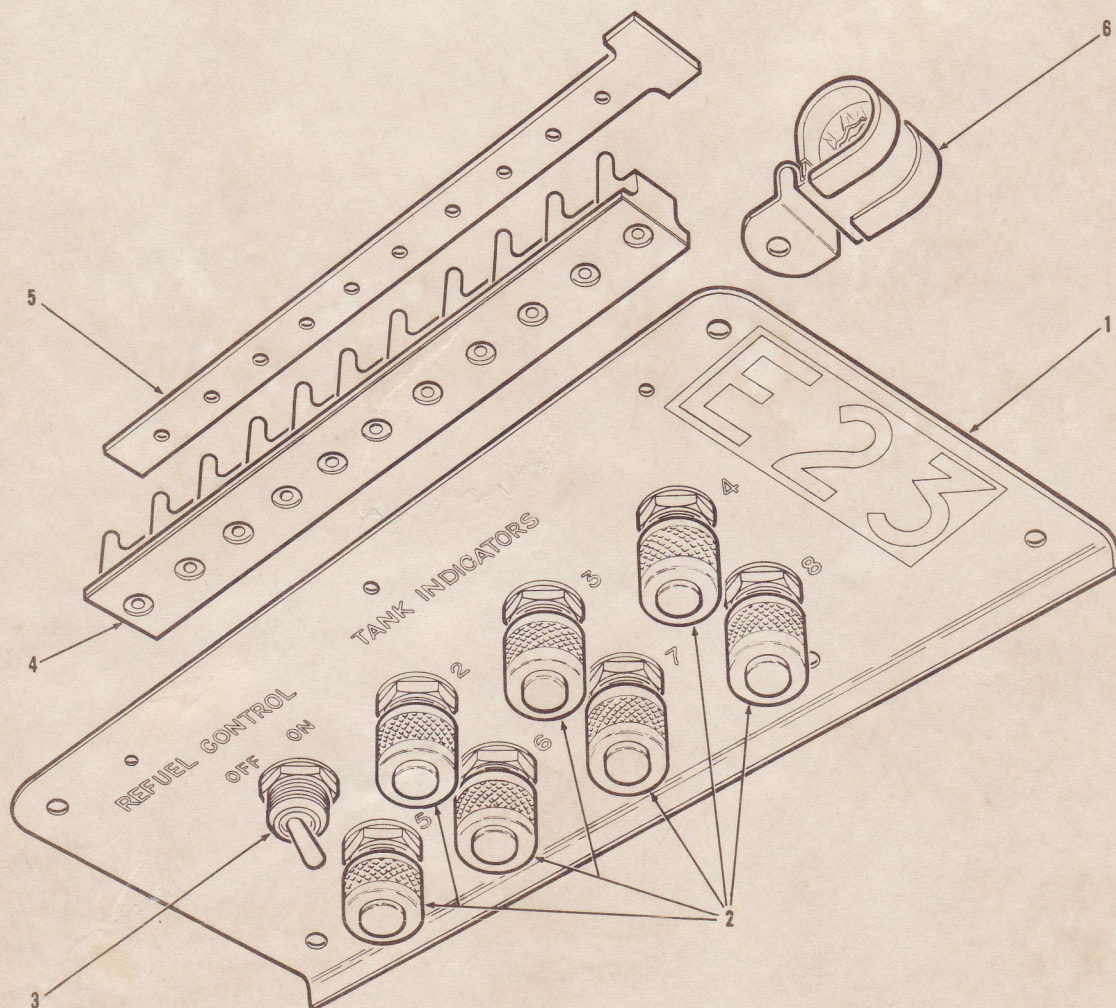
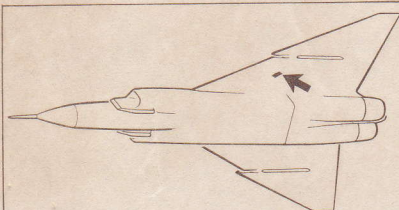
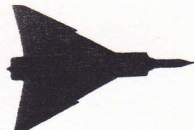
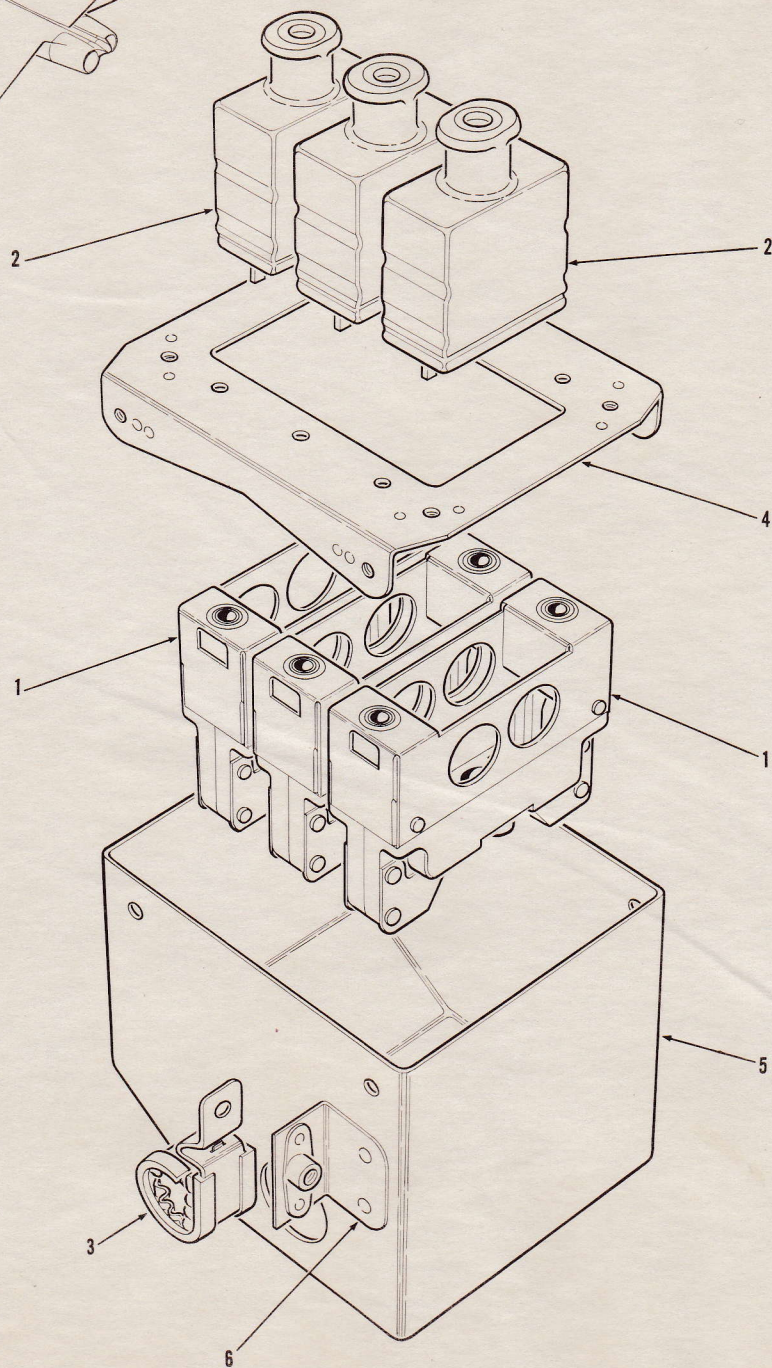
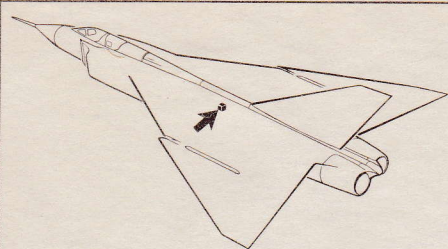
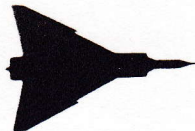
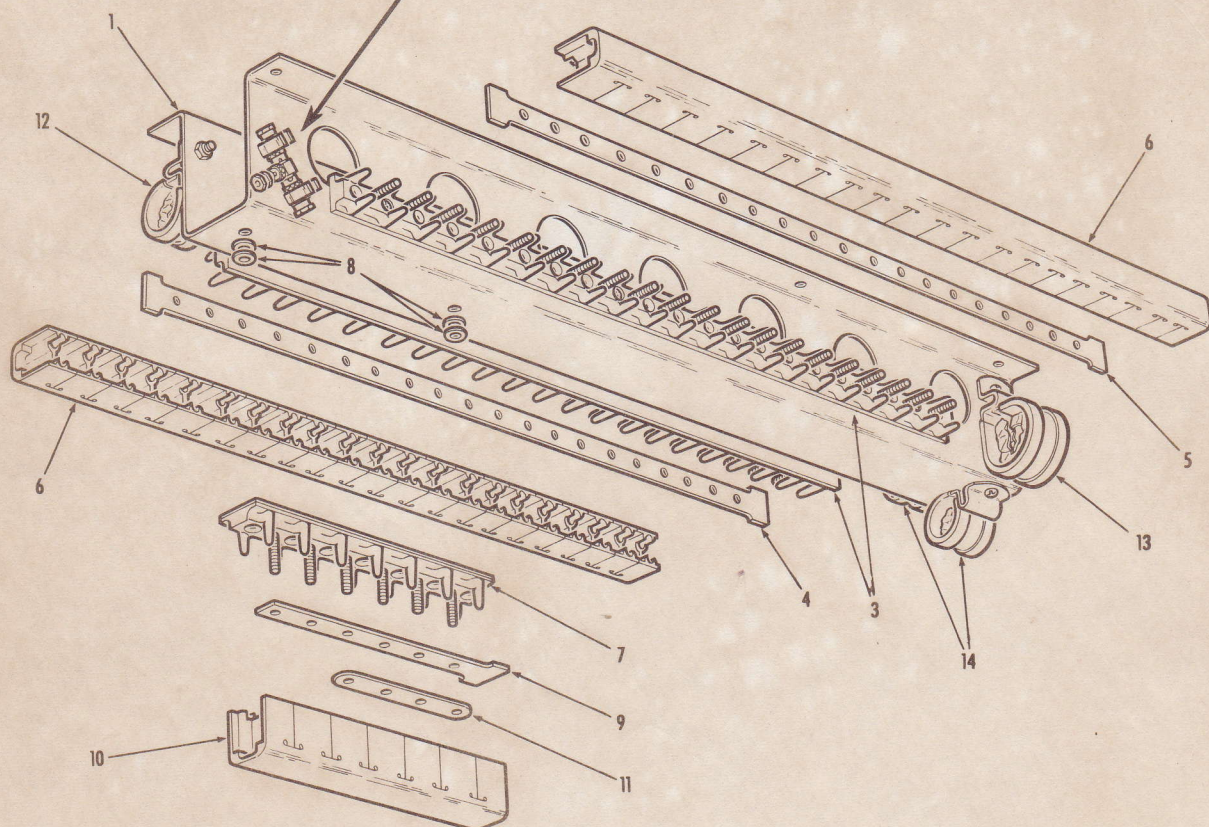
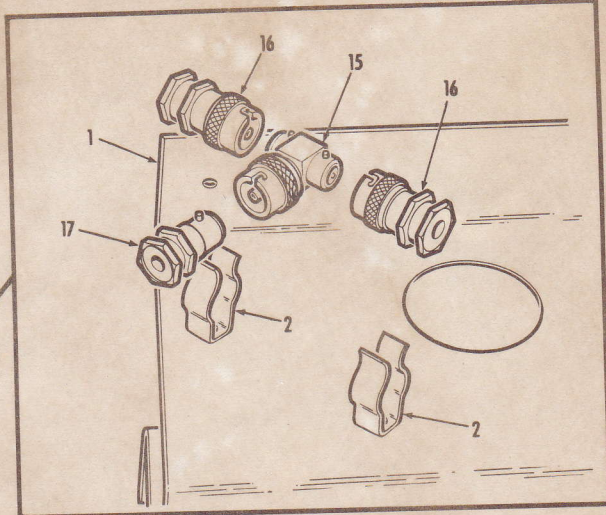
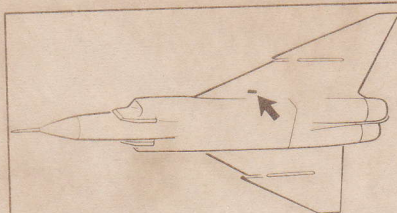
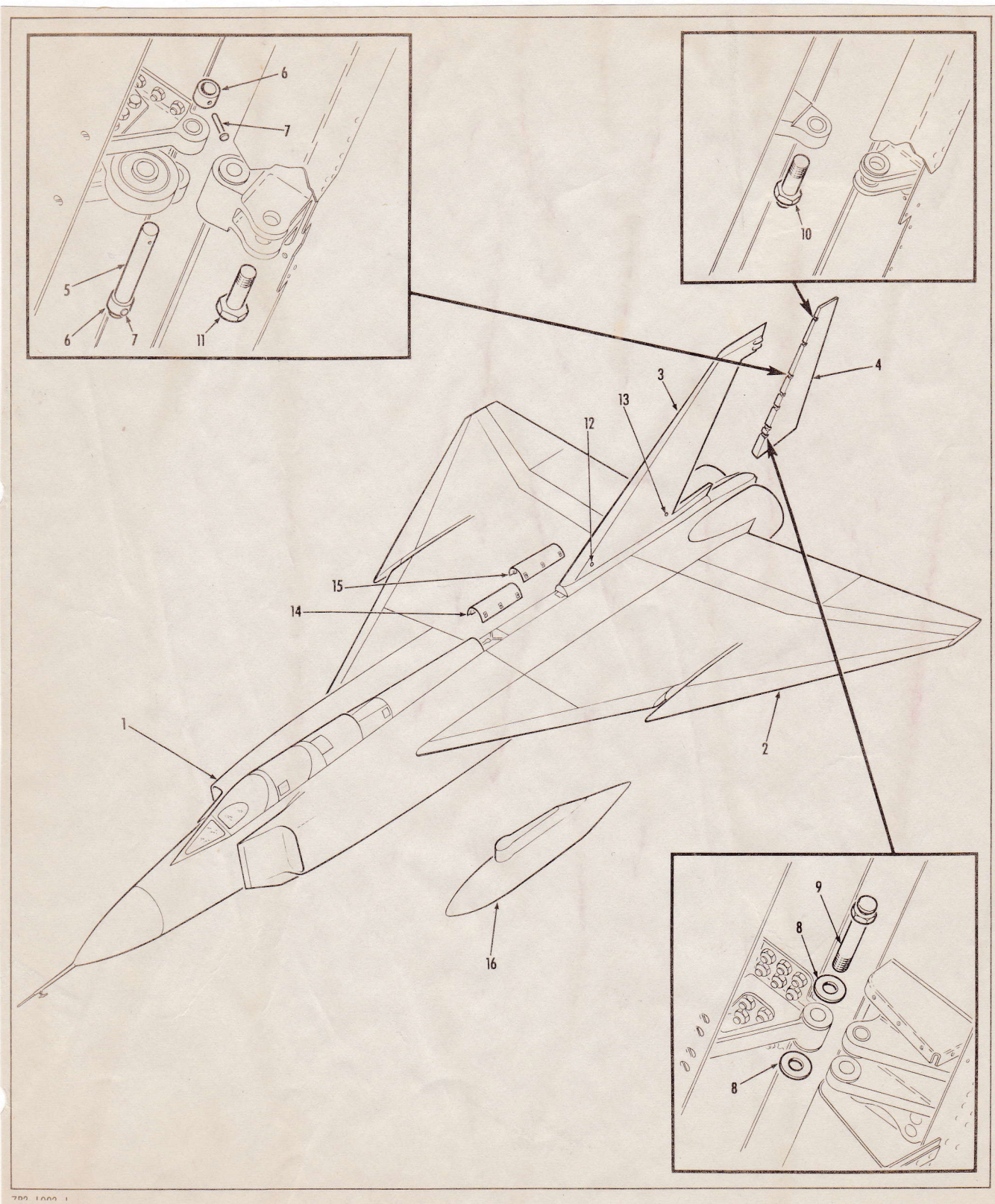
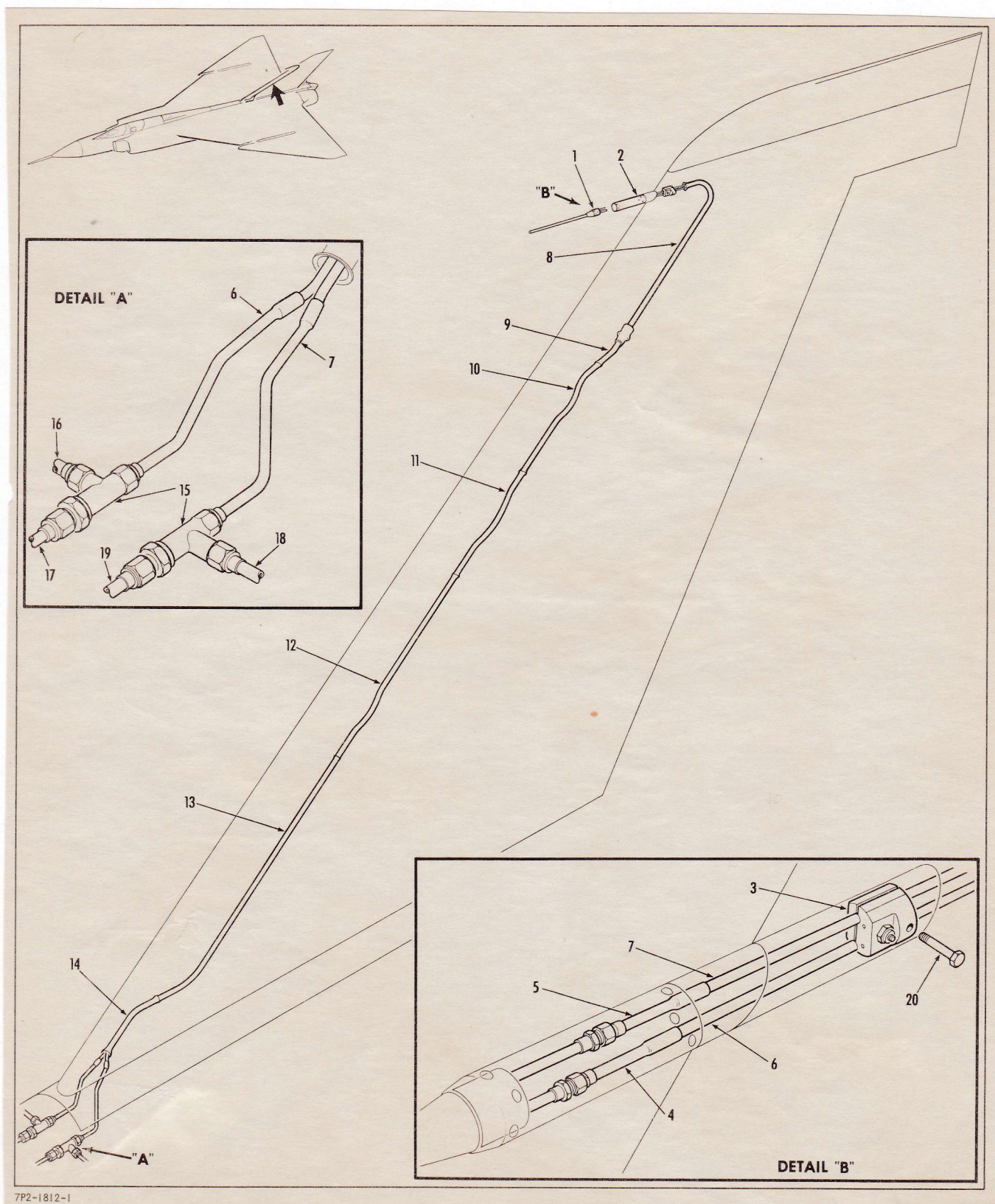
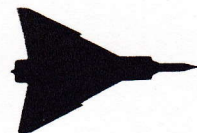


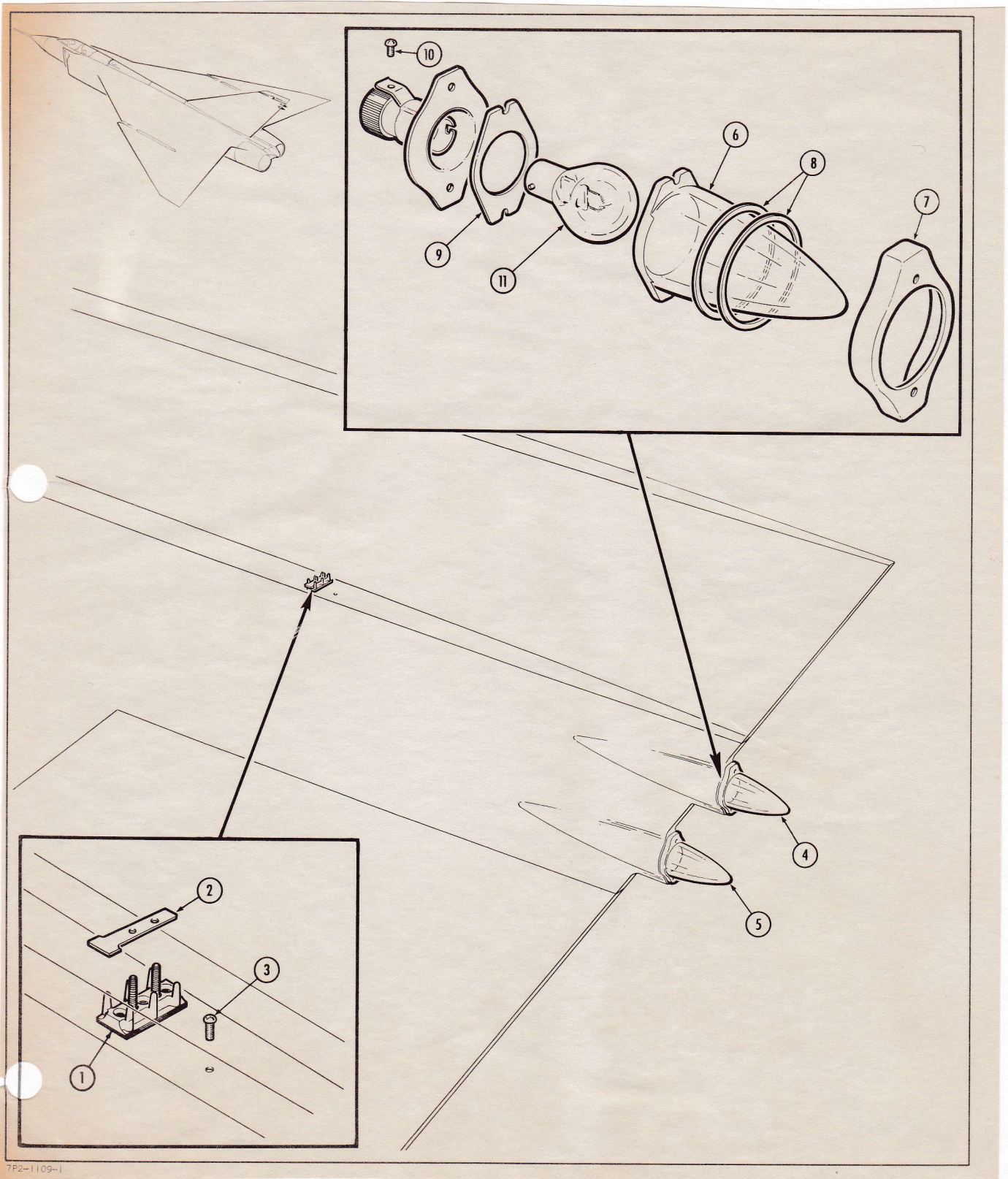
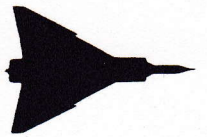


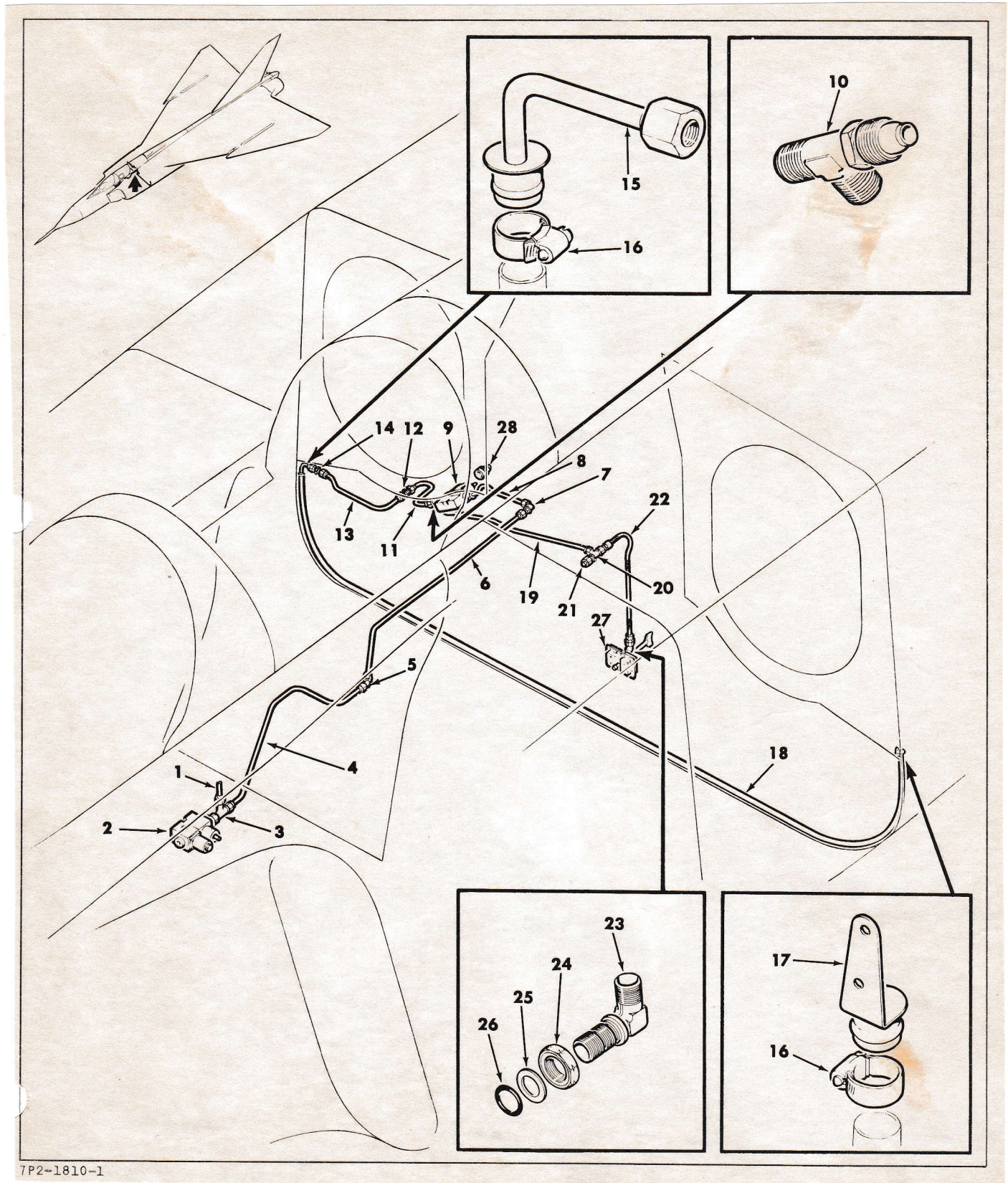
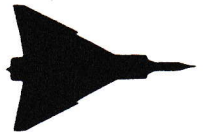


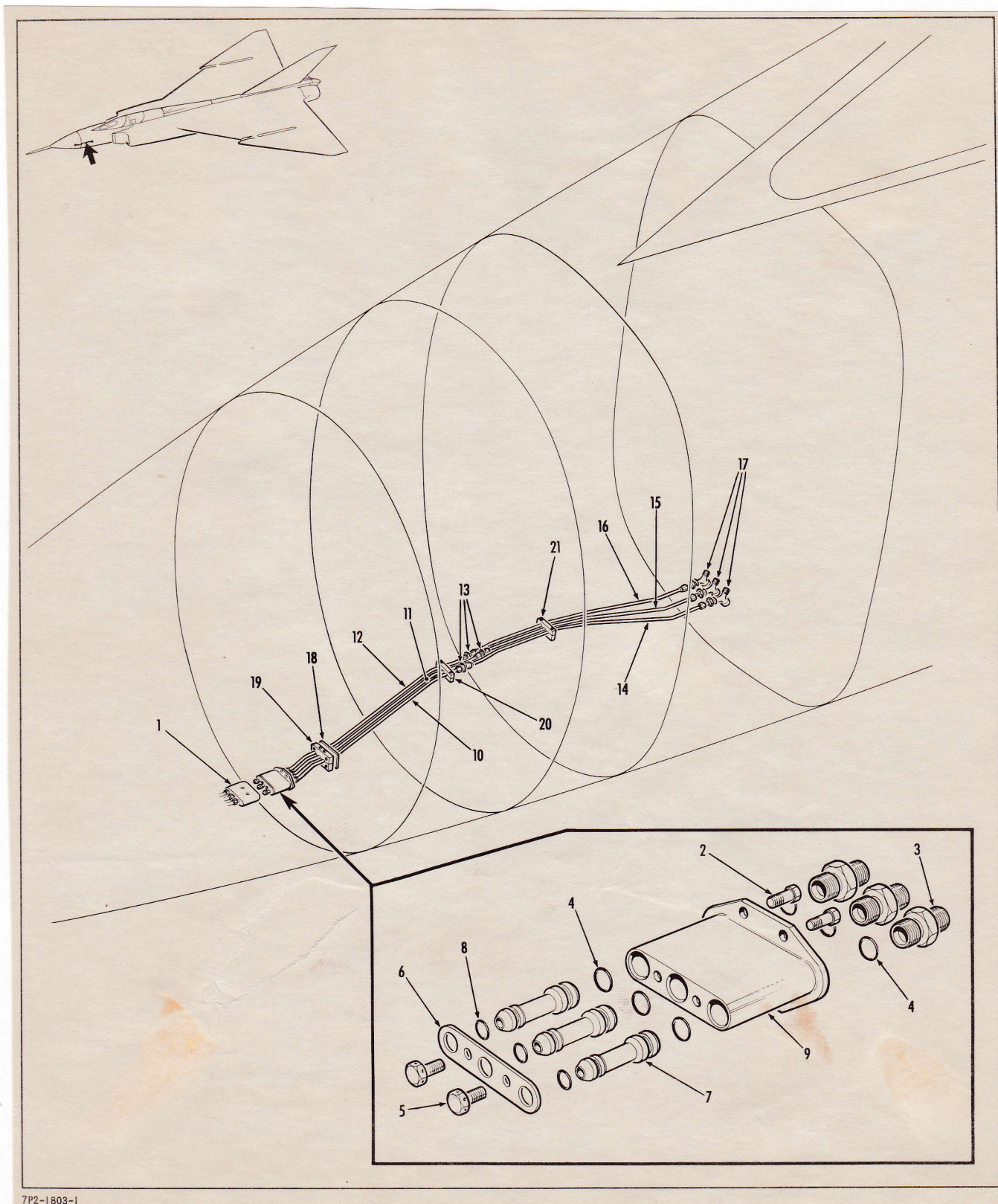


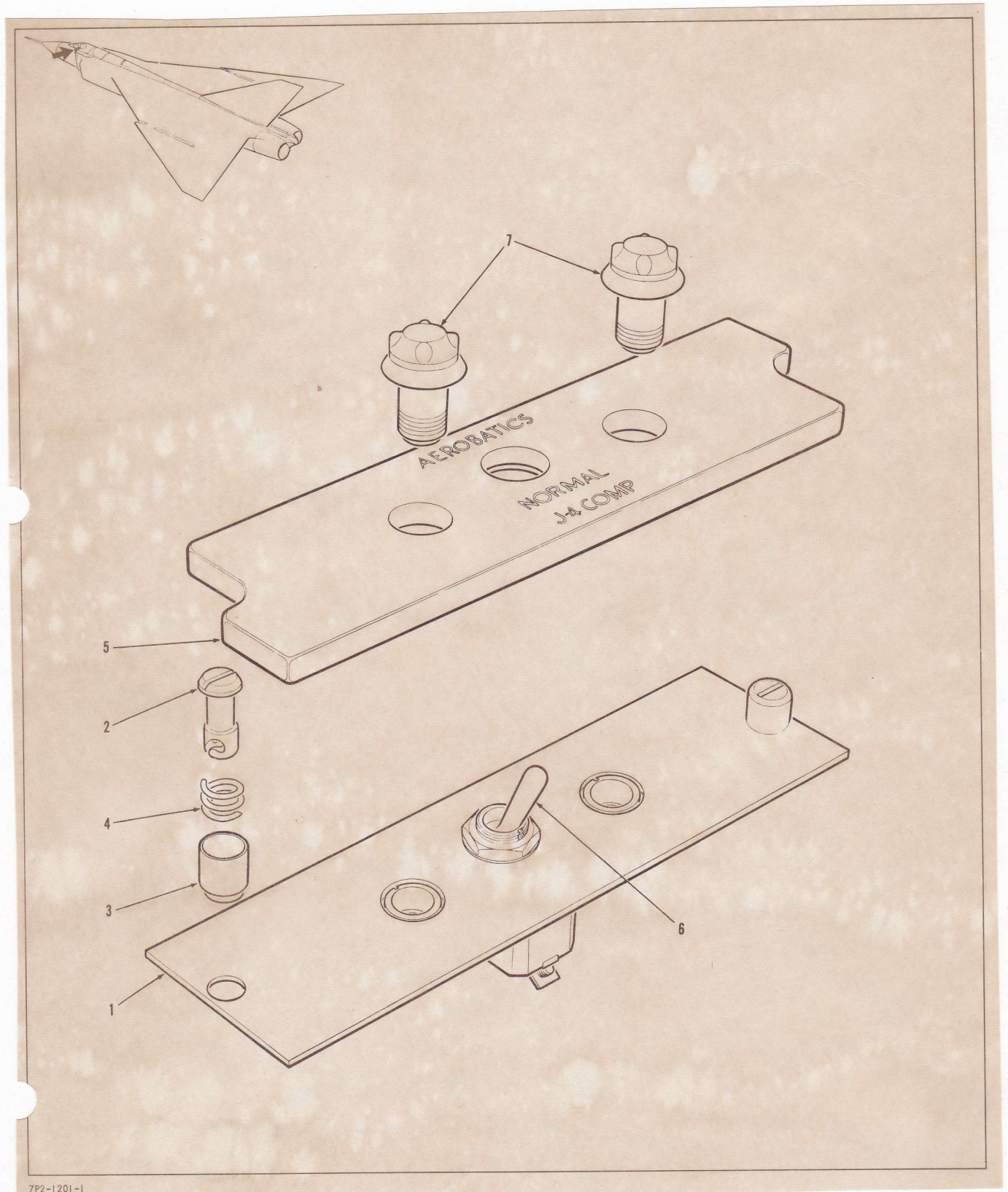
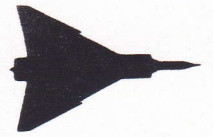


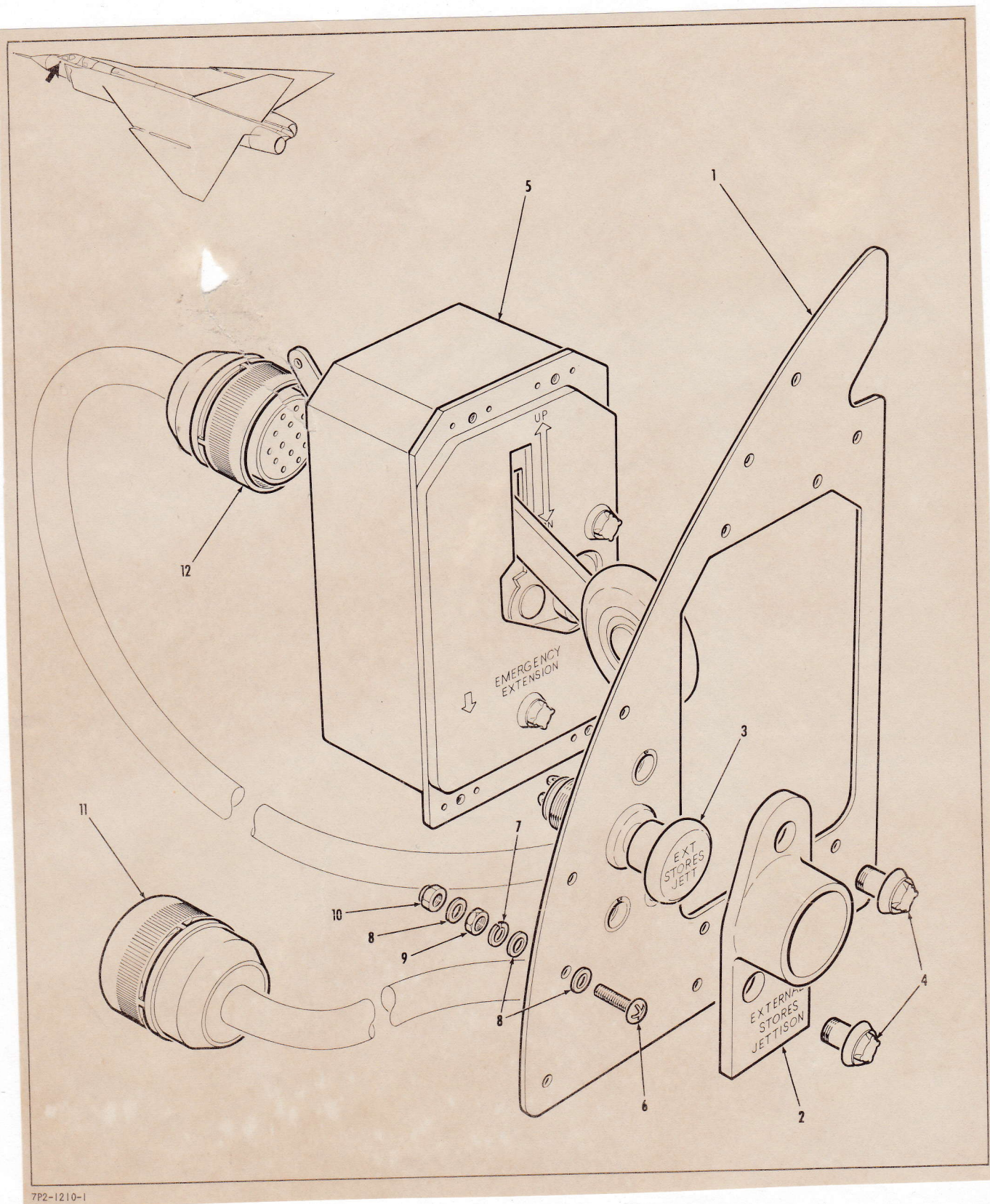
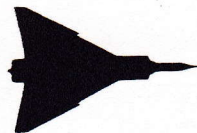


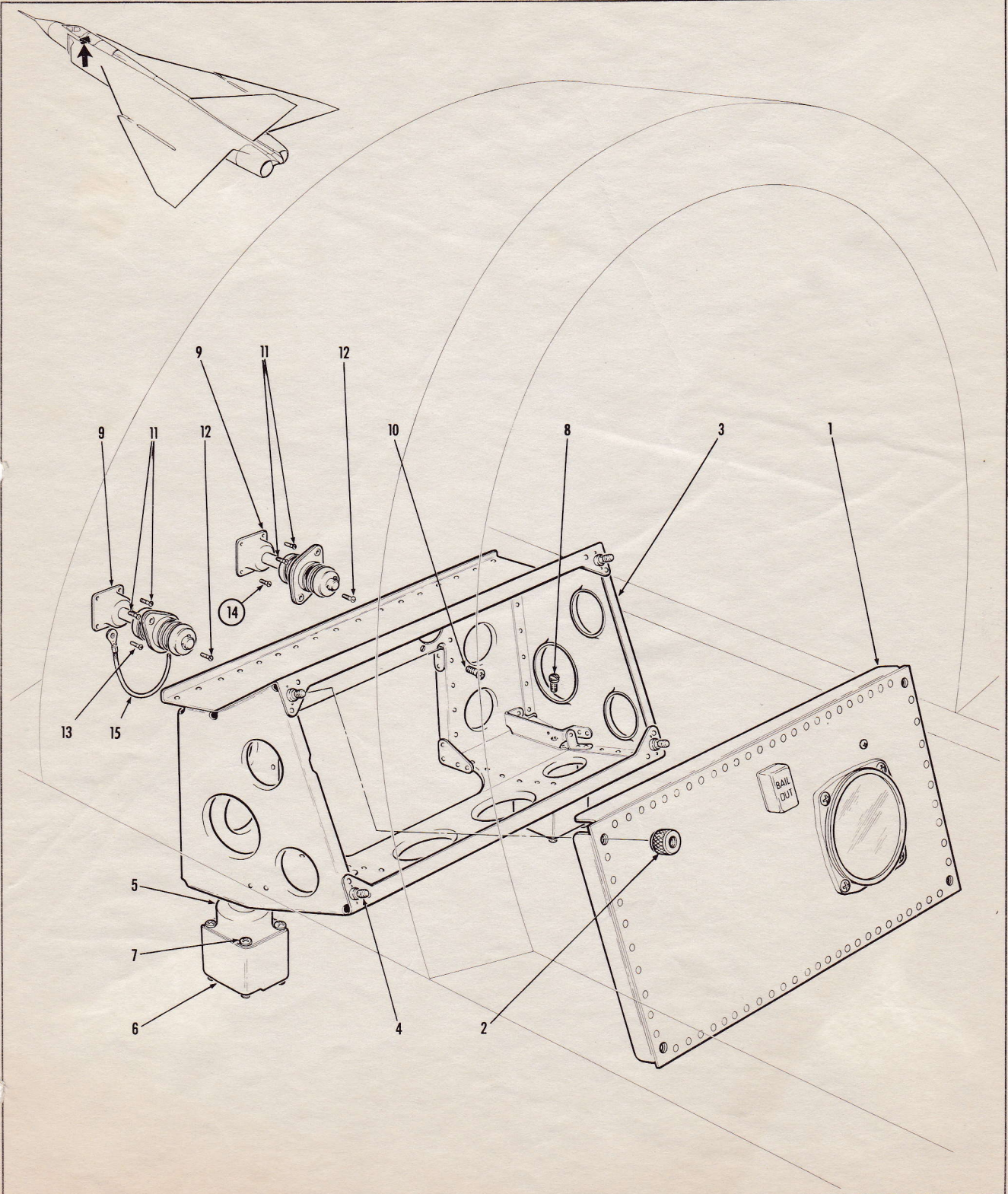


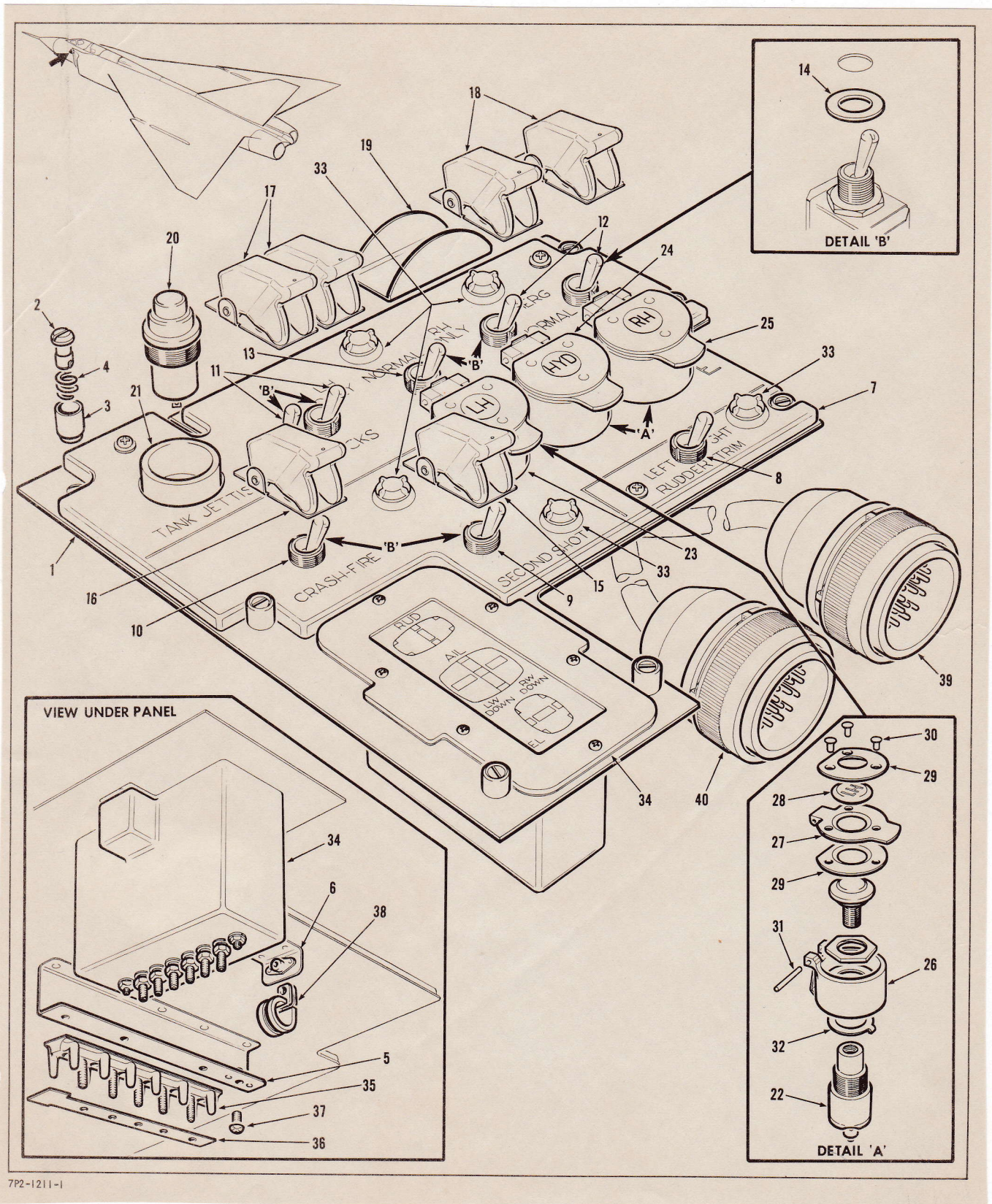
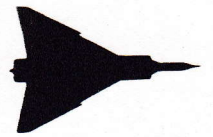


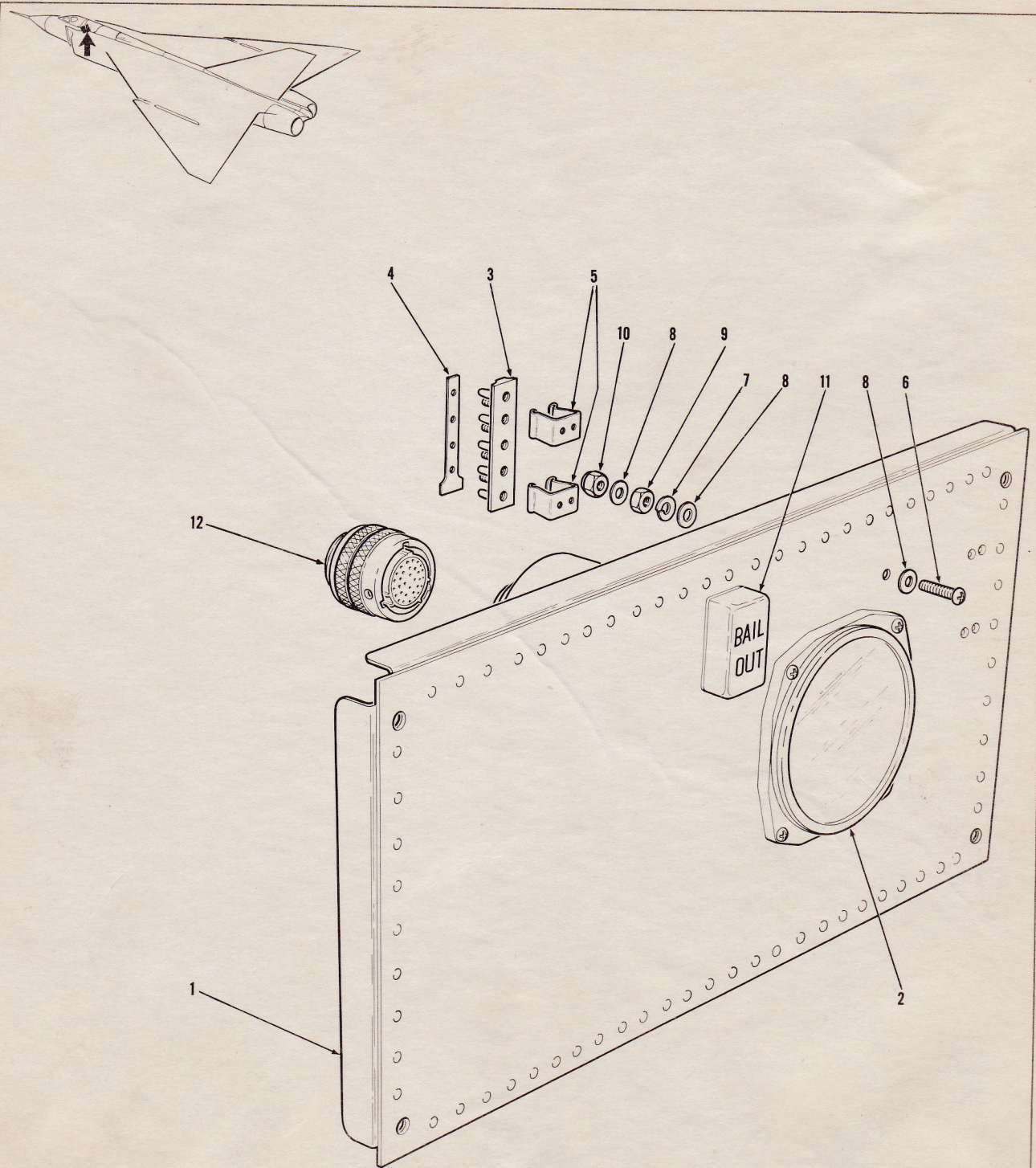
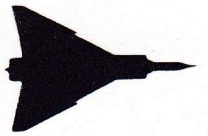


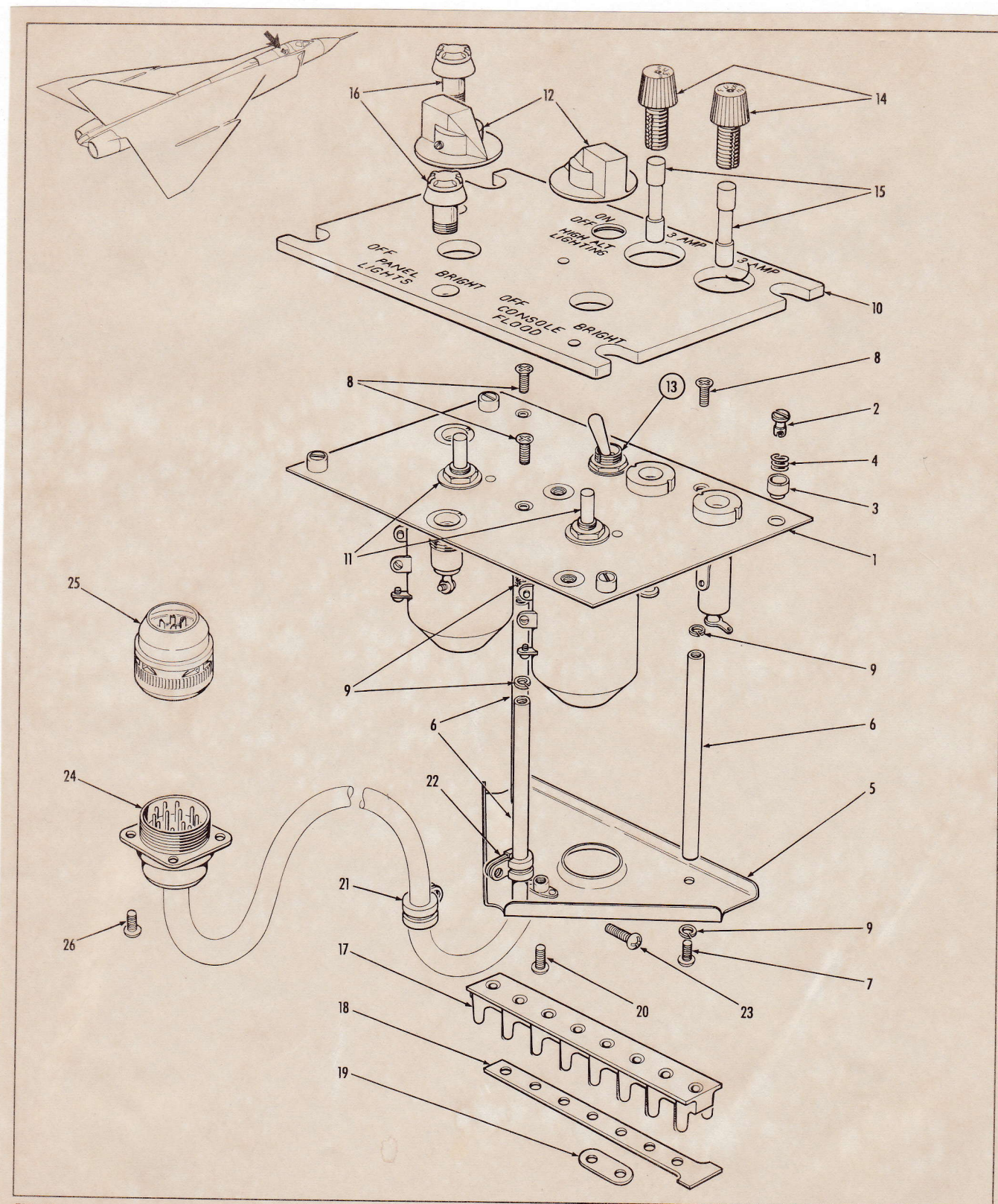
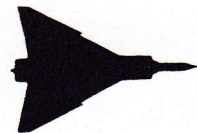


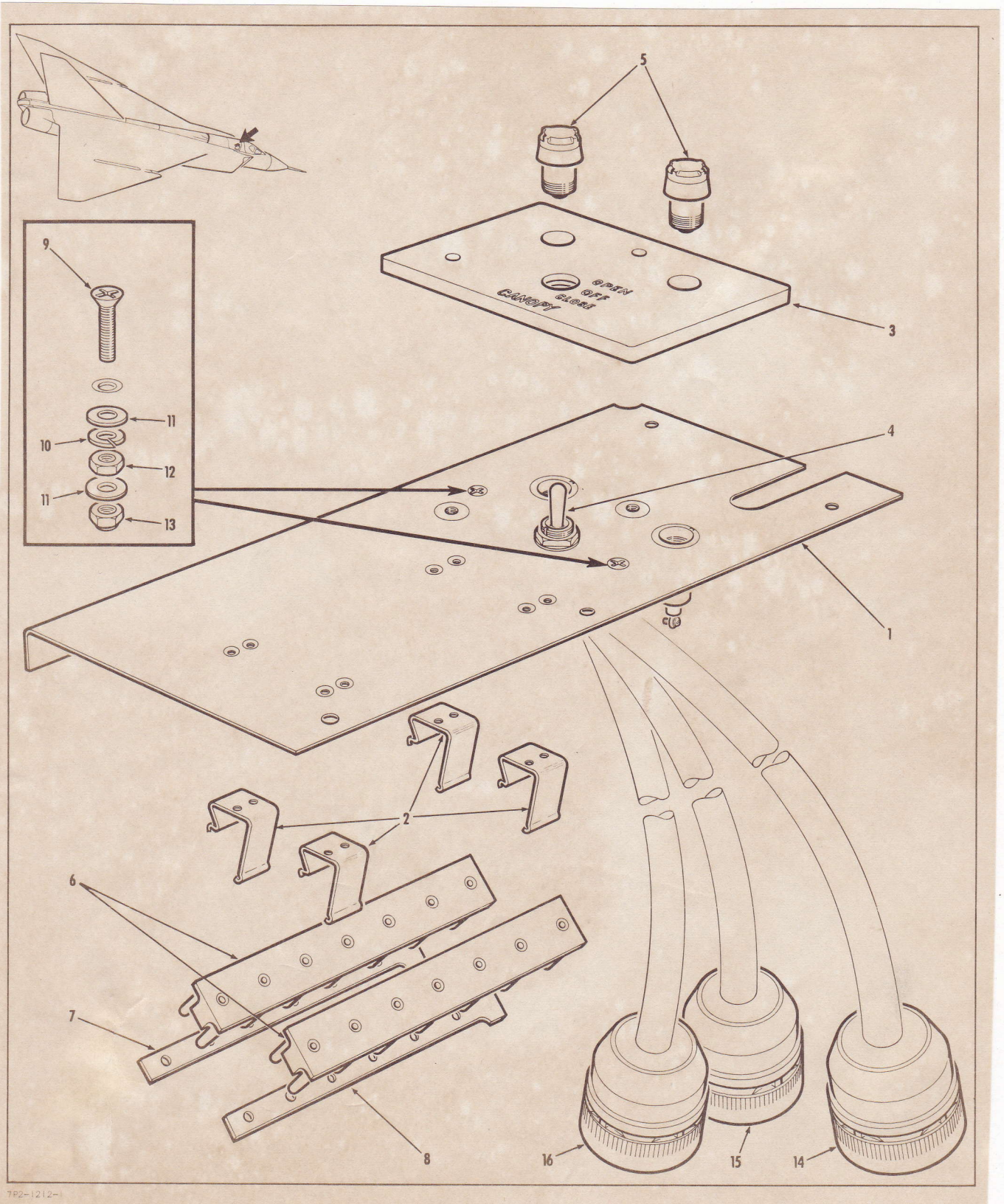
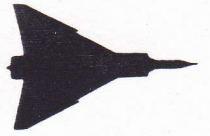


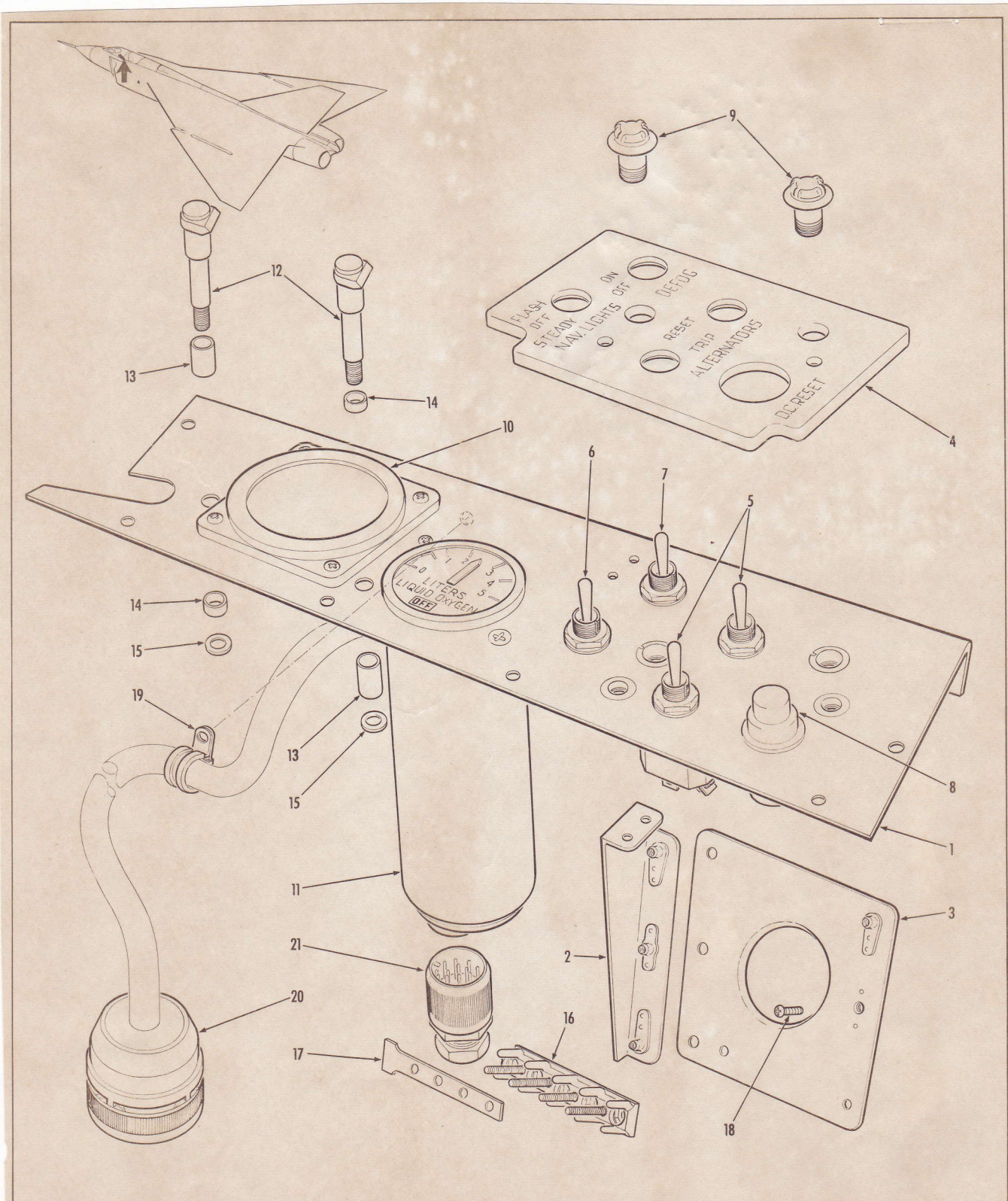


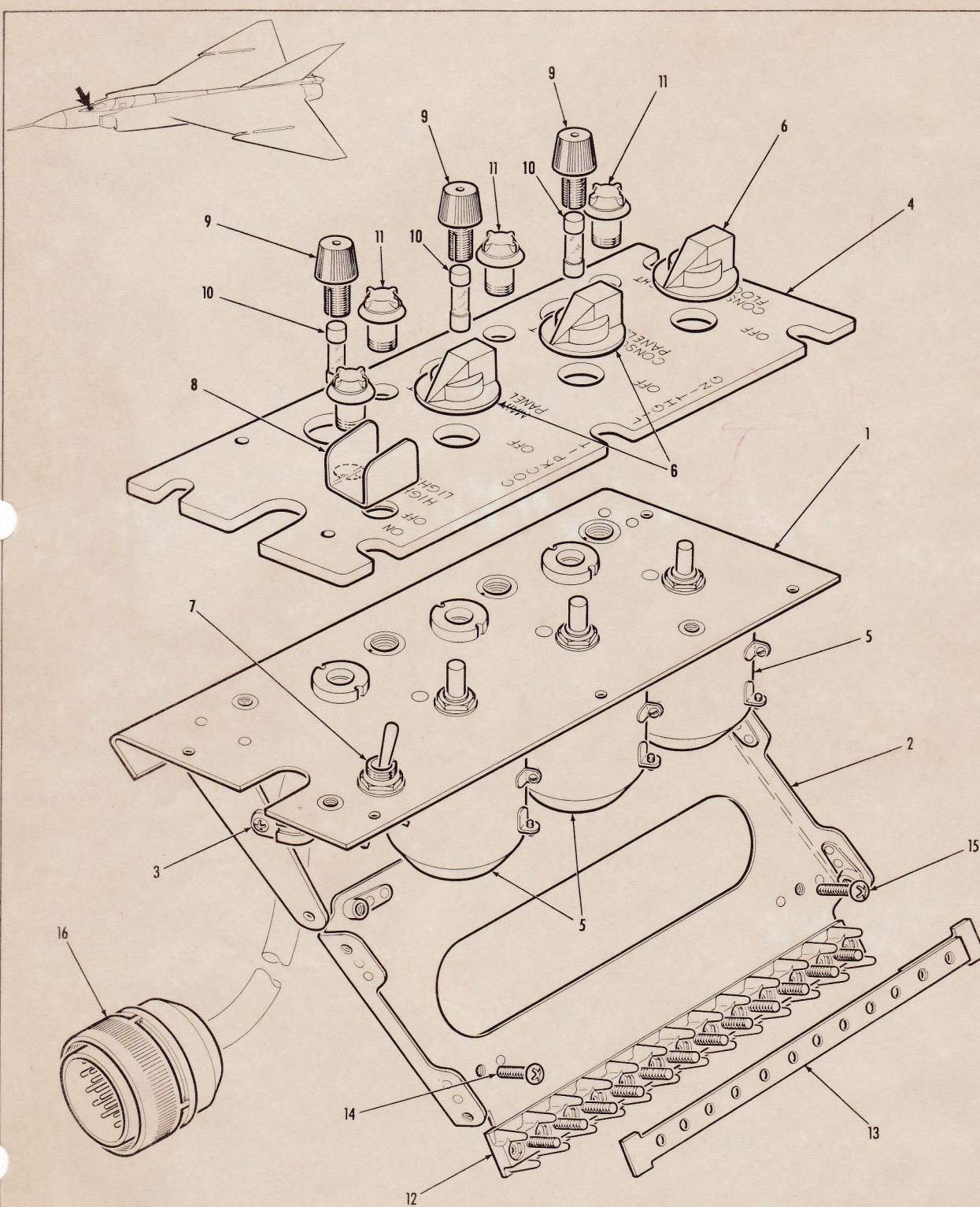
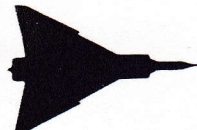


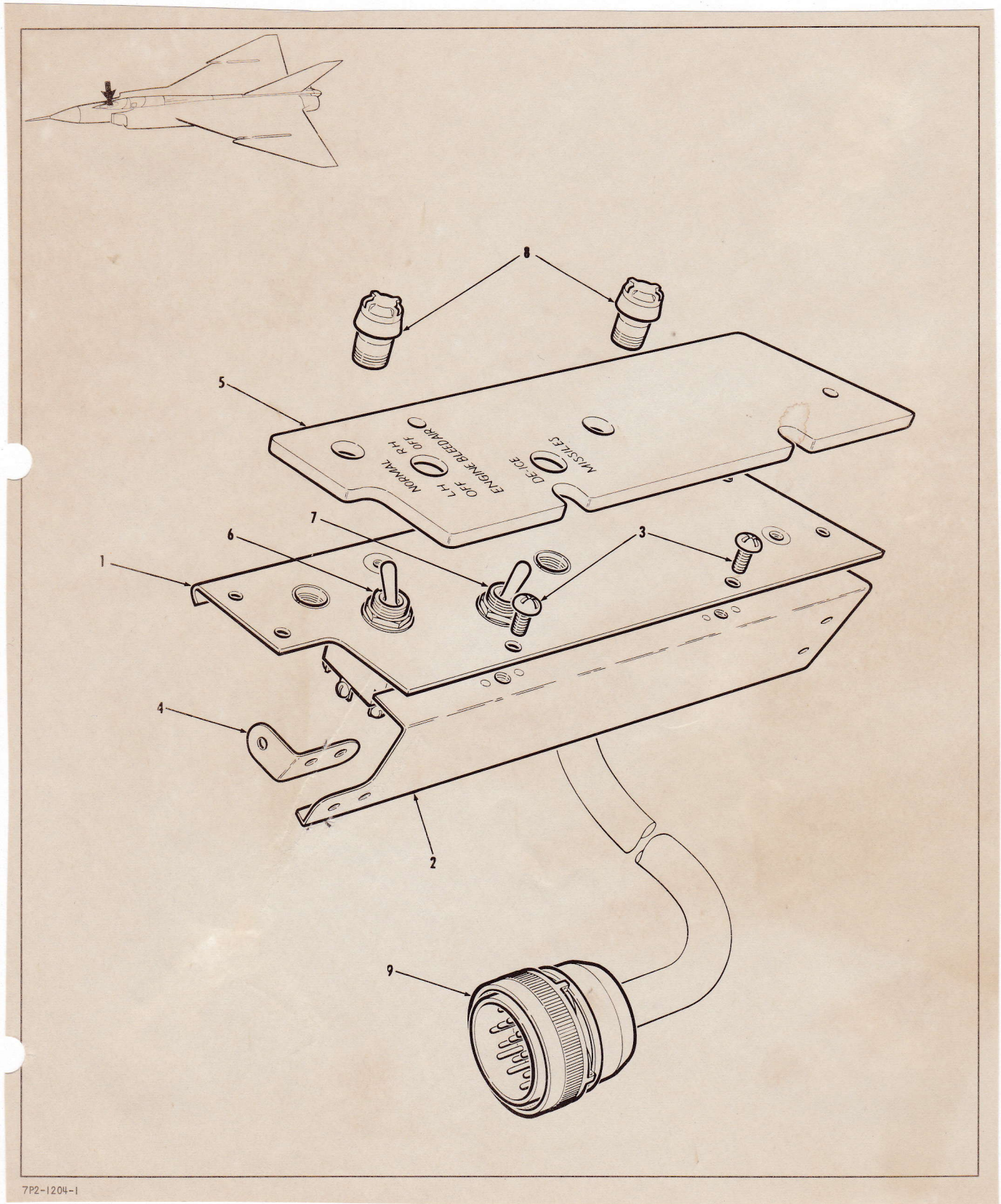
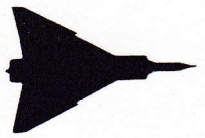


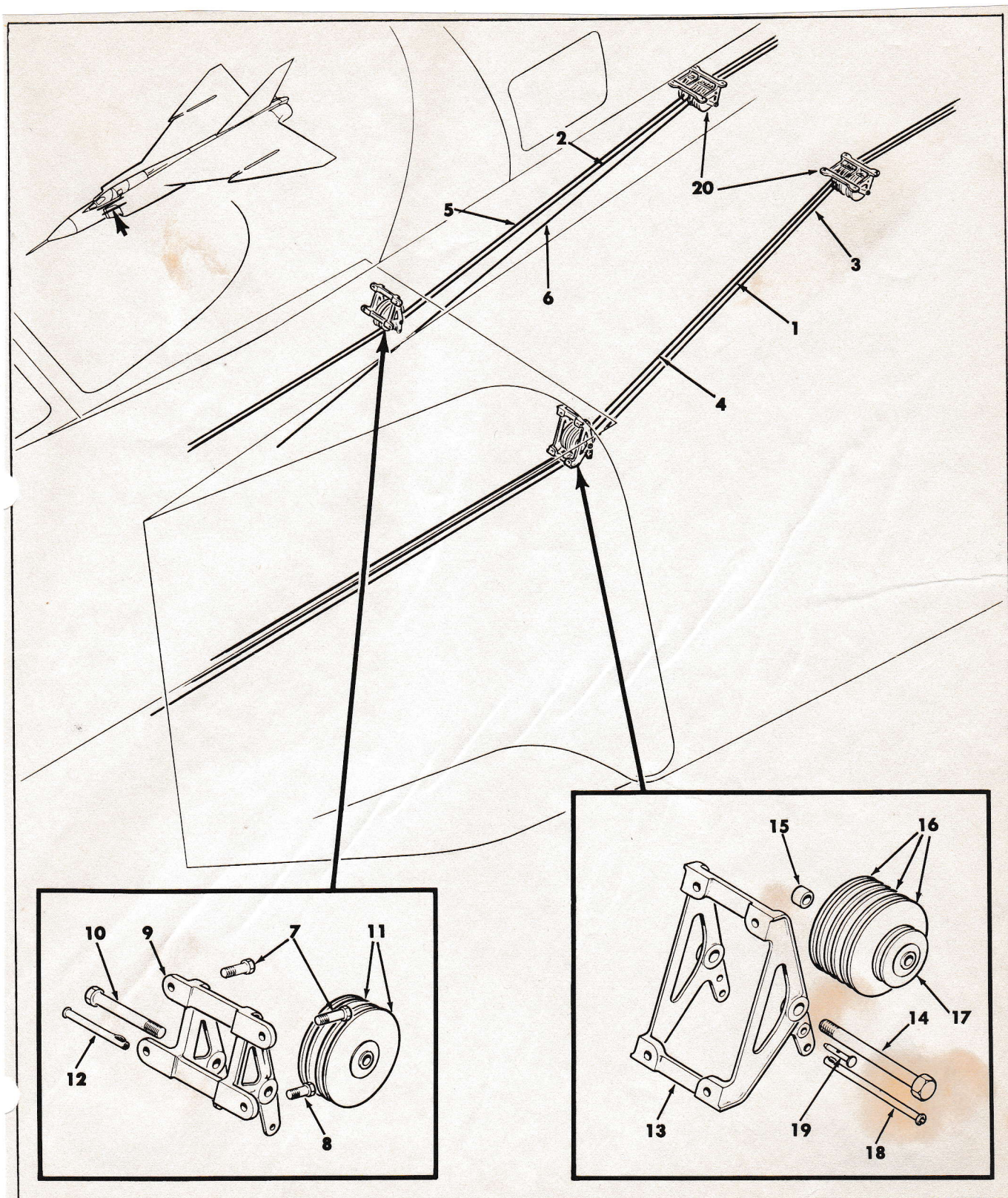


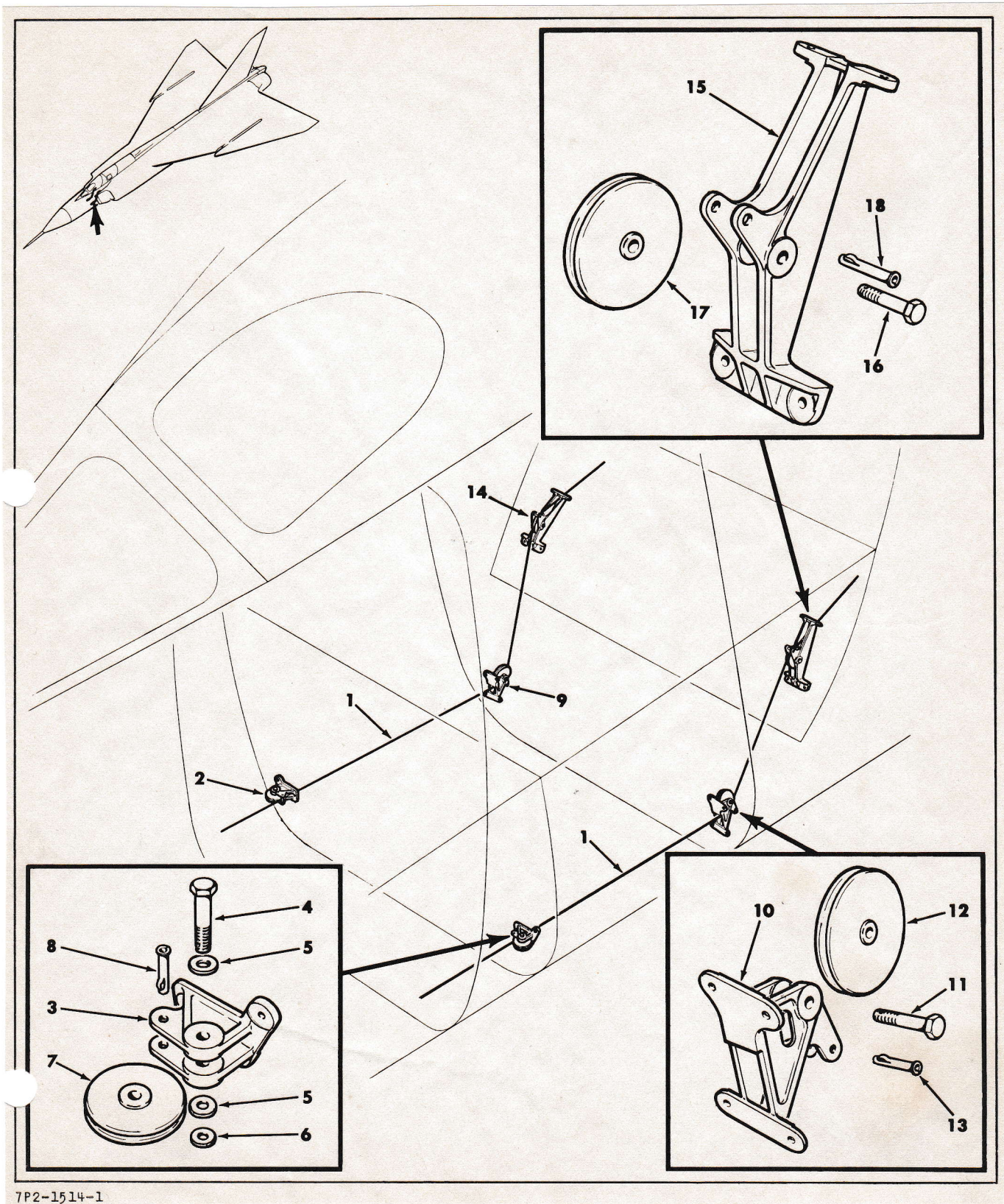
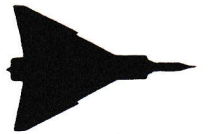


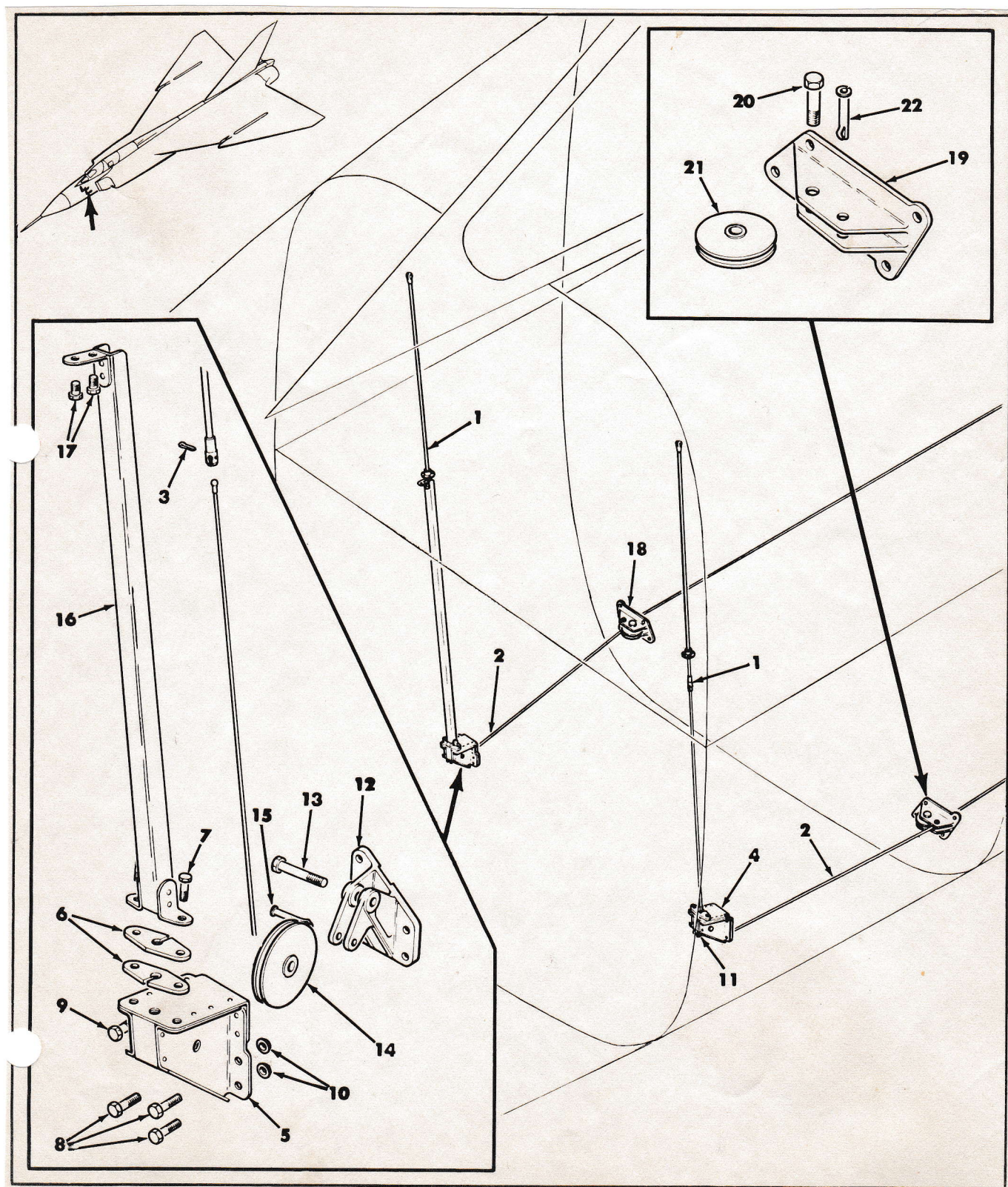


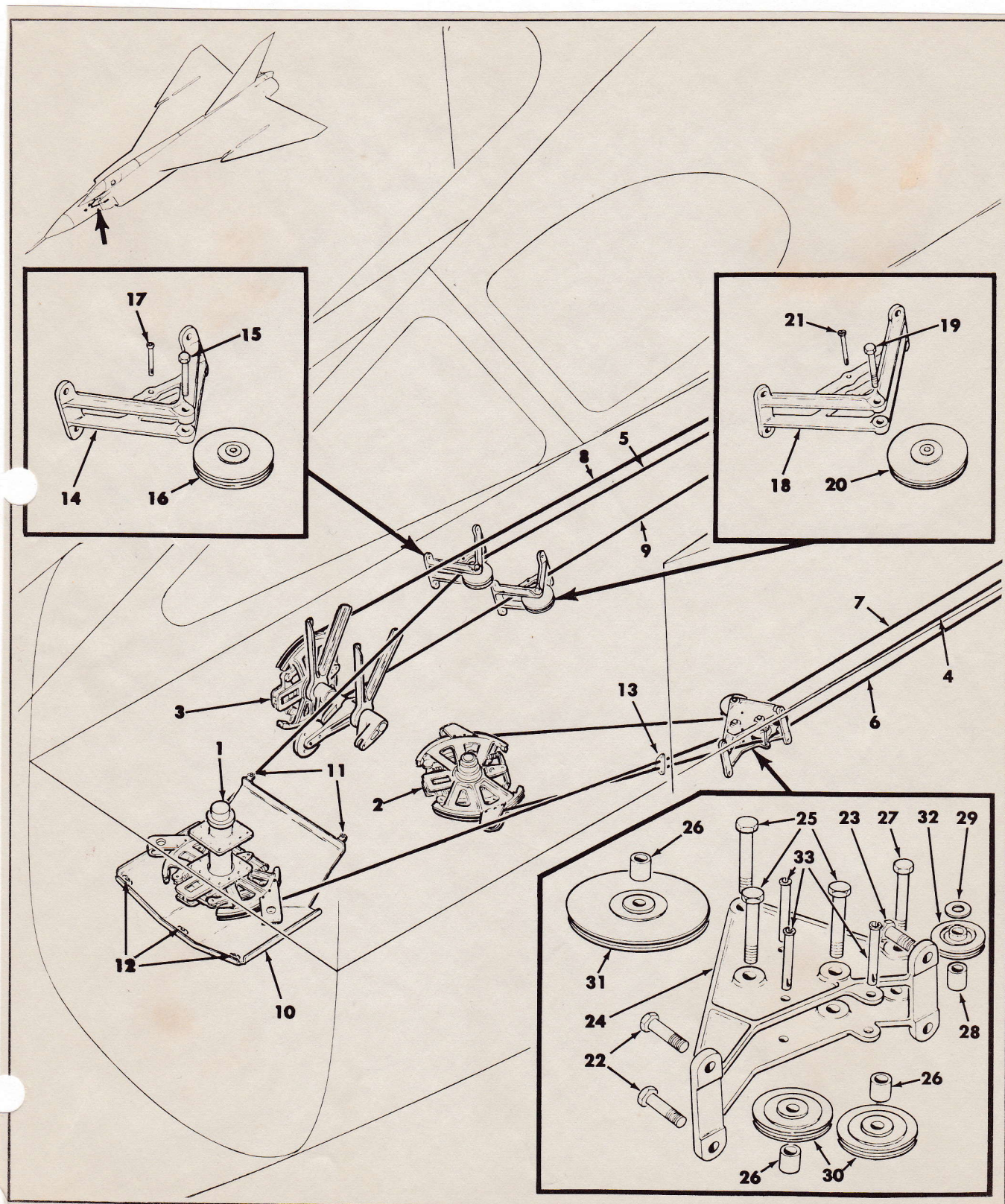


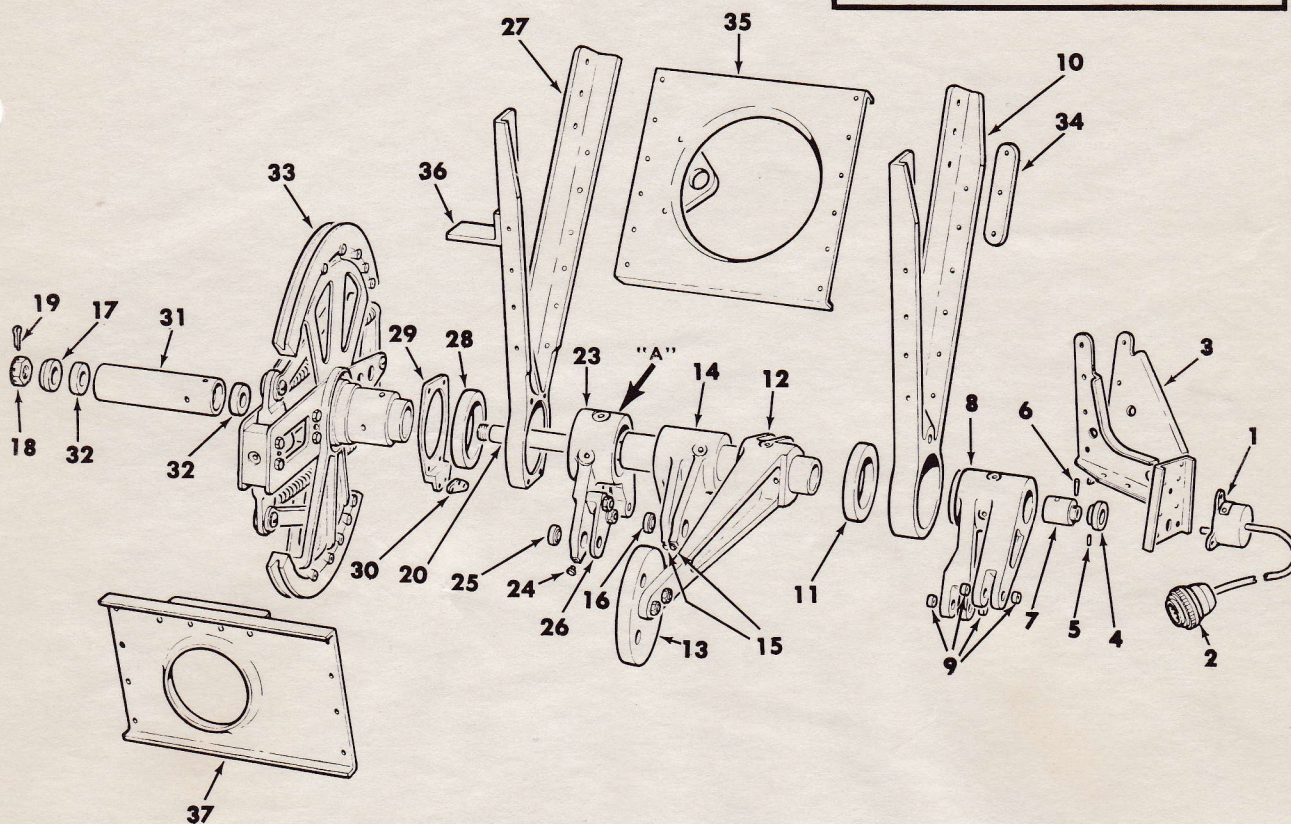
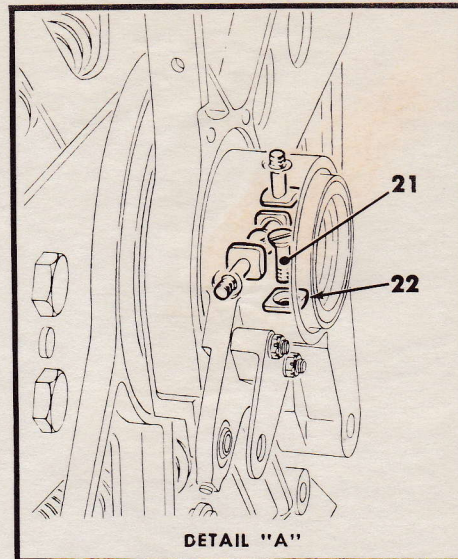
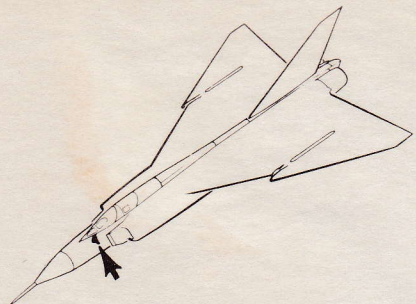


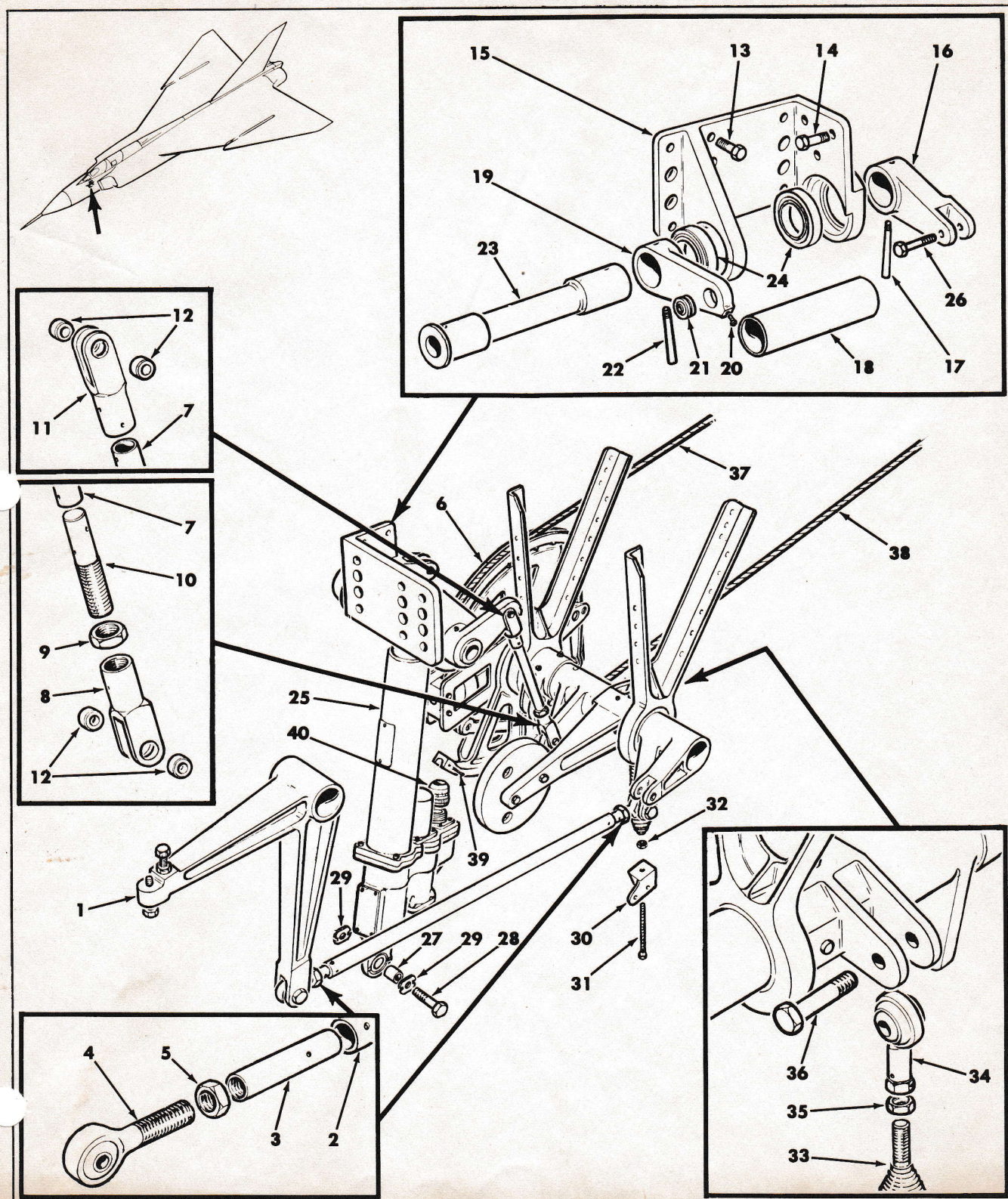
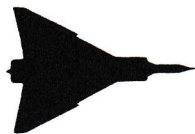


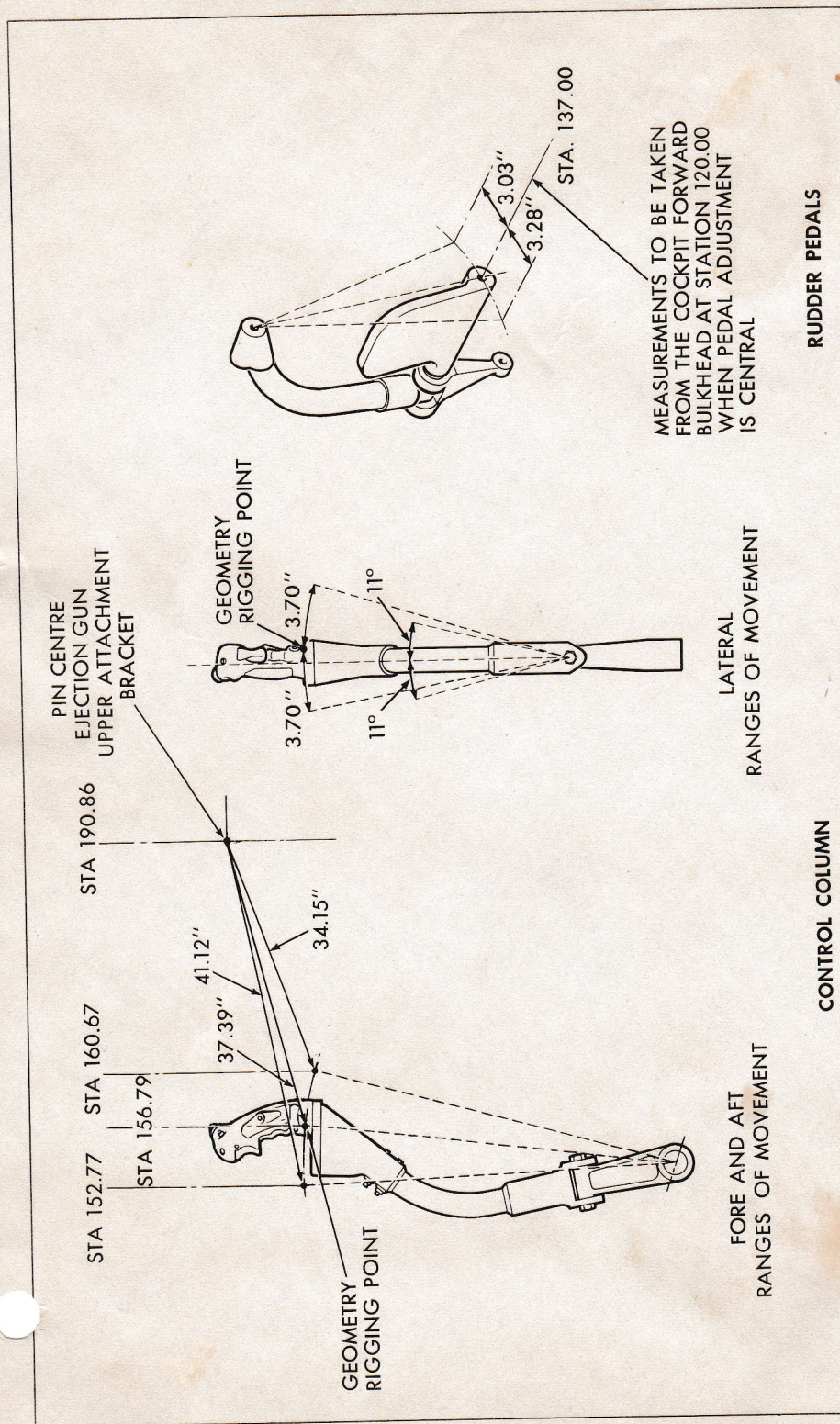


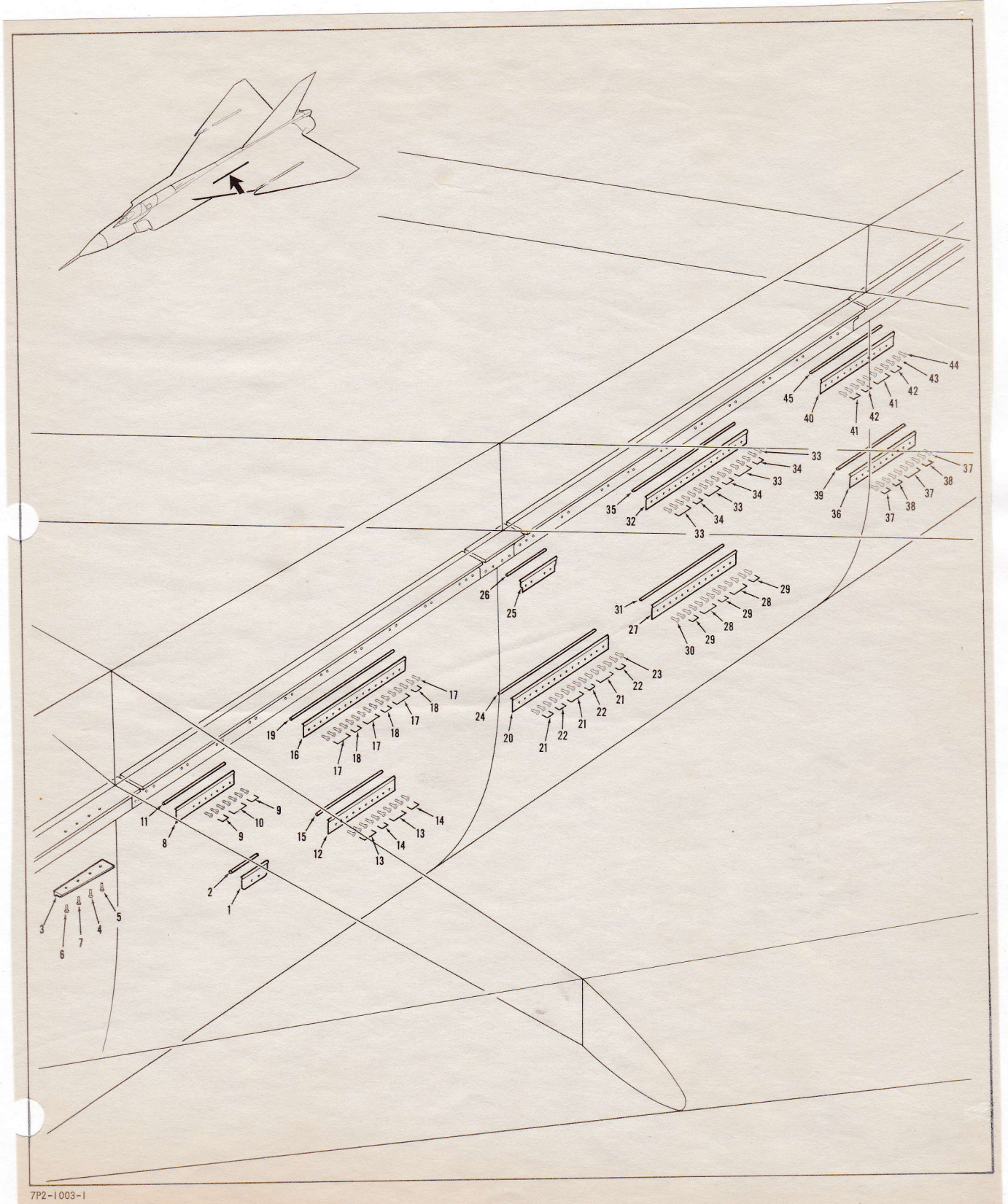
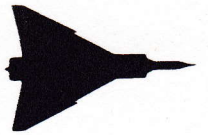


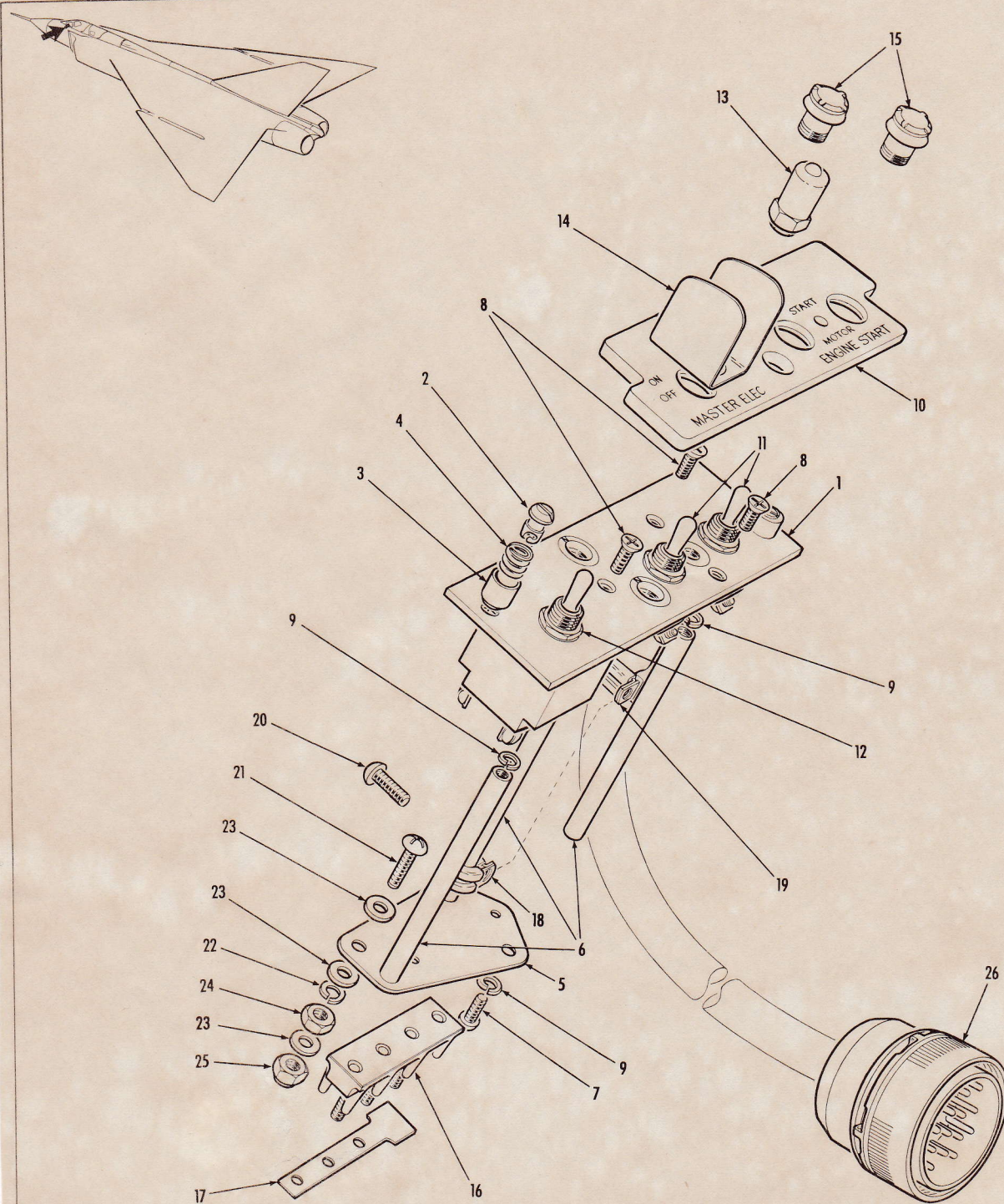


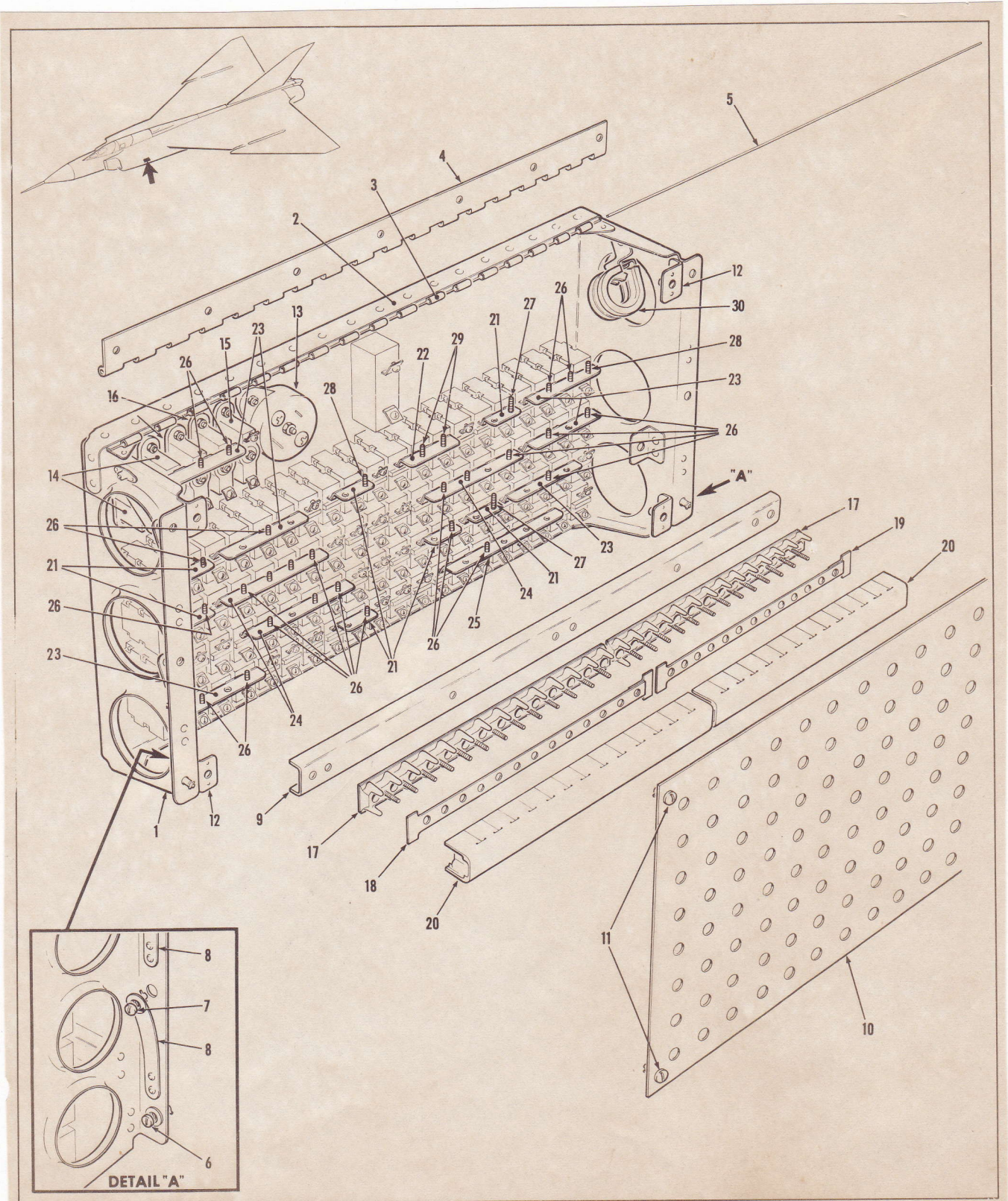
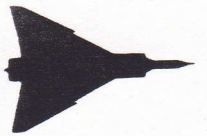


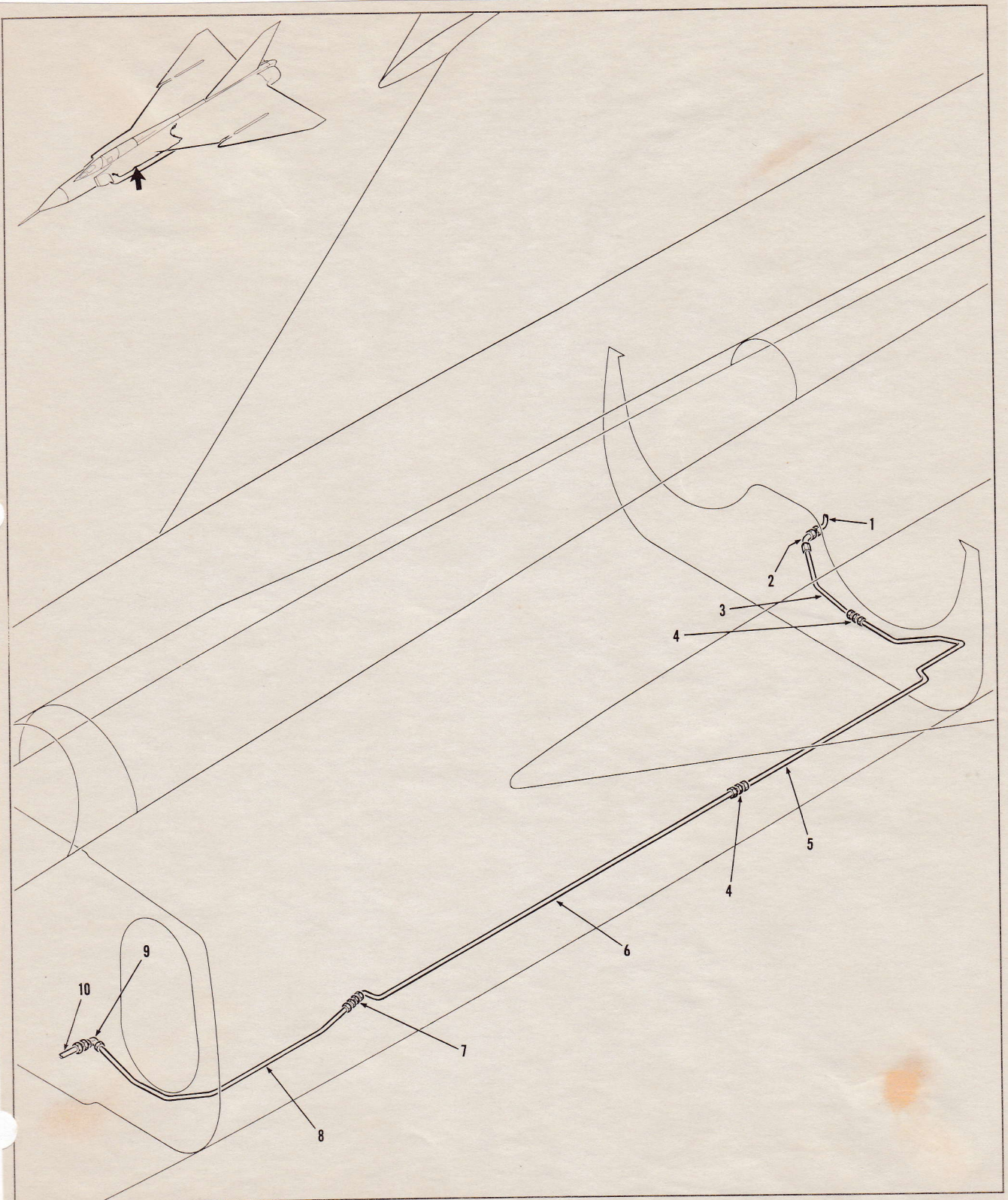
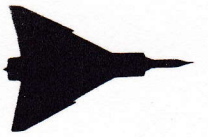


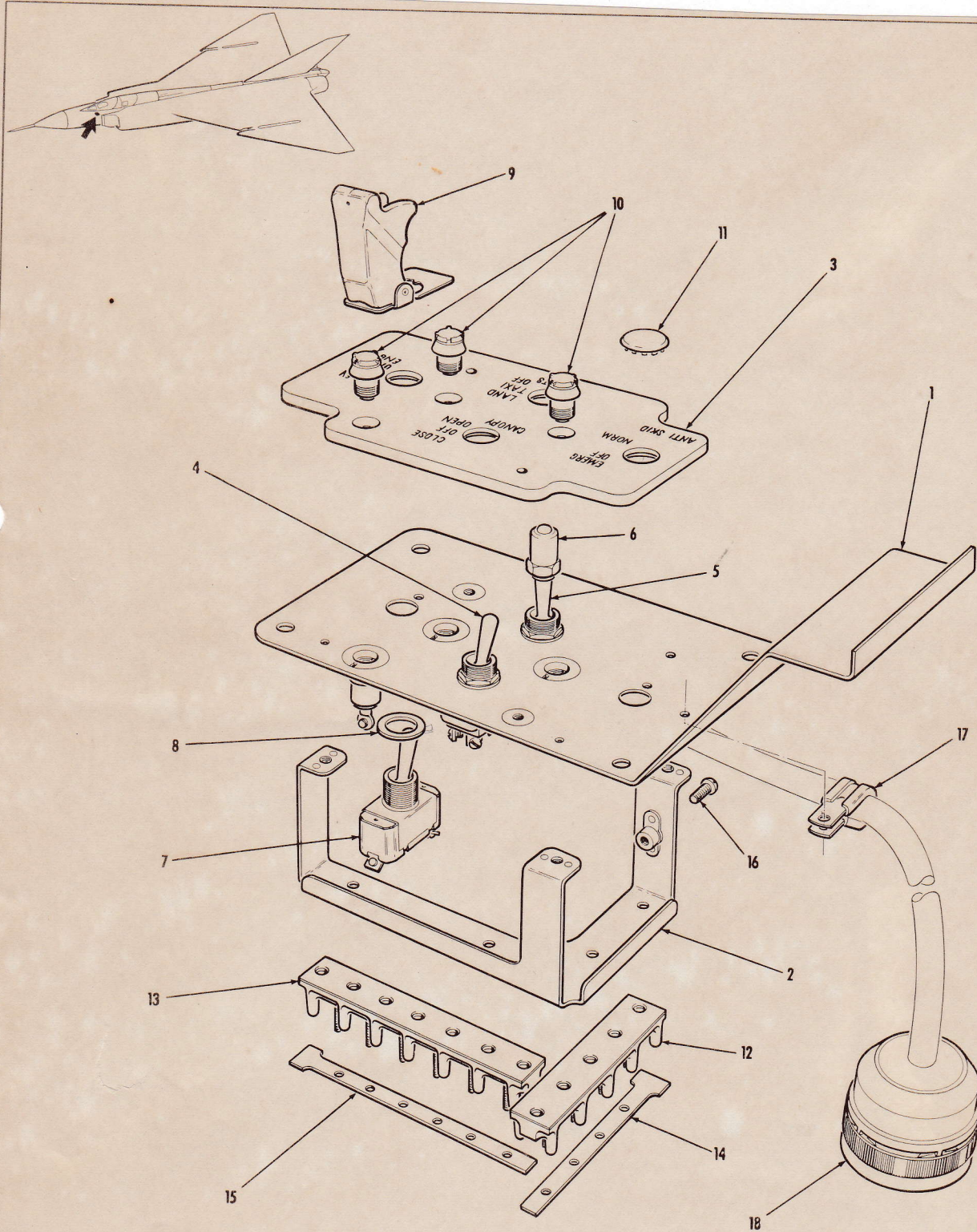
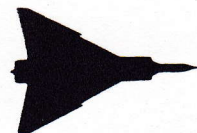


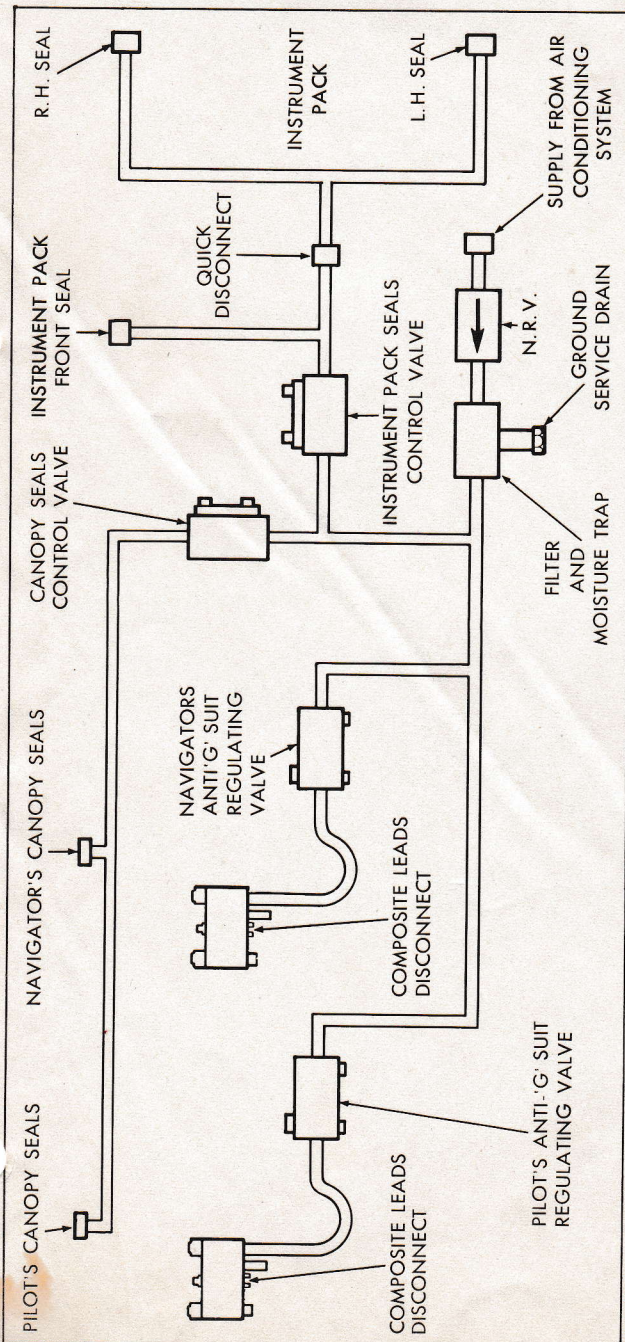








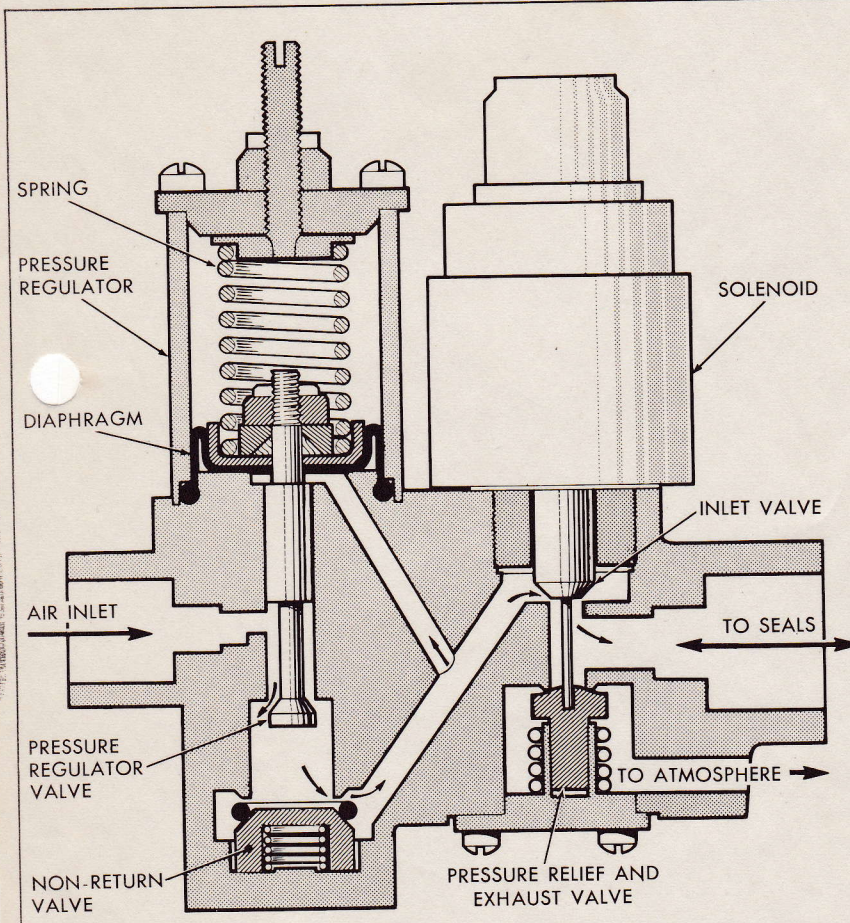




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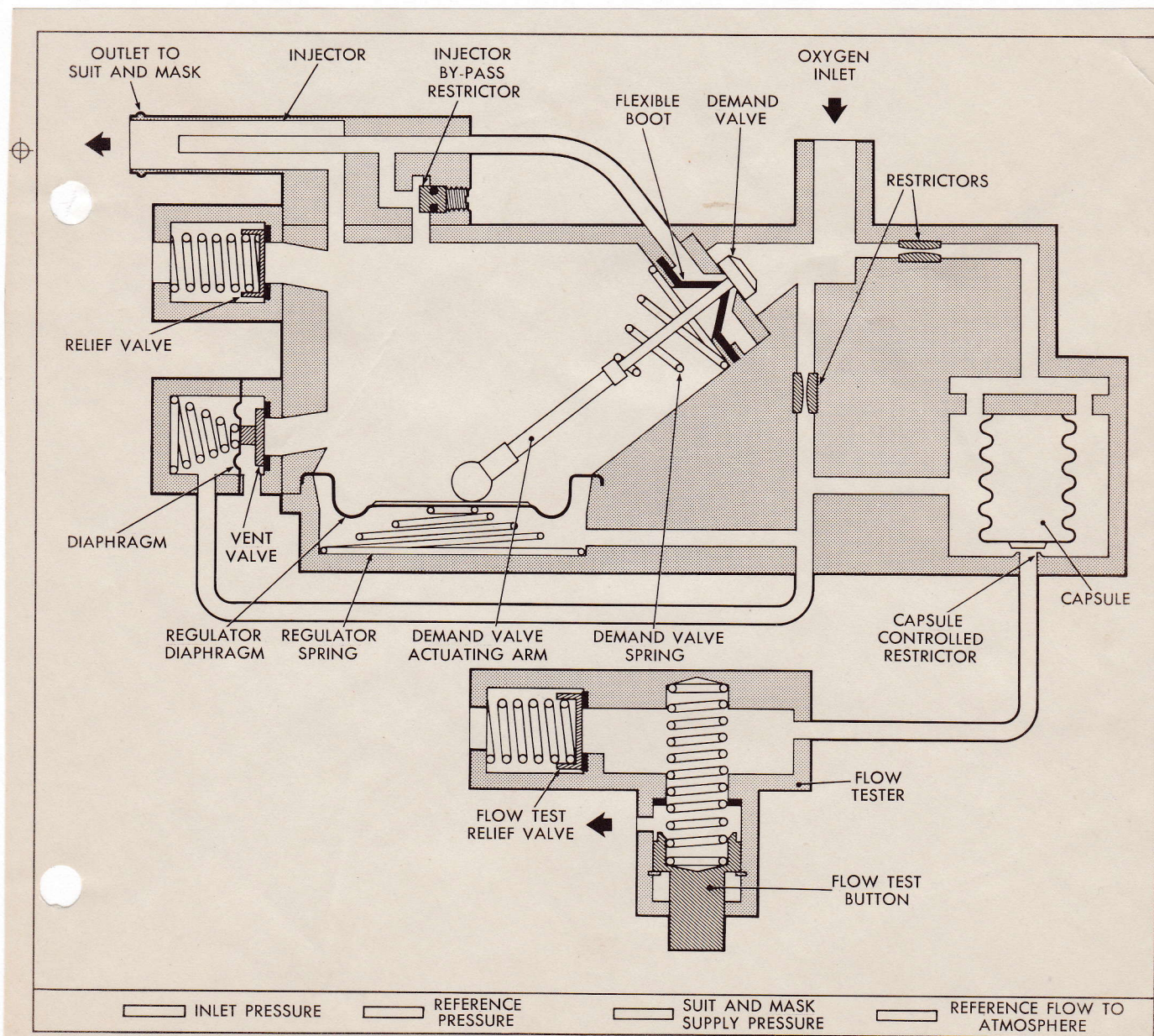


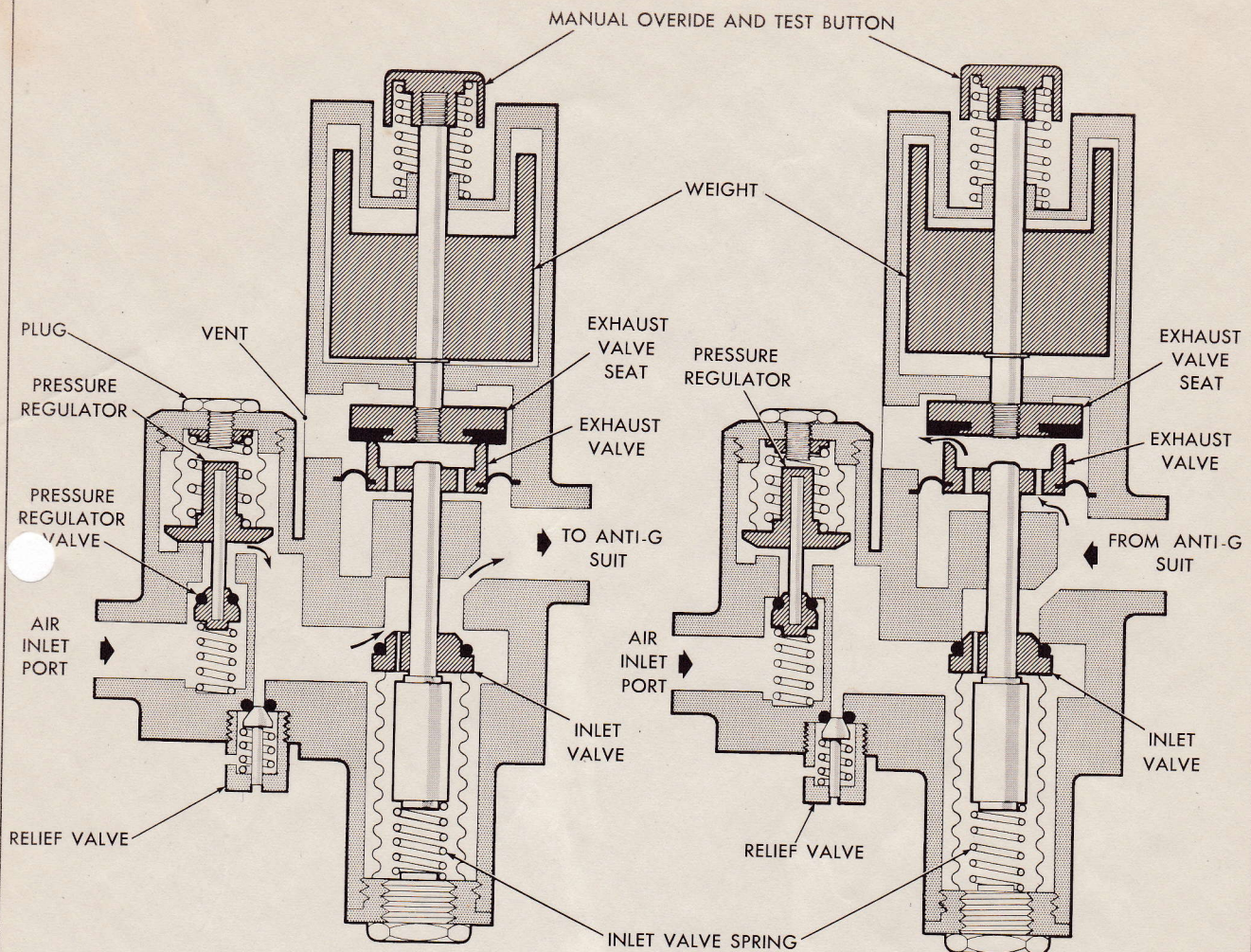
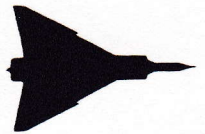
OPERATION

1. AIR ENTERS THE VALVE INLET AT A PRESSURE OF BETWEEN 18 AND 85 PSI AND FLOWS PAST THE PRESSURE REGULATOR VALVE AND THE NON-RETURN VALVE TO THE INLET VALVE AND THE UNDERSIDE OF THE PRESSURE REGULATOR DIAPHRAGM. THE RESULTING FORCE ON THE DIAPHRAGM OPPOSES THE PRESSURE REGULATOR SPRING AND POSITIONS THE REGULATOR VALVE TO MAINTAIN A PRESSURE OF 18-22 PSI AT THE INLET VALVE.
2. THE SOLENOID CONTROLS THE INLET VALVE AND THE PRESSURE RELIEF AND EXHAUST VALVE. WHEN THE SOLENOID IS ENERGIZED, THE INLET VALVE IS OPENED AND THE PRESSURE RELIEF AND EXHAUST VALVE IS CLOSED AND AIR PRESSURE IS DIRECTED TO THE SEALS. IN THE EVENT OF FAILURE OF THE PRESSURE REGULATOR, PRESSURE IN EXCESS OF 22-30 PSI TO THE SEALS LIFTS THE PRESSURE RELIEF AND EXHAUST VALVE TO VENT THE EXCESS PRESSURE TO ATMOSPHERE. WHEN THE SOLENOID IS DE-ENERGIZED THE INLET VALVE IS CLOSED AND THE PRESSURE RELIEF AND EXHAUST VALVE OPENED TO VENT THE PRESSURE FROM THE SEALS TO ATMOSPHERE.
3. THE NON-RETURN VALVE, MAINTAINS THE PRESSURE TO THE SEALS IN THE EVENT OF FAILURE OF THE AIR PRESSURE SUPPLY, UNTIL THE SOLENOID IS DE-ENERGIZED.

7M2-3305-1

7M2-3305-		FIG. PAGE	PRIORITY	ISSUE NO.	1	2	3	4	5	6
			377	DATE COMPLETED	27/4/52					
DEPT		APPROVED			ILL'N G.L.					
Seal Control Valve - Solenoid		ORIGINATOR			1/2/50					
Rev 2 Apr 1		REMARKS								



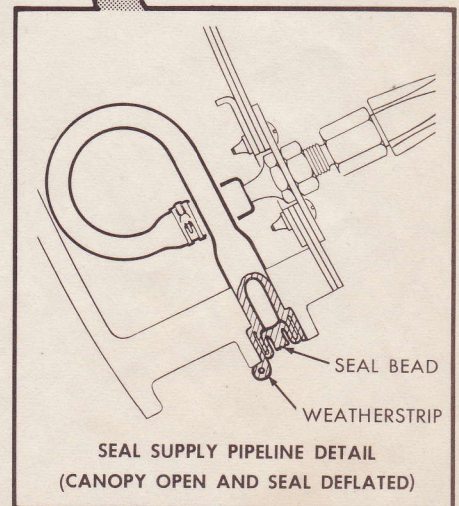
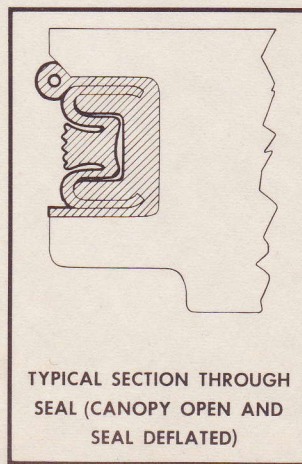
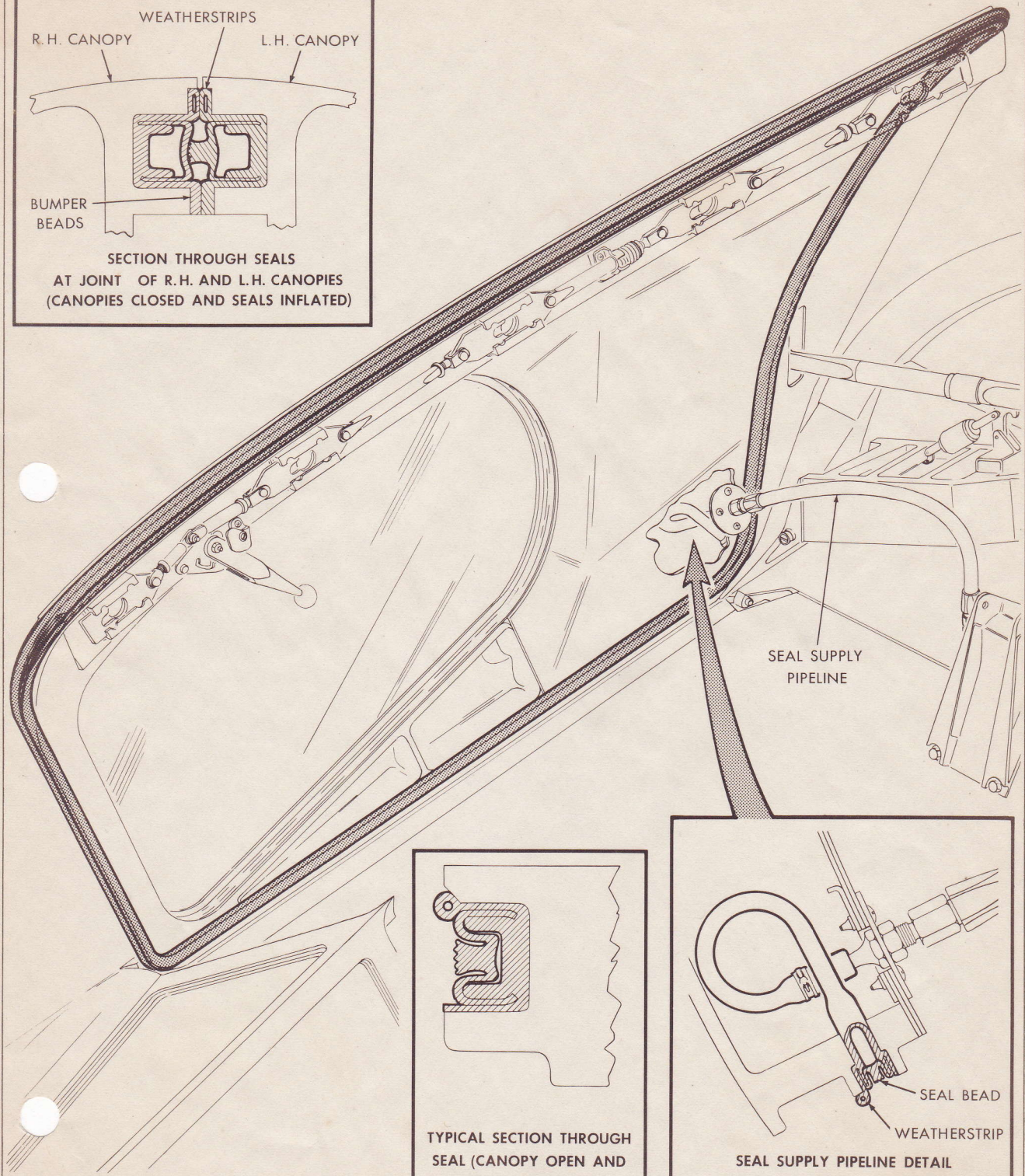
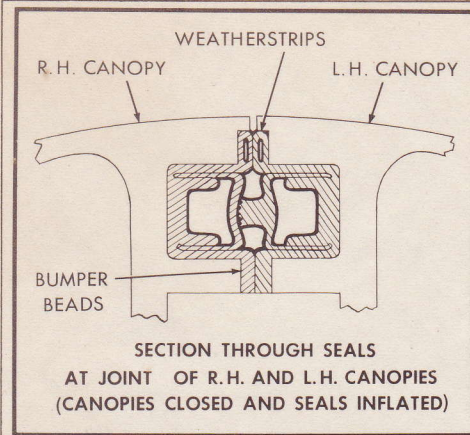
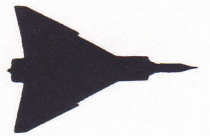


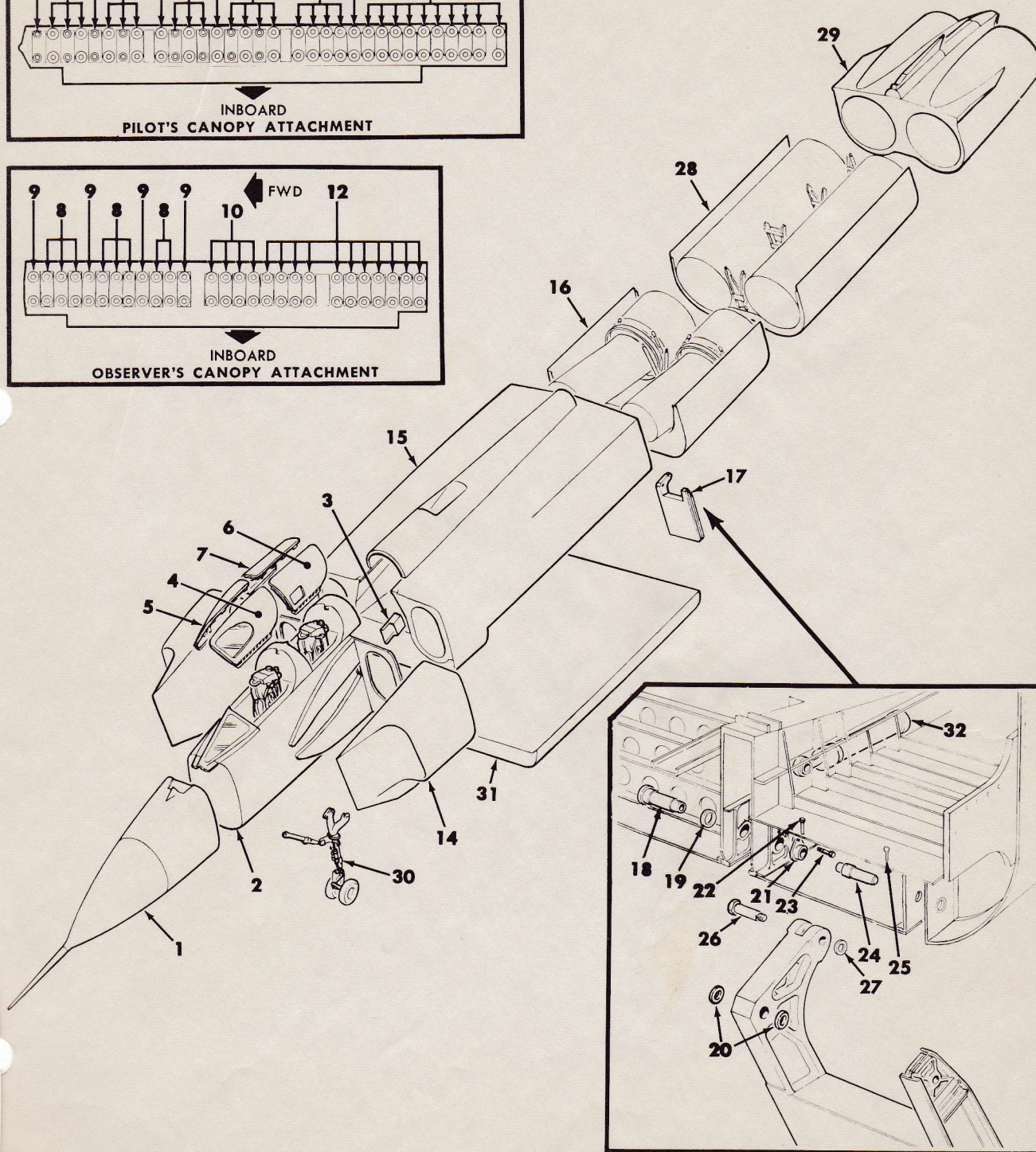
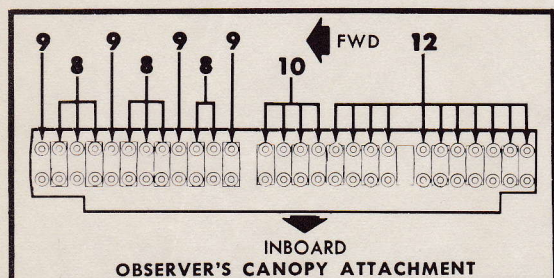
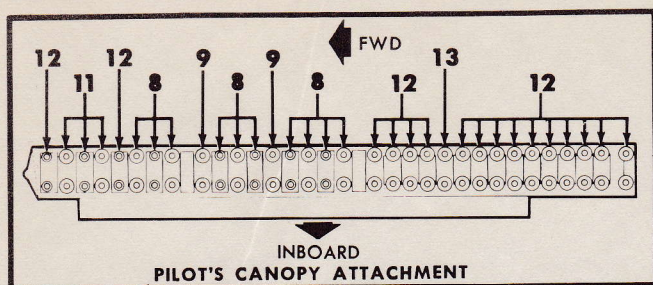
SUIT INFLATING

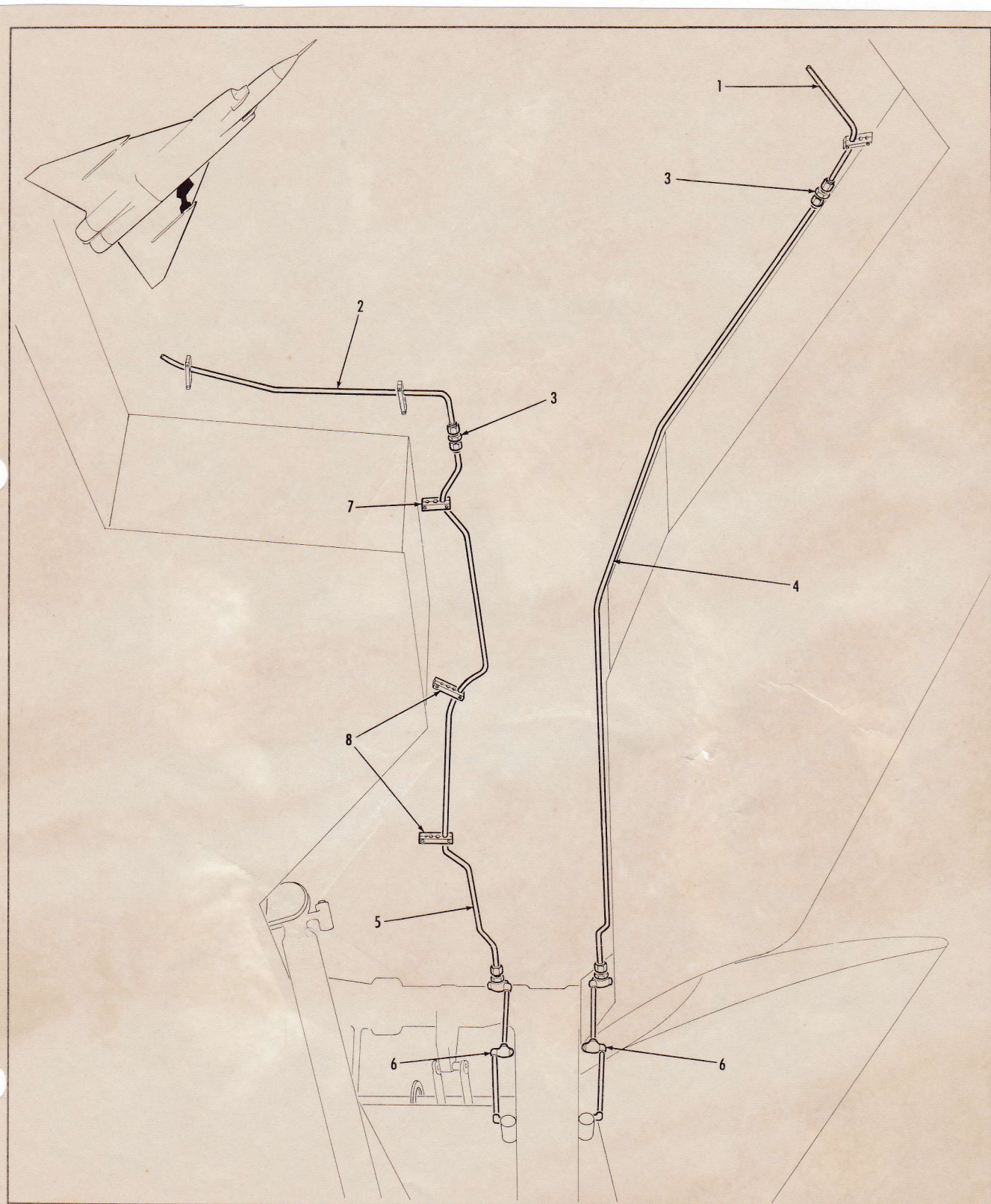
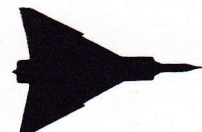
1. AIR ENTERS THE AIR INLET PORT AT A PRESSURE OF 18-85 PSIG AND FLOWS PAST THE PRESSURE REGULATOR VALVE. THE PRESSURE REGULATOR IS VENTED THROUGH THE SLACK THREAD OF THE PLUG AND MAINTAINS A PRESSURE OF 9-11 PSIG AT THE INLET VALVE.
2. WHEN A POSITIVE LOAD IN EXCESS OF 1.5-1.8G CAUSES THE WEIGHT TO DESCEND, THE EXHAUST VALVE CLOSSES AND FORCES THE CENTRAL ROD DOWNWARDS, OPENING THE INLET VALVE. AIR FLOWS THROUGH THE INLET VALVE TO THE ANTI-G SUIT AND TO THE UNDERSIDE OF THE EXHAUST VALVE SEAT. THE G LOAD IMPOSED ON THE WEIGHT AND THE AIR PRESSURE ACTING ON THE UNDERSIDE OF THE EXHAUST VALVE SEAT, POSITION THE INLET VALVE TO SUPPLY THE ANTI-G SUIT WITH PRESSURE IN RATIO TO THE G LOADING.

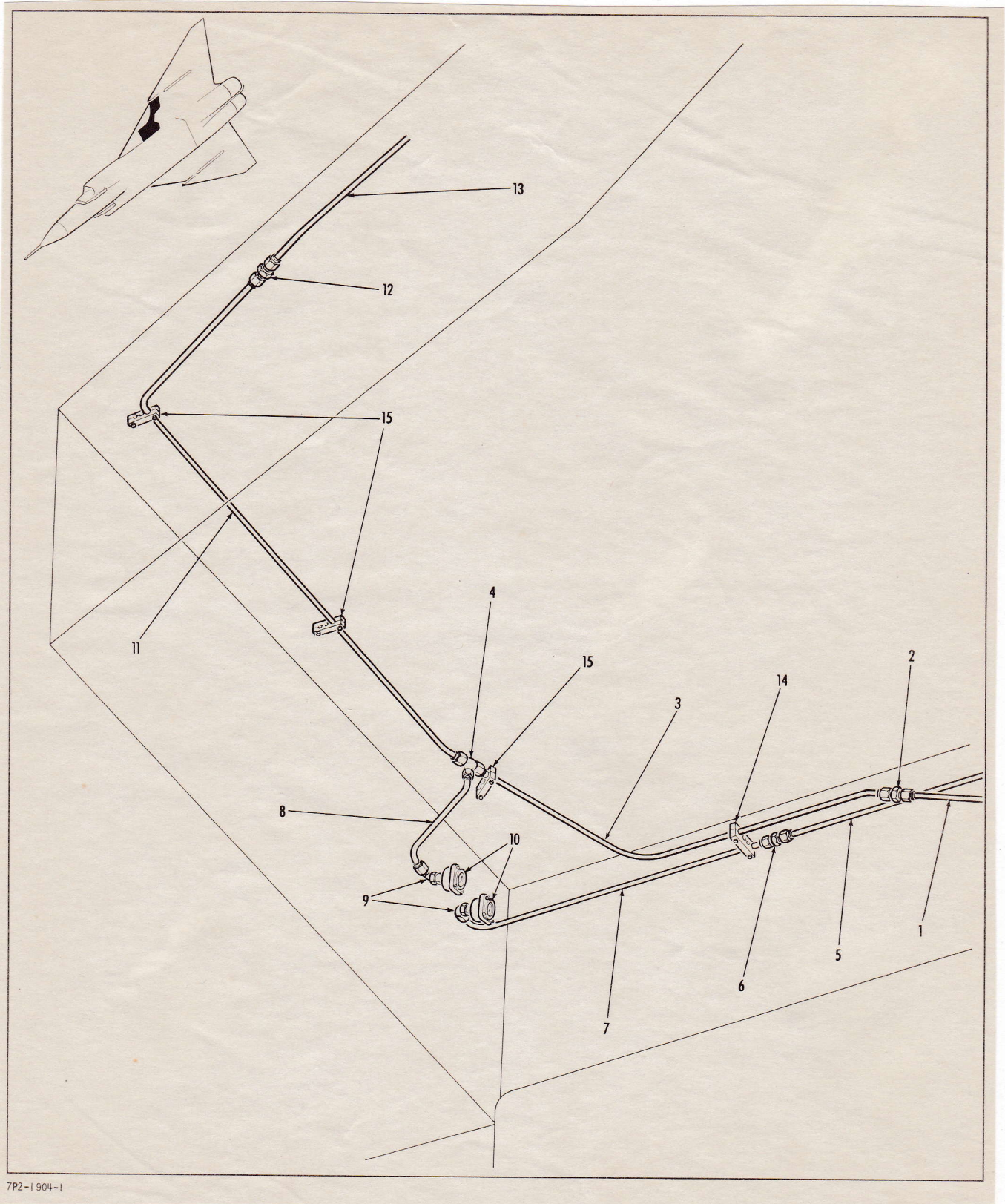
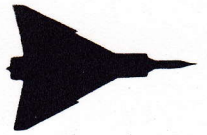
SUIT EXHAUSTING

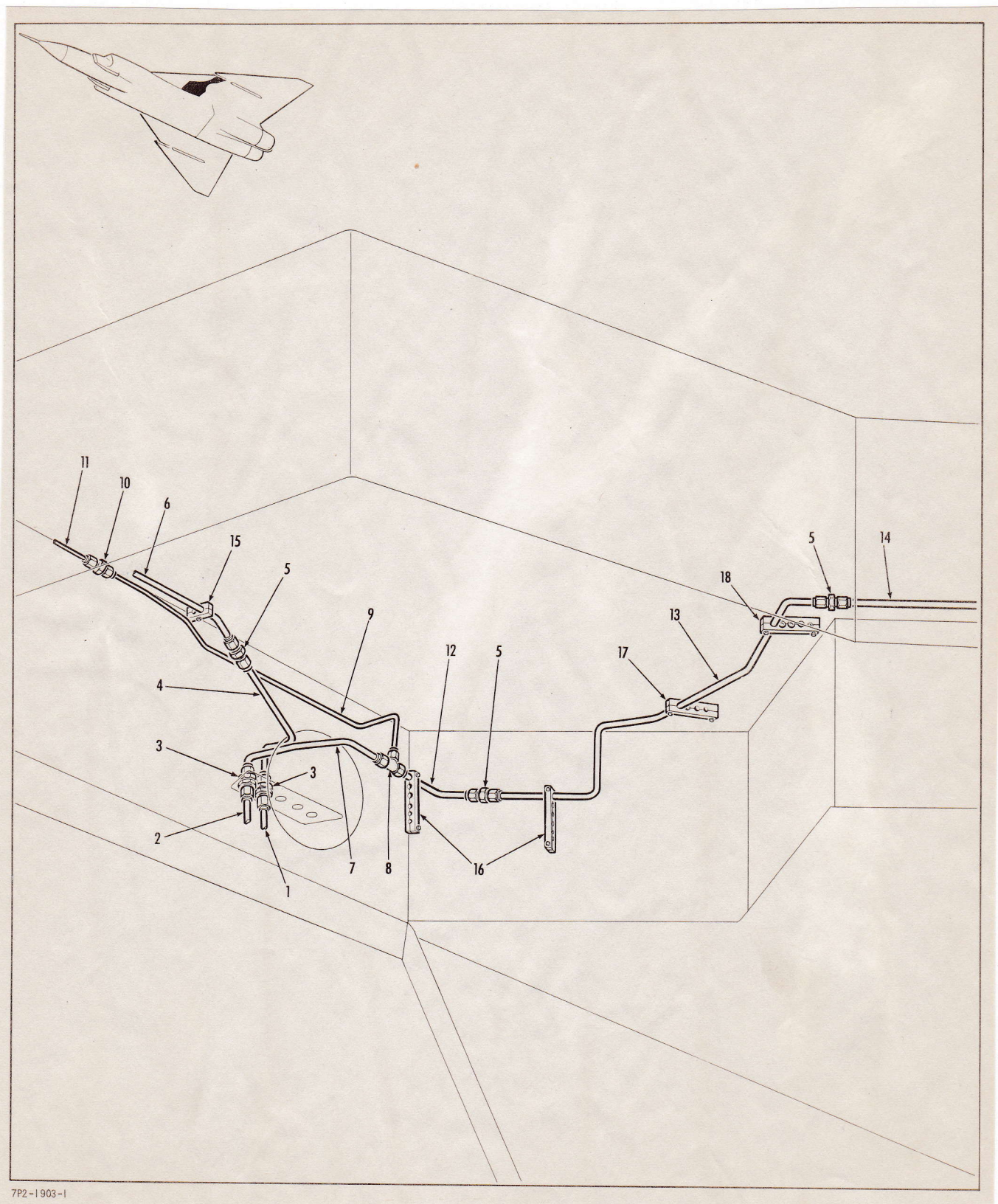
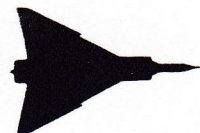
3. WHEN THE G LOAD IS REMOVED, THE WEIGHT RISES UNDER THE ACTION OF THE INLET VALVE SPRING AND THE AIR PRESSURE ACTING ON THE UNDERSIDE OF THE EXHAUST VALVE SEAT. THIS ACTION CLOSSES THE INLET VALVE, WHICH SHUTS OFF THE AIR SUPPLY TO THE SUIT AND OPENS THE EXHAUST VALVE. THE ANTI-G SUIT IS VENTED TO ATMOSPHERE THROUGH THE OPEN EXHAUST VALVE.
4. THE RELIEF VALVE RELIEVES EXCESS PRESSURE WITHIN THE VALVE IN THE EVENT OF FAILURE OF THE PRESSURE REGULATOR.

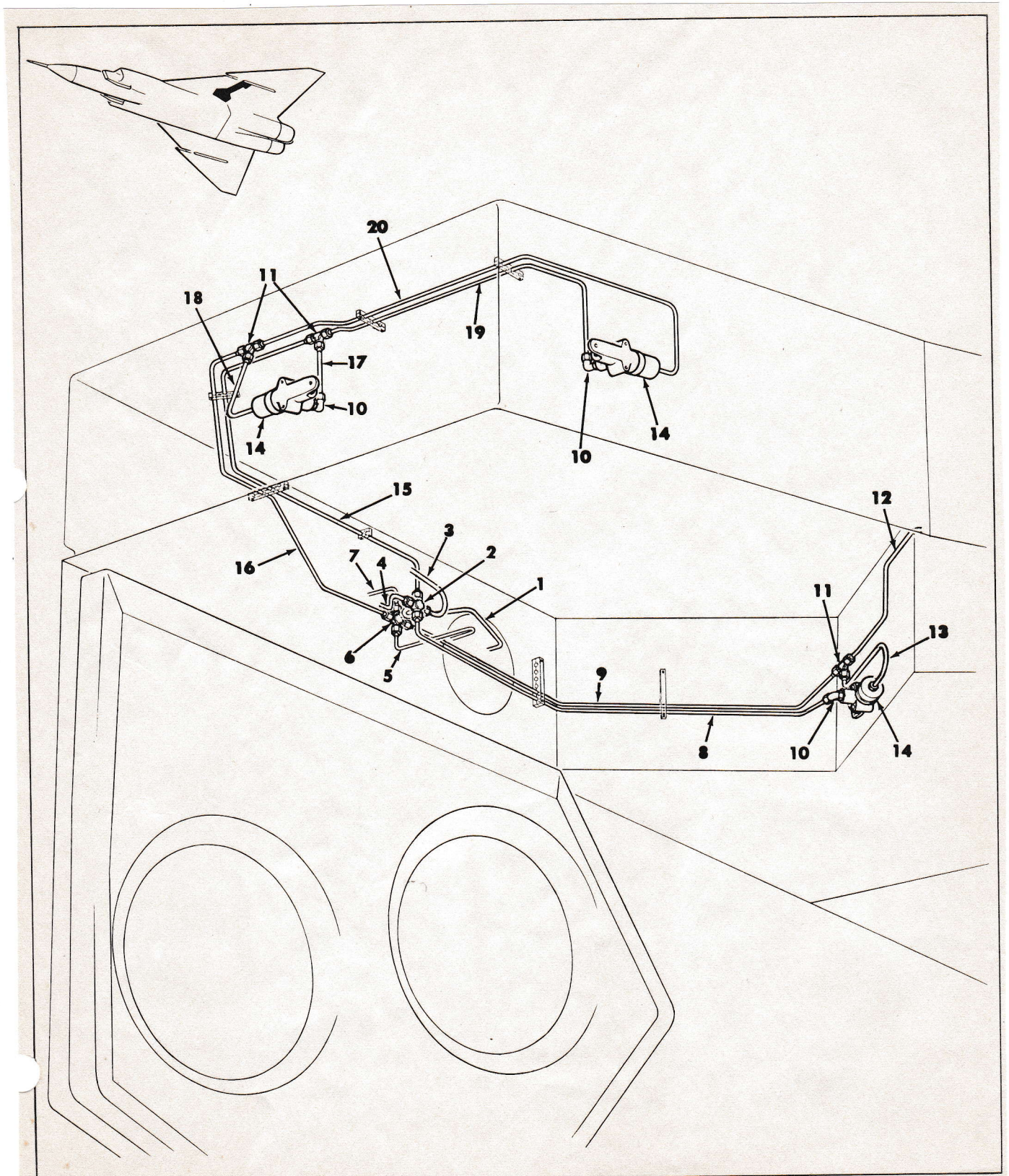
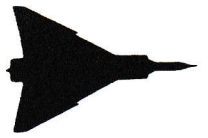


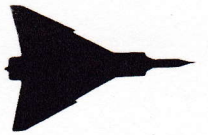


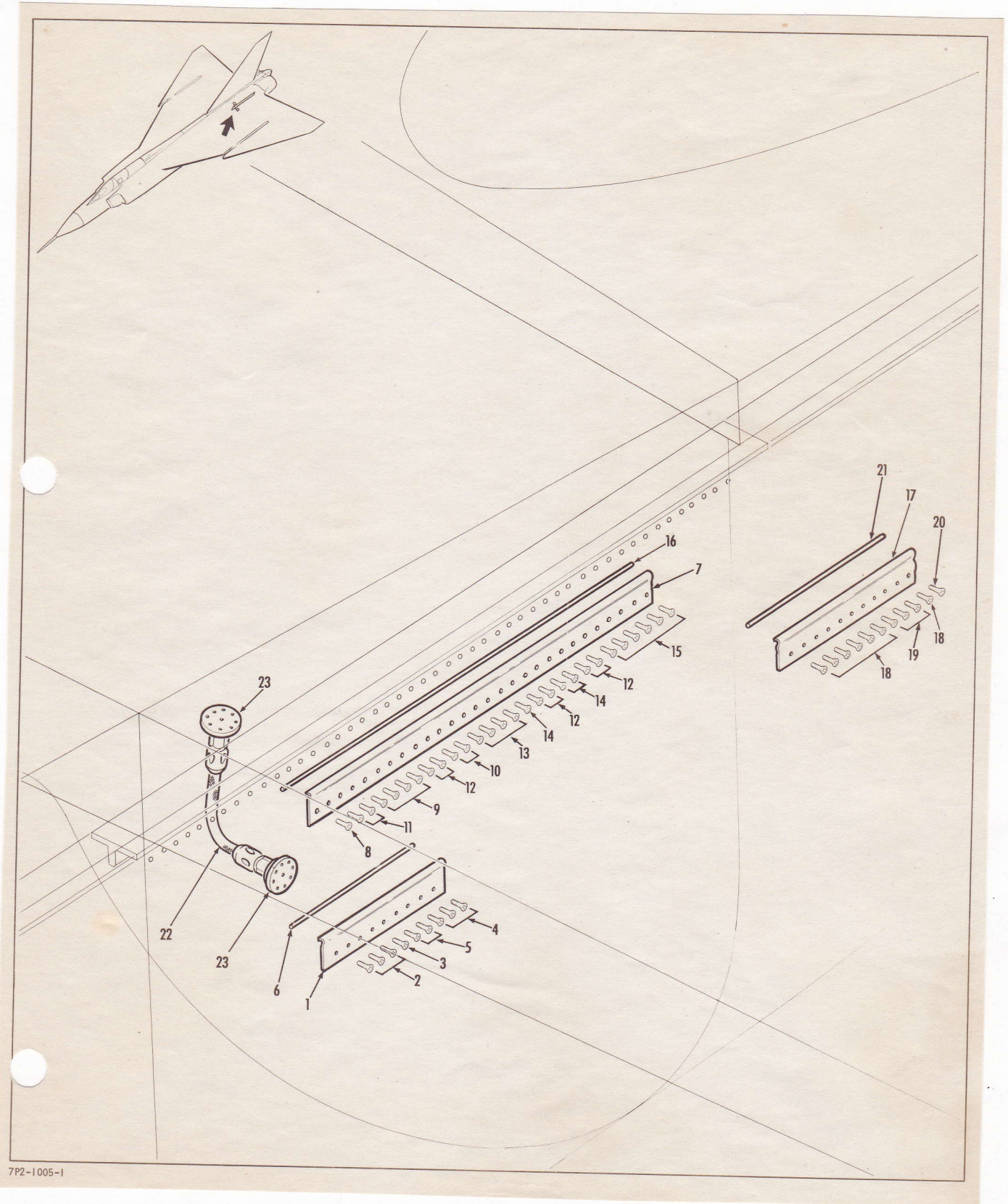
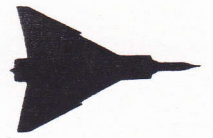


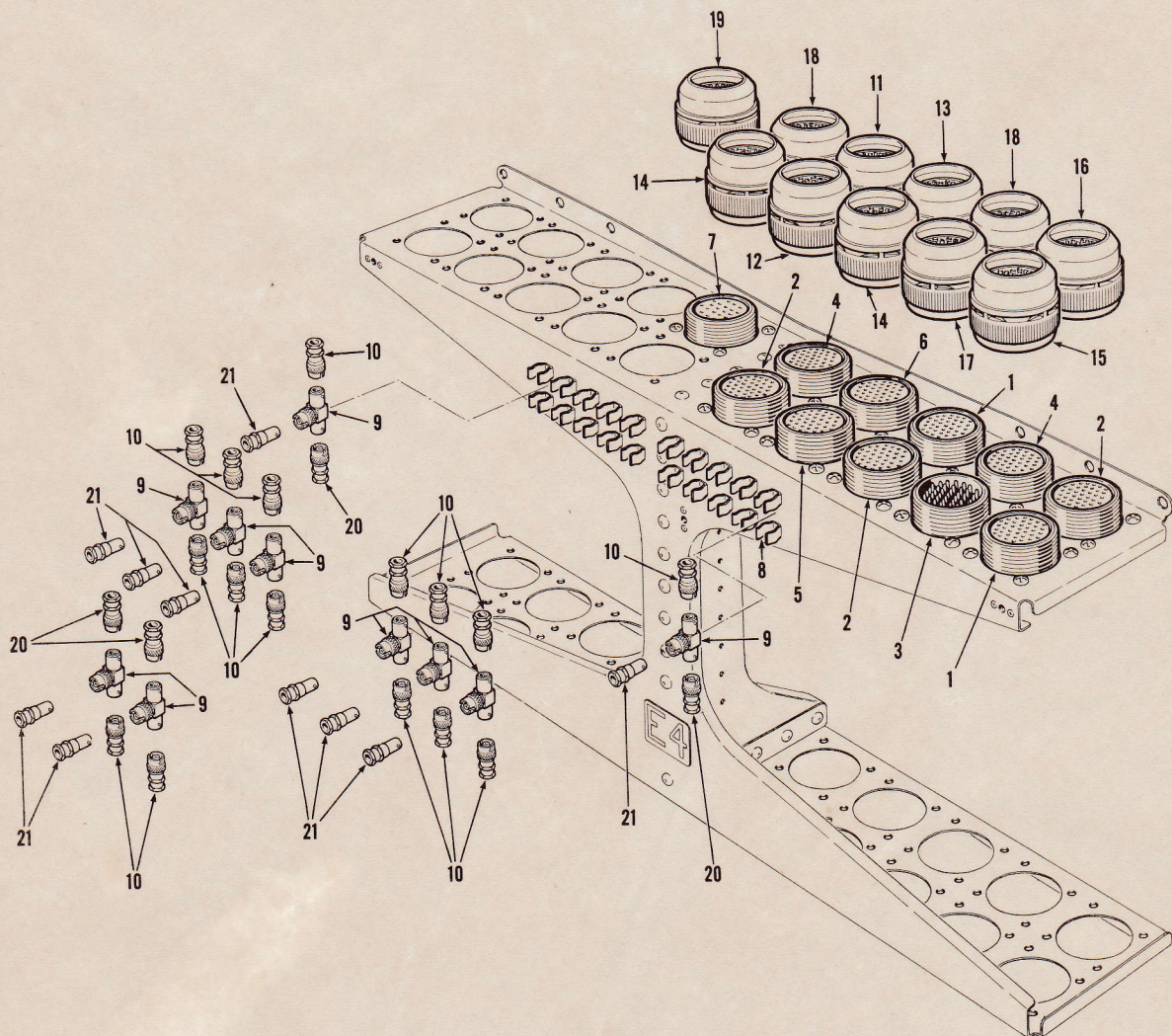
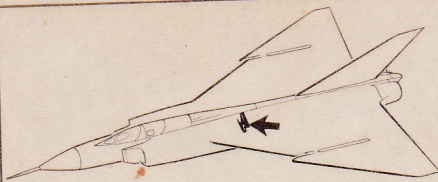
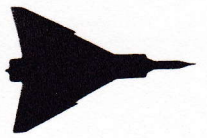


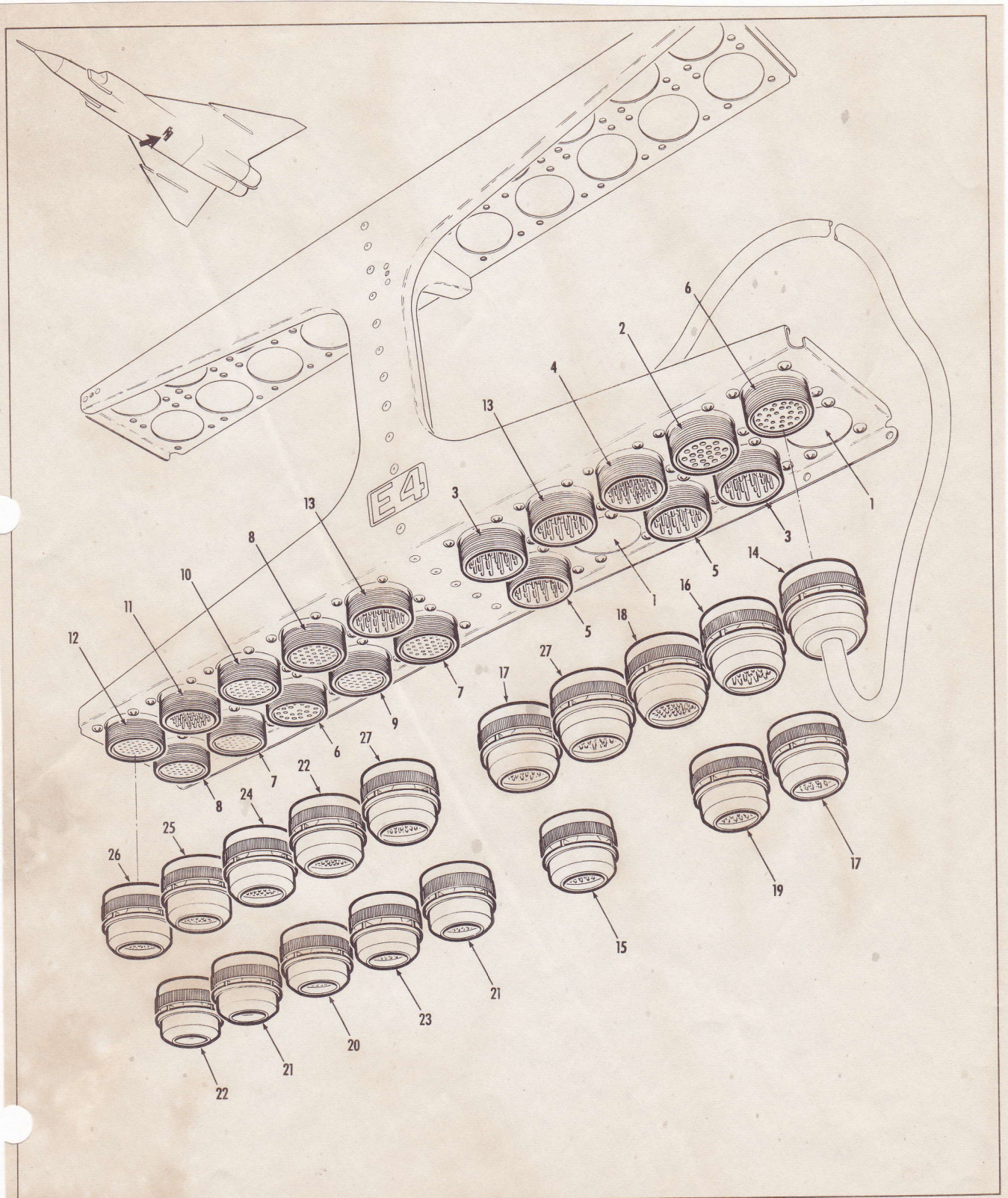
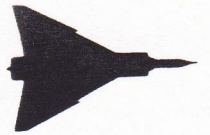


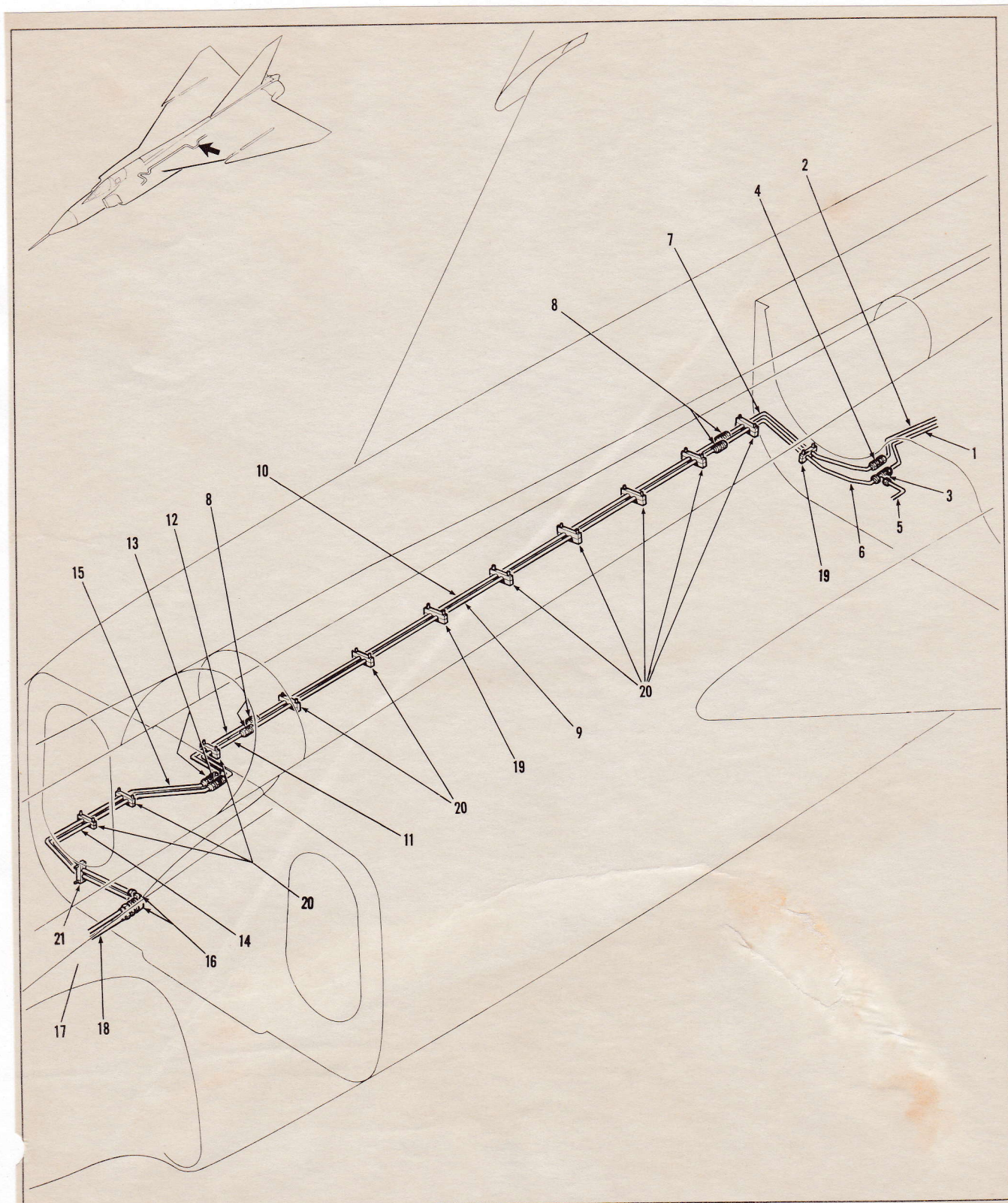


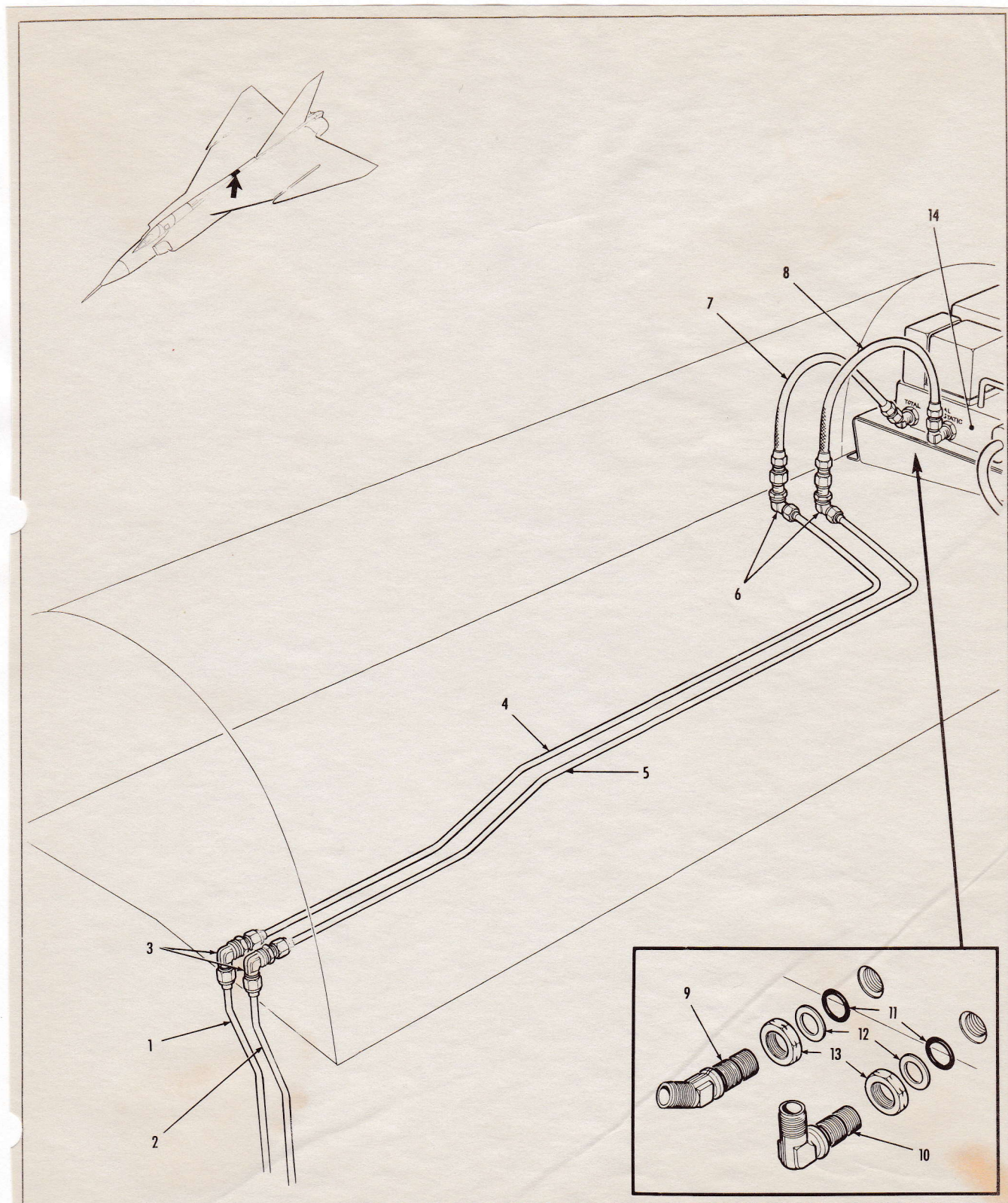


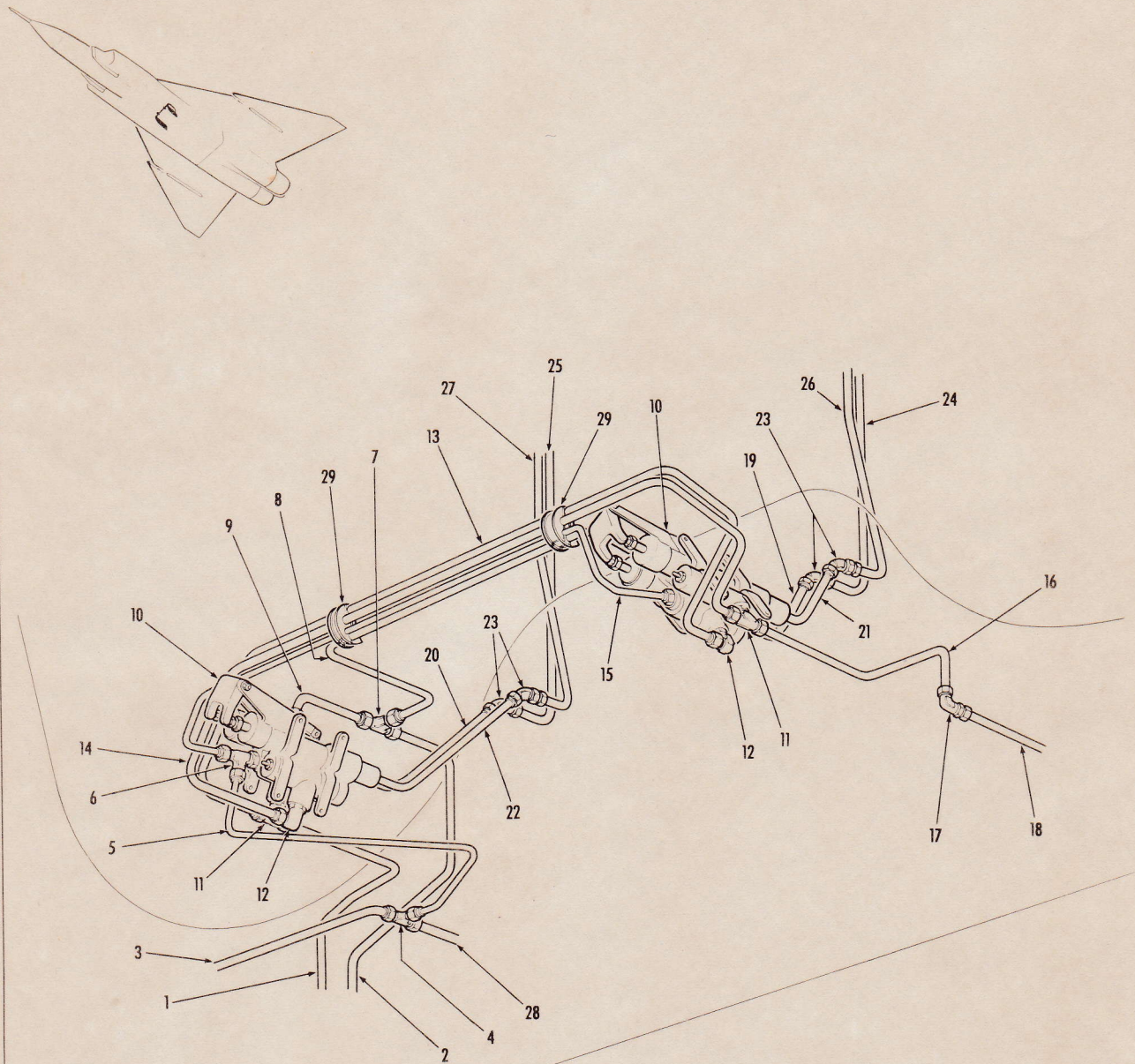
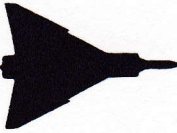


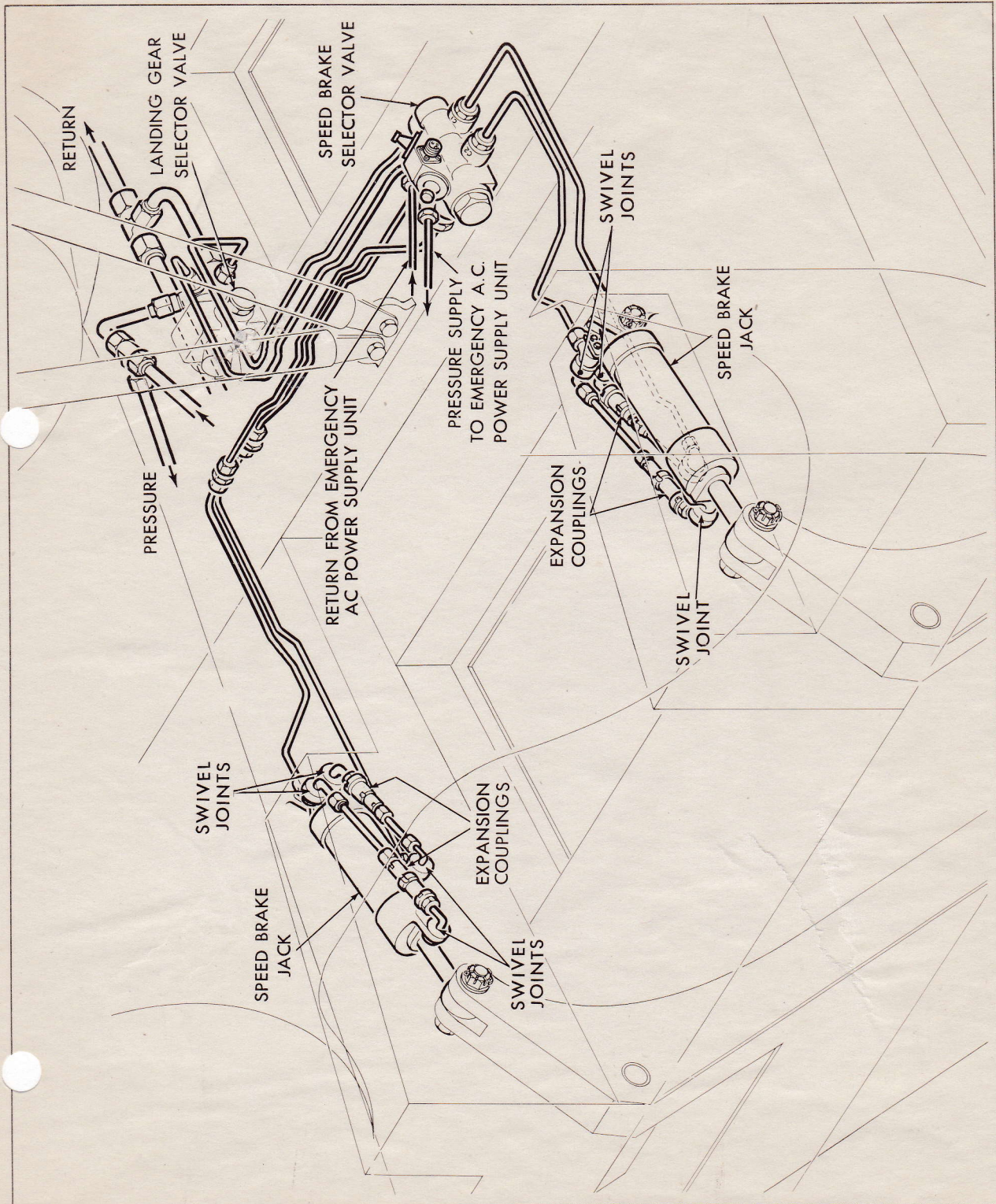
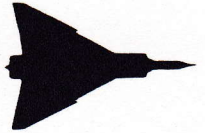


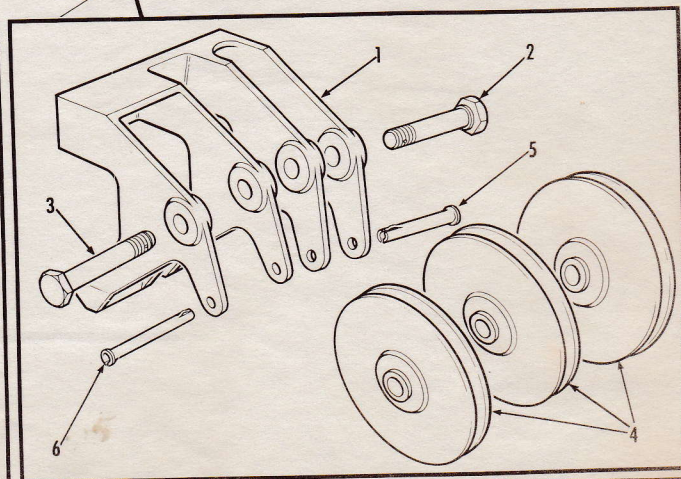
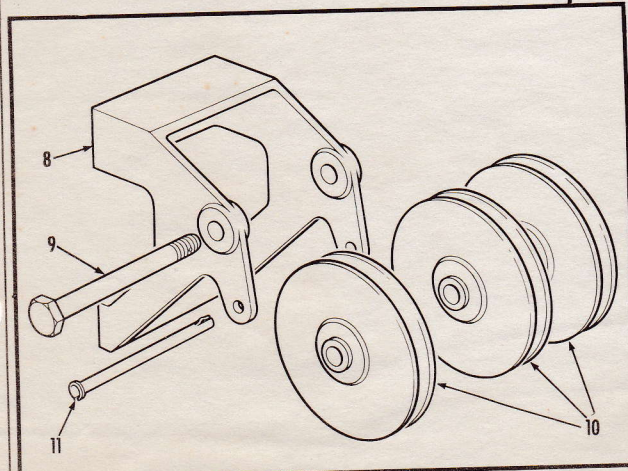
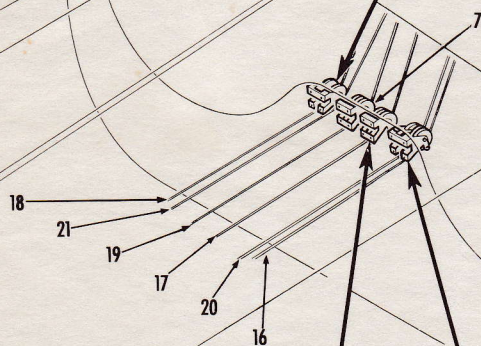
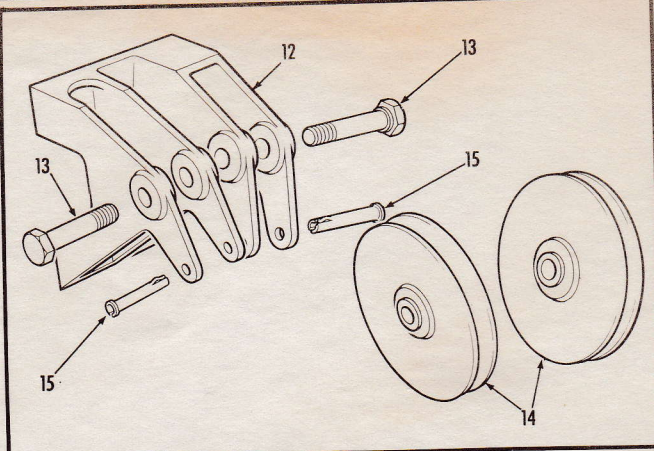
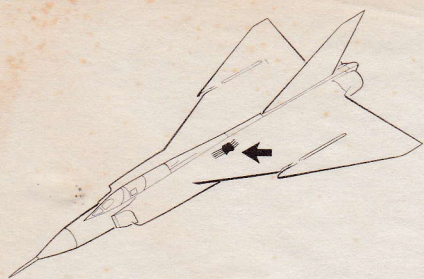


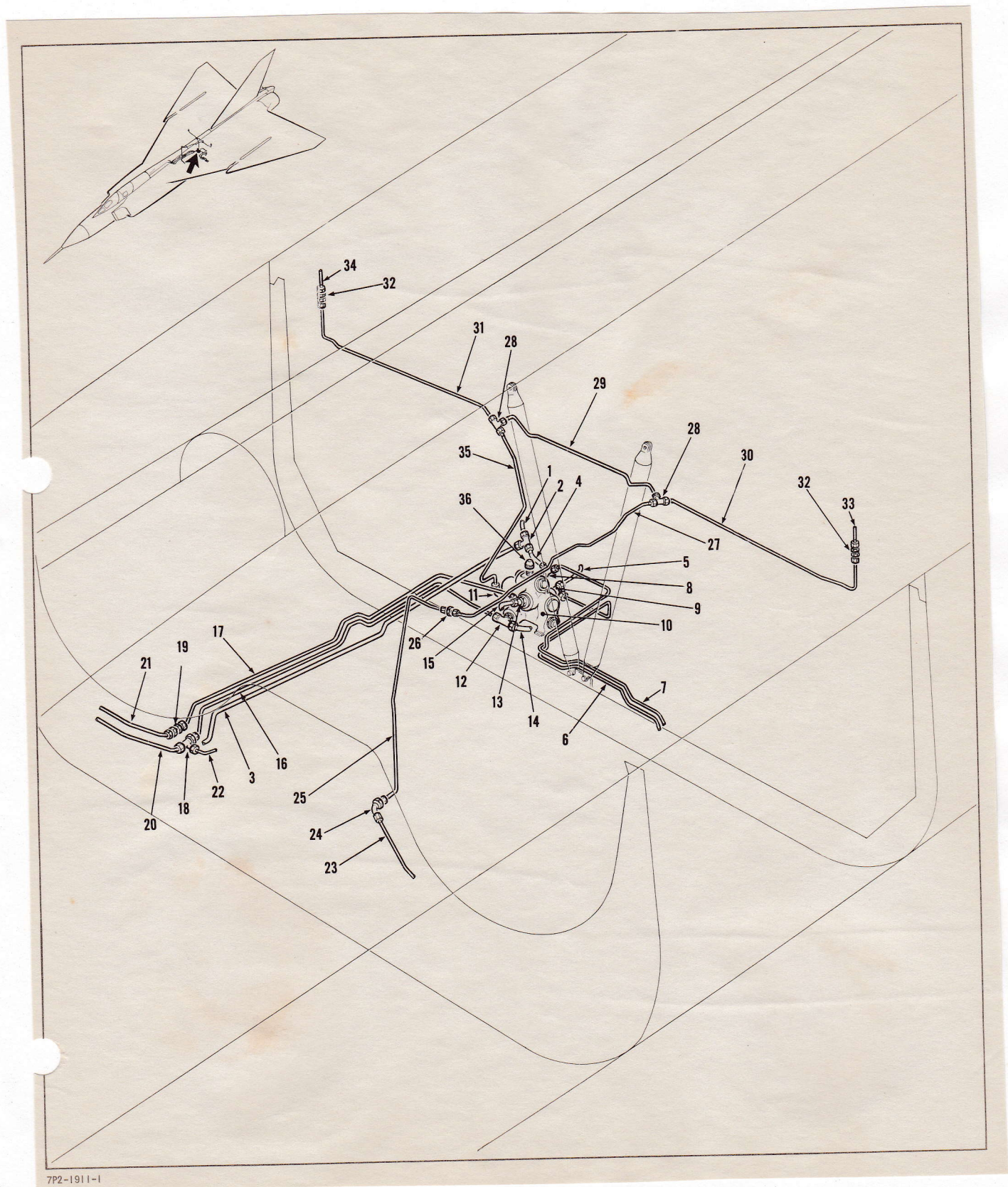


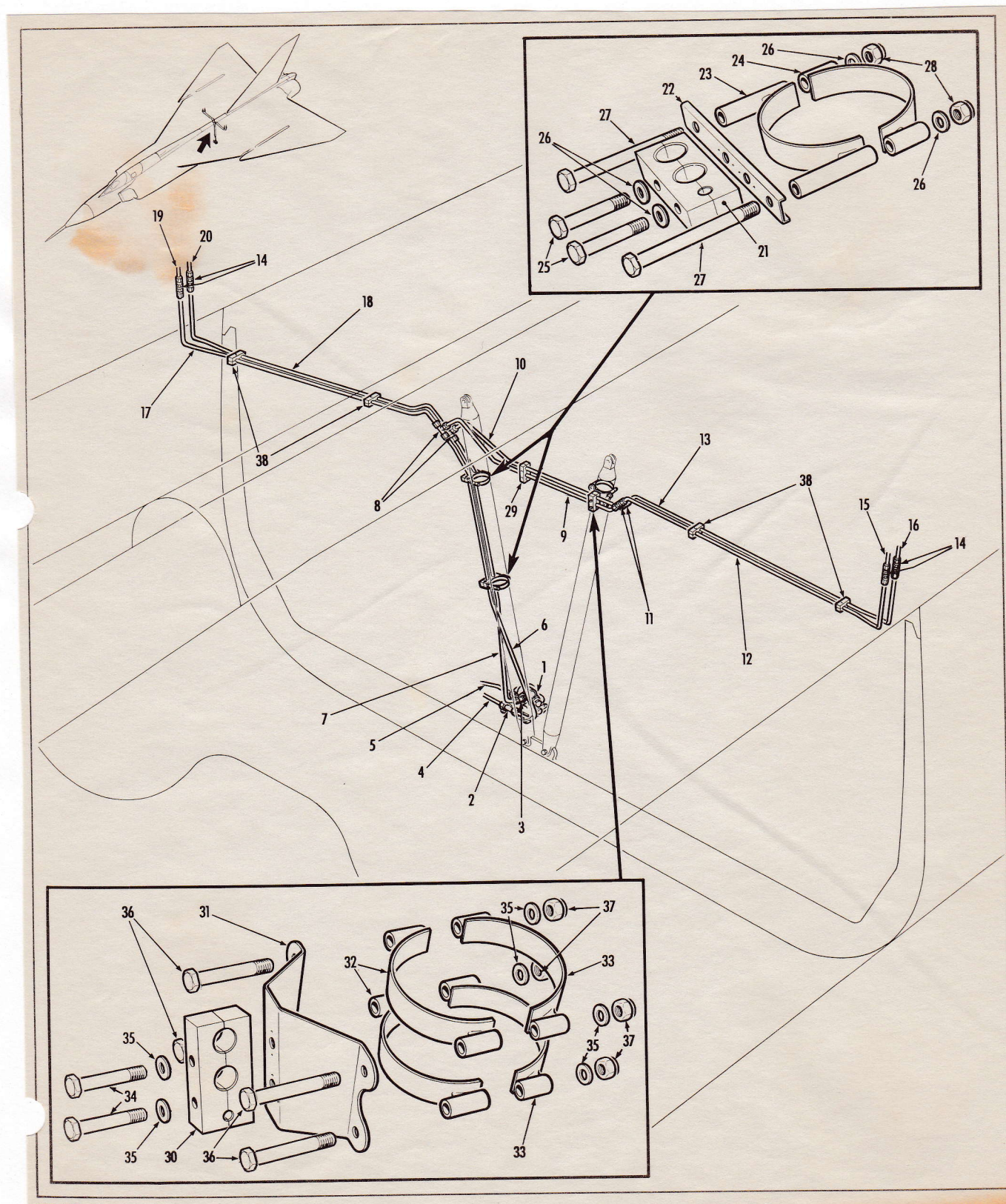


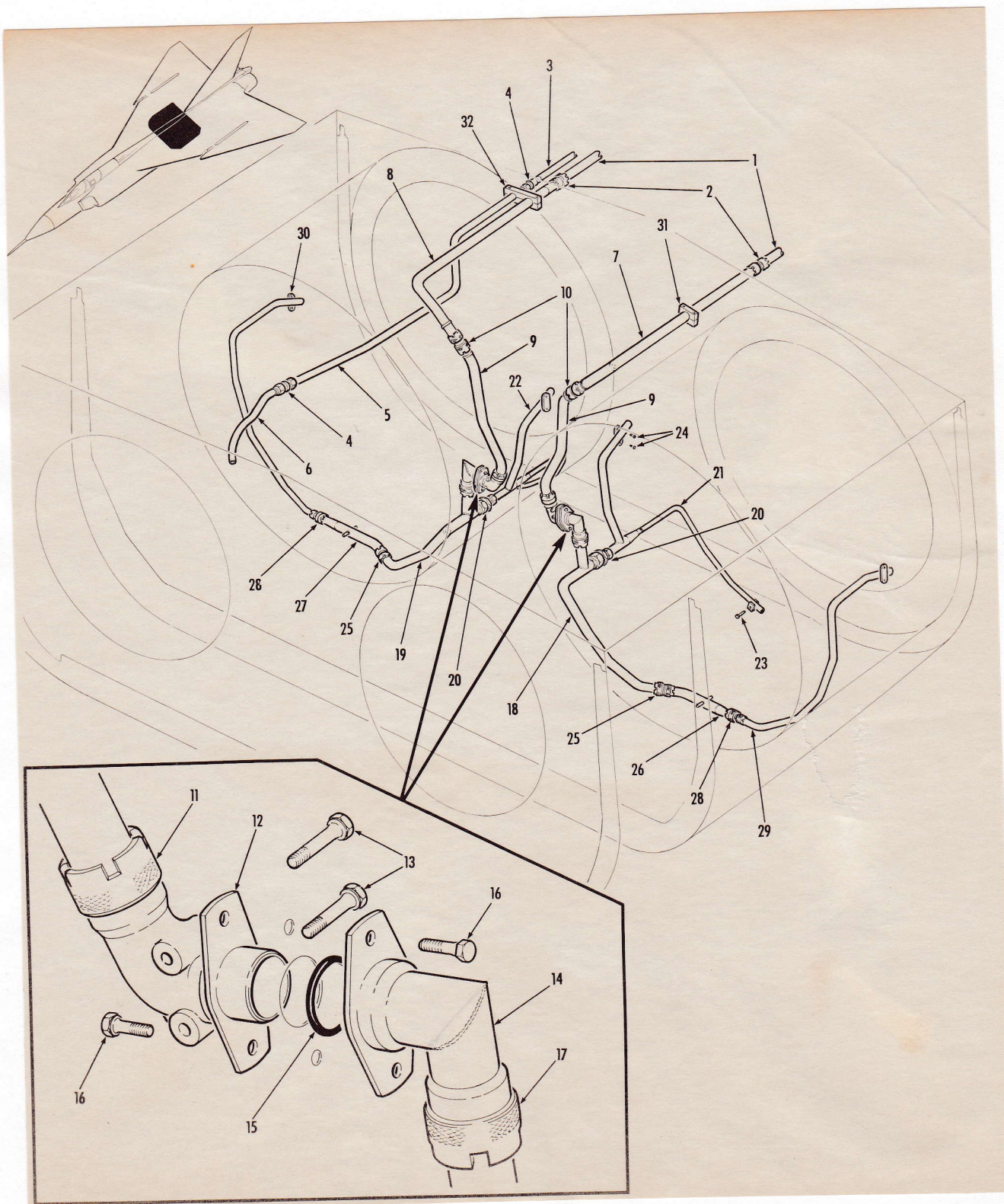
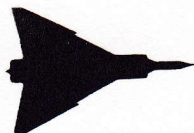


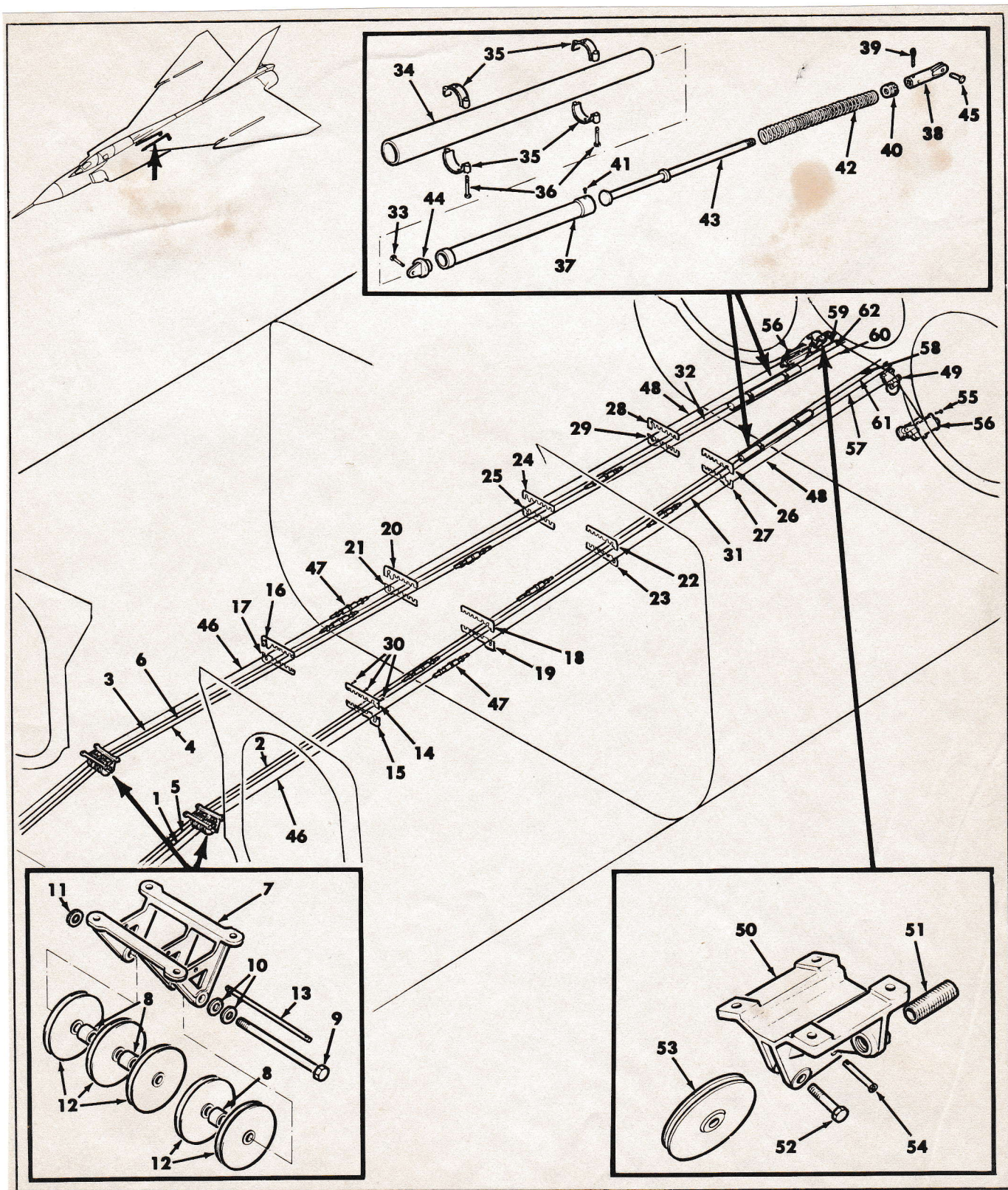


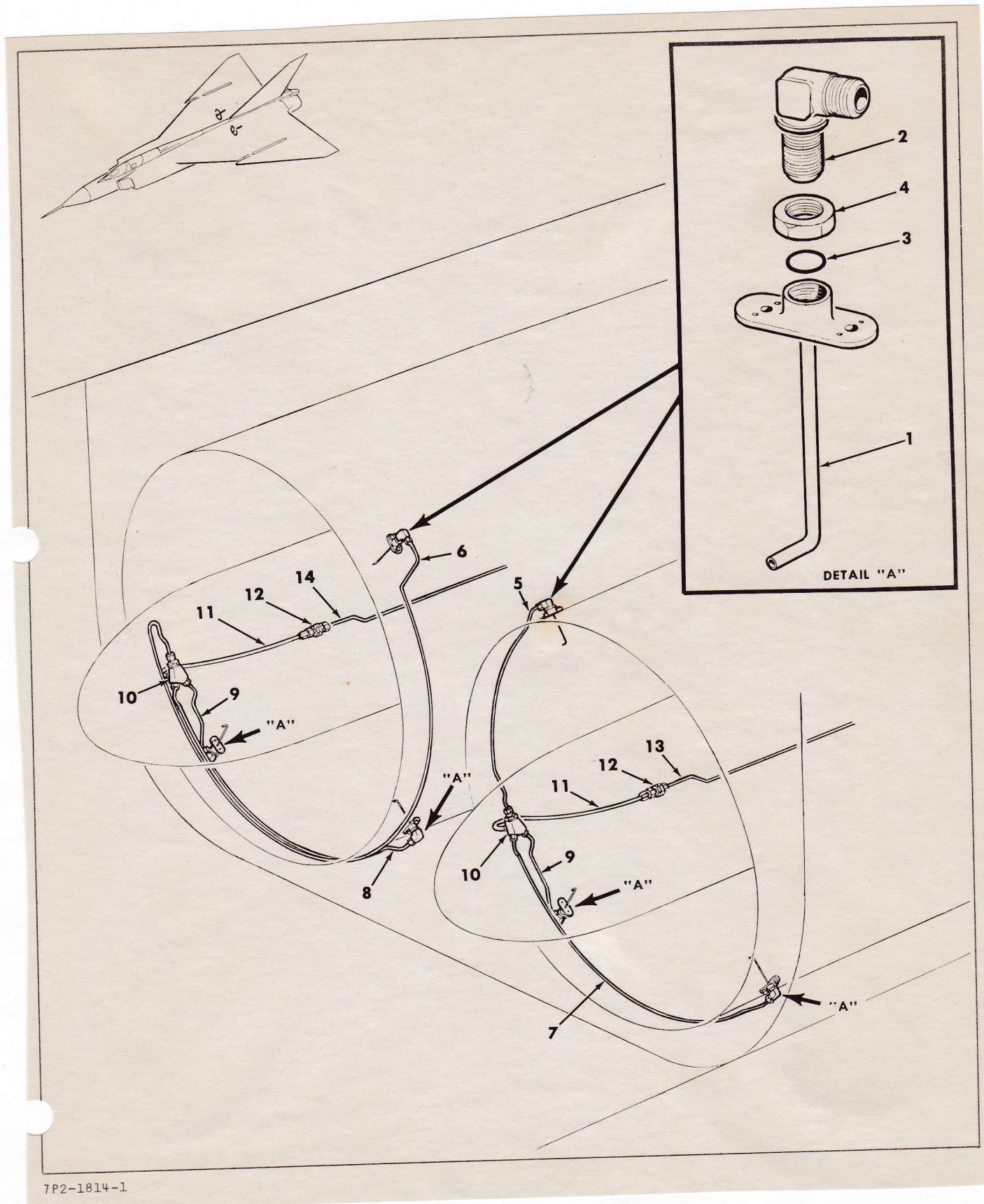
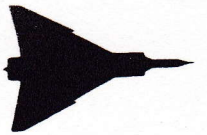


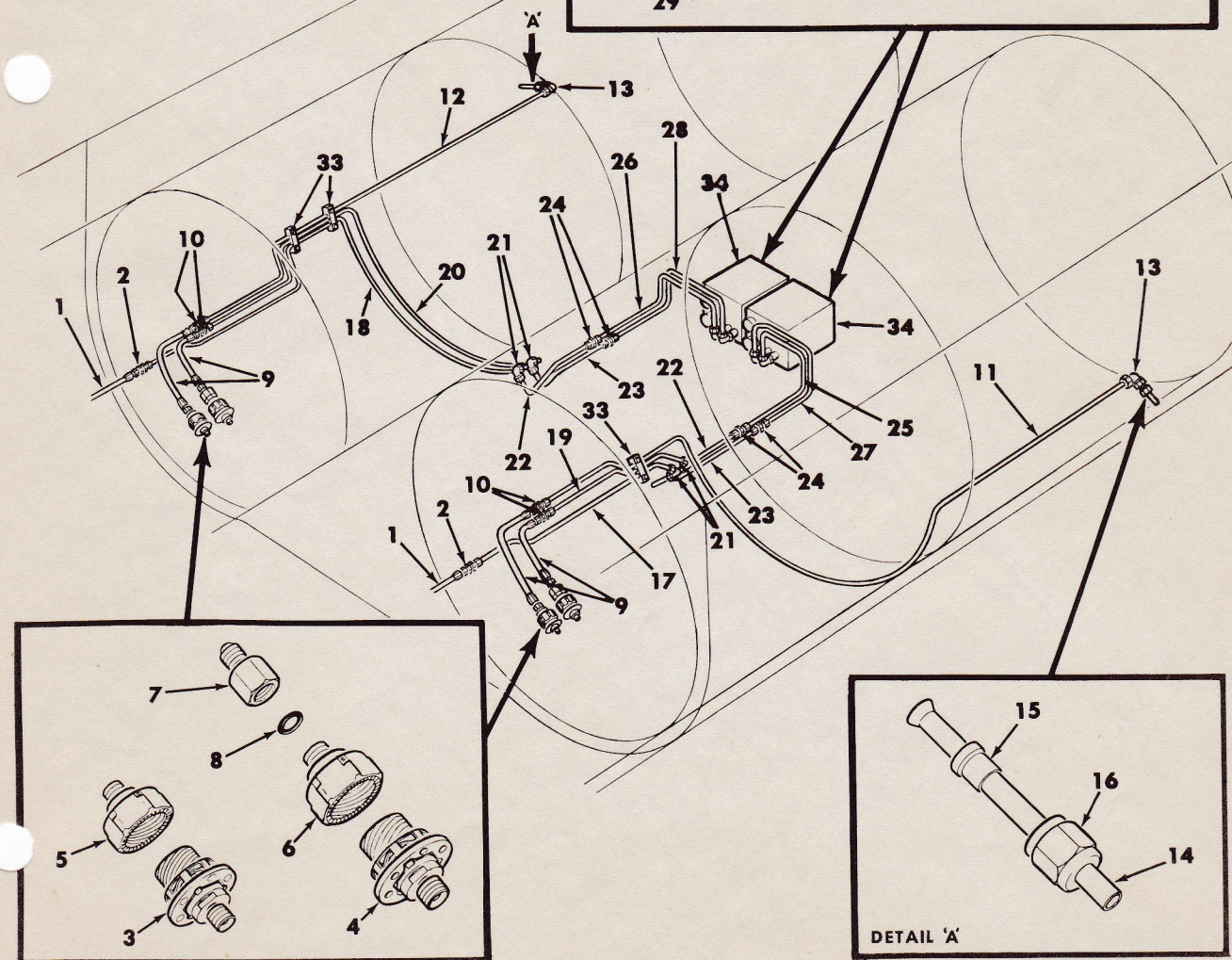
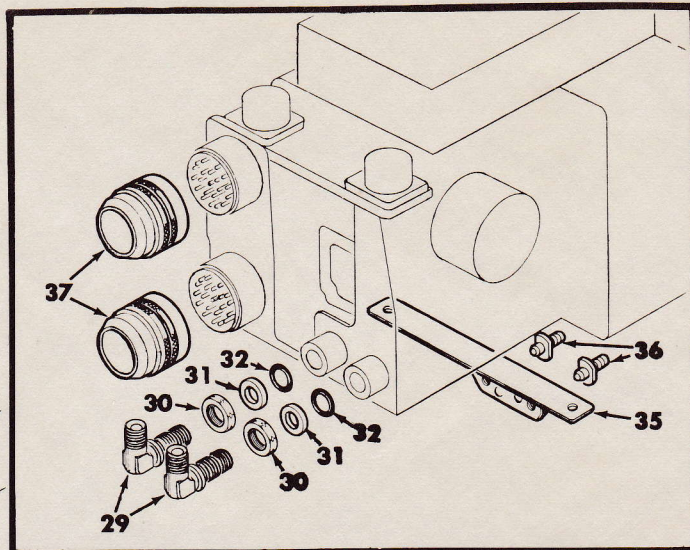
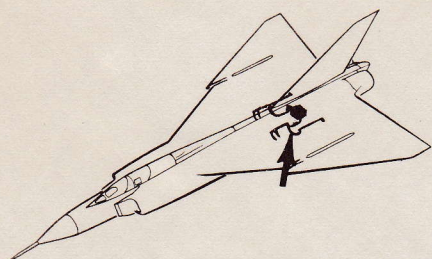


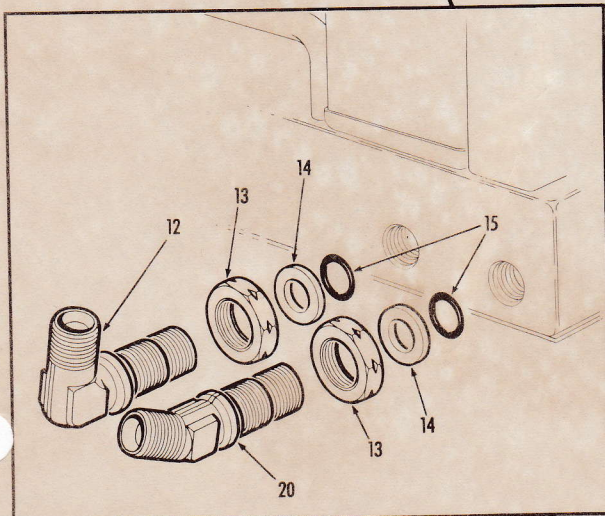
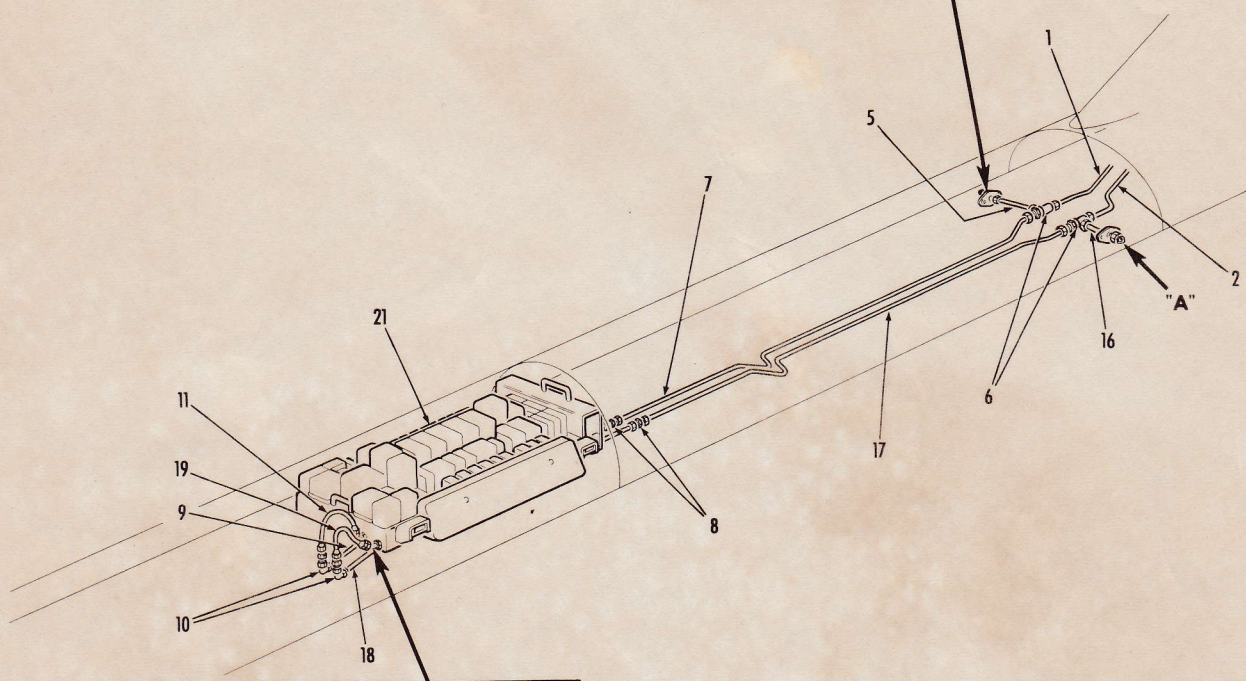
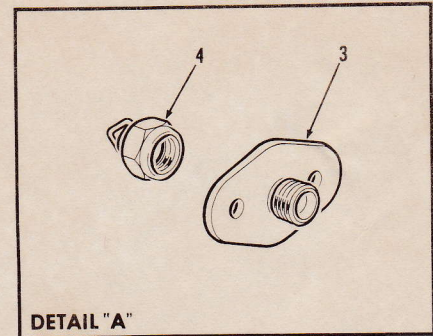
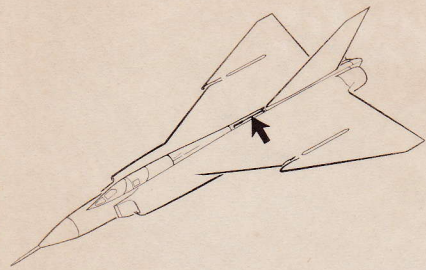


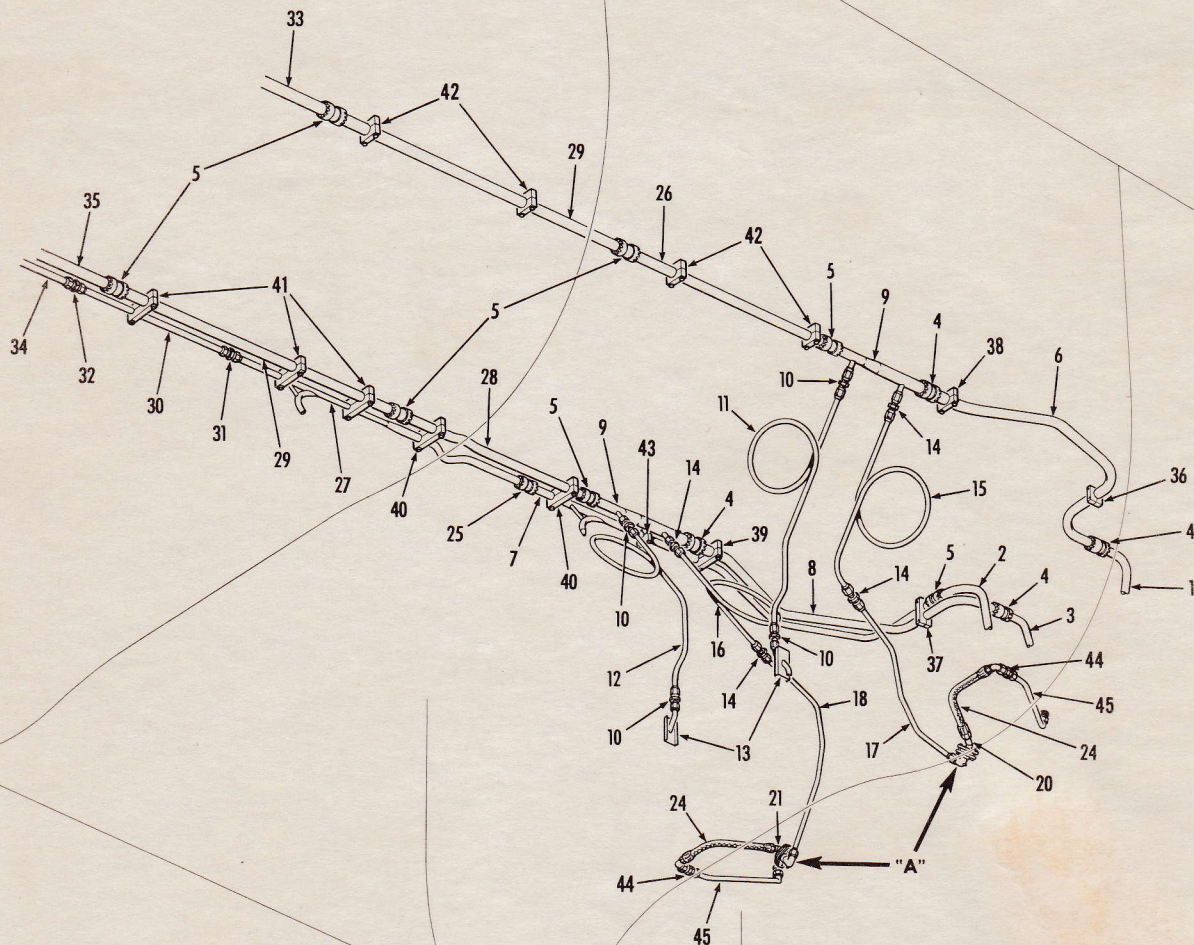
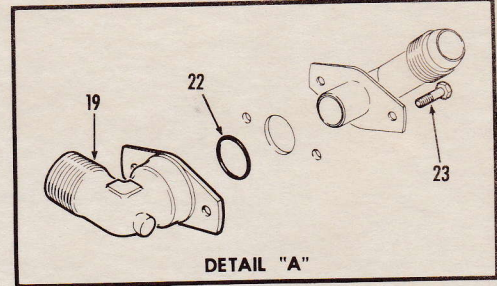
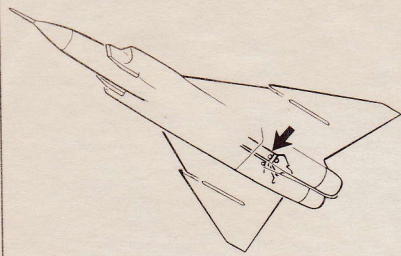
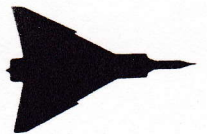


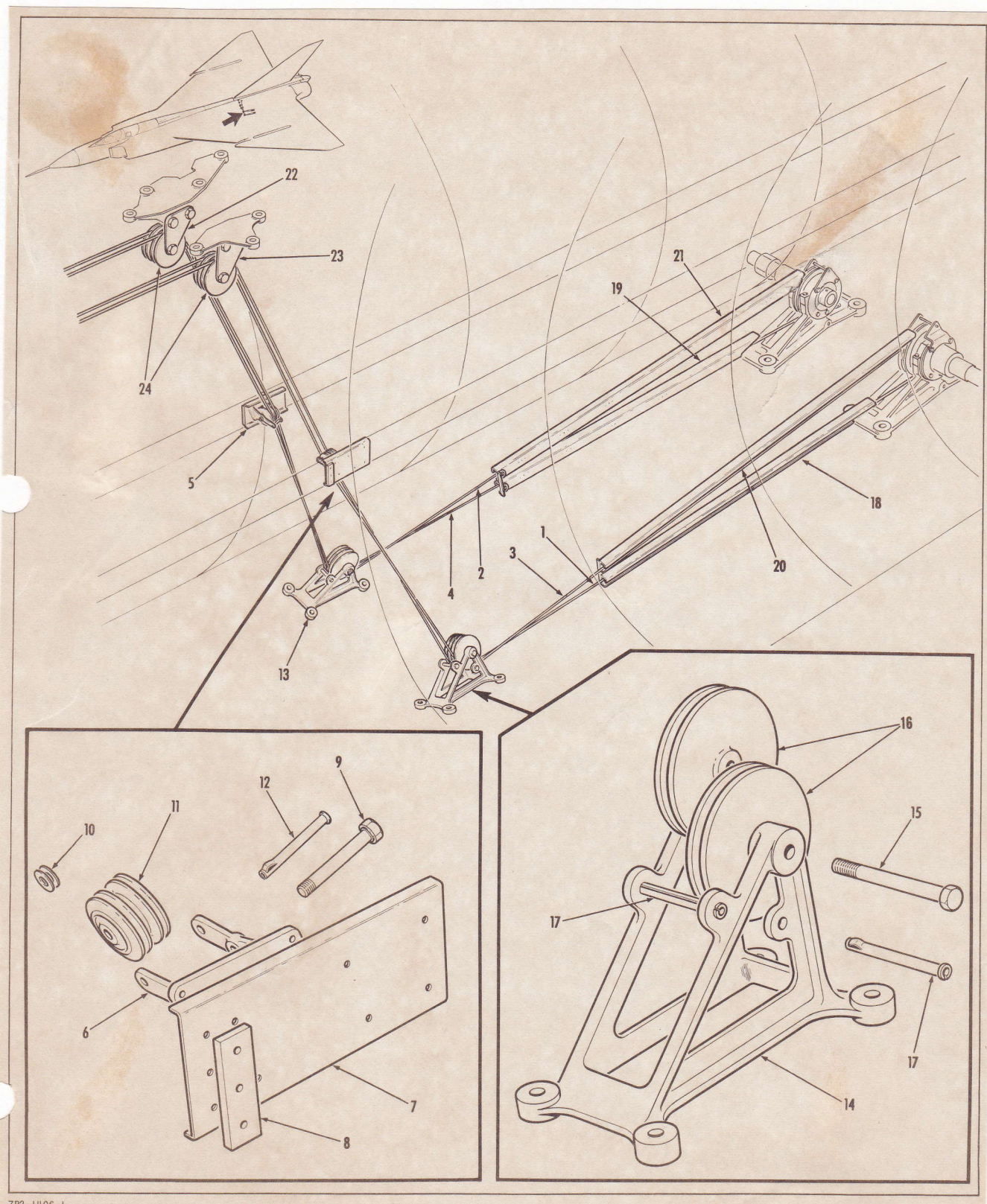
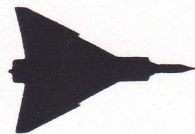


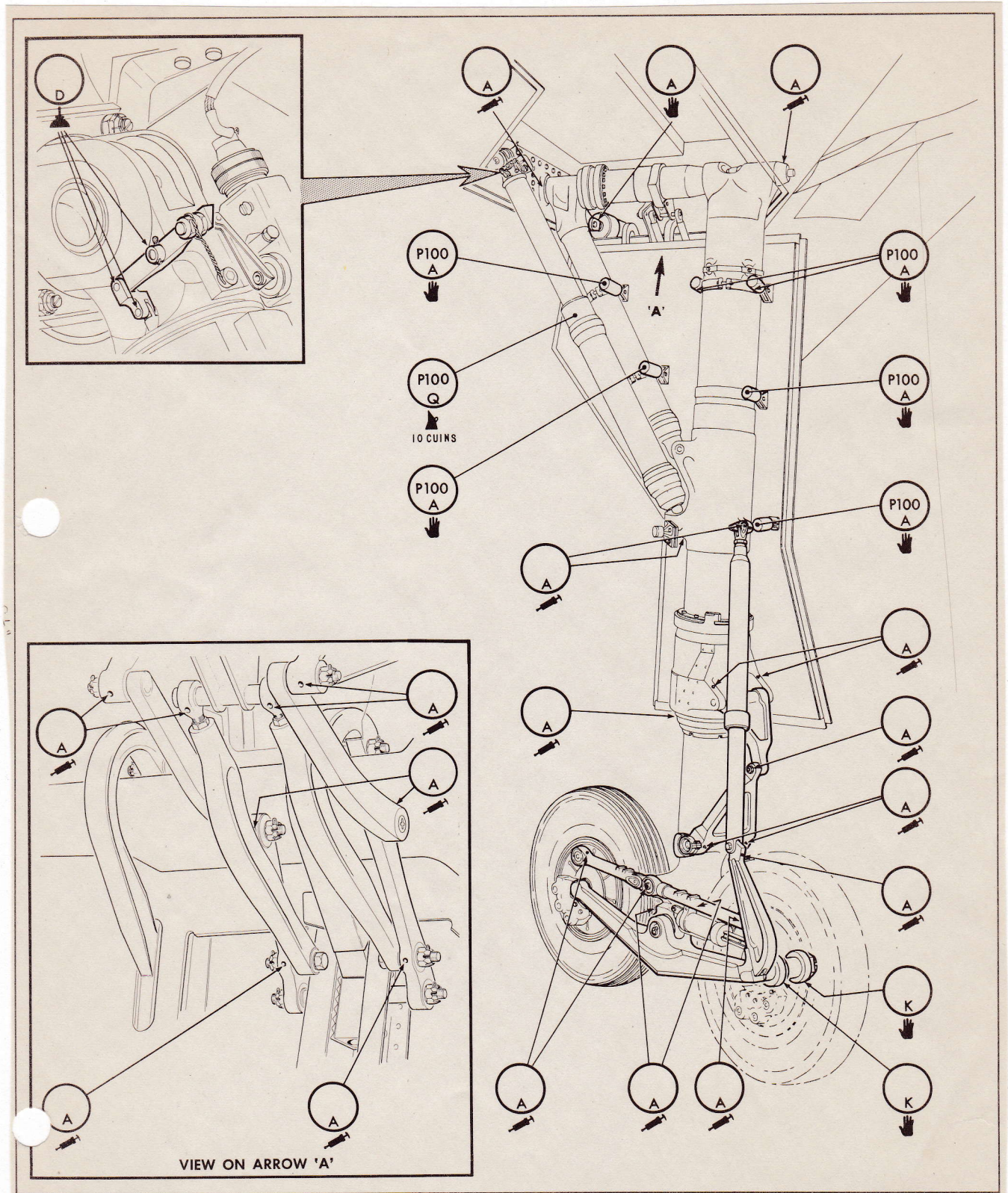
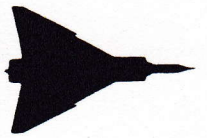


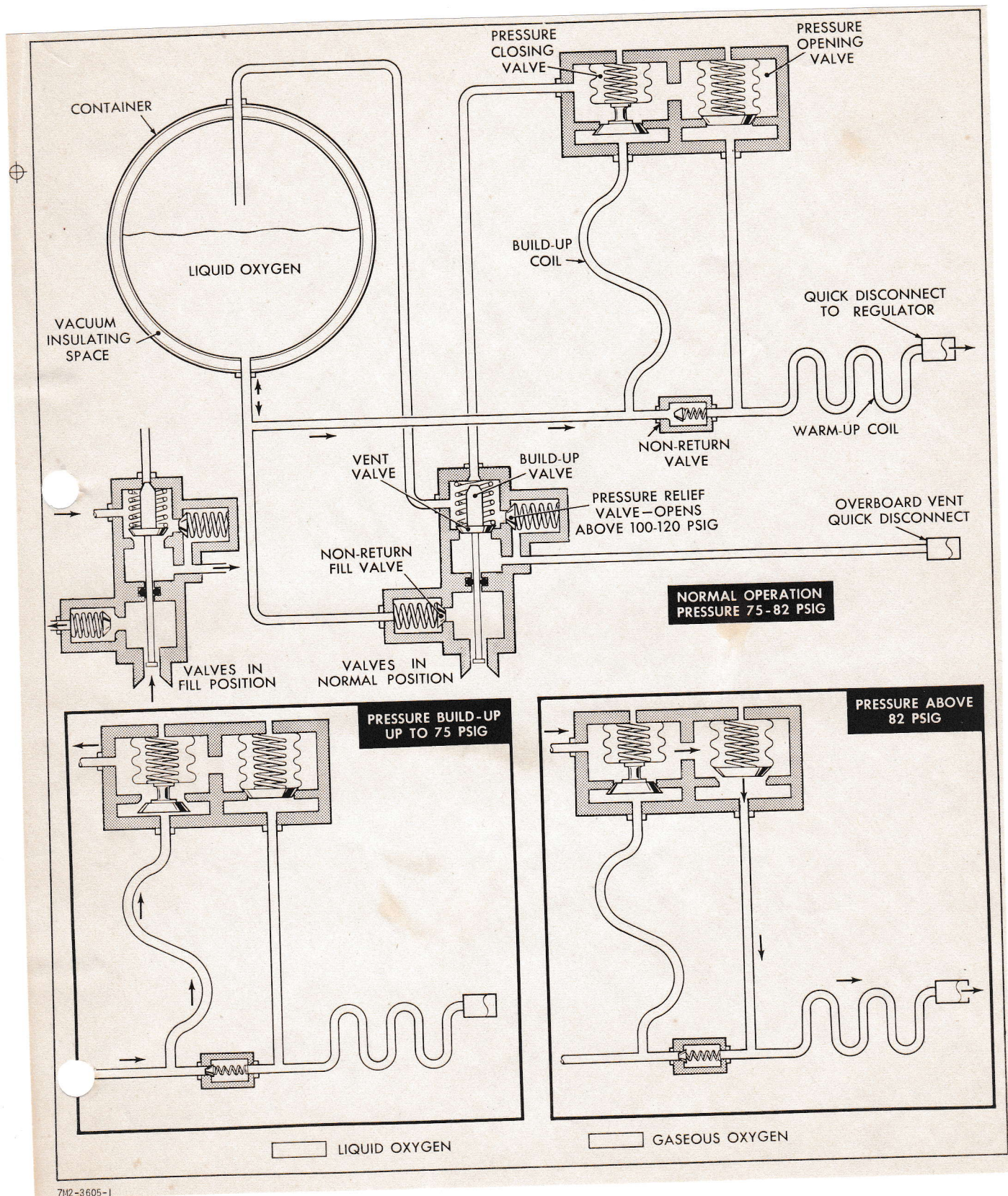


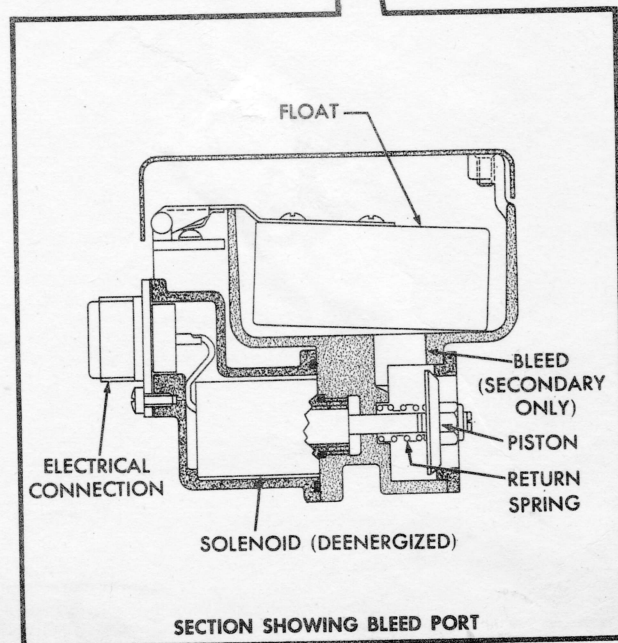
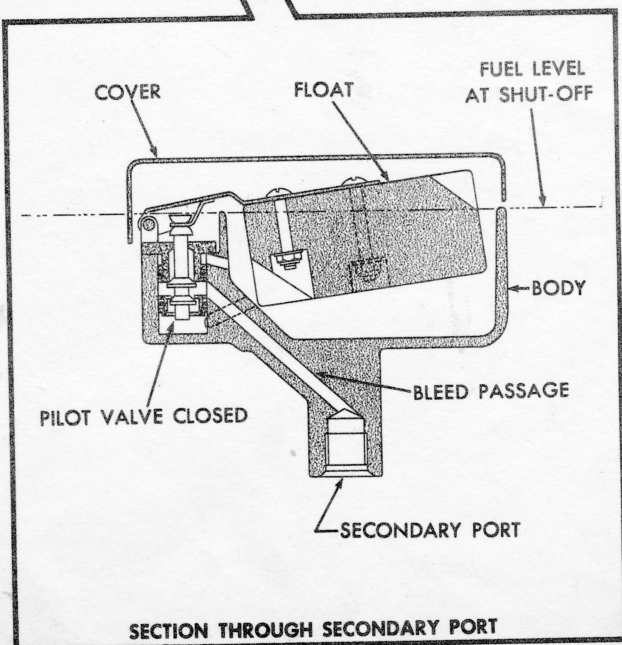
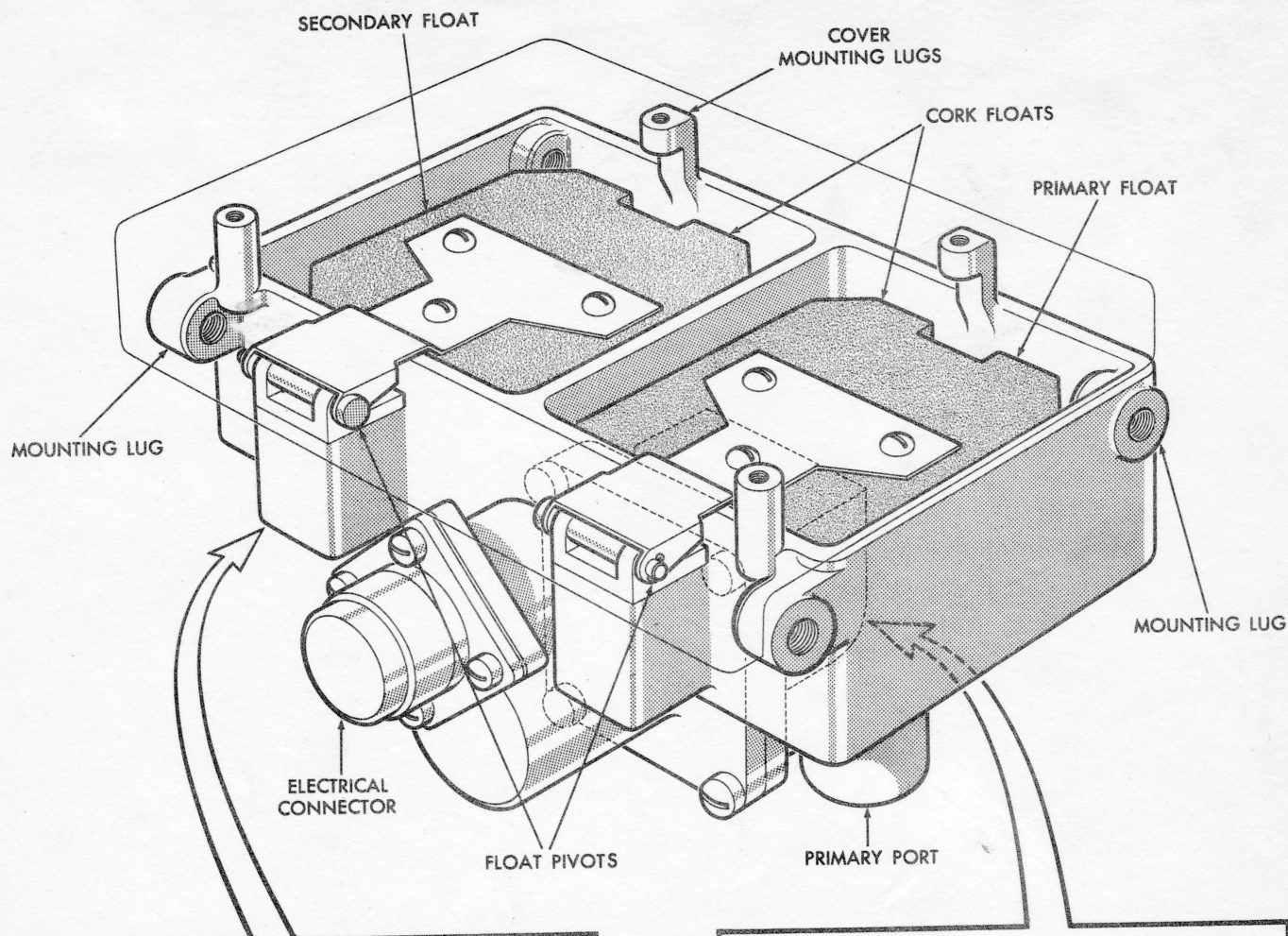


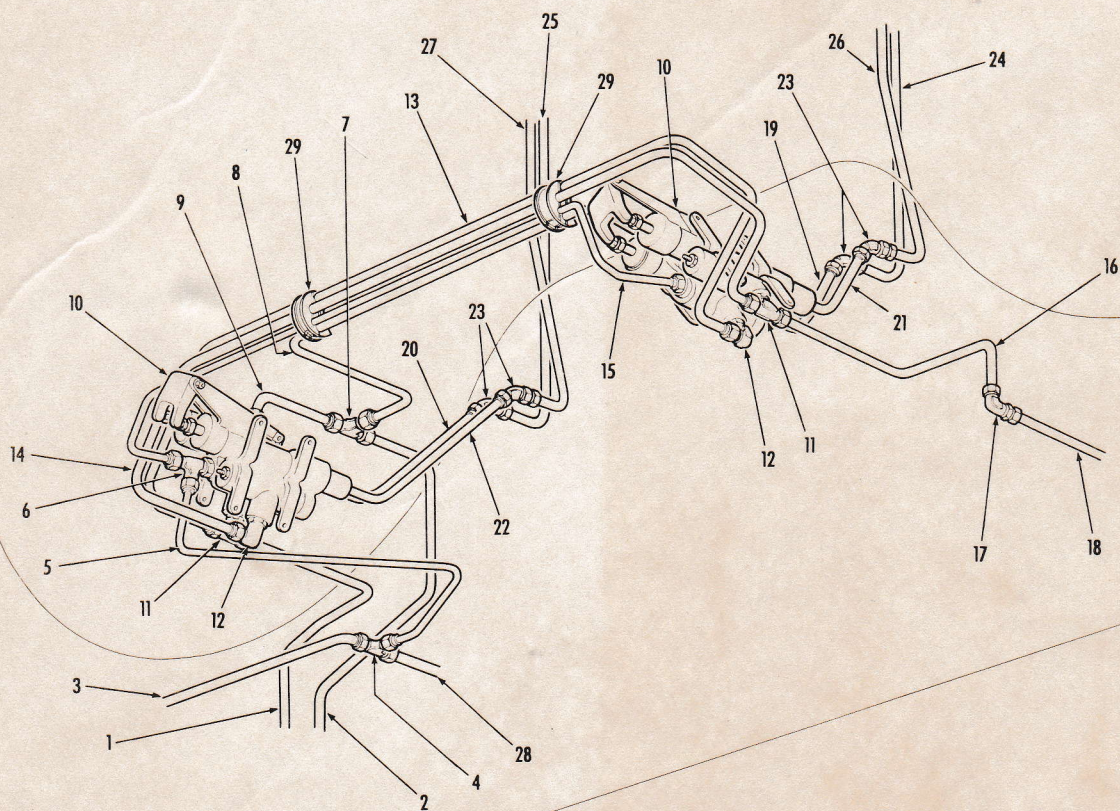
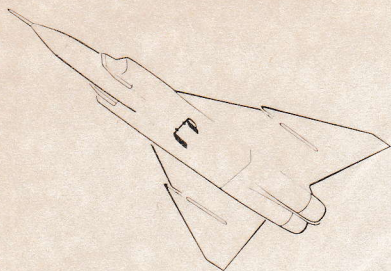


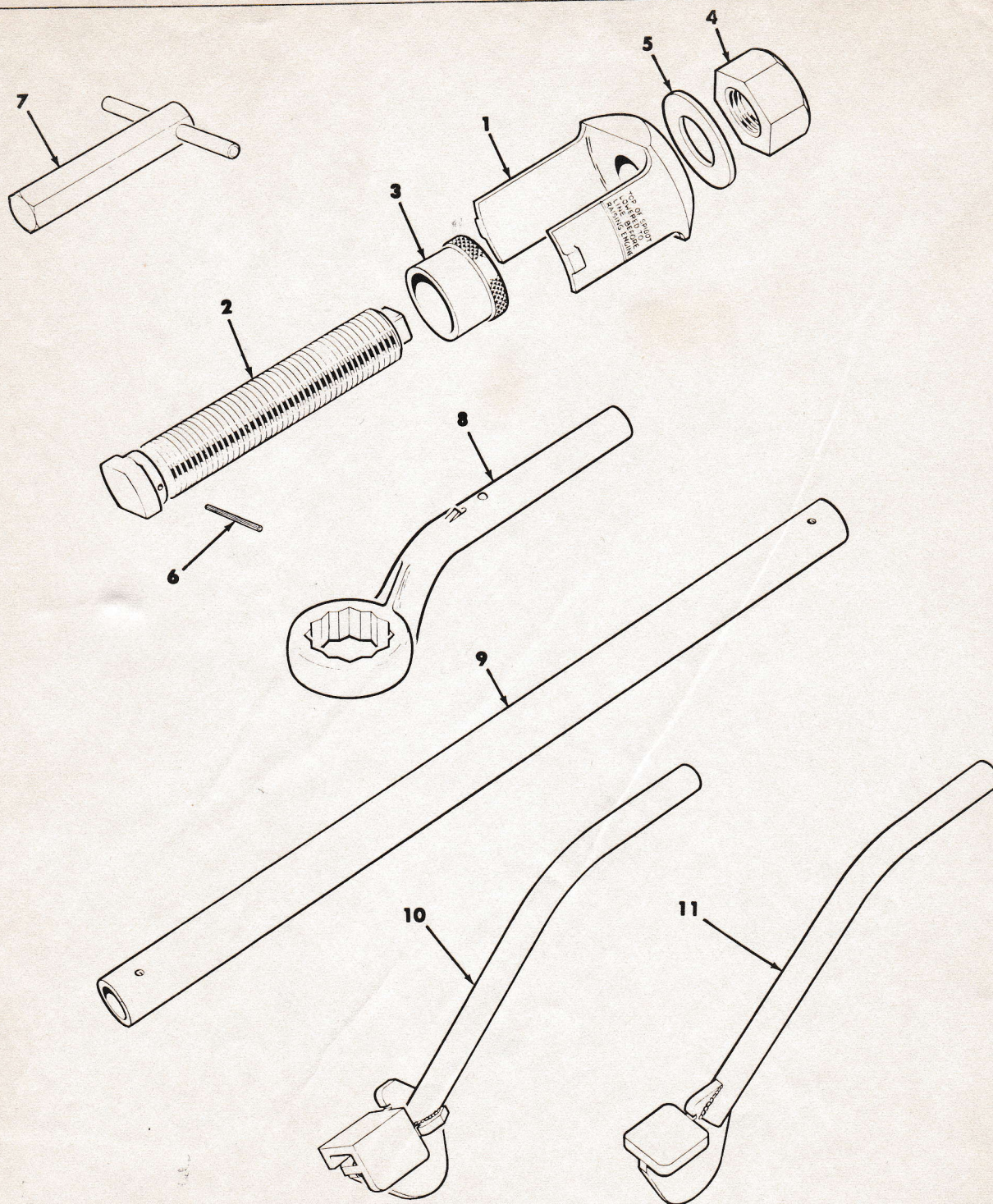


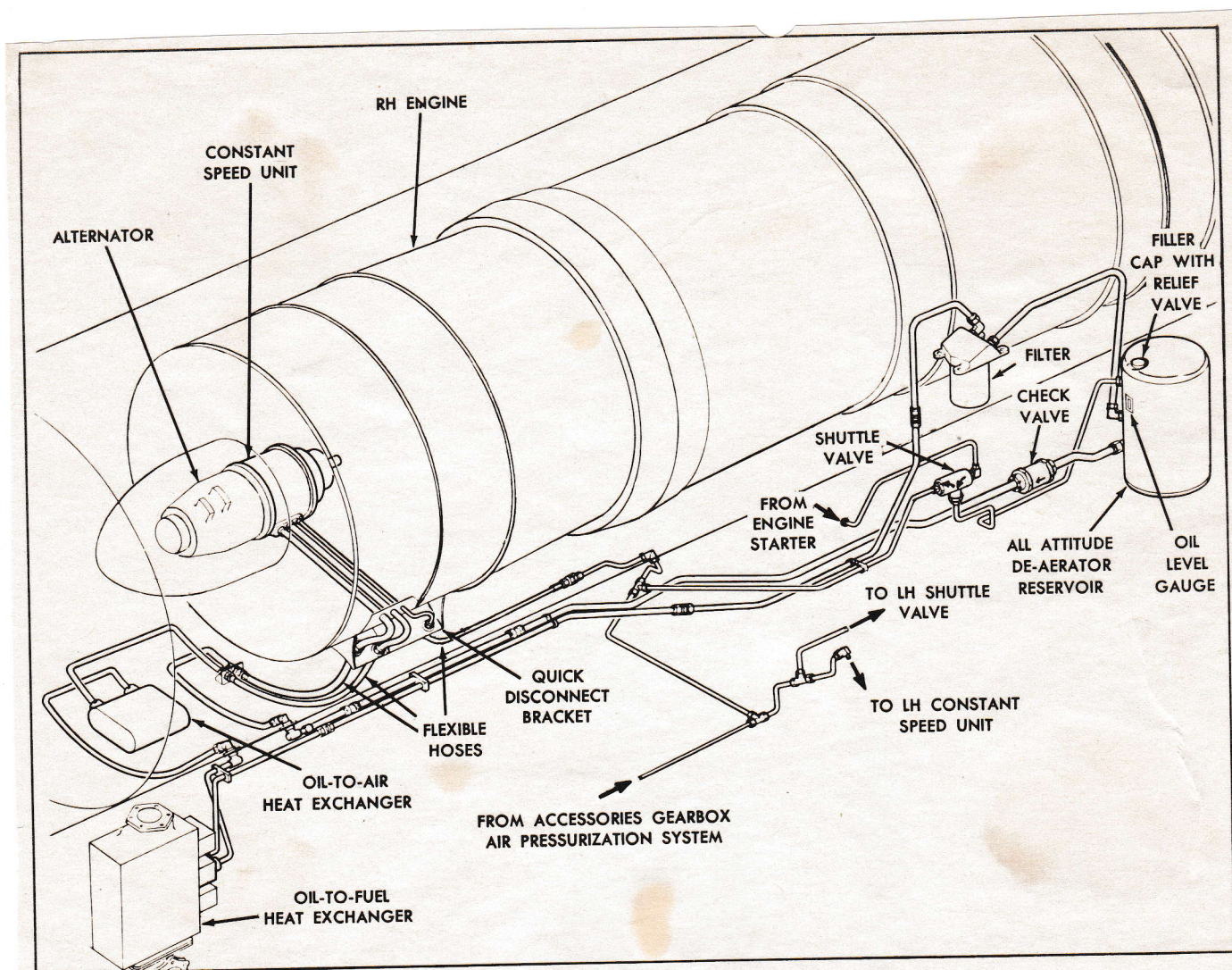
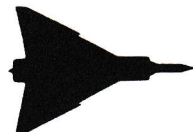












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