

THORP T-18 BLUEPRINTS

Numerical

(477-498)

477	BOSS (ENGINE MOUNT)
478	RING (ENGINE MOUNT)
479	ENGINE MOUNT (LYCOMING EXCEPT DYNAFOCAL)
479	ENGINE MOUNT (LYCOMING EXCEPT DYNAFOCAL)
480	OUTLET (FUEL TANK)
481-L	END (FUEL TANK)
482	SHEET (FUEL TANK)
483-1	AXLE STUB (MAIN GEAR)
483-2	AXLE STUB (MAIN GEAR)
484-A	WHEEL BACK RING (MAIN GEAR)
485	WHEEL RETAINER (MAIN GEAR)
486	DETAILS (MAIN GEAR)
487	INSTALLATION (WIND SHIELD)
488	INSTALLATION (RUDDER PEDALS)
489	INSTALLATION (RUDDER PEDALS)
490	INSTALLATION (BRAKE SYSTEM)
491	BREAK PEDAL
492	PEDAL SUPPORT
493	SPRING (RUDDER)
494-L	SHEAR PLATE (FUSELAGE)
495	PUSH-PULL TUBE ASSEMBLY (ELEVATOR)
496	PUSH-PULL TUBE (ELEVATOR SPACER)
498	BELL CRANK ASSEMBLY (AILERON CONT.)

(500-599)

500	PUSH-PULL TUBE (AILERON CONTROL)
501	PUSH-PULL TUBE (AILERON CONTROL)
502-A	ASSEMBLY (HORIZONTAL TAIL)
502-B	ASSEMBLY (HORIZONTAL TAIL)
503	TIP RIB ASSEMBLY (HORIZONTAL TAIL)
504-A	FORWARD TUNNEL (HORIZONTAL TAIL)
505	AFT TUNNEL (FUSELAGE)
506	TIP (HORIZONTAL TUNNEL)
508	INSTRUMENT PANEL
509	LUG (HORIZONTAL TAIL PIVOT)
510-A	MAST ASSEMBLY (HORIZONTAL TAIL)
510	MAST ASSEMBLY (HORIZONTAL TAIL)
512	SEAT FRAME
513-L	TAB ARM (HORIZONTAL TAIL)
514	FUEL TANK ASSEMBLY
515	MAIN LANDING GEAR ASSEMBLY
515-B	TAIL WHEEL
516	INSTALLATION (MAIN LANDING GEAR)
517-L	TAB ASSEMBLY (HORIZONTAL TAIL)
518	RUDDER CONTROL (SYSTEM INSTALLATION)
519	ELEVATOR CONTROL SYSTEM
520	AILERON CONTROL SYSTEM
521-A	TAB LINKAGE (HORIZONTAL TAIL)
522	FITTING (MAIN BEAM ATTACHMENT)
523	SKIN (FUSELAGE LOWER)
524	SKIN FUSELAGE (TOP AFT)
525-L	FRAME ASSEMBLY (WINDSHIELD)
526	TOP FITTING ASS'Y (FUSELAGE)
527	ATTACH BEAM (LANDING GEAR)
528-R	CRADLE ASS'Y (FUEL TANK)
531-R	ASSEMBLY (AILERON)

Function:

3-Views and Design Drawings

609	DESIGN REFERENCE
547	WING PROFILE
548-K	THREE VIEW (SPORT PLANE)
519	ELEVATOR CONTROL SYSTEM
520	AILERON CONTROL SYSTEM
518	RUDDER CONTROL (SYSTEM INSTALLATION)

Center Wing

532	MODIFICATION (CENTER WING)
532	ASSEMBLY (CENTER WING)
533-R	RIB CENTER (INNER WING BL-21.375)
534-R	RIB CENTER (INNER WING BL-35.625)
535-L	RIB CENTER (INNER WING BL-49.875)
536-L	RIB ASSEMBLY CENTER (INNER WING BL-64.125)
537	MAIN BEAM (INNER WING)
538	REAR BEAM (INNER WING)
615-L	RIB TRAILING EDGE (CENTER WING)

Outer Wing

539	ASSEMBLY (OUTER WING)
539-A	MODIFICATION (OUTER WING ASSEMBLY)
541-L	REAR BEAM (OUTER WING)
542-L	MAIN BEAM (OUTER WING)
543-L	RIB CENTER (OUTER WING)
544	JOINT (WING REAR BEAM)
545	JOINT (WING REAR BEAM)
546	JOINT (MAIN WING BEAM)

Fuselage

494-L	SHEAR PLATE (FUSELAGE)
505	AFT TUNNEL (FUSELAGE)
523	SKIN (FUSELAGE LOWER)
524	SKIN FUSELAGE (TOP AFT)
526	TOP FITTING ASS'Y (FUSELAGE)
571	FRAME (FUSE.STATION 119.0)
571-1	FRAME (FUSE. STATION 119.0)
572	FRAME (FUSE.STATION 139.0)
573	FRAME (FUSE STATION 159.0)
574	FRAME ASSEMBLY (FUSE STATION 179.2)
575	FRAME ASSEMBLY (FUSE STATION 191.75)
576	BULKHEAD ASSEMBLY (FUSE STATION 199.75)
580	FUSELAGE ASSEMBLY
580-A	MODIFICATION (FUSELAGE)
580-B	MODIFICATION (FUSLAGE)
593	SKIN FUSELAGE-SIDE (FLAT LAYOUT)
596	BULKHEAD ASSY (FUSE STA. 94.2862)
597	FITTING FUSE (STA. 94.2862)
598	FRAME-FUSELAGE (COCKPIT AFT)
598-1	FRAME-FUSELAGE (COCKPIT AFT)
599	JOINT (MAIN BEAM FUSELAGE)
601	BULKHEAD ASSEMBLY -FUSE SRA 69.928
602-L	FITTING MAIN BEAM (FUSELAGE ATTACH)
617	JOINT REAR (BEAM FUSELAGE)

Vertical Tail

570	INSTALLATION (VERTICAL RUDDER)
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532 MODIFICATION (CENTER WING)
 532 ASSEMBLY (CENTER WING)
 533-R RIB CENTER (INNER WING BL-21.375)
 534-R RIB CENTER (INNER WING BL-35.625)
 535-L RIB CENTER (INNER WING BL-49.875)
 536-L RIB ASSEMBLY CENTER (INNER WING BL-64.125)
 537 MAIN BEAM (INNER WING)
 538 REAR BEAM (INNER WING)
 539 ASSEMBLY (OUTER WING)
 539-A MODIFICATION (OUTER WING ASSEMBLY)
 540-L WING TIP
 541-L REAR BEAM (OUTER WING)
 542-L MAIN BEAM (OUTER WING)
 543-L RIB CENTER (OUTER WING)
 544 JOINT (WING REAR BEAM)
 545 JOINT (WING REAR BEAM)
 546 JOINT (MAIN WING BEAM)
 547 WING PROFILE
 548-K THREE VIEW (SPORT PLANE)
 549 HINGE (AILERON WING)
 550 CONTROL ASSEMBLY
 551 WALKING BEAM
 552 SOCKET CONTROL STICK
 553 PLATE (AILERON CONTROL ARM)
 554 BUSHING (AILERON PIVOT)
 555 BUSHING (ELEVATOR PIVOT)
 556 CONTROL MOUNTING
 557 BEAM (AILERON)
 558 ASSEMBLY (AILERON RIB)
 559 MAST (AILERON)
 560 BALANCE (AILERON)
 561 ASSEMBLY (FIN)
 563 ROOT RIB (FIN)
 564 INTERMEDIATE (RIB FIN}
 565 TIP RIB (ASSEMBLY FIN
 566 BEAM ASSEMBLY (FIN)
 567 RIB ASSEMBLY (BOTTOM RUDDER}
 568 RIB ASSEMBLY (TOP RUDDER)
 569 ASSEMBLY (RUDDER)
 570 INSTALLATION (VERTICAL RUDDER)
 571 FRAME (FUSE.STATION 119.0)
 571-1 FRAME (FUSE. STATION 119.0)
 572 FRAME (FUSE.STATION 139.0)
 573 FRAME (FUSE STATION 159.0)
 574 FRAME ASSEMBLY (FUSE STATION 179.2)
 575 FRAME ASSEMBLY (FUSE STATION 191.75)
 576 BULKHEAD ASSEMBLY (FUSE STATION 199.75)
 577 HINGE (RUDDER LOWER)
 578 STOP (RUDDER)
 579 MAST (RUDDER)
 580 FUSELAGE ASSEMBLY
 580-A INSTALLATION (FUSLAGE DECK)
 580-A MODIFICATION (FUSELAGE)
 580-B MODIFICATION (FUSLAGE)
 581 BUSHING (RUDDER IDNGE)
 582 DOUBLER ASS'Y (BULKHEAD STA-199.75)
 583 FILLING TAIL GEAR (STA.199.75)
 584 FILLING ASSEMBLY (HORJZONTAL TAIL PIVOT)
 585 RIB-SECOND (RUDDER)

561 ASSEMBLY (FIN)
 563 ROOT RIB (FIN)
 564 INTERMEDIATE (RIB FIN}
 565 TIP RIB (ASSEMBLY FIN
 566 BEAM ASSEMBLY (FIN)
 567 RIB ASSEMBLY (BOTTOM RUDDER}
 568 RIB ASSEMBLY (TOP RUDDER)
 569 ASSEMBLY (RUDDER)
 570 INSTALLATION (VERTICAL RUDDER)
 578 STOP (RUDDER)
 579 MAST (RUDDER)
 581 BUSHING (RUDDER IDNGE)

Horizontal Tail

502-A ASSEMBLY (HORIZONTAL TAIL)
 502-B ASSEMBLY (HORIZONTAL TAIL)
 503 TIP RIB ASSEMBLY (HORIZONTAL TAIL)
 504-A FORWARD TUNNEL (HORIZONTAL TAIL)
 506 TIP (HORIZONTAL TUNNEL)
 509 LUG (HORIZONTAL TAIL PIVOT)
 510-A MAST ASSEMBLY (HORIZONTAL TAIL)
 510 MAST ASSEMBLY (HORIZONTAL TAIL)
 513-L TAB ARM (HORIZONTAL TAIL)
 517-L TAB ASSEMBLY (HORIZONTAL TAIL)
 521-A TAB LINKAGE (HORIZONTAL TAIL)
 594 SPACER (HORIZONTAL TAIL PIVOT)
 595B INSTALLATION (HORIZONTAL TAIL)
 595C INSTALLATION (HORIZONTAL TAIL)
 611 AFT ROOT RIB (HORIZONTAL TAIL)
 623 TIP WEIGHT (HORIZONTAL TAIL)

Wing Beam to Fuselage Joints

599 JOINT MAIN (BEAM FUSELAGE)
 617 JOINT REAR (BEAM FUSELAGE)

Control Sticks and Linkage

519 ELEVATOR CONTROL SYSTEM
 520 AILERON CONTROL SYSTEM
 495 PUSH-PULL TUBE ASSEMBLY (ELEVATOR)
 496 PUSH-PULL TUBE (ELEVATOR SPACER)
 498 BELL CRANK ASSEMBLY (AILERON CONT.)
 500 PUSH-PULL TUBE (AILERON CONTROL)
 501 PUSH-PULL TUBE (AILERON CONTROL)
 531-R ASSEMBLY (AILERON)
 549 HINGE (AILERON WING)
 550 CONTROL ASSEMBLY
 551 WALKING BEAM
 552 SOCKET CONTROL STICK
 553 PLATE (AILERON CONTROL ARM)
 554 BUSHING (AILERON PIVOT)
 555 BUSHING (ELEVATOR PIVOT)
 556 CONTROL MOUNTING
 557 BEAM (AILERON)
 558 ASSEMBLY (AILERON RIB)
 559 MAST (AILERON)
 560 BALANCE (AILERON)

Rudder Control System

518 RUDDER CONTROL (SYSTEM INSTALLATION)

586	RIB THIRD (RUDDER)
587	BEAM-UPPER (RUDDER)
588	BEAM-LOWER (RUDDER)
589	SPRING (TAIL GEAR)
589B	SPRING (TAIL GEAR)
590A	INSTALLATION (TAIL GEAR)
590	INSALLATION (TAIL GEAR)
591	FITTING TAIL GEAR (STA.191.75)
592	BULKHEAD ASSEMBLY (STA.76.5)
593	SKIN FUSELAGE-SIDE (FLAT LAYOUT)
594	SPACER (HORIZONTAL TAIL PIVOT)
595B	INSTALLATION (HORIZONTAL TAIL)
595C	INSTALLATION (HORIZONTAL TAIL)
596	BULKHEAD ASSY (FUSE STA. 94.2862)
597	FITTING FUSE (STA. 94.2862)
598	FRAME-FUSELAGE (COCKPIT AFT)
598-1	FRAME-FUSELAGE (COCKPIT AFT)
599	JOINT (MAIN BEAM FUSELAGE)

(601-690)

601	BULKHEAD ASSEMBLY -FUSE SRA 69.928
602-L	FITTING MAIN BEAM (FUSELAGE ATTACH)
603	DASH
604	FIREWALL
609	DESIGN REFERENCE
611	AFT ROOT RIB (HORIZONTAL TAIL)
615-L	RIB TRAILING EDGE (CENTER WING)
617	JOINT REAR (BEAM FUSELAGE)
623	TIP WEIGHT (HORIZONTAL TAIL)
631	INSTALLATION (WJNG FLAP)
632-L	ASSEMBLY (WING FLAP)
634-L	RIB ASSEMBLY (INBOARD FLAP)
635-L	RIB ASSEMBLY (OUTBOARD FLAP)
636-L	BEAM (WING FLAP)
637	HINGE PLATE (WING FLAP)
638-R	MAST (WINGFLAP)
639	REAR BULKHEAD (SPINNER)
640	SPINNER ASSEMBLY
641	SPINNER SHELL
642	FRONT BULKHEAD (SPINNER)
650	INSALLATION (CANOPY)
650-25	MODIFICATION (CANOPY FRAME)
662-L	NOSE RIB ASSEMBLY (WING FLAP)
669	DECK (FUESLAGE)
686	BEARING CAGE (ELEVATOR TRIM SYS.)
689	BEARING BLOCK (ELEVATOR TRIM SYS.)
690	NUT (ELEVATOR TRIM SYSTEM)

(701-796)

701-A	INSTALLATION (ELEVATOR TRIM JACK ASSEMBLY)
702	BUSHING (ELEVATOR TRIM SYSTEM)
703	TORQUE TUBE ASSY (ELEVATOR TRIM SYSTEM)
704	JACKSCREW (ELEVATOR TRIM SYSTEM)
707	SPACER (ELEVATOR TRIM SYSTEM)
715	INST. (ELEVATOR TRIM SYSTEM)
716	CONTROL HEAD (ELEVATOR TRIM SYSTEM)
719	TERMINAL (FLEXIBLE SHAFT)
721	HUB (TRIM WHEEL)
722	BEARING (TRIM WHEEL)

488	INSTALLATION (RUDDER PEDALS)
489	INSTALLATION (RUDDER PEDALS)
493	SPRING (RUDDER)
567	RIB ASSEMBLY (BOTTOM RUDDER}
568	RIB ASSEMBLY (TOP RUDDER)
569	ASSEMBLY (RUDDER)
570	INSTALLATION (VERTICAL RUDDER)
577	HINGE (RUDDER LOWER)
578	STOP (RUDDER)
579	MAST (RUDDER)
581	BUSHING (RUDDER IDNGE)
585	RIB-SECOND (RUDDER)
586	RIB THIRD (RUDDER)
587	BEAM-UPPER (RUDDER)
588	BEAM-LOWER (RUDDER)

Elevator Trim

686	BEARING CAGE (ELEVATOR TRIM SYS.)
689	BEARING BLOCK (ELEVATOR TRIM SYS.)
690	NUT (ELEVATOR TRIM SYSTEM)
701-A	INSTALLATION (ELEVATOR TRIM JACK ASSEMBLY)
702	BUSHING (ELEVATOR TRIM SYSTEM)
703	TORQUE TUBE ASSY (ELEVATOR TRIM SYSTEM)
704	JACKSCREW (ELEVATOR TRIM SYSTEM)
707	SPACER (ELEVATOR TRIM SYSTEM)
715	INST. (ELEVATOR TRIM SYSTEM)
716	CONTROL HEAD (ELEVATOR TRIM SYSTEM)
719	TERMINAL (FLEXIBLE SHAFT)
721	HUB (TRIM WHEEL)
722	BEARING (TRIM WHEEL)

Interior

504-A	FORWARD TUNNEL (HORIZONTAL TAIL)
512	SEAT FRAME
722	BEARING (TRIM WHEEL)
SEAT	(ARTHUR M.WORTZ)
852-R	SEAT MOUNTING (FRONT OUTBOARD)
853	SEAT BRACKET (FRONT INBOARD)
854	SEAT MOUNTING (FRONT INBOARD)
855	INSTALLATION (SEATS)
856-R	SEAT BRACKET (FRONT OUTBOARD)
857-L	SEAT SUPPORT (REAR)
858	LOOP HARNESS
859	ANCHORAGE (SHOULDER HARNESS)
860-R	ANCHORAGE (SEAT BELT OUTBOARD)
861	ANCHORAGE (SEAT BELT INBOARD)

Instrumentation

508	INSTRUMENT PANEL
792	INSALLATION (FUEL QTY SENDING UNIT)
796	INSTALLATION (PITOT STATIC)

Windshield and Canopy

487	INSTALLATION (WIND SHIELD)
650	INSALLATION (CANOPY)
1439	CANOPY SEAL

Gear Installation

483-1	AXLE STUB (MAIN GEAR)
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727	RING (DYNAFOCAL RING MOUNT ASSEMBLY)
728	DYNAFOCAL (ENGINE MOUNT ASSEMBLY)
733	JIG (DYNAFOCAL MOUNT)
734-L	BRACKET (WING FLAP)
736-L	FLAP PULLEY INSTALLATION (OUTBOARD)
740-L	FLAP PULLEY (INBOARD)
742	FLAP NSTALLATION {FLAP CONTROL}
743	DETENT (FLAP CONTROL)
744	EXTRUSION (RUBBING STRIP)
791	COLLAR (FLAP MAST)
792	INSALLATION (FUEL QTY SENDING UNIT)
796	INSTALLATION (PITOT STATIC)

(850-861)

850-A	INSTALLATION (BATTERY BOX)
852-R	SEAT MOUNTING (FRONT OUTBOARD)
853	SEAT BRACKET (FRONT INBOARD)
854	SEAT MOUNTING (FRONT INBOARD)
855	INSTALLATION (SEATS)
856-R	SEAT BRACKET (FRONT OUTBOARD)
857-L	SEAT SUPPORT (REAR)
858	LOOP HARNESS
859	ANCHORAGE (SHOULDER HARNESS)
860-R	ANCHORAGE (SEAT BELT OUTBOARD)
861	ANCHORAGE (SEAT BELT INBOARD)

(905) (1070- 1072) (1159-1192) (1439) (SEAT)

905	DRIVING LUG (PROPELLAR SHAFT EXT.)
1070	EXTENSION PROPELLAR SHAFT
1071	DRIVING LUG (PROPELLOR SHAFT EXT)
1072	PROPELLAR SHAFT EXTENSION
1159	FILLER NECK (FUEL TANK)
1160	ASSEMBLY (FUEL FILLER CAP)
1188	SEALING RING (FUEL FILLER CAP)
1189	COVER (FUEL FILLER CAP)
1190	PLATE ASSEMBLY (FILLER CAP)
1191	PLATE (FILLER CAP)
1192	WING NUT (FILLER CAP)
1439	CANOPY SEAL
SEAT	(ARTHUR M.WORTZ)

483-2	AXLE STUB (MAIN GEAR)
484-A	WHEEL BACK RING (MAIN GEAR)
485	WHEEL RETAINER (MAIN GEAR)
486	DETAILS (MAIN GEAR)
515	MAIN LANDING GEAR ASSEMBLY
515-B	TAIL WHEEL
516	INSTALLATION (MAIN LANDING GEAR)
589	SPRING (TAIL GEAR)
589B	SPRING (TAIL GEAR)
590A	INSTALLATION (TAIL GEAR)
590	INSALLATION (TAIL GEAR)
591	FITTING TAIL GEAR (STA.191.75)

Fuel Tank

480	OUTLET (FUEL TANK)
481-L	END (FUEL TANK)
482	SHEET (FUEL TANK)
514	FUEL TANK ASSEMBLY
1159	FILLER NECK (FUEL TANK)
1160	ASSEMBLY (FUEL FILLER CAP)
1188	SEALING RING (FUEL FILLER CAP)
1189	COVER (FUEL FILLER CAP)
1190	PLATE ASSEMBLY (FILLER CAP)
1191	PLATE (FILLER CAP)
1192	WING NUT (FILLER CAP)
792	INSALLATION (FUEL QTY SENDING UNIT)

Engine Installation

727	RING (DYNAFOCAL RING MOUNT ASSEMBLY)
728	DYNAFOCAL (ENGINE MOUNT ASSEMBLY)
733	JIG (DYNAFOCAL MOUNT)
640	SPINNER ASSEMBLY
641	SPINNER SHELL
642	FRONT BULKHEAD (SPINNER)
905	DRIVING LUG (PROPELLAR SHAFT EXT.)
1070	EXTENSION PROPELLAR SHAFT
1071	DRIVING LUG (PROPELLOR SHAFT EXT)
1072	PROPELLAR SHAFT EXTENSION
477	BOSS (ENGINE MOUNT)
478	RING (ENGINE MOUNT)
479	ENGINE MOUNT (LYCOMING EXCEPT DYNAFOCAL)
479	ENGINE MOUNT (LYCOMJNG EXCEPT DYNAFOCAL)

Misc.

744	EXTRUSION (RUBBING STRIP)
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