

[illegible]

May 6, 2017

The engine identified below was inspected and repaired as necessary in accordance with manufactures specifications.

Reason for repair: Prop strike. Major parts replaced:
18 cylinders, nose case assembly and all associated parts.

Engine was re-assembled, functionally tested and found to be airworthy.

Engine S/N C590113
Work Order - 4192

Ray Anderson

Anderson Aeromotive, Inc.
FAA Repair Station No. DA7R134J

1274.3

July 11, 2017
Hobbs: 4.5

N254SF

Ser. #: 37514
TT: 12943

DATE

19

RECORDING
TACH
TIME

Made repair to airframe. Removed outer wing panels. Removed engine and shipped to Anderson Aeromotive for overhaul. Removed left side wing flaps and replaced with new surplus assembly. Made repair to left outboard wing panel by replacing upper and lower skins from outboard wing flaps to wing tip. Repaired left wing tip by disassembling, repairing skin and reassembling. Removed all fuel tanks from right wing center section. Removed complete landing gear assembly from right side. Removed right main gear trunnion. Made lower skin repair at gear trunnion installation. Fabricated jig fixture and repaired right gear trunnion. Right gear trunnion was line bored and new bushings were fabricated and installed. Made needed repairs to right gear assembly. Installed gear trunnion and right gear assembly and rigged. Made repair to inner gear door by replacing inner and outer skins and structure as needed. Doors were assembled and fit to airframe. Made skin repair to left outboard main gear door. Replaced right gear spade door with new surplus assembly. All airframe parts were match painted to existing airframe and assembled. Rigged landing gear assembly. Performed gear retract, and all checked OK. Reinstalled P-80 wheel and brake assembly with new 7.50x14 tires and tubes. Ground run and checked all systems for proper operation and leaks. All work performed with reference to Hawker Maintenance Manual AP-40188 Vol. 1 & AC 43.13-1B.

I certify that this aircraft has been inspected on July 11, 2017, in accordance with the scope and detail of appendix D part 43 and was found to be in a condition for safe operation.

Nelson Ezell

A&P#

IA

HUB & BLADE INSPECTIONS, REPAIRS AND ALTERATIONS ☐

Year: <u>2016</u>	Total Time in Service
Date: <u>5 Nov</u>	<u>0.5 MOH</u>
Next Inspection Due:	Time Since Overhaul

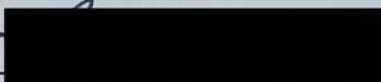
November 5, 2016
Hobbs: 313.9

N254SF

Ser. #: KK400561
SMOH: 0.0

Fresh propeller built by San Antonio Propeller with 6501A-1 blades, s/n: #1- 457467, #2- 474178, #3- 502888, #4- 502890 with original hub and dome. Propeller installed with new seals and gaskets. Ground run and checked for proper operation and leaks. I certify that this propeller has been inspected in accordance with C/W AD 81-13-06 R2 on November 5, 2016, and was found to be in a condition for safe operation.

Year: _____	Total Time in Service
Date: _____	
Next Inspection Due:	Time Since Overhaul


Nelson Ezell

A&P#  IA

Mech. Cert. # or Repair Station # _____

Year: _____	Total Time in Service
Date: _____	
Next Inspection Due:	Time Since Overhaul

Description

Mech. C _____ tation # _____

S

SAN ANTONIO PROPELLER SERVICE, INC. SERVICEABLE PARTS TAG

Work Order 18322

Customer Order No. _____

Cus

Customer's Name

Joe

Part

Part Name

propeller

Part Mfg.

Hamilton Standard

Part

Part No.

24E60

Serial No.

K1C400561

Rem

Remarks

Overhaul, AD 81-13-06 R2, Bench test
for oil leaks, check bal. track, angles.
1/4H/W manual # 140D, 130B

MAINTENANCE RELEASE

This stamped paper is an official document and shall be kept with the AIRCRAFT'S OFFICIAL HISTORICAL RECORDS. Work accomplished under the above listed work order number is on file at this agency. The above component was repaired and/or inspected in accordance with the current FEDERAL AVIATION REGULATION, ground functionally tested and approved for return to service subject to Flight Operational Test. The mechanic making the installation must C/W FAR 43.9'

Signed

Date

AUG 16, 2016

San Antonio Propeller Service, Inc.

234 W. Turbo • San Antonio, Texas 78216

FAA Approved Repair Station No. DM2R773K

Service, Inc.

San Antonio, TX 78216

DM2R773K

Inv. No.

Contact P

Tele

Fa

Reg. No.

y: MB

ec'd. N/A

Rec'd. N/A

c'd. N/A

This is
the A
accor
at this
inspec
REGU
to ser
the ins

ENGINE WORK FORMS INDEX – CW 3350

FORM NUMBER	DESCRIPTION	CHECKED BY
AAI 0	Engine Work form Index	X
AAI 1	Standard Work Order Form	X
AAI 30	Engine Inventory Report	X
AAI 31	Disassembly Report	N/A
NS 1-12	Nose Section	X
PS 1-23	Power Section	N/A
AAI 9	Cylinder Build-Up	X
AAI 9A	Rejected Cylinder Report	N/A
AAI 10	Piston Assembly	X
BS 1-22	Blower Section Assembly	N/A
INS 1-6	Impeller Drives	N/A
FA 1-6	Engine Final Assembly	N/A
AAI 17	Pre-Run Sheet	X
AAI 18	Check After Test	X
AAI 19	Check After Test (Cont'd)	X
AAI 20	Compression Check	X
AAI 21	Engine Test Log	X
AAI 24	Discrepancies and Correction Sheet	X
CW 40	OIR – Parts Replaced List	N/A
CW 1-41	Overhaul Inspection Record	N/A
CW 1-35	Illustrated Parts Inspection Book	X
AAI 56	Magneto Inspection Record	N/A

Repair Shop and Quality Control Manual
ENGINE WORK FORMS INDEX – CW 3350

FORM NUMBER	DESCRIPTION	CHECKED BY
AAI 337	Major Repair & Alteration	N/A
FAA	8130-3 Airworthy Certificate	N/A
AAI	Invoice	X
AAI	Shipper	X
AAI	Yellow Tag	N/A
AAI	Log Book Entry	X

Additional Forms Used:

All forms checked for required signatures





Anderson Aeromotive, Inc.

824 NORTH D STREET
PO BOX 49
GRANGEVILLE, IDAHO 83530
PHONE (208) 983-3435 * FAX (208) 983-1076
EMAIL: sales@andersonaeromotive.net
F.A.A. REPAIR STATION NO. DA7R134J

Invoice

Date	Invoice No.
6/26/2017	7192

Bill To:
 Denver, CO 80209

Ship To:
Ezell Aviation 622 CR 150 Ste 311 Stephen County Airport Breckenridge, TX 76424

Shipper No.	P.O. Number	Terms	Date	Ship Via	Work Order
A-5571	Verbal/Joe	Net 10	6/26/2017	Fastway	4192
Quantity	Part Number	Description	Price Each	Amount	
1	Freight Charges	Ship Engine from Grangeville, Idaho to Breckenridge, Texas			

A LATE CHARGE OF 1 1/2% PER MONTH MAY BE APPLIED ON ANY PORTION OF AN INVOICE NOT PAID WITHIN CREDIT TERMS STATED ABOVE. GOODS HELD FOR PAYMENT OVER 90 DAYS MAY BE SOLD TO SATISFY LIEN.

THANK YOU FOR YOUR BUSINESS

Total	
Payments/Credits	
Balance Due	



Anderson Aeromotive, Inc.

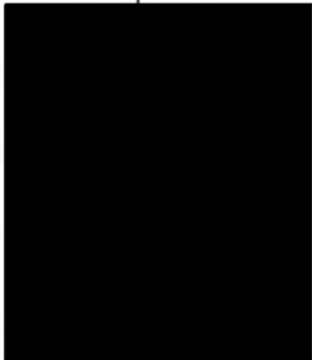
Invoice

824 NORTH D STREET
PO BOX 49
GRANGEVILLE, IDAHO 83530
PHONE (208) 983-3435 * FAX (208) 983-1076
EMAIL: sales@andersonaeromotive.net
F.A.A. REPAIR STATION NO. DA7R134J

Date	Invoice No.
5/11/2017	7144

Bill To:
Denver, CO 80209

Ship To:
Ezell Aviation 622 CR 150 Ste 311 Stephen County Airport Breckenridge, TX 76424

Shipper No.		P.O. Number	Terms	Date	Ship Via	Work Order
A-5571		Verbal/Joe	Net 10	5/9/2017	Fastway	4192
Quantity	Part Number	Description	Price Each	Amount		
1	R3350-26WD..	Engine, S/N C590113, Inspect and repair as necessary - RFR - Propstrike				
324	Labor					
	Material					
18	Misc	Cylinder assemblies				
1	Misc	Nose case assembly				
1	Misc	Replacement parts - gaskets, seals, rings, washers, etc.				
1	Fuel & Oil	For test				

A LATE CHARGE OF 1 1/2% PER MONTH MAY BE APPLIED ON ANY PORTION OF AN INVOICE NOT PAID WITHIN CREDIT TERMS STATED ABOVE. GOODS HELD FOR PAYMENT OVER 90 DAYS MAY BE SOLD TO SATISFY LIEN.

THANK YOU FOR YOUR BUSINESS

Total	
Payments/Credits	
Balance Due	



Anderson Aeromotive, Inc.

Invoice

824 NORTH D STREET
PO BOX 49
GRANGEVILLE, IDAHO 83530
PHONE (208) 983-3435 * FAX (208) 983-1076
EMAIL: sales@andersonaeromotive.net
F.A.A. REPAIR STATION NO. DA7R134J

Date	Invoice No.
3/23/2017	7065

Bill To:
Denver, CO 80209

Ship To:

Shipper No.	P.O. Number	Terms	Date	Ship Via	Work Order
	Verbal/Joe	Net 10	3/23/2017	Pending	4192

Quantity	Part Number	Description	Price Each	Amount
1	R3350-26WD..	Engine, S/N C590113, Inspect and repair as necessary. RFR - Prop strike NOTE: PRICE GIVEN IS AN ESTIMATE AT THIS TIME		

A LATE CHARGE OF 1 1/2% PER MONTH MAY BE APPLIED ON ANY PORTION OF AN INVOICE NOT PAID WITHIN CREDIT TERMS STATED ABOVE. GOODS HELD FOR PAYMENT OVER 90 DAYS MAY BE SOLD TO SATISFY LIEN.

THANK YOU FOR YOUR BUSINESS

Total	
Payments/Credits	
Balance Due	



Anderson Aeromotive, Inc.

824 North D Street * PO Box 49
Grangeville, ID 83530
(208) 983-3435 Phone * (208) 983-1076 Fax
E-mail: sales@andersonaeromotive.net
F.A.A. REPAIR STATION NO. DA7R134J

Date	Shipper No.
5/9/2017	A-5571

Ship To

Ezell Aviation
622 CR 150 Ste 311
Stephen County Airport
Breckenridge, TX 76424

P.O. No.	Ship Date	Ship Via	Work Order
Verbal/Joe	5/9/2017	Fastway	4192

Quantity	Item	Description
1	R3350-26WD..	Engine, S/N C590113, Inspect and repair as necessary - RFR - Propstrike

Packing List

DATE: _____

RECEIVED: _____

May 6, 2017

The engine identified below was inspected and repaired as necessary in accordance with manufactures specifications.

Reason for repair: Prop strike. Major parts replaced:
18 cylinders, nose case assembly and all associated parts.

Engine was re-assembled, functionally tested and found to be airworthy.

Engine S/N C590113
Work Order - 4192

Ray Anderson

Anderson Aeromotive, Inc.

FAA Repair Station No. DA7R134J



ANDERSON AEROMOTIVE II
STANDARD WORK ORDER FORM

WORK ORDER NO. 4192

AUTHORIZED BY [REDACTED]

DATE OPENED 2-8-17

REASON FOR REMOVAL IRAN

CUSTOMER Joe

PART NO. 23350-26WD

SERIAL NO. 6590113

TOTAL TIME Unk TSO Unk

WORK TO BE ACCOMPLISHED:

OVERHAUL REPAIR X OTHER

In 23350-26WD
"Prop-Strike"

Top end overhaul
Replace pistons

PURCHASE ORDER NO. Verbal/Joe

DATE COMPLETED 5/9/17

INVOICE NO. 7144, 7065, 6984 / 7192

RECORDS CHECKED AND FILED [REDACTED]

DATE: 4-28-17

CYLINDER BUILD-UP RECORD

T.I. Lmk

CUSTOMER: [REDACTED]

ENGINE S/N: [REDACTED]

ENGINE MODEL: R3350-24W

T.S.O. Lmk

	MECH	11	MECH	13	MECH	5	MECH	17	MECH	15	MECH	3	MECH	7	MECH	1	MECH
TIME																	
BORE SIZE	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD
CHOKE	12	[REDACTED]	10	[REDACTED]	12	[REDACTED]	11	[REDACTED]	12	[REDACTED]	12	[REDACTED]	11	[REDACTED]	9	[REDACTED]	12
MAXIMUM WEAR	0	[REDACTED]	1	[REDACTED]	0	[REDACTED]	0	[REDACTED]	0	[REDACTED]	0	[REDACTED]	0	[REDACTED]	1	[REDACTED]	1
MAXIMUM .00R	0	[REDACTED]	0	[REDACTED]	0	[REDACTED]	0	[REDACTED]	0	[REDACTED]	0	[REDACTED]	0	[REDACTED]	0	[REDACTED]	0
BARREL HONED	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
EXH. PORT STUD	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
ROCKER BOX STUD	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
BAFFLE STUD	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
R/S BUSHING INNER	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
R/S BUSHING OUTER	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
P/R COUPLING	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
EXH. PORT LINER	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
FRONT S/P BUSHING	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
REAR S/P BUSHING	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
EXHAUST GUIDES	Y22	[REDACTED]	Y30	[REDACTED]	Y22	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
EXHAUST GUIDE .OD	1.0659	[REDACTED]	1.0065	[REDACTED]	1.0065	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
EXHAUST GUIDE .ID	-5	[REDACTED]	-5	[REDACTED]	-5	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD
EXHAUST VALVE OIL CL.	.0042	[REDACTED]	.0043	[REDACTED]	.0044	[REDACTED]	.0053	[REDACTED]	.0055	[REDACTED]	.0055	[REDACTED]	.0056	[REDACTED]	.0055	[REDACTED]	.0055
INTAKE GUIDES	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
INTAKE GUIDES .OD	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
INTAKE GUIDES .ID	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
INTAKE COUPLING	New YI	[REDACTED]	New YI	[REDACTED]	NEW YI	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	New YI	[REDACTED]	✓	[REDACTED]	NEW YI
EXHAUST SEAT	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
INTAKE SEAT	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
VALVE SEATS CIRROUND	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
INSTALL VALVES	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓	[REDACTED]	✓
WOBBLE CHECK		[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]	
CYLINDER S/N:	WPFF	X	WSHY	X	WSJT	X	WHAM	X	WHAM	X	WHVK	X	SHAM	X	QCSM	X	PDS
	Reans																

FORM NO. AAI 9

W/O: 4192

INSPECTOR: [REDACTED]

DATE: 4-24-17

CYLINDER BUILD-UP RECORD

T.I. 4'15
T.S.O. 4'15

CUSTOMER: [REDACTED]

ENGINE S/N: [REDACTED]

ENGINE MODEL: R3350-26WD

	10	MECH	8	MECH	12	MECH	14	MECH	16	MECH	0	MECH	4	MECH	6	MECH	18	MECH
TIME																		
BORE SIZE	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]	STD	[REDACTED]
CHOKE	12	1	10	1	12	1	10	1	12	1	12	1	12	1	10	1	12	1
MAXIMUM WEAR	0	1	1	0	1	1	1	0	0	2	1	1	1	1	1	1	1	1
MAXIMUM .00R	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
BARREL HONED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EXH. PORT STUD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ROCKER BOX STUD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BAFFLE STUD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
R/S BUSHING INNER	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
R/S BUSHING OUTER	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PIR COUPLING	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EXH. PORT LINER	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FRONT S/P BUSHING	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
REAR S/P BUSHING	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EXHAUST GUIDES	Y22	Y36 New	Y23 New	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EXHAUST GUIDE .OD	1.0065	1.047	1.006	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EXHAUST GUIDE .ID	-5	-5	-5	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
EXHAUST VALVE OIL CL.	.0046	.0044	.0044	.0053	.0052	.0054	.0054	.0054	.0054	.0054	.0054	.0054	.0054	.0054	.0054	.0054	.0054	.0054
INTAKE GUIDES	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
INTAKE GUIDES .OD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
INTAKE GUIDES .ID	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
INTAKE COUPLING	New Y2	New STD	New STD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EXHAUST SEAT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
INTAKE SEAT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VALVE SEATS GROUND	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
INSTALL VALVES	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WOBBLE CHECK																		
CYLINDER S/N:	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X
FRONTS	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X	WVW	X

FORM NO. AAI 9

W/O: 4192

INSPECTOR: [REDACTED]

PISTON ASSEMBLY

CUSTOMER: [REDACTED]

DATE: _____

ENGINE S/N: C590113

ENGINE MODEL: R3350-26WD

STL.	PISTON P/N	RING <u>147637</u>	RING <u>148702</u>	RING <u>68498</u>	RING <u>68498</u>	RING <u>68498</u>	PISTON TIME	PIN TIME	SNAP RING OR PLUG	MECH
1.	<u>147986</u>	<u>std</u>	<u>y1</u>				<u>unk</u>	<u>unk</u>	<u>plug</u>	[REDACTED]
2.	<u>147986</u>	<u>std</u>	<u>y1</u>							
3.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
4.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
5.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
6.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
7.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
8.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
9.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
10.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
11.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
12.	<u>147986</u>	<u>y1</u>	<u>y2</u>							
13.	<u>147987</u>	<u>y1</u>	<u>y2</u>							
14.	<u>147987</u>	<u>y1</u>	<u>y3</u>							
15.	<u>147987</u>	<u>y1</u>	<u>y3</u>							
16.	<u>147987</u>	<u>y1</u>	<u>y3</u>							
17.	<u>147987</u>	<u>y1</u>	<u>y3</u>							
18.	<u>147987</u>	<u>y2</u>	<u>y3</u>							

P/N EXH. VALVE

1. _____ 10. _____
 2. _____ 11. _____
 3. _____ 12. _____
 4. _____ 13. _____
 5. _____ 14. _____
 6. _____ 15. _____
 7. _____ 16. _____
 8. _____ 17. _____
 9. _____ 18. _____

P/N INT. VALVE

1. _____ 10. _____
 2. _____ 11. _____
 3. _____ 12. _____
 4. _____ 13. _____
 5. _____ 14. _____
 6. _____ 15. _____
 7. _____ 16. _____
 8. _____ 17. _____
 9. _____ 18. _____

PRE-RUN SHEET

CUSTOMER: 

DATE: 5-5-17

ENGINE S/N: 0590113

ENGINE TYPE: R3350 - 26WD

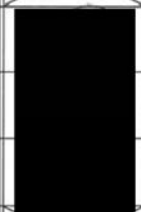
INSTRUCTIONS	MECH.	INSP.
1. Verify serial number on data plate with engine work order number.		
2. Inspect PS thrust nut for tightness.		
3. Inspect for F.O.D. in impeller cavity.		
4. Install test equipment.		
5. Check prop retaining nut for tightness and locking pin.		
6. St pre-oil valves (oil temperature min. 140° F.)		
7. Pre-oil engine.		
8. Inspect engine for leaks after pre-oil. Record any leaks or discrepancies.		
9. Bleed carburetor of all air in system.		
10. Set pre-oil valves to RUN position.		
11. Inspection clearance to run.		

FORM NO: AAI 17

W.O. 4192 INSPECTOR 

CHECK AFTER TEST

CUSTOMER: DATE: 5-9-17ENGINE S/N: C590113ENGINE TYPE: R3350-26WD

INSTRUCTIONS	MECH.	INSP.
1. Install engine in work stand.		
2. Remove test gear, install plugs and covers.		
3. Remove front plugs, perform compression check.		
4. Check valves per Service Bulletin No. 1650 or physical check.		
5. Check magneto and distributor timing.		
6. Reinstall all valve covers.		
7. Retighten all nuts on rear, intermediate blower case.		
8. Check impeller for nicks and install covers.		
9. Check starter jaw for nicks and safety.		
10. Clean up thrust nut cone seat.		
11. Retighten thrust cover nuts.		
12. Inspect complete engine for oil leaks.		
13. Retighten nuts power to blower.		
14. Retighten front accessory case nuts to power.		
15. Retighten nose section case nuts to power.		
16. Check Y-leads and high tension leads and nuts for condition.		
17. Check safety wire.		
18. Check oil lines for clearance.		
		

CHECK AFTER TEST

DATE: 5-9-17

INSTRUCTIONS	MECH.	INSP.
19. Install thread protector and wrap propeller shaft.		
20. Touch up paint.		
21. Spray cylinders with preservation oil, using dry air and install protect plugs.		
22. Spray exhaust ports and install plugs.		
23. ALL DISCREPANCIES CLEARED: FINAL ACCEPTANCE.		

FORM NO: AAI 19

W.O. 4192 INSPECTOR

CYLINDER COMPRESSION CHECK

CUSTOMER: 

DATE: 5-8-17

ENGINE S/N: C590113

ENGINE TYPE: R3350-26WD

CYLINDER POSITION	PERCENT COMPRESSION LOSS:
1	15
2	15
3	15
4	10
5	15
6	10
7	15
8	15
9	15
10	10
11	15
12	15
13	15
14	15
15	10
16	10
17	15
18	15

FORM NO: AAI 20

W.O. 4192 INSPECTOR: 

ANDERSON AEROMOTIVE, INC.

DATE: 5-5-17 W.O. 4192

OPERATOR:

824 NORTH D. STREET
GRANGEVILLE, IDAHO 83530
F.A.A. REPAIR STATION NO. DA7R134J

CUSTOMER:

ENGINE TYPE: R3350-260 S/N: C590113

NATURE OF TEST: I.R.A.V.

BAROMETER: 26.5

PROPELLER TYPE: 4 blade SET AT: 38°

TIME		RPM	MANIFOLD		OIL PRESSURE			CLUTCH OIL PRESS.		OIL TEMP.		CYLINDER TEMP.				FUEL METER PRESS	FUEL PRESS	FUEL CONS	OAT	TQ BOOST	TQ METER PRESS	FUEL	
MIN	TOT		LOW	HIGH	MAIN	NOSE	LOW	HIGH	IN	OUT	#15	#	#	#	OCTANE							GALLONS	
15	15	1000			PRG-OIL	START			WARM	UP	START	DOWN		SCREEN		22	200	28	19°				
10	25	1000			5-8-17	PRG-OIL			START	WARM	UP		SCREEN		22	200	28	19°					
10	35	1200	21		68	40	40			45	63	146		11	22	200	28	19°		21			
10	45	1400	22		65	40	40			66	80	154	SCREEN ✓	11	22	290	25	19°		31	TYPE SELL 120		
15	100	1600	23		70	40	40			78	91	165		11.5	23	340	25	19°		40	WEIGHT 60		
15	115	1800	24.5		72	38	38			72	94	167	SCREEN ✓	11.5	23	530	25	20°		49	GALLONS		
30	145	1800	24.5		71	38	38			72	94	168	SCREEN ✓	11.5	23	530	25	21°		50	CONSUMPTION normal		
15	200	2000	26.5		72	35	35			75	105	194		11	24	630	30	23°		62	FLOW OK		
3	203	2000	41		78	32	34			70	105	200	SCREEN ✓	12	23	1350	34	28°		100			
2	205	2050	50		80	30	34			65	100	175		13.5	21	1800	38	28		118	RPM CHECK		
5	210				COOL	DOWN				SCREEN	CHECK												
																						LEFT 2000	
																						RIGHT 2020	
																						BOTH 2060	
																						MAGNETO	
																						MODEL DLV-9	
																						S/N 79069	
																						LT S/N 95834	
REMARKS:										TEST STAND				CARBURETOR				SUMP & SCREEN INSP.				MECH	
										A) ✓				MODEL: SLAVE S/N:				FINAL RUN ACCEPTANCE					
										B)				ACCEL: OK IDLE: OK MIX: OK									

FORM NO. AAI 21

ANDERSON AEROMOTIVE, INC.

ENGINE S/N: C590113

CUSTOMER: [REDACTED]

W.O. 4192

DATE: 2-8-17

ITEM #1	Engine sent in for prop. Strike inspection.	
	Customer Request new cylinders to be installed during buildup.	S/N OFF
CORRECTION		S/N ON
		MECH. [REDACTED] INSP. [REDACTED]
Perform prop. Strike inspection see below.		

ITEM #2	During inspection found nose assy. to have been damaged from crash.	
		S/N OFF
CORRECTION		S/N ON
		MECH. [REDACTED] INSP. [REDACTED]
Replaced nose assy. with O/H unit from AAI stock ref. NS 7-12 for details.		

ITEM #3	All steel parts were magna	
	fluxed and pen cuts performed on items that were required.	S/N OFF
CORRECTION		S/N ON
		MECH. [REDACTED] INSP. [REDACTED]
CRANK - .001 Front .003 Rear.		

ITEM #4	All cylinders were replaced with O/H cylinders from AAI stock	
		S/N OFF
CORRECTION		S/N ON
		MECH. [REDACTED] INSP. [REDACTED]
Ref. form AAI 9 for build up instr.		

ITEM #5	Engine was reassembled and functionally tested	
	I.A.W latest mfg. spec.	S/N OFF
CORRECTION		S/N ON
		MECH. [REDACTED] INSP. [REDACTED]
Engine found to be S/C. Return to customer.		

Ref. AAI 17-21 for Test Ben DATA

ANDERSON AEROMOTIVE, INC.

ENGINE S/N: _____

CUSTOMER: _____

W.O. 4192

DATE: 3-31-17

ITEM	Prop strike		S/N OFF
CORRECTION	disassemble, inspect, Mag, check run out on Acc drive shaft, impeller. Reassembled. Lower throat cl to min. Note on back		S/N ON
	MECHANIC	INSPECTOR	

ITEM			S/N OFF
CORRECTION			S/N ON
	MECHANIC	INSPECTOR	

ITEM			S/N OFF
CORRECTION			S/N ON
	MECHANIC	INSPECTOR	

ITEM			S/N OFF
CORRECTION			S/N ON
	MECHANIC	INSPECTOR	

ITEM			S/N OFF
CORRECTION			S/N ON
	MECHANIC	INSPECTOR	

throat .045

changed Acc drive shaft 428491N2

Replated - impeller drive secondary pinions



ANDERSON AEROMOTIVE, INC.
Engine Inventory Report

CUSTOMER [REDACTED]
ENGINE S/N C590113
DATE REMOVED UNK
TSO: UNK T.T. UNK
DATA PLATE ✓

DATE 2-8-17
ENGINE MODEL R3350-26WD
REASON FOR REMOVAL PROP STRIKE
POA: UNK
CARBURETOR S/N NOT REC.

MAGNETOS: L/H S/N 79069
DISTRIBUTORS: L/N S/N 95834
HARNESS S/N 164321

R/H S/N
R/H S/N 97105
Y LEADS NT LEADS

CYLINDERS:

✓ = RECEIVED
1. ✓ 2. 3. 4. 5. 6.
7. 8. 9. 10. 11. 12.
13. 14. 15. 16. 17. 18.

PUSHRODS:

1. ✓ 2. 3. 4. 5. 6.
7. 8. 9. 10. 11. 12.
13. 14. 15. 16. 17. 18.

INT. PIPES:

1. ✓ 2. 3. 4. 5. 6.
7. 8. 9. 10. 11. 12.
13. 14. 15. 16. 17. 18.

ROCKER BOX COVERS ✓ ~~LOWER 2~~ DAMAGED

CYL. HEAD DEFLECTORS ✓ # 10 MISSING

INT. CLY. DEFLECTORS ✓

POSITION

SUMP ✓ MAIN SUMP VENT LINE ✓

PR C/CASE TO SUMP DRAIN LINES ✓

MAIN OIL PRESSURE LINE ✓

SCAV LINE NOSE TO BLOWER ✓

IGNITION COILS ✓

POSITIONS

EXH PIPE FLANGES, FR. CYL. ✓

OIL PUMPS ✓

SPARK ADVANCE TYPE: P & W N/A

ADEL N/A

ACCESSORY PAD COVERS ✓

R/BOX OIL SYSTEM ✓

BENT & DAMAGED

CYL BASE NUT LOOSE ON CYL # N/A

NUT POSITION N/A

SB 1567 N/A

NOTE OTHER DISCREPANCIES

ROCKER DRAIN SYSTEM DAMAGED IN SHIPPING, # 7 & 3 HEAD BAFFLES BENT.

TYPE CONTAINER RED METAL SKID

FORM NO: AAI 30

W.O. 4192

MECH [REDACTED]

INSP. [REDACTED]



R-3350

ENGINE NO. _____

RACK NO. _____

NOSE SECTION
TABLE OF CONTENTS
AND CHECK SHEETS

CARD NO. _____

A

PAGE NO. _____

1

REV. DATE _____

7-22-64

CARD NO.	TITLE	PAGES	
A	TABLE OF CONTENTS	1	
C	CURRENT WORK SHEETS	1	
NS-1 (SUPP)	MANDATORY PARTS	1	
NS-1	BUILD UP - STATIONARY REDUCTION GEAR AND TORQUEMETER MECHANISM.	3	☒
NS-2	BUILD UP - PROP SHAFT PINION CARRIER ASSEMBLY	1	☒
NS-3	INSTALL - REDUCTION BEARING TO PROP SHAFT	1	☒
NS-4	BUILD UP - AND INSTALL PRESSURE RELIEF VALVE.	1	☒
NS-5	BUILD UP - NOSE CASE TRANSFER BEARING	1	☒
NS-6	INSTALL - NOSE CASE TRANSFER BEARING.	1	☒
NS-7	BUILD UP - THRUST NUT FLANGE AND THRUST NUT	1	☒
NS-8	INSTALL - PROP SHAFT TO NOSE CASE	3	☒
NS-9	C-44 NOSE SECTION ASSEMBLIES.	3	☒
NS-10	LEAKAGE TEST.	1	☒
NS-11	BUILD UP - TAPPETS.	1	☒
NS-12	INSTALLATION OF NOSE SECTION TO POWER SECTION	4	☒

SHOP ORDERS:

PROP SHAFT. 1
NOSE CASE 3

REMARKS:

THE ABOVE LISTED SHEETS ARE ATTACHED EXCEPT FOR CARD C. ALL APPLICABLE BLOCKS BEAR
AUTHORIZED SIGNATURES.


FOREMAN'S SIGNATURE

2-8-17
DATE

REVISION DATE: 9-3-63

R-3350

AMERICAN AIRLINES, INC.

SUB ASSEMBLY

NOSE SECTION

MANDATORY PARTS

CARD NO. NS-1

PAGE NO. 1 OF 1

SUPPLEMENT 1

NOTE: Before assembly be sure parts are clean and blow out oil passages.
Oil moving parts during assembly.

SIGN FULL NAME	
INSP.	MECH.
INFORMATION (WCR 11-14-58)	
[REDACTED]	
[REDACTED]	

OPERATION

1. LATE DA-4 TYPE NOSE SECTIONS (P/N 430505 OR LATER) SHOULD BE INSTALLED ON DA-4 ENGINES (S/N'S IN THE 701000 SERIES). SHOULD PARTS SHORTAGES OCCUR, DA-2 TYPE NOSE SECTIONS (NOT INCORPORATING CIRCULAR GOVERNOR PAD) MAY BE USED. (ESO-401A)
 - A. RECORDS MUST BE MAINTAINED AS TO WHAT TYPE NOSE SECTION IS INSTALLED ON EACH ENGINE. REFER TO CARD NS-12 FOR NOSE SECTION SIGN-OFF. (ESO-401A)
 - B. DA-4 TYPE PARTS WHICH SUPERSEDE DA-2 PARTS SHOULD NOT BE INSTALLED IN DA-2 ENGINES UNLESS DA-2 TYPE PARTS ARE NOT AVAILABLE. (WCR 11-14-58)
 - C. DA2 CRANKCASE FRONT SECTION CASES MAY BE USED ON DA4 ENGINES PROVIDED ADEQUATE RECORDS ARE KEPT ON DA4 ENGINES SO EQUIPPED. (ESO-400B)

R-3350

NOSE SECTION

CARD 1

PAGE 1

REVISION DATE: 3-12-63

AMERICAN AIRLINES, INC.

CARD NO. NS-1

R-3350

NOSE SECTION

SUB. ASSEMBLY

PAGE NO. 1 OF

BUILD UP STATIONARY REDUCTION
GEAR AND TORQUEMETER MECHANISM

NOTE: Before assembly be sure parts are clean and
blow out oil passages.
Oil moving parts during assembly.

SIGN FULL NAME		OPERATION									
INSP.	MECH.										
XXXXX	XXXXX	1. ENSURE THAT THE STATIONARY REDUCTION GEAR SUPPORT AND STATIONARY REDUCTION GEAR ADAPTER HAVE THE SAME MATCHING NUMBER. RECORD STATIONARY REDUCTION GEAR SUPPORT NUMBER <u>Not Visible</u> RECORD STATIONARY REDUCTION GEAR ADAPTER NUMBER <u>Not Visible</u> INDICATE IF SOCKETS ARE NEWLY GROUND YES NO									
XXXXX		2. LAP ADAPTER WITH TOOLING PROVIDED, USING DUMMY RINGS. USE MINIMUM AMOUNT OF LAPPING COMPOUND (600 GRADE) ON RINGS. ASSEMBLE PISTON TO ADAPTER. INSTALL SUPPORT (DO NOT INSTALL BALLS). ACTUATE ADAPTER WITH SHOP AIR PRESSURE 15 TO 20 CYCLES. (REF.: NS 248C). <u>CAUTION:</u> A. DO NOT LAP MORE THAN 20 CYCLES. B. ROTATE ADAPTER APPROXIMATELY 30° EACH LAPPING CYCLE.									
XXXXX		3. DISASSEMBLE ADAPTER FROM TOOLING. CLEAN AND INSPECT FOR 100% CONTACT IN LAPPED AREA OF ADAPTER. BLUE ADAPTER SURFACES - BOTH SMALL AND LARGE DIAMETER. <u>CAUTION:</u> A. SURFACES MUST BE FREE OF OIL OR SOLVENT. B. USE MINIMUM AMOUNT OF BLUING. INSTALL SERVICEABLE RINGS IN ADAPTER AND CHECK CONTACT EDGES OF RINGS FOR 100% SEATING (AROUND RING - NOT NECESSARILY 100% ACROSS RING WIDTH). <u>NOTE:</u> DO NOT GAP RINGS DURING THIS INITIAL CHECK - OVERLAP THE ENDS IF NECESSARY. (NS 248 C).									
XXXXX (WCR 7-18-60)		4. FIT TWO (2) TORQUEMETER OIL SEAL RINGS TO TORQUEMETER PISTON. <table border="1"> <thead> <tr> <th>RING</th> <th>END GAP</th> <th>SIDE CLEARANCE</th> </tr> </thead> <tbody> <tr> <td>STEEL</td> <td>.009-.012</td> <td>.0015 - .0055</td> </tr> <tr> <td>BRONZE</td> <td>.021-.030</td> <td>.0015 - .0055</td> </tr> </tbody> </table> RECORD ACTUAL FRONT RING <u>.010</u> RECORD ACTUAL FRONT RING <u>.004</u> RECORD ACTUAL REAR RING <u>.025</u> RECORD ACTUAL REAR RING <u>.004</u> REMOVE ANY BURRS OR RAISED MATERIAL FROM RING GAP ENDS. INSURE NOT TO DAMAGE OR NICK THE RINGS. (NS 248C). <u>NOTE 1:</u> USE WAD P/N 132337 RINGS FOR ALUMINUM TORQUEMETER PISTONS (WAD P/N 172028) WAD P/N 146597 BRONZE RINGS MAY BE USED WITH ALUMINUM PISTONS P/N 172028 THAT HAVE NICKEL PLATED RINGS GROOVES. USE WAD P/N 145869 STEEL RINGS AND WAD P/N 146597 BRONZE RINGS WITH STEEL TORQUEMETER PISTON WAD P/N 145872.	RING	END GAP	SIDE CLEARANCE	STEEL	.009-.012	.0015 - .0055	BRONZE	.021-.030	.0015 - .0055
RING	END GAP	SIDE CLEARANCE									
STEEL	.009-.012	.0015 - .0055									
BRONZE	.021-.030	.0015 - .0055									

R-3350

NOSE SECTION

CARD 1

PAGE 1

R-3350

AMERICAN AIRLINES, INC.

NOSE SECTION

SUB ASSEMBLY

BUILD UP STATIONARY REDUCTION
GEAR AND TORQUEMETER MECHANISM

CARD NO.

PAGE NO. 2 OF

NOTE: Before assembly be sure parts are clean and blow out oil passages.

Oil moving parts during assembly.

SIGN FULL NAME

INSP

MECH.

OPERATION

4. CONTINUED

NOTE 2: P/N 132337 RING MAY BE USED WITH STEEL PISTONS WHEN RING IS COPPER OR SILVER PLATED .0003 - .0005 INCH PER SIDE. (NO PLATING ON RING FACE) (REF.: NS 248C)

NOTE 3: P/N 146597 RING MAY BE REUSED PROVIDED SYSTEM FLOW LIMITS CAN BE MET AS WELL AS ER NS. 248C SPECIFICATIONS. BEST RESULTS MAY BE OBTAINED WITH LEAST WORN PORTION OF O.D. AWAY FROM OIL PRESSURE (ESO-401B)

RE-BLUE GAPPED RINGS TO ADAPTER TO OBTAIN 100% CONTACT THE SAME AS IN ITEM 3 ABOVE. (REF.: NS 248C)

5. FIT STATIONARY REDUCTION GEAR SUPPORT OIL SEAL RING.

END GAP	SIDE CLEARANCE
C.I. RING (.009-.012)	(.002 - .005)
BRONZE RING (.021-.030)	(.002 - .005)

NOTE 1: P/N 146596 MAY BE REUSED PROVIDED SYSTEM FLOW LIMITS CAN BE MET AS WELL AS ER NS. 248C SPECIFICATIONS. BEST RESULTS MAY BE OBTAINED WITH LEAST WORN PORTION OF O.D. AWAY FROM OIL PRESSURE. (ESO-401B)

RECORD ACTUAL .010 RECORD ACTUAL .005
RE-BLUE GAPPED RINGS TO ADAPTER TO OBTAIN 100% CONTACT THE SAME AS IN ITEM (3) ABOVE (NS 248C).

6. ASSEMBLE THE STATIONARY REDUCTION GEAR TO ADAPTER. INSERT THE GEAR TO ADAPTER RETAINING WIRE THROUGH THE GROOVE IN THE SPLINES. BEND THE WIRE AT 45° ANGLE AT BOTH ENDS. CUT OFF THE ENDS, .110 TO .160 INCH BEYOND THE SPLINES. (NS 248C).

7. INSTALL THE TORQUEMETER PISTON AND RINGS IN THE STATIONARY REDUCTION GEAR ADAPTER AND ADAPTER ASSEMBLY.

CAUTION: DEPRESS RINGS IN PISTON WITH WOOD OR PLASTIC PIN TO PREVENT PISTON RING DRAG ACROSS ADAPTER AND SUBSEQUENT DAMAGE TO RING EDGES.
8. INSERT THE TORQUEMETER BALLS IN THE SOCKETS IN THE STATIONARY REDUCTION GEAR ADAPTER.

NOTE: THE STATIONARY REDUCTION GEAR SUPPORT AND ADAPTER BALL SOCKETS ARE TO RUN IN THE SAME POSITION EVERY OVERHAUL. ACID ETCH OR VIBROPEEN A SUITABLE INDEX MARK ON THE INSIDE DIAMETER OF THE ADAPTER AND SUPPORT TO LINE UP WITH APPROXIMATE CENTERLINE (THROUGH THE GOVERNOR PAD) OF THE NOSE CASE WHEN THE MECHANISM IS INSTALLED. (REF.: NS 248C)

9. INSTALL THE RING IN THE STATIONARY REDUCTION GEAR SUPPORT.

10. INSTALL THE SUPPORT AND RING OVER STATIONARY REDUCTION GEAR AND TORQUEMETER MECHANISM, COMPRESSING THE OIL SEAL RING AND ALIGNING THE ATTACH-BOLT HOLES.

CAUTION: DEPRESS RINGS IN SUPPORT TO PREVENT SUPPORT RING DRAG ACROSS ADAPTER AND SUBSEQUENT DAMAGE TO RING EDGES.

CAUTION: KEEP ASSEMBLY TOGETHER. THERE IS NO POSITIVE RETENTION.

XXXXX

XXXXX

XXXXX

XXXXX

XXXXX

XXXXX

XXXXX

REVISION DATE 5-21-65

AMERICAN AIRLINES, INC.

CARD NO NS-1

R-3350

NOSE SECTION

SUB ASSEMBLY

PAGE NO 3 OF

BUILD UP STATIONARY REDUCTION
GEAR AND TORQUEMETER MECHANISM

NOTE: BEFORE ASSEMBLY BE SURE PARTS ARE
CLEAN AND BLOW OUT OIL PASSAGES.
OIL MOVING PARTS DURING ASSEMBLY.

SIGN FULL NAME

INSP

MECHANIC

OPERATION

XXX

XXX

XXX

XXX

XXX

XXX

XXX

XXX

XXX

11. SET NOSE CASE ON BENCH, PROP END DOWN. BLOW OUT CASE. ASSURE THAT OIL PASSAGES ARE CLEAR AND OPEN.
CAUTION: CHECK NOSE CASE FOR COMPLIANCE OF S.15.
12. OBTAIN "O" RING SEAL, LUBRIPLATE AND INSTALL SEAL IN NOSE CASE.
13. INSTALL TORQUEMETER PISTON AND STATIONARY REDUCTION GEAR AS A UNIT.
14. INSTALL 28 EACH CASTLE NUTS TO STUDS IN NOSE CASE, RUN DOWN AND TORQUE

THREADS	TORQUE
.375 - 24	275-325 IN. LBS.
.4375 - 20	400-475 IN. LBS.

 (REF.: EIB 65-0679)
15. INSTALL PACKING RING AND TORQUEMETER OIL EXTERNAL TUBE CONNECTOR SUBSTITUTING FLANGE TO NOSE CASE WITH WASHERS AND SCREWS.
16. INSTALL TORQUEMETER ASSEMBLY TESTING FIXTURE. INSTALL TEST PLATE AT GOVERNOR ADAPTER MOUNT PAD. HOOK UP HIGH PRESSURE OIL LIKE TO TORQUEMETER "OIL IN" FITTING. INSTALL TEST PLATE TO REAR FACE OF NOSE CASE AT BMEP PRESSURE PASSAGE. (REF.: NS 248C)
17. BLEED SYSTEM AND MAINTAIN 10 PSI TO TORQUEMETER SYSTEM (HIGH PRESSURE GAUGE). TIGHTEN TEST FIXTURE NUT. (NS 248C).
 - A. HIGH OIL PRESSURE GAUGE READING MUST BE 150 PSI MINIMUM.
 - B. TORQUEMETER PRESSURE GAUGE READING MUST BE 120 PSI MINIMUM.
 - C. MAXIMUM FLOW OF OIL AT 90°F. NOT TO EXCEED 5 LBS. PER MINUTE.
18. SET HIGH PRESSURE GAUGE TO 50 PSI. TORQUEMETER PRESSURE GAUGE MUST HOLD A MINIMUM OF 38 PSI WITH STEEL RINGS AND 38 PSI WITH BRONZE RINGS. (OIL TEMPERATURE 90°F) (NS 248C)
19. IF ITEM 17 OR ITEM 18 DOES NOT MEET MINIMUM REQUIREMENTS, REMOVE NOSE SECTION FROM TEST STAND AND REMOVE TORQUEMETER TEST FIXTURE. PUT NOSE IN "FRONT END DOWN" POSITION. ACTUATE TORQUE PISTON BY HAND APPROXIMATELY 20 TIMES. REPEAT ITEMS 16, 17 AND 18. IF MINIMUM CANNOT BE MET, REPEAT ITEM 19. (REF. NX. 248C)
20. SAFETY NUTS IN PAIRS WITH .045 WIRE. (REF.: NS 248C).
21. HAVE INSPECTOR CHECK ASSEMBLY.

REVISION DATE: 7-19-60

R-3350

AMERICAN AIRLINES, INC.

NOSE SECTION

SUB ASSEMBLY

CARD NO. NS-2

PAGE NO. 1 OF 1

BUILD UP PROP SHAFT PINION CARRIER ASSEMBLY

NOTE: Before assembly be sure parts are clean and
blow out oil passages.

Oil moving parts during assembly.

SIGN FULL NAME

INSP.

MECH.

DATE:

OPERATION

1. SET PINION ASSEMBLY ON STAND.

NOTE: PINIONS AND BUSHINGS ARE SELECT FITTED BY INSPECTOR.
DO NOT INTERCHANGE. DO NOT REMOVE.

2. TIGHTEN BOLTS USING MODIFIED WIDE BLADE SCREW DRIVER, TORQUE 200 TO 250 IN. LBS.

3. WIPE EXCESSIVE OIL FROM PINIONS. CHECK END CLEARANCE ON THE 20 EACH
PINIONS, .007L, .014L, .018L MAXIMUM. RECORD SERIAL NUMBER REDUCTION
GEAR PINION CARRIER NSA

XXXXX

XXXXX

XXXXX

WCR-7-18-60

R-3350

NOSE SECTION

CARD NS-2

PAGE 1

AMERICAN AIRLINES, INC.
ASSEMBLY PROCEDURE SIGN OFF
TULSA FORM 88316

REVISION DATE: 4-3-59

R-3350

AMERICAN AIRLINES, INC.

NOSE SECTION

SUB ASSEMBLY

BUILD UP AND INSTALL PRESSURE RELIEF VALVE

CARD NO. NS-4

PAGE NO. 1 OF 1

NOTE: Before assembly be sure parts are clean and
blow out oil passages.
Oil moving parts during assembly.

SIGN FULL NAME	
INSP.	MECH.
XXXXXX	
XXXXXX	
XXXXXX	
XXXXXX	
XXXXXX	
XXXXXX	

DATE:

OPERATION

1. RECORD SERIAL NUMBER OF NOSE CASE NSA (WCR 3-25-59)
2. ASCERTAIN THAT TORQUEMETER CHECK VALVE BODY HAS BEEN MODIFIED PER S.15.
3. INSTALL 1 EACH SEAL IN GROOVE OF MODIFIED PLUG.
4. INSTALL MODIFIED PLUG IN FRONT PART OF NOSE CASE, USING 2 EACH CAPSCREWS. TORQUE CAPSCREWS 125-140 IN. LBS.
5. SAFETY CAPSCREWS.

R-3350

NOSE SECTION

CARD NS-4

PAGE 1

BUILD UP - NOSE CASE TRANSFER BEARING

NOTE: Before assembly be sure parts are clean and blow out oil passages.

Oil moving parts during assembly.

SIGN FULL NAME		OPERATION																																																
INSP.	MECH.																																																	
		1. SEPARATE THE TWO (2) SHELLS OF THE PROP. SHAFT OIL SEAL SLEEVE. HAVE INSPECTOR CHECK THE FIT OF THE SLEEVE I.D. TO PROP SHAFT. (FIT SHOULD BE .001 TO .003 INCH) (REF.: WCR 1-19-59)																																																
		A. PROPELLER SHAFTS AT THE HYDRO-OIL SEAL SLEEVE JOURNALS MAY BE GROUND AS REQUIRED TO CLEAN-UP, TO THE MINIMUM OF 5.4275 INCHES. THE SLEEVE MAY BE PROVIDED IN STANDARD SIZE OR FOUR UNDERSIZES FOR SELECT FITTING PER ER-NS 250A AND ERI-505. CAUTION: MAINTAIN .001 - .003 INCH CLEARANCE TO MINIMIZE OIL LEAKAGE BY THIS SEAL. (NS 250A)																																																
XXXXX		2. OBTAIN 6 EACH PROPELLER SHAFT OIL SEAL RINGS.																																																
		3. CHECK SIDE CLEARANCE AND GAP OF PROPELLER SHAFT OIL SLEEVE RINGS. HAND FIT THE RINGS TO OBTAIN THE PROPER GAP.																																																
		<table border="0"> <tr> <td></td> <td>GAP .002 TO .005 MAX.</td> <td>RECORD ACTUAL</td> <td>.003</td> </tr> <tr> <td>#1</td> <td>SIDE .001L TO .010L MAX.</td> <td>RECORD ACTUAL</td> <td>.004</td> </tr> <tr> <td>#2</td> <td>GAP .002 TO .005 MAX.</td> <td>RECORD ACTUAL</td> <td>.003</td> </tr> <tr> <td></td> <td>SIDE .001L TO .010L MAX.</td> <td>RECORD ACTUAL</td> <td>.004</td> </tr> <tr> <td>#3</td> <td>GAP .002 TO .005 MAX.</td> <td>RECORD ACTUAL</td> <td>.003</td> </tr> <tr> <td></td> <td>SIDE .001L TO .010L MAX.</td> <td>RECORD ACTUAL</td> <td>.004</td> </tr> <tr> <td>#4</td> <td>GAP .002 TO .005 MAX.</td> <td>RECORD ACTUAL</td> <td>.003</td> </tr> <tr> <td></td> <td>SIDE .001L TO .010L MAX.</td> <td>RECORD ACTUAL</td> <td>.004</td> </tr> <tr> <td>#5</td> <td>GAP .002 TO .005 MAX.</td> <td>RECORD ACTUAL</td> <td>.003</td> </tr> <tr> <td></td> <td>SIDE .001L TO .010L MAX.</td> <td>RECORD ACTUAL</td> <td>.004</td> </tr> <tr> <td>#6</td> <td>GAP .002 TO .005 MAX.</td> <td>RECORD ACTUAL</td> <td>.003</td> </tr> <tr> <td></td> <td>SIDE .001L TO .010L MAX.</td> <td>RECORD ACTUAL</td> <td>.004</td> </tr> </table>		GAP .002 TO .005 MAX.	RECORD ACTUAL	.003	#1	SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004	#2	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003		SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004	#3	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003		SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004	#4	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003		SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004	#5	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003		SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004	#6	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003		SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004
	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003																																															
#1	SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004																																															
#2	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003																																															
	SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004																																															
#3	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003																																															
	SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004																																															
#4	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003																																															
	SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004																																															
#5	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003																																															
	SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004																																															
#6	GAP .002 TO .005 MAX.	RECORD ACTUAL	.003																																															
	SIDE .001L TO .010L MAX.	RECORD ACTUAL	.004																																															
		NOTE 1: AFTER RING HAS BEEN FILED, REMOVE FEATHERED EDGE.																																																
		NOTE 2: IN CASE SIDE CLEARANCE IS ABOVE .010, THE RINGS MAY BE COPPER OR SILVER PLATED TO MAX. THICKNESS OF .001" (PER SIDE) ALL OVER. (EM 8378)																																																
		(DELETED BY WCR 1978)																																																
XXXXX		4. INSTALL THE 6 EACH OIL SEAL RINGS TO RESPECTIVE GROOVES ON OUTSIDE OF INNER TRANSFER BEARING SHELL. NOTE: STAGE RING GAPS 180°.																																																
XXXXX		5. INSERT INNER SHELL WITH RINGS INTO OUTER SHELL OF TRANSFER BEARING.																																																
XXXXX		6. OBTAIN 3 EACH "O" RING SEALS; LUBRICATE SEALS AND INSTALL ON THE OUTSIDE OF THE BEARING.																																																
XXXXX																																																		

REVISION DATE 7-24-64

AMERICAN AIRLINES, INC.

NOSE SECTION

SUB ASSEMBLY

CARD NO NS-6PAGE NO 1 OF 1

R-3350

INSTALL NOSE CASE TRANSFER BEARING

NOTE: BEFORE ASSEMBLY BE SURE PARTS ARE
CLEAN AND BLOW OUT OIL PASSAGES.

OIL MOVING PARTS DURING ASSEMBLY.

SIGN FULL NAME

INSP MECHANIC

OPERATION

XXX

1. LUBRIPLATE OUTSIDE OF TRANSFER BEARING AND BEARING AREA IN NOSE CASE.

XXX

2. THE OIL TRANSFER SLEEVE MUST BE FROZEN WITH CLAMPS SQUEEZING THE THREE RINGS IN THEIR GROOVES. REMOVE CLAMPS AND INSTALL THE SLEEVE WHILE THE RINGS ARE STILL FROZEN AND NOT PROTRUDING FROM THE GROOVE. (ERI-3300) (ESO 401)

XXX

3. INSTALL PROP SHAFT OIL SEAL SLEEVE, BEARING LOCK AND SLEEVE RETAINING RING. (WCR 8-11-59)

XXX

4. INSTALL 6 EACH TABS AND 6 EACH CAPSCREWS. TIGHTEN CAPSCREWS AND LINE UP WITH TABS. TORQUE CAPSCREWS 80 TO 85 IN. LBS., AND BEND TABS UP ON CAPSCREWS.

CAUTION: TABLOCK P/N 2067D165 MUST BE INSTALLED SO THAT THE TABLOCK IS POSITIONED IN A COUNTERCLOCKWISE POSITION AFTER BOLT IS TORQUED.

XXX

5. CAUTION: ASCERTAIN THAT RETAINING RING IS INSTALLED CORRECTLY WITH TAPERED SIDE FORWARD. (WCR 8-11-59)

REVISION DATE: 11-10-59

AMERICAN AIRLINES, INC.

CARD NO. NS-7

R-3350

SUB ASSEMBLY

NOSE SECTION

PAGE NO. 1 OF 1

BUILD UP - THRUST NUT FLANGE AND THRUST NUT

NOTE: Before assembly be sure parts are clean and blow out oil passages.
Oil moving parts during assembly.

SIGN FULL NAME		DATE:	OPERATION
INSP.	MECH.		
<u>XXXXXX</u>			1. OBTAIN NOSE CASE FLANGE AND THRUST NUT AND 2 EACH RINGS.
<u>XXXXXX</u>			2. INSTALL THE RINGS ON THE NUT WITH GAP 180° APART. CHECK THE SIDE CLEARANCE AND GAP OF THE THRUST NUT RINGS. (WCR 4-20-58) (REF. NO. 12, CHART NO. 3) GAP MIN. .001 MAX. .006 MAX. REPLACE .006 RECORD ACTUAL .0035, MAX. .0085, MAX REPLACE .015, RECORD ACTUAL .
			NOTE: THE DA-4 FLANGE I.D. CONTAINS A GARIOCK SEAL AND THE THRUST BEARING NUT IS PLAIN, (NO RING GROOVES).

R-3350 BUILD UP - THRUST NUT FLANGE AND THRUST NUT NS-7 PAGE 1 OF 1

REVISION DATE: 1-17-62

CARD NO. NS-3

R-3350

AMERICAN AIRLINES, INC.

PAGE NO. 1 OF

SUB ASSEMBLY

NOSE SECTION

INSTALL - REDUCTION GEARING TO PROP SHAFT

NOTE: Before assembly be sure parts are clean and blow out oil passages.

Oil moving parts during assembly.

SIGN FULL NAME

INSP. MECH.

DATE:

OPERATION

1. RECORD PROP SHAFT SERIAL NUMBER 1541.
2. SET UP PROP SHAFT ON FIXTURE AND TIGHTEN. (WCR 4-20-58)
3. INSTALL PROP SHAFT PINION CARRIER PACKING RING IN THE GROOVE ON O.D. OF PROP SHAFT FLANGE.
4. POSITION CARRIER ASSEMBLY TO PROP SHAFT FLANGE; LINE UP HOLES WITH ALIGNING PUNCH. NO. 1 ETCH ON CARRIER TO LINE UP NO. 1 ETCHED ON FORWARD SIDE OF FLANGE ON PROP SHAFT. (REF.: J.J. SMITH LETTER DATED 3-4-55)
5. USING RUBBER HAMMER, TAP CARRIER ASSEMBLY ON PROP SHAFT FLANGE. INSTALL 24 EACH BOLTS IN FLANGE JOINING PROP SHAFT AND PINION CARRIER ASSEMBLY. NOW INSTALL 24 EACH CASTLE NUTS ON BOLTS.
6. TIGHTEN 4 EACH NUTS 90° APART TO DRAW CARRIER ASSEMBLY AND PROP SHAFT TOGETHER. NOW TURN DOWN THE 20 REMAINING NUTS WITH SPEED WRENCH. TORQUE NUTS 950 TO 1000 IN. LBS.
7. CHECK RUN OUT OF CARRIER AND RECORD ACTUAL .004.
NOTE: CONTACT FOREMAN IF OVER .007.
8. SAFETY THE 24 EACH NUTS IN PAIRS WITH .045 SAFETY WIRE.
9. TURN CARRIER ASSEMBLY IN FIXTURE, INSTALL P/N 138090 TABLOCK WASHERS AND NUTS ON THREADED END OF BOLTS AND TIGHTEN NUTS. TORQUE NUTS 120 TO 170 IN. LBS. (ECF 57-10-217)
10. BEND TABS OF WASHERS AGAINST BOLT HEADS USING WAD 806309 TABLOCK BENDING TOOL OR EQUIVALENT. (ECF 57-10-217)
11. REMOVE ASSEMBLY FROM FIXTURE AND POSITION PROP SHAFT ASSEMBLY ON BLOCK #91002B.
12. CHECK THE MATCHING SERIAL NUMBER OF THE PROPELLER CONTROL OIL SUPPLY TUBE, THE OIL RETURN SLEEVE AND THE FRONT HALF ADAPTER WITHIN THE PROPELLER SHAFT. SERIAL NUMBERS ON THESE THREE PARTS MUST MATCH TO ENSURE THAT THE MATING SURFACES ARE WITHIN CLEARANCE LIMITS.
13. INSTALL THE OIL RETURN SLEEVE WITH THE "PROP END" FORWARD. (TOLERANCES DELETED BY WCR 2055)
14. INSTALL PACKING RINGS IN GROOVE ON EACH END OF PROPELLER CONTROL OIL SUPPLY TUBE AND SUPPORT ASSEMBLY. INSTALL A P/N 27D-374 COPPER WASHER AND INSERT TUBE IN PROPELLER SHAFT. USE AA TOOL TO PILOT TUBE INTO FRONT ADAPTER HOLE INSIDE PROPELLER SHAFT. TAP ASSEMBLY UNTIL IT IS SEATED IN PROPELLER SHAFT. INSTALL GASKET PLATE AND RETAINER NUT AND TIGHTEN. (TOLERANCES DELETED BY WCR 2055)

R-3350

NOSE SECTION

NS-3

PAGE 1

REVISION DATE: 10-2-62

R-3350

AMERICAN AIRLINES, INC.

CARD NO. NS-8

PAGE NO. 2 OF 1

SUB ASSEMBLY

NOSE SECTION

INSTALL - PROP SHAFT TO NOSE CASE

NOTE: Before assembly be sure parts are clean and blow out oil passages.
Oil moving parts during assembly.

SIGN FULL NAME

INSP.

MECH.

OPERATION

6. ASSEMBLE NOSE TO SHAFT, INSTALL THRUST BEARING SPACER PROPELLER SHAFT WITH CHAMFERED SIDE DOWN.
7. INSTALL REAR HALF OF BALL BEARING INNER RACE AND SEAT WITH TOOL PWA 2738.
8. INSTALL BALL BEARING OUTER RACE, BALLS AND CAGE. USE TOOL P/N AA-72-02-28003 TO AID INSTALLATION. (TR 685P)
9. INSTALL FRONT HALF OF BALL BEARING INNER RACE AND SEAT IT WITH TOOL PWA 2738.
10. CHECK THE BALL BEARING CAGE FOR MINIMUM CAGE CLEARANCE AS FOLLOWS:
(LETTER C.C. MITCHELL TO E.H. KILGORE 11-29-60)

BEARING P/N	VENDOR	MINIMUM CAGE CLEARANCE	LOCATION OF PILOT SURFACE
21D111	SKF	.014	CAGE O.D. & OUTER RACE I.D.
21D111, 21D324	MRC	.020	CAGE I.D. & INNER RACE O.D.
21D324, 21D327	SKF	.010	CAGE O.D. & OUTER RACE I.D.
21D327	MRC	.024	CAGE I.D. & INNER RACE O.D.

NOTE: IF THE BEARING P/N CANNOT BE DETERMINED BY ANY MEANS, USE FOLLOWING MINIMUM CAGE CLEARANCE: SKF .014; MRC .025.

11. HEAT INNER RACE OF PROPELLER SHAFT ROLLER BEARING AT NOT OVER 250°F FOR FIVE (5) MINUTES.
12. INSTALL ROLLER BEARING INNER RACE ON PROPELLER SHAFT AND SEAT WITH TOOL NO. PWA 2738. ALLOW INNER RACE TO COOL.
13. INSTALL ROLLER BEARING OUTER RACE ROLLERS AND CAGE. (USE INSTALLING SLEEVE NUMBER 807011).
14. CHECK THE ROLLER BEARING CAGE FOR MINIMUM CAGE CLEARANCE AS FOLLOWS:
(LETTER C.C. MITCHELL TO E.H. KILGORE 11-29-60)

BEARING P/N	VENDOR	MINIMUM CAGE CLEARANCE	LOCATION OF PILOT SURFACE
155D53	SKF	.014	CAGE O.D. & OUTER RACE I.D.
155D201, 155D53	MRC	.035	CAGE O.D. & OUTER RACE I.D.
155D197			
155D197, 155D53	HYATT	.020	CAGE O.D. & OUTER RACE I.D.
155D201			
155D197, 155D201	SKF	.010	CAGE O.D. & OUTER RACE I.D.

REVISION DATE: 10-2-62

R-3350

AMERICAN AIRLINES, INC.

CARD NO. NS-8

PAGE NO. 3 OF

NOSE SECTION

SUB ASSEMBLY

INSTALL - PROP SHAFT TO NOSE CASE

NOTE: Before assembly be sure parts are clean and blow out oil passages.
Oil moving parts during assembly.

OPERATION

14. CONTINUED

NOTE: IF THE BEARING P/N CANNOT BE DETERMINED BY ANY MEANS, USE THE FOLLOWING MINIMUM GAGE CLEARANCES:
SKF .014; MRC .035; HYATT .020

15. INSTALL THRUST BEARING OIL SLINGER WITH OIL GROOVES TOWARD REAR.

NOTE: THIS SLINGER, P/N 137230, IS NOT REQUIRED ON DA-4 AND/OR ANY ENGINE UTILIZING A "CLOSURE" TYPE THRUST NUT SEAL.

16. USE THE FOLLOWING CONFIGURATION OF PARTS WHEN INSTALL THE "CLOSURE" TYPE THRUST NUT SEAL; P/N 244D152, IN FRONT FLANGE:

A. P/N 147656 - THRUST NUT (CLOSURE TYPE NUT SHORTENED .060 INCH)

B. P/N 147723 - OIL SEAL SLINGER (INSTALL WITH GROOVE TOWARD REAR - AGAINST AFT SIDE OF P/N 244D152 SEAL).

NOTE: ALL FRONT CASES NOW INCORPORATE THE SAME TYPE METERING PLUG AS PER EM 6827.

17. ASCERTAIN THAT GASKET HAS BEEN PUT ON FLANGE. COAT THREADS OF NUT WITH LUBRIPLATE AND SCREW NUT AND FLANGE ASSEMBLY ONTO PROPELLER SHAFT.

18. SECURE THE FLANGE WITH 16 EACH SCREWS, TORQUED 425-450 IN. LBS. AND SAFETY IN PAIRS.

CAUTION: LINE UP DOWEL PIN AND MATING HOLE. (WCR 4-20-58)

19. SCREW NUT DOWN BUT DO NOT TIGHTEN AT THIS TIME.

R-3350

NOSE SECTION

CARD 8

R-3350

SUB ASSEMBLY

PAGE NO. 1 of 3

NOSE SECTION

C-44 NOSE SECTION ASSEMBLIES

NOTE: Before assembly be sure parts are clean and blow out oil passages.

Oil moving parts during assembly.

SIGN FULL NAME		OPERATION
INSP.	MECH.	
XXXXXXXXXX	XXXXXXXXXX	On C-44 Nose Section Assemblies received from Engine Repair/Final Check from fly-over engines rework as follows: (Ref.: E.C.F. 59-7-109)
XXXXXXXXXX		1. Disassemble propeller shaft from nose case. Route removed unmodified prop shaft to Disassembly.
XXXXXXXXXX		2. Call Inspector to measure nose case, and obtain one (1) each "EHSP" prop shaft, and (if required) (1) each Base and Roller Bearing in matched set from Inspection.
XXXXXXXXXX		3. Call Inspector for clearance to make installation. Inspector to accomplish following and record actual readings:
		A. Propeller Shaft Ball and Roller Bearing Journal O.D. Record Actual <u>4.4217</u>
		B. Ball Bearing Inner Race I.D. Record Actual <u>4.9235</u> .0014
		P/Shaft to Ball Bearing .0001L to .0015L. Ref. No. 5, Chart No. 3.
		C. Roller Bearing Inner Race I.D. Record Actual <u>4.927</u> .0007 I.
		P/Shaft to Roller Bearing .0005T to .0019T. Ref. No. 6, Chart No. 3
		D. Ball Bearing to Nose Case Liner, .0104L to .0137L. Ref. No. 8, Chart No. 3. Record Actual <u>.0015</u>
		Record Serial Number <u>N3W</u> of Ball Bearing.
		E. Roller Bearing to Nose Case Liner, .0004L to .0132L. Ref. No. 10, Chart No. 3. Record Actual <u>.012</u>
		Record Serial Number <u>N3W</u> of Roller Bearing.
		F. Record serial number of propeller shaft. <u>N3W</u>
XXXXXXXXXX		4. Install reduction gearing to prop shaft. Position propeller shaft under monorail, oil shaft assembly.
XXXXXXXXXX		5. Bolt on Nose Case lifting hook, hoist and position for installation on propeller shaft.
XXXXXXXXXX		6. Place gasket on flange, retain gasket in place with lubriplate. Install outer races of both bearing and flange with four (4) each screws 90° apart. Check clearance between bearing and flange. End .0026 to .011, then remove.
XXXXXXXXXX		7. Assemble nose to shaft, install thrust bearing spacer over the propeller shaft with the chamfered side down.
XXXXXXXXXX		8. Install rear half of ball bearing, inner race and seat with tool PWA 2738.
XXXXXXXXXX		9. Install ball bearing outer race, balls and cage. Use tool P/N AA72-02-28005 to aid installation. (TR 685P)

R-3350

C-44 NOSE SECTION ASSEMBLIES

N3-7

PAGE 1 of 3

REVISION DATE: 9-3-63

AMERICAN AIRLINES, INC.

CARD NO. NS-9

R-3350

NOSE SECTIONS
SUB ASSEMBLY

PAGE NO. 2 OF

C-44 NOSE SECTION ASSEMBLIES

NOTE: Before assembly be sure parts are clean and
blow out oil passages.
Oil moving parts during assembly.

SIGN FULL NAME	
INSP.	MECH.
XXXXX	
	XXXXX
XXXXX	
XXXXX	
	XXXXX
XXXXX	
XXXXX	

OPERATION

10. INSTALL FRONT HALF OF BALL BEARING INNER RACE AND SEAT WITH TOOL PWA 2738.
11. CHECK THE BALL BEARING CAGE FOR MINIMUM CAGE CLEARANCE AS FOLLOWS: (LETTER C.C. MITCHELL TO E.H. KILGORE 11-29-60)
- | BEARING P/N | VENDOR | MINIMUM CAGE CLEARANCE | LOCATION OF PILOT SURFACE |
|----------------|--------|------------------------|-----------------------------|
| 21D111 | SKF | .014 | CAGE O.D. & OUTER RACE I.D. |
| 21D111, 21D324 | MRC | .020 | CAGE I.D. & INNER RACE O.D. |
| 21D324, 21D327 | SKF | .010 | CAGE O.D. & OUTER RACE I.D. |
| 21D327 | MRC | .024 | CAGE I.D. & INNER RACE O.D. |
- NOTE: IF THE BEARING P/N CANNOT BE DETERMINED BY ANY MEANS, USE FOLLOWING MINIMUM CAGE CLEARANCE: SKF .014; MRC .025.
12. HEAT INNER RACE OF PROPELLER SHAFT ROLLER BEARING NOT OVER 250°F FOR FIVE (5) MINUTES.
13. INSTALL ROLLER BEARING INNER RACE ON PROPELLER SHAFT AND SEAT WITH TOOL PWA 2738. ALLOW INNER RACE TO COOL.
14. INSTALL ROLLER BEARING OUTER RACE ROLLER AND CAGE. (USE INSTALLING SLEEVE NUMBER 807011)
15. CHECK THE ROLLER BEARING CAGE FOR MINIMUM CAGE CLEARANCE AS FOLLOWS: (LETTER C.C. MITCHELL TO E.H. KILGORE 11-29-60)
- | BEARING P/N | VENDOR | MINIMUM CAGE CLEARANCE | LOCATION OF PILOT SURFACE |
|------------------|--------|------------------------|-----------------------------|
| 155D53 | SKF | .014 | CAGE O.D. & OUTER RACE I.D. |
| 155D201, 155D53 | MRC | .035 | CAGE O.D. & OUTER RACE I.D. |
| 155D197 | | | |
| 155D197, 155D53 | HYATT | .020 | CAGE O.D. & OUTER RACE I.D. |
| 155D201 | | | |
| 155D197, 155D201 | SKF | .010 | CAGE O.D. & OUTER RACE I.D. |
- NOTE: IF THE BEARING P/N CANNOT BE DETERMINED BY ANY MEANS, USE THE FOLLOWING MINIMUM CAGE CLEARANCES: SKF .014; MRC .035; HYATT .020.
16. INSTALL THRUST BEARING OIL SLINGER WITH OIL GROOVES TOWARD REAR.
NOTE: THIS SLINGER, P/N 137230, IS NOT REQUIRED IN DA-4 AND/OR ANY ENGINE UTILIZING A "CLOSURE" TYPE THRUST NUT SEAL.
17. USE THE FOLLOWING CONFIGURATION OF PARTS WHEN INSTALLING THE "CLOSURE" TYPE THRUST NUT SEAL, P/N 244D152, IN FRONT FLANGE;
A. P/N 147656 - THRUST NUT (CLOSURE TYPE NUT SHORTENED .060 INCH)
B. P/N 147723 - OIL SEAL SLINGER (INSTALL WITH GROOVE TOWARD REAR - AGAINST AFT SIDE OF P/N 244D152 SEAL)
NOTE: ALL FRONT CASES NOW INCORPORATE THE SAME TYPE METERING PLUG AS PER ERI- 531.

R-3350

NOSE SECTIONS

CARD NS-9 PAGE 2

NOSE SECTION

C-44 NOSE SECTION ASSEMBLIES

Oil moving parts during assembly.

SIGN FULL NAME		OPERATION
INSP.	MECH.	
		18. Ascertain that gasket has been put on flange. Coat threads of nut with lubriplate and screw nut and flange as assembly onto propeller shaft.
XXXXXXXXXX		19. Secure the flange with sixteen (16) each screws. Torque 425-450 inch pounds and safety.
XXXXXXXXXX		20. Tighten and torque thrust nut at 2200 on green scale. Wrap shaft.
XXXXXXXXXX		21. Record serial number of Nose Section <u>NSN</u> .
XXXXXXXXXX		22. Route to Engine Repair/Final Check for installation. (WCR 2-4-60).
XXXXXXXXXX	XXXXXXXXXX	

R-3350
NOSE SECTION
NS-9
PAGE 3

REVISION DATE: 9-28-60

R-3350

AMERICAN AIRLINES, INC.

NOSE SECTION

SUB ASSEMBLY

BUILD UP TAPPETS

CARD NO. NS-11

PAGE NO. 1 OF

NOTE: Before assembly be sure parts are clean and
blow out oil passages.

Oil moving parts during assembly.

SIGN FULL NAME

INSP.

MECH.

OPERATION

1. BUILD UP TAPPETS.

CAUTION: TAPPET ROLLERS MAY REQUIRE BUSHINGS OF VARIOUS OVERSIZES. ALL ROLLERS REQUIRING OVERSIZE BUSHINGS WILL HAVE BUSHINGS PRE-FIT BY INSPECTION AND WILL BE RELEASED BY INSPECTION WITH THE BUSHING INSERTED IN THE ROLLER. THESE BUSHINGS AND ROLLERS SHOULD NOT BE SEPARATED. (REF.: ER-NS 261A)

2. BUILD UP DISTRIBUTOR PADS.

3. BUILD UP FOUR EACH ACCESSORY DRIVE SHAFTS.

4. INSTALL SEALS ON SEVEN EACH DOWELS AND TWO EACH BOLTS.

5. INSTALL OIL SEAL RING #68415 RING ON POWER CASE.

6. INSTALL SEVEN EACH DOWELS.

7. INSTALL TOP HOLLOW BOLTS #137029 WITH CIRCLET #2019D3.

R-3350

NOSE SECTION

CARD NS-11

PAGE 1

AMERICAN AIRLINES, INC.
ASSEMBLY PROCEDURE SIGN OFF
TULE FORM 88316

R-3350

SUB ASSEMBLY

NOSE SECTION

PAGE NO. 1 OF 3

INSTALLATION OF NOSE SECTION TO POWER SECTION

NOTE: Before assembly be sure parts are clean and blow out oil passages.

Oil moving parts during assembly.

SIGN FULL NAME		DATE:	OPERATION
INSP.	MECH.		
XXXXXX		1. Install seal #2083D5 in recess in nose case.	
XXXXXX		2. Install seal WAD P/N 2083D236 or AN123869 in the groove around the torque meter oil tube hole in the nose case parting surface. (Ref.: EA S-202A and EPAIR 33-180A) NOTE: P/N 2083D236 seal supersedes P/N AN123869. Use the superseded seal AN123869 only until the superseding seal P/N 2083D236 becomes available.	
XXXXXX		3. Install nose aligning pins in front main case.	
XXXXXX		4. Oil bell gear and pilot bearing.	
XXXXXX		5. Have Inspector check the Nose and Power before joining together. NOTE: Nose cases having had parting surface, which mates with the crankcase main section, machined per S.B. TC18-285 are to be installed in combination with applicable part number shim (147201N1, N2 or N3). Machined cases have been marked in area of case serial number designation indicating amount of material removed (.010, .018, .031).	
	XXXXXX	6. Check clearance between bearing, propeller oil control and crankshaft frost journal. (Ref.: 19) .0055, .0101, .0120.	
	XXXXXX	7. Lower nose assembly into place. <u>DO IT SLOWLY.</u>	
		8. Install tappets. Tappet roller bushings are occasionally oversize and are pre-fit by inspection. Do not separate (ER NS261A) NOTE: If tappet guides are oversize, a letter "O" will be painted in green aft of the tappet housing case. Guides will be tagged as to size and location and engine number. Install gasket and rear tappet and guide assembly "oversize guides in position specified" (Ref.: EPAIR 33-64)	
		9. Check to see that the tappet drains for the lower cylinders have been reworked to the same configuration as the upper cylinders. (Ref.: Figure #1, Page 6, Service Bulletin TC-18-347). (E.A. S238)	
XXXXXX		10. Install bottom hollow bolt with tabwasher and nut. Do not tighten.	
XXXXXX		11. Install washer and nut on top hollow bolt. Do not tighten.	
		12. Install 14 ea. nose case hold-down screws and torque 550-600 in. lbs. and safety. Use Goodrich A75B cement on threads. (WCR 4-20-58) NOTE: (1) Use P/N 2069D114 (.500-20 x 4.69 inch) screw and P/N 2093D8 washer on old type cases modified per S.47 at the thicker distributor mounting pad screw boss. NOTE: (2) Use P/N 2069D84 (.500-29 x 4.98 inch) screw and P/N 2093D8 washer on new type cases at the thicker distributor mounting pad screw boss. The new case may be distinguished from the old case by the longer attaching screw bosses located at each side of the governor mounting pad. Install the two long lower case attaching bolts P/N 494D7 and torque to 250-300 inch lbs. Ref.: 33-171.	

REVISION DATE: 9-3-63

R-3350

AMERICAN AIRLINES, INC.

NOSE SECTION

SUB ASSEMBLY

CARD NO. NS-12

PAGE NO. 2 OF

INSTALLATION OF NOSE SECTION TO POWER SECTION

NOTE: Before assembly be sure parts are clean and blow out oil passages.

Oil moving parts during assembly.

SIGN FULL NAME

INSP.

MECH.

OPERATION

12. (2) NOTE: BOLTS WILL BE ASSEMBLED WITH P/N AN 123862 "O" RING. SAFETY. (REF.: S-184)

(3) USE TWO EACH AA 2 CM 34-32 - .234C WASHERS WITH REWORKED NOSE CASE (HAVING SMALL GOVERNOR PAD) AT THE TWO ATTACH BOLT HOLES ADJACENT TO THE GOVERNOR PAD TO COMPENSATE FOR 1/8" MATERIAL REMOVED FROM SEATING SURFACE.

EPAIR 33-172 PROVIDES A REPAIR FOR NOSE CASES HAVING A SPHERICAL WASHER SEATING SURFACE AT THE RIGHT HAND SIDE OF THE GOVERNOR PAD, TO A FLAT SURFACE. A SPECIAL STEEL WASHER WILL BE MANUFACTURED TO COMPENSATE FOR THE MATERIAL REMOVED. THIS WASHER MUST REMAIN WITH THE REWORKED CASE FOR ALL SUBSEQUENT OVERHAULS.

EPAIR 33-173 PROVIDES A REWORK TO ALL NOSE CASES (HAVING SMALL GOVERNOR PAD) AT RH & LH BOLT ATTACH HOLES TO REMOVE 1/8" INCH MATERIAL FROM SEATING AREA. SEE ITEM 3 UNDER THE NOTE ON PAGE 1 FOR WASHER SPECIFICATIONS

13. TORQUE NUTS ON 2 EACH HOLLOW BOLTS 325-450 IN. LBS. AND SAFETY.

NOTE: TOP BOLT WITH COTTERKEY BOTTOM BOLT WITH TAB LOCK.

14. CHECK THE CAA ASSIGNED PRODUCTION CERTIFICATION NUMBER ON DATA PLATES. THIS NUMBER SHOULD BE "8" (EIGHT). IF NUMBER IS INCORRECT, FILE NUMERAL FLAT AND STAMP #8 (EIGHT) IN ITS POSITION. (REF.: S.B. TC-18 -191)

15. INDICATE TYPE OF NOSE SECTION AND ENGINE COMBINATION (ESO-401A & ESO-400B)

NOSE SECTION

ENGINE

DA-2

DA-4

4

16. IDENTIFY ENGINE AS TO RACK NUMBER BY ATTACHING PROPER RACK NUMBER PLACARD TO NOSE OF THE ENGINE. (WCR 3-12-59)

R-3350

NOSE SECTION

CARD 12

PAGE 2

REVISION DATE: 10-2-62

R-3350

AMERICAN AIRLINES, INC.

CARD NO. NS-12

PAGE NO. 4 OF _____

NOSE SECTION

INSTALLATION OF NOSE SECTION TO POWER SECTION

SUB ASSEMBLY

NOTE: Before assembly be sure parts are clean and blow out oil passages.
Oil moving parts during assembly.

SIGN FULL NAME		DATE:	OPERATION
INSP.	MECH.		
XXXXX		15. REMOVE ALIGNING PLUGS.	
XXXXX		16. CHECK END CLEARANCE - DISTRIBUTOR DRIVE INTERMEDIATE GEAR - MIN. .011L MAX. .023L - MAX. REPLACE .030L. (WCR 4-15-58)	

R-3350

NOSE SECTION

CARD 12

PAGE 4

AMERICAN AIRLINES, INC.
ASSEMBLY PROCEDURE SIGN OFF
FORM 88316

REVISION DATE. 10-2-62

R-3350

AMERICAN AIRLINES, INC.

CARD NO. NS-12

PAGE NO. 3 OF 4

SUB ASSEMBLY

NOSE SECTION

INSTALLATION OF NOSE SECTION TO POWER SECTION

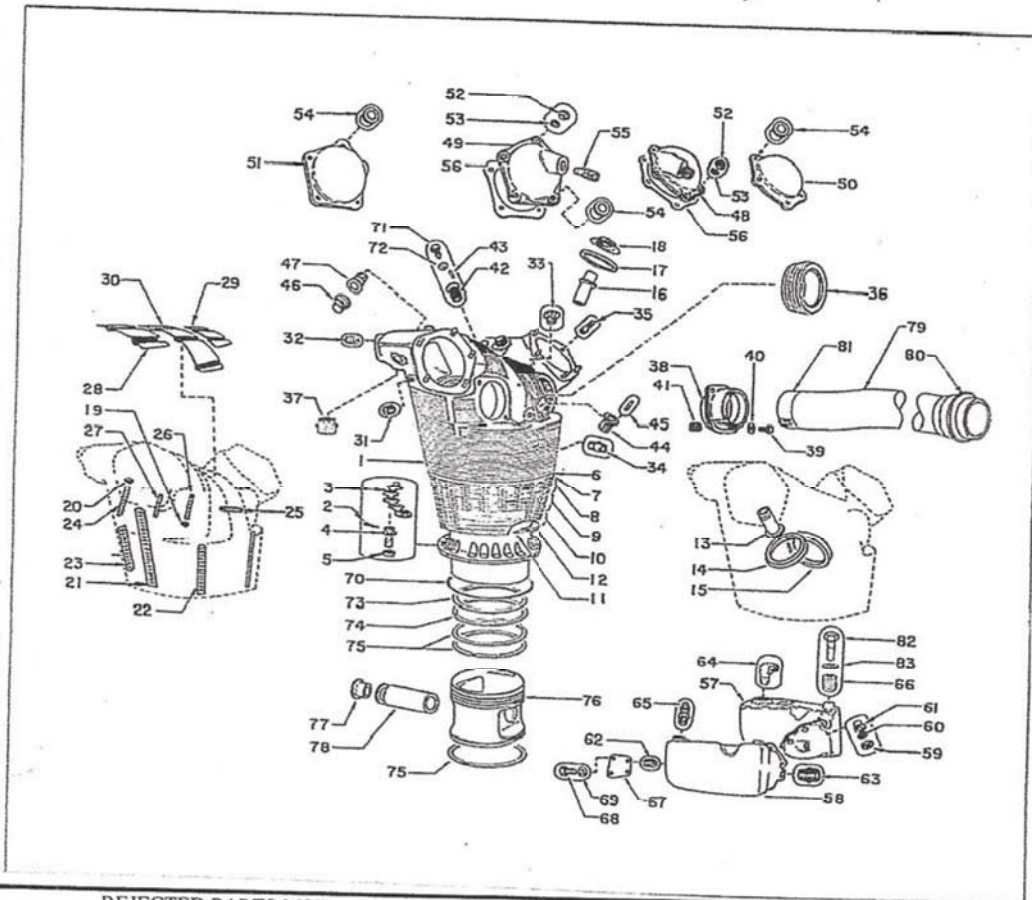
NOTE: Before assembly be sure parts are clean and blow out oil passages.
Oil moving parts during assembly.

SIGN FULL NAME	
INSP.	MECH.
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	
XXXXX	

DATE:

OPERATION

1. THE ADAPTER AND HOUSING ARE MATCHED ASSEMBLY AND MUST REMAIN MATCHED. RECORD SERIAL NUMBER GOVERNOR TORQUE BOOSTER PUMP
2. INSTALL THE GOVERNOR COUPLING AND TORQUEMETER BOOSTER PUMP DRIVE GEAR AND TORQUEMETER BOOSTER PUMP DRIVEN GEAR IN THE GOVERNOR DRIVE AND TORQUEMETER BOOSTER PUMP ADAPTER.
3. INSTALL AN OIL SEAL RING IN THE GROOVE ON THE PARTING SURFACE OF THE ADAPTER AND INSTALL THE GOVERNOR AND TORQUEMETER BOOSTER PUMP ADAPTER. NOTE: THERE IS NO POSITIVE RETENTION OF THE GOVERNOR AND TORQUEMETER BOOSTER PUMP PARTS UNTIL THE ASSEMBLY IS INSTALLED ON THE NOSE SECTION. THEREFORE, HOLD THE PARTS TOGETHER AND HANDLE THEM CAREFULLY.
4. ASCERTAIN THAT A CIRCLET HAS BEEN INSTALLED IN THE INNER GROOVE OF THE DRIVE GEAR. PUSH THE OUTER CIRCLET OVER THE SPLINES OF THE DRIVE SHAFT AND INSTALL THE SHAFT IN THE DRIVE GEAR. PUSH THE CIRCLET ON THE SHAFT INTO POSITION IN THE DRIVE GEAR. (REF.: WAD S.B. NO. TC18-344)
5. INSTALL AND OIL SEAL ON THE SHAFT. PLACE AN OIL SEAL RING IN THE GROOVE ON THE NOSE SECTION. INSTALL THE GOVERNOR DRIVE AND TORQUEMETER BOOSTER PUMP ASSEMBLY ON THE NOSE SECTION.
6. SECURE TRIANGULAR ADAPTER WITH (3) NUTS AND CIRCULAR ADAPTER WITH (5) NUTS. TORQUE 125-140 IN. LBS. (FROM ESO-401)
7. INSTALL FRONT OIL PUMP DRIVE SHAFT.
8. INSTALL PAD COVER.
9. INSTALL 2 EACH DISTRIBUTOR DRIVE SHAFTS.
10. INSTALL 2 EACH DISTRIBUTOR DRIVE GEARS.
11. INSTALL 2 EACH DISTRIBUTOR DRIVE INTERMEDIATE GEARS.
12. INSTALL SEAL ALIGNING PLUG ON DISTRIBUTOR DRIVE GEAR.
13. INSTALL 2 EACH GASKETS #138455.
14. INSTALL REWORKED P/N 438392 AND P/N 428393 DISTRIBUTOR ADAPTER. SECURE WITH P/N AN103816 BOLT. TORQUE BOLTS TO 80-85 IN. LBS. SAFETY, (REF.: S.114) NOTE: ADAPTERS P/N 428392 ARE BEING REWORKED TO P/N 430970 AND 430971. THEY CAN BE USED ON EITHER OLD OR NEW NOSE CASE. CAUTION: ONLY THE REWORKED TYPE CAN BE USED ON THE NEW NOSE CASE. (REF.: 33-124).



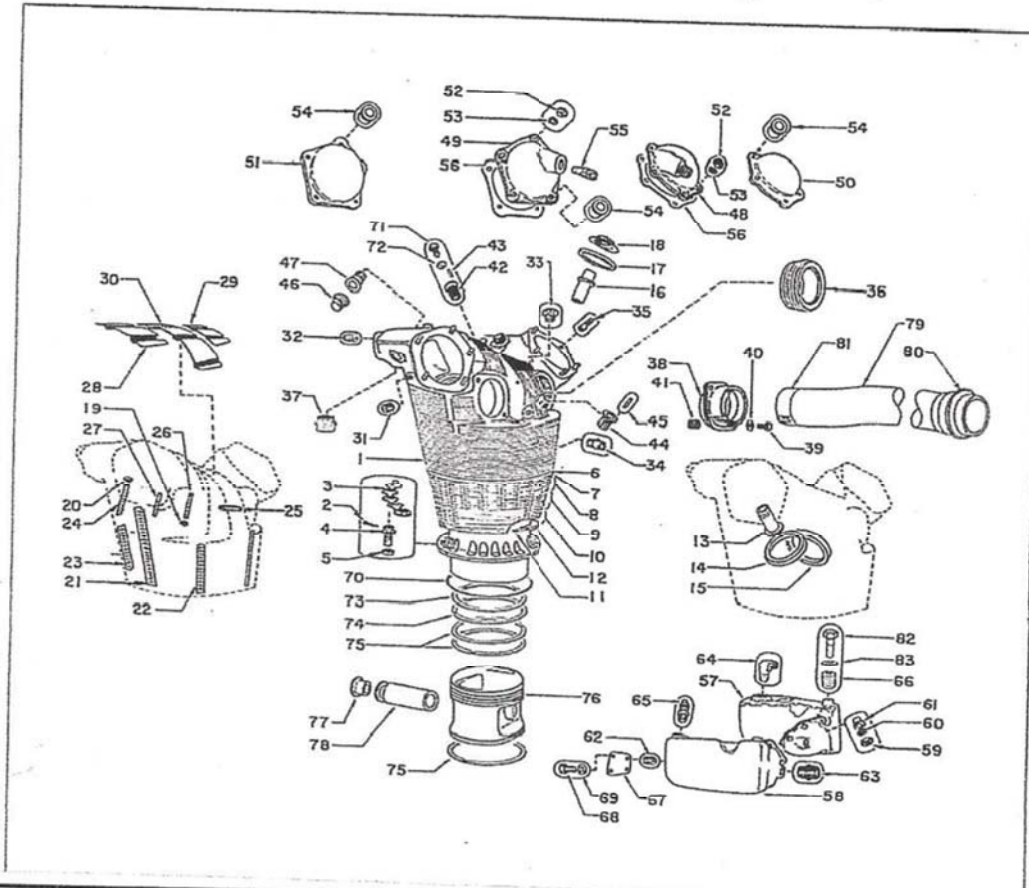
REJECTED PARTS LIST				REJECTED PARTS LIST			
Quantity	Part Number	Description	Reason Rejected	Quantity	Part Number	Description	Reason Rejected
18	2083D185	O-RING ROCKER ARM	(N) WORN				
6	433463	NEW FRONT CYL BARRELS	(N) WORN				
1	149499Y36	EXH GUIDE	(N) WORN				
1	147119Y22	EXH GUIDE	(N) WORN				
1	147119Y23	EXH GUIDE	(N) WORN				
2	145530	INT STD CONNECTOR	(N) WORN				
1	145530	Y2 T5 INT CONNECTOR	(N) WORN				
3	147120	-5 EXH VALVES	(S)				
1	129992	Y2 INT SEAT	(N) WORN				

PARTS REQUIRING REWORK				PARTS REQUIRING REWORK			
Quantity	Part Number	Description	S.B. or Rework	Quantity	Part Number	Description	S.B. or Rework

Engine S/N C590113
T.S.O. Unk
Magnaflexed By

Model R3350-26WD
Customer

W.O. 4192
Date 4-28-17
Inspected By



REJECTED PARTS LIST

REJECTED PARTS LIST

Quantity	Part Number	Description	Reason Rejected	Quantity	Part Number	Description	Reason Rejected
2	147637	Compression ring					
15	147637 y1	" "					
1	147637 y2	" "					
2	148702 y1	Compression ring					
11	148702 y2	" "					
5	148702 y3	" "					

PARTS REQUIRING REWORK

PARTS REQUIRING REWORK

Quantity	Part Number	Description	S.B. or Rework	Quantity	Part Number	Description	S.B. or Rework

Engine S/N C590113

Model R 3350-26WD

T.S.O. Unk

Customer [REDACTED]

W.O. 4192

Date

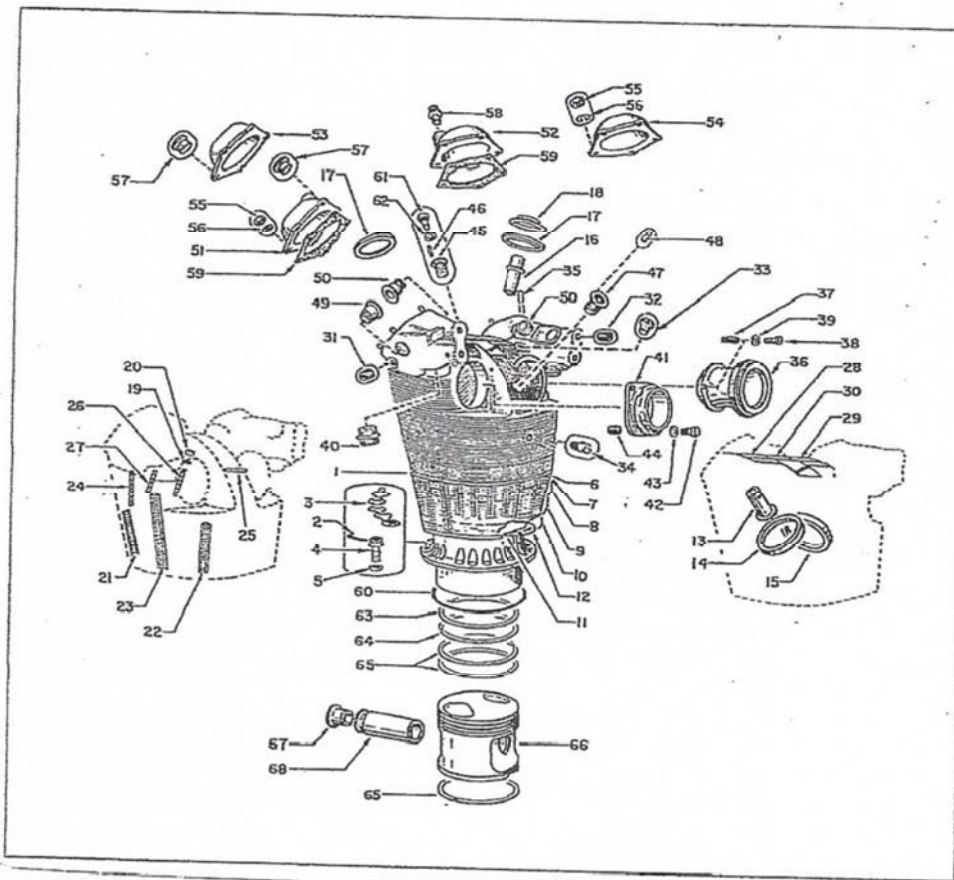
Magnafluxed By [REDACTED]

Inspected By [REDACTED]

ANDERSON AEROMOTIVE, INC.

824 North D. Street
Grangeville, Idaho 83530

Form: CW-11



REJECTED PARTS LIST

Quantity	Part Number	Description	Reason Rejected	Quantity	Part Number	Description	Reason Rejected
6	27D257	Washer	(N)				
		ROCKER ARM THRUST BUTTER	WORN				
36	27D435	Washer Seal	(N)				
			WORN				
18	2083D185	O-RING ROCKER ARM	(N)				
			WORN				
7	433464	NEW Rear CYL Barrels	(N)				
			WORN				
2	147119Y22	EXH Guide	(N)				
			WORN				
1	147119Y30	EXH Guide	(N)				
			WORN				
5	146552	Y1 INT PIPES Rear	(N)				
			WORN				
3	147120	-5 EXH VALVES	(S)				
1	131272	blind BUSHING STD	(N)				
			WORN				

PARTS REQUIRING REWORK

PARTS REQUIRING REWORK

Quantity	Part Number	Description	S.B. or Rework	Quantity	Part Number	Description	S.B. or Rework

Engine S/N C590113

T.S.O. Unk

Magnaflexed By

Model R 3350-26WD

Customer

W.O. 4192

Date 4-28-17

Inspected By