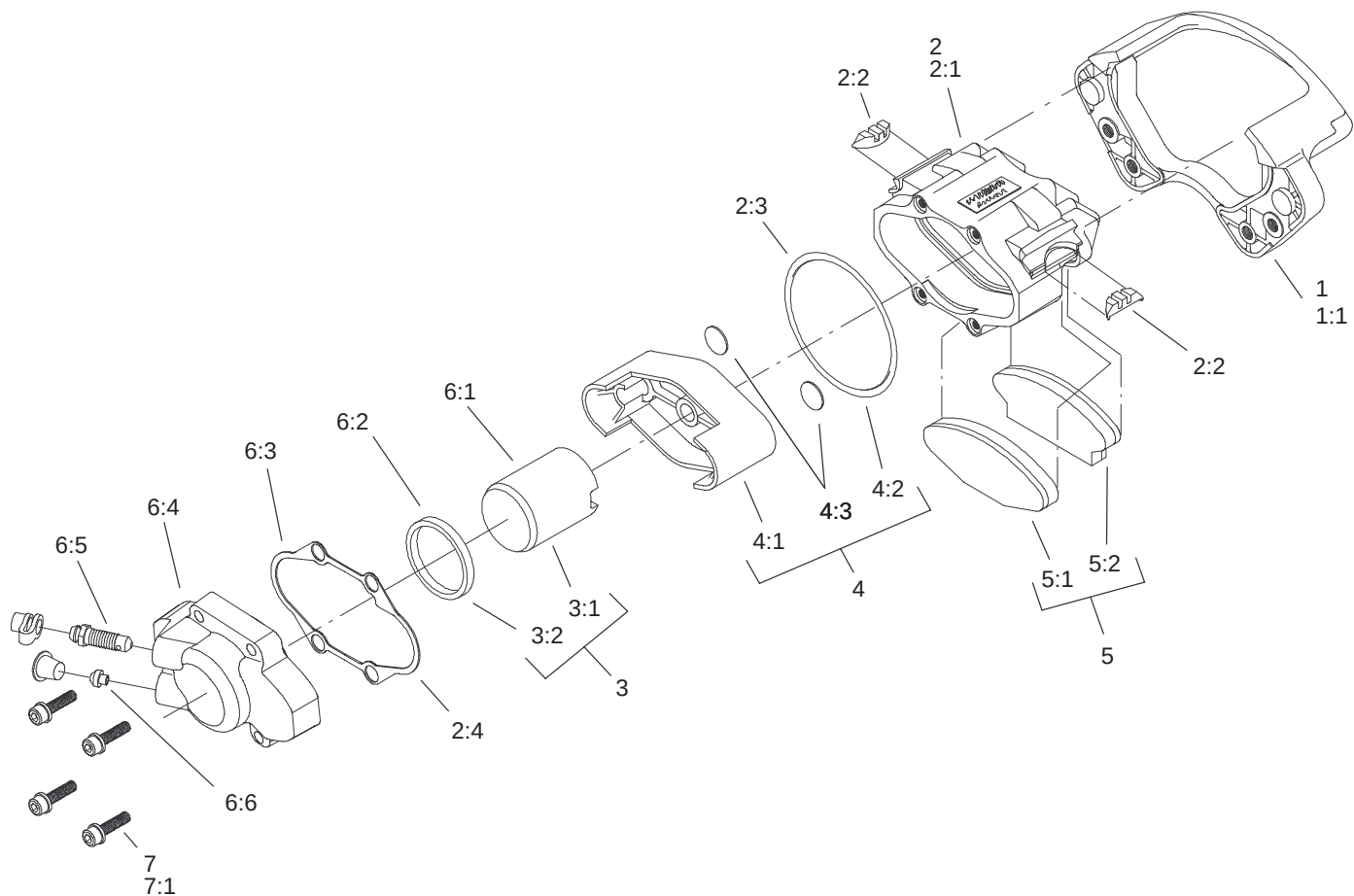
Sheet No.:18

Brake and Master Cylinder Assembly

Ref. No.	Part No.	Qty.	Description
1	104-6801	1	Caliper-LH
2	104-6802	1	Caliper-RH
3	104-6891	2	Rotor
4	104-6798	1	Tube-Front, Brake
5	104-7157	1	Hose ASM
6	3229-3	1	Screw-CARR
7	104-6793	1	Tube-Brake, Rear
☆8		1	Complete Rear Brake Hose ASM
8:1	104-6794	1	Tube-Brake, Rear
8:2	104-6795	1	Hose-Brake, Rear
9	104-6799	1	Bracket-Hose, Brake
11	12-3270	3	Screw
12	104-7092	1	Clip
13	87-3560	1	Tee
14	104-6796	1	Tube-Brake Rear, RH
15	104-6797	1	Tube-Brake Rear, LH
16	2412-72	3	Clip-Closed, Insulated
17	323-6	2	Screw-HH
18	3290-357	2	Nut-HHF
19	283-2	1	Pin-Clevis
20	3272-10	1	Pin-Cotter
21	104-6782	1	Cylinder-Master
22	87-3570	1	Union
25	104-7073	2	Bracket-Hose
28	33114-025	8	Screw-HH

Ref. No.	Part No.	Qty.	Description
29	3253-4	8	Washer-Lock
30	3274-55	8	Screw-HSBH
32	3296-42	3	Nut-Lock, NI
33	3229-11	1	Screw-CARR
35	32144-14	2	Screw-HWH
36	2412-89	1	Clamp
37	87-7660	2	Clamp-Tube
38	321-9	1	Screw-HH

☆ Not serviced separately



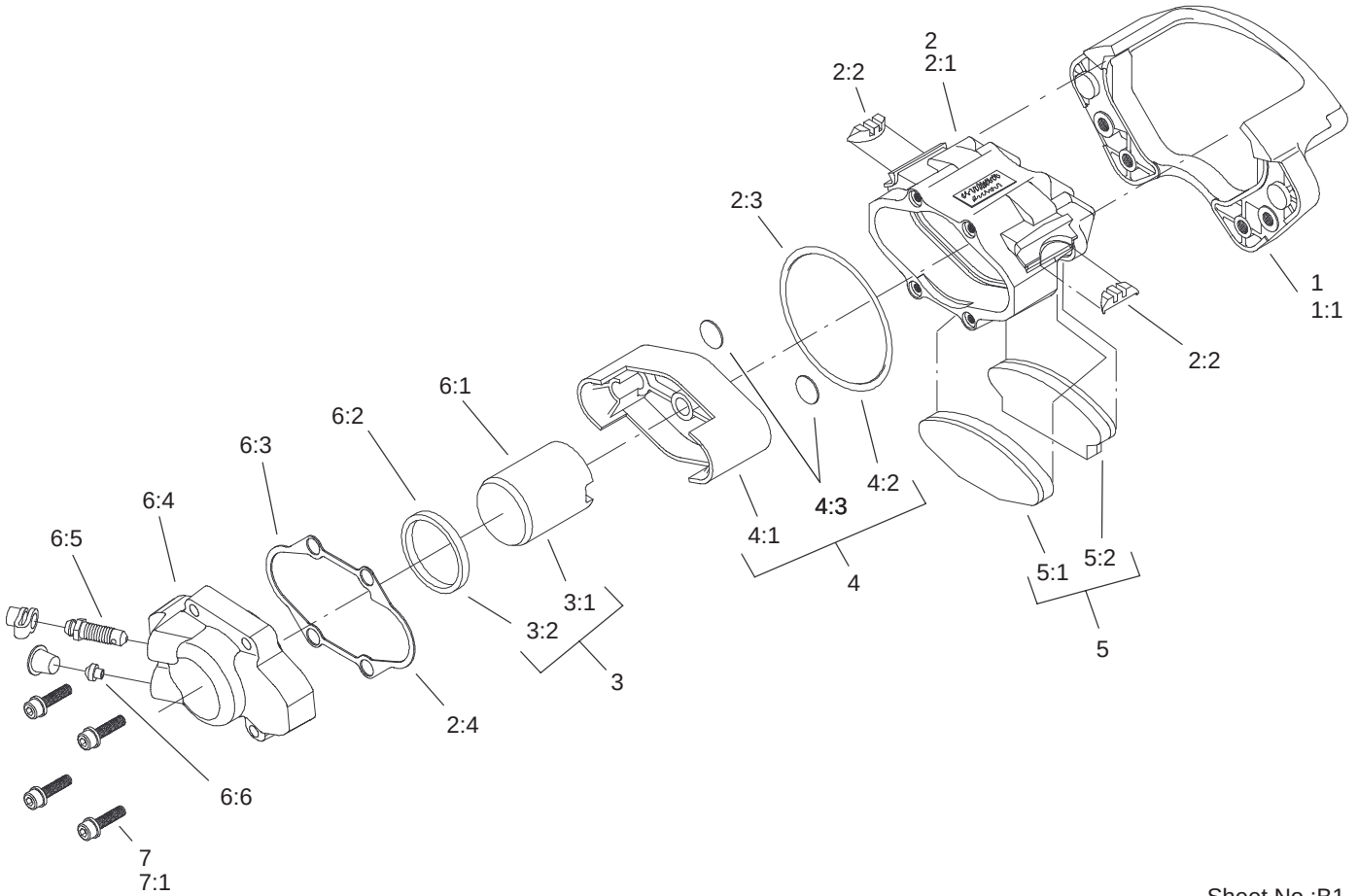
Sheet No.:A9

Left Hand Caliper Assembly No. 104-6801

Ref. No.	Part No.	Qty.	Description
1	105-9311	1	Bracket Kit
☆1:1		1	Bracket
2	105-9312	1	Housing Kit
☆2:1		1	Housing
☆2:2		2	Spring-Rubber
☆2:3		1	O-Ring
☆2:4		1	Gasket
3	105-9313	1	Piston & Seal Kit
☆3:1		1	Piston-Round
☆3:2		1	Seal-Square
4	105-9314	1	Piston & O-Ring Kit
☆4:1		1	Piston-Oval
☆4:2		1	O-Ring
☆4:3		2	Plug-Piston
5	105-9315	1	Pad Kit
☆5:1		2	Pad/Holder ASM
☆5:2		2	Pad/Holder ASM
6	105-9317	1	LH Piston & Cover ASM Kit
☆6:1		1	Piston-Round
☆6:2		1	Seal-Square
☆6:3		1	Gasket
☆6:4		1	Cover
☆6:5		1	Screw-Bleeder
☆6:6		1	Insert-Seat

Ref. No.	Part No.	Qty.	Description
7	105-9318	1	Bolt Kit
☆7:1		4	Screw-Cover

☆ Not serviced separately



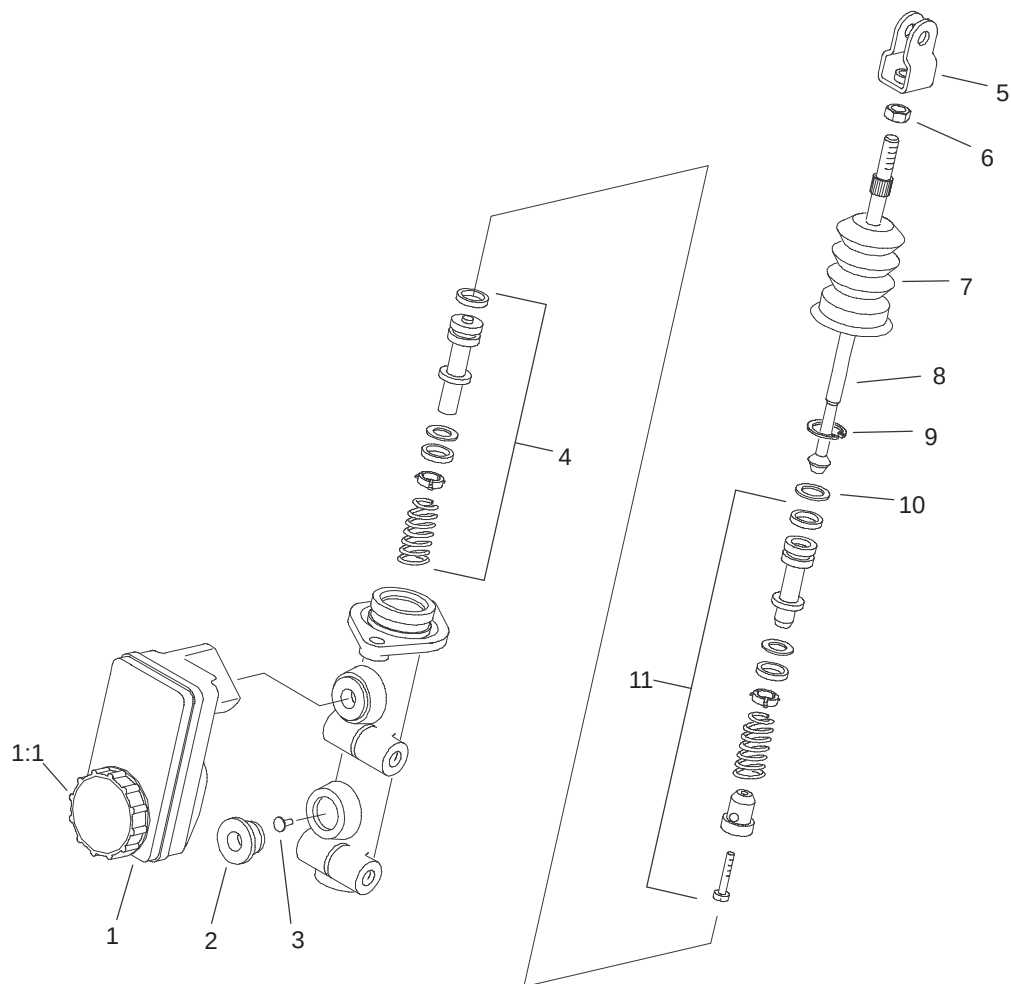
Sheet No.:B1

Right Hand Caliper Assembly No. 104-6802

Ref. No.	Part No.	Qty.	Description
1	105-9311	1	Bracket Kit
☆1:1		1	Bracket
2	105-9312	1	Housing Kit
☆2:1		1	Housing
☆2:2		2	Spring-Rubber
☆2:3		1	O-Ring
☆2:4		1	Gasket
3	105-9313	1	Piston & Seal Kit
☆3:1		1	Piston-Round
☆3:2		1	Seal-Square
4	105-9314	1	Piston & O-Ring Kit
☆4:1		1	Piston-Oval
☆4:2		1	O-Ring
☆4:3		2	Plug-Piston
5	105-9315	1	Pad Kit
☆5:1		2	Pad/Holder ASM
☆5:2		2	Pad/Holder ASM
6	105-9316	1	RH Piston & Cover ASM Kit
☆6:1		1	Piston-Round
☆6:2		1	Seal-Square
☆6:3		1	Gasket
☆6:4		1	Cover
☆6:5		1	Screw-Bleeder
☆6:6		1	Insert-Seat

Ref. No.	Part No.	Qty.	Description
7	105-9318	1	Bolt Kit
☆7:1		4	Screw-Cover

☆ Not serviced separately



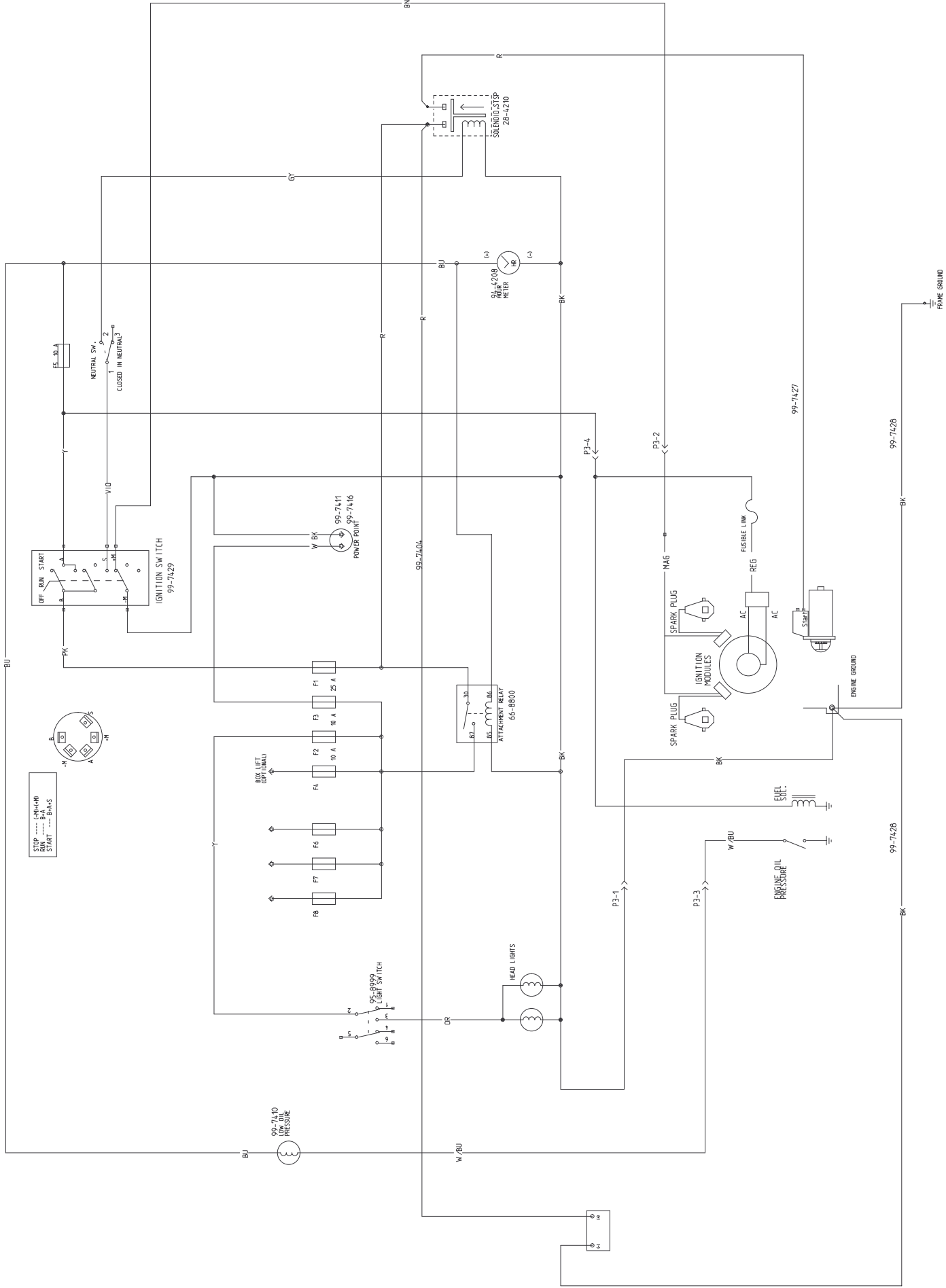
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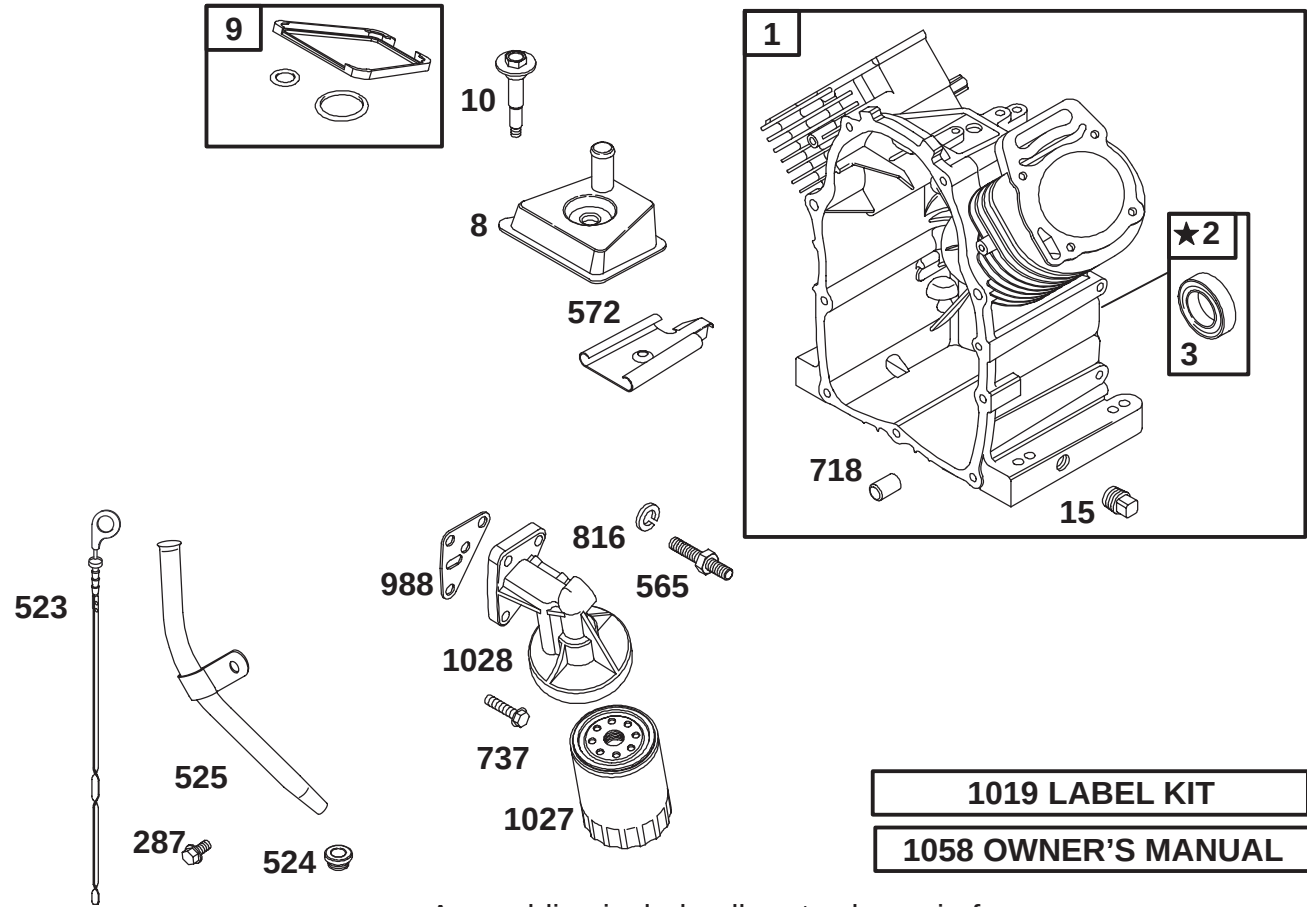
Master Cylinder Assembly No. 104-6782

Ref. No.	Part No.	Qty.	Description
1	104-6845	1	Reservoir ASM
1:1	92-4112	1	Cap ASM
2	93-8971	2	Seal-Port, Flange
3	92-4103	1	Pin-Stop
4	92-4102	1	Secondary Piston ASM
5	92-4110	1	Clevis
6	21-0360	1	Nut-Hex
7	94-5209	1	Cover-Dust
8	94-5210	1	Rod-Push
9	92-4109	1	Circlip
10	92-4108	1	Retainer-Washer
11	92-4101	1	Primary Piston ASM

Ref. No.	Part No.	Qty.	Description

Electrical Schematic





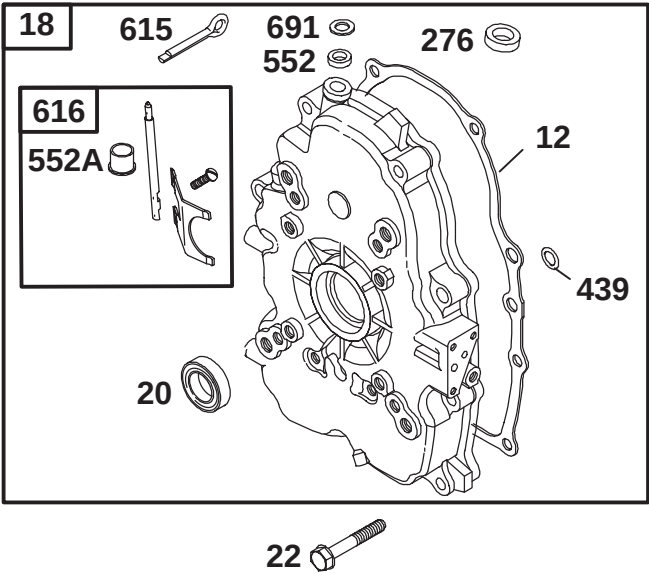
Assemblies include all parts shown in frames.

Cylinder, Oil Filter and Dipstick Assembly

Ref. No.	Part No.	Qty.	Description
1	692178	1	Assembly-Cylinder
2	808534	1	Kit-Bushing/Seal (Magneto Side)
★3	805101	1	Seal-Oil
8	808984	1	Assembly-Breather
★9	807893	1	Gasket-Breather
10	690751	1	Screw (Breather Assembly)
15	690946	1	Plug-Oil Drain
287	692062	1	Screw (Dipstick Tube)
523	693175	1	Dipstick
★524	693172	1	Seal-Dipstick Tube
525	693173	1	Tube-Dipstick
565	690682	1	Stud (Oil Filter Adapter)
572	690686	1	Baffle-Breather
718	690684	1	Pin-Locating
737	690679	1	Screw (Oil Filter Adapter)
816	690706	1	Washer (Oil Filter Adapter)
★988	692063	1	Gasket-Oil Filter

Ref. No.	Part No.	Qty.	Description
1019	808036	1	Adapter Kit-Label
1027	492932	1	Filter-Oil
1028	808235	1	Adapter-Oil Filter
1058	274790	1	Owner's Manual (Emission Engines)

Δ Included in Valve Gasket Set-Ref. 1095.
★ Included in Engine Gasket Set-Ref. 358.

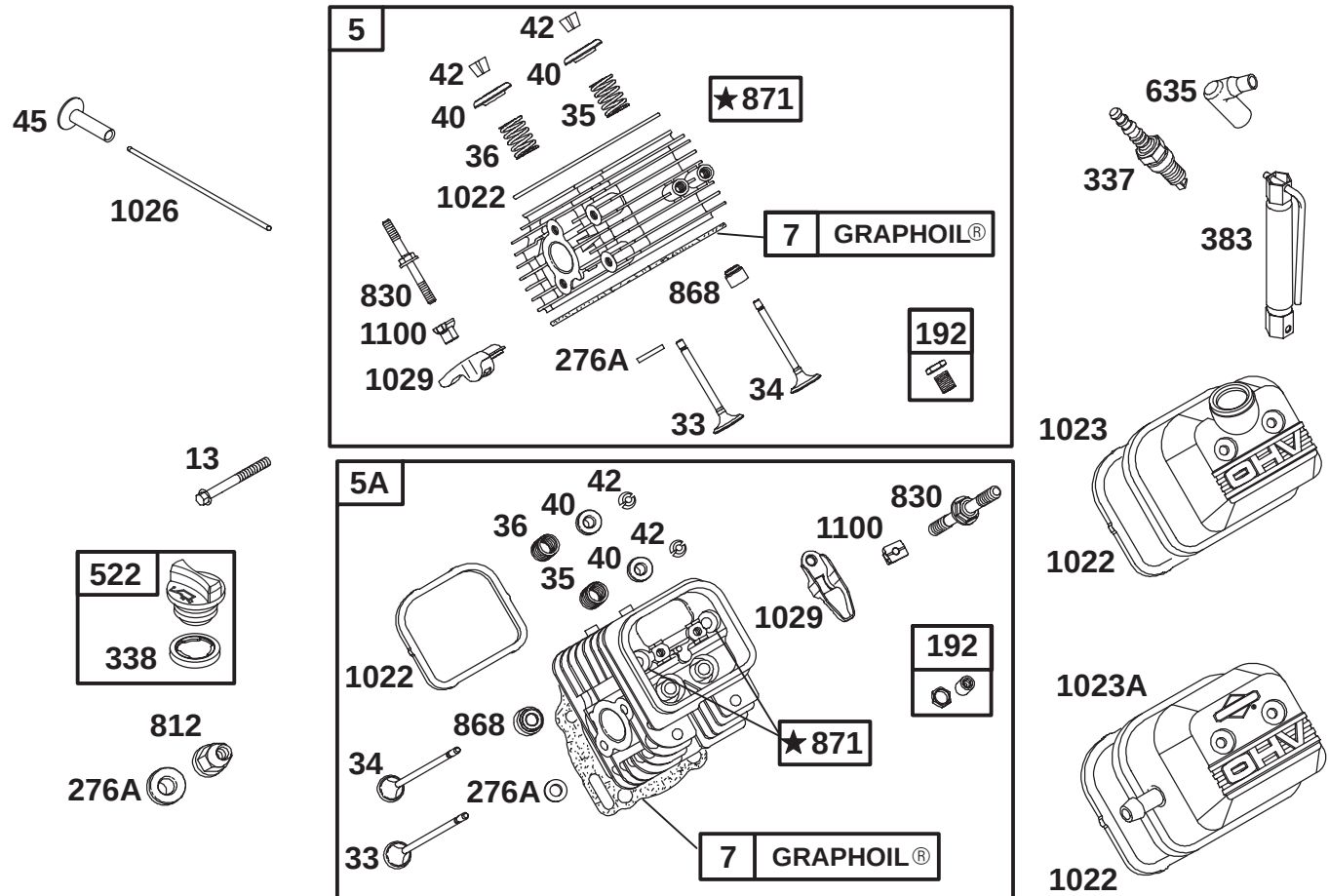


Assemblies include all parts shown in frames.

Crankcase Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
★12	691684	1	Gasket-Crankcase				
18	808847	1	Cover-Crankcase				
★20	805049	1	Seal-Oil (PTO Side)				
22	692540	1	Screw (Crankcase Cover)				
276	690704	1	Washer-Sealing				
★439	692154	1	Seal-O Ring (Crankcase Cover)				
552	690701	1	Bushing-Governor Crank				
552A	806686	1	Bushing-Governor Crank				
615	691550	1	Retainer-Governor Shaft				
616	806685	1	Crank-Governor				
★691	690680	1	Seal-Governor Shaft				

★ Included in Engine Gasket Set-Ref. 358.



Assemblies include all parts shown in frames.

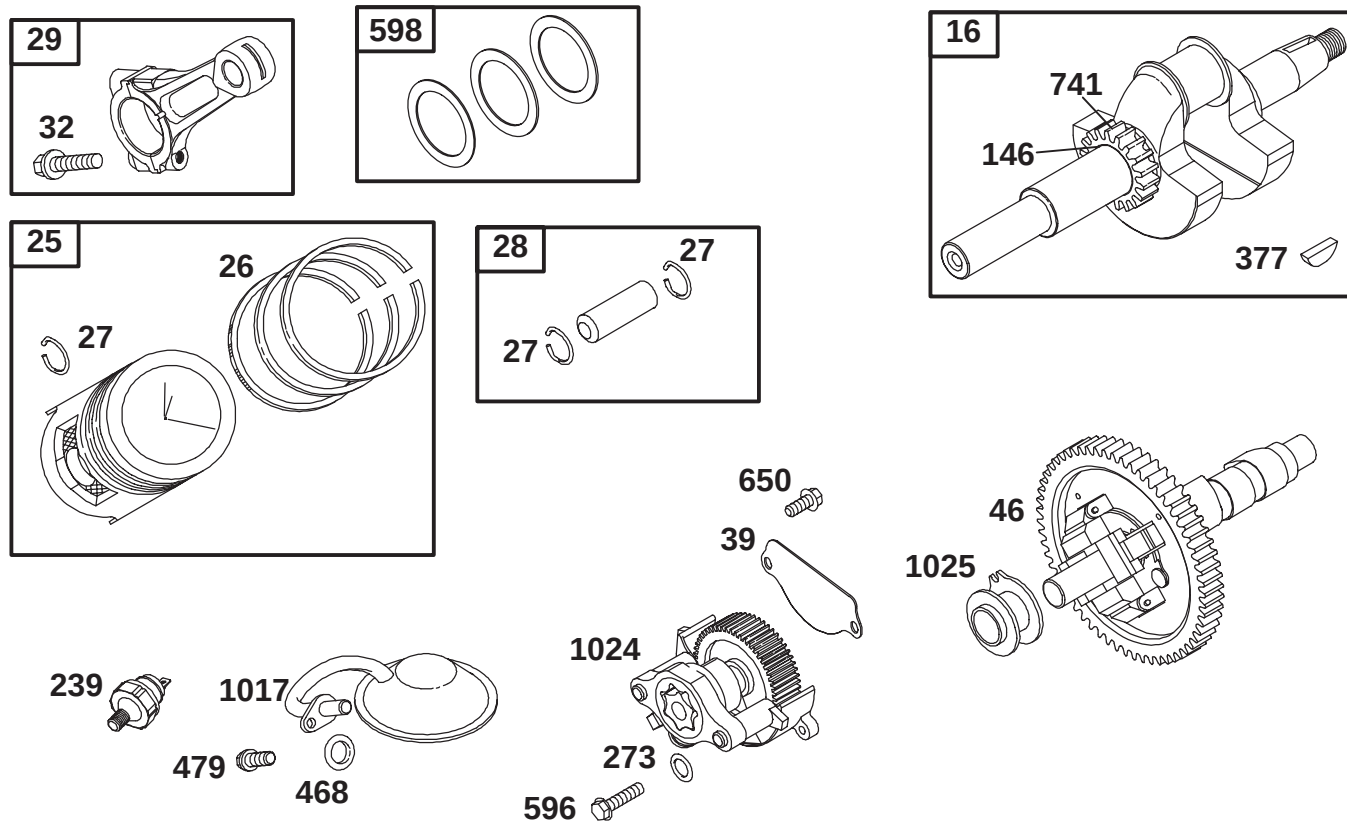
Cylinder Head and Cover Assembly

Ref. No.	Part No.	Qty.	Description
5	808381	1	Head-Cylinder (Cylinder 1)
5A	808382	1	Head-Cylinder (Cylinder 2)
★Δ7	806085	1	Gasket-Cylinder Head
13	692059	1	Screw (Cylinder Head)
33	807681	1	Valve-Exhaust
34	807680	1	Valve-Intake
35	692084	1	Spring-V valve (Intake)
36	692084	1	Spring-V valve (Exhaust)
40	692058	1	Retainer-V valve
42	807683	1	Keeper-V valve
45	690977	1	Tappet-V valve
192	807623	1	Adjuster-Rocker Arm
★Δ276A	691766	1	Washer-Sealing
337	491055	1	Sparkplug
★Δ338	691312	1	Gasket-Dipstick
383	19374	1	Wrench-Sparkplug
522	491832	1	Plug-Dipstick/Fill
635	692076	1	Boot-Sparkplug
812	692055	1	Nut

Ref. No.	Part No.	Qty.	Description
830	691544	1	(Rocker Cover) Stud
★Δ868	691963	1	Seal-V valve (Rocker Arm)
871	692057	1	Bushing-V valve Guide
★Δ1022	806039	1	Gasket-Rocker Cover
1023	690758	1	Cover-V valve
1023A	691558	1	Cover-V valve
1026	691836	1	Rod-Push (Intake Valve)
	691758	1	Rod-Push (Exhaust Valve)
1029	691543	1	Arm-Rocker
1100	690973	1	Pivot-Rocker Arm

Δ Included in Valve Gasket Set-Ref. 1095.

★ Included in Engine Gasket Set-Ref. 358.

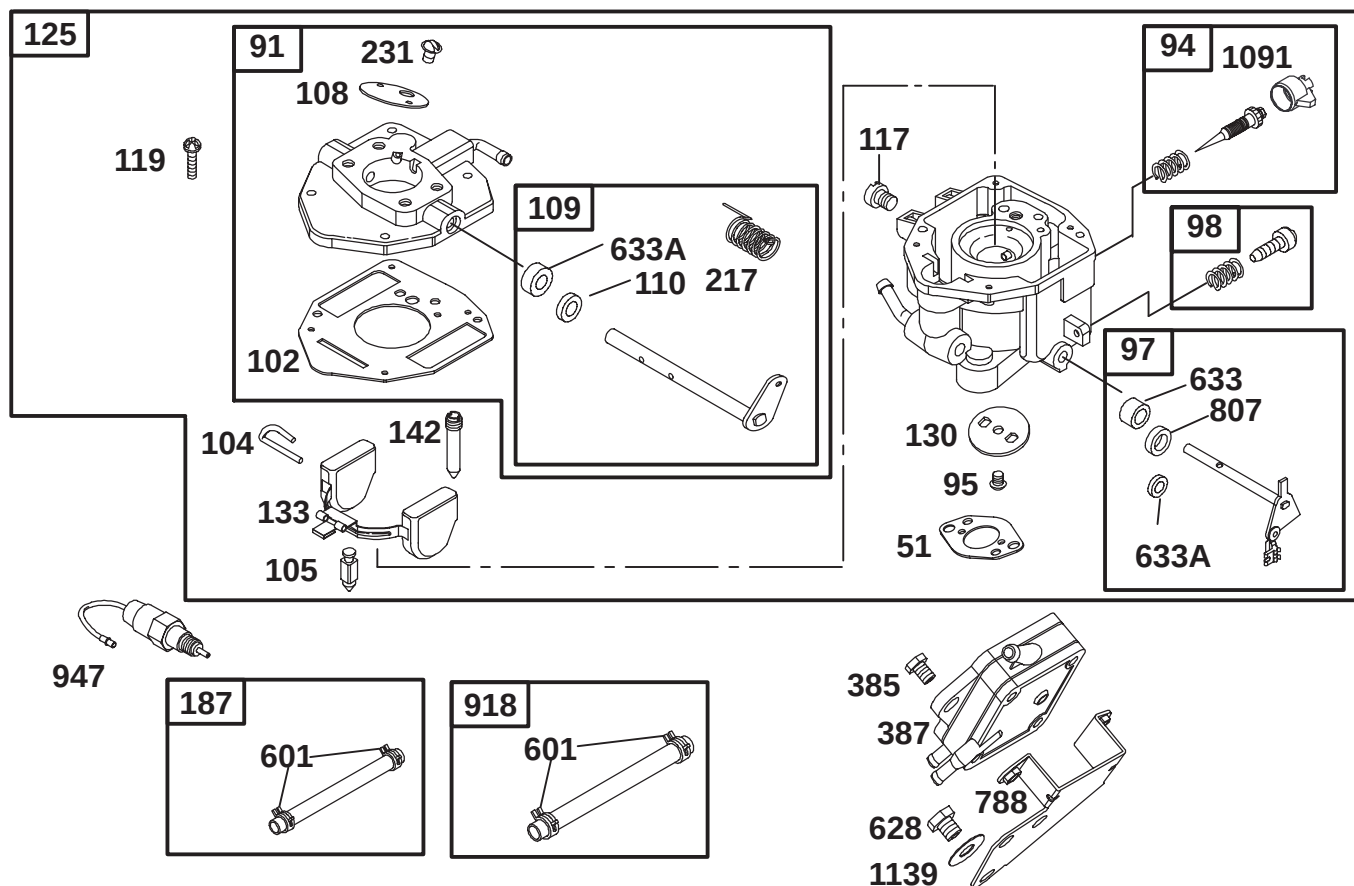


Assemblies include all parts shown in frames.

Crankshaft, Piston and Oil Pump Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
16	692163	1	Crankshaft	39	690745	1	(Connecting Rod)
25	807619	1	Piston Assembly (Standard)	46	691557	1	Camshaft
	807807	1	Piston Assembly (.010 Oversize)	146	691639	1	Key-Timing
	807809	1	Piston Assembly (.020 Oversize)	239	690233	1	Switch-Oil Pressure
	807811	1	Piston Assembly (.030 Oversize)	★273	690681	1	Seal-O Ring (Oil Pump)
26	807620	1	Ring Set (Standard)	377	808095	1	Key-Woodruff
	807808	1	Ring Set (.010 Oversize)	★468	690690	1	Seal-O Ring (Oil Pump Screen)
	807810	1	Ring Set (.020 Oversize)	479	692537	1	Screw (Oil Pump Screen)
	807812	1	Ring Set (.030 Oversize)	596	691492	1	Screw (Oil Pump)
27	690683	1	Lock-Piston Pin	598	807625	1	Shim-End Play
28	807621	1	Pin-Piston	650	692539	1	Screw (Oil Deflector)
29	807900	1	Rod-Connecting (Standard)	741	691530	1	Gear-Timing
	807809	1	Rod-Connecting (.020 Undersize)	1017	690900	1	Screen-Oil Pump
32	690698	1	Screw	1024	693185	1	Pump-Oil
				1025	690689	1	Slider-Governor

★ Included in Engine Gasket Set-Ref. 358.



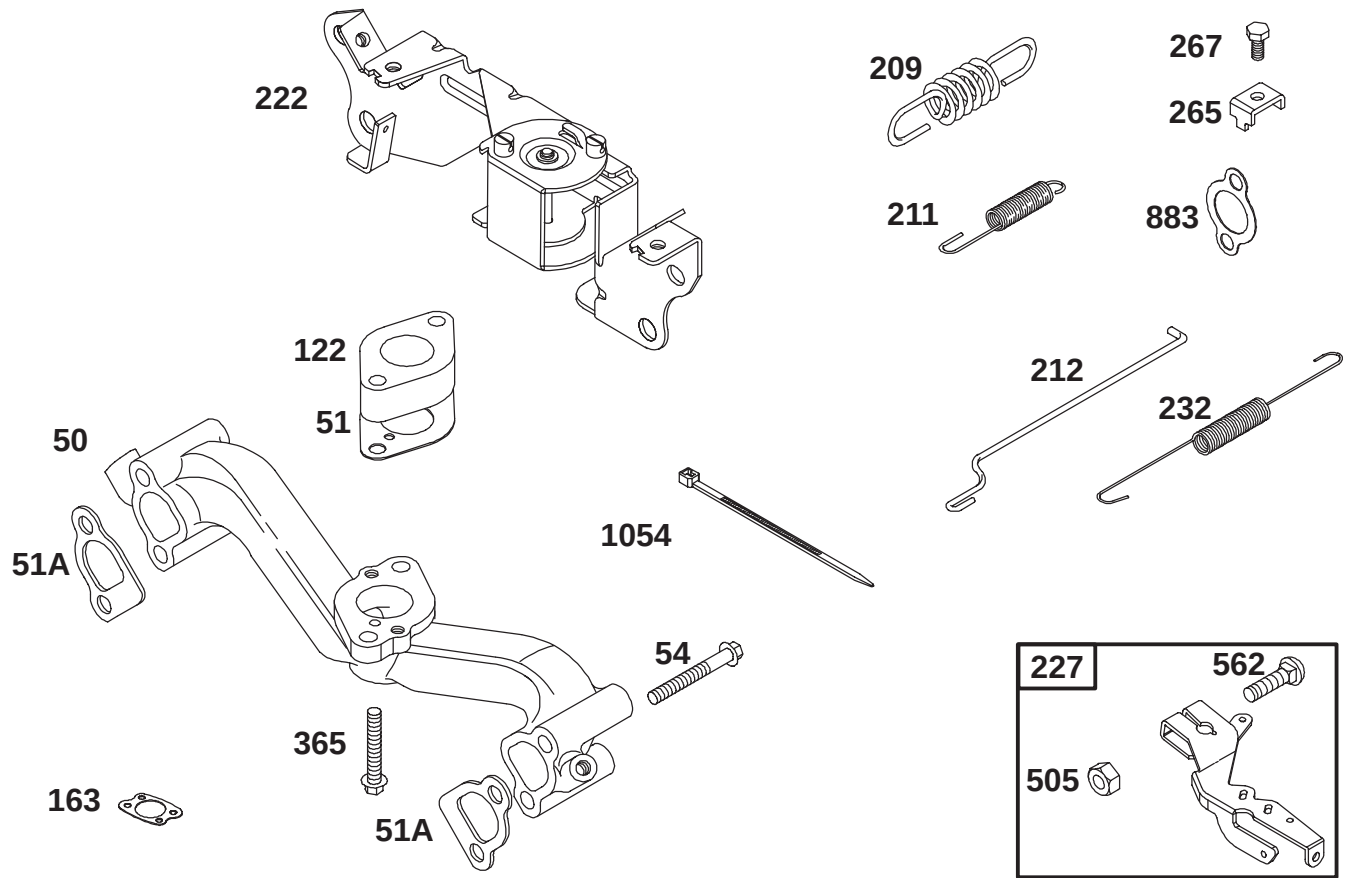
Assemblies include all parts shown in frames.

Carburetor and Fuel Pump Assembly

Ref. No.	Part No.	Qty.	Description
★●51	691694	1	Gasket-Intake
91	808964	1	Body-Upper Carburetor
●94	808257	1	Kit-Idle Mixture
95	690718	1	Screw (Throttle Valve)
97	809007	1	Shaft-Throttle
98	808177	1	Kit-Idle Speed
●102	692077	1	Gasket-Carburetor Body
●104	690723	1	Pin-Float Hinge
●105	692078	1	Valve-Float Needle
108	690719	1	Valve-Choke
109	809062	1	Shaft-Choke
110	806861	1	Washer (Choke Shaft)
117	806986	1	Jet-Main
119	690720	1	Screw (Upper to Lower Body)
125	809092	1	Carburetor
130	690726	1	Valve-Throttle
133	806961	1	Float-Carburetor
142	806987	1	Nozzle-Carburetor
187	691050	1	Line-Fuel
217	806862	1	Spring-Choke Return

Ref. No.	Part No.	Qty.	Description
231	690718	1	Screw (Choke Valve)
385	693169	1	Screw (Fuel Pump)
387	808656	1	Pump-Fuel
601	691038	1	Clamp-Hose
628	806660	1	Screw (Fuel Pump Bracket)
●633	806131	1	Seal-Choke/Throttle Shaft
●633A	690722	1	Seal-Choke/Throttle Shaft
788	691559	1	Bracket-Fuel Pump
●807	805557	1	Spacer-Throttle
918	393815	1	Hose-Vacuum (Cut to Required Length)
947	692094	1	Solenoid-Fuel
●1091	691516	1	Cap-Limiter
1139	806497	1	Washer (Fuel Pump Bracket)

- Included in Carburetor Overhaul Kit-Ref. 121.
- ★ Included in Engine Gasket Set-Ref. 358.



Assemblies include all parts shown in frames.

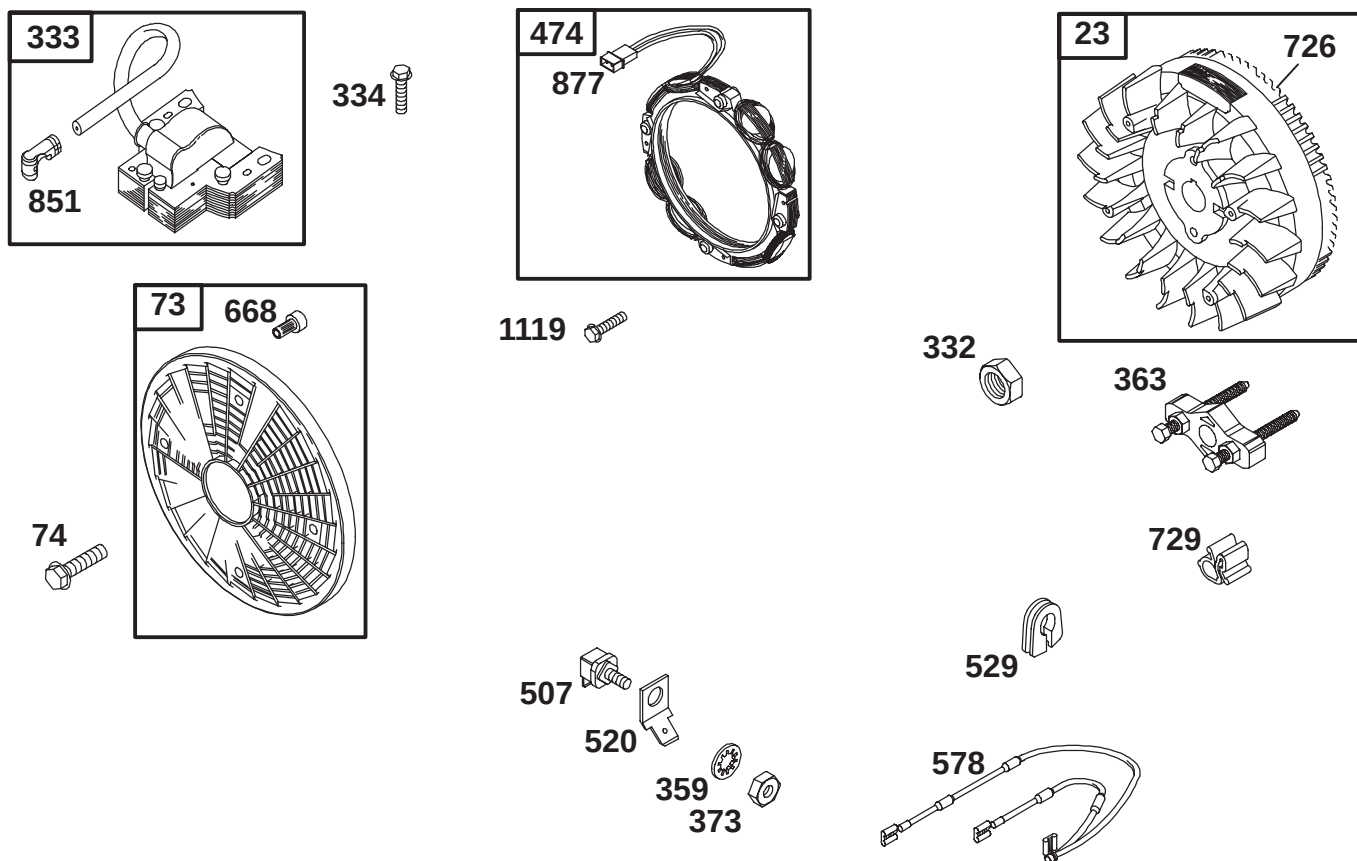
Manifold Intake and Governor Control Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
50	690754	1	Manifold-Intake	1054	280275	1	Cable-Tie
★●51	691694	1	Gasket-Intake				
★△51A	692035	1	Gasket-Intake				
54	690676	1	Screw (Intake Manifold)				
122	690691	1	Spacer-Carburetor				
★163	692081	1	Gasket-Air Cleaner				
209	691507	1	Spring-Governor				
211	691553	1	Spring-Governed Idle				
212	690712	1	Link-Governor				
222	691570	1	Bracket-Control				
227	690236	1	Lever-Governor Control				
232	692073	1	Spring-Governor Link				
265	691024	1	Clamp-Casing				
267	692083	1	Screw (Casing Clamp)				
505	690238	1	Nut (Governor Control Lever)				
562	690239	1	Bolt (Governor Control Lever)				
★△883	691613	1	Gasket-Exhaust				

△ Included in Valve Gasket Set-Ref. 1095.

★ Included in Engine Gasket Set-Ref. 358.

● Included in Carburetor Overhaul Kit-Ref. 121.

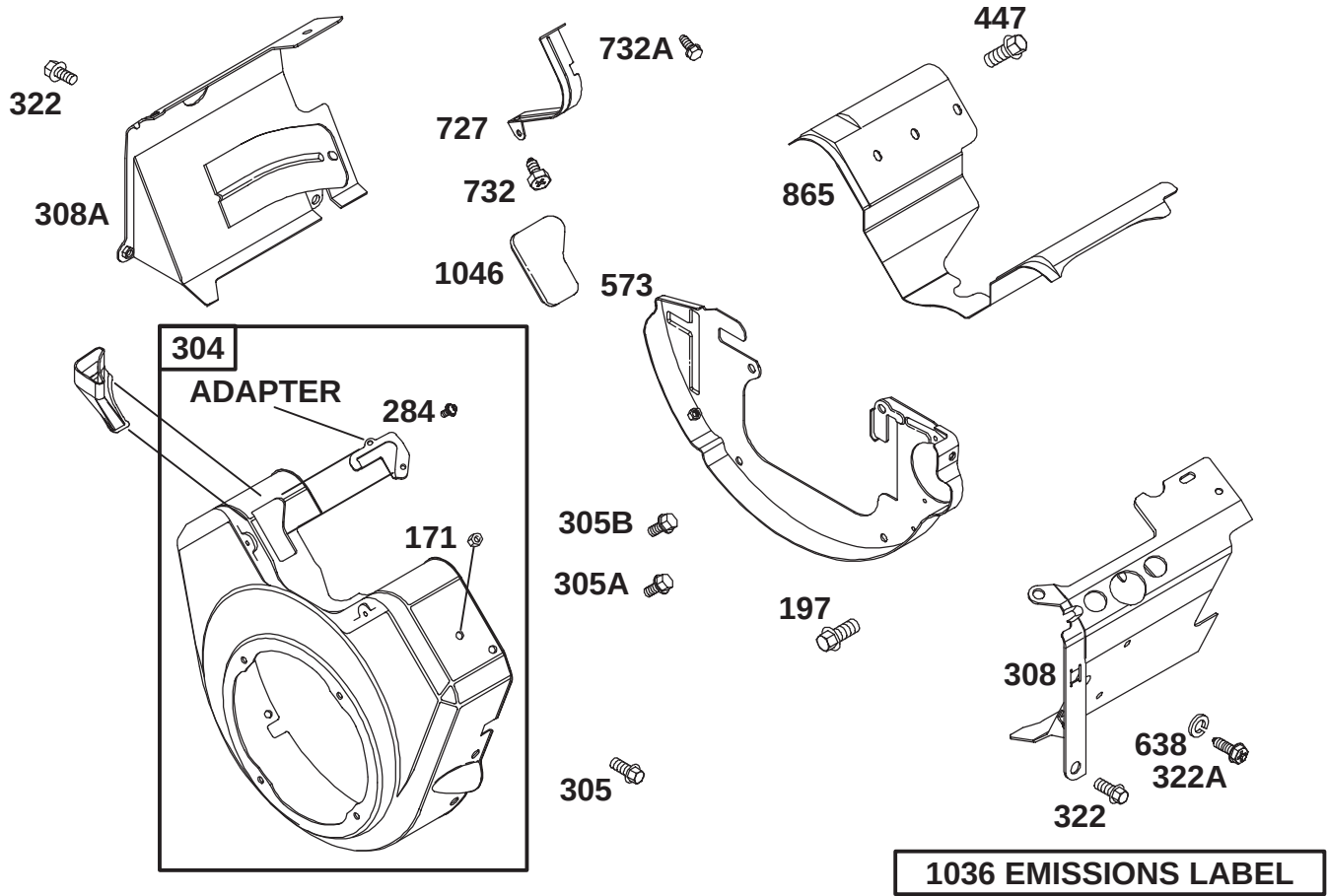


Assemblies include all parts shown in frames.

Alternator Assembly

Ref. No.	Part No.	Qty.	Description
23	808766	1	Flywheel
73	494439	1	Screen-Rotating
74	691647	1	Screw (Rotating Screen)
171	810056	1	Nut (Air Cleaner)
284	93410	1	Screw (Control Wire Casing)
332	690887	1	Nut (Flywheel)
333	492341	1	Armature-Magneto
334	692066	1	Screw (Magneto Armature)
359	691077	1	Washer (Ground Terminal)
363	19203	1	Puller-Flywheel
373	691612	1	Nut (Ground Terminal)
474	691064	1	Alternator
507	691972	1	Insulator
520	691084	1	Terminal-Ground
529	690744	1	Grommet
578	692319	1	Wire Assembly
668	691500	1	Spacer

Ref. No.	Part No.	Qty.	Description
726		1	Gear-Ring (See Reference 23 for Service)
729	690586	1	Clip-Wire
851	493880	1	Terminal-Sparkplug
877	399916	1	Wire/Connector- Alternator
1119	691552	1	Screw (Alternator)

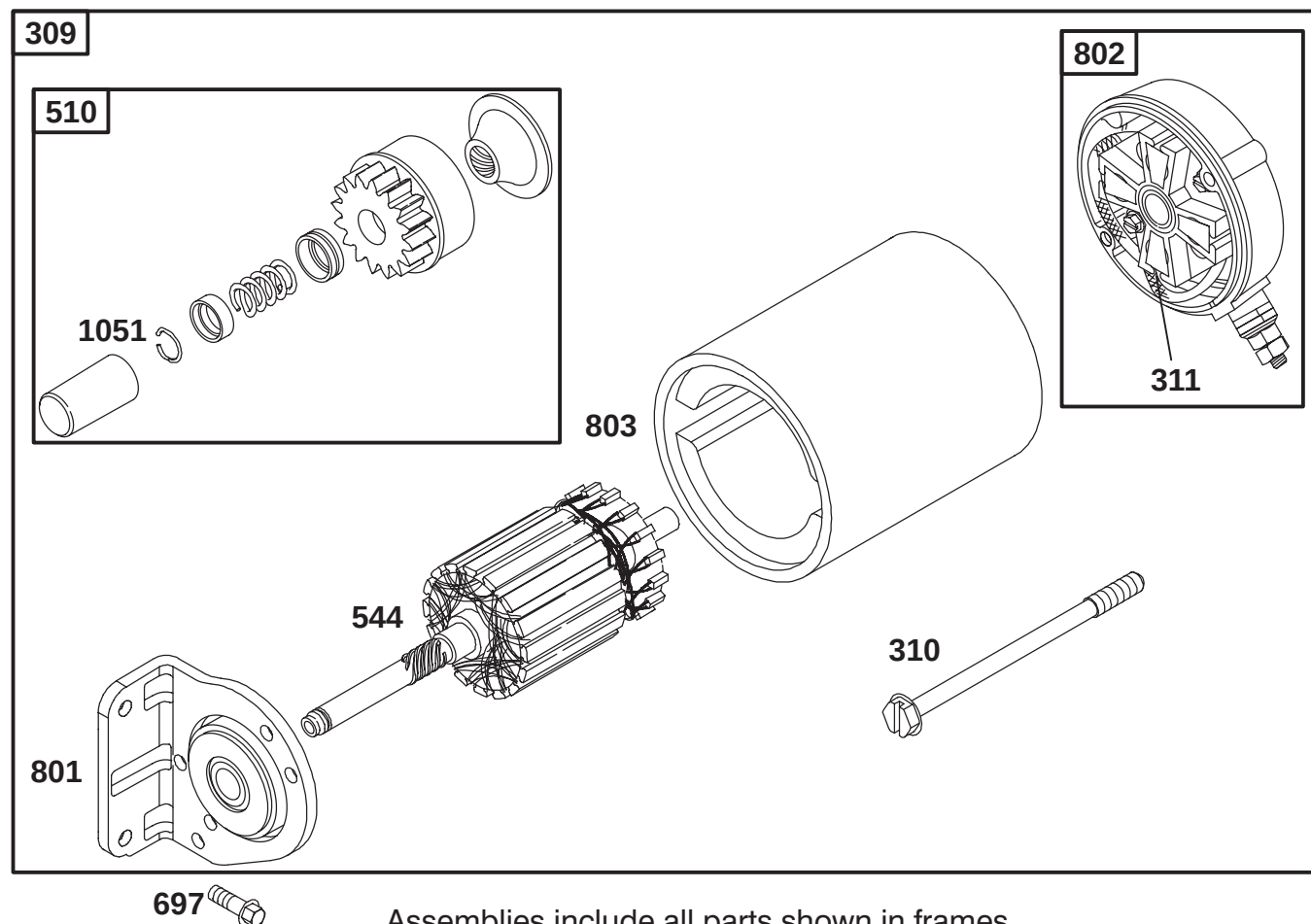


Assemblies include all parts shown in frames.

Blower Housing and Cover Assembly

Ref. No.	Part No.	Qty.	Description
197	692539	1	Screw (Backplate)
304	808408	1	Housing-Blower
305	692539	1	Screw (Blower Housing)
305A	692056	1	Screw (Blower Housing)
305B	692062	1	Screw (Blower Housing)
308	806547	1	Cover-Cylinder Head (Cylinder 1)
308A	806546	1	Cover-Cylinder Head (Cylinder 2)
322	692539	1	Screw (Cylinder Head Cover)
322A	692067	1	Screw (Cylinder Head Cover)
447	692539	1	Screw (Air Guide Cover)
573	690902	1	Plate-Back
638	691551	1	Washer (Cylinder Head Cover)
727	690714	1	Cover-Starter Drive
732	690688	1	Screw

Ref. No.	Part No.	Qty.	Description
732A	692539	1	(Starter Drive Cover) Screw
865	690750	1	Cover-Air Guide
1036	806881	1	Label-Emission
1046	692082	1	Plug-Blower Housing

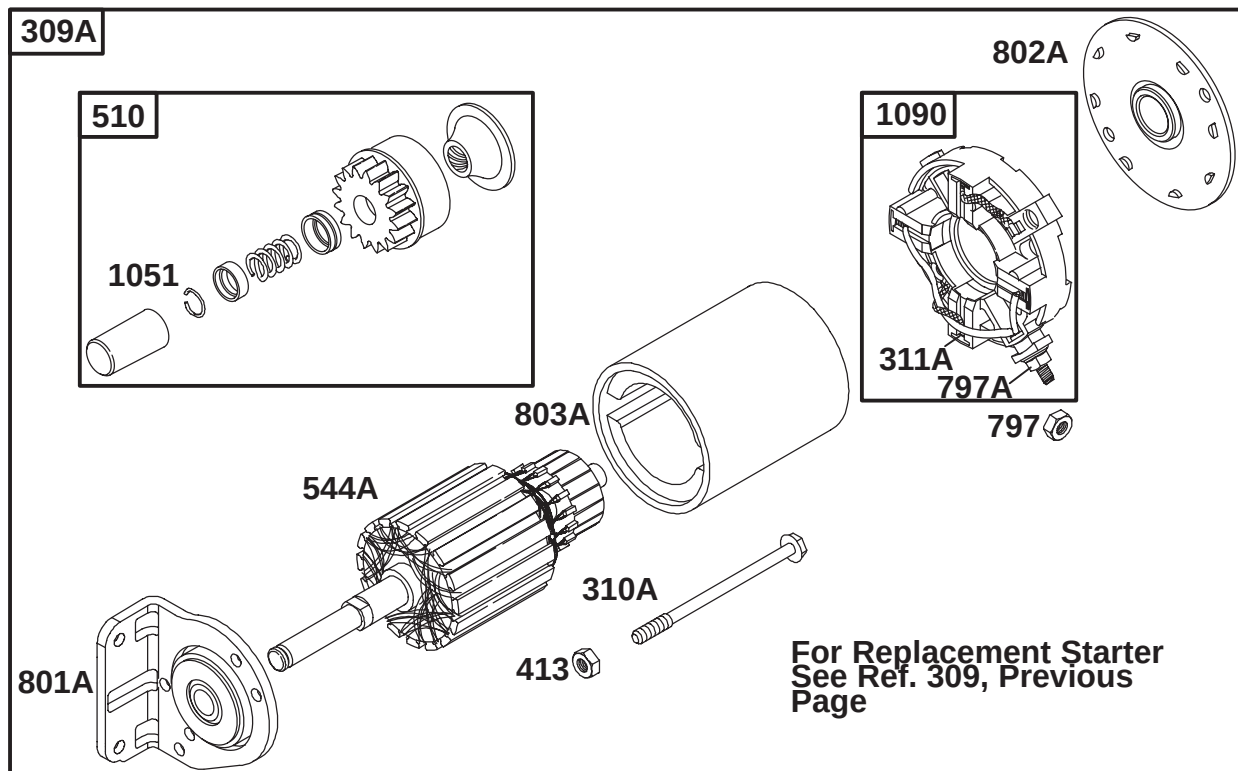


Assemblies include all parts shown in frames.

Starter Motor Assembly

Ref. No.	Part No.	Qty.	Description
309	691564	1	Motor-Starter
310	496880	1	Bolt (Starter Motor)
311	496887	1	Brush Set
510	496881	1	Drive-Starter
544	690855	1	Armature-Starter
697	692062	1	Screw (Drive Cap)
801	808777	1	Cap-Drive
802	496813	1	Cap-End
803	690854	1	Housing-Starter
1051	691124	1	Ring-Retaining

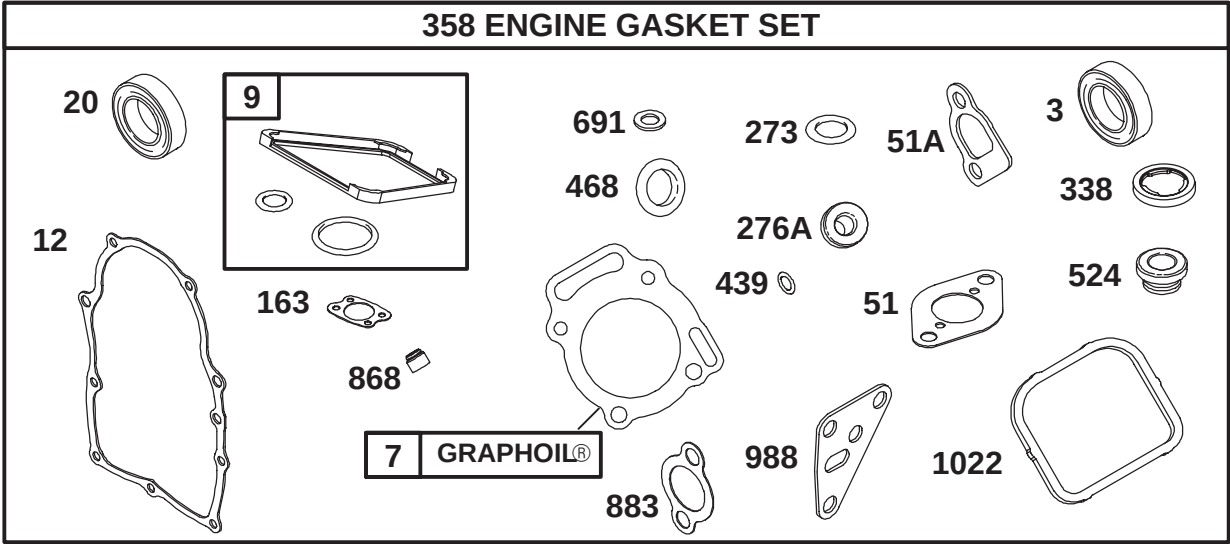
Ref. No.	Part No.	Qty.	Description



Assemblies include all parts shown in frames.

Replacement Starter Motor Assembly

Ref. No.	Part No.	Qty.	Description
309A		1	Motor-Starter (For Replacement Starter, See Ref. 309, Previous Page)
310A	690323	1	Bolt (Starter Motor)
311A	497608	1	Brush Set
413	693587	1	Nut (Starter Motor)
510	496881	1	Drive-Starter
544A	693548	1	Armature-Starter
697	692062	1	Screw (Drive Cap)
797	691029	1	Nut (Brush Retainer)
797A	693167	1	Nut (Brush Retainer)
801A	808778	1	Cap-Drive
802A	691286	1	Cap-End
803A	693547	1	Housing-Starter
1051	691124	1	Ring-Retaining
1090	691293	1	Retainer-Brush

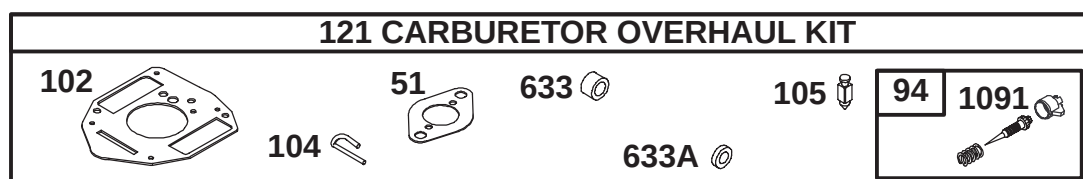
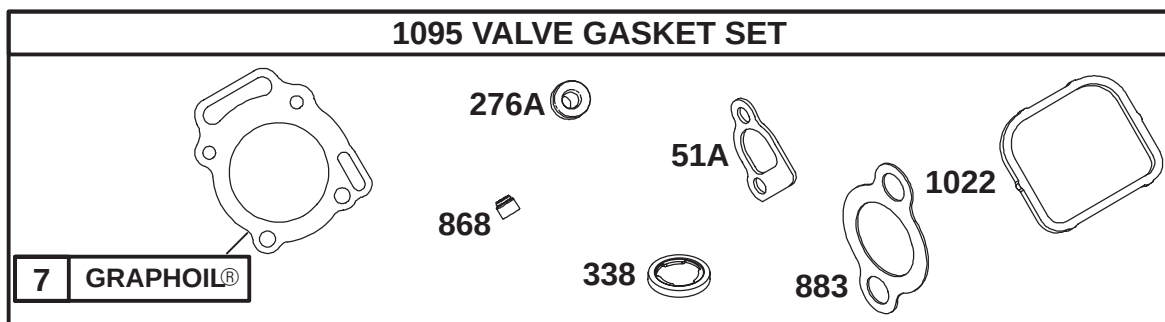


Assemblies include all parts shown in frames.

Engine Gasket Set

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
★3	805101	1	Seal-Oil (Magneto Side)	★Δ1022	806039	1	Adapter Gasket-Rocker Cover
★Δ7	806085	1	Gasket-Cylinder Head				
★9	807893	1	Gasket-Breather				
★12	691684	1	Gasket-Crankcase				
★20	805049	1	Seal-Oil (PTO Side)				
★●51	691694	1	Gasket-Intake				
★Δ51A	692035	1	Gasket-Intake				
★163	692081	1	Gasket-Air Cleaner				
★273	690681	1	Seal-O Ring (Oil Pump)				
★Δ276A	691766	1	Washer-Sealing				
★Δ338	691312	1	Gasket-Dipstick				
358	808390	1	Gasket Set-Engine				
439	692154	1	Seal-O Ring (Crankcase Cover)				
★468	690690	1	Seal-O Ring (Oil Pump Screen)				
★524	693172	1	Seal-Dipstick Tube				
★691	690680	1	Seal-Governor Shaft				
★Δ868	691963	1	Seal-Valve				
★Δ883	691613	1	Gasket-Exhaust				
★988	692063	1	Gasket-Oil Filter				

Δ Included in Valve Gasket Set-Ref. 1095. ● Included in Carburetor Overhaul Kit-Ref. 121.
★ Included in Engine Gasket Set-Ref. 358.



Assemblies include all parts shown in frames.

Valve Gasket Set and Carburetor Overhaul Kit

Ref. No.	Part No.	Qty.	Description
★△7	806085	1	Gasket-Cylinder Head
★●51	691694	1	Gasket-Intake
★△51A	692035	1	Gasket-Intake
●94	808257	1	Kit-Idle Mixture
●102	692077	1	Gasket-Carburetor Body
●104	690723	1	Pin-Float Hinge
●105	692078	1	Valve-Float Needle
121	809023	1	Overhaul Kit-Carburetor
★△276A	691766	1	Washer-Sealing
★△338	691312	1	Gasket-Dipstick
●633	806131	1	Seal-Choke/Throttle Shaft
●633A	690722	1	Seal-Choke/Throttle Shaft
★△868	691963	1	Seal-V valve
★△883	691613	1	Gasket-Exhaust
★△1022	806039	1	Gasket-Rocker Cover
●1091	691516	1	Cap-Limiter
1095	808392	1	Gasket Set-Valve

Δ Included in Valve Gasket Set-Ref. 1095.

- Included in Carburetor Overhaul Kit-Ref. 121.

★ Included in Engine Gasket Set-Ref. 358.

