

## WATERJET VISUAL TECHNICAL INSPECTION REPORT

TYPE OF INSPECTION:

PREREPAIR [ ] POST REPAIR/MANUFACTURE [ ] IN-SERVICE [ ]

### IDENTIFICATION DATA

SHIP CLASS

HULL NUMBER

WATERJET IS INSTALLED? YES [ ] NO [ ] (If NO, skip next line)

PORT [ ] STBD [ ] INBD [ ] OUTBD [ ]

WATERJET ASSEMBLY [ ] IMPELLER & SHAFT [ ] IMPELLER ONLY [ ]

### INSPECTION

INSPECTING ACTIVITY

LOCATION OF INSPECTION (ACTIVITY)

PT AIDED VISUAL INSPECTION? YES [ ] NO [ ]

UNDERWATER VISUAL INSPECTION? YES [ ] NO [ ]

PRINTED NAME AND TITLE OF QUALIFIED INSPECTOR

TELEPHONE NUMBER

SIGNATURE

DATE OF INSPECTION

REVIEWED BY (SEE NOTE 6)

DATE

### INSTRUCTIONS

1. Use this form by placing a check mark in the appropriate column -- YES, NO, or NA (not applicable).
2. Answer all questions. Use additional comments block if more space is needed.
3. If an answer indicates the possibility of an unsatisfactory waterjet, explain in the REMARKS column.
4. Show the approximate size and location of all defects and damage on the appropriate sketch.
5. Identify damaged areas as old or new, if possible.
6. Government verification in contractor facility. Independent reviewer in government facility. Signature must be on all distribution copies.

DISTRIBUTION:

One copy to NSWCCD-SSES 932, NAVICP 05824, Contracting Officer, & File

Other:

ITEM		YES	NO	NA	REMARKS
<b>1.0</b>	<b>Impeller Blade Surfaces</b>				
1.1	Are the impeller blade surfaces free of porosity? (Identify location of porosity as being in welded or unwelded areas.)				
1.2	Are the impeller blade surfaces free of damage and deficiencies (e.g., dents, gouges, cable marks, etc.)?				
1.3	Are the impeller blade surfaces free of cavitation erosion?				
1.4	Are the impeller blade surfaces fair (not wavy)?				
1.5	Are the impeller blade surfaces free of cracks? (Identify location of cracks as being in welded or unwelded areas.)				
1.6	Are the impeller blade surfaces free of punch marks and scribe lines, which exceed 0.030 inches in width or depth?				
<b>2.0</b>	<b>Impeller Fillet Areas</b>				
2.1	Are the fillet areas free of porosity? (Identify location of porosity as being in welded or unwelded areas.)				
2.2	Are the fillet areas free of damage and deficiencies (e.g., dents, gouges, ridges, cable marks, etc.)?				
2.3	Are the fillet areas free of cavitation erosion?				
2.4	Are the fillets fair (not wavy)?				
2.5	Are the fillet areas free of cracks? (Identify location of cracks as being in welded or unwelded areas.)				
<b>3.0</b>	<b>Impeller Hub</b>				
3.1	Is the hub free of porosity? (Identify location of porosity as being in welded or unwelded areas.)				
3.2	Is the hub exterior surface free of damage and deficiencies, (e.g., dents, gouges, cable marks, etc.)				
3.3	Is the hub exterior free of cavitation erosion?				
3.4	Is the hub exterior fair (not wavy)?				
3.5	Is the hub exterior free of cracks? (Identify location of cracks as being in welded or unwelded areas.)				
<b>4.0</b>	<b>Impeller and Guide Vane Chamber</b>				
4.1	Is the chamber free of porosity? (Identify location of porosity.)				
4.2	Is the chamber free of cavitation erosion?				
4.3	Is the chamber interior fair (not wavy)?				
4.4	Is the chamber free of cracks? (Identify location of cracks.)				
NAVSEA 9247/1 (03/09)					PAGE 2 OF ____

ITEM		YES	NO	NA	REMARKS
<b>5.0</b>	<b>Stator Blade Surfaces</b>				
5.1	Are the stator blade surfaces free of porosity? (Identify location of porosity as being in welded or unwelded areas.)				
5.2	Are the stator blade surfaces free of damage and deficiencies (e.g., dents, gouges, cable marks, etc.)?				
5.3	Are the stator blade surfaces free of cavitation erosion?				
5.4	Are the stator blade surfaces fair (not wavy)?				
5.5	Are the stator blade surfaces free of cracks? (Identify location of cracks as being in welded or unwelded areas.)				
5.6	Are the stator blade surfaces free of punch marks and scribe lines, which exceed 0.030 inches in width or depth?				
<b>6.0</b>	<b>Stator Fillet Areas</b>				
6.1	Are the fillet areas free of porosity? (Identify location of porosity as being in welded or unwelded areas.)				
6.2	Are the fillet areas free of damage and deficiencies (e.g., dents, gouges, ridges, cable marks, etc.)?				
6.3	Are the fillet areas free of cavitation erosion?				
6.4	Are the fillets fair (not wavy)?				
6.5	Are the fillet areas free of cracks? (Identify location of cracks as being in welded or unwelded areas.)				
<b>7.0</b>	<b>Stator Hub</b>				
7.1	Is the hub internal wall free of porosity? (Identify location of porosity as being in welded or unwelded areas.)				
7.2	Is the hub exterior surface free of damage and deficiencies, (e.g., dents, gouges, cable marks, etc.)				
7.3	Is the hub exterior free of cavitation erosion?				
7.4	Is the hub internal wall free of cavitation erosion?				
7.5	Is the hub exterior fair (not wavy)?				
7.6	Is the hub free of cracks? (Identify location of cracks as being in welded or unwelded areas.)				
NAVSEA 9247/1 (03/09)					PAGE 3 OF _____

ITEM		YES	NO	NA	REMARKS
<b>8.0</b>	<b>Waterjet Impeller Shaft</b>				
8.1	Is the impeller shaft surface free of porosity? (Identify location of porosity as being in welded or unwelded areas.)				
8.2	Is the impeller shaft free of damage and deficiencies (e.g., dents, gouges, cable marks, etc.)?				
8.3	Is the impeller shaft surface free of cavitation erosion?				
<b>9.0</b>	<b>Waterjet Inlet Duct</b>				
9.1	Is the duct surface free of damage and deficiencies, (e.g., dents, gouges, cable marks, etc.)				
9.2	Is the duct free of cavitation erosion?				
9.3	Is the duct free of cracks? (Identify location of cracks as being in welded or unwelded areas.)				
<b>10.0</b>	<b>Steering Hardware &amp; Hoses</b>				
10.1	Are the steering cylinders free of marine growth?				
10.2	Are the hoses or hose connections leaking fluid?				
<b>11.0</b>	<b>Is the impeller free of marine growth?</b>				
<b>12.0</b>	<b>Surface Finish</b>				
12.1	Is the hub O.D. surface a maximum of 125 Ra?				
12.2	Are the blade surfaces a maximum of 63 Ra? (for Class I & II propellers)				
12.3	Are the blade surfaces a maximum of 125 Ra? (for Class III & IV propellers)				
12.4	Are all O-ring sealing surfaces a maximum of 32 Ra?				
<b>13.0</b>	<b>Are the approximate size and location of all defects and damage shown on the attached sketches?</b>				
<b>14.0</b>	<b>For new manufacture or new weld repair areas, does the propeller meet MIL-STD-2035 acceptance criteria?</b>				
<b>15.0</b>	<b>Does the condition of this propeller indicate that it will provide satisfactory service?</b>				

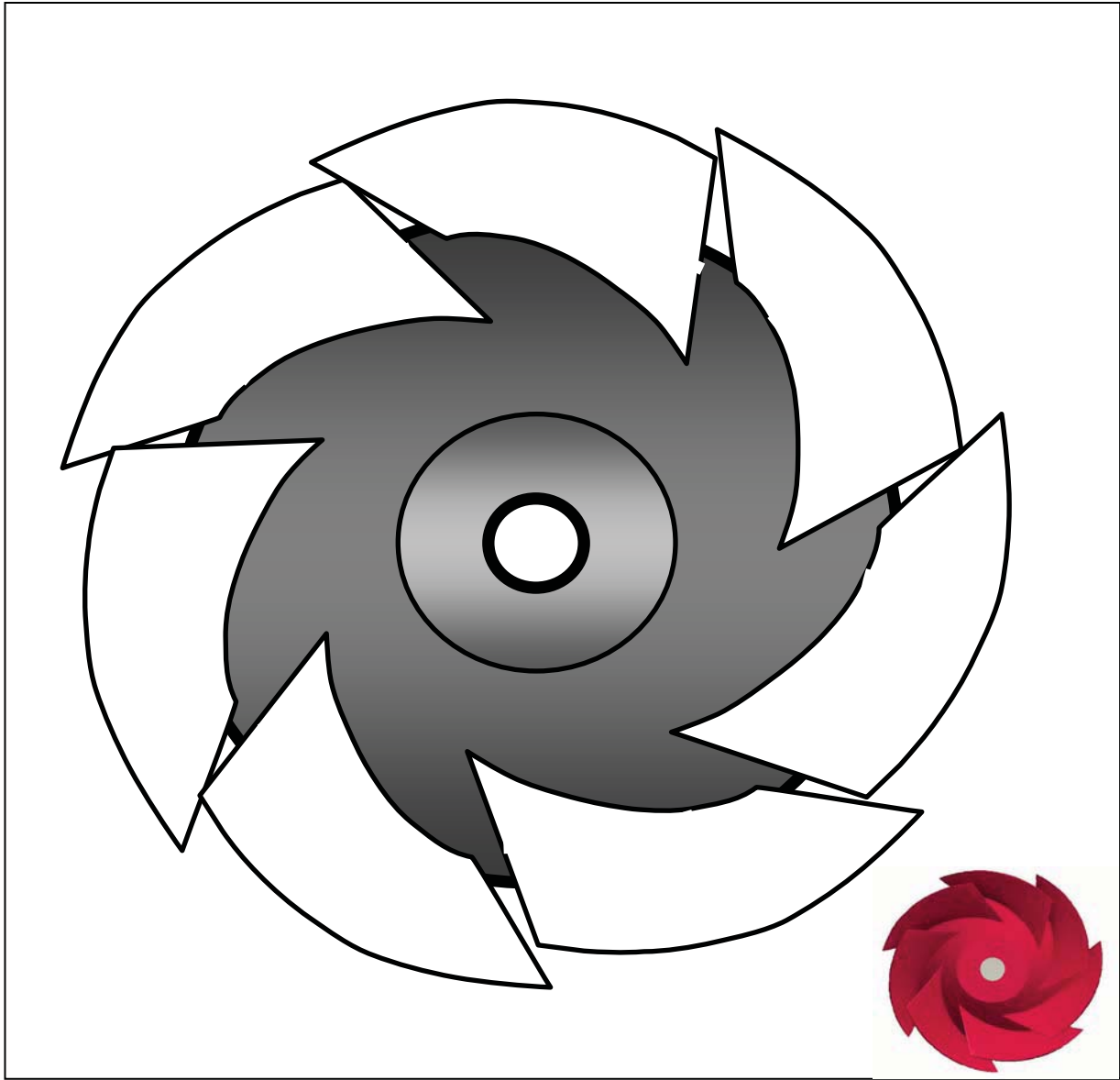
ITEM

**16.0** Provide a brief description of the repairs considered necessary to restore this propeller to a serviceable condition.

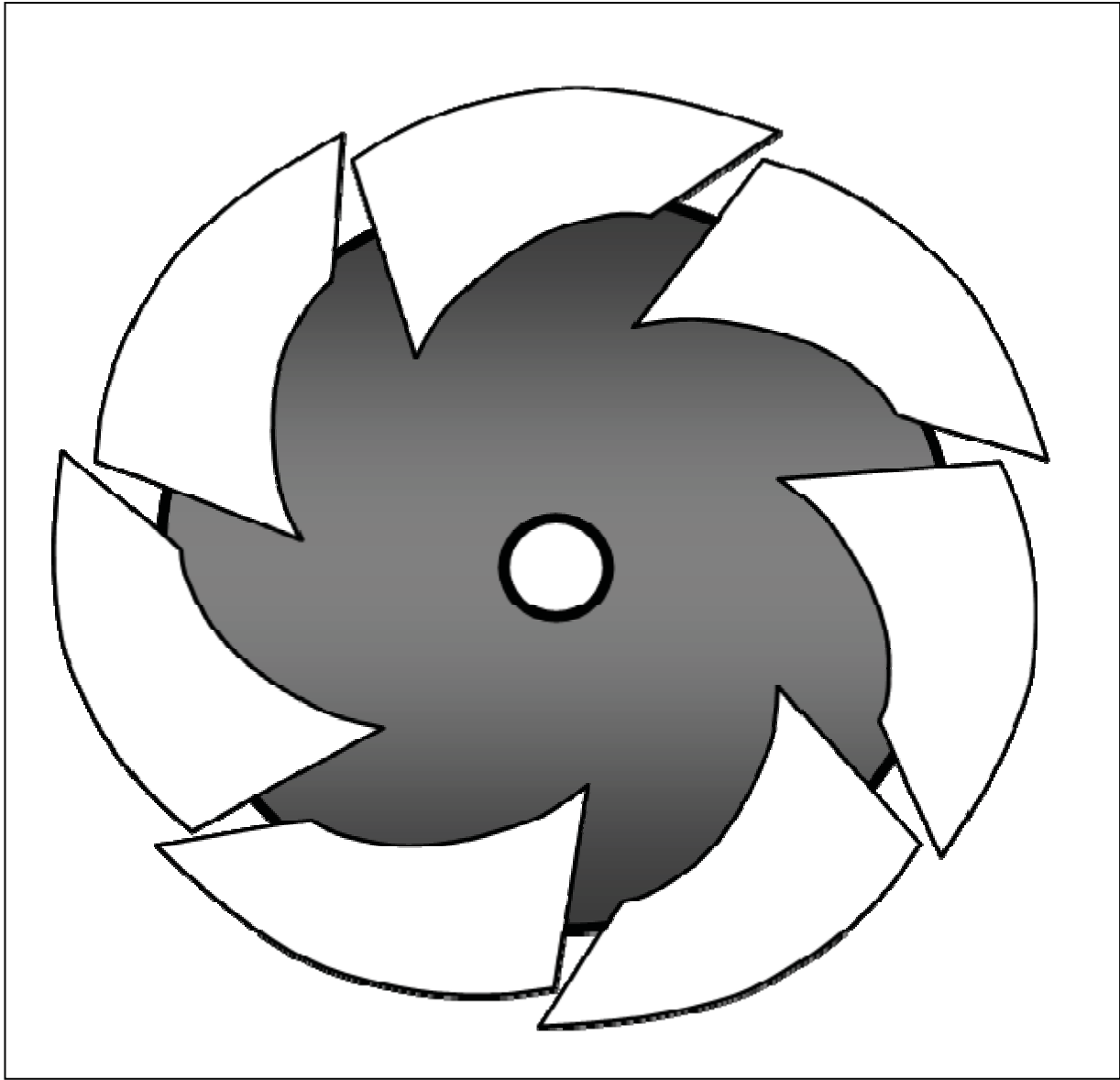
**17.0** Hub/Palm Stamped Data (Exactly as stamped.)

**18.0** Additional Comments. (Use additional sheets, if necessary)

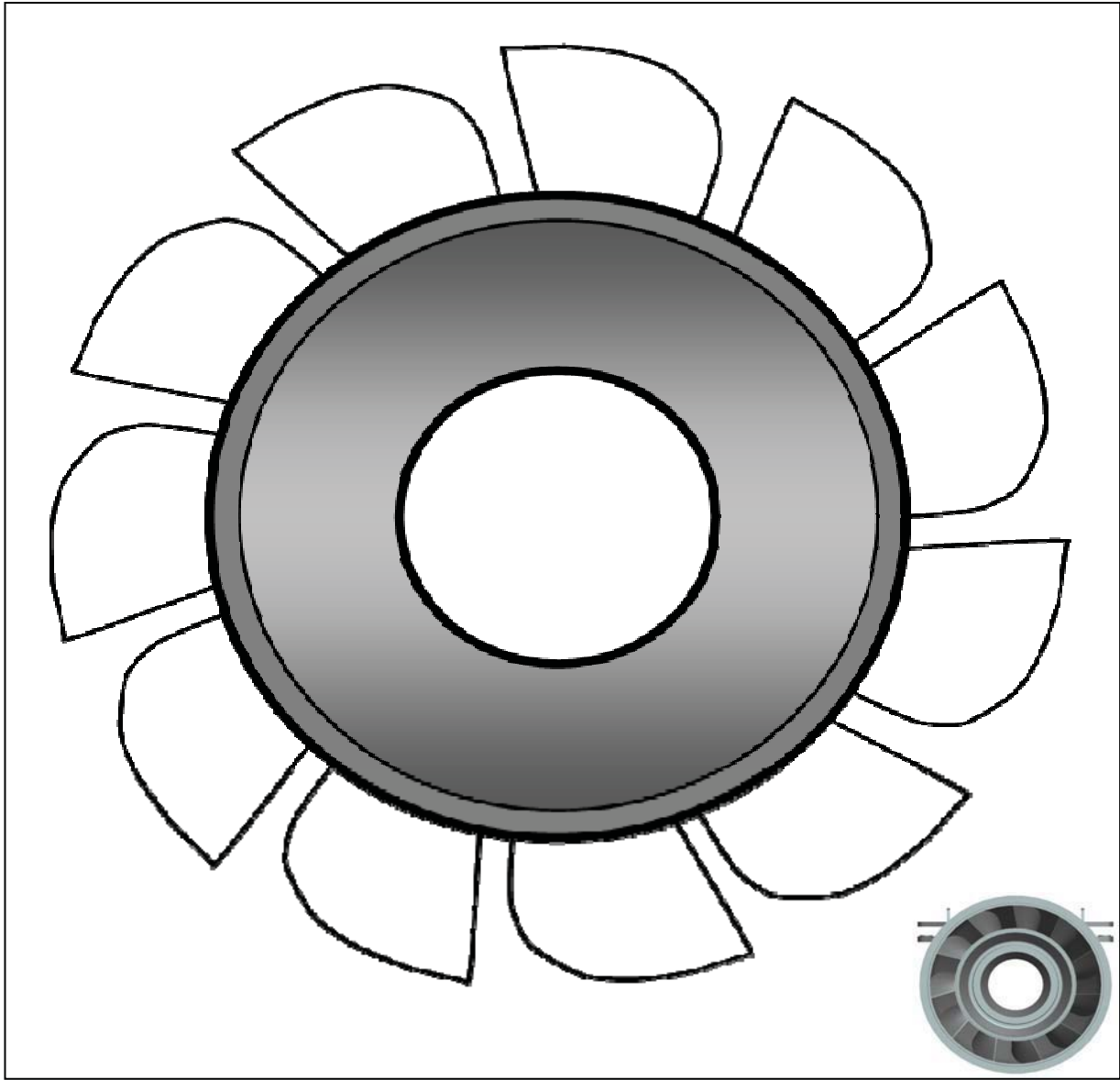
IMPELLER SERIAL NO.:



IMPELLER SUCTION FACE

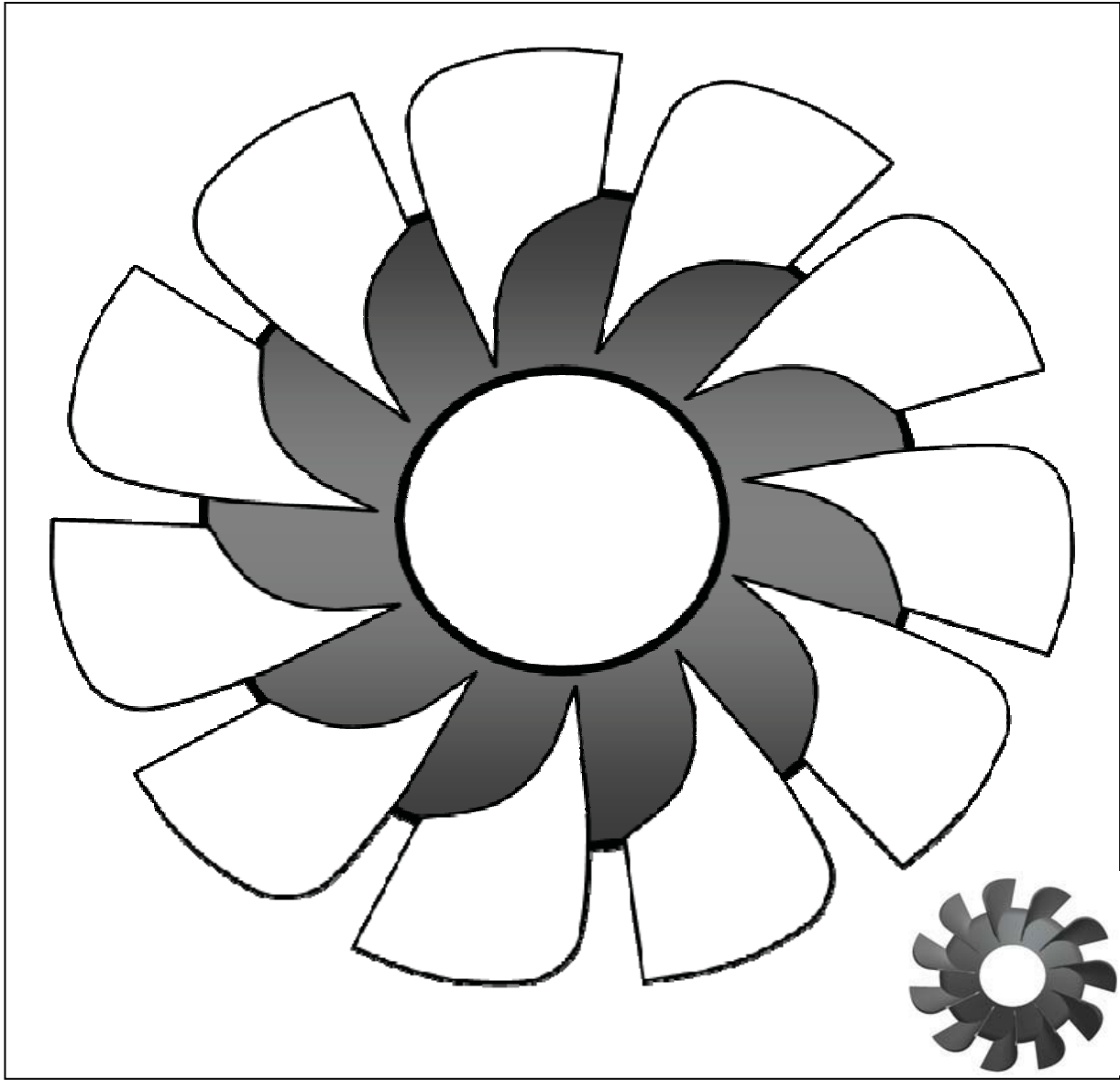


IMPELLER PRESSURE FACE



STATOR BLADES LOOKING AFT





STATOR BLADES LOOKING FWD