



Fig. 2.9. Machine drawing of the impeller, volute, internal balance, eccentric drive, pump housing and external balance assembly of the Rotor Force Test Facility. Pump housing (1); volute (2); inlet connection (3); inlet bell (4); impeller (5); internal balance (6); proximity probes (7); eccentric drive mechanism: outer bearing carrier (8), inner bearing carrier (9), main shaft (10), orbiting motion sprocket (11) and bearings (12,13); external balance: flexure face (14), flexure elements (15) and axial flexures (16); bellows (17); bolts linking floating system and ground (18); spacers (19); impeller front face seals (20) and back face seals (21); eccentric drive inner face seals (22) and outer face seals (23).
 Note: The system is shown in its caged position. Removal of bolts (18) and spacers (19) will make unit float (see also text).