

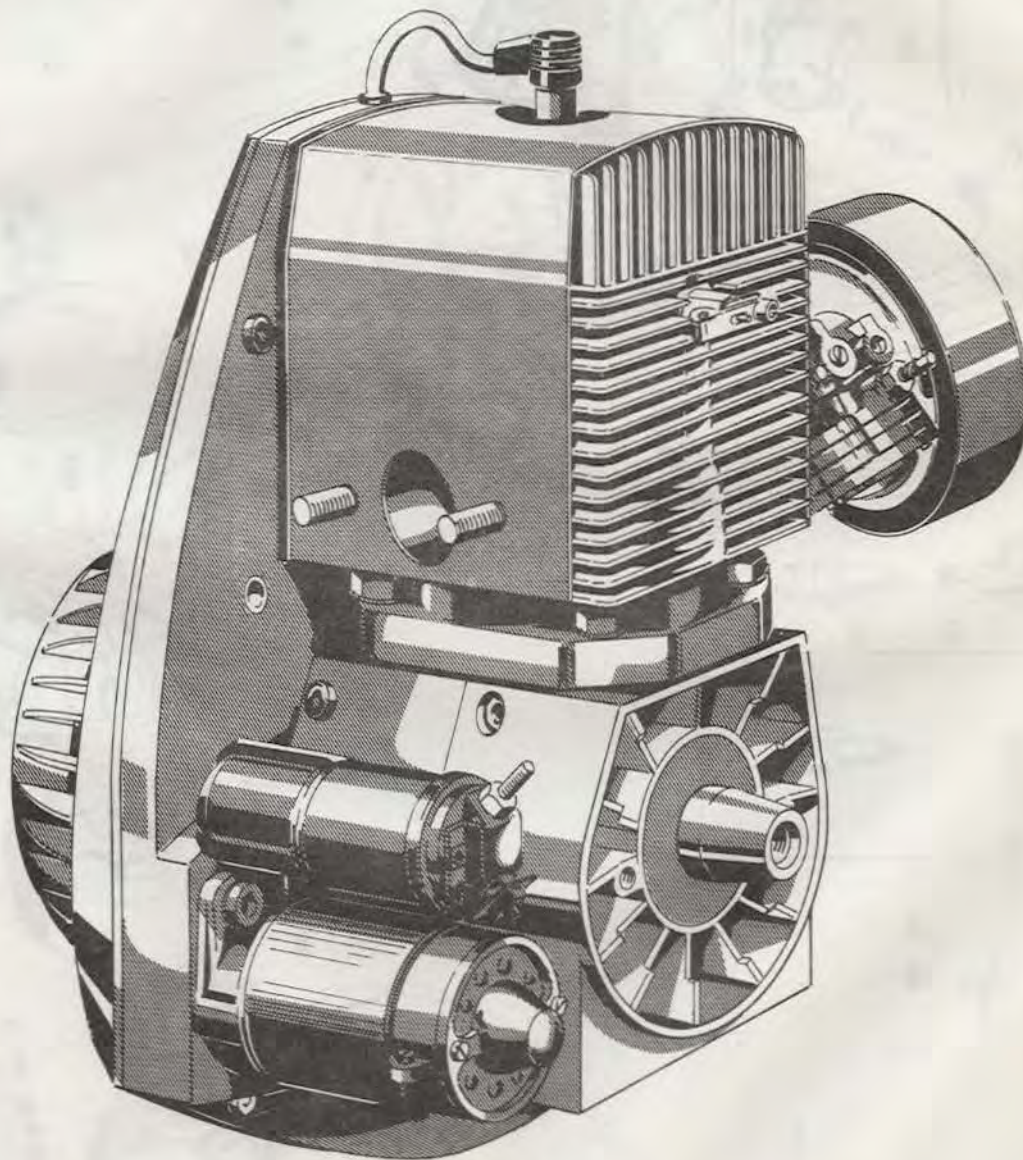


Spare Parts List

ISSUE MM-330

Models 191 R • 192 R • 200 R

SNOWMOBILE and TERRAIN VEHICLE ENGINES



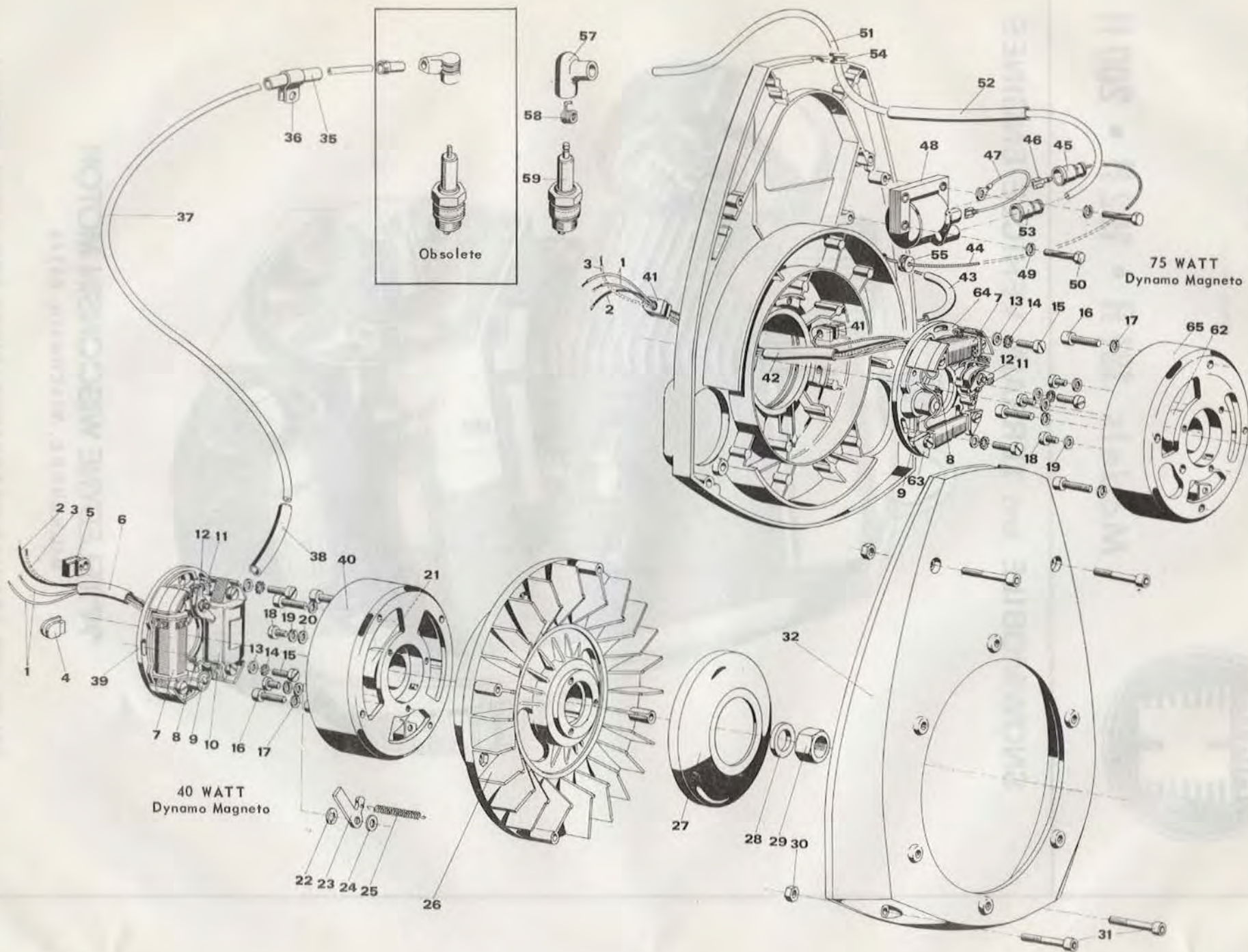
 **TELEDYNE WISCONSIN MOTOR**

MILWAUKEE, WISCONSIN 53246

SALES AND SERVICE REPRESENTATIVES FOR HIRTH ENGINES

Figure 1

IGNITION PARTS
FOR ALL 191R AND 192R MODELS



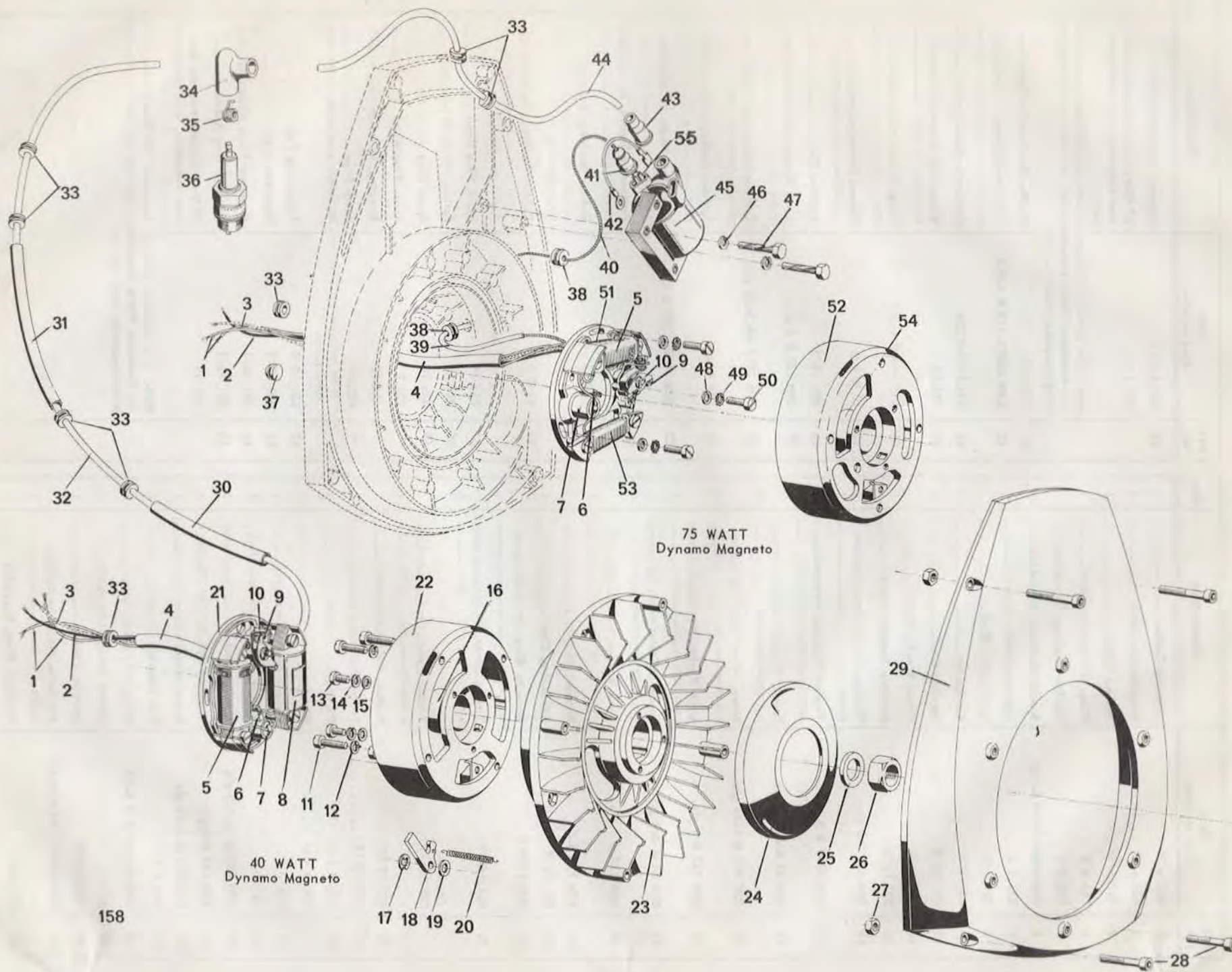
IGNITION PARTS FOR ALL 191R AND 192R MODELS

Figure 1

Ref. No.	Hirth Part Number	Description	Qty.	Ref. No.	Hirth Part Number	Description	Qty.
1	021.4/11	Lighting Cable	2	40	021.14/2	Magneto Ring Assembly	1
2	020.4/12	Short-circuit Cable	1		021.14	40 Watt Dynamo Magneto Ignition Assembly, with advanced timing.	
3	021.5/13	Ground Cable	1		Note: The Magneto Ignition Assembly (40 Watt) consists of the Armature Plate Assembly (Ref. No. 39) and the Magneto Ring Assembly (Ref. No. 40).		
4	164 A 3	Plug, for armature plate	1	41	194 A 1	Rubber Bushing, for generator	2
5	164 A 1	Rubber Bushing, for cables	1	43	DIN 40621/110 B 3x0.4	Insulating Hose, for generator cable	1
6	DIN 40621/70 B 6x0.6	Insulating Hose, for cables	1	44	021.16/10/220	Generator Cable, blue	1
7	021.5.4	Lighting Coil	1	45	034.14	Protecting Sleeve, for generator cable to coil	1
8	020.4/8	Lubrication Wick	1	46	DIN 46247 6.3x1	Plug, for generator cable to coil	1
9	021.3/7	Condenser	1	47	14 B 9 U	Ground Cable Assembly	1
10	021.14/3	Ignition Coil	1			Includes wire connectors.	
11	021.14/6	Fixed Breaker Point	1	48	020.13/3	Ignition Coil	1
12	021.14/5	Movable Breaker Point	1	49	DIN 127 B 5 glz.	Lock Washer, for mounting ignition coil	2
13	DIN 433 5.3 glz.	Washer, for mounting armature plate	3	50	DIN 7513 AM 5x25 glz.	Cutting Screw, hex. head, for mounting ignition coil	2
14	DIN 6797 A 5.1 glz.	Toothed Washer, for mounting armature plate	3	51	026.5/420	Ignition Cable, coil to spark plug	1
15	DIN 84 AM 5x15 glz.	Screw, fillister head, for mounting armature plate	3	52	DIN 40621/200 B 8x0.7	Insulating Hose, for ignition cable	1
16	DIN 912 M 6x15 glz.	Screw, ellern head, for mounting magneto ring	4	53	020.13/15	Protecting Sleeve, for ignition cable to coil	1
17	DIN 127 B 6 glz.	Lock Washer, for mounting magneto ring	4	54	14 C 1	Rubber Bushing, for ignition cable	1
18	DIN 84 M 4x5 glz.	Screw, fillister head, for mounting advancing cam	3			Replaces 034.1.	
19	DIN 127 B 4 glz.	Lock Washer, for mounting advancing cam	3	55	14 C 3	Rubber Bushing, for generator cable	1
20	DIN 125 4.3	Washer, for mt'g advancing cam	3			Replaces 034.9.	
21	021.14/9	Advancing Cam	1	57	024.11	Spark Plug Hood	1
22	DIN 6799 5	Security Ring, for timing lever mounting	1	58	024.12	Spring, for spark plug hood	1
23	021.14/19	Timing Lever, for engines built after November 1, 1969	1	59	023.12	Spark Plug	1
	Obsolete 020.12/19	Timing Lever, for engines built before November 1, 1969	1	*	024.9	Spark Plug Hood	1
24	020.12/20	Washer, for timing lever	1	*	034.13	Bushing, for spark plug hood ..	1
25	020.12/18	Spring, for timing lever	1	*	023.11	Spark Plug	1
26	193 F 1 U	Flywheel — 40 Watt	1			* Were optional on 191R but no longer available. Order standard parts.	
	193 D 1 U	Flywheel — 75 Watt	1	62	021.19/9	Advancing Cam	1
27	193 D 3	Cover Plate, for magneto	1	63	021.19/3	Generator Coil	1
28	161 A 6	Washer, for flywheel mounting ..	1	64	021.19/1	Armature Plate Assembly	1
29	DIN 934 M 16x1.5 glz.	Hexagon Nut, for flywheel mt'g ..	1	65	021.19/2	Magneto Ring Assembly	1
30	DIN 934 M 6 glz.	Hexagon Nut, for fan housing ..	4		021.19	75 Watt Dynamo Magneto Ignition Assembly, with advanced timing.	
31	DIN 912 M 6x35 glz.	Screw, ellern hd., for fan housing ..	4			Note: The Magneto Ignition Assembly (75 Watt) consists of the Armature Plate Assembly (Ref. No. 64) and the Magneto Ring Assembly (Ref. No. 65).	
32	193 D 2	Fan Housing	1				
35	DIN 73379/50 A 8x12	Hose, for ignition cable	1				
36	34 B 4	Clamp, for ignition cable	1				
37	026.5/550	Ignition Cable	1				
38	DIN 40621/100 B 8x0.7	Insulating Hose, for ignition cable	1				
39	021.14/1	Armature Plate Assembly	1				

Figure 2

IGNITION PARTS
FOR ALL 200R MODELS



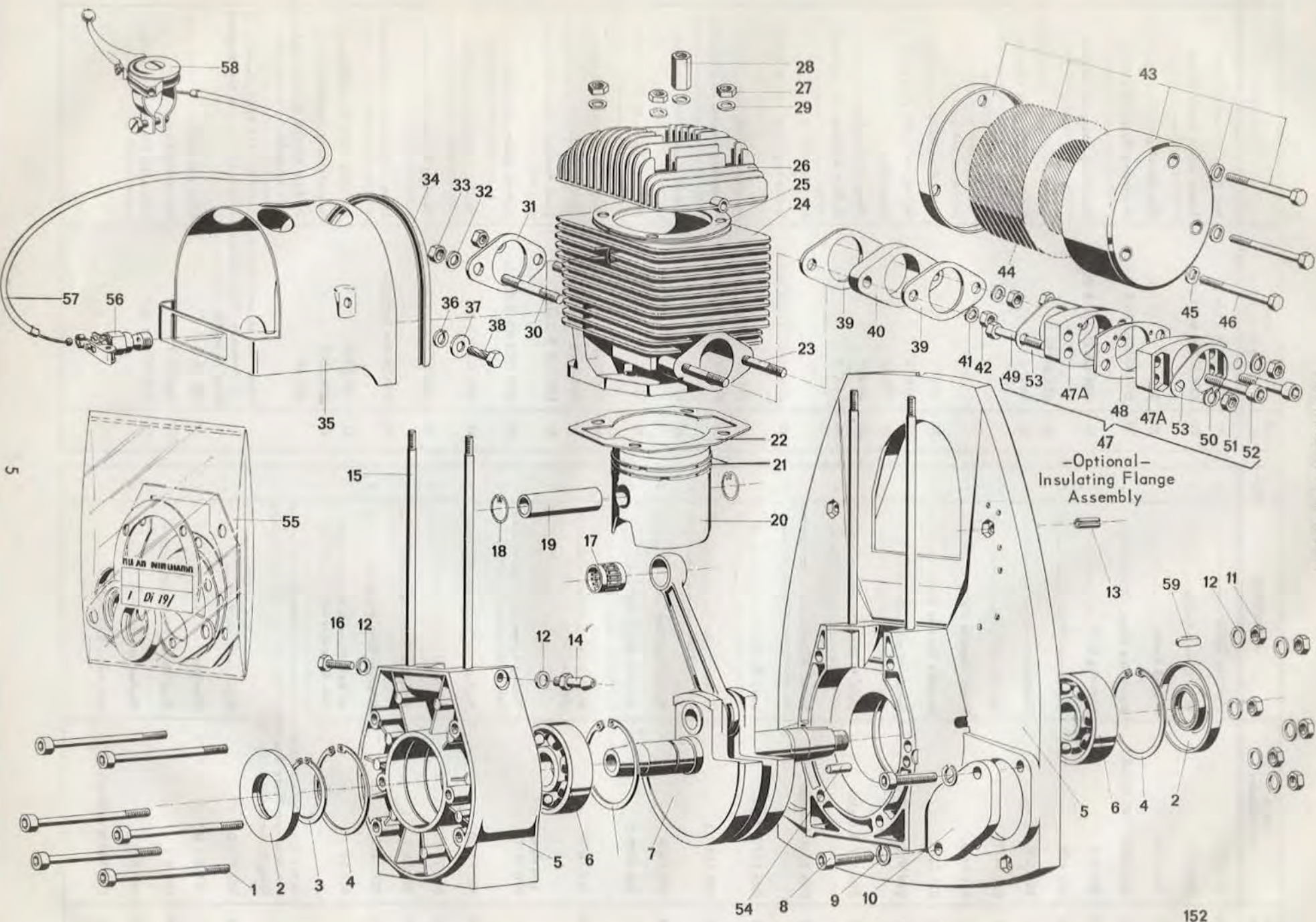
IGNITION PARTS FOR ALL 200R MODELS

Figure 2

Ref. No.	Hirth Part Number	Description	Qty.	Ref. No.	Hirth Part Number	Description	Qty.
1	021.4/11	Lighting Cable	2	27	DIN 934 M 6 glz.	Nut, hex., for fan housing	4
2	020.4/12	Short-Circuit Cable	1	28	DIN 912 M 6x25 glz.	Screw, ellern head, for fan housing	4
3	021.5/13	Ground Cable	1	29	203 A 1	Fan Housing	1
4	DIN 40621/140 B 7x0.7	Insulating Hose, for cables	1	30	DIN 40621/100 B 8x0.7	Insulating Hose, for ignition cable	1
5	021.5/4	Lighting Coil	1	31	DIN 40621/160 B 8x0.7	Insulating Hose, for ignition cable	1
6	020.4/8	Lubrication Wick	1	32	026.5/650	Ignition Cable	1
7	021.3/7	Condenser	1	33	14 C 1	Rubber Bushing, for ignition cable	*
8	021.14/3	Ignition Coil	1			*3-for 75 Watt magneto. 5-for 40 Watt magneto. Replaces 034.1.	
9	021.14/6	Fixed Breaker Point	1	34	024.11	Spark Plug Hood	1
10	021.14/5	Movable Breaker Point	1	35	024.12	Spring, for spark plug hood	1
11	DIN 912 M 6x15 glz.	Screw, ellern head, for mounting magneto ring	4	36	023.12	Spark Plug	1
12	DIN 127 B 6 glz.	Lock Washer, for mounting magneto ring	4	37	64 B 1	Plug, for Sno-Jet only	1
13	DIN 84 M 4x5 glz.	Screw, fillister head, for mounting advancing cam	3	38	14 C 3	Rubber Bushing, for generator cable	2
14	DIN 127 B 4 glz.	Lock Washer, for mounting advancing cam	3			Replaces 034.9.	
15	DIN 125 4.3	Washer, plain, for mounting advancing cam	3	39	DIN 40621/110 B 3x0.4	Insulating Hose, for generator cable	1
16	021.14/9	Advancing Cam	1	40	021.16/10/300	Generator Cable, blue	1
17	DIN 6799 5	Security Ring, "E" type	1	41	034.14	Protecting Sleeve, for generator cable to coil	1
18	021.14/19	Timing Lever, for engines built after November 1, 1969	1	42	14 B 9 U	Ground Cable, with wire connectors	1
	Obsolete 020.12/19	Timing Lever, for engines built before November 1, 1969	1	43	020.13/5	Protecting Sleeve, for ignition cable	1
19	020.12/20	Washer, plain, for timing lever	1	44	026.5/300	Ignition Cable	1
20	020.12/18	Spring, for timing lever	1	45	020.13/3	Ignition Coil	1
21	021.14/1	Armature Plate Assembly	1	46	DIN 127 B 5 glz.	Lock Washer, for mounting ignition coil	2
22	021.14/2	Magneto Ring Assembly	1	47	DIN 7513 AM 5x25 glz.	Cutting Screw, hex. head	2
	021.14	40 Watt Dynamo Magneto Ignition Assembly with advanced timing	1			For ignition coil mounting.	
	Note: The Magneto Ignition Assembly (40 Watt) consists of the Armature Plate Assembly (Ref. No. 21) and the Magneto Ring Assembly (Ref. No. 22).			48	DIN 433 5.3 glz.	Washer, plated, for mounting armature plate	3
23	193 F 1 U	Flywheel — 40 Watt	1	49	DIN 6797 A 5.1 glz.	Toothed Washer, for mounting armature plate	3
	193 D 1 U	Flywheel — 75 Watt	1	50	DIN 84 AM 5x15 glz.	Screw, fillister head, for mounting armature plate	3
24	193 D 3	Dust Cover Plate, for magneto	1	51	021.19/1	Armature Plate Assembly	1
25	161 A 6	Washer, for flywheel	1	52	021.19/2	Magneto Ring Assembly	1
26	DIN 934 M 6x25 glz.	Nut, hex., for flywheel	1		021.19	75 Watt Dynamo Magneto Ignition Assembly with advanced timing	1
					Note: The Magneto Ignition Assembly (75 Watt) consists of the Armature Plate Assembly (Ref. No. 51) and the Magneto Ring Assembly (Ref. No. 52).		
				53	021.19/3	Generator Coil	1
				54	021.19/9	Advancing Cam	1
				55	DIN 46247 6.3x1	Connector Plug, for generator cable to coil	1

Figure 3

MAIN ENGINE PARTS
FOR ALL 191R MODELS



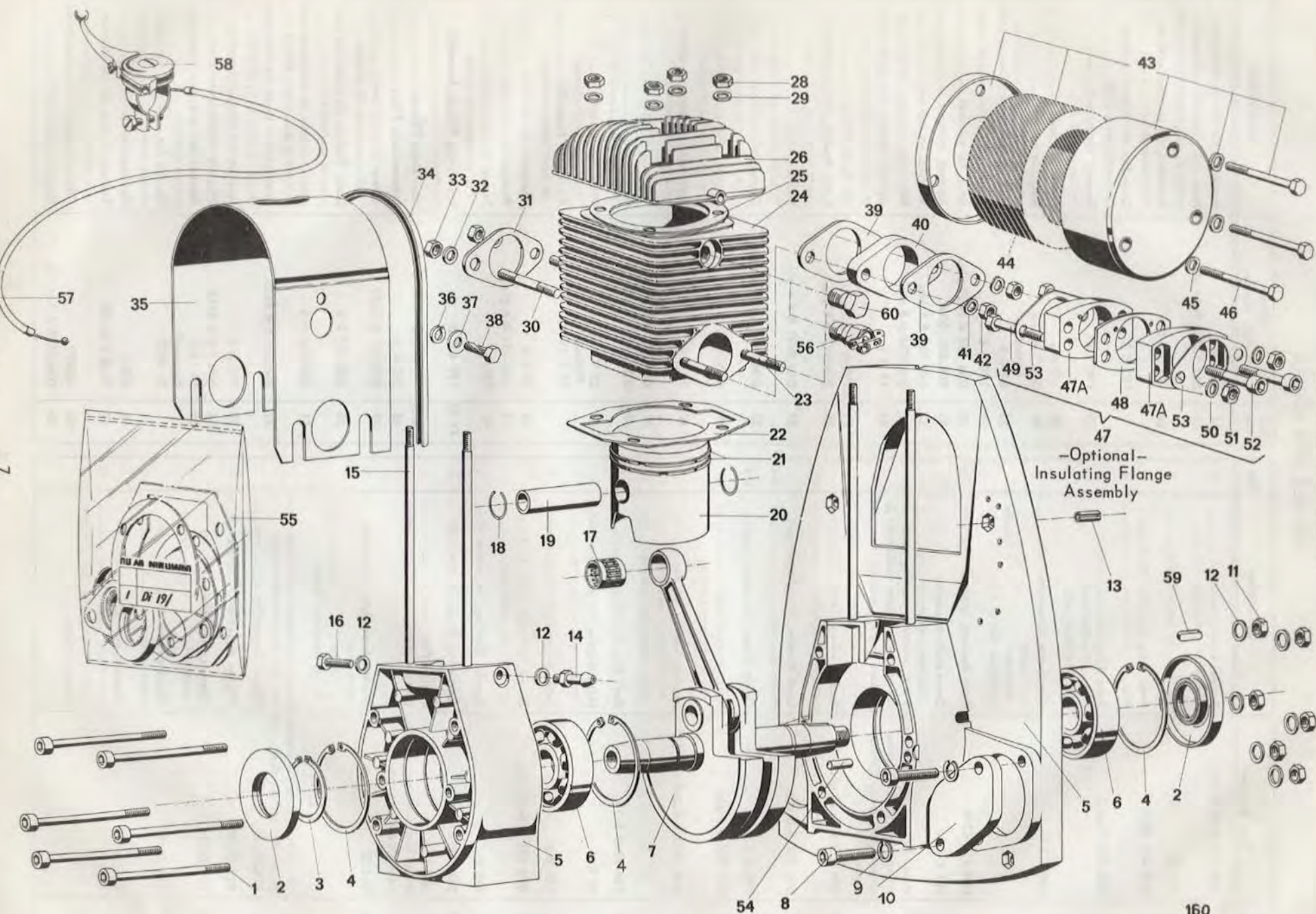
MAIN ENGINE PARTS FOR ALL 191R MODELS

Figure 3

Ref. No.	Hirth Part Number	Description	Qty.	Ref. No.	Hirth Part Number	Description	Qty.
1	DIN 912 M 6x70 glz.	Screw, ellern head For mt'g crankcase halves.	6	22	50 A 5	Gasket, cylinder to crankcase..	1
2	055.21	Oil Seal, for main bearing	2	23	DIN 939 M 8x33 glz.	Stud, std., for mt'g carburetor, gaskets, and insulating flange	2
3	DIN 471 30x1.5	Snap Ring, for crankshaft end play	1	24	192 D 5 U	Cylinder, for engines with de- compression valve	1
4	DIN 472 72x2.5	Snap Ring, for main bearing 1-for flywheel end. 2-for take-off end.	3		192 E 2	Cylinder, for engines without decompression valve	1
5	190 C 1 U	Crankcase Assembly	1	25	192 K 2	Gasket, for cylinder head	1
		Includes: 4 Studs 1 Flange Replaces 190 B 1 U.		26	192 A 1	Cylinder Head	1
6	DIN 625 6306	Main Bearing, grooved ball type	2	27	DIN 934 M 8	Nut, hexagon	4
7	191 C 1 U	Crankshaft Assembly	1		Optional	For cylinder head mounting.	
		Includes connecting rod.		28	60 C 3	Nut, hexagon, for cylinder head	4
Note: Engine can be equipped with electric starting motor on either side of crankcase, therefore one starter pad cover is always required. Engines without starter require two pad covers.				29	190 A 6	Washer, for mt'g cylinder head	4
8	DIN 912 M 8x30 glz.	Screw, ellern head, for starter pad cover mounting	2-4	30	DIN 938 M 8x20 glz.	Stud, for exhaust	2
9	DIN 127 B 8 glz.	Lock Washer, for starter pad cover mounting	2-4	31	901.300-008	Gasket, exhaust	1
10	195 A 1	Cover Plate, for starter pad.....	1-2	32	DIN 125 8.4 glz.	Washer, for exhaust	2
11	DIN 934 M 6 glz.	Nut, hexagon steel	6	33	DIN 934 M 8 cu	Nut, hex., copper, for exhaust	2
		For crankcase halves.		34	13 B 1	Gasket, rubber. Air guide plate to crankcase flange	1
12	DIN 7603 A 6.5x9.5x2 AL	Sealing Washer, aluminum	8	35	193 A 2 U	Air Guide Plate	1
		2-for holes in crankcase. 6-for crankcase halves.		36	DIN 127 B 6 glz.	Lock Washer, for mounting air guide plate	2
13	DIN 7346 8x10	Roll Pin, for flange	4	37	DIN 9021 B 6.4 glz.	Washer, plain	2
14	50 K 4	Hose Nipple, for pressure line, crankcase to carburetor.....	1	38	DIN 7513 AM 6x18 glz.	Screw, self-tapping, hex. head For mounting air guide plate.	2
15	190 B 5	Stud, for cylinder to crankcase	4	39	57 Y 6	Gasket, intake, standard	2
16	DIN 933 M 6x10 glz.	Screw, hexagon head, for plug- ging hole in crankcase	1	40	57 Y 7	Insulating Flange, standard For heat dissipation	1
17	046.6	Needle Bearing, for piston pin ..	1	41	DIN 137 B 8 glz.	Washer, for mounting flange	2
18	DIN 73123 18	Retaining Ring, for piston pin ..	2	42	DIN 934 M 8 glz.	Nut, hexagon	2
19	014.26/4	Piston Pin	1		Optional	For mt'g insulating flange.	
		Note: Standard and oversize piston assemblies are no longer available with three rings.		43	57 Y 1 U	Air Filter Assembly	1
20	014.32	Piston Assembly, 75 mm std. Includes: 1 Piston 1 Piston Pin 2 Compression Rings	1		57 Y 10 U	Air Filter Assembly	1
		The following are oversize piston assemblies and come com- plete with piston, piston pin and two compression rings.		44	57 Y 5	Element, for air filter	1
	014.32/10	Piston Assembly — 75.5 mm	1	45	DIN 137 B 6 glz.	Washer, for air filter	3
	014.32/20	Piston Assembly, — 76 mm	1	46	051.4	Screw, hexagon head	3
21	014.26/1	Compression Ring — 75 mm (standard)	2	47-53	197 A 1 U	Insulating Flange Assembly (optional)	1
	014.26/11	Compression Ring — 75.5 mm (oversize)	2	47A	197 A 2 U	Insulating Flange	2
	014.26/21	Compression Ring — 76 mm (oversize)	2	48	197 A 3	Intermediate Plate	1
		Order three rings for obsolete style pistons.		49	DIN 931 M 8x40	Screw, hexagon head	2
						For carburetor to flange.	
				50	DIN 127 B 8	Lock Washer, for mounting car- buretor to flange	2
				51	DIN 934 M 8	Nut, hexagon, for mounting car- buretor to insulating flange	2
				52	DIN 6912 M 8x35	Screw, ellern head, for mounting flange assembly to cylinder	2
				53	197 A 4	Gasket, for flange assembly	2
				54	DIN 7 6 m 6x12	Pin, for aligning crankcase	2
				55	Di 19/1	Gasket Set, includes standard intake gaskets	1
					Optional	Gasket Set, includes optional flange gaskets	1
					Di 19/2	Decompression Valve	1
				56	058.2	Bowden Cable, for decompres- sion valve	1
				57	17 M 1 U/450	Control Lever, for Bowden cable	1
				58	049.11	Key, for crankshaft	1
				59	DIN 6885 A 6x6x14		

Figure 4

MAIN ENGINE PARTS
FOR ALL 192R MODELS



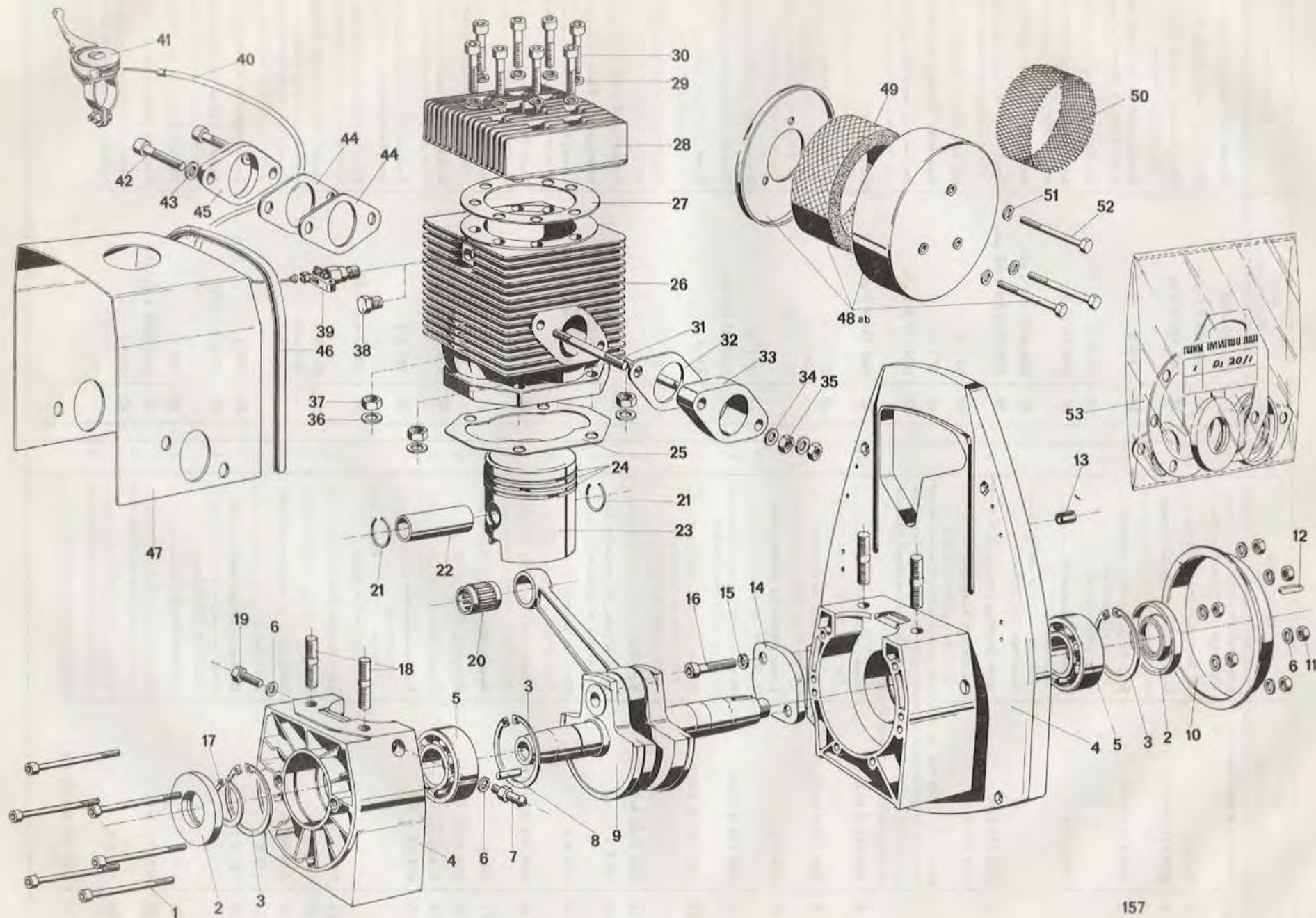
MAIN ENGINE PARTS FOR ALL 192R MODELS

Figure 4

Ref. No.	Hirth Part Number	Description	Qty.	Ref. No.	Hirth Part Number	Description	Qty.
1	DIN 912 M 6x70 glz.	Screw, ellem head For mt'g crankcase halves.	6	31	901.300-008	Gasket, for exhaust flange	1
2	055.21	Oil Seal, for main bearings	2	32	DIN 125 8.4 glz.	Washer, for exhaust flange	2
3	DIN 471 30x1.5	Snap Ring, to minimize crankshaft end-play	1	33	DIN 934 M 8 cu	Nut, hexagon, copper	2
4	DIN 472 72x2.5	Snap Ring, for main bearing	3			For exhaust flange.	
		1-for flywheel end. 2-for take-off end.		34	13 B 3	Gasket, rubber. Air guide plate to fan housing flange	1
5	190 C 1 U	Crankcase Assembly	1	35	193 G 1	Air Guide Plate	1
		Includes: 4 Studs 1 Fan Hs'g Flange Replaces 190 B 1 U.		36	DIN 127 B 6	Lock Washer, for mounting air guide plate	1
6	DIN 625 6306	Main Bearing, grooved ball type	2	37	DIN 9021 B 6.4 glz.	Washer, for mt'g air guide plate	1
7	191 C 1 U	Crankshaft Assembly	1	38	DIN 7513 AM 6x18 glz.	Screw, self-tapping, hex. head For mounting air guide plate.	1
		Includes connecting rod.		39	57 Y 6	Gasket, intake, standard	2
Note: The 192R can be equipped with electric starting motor mounted on either side of crankcase. Therefore, at least one starter pad cover plate is required. Engines without electric starter require two cover plates.				40	57 Y 7	Insulating Flange, standard	1
8	DIN 912 M 8x30 glz.	Screw, ellem head	2-4	41	DIN 137 B 8 glz.	Washer, for mounting insulating flange	2
		For mt'g starter cover plate.		42	DIN 934 M 8 glz.	Nut, hexagon	2
9	DIN 127 B 8 glz.	Lock Washer, for mounting starter cover plate	2-4			For mt'g insulating flange.	
10	195 A 1	Cover Plate, for starter pads on flange	1-2	43	57 Y 1 U Optional 57 Y 10 U	Air Filter Assembly	1
11	DIN 934 M 6 glz.	Nut, hexagon	6			Includes filter element.	
		For mt'g crankcase halves.		44	57 Y 5	Air Filter Assembly	1
12	DIN 7603 A 6.5x9.5x2 AL	Washer, sealing, aluminum	8			Without filter element.	
		2-for holes in crankcase. 6-for crankcase halves.		45	DIN 137 B 6 glz.	Element, for air filter	1
13	DIN 7346 8x10	Roll Pin	4	46	051.4	Washer, for mounting air filter ..	3
14	50 K 4	Hose Nipple, for pressure line, crankcase to carburetor	1			Screw, hexagon head	3
15	190 B 5	Stud, for mounting cylinder to crankcase	4			For mounting air filter.	
16	DIN 933 M 6x10 glz.	Screw, hexagon head, for plugging hole in crankcase	1	47-53	197 A 5 U	Insulating Flange Assembly (optional)	1
17	046.6	Needle Bearing, for piston pin	1	47A	197 A 2	Insulating Flange	2
18	DIN 73123 C 18	Retaining Ring, for piston pin ..	2	48	197 A 3	Intermediate Plate	1
19	014.31/4	Piston Pin	1	49	DIN 931 M 8x40	Screw, hexagon head	2
20	014.31	Piston Assembly	1			For mt'g carburetor to flange.	
		Consists of: 1 Piston 1 Piston Pin 2 Compression Rings		50	DIN 137 B 8 glz.	Lock Washer, for mounting carburetor to flange	2
21	014.31/1	Compression Ring	2	51	DIN 934 M 8 glz.	Nut, hexagon	2
22	50 A 5	Gasket, cylinder to crankcase ..	1			For mt'g carburetor to flange.	
23	DIN 940 M 8x35 glz.	Stud, for mt'g insulating flange	2	52	DIN 6912 M 8x40 glz.	Screw, ellem head	2
24	192 K 1	Cylinder	1			For mt'g flange assembly.	
25	192 K 2	Gasket, cylinder head to cylinder	1	53	197 A 4	Gasket, for optional insulating flange assembly	2
		Replaces 172 A 3.		54	DIN 7 6 m 6x12	Pin, for aligning crankcase halves	2
26	192 A 1	Cylinder Head	1	55	Di 19/1 Optional Di 19/2	Gasket Set, includes standard insulating flange gasket	1
28	DIN 934 M 8	Nut, hexagon, for mounting cylinder and head to crankcase	4			Gasket Set, includes optional insulating flange gaskets	1
29	190 A 6	Washer, plain, for mounting cylinder and head to crankcase	4	56	058.2	Decompression Valve	1
30	DIN 940 M 8x22 glz.	Stud, for exhaust flange	2	57	17 M 1 U/450	Bowden Cable, for decompression valve	1
				58	049.11	Control Lever, for Bowden cable	1
				59	DIN 6885 A 6x6x14	Key, for crankshaft	1
				60	19 S 1	Screw, in cylinder for engines without decompression valve ...	1

Figure 5

MAIN ENGINE PARTS
FOR ALL 200R MODELS



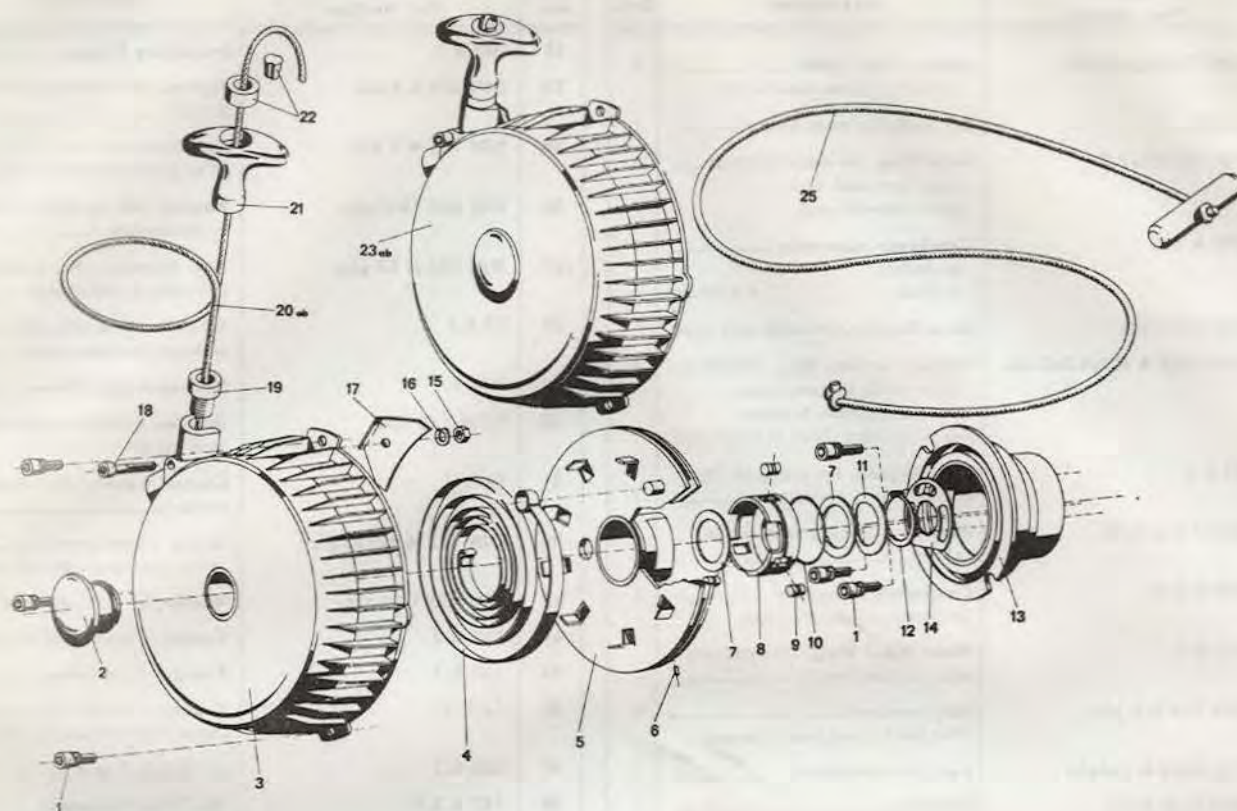
MAIN ENGINE PARTS **FOR ALL 200R MODELS**

Figure 5

Ref. No.	Hirth Part Number	Description	Qty.	Ref. No.	Hirth Part Number	Description	Qty.
1	DIN 912 M 6x80 glz.	Screw, ellern head For mt'g crankcase halves.	6	33	207 A 1	Insulating Flange	1
2	055.21	Oil Seal, for main bearing	2	34	DIN 125 8.4 glz.	Washer, for mounting insulating flange.....	2
3	DIN 472 72x2.5	Snap Ring, for main bearing 1-for flywheel end. 2-for take-off end.	3	35	DIN 934 M 8 glz.	Nut, hexagon	2
4	200 A 1 U	Crankcase Assembly	1	36	DIN 433 10.5 glz.	Washer, for mounting cylinder to crankcase	4
5	DIN 625 6306	Includes: 4 Studs 1 Flange		37	DIN 934 M 10 glz.	Nut, hexagon, for mounting cylinder to crankcase	4
6	DIN 7603 A 6.5x9.5x2 AL	Main Bearing, grooved, ball type	2	38	19 S 1	Screw, acts as plug on engines without decompression valve ..	1
		Washer, sealing type, aluminum 2-for holes in crankcase. 6-for crankcase halves. Replaces DIN 7603 A 6.5x9.5x1.	8	39	058.2	Decompression Valve	1
7	50 K 4	Hose Nipple, for pressure line, crankcase to carburetor	1	40	17 M 1 U/450	Bowden Cable, for decompression valve	1
8	DIN 7 6 m 6x12	Pin, for aligning crankcase halves	2	41	049.11	Control Lever, for Bowden cable	1
9	200 A 1 U	Crankshaft Assembly	1	42	DIN 912 M 10x35 glz.	Screw, ellern head	2
		Includes connecting rod.				For mounting exhaust flange.	
10	160 A 5	Sheet Metal Ring, for magneto, acts as dust cover	1	43	DIN 433 10.5 glz.	Washer, for mt'g exhaust flange	2
11	DIN 934 M 6 glz.	Nut, hexagon	6	44	168 A 2	Gasket, for exhaust flange	2
		For mt'g crankcase halves.		45	168 A 1	Flange, for exhaust muffler	1
12	DIN 6885 A 6x6x14	Key, for crankshaft	1	46	13 B 2	Gasket, rubber, for air guide plate to fan housing flange	1
13	DIN 7346 8x10	Roll Pin	4	47	203 A 2	Air Guide Plate	1
14	195 A 1	Cover Plate, for engines without electric starting motor	1	48	167 A 5 U Optional 167 A 10 U	Air Filter Assembly..... Includes filter ring. Air Filter Assembly	1
15	DIN 127 B 8 glz.	Lock Washer, for starter pad cover plate	2			Includes filter ring.	
16	DIN 912 M 8x30 glz.	Screw, ellern head	2	49	167 A 9	Element, for standard air filter assembly	1
		For starter pad cover plate.		50	167 A 11	Ring, for optional air filter assembly	1
17	DIN 471 30x1.5	Snap Ring, to minimize crankshaft end-play	1	51	DIN 6798 J 6.4	Washer, for mounting air filter assembly	3
18	DIN 835 M 10x28 glz.	Stud, for mounting cylinder to crankcase	4			Replaces DIN 137 B 6 glz.	
19	DIN 933 M 6x10 glz.	Screw, hexagon head	1	52	051.5	Screw, hexagon head	3
		For plugging hole in crankcase.				For mt'g air filter assembly.	
20	046.7	Needle Bearing, for piston pin	1	53	Di 20/1	Gasket Set.....	1
21	DIN 73123 C 22x1.5	Retaining Ring, for piston pin ..	2				
22	014.28/4	Piston Pin	1				
23	014.28	Piston Assembly - 80.5 mm Consists of: 1 Piston 1 Piston Pin 3 Compression Rings	1				
24	014.28/1	Compression Ring	3				
25	202 A 2	Gasket, cylinder to crankcase ..	1				
26	202 A 1	Cylinder	1				
27	202 A 3	Gasket, head to cylinder	1				
28	202 A 4	Cylinder Head	1				
29	190 A 6	Washer, for mt'g cylinder head	8				
30	DIN 912 M 8x45 glz.	Screw, ellern head	8				
		For mounting cylinder head.					
31	DIN 835 M 8x45 glz.	Stud, for mt'g insulating flange	2				
32	207 A 2	Gasket, intake	1				

Figure 6

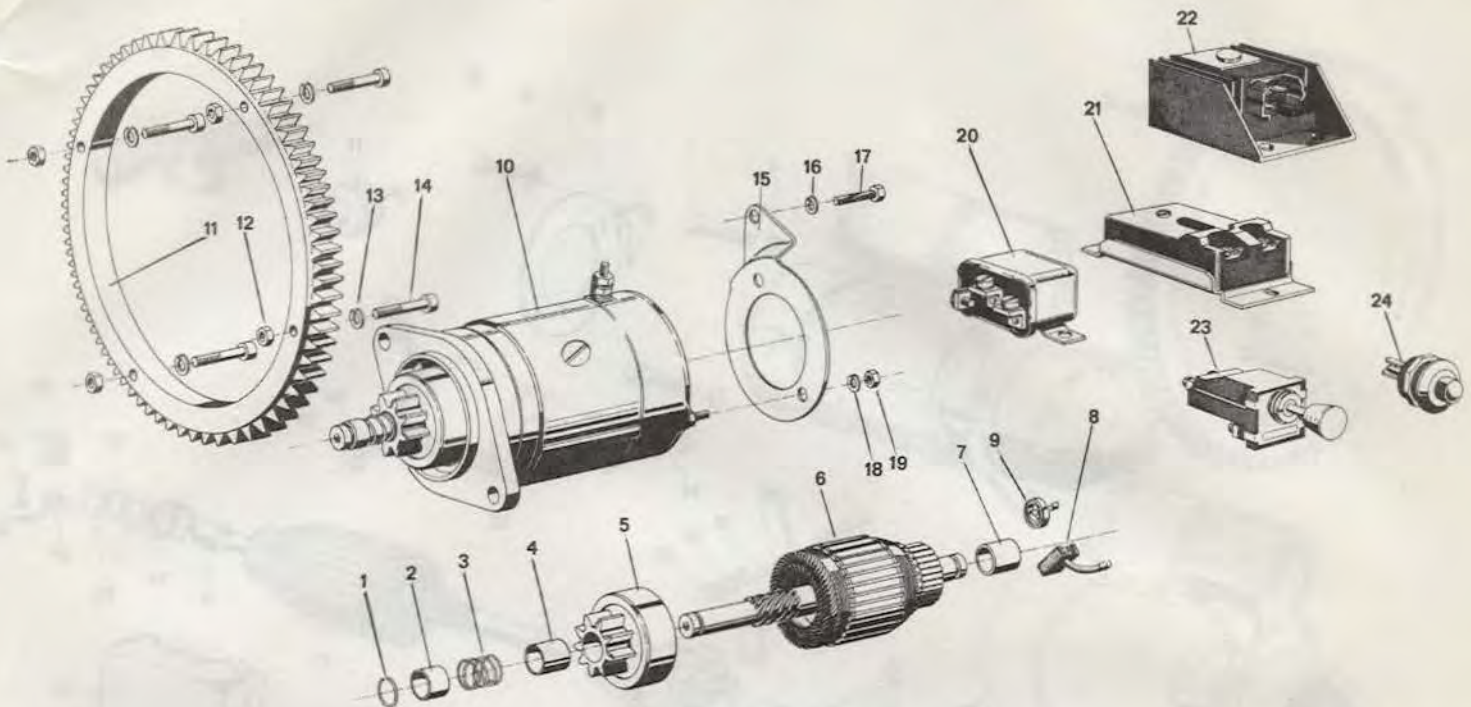
RECOIL STARTER ASSEMBLY FOR ALL 191R, 192R, 200R MODELS



Ref. No.	Hirth Part Number	Description	Qty.	Ref. No.	Hirth Part Number	Description	Qty.
1	DIN 912 M 6x18 Z 4-1 glz.	Screw, ellem head 3-for recoil starter drive hub mounting. 5-for starter housing.	8	18	DIN 912 M 6x30 glz.	Screw, ellem head..... For mounting cover plate to starter housing.	1
2	15 B 20	Plug, for starter housing	1	19	75 B 3	Guide Bushing, for wire rope....	1
3	165 A 24 U	Starter Housing	1	20	165 A 16 Optional 165 C 2	Wire Rope, 2475 mm long	1
4	165 A 20	Rewind Starter Spring	1	21	75 B 36	Wire Rope, 2680 mm long	1
5	165 A 8 U	Driver Pulley	1	22	75 B 34	Handle, for wire rope	1
6	DIN 1473 3x8	Pin.....	1	22	75 B 34	Clamp Ring, for mounting rope to handle	1
7	15 A 17	Washer.....	1-2		75 B 35	Clamp Piece, for mounting rope to handle.....	1
8	15 B 31	Roller Cage	1	Note: Clamp Ring and Clamp Piece are not serviced separately . If parts are required, order both Clamp Ring and Clamp Piece.			
9	75 B 16	Clamp Roller	3	23	165 D 2 U	Recoil Starter Assembly	1
10	75 B 17	Roller Retaining Spring	1		Optional	Includes wire rope (2475 mm). Replaces 165 D 1 U.	
11	15 A 19	Lock Washer	1-2		165 E 2 U	Recoil Starter Assembly	1
12	DIN 471 32x1.5	Snap Ring	1			Includes wire rope (2680 mm). Replaces 165 E 1 U.	
13	165 A 1 U	Drive Hub	1	25	65 F 3 U	Rope Assembly	1
14	165 A 3	Security Plate	1			Consisting of: 1 Wooden Handle 1 Rope	
15	DIN 934 M 6 glz.	Nut, hexagon	1				
		For mounting cover plate.					
16	DIN 127 B 6 glz.	Lock Washer, for mounting cover plate.....	1				
17	165 A 18	Cover Plate	1				

STARTING MOTOR MOUNTING
FOR ALL 192R AND 200R MODELS
FOR MODEL 191R BEGINNING WITH DELIVERY OF AUGUST, 1968

Figure 7



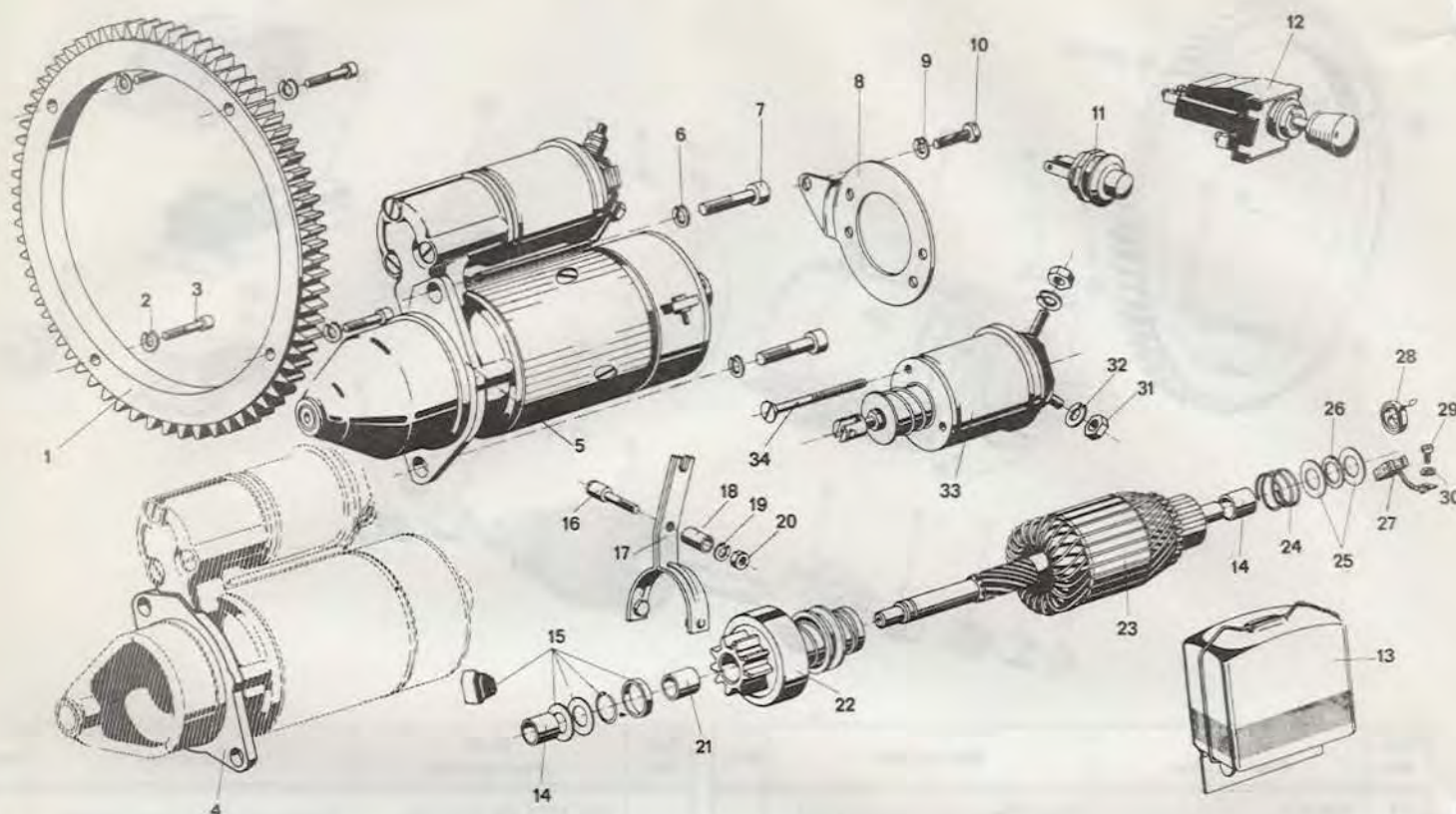
Ref. No.	Hirth Part Number	Description	Qty.
1	028.9/7	Snap Ring, for mounting parts on armature shaft	1
2	028.9/6	Stop Ring	1
3	028.9/5	Spring	1
4	028.9/4	Bushing, for armature shaft, drive end	1
5	028.9/3	Drive End Assembly, includes bearing bushing (Ref. No. 4) ..	1
6	028.9/2	Armature	1
7	028.9/1	Bearing, commutator end	1
8	028.9/9	Carbon Brush Set	1
9	028.3/10	Spring, for carbon brush	1
10	028.9	Pinion Starter	1
11	163 B 3	Ring Gear	1
12	DIN 934 M 6 glz.	Nut, hexagon, for mounting ring gear to flywheel	4
13	DIN 7980 6 glz.	Lock Washer, for mounting ring gear to flywheel	4
14	DIN 912 M 6x20 glz.	Screw, allen head, for mounting ring gear to flywheel	4
15	205 A 1	Support Plate, for model 200R	1
15A	195 A 2	Support Plate, for models 191R and 192R	1
16	DIN 127 B 6 glz.	Lock Washer, for mounting support plate to crankcase.	1
17	DIN 7513 AM 6x18 glz.	Screw, self-threading, hex. hd. For mounting support plate to crankcase. For models 191R and 192R.	1

Ref. No.	Hirth Part Number	Description	Qty.
	DIN 7513 AM 6x15 glz.	Screw, self-threading, hex. hd. For mounting support plate to crankcase. For model 200R.	1
18	DIN 127 B 5 glz.	Lock Washer, for mounting starter to support plate	2
19	DIN 934 M 5 glz.	Nut, hexagon, for mounting starter to support plate	2
Note: The starter motor is mounted to the fan housing flange by using the two screws and lock washers used for mounting the starter pad cover plate.			
20	032.15	Relay	1
21	032.14	Resistor - 35 Ohm	1
		Standard on all models.	
	032.13	Resistor - 25 Ohm	1
		Optional. Used only on model 191R.	
THE FOLLOWING PARTS ARE USED ON MODEL 200R ONLY			
22	032.12	Rectifier	1
23	032.11	Pull-switch	1
24	032.7	Starter-switch	1

Figure 8

STARTING MOTOR MOUNTING

FOR ALL 191R MODELS DELIVERED BEFORE AUGUST, 1968



Ref. No.	Hirth Part Number	Description	Qty.
1	163 B 3	Ring Gear.....	1
2	DIN 7980 6	Lock Washer	4
3	DIN 912 M 6x18	Ellem Screw	4
4	028.4	Pinion Starter	1
		Mounted right hand side viewed towards power take off.	
5	028.3	Pinion Starter	1
		Mounted left hand side viewed towards power take off.	
6	DIN 127 B 8	Lock Washer	2
7	DIN 912 M 8x30	Ellem Screw	2
8	165 A 19	Support Plate	1
9	DIN 127 B 6	Lock Washer	1
10	DIN 7513 AM 6x18	Hexagon Cutting Screw	1
11	032.7	Starter Switch	1
12	032.11	Pull Switch	1
13	032.10	Rectifier	1
14	028.3/1	Bearing Bushing	2
15	028.3/12	Set of pasts for Armature	1

Ref. No.	Hirth Part Number	Description	Qty.
16	028.3/14	Screw	1
17	028.3/13	Engaging Lever	1
18	028.3/15	Bushing	1
19	DIN 127 B 5 glz	Lock Washer	1
20	DIN 439 M 5 glz	Hexagon Nut	1
21	026.3/4	Bearing Bushing	1
22	028.3/3	Drive Assembly	1
23	028.3/2	Armature	1
24	028.3/5	Helical Spring	1
25	028.3/6	Washer	2
26	028.3/7	Insulating Washer	1
27	028.3/9	Carbon Brush Set.....	1
28	028.3/10	Carbon Brush Spring	1
29	DIN 84 M 4x8 glz DIN 84 M 4x6 glz	Fillister Head Screw	2 2
30	DIN 127 B 4 glz	Lock Washer	4
31	DIN 934 M 8 glz	Hexagon Nut	2
32	DIN 127 B 8 glz	Lock Washer	2
33	028.3/11	Relay Assembly	1
34	028.3/8	Screw	2