```
A = [ -4166.67,   4166.67,    0;
       2500.00,  -2500.00, -100;
          0.00, 109890.10,    0];

B = [83.33;
     50.00;
      0.00];

%C = [1 0 0;
%      0 1 0;
%      0 0 1]

%D = [0; 0; 0];

C = [25, -25, 0];
D = [0.5];

% solve system and system->tf
system = ss(A, B, C, D);
H      = tf(system);

% plot: impulse, step, and bode plots
subplot(2, 1, 1);
impulse(H);
grid on;

subplot(2, 1, 2);
step(H);
grid on;

%subplot(4, 1, [3, 4]);
figure;
bode(H);
grid on;
```