## **PIVOTS INDEX**

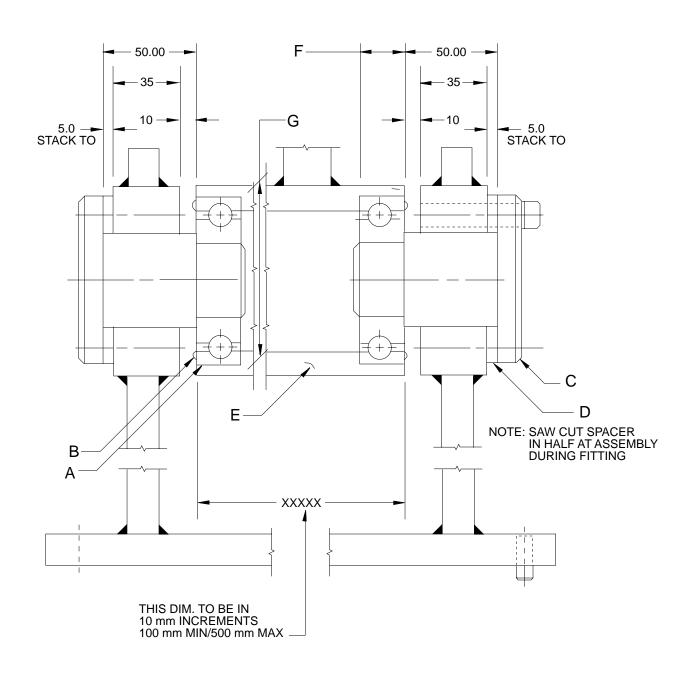


Assembly 09/06/12

#### **DUMP ASSEMBLIES AND COMPONENTS**

PAGE N-1	<b>DATE</b> 09/06/12	NAAMS CODE	<b>DESCRIPTION</b> Pivots Index
N-1.1	09/06/12		Pivots Index
<u>N-2</u>	09/06/02	ADP200, 300, 400, 500	Dump Unit Pivot Assembly
N-3	05/25/12	ADP200, 300, 400, 500	Dump Unit Pivot Assembly
<u>N-4</u>	08/24/07	ADP201	Dump Unit Stub Shaft
<u>N-5</u>	08/24/07	ADP202	Dump Unit Spacer
<u>N-6</u>	08/24/07	ADP301	Dump Unit Stub Shaft
<u>N-7</u>	08/24/07	ADP302 Series	Dump Unit Spacer
N-8	08/24/07	ADP401	Dump Unit Stub Shaft
<u>N-9</u>	08/24/07	ADP402 Series	Dump Unit Spacer
N-10	08/24/07	ADP501	Dump Unit Stub Shaft
N-11	08/24/07	ADP502 Series	Dump Unit Spacer
<u>N-12</u>	08/24/07	ADP400C	Dump Unit Pivot Assy. Thru Shaft Composite Bearings
N-13	08/24/07	ADP416C-ADP490C	40 MM Through Shafts
<u>N-14</u>	08/24/07	ADP500C	Dump Unit Pivot Assy. Thru Shaft Composite Bearings
<u>N-15</u>	08/24/07	ADP53OC-ADP590C	50 MM Through Shafts
<u>N-16</u>	08/24/07	ADP600C	Dump Unit Pivot Assy. Thru Shaft Composite Bearings
N-17	08/24/07	ADP630C-ADP690C	60 MM Through Shafts
<u>N-18</u>	08/24/07	ADP400SC	Dump Unit Pivot Assy. Stub Shaft Composite Bearings
<u>N-19</u>	08/24/07	ADP500SC	Dump Unit Pivot Assy. Stub Shaft Composite Bearings
<u>N-20</u>	08/24/07	ADP600SC	Dump Unit Pivot Assy. Stub Shaft Composite Bearings
N-21	08/24/07	ADP413SC-ADP619SC	Stub Shafts
N-22	08/24/07	ADP999	Metric Keeper
N-23	09/06/12	ADP2550B-ADP6010B	Dump Unit Pivot Bronze Thrust Washer
N-24	02/25/00	ADP4050C-ADP6070C	Dump Unit Pivot Composite Bearing
N-25	09/06/12	ADP700	Dump Unit Pivot Stainless Steel Thrust Washer

## DUMP UNIT PIVOT ASSEMBLY



NOTE: ORDER THE COMPONENTS SEPARATELY AND NOT AS AN ASSEMBLY.

TABULATED INFORMATION ON FOLLOWING PAGE

### **DUMP UNIT PIVOT ASSEMBLY**



NAAMS	ADD200	A DD200	ADD400	ADDEOO
CODE	ADP200	ADP300	ADP400	ADP500
A Bearing <sup>1</sup>	6304	6306	6308	6310
B Shield <sup>2</sup>	6304	6306	6308	6310
C Stub Shaft	ADP201	ADP301	ADP401	ADP501
D Spacer	ADP202	ADP302	ADP402	ADP502
E Steel Tub Size	2-1/2 O.D. X 1-1/2 I.D.	3-1/2 O.D. X 2-1/2 I.D.	4 O.D. X 3 I.D.	5 O.D. X 3-3/4 I.D.
F Bearing Bore Depth	15.3	19.3	23.3	27.3
G Bearing Bore Dia Ref	52.000 +0.000 -0.013	72.000-0.013	90.000 +0.000 -0.013	110.000 +0.000 0.013
Max Load Rating N, (Lb)	15,900 (3,580)	28,100 (6,320)	41,000 (9,230)	61,800 (13,900)

NOTE: ORDER THE COMPONENTS SEPARATELY AND NOT AS AN ASSEMBLY.

SEE DRAWING ON PREVIOUS PAGE

<sup>&</sup>lt;sup>1</sup>Commercial ball bearing with seals both sides, lube for life <sup>2</sup>Commercial sheet metal shield compatible with ball bearing

## DUMP UNIT STUB SHAFT ADP-201

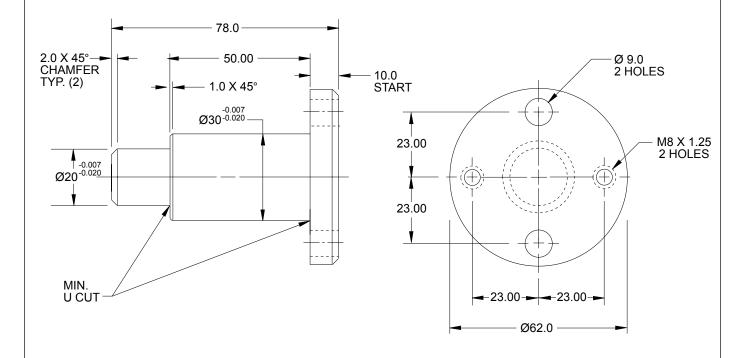


Tolerances:

1 PLACE ± 0.3 2 PLACE ±0.08

Weight: 0.59kg





#### **NOTES & SPECIFICATIONS:**

Material: S.A.E. 1020 H.R.S.

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

С

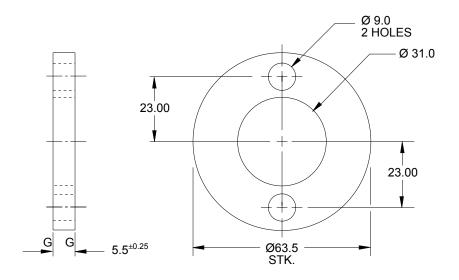
N-4

## DUMP UNIT SPACER ADP-202



Tolerances:

1 PLACE ± 0.3 2 PLACE ±0.08



#### **NOTES & SPECIFICATIONS:**

Material: S.A.E. 1020 H.R.S.

THE SPACER MAY BE CUT IN HALF THROUGH THE HOLES AT ASSEMBLY

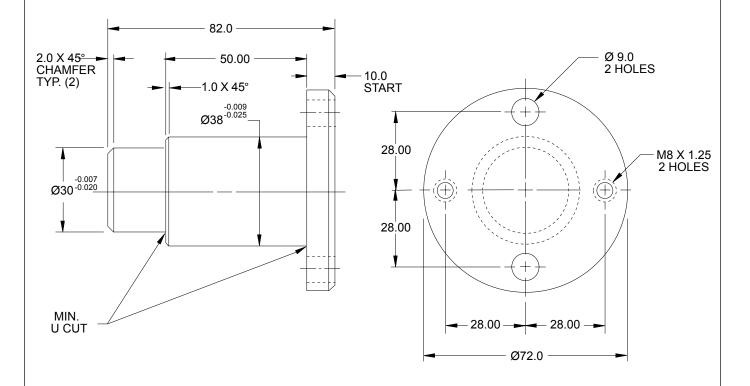
SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

# DUMP UNIT STUB SHAFT ADP-301

Tolerances:

 $\begin{array}{ccc} \text{1 PLACE} & \pm 0.3 \\ \text{2 PLACE} & \pm 0.08 \\ \text{Weight:} & 0.91 \text{ kg} \end{array}$ 

В



#### **NOTES & SPECIFICATIONS:**

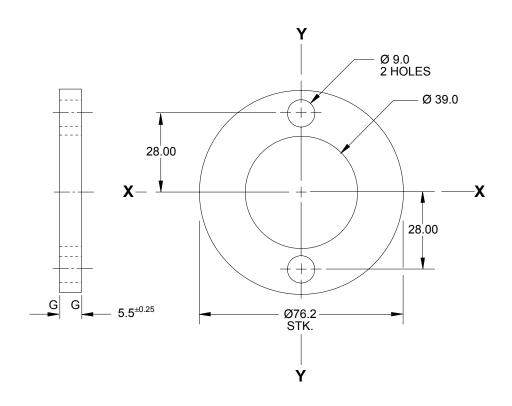
Material: S.A.E. 1020 H.R.S.

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

### **DUMP UNIT SPACER ADP302 SERIES**

Tolerances:

1 PLACE  $\pm 0.3$ 2 PLACE ±0.08



CONDITION	NAAMS CODE
UNCUT	ADP302
CUT ON AXIS X - X	ADP302A
CUT ON AXIS Y - Y	ADP302B

#### **NOTES & SPECIFICATIONS:**

Material: S.A.E. 1020 H.R.S.

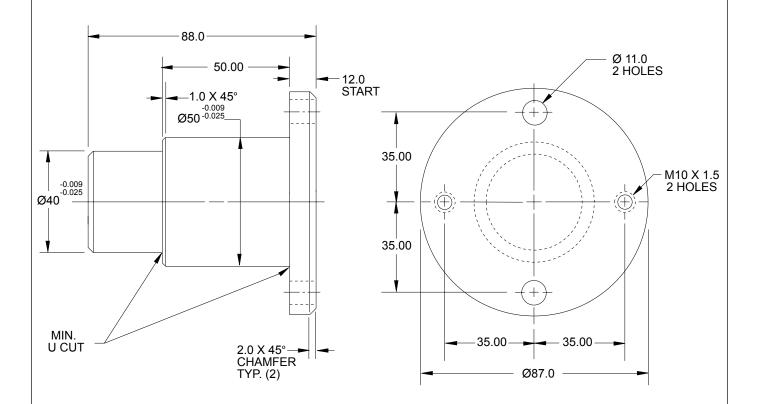
SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

## DUMP UNIT STUB SHAFT ADP-401

Tolerances:

1 PLACE ± 0.3 2 PLACE ±0.08

Weight: 1.59 kg



#### **NOTES & SPECIFICATIONS:**

Material: S.A.E. 1020 H.R.S.

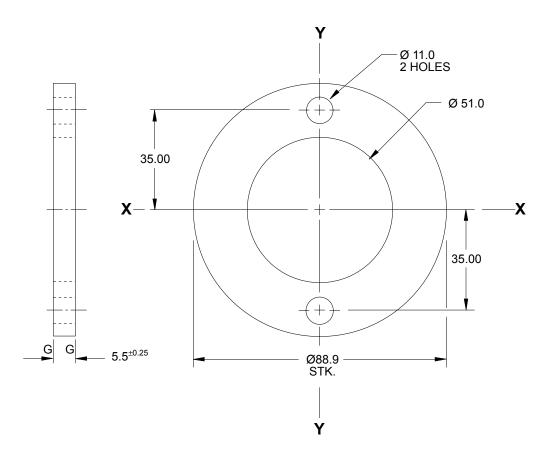
SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

# **DUMP UNIT SPACER ADP402 SERIES**

Tolerances:

 $\begin{array}{cc} \text{1 PLACE} & \pm\,0.3 \\ \text{2 PLACE} & \pm0.08 \end{array}$ 

Weight: 0.18 kg



CONDITION	NAAMS CODE
UNCUT	ADP402
CUT ON AXIS X - X	ADP402A
CUT ON AXIS Y - Y	ADP402B

#### **NOTES & SPECIFICATIONS:**

Material: S.A.E. 1020 H.R.S.

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

В

Α

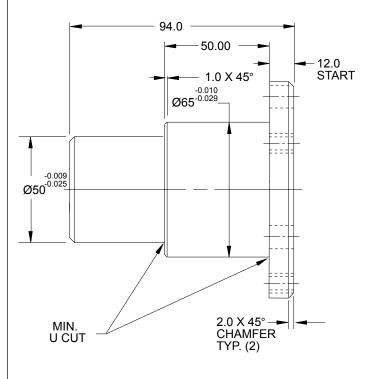
## DUMP UNIT STUB SHAFT ADP-501

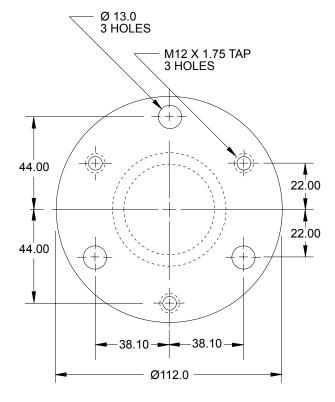


Tolerances:

1 PLACE ± 0.3 2 PLACE ±0.08

Weight: 2.59 kg





#### **NOTES & SPECIFICATIONS:**

Material: S.A.E. 1020 H.R.S.

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

В

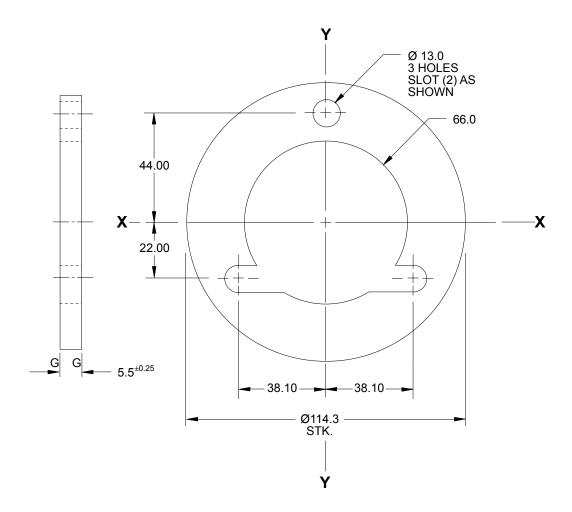
N - 10

#### **DUMP UNIT SPACER ADP502 SERIES**

Tolerances:

1 PLACE  $\pm 0.3$ 2 PLACE ±0.08

Weight: 0.32 kg



CONDITION	NAAMS CODE					
UNCUT	ADP502					
CUT ON AXIS X - X	ADP502A					
CUT ON AXIS Y - Y	ADP502B					

#### **NOTES & SPECIFICATIONS:**

Material: S.A.E. 1020 H.R.S.

THE SPACER MAY BE CUT IN HALF THROUGH THE HOLES AT ASSEMBLY

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

C

Α

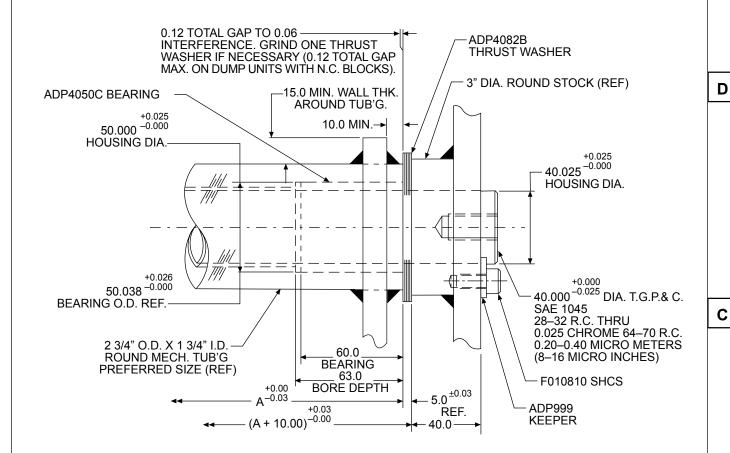
# DUMP UNIT PIVOT ASSY. THRU SHAFT COMPOSITE BEARINGS TM ADP400C SERIES



В

Α

SHOWN USING ADP400C SERIES THROUGH SHAFTS
NOTE: ORDER THE COMPONENTS SEPARATELY AND NOT AS AN ASSEMBLY.



#### LIGHT – MEDIUM DUTY THROUGH SHAFT APPLICATIONS

MAXIMUM ALLOWABLE ROUGHNESS SHALL BE:

1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS

2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS

3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3

1 PLACE FABRICATION ±1.5

2 PLACE ± 0.03 GENERAL

± 0.03 BETWEEN DOWELS

± 0.13 TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

ASSEMBLE SHAFT TO BEARING USING LITHIUM GREASE. SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

NOTE: THIS ONE PIECE THROUGH SHAFT ASSEMBLY

IS PREFERRED WHEN A

PIVOT ASM. IS 900 MM LONG OR LESS.

A STUB SHAFT ASSEMBLY IS PREFERRED WHEN A PIVOT ASSY. IS OVER 900 MM LONG OR WHEN A ONE PIECE THROUGH SHAFT CANNOT BE REMOVED FOR MAINTENANCE.

N – 12

Ε

## **40 MM THROUGH SHAFTS**



NAAMS		WT.									
CODE	A DIM.	kg									
ADP416C	160.00	1.5	ADP436C	360.00	3.5	ADP456C	560.00	5.4	ADP476C	760.00	7.4
ADP417C	170.00	1.6	ADP437C	370.00	3.6	ADP457C	570.00	5.5	ADP477C	770.00	7.5
ADP418C	180.00	1.7	ADP438C	380.00	3.7	ADP458C	580.00	5.6	ADP478C	780.00	7.6
ADP419C	190.00	1.8	ADP439C	390.00	3.8	ADP459C	590.00	5.7	ADP479C	790.00	7.7
ADP420C	200.00	1.9	ADP440C	400.00	3.9	ADP460C	600.00	5.8	ADP480C	800.00	7.8
ADP421C	210.00	2.0	ADP441C	410.00	4.0	ADP461C	610.00	5.9	ADP481C	810.00	7.9
ADP422C	220.00	2.1	ADP442C	420.00	4.1	ADP462C	620.00	6.0	ADP482C	820.00	8.0
ADP423C	230.00	2.2	ADP443C	430.00	4.2	ADP463C	630.00	6.1	ADP483C	830.00	8.1
ADP424C	240.00	2.3	ADP444C	440.00	4.3	ADP464C	640.00	6.2	ADP484C	840.00	8.2
ADP425C	250.00	2.4	ADP445C	450.00	4.4	ADP465C	650.00	6.3	ADP485C	850.00	8.3
ADP426C	260.00	2.5	ADP446C	460.00	4.5	ADP466C	660.00	6.4	ADP486C	860.00	8.3
ADP427C	270.00	2.6	ADP447C	470.00	4.6	ADP467C	670.00	6.5	ADP487C	870.00	8.4
ADP428C	280.00	2.7	ADP448C	480.00	4.6	ADP468C	680.00	6.6	ADP488C	880.00	8.5
ADP429C	290.00	2.8	ADP449C	490.00	4.7	ADP469C	690.00	6.7	ADP489C	890.00	8.6
ADP430C	300.00	2.9	ADP450C	500.00	4.8	ADP470C	700.00	6.8	ADP490C	900.00	8.7
ADP431C	310.00	3.0	ADP451C	510.00	4.9	ADP471C	710.00	6.9			
ADP432C	320.00	3.1	ADP452C	520.00	5.0	ADP472C	720.00	7.0			
ADP433C	330.00	3.2	ADP453C	530.00	5.1	ADP473C	730.00	7.1			
ADP434C	340.00	3.3	ADP454C	540.00	5.2	ADP474C	740.00	7.2			
ADP435C	350.00	3.4	ADP455C	550.00	5.3	ADP475C	750.00	7.3			

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3

1 PLACE FABRICATION ±1.5

2 PLACE  $\pm$  0.03 GENERAL

 $\pm$  0.03 BETWEEN DOWELS  $\pm$  0.13 TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

MATERIAL: 40.000<sup>-0.025</sup> DIA. T.G.P. & C. S.A.E. 1045 28-32 R.C. THRU 0.25 CHROME, 64-70 R.C. 0.20-0.40 MICRO METERS (8-16 MICRO INCHES)

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

Α

25.0 MM DP.

## **DUMP UNIT PIVOT ASSY. THRU** SHAFT COMPOSITE BEARINGS THE **ADP500C SERIES**



SHOWN USING ADP500C SERIES THROUGH SHAFTS NOTE: ORDER THE COMPONENTS SEPARATELY AND NOT AS AN ASSEMBLY.

ADP5095B MAX. ON DUMP UNITS WITH N.C. BLOCKS). THRUST WASHER 3 1/2" DIA. ROUND STOCK (REF) ADP5060C BEARING -15.0 MIN. WALL THK. AROUND TUB'G. +0.02550.025 -0.000 HOUSING DIA. +0.025 60.000 -0.000 HOUSING DIA. +0.026  $60.038^{\,-0.000}$ BEARING O.D. REF. +0.000 50.000<sup>-0.025</sup> DIA. T.G.P.& C. S.A.E. 1045 28–32 R.C. THRU 0.025 CHROME 64–70 R.C. - 3 1/4" O.D. X 2 1/4" I.D. ROUND MECH. TUBING 0.20-0.40 MICRO METERS PREFERRED SIZE (REF) 10.0 MIN. (8-16 MICRO INCHES) 75.0 **BEARING** F010810 SHCS 78.0 **BORE DEPTH** +0.00 · 5.0 <sup>±0.03</sup>  $-A^{-0.03}$ ADP999 **KEEPER**  $-(A + 10.0)^{-0.00}$ 

#### MEDIUM - HEAVY DUTY THROUGH SHAFT APPLICATIONS

50.0

MAXIMUM ALLOWABLE ROUGHNESS SHALL BE:

1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS

2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS

3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3

1 PLACE FABRICATION ±1.5

2 PLACE ± 0.03 GENERAL

± 0.03 BETWEEN DOWELS

± 0.13 TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

ASSEMBLE SHAFT TO BEARING USING LITHIUM GREASE.

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

NOTE: THIS ONE PIECE THROUGH SHAFT ASSEMBLY

IS PREFERRED WHEN A

PIVOT ASM. IS 900 MM LONG OR LESS.

A STUB SHAFT ASSEMBLY IS PREFERRED WHEN A PIVOT ASSY. IS OVER 900 MM LONG OR WHEN A ONE PIECE THROUGH SHAFT CANNOT BE REMOVED FOR MAINTENANCE.

Ε

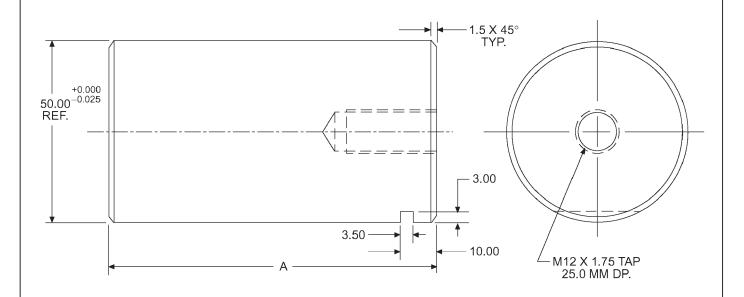
В

Α

D

## **50 MM THROUGH SHAFTS**





NAAMS		WT.	NAAMS		WT.	NAAMS		WT.	NAAMS		WT.
CODE	A DIM.	kg	CODE	A DIM.	kg	CODE	A DIM.	kg	CODE	A DIM.	kg
ADP530C	300.00	4.5	ADP545C	450.00	6.8	ADP560C	600.00	9.1	ADP575C	750.00	11.4
ADP531C	310.00	4.7	ADP546C	460.00	7.0	ADP561C	610.00	9.3	ADP576C	760.00	11.5
ADP532C	320.00	4.8	ADP547C	470.00	7.1	ADP562C	620.00	9.4	ADP577C	770.00	11.7
ADP533C	330.00	5.0	ADP548C	480.00	7.3	ADP563C	630.00	9.6	ADP578C	780.00	11.8
ADP534C	340.00	5.1	ADP549C	490.00	7.4	ADP564C	640.00	9.7	ADP579C	790.00	12.0
ADP535C	350.00	5.3	ADP550C	500.00	7.6	ADP565C	650.00	9.9	ADP580C	800.00	12.1
ADP536C	360.00	5.5	ADP551C	510.00	7.7	ADP566C	660.00	10.0	ADP581C	810.00	12.3
ADP537C	370.00	5.6	ADP552C	520.00	7.9	ADP567C	670.00	10.2	ADP582C	820.00	12.5
ADP538C	380.00	5.8	ADP553C	530.00	8.0	ADP568C	680.00	10.3	ADP583C	830.00	12.6
ADP539C	390.00	5.9	ADP554C	540.00	8.2	ADP569C	690.00	10.5	ADP584C	840.00	12.8
ADP540C	400.00	6.1	ADP555C	550.00	8.3	ADP570C	700.00	10.6	ADP585C	850.00	12.9
ADP541C	410.00	6.2	ADP556C	560.00	8.5	ADP571C	710.00	10.8	ADP586C	860.00	13.1
ADP542C	420.00	6.4	ADP557C	570.00	8.6	ADP572C	720.00	10.9	ADP587C	870.00	13.2
ADP543C	430.00	6.5	ADP558C	580.00	8.8	ADP573C	730.00	11.1	ADP588C	880.00	13.4
ADP544C	440.00	6.7	ADP559C	590.00	9.0	ADP574C	740.00	11.2	ADP589C	890.00	13.5
-	•	,		•				•	ADP590C	900.00	13.7

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3

1 PLACE FABRICATION ±1.5

2 PLACE ± 0.03 GENERAL

 $\pm~0.03$  BETWEEN DOWELS

 $\pm~0.13$  TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

MATERIAL: 50.000 DIA. T.G.P. & C. S.A.E. 1045 28-32 R.C. THRU 0.25 CHROME, 64-70 R.C. 0.20-0.40 MICRO METERS

(8-16 MICRO INCHES)

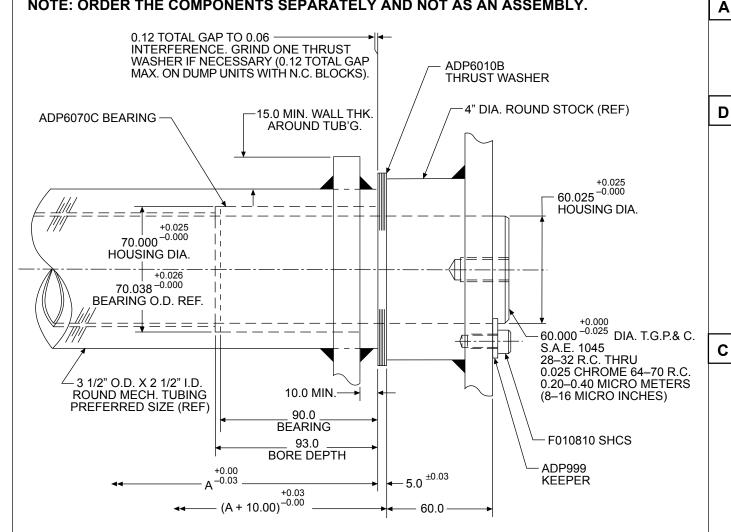
SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

## **DUMP UNIT PIVOT ASSY. THRU** SHAFT COMPOSITE BEARINGS TM **ADP600C SERIES**



В

SHOWN USING ADP600C SERIES THROUGH SHAFTS NOTE: ORDER THE COMPONENTS SEPARATELY AND NOT AS AN ASSEMBLY.



#### EXTRA HEAVY DUTY THROUGH SHAFT APPLICATIONS

MAXIMUM ALLOWABLE ROUGHNESS SHALL BE:

1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS

2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS

3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3

1 PLACE FABRICATION ±1.5

2 PLACE ± 0.03 GENERAL

± 0.03 BETWEEN DOWELS

± 0.13 TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

ASSEMBLE SHAFT TO BEARING USING LITHIUM GREASE. SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

THIS ONE PIECE THROUGH SHAFT ASSEMBLY NOTE:

IS PREFERRED WHEN A

PIVOT ASM. IS 900 MM LONG OR LESS.

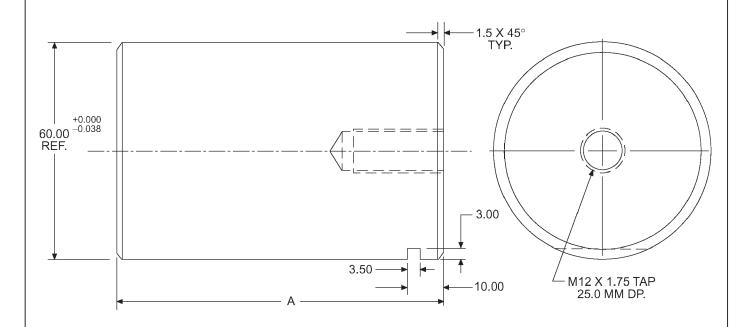
A STUB SHAFT ASSEMBLY IS PREFERRED WHEN A PIVOT ASSY. IS OVER 900 MM LONG OR WHEN A ONE PIECE THROUGH SHAFT

CANNOT BE REMOVED FOR MAINTENANCE.

N - 16

Ε

## **60 MM THROUGH SHAFTS**



	WT.	NAAMS		WT.	NAAMS		WT.	NAAMS		WT.
A DIM.	kg	CODE	A DIM.	kg	CODE	A DIM.	kg	CODE	A DIM.	kg
300.00	6.5	ADP645C	450.00	9.8	ADP660C	600.00	13.1	ADP675C	750.00	16.4
310.00	6.8	ADP646C	460.00	10.1	ADP661C	610.00	13.3	ADP676C	760.00	16.6
320.00	7.0	ADP647C	470.00	10.3	ADP662C	620.00	13.6	ADP677C	770.00	16.8
330.00	7.2	ADP648C	480.00	10.5	ADP663C	630.00	13.8	ADP678C	780.00	17.1
340.00	7.4	ADP649C	490.00	10.7	ADP664C	640.00	14.0	ADP679C	790.00	17.3
350.00	7.6	ADP650C	500.00	10.9	ADP665C	650.00	14.2	ADP680C	800.00	17.5
360.00	7.9	ADP651C	510.00	11.1	ADP666C	660.00	14.4	ADP681C	810.00	17.7
370.00	8.1	ADP652C	520.00	11.4	ADP667C	670.00	14.7	ADP682C	820.00	17.9
380.00	8.3	ADP653C	530.00	11.6	ADP668C	680.00	14.9	ADP683C	830.00	18.2
390.00	8.5	ADP654C	540.00	11.8	ADP669C	690.00	15.1	ADP684C	840.00	18.4
400.00	8.7	ADP655C	550.00	12.0	ADP670C	700.00	15.3	ADP685C	850.00	18.6
410.00	9.0	ADP656C	560.00	12.2	ADP671C	710.00	15.5	ADP686C	860.00	18.8
420.00	9.2	ADP657C	570.00	12.5	ADP672C	720.00	15.7	ADP687C	870.00	19.0
430.00	9.4	ADP658C	580.00	12.7	ADP673C	730.00	16.0	ADP688C	880.00	19.3
440.00	9.6	ADP659C	590.00	12.9	ADP674C	740.00	16.2	ADP689C	890.00	19.5
								ADP690C	900.00	19.7
	300.00 310.00 320.00 330.00 340.00 350.00 360.00 370.00 380.00 400.00 410.00 420.00 430.00	A DIM.       kg         300.00       6.5         310.00       6.8         320.00       7.0         330.00       7.2         340.00       7.4         350.00       7.6         360.00       7.9         370.00       8.1         380.00       8.3         390.00       8.5         400.00       8.7         410.00       9.0         420.00       9.2         430.00       9.4	A DIM.         kg         CODE           300.00         6.5         ADP645C           310.00         6.8         ADP646C           320.00         7.0         ADP647C           330.00         7.2         ADP648C           340.00         7.4         ADP649C           350.00         7.6         ADP650C           360.00         7.9         ADP651C           370.00         8.1         ADP652C           380.00         8.3         ADP653C           390.00         8.5         ADP654C           400.00         8.7         ADP655C           410.00         9.0         ADP656C           420.00         9.2         ADP658C           430.00         9.4         ADP658C	A DIM.         kg         CODE         A DIM.           300.00         6.5         ADP645C         450.00           310.00         6.8         ADP646C         460.00           320.00         7.0         ADP647C         470.00           330.00         7.2         ADP648C         480.00           340.00         7.4         ADP649C         490.00           350.00         7.6         ADP650C         500.00           360.00         7.9         ADP651C         510.00           370.00         8.1         ADP652C         520.00           380.00         8.3         ADP653C         530.00           390.00         8.5         ADP654C         540.00           400.00         8.7         ADP655C         550.00           410.00         9.0         ADP656C         560.00           420.00         9.2         ADP657C         570.00           430.00         9.4         ADP658C         580.00	A DIM.         kg         CODE         A DIM.         kg           300.00         6.5         ADP645C         450.00         9.8           310.00         6.8         ADP646C         460.00         10.1           320.00         7.0         ADP647C         470.00         10.3           330.00         7.2         ADP648C         480.00         10.5           340.00         7.4         ADP649C         490.00         10.7           350.00         7.6         ADP650C         500.00         10.9           360.00         7.9         ADP651C         510.00         11.1           370.00         8.1         ADP652C         520.00         11.4           380.00         8.3         ADP653C         530.00         11.6           390.00         8.5         ADP654C         540.00         11.8           400.00         8.7         ADP655C         550.00         12.0           410.00         9.0         ADP656C         560.00         12.2           420.00         9.2         ADP657C         570.00         12.5           430.00         9.4         ADP658C         580.00         12.7	A DIM.         kg         CODE         A DIM.         kg         CODE           300.00         6.5         ADP645C         450.00         9.8         ADP660C           310.00         6.8         ADP646C         460.00         10.1         ADP661C           320.00         7.0         ADP647C         470.00         10.3         ADP662C           330.00         7.2         ADP648C         480.00         10.5         ADP663C           340.00         7.4         ADP649C         490.00         10.7         ADP664C           350.00         7.6         ADP650C         500.00         10.9         ADP665C           360.00         7.9         ADP651C         510.00         11.1         ADP666C           370.00         8.1         ADP652C         520.00         11.4         ADP667C           380.00         8.3         ADP653C         530.00         11.6         ADP668C           390.00         8.5         ADP654C         540.00         11.8         ADP669C           400.00         8.7         ADP655C         550.00         12.0         ADP670C           410.00         9.0         ADP656C         560.00         12.2         <	A DIM.         kg         CODE         A DIM.         kg         CODE         A DIM.           300.00         6.5         ADP645C         450.00         9.8         ADP660C         600.00           310.00         6.8         ADP646C         460.00         10.1         ADP661C         610.00           320.00         7.0         ADP647C         470.00         10.3         ADP662C         620.00           330.00         7.2         ADP648C         480.00         10.5         ADP663C         630.00           340.00         7.4         ADP649C         490.00         10.7         ADP664C         640.00           350.00         7.6         ADP650C         500.00         10.9         ADP665C         650.00           360.00         7.9         ADP651C         510.00         11.1         ADP666C         660.00           370.00         8.1         ADP652C         520.00         11.4         ADP667C         670.00           380.00         8.3         ADP653C         530.00         11.8         ADP669C         690.00           400.00         8.7         ADP654C         540.00         12.0         ADP670C         700.00           410.00 <td>A DIM.         kg         CODE         A DIM.         kg         CODE         A DIM.         kg           300.00         6.5         ADP645C         450.00         9.8         ADP660C         600.00         13.1           310.00         6.8         ADP646C         460.00         10.1         ADP661C         610.00         13.3           320.00         7.0         ADP647C         470.00         10.3         ADP662C         620.00         13.6           330.00         7.2         ADP648C         480.00         10.5         ADP663C         630.00         13.8           340.00         7.4         ADP649C         490.00         10.7         ADP664C         640.00         14.0           350.00         7.6         ADP650C         500.00         10.9         ADP665C         650.00         14.2           360.00         7.9         ADP651C         510.00         11.1         ADP666C         660.00         14.4           370.00         8.1         ADP652C         520.00         11.4         ADP667C         670.00         14.7           380.00         8.5         ADP653C         540.00         11.8         ADP669C         690.00         15.1     <!--</td--><td>A DIM.         kg         CODE         A DIM.         kg         CODE         A DIM.         kg         CODE           300.00         6.5         ADP645C         450.00         9.8         ADP660C         600.00         13.1         ADP675C           310.00         6.8         ADP646C         460.00         10.1         ADP661C         610.00         13.3         ADP676C           320.00         7.0         ADP647C         470.00         10.3         ADP662C         620.00         13.6         ADP677C           330.00         7.2         ADP648C         480.00         10.5         ADP663C         630.00         13.8         ADP678C           340.00         7.4         ADP649C         490.00         10.7         ADP664C         640.00         14.0         ADP679C           350.00         7.6         ADP650C         500.00         10.9         ADP665C         650.00         14.2         ADP680C           360.00         7.9         ADP651C         510.00         11.1         ADP666C         660.00         14.4         ADP681C           370.00         8.1         ADP652C         520.00         11.4         ADP667C         670.00         14.7         ADP</td><td>A DIM.         kg         CODE         A DIM.         ADP63C         80.00         13.1         ADP675C         750.00           310.00         6.8         ADP646C         460.00         10.1         ADP661C         610.00         13.3         ADP676C         760.00           320.00         7.0         ADP647C         470.00         10.3         ADP662C         620.00         13.6         ADP677C         770.00           330.00         7.2         ADP649C         490.00         10.7         ADP663C         630.00         13.8         ADP679C         790.00           350.00         7.6         ADP659C         500.00         10.7         ADP665C         650.00         14.2         ADP680C         800.00           370.00         8.1         ADP651C         510.00         11.1         ADP666C         660.00         14.7</td></td>	A DIM.         kg         CODE         A DIM.         kg         CODE         A DIM.         kg           300.00         6.5         ADP645C         450.00         9.8         ADP660C         600.00         13.1           310.00         6.8         ADP646C         460.00         10.1         ADP661C         610.00         13.3           320.00         7.0         ADP647C         470.00         10.3         ADP662C         620.00         13.6           330.00         7.2         ADP648C         480.00         10.5         ADP663C         630.00         13.8           340.00         7.4         ADP649C         490.00         10.7         ADP664C         640.00         14.0           350.00         7.6         ADP650C         500.00         10.9         ADP665C         650.00         14.2           360.00         7.9         ADP651C         510.00         11.1         ADP666C         660.00         14.4           370.00         8.1         ADP652C         520.00         11.4         ADP667C         670.00         14.7           380.00         8.5         ADP653C         540.00         11.8         ADP669C         690.00         15.1 </td <td>A DIM.         kg         CODE         A DIM.         kg         CODE         A DIM.         kg         CODE           300.00         6.5         ADP645C         450.00         9.8         ADP660C         600.00         13.1         ADP675C           310.00         6.8         ADP646C         460.00         10.1         ADP661C         610.00         13.3         ADP676C           320.00         7.0         ADP647C         470.00         10.3         ADP662C         620.00         13.6         ADP677C           330.00         7.2         ADP648C         480.00         10.5         ADP663C         630.00         13.8         ADP678C           340.00         7.4         ADP649C         490.00         10.7         ADP664C         640.00         14.0         ADP679C           350.00         7.6         ADP650C         500.00         10.9         ADP665C         650.00         14.2         ADP680C           360.00         7.9         ADP651C         510.00         11.1         ADP666C         660.00         14.4         ADP681C           370.00         8.1         ADP652C         520.00         11.4         ADP667C         670.00         14.7         ADP</td> <td>A DIM.         kg         CODE         A DIM.         ADP63C         80.00         13.1         ADP675C         750.00           310.00         6.8         ADP646C         460.00         10.1         ADP661C         610.00         13.3         ADP676C         760.00           320.00         7.0         ADP647C         470.00         10.3         ADP662C         620.00         13.6         ADP677C         770.00           330.00         7.2         ADP649C         490.00         10.7         ADP663C         630.00         13.8         ADP679C         790.00           350.00         7.6         ADP659C         500.00         10.7         ADP665C         650.00         14.2         ADP680C         800.00           370.00         8.1         ADP651C         510.00         11.1         ADP666C         660.00         14.7</td>	A DIM.         kg         CODE         A DIM.         kg         CODE         A DIM.         kg         CODE           300.00         6.5         ADP645C         450.00         9.8         ADP660C         600.00         13.1         ADP675C           310.00         6.8         ADP646C         460.00         10.1         ADP661C         610.00         13.3         ADP676C           320.00         7.0         ADP647C         470.00         10.3         ADP662C         620.00         13.6         ADP677C           330.00         7.2         ADP648C         480.00         10.5         ADP663C         630.00         13.8         ADP678C           340.00         7.4         ADP649C         490.00         10.7         ADP664C         640.00         14.0         ADP679C           350.00         7.6         ADP650C         500.00         10.9         ADP665C         650.00         14.2         ADP680C           360.00         7.9         ADP651C         510.00         11.1         ADP666C         660.00         14.4         ADP681C           370.00         8.1         ADP652C         520.00         11.4         ADP667C         670.00         14.7         ADP	A DIM.         kg         CODE         A DIM.         ADP63C         80.00         13.1         ADP675C         750.00           310.00         6.8         ADP646C         460.00         10.1         ADP661C         610.00         13.3         ADP676C         760.00           320.00         7.0         ADP647C         470.00         10.3         ADP662C         620.00         13.6         ADP677C         770.00           330.00         7.2         ADP649C         490.00         10.7         ADP663C         630.00         13.8         ADP679C         790.00           350.00         7.6         ADP659C         500.00         10.7         ADP665C         650.00         14.2         ADP680C         800.00           370.00         8.1         ADP651C         510.00         11.1         ADP666C         660.00         14.7

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3 1 PLACE FABRICATION ±1.5 2 PLACE ± 0.03 GENERAL

 $\pm~0.03$  BETWEEN DOWELS  $\pm~0.13$  TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

MATERIAL: 60.000 DIA. T.G.P. & C. S.A.E. 1045

28-32 R.C. THRU 0.25 CHROME, 64-70 R.C. 0.20-0.40 MICRO METERS (8-16 MICRO INCHES)

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

Α

#### **DUMP UNIT PIVOT ASSY. STUB** SHAFT COMPOSITE BEARINGS THE **ADP400SC SERIES**

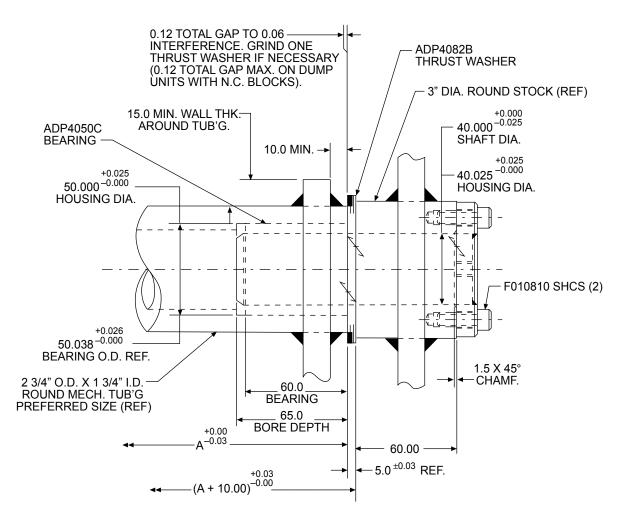
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C

#### SHOWN USING ADP413SC STUB SHAFT

NOTE: ORDER THE COMPONENTS SEPARATELY AND NOT AS AN ASSEMBLY.



#### LIGHT – MEDIUM DUTY STUB SHAFT APPLICATIONS

NOTE:

MAXIMUM ALLOWABLE ROUGHNESS SHALL BE:

1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS

2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS

3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3

1 PLACE FABRICATION ±1.5

2 PLACE ± 0.03 GENERAL

± 0.03 BETWEEN DOWELS

± 0.13 TO SCREW HOLES

NOTE: THE TAPPED HOLES IN THE STUB SHAFTS ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

ARE FOR REMOVAL.

A STUB SHAFT IS PREFERRED WHEN A

OR WHEN A ONE PIECE SHAFT CANNOT BE

PIVOT ASSY. IS OVER 900 MM LONG

REMOVED FOR MAINTENANCE.

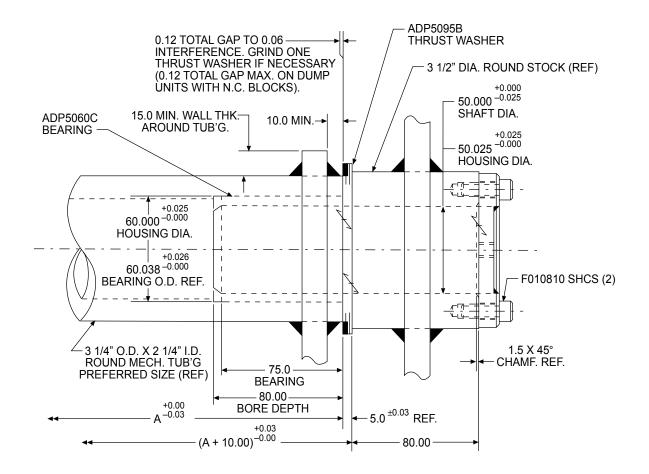
ASSEMBLE SHAFT TO BEARING USING LITHIUM GREASE. SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

D

### **DUMP UNIT PIVOT ASSY. STUB** SHAFT COMPOSITE BEARINGS THE **ADP500SC SERIES**

SHOWN USING ADP515SC STUB SHAFT

NOTE: ORDER THE COMPONENTS SEPARATELY AND NOT AS AN ASSEMBLY.



#### MEDIUM - HEAVY DUTY STUB SHAFT APPLICATIONS

MAXIMUM ALLOWABLE ROUGHNESS SHALL BE:

1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS

2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS

3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3 1 PLACE FABRICATION ±1.5

2 PLACE ± 0.03 GENERAL

± 0.03 BETWEEN DOWELS ± 0.13 TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

NOTE: A STUB SHAFT IS PREFERRED WHEN A

PIVOT ASSY. IS OVER 900 MM LONG OR WHEN A ONE PIECE SHAFT CANNOT BE

REMOVED FOR MAINTENANCE.

THE TAPPED HOLES IN THE STUB SHAFTS NOTE:

ARE FOR REMOVAL.

ASSEMBLE SHAFT TO BEARING USING LITHIUM GREASE. SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

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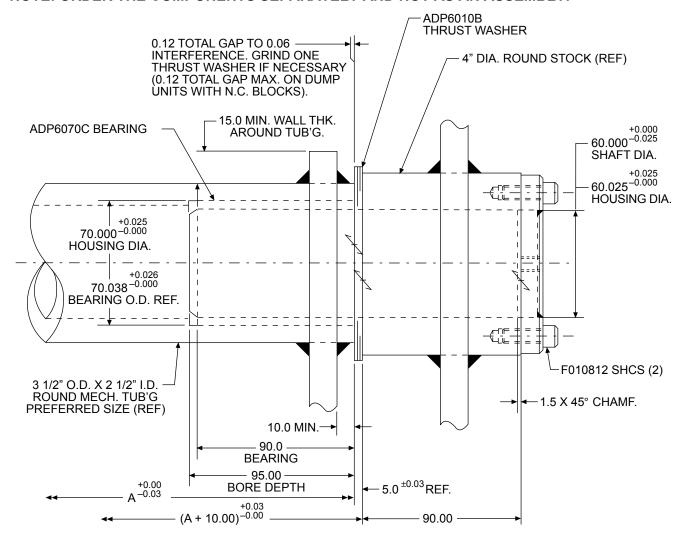
В

# DUMP UNIT PIVOT ASSY. STUB SHAFT COMPOSITE BEARINGS TM ADP600SC SERIES



SHOWN USING ADP619SC STUB SHAFT

NOTE: ORDER THE COMPONENTS SEPARATELY AND NOT AS AN ASSEMBLY.



## EXTRA HEAVY DUTY STUB SHAFT APPLICATIONS

NOTE:

MAXIMUM ALLOWABLE ROUGHNESS SHALL BE:

1 PLACE FINISH DIMENSIONS TO BE 6 MICRONS

2 PLACE FINISH DIMENSIONS TO BE 3 MICRONS

3 PLACE FINISH DIMENSIONS TO BE 1.6 MICRONS

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3

1 PLACE FABRICATION ±1.5

2 PLACE ± 0.03 GENERAL

± 0.03 BETWEEN DOWELS

± 0.13 TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

ASSEMBLE SHAFT TO BEARING USING LITHIUM GREASE.
SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

NOTE:

THE TAPPED HOLES IN THE STUB SHAFTS

A STUB SHAFT IS PREFERRED WHEN A

PIVOT ASSY. IS OVER 900 MM LONG OR WHEN A ONE PIECE SHAFT CANNOT BE

REMOVED FOR MAINTENANCE.

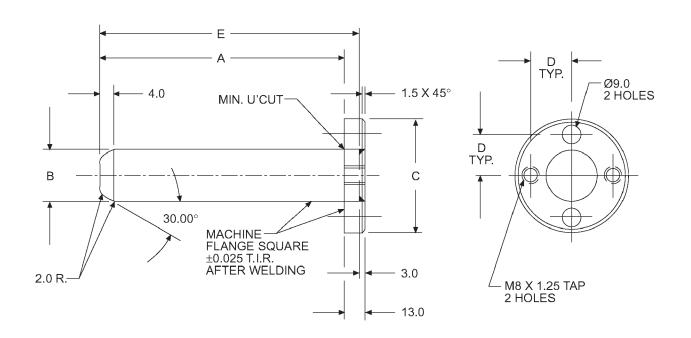
ARE FOR REMOVAL.

D

В

#### **STUB SHAFTS**





NAAMS CODE	A DIM.	B DIM.	C DIM.	D DIM.	E DIM.	WT. kg
ADP413SC	130.00	40.00 +0.000/-0.025	75.0	28.00	140.0	1.68
ADP515SC	165.00	50.00 +0.000/-0.025	87.0	35.00	175.0	3.08
ADP619SC	190.00	60.00 +0.000/-0.038	100.00	40.00	200.0	4.90

EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3

1 PLACE FABRICATION ±1.5 2 PLACE ± 0.03 GENERAL

± 0.03 GENERAL ± 0.03 BETWEEN DOWELS

 $\pm~$  0.13 TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

MATERIAL: B DIA. X E MM LG. T.G.P. & C. S.A.E. 1045

28-32 R.C. THRU

0.13 CHROME, 64-70 R.C. 0.20-0.40 MICRO METERS (8-16 MICRO INCHES)

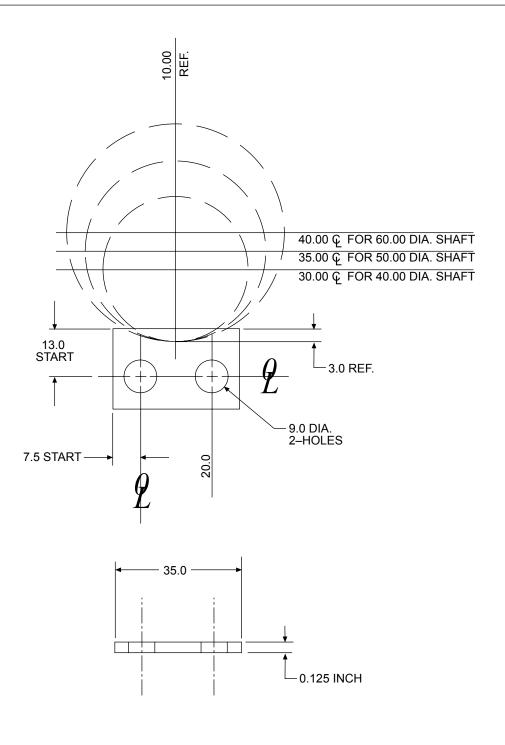
C DIA. X 13.0MM LG., S.A.E. 1020 H.R.S.

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

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В

## METRIC KEEPER ADP999



EXCEPT AS NOTED TOLERANCES SHALL BE:

1 PLACE MACHINING ±0.3

1 PLACE FABRICATION ±1.5

2 PLACE ± 0.03 GENERAL

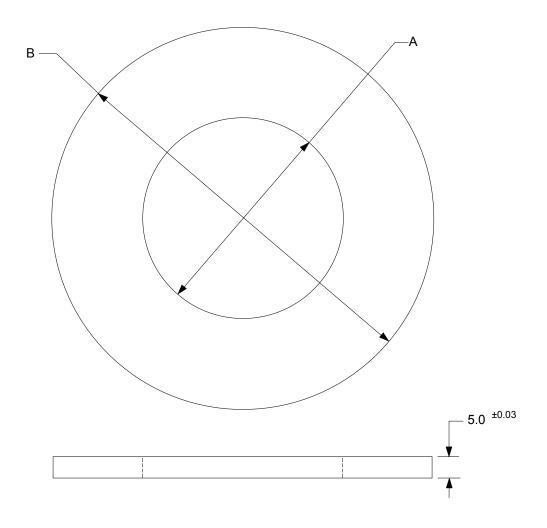
 $\pm~0.03$  BETWEEN DOWELS  $\pm~0.13$  TO SCREW HOLES

ALL DIMENSIONS METRIC UNLESS OTHERWISE NOTED.

STK: 1/8" X 7/8" X 35.0 MM LG. S.A.E. 1018 C.R.S.

SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART

## DUMP UNIT PIVOT BRONZE THRUST WASHER

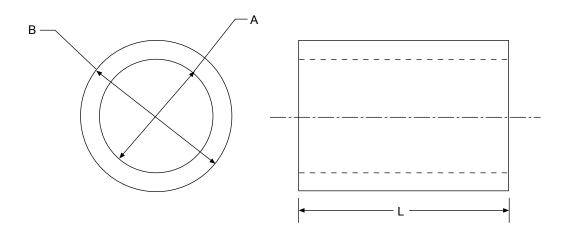


NAAMS CODE	A DIM. +0.25/-0.00	B DIM. ±0.25	WT. kg
ADP2550B	25.00	50.00	0.07
ADP4082B	40.00	82.00	0.14
ADP5095B	50.00	95.00	0.18
ADP6010B	60.00	108.00	0.32

MATERIAL: BRONZE CDA93200 / S.A.E. 660 SEE PAGE B-1.1 FOR GLOBAL MATERIALS CHART A C

## DUMP UNIT PIVOT COMPOSITE BEARING





NAAMS CODE	A DIM.	B DIM.	L DIM. ±0.13	PRESS FIT	RECOM. HSG. BORE	RECOM. SHAFT DIA.
ADP4050C	40.094	50.064	60	0.064	50.025	40.000
	40.068	50.038		0.013	50.000	39.975
ADP5060C	50.100	60.064	75	0.064	60.025	50.000
	50.074	60.038		0.013	60.000	49.975
ADP6070C	60.100	70.064	90	0.064	70.025	60.000
	60.074	70.038		0.013	70.000	59.962

MATERIAL: REINFORCED TEFLON COMPOSITE LINER

WITH FIBER REINFORCED EPOXY SHELL

MEETING THE FOLLOWING SPECIFICATIONS:

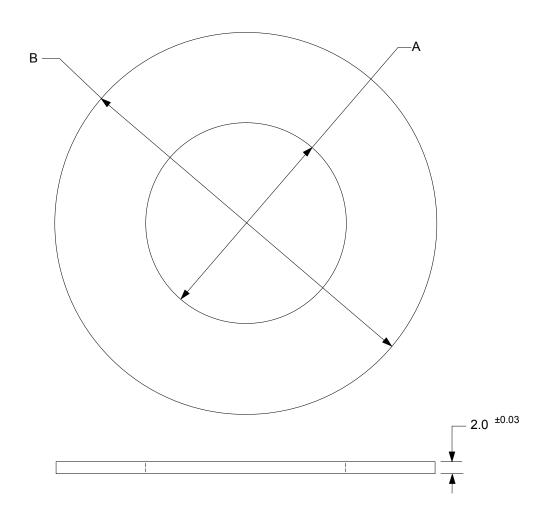
ASTM D570 (WATER ABSORPTION)

ASTM D635 (FLAMMABILITY)

Maximum P (STATIC) 138 MPa (20,000 psi)

Maximum V (CONTINUOUS) 2.54 m/sec (500 ft/min) Maximum PV 1.22 MPa m/sec (35,000 psi ft/min)

## DUMP UNIT PIVOT STAINLESS STEEL THRUST WASHER



NAAMS	A DIM.	B DIM.	WT.	NOTE
CODE	+0.25/-0.00	±0.25	kg	
ADP700	29	50	0.14	FOR LIGHT DUTY DROP AWAY LEAF

MATERIAL: STAINLESS STEEL

400 SERIES

0.81 MICRONS (32 MICRO INCH) MAXIMUM