



*“Setting the World’s
Performance Standards”*

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Power Dome™ Billet Heads for 2018-20 Arctic Cat 8000

Kit Contents:

2 - Spark Plug O-Rings (Part# 12-8002)

2 - SLP Domes (See Chart) →

1 - SLP Water Cover (Part# 12-8001)

Combustion Chamber Insert (Dome) Part #	Altitude
12-801	0-5000' (0-1525m)
12-800	5000'+ (1526m +)

Head Removal / Installation

1. Remove the hood and side panels, making sure to disconnect the dash wiring harness plug so the hood can be set aside.
2. Disconnect the EGT sensor from the pipe.
3. Remove the pipe, silencer and primary clutch from the chassis. Use care not to over stretch exhaust springs when removing them. Retain all springs and grafoil seals for the re-installation.
4. Drain the engine coolant. This can be done easily with SLP LiquiVac (Part #20-148). First remove the coolant from the coolant bottle. Remove the remaining coolant by loosening the hose clamp holding the coolant hose to the throttle body, being careful to lose as little liquid as possible. This is located behind the primary clutch.
5. After coolant is drained from the throttle body coolant hose. Reinstall hose and tighten the hose clamp.
6. Remove coolant hose from the front center of the stock head. Then remove the DET Sensor from the top front of the head.
7. Pull spark plug caps off of the spark plugs.
8. Loosen the hose clamp holding the coolant hose to the fitting coming out of the back of the head using a 1/4" drive ratchet and 6mm socket.
9. Remove spark plugs from the head.
10. Remove the bolts securing the cylinder head using a 3/8" drive ratchet and 13mm socket.
11. Remove stock cylinder head.
12. Remove the O-rings (inspect and replace O-rings if necessary).
13. Wipe off any leftover coolant from the top of the cylinders and within the O-ring grooves.
14. Re-install O-rings. Make sure the O-ring are in the cylinder grooves.
15. Install spark plug O-rings onto the SLP Head Domes.
16. Slide domes into the SLP water cover.

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17. Screw spark plugs into the domes finger tight.

18. Slide water neck on the backside of the head assembly into the rear coolant hose and place SLP Head Assembly onto the cylinder making sure not to dislodge the O-rings from the grooves. Make sure the clamp head of the rear coolant hose is rotated to the 11 o'clock position. Install the head bolts in finger tight.

19. Torque the head bolts in a 2 step pattern, first to 13 ft/lbs then to 25 ft/lbs following the cross pattern shown in Illustration #1.

20. Reattach DET Sensor onto the water cover and torque to 18 ft/lbs.

21. Tighten the hose clamp to secure rear coolant hose to water neck on the backside of the water-cover using a 1/4" drive ratchet and 6mm socket.

22. Tighten spark plugs.

23. Begin to replace the coolant that was removed earlier by filling the coolant bottle until coolant begins running out of the front center barbed fitting. Reattach the coolant hose onto the front center barbed fitting of the water cover making sure that it is secured with the stock clamp.

24. Continue filling the coolant bottle. Replace as much liquid as possible, some will need to be added after the snowmobile goes through a warm up cycle.

23. Replace coolant cap.

24. Reinstall drive clutch and belt. Begin by cleaning the tapered end of the crankshaft with a Scotch-Brite pad. Then do the same with the inside taper of the clutch. Install clutch bolt and torque to 51 ft/lbs.

26. Reinstall the pipe and silencer using the stock springs, ensuring that the grafoil seals are in place.

27. Reconnect the EGT sensor using anti-seize on the threads and torque to 22 ft/lbs.

28. Check to make sure there aren't any coolant leaks. Start the snowmobile and let it go through its warm up cycle so the coolant cycles into the system. Make sure the heat exchanger gets warm which signifies coolant is circulating properly through the system.

29. Add more of the coolant back into the bottle until all the original coolant is added back into the coolant bottle. Some additional coolant will need to be added as well depending on how much was lost.

30. Continue to run the snowmobile to ensure the coolant is at an appropriate level, add coolant as necessary.

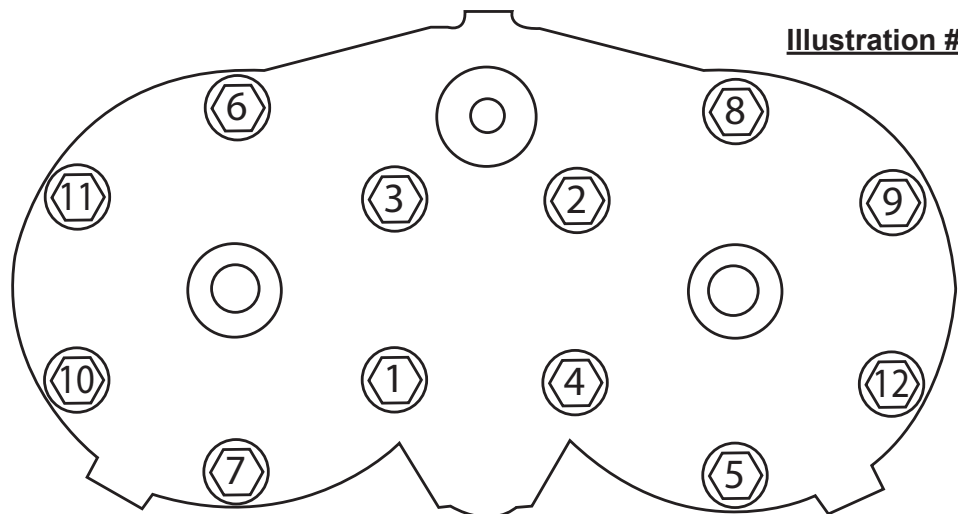
31. Reinstall hood and side panels back onto the snowmobile. Make sure to reattach the dash wiring harness.

-Fuel Requirements:
- 91 Octane minimum

Important Note: DET Sensor must be torqued to 18 ft/lbs (16 Nm). Over torquing the Knock sensor will damage it.

Spark Plugs recommended torque is 18 ft/lbs (39 Nm).

Illustration #1



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