

INSTALLATION INSTRUCTIONS

DRAG SPECIALTIES KICKSTARTER REBUILD KIT P/N 1112-0034

ATTENTION INSTALLER (if other than owner):

Please forward this Instruction Sheet to the purchaser of this product. These instructions contain valuable information necessary to the end user.

INTRODUCTION: These instructions describe the procedure for properly installing the four-speed kickstarter rebuild kit. Review the instructions carefully before beginning, as they contain important information. Please retain for future reference.

Particularly important information is distinguished in these instructions by the following notations:

NOTE: A NOTE provides key information to make procedures easier or clearer.

CAUTION: A CAUTION indicates special procedures that must be followed to avoid damage to the motorcycle and/or accessories.

WARNING!: A WARNING indicates special procedures that must be followed to avoid injury to a motorcycle operator or person inspecting or repairing the motorcycle.



SPECIAL TOOLS REQUIRED:

Mainshaft Starter Clutch Gear Puller, DS-198626

PROCEDURE:

DISASSEMBLING THE KICKSTARTER:

1. Place the oil drain pan under the transmission.
2. Remove the starter cover nuts and plain washers. Loosen the clutch adjusting screw.
3. If the transmission is in the chasis, remove the clutch cable from the left end of the clutch release lever.
4. Remove the exhaust pipe and other components mounted on the transmission cover studs.
5. Cover the assembly with the clutch release lever, the assembly is then free to be pulled off the mounting studs. Clutch push rod assembly will come off with the cover. If the starter cover binds, the push rod is binding on the starter clutch. Pry the push rod off the starter clutch.

CAUTION: Do not pry the kicker cover for it will damage the bearing.

6. With the starter cover removed, the push rod is free to be pulled out of the mainshaft.
7. Clamp the crankshaft (1) in the vice, bend the ear of the lockwasher (7) away from the flat of the starter crank nut (8) and remove the nut and lockwasher (7).
8. Remove the starter gear (6) using an all-purpose claw puller. If the puller is not available, remove the starter from the vice and drive starter crank out of the starter gear with a soft-faced mallet.
9. Be sure to hold the starter crank and cover from swinging when the shaft is freed from the gear.
10. With the starter gear removed, the crankshaft (1) can be pulled out of the cover. The thrust washer (2) is installed between the starter crank spring and the cover with the chamfered side of the washer facing the spring.

DISASSEMBLING THE STARTER CLUTCH:

11. Remove the starter cover assembly as described in "Disassembling the Starter," and proceed as follows:
12. Bend the ear of the lockwasher away from the flat of the starter clutch nut (9) and remove the nut and washer (10).
13. Pull the starter clutch (12) from the mainshaft taper with the Starter Clutch Puller, Drag Specialties Part #DS-198626 or equivalent.



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CAUTION: Use of the wrong type of puller to remove the starter clutch gear may cause damage to the transmission mainshaft.

14. With the starter clutch removed, the starter clutch key (11), the starter mainshaft gear (13) and the starter clutch spring (14) are free to be removed from the mainshaft.

CLEANING, INSPECTION AND REPAIR:

15. Wash all parts except the gasket (3) in a solvent and blow dry with compressed air.
16. Examine the teeth on the starter clutch and the starter gear (13), ratchet the teeth on the mainshaft gear and starter clutch. The teeth should be sharp-edged; if the teeth are rounded or mushroomed and the rider has experienced ratchet slip, replace the worn parts.
17. If the starter clutch nut has previously been drawn down too tight, the starter clutch may be cracked. If cracked, it is usually difficult to get the starter clutch out of the clutch release bearing when disassembling the starter cover.
18. Position the mainshaft gear (13) on the shaft and check the play. If obviously loose replace the bushing.
19. Insert the starter crankshaft in the starter cover and check the play. If the play is appreciable, press out the bushings (4) and install new parts.
20. If the transmission was leaking oil out of the starter crank, install the oil seal/O-ring (5).
21. The bushings are pressed in with the outside ends just flush with the bushing boss on the outer surfaces of the cover.
22. Check the clutch push rod bearing for wear. Replace the unit that grinds, feels rough or loose when rotated.

ASSEMBLING THE STARTER CLUTCH:

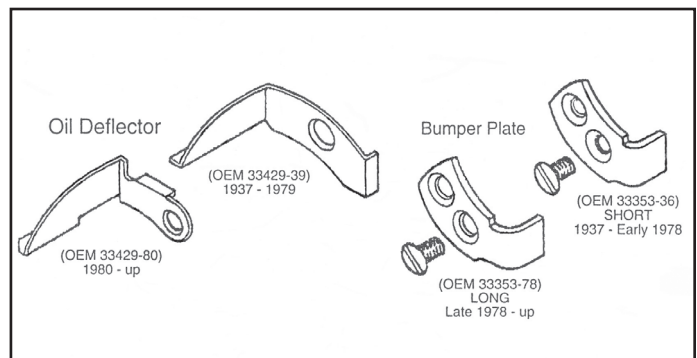
23. Coat the gasket with the gasket sealer and position on the gear box.
24. Lubricate the mainshaft with engine oil and slip the spring and mainshaft gear over the shaft.

CAUTION: The bushing must be loose enough on the mainshaft to allow the gear to slide under the force of the compressed starter clutch spring. If necessary, line the rear bushing to achieve free fit.

25. Position the starter clutch, drive in the starter clutch key and assemble the remainder of the parts in the reverse order of disassembly.
26. Tighten the nut to 50-60 ft.-lbs.

ASSEMBLING THE STARTER:

27. Install the starter crank spring and thrust washer (2) on the starter crankshaft (1) with the chamfered side facing the spring. Apply a film of light grease on the oil seal (5) and the starter crankshaft before installing.
28. Install the starter crank gear. When viewing the end of the gear, the notch on the crankshaft (1) should be in the 12 o'clock position and the dowel pin on the gear should be in the 7 o'clock position.
29. Install the lockwasher (7) and the nut (8) and tighten the nut to 50 to 60 ft.-lbs. of torque.
30. Bend the tab on the washer up against the flat on the nut.
31. Before the starter cover is installed, the push rod assembly is inserted into the cover. Insert the small diameter end of the push rod into the mainshaft.
32. With the oil slinger/throwout bearing in the cover and using the push rod as a guide, move the cover assembly into place.
33. The dowel pin on the starter gear must clear the front of the starter crank stop (19).
34. Tighten all of the cover nuts to 13 to 16 ft.-lbs. of torque.
35. Install the starter crank and tighten the crank bolt to 25 to 30 ft.-lbs. of torque.
36. Wind the spring by turning it with a pliers clockwise and hooking the end onto the starter crank stud.
37. Refill the unit with 1 1/2 pints of preferred transmission oil.
38. Install the clutch cable into the release arm.
39. Adjust the clutch and check for proper operation.
40. Adjust the rear brake pedal.



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WARNING! Before operating the motorcycle, be sure all hardware is tight.

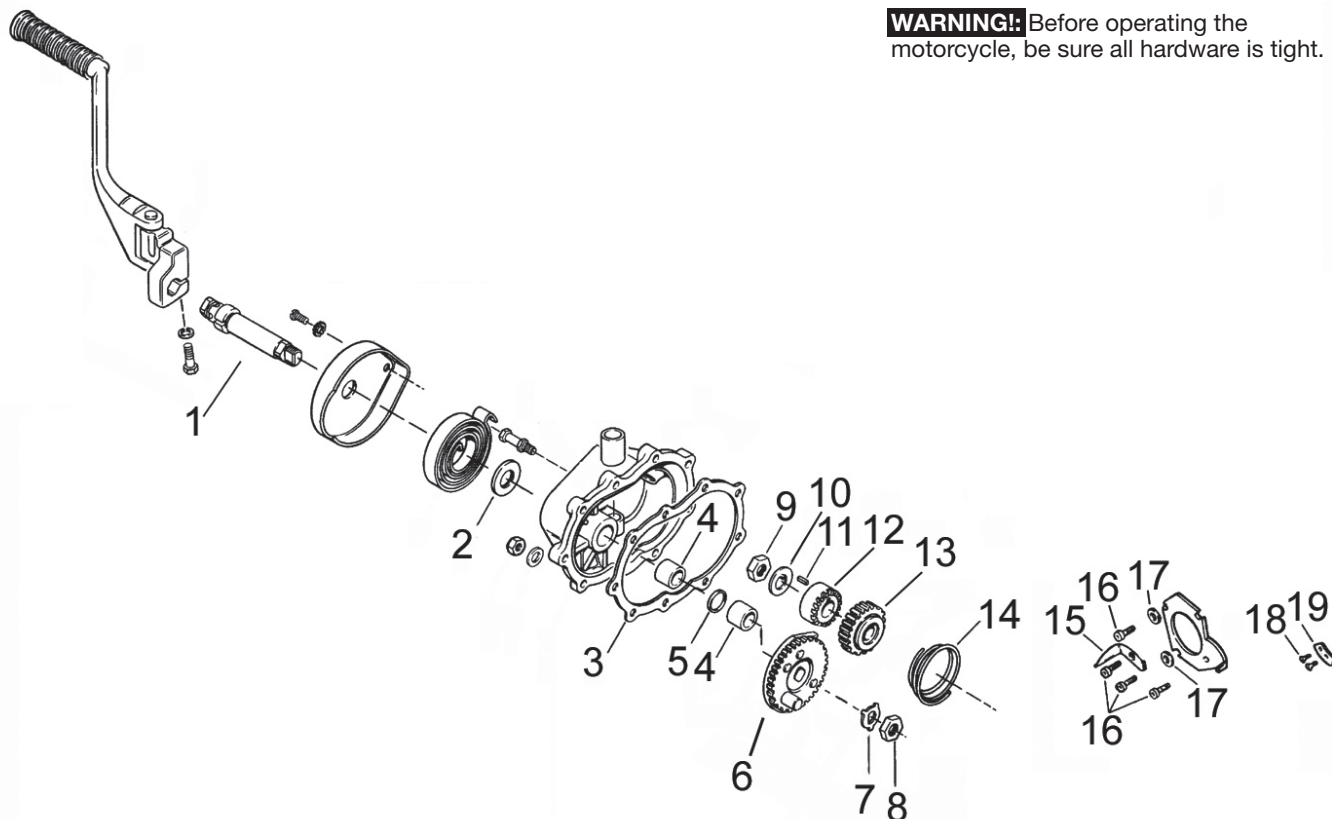


ILLUSTRATION OF PARTS INCLUDED IN THE KICKSTARTER REBUILD KIT:

NOTE: Only the items that are numbered are included with the kit. Un-numbered items if needed must be sourced separately.

ITEM #	DESCRIPTION	QUANTITY	OEM #
1	Starter crankshaft	1	33096-54B
2	Washer, starter crank	1	33080-36
3	Gasket, starter cover	1	33295-36
4	Bushing set (pr.) starter crank	1	33288-37
5	Oil seal/O-ring, starter crank	1	11101
6	Gear, starter crank 24T	1	33350-36
7	Lockwasher, starter crank	1	33082-36
8	Nut, 1/2"-20 x 7/16"	1	7911
9	Nut, 5/8"-18 x 1/4"	1	7977
10	Lockwasher, starter clutch	1	33396-36
11	Key, starter clutch	1	33393-50
12	Starter clutch	1	33381-39/33560-75
13	Starter gear, mainshaft	1	33430-50
14	Spring, starter clutch	1	33391-36
15	Oil deflector, 36-79	1	33429-39
15	Oil deflector, 80-86	1	33429-80
16	Screw, 1/4"-24 countersunk 36-79	4	2333W
16	Screw, 1/4"-20 Panhead 80-86	4	3789A
17	Lockwasher, 1/4", 81-86	4	6099
18	Screw, 1/4"-24 x 5/8" countersunk	2	1864B
19	Bumper plate, starter crank 36-80	1	33353-36/78



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