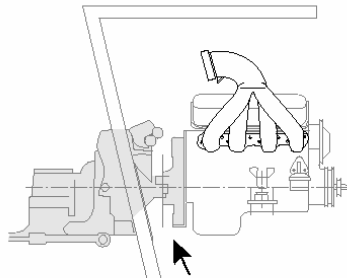
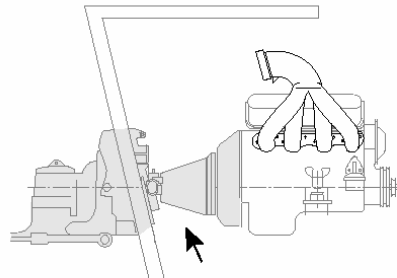


# 1

**BRAVO DRIVE OR TRANSMISSION**



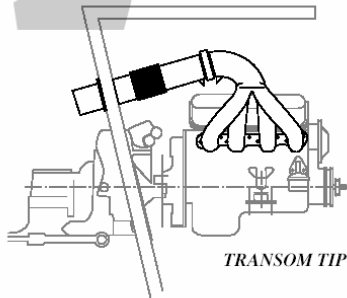
*BRAVO DRIVE*



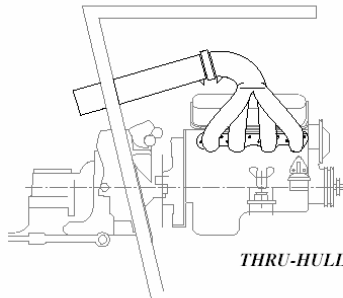
*TRANSMISSION*

# 2

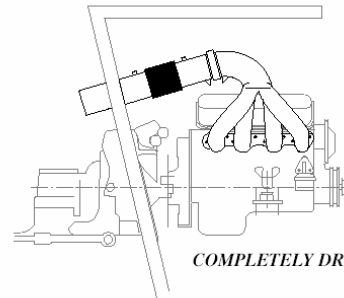
**TRANSOM TIP, THRU-HULL OR COMPLETELY DRY**



*TRANSOM TIP*



*THRU-HULL*

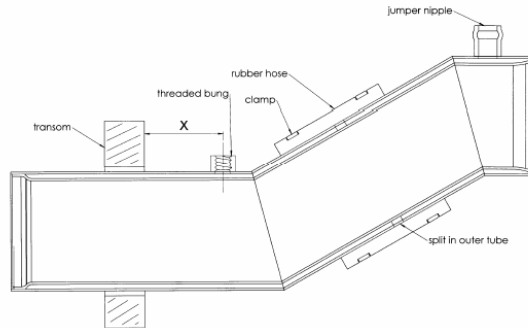


*COMPLETELY DRY*

See detail on next page.

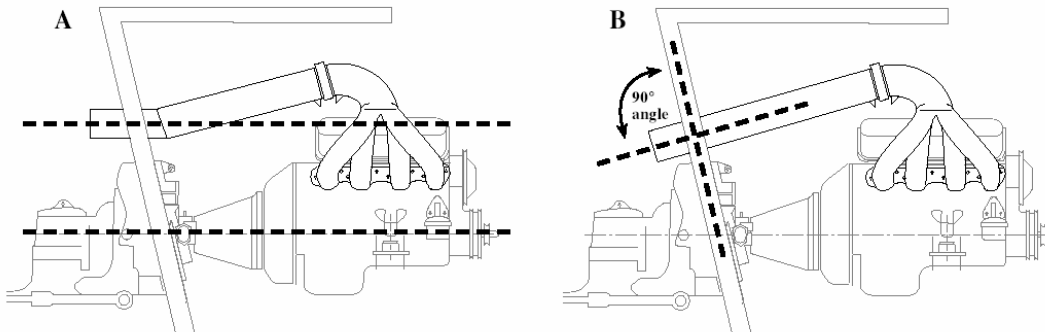
	DESCRIPTION	ADVANTAGE	DISADVANTAGE
TIP-STYLE	Cooling water and exhaust gasses are mixed together just inside the transom. The Tip-Style tailpipe connects to a single wall transom tip with a rubber hose.	Tip-Style tailpipes are the most common type of tailpipe, usually provided with engine package from OEM. Typically Tip-Style tailpipes are the lowest in price and the quietest of the different styles of tailpipes.	Mixing water close to the motor could result in water reversion in higher horsepower motors.
THRU-HULL	Cooling water and exhaust gasses are mixed together outside the transom. No separate transom tips are needed.	Thru-Hull tailpipes will typically produce more horsepower. Thru-Hull style tailpipes also have less of an opportunity for water reversion.	Exact transom hole measurement are critical for a proper fit.
COMPLETELY DRY	Cooling water and exhaust gasses do not mix. Cooling is routed out a dump hose to the outside of the boat away from the system. Because of metal expansion and contraction a split is applied to the outside tubing. This split is covered by a rubber hose to eliminate any opportunity for metal fatigue.	Virtually eliminate any opportunity for water reversion and produces the highest horsepower.	Require additional plumbing for through hull applications.

### COMPLETELY DRY TAILPIPE



### 3 PARALLEL VS. PERPENDICULAR

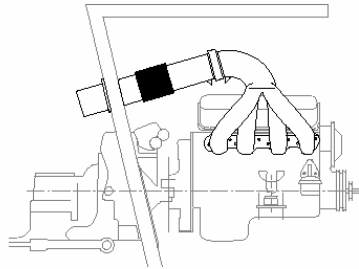
Illustration **A** represents a parallel tailpipe exit. The tailpipe tip is exiting the boat parallel to the crankshaft line. Illustration **B** represents a perpendicular (90° angle) tailpipe exit. The tailpipe tip is exiting the boat perpendicular to the transom angle.



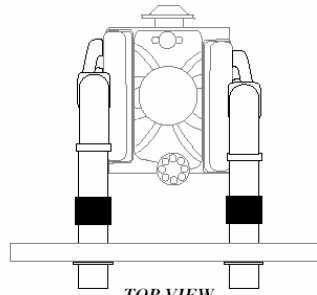
# 4

## STRAIGHT, ONE ANGLE, TWO ANGLE & S-PIPE

**STRAIGHT PIPE**

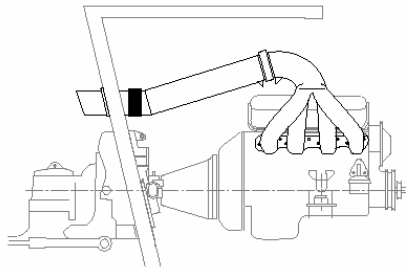


*SIDE VIEW*

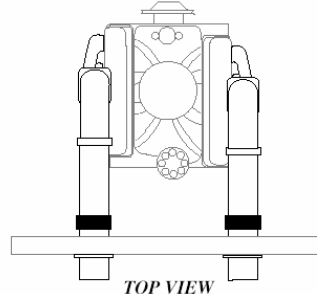


*TOP VIEW*

**ONE ANGLE PIPE**

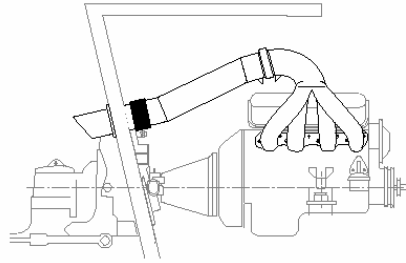


*SIDE VIEW*

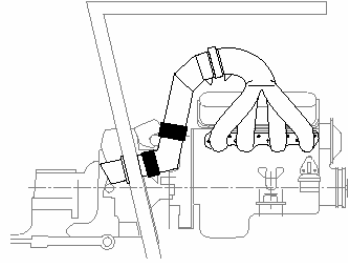


*TOP VIEW*

**TWO ANGLE PIPE & CUSTOM PIPE**

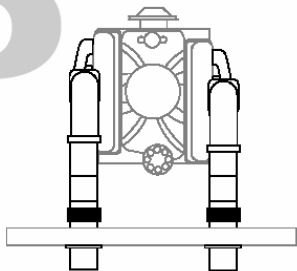


**S-PIPE**

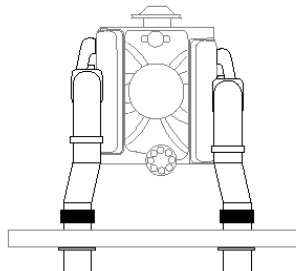


# 5

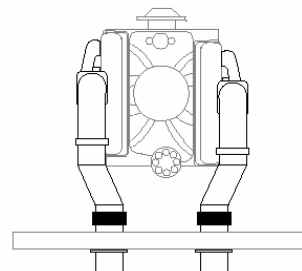
## OFFSET DIRECTION



*STRAIGHT*



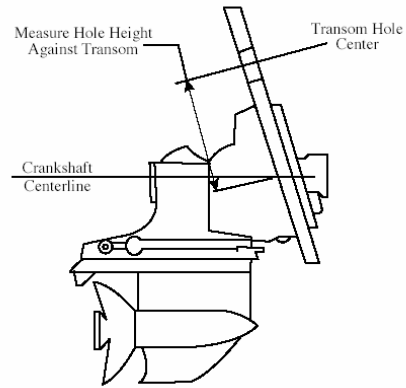
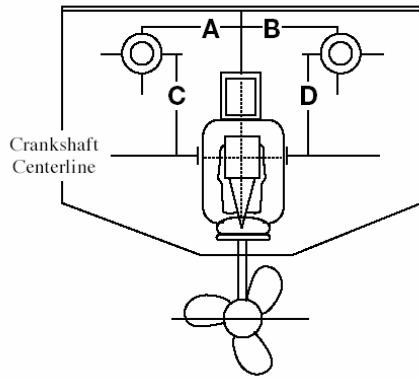
*OUTBOARD OFFSET*



*INBOARD OFFSET*

## HOW TO MEASURE HOLE HEIGHT CMI TAILPIPE MEASUREMENT GUIDE

All vertical dimensions are for standard height manifolds and taken on the outside of the transom with ruler flat against transom. CMI requires precise measurements to ensure system fit. Plus or minus transom measurements indicate minimum and maximum dimensions in which tailpipe transom holes may be specified. Radius angles versus mitered angles will be an additional \$300 charge. See Measurement Guide for instructions to measure tailpipe installation.



**CORRECT MEASUREMENT METHOD**