INTERNAL (REF) TWIN DISC SPLINE DATA | ENGR. STD. S435 ROOT FLAT PRESSURE ANGLE 30 ° NO. OF TEETH 29 PITCH 16/32 PITCH DIA 1.8125 FORM DIA. 1.879 MAJOR DIAMETER MAX. 1.901 CIRCULAR SPACE MAX. ACT. MEASURMENT BETWEEN MIN. REF.

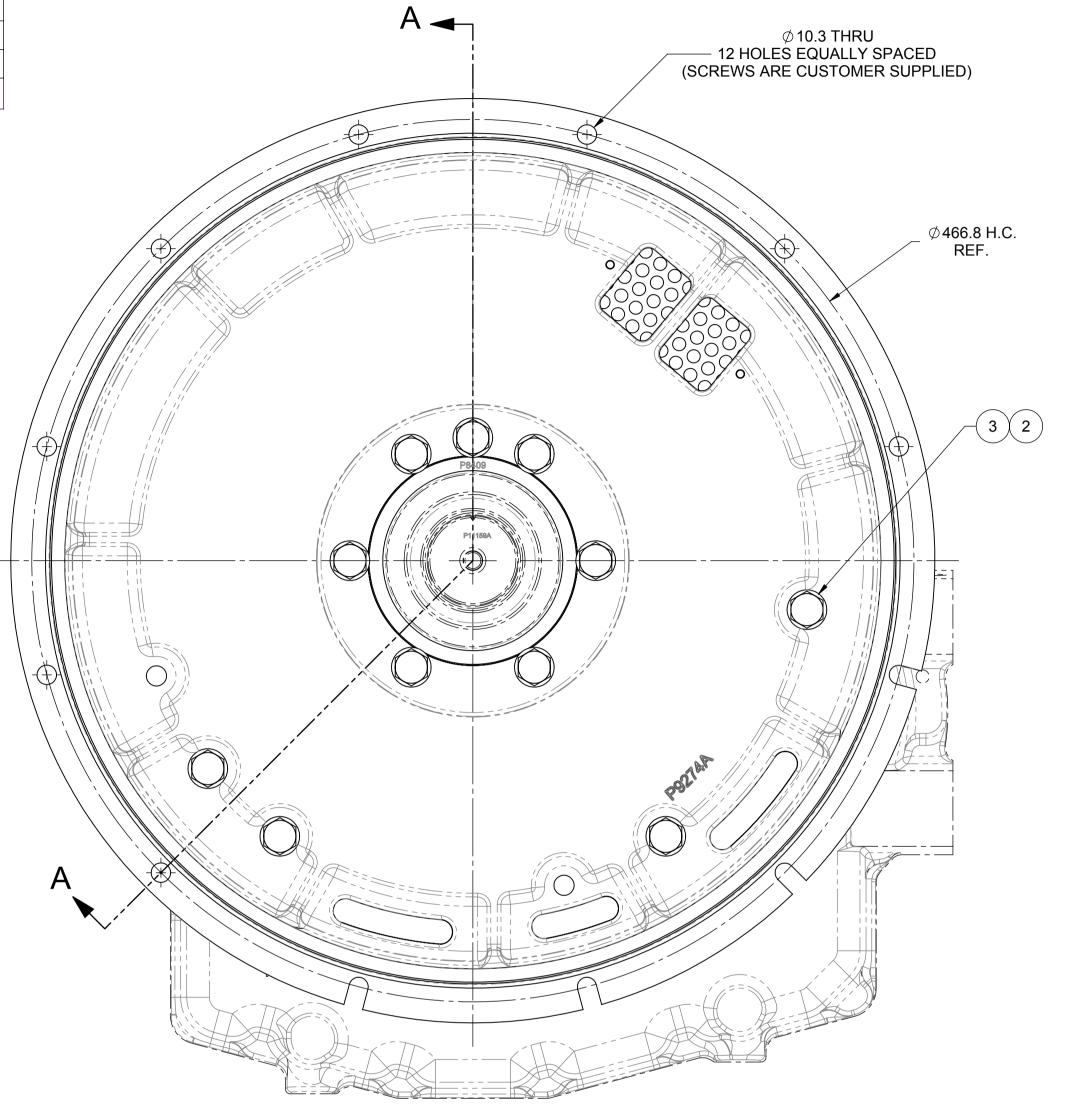
NONE TO FLAT — MAX. ACT. 1.6587

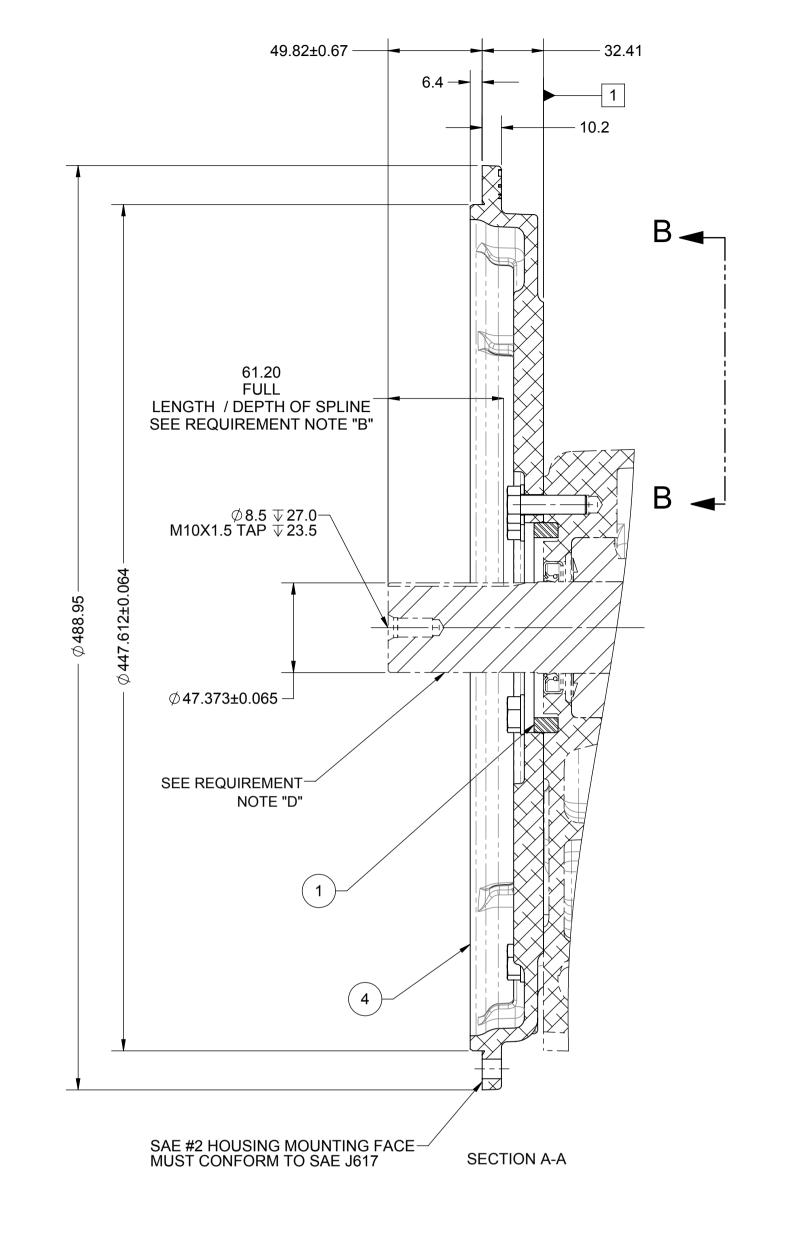
SPLINE DATA IN INCHES

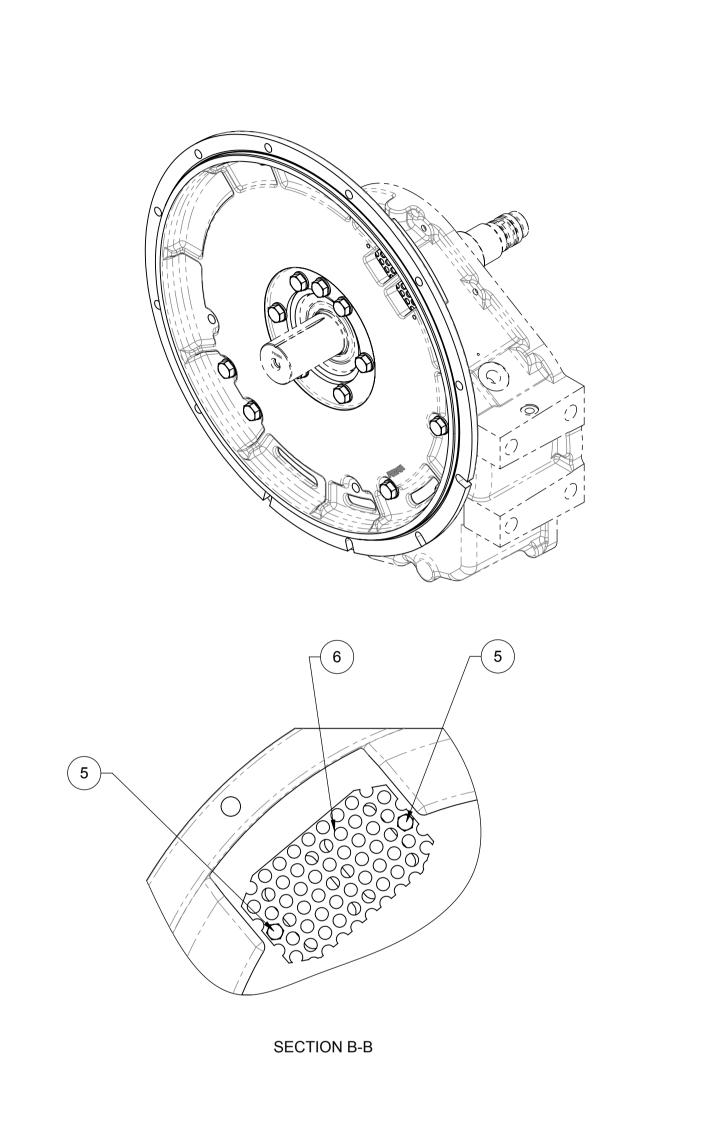
DIA. PINS WITH

1 INPUT GROUP REFERENCE PLANE

BILL OF MATERIAL			
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	P8409	RING
2	11	PM1357F	SCREW, HEX HEAD
3	11	PM2057AA	WASHER
4	1	P9274A	FLANGE, PILOT
5	2	PM5967B	SCREW, HEX HEAD
6	1	P11570B	COVER







## **GENERAL NOTES:**

1.CONSULT DISTRIBUTOR INFORMATION BULLETIN DIB 04-0211 FOR ADDITIONAL REQUIREMENTS AND LIMITATIONS FOR APPLICATIONS UTILIZING THIS INPUT GROUP CONFIGURATION.

2.DISREGARDING PROPULSION SYSTEM TORSIONAL COMPATIBILITY COULD CAUSE DAMAGE TO COMPONENTS IN THE DRIVE TRAIN RESULTING IN LOSS OF MOBILITY. AT MINIMUM, SYSTEM INCOMPATIBILITY COULD RESULT IN GEAR CLATTER AT LOW SPEEDS. THE RESPONSIBILITY FOR ENSURING THAT THE TORSIONAL COMPATIBILITY OF THE PROPULSION SYSTEM IS SATISFACTORY RESTS WITH THE ASSEMBLER OF THE DRIVE AND DRIVEN EQUIPMENT. TORSIONAL VIBRATION ANALYSIS CAN BE MADE BY THE ENGINE BUILDER, MARINE SURVEY SOCIETIES, INDEPENDENT CONSULTANTS AND OTHERS. TWIN DISC IS PREPARED TO ASSIST IN FINDING SOLUTIONS TO POTENTIAL TORSIONAL PROBLEMS THAT RELATE TO THE EQUIPMENT OF TWIN DISC INCORPORATED'S SUPPLY.

3.TWIN DISC IS NOT RESPONSIBLE FOR THE DESIGN AND WORKMANSHIP FOR INPUT COUPLING/FLANGE ASSEMBLIES NOT SUPPLIED BY TWIN DISC.

4.AFTER ASSEMBLY OF THE MARINE TRANSMISSION WITH THE INPUT COUPLING/FLANGE ASSEMBLY ONTO THE ENGINE, VERIFICATION THAT ENGINE FLYWHEEL ENDPLAY EXISTS MUST BE MADE IN ACCORDANCE WITH THE ENGINE MANUFACTURERS REQUIREMENTS/INSTRUCTIONS.

5.SURVEY SOCIETY APPROVAL/UNIT CERTIFICATION FOR THE INPUT COUPLING/FLANGE ASSEMBLY UTILIZED ON THE MARINE TRANSMISSION IS THE RESPONSIBILITY OF THE SUPPLIER OF THE INPUT COUPLING/FLANGE ASSEMBLY.

## ASSEMBLY INSTRUCTIONS:

- FOR MG-5065A & MG-5065SC SEE S570DU SECTION I. FOR INSTRUCTION - FOR MGX-5065A & MGX-5065SC SEE S570DT SECTION I. FOR INSTRUCTION - ALL FASTENERS, FITTINGS AND PLUGS TO BE TORQUED PER S574

**APPLICABLE MODELS:** 

- MG-5065A PER PX11165B

- MG-5065SC PER PX11480A MGX-5065A PER PX12370A - MGX-5065SC PER PX12410A

## **REQUIREMENT NOTES:**

- A. THE INPUT COUPLING/FLANGE ASSEMBLY MUST HAVE A MINIMUM OF 3 mm CLEARANCE FROM THE SAE HOUSING ADAPTER SUPPLIED WITH THE MARINE TRANSMISSION. REFER TO 1026552D (MG-5065A) INSTALLATION DRAWING/MODEL FOR USE IN DETERMINING THE REQUIRED CLEARANCE FROM THE SAE HOUSING ADAPTER. THIS INSTALLATION DRAWING/MODEL MIGHT NOT HAVE THE EXACT CUSTOMER'S CONFIGURATION BUT WILL PROVIDE THE NECESSARY INFORMATION FOR THE DETERMINATION OF THE MINIMUM CLEARANCE.
- B. THE MATING INTERNAL SPLINE FOR THE INPUT COUPLING/FLANGE ASSEMBLY MUST MAINTAIN FULL LENGTH OF ENGAGEMENT WITH THE EXTERNAL SPLINE FOR ALL OPERATING CONDITIONS.
- C. THE MARINE TRANSMISSION IS MANUFACTURED AND SHIPPED WITHIN THE FOLLOWING SPECIFIED RUNOUT VALUES AS MEASURED FROM THE INPUT SHAFT:
- 0.25 mm (0.010 in) MAX RUNOUT TO THE FACE OF THE SAE HOUSING ADAPTER • 0.20 mm (0.008 in) MAX RUNOUT TO THE PILOT OF THE SAE HOUSING ADAPTER
- D. THE COUPLING/FLANGE ASSEMBLY'S INTERNAL SPLINE MUST BE PRODUCED TO THE INTERNAL SPLINE DATA PROVIDED ON THIS DRAWING.
- E. THE MINIMUM HARDNESS FOR THE MARINE TRANSMISSION'S INPUT SHAFT EXTERNAL SPLINE IS HRC 56.
- F. REFER TO TWIN DISC'S "MARINE PRODUCT GUIDE" FOR POWER RATING AND SPEED LIMITATION THAT ARE APPLICABLE TO THE MARINE TRANSMISSION.
- G.THE SPECIFICATIONS OF THIS DRAWING ARE VALID FOR CLOSED COUPLED INSTALLATION ONLY.
- H. FOR FREE STANDING INSTALLATION, APPROVAL BY TWIN DISC'S APPLICATION ENGINEERING GROUP IS REQUIRED. WHEN SUBMITTING
- FOR FREE STANDING APPROVAL, THE FOLLOWING MAXIMUM VALUES ARE REQUIRED:
- AXIAL LOAD INDUCED ONTO THE MARINE TRANSMISSION'S INPUT SHAFT • RADIAL LOAD (INCLUDING LOCATION) INDUCED ONTO THE MARINE TRANSMISSION'S INPUT SHAFT
- I. INNER PARTS WR<sup>2</sup>: 0.0004 kg.m<sup>2</sup>
- J. REFER TO THE APPROPRIATE MARINE TRANSMISSION'S MASS ELASTIC DATA DRAWING FOR ALL OTHER MASS ELASTIC INFORMATION.

NDWF-010914 08/30/2019 CHANGE NO. DATE FIRST USE ASSEMBLY: PX12370A (TWIN((DISC.) 08/27/2019 FIRST USE MODEL: MGX-5065A RACINE, WI 53403 - USA **METRIC** UNLESS OTHERWISE SPECIFIED MACHINED DIMENSIONS 1026866AE NOTICE! THIS PRINT CONTAINS PROPRIETARY INFORMATION AND IS NOT TO BE USED IN ANY MANNER DETRIMENTAL TO THE INTEREST O **TWIN DISC, INCORPORATED** ALL ANGULAR TOLERANCES ±1° GEOMETRIC TOLERANCING PER ASME Y14.5M 1994 GROUP, INPUT SIZE: A1 1 OF 1 SAE #2 ADAPTOR LESS COUPLING DV