

# INSTALLATION INSTRUCTIONS

## DRAG SPECIALTIES FORWARD CONTROLS FOR L87-03 SPORTSTERS® P/N DS-243528

### 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 forward controls on L87-03 XL models.

Review 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.

### PROCEDURE:

**NOTE:** These forward controls are not compatible with many exhaust systems. If your exhaust is compatible with the Harley-Davidson® 883C or 1200C, it should also fit with these forward controls. These controls will not work on Early 87 or earlier models.

**CAUTION:** There is a separate shift lever for the L87-90 Sportster® and one for the 91-03 Sportster®. Please make sure you are using the correct one for your application. They are not interchangeable.

1. Securely block motorcycle in an upright position.
2. Remove the shift lever from the shifter shaft.
3. Remove the left rider peg.
4. Remove the exhaust system from the motorcycle.
5. Remove the sprocket cover from the motorcycle.
6. Remove the right footpeg from the sprocket cover. Replace the footpeg stud with the 1/2"-20 x 1 1/2" socket head screw, **item #15**. Do not remove the stiffener bar between the footpeg mount and the master cylinder.
7. Remove the clevis rod from the end of the master cylinder.
8. Reinstall the master cylinder and sprocket cover.

**NOTE:** Use thread-locking adhesive on all threaded connections.

9. Determine which is the left-side footpeg/motor mount plate, **item #2**. (It is flat on both sides. The right side has a boss extending out where the footpeg shaft is installed.)
10. Install the short pivot shaft, **item #4**, in the left side footpeg/motor mount. Make sure to install in the correct direction;

see diagram. The pivot shaft accepts a 1/2" hex key in the end for final tightening. Install circlip on threaded end of pivot shaft.

11. Install the longer pivot shaft, **item #3**, in the right side footpeg/motor mount, **item #1**. Install circlip on threaded end of pivot shaft.
12. Remove the existing bolts from the left-side motor mount plate. Replace the motor mount plate with the left-side footpeg/motor mount plate. Secure with bolts, **item #17**, in the front, and bolts, **item #14**, in the rear. Do not install nuts on bolts, **item #14** at this time. Tighten bolts finger tight, reusing the existing nuts.
13. Replace the right-side motor mount plate with the right-side footpeg/motor mount plate using the same bolts as in **step #12**.
14. Tighten all footpeg/motor mount bolts securely.
15. Apply a light coat of grease to the pivot shaft on the shifter side (left). Install the shifter arm, **item #6**, on pivot shaft. Secure the shift arm using footpeg clevis, **item #8**, with socket head screw, **item #21**. Adjust the footpeg clevis to the desired angle and tighten to 26 ft.-lbs.
16. For L87-90 models, go directly to step 17. On 91-03 models, install the transmission shift lever, **item #7**, to the shifter shaft. The lever should point down. Install the socket-head screw from the original shift lever to secure the new shift lever. Go directly to **step #18**.
17. On L87-90 models, install the transmission shift lever assembly, **item #7A**, as follows: Place the adapter lever on the shifter shaft with the offset on the bottom of the lever toward the primary cover. Install the splined adapter onto the shifter shaft with the arm pointing down. Using the 1/4"-20 x 5/8" button-head screw and 1/4" lock washer, attach the adapter lever to the splined adapter. Tighten securely. Install the 1/4"-20 x 1" pinch bolt and lock washer. Tighten securely.
18. Assemble the shift rod, **item #12**, with jam nuts, **item #13**, and the heim joints, **item #25**. Thread the jam nuts and heim joints onto the shift rod as far as possible.
19. Attach the shift rod assembly to the foot shift lever and the transmission shift lever using hex bolts, **item #19**, along with flat washers, **item #22**. Place a washer on both sides of each heim joint. Tighten both hex bolts to 16 ft.-lbs.
20. Check operation of the shift lever. Make sure that there is adequate clearance between all moving parts and the primary cover. Adjust if necessary and then tighten the jam nuts. Make sure the shift rod assembly is not binding and freely moves for better shifting.
21. Lightly grease the right-side pivot shaft and install the brake lever, **item #5**. Secure the brake lever using the footpeg clevis, **item #8**, with socket-head screw, **item #21**. Adjust the footpeg clevis to the desired angle and tighten to 26 ft.-lbs.
22. Install brake rod, **item #9**, along with the jam nut, **item #13**, into the existing master cylinder. Attach the front end of the brake rod to the brake lever using clevis pin, **item #10**, and cotter pin, **item #11**. Adjust brake rod linkage to achieve smooth operation and the correct brake pedal free play. Tighten jam nut securely.
23. Install the exhaust system, using new gaskets if necessary.

## DRAG SPECIALTIES

3501 Kennedy Rd, PO Box 5222, Janesville, WI 53547-5222  
P/N DS-243528

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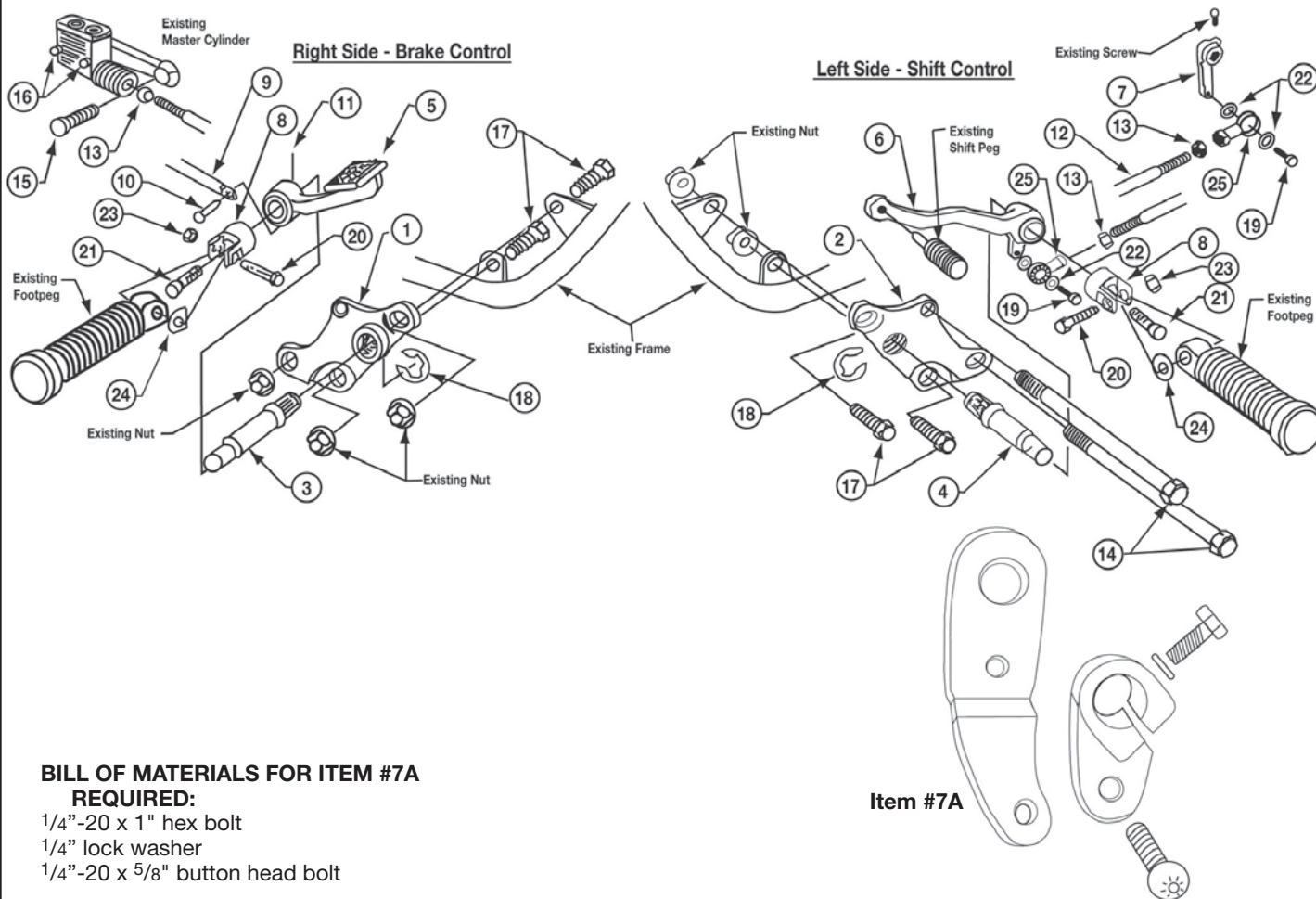
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**WARNING!:** Confirm that you have sufficient clearance between the rear brake lever and the exhaust system. Modify or change exhaust if necessary to obtain the correct clearance. Exhausts designed for the 883C or 1200C models should have satisfactory clearance.

**24.** Remove shift peg from original shift lever and install in new shift lever.

**25.** Remove original footpegs and install in new footpeg mounts with hex bolts, **item #20**, and nylon locking nuts, **item #23**. Spring washers, **item #24**, should go between the footpeg and the footpeg mount. Tighten mounting bolts, making sure that footpeg can still fold up.

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



### BILL OF MATERIALS FOR ITEM #7A

#### REQUIRED:

- 1/4"-20 x 1" hex bolt
- 1/4" lock washer
- 1/4"-20 x 5/8" button head bolt

### BILL OF MATERIALS:

QTY	ITEM#	DESCRIPTION	REPL. OEM#
1	1	Frame/motor mount, right side	16294-99
1	2	Frame/motor mount, left side	16297-99
1	3	Pivot shaft, right side	42590-98
1	4	Pivot shaft, left side	42589-98
1	5	Brake lever pedal	49300-98
1	6	Shift lever arm	49302-98
1	7	Transmission shift lever	34963-99
2	8	Footpeg clevis	42591-98
1	9	Brake rod	42432-99
1	10	Brake rod pin	42460-80B
1	11	Cotter pin	515
1	12	Shift rod	11764
3	13	Hex jam nut, 5/16"-24 x 3/16"	94043-90
2	14	Hex-head bolt, 3/8"-24 x 5 1/2"	4413

QTY	ITEM#	DESCRIPTION	REPL. OEM#
1	15	Socket-head screw, 1/2"-20 x 1 1/2"	3549A
2	16	Socket-head screw, 5/16"-18 x 3"	897
4	17	Hex-head bolt, 3/8"-24 x 1 1/4"	4337W
2	18	C-clip	11302
2	19	Hex-head bolt, 5/16"-18 x 1"	94194-91T
2	20	Hex-head bolt, 3/8"-16 x 1 1/2"	94236-91T
2	21	Socket-head screw, 3/8"-16 x 1 1/4"	4748
4	22	Flat washer, 5/16"	6016
2	23	Nylon nut, 3/8"-16	7778
2	24	Spring washer, 3/8"	50912-72
2	25	Heim joint	33871-85A
1	26	Loctite	-

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