



S-Series™

2.0 Hydraulic Charge Pump Filter

Date: October 3, 2023
Bulletin Name: FDM-SVC-030
Model: Oshkosh S-Series
Units Affected: MY 2020-2022

Purpose:

This bulletin provides instruction for installing a hydraulic system charge pump filter.

Notice:

- This bulletin should be read and understood in its entirety before performing this procedure.
All procedures outlined in the bulletin must be performed by skilled service personnel. Refer to the product service manual for descriptions of maintenance procedures.

SAFETY NOTICE
Perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.

SAFETY NOTICE
Use appropriate Personal Protective Equipment (PPE) as required by your company.

WARNING
Hydraulic systems are hot. DO NOT TOUCH! Serious personal injury may result from hot oil. When you have completed working on the hydraulic systems, thoroughly clean any spilled oil from the equipment. Do not spill any hydraulic fluids on the ground. Clean any hydraulic fluids from your skin as soon as you have completed your maintenance and repairs. Dispose of used oil and filters as required by law.

WARNING
Hydraulic systems operate under high pressure—only experienced persons should attempt repairs or troubleshooting on hydraulic systems.

WARNING
Never remove hydraulic pipes/tubing, fittings, and adapters until all pressure has been relieved from the hydraulic system.

WARNING
All hydraulic pressures must be relieved from the hydraulic system prior to removing any components from the system to prevent oil from spraying or functions and systems from failing.

Tools and Equipment Required:

Customer to supply:

- Hand tools
- Torque wrench (foot pounds)

Parts Required:

Item	Part Number	Description	Qty.
1	A000A530	SCR, FLG, HEX 0.38-16X.075 G8 MB	4
2	A000A532	SCR, FLG, HEX 0.38-16X1.25 G8 MB	4
3	A000A690	NUT, FLG, LKDT 0.38-16 G8 MB	4
4	A000B847	FTG, 90 10JIC-12ORG MM ST	2
5	A000B895	FTG, ST 10JIC-10ORG MM ST	2
6	A001E048	HOSE ASSY #10 CR 16.0 3814	1
7	A001E051	HOSE ASSY #10 CR 17.5 3812	1
8	A001E052	BRKT, FILTER MNT	1
9	A001E053	PLATE, FILTER, SUPPORT	1
10	A001E071	FILTER, HYD, L, 35GPM, AL, 5 MIC	1
11	A001E117	FTG, PLUG 6NPTF M ST IN HEX	1
12	A001E072	REPLACEMENT ELEMENT	1

Procedure:

Lockout/Tagout

1. Place unit on a flat surface, engage parking brake, chock truck tires, and perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.
2. The vehicle's BATTERY DISCONNECT switch is located on the left-hand side of the battery box. Use the battery disconnect switch when performing any maintenance so the vehicle cannot accidentally be started.
 - a. Turn the battery disconnect switch (Figure A, Item 1) counterclockwise so the hole on the switch aligns with the hole in the bracket (Figure A, Item 2).
 - b. Install the safety lockout device ring (Figure B, Item 1) through the holes on the battery disconnect switch and the bracket.
 - c. Install a padlock (Figure B, Item 2) onto the safety lockout device ring, lock it, and put the key in your pocket. If more than one person is working on the vehicle, each person must install his or her own padlock.

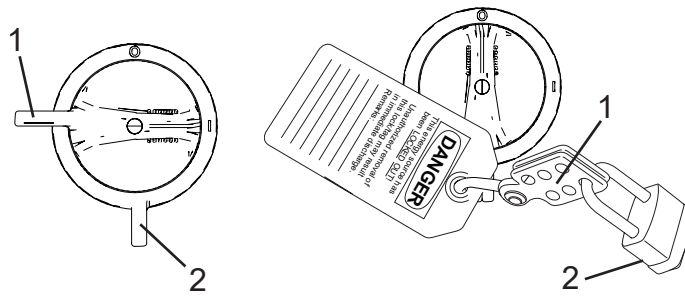


Figure A

Figure B

Filter Installation

3. Open hood hatch.
4. Locate auxiliary pump mounted to main pump. See Figure 1.
5. Label hydraulic hoses connected to auxiliary pump.
6. Loosen and disconnect hydraulic hoses from auxiliary pump. Cap or cover hose ends to prevent system contamination.
7. Loosen and remove screws securing auxiliary pump to main pump adapter plate. See Figure 1.
8. Remove auxiliary pump from adapter plate. Save pump for reinstallation later.

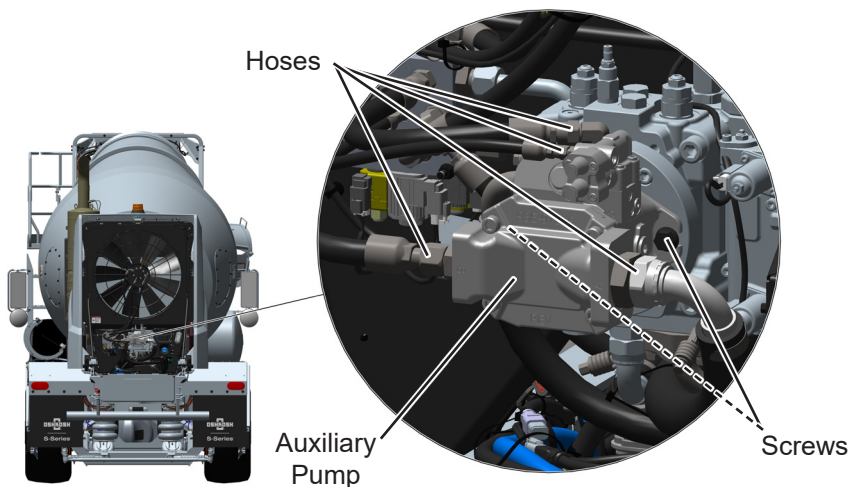


Figure 1

NOTE

There are 3 locator pins and washers located behind the auxiliary pump adapter plate. Use caution when removing adapter plate from main pump not to lose pins and washers.

9. Loosen and remove 4 screws securing adapter plate to main pump. See Figure 2. Save screws for reinstallation later.
10. Remove adapter plate from main pump. See Figure 2. Save adapter plate for reinstallation later.

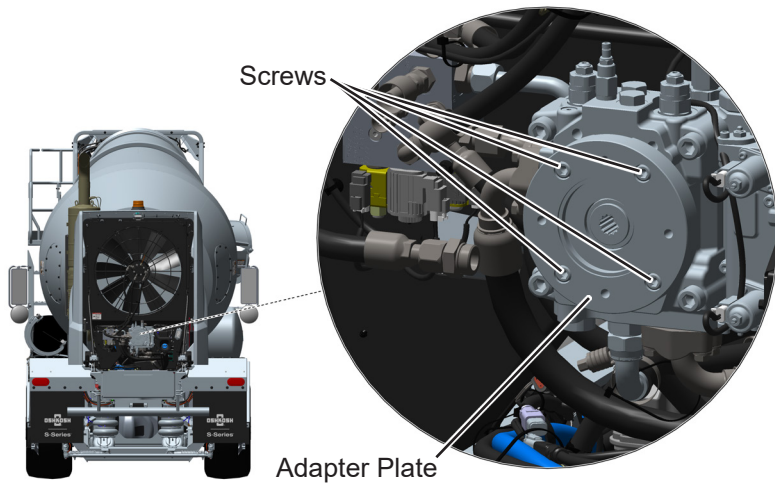


Figure 2

11. Loosen and remove 495 plug from mixer pump with 10 mm Allen wrench. See Figure 3. Save plug for reinstallation later.
12. Insert and install NPT plug (A001E117) into 495 port with 5/16" Allen wrench. See Figure 3. Final tighten plug hand-tight plus 2 - 3 turns (approximately 18 ft. lbs.).
13. Reinstall 495 plug in mixer pump. Final tighten plug to 48 ft. lbs.
14. Loosen and remove port plug A and B from mixer pump. See Figure 3. Port plugs will not be reused.

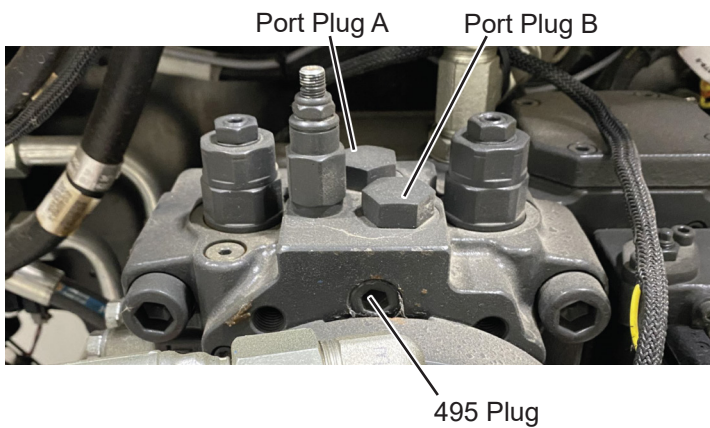
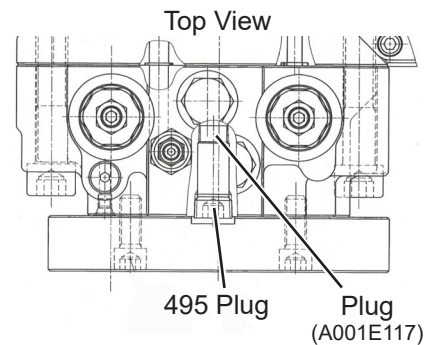


Figure 3



15. Install straight fittings (A000B895) in mixer pump port plug A and B locations. See Figure 4. Final tighten fittings to 90 ft. lbs.
16. Connect 90° end of hose (A001E051) to straight fitting installed in mixer pump port A in Step 15. See Figure 4. Final tighten hose fitting to 58 ft. lbs.
17. Connect 90° end of hose (A001E048) to straight fitting installed in mixer pump port B in Step 15. See Figure 4. Final tighten hose fitting to 58 ft. lbs.

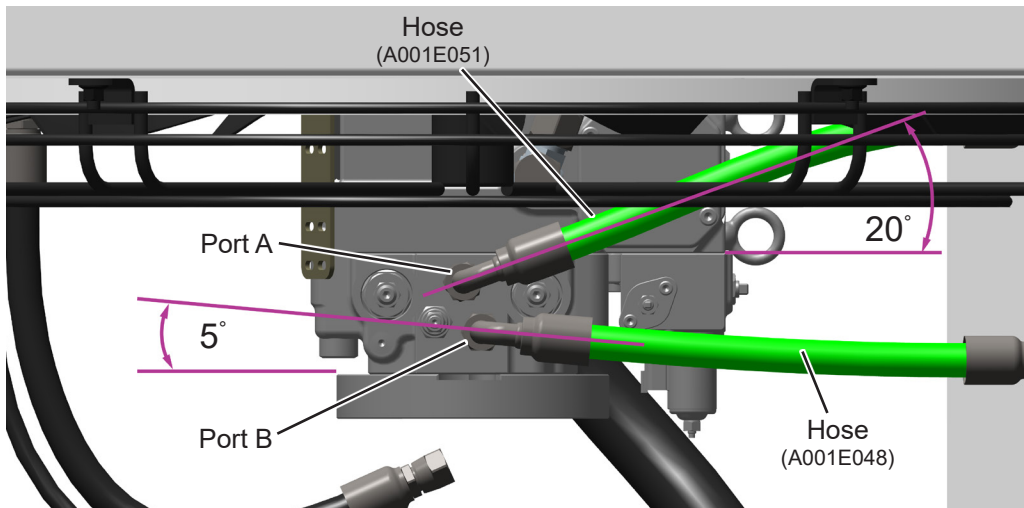


Figure 4

18. Install 90° fittings in filter assembly. See Figure 5. Final tighten 90° fittings to 93 ft. lbs.
19. Apply Loctite™ #242 to threads of four 3/8-16 x 0.75 inch screws (A000A530) and install filter mounting bracket (A001E052) to top of filter assembly (A001E071). See Figure 5. Final tighten screws to 25 ft. lbs.

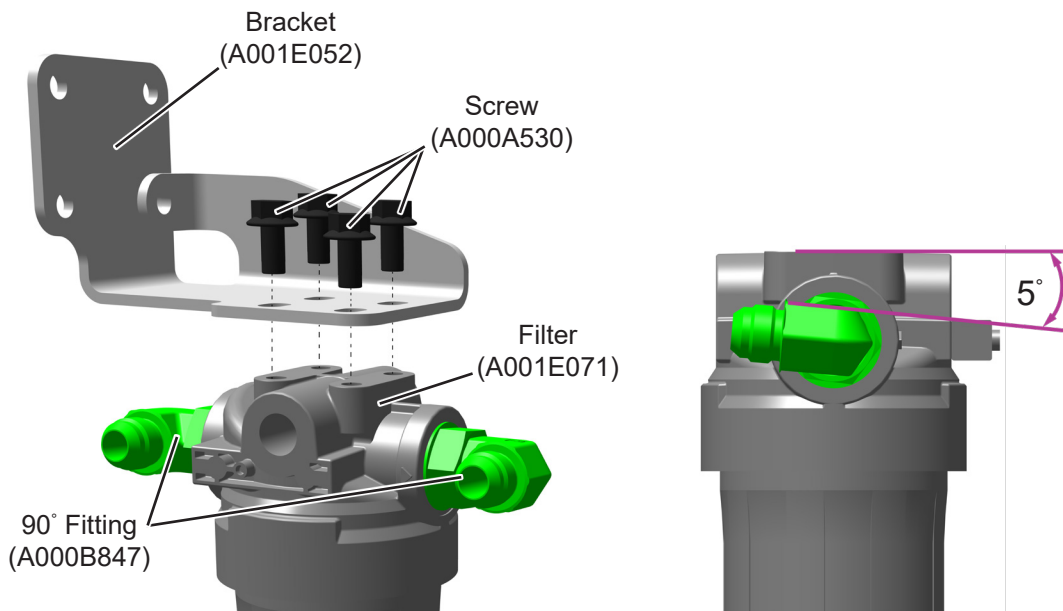


Figure 5

20. Connect ends of hoses from mixer pump ports A and B to filter assembly 90° fittings. Final tighten hose ends to 58 ft. lbs.
21. Position filter assembly on fan shroud and mark the four mounting bracket holes. See Figure 6.
22. Drill four 3/8 inch filter bracket mounting holes in fan shroud. See Figure 6.
23. Install four 3/8-16 x 1.25 inch screws (A000A532) in filter support plate (A001E053) and install plate from inside of fan shroud. See Figure 6.
24. Secure filter assembly to support plate screws with four lock nuts (A000A690). See Figure 6. Final tighten filter assembly mounting bracket hardware to 35 ft. lbs.

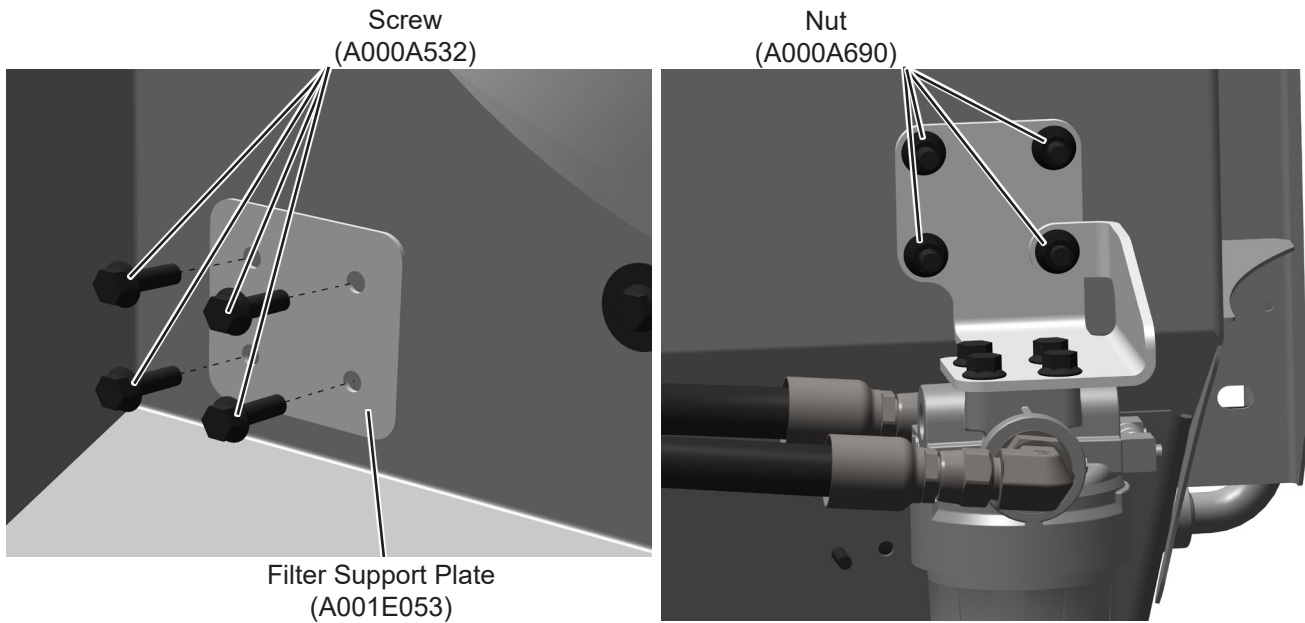


Figure 6

25. If main pump rear plate was accidentally removed from center of adapter plate make sure 2 small O-rings are correctly installed. See Figure 7.
26. Make sure O-ring is installed in adapter plate. See Figure 7.
27. Reinstall adapter plate with groove/cutout to the top, and any locator pins and washers removed in Step 10. See Figure 7.

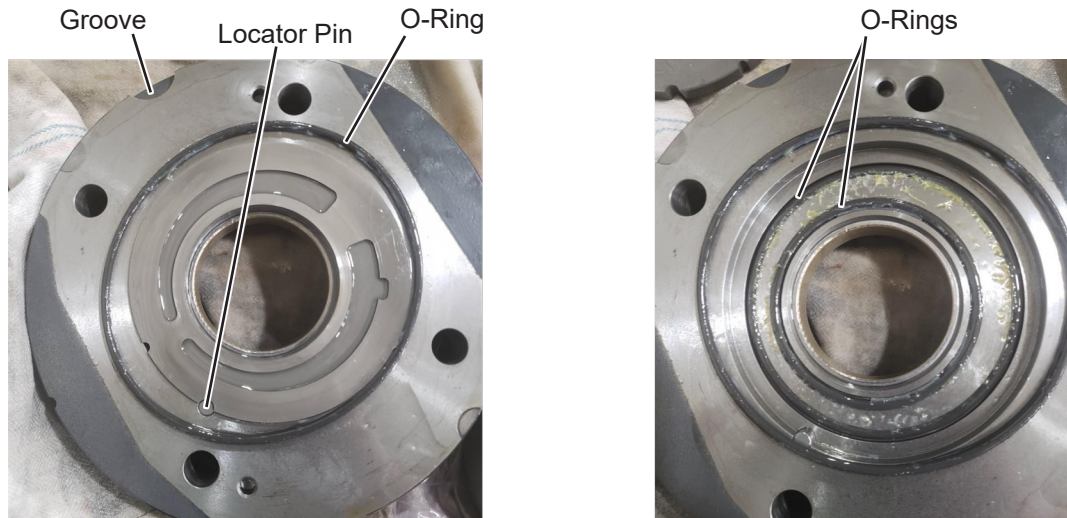


Figure 7

28. Install screws removed in Step 9 to secure adapter plate to mixer pump. Final tighten screws to 72 ft. lbs.
29. Clean mounting surface of auxiliary pump removed in Step 8.
30. Apply Loctite™ 515 to mounting surface of auxiliary pump.
31. Apply Loctite™ 242 to threads of screws removed in Step 7 and install screws to secure auxiliary pump to adapter plate. Final tighten screws to 80 ft. lbs.

32. Reconnect hydraulic hoses disconnected in Step 6 to auxiliary pump. See Figure 8 for hose end torques.

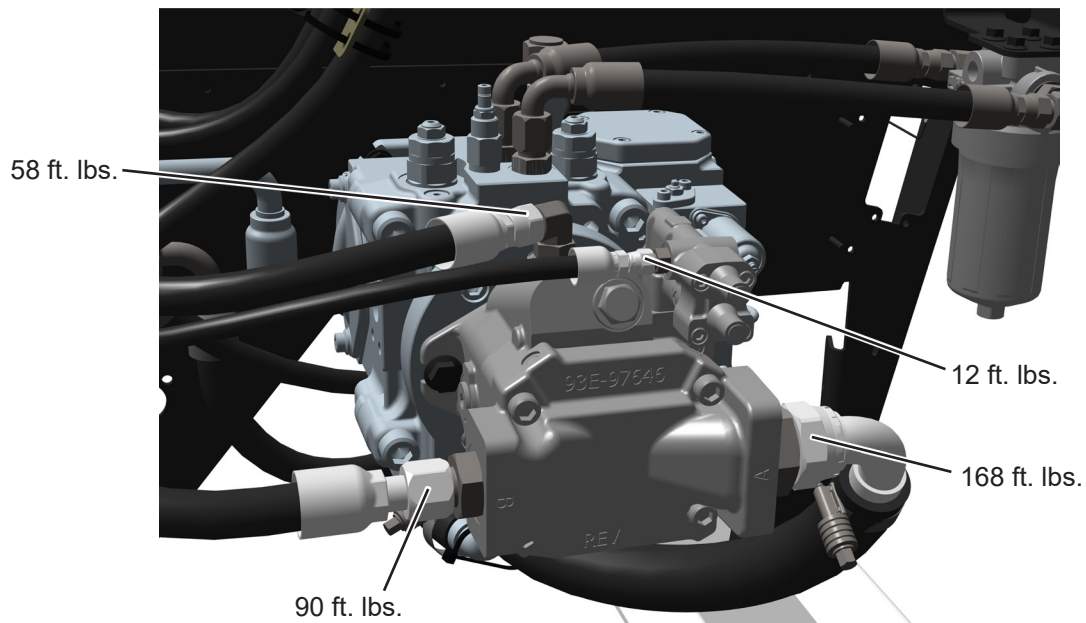


Figure 8

33. Remove lockout/tagout and tire chocks.
34. Start vehicle and check hose connections for leaks.
35. Close and secure hood hatch.
36. Turn vehicle OFF and check fluid level in hydraulic reservoir. Add fluid as required.

Filter Maintenance

37. Monitor filter element condition using flow indicator on side of filter head. See Figure 9. Remove and replace filter element (A001E072) when indicated by the flow indicator.

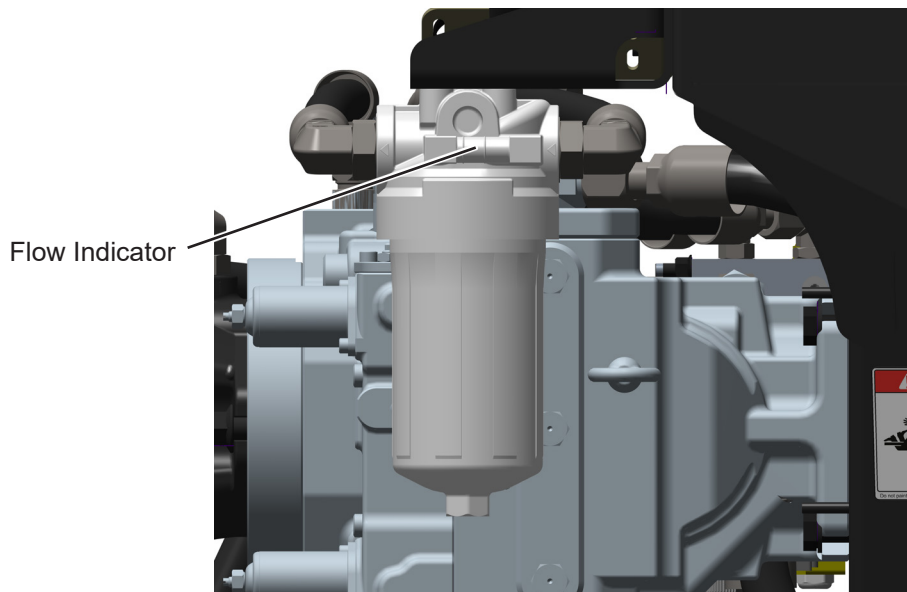


Figure 9

Continuous Improvement:

The change included in this document is part of the McNeilus Continuous Improvement Process.

McNeilus's quality policy is providing customer satisfaction through innovative products, dedicated service, and a constant focus on continuous improvement.



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