

INTRODUCTION: This instruction sheet covers the installation of the heavy duty Donaldson air cleaner kit 970210 on the ZT 100/BZT 1000 series collection mowers.

NOTE: This kit will not work on side discharge models.

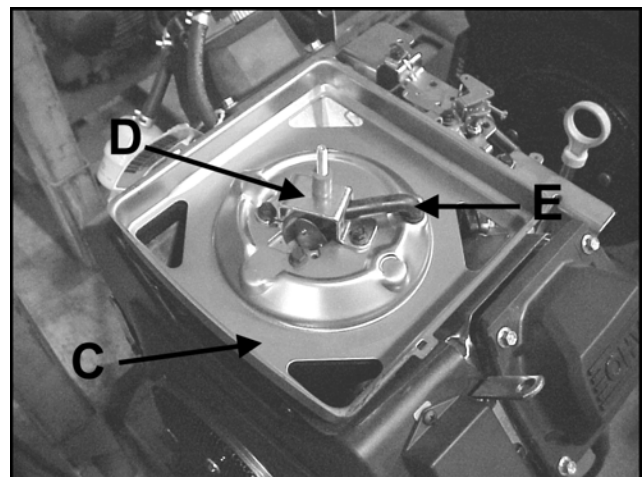
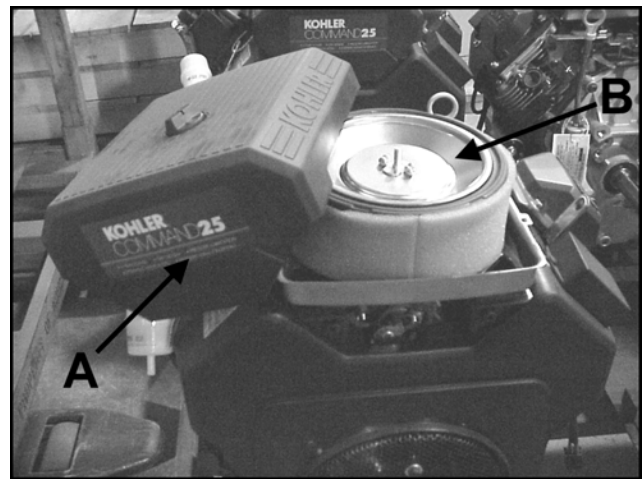
The following additional parts need to be ordered from your Kohler dealer depending on which engine you have:

Kohler CH20 20hp engine: Kohler Carburetor Elbow/Adapter Kit 24 743 20-S.

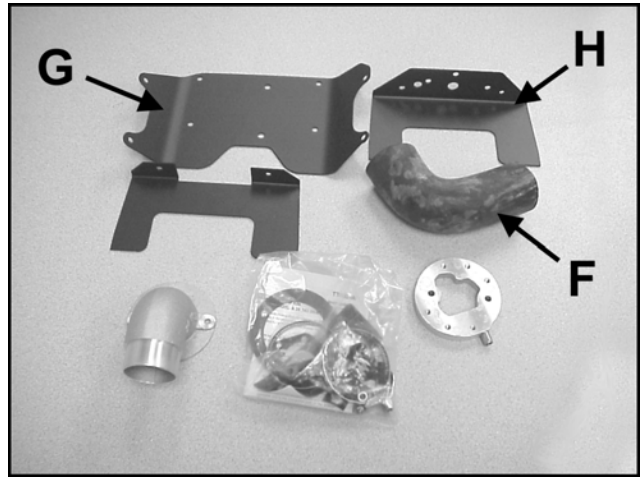
Kohler CH25 25hp engine: Kohler Carburetor Elbow/Adapter Kit 24 743 21-S and Carburetor Kit 24 853 78. The carburetor kit is required for the engine to remain emissions compliant.

TOOLS REQUIRED: 5/16" or 8mm socket, 1/4" drive ratchet and short extension, pliers, 1/2", 9/16", 19mm (or 3/4") socket-3/8 drive, 3/8 drive ratchet and extension, 13/32" drill bit and a drill for the bit.

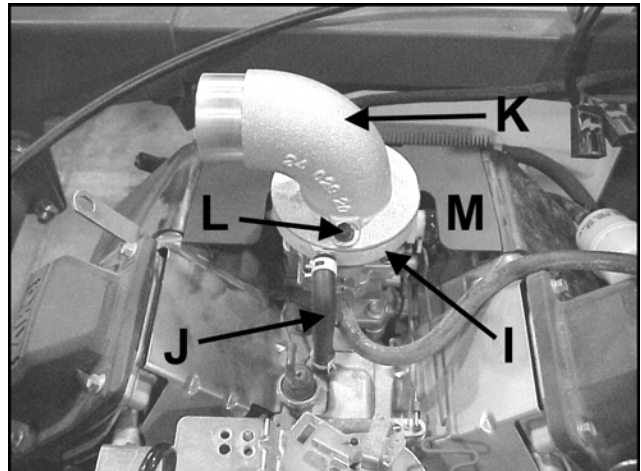
1. Remove and discard all existing air cleaner components: cover **A**, element **B**, base **C**, bracket **D** and breather hose **E** attached to the carburetor.
2. If the unit has a 25hp engine, replace the carburetor using the parts in Kohler Carburetor Kit 24 853 78 before installing the Elbow/Adaptor kit parts. After the heavy duty air cleaner installation is complete, run the engine and check the governor setting. High idle should be set to 3600 plus or minus 75 rpm.



3. Discard the 2" ID air hose **F**, air cleaner bracket **G**, instructions and the debris shield **H** that were included in the kit from Kohler.



4. Place the new air cleaner base gasket on top of the carburetor followed by the adapter plate **I** supplied in the Kohler kit. Point the breather tube on the adapter plate **I** towards the crankshaft end of the engine. Secure the adapter plate **I** to the carburetor with (2) of the M6X16 screws supplied in the Kohler kit. Torque screws to 65in-lb (7.3N-m). Apply a small amount of oil to the inside ends of the new breather hose **J**. Install the breather hose **J** between the engine and the carburetor to the adapter plate **I** and secure with the supplied hose clamps. Position the adapter gasket onto the adapter plate **I** followed by the elbow **K**. Point the elbow toward the rear of the machine as shown and secure with (2) of the M6X16 screws **L** supplied in the Kohler kit. Torque screws to 65in-lb (7.3N-m).

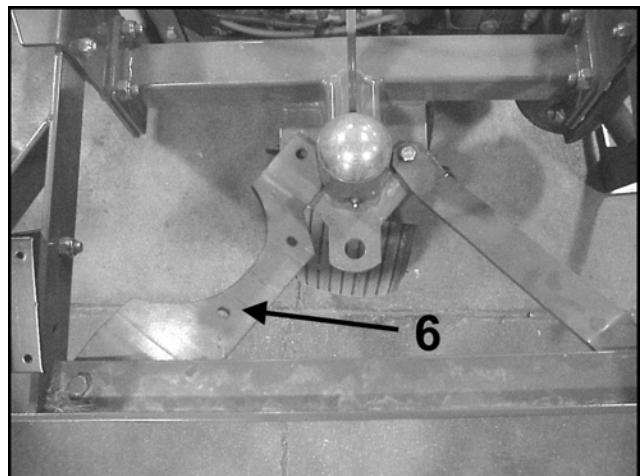
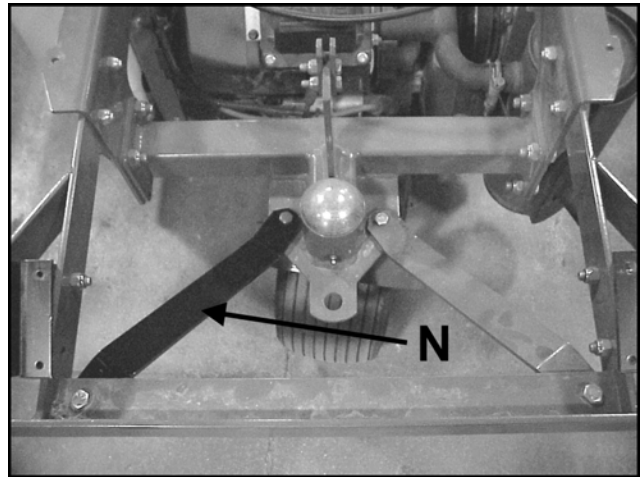


5. Assemble the debris shield **M** retained in Step 3 to the engine as shown with the two self-tapping screws provided in the Kohler kit.
6. Retain the hose clamps from the Kohler kit for Step 17. Any other remaining hardware in the Kohler kit may be discarded.

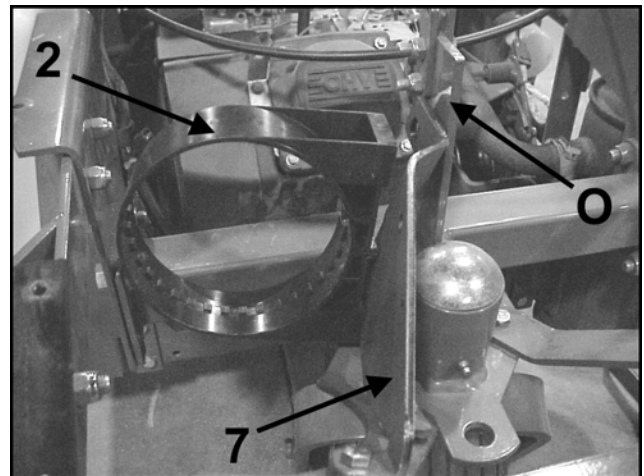
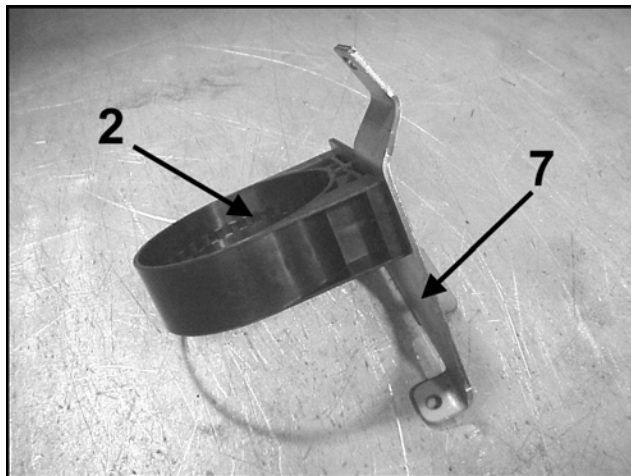
NOTE: Refer to parts list on page 6 for numbered items.

NOTE: Installing the air cleaner is easier if the grass box and deflector under the door are removed.

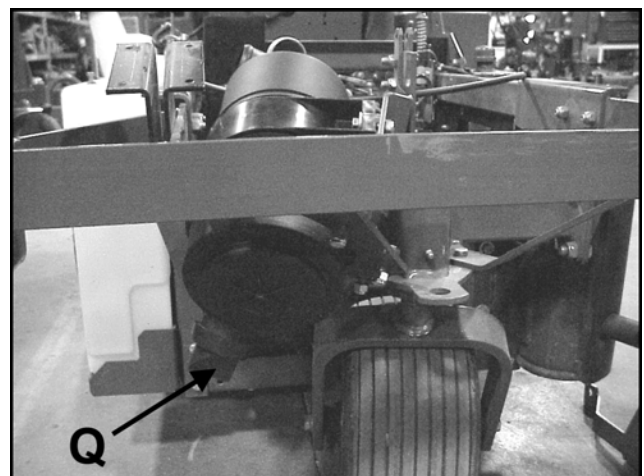
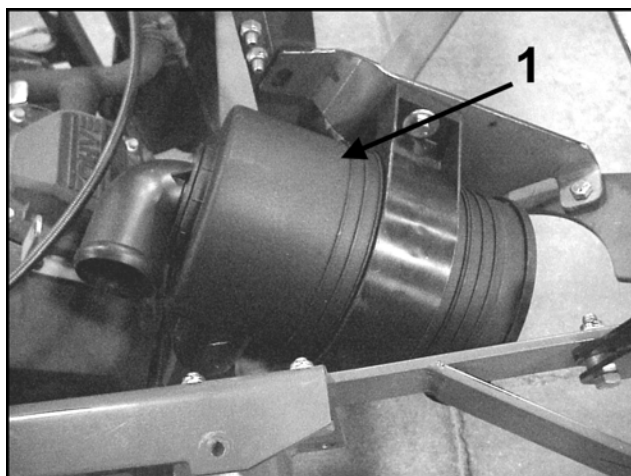
7. Remove the left rear frame brace **N** and discard. Retain hardware for later use. Install the new frame brace **6** supplied in kit.
8. Secure the new frame brace **6** supplied in kit at the upper end with the hardware retained in Step 7.
9. Place a 3/8-16 X 1-1/4 bolt **12** and a 3/8-16 nylon locknut **19** supplied in kit in the lower hole. Do not secure at this time.



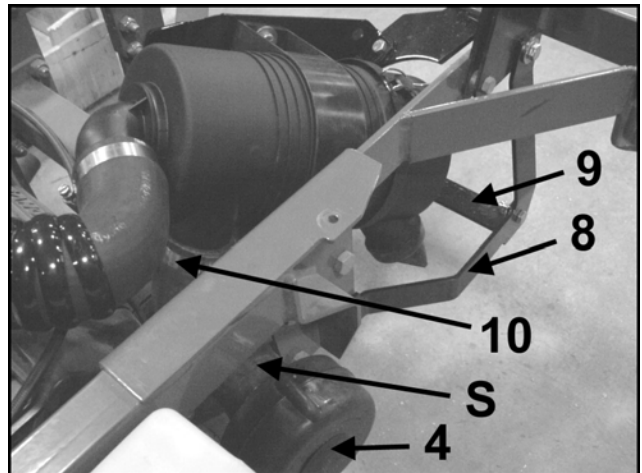
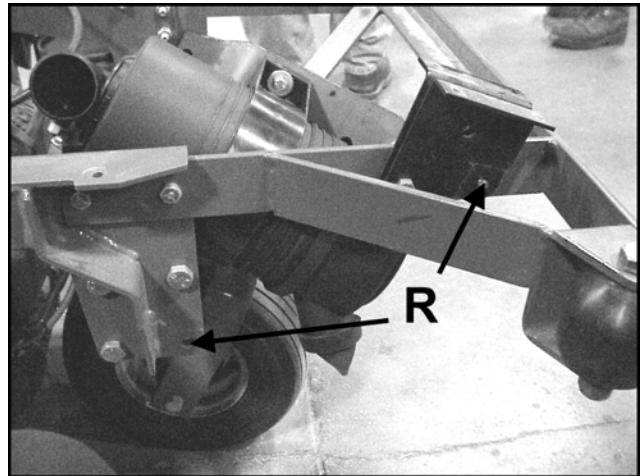
10. Install the lower leg, with the horizontal slot of the air cleaner band **2** supplied in kit, to the mounting bracket **7** supplied in kit with (1) 5/16-18 X 1-1/4 bolt **12**, (1) 5/16-18 washer **15** and (1) 5/16-18 nylon locknut **18**. Line up the top leg of the band with the top hole of the mounting bracket and tighten the bottom fastener.
11. Mount the air cleaner bracket **7** with band **2** attached, to the frame brace, installed in Step 7 with (2) 3/8-16 X 1 bolts **13** and (2) 3/8-16 nylon locknuts **19** supplied in kit. Tighten these fasteners at this time.
12. Using the slot in the air cleaner bracket **7** drill a 13/32" hole through the strut support **O**. Secure the third leg of the bracket **7** to the strut support **O** with (1) 3/8-16 X 1-1/4 bolt **11**, (1) 25/64 X 1 X 12 washer **16** and (1) 3/8-16 nylon locknut **19**, with the washer on the slotted hole of the bracket **7**. Tighten all fasteners at this time.



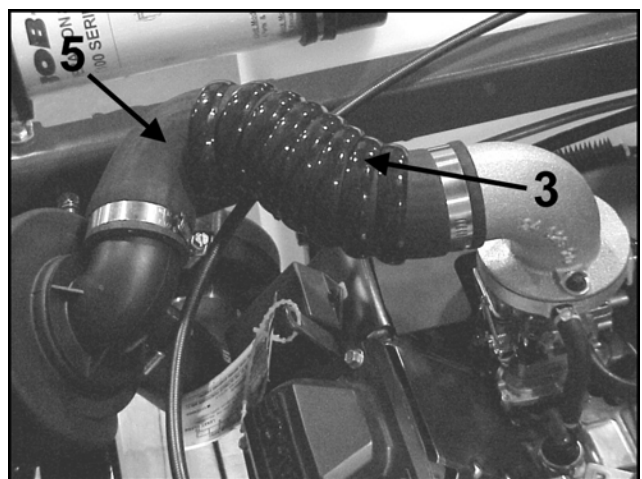
13. Remove the end cap and element from the air cleaner **1**. Open the band **2** and install the air cleaner from the top down into the band. Position the air cleaner inlet to point straight down. Secure the top leg of the band **2** with (1) 5/16-18 X 1-1/4 bolt **12**, (1) 5/16-18 washer **15** and (1) 5/16-18 nylon locknut **18**. Tighten these bolts at this time.
14. Reinstall the air cleaner element and end cap as shown, with the dirt trap **Q** pointing down.



15. Remove the lower rear sub frame mounting bolt and the rear bolt of the grass box hinge bracket **R**. Install the air cleaner guard brackets **8** & **9**. A 3/8-16 X 1-3/4 bolt **14** is supplied in the kit to replace the original hinge bracket bolt. Washers are supplied to cover the slots. Secure with nylon locknuts at the three mounting locations.
16. Install the pre-cleaner **4** to the inlet hose (the "L" shaped one) **S** and put (2) clamps **10** over the hose. Connect the other end of the hose to the air cleaner inlet. Rotate the pre-cleaner so the dirt ejection slot is pointing downward. Position the hose so it does not rub on the frame. Secure the hose to the pre-cleaner and air cleaner with the clamps **10** provided in kit.



17. Slide the hose wrap **3** supplied in kit on the "S" shaped hose **5**. Connect the air cleaner to the engine with the "S" hose and the (2) clamps from the Kohler Adapter/Elbow kit. The bend of the hose entering the engine should be horizontal. This allows the hose to clear the parking brake cable when the brake is off. Position the hose wrap to protect the hose from the parking brake cable when the parking brake is on.



ITEM	PART NO.	DESCRIPTION	QTY
1	2198147	AIR CLEANER	1
2	2198297	CLAMP-AIR CLEANER	1
3	2208292	COVER,HOSE, SPIRACO	1
4	2720885	PRECLEANER-AIR FILTER	1
5	2722703	HOSE-AIR	1
6	4109180.7	BRACE-FRAME	1
7	4109261.7	BRKT-AIRCLEANER MTG	1
8	4114350.7	BUMPER-AIR CLNR UPR	1
9	4114359.7	BUMPER-AIR CLNR LOWR	1
10	108094-09	CLAMP-HOSE SAE36	2
11	64123-16	BOLT	2
12	64123-47	BLT-HEX5/16-18X1-1/4	2
13	64123-50	BOLT,3/8-16X1 HEX	3
14	64123-87	BLT-HEX3/8-16X1-3/4	1
15	64163-29	WASHER	2
16	64163-31	WASHER,25/64X1X12	4
17	64163-38	WSHR.875X.390X.1046PLN	2
18	64229-02	LOCKNUT-NYLON5/16-18	2
19	64229-03	LOCKNUT-NYLON3/8-16	4

NOTE: The heavy duty air cleaner will reduce air cleaner service requirements greatly and contribute to longer engine life. The dirt trap should be opened daily. The element should be inspected every other week or as required. Clean by tapping gently or replace. Do not use high pressure air to blow dirt off. High pressure air can cause tiny tears that allow dirt directly into the engine