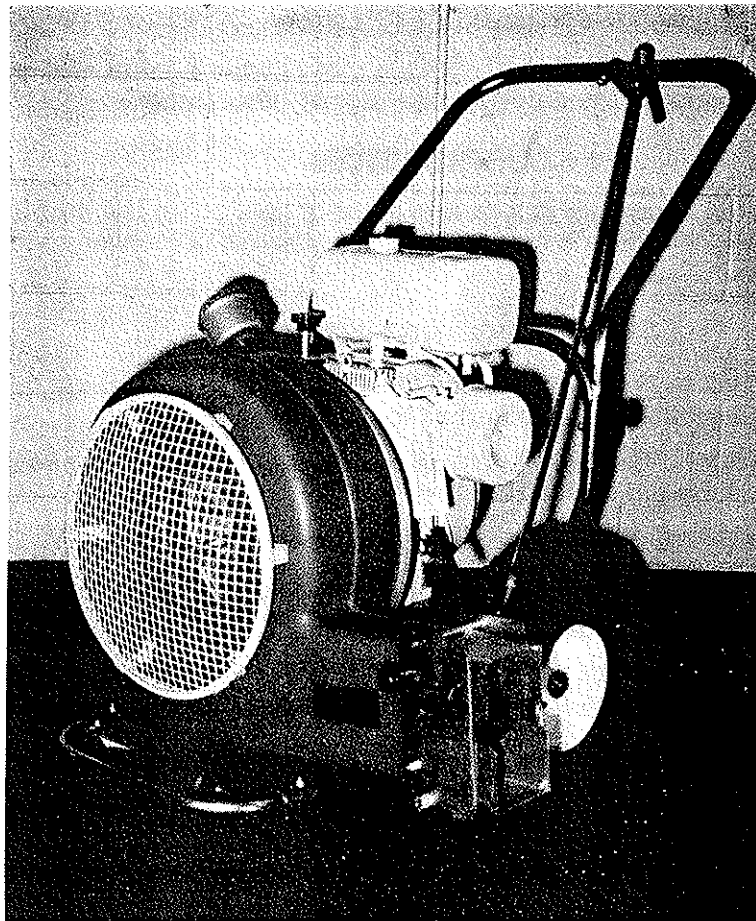


# OWNERS GUIDE



# Parker

## HURRICANE MODEL HC-8180/MODEL HC-8180-K



**READ THESE INSTRUCTIONS  
BEFORE SETTING UP AND OPERATING MACHINE**

**PARKER SWEEPER COMPANY    Box 1728    Springfield, Ohio 45501**

## TO THE OWNER

These instructions were written to assist you in the assembly and operation of your Hurricane. **READ THE INSTRUCTIONS** thoroughly **BEFORE** attempting to assemble and operate the machine so that you are familiar with the complete procedure and the safety precautions.

### RULES FOR SAFE OPERATION



The following safety precautions are suggested to prevent damage to the equipment or injury to the operator or nearby persons.

1. TO PREVENT ACCIDENTAL STARTING ALWAYS REMOVE THE SPARK PLUG before working on the engine or equipment driven by the engine.
2. DO NOT RUN THE ENGINE IN AN ENCLOSED AREA. Exhaust gases contain carbon monoxide which is an odorless and deadly poison.
3. DO NOT FILL GASOLINE TANK WHILE ENGINE IS HOT OR RUNNING. Spilling gasoline on a hot engine may cause a fire or explosion.
4. DO NOT leave machine unattended while running.
5. DO NOT ALLOW machine to blow in direction of people or objects that could be injured by blown materials.
6. AVOID operating machine in dangerous places where steep slopes or loose debris will endanger the safety of operator or other people.

### LUBRICATION

The only lubrication necessary is a couple drops of light oil on the throttle control lever and throttle wire where it enters the cable, also on the moving parts on the exhaust deflector.

### OPERATING INSTRUCTIONS

1. Before starting the engine, read the Operating and Maintenance Instruction Manual. Add proper gasoline and oil to correct level.
2. Engine should be "broken in" by running at 1/2 throttle for 30 minutes and full throttle for an additional 30 minutes.
3. Machine will operate effectively by either pushing or pulling.
4. Your Hurricane Blower can be used as either a Low Blow or Hi Blow depending on the application.
5. For moving heavy debris such as sticks, cleaning out flower beds, anything heavier than leaves, use the Low Blow.
6. For controlled blowing of leaves into windrows and stacking use the Hi Blow.

### IMPORTANT

#### ALWAYS GIVE THE FOLLOWING INFORMATION WHEN ORDERING REPAIR PARTS:

- |                               |                           |
|-------------------------------|---------------------------|
| 1. Part Number (Not Ref. No.) | 3. Description of Part    |
| 2. Quantity Needed            | 4. Model No. of Hurricane |

If unable to obtain parts locally, write down above information and send to:  
**PARKER SWEEPER CO., BOX 1728, SPRINGFIELD, OHIO 45501**

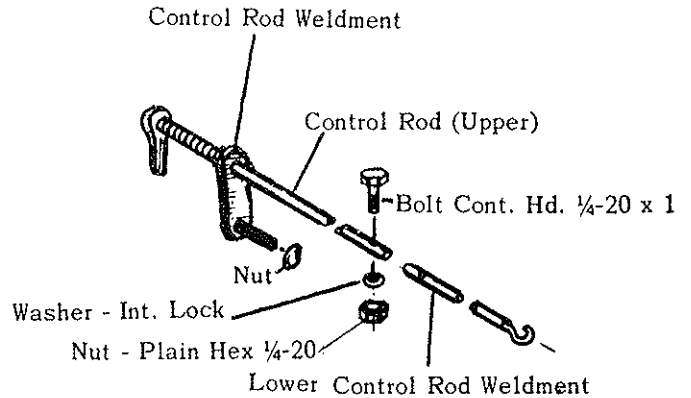
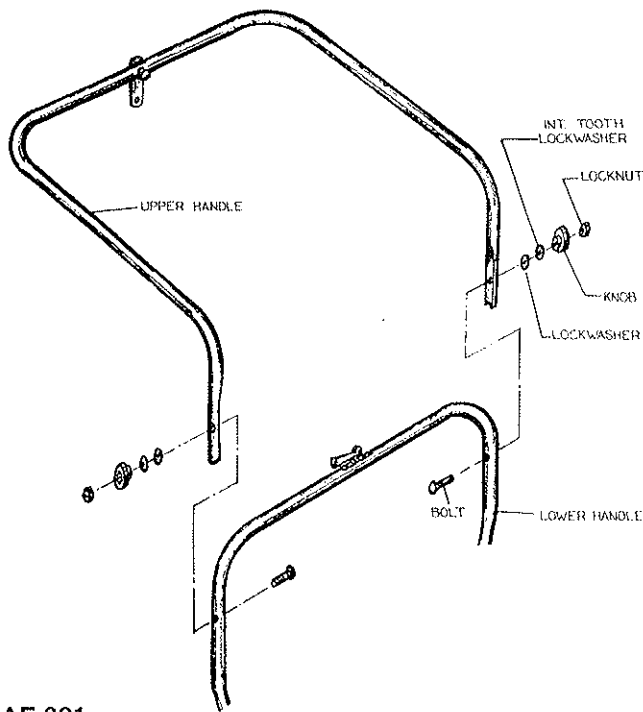
Your unit is right hand (R.H.) or left hand (L.H.) as you stand behind it.

# ASSEMBLY INSTRUCTIONS

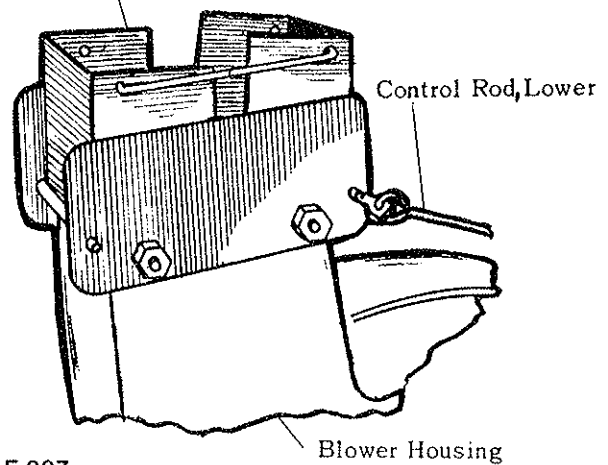
Remove the Hurricane from its carton. The upper handle is not attached. From the upper handle remove the plastic knobs, bolts, lock washers, and locknuts. Insert the carriage bolts into the square holes on the inside of the lower handle and attach the upper handle, spring lockwashers, and internal tooth lockwashers. Screw on the plastic knobs until tight; screw on the locknuts until approximately two threads clear the nuts.

## Control Rod Installation

Slip the upper control rod through the weldment, then connect the lower control rod weldment to the deflector assembly. Telescope the control rods together and fasten with the 1/4-20x1 bolt, the internal tooth lock washer, and nut.



Exhaust Deft. Assy.

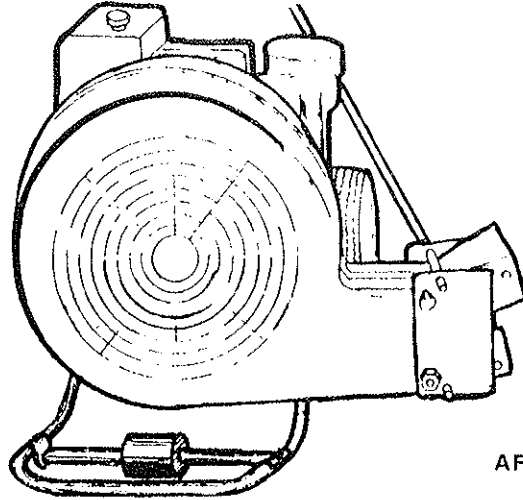


**NOTE:** Now tighten all the bolts and nuts.

## OPERATING INSTRUCTIONS

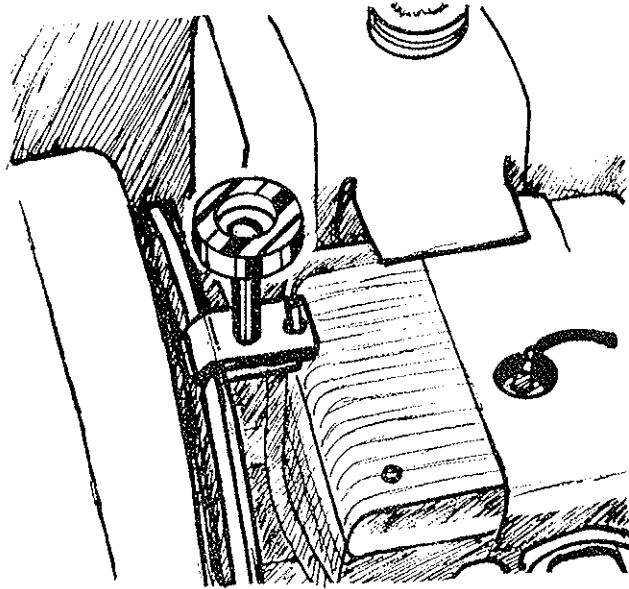
When adjusting the blower housing to HI or LOW BLOW, engine must be stopped with the spark plug wire disconnected.

To adjust the blower housing to a desired position, turn the knob counter-clockwise to loosen. Pivot the exhaust deflector to the desired position, and tighten the knob.



AF-288

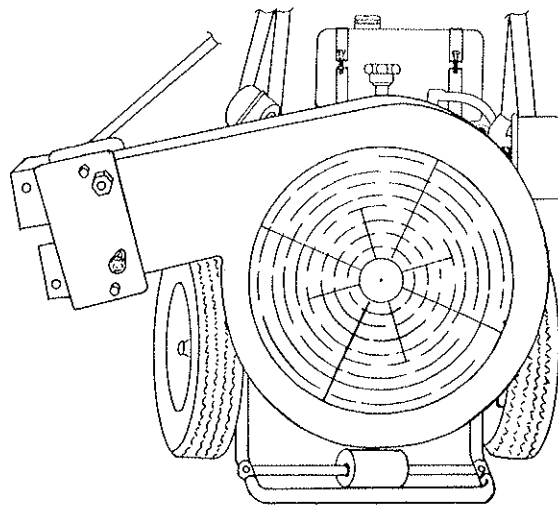
Blower housing in the Low Blow position.



AF-293

It is not necessary to detach the exhaust deflector control rod assembly. It will pivot with the blower housing to any position.

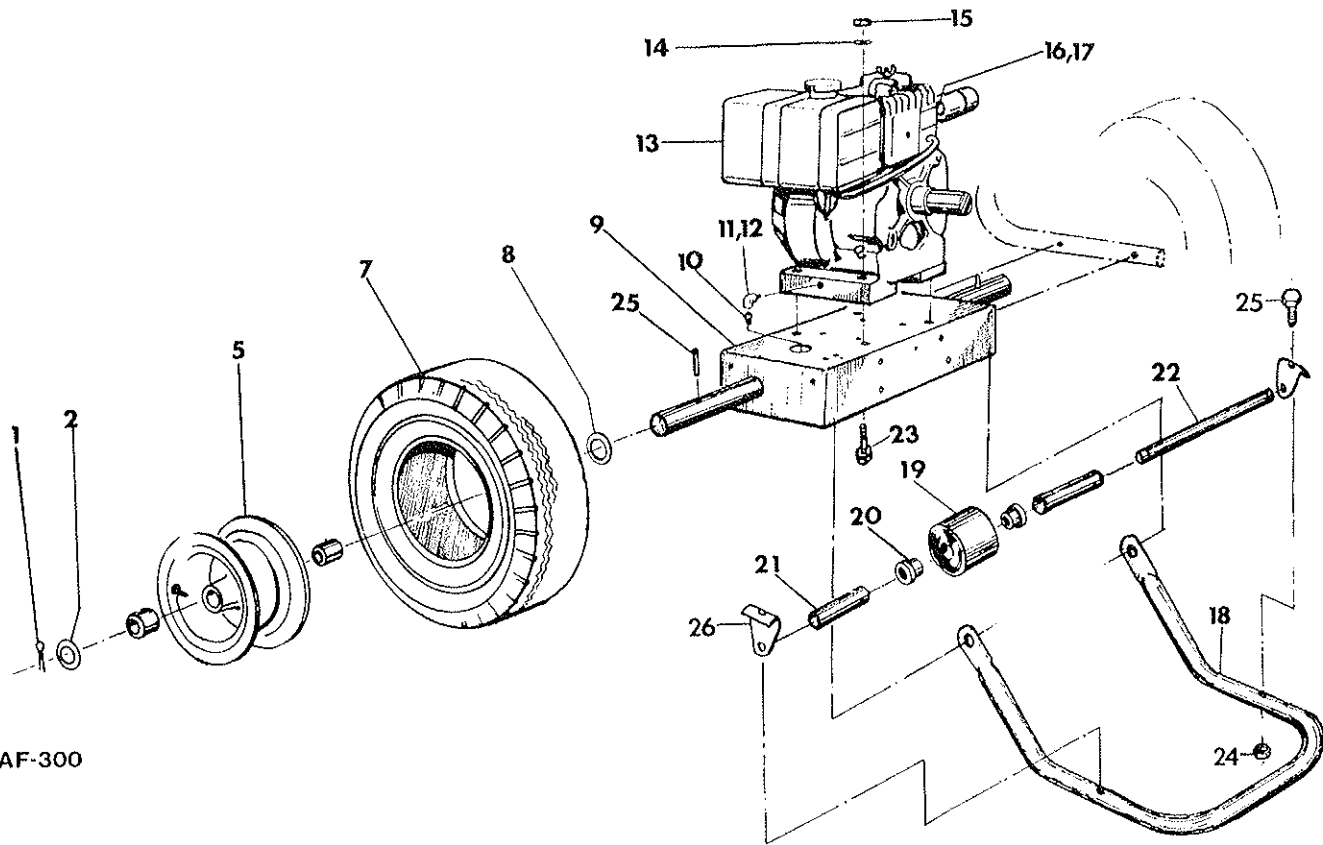
By turning the knob on the control rod assembly fastened to the upper cross bar, the deflection angle can be changed to control the air flow from the exhaust deflector.



AF-289

Blower housing in the Hi Blow position.

CHASSIS AND ENGINE ASSEMBLY



AF-300

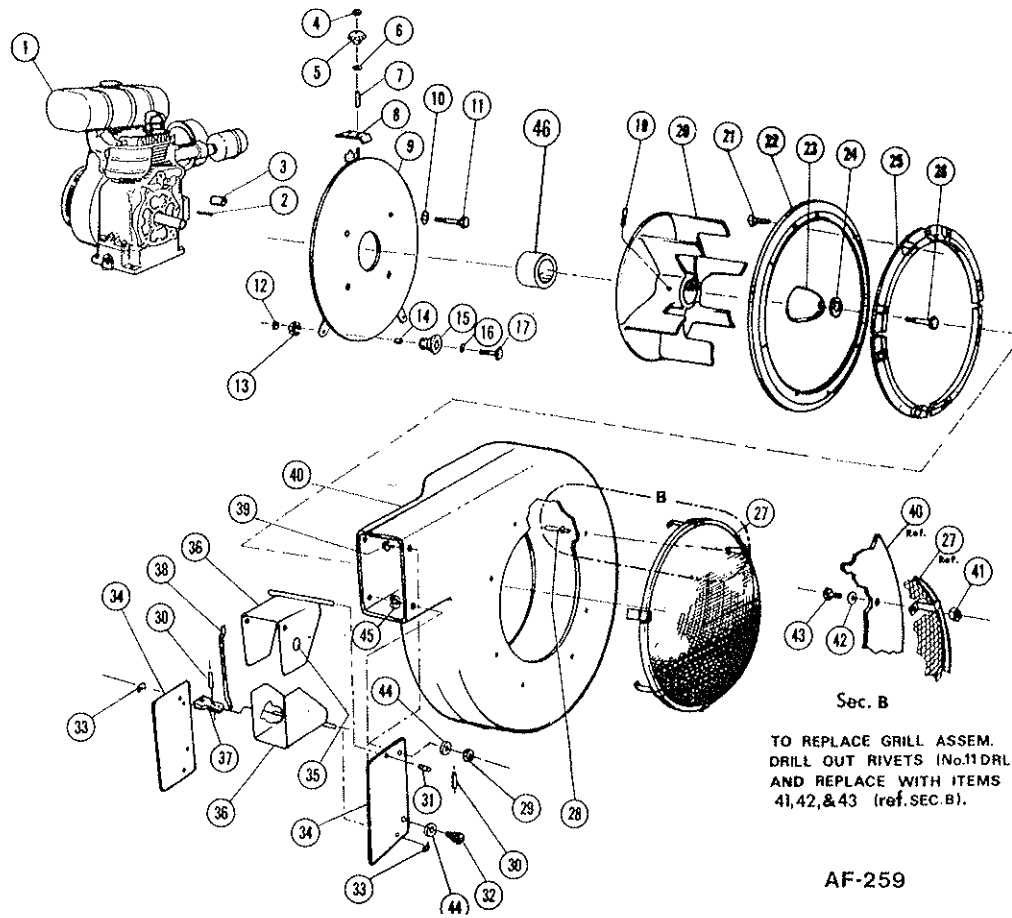
PARTS LIST

| Ref. No. | Part No.   | Qty. Per Unit | Description                               | Ref. No. | Part No.  | Qty. Per Unit | Description                        |
|----------|------------|---------------|---|----------|-----------|---------------|------------------------------------|
| 1        | 380-432-20 | 2             | Cotter Pin, 1/8 dia.x1 1/4                | 14       | 945-516   | 4             | Washer, Flat, 5/16                 |
| 2        | 945-1216   | 2             | Washer, Flat                              | 15       | 365-516   | 8             | Nut, Hex, Lock, 5/16               |
| 5        | 68-447-B   | 2             | Wheel                                     | 16       | 69-125-A  | 1             | Elbow, Street, 1x45° (Kohler only) |
| 7        | 68-312-A   | 2             | Tire, 5.30/4.50x6                         | 17       | 72-291-A  | 1             | Nipple, 1x3 (Kohler only)          |
| 8        | 945-1216   | 2             | Washer, Flat                              | 18       | 80-338-C  | 2             | Roller Support                     |
| 9        | 73-360-C   | 1             | Chassis Weldment                          | 19       | 66-436-A  | 1             | Roller                             |
| 10       |            | 1             | Plug, Pipe (Supplied with engine)         | 20       | 66-432-A  | 2             | Bearing                            |
| 11       | 73-363-A   | 1             | Elbow (Supplied with B/S engine)          | 21       | 80-340-A  | 1             | Spacer                             |
| 12       | 57-81-A    | 1             | Elbow (Supplied with Kohler engine)       | 22       | 80-339-A  | 1             | Axle                               |
| 13       |            | 1             | Engine, Kohler <i>K-181-T spec. 30814</i> | 23       | 65-516-20 | 4             | Bolt, Hex Hd., 5/16-18x1 1/4       |
|          |            | 1             | Engine, B/S                               | 24       | 365-516   | 2             | Nut, Hex, Lock, 5/16-18            |
|          |            |               |   | 25       | G5-516-24 | 2             | Bolt, Hex, Hd., 5/16-18x1 1/2      |
|          |            |               |   | 26       | 81-02-A   | 2             | Bracket                            |

**NOTE:** This table will enable you to correctly identify the wheel parts you need.

|            | Dico Wheel | Geneva Wheel |
|------------|------------|--------------|
| Wheel      | 63-169-A   | 68-447-B     |
| Wheel Bore | 1-1/8      | 1 3/8        |
| Bushing    | 63-313-A   | 67-03-A      |

BLOWER ASSEMBLY



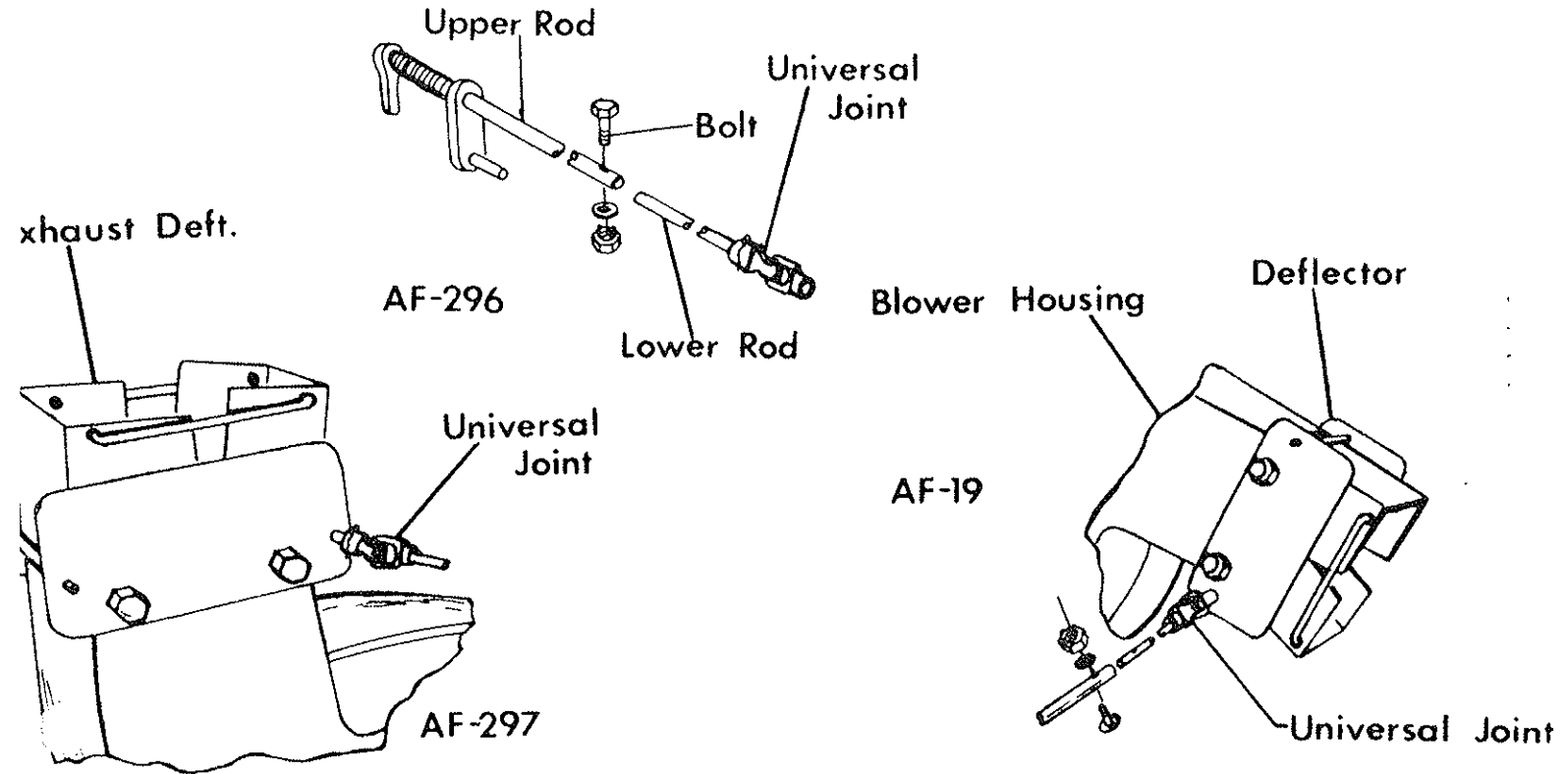
TO REPLACE GRILL ASSEM.  
DRILL OUT RIVETS (No.11 DRL.)  
AND REPLACE WITH ITEMS  
41, 42, & 43 (ref. SEC. B).

AF-259

PARTS LIST

| Ref. No. | Part No.    | Qty. Per Unit | Description                 | Ref. No. | Part No.     | Qty. Per Unit | Description                |
|----------|-------------|---------------|-----------------------------|----------|--------------|---------------|----------------------------|
| 1        | Engine      | 1             |                             | 25       | 73-123-C     | 4             | Anti-Wrap                  |
| 2        | 63-130-A    | 1             | Fan Key ¼ x 2½              | 26       | 65-39-A      | 1             | Bolt - Fan                 |
| 3        | 79-139-A    | 4             | Spacer - Back Plate         | 27       | 73-121-C     | 1             | Grill Assembly             |
| 4        | 335-516-1   | 1             | Nut, Lock 5/16-18           | 28       | 410-6-402-AA | 6             | Pop Rivet                  |
| 5        | 79-94-A     | 1             | Knob, 5/16-18               | 29       | 365-416      | 3             | Nut - Hex Lock ¼-20        |
| 6        | 945-516     | 1             | Washer, 5/16                | 30       | 60-62-A      | 2             | Roll Pin, ⅜ Dia. x ¾       |
| 7        | 79-67-A     | 1             | Spacer                      | 31       | 73-372-A     | 1             | Spring                     |
| 8        | 79-51-A     | 1             | Clamp                       | 32       | 75-79-A      | 1             | Knob                       |
| 9        | 80-316-C    | 1             | Back Plate Weldment         | 33       | 75-80-A      | 2             | Shaft, Retainer            |
| 10       | 935-616     | 5             | Washer - Spring Lock ¾      | 34       | 73-124-b     | 2             | Exhaust, Side Plate        |
| 11       | 65-616-24   | 4             | Bolt - Hex Hd. ¾-16 x 1½    | 35       | 73-406-A     | 1             | Friction Disc              |
| 12       | 365-516     | 2             | Nut, Hex, 5/16-18           | 36       | 73-125-B     | 2             | Exhaust Def. Weld.         |
| 13       | 935-516     | 2             | Washer, Lock 5/16           | 37       | 73-127-A     | 1             | Connection Control Rod     |
| 14       | 80-101-A    | 2             | Spacer                      | 38       | 73-126-A     | 1             | Link, Exhaust Def.         |
| 15       | 80-144-A    | 2             | Guide, Roller               | 39       | 65-416-12    | 4             | Bolt, Hex Hd. ¼-20 x ¾     |
| 16       | 945-516     | 2             | Washer, 5/16                | 40       | 73-79-F      | 1             | Blower Housing             |
| 17       | 65-516-20   | 2             | Bolt, Hex Hd., 5/16-18 x 1¼ | 41       | 365-10       | 6             | Nut, Hex Lock 10-24        |
| 19       | 564-C-516-6 | 1             | Screw Set 5/16-18 x ¾       | 42       | 945-10       | 6             | Washer, Flat               |
| 20       | 73-118-D    | 1             | Fan                         | 43       | 515-10-10    | 6             | Screw, Rd. Hd. 10-24 x ¾   |
| 21       | 505-416-20  | 8             | Screw - Flat Hd. ¼-20 x 1¼  | 44       | 935-416      | 1             | Lockwasher Spring ¾        |
| 22       | 79-129-C    | 1             | Pivot Ring                  | 45       | 945-416      | 4             | Washer Plain ¼             |
| 23       | 73-119-A    | 1             | Retainer, Fan               | 46A      | 73-415-A     | 1             | Spacer - Fan B/S Engine    |
| 24       | 936-716     | 1             | Washer, Spring Lock         | 46B      | 74-154-A     | 1             | Spacer - Fan Kohler Engine |

ON PLATE No. 646 The artwork is incorrect on AF-296 and AF-297 it should be a universal joint in place of where the hook is shown on the Control Rod. ON PLATE NO. 647 the artwork is also incorrect on AF-19.



Handle Assembly:

Plate No. 649 Item #10 Part No. 80-334-A should be SA-1003-A.

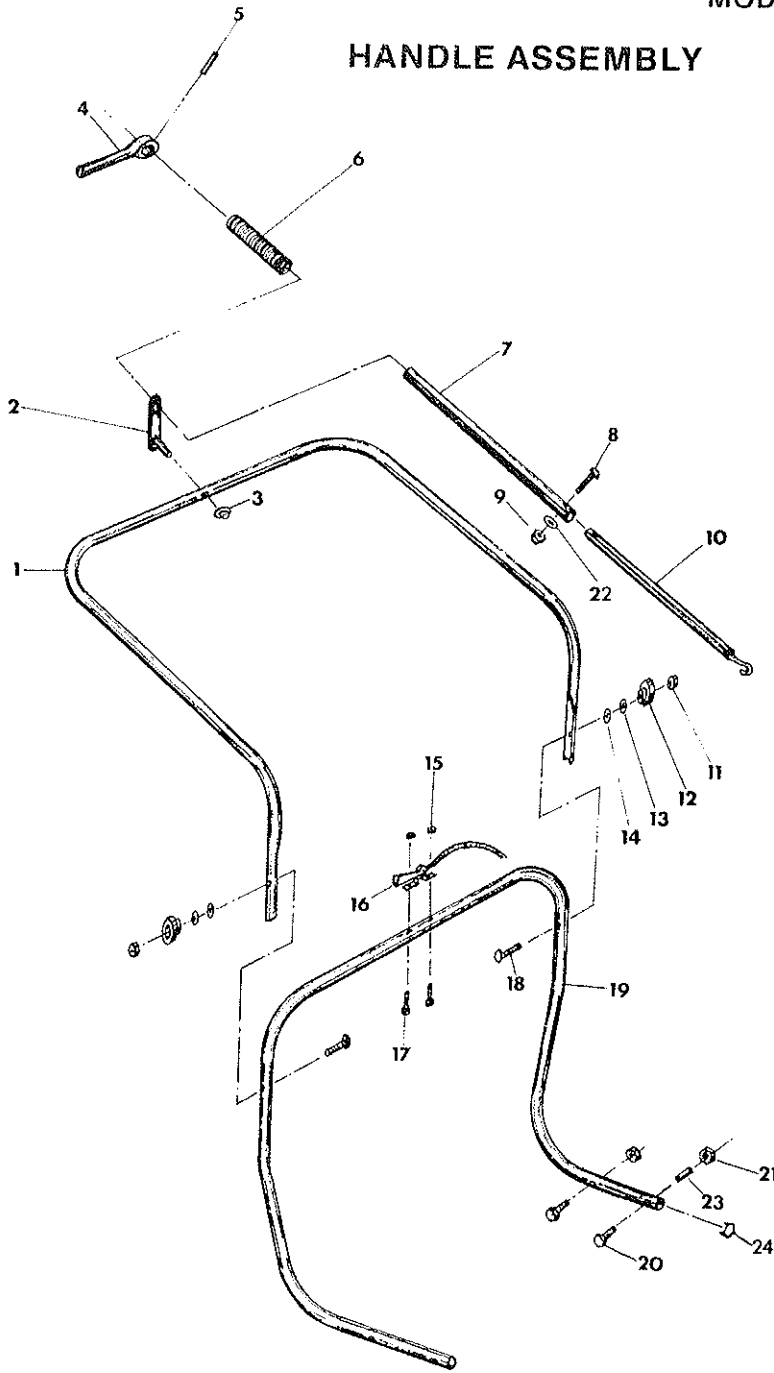
Blower Assembly:

Plate No. 668 Item #37 Part No. 73-127-A should be 81-65-A  
 Universal Joint Add Item #47 Part No. 65-416-10 Bolt Hex. Hd.  
 1/4-20-5/8 and add Item #48 Part No. 81-106-A Cotter Hairpin.

To attach Control Rod to Universal Joint, first remove cotter hairpin in Universal Joint and insert lower portion of Control Rod into Universal and reinsert cotter hairpin.



HANDLE ASSEMBLY



AF-299

PARTS LIST

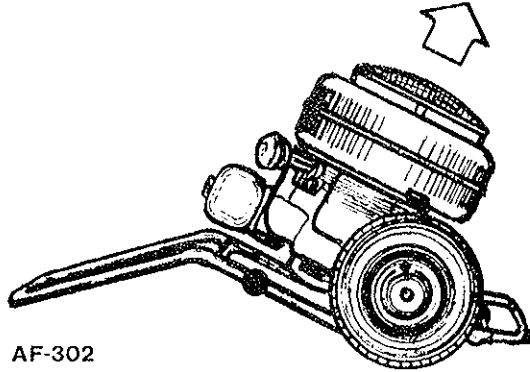
| Ref. No. | Part No.  | Qty. Per Unit | Description               | Ref. No. | Part No.  | Qty. Per Unit | Description                    |
|----------|-----------|---------------|---------------------------|----------|-----------|---------------|--------------------------------|
| 1        | 80-268-C  | 1             | Upper Handle              | 13       | 936-516   | 2             | Washer, Lock, Int. Tooth, 5/16 |
| 2        | 80-331-A  | 1             | Hinge Weldment            | 14       | 935-516   | 2             | Washer, Lock, Spring, 5/16     |
| 3        | 80-51-A   | 1             | Cup Nut                   | 15       | 365-8     | 2             | Nut, Hex Lock, 8-32x½          |
| 4        | 76-34-A   | 1             | Lever                     | 16       | 80-314-A  | 1             | Throttle Control Assembly      |
| 5        | 67-521-A  | 1             | Roll Pin                  | 17       | 515-8-8   | 2             | Screw, Rd. Hd, Mach. 8-32x½    |
| 6        | 74-135-A  | 1             | Spring                    | 18       | 70-516-44 | 2             | Carriage Bolt, 5/16-18x2¾      |
| 7        | 76-235-A  | 1             | Control Rod Upper         | 19       | 80-220-C  | 1             | Lower Handle                   |
| 8        | 69-416-16 | 1             | Bolt, Contour Hd., ¼-20x1 | 20       | 65-516-32 | 4             | Bolt, Hex Hd., 5/16-18x2       |
| 9        | 335-416   | 1             | Nut, Hex, ¼               | 21       | 365-516   | 4             | Nut, Hex Lock, 5/16-18         |
| 10       | 80-334-A  | 1             | Control Rod Weldment      | 22       | 935-416   | 1             | Washer, Lock, ¼                |
| 11       | 365-516   | 2             | Nut, Hex Lock, 5/16-18    | 23       | 80-238-A  | 1             | Spacer                         |
| 12       | 79-94-A   | 2             | Plastic Knob              | 24       | 80-267-A  | 2             | End Cap                        |

# INSTRUCTIONS FOR REMOVING OR INSTALLING THE BLOWER HOUSING

**CAUTION:** Before starting to work on the Engine or the equipment driven by the Engine, always remove the spark plug to prevent accidental starting.

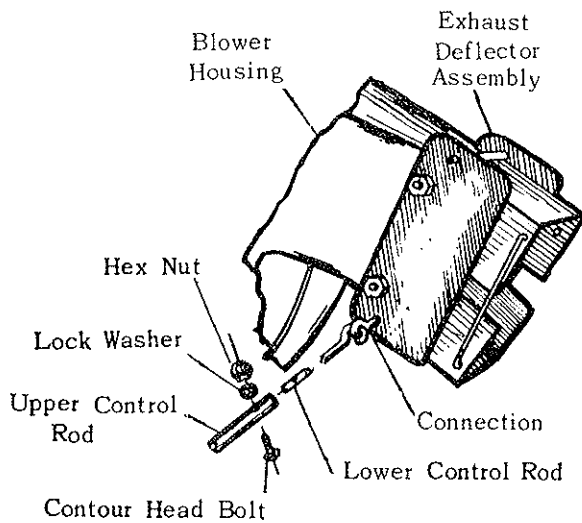
## To Remove the Blower Housing:

Push the handle of the Hurricane down until the handle is resting on the ground, then push the blower guard down until it is also resting on the ground.



AF-302

Remove the contour head bolt, hex nut and lock washer, holding the upper and lower control rods together. Unhook the lower control rod from the exhaust deflector assembly.



AF-19

To loosen the top of the blower housing, unscrew the acorn nut and knob and remove the washer, spacer and clamp.

To loosen the bottom of the blower housing, remove the roller guides by unscrewing the nuts on each side. Remove the lock washers and pull out the roller guides bringing the bolts, washers and spacers with them.

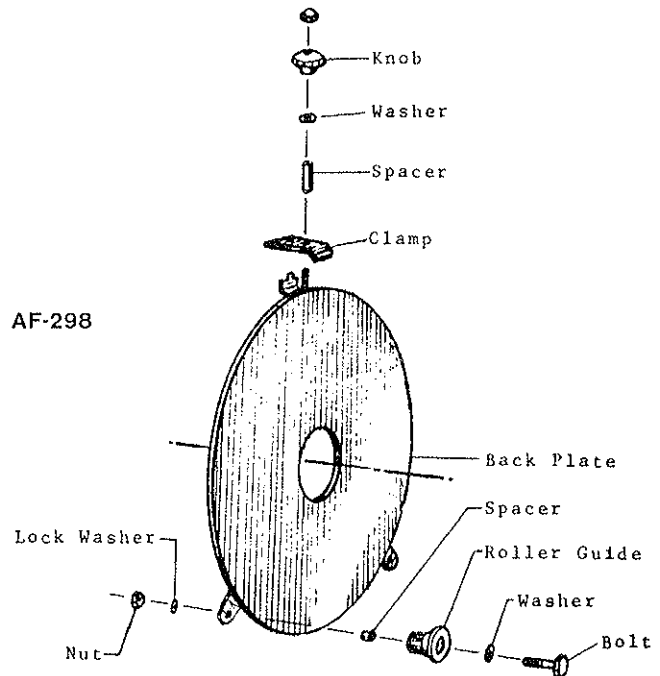
Remove the blower housing by lifting it off the fan.

## To Install the Blower Housing:

Place the blower housing over the fan and position the pivot ring against the back plate.

Re-insert the bolts with the roller guides, washers and spacers. Add the washer, screw on the nut, and tighten.

At the top of the housing, replace the clamp, spacer, washer and screw on the knob and acorn nut.

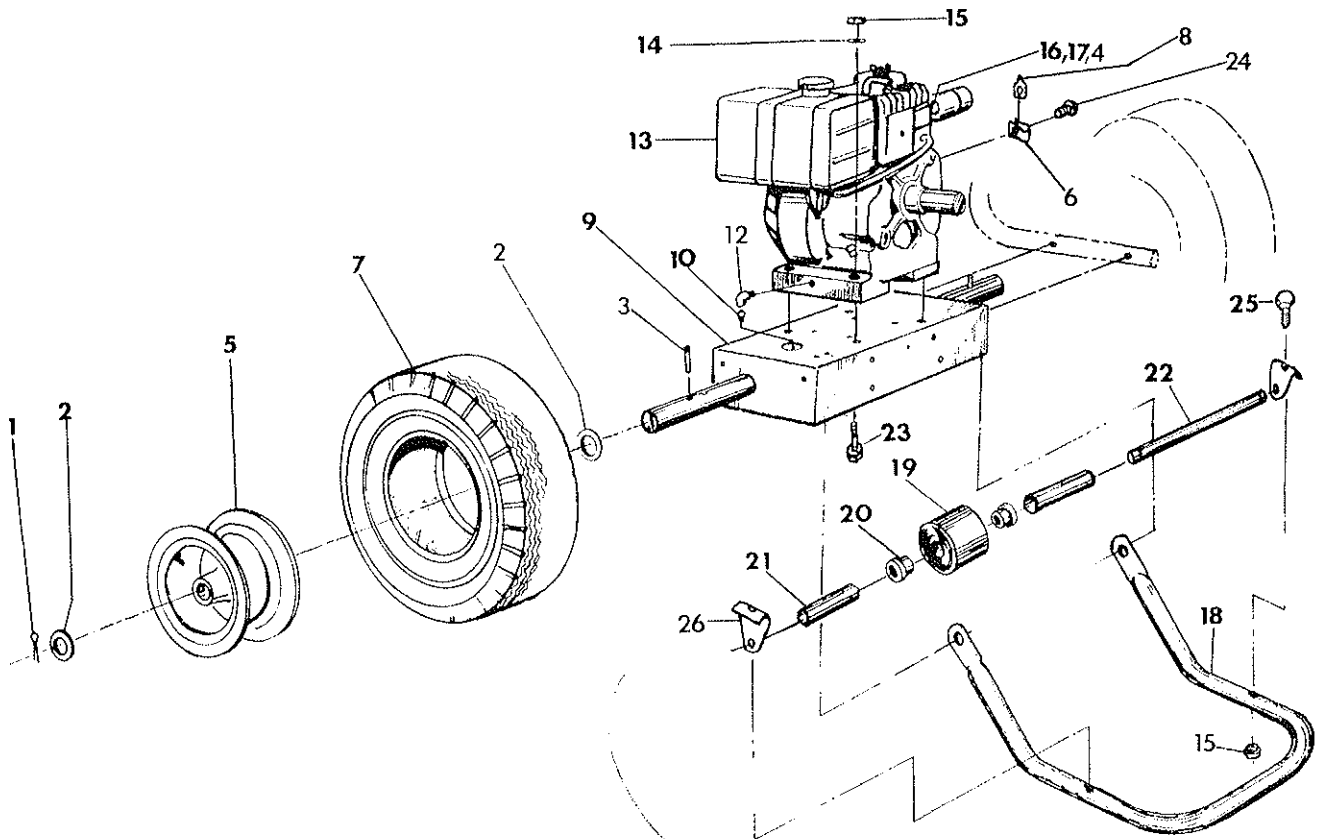


AF-298

**CAUTION:** Replace the spark plug, but before attaching the ignition wire to the spark plug, pull the recoil starter cord to rotate the fan, to make sure the fan can rotate freely.

Attach the ignition wire to the spark plug and your Hurricane Blower is ready for operation.

CHASSIS AND ENGINE ASSEMBLY

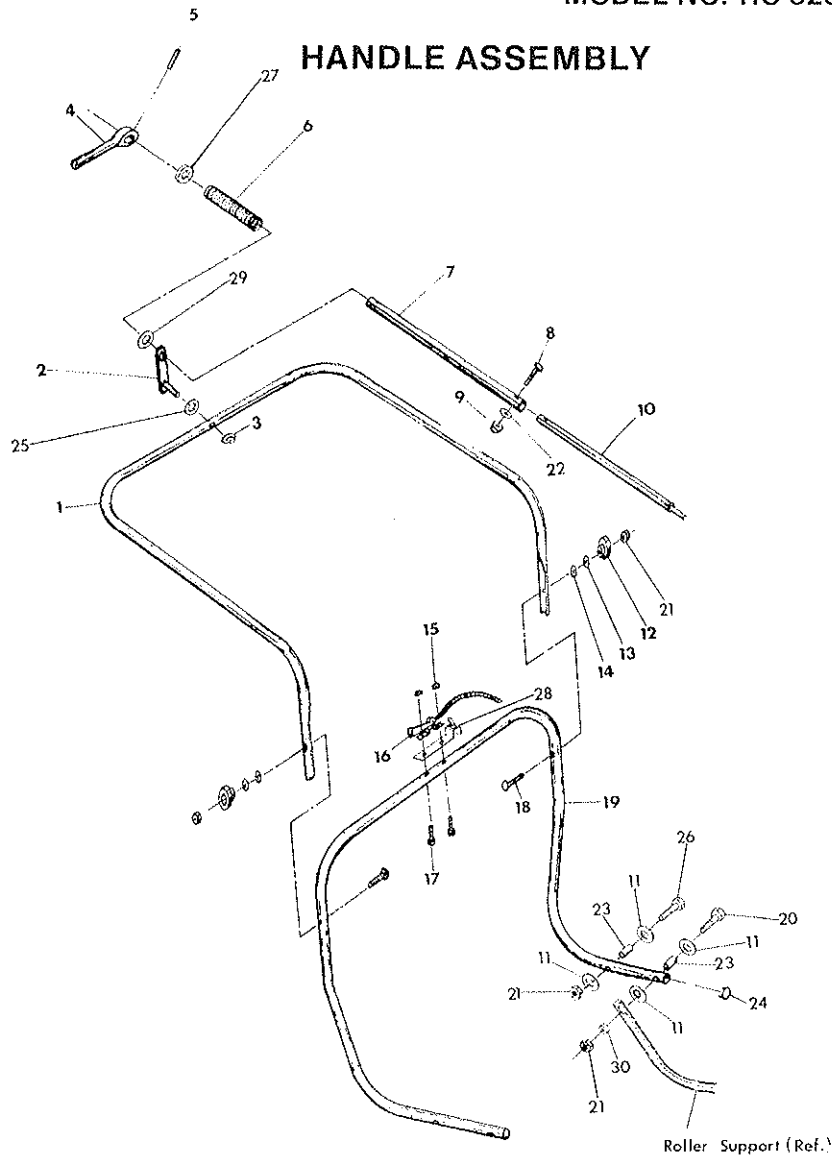


AF-300

PARTS LIST

| Ref. No. | Part No.            | Qty. Per Unit | Description                         | Ref. No. | Part No.                       | Qty. Per Unit | Description                           |
|----------|---------------------|---------------|-------------------------------------|----------|--------------------------------|---------------|---------------------------------------|
| 1        | 380-432-20          | 2             | Cotter Pin, 1/8 Dia x 1 1/4         | 14       | 945-516                        | 4             | Washer, Flat, 5/16                    |
| 2        | 945-1216            | 4             | Washer, Flat                        | 15       | 365-516                        | 6             | Nut, Hex., Lock, 5/16                 |
| 3        | <del>67-521-A</del> | 2             | Roll Pin                            | 16       | <del>69-125-A</del>            | 1             | Elbow, Street, 1x45° (Kohler only)    |
| 5        | 68-447-B            | 2             | Wheel                               | 17       | <del>67-68-A</del>             | 1             | Nipple, 1 x 3 (Kohler only)           |
| 4        | 73-240-A            | 1             | Conduit Locknut (Kohler only)       | 18       | 80-338-C                       | 1             | Roller Support                        |
| 5        | 68-447-B            | 2             | Wheel                               | 19       | <del>66-346-A</del>            | 1             | Roller (use SA-1390-B)                |
| 6        | 75-115-A            | 1             | Throttle Cable Clip (Kohler only)   | 20       | <del>66-432-A</del> OK 1/2 1/4 | 1             | Bearing                               |
| 7        | 68-312-A            | 2             | Tire, 5.30x4.50x6                   | 21       | 80-340-A                       | 2             | Spacer                                |
| 8        | 66-96-A             | 1             | Speed Nut 10-24, U-Type (Kohler)    | 22       | 80-339-A                       | 1             | Axle                                  |
| 9        | 73-360-C            | 1             | Chassis Weldment                    | 23       | 65-516-24                      | 4             | Bolt, Hex Hd., 5/16-18x1 1/2          |
| 10       |                     | 1             | Plug, Pipe (Supplied with engine)   | 24       | 515-10-8                       | 1             | Screw 10x24-1/2 Rd. Hd. (Kohler only) |
| 12       | 57-81-A             | 1             | Elbow (Supplied with Kohler engine) | 25       | 65-516-24                      | 2             | Bolt, Hex Hd., 5/16-18x1 1/2          |
| 13       | <del>81-187-D</del> | 1             | Engine, Tecumseh                    | 26       | 81-02-A                        | 2             | Bracket                               |
| 13       | <del>73-102-A</del> | 1             | Engine, B & S                       |          |                                |               |                                       |

"OBSERVE SAFETY AT ALL TIMES"

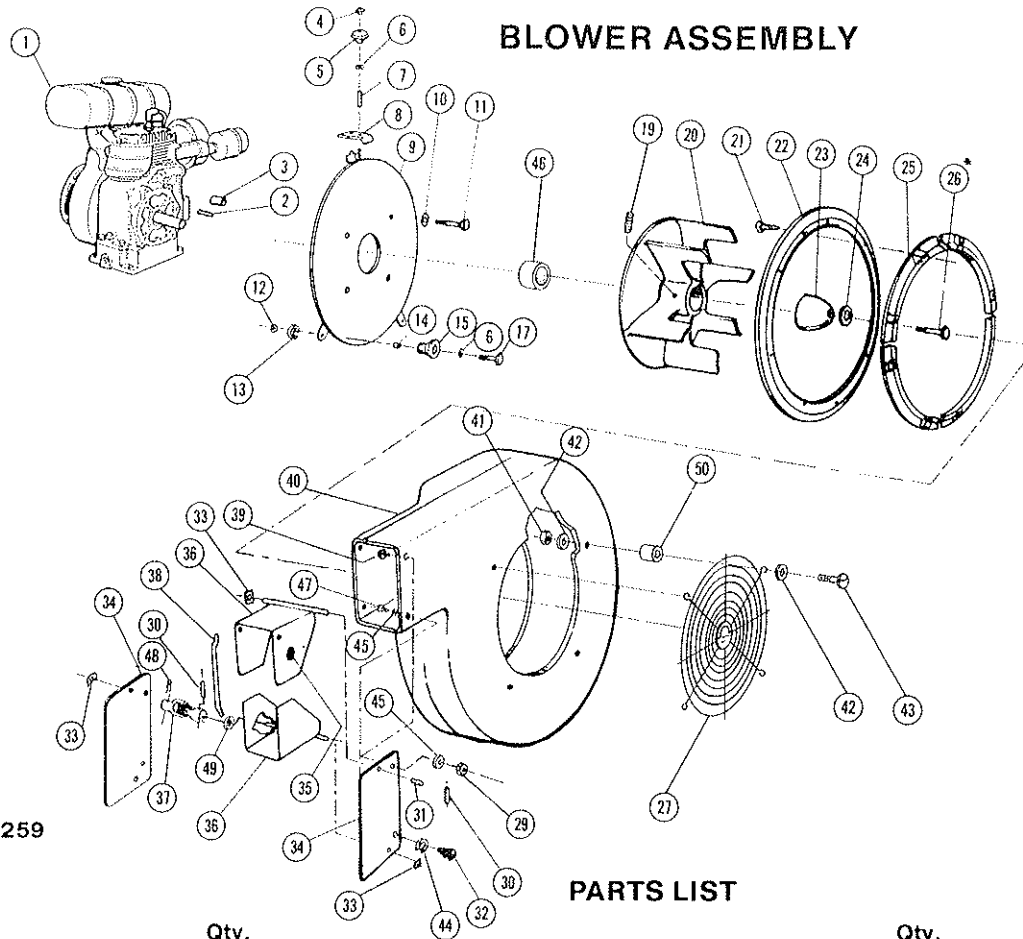


AF-299

PARTS LIST

| Ref. No. | Part No.             | Qty. Per Unit | Description                             | Ref. No. | Part No.             | Qty. Per Unit | Description  |
|----------|----------------------|---------------|---|----------|----------------------|---------------|--|
| 1        | 80-269- <del>C</del> | 1             | Upper Handle                            | 16       | <del>80-314-A</del>  | 1             | Throttle Control Assembly (Kohler and B & S) <del>83-25-B-20</del> |
| 2        | 80-331-A             | 1             | Hinge Weldment                          | 17       | <del>517-10-20</del> | 2             | Screw Oval Hd. 10-24x1 1/4 (Kohler and B & S)                      |
| 3        | <del>80-51-A</del>   | 1             | Cup Nut                                 | 18       | <del>81-94-A</del>   | 2             | Carriage Bolt, 5/16-18x2 3/4                                       |
| 4        | 76-34-A              | 1             | Lever                                   | 19       | 80-220-C             | 1             | Lower Handle (Kohler and B & S)                                    |
| 5        | <del>67-521-A</del>  | 1             | Roll Pin                                | 19       | 81-75-C              | 1             | Lower Handle (Tecumseh only)                                       |
| 6        | 74-135-A             | 1             | Spring                                  | 20       | 65-516-32            | 2             | Bolt, Hex. Hd., 5/16-18x2  |
| 7        | 76-235-A             | 1             | Control Rod Upper                       | 21       | 365-516              | 6             | Nut, Hex Lock, 5/16-18   |
| 8        | 69-416-16            | 1             | Bolt, Contour Hd., 1/4-20x1             | 22       | 935-416              | 1             | Washer, Lock 1/4   |
| 9        | 335-416              | 1             | Nut, Hex., 1/4-20                       | 23       | 80-238-A             | 1             | Spacer   |
| 10       | SA-1003-A            | 1             | Control Rod Assembly                    | 24       | 80-267-A             | 2             | Plastic Tube Cap   |
| 11       | 945-516              | 8             | Flatwasher                              | 25       | 945-616              | 1             | Washer, Flat 3/8   |
| 12       | 79-94-A              | 1             | Knob                                    | 26       | 65-516-28            | 2             | Bolt, Hex Hd., 5/16-18-1 3/4                                       |
| 13       | 936-516              | 2             | Washer, Lock, Int. Tooth, 5/16          | 27       | 55-161-A             | 1             | Special Washer   |
| 14       | 935-516              | 2             | Washer, Lock, Spring 5/16               | 28       | <del>SA-061-B</del>  | 1             | Stop Switch Assembly (Kohler only)                                 |
| 15       | 365-10               | 2             | Nut, Hex Lock, 10-24 (Kohler and B & S) | 29       | 81-164-A             | 1             | Bushing  |
|          |                      |               |   | 30       | 74-126-A             | 2             | Spacer   |

BLOWER ASSEMBLY



AF-259

PARTS LIST

| Ref. No. | Part No.              | Qty. Per Unit | Description   | Ref. No. | Part No.           | Qty. Per Unit | Description                     |
|----------|-----------------------|---------------|---|----------|--------------------|---------------|---------------------------------|
| 1        |                       | 1             | Engine  | 27       | 82-121-C           | 1             | Grill Assembly                  |
| 2        | 63-130-A              | 1             | Fan Key 1/4x1 3/4                                   | 28       | 410-6-402          | 6             | Pop Rivet                       |
| 3        | 79-139-A              | 4             | Spacer - Back Plate                                 | 29       | 365-416            | 3             | Nut - Hex Lock 1/4-20           |
| 4        | 335-516-1             | 1             | Nut, Lock 5/16-18 Stamped                           | 30       | 60-62-A            | 2             | Roll Pin, 1/8 Dia.x3/4          |
| 5        | 79-94-A               | 1             | Knob, 5/16-18                                       | 31       | 73-372-A           | 1             | Spring                          |
| 6        | 945-516               | 3             | Washer, 5/16  | 32       | 75-79-A            | 1             | Knob                            |
| 7        | 79-67-A               | 1             | Spacer  | 33       | 75-80-A            | 2             | Shaft, Retainer                 |
| 8        | 79-51-A               | 1             | Clamp   | 34       | 73-124-B           | 2             | Exhaust, Side Plate             |
| 9        | 80-316-C              | 1             | Back Plate Weldment                                 | 35       | 73-406-A           | 1             | Friction Disc                   |
| 10       | 935-616               | 4             | Washer - Spring Lock 3/8                            | 36       | 73-125-B           | 2             | Exhaust Deft. Weld.             |
| 11       | 65-616-24             | 4             | Bolt - Hex. Hd. 3/8-16x1 1/2                        | 37       | <del>81-65-A</del> | 1             | Universal Joint <i>82-251-A</i> |
| 12       | 335-516               | 2             | Nut, Hex. 5/16-18                                   | 38       | 73-126-A           | 1             | Link, Exhaust Def.              |
| 13       | 935-516               | 2             | Washer, Lock 5/16                                   | 39       | 65-416-12          | 4             | Bolt, Hex, Hd. 1/4-20x3/4       |
| 14       | 80-101-A              | 2             | Bushing   | 40       | 82-118-D           | 1             | Blower Housing                  |
| 15       | 80-144-A              | 2             | Guide, Roller                                       | 41       | 364-416            | 4             | Nut, Hex 1/4-20                 |
| 17       | 65-516-20             | 2             | Bolt, Hex Hd., 5/16-18x1 1/4                        | 42       | 945-416            | 8             | Washer, Flat                    |
| 19       | 564-C-516-6           | 1             | Set Screw 5/16-18x3/8                               | 43       | 515-416-24         | 4             | Screw, Rd. Hd. 1/4-20x1 1/2     |
| 20       | 73-118-D              | 1             | Fan   | 44       | 935-416            | 1             | Lockwasher Spring 1/4           |
| 21       | 505-416-20            | 8             | Screw - Flat Hd. 1/4-20x1 1/4                       | 45       | 945-416            | 4             | Washer Plain 1/4                |
| 22       | 79-129-C              | 1             | Pivot Ring  | 46       | 73-415-A           | 1             | Spacer - Fan, Tecumseh & B&S    |
| 23       | <del>73-119-A-3</del> | 1             | Retainer, Fan <i>82-138-B-3</i><br><i>60-716-16</i> | 46       | 74-154-A           | 1             | Spacer - Fan, Kohler Engine     |
| 24       | 936-716               | 1             | Lockwasher, Int. Tooth 7/16                         | 47       | 65-416-10          | 1             | Bolt Hex. Hd. 1/4-20-5/8        |
| 25       | 73-123-C              | 4             | Anti-Wrap   | 48       | 81-106-C           | 1             | Cotter Hairpin                  |
| *26      | <del>60-716-40</del>  | 1             | Bolt - Fan, 7/16-20x2 1/2                           | 49       | <del>81-71-A</del> | 1             | Sleeve                          |
| *26      | <del>60-616-40</del>  | 1             | Bolt - Fan, 3/8-24x2 1/2<br>(Tecumseh)              | 50       | 82-142-A           | 4             | Spacer, Grille                  |

\*3/8 Bolt Torque to 29 to 33 ft. lbs.

\*7/16 Bolt Torque to 55 to 59 ft. lbs.

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