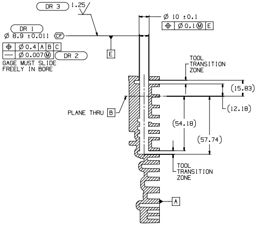
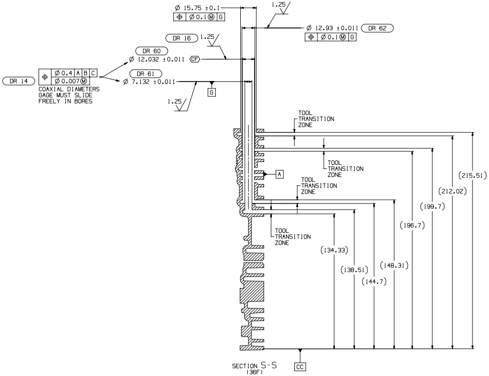
24062511

GENERAL MOTORS



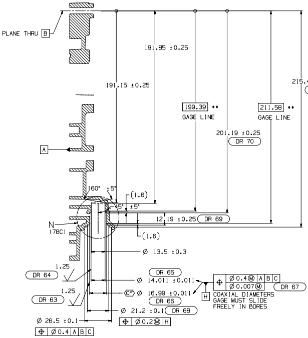
DR 3
1.25
DR 1
Ø 8.9 ±0.011 CF
⊕ Ø0.4 A B C
— Ø0.007Ⓜ
DR 2
GAGE MUST SLIDE FREELY IN BORE
E
Ø 10 ±0.1
⊕ Ø0.1Ⓜ E
TOOL TRANSITION ZONE
(15.83)
(12.18)
PLANE THRU B
(54.18)
(57.74)
TOOL TRANSITION ZONE
A

SECTION L-L
(37F)
LUBE CONTROL VALVE



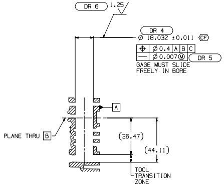
Ø 15.75 ±0.1
⊕ Ø0.1Ⓜ G
1.25
Ø 12.93 ±0.011
DR 62
⊕ Ø0.1Ⓜ G
DR 16
1.25
DR 60
Ø 12.032 ±0.011 CF
DR 14
⊕ Ø0.4 A B C
Ø0.007Ⓜ
COAXIAL DIAMETERS GAGE MUST SLIDE FREELY IN BORES
DR 61
Ø 7.132 ±0.011
G
1.25
TOOL TRANSITION ZONE
TOOL TRANSITION ZONE
A
TOOL TRANSITION ZONE
TOOL TRANSITION ZONE
(215.51)
(212.02)
(199.7)
(196.7)
(134.33)
(138.51)
(144.7)
(148.31)
CC

SECTION S-S
(36F)
DRIVE DEFAULT SELECT VALVE



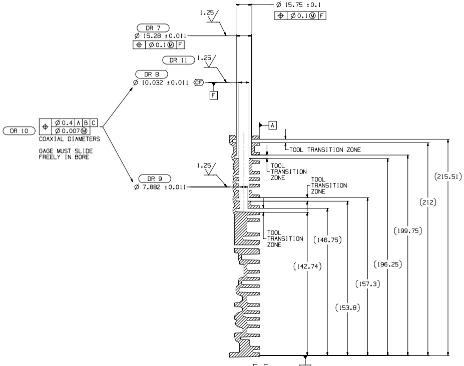
PLANE THRU B
191.85 ±0.25
191.15 ±0.25
199.39 ••
GAGE LINE
211.58 ••
GAGE LINE
215.4
201.19 ±0.25
DR 70
A
160° ±5°
(1.6)
45° ±5°
12.19 ±0.25
DR 69
N
(78C)
(1.6)
Ø 13.5 ±0.3
1.25
DR 64
DR 65
Ø 14.011 ±0.011
⊕ Ø0.4Ⓜ A B C
Ø0.007Ⓜ
DR 67
1.25
DR 63
CF Ø 16.99 ±0.011
DR 66
H
COAXIAL DIAMETERS GAGE MUST SLIDE FREELY IN BORES
Ø 21.2 ±0.1
DR 68
⊕ Ø0.2Ⓜ H
Ø 26.5 ±0.1
⊕ Ø0.4 A B C

SECTION TS-TS ①
(34C)
TCC SOLENOID



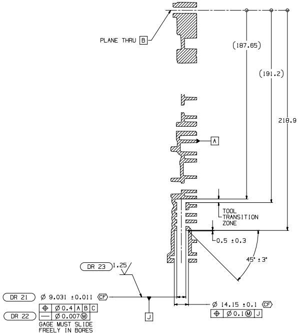
DR 6
1.25
DR 4
Ø 18.032 ±0.011 CF
⊕ Ø0.4 A B C
— Ø0.007Ⓜ
DR 5
GAGE MUST SLIDE FREELY IN BORE
A
PLANE THRU B
(36.47)
(44.11)
TOOL TRANSITION ZONE

SECTION C-C
(36F)
COOLER BYPASS VALVE



Ø 15.75 ±0.1
⊕ Ø0.1Ⓜ F
1.25
DR 7
Ø 15.28 ±0.011
⊕ Ø0.1Ⓜ F
DR 11
1.25
DR 8
Ø 10.032 ±0.011 CF
F
DR 10
⊕ Ø0.4 A B C
Ø0.007Ⓜ
COAXIAL DIAMETERS
GAGE MUST SLIDE FREELY IN BORE
1.25
DR 9
Ø 7.882 ±0.011
A
TOOL TRANSITION ZONE
TOOL TRANSITION ZONE
TOOL TRANSITION ZONE
TOOL TRANSITION ZONE
(215.51)
(212)
(199.75)
(196.25)
(157.3)
(153.8)
(146.75)
(142.74)
CC

SECTION E-E
(36F)
DEFAULT ENABLE VALVE

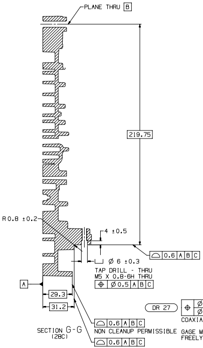


PLANE THRU B
(187.65)
(191.2)
218.9
A
TOOL TRANSITION ZONE
0.5 ±0.3
45° ±3°
DR 23
1.25
DR 21
Ø 9.031 ±0.011 CF
⊕ Ø0.4 A B C
DR 22
— Ø0.007Ⓜ
GAGE MUST SLIDE FREELY IN BORES
J
Ø 14.15 ±0.1 CF
⊕ Ø0.1Ⓜ J

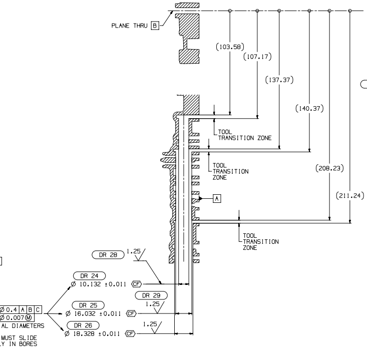
SECTION FL-FL
(35C)
FEED LIMIT VALVE (LO)

FRAME NUMBER	SHEET NUMBER	DRAWING NUMBER	DWG STATUS ST	REV	PDI
9 OF 9	1 OF 1	24062511	R	002	

4 ±0.25
DR 71

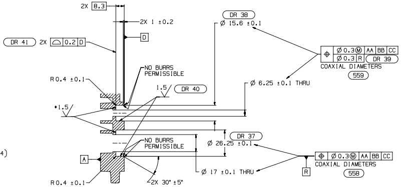

PLANE THRU B
219.75
R0.8 ±0.2
4 ±0.5
⌓ 0.6 A B C
⌴ Ø 6 ±0.3
TAP DRILL - THRU
M5 X 0.8-6H THRU
⊕ Ø0.5 A B C
A
29.3
31.2
⌓ 0.6 A B C
NON CLEANUP PERMISSIBLE
⌓ 0.6 A B C

SECTION G-G
(28C)


PLANE THRU B
(103.58)
(107.17)
(137.37)
(140.37)
(208.23)
(211.24)
TOOL TRANSITION ZONE
TOOL TRANSITION ZONE
A
TOOL TRANSITION ZONE
DR 28 1.25
DR 29 1.25
1.25

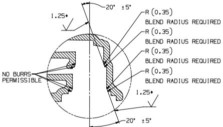
DR 24 Ø 10.132 ±0.011 CF
DR 25 Ø 16.032 ±0.011 CF
DR 26 Ø 18.328 ±0.011 CF
DR 27 ⊕ Ø0.4 A B C
Ø0.007Ⓜ
COAXIAL DIAMETERS
GAGE MUST SLIDE FREELY IN BORES

SECTION T-T
(35C)
TCC REGULATOR CONTROL VALVE

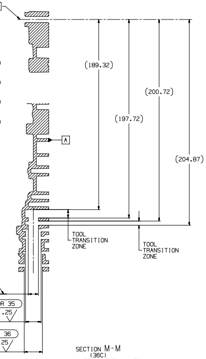

2X 8.3
2X 1 ±0.2
D
DR 41 2X ⌓ 0.2 D
DR 38 Ø 15.6 ±0.1
⊕ Ø0.3Ⓜ AA BB CC
Ø0.3 R DR 39
COAXIAL DIAMETERS
559
NO BURRS PERMISSIBLE
R0.4 ±0.1
1.5 DR 40
Ø 6.25 ±0.1 THRU
•1.5
NO BURRS PERMISSIBLE
DR 37
Ø 26.25 ±0.1
⊕ Ø0.3Ⓜ AA BB CC
COAXIAL DIAMETERS
558
R
A
R0.4 ±0.1
2X 30° ±5°
Ø 17 ±0.1 THRU

SECTION J-J
(27C)
PUMP OUT AND DECREASE PRESSURE

±0.2


1.25•
20° ±5°
R (0.35)
BLEND RADIUS REQUIRED
R (0.35)
BLEND RADIUS REQUIRED
R (0.35)
BLEND RADIUS REQUIRED
R (0.35)
BLEND RADIUS REQUIRED
NO BURRS PERMISSIBLE
1.25•
20° ±5°

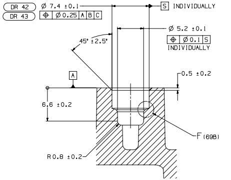
VIEW N
SCALE 2:1
(82F)


PLANE THRU B
(189.32)
(197.72)
(200.72)
(204.87)
A
TOOL TRANSITION ZONE
TOOL TRANSITION ZONE

DR 34 1.25
DR 30 Ø 10.082 ±0.011 CF
DR 35 1.25
DR 31 Ø 15.532 ±0.011 CF
DR 36 1.25
DR 32 Ø 18.032 ±0.011 CF
DR 33 ⊕ Ø0.4 A B C
Ø0.007Ⓜ
COAXIAL DIAMETERS

GAGE MUST SLIDE FREELY IN BORE

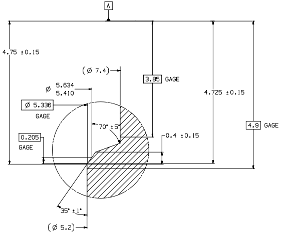
SECTION M-M
(36C)
MAIN REGULATOR VALVE


DR 42 Ø 7.4 ±0.1
S INDIVIDUALLY
DR 43 ⊕ Ø0.25 A B C
Ø 5.2 ±0.1
⊕ Ø0.1 S
INDIVIDUALLY
45° ±2.5°
A
0.5 ±0.2
6.6 ±0.2
F (69B)
R0.8 ±0.2

SECTION K-K
SCALE 5:1
(34D)

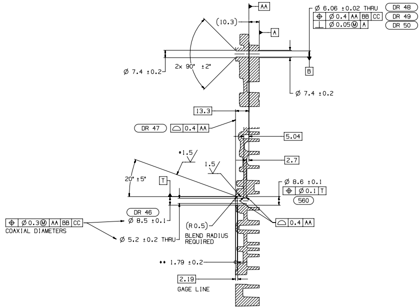
ALL DIMENSIONS IN THIS VIEW ARE 3X
CHECK BALLS POCKETS

554 SEE COPY OF VIEW R (54B) FOR LOCATIONS:
CLUTCH PRESSURE A/ACTUATOR FEED LO
555 CLUTCH PRESSURE B/ACTUATOR FEED LO
556 PUMP OUT DRAIN BACK AT ACTUATOR FEED LO

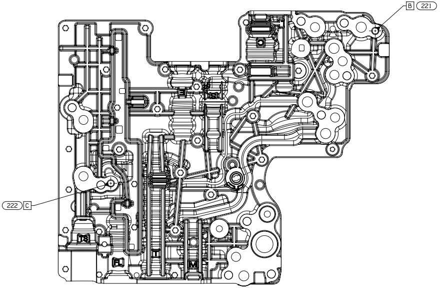

A
4.75 ±0.15
(Ø 7.4)
3.85 GAGE
4.725 ±0.15
4.9 GAGE
Ø 5.634
5.410
Ø 5.336
GAGE
70° ±5°
0.205
GAGE
0.4 ±0.15
35° ±1°
(Ø 5.2)

VIEW F
SCALE 30:1
(72C)
ALL DIMENSIONS IN THIS VIEW ARE 3X

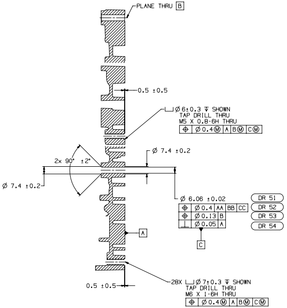
FRAME NUMBER	SHEET NUMBER	DRAWING NUMBER	DWG STATUS
8 OF 9	1 OF 1	24062511	ST R REV 002 PDI


AA
(10.3)
A
Ø 6.06 ±0.02 THRU
⌖ Ø 0.4 AA BB CC
⊥ Ø 0.05Ⓜ A
DR 48
DR 49
DR 50
B
Ø 7.4 ±0.2
2x 90° ±2°
Ø 7.4 ±0.2
13.3
DR 47
⌓ 0.4 AA
5.04
2.7
•1.5
1.5
20° ±5°
T
Ø 8.6 ±0.1
⌖ Ø 0.1 T
560
DR 46
Ø 8.5 ±0.1
⌖ Ø 0.3Ⓜ AA BB CC
COAXIAL DIAMETERS
Ø 5.2 ±0.2 THRU
(R 0.5)
BLEND RADIUS REQUIRED
⌓ 0.4 AA
•• 1.79 ±0.2
2.19
GAGE LINE

SECTION A-A
(27C)
TEMPERATURE SENSOR

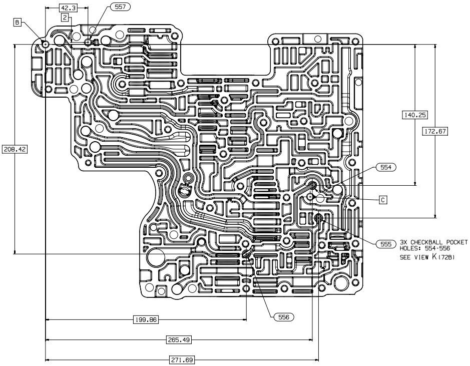

B
221
222
C
TS
T
FL
M

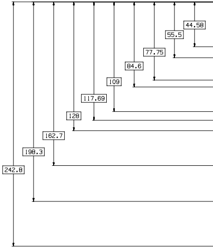
COPY OF PRINCIPAL VIEW
200 FACE HOLE NUMBERS


PLANE THRU B
0.5 ±0.5
⌴ Ø 6±0.3 ↧ SHOWN
TAP DRILL THRU
M5 X 0.8-6H THRU
⌖ Ø 0.4Ⓜ A BⓂ CⓂ
Ø 7.4 ±0.2
2x 90° ±2°
Ø 7.4 ±0.2
Ø 6.06 ±0.02
⌖ Ø 0.4 AA BB CC
⌖ Ø 0.13 B
⊥ Ø 0.05 A
DR 51
DR 52
DR 53
DR 54
C
A
28X ⌴ Ø 7±0.3 ↧ SHOWN
TAP DRILL THRU
M6 X 1-6H THRU
⌖ Ø 0.4Ⓜ A BⓂ CⓂ
0.5 ±0.5

SECTION H-H
(35C)

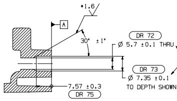
FRAME NUMBER	SHEET NUMBER	DRAWING NUMBER	DWG STATUS ST	REV	PDI
7 OF 9	1 OF 1	24062511	R	002	


42.3
557
B
2
208.42
140.25
172.67
554
C
555
3X CHECKBALL POCKET
HOLES: 554-556
SEE VIEW K (72B)
556
199.86
265.49
271.69


44.58
55.5
77.75
84.6
109
117.69
128
162.7
198.3
242.8

COPY OF
VIEW R
(36B)

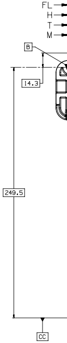
FRAME NUMBER	SHEET NUMBER	DRAWING NUMBER	DWG STATUS ST	REV	PDI
6 OF 9	1 OF 1	24062511	R	002	

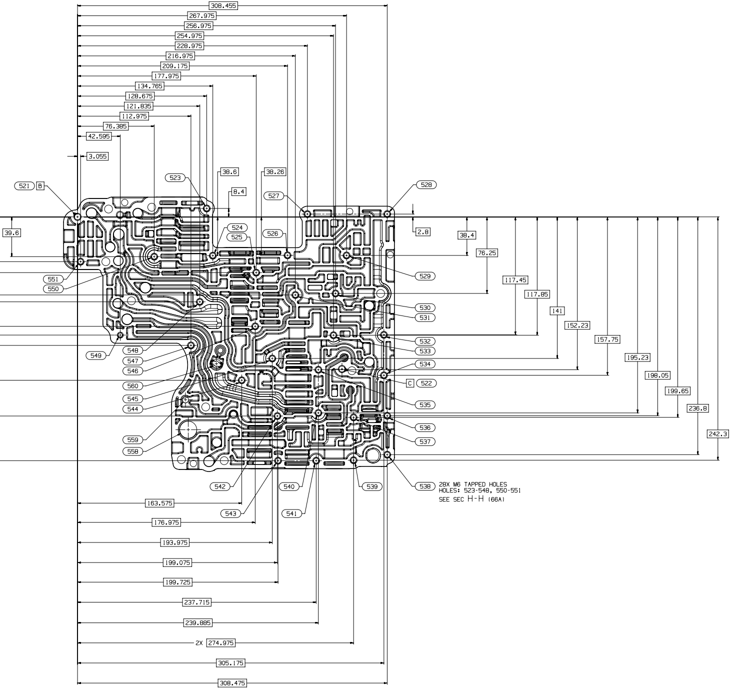

•1.6
A
30° ±1°
DR 72
Ø 5.7 ±0.1 THRU
DR 73
Ø 7.35 ±0.1
TO DEPTH SHOWN
7.57 ±0.3
DR 75

SECTION Y-Y
PARK BALL (VENT)

HOLE (557)

(37F)

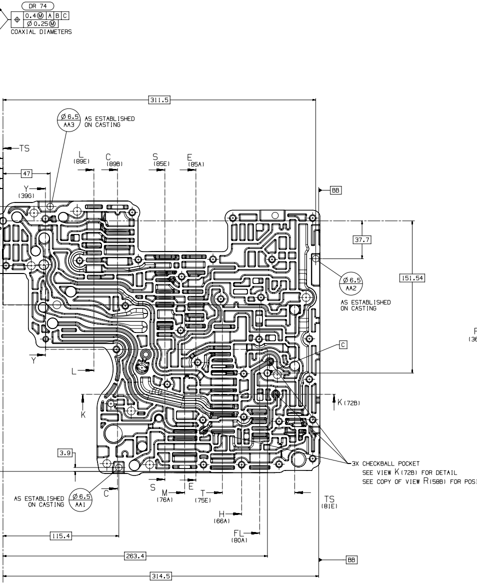

FL
H
T
M
B
14.3
249.5
CC


308.455
267.975
256.975
254.975
228.975
216.975
209.175
177.975
134.765
128.675
121.835
112.975
76.385
42.595
3.055
38.6
38.26
8.4
521
B
523
527
528
524
525
526
2.8
38.4
76.25
39.6
529
117.45
117.85
141
152.23
157.75
551
550
530
531
532
533
534
C
522
549
548
547
546
560
545
544
535
195.23
198.05
199.65
236.8
242.3
536
537
559
558
542
540
539
538
543
541
163.575
176.975
193.975
199.075
199.725
237.715
239.885
2X 274.975
305.175
308.475

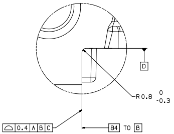
28X M6 TAPPED HOLES
HOLES: 523-548, 550-551
SEE SEC H-H (66A)

COPY OF
VIEW R
(36B)

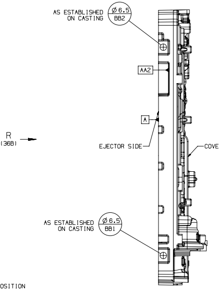
FRAME NUMBER	SHEET NUMBER	DRAWING NUMBER	DWG STATUS ST	REV	PDI
5 OF 9	1 OF 1	24062511	R	002	


DR 74
⌖ 0.4Ⓜ A B C
Ø 0.25Ⓜ
COAXIAL DIAMETERS
311.5
Ø6.5 AA3
AS ESTABLISHED ON CASTING
TS
L (89E)
C (89B)
S (85E)
E (85A)
47
Y (39G)
BB
37.7
151.54
Ø6.5 AA2
AS ESTABLISHED ON CASTING
C
Y
L
K
K (72B)
3.9
3X CHECKBALL POCKET
SEE VIEW K(72B) FOR DETAIL
SEE COPY OF VIEW R(58B) FOR POSITION
AS ESTABLISHED ON CASTING
Ø6.5 AA1
C
S
M (76A)
E
T (75E)
H (66A)
FL (80A)
TS (81E)
115.4
263.4
314.5
BB

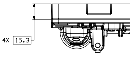
VIEW R
(33E)

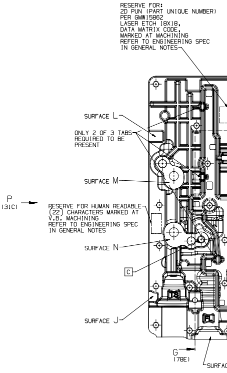

D
R 0.8 0 -0.3
0.4 A B C
84 TO B

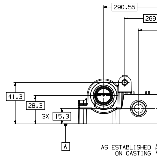
VIEW V
SCALE 5:1
(26G)

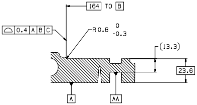

R (36B)
AS ESTABLISHED ON CASTING
Ø6.5 BB2
AA2
A
EJECTOR SIDE
COVER SIDE
AS ESTABLISHED ON CASTING
Ø6.5 BB1

VIEW P
(30E)



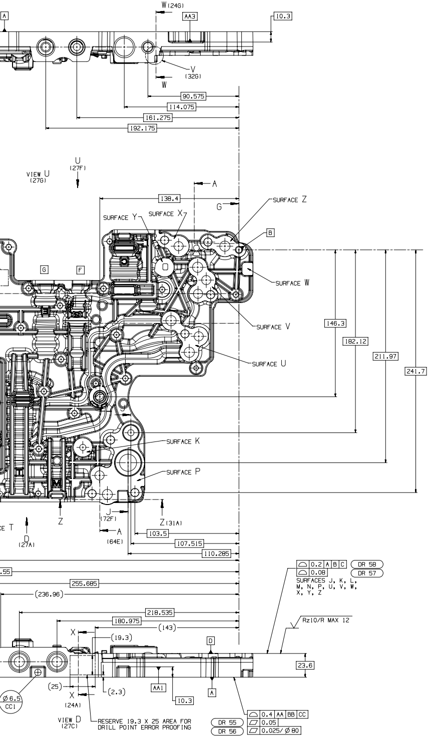

RESERVE FOR:
2D PUN (PART UNIQUE NUMBER)
PER GMW15862
LASER ETCH 18X18,
DATA MATRIX CODE,
MARKED AT MACHINING
REFER TO ENGINEERING SPEC
IN GENERAL NOTES
SURFACE L
ONLY 2 OF 3 TABS REQUIRED TO BE PRESENT
SURFACE M
P (31C)
RESERVE FOR HUMAN READABLE (22) CHARACTERS MARKED AT V.B. MACHINING
REFER TO ENGINEERING SPEC
IN GENERAL NOTES
SURFACE N
C
SURFACE J
TS
G (78E)
SURFAC

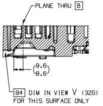

290.55
269
41.3
28.3
3X 15.3
A
AS ESTABLISHED ON CASTING


164 TO B
0.4 A B C
R 0.8 0 -0.3
(13.3)
23.6
A
AA

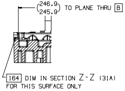
SECTION Z-Z
(26C)

FRAME NUMBER	SHEET NUMBER	DRAWING NUMBER	DWG STATUS		
			ST	REV	PDI
4 OF 9	1 OF 1	24062511	R	002	


W (24G)
A
AA3
10.3
V
(32G)
W
90.575
114.075
161.275
192.175
VIEW U
(27G)
U
(27F)
A
138.4
G
SURFACE Z
SURFACE Y
SURFACE X
B
G
F
SURFACE W
SURFACE V
146.3
182.12
211.97
241.7
SURFACE U
SURFACE K
SURFACE P
M
CE T
D
(27A)
Z
J
(72F)
A
(64E)
Z (31A)
103.5
107.515
110.285
.55
255.685
(236.96)
218.535
180.975
(143)
X
(19.3)
D
23.6
(25)
X
(24A)
(2.3)
AA1
10.3
A
Ø6.5
CC1
VIEW D
(27C)
RESERVE 19.3 X 25 AREA FOR
DRILL POINT ERROR PROOFING
0.2 A B C
DR 58
0.08
DR 57
SURFACES J, K, L,
M, N, P, U, V, W,
X, Y, Z
Rz10/R MAX 12
0.4 AA BB CC
0.05
0.025/Ø80
DR 55
DR 56


PLANE THRU B
9.6
8.6
84 DIM IN VIEW V (32G)
FOR THIS SURFACE ONLY

SECTION W-W
(26H)


246.9
245.9
TO PLANE THRU B
164 DIM IN SECTION Z-Z (31A)
FOR THIS SURFACE ONLY

SECTION X-X
(27B)

FRAME NUMBER	SHEET NUMBER	DRAWING NUMBER	DWG STATUS
3 OF 9	1 OF 1	24062511	ST: R REV: 002 PDI:

GM KCDS SHALL BE ADMINISTERED IN ACCORDANCE WITH THE LATEST VERSIONS OF GMW15049 AND KCDS TEMPLATES.								
0	0	0	75	LAST NUMBER USED	KPC (KEY PRODUCT CHARACTERISTIC) PQC (PRODUCT QUALITY CHARACTERISTIC) AQC (ATTRIBUTE QUALITY CHARACTERISTIC) DR (DOCUMENTATION REQUIRED)			
0	0	0	66	TOTAL BY COLUMN				
(KPC #) KPC NO.	(PQC #) PQC NO.	(AQC #) AQC NO.	(DR #) DR NO.	CHARACTERISTIC	RATIONALE	ZONE	SH	PLCS
			72	DIAMETER	FUNCTION	38H	1	1
			73	DIAMETER	FUNCTION	38H	1	1
			74	TRUE POSITION	FUNCTION	37H	1	1
			75	DIMENSION	FUNCTION	38G	1	1

UNLESS OTHERWISE SPECIFIED:

SCALE: 1:1

ALL MACHINED SURFACES 3.2 √

CUT-OFF LENGTH TO BE 0.8mm

WHERE DIMENSIONS ARE SPECIFIED ON THE DRAWING, THE DRAWING IS THE AUTHORITY FOR DIMENSIONAL VALUES.

WHERE DIMENSIONS ARE NOT SPECIFIED ON THE DRAWING, THE DIGITAL MODEL IS THE AUTHORITY FOR DIMENSIONAL VALUES.

DIMENSIONS OBTAINED FROM THE DIGITAL MODEL ARE BASIC:

1. FOR RELATIONSHIPS BETWEEN FEATURES WHEN ESTABLISHED BY GEOMETRIC TOLERANCES.
2. FOR THE FORM OF A FEATURE WHEN CONTROLLED BY A PROFILE TOLERANCE.
3. FOR THE SIZE, FORM AND/OR RELATIONSHIP BETWEEN FIXED DATUM TARGETS.

DIMENSIONS OBTAINED FROM THE DIGITAL MODEL ARE ROUNDED TO TWO DECIMAL PLACES (PER IEEE/ASTM SI 10-2016)

THE DIGITAL MODEL MUST CORRESPOND TO THE RELEASE LEVEL SHOWN IN THE PART BLOCK ON THIS DOCUMENT.

• VERIFICATION OF CHAMFER SURFACE FINISH BASED ON ADJACENT SURFACE FINISH MEASUREMENTS IS ACCEPTABLE WHEN SAME TOOL IS USED TO MACHINE BOTH FEATURES. VISUAL INSPECTION REQUIRED TO CONFIRM TOOL INTEGRITY.

• VERIFICATION OF BORE SURFACE FINISH BASED ON ADJACENT BORE SURFACE FINISH MEASUREMENTS IS ACCEPTABLE WHEN SAME TOOL IS USED TO MACHINE BOTH BORES. VISUAL INSPECTION REQUIRED TO CONFIRM TOOL INTEGRITY.

•• VERIFICATION OF BLEND RADIUS ON MEASUREMENT OF ADJACENT BORE DIAMETER AT DENOTED GAGE LINE IS ACCEPTABLE WHEN SAME TOOL IS USED TO MACHINE BOTH FEATURES. VISUAL INSPECTION REQUIRED TO CONFIRM TOOL INTEGRITY.

PARTS MUST BE FREE FROM BURRS AND SHARP EDGES, WHICH MIGHT BE DETRIMENTAL TO SATISFACTORY ASSEMBLY, SAFE HANDLING OR FUNCTION OF PART

FOR SPECIFICATION AND INTERPRETATION OF KCDS BLOCK AND DRAWING SYMBOLS, SEE GM GLOBAL KCDS STANDARD GMW15049 AND GENERAL MOTORS PROCEDURE ETQ-114.

PARTS AS DELIVERED TO MACHINING/ASSEMBLY SHALL BE CLEAN AND FREE OF DEBRIS, RESIDUAL ABRASIVE MATERIAL, AND CORROSION PRODUCTS ADVERSELY AFFECTING FUNCTION OR APPEARANCE. CLEANLINESS IS VERIFIED BY VISUAL EVALUATION

(DR 59) MUST CONFORM TO CONTAMINATION SPECIFICATIONS:
24282995 - SOLID PARTICLE CONTAMINATION MEASUREMENT & CONTROL
24282840 - TRANSMISSION SPECIFIC LIMITS AND PROCEDURES

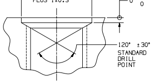
COMPONENT CLEANLINESS CODE FOR THIS PART CAN BE FOUND IN SPECIFICATION 24282840, TABLE H AS SPECIFIED FOR "INNER VALVE BODY MACH"

ANY EXCEPTIONS TO THESE REQUIREMENTS MUST BE APPROVED IN WRITING BY GM ENGINEERING

SURFACE AREA OF CAD MODEL (4181.62 cm²)

REFER TO 24050249 FOR POROSITY ACCEPTANCE STANDARDS AND 2D PUN MATRIX

COUNTER-SINK THREADED HOLES AS SHOWN BELOW:


MAJOR THREAD Ø
PLUS 1±0.3
0 +1 0
120° ±30°
STANDARD
DRILL
POINT

DATUM/LABEL LEGEND:

A	CHANNEL FACE
B	DOWEL BORE - CASE
C	DOWEL BORE - CASE
D	COVER FACE
E	BORE - LUBE CONTROL VALVE
F	BORE - DEFAULT ENABLE VALVE
G	BORE - DRIVE DEFAULT SELECT VALVE
H	BORE - FEED LIMIT VALVE (HI)
J	BORE - FEED LIMIT VALVE (LO)
K	LABEL - SURFACE D
L	LABEL - SURFACE D
M	LABEL - SURFACE D
N	LABEL - SURFACE D
P	LABEL - SURFACE D
R	BORE - PUMP OUT
S	BORE - CHECKBALL
T	BORE - TEMP SENSOR
U	LABEL - SURFACE D
V	LABEL - SURFACE D
W	LABEL - SURFACE D
X	LABEL - SURFACE D
Y	LABEL - SURFACE D
Z	LABEL - SURFACE D
AA	CAST LOCATOR
BB	CAST LOCATOR
CC	CAST LOCATOR

FRAME NUMBER	SHEET NUMBER	DRAWING NUMBER	DWG STATUS ST	REV	PDI
2 OF 9	1 OF 1	24062511	R	002	

HIERARCHY /QUANTITY	DWG ITM	ZONE	DWG RLTN SHIP	PART NUMBER	DLS	RE LV
1	02			24062510	A	00
A	01		RD	24062511	A	00

PARTS SH

GM KCDS SHALL BE ADMINISTERED IN ACCORDANCE WITH THE LATEST VERSIONS OF GMW15049 AND KCDS TEMPLATES.

KPC	PQC	AQC	DR		
0	0	0	75	LAST NUMBER USED	KPC (KEY PRODUCT CHARACTERISTIC) PQC (PRODUCT QUALITY CHARACTERISTIC) AQC (ATTRIBUTE QUALITY CHARACTERISTIC) DR (DOCUMENTATION REQUIRED)
0	0	0	66	TOTAL BY COLUMN	

KPC # KPC NO.	PQC # PQC NO.	AQC # AQC NO.	DR # DR NO.	CHARACTERISTIC	RATIONALE	ZONE	SH	PLCS
			1	DIAMETER	FUNCTION	90H	1	1
			2	STRAIGHTNESS	FUNCTION	90H	1	1
			3	SURFACE FINISH	FUNCTION	90H	1	1
			4	DIAMETER	FUNCTION	88D	1	1
			5	STRAIGHTNESS	FUNCTION	88D	1	1
			6	SURFACE FINISH	FUNCTION	89D	1	1
			7	DIAMETER	FUNCTION	86D	1	1
			8	DIAMETER	FUNCTION	86D	1	1
			9	DIAMETER	FUNCTION	86C	1	1
			10	TRUE POSITION (DIA 0.007 MMC)	FUNCTION	87C	1	1
			11	SURFACE FINISH	FUNCTION	85D	1	1
			14	TRUE POSITION	FUNCTION	87G	1	1
			16	SURFACE FINISH	FUNCTION	86H	1	1
			21	DIAMETER	FUNCTION	82A	1	1
			22	STRAIGHTNESS	FUNCTION	82A	1	1
			23	SURFACE FINISH	FUNCTION	81B	1	1
			24	DIAMETER	FUNCTION	76E	1	1
			25	DIAMETER	FUNCTION	76E	1	1
			26	DIAMETER	FUNCTION	76E	1	1
			27	TRUE POSITION	FUNCTION	79E	1	1
			28	SURFACE FINISH	FUNCTION	76F	1	1
			29	SURFACE FINISH	FUNCTION	75E	1	1
			30	DIAMETER	FUNCTION	78B	1	1
			31	DIAMETER	FUNCTION	77A	1	1
			32	DIAMETER	FUNCTION	77A	1	1
			33	TRUE POSITION	FUNCTION	79A	1	1
			34	SURFACE FINISH	FUNCTION	77B	1	1
			35	SURFACE FINISH	FUNCTION	77A	1	1
			36	SURFACE FINISH	FUNCTION	77A	1	1
			37	DIAMETER	FUNCTION	71F	1	1
			38	DIAMETER	FUNCTION	71H	1	1
			39	TRUE POSITION	FUNCTION	69G	1	1
			40	SURFACE FINISH	FUNCTION	71G	1	1
			41	PROFILE	FUNCTION	73G	1	1
			42	DIAMETER	FUNCTION	73D	1	1
			43	TRUE POSITION	FUNCTION	73D	1	1
			46	DIAMETER	FUNCTION	65F	1	1
			47	PROFILE	FUNCTION	65G	1	1
			48	DIAMETER	FUNCTION	62H	1	1
			49	TRUE POSITION	FUNCTION	62H	1	1
			50	PERPENDICULARITY	FUNCTION	62H	1	1
			51	DIAMETER	FUNCTION	65B	1	1
			52	TRUE POSITION	FUNCTION	65B	1	1
			53	TRUE POSITION	FUNCTION	65B	1	1
			54	PERPENDICULARITY	FUNCTION	65B	1	1
			55	FLATNESS	FUNCTION	25A	1	1
			56	FLATNESS	FUNCTION	25A	1	1
			57	PROFILE	FUNCTION	24C	1	1
			58	PROFILE	FUNCTION	24C	1	1
			59	SEDIMENT NOTE	FUNCTION	12E	1	1
			60	DIAMETER	FUNCTION	86H	1	1
			61	DIAMETER	FUNCTION	86G	1	1
			62	DIAMETER	FUNCTION	84H	1	1
			63	SURFACE FINISH	FUNCTION	82E	1	1
			64	SURFACE FINISH	FUNCTION	82E	1	1
			65	DIAMETER	FUNCTION	81E	1	1
			66	DIAMETER	FUNCTION	81E	1	1
			67	TRUE POSITION	FUNCTION	80E	1	1
			68	DIAMETER	FUNCTION	81E	1	1
			69	DIMENSION	FUNCTION	80F	1	1
			70	DIMENSION	FUNCTION	80G	1	1
			71	DIMENSION	FUNCTION	79G	1	1

ZONE	DWG STATUS DATE	ST	REV	POS	PDI	REVISION HISTORY	AUTH	DR	APVD 1	APVD 2	APVD 3	APVD 4	APVD 5
	08AP24	R	001			RELEASED TO PRODUCTION AT DLS A DESIGN HISTORY REFERENCE: 24050242	BZ8BK	RK	GKN	PON	JF JG	MO BR	JVH
81E	21JN24	R	002	1		SECTION VIEW FH-FH RENAMED TS-TS DWG ITEM 02 WAS REV 001	C3M9G	SF	PH IX	PK	JH	BR	MO

ADDITIONAL GM APPROVERS		DATE:
APVD7	JEREMY V HORGAN	18MR24
APVD6	BLAKE RHYNARD	18MR24

VIEWS AND SECTIONS ON THIS DRAWING ARE IN ACCORDANCE WITH GM S1100-2

RESTRICTED AND REPORTABLE SUBSTANCES FOR PARTS PER GMW3059

THIS DOCUMENT IS IN ACCORDANCE WITH ASME Y14.5-2018 AS AMENDED BY THE GM GLOBAL DIMENSIONING AND TOLERANCING ADDENDUM-2020 (GMW16812)

CHANGE RESTRICTED
NO MANUAL CHANGES

FOR FURTHER DRAFTING STANDARDS SEE GM S1100

METRIC

DIMENSIONS SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED

REFERENCE
ABIV ETRS
HL106356, HL106539
HL106063, HL106064
HL107296, HL107293
HL106060, HL107294
HL107421, HL107419
HL107422, HL107423
HL107424, HL107420

		DATE
DRAFTER	RAVIKRISHNA L G	27DE23
APVD1	GOPALAKRISHNA K N	28FE24
APVD2	PONSEENI R KUMAR	03AP24
APVD3	JASON FISHER	19MR24
APVD4	JOEL GUNDERSON	19MR24
APVD5	MICHAEL OWEN	18MR24

DRAWING NAME
BODY-C/VLV UPR (MACH)

FRAME NUMBER	SIZE	DRAWING NUMBER	DWG STATUS ST	REV	PDI	SHEET NUMBER
1 OF 9	R	24062511	R	002		1 OF 1

V L	PDI	CALC MASS (kg)	PART NAME	COMMENT
2			BODY-C/VLV UPR (CSTG)	
2		2.1671	BODY-C/VLV UPR (MACH)	

OWN ON DRAWING

24062511