Stress, forces, and thrust potential of an experimental 8-radial propulsion device.

Figures A, B, C, D are described and shown in Illustration 1.

Figure A: Center Point of a Rotating Mechanism

Figure A represents the center point for a rotating mechanism. It is assumed that the center point A of the mechanism is driven by a motor that is fixed to a stable platform.

Figure B: Rigid Shaft

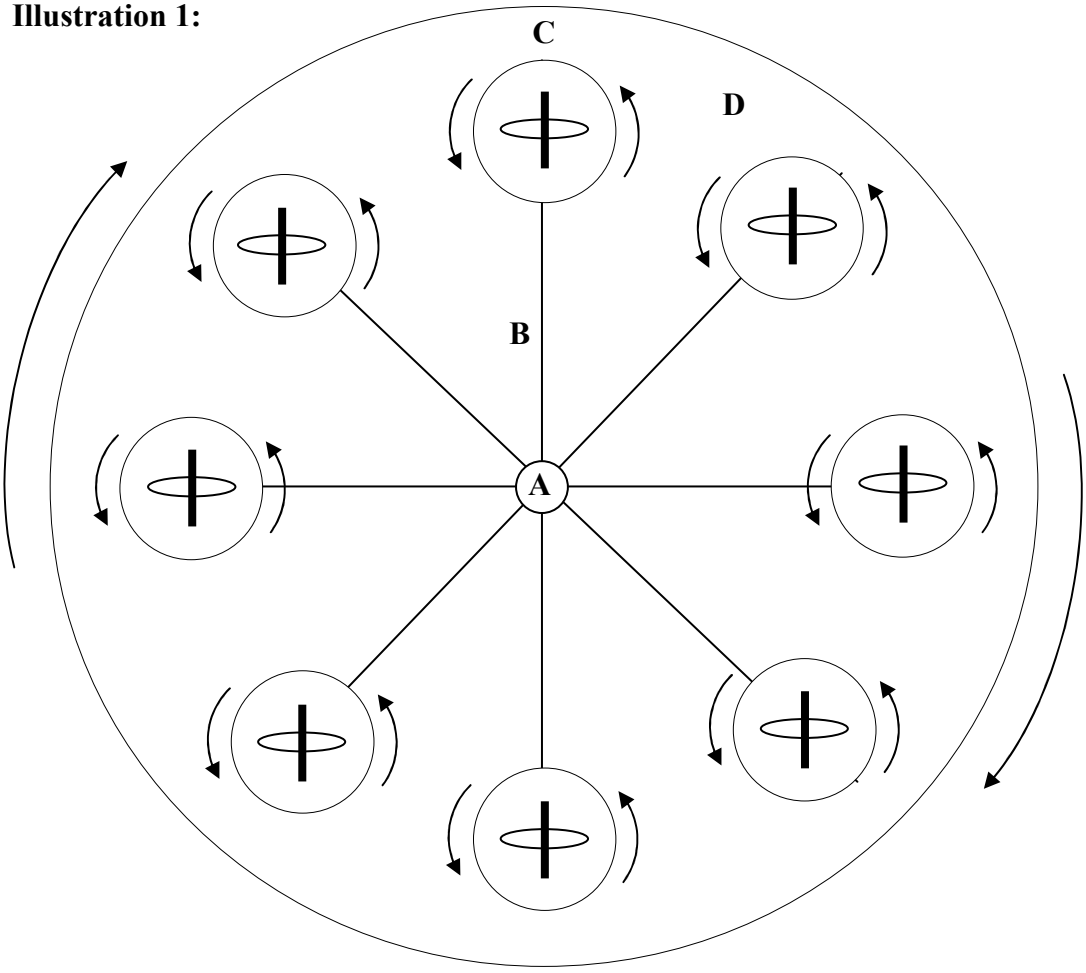
Figure B represents a rigid shaft that connects point A and axis C.

Figure C: Independent Axis providing Torque (gyro)

Figure C represents an independent axis connected to shaft B that maintains its own orientation regardless of the orientation of point A or shaft B. Axis C has a property of resisting any movement against its axis and therefore maintains its orientation even if forces are exerted against it. The torque created by the gyro's axis is the most important feature in the operation of the propulsion system. This property of axial resistance (torque) can be obtained either by magnetic forces or by creating gyroscopic forces around the axis of C.

Figure D: Turntable that mounts the propulsion body

Illustration 1:



Explanation of Movement:

Illustration 1 shows a turntable rotating counterclockwise. Within the turntable are 8 torque producing devices (gyros) that maintain axial direction regardless of their position throughout the rotation of the turntable. Due to a gyroscope's angular momentum, each gyro (torque producing device) will maintain its axial orientation of 180/360 degrees. As each gyro passes 270 degrees in the rotation of the turntable, the gyro's housing that allows the free movement will momentarily lock to the connecting shaft creating torque on the body of the turntable. As the turntable continues to rotate a few more degrees, torque is produced onto the turntable by the gyro as the gyro attempts to maintain its 180/360 degree orientation. The torque exerted onto the turntable will momentarily drive the entire body of the turntable in the direction the gyro is moving as it's locked. The locking and unlocking of each gyro's housing will occur as each gyro passes the 270 degree point and will unlock at the 280 degree point. The locking and unlocking of each

gyro's body can only occur for a few degrees in the turntable's rotation or a dramatic slowing of the turntable will occur. The turntable is designed to maintain a constant speed. It is also important to note that the gyro's spin axis maintains a constant speed so it's always ready to provide torque when its housing is locked to the turntable.

Illustration 2 is a cross-section of Illustration 1 showing one torque device (gyro), the connecting shaft, and the center of rotation. Illustration 2 shows the movement of the entire body when axis C is momentarily locked to shaft B. If the two bodies are locked together for a brief moment at 180 degrees, then shaft B will be forced to maintain the orientation of axis C and point A will be forced into linear movement. Since axis C has mass and rotational velocity, the entire body will be pulsed in the direction of 270 degrees. This locking and unlocking occurs during each rotation for a brief moment at the exact same location (180 degrees) in the rotation. This causes movement to the entire body of the device as shown in Illustration 2a.

Illustration 2:

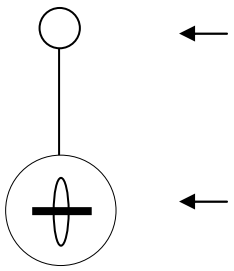
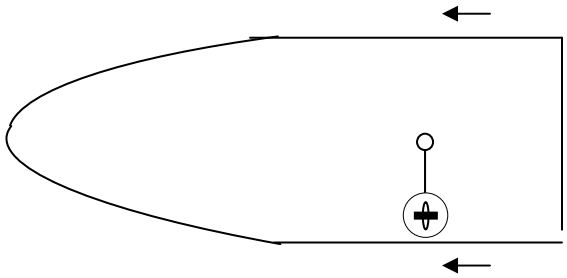


Illustration 2a: Mounted in a boat hull



Understanding the Propulsion Forces:
(How thrust is created)

Axis C gains rotational forces due to its mass as it rotates around point A. These forces increase as rotational speeds increase. Axis C maintains its axial orientation due to a gyroscope's angular momentum. At any degree of the rotation, the connecting shaft B and axis C can be locked together creating torque down shaft B to center point A. When this happens, a movement of the entire body will occur. A few degrees later in the rotation, axis C is unlocked allowing axis C to freely rotate around point A again without resistance until the next pass when it is locked again to create a pulsing forward thrust. Since axis C can be locked at any degree of the rotation and unlocked a few degrees later, the direction of the body can be driven in any direction by simply changing where in the rotation the lock/unlock pulsing occurs. A separate device rotating in the opposite

direction could be used as anti torque if a stable foundation is not available, such as the hull of a boat or the body of a vehicle.