# 1965 THUNDERBIRD SHOP MANUAL

\_\_\_\_\_

# INDEX

#### AIR CLEANER

Cleaning and Inspection	10-25
Description and Operation	10-25
Removal and Installation	10-25

A

#### AIR CONDITIONING

Belt Replacement	16-18
Charging, Evacuating and Discharging	
System	16-12
Cleaning and Inspection	16-18
Clutch Replacement	16-18
Compressor	
Crankshaft Seal Replacement	16-16
Oil Level Check	16-13
Removal and Installation	16-15
Valve Plate Replacement.	16-16
Description and Operation	16-6
Diagnosis	16-8
Evaporator Core Removal and Installation.	16-14
Pressure Checking	16-10
Specifications	16-29
Testing	16-8

#### ALTERNATOR

Belt Adjustment	13-7
Cleaning and Inspection	13-7
Description and Operation	13-8
Diagnosis and Testing	13-1
Regulator and Circuit Testing	13-3
Removal and Installation	13-8
Repair	13-8
Specifications	13-13

#### AXLE

Axle Shaft Replacement	4-10
Cleaning and Inspection	4-6
Description and Operation	4-9
Diagnosis and Testing	4-1
Differential Carrier	
Removal and Installation	4-11
Repair	4-13
Drive Pinion and Ring Gear Adjustments.	4-4
Drive Pinion Oil Seal Replacement	4-11
Housing Removal and Installation	4-12
Rear Wheel Bearing Replacement	4-10
Specifications	4-20

#### BATTERY

Charging .	• •	•	•		•			•	•	•	•	•			•		•		•	•	•	•	•	•		•	13-6
Specification	ns	•	•	• •	٠	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			13-13
Tests	• •	•	•	• •	•	•	•	•	•	•	•	·	•	•	•	•	•	•	•	•	•	•	•	•	•	•	13-5

В

## BELT ADJUSTMENT

Air Conditioner Alternator	16-18
Power Steering	3-20
Water Pump	11-2
BODY	

Alignment		17-6
-----------	--	------

Cleaning	17-11
Front End Structure Repair	17-7
Hoisting and Jacking	17-5
Leaks and Sealer Application	17-1
Maintenance	17-11
Panel Repair	17-6
BRAKES	

## Adjustments

Adjustments	
Common	2-4
In-Car	2-12
Cleaning and Inspection	2-6
Description and Operation	2-7
Diagnosis and Testing	2-1
Front Hub and Rotor Replacement	3-34
Removal and Installation	2-18
Repair	2-21
Specifications	2-26

### BREAKER POINTS

Adjustment		•													•											9-14
Maintenance			•										•													9-17
Tests	• •		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	9-7

# BUMPER

Removal	a	n	d	 ľı	ns	st	a	1	la	ıt	ie	21	n				
Front																	

																																17-14
Rear	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	17-14

CAMSHAFT	
Bearing Replacement	8-40
Cleaning and Inspection	. 8-15
Lobe Lift Checking	8-7
Rear Bearing Bore Plug Replacement	8-32
Removal and Installation	8-31
Repair	8-10
Specifications	8-46

С

#### CARBURETOR

#### Adjustments

Bench	10-6
In-Car	10-16
Cleaning and Inspection	
Description and Operation	10-11
Diagnosis and Testing	10-2
Disassembly and Assembly	10-18
Removal and Installation	10-18
Repair	
In-Car	10-16
Major	10-18
Specifications	10-28
CLOCK	
Description and Operation	15-13
Replacement	
COMPRESSION TEST-ENGINE	8-8
CONDENSER	9-19
CONNECTING RODS	
Cleaning and Inspection	8-15
Disassembly and Assembly	8-35
Removal and Installation	8-34
Specifications	8-46

#### CONNECTING ROD BEARINGS

<b>Cleaning and</b>	Inspection	8-16
Replacement	••••••••••••••••••••••••••••••••••••••	8-33
Specifications	•••••••••••••	8-46

#### CONVERTIBLE TOP

Adjustments	18-42
Description and Operation	18-19
Diagnosis and Testing	18-21
Emergency Procedures	18-41
Removal and Installation	18-48

#### COOLING SYSTEM

Cleaning and Inspection	 11-3
Common Adjustments and Repairs	 11-2
Diagnosis	 11-1
Maintenance	 11-2
Specifications	 11-9
Testing	 11-2

#### CRANKSHAFT

Cleaning and Inspection Main Bearing Replacement	8-33
Removal and Installation	8-39
Repair	
Specifications	8-46

#### CYLINDER BLOCK

Cleaning and Inspection	8-16
Repair	8-12
Specifications	8-47

#### CYLINDER FRONT COVER

Crankshaft Front Oil Seal Replacement	8-30
Removal and Installation	8-39

#### CYLINDER HEAD

Cleaning and Inspection	8-13
Disassembly and Assembly	8-27
Removal and Installation	8-27
<b>Repair</b>	
Specifications	8-45

D

#### DECK LID

Alignment Hinge and Torsion Bar Replacement Lock	17-21 17-28
Lock Cylinder Replacement	17-28
Lock Replacement	17-28
Striker Plate Adjustment	17-21
Replacement	17-28
DISTRIBUTOR	
Breaker Point	9-13
Cleaning and Inspection	9-16
Common Adjustments and Repairs	9-14
Description and Operation	9-19
Disassembly	2 12
Bench	9-22
In-Car	9-19
Major Repair Operations	9-22

3	3

D	-	~	~
Г	а	g	е

	Page
Specifications	0.25
Tests	9-25 9-11
	<i>y</i> -11
DOOR	
Alignment Lock	17-17
Cylinder Replacement	17-22
Lock Replacement	
Remote Control Replacement	17-22
Striker Adjustment Outside Handle Replacement	17-18
Replacement	17-22 17-21
	17-21
DRIVE SHAFT AND UNIVERSAL JOINTS	
Description and Operation	5-1
Replacement	5-2
Trouble Diagnosis	5-1
ENGINE	
Adjustments and Repairs – In-Car Cleaning and Inspection	8-22 8-13
Description and Operation	8-13
Diagnosis	8-10
Disassembly and Assembly	8-41
Major Repair Operations	8-39
Removal and Installation	8-37
Specifications	8-45
Supports Testing	8-22
Testing	8-7
EXHAUST SYSTEM	
Description	
In-Car Adjustments and Repairs	12-1
Removal and Installation Specifications	12-4 12-5
Specifications	12-5
F	
FAN DRIVE CLUTCH	
Cleaning and Inspection	
Description and Operation Major Repair Operation	11-8
Removal and Installation	11-8 11-8
Specifications	11-0
Testing	11-2
FAN REPLACEMENT	11-3
FLYWHEEL REPLACEMENT	8-35 10-26
FUEL LINE REPLACEMENT	10-20
FUEL PUMP	
Cleaning and Inspection	10-10
Description and Operation	10-26
Diagnosis and Testing	10-1
Disassembly and Assembly	10-27
Major Repair Operations	10-27
Removal and Installation	10-26
Specifications	10-31
FUEL SYSTEM	
Common Adjustments and Repairs	10-6
Diagnosis and Testing Specifications	10-1 10-31
FUEL TANK REPLACEMENT	10-28
FUEL TANK FILLER PIPE REPLACEMENT	10-28

	G	
GRILLE Replacement		17-14
	н	

HEATER	
AdjustmentsDescription and OperationDiagnosis	16-3 16-1 16-2
Removal and Installation Specifications Testing	16-4 16-29 16-3
HOOD AND HOOD LOCK	10-5
Adjustments Removal and Installation	17-12 17-12
HORN	
AdjustmentDescriptionDiagnosisHorn Buttons ReplacementReplacementTesting	15-4 15-5 15-2 15-8 15-8 15-8
HYDRAULIC VALVE LIFTER	
Cleaning and Inspection Disassembly and Assembly Replacement Tests	8-14 8-32 8-32 8-8
I	
IGNITION SWITCH REPLACEMENT	15-10
IGNITION SYSTEM	
Diagnosis Specifications Testing Timing	9-1 9-25 9-1 9-7
INSTRUMENTS	
Constant Voltage Regulator Replacement	15-14
Testing Description and Operation Diagnosis	15-3 15-12 15-1
Removal and Installation Replacement	15-13
Charge Indicator Fuel Gauge Units Oil Pressure Gauge Units Temperature Gauge Units	15-14 15-14
INTERIOR TRIM	
Door Trim Panel Replacement Headlining Replacement Instrument Panel Pad Replacement Quarter Trim Panel Replacement	18-2
L	
LANDAU TOP REPLACEMENT	18-7
LIGHTS	
Bulb Replacement   Diagnosis	15-7 15-1

Headlights	
Alignment	15-5
Description	15-5
Switches	
Description	15-9
Replacement	15-9
Testing	15-3
	21-1

### M

MAIN BEARINGS	
Cleaning and Inspection	8-16
Replacement	8-33
Specifications	8-46
MAINTENANCE	
Operations	20-1
Schedule	
MANIFOLDS	
Cleaning and Inspection	8-13
Exhaust Manifold Replacement	8-26
Intake Manifold Replacement	8-25
Intake Vacuum Test	8-7
MIRROR	
Inside Bonded Mirror Replacement	17-26
Remote Control Outside	17-16
MOULDINGS	
Body Exterior	17-16

#### 0

OIL PAN	
Cleaning and Inspection	8-16
Removal and Inspection	8-36
OIL PUMP	
Cleaning and Inspection	8-17
Disassembly and Assembly	8-37
Removal and Installation	8-36
Specifications	8-47

#### P

PAINT REPAIR	17-7
PISTON	
Cleaning and Inspection	8-15
Repairs	8-11
Specifications	8-46
PISTON AND CONNECTING ROD ASSEMBLY	
Disassembly and Assembly	8-35
Removal and Installation	8-34
PISTON PIN	
Cleaning and Inspection	8-15
Repairs	8-12
Specifications	8-46
PISTON RINGS	
Cleaning and Inspection	8-15
Repairs	8-12
Specifications	8-46
POSITIVE CRANKCASE VENTILATION SYSTEM	
Cleaning and Inspection	8-17
Removal and Installation	8-27

#### POWER STEERING

Air Bleeding Diagnosis and Testing	
Pump	2 10
Description and Operation	3-18
Removal and Installation	3-22
Specifications	3-36
PUSH RODS	
Inspection	8-13
Repair	8-10

Cleaning and Inspection	11-3
Description and Operation	11-6
Maintenance	11-2
Hose Replacement	11-3
Removal and Installation	11-6

R

#### RADIATOR SUPPLY TANK

<b>Description</b> a	nd Operation	11-6
Removal and	Installation	11-7

#### RADIO

RADIATOR

Antenna Replacement	16-26
Description	16-25
Push Button Adjustment	16-25
Removal and Installation	16-26
Speaker Replacement	16-28
Specifications	16-29

#### **REGULATOR** - ALTERNATOR

Adjustment	
Description and Operation	
Specifications	

#### 5

SPARK	PLUGS			• •	 		•	 	9-16
SPARK	PLUG	WIRE	REPLACEMENT	• •	 			 	9-15

#### SPEED CONTROL

Adjustment	16-23
Cleaning and Inspection	16-24
Description and Operation	
Diagnosis	
Replacements	
Specifications	16-29
Testing	

#### SPEEDOMETER

Cable Replacement	15-17
Description and Operation	15-13
Replacement	15-17
Tests	15-4

#### STARTER

Armature Replacement	14-6
Brush Replacement	14-5
Cleaning and Inspection	14-6
Description and Operation	14-7
Diagnosis	
Drive Replacement	
Removal and Installation	14-7

# Page

Repair	14-7
Specifications	
Testing	14-3

#### STEERING

Column	
Adjustments	3-21
Description	3-20
Upper Bearing Replacement	3-22
Diagnosis and Testing	3-1
Gear	
Adjustments	3-20
Description and Operation	3-17
Removal and Installation	3-21
Repair	3-26
Specifications	3-35
Steering Wheel	
Replacement	3-22
Spoke Position Adjustment	3-6
Wheel Alignment	3-4

#### SUSPENSION

Ball Joint Replacement	
Lower	3-15
Upper	3-9
Control Arm	
Overhaul	3-15
Replacement	3-12
Description and Operation	3-8
Diagnosis and Testing	3-1
Cleaning and Inspection	3-6
Shock Absorber Replacement	
Front	3-10
Rear	3-14
Specifications	3-35
Spindle Replacement	3-10
Springs	
Overhaul Rear	3-16
Replacement – Front	3-11
Replacement – Rear	3-14
Wheel Alignment	3-4

#### T

THERMOSTAT	
Description and Operation	11-6
Removal and Installation	
Specifications	
Test	
TIMING CHAIN AND SPROCKETS	
Cleaning and Inspection	8-14
Removal and Installation	8-29
TIRES	
Diagnosis and Testing	3-3
Replacement	3-32
Specifications	3-36
TRANSMISSION	
Adjustments	
Front Band	7-23
Linkage	7-22
Neutral Switch	7-23
Rear Band	7-24

Assembly	7-36
Case and Linkage Repair	7-36
Cleaning and Inspection	7-10
Control Valve	
Replacement	7-25
Sub-Assembly Repair	7-33
Converter Replacement	7-27
Description and Operation	7-15
Diagnosis and Testing	7-1
Diagnosis Guide	7-8
Disassembly	7-28
Extension Housing Bushing and Rear	
Seal Replacement	7-26
Fluid	
Drain and Refill	7-9
Level Check	7-9
Front Clutch Sub-Assembly Repair	7-31
Front Pump Sub-Assembly Repair	7-32
Front Servo	
Replacement	7-25
Sub-Assembly Repair	7-35
Gear Ratios.	7-17
Governor	
Replacement	7-24
Sub-Assembly Repair	7-35
Oil Cooler Flushing	7-9
Parking Pawl Replacement	7-26
Pressure Regulator	
Replacement	7-25
Sub-Assembly Repair	7-32
Rear Clutch Sub-Assembly Repair	7-30
Rear Pump Sub-Assembly Repair	7-32
Rear Servo	
Replacement	7-25
Sub-Assembly Repair	7-35
Removal and Installation	7-27
Shift Tube and Lever Replacement	3-23
Specifications	7-40

#### TURN INDICATOR

Description and Operation	15-13
Diagnosis	15-2
Flasher Replacement	15-16
Relay Replacement	15-16
Switch Replacement	

#### VALVE

Adjustment	8-9
Cleaning and Inspection	8-13
Clearance	8-9
Repair	8-10
Specifications	8-45

V

#### VALVE ROCKER ARM SHAFT ASSEMBLY

Cleaning and Inspection	8-13
Disassembly and Assembly	8-24
Removal and Installation	8-23

# 6

	Page
Repair	8-9 8-45
VALVE SPRING, RETAINER AND STEM SEAL REPLACEMENT	8-28
VENTILATION	
AdjustmentCowl Air.Rear Vent.Description and Operation.	16-3 16-3 16-1
w	
WATER PUMP Description and Operation Removal and Installation Specifications	11-5 11-5 11-9
WHEELS	
Alignment Bearing	3-4
Adjustment Packing Description and Operation	3-31 3-32 3-31
Front Wheel Grease   Seal Replacement.   Inspection   Removal and Installation.   Specifications	3-32 3-7 3-32 3-36
WINDOWS	
Adjustments   Door and Vent   Quarter   Back Window Replacement   Door Window Regulator Replacement   Door Window Replacement	17-18 17-19 17-27 17-23 17-23
Power Window Diagnosis Motor Replacement Regulator Replacement	17-17 17-24 17-24
Quarter Window and Regulator Replacement Vent Window Replacement Windshield Replacement	
WINDSHIELD WASHER Description and Operation	15-13
WIPERS   Adjustment   Blade Adjustment.   Control Replacement.   Description and Operation.   Diagnosis   Motor Replacement.   Pivot Shaft and Link Assembly   Replacement	15-4 15-13 15-18 15-13 15-2 15-18 15-18