Table (2.4) the forces and moments on the rotor blade [4]

	Forces			Moments	
	F_a	F_t	F_r	M_a	M_t
Torque	---	$\frac{T_b \times J_b}{I_b}$	------	-----	-----
Thrust	$\overline{F_a}$	-----	------	------	$\frac{2}{3} \times \overline{F_b} \times R$
Weight	----	$-m \times g \times \sin\theta$	$m \times g \times \cos\theta$	$-m \times g \times L \times \sin\theta$	------
Inertia	$2 \times \Omega_z \times \omega \times J_b \times \cos\theta$	$\frac{1}{2} \times \Omega_z^2 \times J_b \times \sin(2 \times \theta)$	$\omega^2 \times J + \Omega_z^2 \times \sin\theta$	$\frac{1}{2} \times \Omega_z^2 \times I_b \times \sin(2 \times \theta)$	$2 \times \omega \times \Omega_z \times I_b \times \cos\theta$
Pump force	----	$-\frac{1}{2} \times \frac{F_b \times S \times J_b}{B \times I_b} \sin(\theta + \theta_b) - (1)$ 0 (2)	------	$-\frac{F_b \times S}{2 \times B} \sin(\theta + \theta_b) - (1)$	----

$(1) -0\angle\theta+\theta_b\angle\pi$

$(2) -\pi\angle\theta+\theta_b\angle 2\pi$