

BoonDocker

2013-2017 Arctic Cat ProClimb Sidekick Installation Instructions



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1. Remove side panels , front bumper, and hood



2. Remove pipe, muffler, heat shield and ECU



3. Remove cross brace. Unplug the servo motor and carefully move out of the way so air box can be removed



4. Loosen the clamps on the air box and slide forward to remove throttle bodies



5. Unclip oil pump linkage rod, loosen clamps and slide throttle bodies out of boots. Remove coolant lines from throttle bodies, clamp or plug lines (coolant lines re-routed in Step 15).



6. Move throttle bodies out of the way and remove the air box. NOTE; IF INSTALLING MTA OILLESS TURBO PROCEED TO STEP 14

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7. Plug exhaust and intake to prevent debris from getting into the engine.. Tip sled onto side, clutch side down.



8. Drill and remove the two access plates from the bottom of the bulk head.



9. Drill and remove exhaust outlet ring and rubber from the belly pan.



10. Locate the crank oil feed line on crank case, unbolt the fitting, remove the bolt and washers (one on each side of fitting). Carefully remove the fitting from oil hose, DO NOT CUT!



11. Remove the stock oil lines from the throttle body boots and oil pump, re-use hose clamps and protective sleeves for installation of new lines.



12. Install the pre assembled BoonDocker oil line system. Follow diagram for proper installation and routing. Using protective sleeves, wrap the hose leading to the crank case and the hose connecting to the banjo as shown.

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13. Before installation of last oil line to oil pump, use a syringe and fill lines with oil.



14. Rotate Banjo fitting to move hose for more clearance between throttle body and oil linkage.



15. Install throttle body and tighten. Make sure to attach OIL LINKAGE ROD. Verify linkage operation and oil line routing, zip tie to prevent kinking and rubbing.



16. Route both coolant lines from throttle body (see Step 5) thru the opening between bulk head and recoil housing. (a little WD-40 will help slide hose thru clamp on bulk head)



17. Install Boondocker Timing module and secure to prevent rubbing and chaffing.

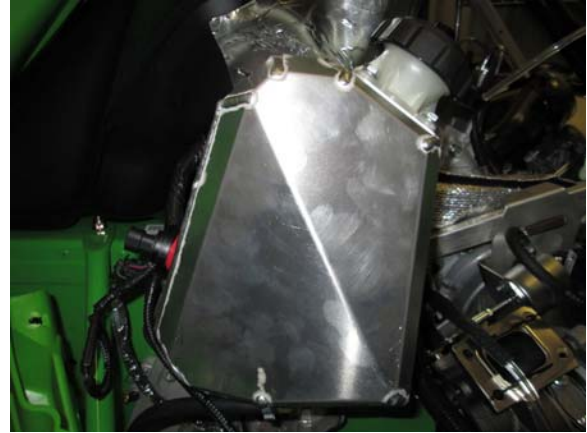


18. Drain oil into a clean container and remove the stock oil tank. Remove oil level sensor and rubber insert as well as the oil fill neck.

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19. Install two layers of heat shielding tape onto sensor wiring that exits from bottom of chain case. After muffler installation, ensure wiring is routed away from muffler.



20. Install oil level sensor float facing down, install filler neck onto the new oil tank (apply thread sealant to threads of bolts). Re-connect oil-level sensor wiring after mounting.



21. Mount the oil tank using stock screws in the upper rear/lower front holes and use provided M6x1.0 hex head screw in upper front hole. Use provided 5/16 nuts as spacers between chaincase cover and bracket.



22. Fill the oil tank and lines, connect tank line to the stock oil pump feed line, make sure lines are full before assembly to minimize air bubbles. Secure oil line away from turbo and heat.



23. Install the charge box, make sure the o-rings are lightly lubed for ease of installation



24. Secure air box by removing the fuel rail screws, using the aluminum keepers. Slide keepers into the grooves on air box, fasten using the stock fuel rail screws

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25. Install cross brace and plug in the servo motor.



26. Install injector/exhaust heat shield, using the two predrilled holes on cross brace. Drill remaining holes and rivet in place.



27. Install ECU mounting bracket, bolt on the ECU using the factory bolts. Re-install the two stock plastic nose wings.



28. Apply high temp silicon to exhaust doughnuts and install the pipe using the supplied long gray high tension exhaust springs (long side of hook towards the engine, fill with silicone).



29. Drill and remove chassis rivet at this location for spring tab. Rivet spring tab to the chassis for turbo hold down.



30. Remove the stock rubber mounting hardware from the stock muffler and install onto the turbo bracket.

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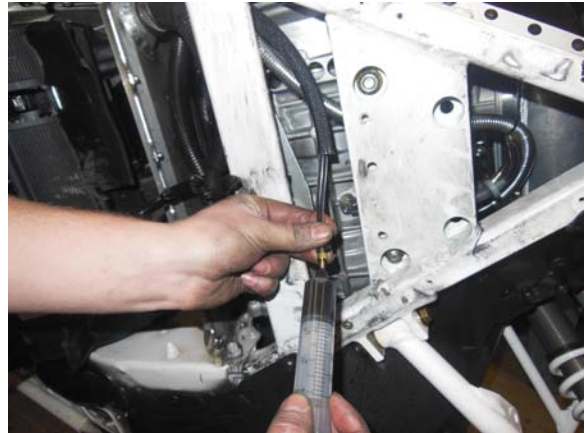
31. Hold turbo in place, route short coolant line to inside fitting on turbo, route long hose to outer fitting and cut to length. Install protective sleeve leftover from long line onto short line.



32. Tighten coolant lines and mount turbo on cross brace, spring turbo bracket into place using one long gold exhaust spring.



33. Install exhaust inlet onto turbo using hardware. Align and connect to turbo with exhaust pipe and install using long gold exhaust springs.



34. Fill the turbo oil feed line using a syringe, leave a 1" air pocket to ensure oil is pumping when machine is running, air pocket will disappear when pumping correctly.



35. Connect the turbo oil feed line to the oil pump hose located on the bottom of the engine, Using a small zip tie, secure the oil pump hose to the union fitting on the end of the turbo feed line.

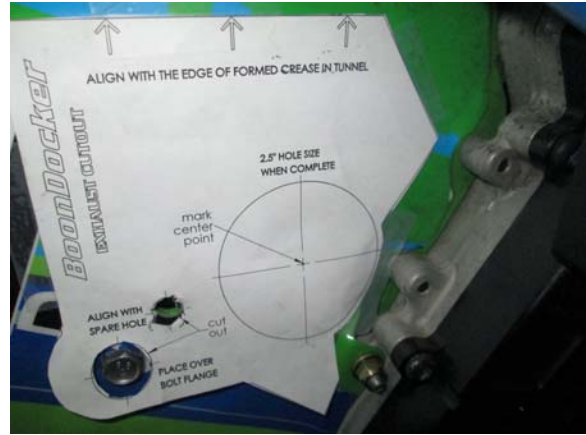


36. Routing is crucial, zip tie and secure to prevent rubbing, kinking or melting.

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37. Install banjo fitting into crank case oil feed line and bolt to crank case (1 washer on each side of fitting).



38. Using the supplied template mark and drill a 2 1/2" hole in the tunnel, de-burr and verify fit.



39. Using the supplied template, cut and modify the foot rest kick plate.



40. Remove stock spring tab from front side of chain case and place onto chain case cover using factory bolt where shown.



41. Install the muffler and spring into place.

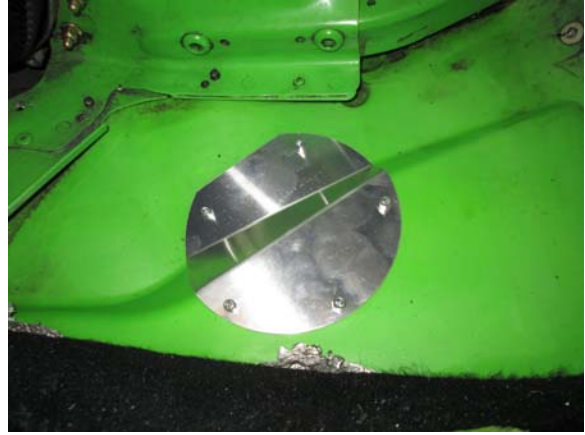


42. Install the kick plate and muffer heat shield using factory bolts, Adjust heat shield to prevent vibration and rivet into place on the tunnel.

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43. Zip tie oil line to the foot well upright post. Route and zip tie all wiring and hoses as far from muffler as possible.



44. Install the exhaust outlet block off plate with supplied rivets. (Arctic Cat belly pan shapes vary between models, modify or make block off as needed.)



45. Install the Boondocker control box. Place supplied heat tape on ECU as shown. Connect and secure temp sensor, boost line, ECU and ground wires.



46. Install charge tube, plug in boost control solenoid, connect boost hose from charge tube, zip tie hoses and wiring to the solenoid and onto brace to keep away from heat and prevent rubbing.



47. Install cold air intake flex hose. Ensure routing of pressure hose from charge tube and wiring from control box is secured to the bracing (see step 46).

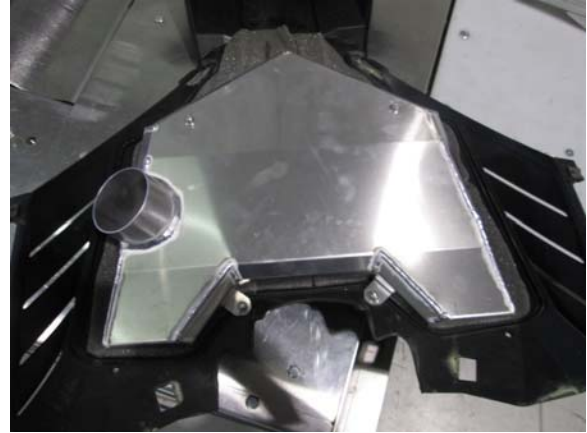


48. Routing is crucial, keep control box wiring, boost lines and boost hoses away from heat. Only place gradual bends in boost line to prevent kinking and don't over-tighten zip ties.

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49. Remove windshield, gauge, air intake and headlight.



50. Remove the factory air intake plenum. Attach Boondocker intake plenum using provided hardware.



51. Re-assemble hood, be sure that the air intake rubbers are installed properly in the hood.



52. Load adjustable weights (if not pre-loaded) starting from heel to toe 0-2-3-3. Install clutch components (optimal RPM range 8250-8450)



53. MUST pre-mix first tank of fuel 50:1 and verify that the sled is using oil properly to prevent damage. Discontinue pre mix after oil consumption is verified.

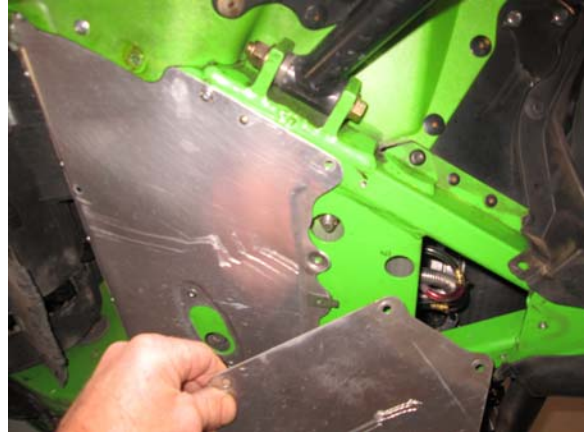


54. Set the hood in place and plug in, verify the machine starts, check that oil pump is pumping oil to the turbo and throttle bodies, run long enough to verify and check coolant level!!

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55. Install the hood and front bumper. Connect cold air intake tube from turbo to the cold air intake plenum.



56. After verification of oil consumption, tip the sled back on its side and re-install the bulk head access plates.

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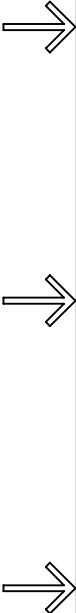
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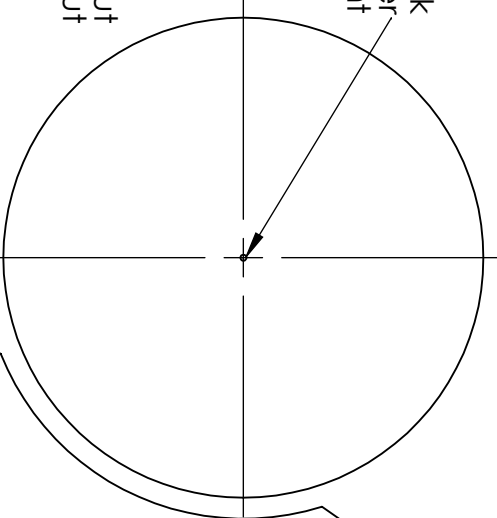
EXHAUST CUTOUT

ALIGN WITH THE EDGE OF FORMED CREASE IN TUNNEL

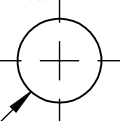


2.5" HOLE SIZE
WHEN COMPLETE

mark
center
point

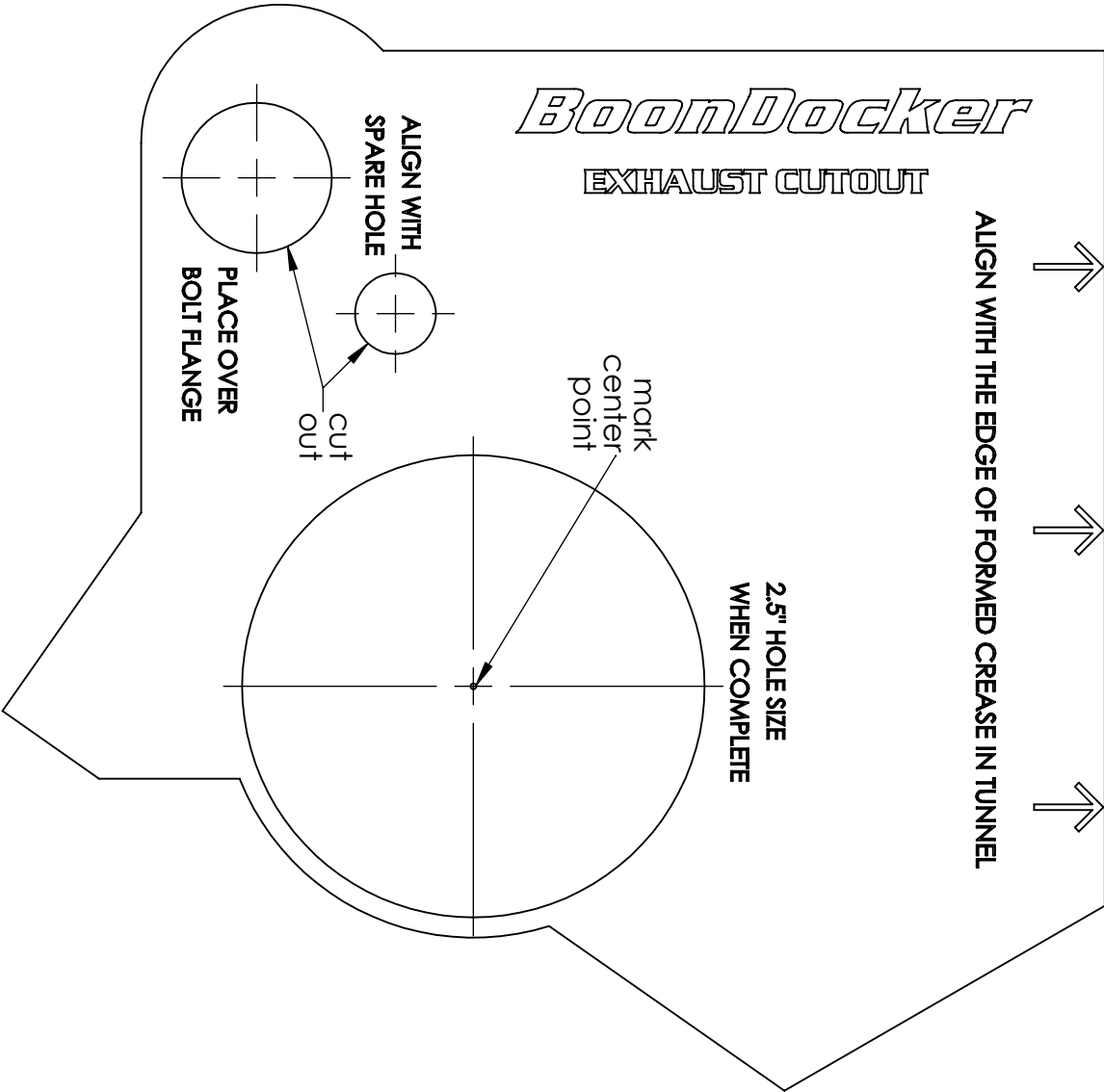
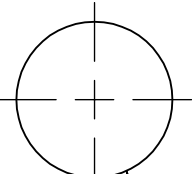


ALIGN WITH
SPARE HOLE



cut
out

PLACE OVER
BOLT FLANGE



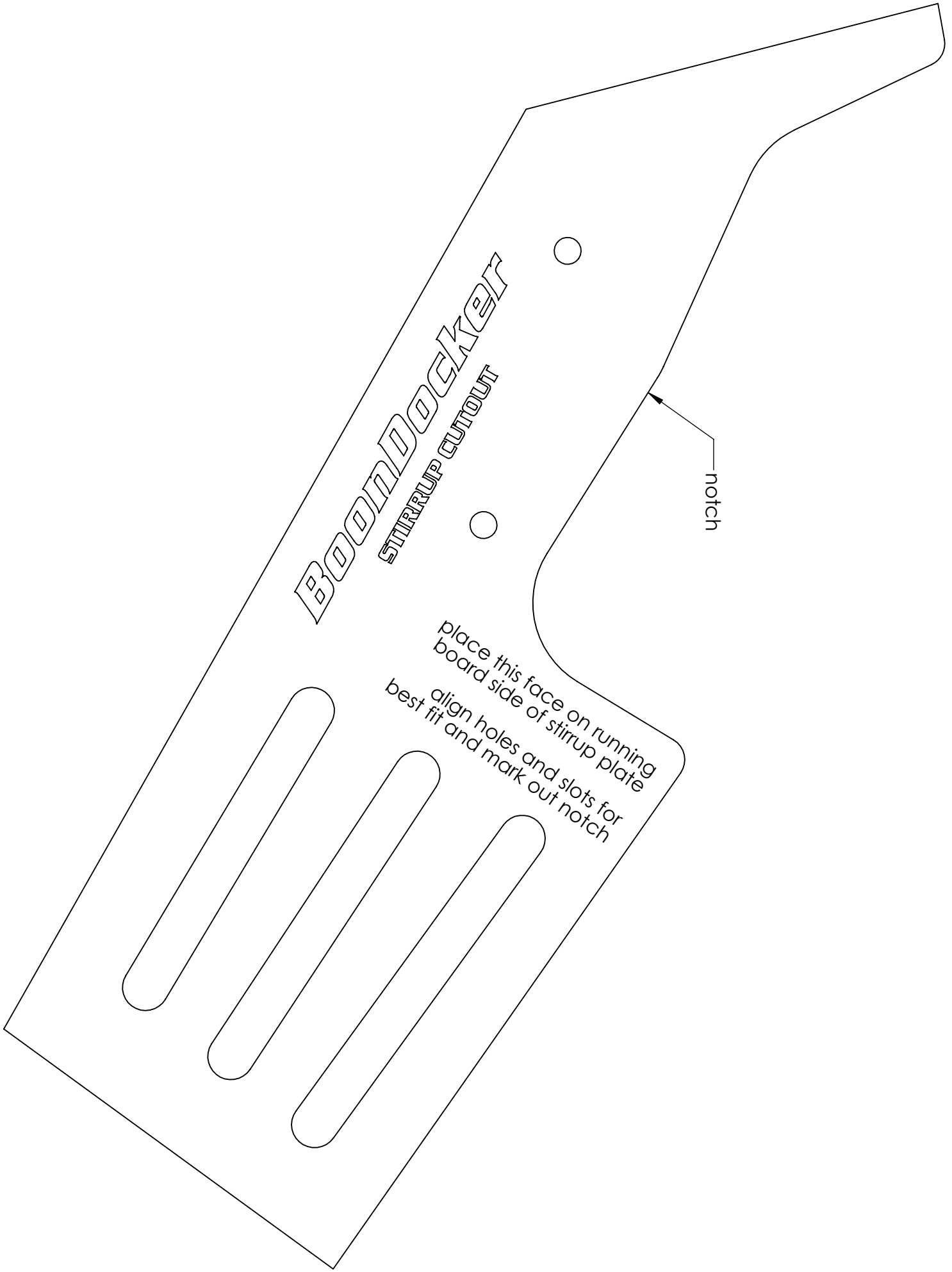
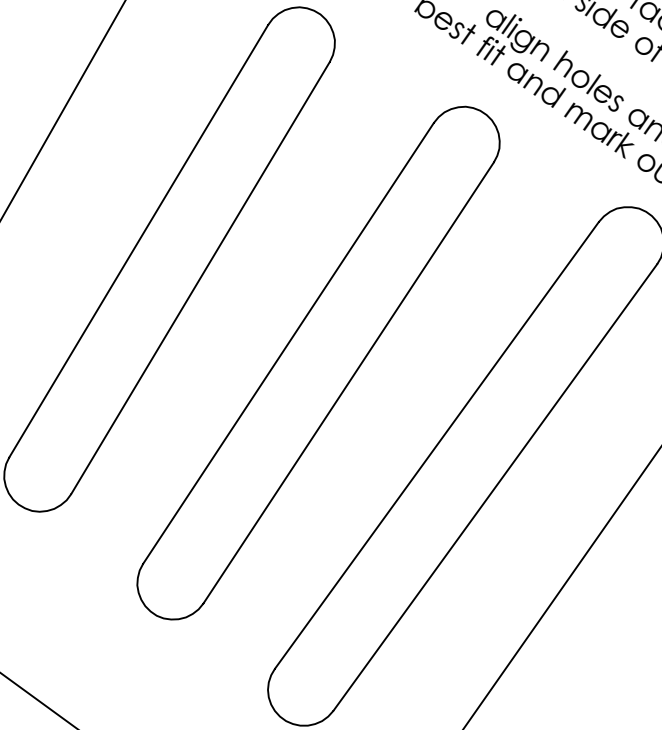
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BOONDOCKER
STIRRUP CUTOUT



notch

place this face on running
board side of stirrup plate
align holes and slots for
best fit and mark out notch

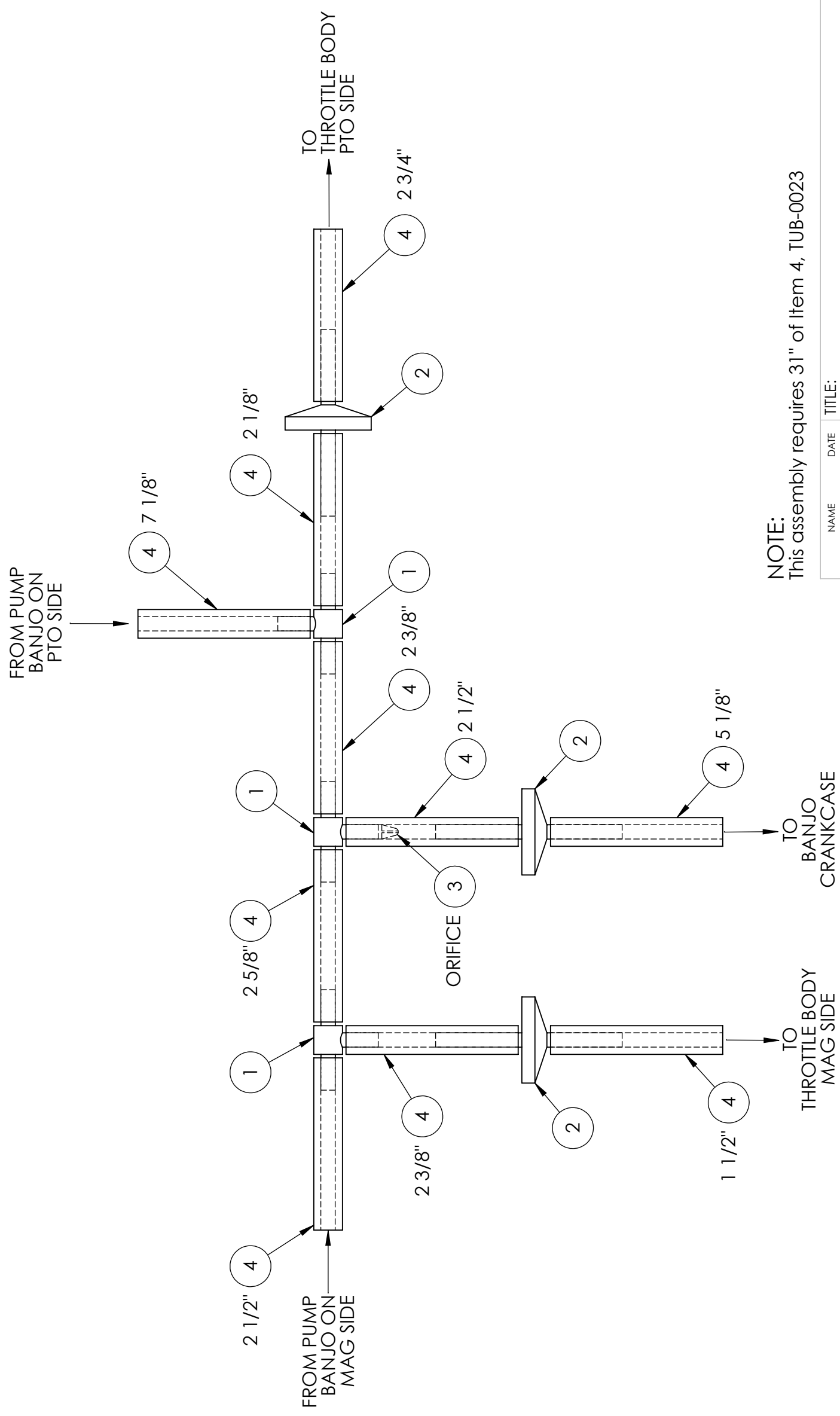


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1 2 3 4 5 6 7 8

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FIT-B022	Fitting, Tee, 1/8", Brass	3
2	FIT-PL13	Fitting, Valve, Check, 1/8"	3
3	TUB-0001	Fitting, Cup Plug	1
4	TUB-0023	Hose, Oil, 1/8" ID	10

D C B A

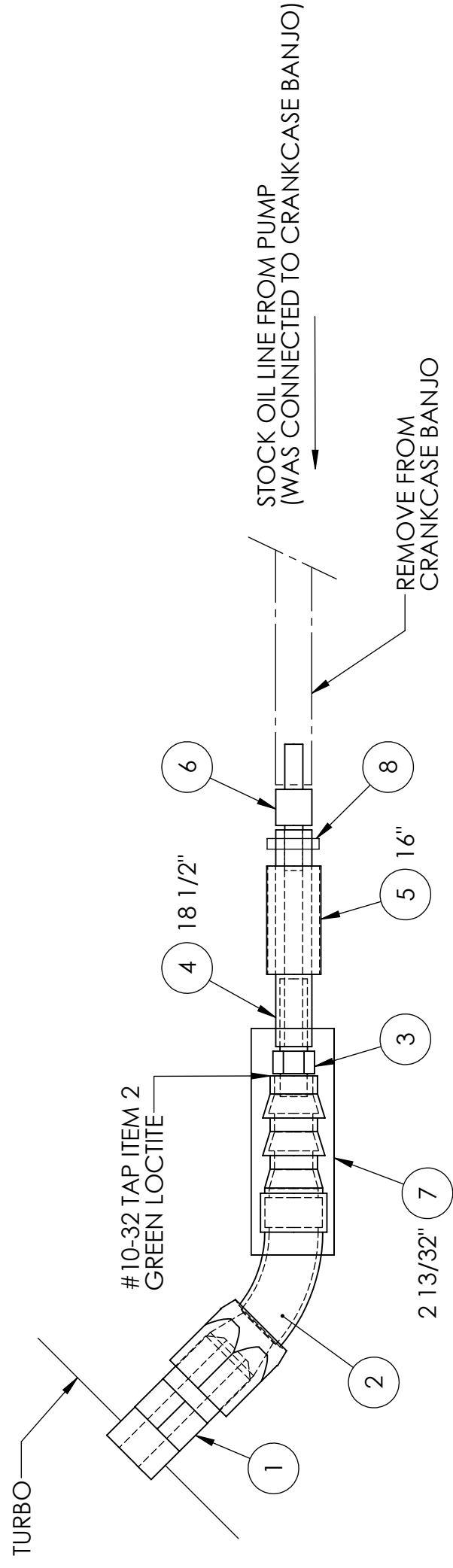


NOTE:
This assembly requires 31" of Item 4, TUB-0023

NAME	DATE	TITLE	SIZE:
DRWN	A. Case	2017 Arctic Cat Sidekick Motor/Crank Oil System	B
CHKD			
APPR			
UNLESS OTHERWISE SPECIFIED:		MATERIAL:	SCALE:
DIMENSIONS ARE INCHES		Varies	SHEET 1 OF 1
FRACTIONAL: ± 1/16"			SCALE: 1:4
ANGULAR: ±0.50°			
X: ±0.30"			
XX: ±0.10"			
XXX: ±0.05"			
UNLESS NOTED OTHERWISE			
		NAME:	
		KBT-A045	

8 7 6 5 4 3 2 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FIT-T004	Fitting, Union, 1/4", 4AN x Brk	1
2	FIT-H014	Fitting, 45°, 1/4" NPT x Barb	1
3	FIT-B002	Fitting, Union, NPT x Barb	1
4	TUB-0023	Hose, Oil, 1/8" ID	1
5	SLE-0012	Shield, Insultherm, 3/8	1
6	FIT-B050	Fitting, Union, 1/8", Brass	1
7	TUB-0016	Tubing, Heat Shrink, 3/8"	1
8	ZIP-0002	Zip Tie, 4"	1



NOTE:
This assembly requires 18.5" of Item 4, TUB-0023 and 16" of Item 5, SLE-0012

NAME	DATE	TITLE:	SIZE:
DRWN A. Case		2017 Arctic Cat Sidekick Turbo Feed Oil System	B
CHKD			
APPR			
UNLESS OTHERWISE SPECIFIED:		MATERIAL: Varies	SHEET: SHEET 1 OF 1
DIMENSIONS ARE INCHES			SCALE: 1:4
FRACTIONAL: ± 1/16"			
ANGULAR: ±0.50°			
X: ±.030"			
XX: ±.010"			
XXX: ±.005"			
UNLESS NOTED OTHERWISE		NAME: TCH-IA33	