

#### SERVICE MANUAL FOR CIRCLE DYNAMICS INC.

## DPT4 – DOYLE PAIL MOUNT MIXER DRIVE WITH (SOLID w/ 3/4" INLET STUBS) LID

#### WARNING

This product is intended for use in an industrial mix room environment. It is the user's responsibility to ensure that all forms of external energy are removed from the product prior to servicing to eliminate the risk of being injured by rotating parts during service.

## **FAILURE MODES**

This product is only to be used in accordance with Circle Dynamics instructions for use and applications. Any other application may result in serious injury.



## **INSTALLATION** (Refer to Fig. 1)

Fig. 1 (DPT2 Lid shown)

- Remove setscrews (3) from drive coupling (2). Install Loctite 242 (loctite blue) onto setscrews (3)
- Install *setscrews* (3) into *drive coupling* (2).
- Align *setscrew* (3) in *drive coupling* (2) with flat on air motor.
- Slide drive coupling (2) onto motor drive shaft. Tighten setscrew (3) onto motor drive shaft.
- Align mounting holes of *DPT2 housing* (1) over the mounting holes of the *DPT2 lid* (7).
- Install *lock washer* (9) and *washer* (8) onto *bolt* (10) and install *bolt* (10) through the mounting holes of the *DPT2 lid* (7) and tighten into *DPT2 housing* (1)
- Install *DPT2 shaft and prop* (4) through the shaft hole of the *DPT2 lid* (7) and into the *Drive coupling* (2). Align *set screw* (3) with the flat of the shaft. Tighten *setscrew* (3) onto *DPT2 shaft and prop* (4).

Connect air supply to appropriate port and adjust flow control to set speed.

#### REBUILD INSTRUCTIONS FOR CIRCLE DYNAMICS DPT DRIVE UNIT

#### DISASSEMBLY

- 1) Disconnect any energy source and remove motor / DPT2 assembly from the pail.
- 2) Loosen off *setscrew* (3) from *shaft and prop* (4). Remove *shaft and prop* (4).
- 3) Remove *bolt* (10) *washer* (8) and *lock washer* (9) from the assembly and remove *DTP2 lid* (7)
- 4) Remove *bolt* (6) and *washer* (5) from the *DTP2 housing* (2). Pull housing away from the motor.
- 5) Loosen off *set screw* (3) from air motor. Pull off Drive *coupling* (2).



Fig. 2 (DPT2 Lid shown)

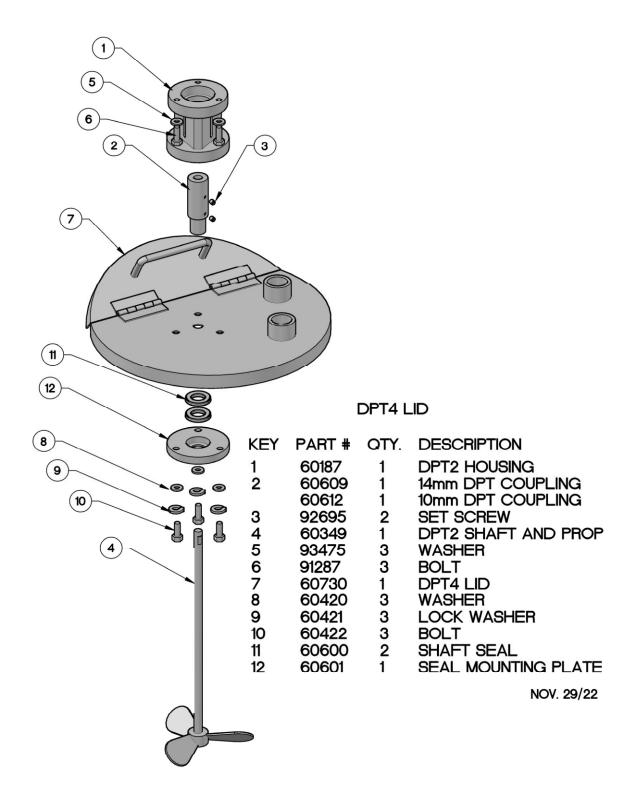
# **ASSEMBLY** (refer to fig.3)

- 1. Install Loctite 242 (Loctite blue) onto setscrews (3)
- 2. Install setscrews (3) into drive coupling (2).
- 3. Align setscrew (3) in drive coupling (2) with flat on air motor.
- 4. Slide *drive coupling* (2) onto motor drive shaft. Tighten *setscrew* (3) onto motor drive shaft.
- 5. Slide *DPT2 housing* (1) onto motor.

**NOTE:** Be sure to have the orientation of the housing correct → none threaded mounting holes against the lower motor housing).

- 6. Rotate the drive housing until the three mounting holes (none threaded) line up with the air motors mounting holes.
- 7. Install mounting bolts (6) and washers (5) and tighten securely.
- 8. Align mounting holes (threaded) of *DPT2 housing* (1) over the mounting holes of the *DPT2 lid* (7).
- 9. Install *lock washer* (9) and *washer* (8) onto *bolt* (10) and install through the mounting holes of the *DPT2 lid* (7) and tighten into *DPT2 housing* (1)
- 10. Install *DPT2 shaft and prop* (4) through the shaft hole of the *DPT2 lid* (7) and into the *Drive coupling* (2). Tighten *setscrew* (3) onto *DPT2 shaft* (4).

Refer to installation instructions for assembly to Air Motor.



## TECHNICAL DATA

Maximum Speed: 1100 RPM

Housing: Anodized Aluminum

Shaft and prop: 304 S.S.

Lid: 304 S.S.

Drive coupling: 303 S.S.

## THE CIRCLE DYNAMICS INC. WARRANTY AND DISCLAMERS

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Patent Pending
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