



INSTRUCTION BULLETIN

No. 340241
Machine: 515 515SS 8010
MAX PRO 1200
Published: 4-99/01
System: SCRUBBING

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in your machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save you the cost of ordering an entire kit.

NOTE: Numbers in parenthesis () are reference numbers for parts listed in Bill of Materials.

Installation instructions for kit number 375075

SYNOPSIS / PROBLEM:

This kit contains the parts needed to replace the LEFT HAND or CENTER scrubbing gear box on the models listed above with the MAX PRO 1200 scrub head. The replacement gearbox is provided by a new manufacturer.

Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: None

(Estimated time to complete: 3 hours)

TO REMOVE THREE BRUSH SCRUB HEAD (Max Pro 1200):

(Refer to FIG. 1 and 2)

1. Start the machine, lower the scrub head, shift the scrub head all the way to the right hand side, shut off the key.

FOR SAFETY: Before Leaving Or Servicing Machine; Stop On Level Surface, Set Parking Brake, Turn Off Machine And Remove Key.

2. Raise the machine cover and unplug the batteries.
3. Raise the front of the machine and install jack stands under the frame.

FOR SAFETY: Block machine tires before jacking machine up. Jack machine up at designated locations only. Block machine up with jack stands.

4. Remove both side squeegee assemblies.
5. Unplug the three scrub brush motors from the main harness.
6. Disconnect the solution hose from the fitting in the center of the scrub head. Pull the hose off the scrub head.
7. Pull the clip up on the end of the side shift gas spring and remove it from the ball on the RH side of the scrub head.
8. Remove the two hex screws holding the head lift pivot bracket to the head lift casting.
9. Remove the cotter pins from the castle nuts on the two scrub head links where they attach to the machine frame.
10. Remove the castle nuts and lift links from the machine frame.
11. The scrubber head can now be brought out from under machine on the right hand side.

**TO REPLACE CENTER OR LEFT HAND GEAR
BOX ON THREE BRUSH HEAD
(Max Pro 1200):**

(Refer to FIG. 1 thru 5)

1. The scrub head needs to be removed to replace a scrub brush gear box. **See TO REMOVE THREE BRUSH SCRUB HEAD** instructions.

FOR SAFETY: Before Leaving Or Servicing Machine; Stop On Level Surface, Set Parking Brake, Turn Off Machine And Remove Key.

2. Lift the scrub head up to gain access to the scrub brush drive plug.
3. Remove the scrub brush from the CENTER OR LEFT HAND gear box.
4. Remove the hex screw holding the brush drive plug to the gear box shaft. Remove the drive plug, washers, and square key from the gear box.
5. Remove the three hex screws holding the motor and gear box assembly to the scrub head frame. Remove the motor and gear box assembly from the scrub head frame.
6. Remove the four hex screws holding the scrub brush motor to the gear box.
7. Pull the scrub brush motor straight out of the gear box. Be careful not to loose the square key from the motor shaft. Discard the old gear box.

NOTE: Make sure to note the orientation of the scrub brush motor in the gear box.

8. Position the scrub brush motor on the new gear box (1). Make sure the square key is in place on the motor shaft. Note the orientation of motor and gearbox.
9. Reinstall the four hex screws and tighten to 31 - 40 Nm (27 - 35 ft lb).
10. Install the new gear box mount bracket (2) onto the **center or left** side of the scrub head frame. **CENTER GEAR BOX:** Position the bracket so the tabs (notched end) are to the *front* of the scrub head. **LEFT HAND GEAR BOX:** Position the bracket so the tabs (notched end) are to the *rear* of the scrub head. Tighten the three screws (3) and washers (4) to 31 - 40 Nm (27 - 35 ft lb).
11. **LEFT HAND GEAR BOX:** Install the new gear box (1) and existing motor assembly onto the new gear box mount bracket (2). Place one of the spacer plates (5) between the new gear box (1) and the new mount bracket (2). Install two patch bolts (6) and washers (7). Leave loose for now. Place the second spacer plate (5) between the new gear box (1) and the new mount bracket (2) on the other side. Install two patch bolts (6) and washers (7). Tighten all four patch bolts to 13 - 17 Nm (9 - 12 ft lb).
12. **CENTER GEAR BOX:** Install the new gear box (1) and existing motor assembly onto the new gear box mount bracket (2). Place two of the spacer plates (10) between the new gear box (1) and the new mount bracket (2) in front. Install two patch bolts (6) and washers (7). Leave loose for now. Place the stop bracket (6) between the new gear box (1) and the new mount bracket (2) on the other side (rear). Install two patch bolts (6) and washers (7). Tighten all four patch bolts to 13 - 17 Nm (9 - 12 ft lb). Remove the roller from the old bracket and install onto the new stop bracket (6).

13. Reinstall the square key, drive plug, washers, and hex screw on the gear box (1) output shaft. Tighten the hex screw to 18 - 24 Nm (15 - 20 ft lb).
14. Reinstall the scrub brush.
15. Reinstall the scrub head in the machine. **See TO INSTALL THREE BRUSH SCRUB HEAD** instructions.
16. Operate the machine and check the CENTER OR LH gear box for proper operation.

TO INSTALL THREE BRUSH SCRUB HEAD

(Refer to FIG. 1 and 2)

FOR SAFETY: Before Leaving Or Servicing Machine; Stop On Level Surface, Set Parking Brake, Turn Off Machine And Remove Key.

1. Raise the front of the machine and install jack stands under the frame.

FOR SAFETY: Block machine tires before jacking machine up. Jack machine up at designated locations only. Block machine up with jack stands.

2. Position scrubber head under machine from the right hand side.
3. Reinstall the scrub head links in the holes in the machine frame.
4. Reinstall the castle nuts on the scrub head links and tighten to 90 - 117 Nm (65 - 85 ft lb). Turn the castle nut far enough to line up with the cotter pin hole. Reinstall the cotter pin.
5. Reinstall the two hex screws holding the head lift pivot bracket to the head lift casting. Tighten to 18 - 24 Nm (15 - 20 ft lb).
6. Install gas spring ball end back on the ball on the right hand side of the scrub head. Make sure to reinstall the locking clip.
7. Reconnect the main solution feed line to the fitting in the center of the scrub head.
8. Reconnect the three scrub brush motors to the main electrical harness. See schematic in the ELECTRICAL section.

NOTE: Make sure to reinstall any clamps or plastic ties that were removed during disassembly.

9. Reinstall the LH and RH side squeegees.
10. Reconnect the batteries
11. Remove the jack stands and lower the machine. Check for proper operation of scrub brushes and side shift.

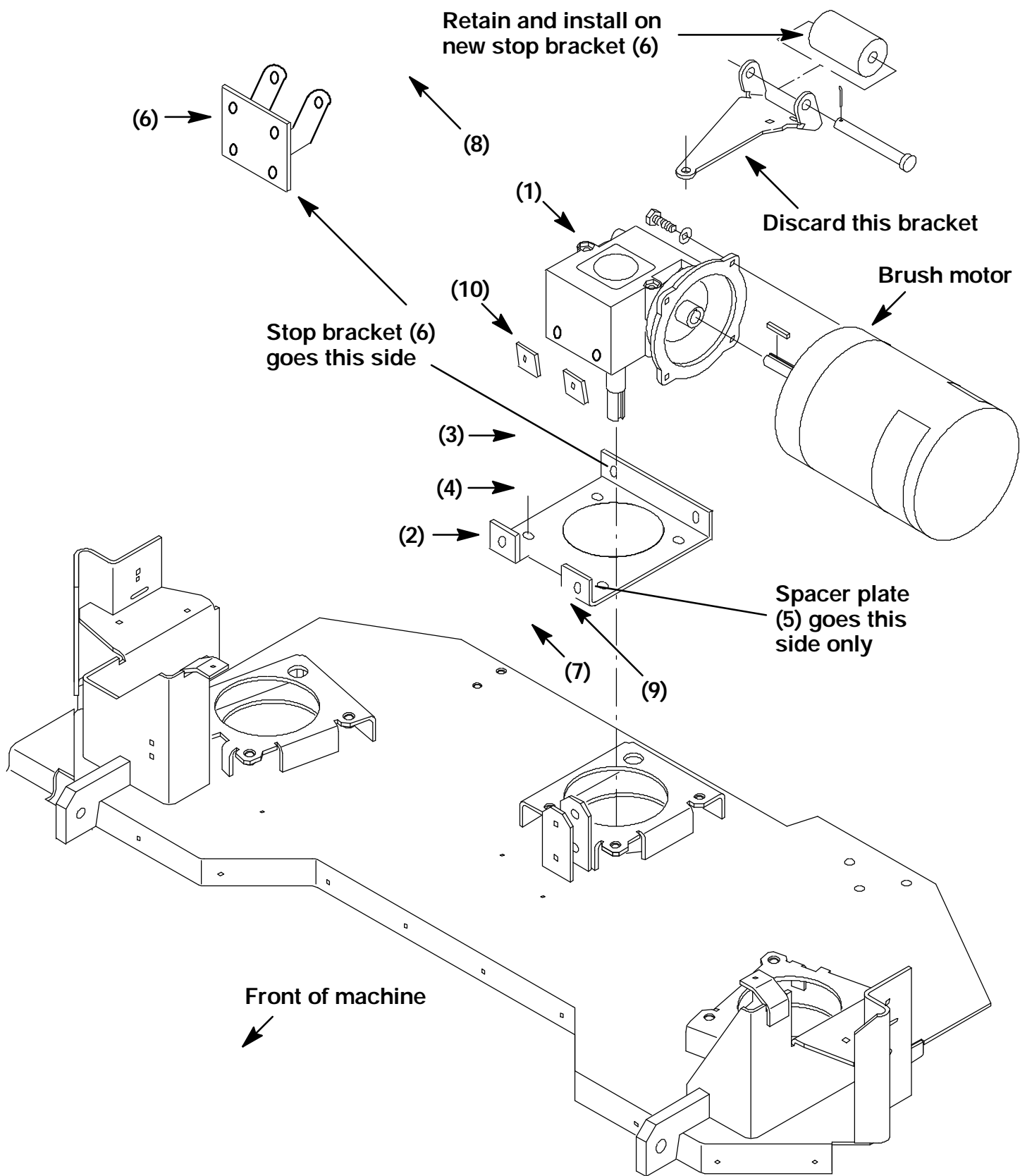


FIG. 1 - MAX PRO 1200 Scrub Head (center gear box)

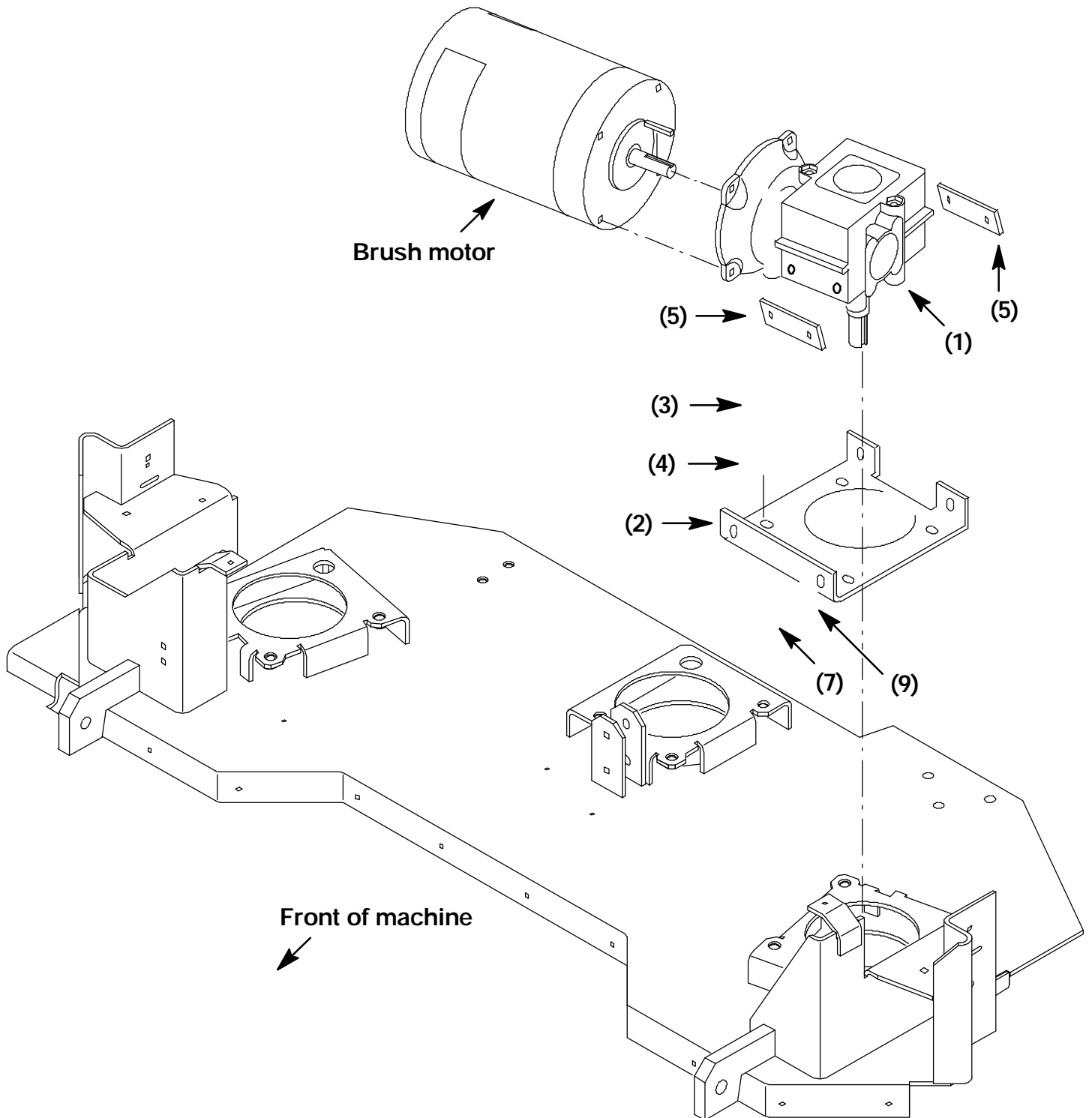


FIG. 2 - MAX PRO 1200 Scrub Head (left hand gear box)

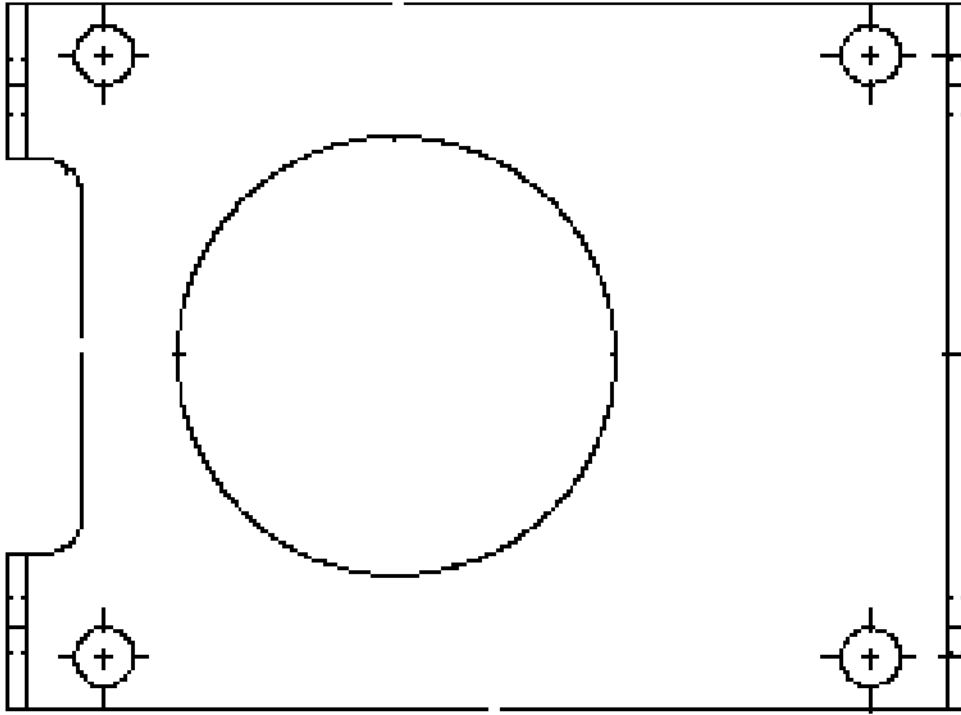


FIG. 3 - Gearbox Mount Bracket 375040 (2)

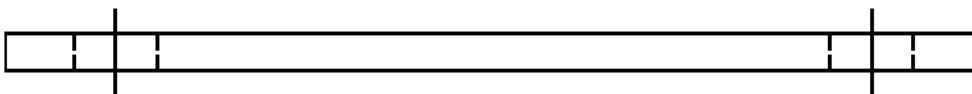


FIG. 4 - Spacer Plate 375065 (5)

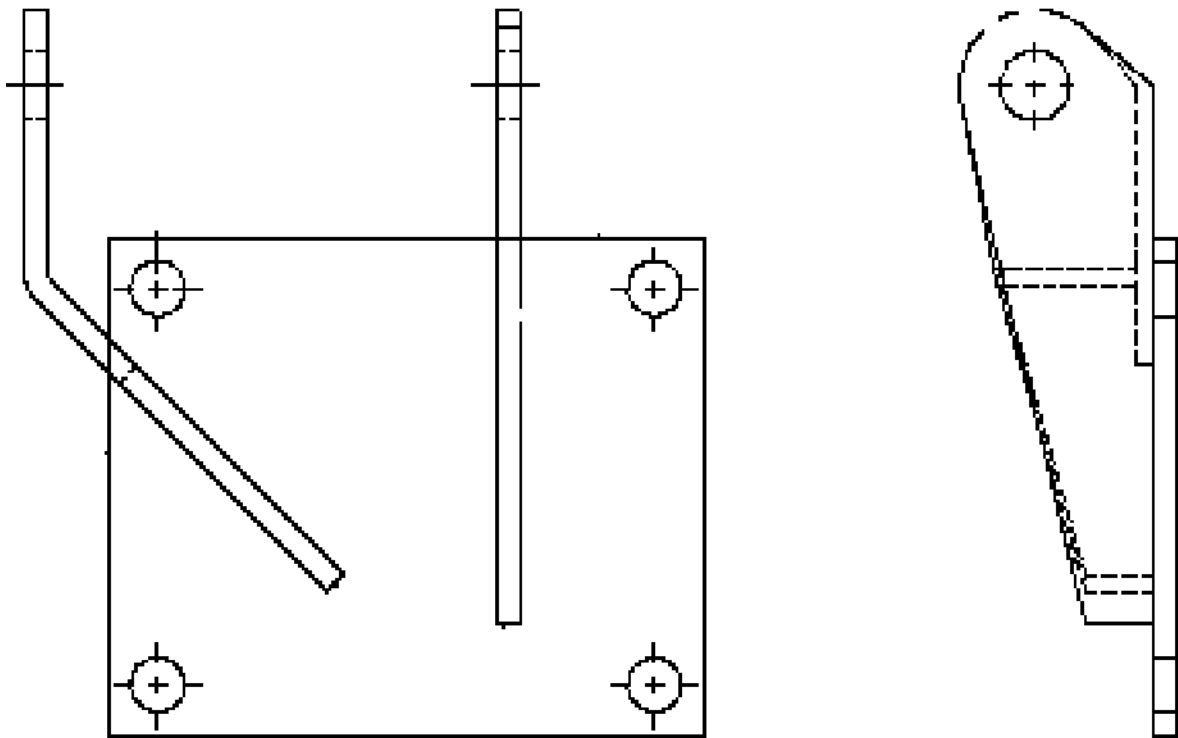


FIG. 5 - Stop Bracket 375070 (6)

BILL OF MATERIALS FOR GEARBOX REPLACEMENT KIT 375075 (MAX PRO 1200)

Ref.	TENNANT Part No.	Description	Qty.
1	375111	Gear box	1
2	375040	Gear box mount bracket	1
3	34195	Screw, .38x16x1.00, nyloc	3
4	01686	Flat washer, .38 SS	3
5	375065	Spacer plate	2
6	375070	Stop bracket	1
7	32124	Screw, .31x18x1.00, nyloc	4
8	31247	Screw, .31-18x0.75, nyloc	2
9	01685	Flat washer, .31 SS	4
10	375086	Spacer	2

TENNANT COMPANY
P. O. Box 1452
Minneapolis, MN 55440-1452