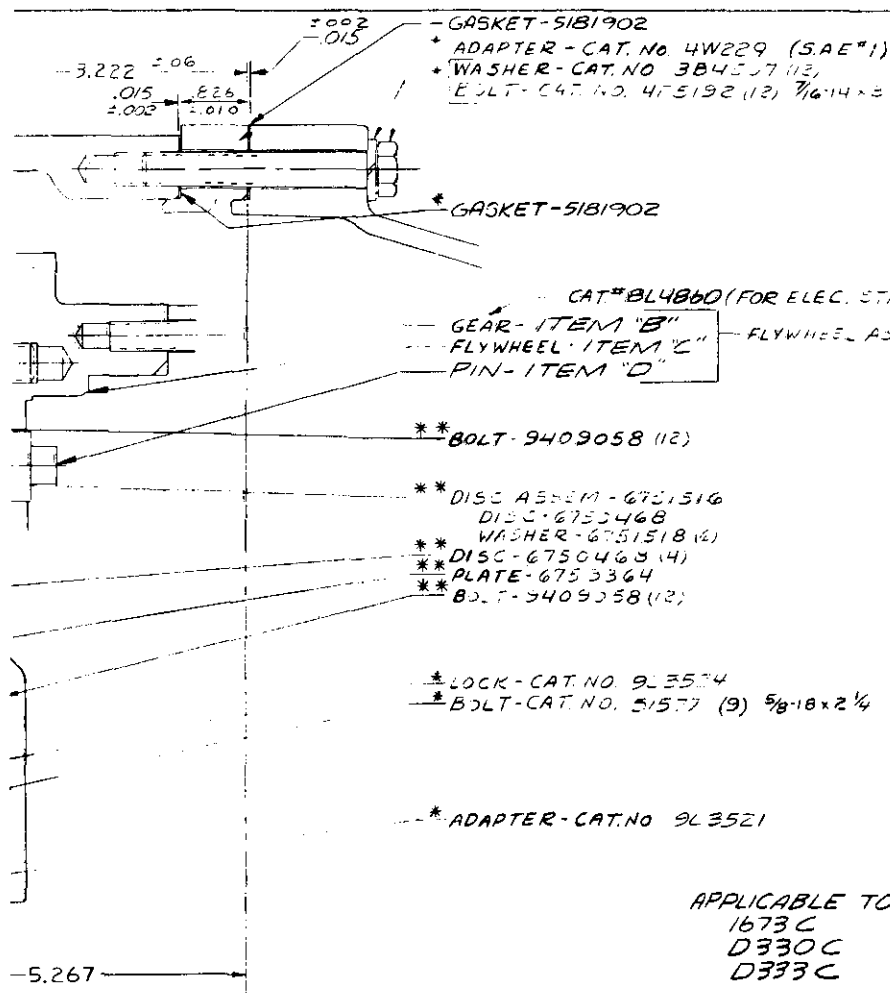




ITEM	700 SERIES LOCK-UP	TC-400 NO LOCK-UP
A	6884576	6836566
B	6836565	6836565
C	6883917	6836564
D	6883915	NONE

AS 04-114'

APPLICABLE TO ENGINE MODELS
1673C
D330C
D333C

APPLICABLE TO 3306/700 SERIES WITHOUT PIN
TIMING FEATURE

ILLUSTRATES
ONLY.
PARTS MUST
FROM ALLISON
ENGINE MANU-

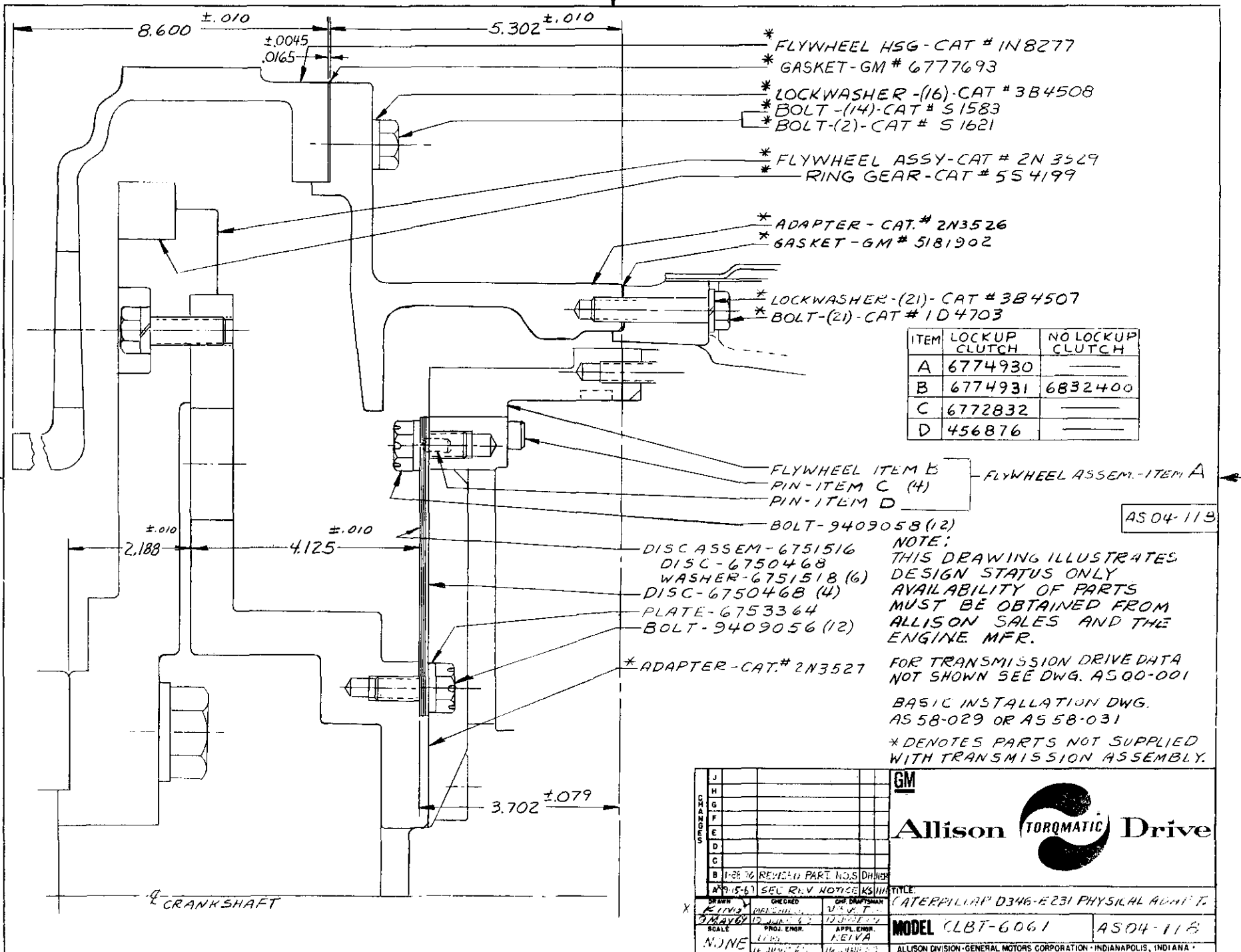
FOR CONVERTER DRIVE DATA NOT
SHOWN SEE DWG. AS 00-001

BASIC INSTALLATION DWG: A551-003

*DENOTES PARTS NOT SUPPLIED
WITH TC-400 CONVERTER ASSEMBLY

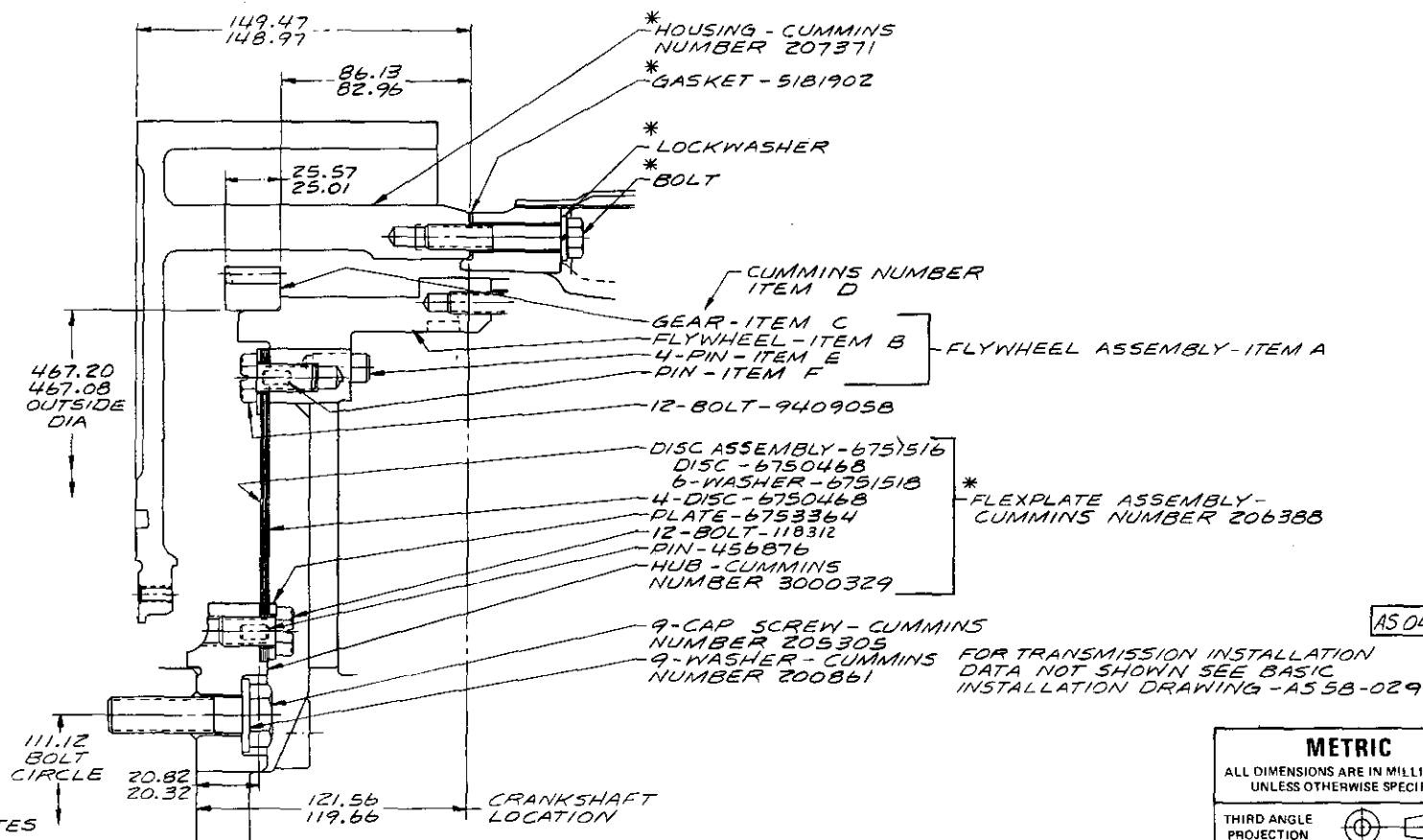
OR DENOTES PARTS NOT SUPPLIED
WITH 700 SERIES TRANSMISSION
ASSEMBLY

[illegible]



MILLIMETRES TO INCHES			
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
20.32	20.82	.800	.820
25.01	25.57	.985	1.007
82.96	86.13	3.266	3.391
111.12		4.3750	
119.66	121.56	4.711	4.786
148.97	149.47	5.865	5.885
467.08	467.20	18.389	18.394

	ZU-045	ZU-050	ZU-016	ZU-095	72-152	
	NO STARTER GEAR			BENDIX TYPE STARTER GEAR	DYER TYPE STARTER GEAR	
I T E M	NO LOCK-UP CLUTCH	LOCK-UP CLUTCH	LOCK-UP CLUTCH	NO LOCK-UP CLUTCH	LOCK-UP CLUTCH	NO LOCK-UP CLUTCH
A	NONE	6770911	6770913	6768926	6770908	6768928
B	6768918	6770891	6770891	6768918	6770891	6768918
C	NONE	NONE	NONE	6752502	6752502	6751948
D	NONE	NONE	NONE	124509	124509	124516
E	NONE	6772832	6772832	NONE	6772832	NONE
F	NONE	456876	NONE	NONE	456876	NONE



THIS DRAWING ILLUSTRATES
DESIGN STATUS ONLY.
AVAILABILITY OF PARTS MUST
BE OBTAINED FROM DETROIT
DIESEL ALLISON SALES AND
THE ENGINE MANUFACTURER

CRANKSHAFT
CENTERLINE

CRANKSHAFT
LOCATION

FOR TRANSMISSION DRIVE DATA
NOT SHOWN SEE DRAWING
AS 00-001

* DENOTES PARTS NOT SUPPLIED
WITH TRANSMISSION ASSEMBLY

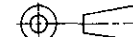
AS 04-164

FOR TRANSMISSION INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING - AS 58-029

METRIC

ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

THIRD ANGLE
PROJECTION



Allison Transmissions

DATE	BY	CHKD	APP'D	REV	DESCRIPTION
11-8-70	HUGHES	HUBBLE	ASHMAN	1	REVISION
11-8-70	HUGHES	HUBBLE	ASHMAN	2	REVISION
11-8-70	HUGHES	HUBBLE	ASHMAN	3	REVISION
11-8-70	HUGHES	HUBBLE	ASHMAN	4	REVISION
11-8-70	HUGHES	HUBBLE	ASHMAN	5	REVISION
11-8-70	HUGHES	HUBBLE	ASHMAN	6	REVISION
11-8-70	HUGHES	HUBBLE	ASHMAN	7	REVISION
11-8-70	HUGHES	HUBBLE	ASHMAN	8	REVISION
11-8-70	HUGHES	HUBBLE	ASHMAN	9	REVISION
11-8-70	HUGHES	HUBBLE	ASHMAN	10	REVISION

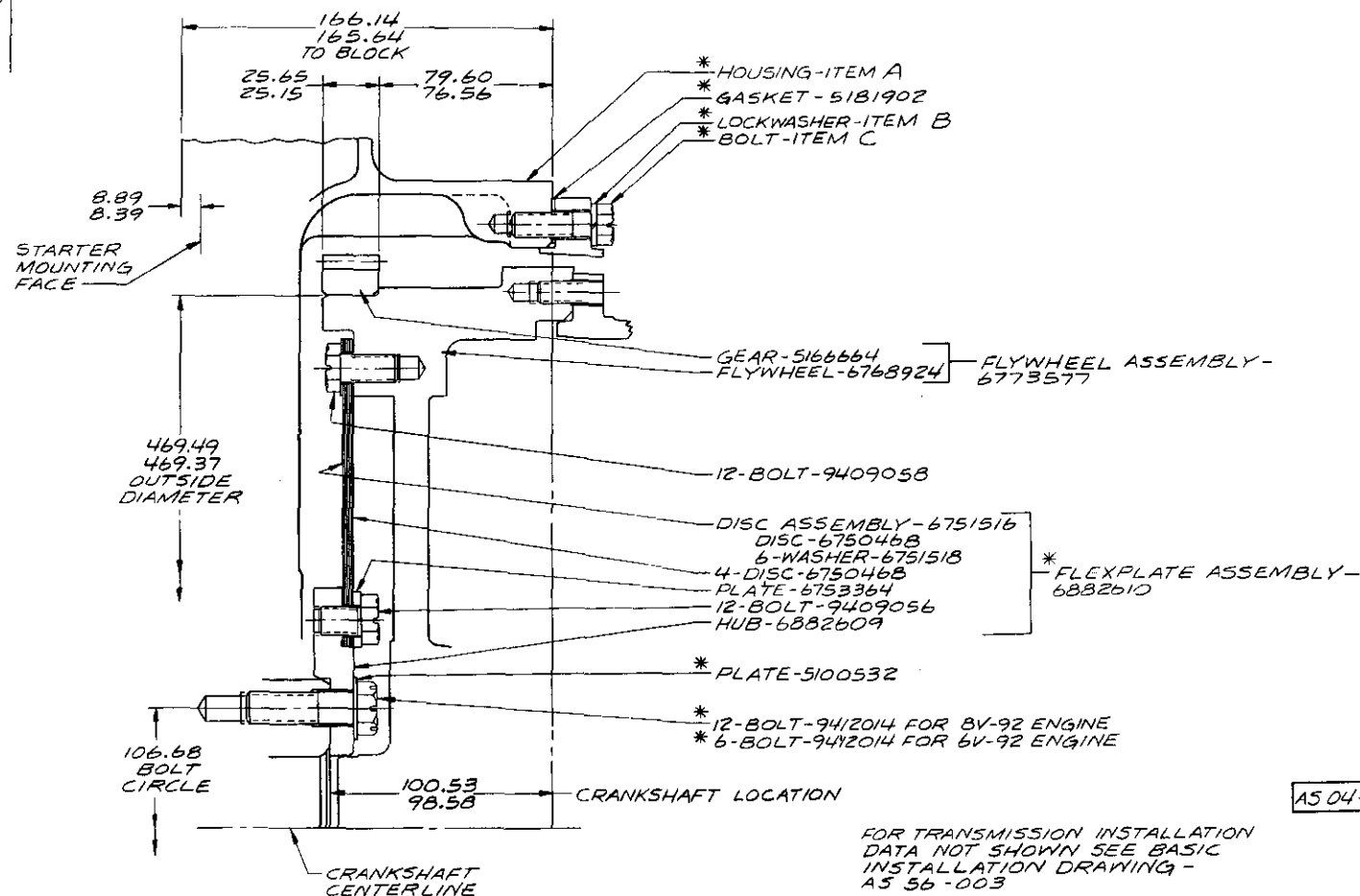
CUMMINS KT-1150 SERIES
PHYSICAL ADAPTATION

MODEL 5/6000 SERIES AS 04-164

DETROIT DIESEL ALLISON Division of General Motors - Indianapolis, Indiana

MILLIMETRES TO INCHES			
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
8.39	8.89	.330	.350
25.15	25.65	.990	1.010
76.56	79.60	3.014	3.134
98.58	100.53	3.8809	3.9579
106.68		4.2000	
163.64	166.14	6.521	6.541
469.37	469.49	18.479	18.484

ITEM	CAST IRON HOUSING	QTY	ALUMINUM HOUSING	QTY
A	5100476	1	5100477	1
B	103322	24	103322	24
C	179861	24	179862	24



THIS DRAWING ILLUSTRATES
DESIGN STATUS ONLY
AVAILABILITY OF PARTS
MUST BE OBTAINED FROM
DETROIT DIESEL ALLISON
SALES

FOR TRANSMISSION DRIVE
DATA NOT SHOWN SEE
DRAWING - AS 00-001

* DENOTES PARTS NOT
SUPPLIED WITH
TRANSMISSION ASSEMBLY

AS 04-165

FOR TRANSMISSION INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING -
AS 56-003

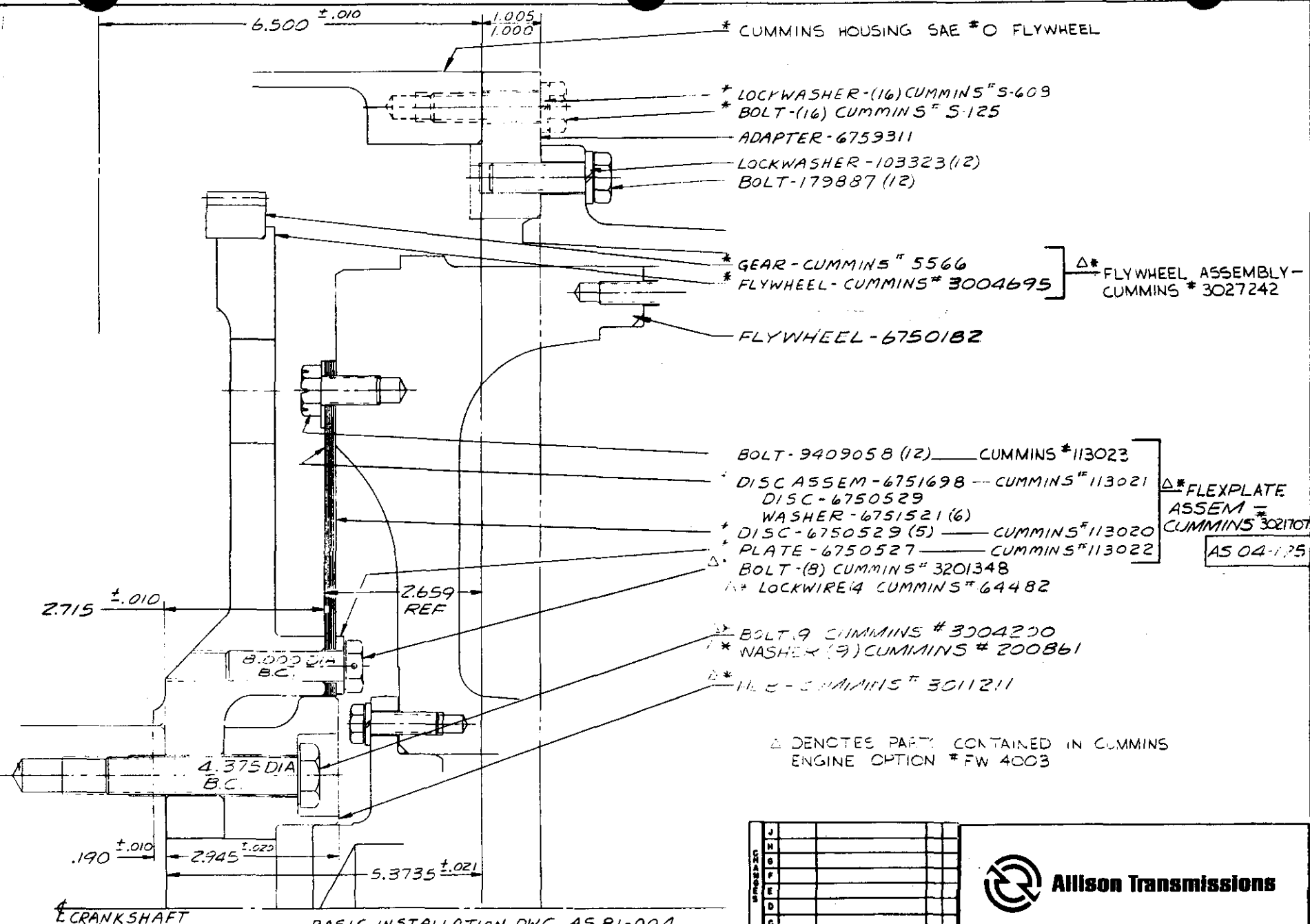
METRIC
ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

THIRD ANGLE
PROJECTION

Allison Transmissions

DATE	7-18-75	BY	W. J. H. / J. H. H.	REV	1	DESCRIPTION	DETROIT DIESEL 92 SERIES PHYSICAL ADAPTATION
APPROVED		CHECKED		DATE	7-18-75	BY	W. J. H. / J. H. H.
SCALE	1:1	PROJ. UNIT	AS 111-1011	MODEL	CRT 56-31	AS 04-165	
FULL							

DETROIT DIESEL ALLISON Division of General Motors - Indianapolis, Indiana



BASIC INSTALLATION DWG. AS 81-004
FOR CONVERTER DRIVE DATA NOT
SHOWN SEE DWG AS 00-015

* DENOTES PARTS NOT SUPPLIED
WITH CONVERTER ASSEMBLY

DATE	BY	CHKD	APP'D	REV	CUMMINS P/N	%	QTY
4-12-77	D. HUGHES						
5-11-77							
6-11-77							
7-11-77							
8-11-77							
9-11-77							
10-11-77							
11-11-77							
12-11-77							



Allison Transmissions

CUMMINS "KT-1150" PHYSICAL ADAPT

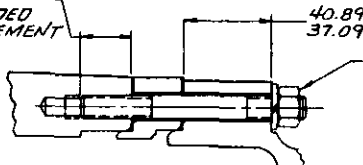
MODEL 800 & 900 SERIES
CONVERTER

AS 04-195

Detroit Diesel Allison Division of General Motors - Indianapolis, Indiana

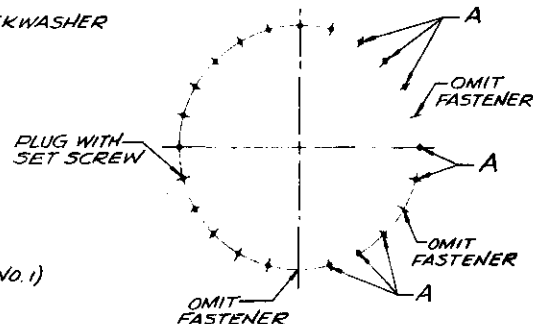
MILLIMETRES TO INCHES			
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
0.34	0.48	.013	.019
20.73	21.23	.816	.836
37.09	40.89	1.460	1.610
86.98	89.94	3.424	3.541
108.58	110.94	4.275	4.368
184.15		7.250	
406.40		16.000	

4375-14 INCH SERIES
THREAD - RECOMMENDED
STUD THREAD ENGAGEMENT
.875 INCH

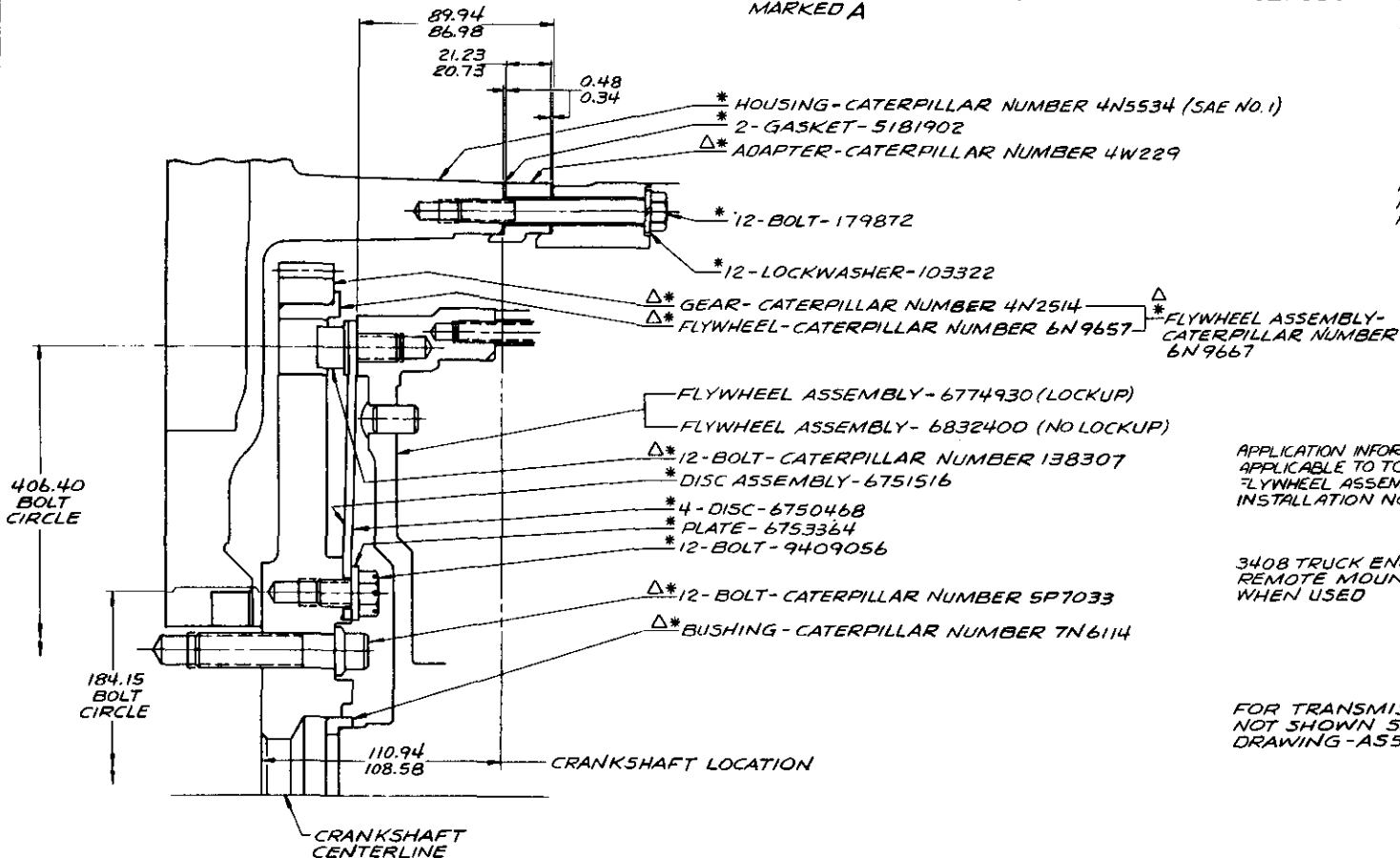


ASSEMBLE WITH
STANDARD LOCKWASHER
AND NUT

TYPICAL STUD INSTALLATION
REQUIRED AT 8 POSITIONS
MARKED A



PICTORIAL VIEW OF ENGINE
FLYWHEEL HOUSING LOOKING
FORWARD



APPLICATION INFORMATION ALSO
APPLICABLE TO TC 500 WITH 6832400
FLYWHEEL ASSEMBLY, EXCEPT STUD
INSTALLATION NOT REQUIRED

3408 TRUCK ENGINE ADAPTATION REQUIRES
REMOTE MOUNTED AIR COMPRESSOR
WHEN USED

AS 04-196

FOR TRANSMISSION INSTALLATION DATA
NOT SHOWN SEE BASIC INSTALLATION
DRAWING-A558-Q29

METRIC

ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

THIRD ANGLE PROJECTION



THIS DRAWING ILLUSTRATES
DESIGN STATUS ONLY.
AVAILABILITY OF PARTS
MUST BE OBTAINED FROM
DETROIT DIESEL ALLISON
SALES AND THE ENGINE
MANUFACTURER

FOR TRANSMISSION DRIVE
DATA NOT SHOWN SEE
DRAWING - A500-001

* DENOTES PARTS NOT
SUPPLIED WITH TRANSMISSION
ASSEMBLY

Δ DENOTES PARTS INCLUDED
IN FLYWHEEL ADAPTER GROUP-
CATERPILLAR NUMBER 6N9829

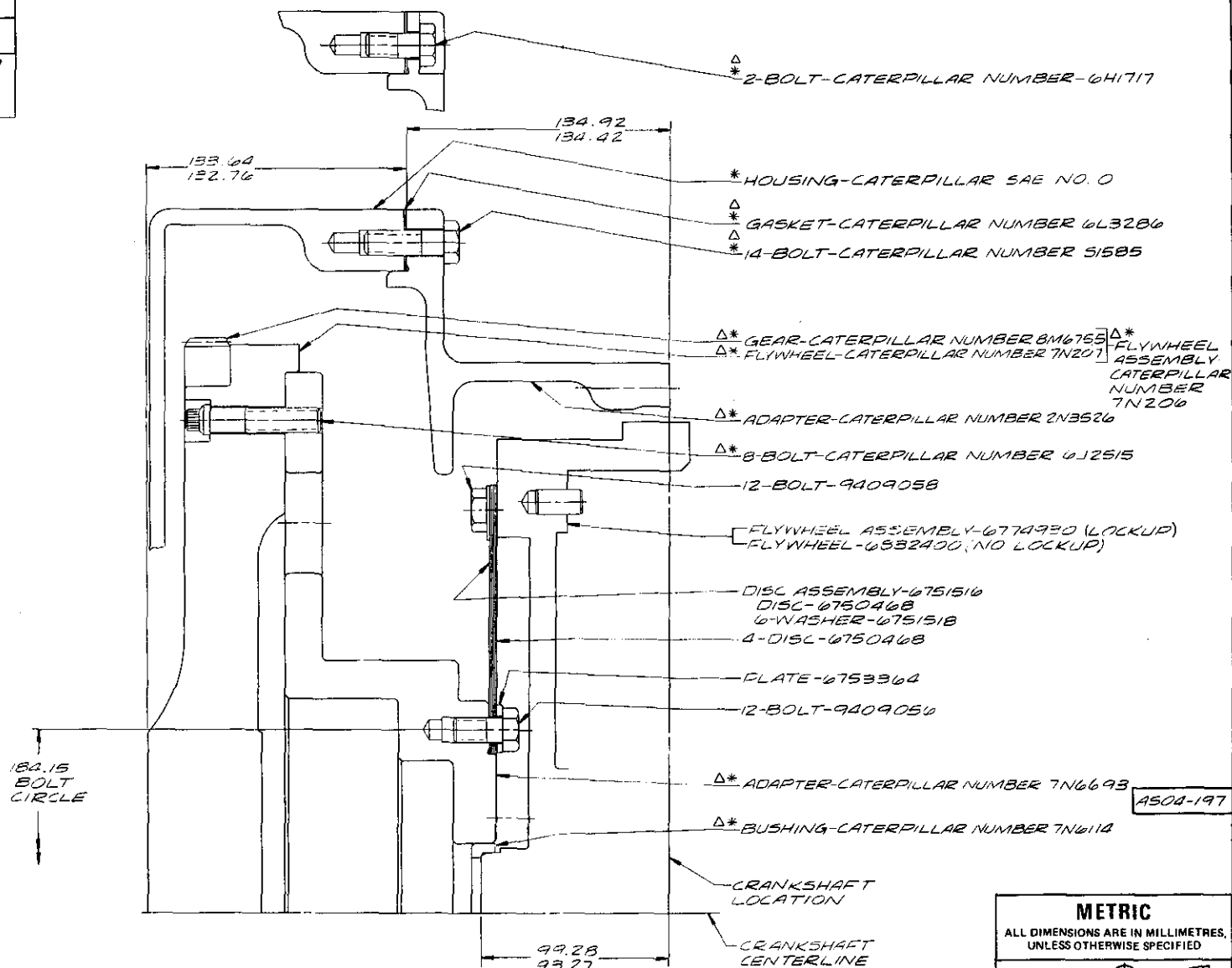


Atkinson Transmissions

C A T E G O R Y	1. MAKE	CATERPILLAR	2. YEAR	1966	 Allison Transmissions
	3. MODEL	430	4. VIN	14000000000000000000	
	5. ADDITIONAL INFORMATION	NOTE: THIS IS A REBUILT ENGINE			
	6. DATE	7/20/77	7. ENGINE TYPE	430	
8. ENGINE TYPE	430	9. YEAR	1966	TITLE: PHYSICAL ADAPTATION, CATERPILLAR 3406 AND 3408 SERIES ENGINE MODEL: 5/6000 SERIES AS 04-196 <i>(Signature)</i>	
10. ENGINE TYPE	430	11. YEAR	1966		
12. ENGINE TYPE	430	13. YEAR	1966		
14. ENGINE TYPE	430	15. YEAR	1966		
16. ENGINE TYPE	430	17. YEAR	1966	ASSHMAN	

MILLIMETRES TO INCHES

mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
93.27	99.28	3.672	3.909
132.76	133.65	5.227	5.262
134.42	134.94	5.292	5.312
184.15		7.250	



FOR TRANSMISSION DRIVE
DATA NOT SHOWN SEE
DRAWING-AS00-001

* DENOTES PARTS NOT
SUPPLIED WITH
TRANSMISSION ASSEMBLY

Δ DENOTES PARTS INCLUDED
IN FLYWHEEL ADAPTER GROUP-
CATERPILLAR NUMBER 7N205

THIS DRAWING ILLUSTRATES DESIGN
STATUS ONLY. AVAILABILITY OF PARTS
MUST BE OBTAINED FROM DETROIT
DIESEL ALLISON SALES AND THE
ENGINE MANUFACTURER

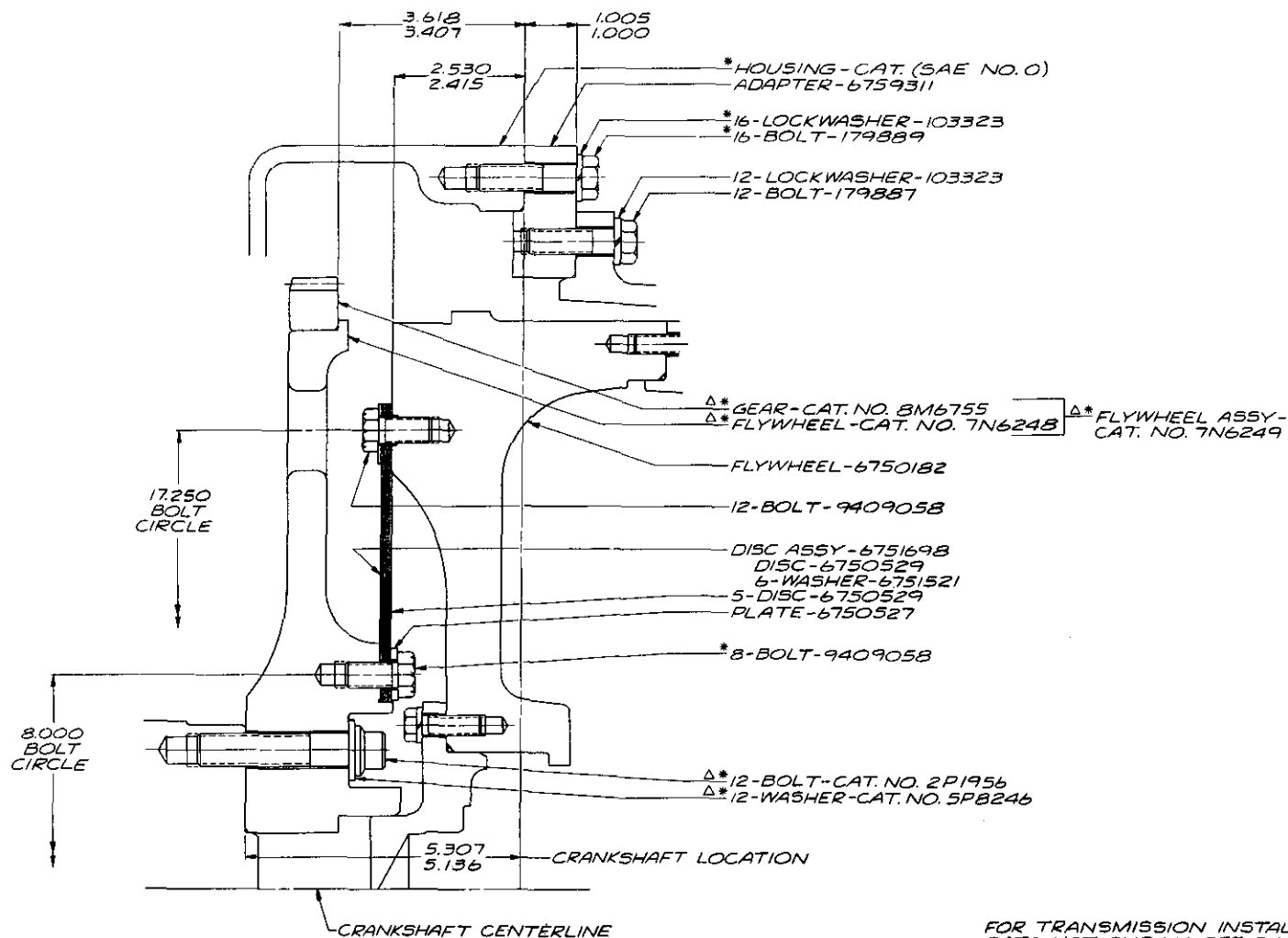
METRIC
ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

THIRD ANGLE
PROJECTION



Allison Transmissions

REVISION	DATE	BY	CHKD	APP'D	DESCRIPTION
1	10-17-78	H. CLARK			PHYSICAL ADAPTATION, CATERPILLAR 3412 ENGINES WITH SAE #0 HSG
2	10-17-78	H. CLARK			MODEL CLBT 5000/6000 AS04-197
3	10-17-78	H. CLARK			DETROIT DIESEL ALLISON Division of General Motors - Indianapolis, Indiana



4504-198

FOR TRANSMISSION INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING-AS 81-004

THIS DRAWING ILLUSTRATES
DESIGN STATUS ONLY
AVAILABILITY OF PARTS
MUST BE OBTAINED FROM
DETROIT DIESEL ALLISON
SALES AND THE ENGINE
MANUFACTURER

FOR TRANSMISSION DRIVE
DATA NOT SHOWN SEE
DRAWING-AS 00-015

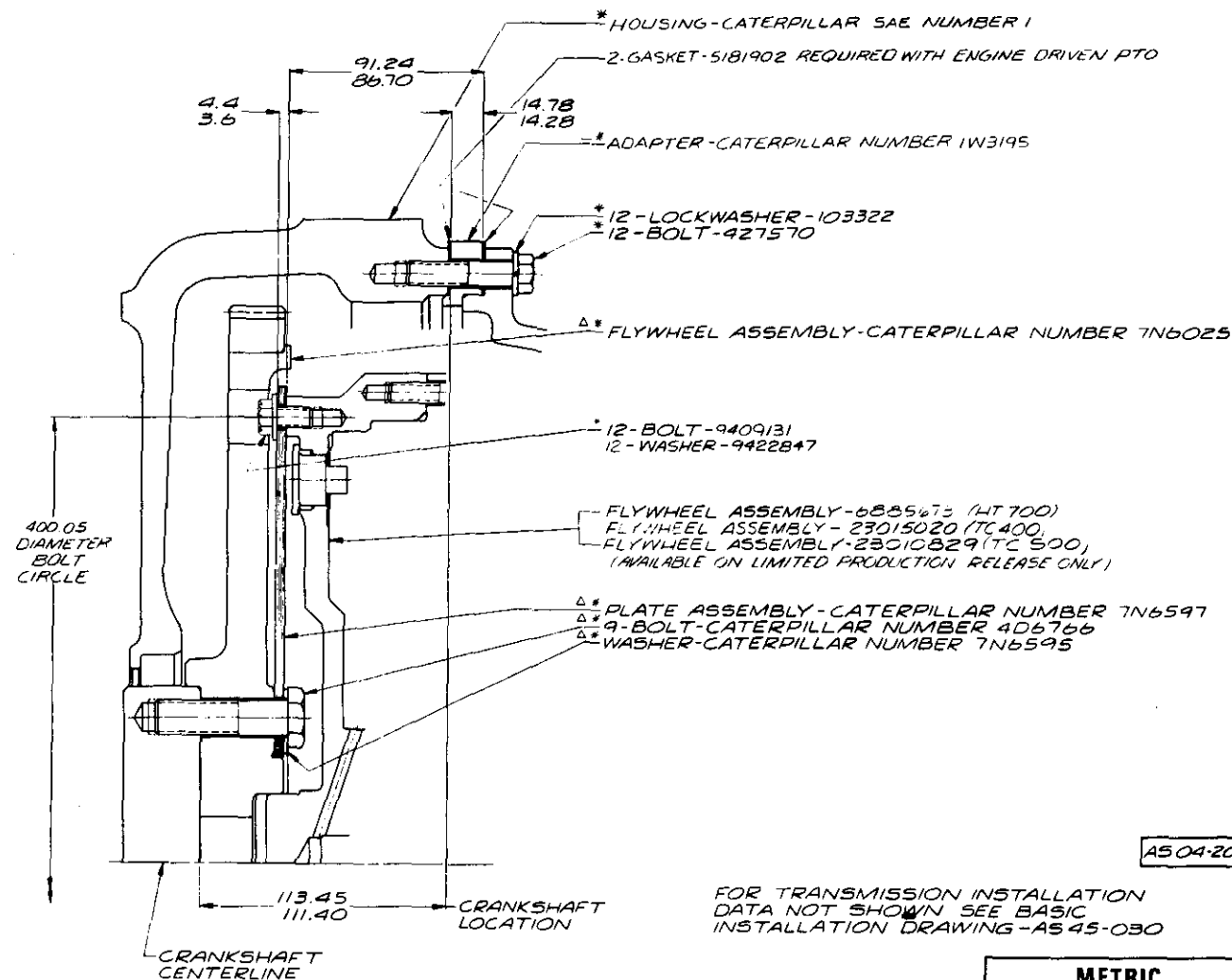
* DENOTES PARTS NOT
SUPPLIED WITH TRANSMISSION
ASSEMBLY

Δ DENOTES PARTS INCLUDED
IN FLYWHEEL ADAPTER GROUP-
CAT. NO. 7N6291

		TITLE PHYSICAL ADAPTATION, CATERPILLAR	
		3408/3412 ENGINE	
MODEL TC 800/900		4504-198	
Detroit Diesel Allison		Division of General Motors - Indianapolis, Indiana	

DATE	DESIGNED BY	DESIGNED BY
9-11-77	9-11-77	9-11-77
BY	BY	BY
FULL	FULL	FULL

MILLIMETRES TO INCHES			
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
3.6	4.4	.14	.18
14.28	14.78	.562	.582
86.70	91.24	3.590	3.610
111.40	113.45	4.385	4.467
ADDITIONALS - CHG F			
400.05		15.750	



AS 04-204

FOR TRANSMISSION INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING-AS 45-030

THIS DRAWING ILLUSTRATES
DESIGN STATUS ONLY.
AVAILABILITY OF PARTS
MUST BE OBTAINED FROM
DETROIT DIESEL ALLISON
SALES AND THE ENGINE
MANUFACTURE.

(EFFECTIVE WITH CATERPILLAR TRUCK
ENGINE S/N 76R2810 AND ABOVE AND
INDUSTRIAL ENGINE S/N 66D27000 AND ABOVE)

FOR TRANSMISSION DRIVE
DATA NOT SHOWN SEE
DRAWING-AS 00-001

* DENOTES PARTS NOT
SUPPLIED WITH
TRANSMISSION ASSEMBLY

Δ DENOTES PARTS INCLUDED
IN FLYWHEEL ADAPTER GROUP
CATERPILLAR NUMBER 1W7328

METRIC

ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

THIRD ANGLE
PROJECTION

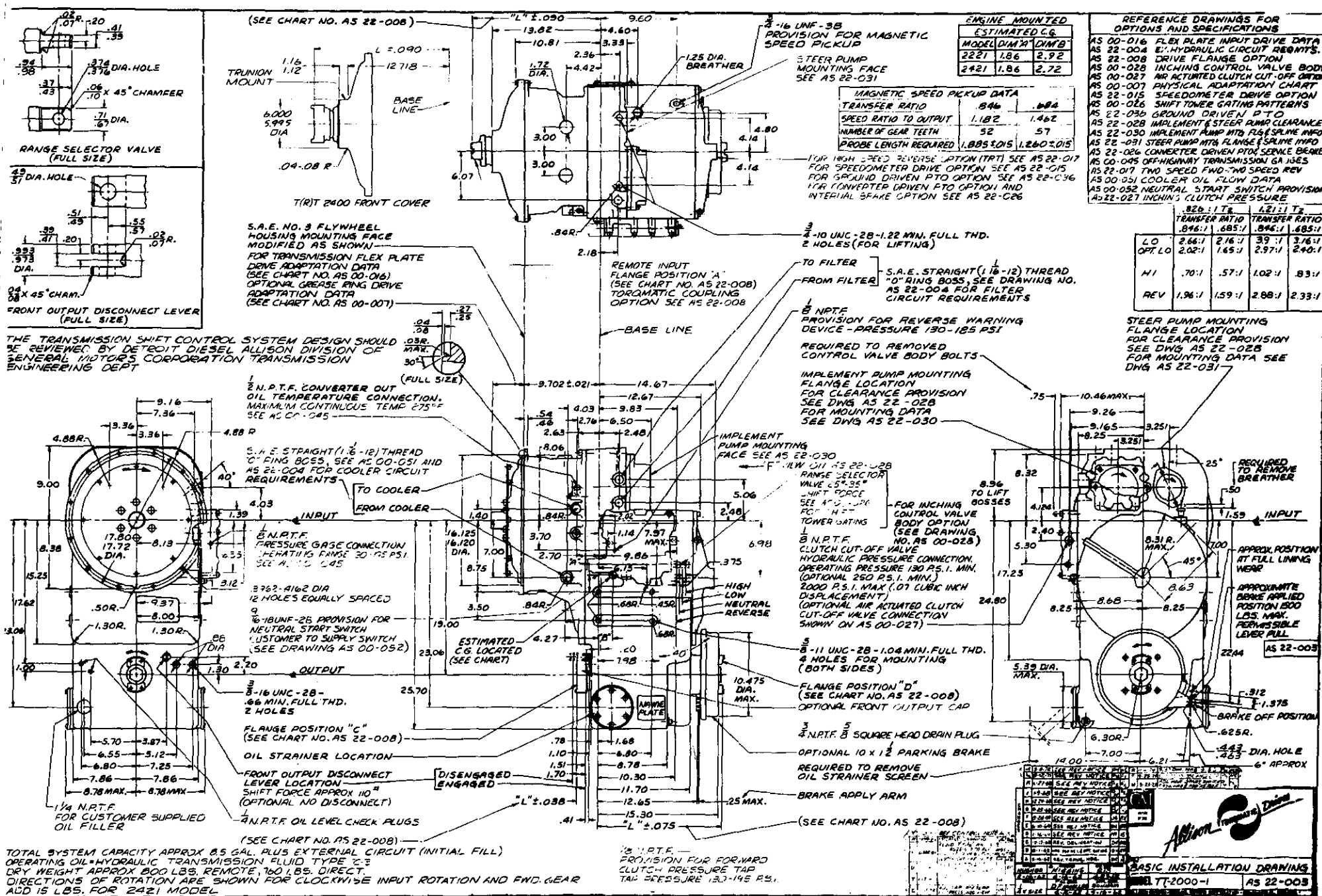


Allison Transmissions

REV	DATE	BY	CHKD	APPD	DESCRIPTION
1	10-10-78	D. LAUGHLIN			AS 04-204
2	10-10-78	D. LAUGHLIN			AS 04-204
3	10-10-78	D. LAUGHLIN			AS 04-204
4	10-10-78	D. LAUGHLIN			AS 04-204
5	10-10-78	D. LAUGHLIN			AS 04-204
6	10-10-78	D. LAUGHLIN			AS 04-204
7	10-10-78	D. LAUGHLIN			AS 04-204
8	10-10-78	D. LAUGHLIN			AS 04-204
9	10-10-78	D. LAUGHLIN			AS 04-204
10	10-10-78	D. LAUGHLIN			AS 04-204

TITLE PHYSICAL ADAPTATION
CATERPILLAR 3306/HT 700, TC 400
MODEL 700 SERIES/TC 4500 AS 04-204
Copyright Allison Division of General Motors, Indianapolis, Indiana

AS 22-000



ENGINE MOUNTED
ESTIMATED C.G.

MODEL	DIA. A	DIA. B
2221	1.86	2.92
2421	1.86	2.72

MAGNETIC SPEED PICKUP DATA

TRANSFER RATIO	846	884
SPEED RATIO TO OUTPUT	1.182	1.462
NUMBER OF GEAR TEETH	52	57
PROBE LENGTH REQUIRED	1.885 ± .015	1.260 ± .015

REFERENCE DRAWINGS FOR OPTIONS AND SPECIFICATIONS

AS 00-016	AS 22-004	AS 22-008	AS 00-027	AS 00-007	AS 22-015	AS 00-016	AS 22-030	AS 22-028	AS 22-030	AS 22-031	AS 22-026	AS 00-045	AS 22-017	AS 00-031	AS 00-032	AS 22-027
FLEX PLATE INPUT DRIVE DATA	8" HYDRAULIC CIRCUIT REQ'TS.	DRIVE FLANGE OPTION	INCHING CONTROL VALVE BODY	AIR ACTUATED CLUTCH CUT-OFF OPTION	PHYSICAL ADAPTATION CHART	SPEEDOMETER DRIVE OPTION	SHIFT TOWER GATING PATTERNS	22-030 GROUND DRIVEN PTO	IMPLEMENT STEER PUMP CLEARANCE	IMPLEMENT PUMP INTO FLANGE SPLINE INFO	CONVERTER DRIVEN PTO SERVICE BEARER	OFF-HIGHWAY TRANSMISSION GAUGES	TWO SPEED FWD-TWO SPEED REV	COOLER OIL FLOW DATA	NEUTRAL START SWITCH PROVISION	INCHING CLUTCH PRESSURE

	820:1 TR	421:1 TR	TRANSFER RATIO	846:1	884:1	TRANSFER RATIO	846:1	884:1
LO	2.64:1	2.16:1	3.9:1	3.76:1				
OPT LO	2.02:1	1.65:1	2.97:1	2.90:1				
H/I	.70:1	.57:1	1.02:1	.83:1				
REV	1.96:1	1.59:1	2.88:1	2.33:1				

THE TRANSMISSION SHIFT CONTROL SYSTEM DESIGN SHOULD BE REVIEWED BY DETROIT DIESEL ALLISON DIVISION OF GENERAL MOTORS CORPORATION TRANSMISSION ENGINEERING DEPT

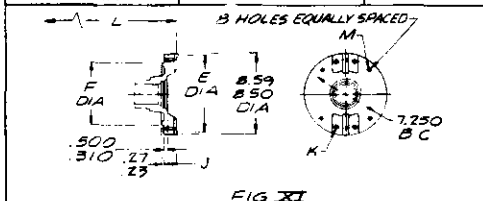
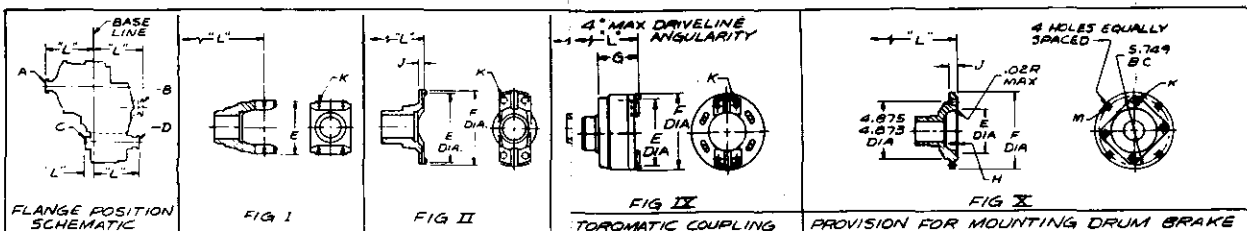
TOTAL SYSTEM CAPACITY APPROX 8.5 GAL. PLUS EXTERNAL CIRCUIT (INITIAL FILL)
OPERATING OIL-HYDRAULIC TRANSMISSION FLUID TYPE "C"
DRY WEIGHT APPROX 800 LBS. REMOTE, 160 LBS. DIRECT.
DIRECTIONS OF ROTATION ARE SHOWN FOR CLOCKWISE INPUT ROTATION AND FWD. GEAR
AD 15 LBS. FOR 2421 MODEL

1/2" N.P.T.F. - PROVISION FOR FORWARD CLUTCH PRESSURE TAP
TAP PRESSURE 130-145 P.S.I.

ALLISON Transmission Division

BASIC INSTALLATION DRAWING

DET-2000-1 AS 22-005



FLANGE					"L" DIMENS		
POSITION	TYPE	SIZE	FIG NO.	PART NO.	DETAIL NO.	TT-2221 AS 22-003	TRT-2221 AS 22-016
A	MECH	SC	III	6773554	6773554	15.87	15.87
A	MECH	SC	IX	6880644	6880646	17.35	17.35
A	MECH	SC	II	6771854	6771852	—	—
A	MECH	SC	II	6771855	6771853	—	—
A	MECH	SC	III	6776421	6776421	15.87	15.87
A	MECH	SC	IX	6880640	6880642	—	—
A	MECH	—	II	673143	6758150	—	—
A	MECH	7C	IX	6882136	6882141	—	—

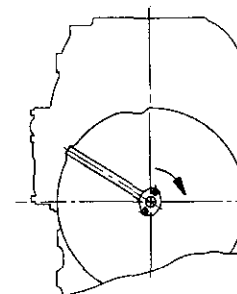
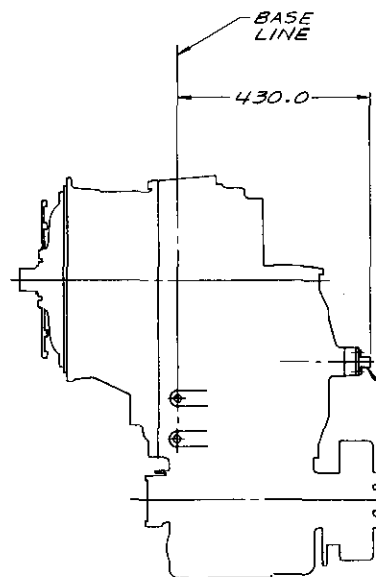
TYPE	SIZE	FIG NO.	PART NO.	DETAIL NO.	TT 2221 AND 2421 AS 22-003 TT 3421 (10" x 1 1/2" B.S.) AS 32-010			N
MECH	SC	III	6880093	6880093	POS B	POS C	POS	
MECH	SC	V	6880086	6880086	—	2.75	15.	
MECH	SC	III	6880095	6880095	—	2.75	15.	
MECH	SC	VI	6880090	6880090	—	—	15.	
MECH	7C	VIII	6773275	6773275	—	—	—	
MECH	7C	VIII	6769178	6769178	—	—	—	
MECH	7C	VI	6880091	6880091	—	—	16.	
MECH	7C	VIII	6881090	6881090	—	—	—	
MECH	7C	II	6883979	6883979	—	2.75	15.	
MECH	8C	XI	6774739	6774739	—	—	—	
SPICER	1410	IV	6832099	6832099	18.82	—	—	
SPICER	1480	IV	6880096	6880096	—	2.40	15.	
SPICER	1480	X	6880088	6880088	—	—	15.	
ROCKWELL	4N PLAIN	I	6838292	6838292	20.24	—	—	
ROCKWELL	5N PLAIN	I	6880094	6880094	—	3.61	16.	
ROCKWELL	5N PLAIN	VII	6880087	6880087	—	—	17.	2.233 2.173
ROCKWELL	5N PLAIN	VII	6880089	6880089	—	—	17.	2.09 2.01
ROCKWELL	62N	X	6880092	6880092	—	—	17.	

* REQUIRES SPACER PART NUMBER 6773465 FOR 'D' POSITION

AS22-008

DRIVE FLANGE OPTION MODEL TT-TRT-2000 AS22-008	
DRAWN: [] CHECKED: [] DATE: []	APPROVED: [] DATE: []

MILLIMETRES TO INCHES			
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
430.0		16.93	



SOCIETY AUTOMOTIVE ENGINEERS
5/32 HEAVY SPEED DRIVE
SHAFT SPEED = .846 x OUTPUT SPEED

FOR TRANSMISSION INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING

MODEL	BASIC
TT 2000	AS 22-003
TT 3000	AS 32-001

AS 22-015

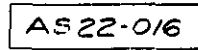
METRIC
ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

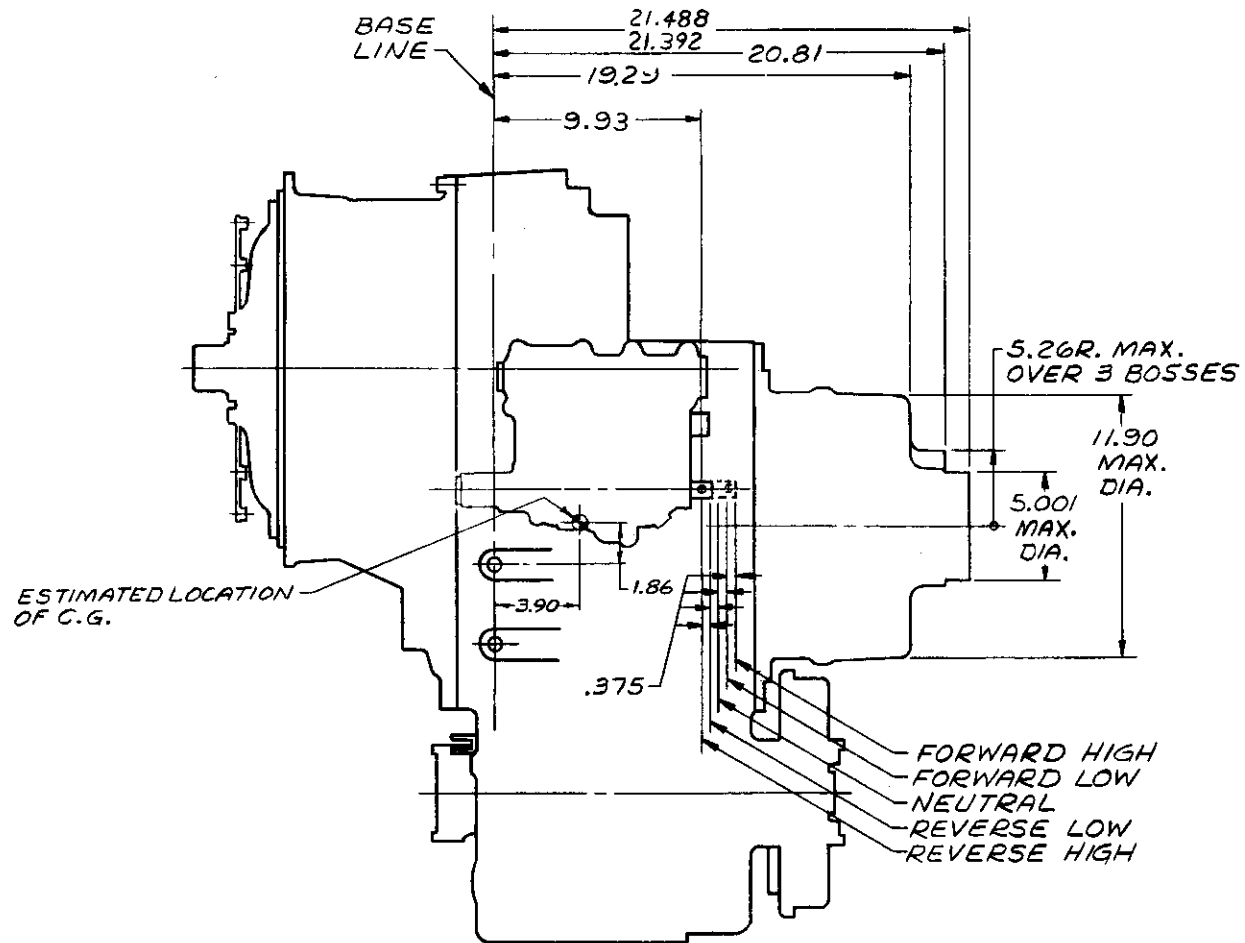
THIRD ANGLE
PROJECTION



C 15-17-22 REVISION TO METRIC 01/01/01		TITLE	
DESIGNED BY	DATE	SPEEDOMETER DRIVE OPTION	
01/01/01	01/01/01	MODEL TT-2/3000 SERIES AS 22-015	
01/01/01		01/01/01	

Copyright © 1991 Afton Division of General Motors - Indianapolis, Indiana

[illegible]

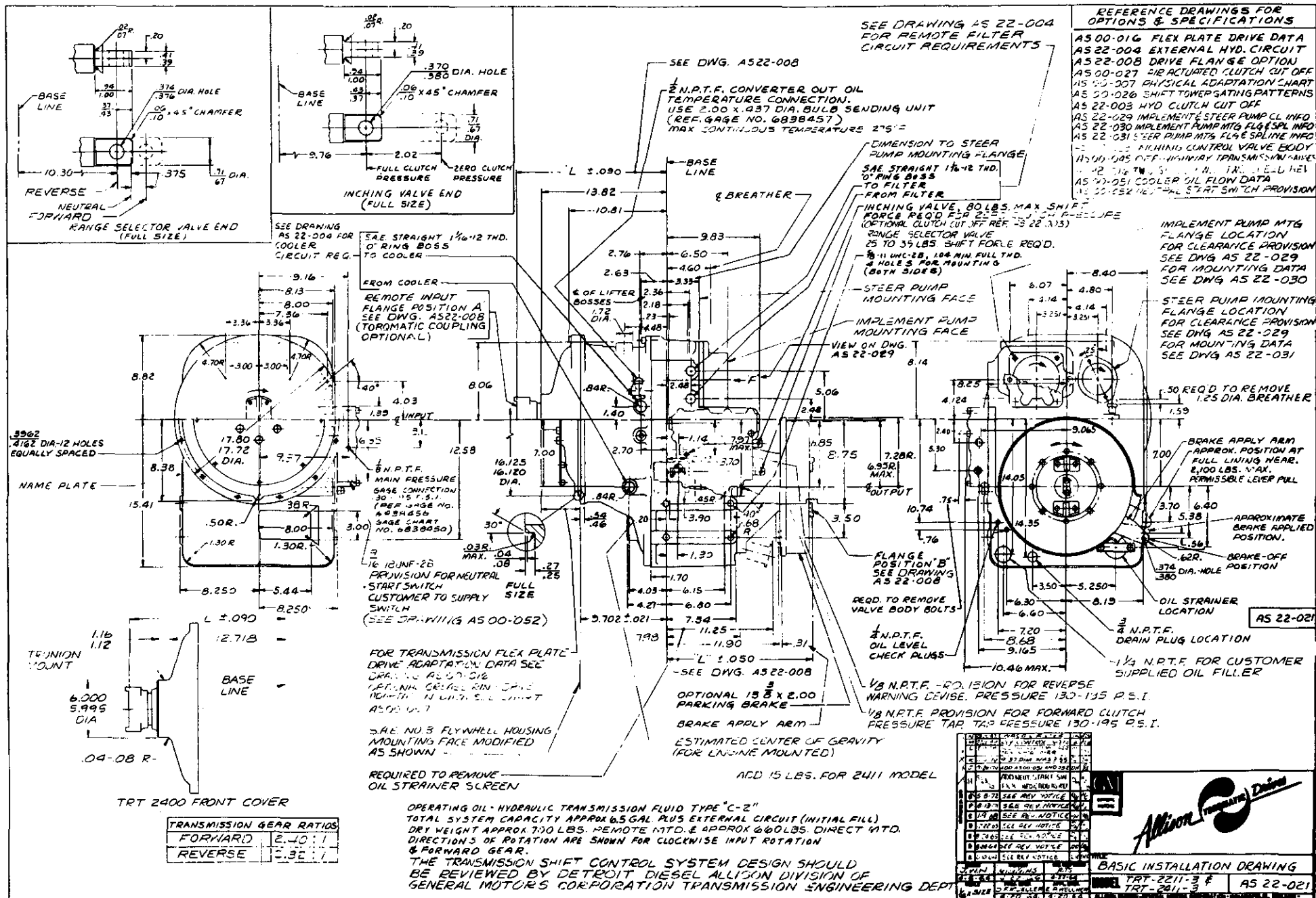


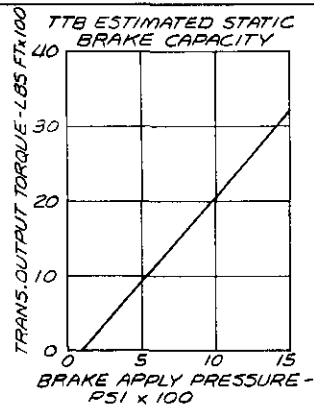
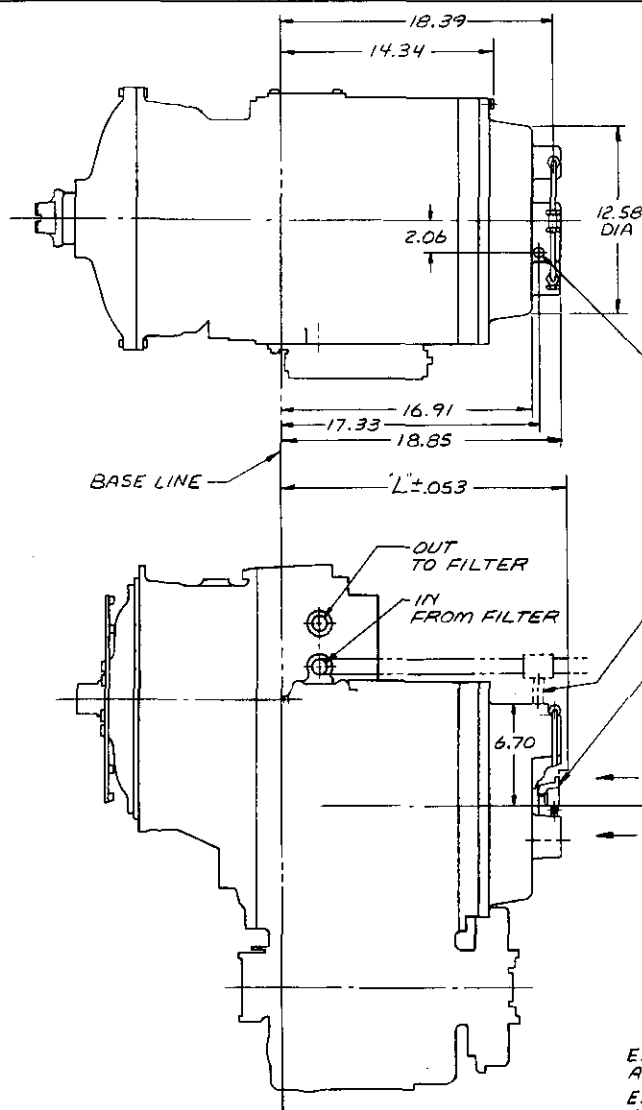
AS 23-017

FOR ALL OTHER TRANSMISSION
INSTALLATION DATA SEE BASIC
INSTALLATION DRAWING AS 22-003
ESTIMATE 150 LBS. ADDITIONAL WEIGHT

TRANSMISSION GEAR RATIOS	
FORWARD LOW	2.03:1
FORWARD HIGH	.737:1
REVERSE LOW	1.964:1
REVERSE HIGH	.713:1

J		GM		Allison Torque Drives
N		GENERAL MOTORS		
S				
F				
E				
D				
G				
8X5-24-73		REVISED VALVE BODY		IN HER
A 2-186		ADD MODEL		2/20
DESIGN	DRAWN	DESIGNED	CHK'D	TITLE
HUGHES	HARPER	RTS		TWO SPEED FWD. - TWO SPEED REV.
3-8-63	6-29-64	6-29-64		MODEL TRT-2000-1
SCALE	PROJ. ENGR.	APPL. ENGR.		AS 22-017
2X SIZE	D.F. MUELLER	E.P. WELCHER		
	5-8-63	5-8-63		ALLISON DIVISION - GENERAL MOTORS CORPORATION - INDIANAPOLIS, INDIANA





INVERTED 84° FLARE 7/8-24 UNS TAP CONNECTION FOR 1/2 O.D. TUBE FROM MASTER CYLINDER OF HYDRAULIC SERVICE BRAKE.
 INITIAL FILL VOLUME REQUIREMENT TO FULL BRAKE APPLY = 3.1 CUBIC INCHES EXCLUDING EXTERNAL CIRCUIT.
 STROKE REQUIREMENT VOLUME FROM BRAKE RELEASE TO FULL APPLY AFTER INITIAL FILL = .5 CUBIC INCHES MAX.
 MAXIMUM PERMISSIBLE BRAKE APPLY PRESSURE 1500 P.S.I. (CONNECTION TO EITHER SIDE OPTIONAL, AIR BLEED ON OPPOSITE SIDE)

.375 NPTF FOR CUSTOMER SUPPLIED LINE FROM TEE IN FILTER RETURN LINE

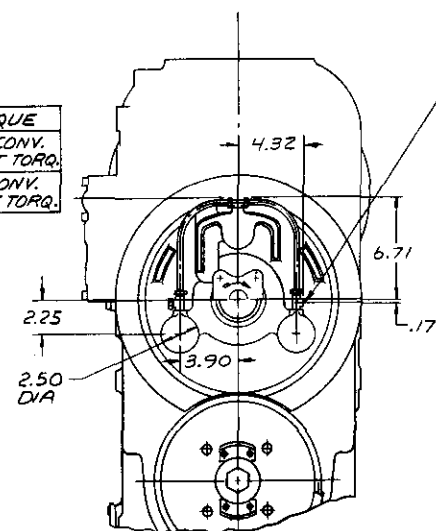
#8 MIN. HOSE SIZE (S.A.E. NO. 1/2 I.D.)

FLANGE POSITION "B" SEE CHART AS 22-008

PTO DRIVE	SPEED	TORQUE
STANDARD	1.21 x CONV. OUTPUT RPM	.826 x CONV. OUTPUT TORQ.
OPTIONAL	.826 x CONV. OUTPUT RPM	1.21 x CONV. OUTPUT TORQ.

← WITH P.T.O.

← WITHOUT P.T.O.



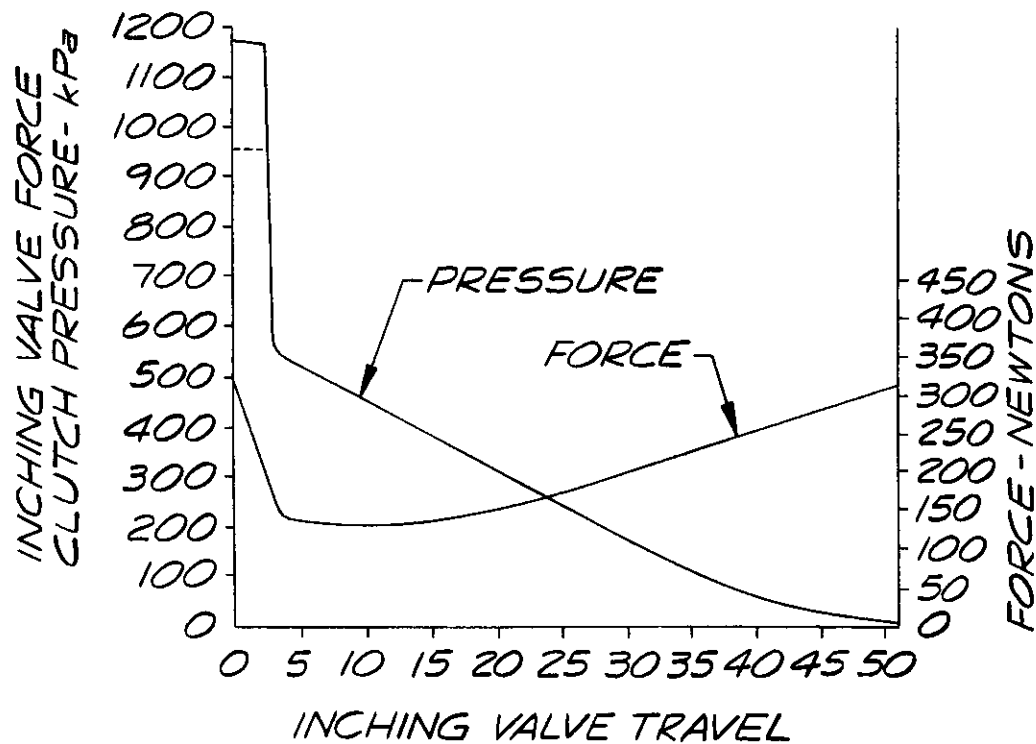
AS22-026

ESTIMATED WEIGHT-SERVICE BRAKE AND CONVERTER DRIVEN PTO. ADD 185 LBS.
 ESTIMATED WEIGHT-SERVICE BRAKE ONLY ADD 175 LBS.

FOR INSTALLATION DATA NOT SHOWN SEE BASIC INSTALLATION DRAWING AS22-003

Allison TORQMATIC Drive	
CONVERTER DRIVEN PTO AND SERVICE BRAKE OPTION	
MODEL TTB-2220, 2420-1 AS22-026	

TT AND TRT 2/3/4000 INCHING VALVE CHARACTERISTICS

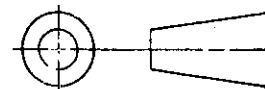


A522-027

METRIC

ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

THIRD ANGLE
PROJECTION



REVISION		DATE		BY	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
APPROVED		DATE		BY	
DESIGNED		DATE		BY	
CHECKED		DATE		BY	
DRAWN		DATE		BY	
SCALE		DATE		BY	
MATERIAL		DATE		BY	
FINISH		DATE		BY	
TOLERANCE		DATE		BY	
SURFACE		DATE		BY	
TREATMENT		DATE		BY	
PAINT		DATE		BY	
WELDING		DATE		BY	
OTHER		DATE		BY	

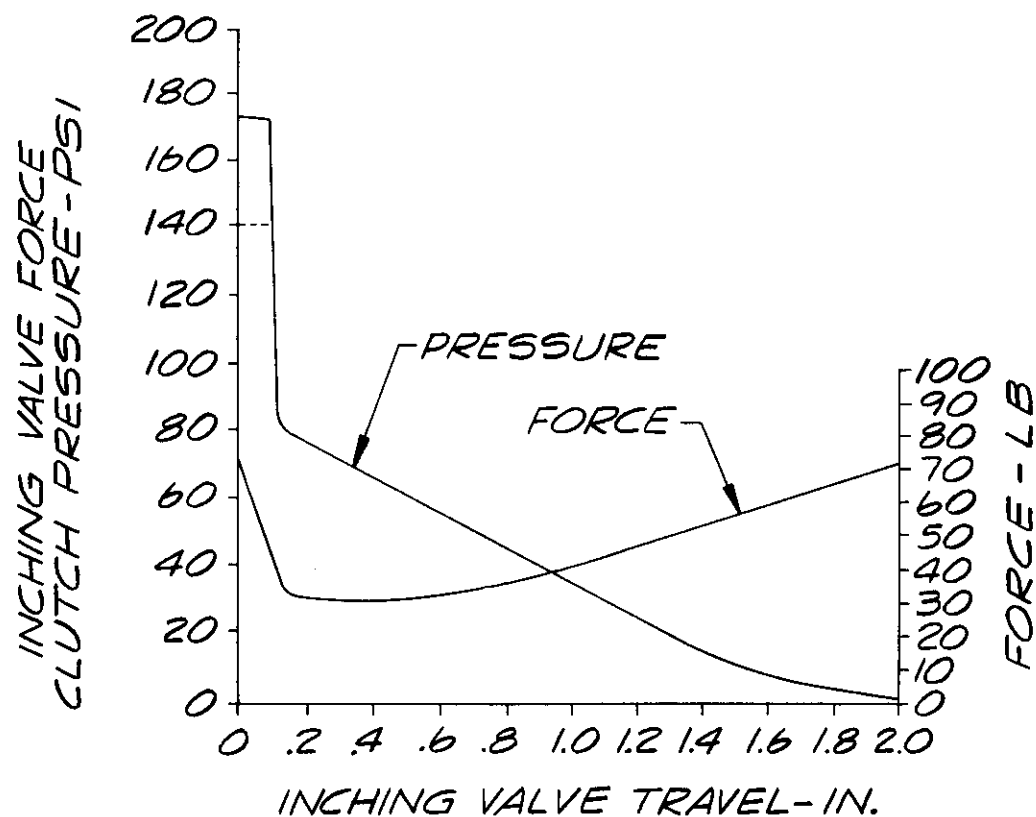


SHEET 1 OF 2

INCHING VALVE CHARACTERISTICS

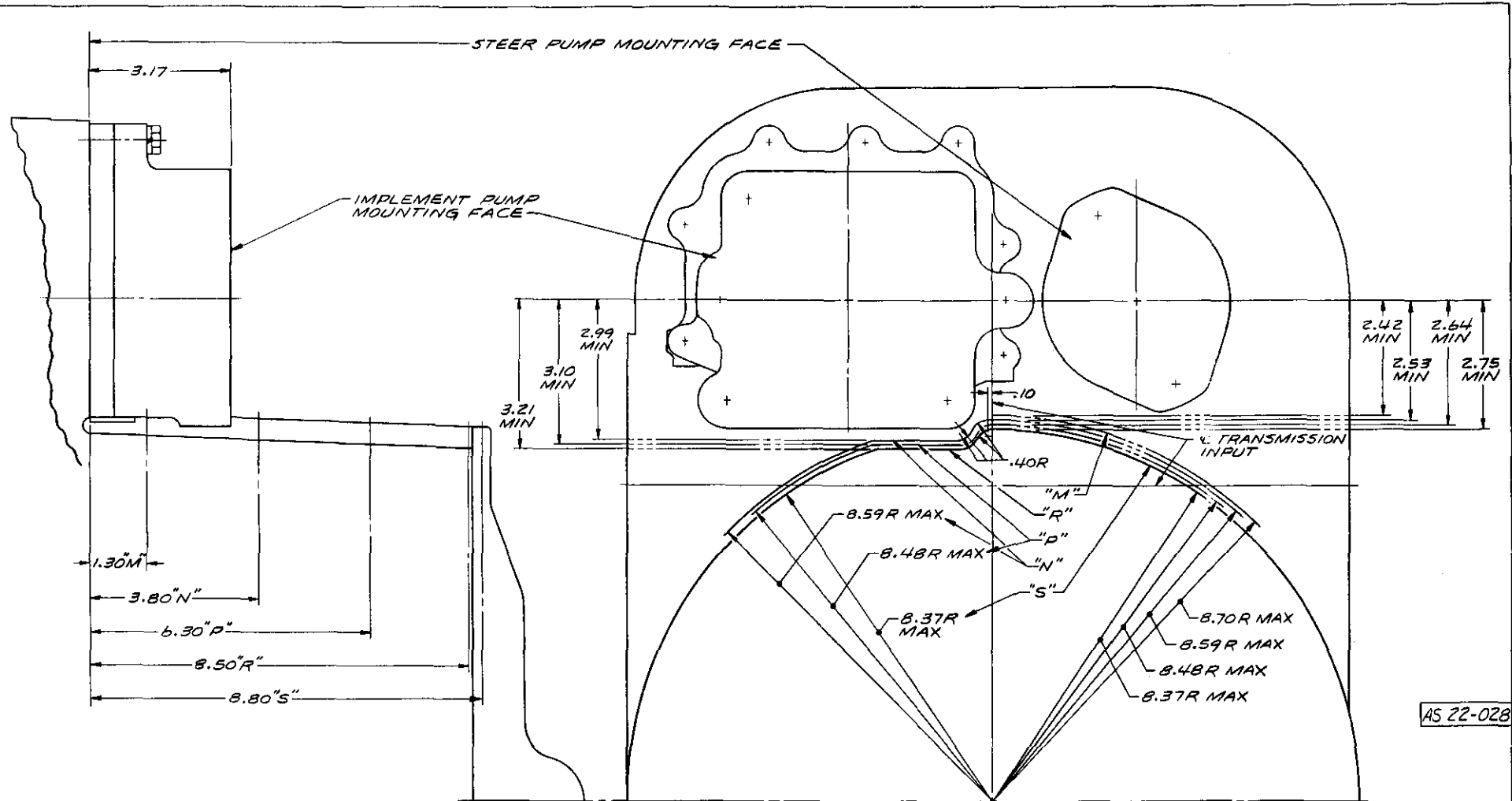
MODEL TT, TRT 2/3, 4000 A522-027

TT AND TRT 2/3/4000 INCHING VALVE CHARACTERISTICS



A522-027

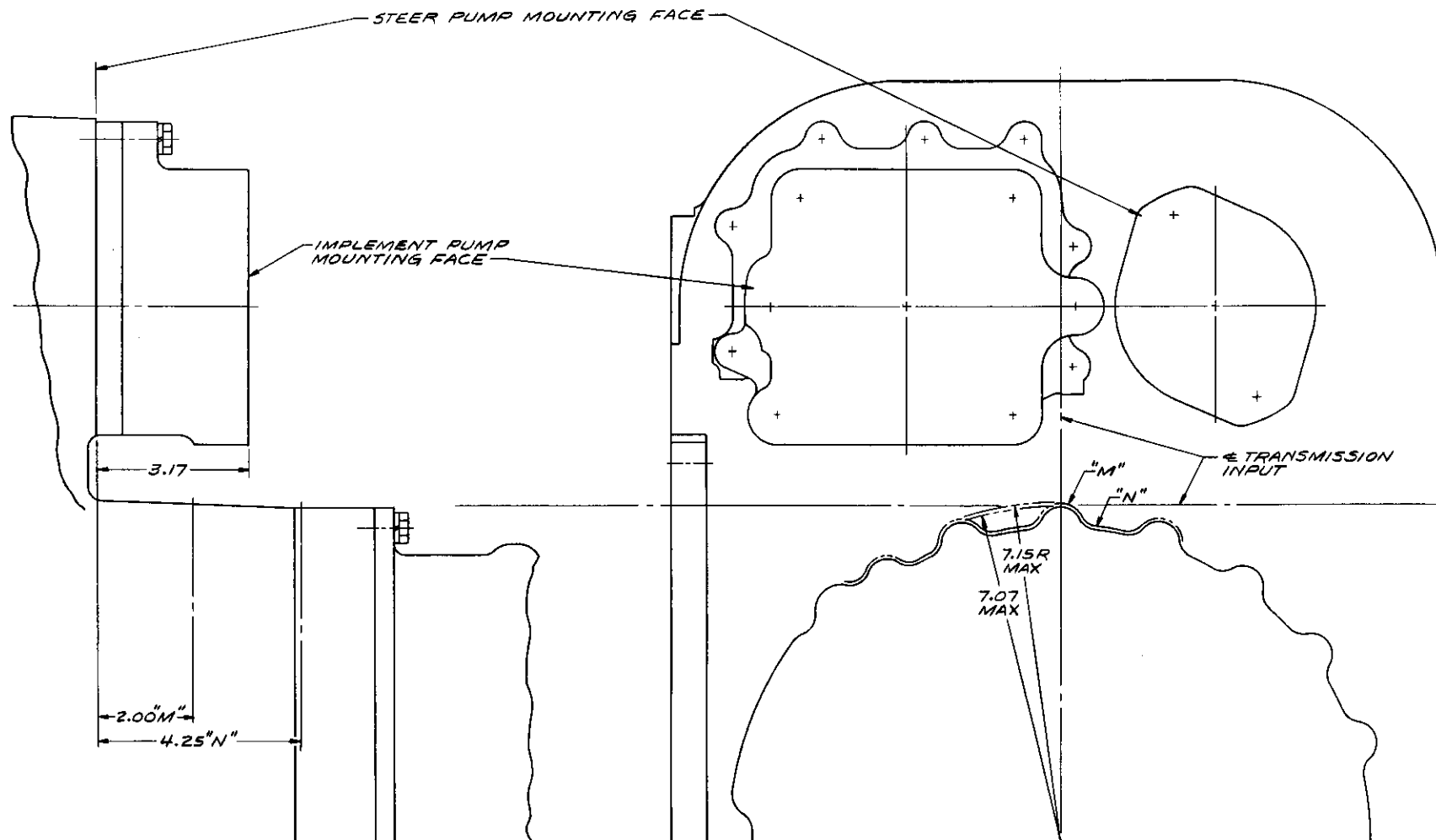
Allison Transmission	
SHEET 2	
INCHING VALVE CHARACTERISTICS	
TT, TRT 2/3/4000	A522-027



AS 22-028

VIEW AT "F" ON BASIC INSTALLATION DRAWING AS 22-003
TRANSMISSION HOUSING OUTLINE SHOWN
IN INCREMENTS FOR CLEARANCE PURPOSES

TITLE: IMPLEMENT AND STEER PUMP CLEARANCE INFORMATION	
MODEL 7T-2000	AS 22-028
Detroit Diesel Allison Division of General Motors, Indianapolis, Indiana	



VIEW AT "F" ON BASIC INSTALLATION DRAWING AS 22-021
TRANSMISSION HOUSING OUTLINE SHOWN
IN INCREMENTS FOR CLEARANCE PURPOSES

REVISION	DATE	BY	CHKD	APP'D
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				

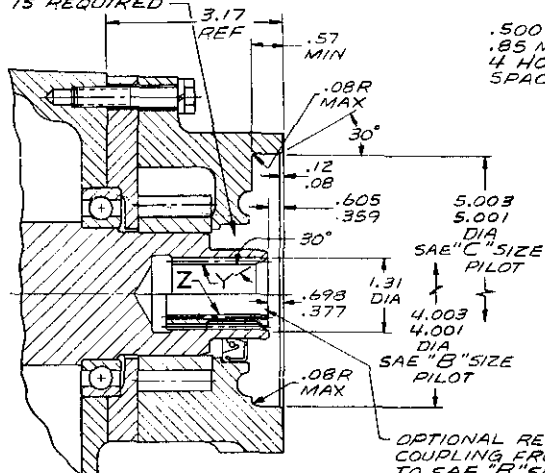
ALLISON TRANSMISSIONS

IMPLEMENT AND STEER PUMP
CLEARANCE INFORMATION

MODEL 77-2000 AS 22-029

DETROIT, MICHIGAN

NO SEAL USED WITH 4 BOLT SAE "C" SIZE PAD WITH POSITIVE SPLINE LUBE. SEAL MUST BE PROVIDED IF NO PTO IS REQUIRED



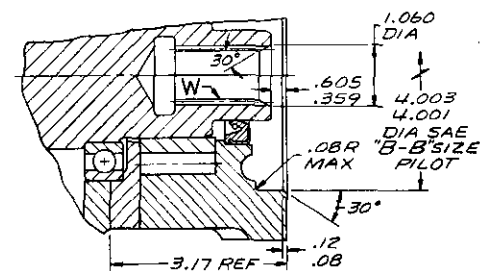
SECTION A-A
SAE "C" SIZE AND OPTIONAL
SAE "B" SIZE MOUNTING FLANGE

INTERNAL SPLINE DATA Y
SAE "C" SIZE SHAFT

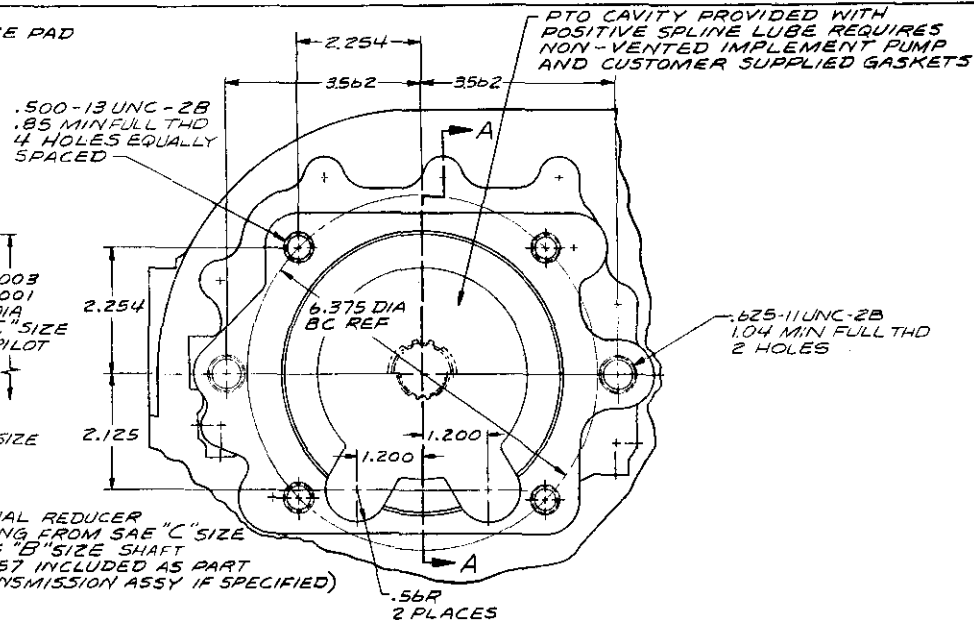
16/24 PITCH 14 TEETH
30° PRESSURE ANGLE
PD = 1.1667 ID = 1.083 - 1.088
RD = 1.271 - 1.284 TID = 1.250
CHORDAL SPACE WIDTH AT PL = .1309 - .1329

INTERNAL SPLINE DATA Z
SAE "B" SIZE SHAFT

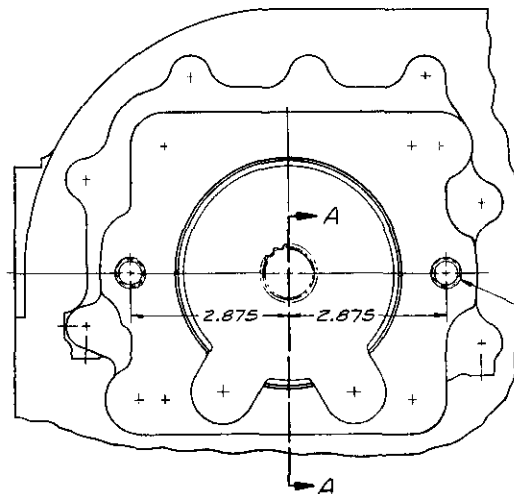
16/32 PITCH 13 TEETH
30° PRESSURE ANGLE
PD = .8125 ID = .763 - .768
RD = .904 TID = .875
CHORDAL SPACE WIDTH AT PL = .0974 - .0999



SECTION A-A
SAE "B-B" SIZE MOUNTING FLANGE



SAE "C" SIZE
4 BOLT/2 BOLT
MOUNTING FLANGE



SAE "B" AND SAE "B-B" SIZE
2 BOLT MOUNTING FLANGE

INTERNAL SPLINE DATA W
SAE "B-B" SIZE SHAFT

16/32 PITCH 15 TEETH
30° PRESSURE ANGLE
PD = .9375 ID = .883 - .888
RD = 1.029 TID = 1.000
CHORDAL SPACE WIDTH AT PL = .0992 - .1012

NOTE:

1. STANDARD PTO DRIVE RATIO = .909 x ENGINE SPEED
OPTIONAL PTO DRIVE RATIO = 1.0 x ENGINE SPEED
2. APPLY MOLY-COAT OR EQUIVALENT GREASE TO FULL SPLINE LENGTH OF COUPLING AND/OR SHAFT AT ASSEMBLY OF HYDRAULIC PUMP (SPLINES W, Y AND Z)

45 22-030

		IMPLEMENT PUMP MOUNTING FLANGE AND SPLINE INFO	
MODEL	TT-2000	45 22-030	
DATE	12-13-72	REV	1
BY	W. J. W.	CHK	W. J. W.
APP	W. J. W.	DES	W. J. W.
ENG	W. J. W.	DRW	W. J. W.
MAN	W. J. W.	PRO	W. J. W.
ALL	W. J. W.	REV	1
FULL	W. J. W.	REV	1

MILLIMETRES TO INCHES			
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
1.02	2.03	.04	.08
7.36		.29	
9.14		.360	
10.00	14.02	.3934	.5519
16.76		.660	
22.48		.885	
23.22		.914	
30.48		1.200	
48.21		1.898	
82.58	82.62	3.251	3.253
106.35		4.187	

**ENGINE DRIVEN
POWER TAKE-OFF DRIVE
NOTE:**

1. STANDARD POWER TAKE-OFF DRIVE RATIO
.909 x ENGINE SPEED.
OPTIONAL POWER TAKE-OFF DRIVE RATIO
1.00 x ENGINE SPEED.
2. APPLY MOLY-COAT OR EQUIVALENT GREASE
TO FULL SPLINE LENGTH OF COUPLING AND/OR
SHAFT AT ASSEMBLY OF HYDRAULIC PUMP
(SPLINES **X** AND **Z**)

POWER TAKE-OFF MOUNTING FACE
FOR SOCIETY OF AUTOMOTIVE
ENGINEERS **A** SIZE PUMP FLANGE

DIMENSIONS IN INCHES

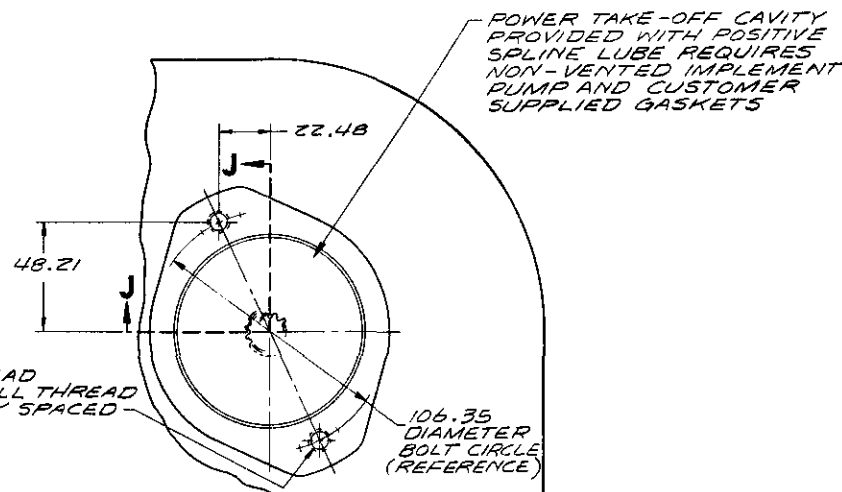
INTERNAL SPLINE DATA **X
SOCIETY OF AUTOMOTIVE ENGINEERS**

A SIZE SHAFT
16/32 PITCH 9 TEETH
30° PRESSURE ANGLE
PITCH DIAMETER = .5625 INSIDE DIAMETER =
ROOT DIAMETER = .654 .515 - .520
TRUE INVOLUTE DIAMETER = .625
CHORDAL SPACE WIDTH AT PITCH LINE = .0977 - .0997

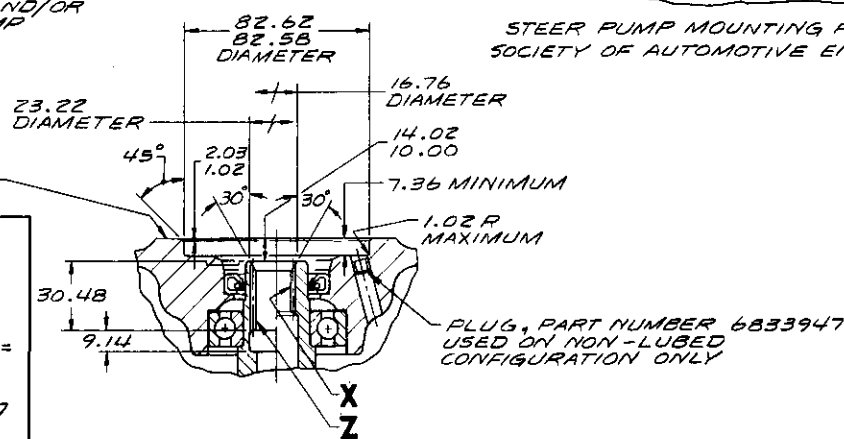
**OPTIONAL
INTERNAL SPLINE DATA **Z**
SOCIETY OF AUTOMOTIVE ENGINEERS**

B SIZE SHAFT
16/32 PITCH 13 TEETH
30° PRESSURE ANGLE
PITCH DIAMETER = .8125 INSIDE DIAMETER =
ROOT DIAMETER = .904 .763 - .768
TRUE INVOLUTE DIAMETER = .875
CHORDAL SPACE WIDTH AT PITCH LINE = .0979 - .0999

.375-16UNC-2B
INCH SERIES THREAD
16.76 MINIMUM FULL THREAD
2 HOLES EQUALLY SPACED



STEER PUMP MOUNTING FLANGE
SOCIETY OF AUTOMOTIVE ENGINEERS **A** SIZE



SECTION **J-J**
(SOCIETY OF AUTOMOTIVE ENGINEERS
A SIZE MOUNTING FLANGE)

FOR MODELS
TT-2000
TRT-2000

AS 22-031

METRIC
ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

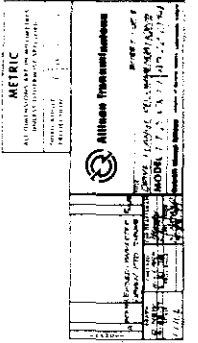
THIRD ANGLE
PROJECTION



TITLE: STEER PUMP MOUNTING
FLANGE AND SPLINE
INFORMATION

MODEL SEE NOTE AS 22-031

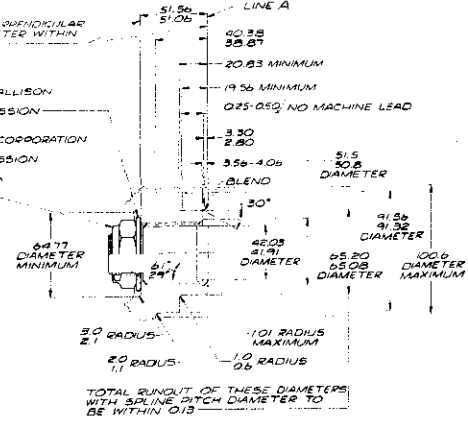
DESIGNED BY	TRT-2000	DATE	10-1-78
CHECKED BY	ENHLMANN	DATE	5-16-78
APPROVED BY	MOYER	DATE	5-16-78
DATE	5-2-78	BY	WRS/STP/END
FULL			5-3-78



THESE SURFACES TO BE PERPENDICULAR
WITH SPLINE PITCH DIAMETER WITHIN
0.005 PER mm

WASHER-DETROIT DIESEL ALLISON
PART NUMBER 675718-4
SUPPLIED WITH TRANSMISSION

SHIM-DETROIT DIESEL ALLISON
PART NUMBER 683562-9 AND
683563-0 AS REQUIRED
SUPPLIED WITH TRANSMISSION



INTERNAL SPLINE DATA
DIMENSIONS IN INCHES
8 1/4 DIAMETER PITCH 16 TEETH
30° PRESSURE ANGLE
PITCH DIAMETER 1.750
ROOT DIAMETER 1.675
TRUE INVOLUTE DIAMETER 1.656
CHORDAL SPACE WIDTH AT PITCH LINE 1.959-1.979
REFERENCE DIMENSION BETWEEN TWO
8 1/4 DIAMETER PINS 1.4322-1.4358
ROOT DIAMETER AND PITCH DIAMETER MUST BE
CONCENTRIC WITHIN 0.02 TOTAL INDICATOR READING

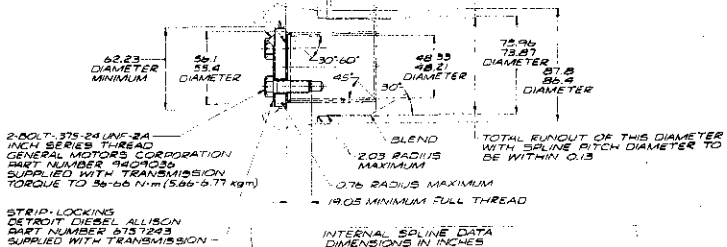
INPUT FLANGE
HUB DELINEATION
MODEL TRT 22-03

THESE SURFACES TO BE PERPENDICULAR
WITH SPLINE PITCH DIAMETER
WITHIN 0.005 PER mm

WASHER-DETROIT DIESEL ALLISON
PART NUMBER 675718-4
SUPPLIED WITH TRANSMISSION

SHIM-DETROIT DIESEL ALLISON
PART NUMBER 683562-9 AND
683563-0 AS REQUIRED
SUPPLIED WITH TRANSMISSION

BEND CORNER UP



INTERNAL SPLINE DATA
DIMENSIONS IN INCHES
8 1/4 DIAMETER PITCH 16 TEETH
30° PRESSURE ANGLE
PITCH DIAMETER 2.000
ROOT DIAMETER 2.125-2.128
TRUE INVOLUTE DIAMETER 2.104
CHORDAL SPACE WIDTH AT PITCH LINE 1.960-1.980
REFERENCE DIMENSION BETWEEN TWO
8 1/4 DIAMETER PINS 1.4423-1.4459
ROOT DIAMETER AND PITCH DIAMETER MUST BE
CONCENTRIC WITHIN 0.02 TOTAL INDICATOR READING

INPUT FLANGE
HUB DELINEATION
MODEL TRT 22-03

THESE SURFACES TO BE PERPENDICULAR
WITH SPLINE PITCH DIAMETER
WITHIN 0.005 PER mm

WASHER-DETROIT DIESEL ALLISON
PART NUMBER 675718-4
SUPPLIED WITH TRANSMISSION

SHIM-DETROIT DIESEL ALLISON
PART NUMBER 675718-4 AND
675718-5 AS REQUIRED
SUPPLIED WITH TRANSMISSION

BEND CORNER UP

2-BOLT 100-20 UNF-24
INCH SERIES THREAD
GENERAL MOTORS CORPORATION
PART NUMBER 940903-9
SUPPLIED WITH TRANSMISSION
TORQUE TO 150-186 N·m (13.27-5.90 kgm)

1.6-2 RADIUS
DETROIT DIESEL ALLISON
PART NUMBER 675724-3
SUPPLIED WITH TRANSMISSION

21.59 MINIMUM FULL THREAD

TOTAL RUNOUT OF THIS DIAMETER
WITH SPLINE PITCH DIAMETER TO
BE WITHIN 0.13

INTERNAL SPLINE DATA
DIMENSIONS IN INCHES
8 1/4 DIAMETER PITCH 16 TEETH
30° PRESSURE ANGLE
PITCH DIAMETER 2.250
ROOT DIAMETER 2.367-2.367
TRUE INVOLUTE DIAMETER 2.335
CHORDAL SPACE WIDTH AT PITCH LINE 1.961-1.981
REFERENCE DIMENSION BETWEEN TWO
8 1/4 DIAMETER PINS 1.4350-1.4356
ROOT DIAMETER AND PITCH DIAMETER MUST BE
CONCENTRIC WITHIN 0.02 TOTAL INDICATOR READING

OUTPUT FLANGE
HUB DELINEATION
MODELS TRT 22-03 AND TRT 24-03

THESE SURFACES TO BE PERPENDICULAR
WITH SPLINE PITCH DIAMETER
WITHIN 0.005 PER mm

WASHER-DETROIT DIESEL ALLISON
PART NUMBER 675718-4
SUPPLIED WITH TRANSMISSION

SHIM-DETROIT DIESEL ALLISON
PART NUMBER 675718-4 AND
675718-5 AS REQUIRED
SUPPLIED WITH TRANSMISSION

BEND CORNER UP

2-BOLT 100-20 UNF-24
INCH SERIES THREAD
GENERAL MOTORS CORPORATION
PART NUMBER 940903-9
SUPPLIED WITH TRANSMISSION
TORQUE TO 150-186 N·m (13.27-5.90 kgm)

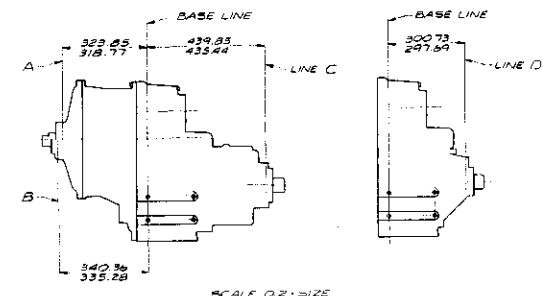
1.6-2 RADIUS
DETROIT DIESEL ALLISON
PART NUMBER 675724-3
SUPPLIED WITH TRANSMISSION

21.59 MINIMUM FULL THREAD

TOTAL RUNOUT OF THIS DIAMETER
WITH SPLINE PITCH DIAMETER TO
BE WITHIN 0.13

INTERNAL SPLINE DATA
DIMENSIONS IN INCHES
8 1/4 DIAMETER PITCH 16 TEETH
30° PRESSURE ANGLE
PITCH DIAMETER 2.200
ROOT DIAMETER 2.225-2.228
TRUE INVOLUTE DIAMETER 2.102
CHORDAL SPACE WIDTH AT PITCH LINE 1.960-1.980
REFERENCE DIMENSION BETWEEN TWO
8 1/4 DIAMETER PINS 1.4423-1.4459
ROOT DIAMETER AND PITCH DIAMETER MUST BE
CONCENTRIC WITHIN 0.02 TOTAL INDICATOR READING

OUTPUT FLANGE
HUB DELINEATION
MODELS TRT 22-03 AND TRT 24-03



SCALE 0.2 = SIZE

FOR ALL FLANGE FLANGES AND
DELINATIONS SEE DRAWING-AS 22-008
FOR TRANSMISSION INSTALLATION
DATA NOT SHOWN SEE DRAWING-AS 22-021

PARTS SHOWN IN CHAMFON
AND CUSTOMER FINISHED
MATERIAL ALLOY STEEL
HARDNESS ROCKWELL C 26 MINIMUM

FR 1 AS 22-035A1

FR 2

METRIC	
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED	
THIRD ANGLE PROJECTION	
DRIVE FLANGE HUB DELINEATION MODEL TRT 22-03 AND TRT 24-03	
Default Head Office: Detroit, Michigan	

MILLIMETRES TO INCHES			
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
0.13		.005	
	0.76		.030
	1.0		.04
0.6	1.0	.02	.04
	1.01		.040
1.1	2.0	.04	.08
	2.03		.080
1.6	2.5	.06	.10
2.1	3.0	.08	.12
2.80	3.30	.110	.130
3.1	4.0	.12	.16
3.56	4.06	.140	.160
3.56	5.08	.140	.200
19.05		.750	
19.56		.770	
20.83		.820	
21.59		.850	
34.04		1.340	
36.8		1.45	
37.9		1.49	
38.87	40.38	1.530	1.590
40.9		1.61	
41.91	42.03	1.650	1.655
44.45	45.97	1.750	1.810
48.21	48.33	1.879	1.903
50.8	51.5	2.00	2.03
51.06	51.54	2.010	2.030
53.98	54.10	2.125	2.130
55.4	56.1	2.18	2.21
60.71	61.21	2.390	2.410
62.23		2.450	
64.77		2.550	
65.08	65.20	2.562	2.567
69.60	70.10	2.740	2.760
71.1		2.80	
73.03	73.15	2.875	2.880
73.87	73.96	2.908	2.912
76.20	76.32	3.000	3.005
84.9	86.3	3.34	3.40
86.4	87.8	3.40	3.46
91.32	91.56	3.595	3.605
	100.6		3.96
297.69	300.73	11.720	11.840
318.77	323.85	12.550	12.750
335.28	340.36	13.200	13.400
435.44	439.85	17.143	17.317

METRIC VALUE

56 N·m

66 N·m

130 N·m

156 N·m

610 N·m

949 N·m

0.25-0.50 MICROMETRE

EQUIVALENT

41 POUND FEET

49 POUND FEET

96 POUND FEET

115 POUND FEET

450 POUND FEET

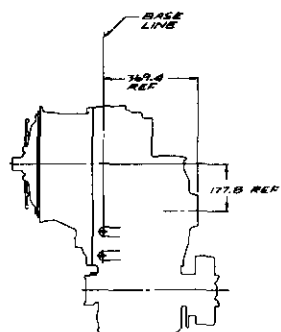
700 POUND FEET

10-20 MICROINCH

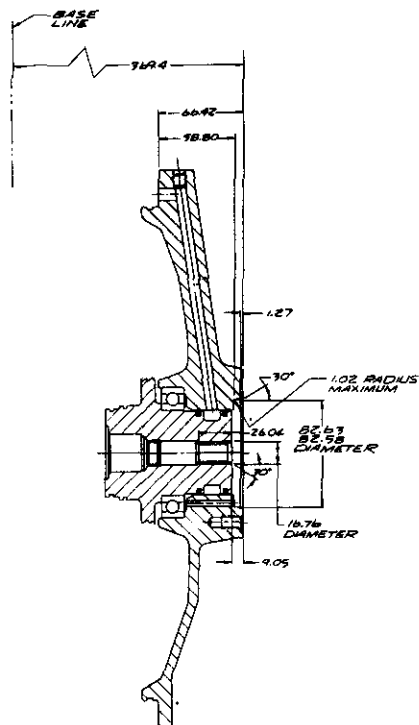
AS 22-035

 Allison Transmissions	
SHEET 2 OF 2	
DRIVE FLANGE RECOMMENDATIONS	
DRIVEN MEMBER NONE	MODEL T2000-3 AS 22-035

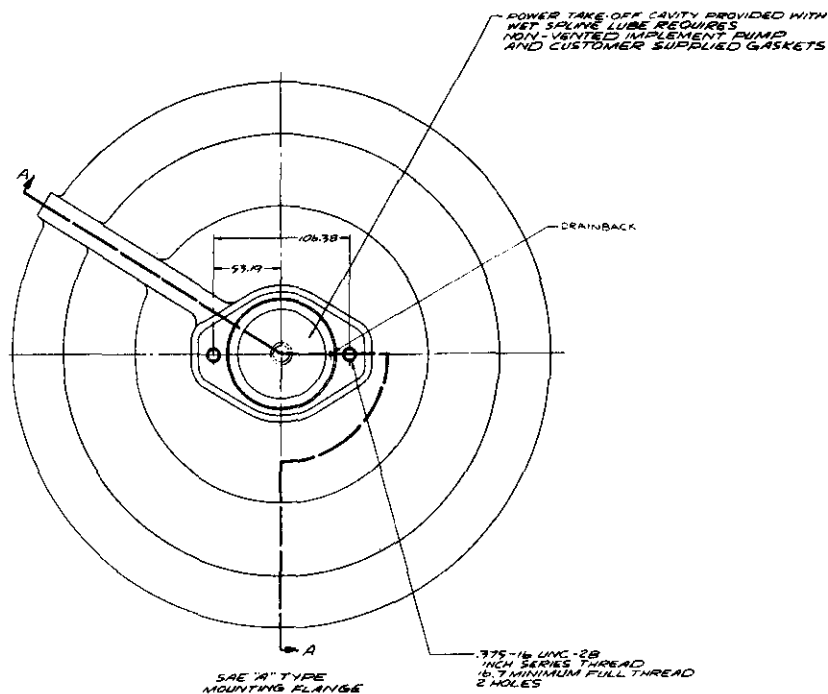
	102	1050	1040
127			
105			
16.76			
25.04			
23.14			
28.80			
66.42			
62.58			
126.38			
77.18			
257.4			
	82.65	3.251	3.253
		7.000	
		14.543	



SCALE: 0.2 TIMES



SECTION A-A



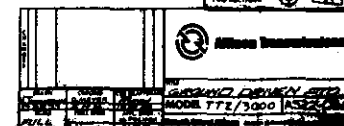
DIMENSIONS IN INCHES	
INTERNAL INVOLUTE SPLINE DATA	
FLAT ROOT SIDE FIT (SAE 'A' SIZE)	
NUMBER OF TEETH	9
PITCH	10/32
PRESSURE ANGLE	20°
PD	56.25
PD	65.4
ID	515-520
TID	625

NOTE:
1. POWER TAKE-OFF DRIVE SPEED.
TRANSMISSION OUTPUT SPEED.
DROPOUT RATIO OF 0.876 OR 0.684
2. APPLY MOLY-COAT OR EQUIVALENT
GREASE TO FULL SPLINE LENGTH OF SHAFT
AT ASSEMBLY OF HYDRAULIC PUMP

FOR TRANSMISSION INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING AS 22-003

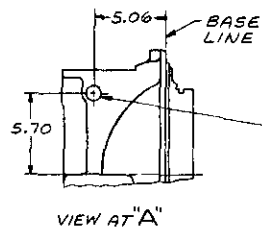
AS 22-003

METRIC
ALL DIMENSIONS ARE IN MILLIMETERS
UNLESS OTHERWISE SPECIFIED
1/16" = 1.5875 mm
1/32" = 0.79375 mm



AS 22-003

AS 31-000

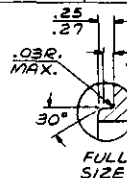


4-179814 BOLTS USED WHEN
INSTALLED WITHOUT COOLER
1/2-13 NC-18-.41 MIN. FULL THD.
(FOR LIFTING)

3/4 N.P.T.F. CONVERTER OUT OIL PRESSURE
AND TEMPERATURE CONNECTION.
USE 2.00 X .437 DIA. BULB SENDING
UNIT (REF. GAGE NO. 6750665)
MAXIMUM TEMPERATURE 250°F

S.A.E. NO. 3 FLYWHEEL HOUSING
MOUNTING FACE

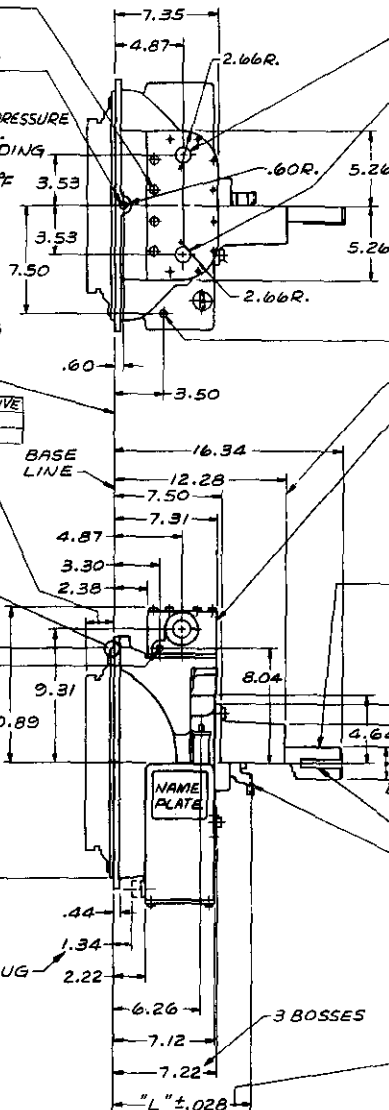
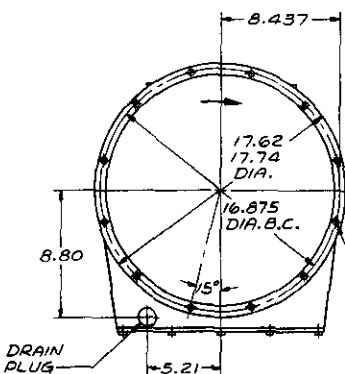
FOR CONVERTER DRIVE
ADAPTATION DATA SEE DRAWING
MODEL RING GEAR DRIVE FLET PLATE DRIVE
TC-250 NOT AVAILABLE AS 00-016
TC-300 AS 00-007 AS 00-016



1/2 N.P.T.F.
COOLANT DRAIN

.4162 - .3962 DIA. - THRU
12 HOLES EQUALLY SPACED

REQUIRED TO REMOVE DRAIN PLUG



REFERENCE DRAWINGS FOR OPTIONS AND SPECIFICATIONS	
AS 00-007	CONVERTER DRIVE ADAPTATION
AS 00-009	INTEGRAL COOLER PERFORMANCE DATA
AS 00-012	OUTPUT FLANGE OPTION CHART
AS 00-016	FLEX PLATE INPUT DRIVE DATA
AS 31-005	P.T.O. SPROCKET LOAD CHART
AS 31-006	EXTERNAL HYDRAULIC CIRCUIT REQUIREMENTS
AS 31-007	RECOMMENDED SUPPORT PLATE CONSTRUCTION
AS 31-008	HEAVY DUTY INDUSTRIAL OUTPUT OPTION
AS 31-009	OUTPUT DISCONNECT CLUTCH PROVISIONS
AS 31-010	FRONT DISCONNECT CLUTCH OPTION
AS 31-011	TAILSHAFT GOVERNOR DRIVE OPTION

TOTAL SYSTEM CAPACITY APPROX 10 QUARTS (INITIAL FILL)
OPERATING OIL - HYDRAULIC TRANSMISSION FLUID TYPE "TC-1"
CHECK OIL LEVEL AT OPERATING TEMPERATURE (180° TO 200°F) WITH ENGINE IDLING
RIGHT HAND ROTATION (VIEWED FROM INPUT) ONLY
MAXIMUM CONVERTER OIL OUT TEMPERATURE 250°F
APPROXIMATE DRY WEIGHT =

AUTOMOTIVE MODELS
TC 200 - 180 LBS.
TC 300 - 192 LBS.

INDUSTRIAL MODELS
TC 200 - 200 LBS.
TC 300 - 212 LBS.



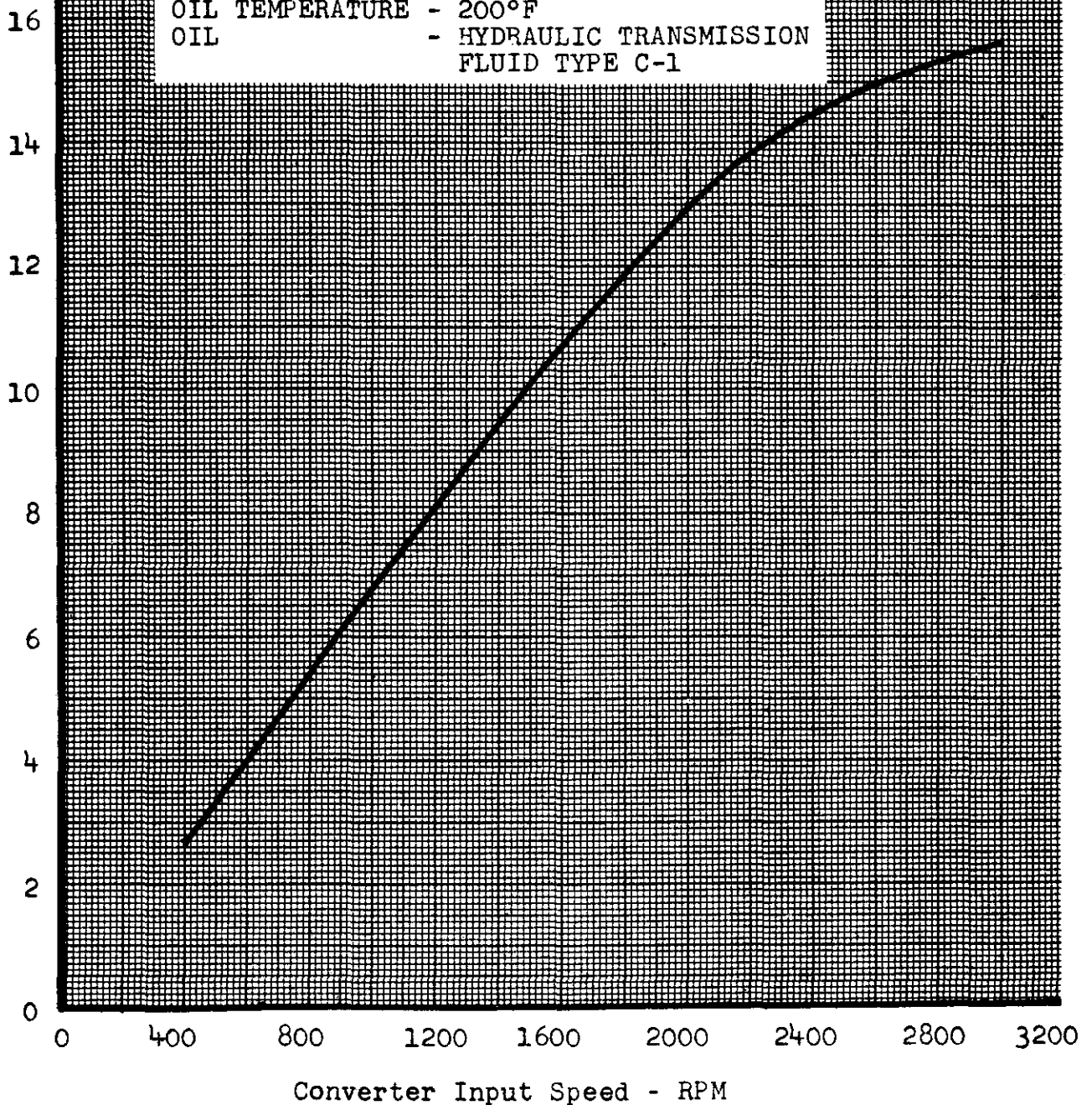
0A

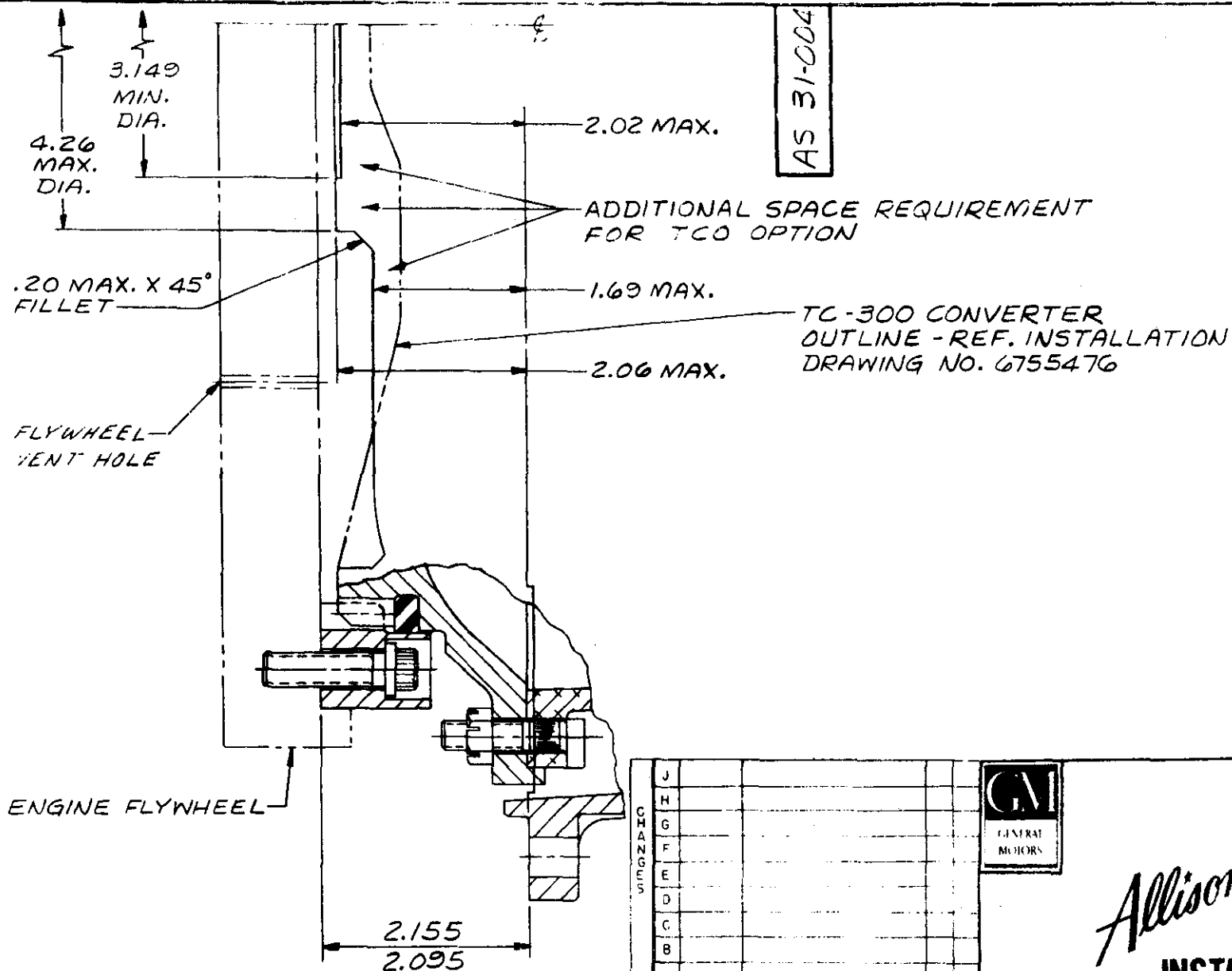
 INDIANAPOLIS, INDIANA	DATE 8/16/60	AS 31-003
	BY Ramsey	
TRANSMISSION ENGINEERING DEPARTMENT		

COOLER OIL FLOW OF THE ALLISON TC-320 AND TC-370
TORQMATIC CONVERTERS

OIL TEMPERATURE - 200°F
OIL - HYDRAULIC TRANSMISSION
FLUID TYPE C-1

Oil Flow - GPM





CHANGES	J			
	H			
	G			
	F			
	E			
	D			
	C			
	B			
	A			
	DRAWN		CHECKED	CHG. DRAFTSMAN
HUGHES				
1-20-61				
SCALE		APPROVED		
FULL				



Allison **TORQMATIC** Drives

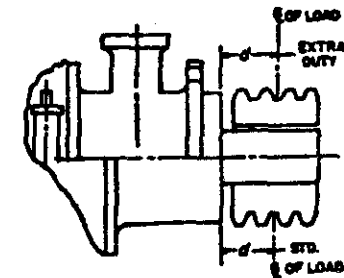
INSTALLATION DIAGRAM

MODEL TCO 300

AS 31-004

ALLISON DIVISION • GENERAL MOTORS CORPORATION • INDIANAPOLIS, INDIANA

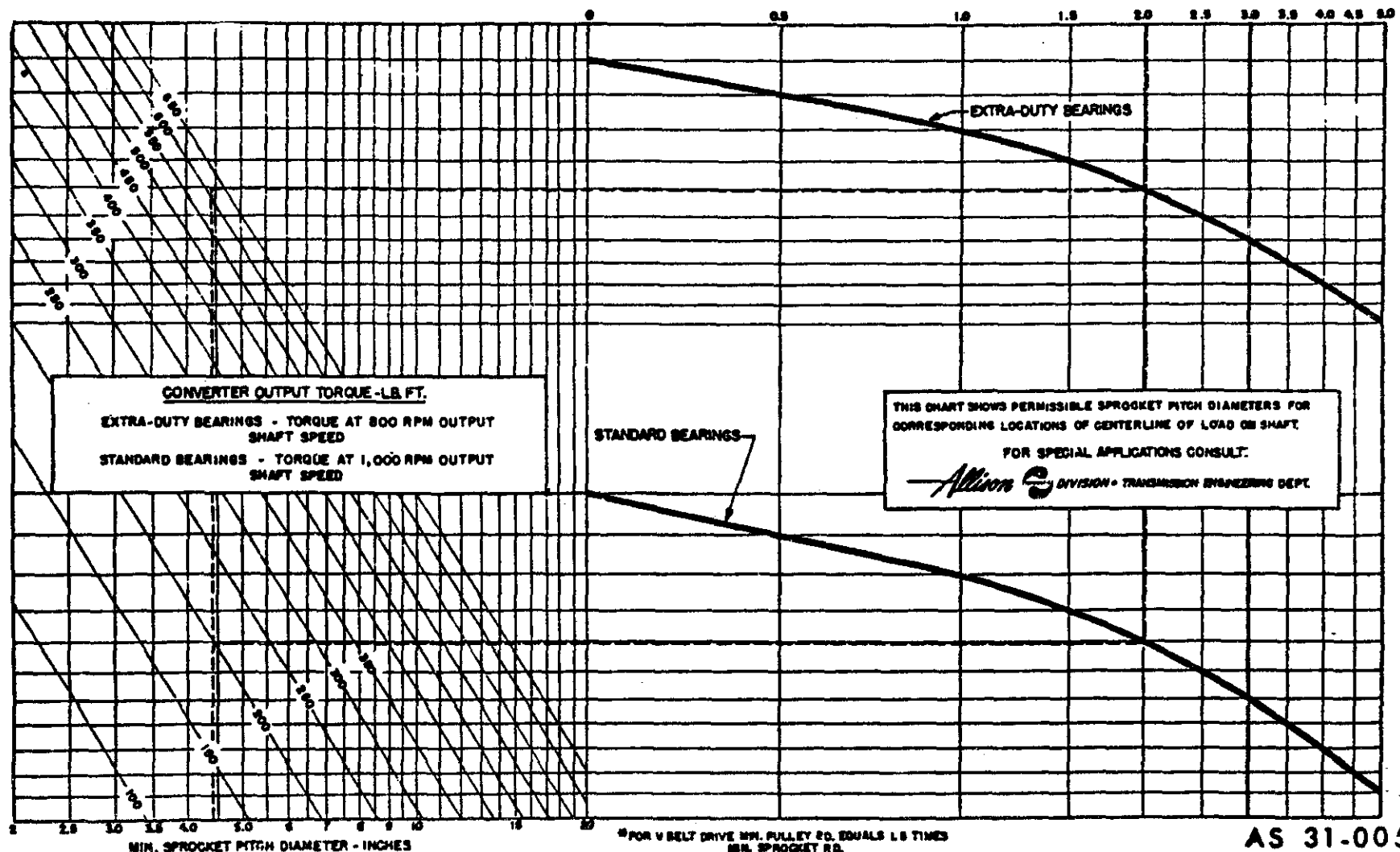
POWER TAKE-OFF SPROCKET CHART **TC-240, 320 AND 370 SERIES ALLISON CONVERTERS** **WITH HEAVY DUTY OUTPUT SHAFT** • (Chain Drive Only)



EXAMPLES:

DISTANCE FROM HOUSING TO E OF LOAD (d) -	STANDARD BEARINGS 3"	EXTRA-DUTY BEARINGS 4"
CONVERTER OUTPUT TORQUE -	200 (AT 1,000 RPM)	615 (AT 800 RPM)
THEN MIN. PITCH DIAMETER -	4.4 INCHES	4.4 INCHES

d = DISTANCE FROM HOUSING TO CENTER LINE OF LOAD IN INCHES (DO NOT EXCEED 5 IN.)



PRESSURE SPECIFICATIONS:
(AT OPERATING TEMPERATURE 200°-250°F)

<u>FULL POWER STALL</u>	<u>TC-200</u> 30 P.S.I.	<u>TC-300</u> 40 P.S.I.
-------------------------	----------------------------	----------------------------

FULL THROTTLE-NO LOAD (HIGH IDLE)	90 P.S.I. MAX.	90 P.S.I. MAX.
--------------------------------------	----------------	----------------

OPERATING PRESSURE CONTROLLED BY COOLER
CIRCUIT RESTRICTION. (COOLER, LINES, AND
ORIFICE RESTRICTORS AS REQUIRED.)

FOR HEAT EXCHANGER
PERFORMANCE DATA
SEE AS 00-009

1.00 N.P.T.F.
COOLANT IN

3
4 N.P.T.F.
COOLER RETURN

-CHECK OIL LEVEL AT
OPERATING TEMPERATURE
WITH ENGINE IDLING.
SUMP CAPACITY APPROX-
IMATELY 10 QTS.
HYDRAULIC TRANSMISSION
FLUID TYPE "C-2" RECOMMENDED

-1.00 N.P.T.F.
COOLANT OUT

4 N.P.T.F. "CONV. OUT"
250°F MAX.
PROVIDE TEMPERATURE
GAGE. (REF. ALLISON
PART NO. 6756665)-

INTEGRAL HEAT EXCHANGER

- GENERAL COOLER RECOMMENDATIONS:
OIL TO WATER TYPE HEAT EXCHANGER
RECOMMENDED CAPACITY TO PROVIDE
CONTINUOUS COOLING WITH
FOLLOWING CONDITIONS:
a.) 250°F MAX. OIL INLET (CONV. OUT)
b.) 70% CONVERTER EFFICIENCY
WITH FULL ENGINE POWER
(REF. TO SPECIFIC ENGINE-CONV.
MATCH CURVE)

#12 MIN. HOSE SIZE
(S.A.E. 5/8 I.D.)

-OPTIONAL LOCATIONS
FOR ORIFICE RESTRICTORS
IF REQUIRED

3
- 4 N.P.T.F. - CONV. OUT
PRESSURE CHECK POINT
SEE PRESSURE SPECIFICATIONS

AS 31-006

HOSE SPECIFICATION:
S.A.E. 100 R5 EXCEPT
OPERATING TEMPERATURE
RANGE FROM -40°F TO
+275°F

FOR COOLER OIL FLOW INFORMATION, REF. :
TC-200 AS 31-002
TC-300 AS 31-003

PARTS SHOWN IN PHANTOM
ARE FURNISHED BY CUSTOMER

FOR SEVERE APPLICATIONS, OR OPERATION IN CONTAMINATED ENVIRONMENT, THE REMOTE HEAT EXCHANGER CONFIGURATION, WITH A FULL-FLOW FILTER IN THE COOLER CIRCUIT, IS RECOMMENDED. FILTER INSTALLATION SHOULD BE VERTICAL WITH THE BASE UP AND MOUNTED AT OR BELOW THE CONVERTER CENTERLINE.

J									
N									
C									
F									
E									
D									
C									
B									
A	1-13-70	SEE REV NOTICE	3	4	5	6	7	8	9
NAME	MUGHES	ELH	DJS						
DATE	5-14-63	0-3-62	10-1-61						
MOLE		WMA DMS	ASPL DMS						
1		ST. JOHN	WELCHER						
2	SIZE	5-17-63	5-28-62						



Allison TORMATIC Drives

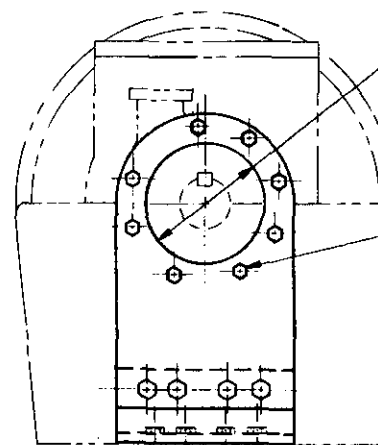
FILE EXTERNAL HYDRAULIC CIRCUIT
REQUIREMENTS
MODEL 200 & 300 SERIES
TORQUE CONV. AS 31-006
ALLISON DIVISION - GENERAL MOTORS CORPORATION - INDIANAPOLIS, INDIANA

RECOMMENDED FOR
HEAVY DUTY BEARINGS

RECOMMENDED FOR
STANDARD BEARINGS

SHIM LEVEL AFTER
INSTALLING ENGINE
& CONVERTER ON
SUPPORT OR SKID.

-OPTIONAL - TWO PIECE
OR WELDED CONSTRUCTION

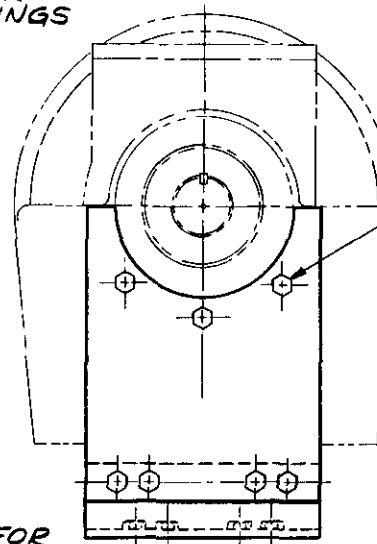


SUPPORT PLATE PILOT DIA.
TO PROVIDE .000 TO .010
LOOSE FIT WITH CONVERTER
MOUNTING PILOT DIA.

-EIGHT- $\frac{1}{2}$ IN. BOLTS
WITH NUTS
TIGHTEN SECURELY

NOTE:

THE SUPPORT PLATE MUST BE DESIGNED TO ABSORB THE TOTAL SPROCKET SIDE PULL FOR THE SPECIFIC INSTALLATION. WEIGHT SUPPORT AND TORQUE REACTION ARE TO BE ABSORBED BY THE ENGINE MOUNTING.

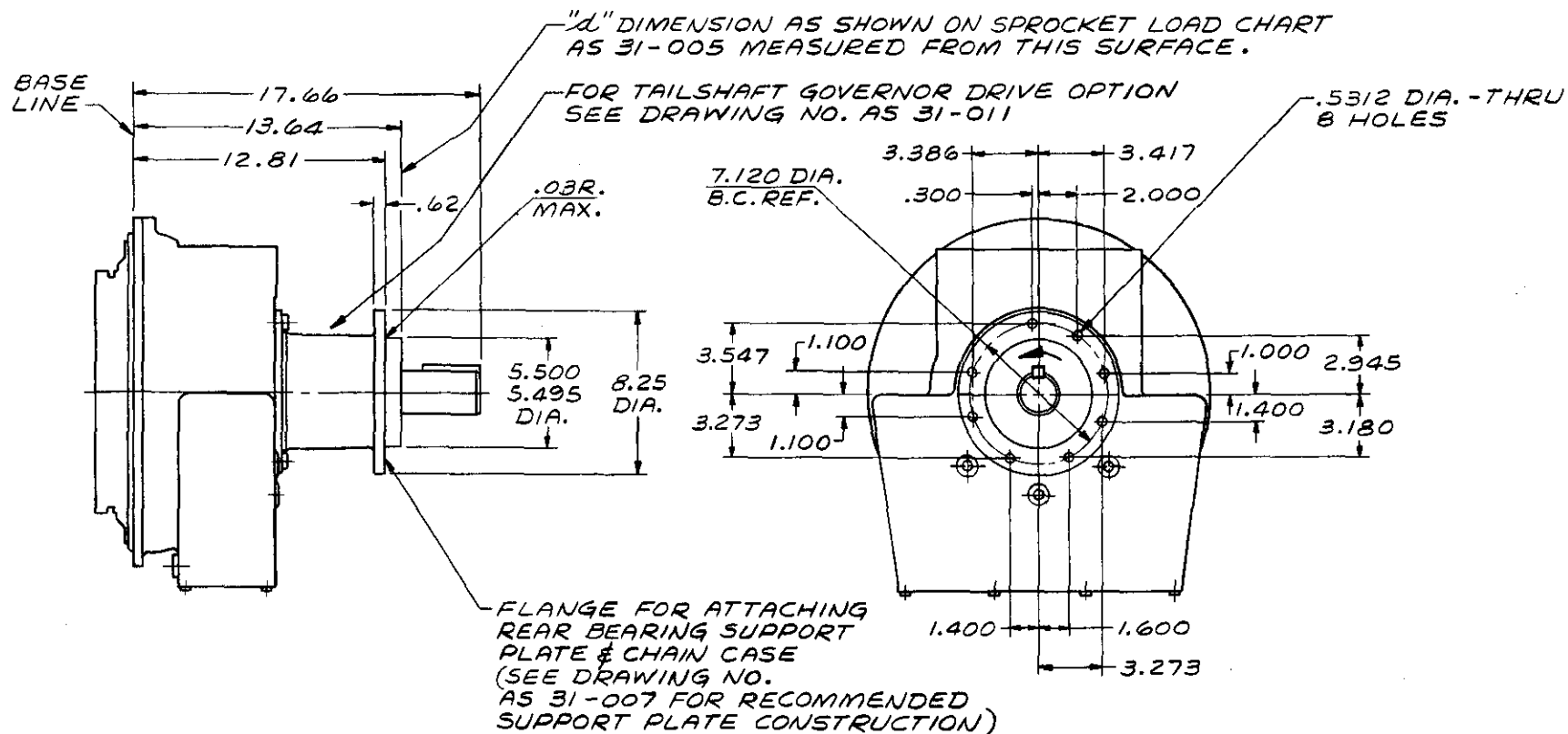


-THREE - $\frac{1}{2}$ IN. BOLTS
TIGHTEN SECURELY

AS 31-007

FOR ALL CONVERTER INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING NO.
AS 31-001

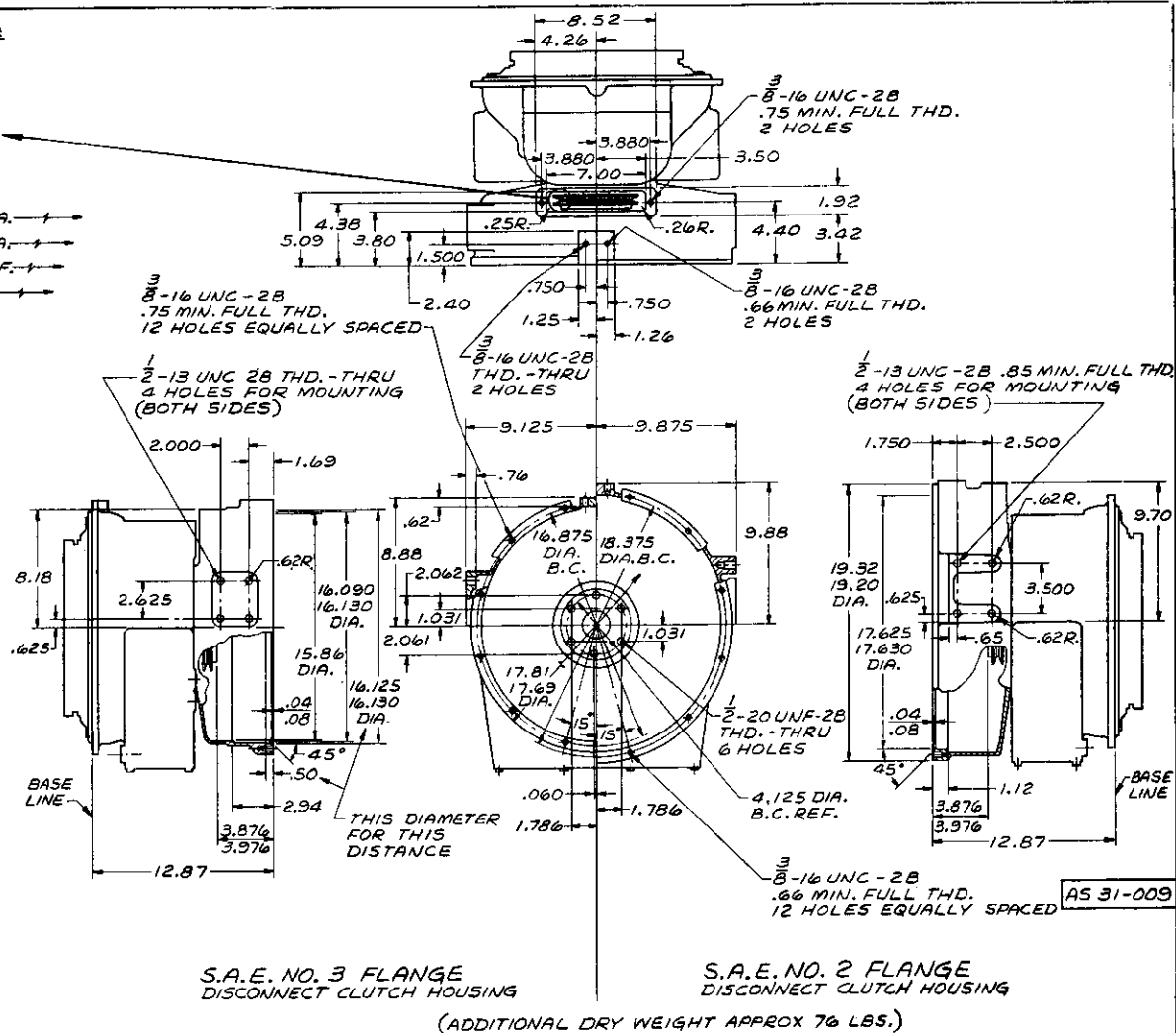
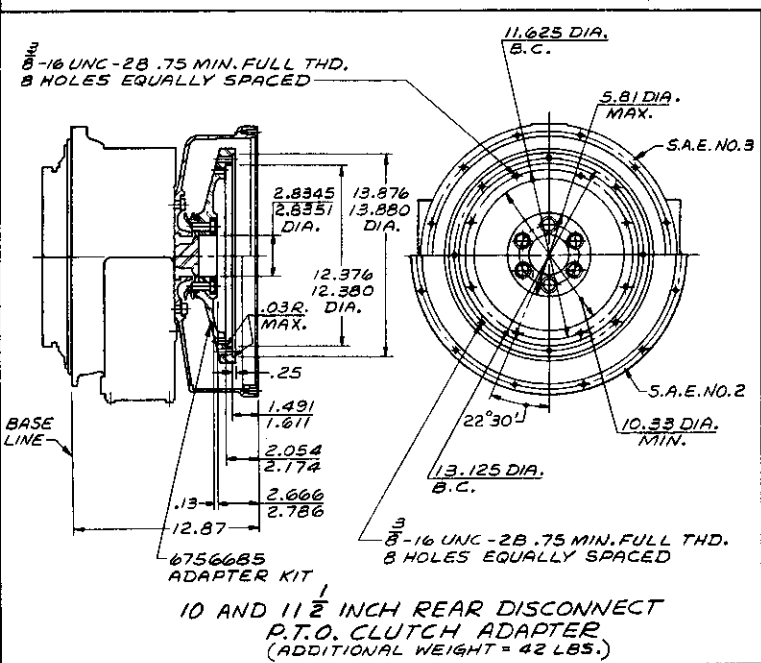
CHANGES	J				
	H				
	G				
	F				
	E				
	D				
	C				
	B				
A					
DRAWN HUGHES 6 10-18-62				CHECKED SWEANY 2-18-63	CWP. DRW. NUMBER BTS 2-18-63
SCALE 1				PROJ. ENGR. ST. JOHN 2-2-63	APPL. ENGR. NELCHER 2-14-63
AXIS SIZE				MODEL TC-200 & 300	
				AS 31-007	
ALLISON DIVISION - GENERAL MOTORS CORPORATION - INDIANAPOLIS, INDIANA					



AS 31-008

FOR ALL CONVERTER INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING AS 31-001
(ADDITIONAL WEIGHT APPROX 34 LBS.)

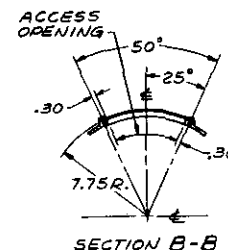
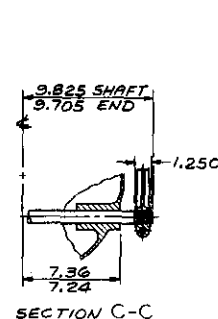
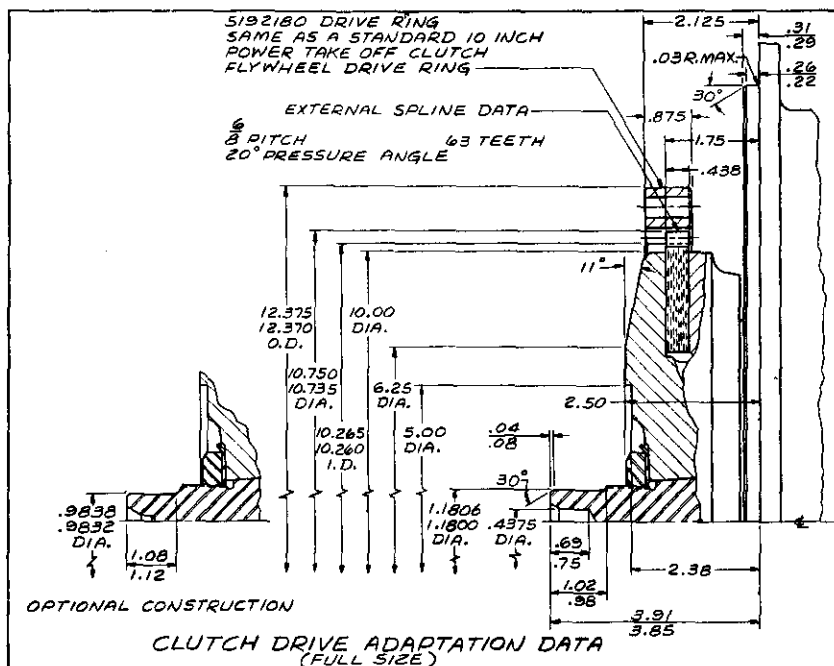
J H G F E D C B A	CHANGES		 
DESIGNED BY HUGHES	CHECKED BY SWEANY	DATE 10-18-62	TITLE INDUSTRIAL OUTPUT WITH HEAVY DUTY BEARINGS
SCALE 1/2"	APPROVED BY ST. JOHN	DATE 2-4-63	MODEL TC-200 & 300 SERIES TORQUE CONVERTER
DRAWN BY L		DATE 2-4-63	AS 31-008
ALLISON DIVISION - GENERAL MOTORS CORPORATION - INDIANAPOLIS, INDIANA			



FOR ALL CONVERTER INSTALLATION
DATA NOT SHOWN SEE BASIC INSTALLATION
DRAWING AS 31-001

NOTE:
FLYWHEEL AND CLUTCH ASSEMBLY
MUST BALANCE AS A UNIT WITHIN
2 OUNCE IN. (INDEX IF NECESSARY)

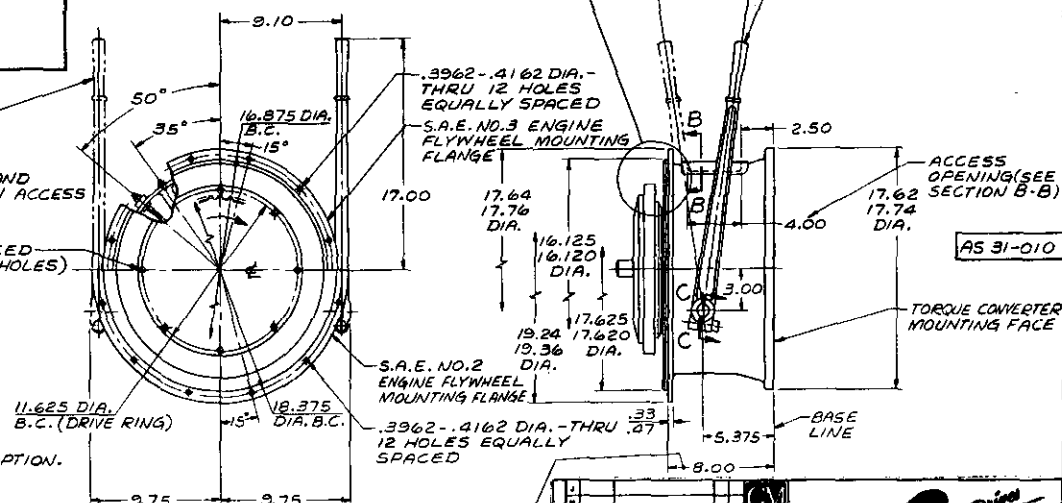
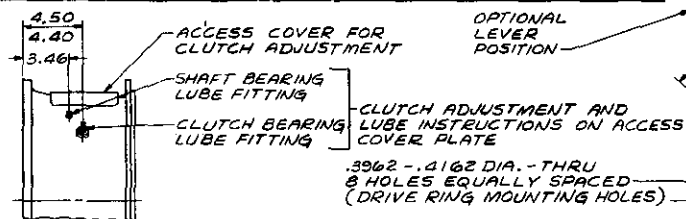
J				 GENERAL INSTRUMENTS	
M					
A					
R					
E					
C					
O					
N					
E					
S					
HUGHES 12-11-52 100 5 X 5182	SWEATY 3-18-53 100 ST. JOHN	GEORGE 2-15 100 WELCHER	TYPE REAR DISCONNECT OUTPUT MODEL TC RD-2004300 AS 31-003 ALL WGS ENTCH-RENTAL-TEMPER COOPERATION-POHAR-OLK-RENTAL		



LEVER MAY BE POSITIONED
ON GROSS SHAFT TO SUIT
INSTALLATION REQUIRE-
MENTS. (48 S.A.E.
SERRATIONS ON BOTH
ENDS OF SHAFT)

DISCONNECT LEVER
APPROX 44 LB.FT. TORQUE
REQUIRED TO APPLY
CLUTCH WITH THIS LEVER

CLUTCH ENGAGED
LEVER POSITION
CLUTCH DISENGAGED
LEVER POSITION



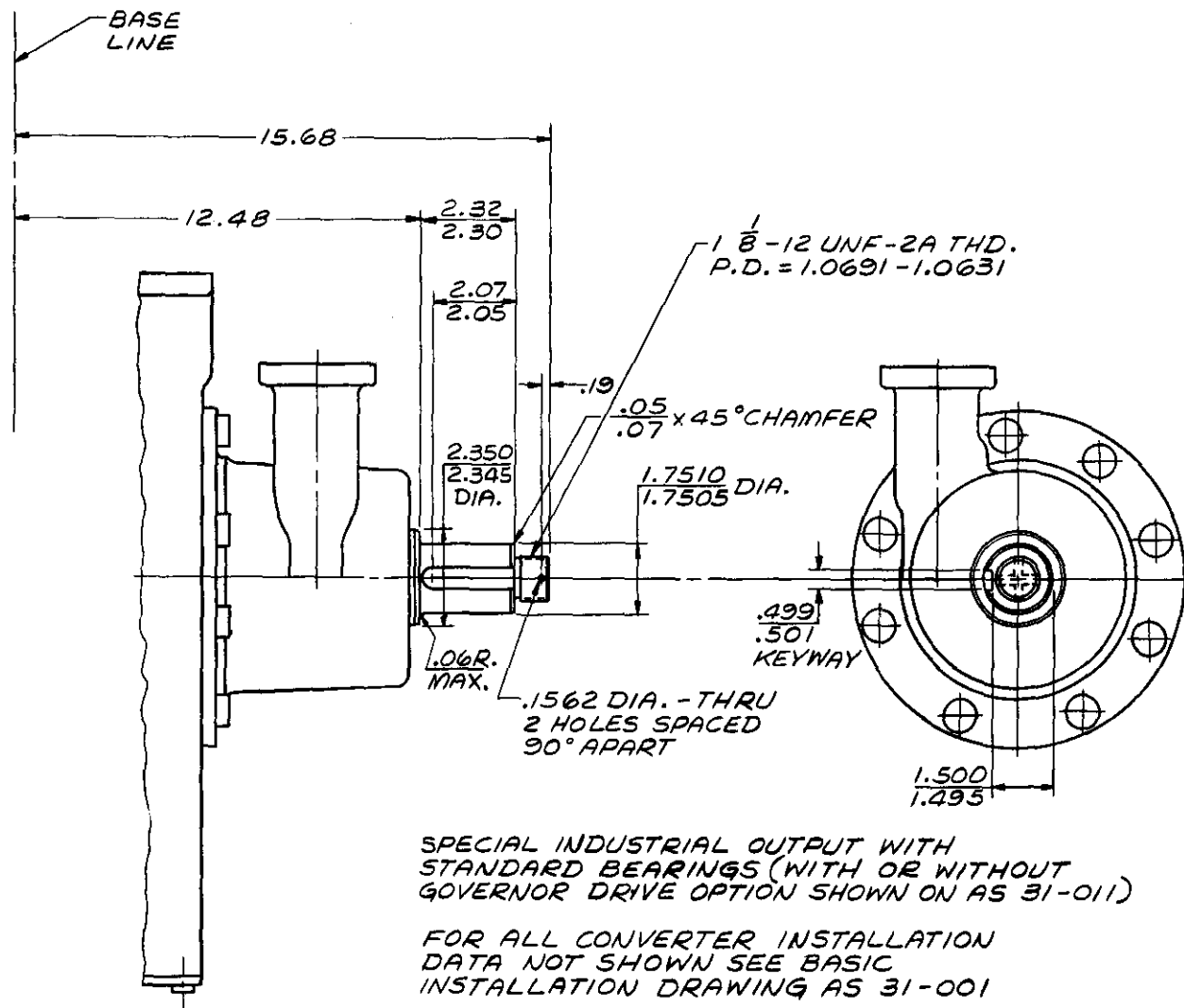
TCD

OVERCENTER FRONT DISCONNECT CLUTCH OPTION.
FOR ALL CONVERTER INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING NO. AS 31-001
(ADDITIONAL WEIGHT = 116 LBS.)

ADD TO "L" DIMENSIONS
SHOWN ON CHART
AS 00-012 FOR
DISCONNECT CLUTCH
MODELS

REVISIONS		DATE		BY		CHKD		APP'D		TITLE	
1	AS 31-010	10-1-68	10-1-68	10-1-68	10-1-68	10-1-68	10-1-68	10-1-68	10-1-68	10-1-68	10 INCH OVERCENTER FRONT DISCONNECT CLUTCH MODEL 30-5 SERIES TORQUE CONVERTER AS 31-010

ALLISON POWERTRAIN Division

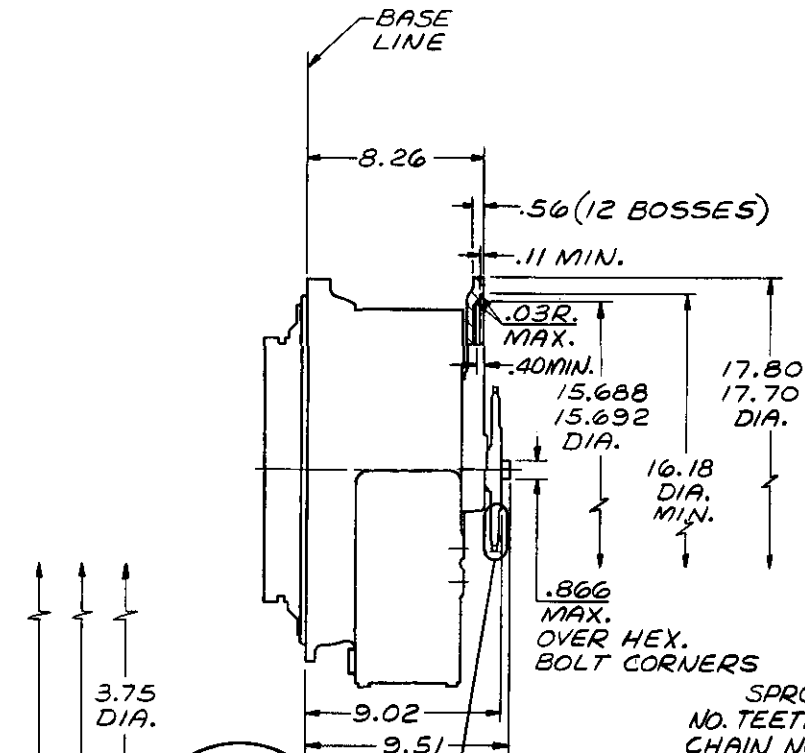


AS 31-012

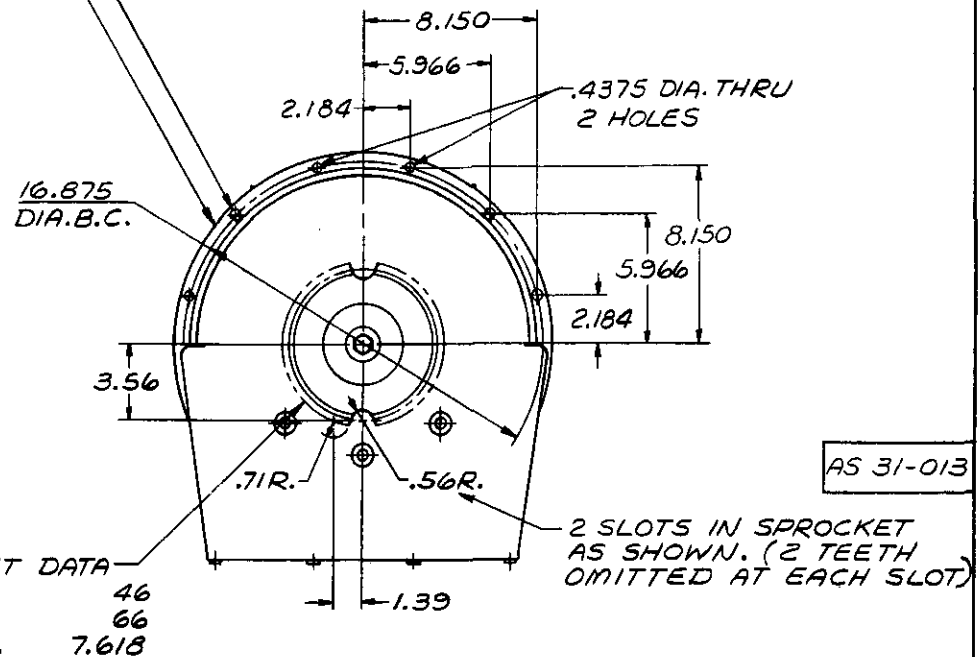
V H A B F E D C B A	QUANTITY	DESCRIPTION	UNIT	PRICE	TOTAL

TITLE: SPECIAL INDUSTRIAL OUTPUT
 MODEL: 200 & 300 SERIES TORQUE CONVERTER
 AS 31-012

OPTIONAL ADAPTER HOUSING
SHOWN ABOVE &
(REF. PART NO. 6757737)



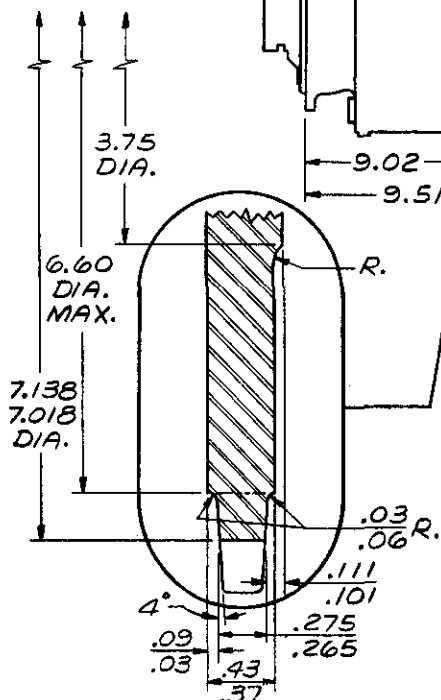
8-16 UNC-28 THD. -THRU
10 HOLES



SPROCKET DATA

NO. TEETH	46
CHAIN NO.	66
OUTSIDE DIA.	7.618

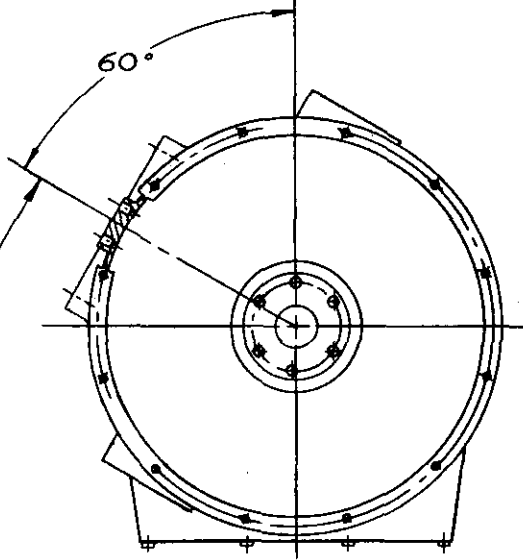
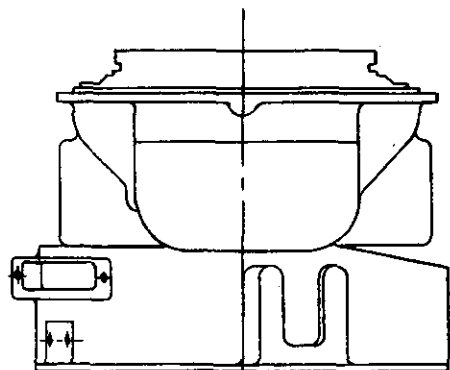
FOR ALL CONVERTER INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING AS 31-001



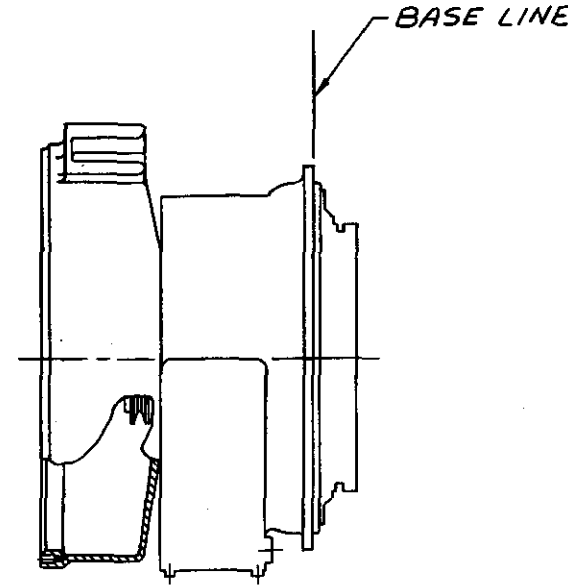
ENLARGED VIEW 2 X SIZE

J		GM		Allison TORQUEMATIC Drive
N		SERIAL NUMBER		
S				
F				
E				
D				
C				
B				
A				
DATE		TITLE		
3-18-68		CHAIN COUPLING OUTPUT		
BY: ST. JOHN		MODEL 200 & 300 SERIES		
CHECKED: ST. JOHN		TORQUE CONVERTER		
APPROVED: ST. JOHN		AS 31-013		

REF AS 31-009, AS 31-001



Ø OF GOVERNOR DRIVE
OPENING WITH CLUTCH
HOUSING ROTATED



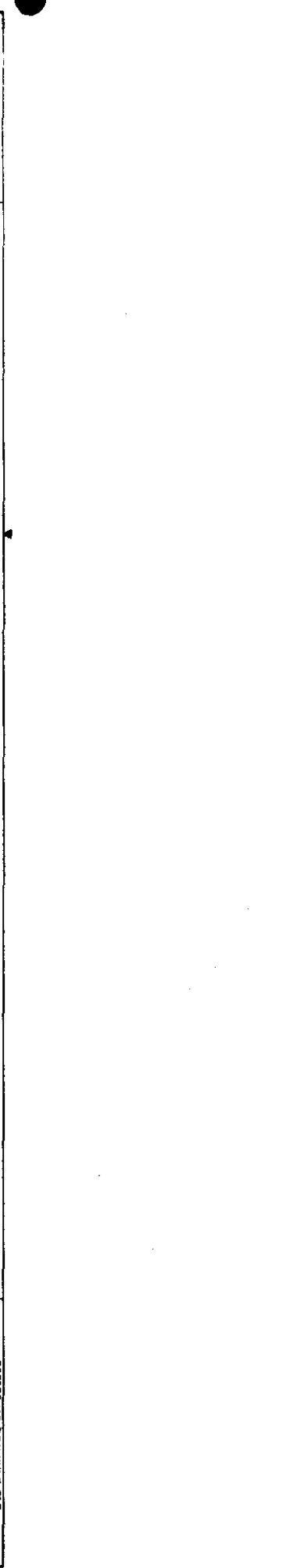
BASE LINE

AS 31-015

FOR INSTALLATION DATA NOT SHOWN
SEE SAE # 2 FLANGE DISCONNECT
CLUTCH HOUSING ON AS 31-009

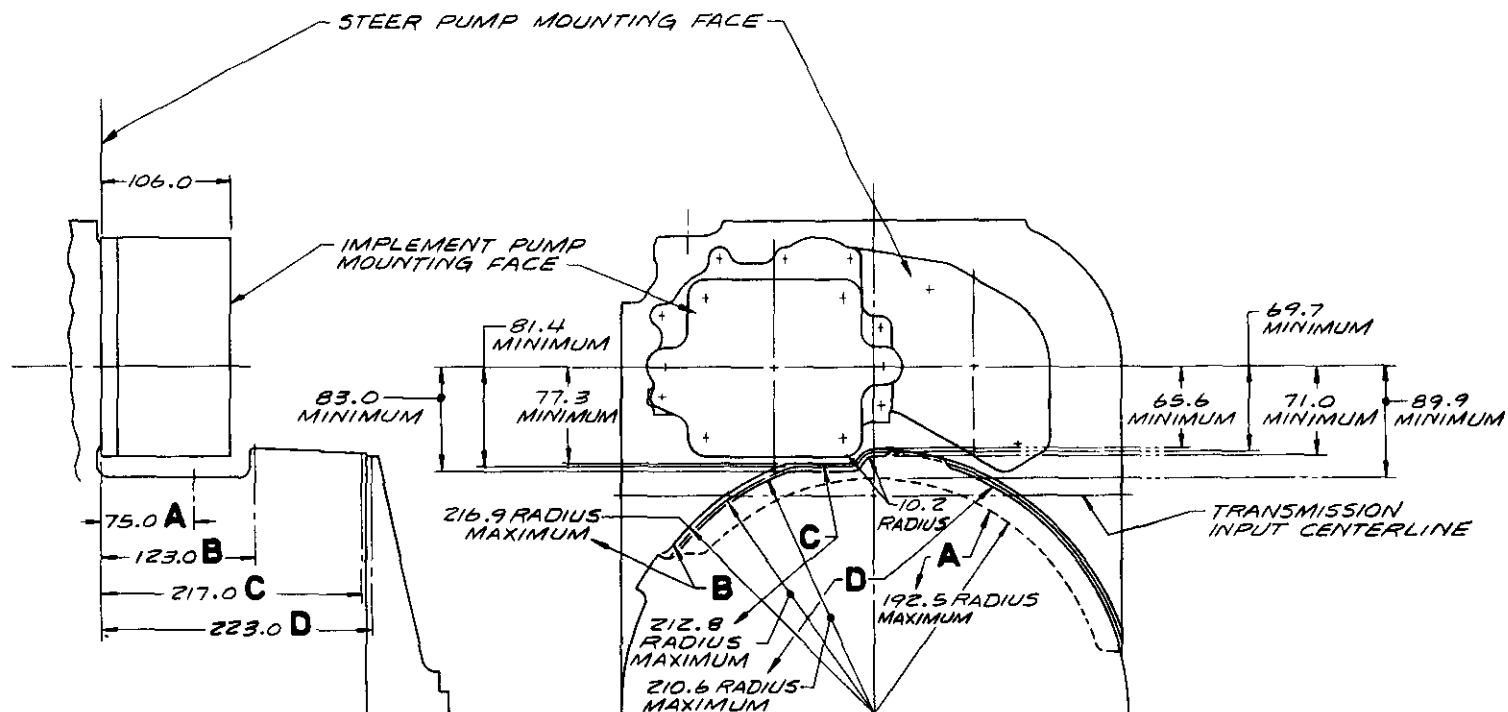
FOR ALL CONVERTER INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING AS 31-001

UNAPPROVED <table border="1"> <tr><td>J</td><td></td><td></td><td></td></tr> <tr><td>H</td><td></td><td></td><td></td></tr> <tr><td>G</td><td></td><td></td><td></td></tr> <tr><td>F</td><td></td><td></td><td></td></tr> <tr><td>E</td><td></td><td></td><td></td></tr> <tr><td>D</td><td></td><td></td><td></td></tr> <tr><td>C</td><td></td><td></td><td></td></tr> <tr><td>B</td><td></td><td></td><td></td></tr> <tr><td>A</td><td></td><td></td><td></td></tr> </table>				J				H				G				F				E				D				C				B				A				Allison Drive	
J																																									
H																																									
G																																									
F																																									
E																																									
D																																									
C																																									
B																																									
A																																									
DATE: 9-28-54 SCALE: 1/4" X SIZE DESIGNED: G.E. 4 PRO: 10-5-54 CHEK: 10-5-54 APPL: 10-5-54 DATE: 10-5-54 SCALE: 1/4" X SIZE				MODEL TC-300																																					
ALLISON DIVISION-GENERAL MOTORS CORPORATION-INDIANAPOLIS, INDIANA				AS 31-015																																					



[illegible]

MILLIMETRES TO INCHES			
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
10.2		.40	
65.6		2.58	
69.7		2.74	
71.0		2.80	
75.0		2.95	
77.3		3.04	
81.4		3.20	
83.0		3.27	
89.9		3.54	
106.0		4.17	
123.0		4.84	
	192.5		7.58
	210.6		8.29
	212.8		8.38
	216.9		8.54
217.0		8.54	
223.0		8.78	



VIEW AT F ON BASIC INSTALLATION
DRAWING AS 32-001
TRANSMISSION HOUSING OUTLINE SHOWN IN
INCREMENTS FOR CLEARANCE PURPOSES

AS 32-003

METRIC
ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

THIRD ANGLE
PROJECTION

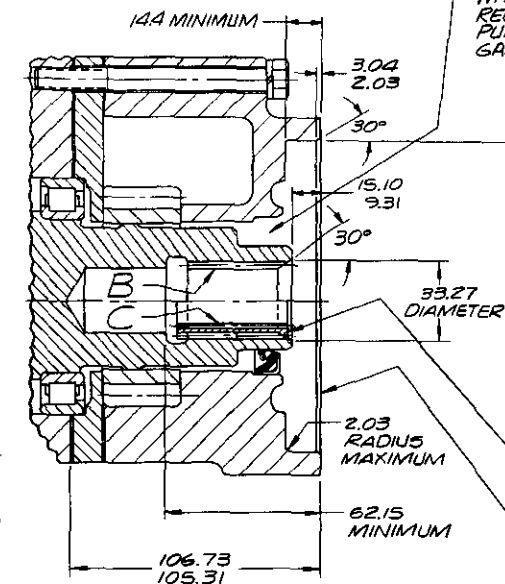


REVISIONS				TITLE: IMPLEMENT AND STEER PUMP CLEARANCE INFORMATION	
NO.	DATE	BY	CHKD.	DESCRIPTION	MODEL
1	4-28-75	H. BENNETT		INITIAL DESIGN	AS 32-003
2	4-28-75	G. ASHMAN		REVISED FOR CLEARANCE	AS 32-003
3	4-16-75	G. ASHMAN		REVISED FOR CLEARANCE	AS 32-003

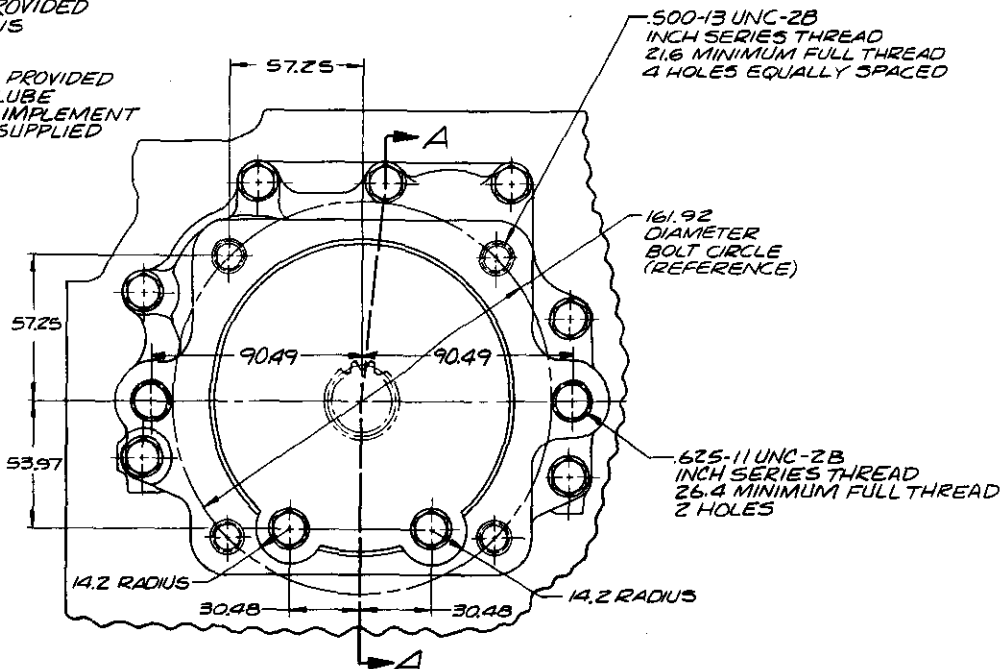
MILLIMETRES TO INCHES				MILLIMETRES TO INCHES			
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX	mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
2.03	2.03	.080	.080	ADDITIONS CHANGE B			
9.31	3.04	.366	.120			1.039	
14.2	15.10	.56	.594			3.563	
14.4		.57					
21.6		.85					
26.42		1.04					
30.48		1.200					
33.27		1.310					
53.97		2.123					
57.25		2.254					
62.15		2.447					
90.47		3.562					
105.31	106.73	4.146	4.202				
127.03	127.07	5.001	5.003				
161.92		6.375					

NO SEAL USED WITH 2 OR 4 BOLT
SOCIETY OF AUTOMOTIVE ENGINEERS
C SIZE PAD WITH POSITIVE SPLINE
LUBE. SEAL MUST BE PROVIDED
IF NO POWER TAKE-OFF IS
REQUIRED.

POWER TAKE-OFF CAVITY PROVIDED
WITH POSITIVE SPLINE LUBE
REQUIRES NON-VENTED IMPLEMENT
PUMP AND CUSTOMER SUPPLIED
GASKETS



127.07
127.03
DIAMETER



IMPLEMENT PUMP MOUNTING FLANGE
SOCIETY OF AUTOMOTIVE ENGINEERS C SIZE
2 OR 4 BOLT

OPTIONAL REDUCER COUPLINGS FROM C SIZE TO B SIZE
SPLINE DATA C (6771957 INCLUDED AS PART OF
TRANSMISSION ASSEMBLY, IF SPECIFIED)

POWER TAKE-OFF MOUNTING FACE FOR PUMP FLANGE

4532-004

DIMENSIONS IN INCHES
INTERNAL SPLINE DATA B

12/24 PITCH 14 TEETH
30° PRESSURE ANGLE
PITCH DIAMETER=1.1667 INSIDE DIAMETER=1.083-1.088
ROOT DIAMETER=1.271-1.284 TRUE INVOLUTE DIAMETER=1.250

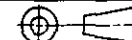
INTERNAL SPLINE DATA C

16/32 PITCH 13 TEETH
30° PRESSURE ANGLE
PITCH DIAMETER=.8125 INSIDE DIAMETER=.763-.768
ROOT DIAMETER=.904 TRUE INVOLUTE DIAMETER=.875

METRIC

ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

THIRD ANGLE
PROJECTION



Allison Transmissions

IMPLEMENT PUMP
MOUNTING FLANGE AND
SPLINE INFORMATION

MODEL T(R)T 3000-1 4532-004

SAFARI DIESEL Allison Division of General Motors - Indianapolis, Indiana

MILLIMETRES TO INCHES

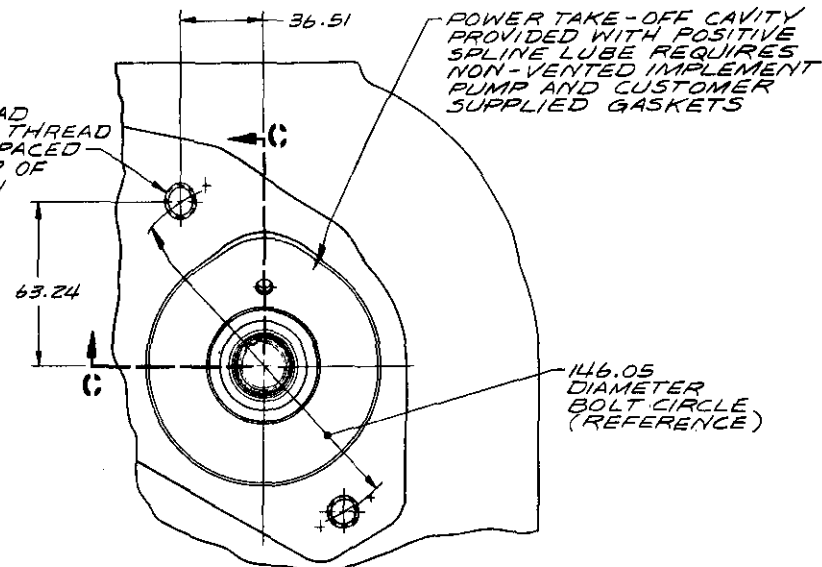
mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
.17		.007	
1.02	1.01	.04	.04
9.14	2.03	.360	.08
10.00	14.02	.3934	.5519
10.92		.430	
21.59		.850	
23.21		.914	
30.48		1.200	
36.512		1.4375	
63.240		2.4898	
101.63	101.67	4.001	4.003
146.05		5.750	

ENGINE DRIVEN POWER TAKE-OFF DRIVE

NOTE:

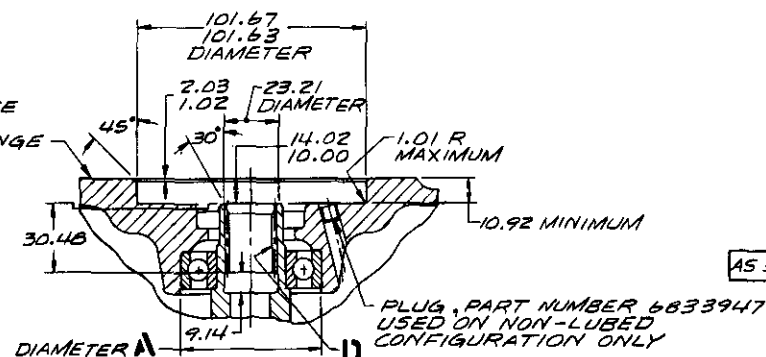
1. STANDARD POWER TAKE-OFF DRIVE RATIO
1.00 X ENGINE SPEED.
2. APPLY MOLY-COAT OR EQUIVALENT GREASE
TO FULL SPLINE LENGTH OF
SHAFT AT ASSEMBLY OF HYDRAULIC PUMP
(SPLINE D)

.500-13 UNC-2B
INCH SERIES THREAD
21.59 MINIMUM FULL THREAD
2 HOLES EQUALLY SPACED
LOCATED WITHIN .17R OF
TRUE POSITION WITH
DATUM DIAMETER A



STEER PUMP MOUNTING FLANGE
SOCIETY OF AUTOMOTIVE ENGINEERS B SIZE

POWER TAKE-OFF MOUNTING FACE
FOR SOCIETY OF AUTOMOTIVE
ENGINEERS B SIZE PUMP FLANGE



SECTION C-C
(SOCIETY OF AUTOMOTIVE ENGINEERS
B SIZE MOUNTING FLANGE)

DIMENSIONS IN INCHES

INTERNAL INVOLUTE SPLINE DATA D

FLAT ROOT SIDE FIT
NUMBER OF TEETH 13
PITCH 16/32
PRESSURE ANGLE 30°

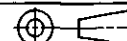
IN ACCORDANCE WITH ANS B92.1, CLASS 6

AS 32-005

METRIC

ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

THIRD ANGLE
PROJECTION



Allison Transmissions

STEER PUMP MOUNTING
FLANGE AND SPLINE
INFORMATION

MODEL TT 3420

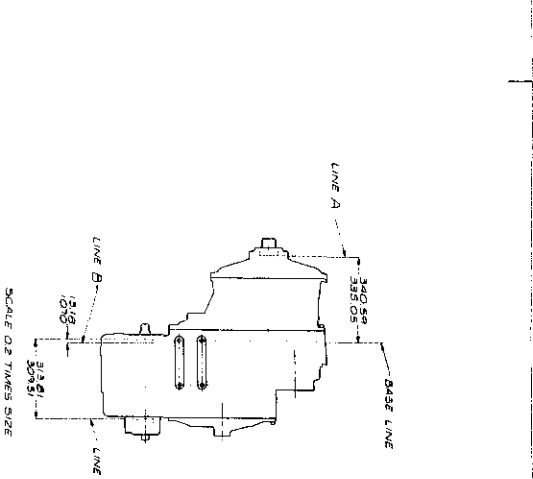
AS 32-005

DETROIT DIESEL ALLISON Division of General Motors - Detroit, Michigan

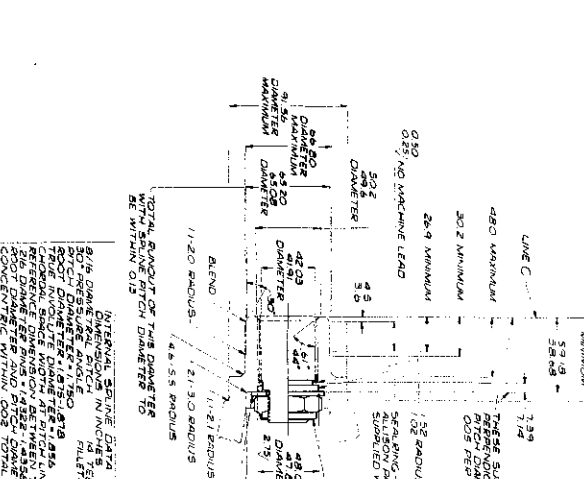
DATE	DESIGN	BY	CHK
10-28-75	11-3-75	11-3-75	11-3-75
10-28-75	11-3-75	11-3-75	11-3-75
10-28-75	11-3-75	11-3-75	11-3-75

[illegible]

DETROIT DIESEL ALLISON
PART NUMBER 675743
EQUIPPED WITH TRANSMISSION-----

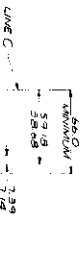


SEALING-DETROIT DIESEL
ALISON PART NUMBER 4550101
SUPPLIED WITH TRANSMISSION

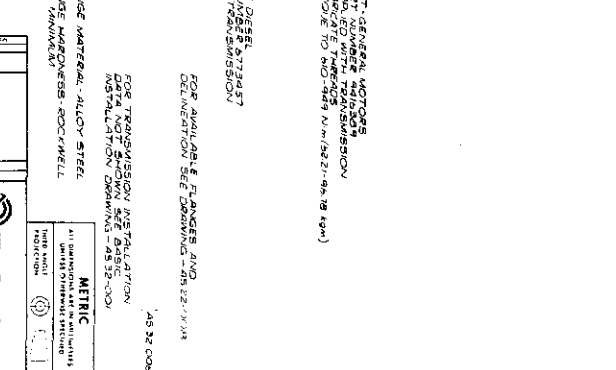


OUTPUT FLANGE
W/REINFORCEMENT

FR 2



SEALRING-DETROIT DIESEL
ALISON PART NUMBER 608010
SUPPLIED WITH TRANSMISSION



FLANGE MATERIAL-ALLOY STEEL
FLANGE HARDNESS-ROCKWELL
C 26 (MINIMUM)

**ALL DIMENSIONS
UNLESS**

METRIC

(C)

1	2
---	---

FLANGE
FLANGE
C 26 4

THE MATHEMATICS

CONFIDENTIAL

ALLOY
- ROSS

STEEL
CRAWELL

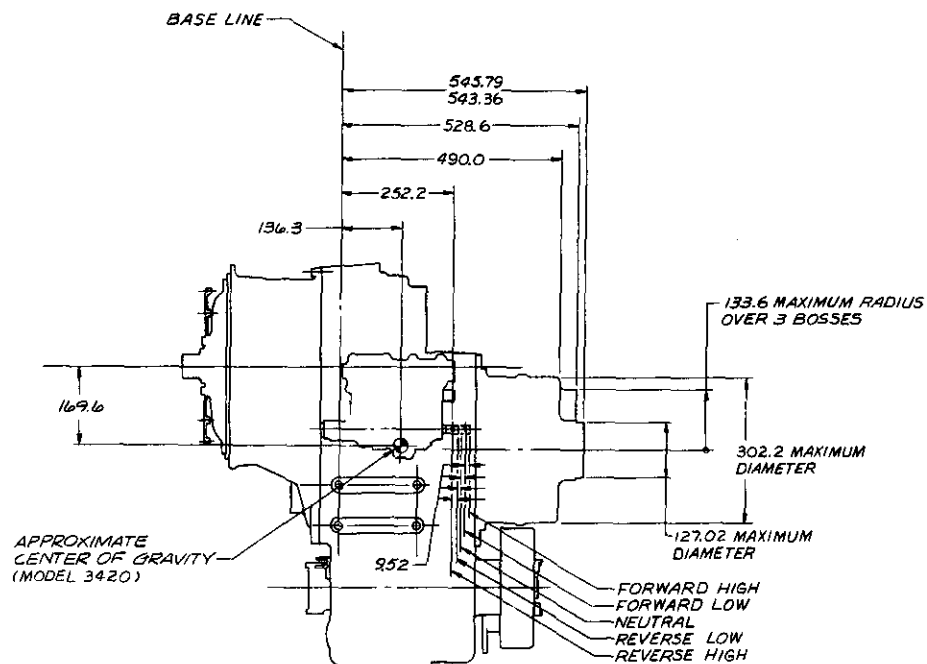
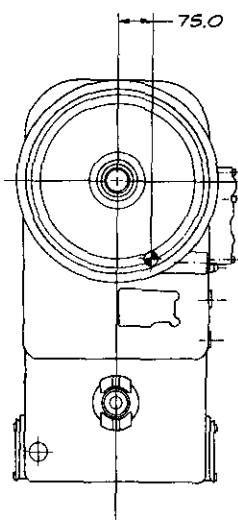
**ALL DIMENSIONS
UNLESS**

METRIC

(C)

1	2
---	---

METRIC VALUES	EQUIVALENTS
77 Kg	170 LB
84 Kg	185 LB



TRT 3420-1 84 Kg ADDITIONAL Wt
TRT 3220-1 77 Kg ADDITIONAL Wt

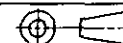
AS32-008

FOR TRANSMISSION INSTALLATION DATA
NOT SHOWN SEE BASIC INSTALLATION
DRAWING — AS32-001

METRIC

ALL DIMENSIONS ARE IN MILLIMETRES,
UNLESS OTHERWISE SPECIFIED

**THIRD ANGLE
PROJECTION**



TRANSMISSION GEAR RATIOS	
FORWARD LOW	2.516:1
FORWARD HIGH	.913:1
REVERSE LOW	2.230:1
REVERSE HIGH	.842:1



Allison Transmissions

TITLE: TWO SPEED FWD.- TWO SPEED REV.

MODEL	TRT-3000-1	4532-008
-------	------------	----------

Detroit Diesel Allison Division of General Motors - Indianapolis, Indiana

CAUTION: FILTER "IN" & "OUT" PORTS MUST BE CONNECTED WITH AN EXTERNAL CIRCUIT PRIOR TO OPERATING TRANSMISSION

S.A.E. STRAIGHT 1 1/8"-12 THREAD, "O" RING BOSS

TO FILTER
FROM FILTER

PROVIDE GAGE OR SIGNAL DEVICE TO LIMIT MAXIMUM CONTINUOUS TEMPERATURE TO 275°F.

#16 HOSE SIZE (S.A.E. NO. 7/8" I.D.)

FILTER AND BASE ASSEMBLY AC DIV PART NO. 5575224 (OR EQUIVALENT) REF AS 00-004 FOR INSTALLATION DATA

FILTER CIRCUIT SPECIFICATIONS:
AT OPERATING TEMP AND MAX SPEED IN TRAVEL GEAR—

1. MAX ALLOWABLE EXTERNAL CIRCUIT PRESSURE DROP 35 PSI
2. MAX ALLOWABLE PUMP OUTPUT PRESSURE 260 PSI

COOLANT IN

COOLANT OUT

OIL TO WATER TYPE COOLER

#16 HOSE SIZE (SAE NO. 7/8" I.D.)

S.A.E. STRAIGHT 1 1/8"-12 THREAD, "O" RING BOSS

TO COOLER
FROM COOLER

COOLER CIRCUIT PRESSURE SPECIFICATIONS:

1. AT OPERATING TEMPERATURE & MAX. SPEED IN TRAVEL GEAR—MAX. ALLOWABLE CONVERTER OUT OIL PRESSURE 65 P.S.I.—MAX. ALLOWABLE EXTERNAL CIRCUIT PRESSURE DROP 40 P.S.I.
 2. AT OPERATING TEMP. & FULL THROTTLE STALL, MIN. ALLOWABLE CONV. OUT OIL PRESSURE 40 P.S.I. CUSTOMER TO INSTALL RESTRICTION IN COOLER RETURN LINE IF NECESSARY.
 3. AT OPERATING TEMP AND FULL THROTTLE STALL, COOLER OUT OIL PRESSURE 15 PSI-30 PSI
- REMOTE OIL FILTER—GENERAL SPECIFICATIONS

TYPE OF FLUID:
MAX. OIL FLOW
OPERATING OIL PRESS.

HYDRAULIC TRANS. FLUID TYPE "C-3"
26 & 32 G.P.M. AT 2000 & 3000 R.P.M.
COLD START SURGES DEPENDENT ON FILTER AND CIRCUIT RESTRICTIONS,
OIL TEMP. AND ENGINE R.P.M.
REGULATED PRESS. AT VALVE BODY 165-190 P.S.I.

OPERATING OIL TEMP.:

275°F. MAX. CONTINUOUS

OIL PRESS. DROP:

- INITIAL (CLEAN ELEMENT) 5 P.S.I. MAX.
- MAX. PRIOR TO SERVICING 12 P.S.I.

BY-PASS VALVE INCORPORATED IN FILTER ASSEM.

- INITIAL BY-PASS PRESS. 12-15 P.S.I.
- FULL BY-PASS PRESS. 20-25 P.S.I.

DEGREE OF FILTRATION: 44 MICRONS MAX.

INTERVAL BETWEEN SERVICING: 500-1000 HRS. (DESIRABLE)

TYPE OF CONTAMINATE:

EARTH, IRON, STEEL, BRONZE, COPPER & ALUMINUM PARTICLES
ROCK, COAL & CEMENT DUST.

METHOD OF INSTALLATION:

INDEPENDENT MOUNTED WITH 3/4" MIN. PIPE TAP CONNECTIONS.

RECOMMENDED FILTER LOCATION EQUAL TO OR BELOW THE "OIL RETURN" PORT.

COOLER CIRCUIT PRESSURE DROP MEASURED BETWEEN THESE POINTS.

AS 42-003

PARTS SHOWN IN PHANTOM ARE FURNISHED BY CUSTOMER

REFERENCE:
1. HOSE SPEC.: S.A.E. 100 RS EXCEPT OPERATING TEMP. RANGE FROM -40°F. TO +275°F.
2. FOR COOLER OIL FLOW DATA SEE AS 00-051

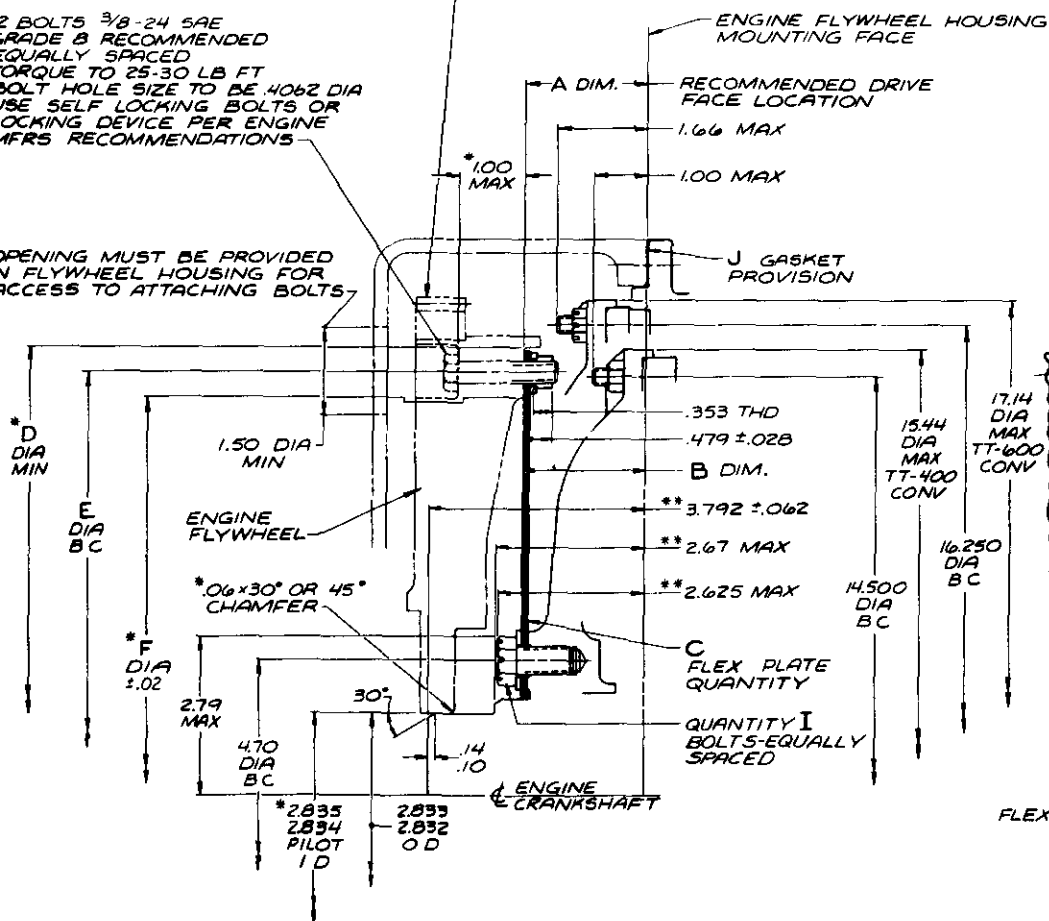
M	11-21-78	CORRECT BY-PASS FILTER PRESSURES	LM	AK
L	11-14-78	ADD FILTER CIRCUIT SPEC ON	NR	NR
K	3-17-77	REV. REF. NOTE NO. 3	PO	28
J	11-24-76	ADD FILTER ASSY NO. 1	CH	21
I	7-20-74	REV. REF. NOTE 2	CH	21
H	4-15-68	SEE REV. NOTICE	CH	21
G	5-16-66	SEE REV. NOTICE	CH	21
F	5-3-58	SEE REV. NOTICE	CH	21
E	11-22-66	SEE REV. NOTICE	AS	30
D	2-1-66	REVISED NOTE	PO	28
C	12-20-65	HAS 150 P.S.I.	CH	21
B	2-10-65	HAS TRT-4000	CH	21
A	5-11-62	10-18-62	10-19-62	
SCALE	1"=10"	1"=10"	1"=10"	
DRAWN	DR. MILLER	DR. MILLER	DR. MILLER	
CHECKED	DR. MILLER	DR. MILLER	DR. MILLER	
APPROVED	DR. MILLER	DR. MILLER	DR. MILLER	
DATE	5-11-62	5-11-62	5-11-62	



EXTERNAL HYDRAULIC CIRCUIT REQUIREMENTS
MODEL TT & TRT 4000
SERIES AS 42-003
ALLISON DIVISION—GENERAL MOTORS CORPORATION—INDIANAPOLIS, INDIANA

12 BOLTS 3/8-24 SAE
GRADE 8 RECOMMENDED
EQUALLY SPACED
TORQUE TO 25-30 LB FT
BOLT HOLE SIZE TO BE .4062 DIA
USE SELF LOCKING BOLTS OR
LOCKING DEVICE PER ENGINE
MFRS RECOMMENDATIONS

OPENING MUST BE PROVIDED
IN FLYWHEEL HOUSING FOR
ACCESS TO ATTACHING BOLTS.



ALL PHYSICAL ADAPTATION DESIGNS SHOULD
BE REVIEWED BY DETROIT DIESEL ALLISON
DIVISION GMC TRASMISSION ENGINEERING DEPT

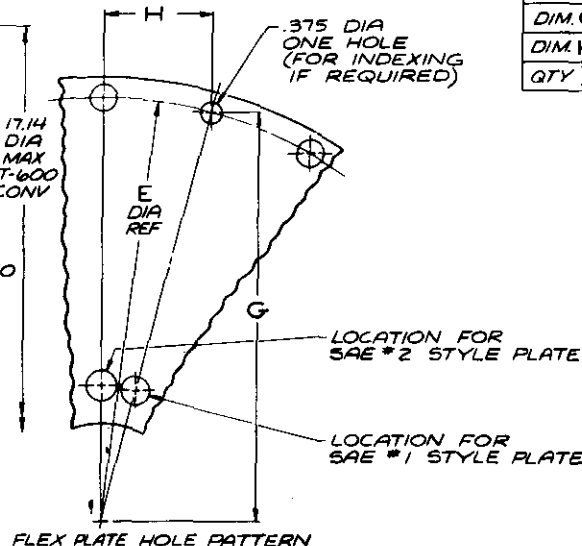
* DENOTES RECOMMENDED DIMENSION

**** DENOTES FUNCTIONAL DIMENSIONS FOR
CLEARANCE PROVISION ONLY**

ENGINE FLYWHEEL HOUSING AND FLYWHEEL
PILOT DIAMETERS MUST MEET SAE
CONCENTRICITY REQUIREMENTS

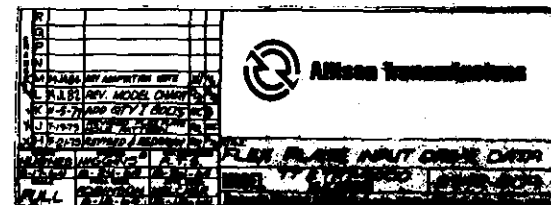
	MODEL					
	TT400 CONV 14.625 DIA FLEX PLATES		TT600 CONV 14.625 DIA FLEX PLATES		TT600 CONV 16.000 DIA FLEX PLATES	
	W/O J	WITH J	W/O J	WITH J	W/O J	WITH J
DIM A	2.108 ± .050	2.092 ± .050	2.135 ± .050	2.119 ± .050	2.140 ± .050	2.124 ± .050
DIM B	2.088 ± .036	2.072 ± .040	2.115 ± .038	2.099 ± .042	2.120 ± .043	2.104 ± .047
QTY C	4		5		5	

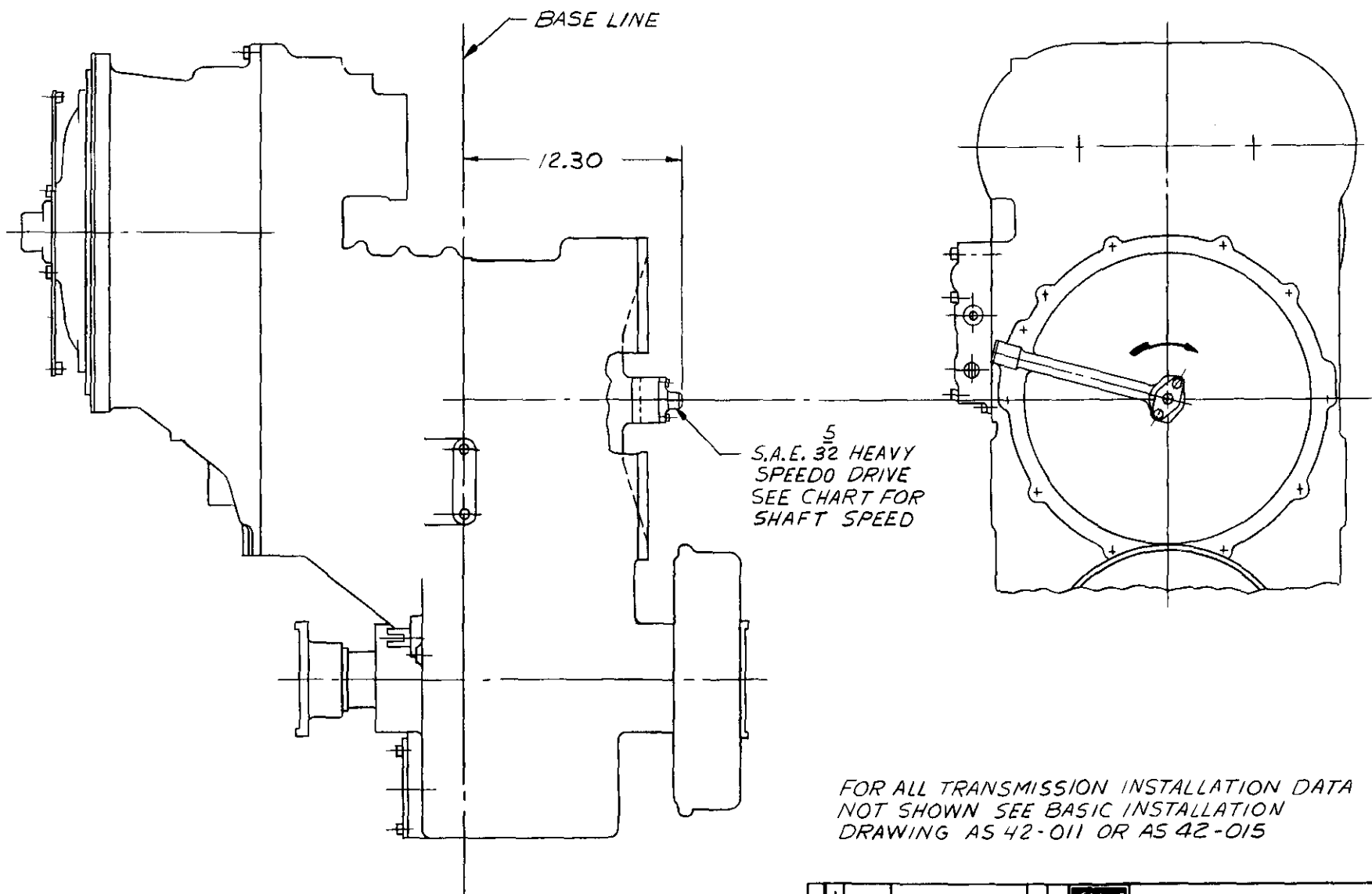
	FLYWHEEL BOLT PATTERN	
	SAE #1 HSG	SAE #2 HSG
DIA D	17.14	15.50
DIA E	16.000	14.625
DIA F	14.58	13.75
DIM G	7.932	7.063
DIM H	1.044	1.892
QTY I	12	6



PROVISION FOR A WET TYPE FLYWHEEL HOUSING
MUST BE MADE. REFER TO BASIC INSTALLATION
DRAWING A542-011 OR A542-015 FOR DETAILS.
SPLITLINE GASKET SUPPLIED ON TRANSMISSION.
SEALED STARTER, DOUBLE SEAL ON CRANKSHAFT, AND
DRAIN BACK PROVISION MUST BE SUPPLIED ON ENGINE

AS42-009



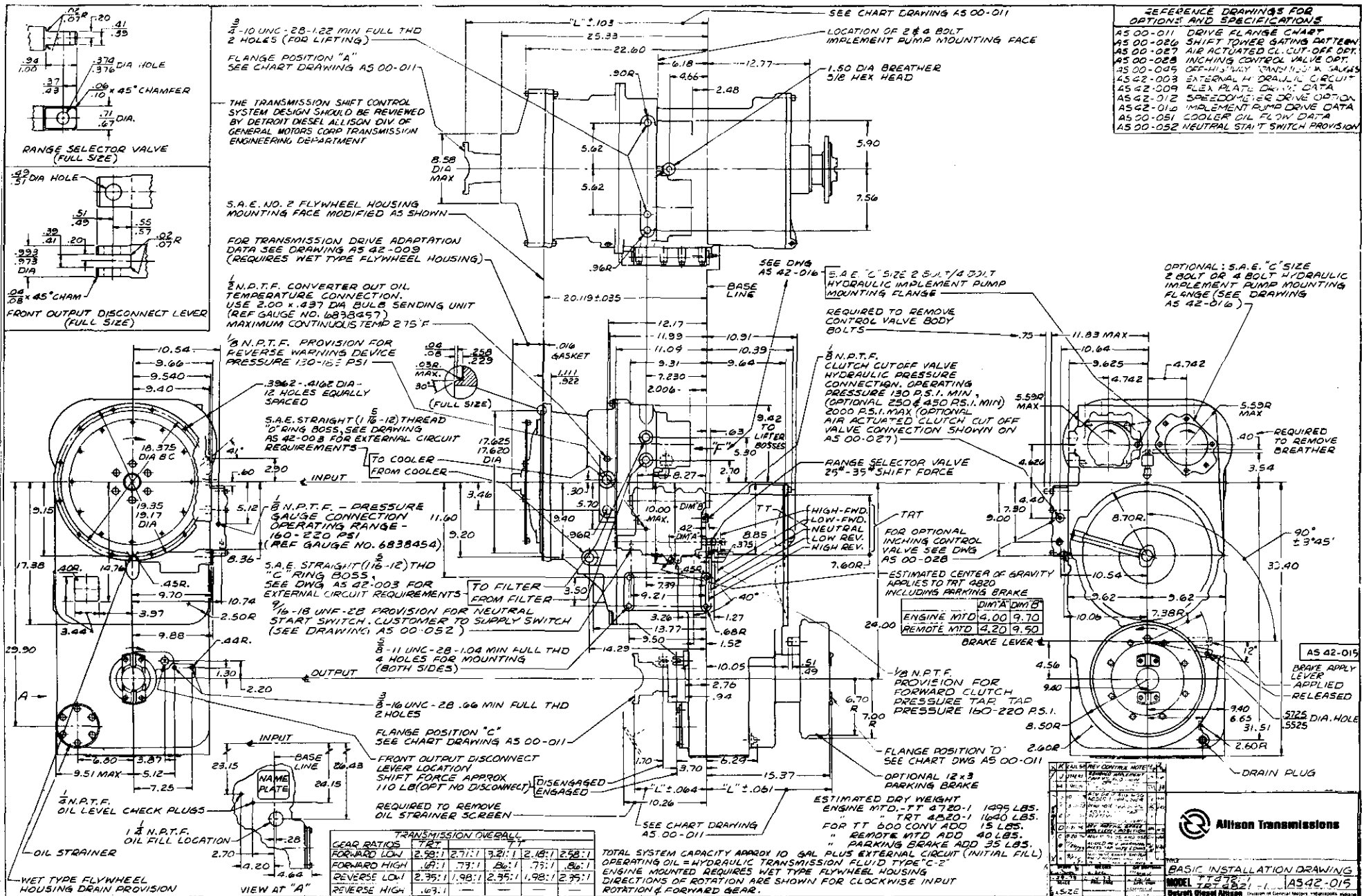


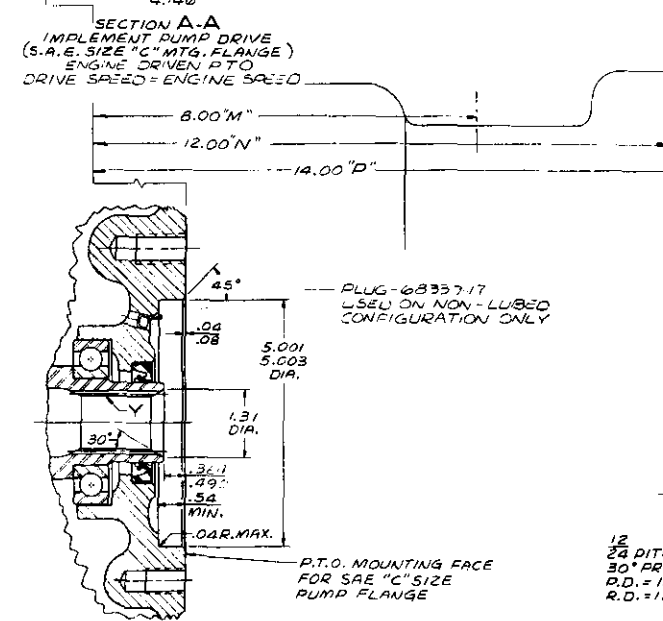
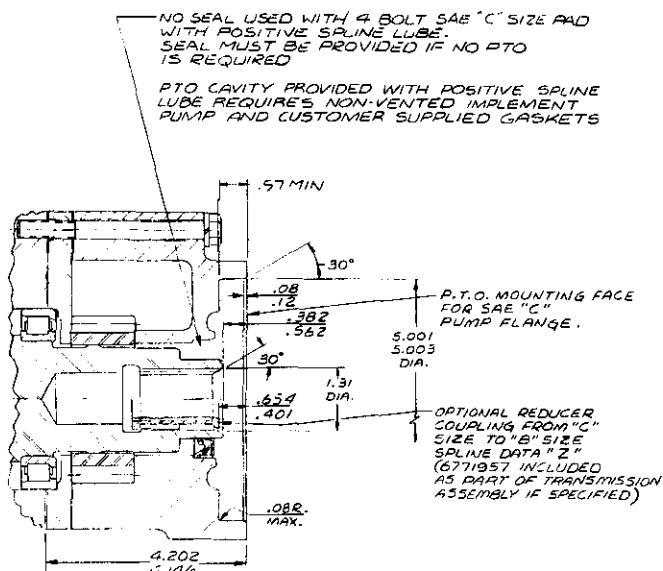
SHAFT SPEED TIMES
OUTPUT SPEED

TT MODEL	TRT MODEL
.86	1.02

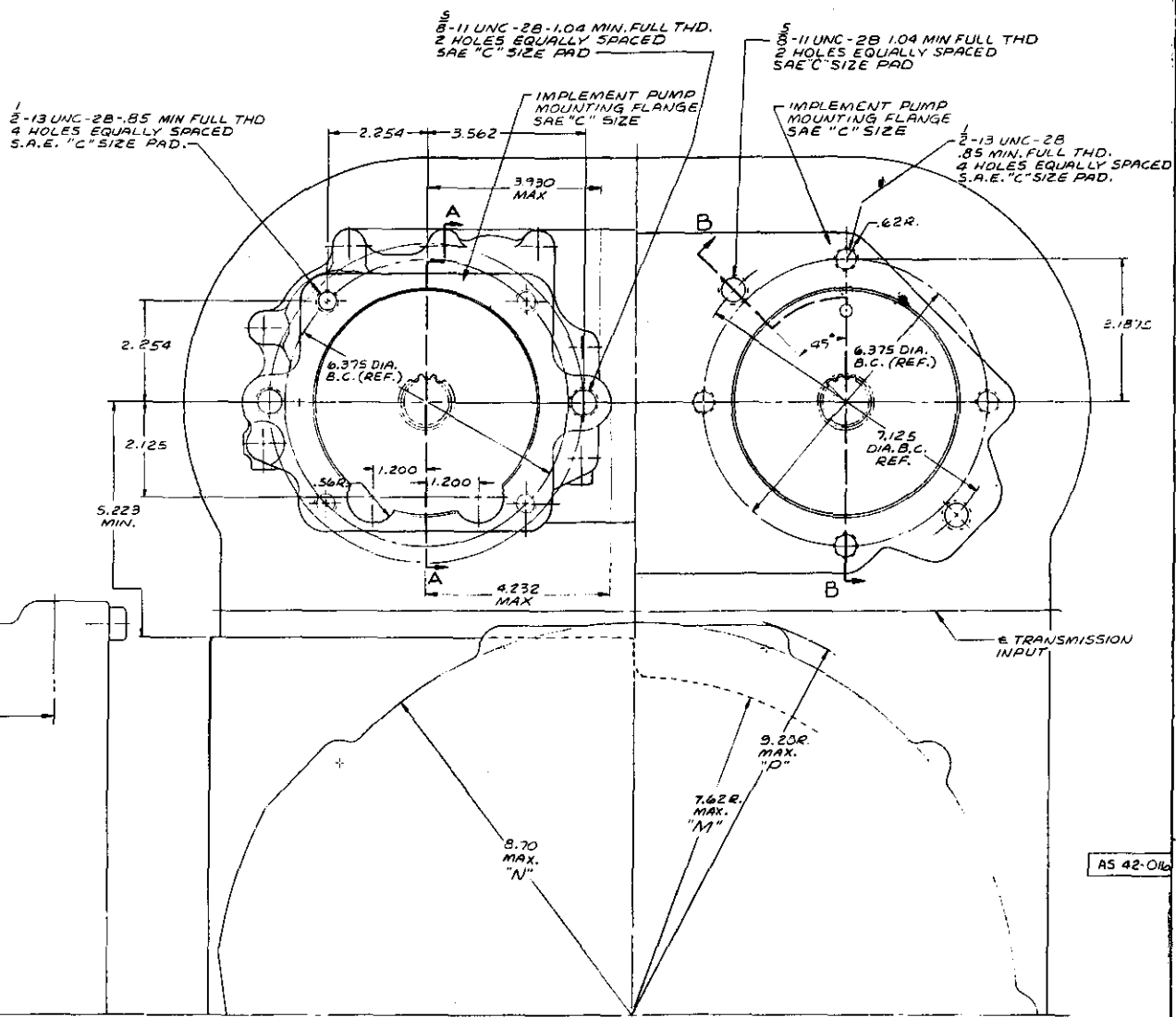
FOR ALL TRANSMISSION INSTALLATION DATA
NOT SHOWN SEE BASIC INSTALLATION
DRAWING AS 42-011 OR AS 42-015

SECTION	J					GM GENERAL MOTORS	
	H						
	G						
	F						
	E						
D							
C							
B							
A	2-8-73	ADDED	AS 42-015	11-24-69			
DESIGN	Y	ENCL	WH	12-5-69			
SCALE	11-21-69	12-5-69	12-5-69				
SIZE	4	D.P. MOELLER	V.H. LEWIS	11-26-69	11-26-69		
TITLE: SPEEDOMETER DRIVE OPTION MODEL: TT, TRT-4000 SERIES: AS 42-012 ALLISON DIVISION - GENERAL MOTORS CORPORATION - INDIANAPOLIS, INDIANA							





SECTION B-B
STEER PUMP DRIVE
(S.A.E. SIZE "C" MOUNTING FLANGE)
ENGINE DRIVEN P.T.O.
DRIVE SPEED = ENGINE SPEED



INTERNAL SPLINE DATA "Y"
(2 PLACES)

12 24 PITCH 14 TEETH
30° PRESSURE ANGLE
P.D. = 1.1667 I.D. = 1.083-1.088
R.D. = 1.271-1.284 T.I.D. = 1.250

INTERNAL SPLINE DATA "Z"
(2 PLACES)

16 32 PITCH 13 TEETH
30° PRESSURE ANGLE
P.D. = .8125 I.D. = .763-.768
R.D. = .904 T.I.D. = .875

NOTE:
-APPLY MOLY-COAT OR EQUIV. GREASE TO FULL SPLINE LENGTH OF COUPLING AND/OR SHAFT AT ASSEMBLY OF HYDRAULIC PUMP (SPLINES Y & Z)
-VENTED IMPLEMENT PUMP FLANGE RECOMMENDED

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

ALLISON Transmissions

IMPLEMENT AND STEER PUMP DRIVES

MODEL 42-015-1 AS 42-016

Revised Design Drawing



DATE
2-23-61

AS 51-001

BY
Ramsey

TRANSMISSION ENGINEERING DEPARTMENT

COOLER OIL FLOW OF THE ALLISON TC-500 SERIES
TORQMATIC CONVERTERS

Step-up Drive Ratio to Pump	1.057:1
Oil Temperature	200°F
Converter Inlet Pressure	75 PSI
Pump Inlet Pressure	4 In. Hg.
Clutch Pressure Regulating Spring	150 PSI
Hydraulic Transmission Fluid	Type C-1

OIL FLOW - GPM

32

28

24

20

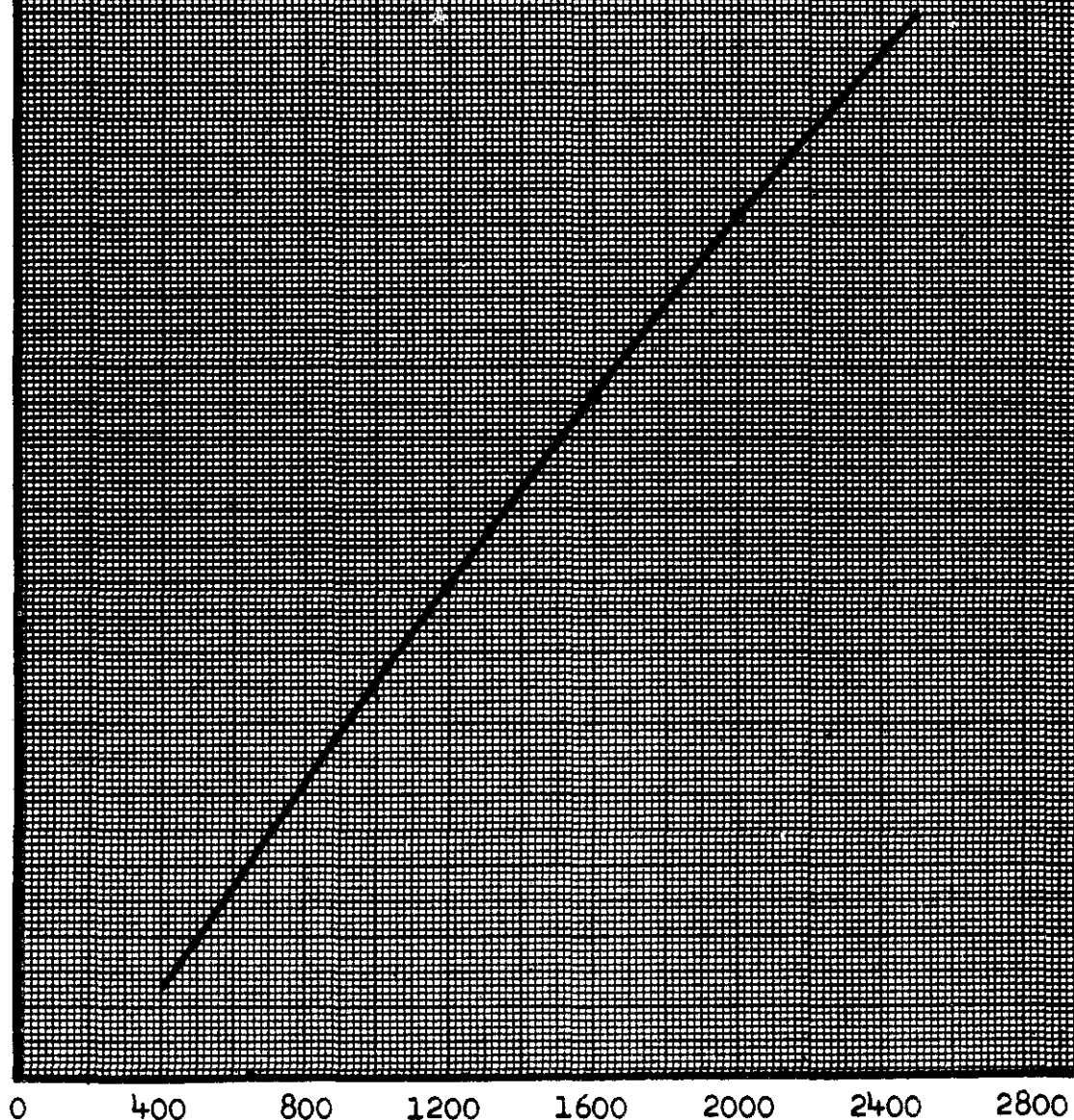
16

12

8

4

0



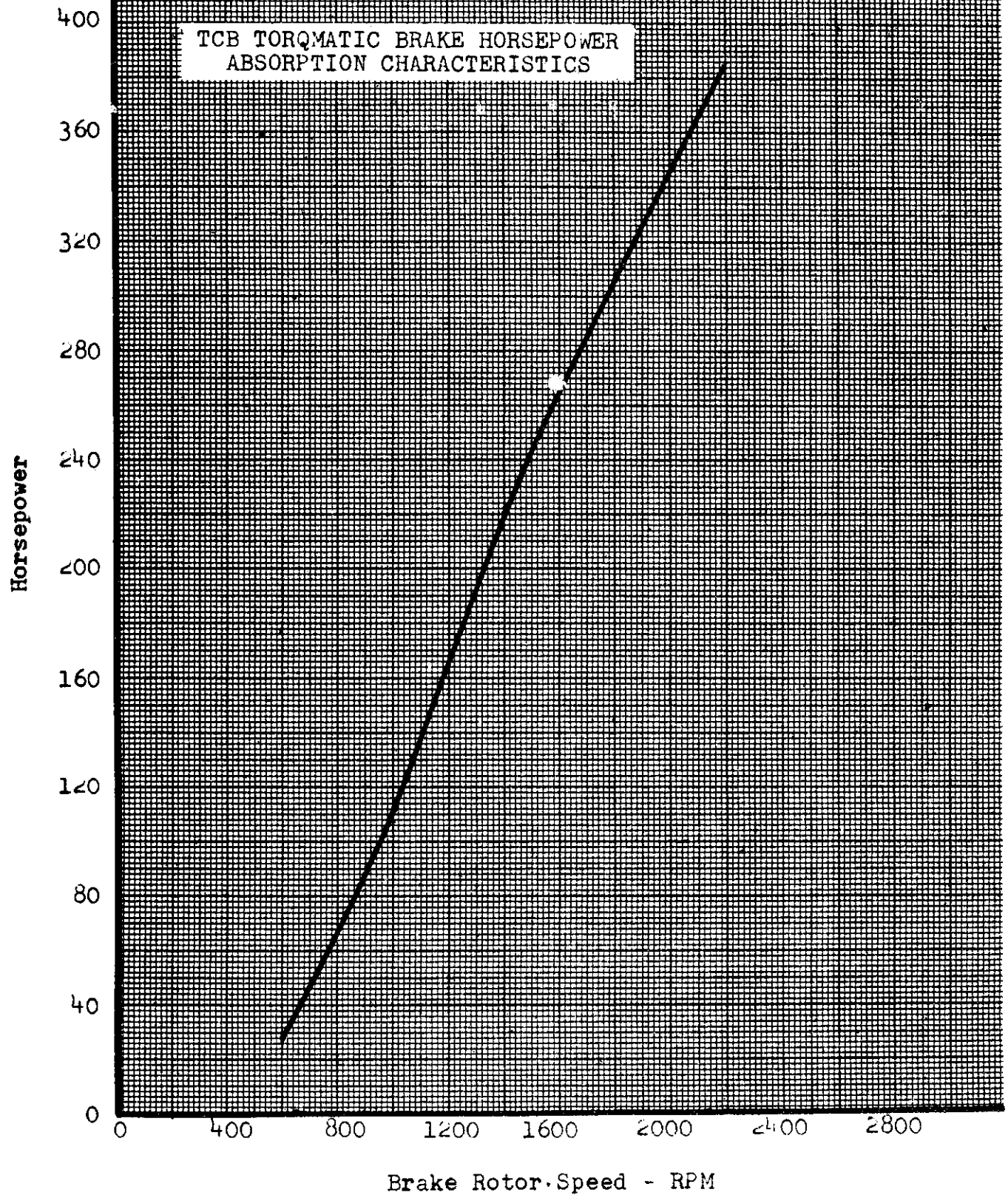
Converter Input Speed - RPM



DATE
8-15-60
BY
Ramsey

AS-51-002

TRANSMISSION ENGINEERING DEPARTMENT



CLUTCH ADJUSTMENT
AND LUBE INSTRUCTIONS
ON COVER PLATE

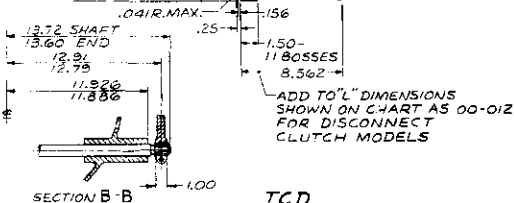
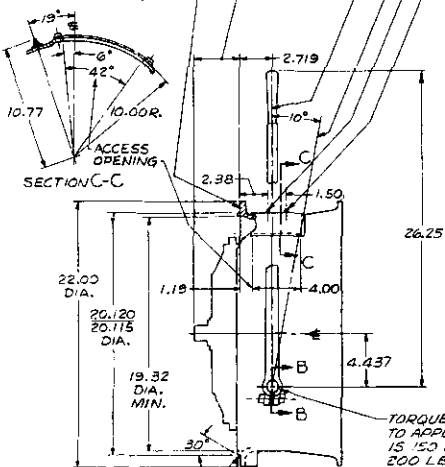
SHAFT BEARING LUBE FITTING
CLUTCH BEARING LUBE FITTING

LIVER MAY BE POSITIONED
ON CROSS SHAFT TO SUIT
INSTALLATION REQUIREMENTS
(AS S.A.E. SERRATIONS ON
BOTH ENDS OF SHAFT INDEXED
IDENTICALLY WITHIN $\pm \frac{1}{2}^\circ$)

CLUTCH DISENGAGED
LEVER POSITION
CLUTCH ENGAGED
LEVER POSITION

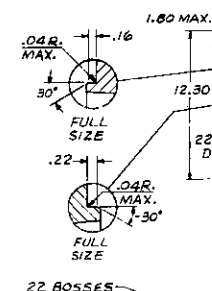
FOR CLUTCH DRIVE ADAPTATION DATA
SEE DRAWING AS 51-008

.4687 DIA. (20.875 DIA. B.C. REF.)
11 HOLES EQUALLY SPACED
ON BASIS OF 12 HOLES.
ONE HOLE OMITTED AT
1:00 O'CLOCK POSITION



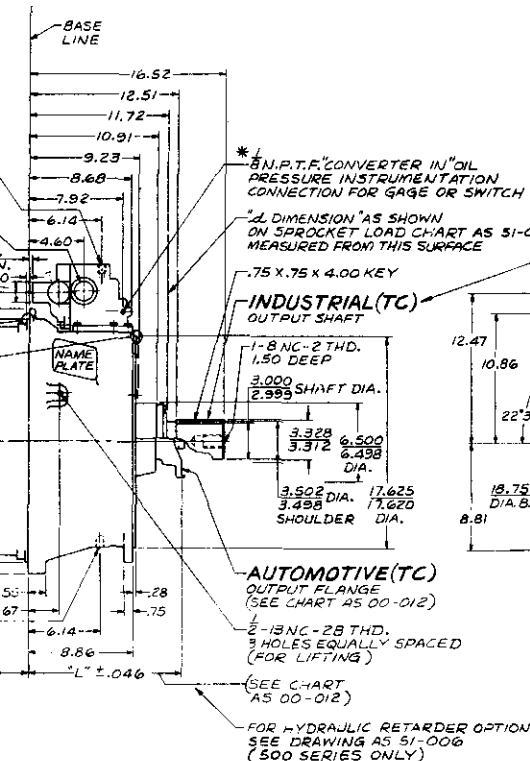
TCD
OVER CENTER
FRONT DISCONNECT
CLUTCH OPTION
(APPROX. ADDED WEIGHT = 134 LBS.)

- * 1/4 N.P.T.F. DRAIN WHEN PUMP IS BELOW HORIZONTAL
- * 1/4 N.P.T.F. OIL PUMP INLET CONNECTION (PUMP SUCTION)
- * 3/8 N.P.T.F. (OPPOSITE SIDE) FOR CLUTCH PRESSURE SUPPLY OPTION

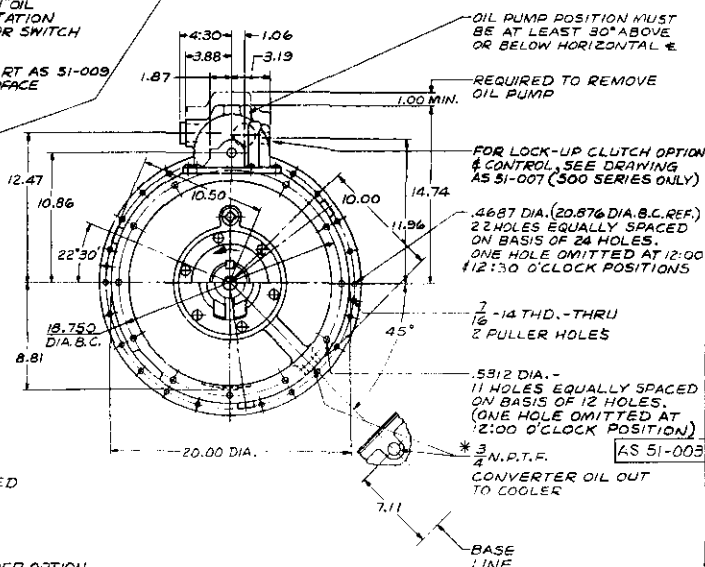


- * 3/8 N.P.T.F. DRAIN WHEN PUMP IS ABOVE HORIZONTAL
- * FOR CONVERTER DRIVE ADAPTATION DATA SEE DRAWING AS 00-001

* FOR EXTERNAL HYDRAULIC
CIRCUIT REQUIREMENTS
SEE DRAWING
AS 51-004



FOR GOVERNOR DRIVE OPTION
SEE DRAWING AS 51-012



REFERENCE DRAWINGS FOR OPTIONS AND SPECIFICATIONS

AS 00-001 CONVERTER DRIVE ADAPTATION
AS 00-008 RECOMMENDED SUPPORT CONSTRUCTION
AS 00-012 DRIVE FLANGE CHART
AS 51-004 EXT. HYDRAULIC CIRCUIT SPEC.
AS 51-006 HYDRAULIC RETARDER OPTION
AS 51-007 LOCK-UP CLUTCH OPTION
AS 51-008 CLUTCH DRIVE ADAPTATION
AS 51-009 SPROCKET LOAD CHART
AS 51-005 EXT. HYDRAULIC CIRCUIT WITH TRANS
AS 51-012 GOVERNOR DRIVE OPTIONS

RIGHT HAND ROTATION (VIEWED FROM INPUT) ONLY
OPERATING OIL-HYDRAULIC TRANSMISSION FLUID TYPE "C-1"
EXTERNAL PUMP REQUIREMENT - 10 GALLONS MINIMUM
CONVERTER CHARGING PRESSURE 50 TO 80 P.S.I. AT STALL (FULL THROTTLE) 20 P.S.I. MAX.
MAXIMUM CONVERTER OIL TEMPERATURE 250°F.
APPROXIMATE DRY WEIGHT =

AUTOMOTIVE MODEL
TC - 420 LBS.

INDUSTRIAL MODEL
442 LBS.

MOUNTING FOR S.A.E. #1 ENGINE FLYWHEEL HOUSING (MODIFIED AS SHOWN)

ALLISON TRANSMATIC Division
INSTALLATION DIAGRAM
MODEL 400 & 500 SERIES
TORQUE CONVERTER
AS 51-003

RD-77-10

"CONVERTER IN" PRESSURE TAP $\frac{1}{8}$ N.P.T.F.
 PROVIDE PERMANENT PRESSURE GAGE.
 OPERATING PRESSURE CONTROLLED
 BY COOLER CIRCUIT RESTRICTION
 (COOLER, FILTER, LINES, AND ORIFICE
 RESTRICTORS AS REQUIRED.)
 PRESSURE SPECIFICATIONS
 (AT OPERATING TEMPERATURE 200°F - 250°F)
 50 TO 80 P.S.I. AT FULL THROTTLE STALL,
 120 P.S.I. MAX. FULL THROTTLE NO LOAD
 (HIGH IDLE)

$\frac{3}{8}$ N.P.T.F.
 SEAL DRAIN (WHEN PUMP IS BELOW HORIZONTAL $\pm$)

NOTE:
 PUMP MUST BE LOCATED AT LEAST
 30° ABOVE OR BELOW HORIZONTAL $\pm$

$\frac{3}{4}$ N.P.T.F. - FOR CLUTCH PRESSURE
 SUPPLY OPTION, 200 P.S.I. MAX.

$\frac{3}{4}$ "
 $\frac{1}{16}$ " CHECK VALVE WITH
 1" DIA. BY-PASS
 ORIFICE IN VALVE.

$\frac{1}{4}$ N.P.T.F.

PUMP SUCTION LINE.
 #20 MIN. HOSE SIZE
 (S.A.E. 1 $\frac{1}{8}$ I.D.)
 MAX. ALLOWABLE VACUUM
 10" MERCURY AT PUMP INLET

SEAL DRAIN LINE (WHEN PUMP
 IS ABOVE HORIZONTAL $\pm$)
 #8 MIN. HOSE SIZE
 (S.A.E. 13/32 I.D.)
 FREE OF SHARP BENDS.
 RETURN BELOW SUMP
 OIL LEVEL.

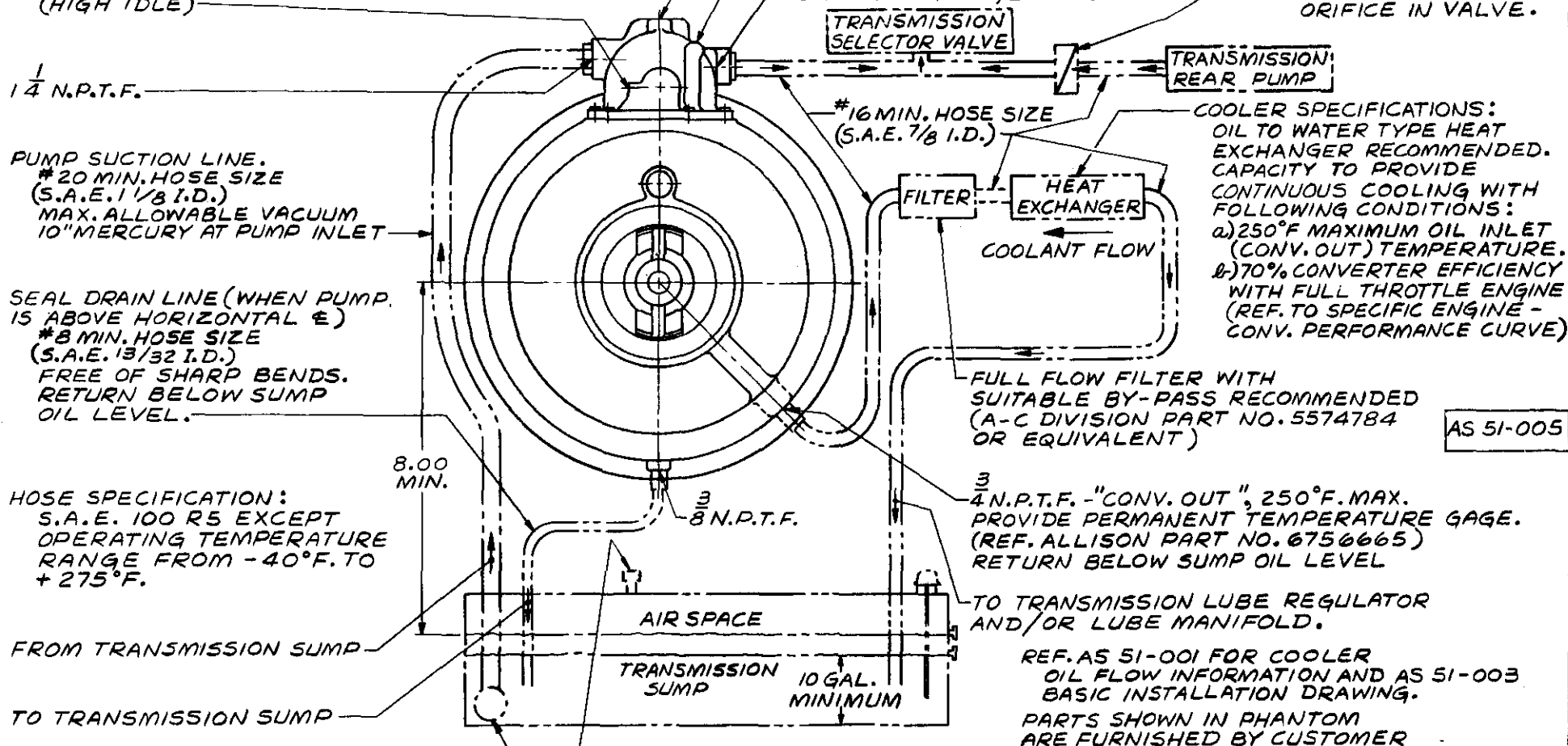
HOSE SPECIFICATION:
 S.A.E. 100 R5 EXCEPT
 OPERATING TEMPERATURE
 RANGE FROM -40°F. TO
 +275°F.

FROM TRANSMISSION SUMP

TO TRANSMISSION SUMP

PUMP SUCTION SCREEN
 REF. AS 00-013 FOR SPECIFICATIONS
 AND RECOMMENDATIONS. MUST BE
 ACCESSIBLE FOR PERIODIC CLEANING.

NOTE: REQUIREMENTS SHOWN ARE
 FOR TC CONVERTER INSTALLATIONS
 WITH POWER SHIFT TRANSMISSIONS.



COOLER SPECIFICATIONS:
 OIL TO WATER TYPE HEAT
 EXCHANGER RECOMMENDED.
 CAPACITY TO PROVIDE
 CONTINUOUS COOLING WITH
 FOLLOWING CONDITIONS:
 a) 250°F MAXIMUM OIL INLET
 (CONV. OUT) TEMPERATURE.
 b) 70% CONVERTER EFFICIENCY
 WITH FULL THROTTLE ENGINE
 (REF. TO SPECIFIC ENGINE -
 CONV. PERFORMANCE CURVE)

FULL FLOW FILTER WITH
 SUITABLE BY-PASS RECOMMENDED
 (A-C DIVISION PART NO. 5574784
 OR EQUIVALENT)

AS 51-005

$\frac{3}{4}$ N.P.T.F. - "CONV. OUT", 250°F. MAX.
 PROVIDE PERMANENT TEMPERATURE GAGE.
 (REF. ALLISON PART NO. 6756665)
 RETURN BELOW SUMP OIL LEVEL

TO TRANSMISSION LUBE REGULATOR
 AND/OR LUBE MANIFOLD.

REF. AS 51-001 FOR COOLER
 OIL FLOW INFORMATION AND AS 51-003
 BASIC INSTALLATION DRAWING.

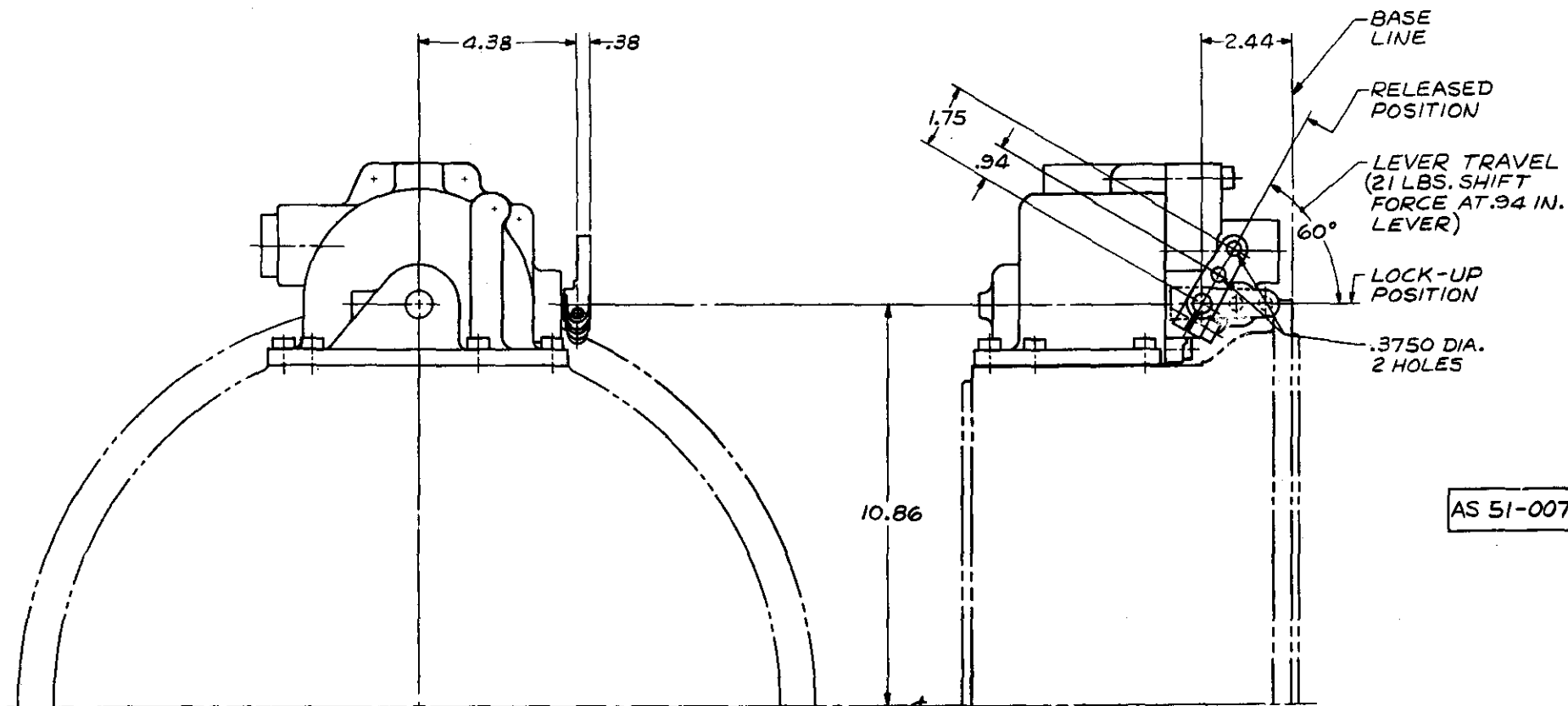
PARTS SHOWN IN PHANTOM
 ARE FURNISHED BY CUSTOMER

DATE	5-13-74	BY	WBM	CONV. IN 1/2 NPTF	21/24
DATE	2-8-73	BY	WBM	FILTER WAS 5574486	21/24
DATE	2-10-65	BY	WBM	ADDED NOTE	21/24
DATE	7-18-61	BY	HUGHES	HAFFER	21/24
DATE	12-18-63	BY	ROBINSON	APPL. ENGR.	21/24
DATE	11-7-63	BY	ROBINSON	APPL. ENGR.	21/24

GM
 GENERAL
 MOTORS

Allison TORQUE Drive

EXTERNAL HYDRAULIC CIRCUIT
 REQUIREMENTS WITH TRANSMISSION
 MODEL 400 & 500 SERIES
 TORQUE CONV. AS 51-005
 ALLISON DIVISION - GENERAL MOTORS CORPORATION - INDIANAPOLIS, INDIANA



TCL
OPTIONAL LOCK-UP CLUTCH
 (FOR ALL OTHER CONVERTER INSTALLATION
 DATA SEE BASIC INSTALLATION DRAWING
 NO. AS 51-003)

NOTE:
 SIDE LOAD ON OUTPUT SHAFT
 IS NOT PERMITTED WHEN
 USING THE LOCKUP OPTION.

REVISIONS	DATE	BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			
61			
62			
63			
64			
65			
66			
67			
68			
69			
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			

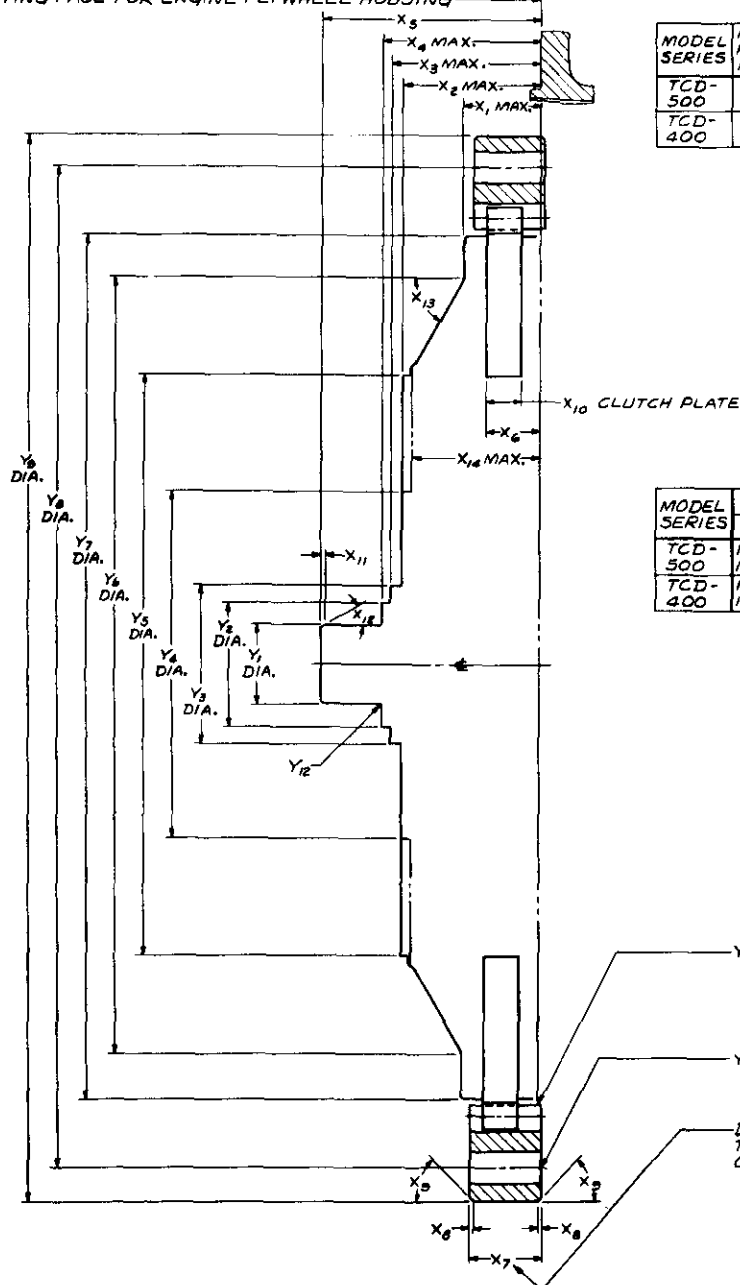
GM
 GENERAL MOTORS

Allison **Automatic Drives**

LOCK-UP CLUTCH OPTION

MODEL TCL-500 AS 51-007

MOUNTING FACE FOR ENGINE FLYWHEEL HOUSING



MODEL SERIES	FOR S.A.E. FLYWHEEL HSG. SIZE	REF. BASIC INSTALLATION DRAWING NO.	DIMENSIONS													
			X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	X ₁₂	X ₁₃	X ₁₄
TCD-500	1 MOD.	AS 51-003	1.362	2.415	2.595	2.760	3.880	.977	1.260	.06	45°	.625	.03	.07	30°	60°
TCD-400	1 MOD.	AS 51-003	1.300	2.415	2.595	2.760	3.880	.977	1.260	.06	45°	.625	.03	.07	30°	73°

MODEL SERIES	DIAMETERS & RADII											
	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	Y ₉	Y ₁₀	Y ₁₁	Y ₁₂
TCD-500	1.3772	2.17	2.75	5.69	10.00	13.40	14.89	17.250	18.375	.5312	62	.03R.
TCD-400	1.3772	1.91	2.51	5.69	9.00	13.62	14.89	17.250	18.375	.5312	62	.03R.

ENGINE FLYWHEEL AND FLYWHEEL HOUSING CONCENTRICITY AND FLATNESS SPECIFICATIONS MUST BE EQUIVALENT TO THE SAE STANDARD RECOMMENDED PRACTICE FOR "ENGINE FLYWHEEL HOUSING J617" AND "FLYWHEELS FOR INDUSTRIAL ENGINES USED FOR DRIVE-RING-TYPE OVERCENTER CLUTCHES AND TORQUE CONVERTERS J620.

AS 51-008

NOTE:
ALL PHYSICAL ADAPTATION DESIGNS SHOULD BE REVIEWED BY DETROIT DIESEL ALLISON DIVISION GMC TRANSMISSION ENGINEERING DEPT

Y₁₁ SPLINE $\frac{4}{5}$ PITCH
20° PRESSURE ANGLE
P.D. = 15.500
R.D. = 16.000
I.D. = 15.100 - 15.110

Y₁₀ DIA. - 8 HOLES EQUALLY SPACED.

DRIVE RING MUST BE LOCATED TO PROVIDE FULL WIDTH CONTACT ON CLUTCH PLATE TEETH.

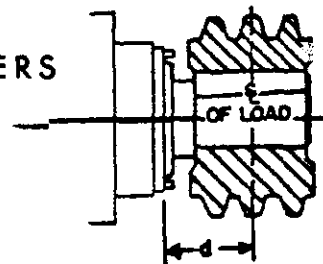


POWER TAKE-OFF SPROCKET CHART
TC-400 AND TC-500 SERIES ALLISON CONVERTERS
WITH HEAVY DUTY OUTPUT SHAFT

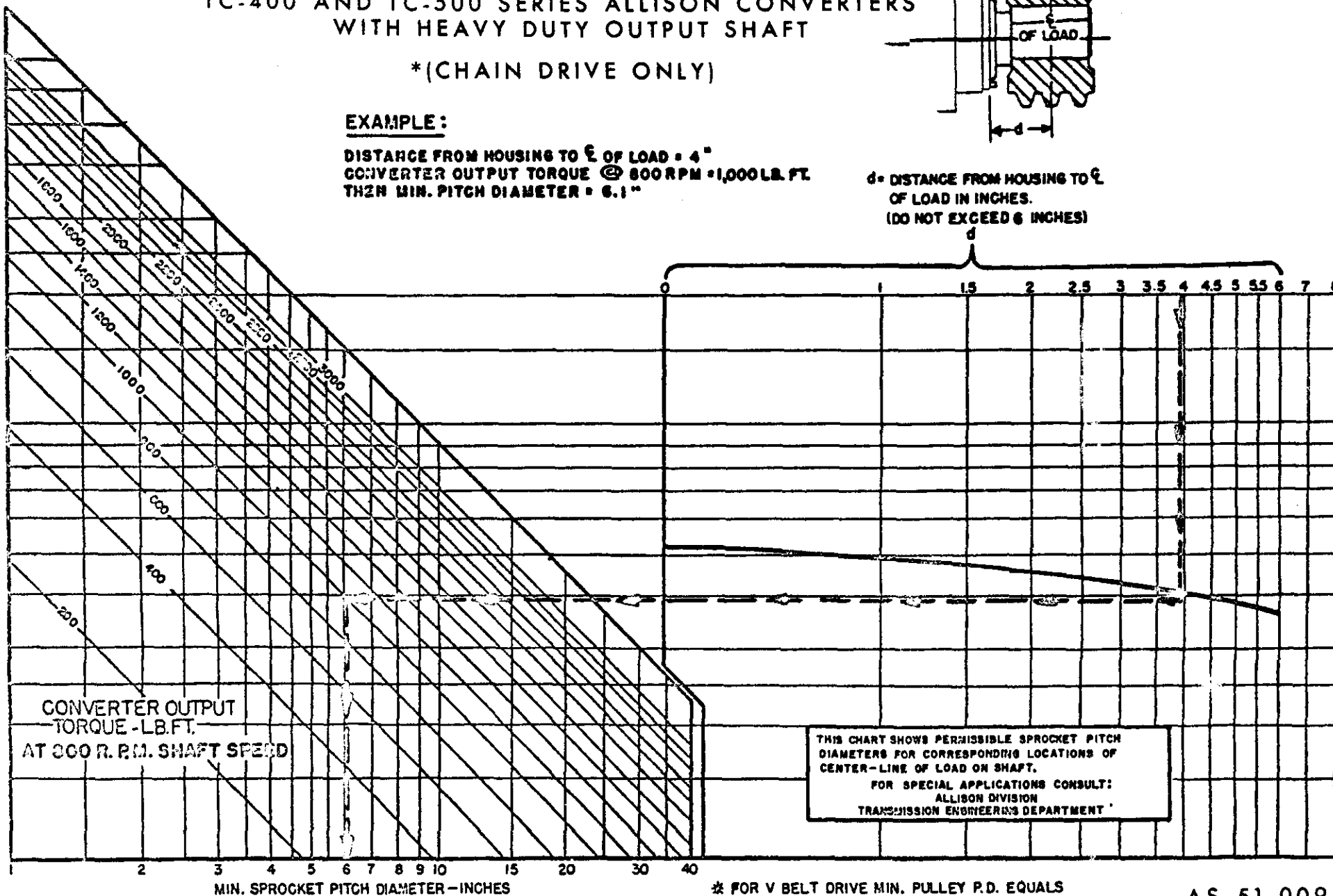
*(CHAIN DRIVE ONLY)

EXAMPLE :

DISTANCE FROM HOUSING TO $\bar{C}$ OF LOAD = 4"
CONVERTER OUTPUT TORQUE @ 800 RPM = 1,000 LB. FT.
THEN MIN. PITCH DIAMETER = 6.1"

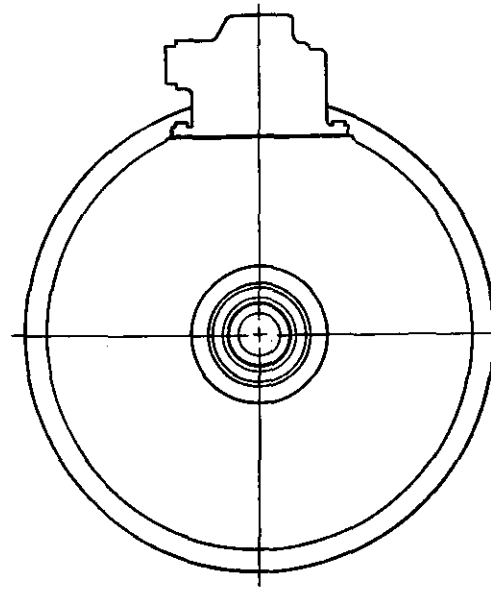
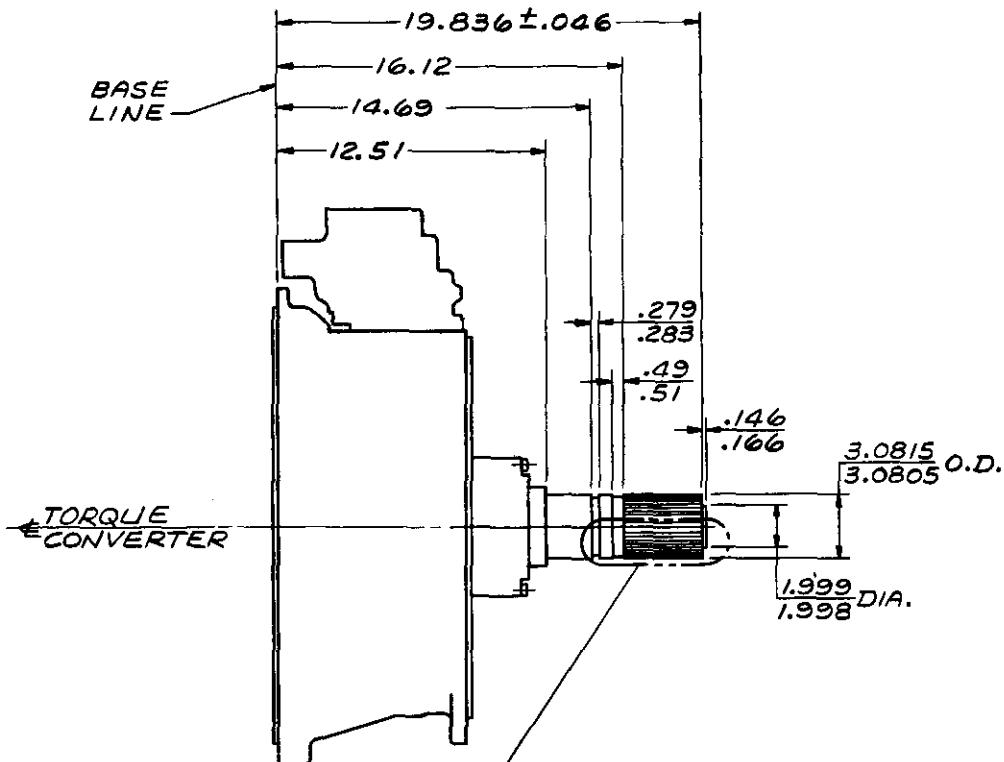


d = DISTANCE FROM HOUSING TO $\bar{C}$
OF LOAD IN INCHES.
(DO NOT EXCEED 6 INCHES)

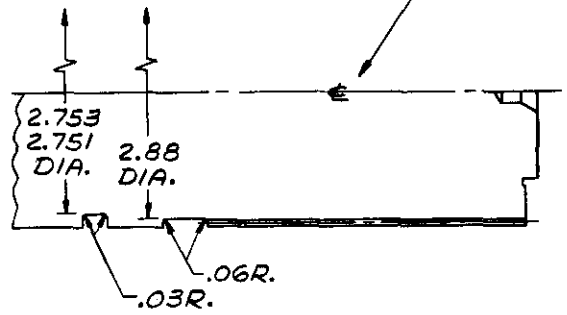


THIS CHART SHOWS PERMISSIBLE SPROCKET PITCH
DIAMETERS FOR CORRESPONDING LOCATIONS OF
CENTER-LINE OF LOAD ON SHAFT.
FOR SPECIAL APPLICATIONS CONSULT:
ALLISON DIVISION
TRANSMISSION ENGINEERING DEPARTMENT

* FOR V BELT DRIVE MIN. PULLEY P.D. EQUALS
1.5 TIMES M.N. SPROCKET P.D.



AS 51-011



FULL SIZE VIEW

FOR ALL CONVERTER INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING AS 51-003

EXTERNAL INVOLUTE SPLINE DATA
10 PITCH 30 TEETH
14°30' PRESSURE ANGLE
PITCH DIA. = 3.000, ROOT DIA. = 2.926-2.912
TRUE INVOLUTE OUTSIDE 2.955 DIA.
CHORDAL TOOTH THICKNESS
AT PITCH LINE = .1605-.1590

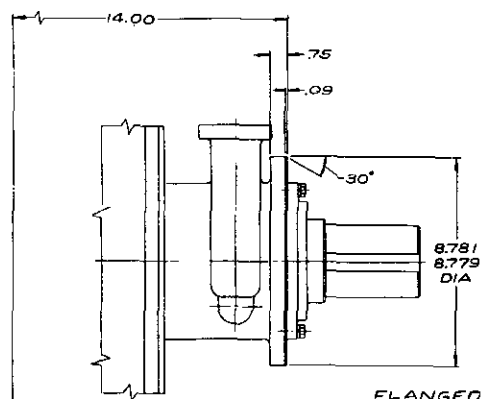
DESIGNED BY	DATE	BY	DATE
HECKES	6-18-62	HECKES	6-18-62
HECKES	6-18-62	HECKES	6-18-62
HECKES	6-18-62	HECKES	6-18-62
HECKES	6-18-62	HECKES	6-18-62
HECKES	6-18-62	HECKES	6-18-62
HECKES	6-18-62	HECKES	6-18-62
HECKES	6-18-62	HECKES	6-18-62
HECKES	6-18-62	HECKES	6-18-62
HECKES	6-18-62	HECKES	6-18-62



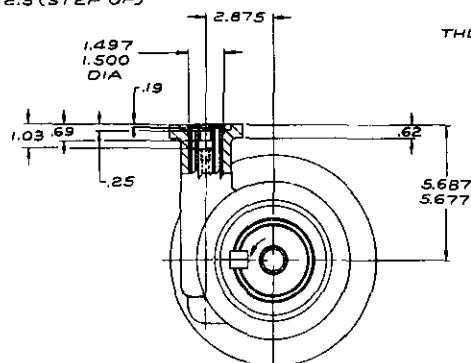
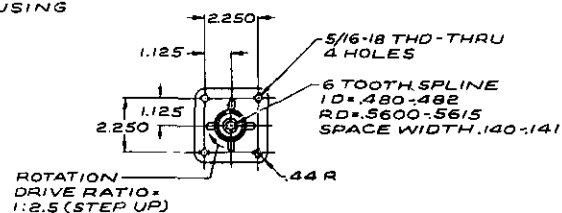
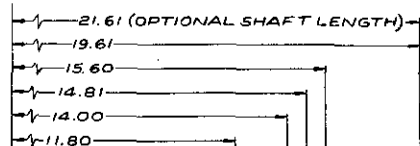
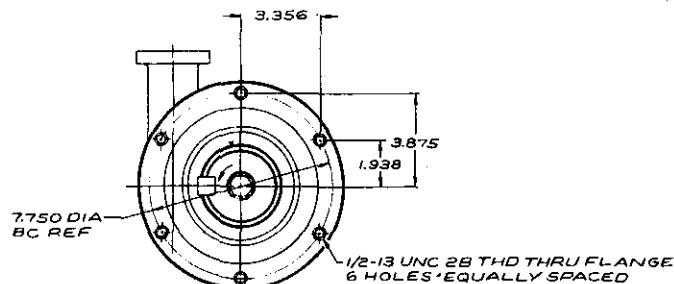
TITLE: SPECIAL OUTPUT SHAFT

MODEL TC 400 & 500 AS 51-011

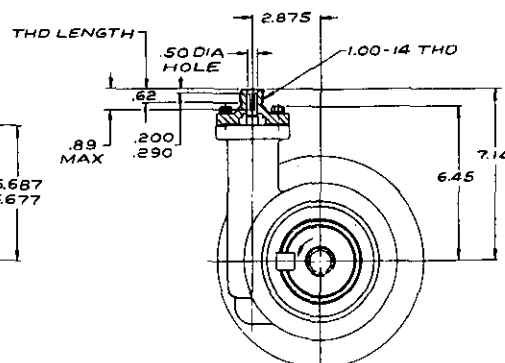
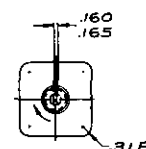
ALLISON DIVISION - GENERAL MOTORS CORPORATION - INDIANAPOLIS, INDIANA



FLANGED BEARING HOUSING



FOR DIRECT MOUNTED TAILSHAFT GOVERNOR



CABLE ADAPTER DRIVE FOR REMOTE MOUNTED TAILSHAFT GOVERNOR

BASELINE

SIDE PULL SUPPORT TO BE PROVIDED AT THIS LOCATION REF AS 00-008

TCA
SPEEDOMETER OR GOVERNOR DRIVE OPTION
(APPROX ADDED WEIGHT: 27 LBS)
FOR CONVERTER INSTALLATION DATA NOT SHOWN
SEE BASIC INSTALLATION DRAWING AS 51-003

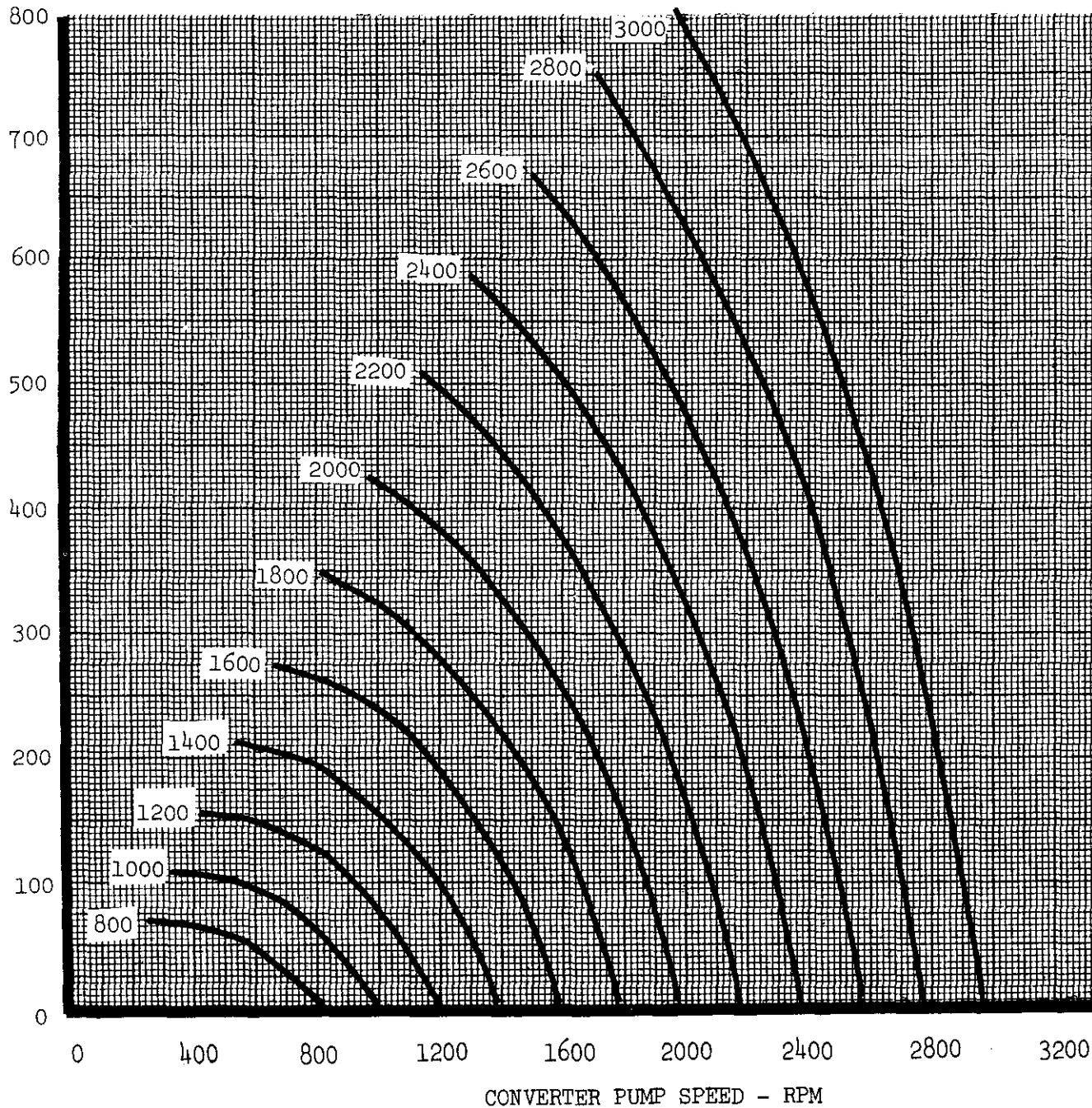
AS51-012

GOVERNOR DRIVE OPTION			
TC 400 & 500			
AS51-012			

ALLISON TC-500 AND 600 SERIES CONVERTER FEEDBACK PERFORMANCE

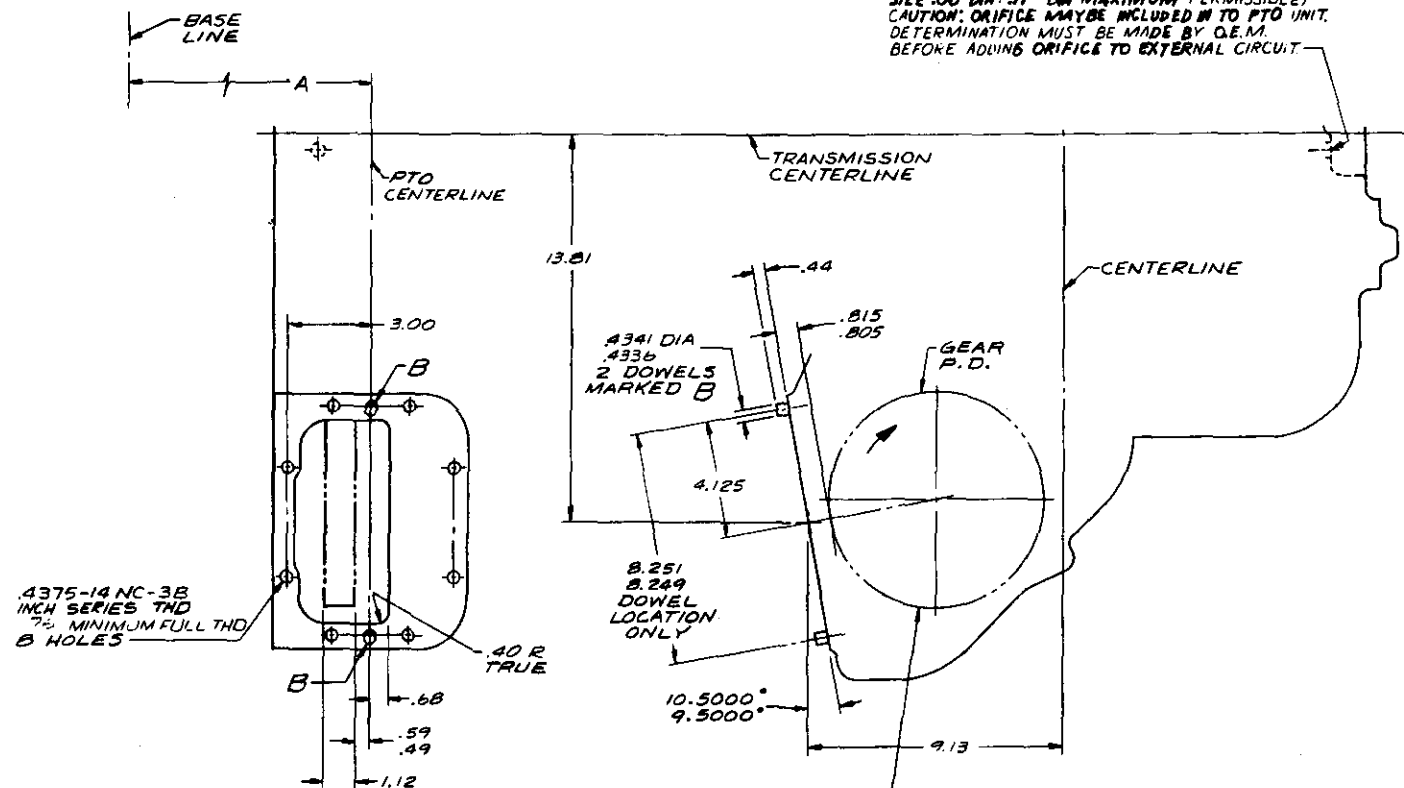
CONVERTER TURBINE SPEED - RPM

TORQUE (ENGINE, PUMP, TURBINE) - LB.FT.



	
INDIANAPOLIS, INDIANA	
	DATE 1-23-70
BY POLLOCK	AS-51-014
TRANSMISSION ENGINEERING DEPARTMENT	

AS 56-000



.4375-14 NC-3B
INCH SERIES THD
7/8 MINIMUM FULL THD
B HOLES

DRIVE GEAR DATA IN INCHES:
6 PITCH - 25° PRESSURE ANGLE
7.6667 PD - 46 TEETH - ENG. SPEED.
AFTER PTO INSTALLATION, BACKLASH
OF .005 TO .025 IS REQUIRED BETWEEN
TRANSMISSION DRIVING GEAR AND
PTO DRIVE GEAR

OPTIONAL SIDE PTO
MOUNTING FLANGE,
SAE HEAVY DUTY TYPE
(MODIFIED APERTURE)

FOR ALL TRANSMISSION INSTALLATION
DATA NOT SHOWN SEE BASIC
INSTALLATION DRAWING

BASIC INSTALLATION DRAWING	DIM. A
AS56-015, -016	21.41
AS52-023	23.66
AS56-031, -032	24.43

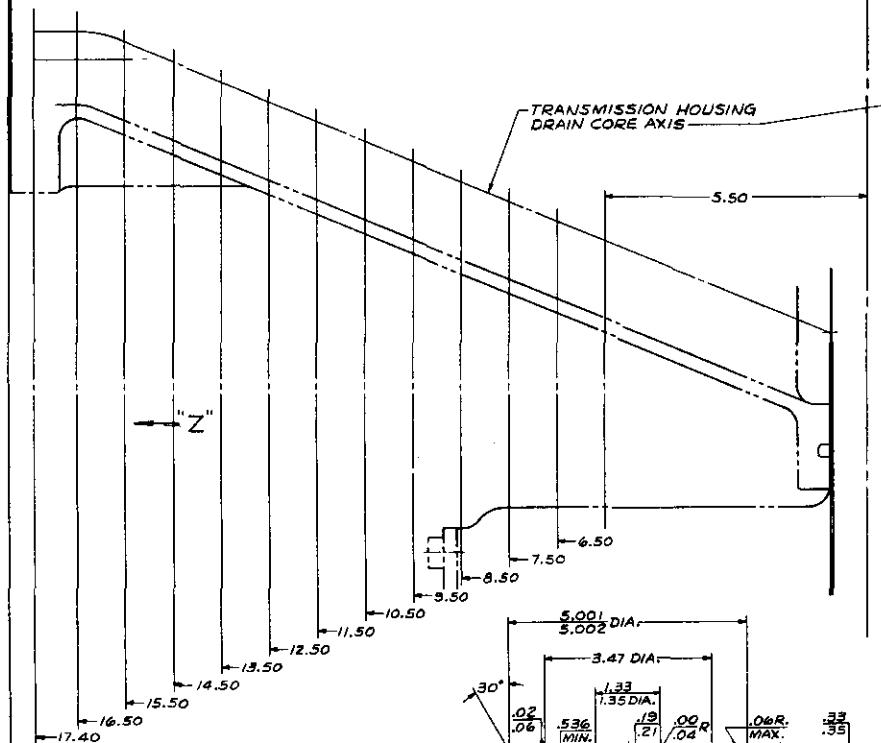
AS 56-005

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

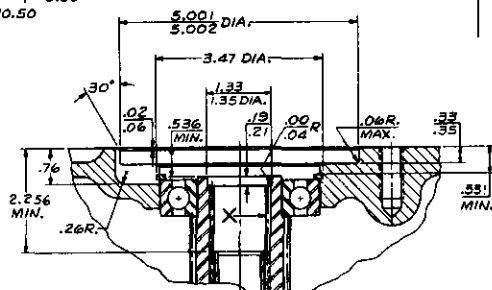


Allison Transmissions

SIDE POWER TAKE-OFF OPTION
CRT SERIES AS 56-005

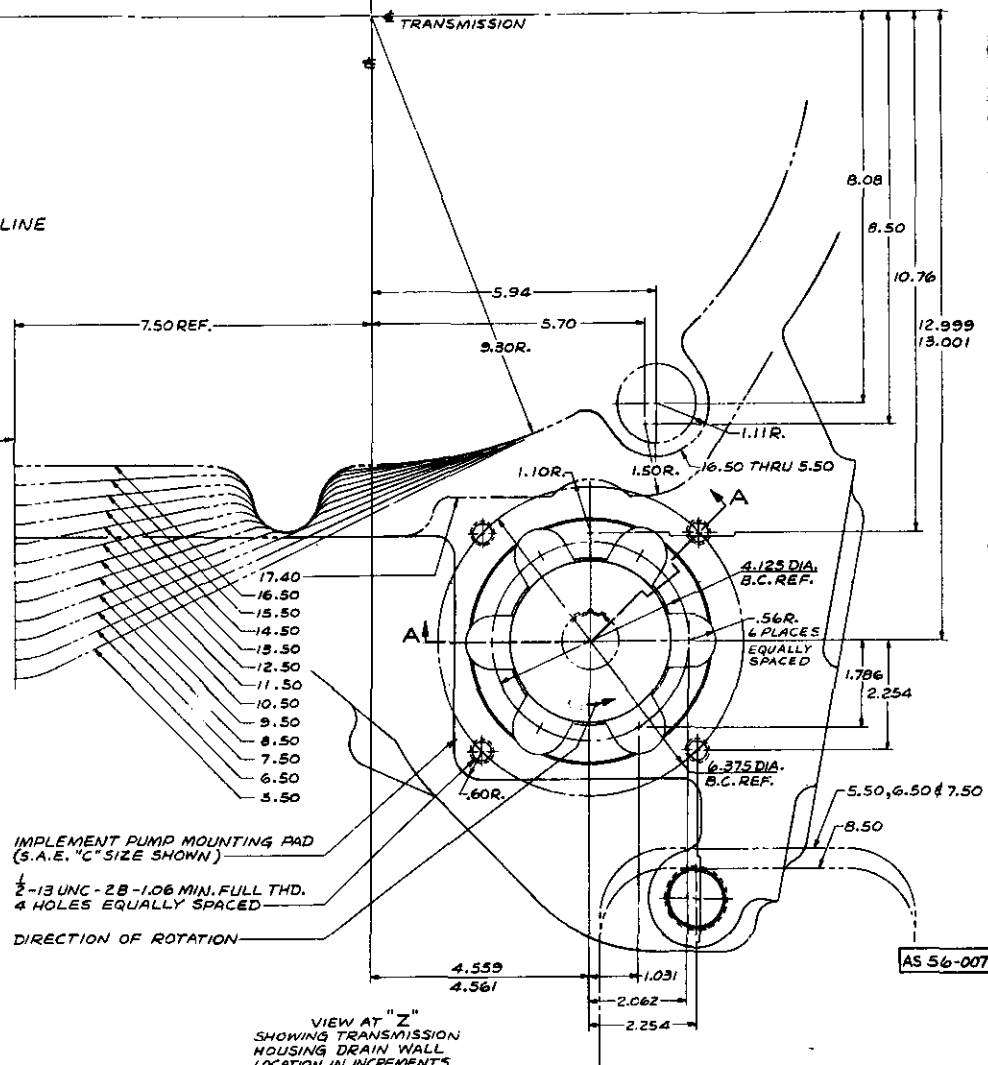


IMPLEMENT PUMP MOUNTING FACE (FOR DIMENSIONS NOT SHOWN SEE BASIC INSTALLATION DRAWING)



SECTION A-A
IMPLEMENT PUMP DRIVE
(S.A.E. SIZE "C" MOUNTING FLANGE)
ENGINE DRIVEN
P.T.O. DRIVE = ENGINE SPEED

BASE LINE



IMPLEMENT PUMP MOUNTING PAD (S.A.E. "C" SIZE SHOWN)

1/2-13 UNC-2B-1.06 MIN. FULL THD. 4 HOLES EQUALLY SPACED

DIRECTION OF ROTATION

INTERNAL SPLINE DATA "X"

12
24 PITCH
30° PRESSURE ANGLE
P.D. = 1.1667
R.D. = 1.271-1.284
14 TEETH
I.D. = 1.083-1.086
T.I.D. = 1.250

APPLY MOLY-COAT OR EQUIV GREASE TO FULL SPLINE LENGTH OF COUPLING AND/OR SHAFT AT ASSEM OF HYD PUMP

IMPLEMENT PUMP DRIVE OPTION PART NO. 34504-3451 AS 56-007	34504-3451 AS 56-007

AS 56-007

MILLIMETRES TO INCHES

mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX	mm MIN/NOM	mm MAX	in. MIN/NOM	in. MAX
0.38		.015		114.8		4.52	
0.5		.02		115.8		4.56	
	1.01		.04	116.59		4.59	
	1.52		.06	118.87		4.68	
1.52	2.54	.06	.10	121.9		4.80	
1.57		.062		127.0		5.00	
	1.78		.07	130.56		5.14	
1.83		.07		134.11		5.28	
2.18		.086		134.62		5.30	
3.35	4.01	.132	.158	135.1		5.32	
4.37	5.02	.172	.198	136.4		5.37	
6.35		.25		137.16		5.400	
10.16		.40		144.3		5.76	
11.9		.469		151.38		5.96	
11.94	13.46	.47	.53	156.97		6.18	
12.45	12.95	.49	.51	166.9		6.57	
12.70	12.78	.500	.503	173.2		6.82	
12.7		.50		175.26		6.90	
14.28		.5625		177.3		6.98	
15.0		.59		183.97	184.09	7.243	7.248
15.24		.60		187.96		7.40	
17.27		.70		191.26		7.53	
19.05		.75		191.5		7.54	
19.30		.76		203.20		8.00	
20.3		.80		204.5		8.05	
22.6		.89		206.76		8.14	
22.9		.90		208.28		8.20	
	24.38		1.2458	215.90		8.50	
25.9		1.02		219.7		8.65	
26.0		1.02		222.25		8.75	
26.40		1.04		223.0		8.78	
26.92	28.45	1.06	1.12	224.0		8.82	
33.0		1.30		226.06		8.90	
33.02		1.30		227.8		8.97	
36.58		1.44		228.6		9.00	
37.47	41.27	1.475	1.625	229.11		9.02	
41.66		1.64		232.7		9.16	
45.21		1.78		233.7		9.20	
46.0		1.81		234.95		9.250	
				236.2		9.30	
61.98		2.44		237.57		9.35	
64.0		2.52		241.3		9.50	
77.0		3.03		257.30		10.13	
				261.1		10.28	
78.28		3.082		262.13		10.32	
82.55		3.25		262.6		10.34	
89.7		3.53		265.18		10.44	
90.6		3.56		266.7		10.50	
99.1		3.90		274.3		10.80	
101.60		4.00		275.3		10.84	
101.6		4.00		279.4		11.00	
110.0		4.33		281.9		11.10	
114.0		4.48		287.53		11.32	
114.3		4.50		289.0		11.38	

AS 56-015

 Amicon Transmissions	SHEET 2	
	BASIC INSTALLATION DRAWING	
	CRT 5633	
	AS 56-015	