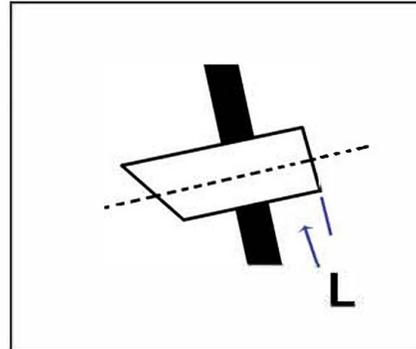
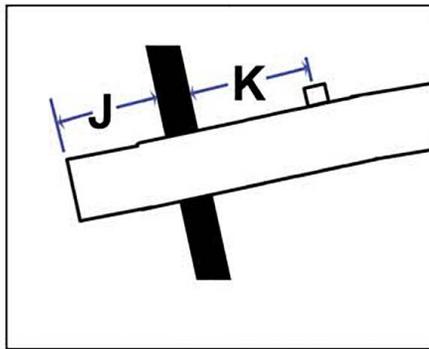


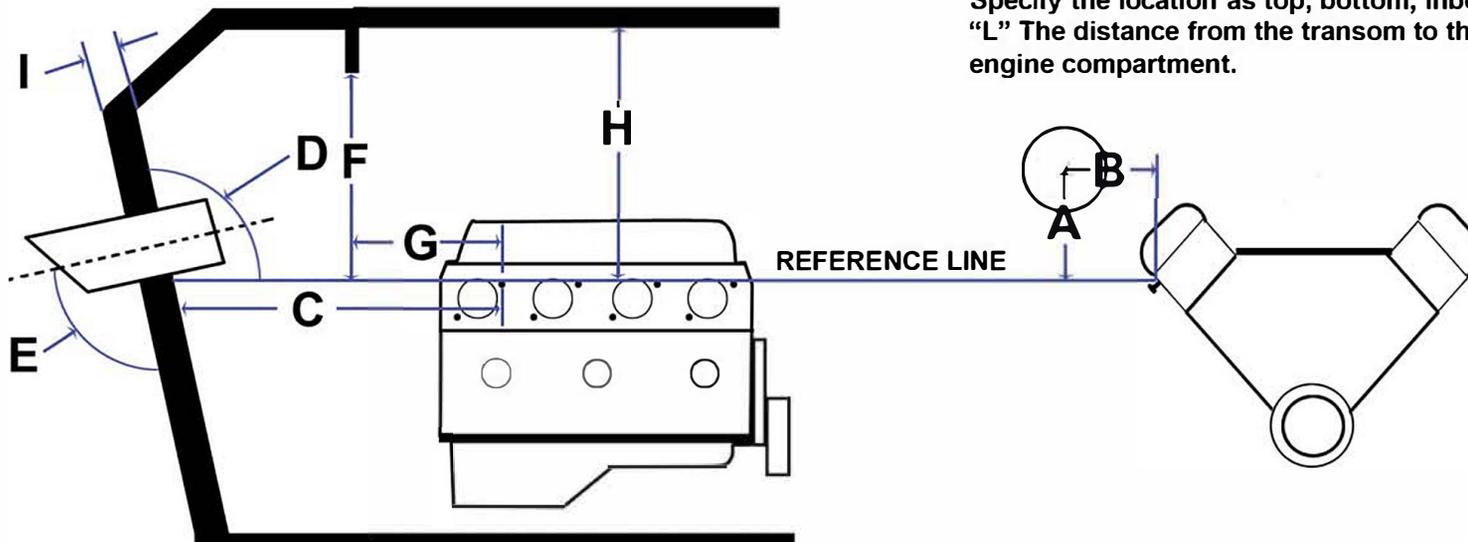
Tailpipe Measurement Sheet for Modified Engines and Thru-Transom Pipes

Install 2" long bolts in the upper exhaust flange mounting holes. Using a straight edge such as 1" angle iron place it on top of the first row of bolts and flush to the cylinder head surface. Extend the straight edge aft until it touches the transom but is still supported by at least 3 of the exhaust mounting bolts. Mark the spot where the transom and the straight edge meet, this will be your reference point for most of the required dimensions. Complete the same procedure on the opposite side of the engine.



Dimension Descriptions:

- "A" The distance from the reference point to the center of the exhaust port (hole) UP or DOWN.
- "B" The distance from the reference point to the center of the exhaust port (hole) INBOARD or OUTBOARD.
- "C" The distance from the top rear exhaust manifold bolt to the transom.
- "D" The angle of the transom relative to the engine.
- "E" The angle of the exhaust tips relative to the transom.
- "F" The distance from the reference line to the hatch frame.
- "G" The distance from the top rear bolt on the cylinder head to the hatch frame.
- "H" The distance from the reference line to the hatch.
- "I" The thickness of the transom.
- "J" The distance the tailpipe should extend past the transom.
- "K" The distance from the transom to the water discharge (outlet) fitting. Specify the location as top, bottom, inboard side or outboard side of pipe.
- "L" The distance from the transom to the end of the exhaust tip inside the engine compartment.



MODIFIED ENGINE THRU TRANSOM CUSTOM TAILPIPE MEASUREMENTS

Name _____ Date _____

Address _____

City _____ State _____ Zip Code _____

Phone _____ Fax _____

CAUTION - Please Triple Check your measurements. Your tailpipes will be built to your specifications below. Hardin Marine is not responsible for tailpipes that do not fit due to incorrect measurements. Additional charges may be incurred should alteration or replacement be necessary.

Single or Port Engine

Port Pipe Stbd. Pipe

- | | | |
|----|-------------------|-------|
| A. | _____ Up or Down? | _____ |
| B. | _____ In or Out? | _____ |
| C. | _____ | _____ |
| D. | _____ | _____ |
| E. | _____ | _____ |
| F. | _____ | _____ |
| G. | _____ | _____ |
| H. | _____ | _____ |
| I. | _____ | _____ |
| J. | _____ | _____ |
| K. | _____ | _____ |
| L. | _____ | _____ |

Stbd Engine

Port Pipe Stbd. Pipe

- | | | |
|----|-------------------|-------|
| A. | _____ Up or Down? | _____ |
| B. | _____ In or Out? | _____ |
| C. | _____ | _____ |
| D. | _____ | _____ |
| E. | _____ | _____ |
| F. | _____ | _____ |
| G. | _____ | _____ |
| H. | _____ | _____ |
| I. | _____ | _____ |
| J. | _____ | _____ |
| K. | _____ | _____ |
| L. | _____ | _____ |

Customer Signature