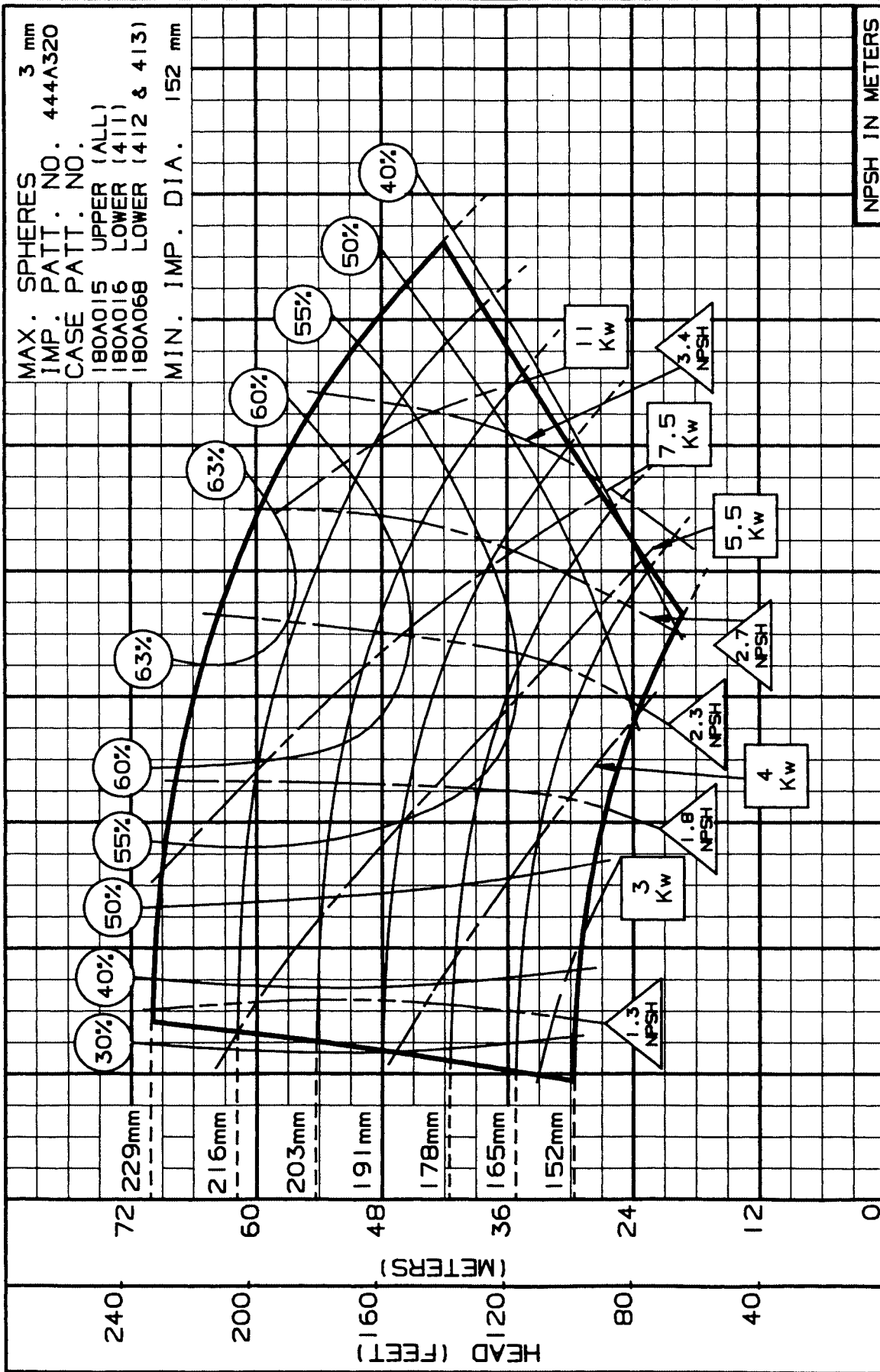


SIZE: 2X2 1/2X9 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 2880

MAX. SPHERES 3 mm
IMP. PATT. NO. 444A320
CASE PATT. NO.
180A015 UPPER (ALL)
180A016 LOWER (411)
180A068 LOWER (412 & 413)
MIN. IMP. DIA. 152 mm



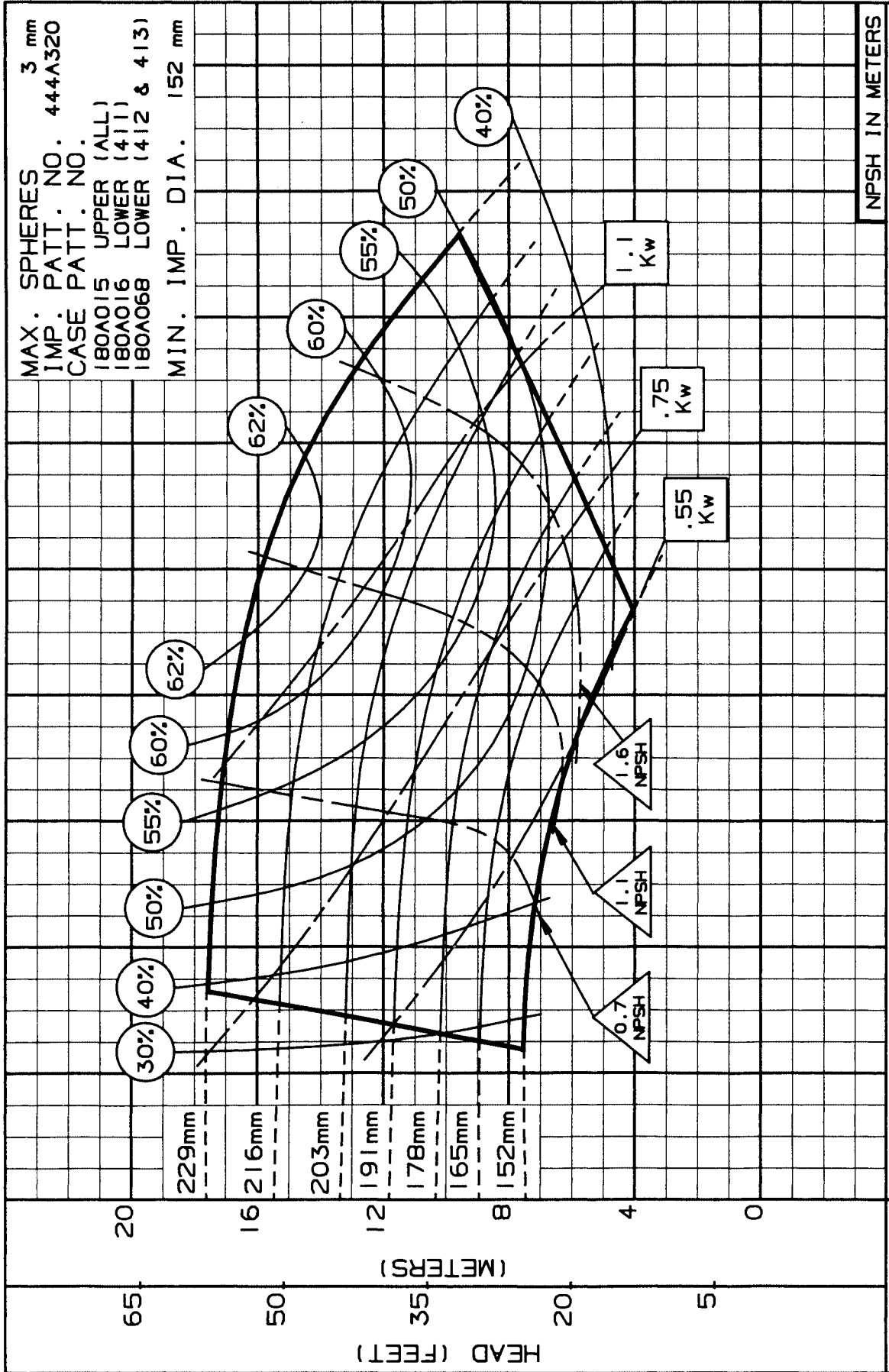
M ³ /HR	0	8	16	24	32	40	48	56	64	72
L/S	4	8	12	16	20	24	28	32	36	40
U.S. GPM	40	80	120	160	200	240	280	320	360	400
NPSH IN METERS										
DRAWN BY: <i>RAL</i> APPROVED BY: DL DATE: 7-90 PC-117351M										

2x2-1/2x9 - 1440 RPM
 ENCLOSED IMPELLER



SIZE: 2X2 1/2X9 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 3 mm
 IMP. PATT. NO. 444A320
 CASE PATT. NO.
 180A015 UPPER (ALL)
 180A016 LOWER (411)
 180A068 LOWER (412 & 413)
 MIN. IMP. DIA. 152 mm

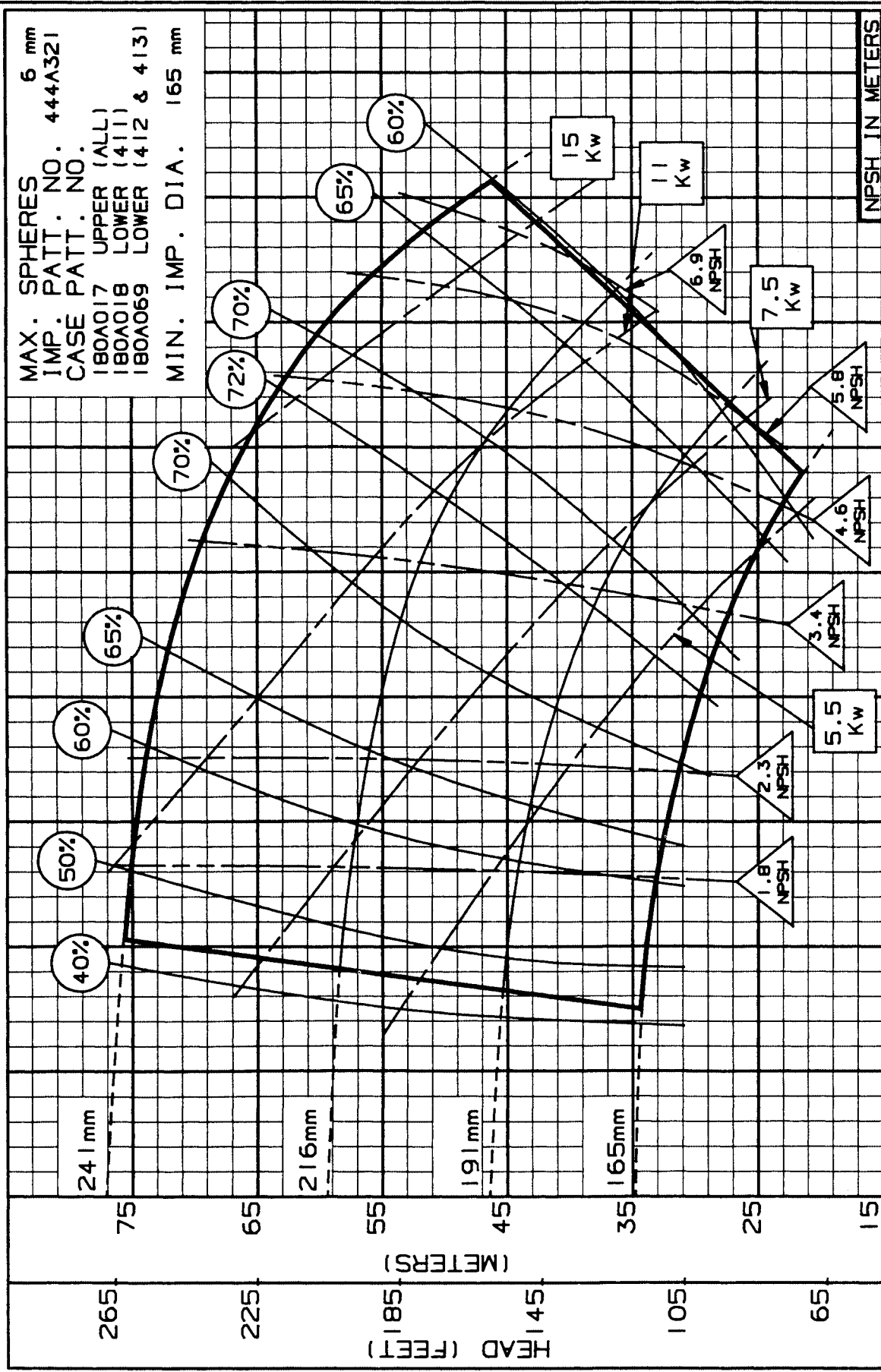


M ³ /HR	0	4	8	12	16	20	24	28	32	36
L/S		2	4	6	8	10	12	14	16	18
U.S. GPM	20	40	60	80	100	120	140	160	180	200
NPSH IN METERS										

DRAWN BY: RAYC APPROVED BY: DL DATE: 7-90 PC-117352M

SIZE: 2X2 1/2X10 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 2880

MAX. SPHERES 6 mm
IMP. PATT. NO. 444A321
CASE PATT. NO.
180A017 UPPER (ALL)
180A018 LOWER (411)
180A069 LOWER (412 & 413)
MIN. IMP. DIA. 165 mm



M ³ /HR	0	10	20	30	40	50	60	70	80	90
L/S	4	8	12	16	20	24	28	32	36	40
U.S. GPM	50	100	150	200	250	300	350	400	450	500
NPSH IN METERS										

DRAWN BY: *ATC* APPROVED BY: *DL* DATE: 7-90 PC-117353M

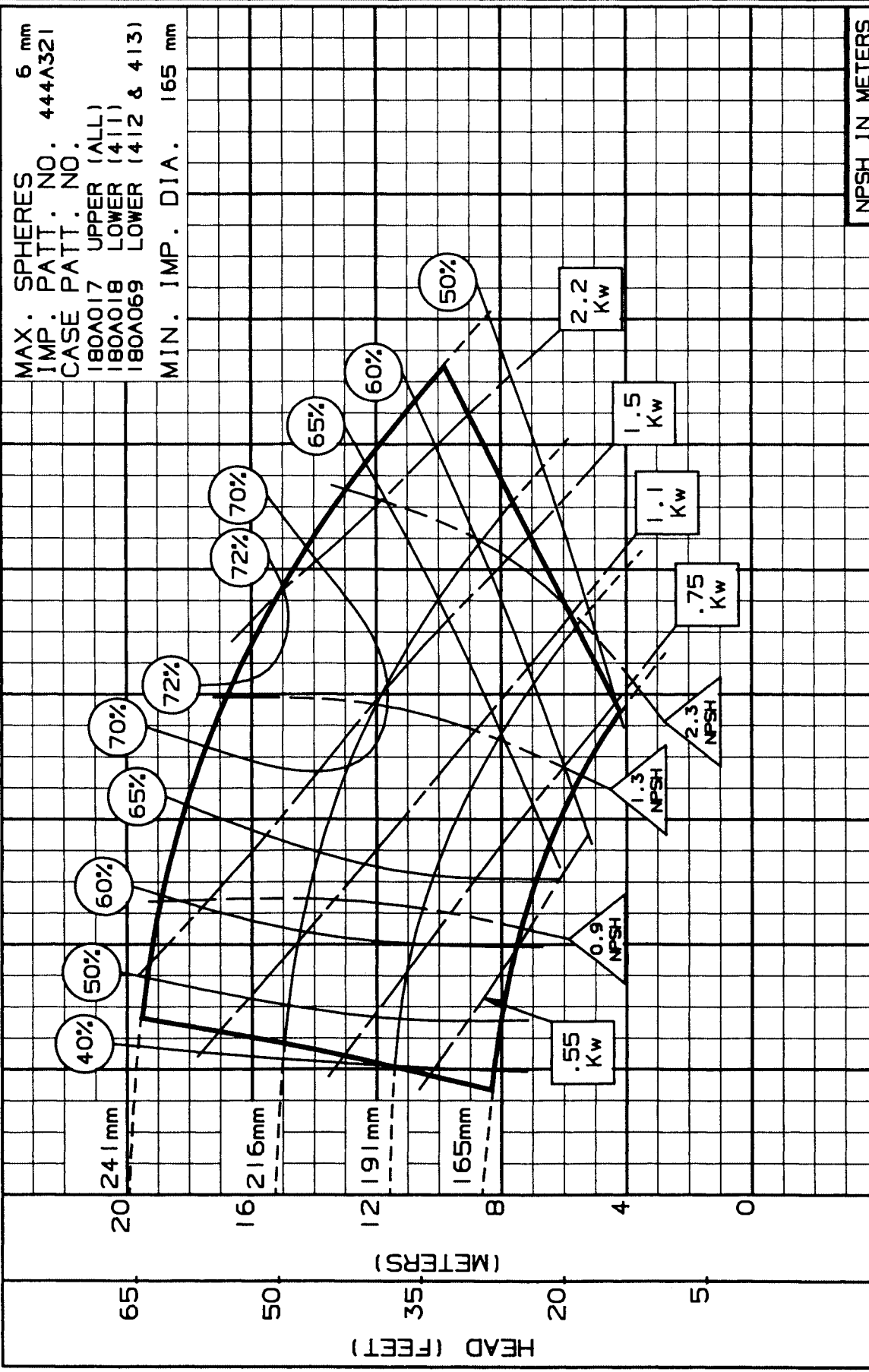
SECTION 410 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

2x2-1/2x10 - 1440 RPM
 ENCLOSED IMPELLER



SIZE: 2X2 1/2X10 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 6 mm
 IMP. PATT. NO. 444A321
 CASE PATT. NO.
 180A017 UPPER (ALL)
 180A018 LOWER (411)
 180A069 LOWER (412 & 413)
 MIN. IMP. DIA. 165 mm

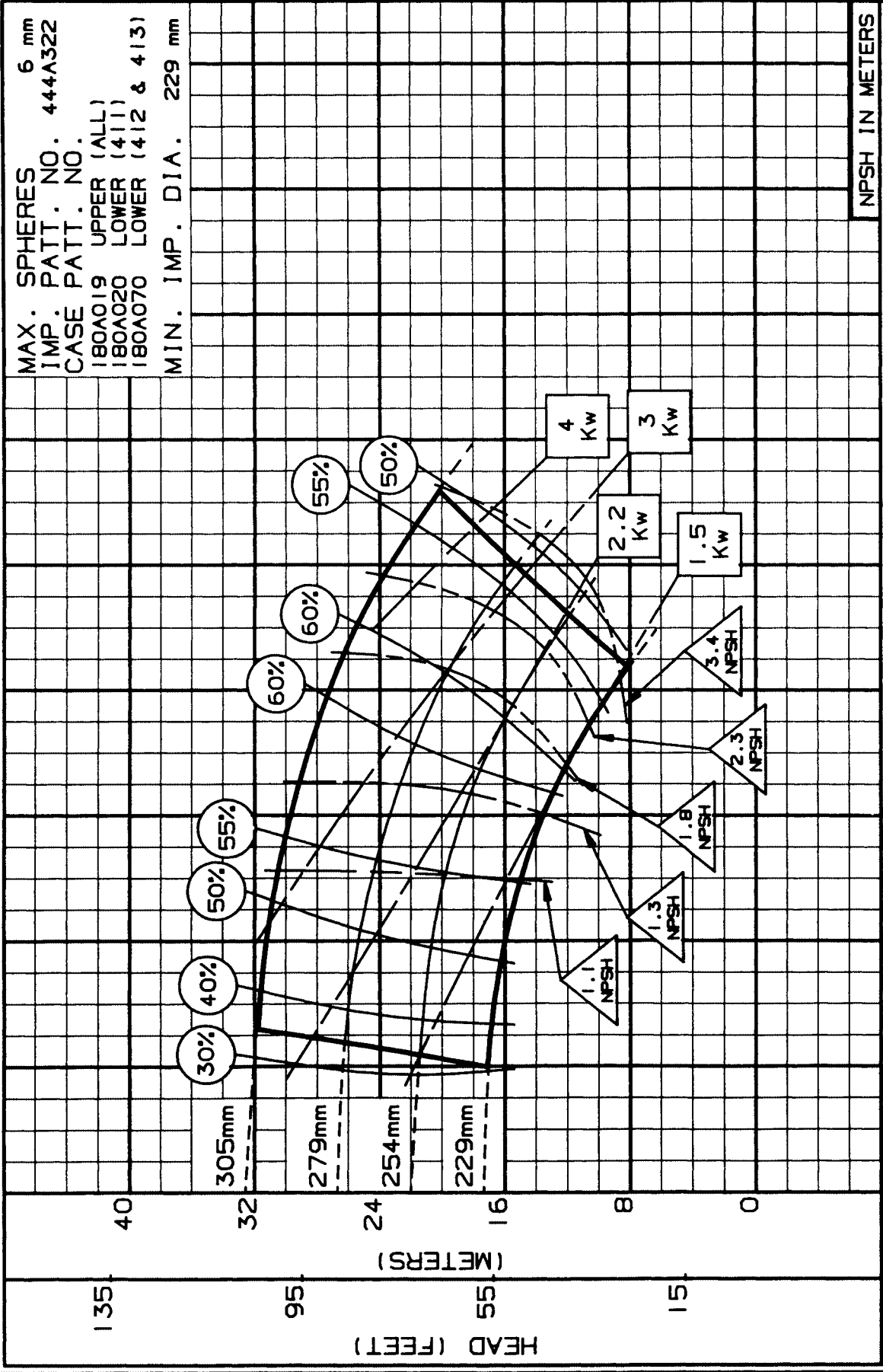


M ³ /HR	0	8	16	24	32	40	48	56	64	72
L/S	4	8	12	16	20	24	28	32	36	40
U.S. GPM	40	80	120	160	200	240	280	320	360	400
NPSH IN METERS										
	0	4	8	12	16	20	24	28	32	36

DRAWN BY: *ATL* APPROVED BY: DL DATE: 7-90 PC-117354M

SIZE: 2X2 1/2X12 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 6 mm
IMP. PATT. NO. 444A322
CASE PATT. NO.
180A019 UPPER (ALL)
180A020 LOWER (411)
180A070 LOWER (412 & 413)
MIN. IMP. DIA. 229 mm

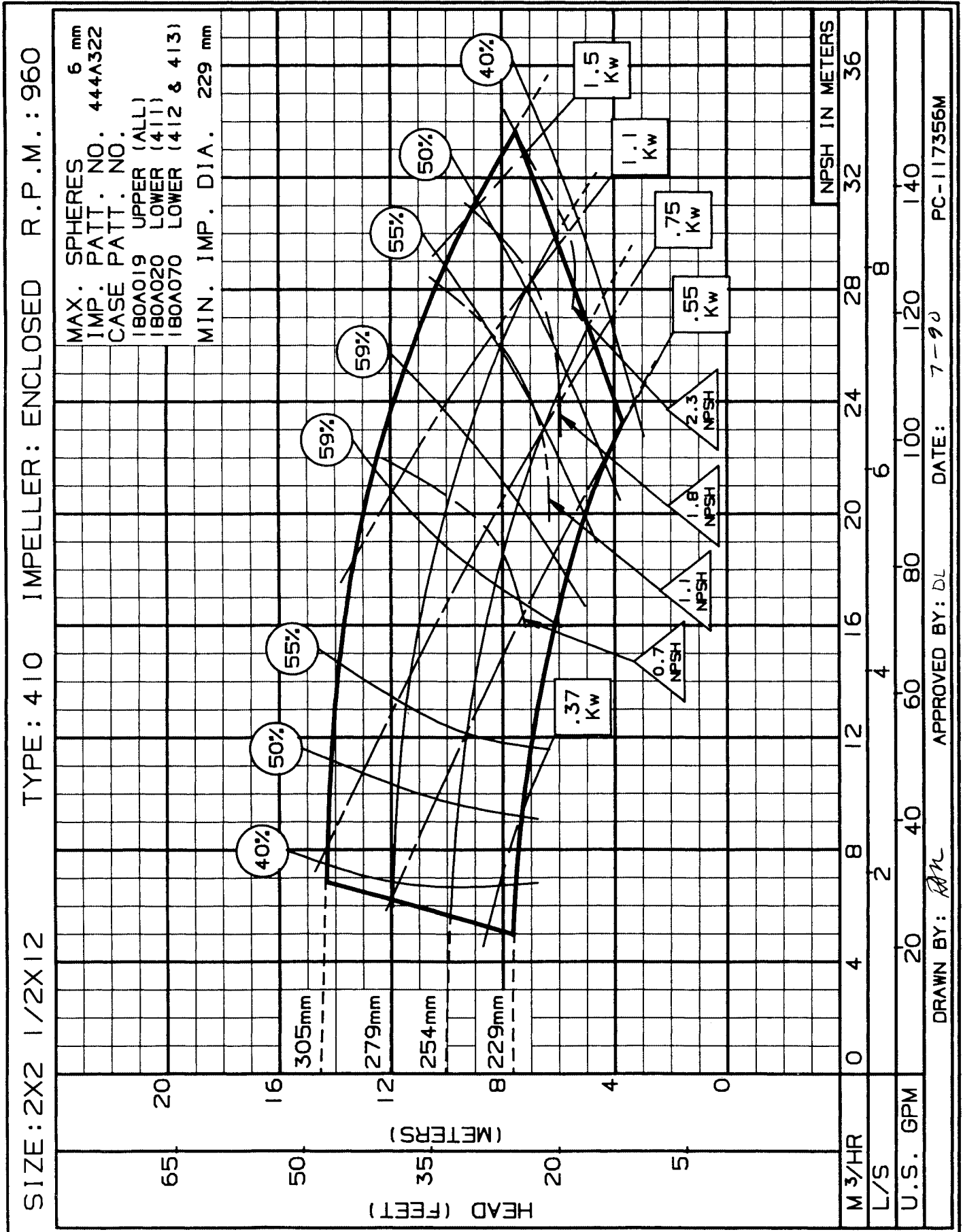


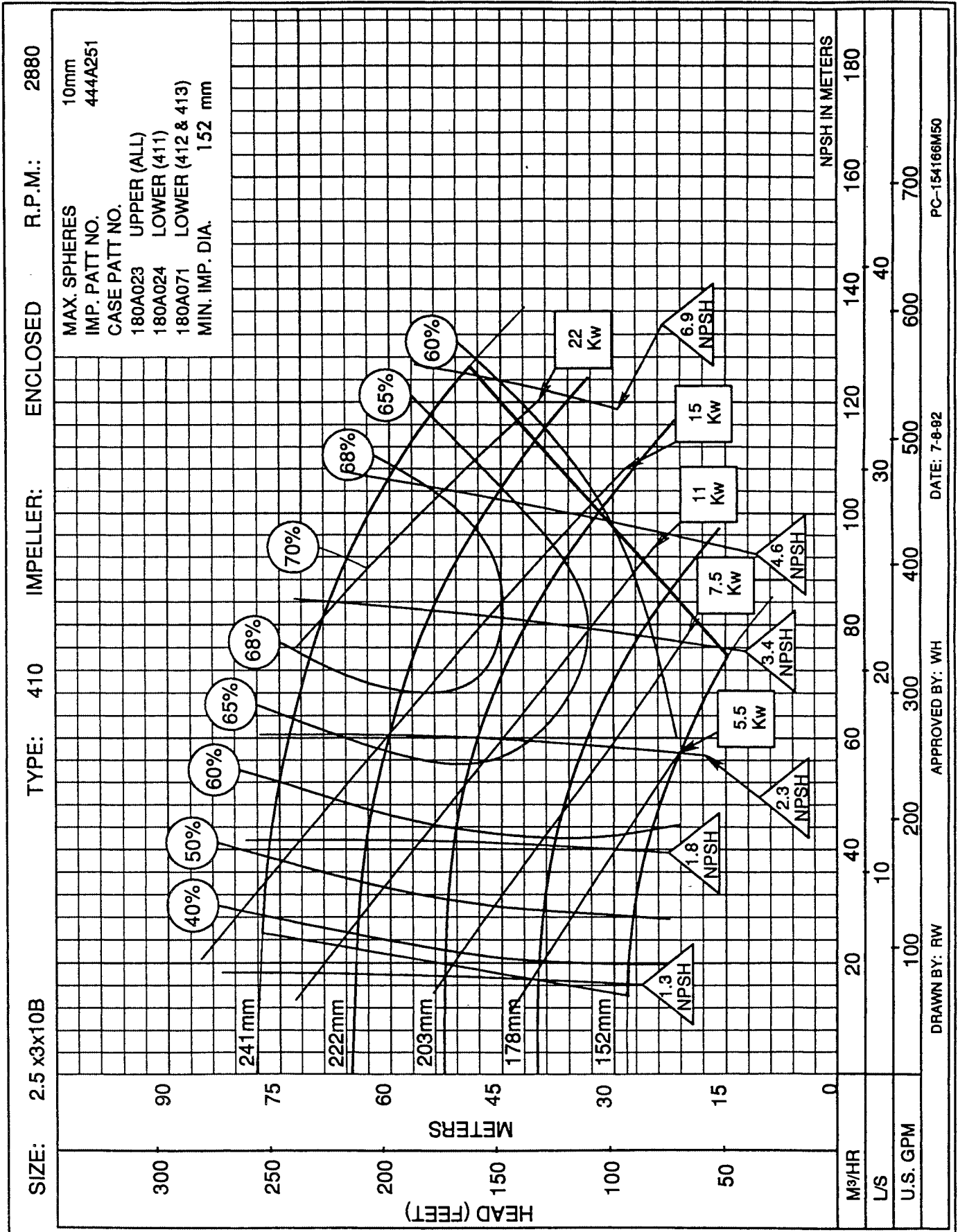
M ³ /HR	0	8	16	24	32	40	48	56	64	72
L/S	0	4	8	12	16	20	24	28	32	36
U.S. GPM	0	40	80	120	160	200	240	280	320	360
NPSH IN METERS										
0										
16										
32										
48										
64										
80										
96										
112										
128										
144										
160										
176										
192										
208										
224										
240										
256										
272										
288										
304										
320										
336										
352										
368										
384										
400										
416										
432										
448										
464										
480										
496										
512										
528										
544										
560										
576										
592										
608										
624										
640										
656										
672										
688										
704										
720										

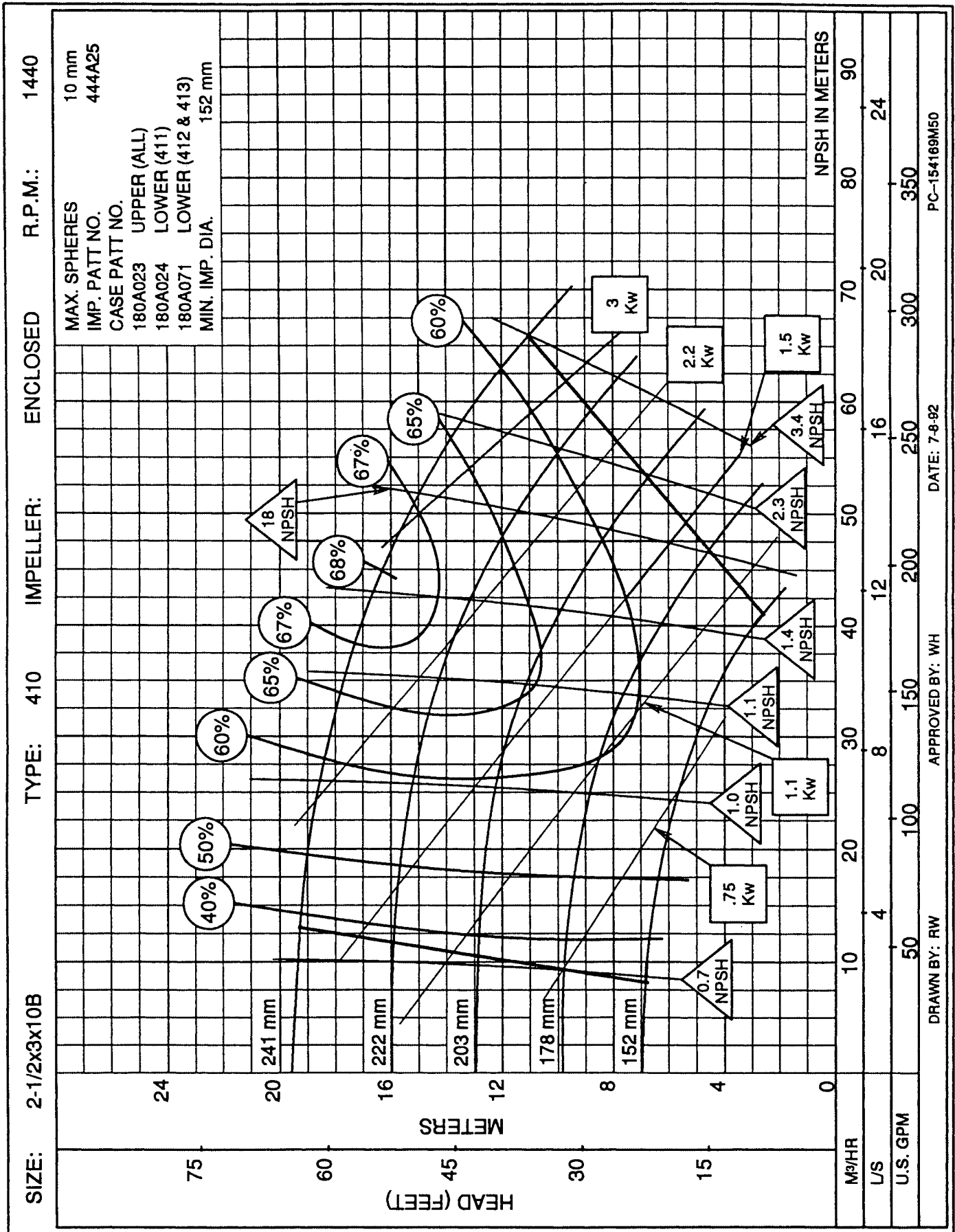
DRAWN BY: *R. J. L.* APPROVED BY: DL DATE: 7-90 PC-117355M

SECTION 410 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

2x2-1/2x12 - 960 RPM
 ENCLOSED IMPELLER

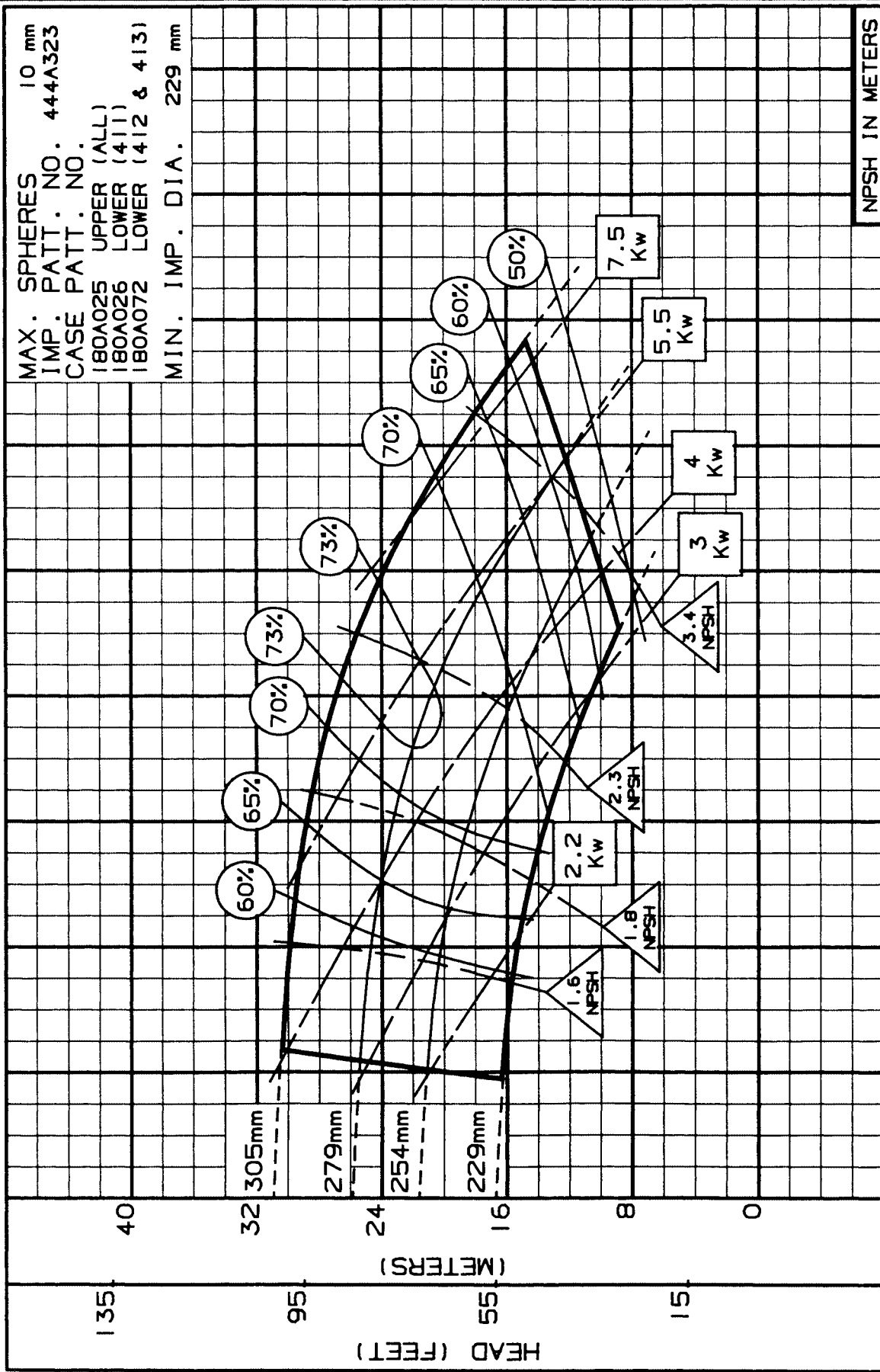






SIZE: 2 1/2x3x12 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 10 mm
IMP. PATT. NO. 444A323
CASE PATT. NO.
180A025 UPPER (ALL)
180A025 LOWER (411)
180A072 LOWER (412 & 413)
MIN. IMP. DIA. 229 mm



M ³ /HR	0	16	32	48	64	80	96	112	128	144
L/S	5	10	15	20	25	30	35	40	45	50
U.S. GPM	75	150	225	300	375	450	525	600	675	750
NPSH IN METERS										

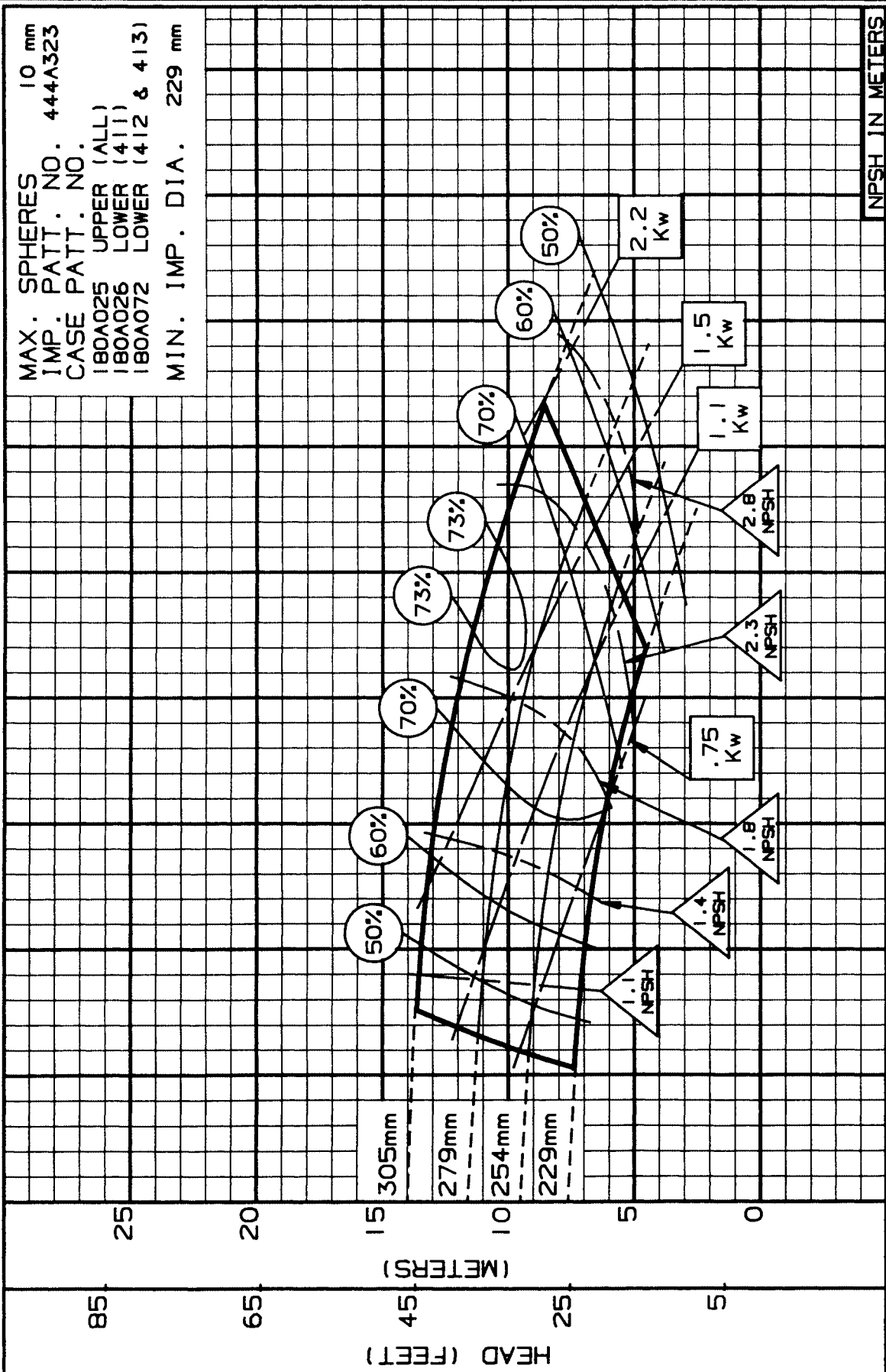
DRAWN BY: *BA/C* APPROVED BY: DL DATE: 7-90 PC-117359M

2-1/2X3x12 - 960 RPM
 ENCLOSED IMPELLER



SIZE: 2 1/2X3X12 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 10 mm
 IMP. PATT. NO. 444A323
 CASE PATT. NO.
 180A025 UPPER (ALL)
 180A026 LOWER (411)
 180A072 LOWER (412 & 413)
 MIN. IMP. DIA. 229 mm

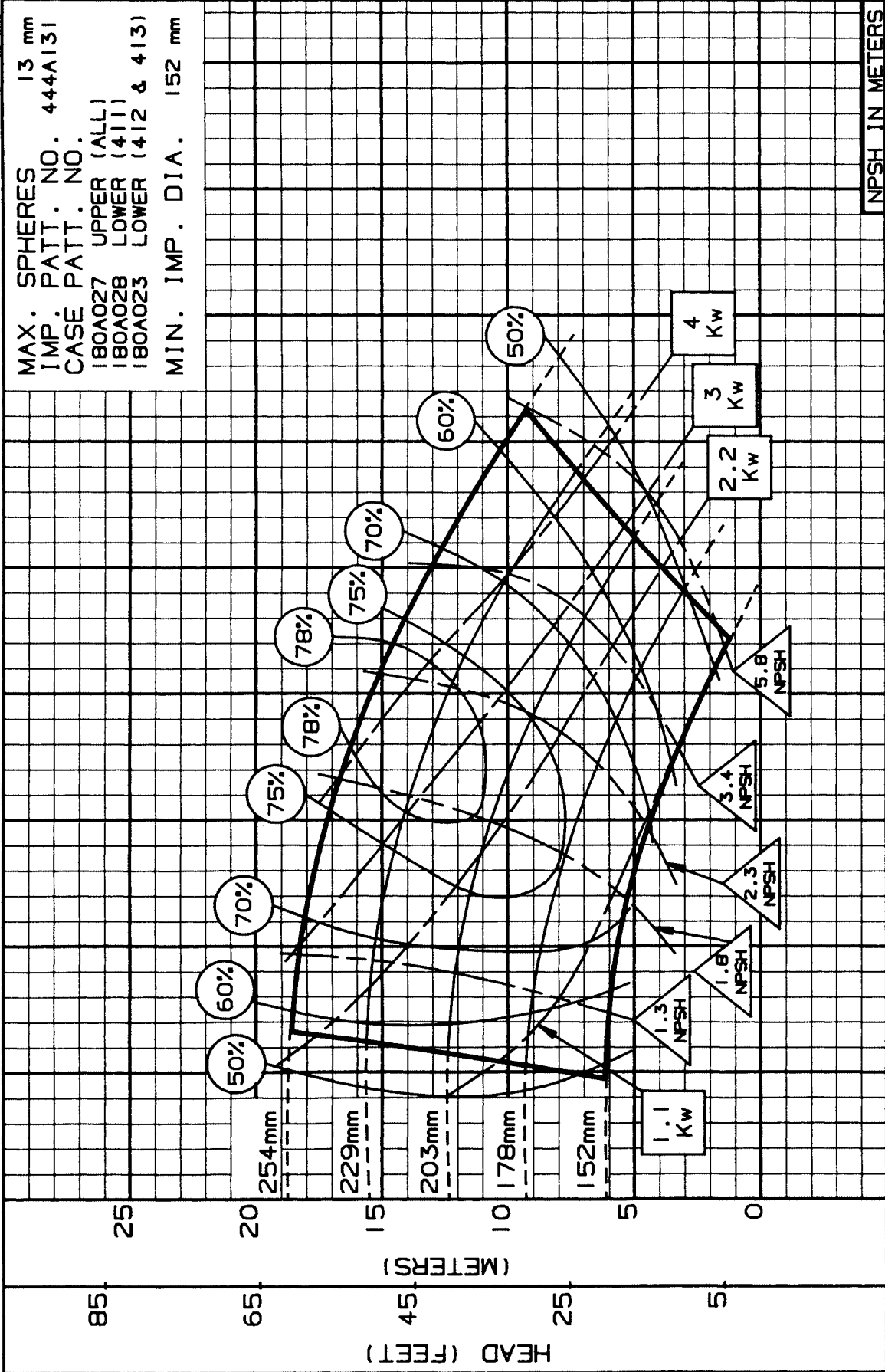


M ³ /HR	0	10	20	30	40	50	60	70	80	90
L/S	4	12	20	24	30	36	42	48	54	60
U.S. GPM	50	100	150	200	250	300	350	400	450	500
NPSH IN METERS										

DRAWN BY: *ABC* APPROVED BY: DL DATE: 7-9-94 PC-117360M

SIZE: 3X4X10B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

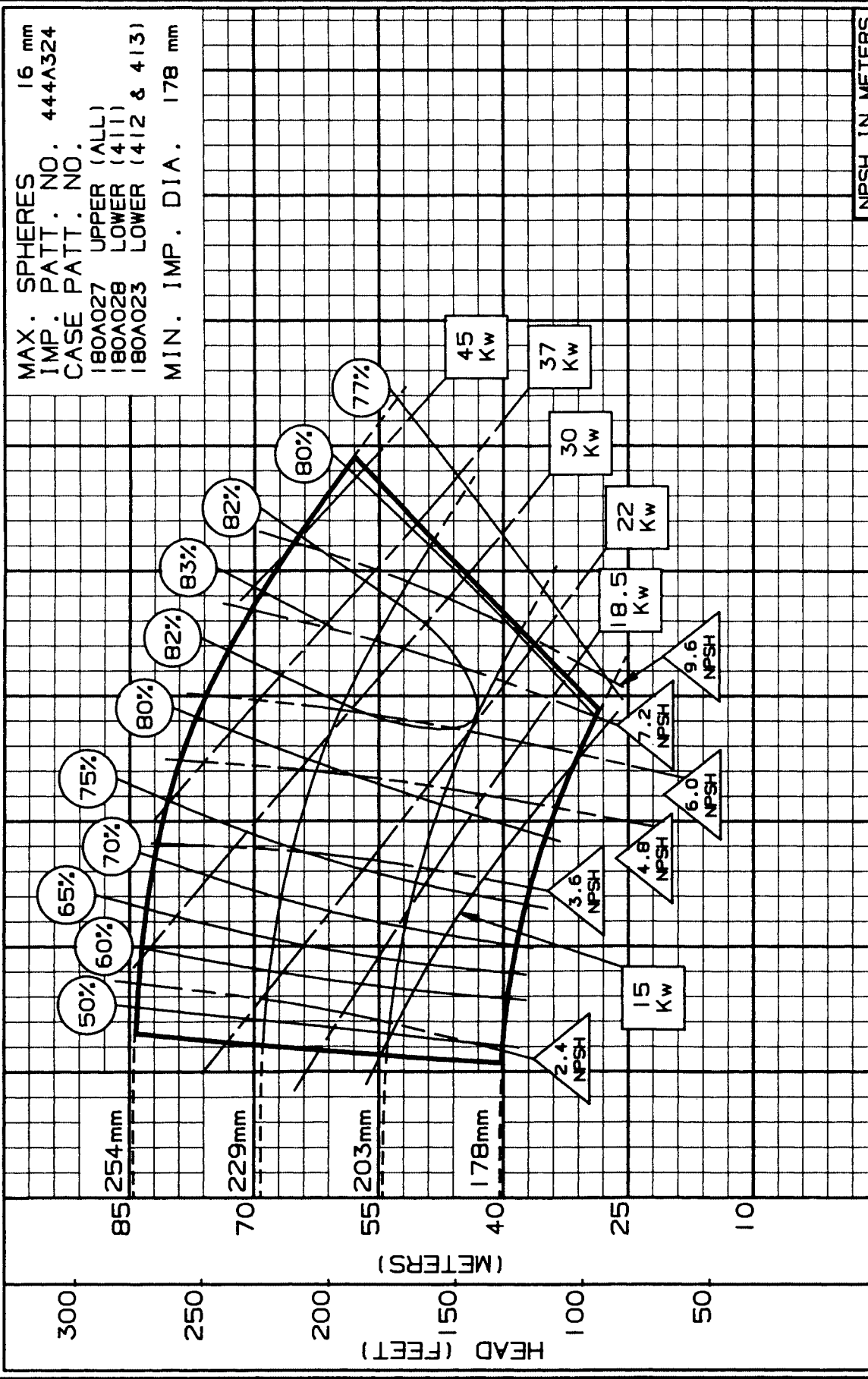
MAX. SPHERES 13 mm
 IMP. PATT. NO. 444A131
 CASE PATT. NO.
 180A027 UPPER (ALL)
 180A028 LOWER (411)
 180A023 LOWER (412 & 413)
 MIN. IMP. DIA. 152 mm



M ³ /HR	0	10	20	30	40	50	60	70	80	90	100	120	140	160	180
L/S															
U.S. GPM	100	200	300	400	500	600	700								
DRAWN BY: <i>RAN</i> APPROVED BY: <i>DL</i> DATE: 7-90 PC-124760M															

SIZE: 3X4X10C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 2950

MAX. SPHERES 16 mm
IMP. PATT. NO. 444A324
CASE PATT. NO.
180A027 UPPER (ALL)
180A028 LOWER (411)
180A023 LOWER (412 & 413)
MIN. IMP. DIA. 178 mm



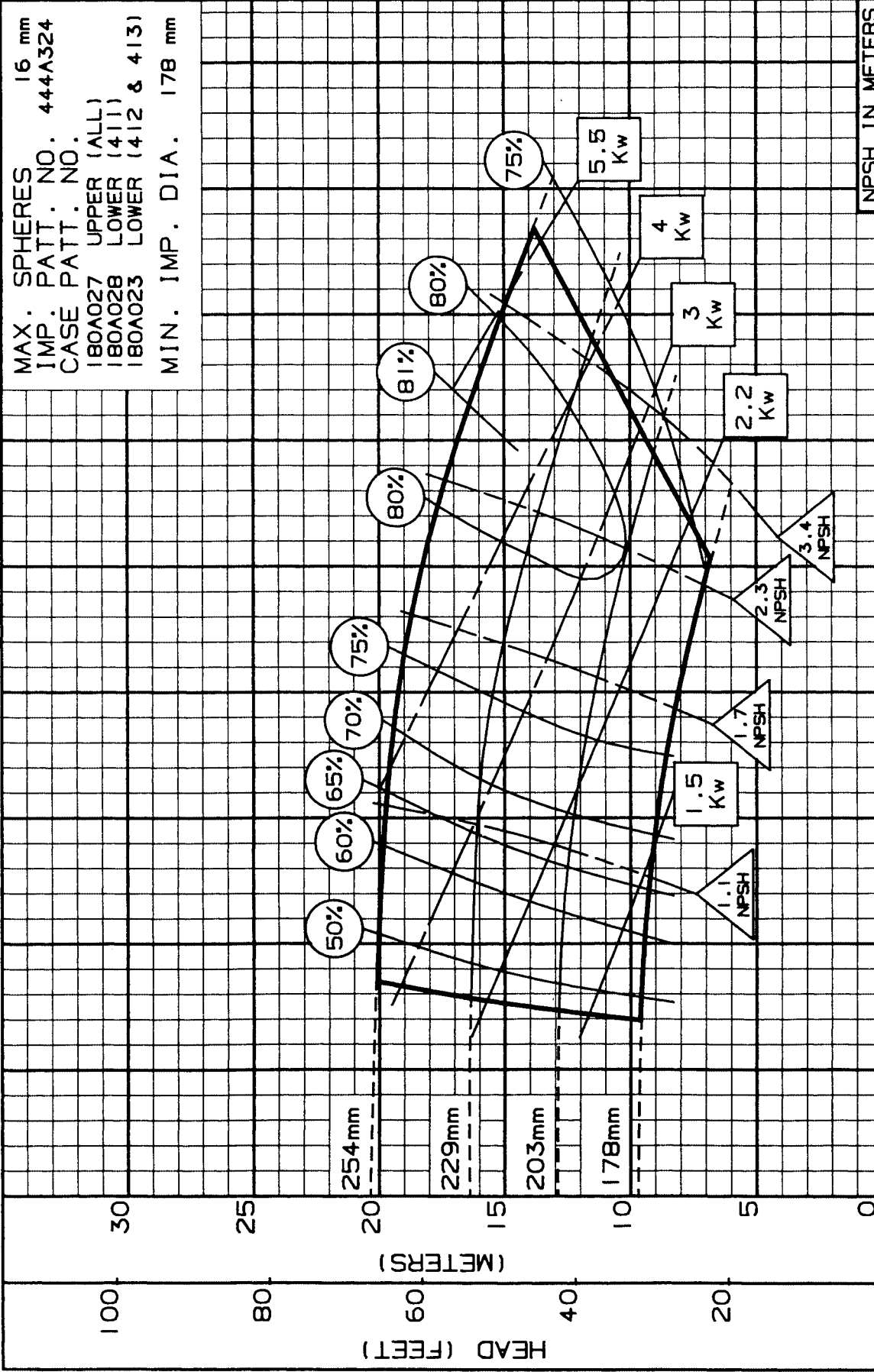
M ³ /HR	0	40	80	120	160	200	240	280	320	360
L/S	0	15	30	45	60	75	90	100	1200	1400
U.S. GPM	0	200	400	600	800	1000	1200	1400	1400	1400
DRAWN BY: <i>AK</i> APPROVED BY: DL DATE: 7-90 PC-146727M										

3x4x10C - 1440 RPM
 ENCLOSED IMPELLER



SIZE: 3X4X10C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

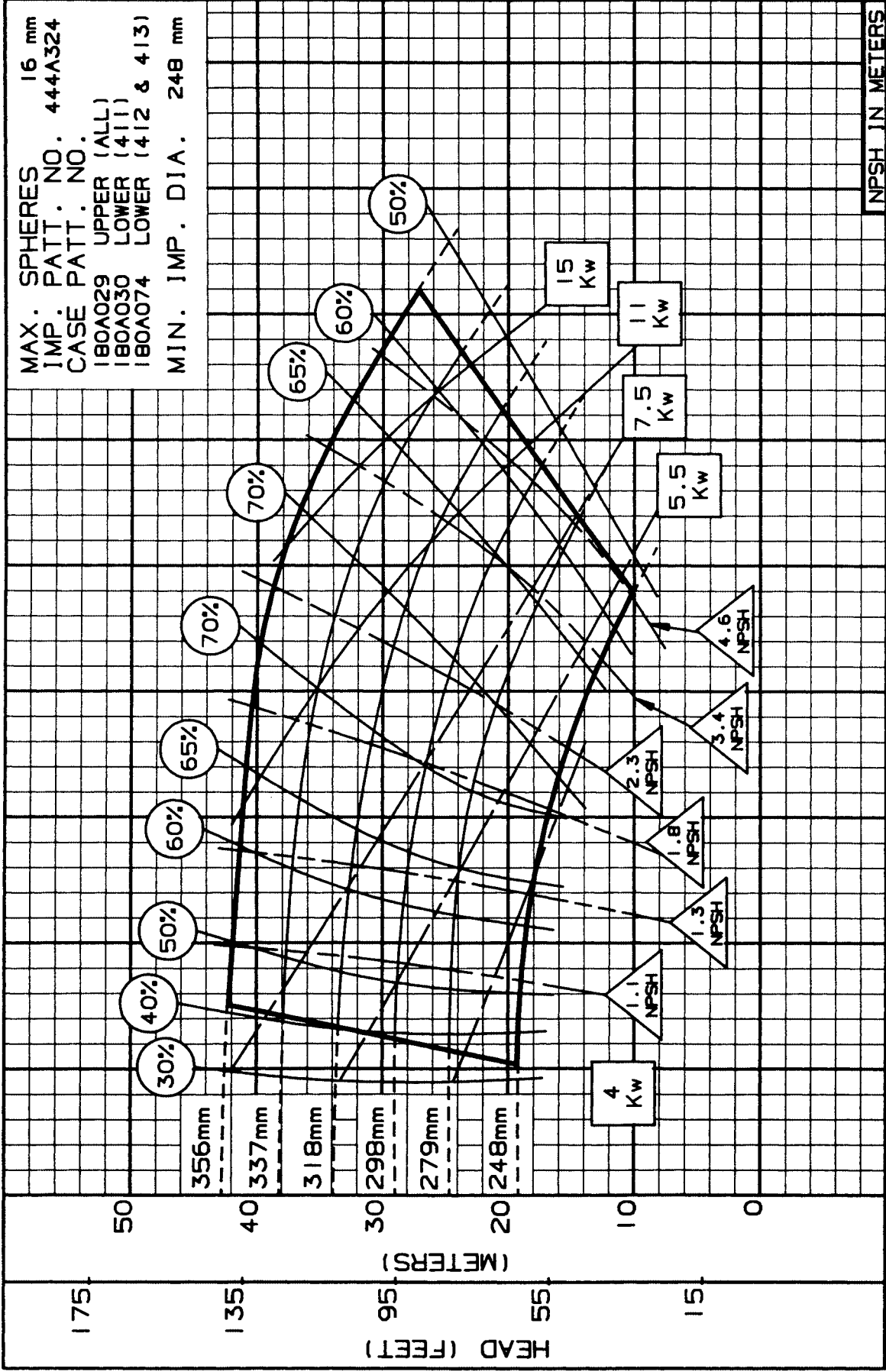
MAX. SPHERES 16 mm
 IMP. PATT. NO. 444A324
 CASE PATT. NO.
 180A027 UPPER (ALL)
 180A028 LOWER (411)
 180A023 LOWER (412 & 413)
 MIN. IMP. DIA. 178 mm



M ³ /HR	0	15	30	45	60	75	90	105	120	135
L/S	0	5	10	15	20	25	30	35	40	45
U.S. GPM	0	75	150	225	300	375	450	525	600	675
NPSH IN METERS										
DRAWN BY: <i>AMC</i> APPROVED BY: DL DATE: 7-90 PC-146728M										

SIZE: 3X4X14 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 16 mm
IMP. PATT. NO. 444A324
CASE PATT. NO.
180A029 UPPER (ALL)
180A030 LOWER (411)
180A074 LOWER (412 & 413)
MIN. IMP. DIA. 248 mm



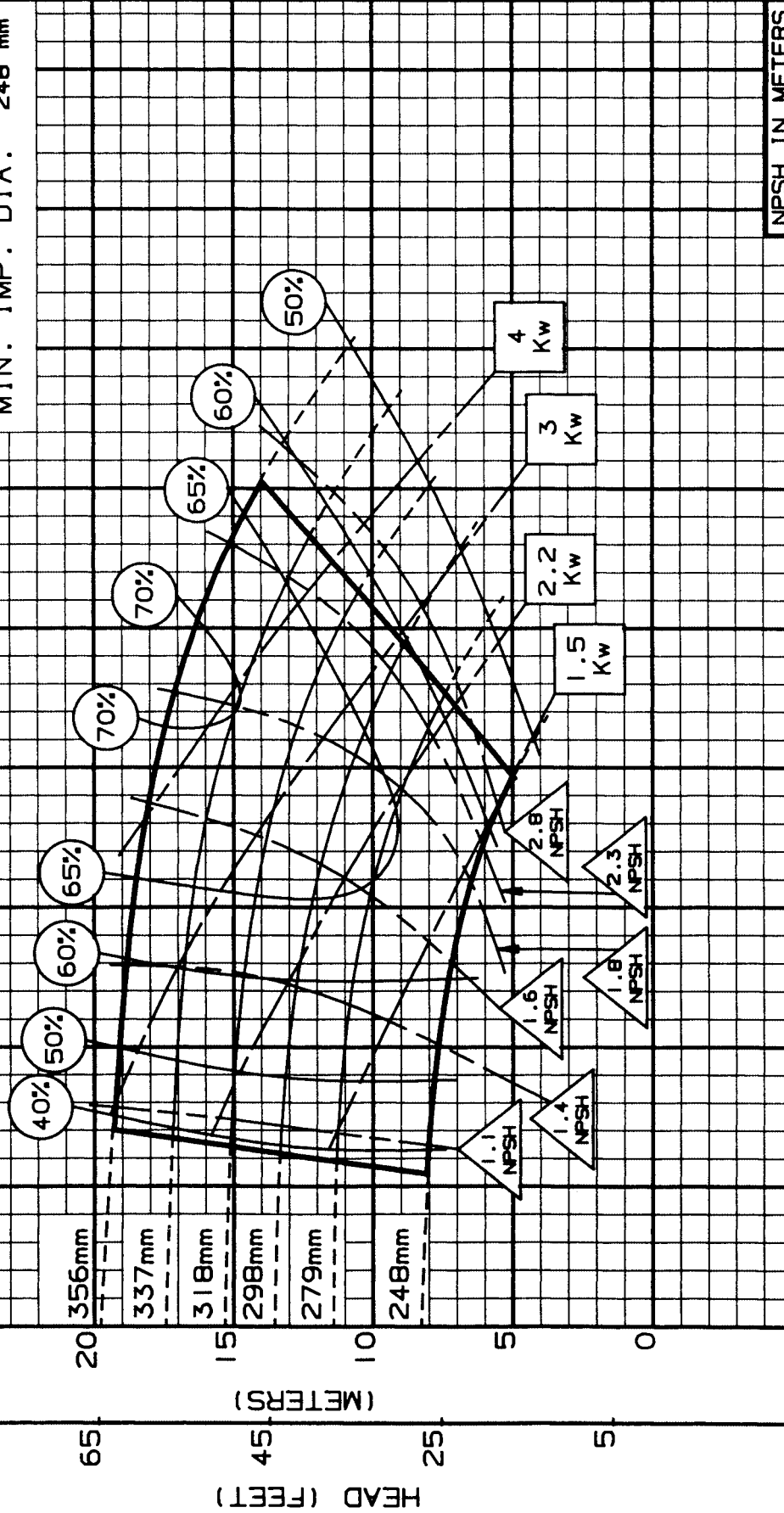
M ³ /HR	0	20	40	60	80	100	120	140	160	180
L/S	0	10	20	30	40	50	60	70	80	90
U.S. GPM	0	100	200	300	400	500	600	700	800	900
NPSH IN METERS										
DRAWN BY: <i>ATL</i> APPROVED BY: DL DATE: 7-90 PC-117363M										

3x4x14 - 960 RPM
ENCLOSED IMPELLER



SIZE: 3X4X14 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

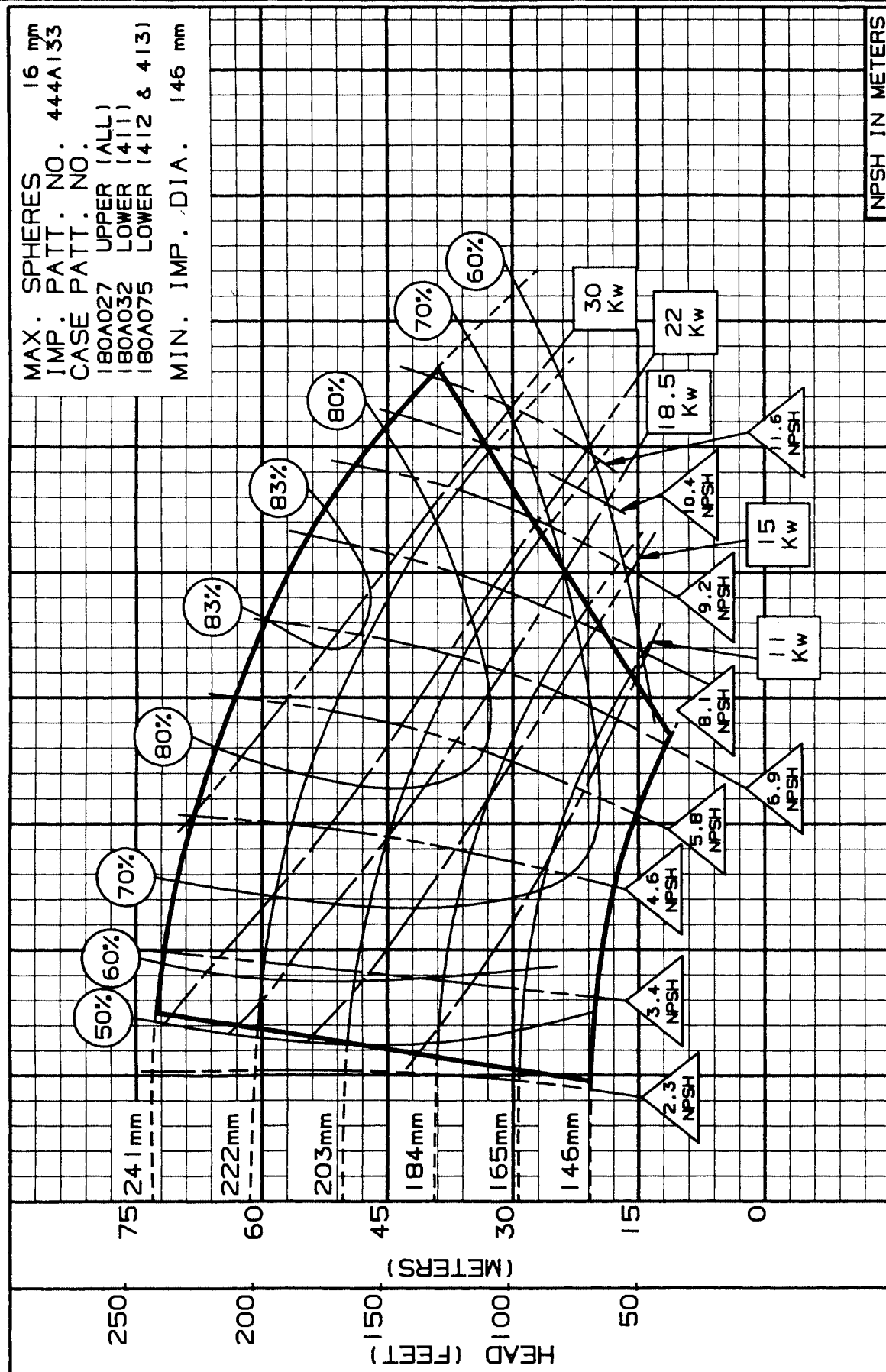
MAX. SPHERES 16 mm
 IMP. PATT. NO. 444A324
 CASE PATT. NO.
 180A029 UPPER (ALL)
 180A030 LOWER (411)
 180A074 LOWER (412 & 413)
 MIN. IMP. DIA. 248 mm



M ³ /HR	0	15	30	45	60	75	90	105	120	135
L/S	5	75	150	225	300	375	450	525	600	675
U.S. GPM	75	150	225	300	375	450	525	600	675	750
DRAWN BY: RAY APPROVED BY: DL DATE: 7-90 PC-117364M										

SIZE: 4X5X10B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 2880

MAX. SPHERES 16 mm
IMP. PATT. NO. 444A133
CASE PATT. NO.
180A027 UPPER (ALL)
180A032 LOWER (411)
180A075 LOWER (412 & 413)
MIN. IMP. DIA. 146 mm

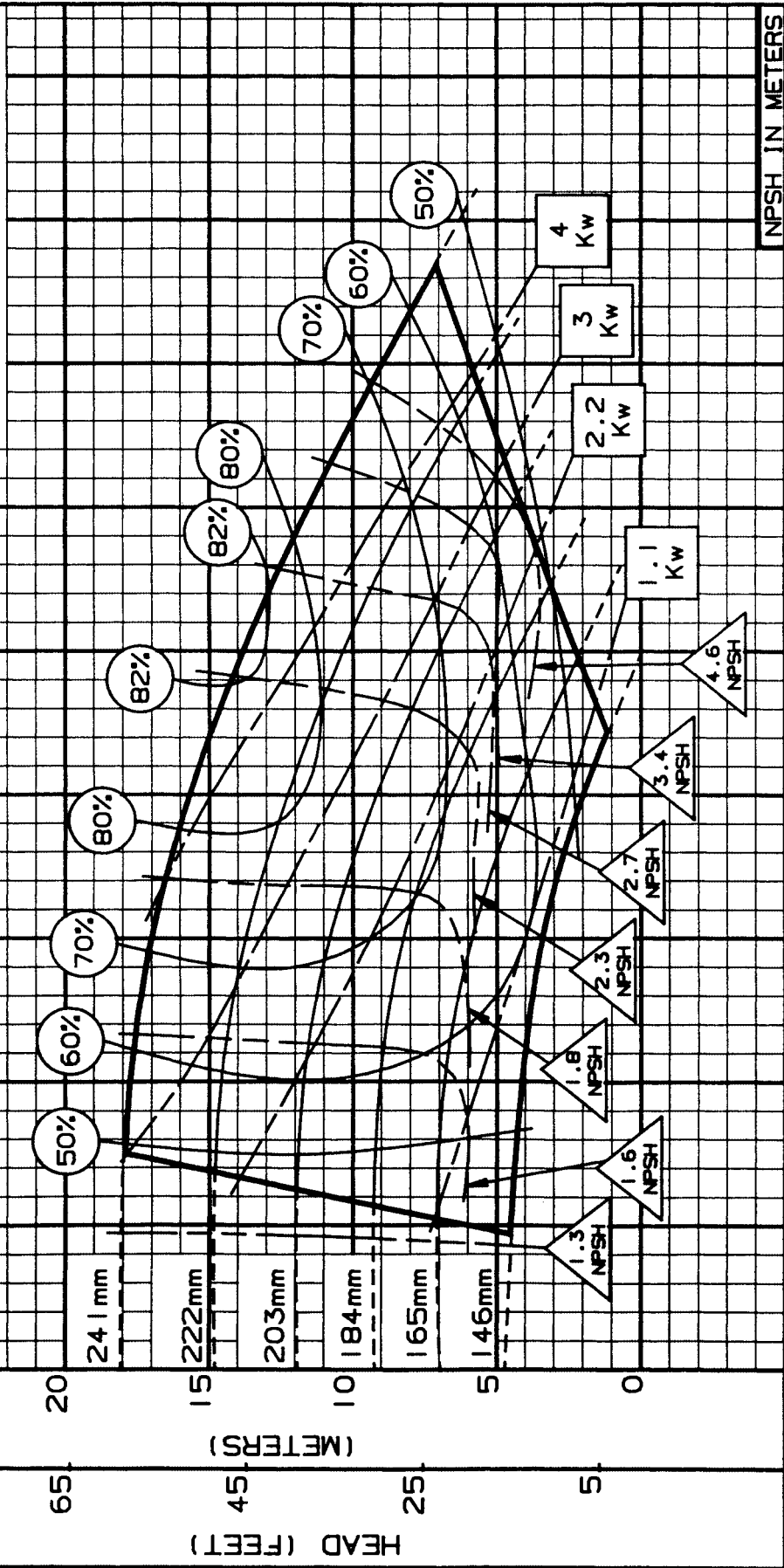


M ³ /HR	0	40	80	120	160	200	240	280	320	360
L/S	0	15	30	45	60	75	90	100	120	140
U.S. GPM	0	200	400	600	800	1000	1200	1400	1600	1800
NPSH IN METERS										

DRAWN BY: *AWL* APPROVED BY: *DL* DATE: 7-90 PC-117367M

SIZE: 4X5X10B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 16 mm
 IMP. PATT. NO. 444A133
 CASE PATT. NO.
 180A027 UPPER (ALL)
 180A032 LOWER (411)
 180A075 LOWER (412 & 413)
 MIN. IMP. DIA. 146 mm

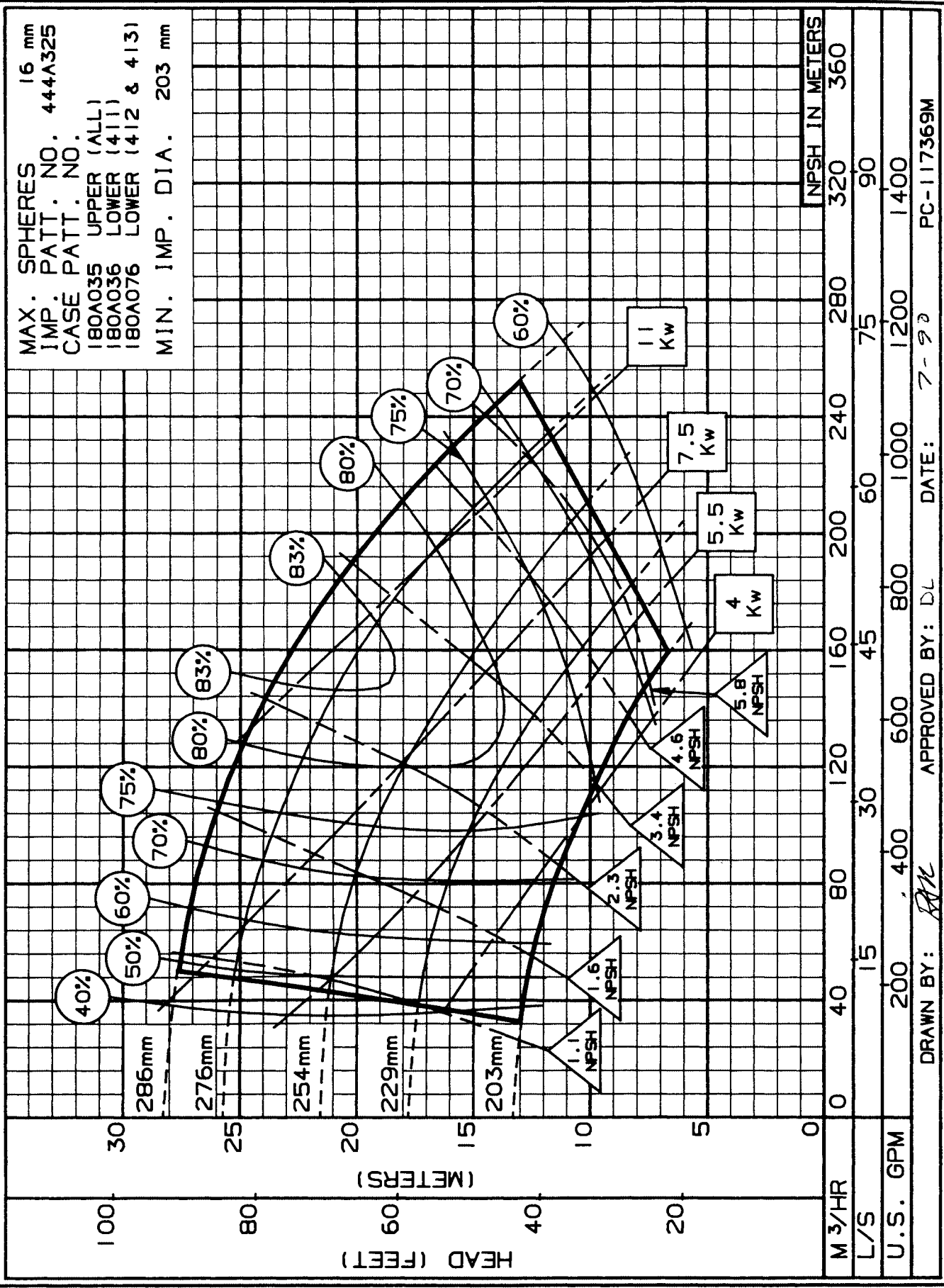


M ³ /HR	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	
L/S																				
U.S. GPM	0	100	200	300	400	500	600	700												
NPSH IN METERS																				

DRAWN BY: *RPN* APPROVED BY: DL DATE: 7-90 PC-117368M

SIZE: 4X5X11A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 16 mm
IMP. PATT: NO. 444A325
CASE PATT: NO.
180A035 UPPER (ALL)
180A036 LOWER (411)
180A076 LOWER (412 & 413)
MIN. IMP. DIA. 203 mm



DRAWN BY: *SK* APPROVED BY: DL DATE: 7-90 PC-117369M

4x5x11A - 960 RPM

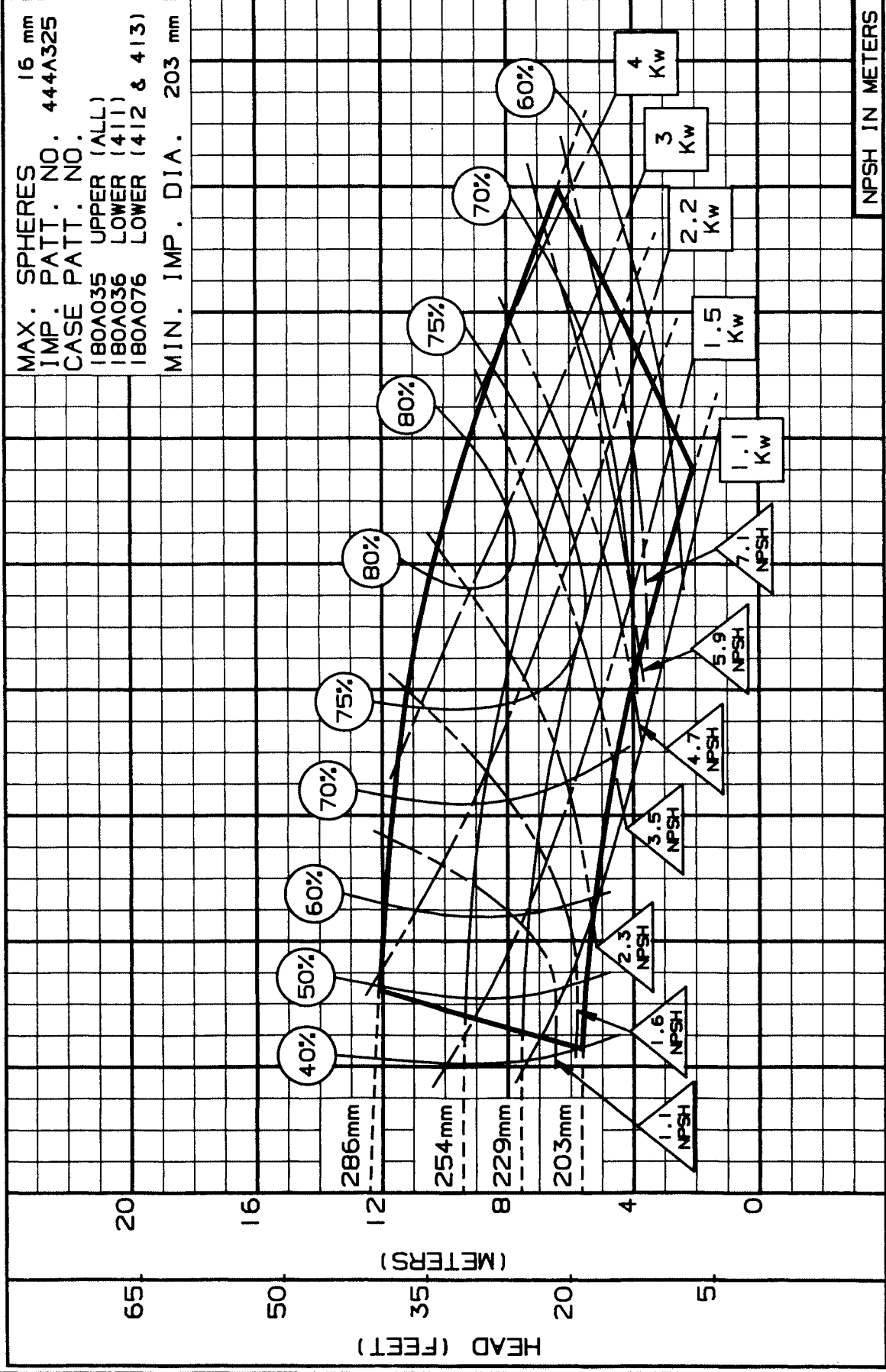
ENCLOSED IMPELLER



Pentair Pump Group

SIZE: 4X5X11A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 16 mm
 IMP. PATT. NO. 444A325
 CASE PATT. NO.
 180A035 UPPER (ALL)
 180A036 LOWER (411)
 180A076 LOWER (412 & 413)
 MIN. IMP. DIA. 203 mm

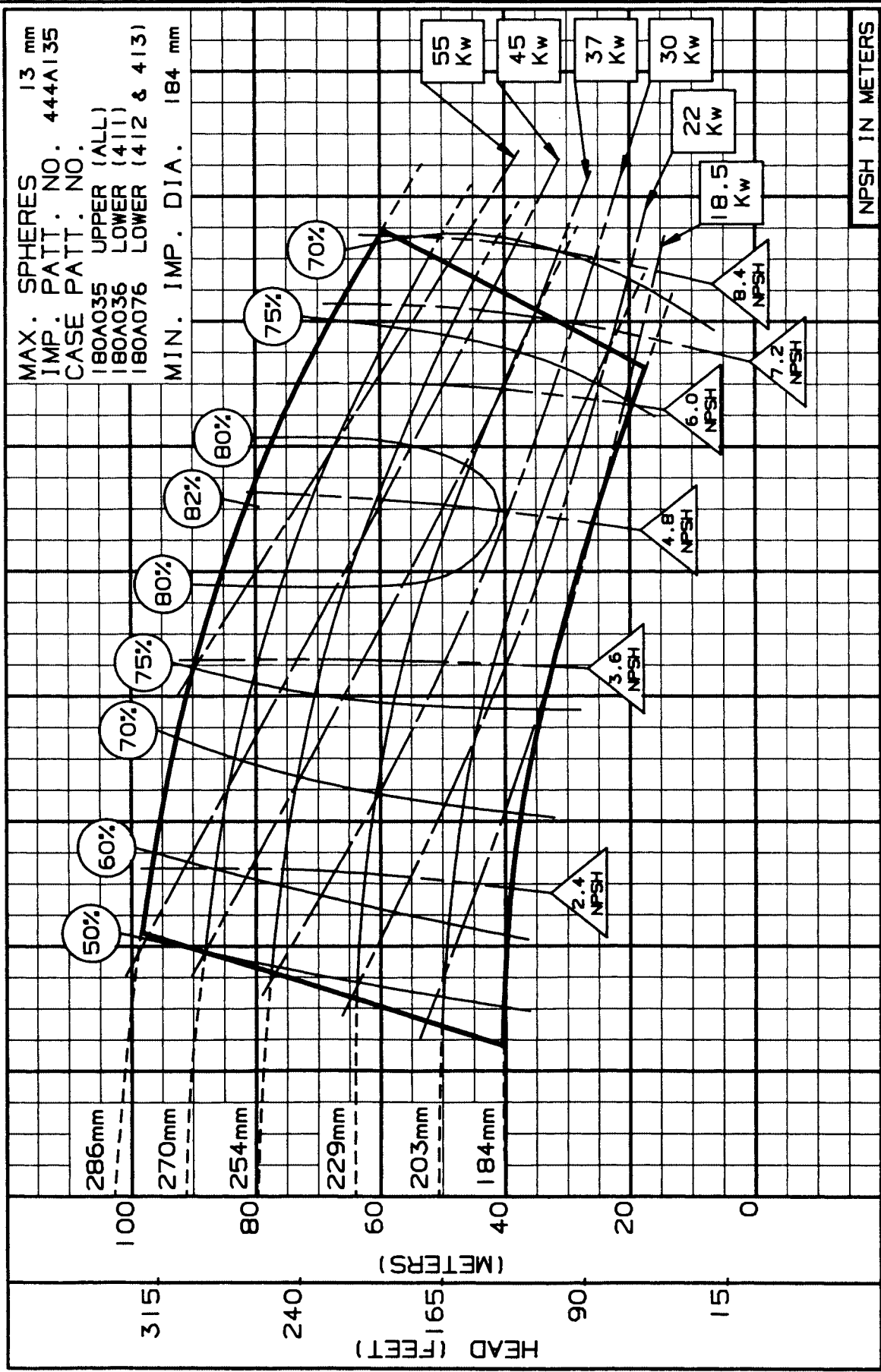


M ³ /HR	0	20	40	60	80	100	120	140	160	180
L/S	0	10	20	30	40	50	60	70	80	90
U.S. GPM	0	100	200	300	400	500	600	700	800	900

DRAWN BY: *AKZ* APPROVED BY: DL DATE: 7-90 PC-117370M

SIZE: 4X5X11C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 2950

MAX. SPHERES 13 mm
IMP. PATT. NO. 444A135
CASE PATT. NO.
180A035 UPPER (ALL)
180A036 LOWER (411)
180A076 LOWER (412 & 413)
MIN. IMP. DIA. 184 mm



M ³ /HR	0	40	80	120	160	200	240	280	320	360
L/S	15	30	45	60	75	90	100	1200	1400	
U.S. GPM	200	400	600	800	1000	1200	1400			
NPSH IN METERS										

DRAWN BY: *SAX* APPROVED BY: DL DATE: 7-90 PC-148337M

4x5x11C - 1440 RPM

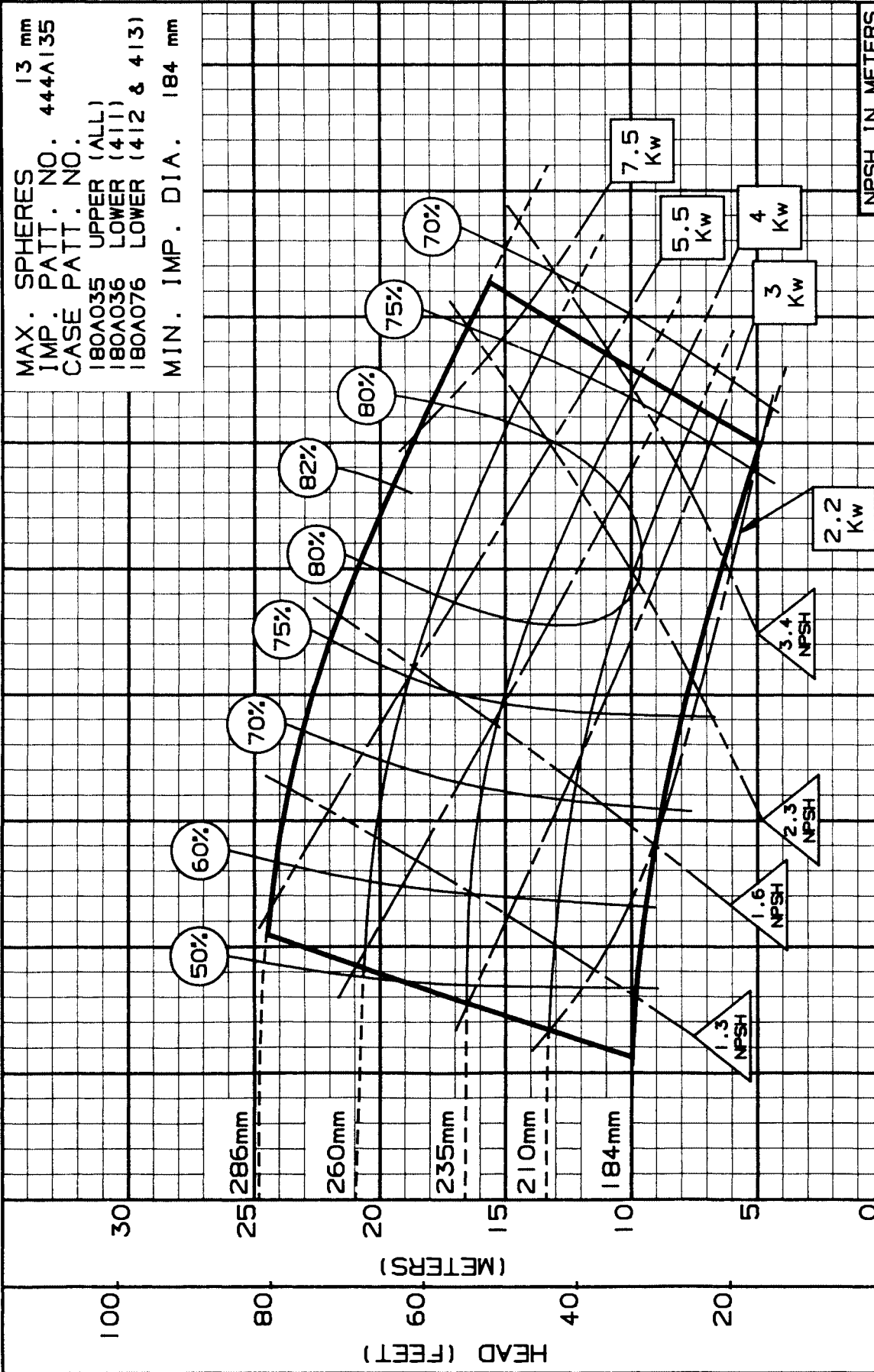
ENCLOSED IMPELLER



Pentair Pump Group

SIZE: 4X5X11C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 13 mm
 IMP. PATT. NO. 444A135
 CASE PATT. NO.
 180A035 UPPER (ALL)
 180A036 LOWER (411)
 180A076 LOWER (412 & 413)
 MIN. IMP. DIA. 184 mm

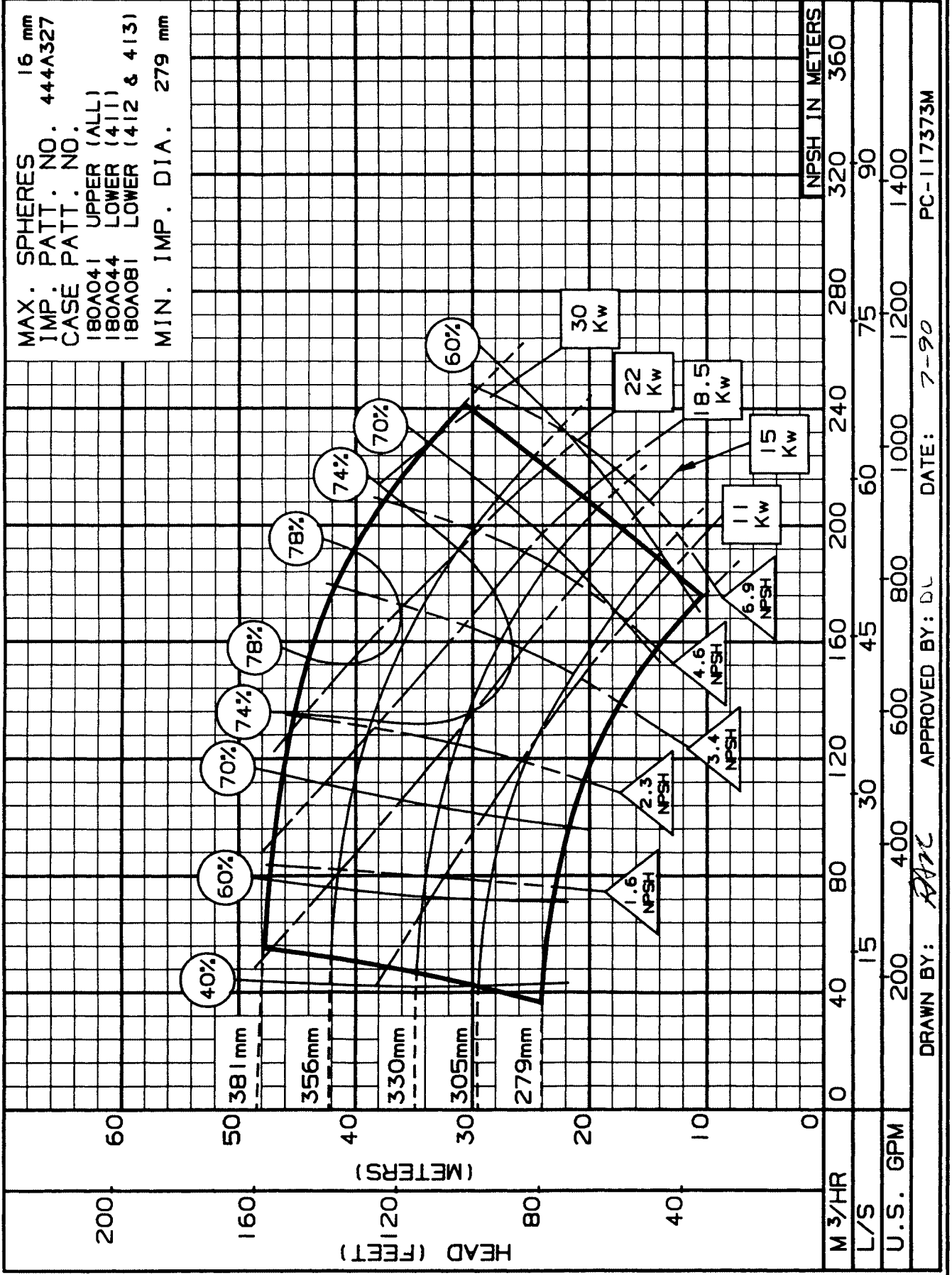


M ³ /HR	0	20	40	60	80	100	120	140	160	180
L/S	0	10	20	30	40	50	60	70	80	90
U.S. GPM	0	100	200	300	400	500	600	700	800	900
NPSH IN METERS										

DRAWN BY: *RAZ* APPROVED BY: DL DATE: 7-90 PC-117372M

SIZE: 4X5X15 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 16 mm
IMP. PATT. NO. 444A327
CASE PATT. NO.
180A041 UPPER (ALL)
180A044 LOWER (411)
180A081 LOWER (412 & 413)
MIN. IMP. DIA. 279 mm

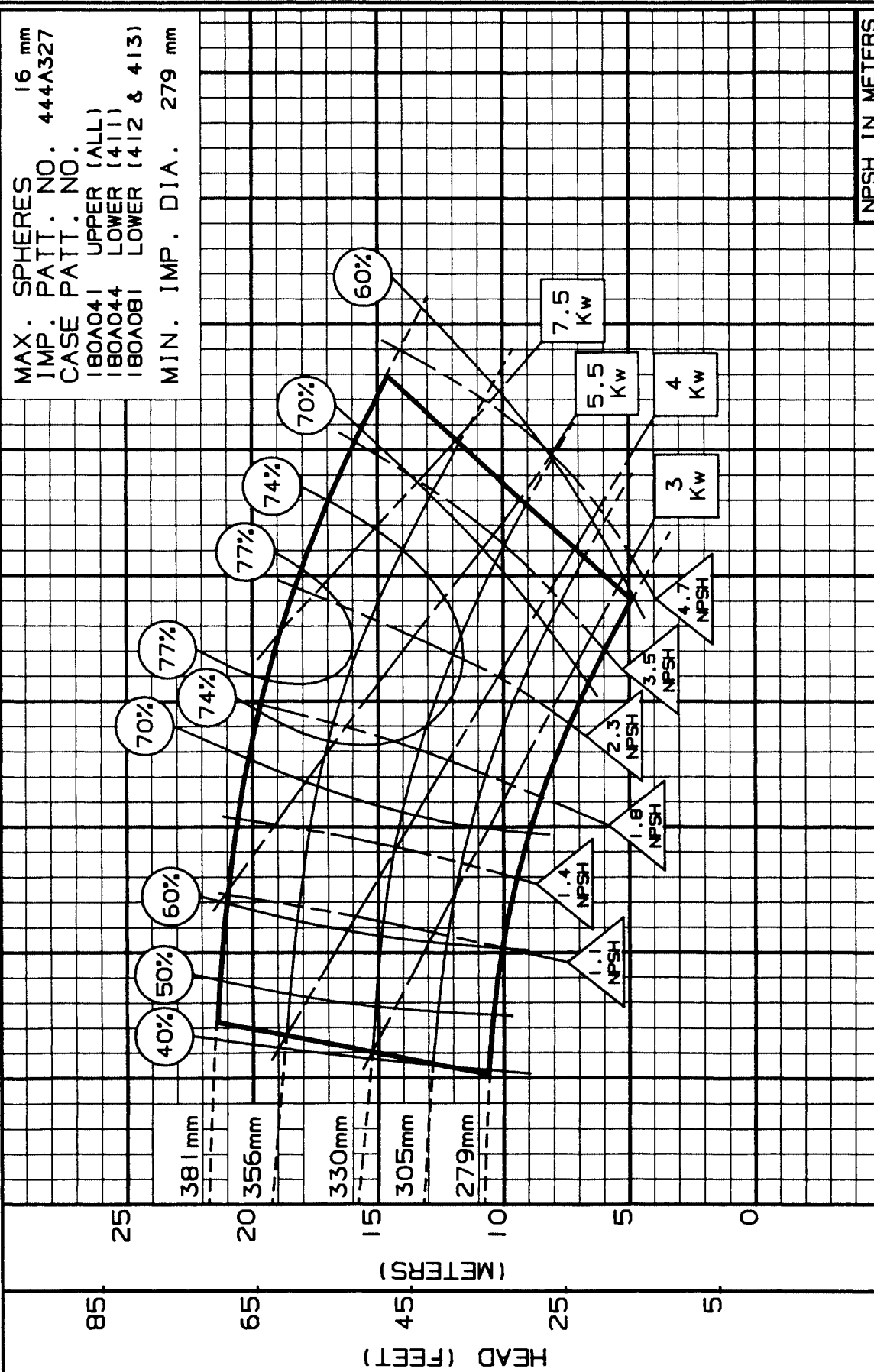


DRAWN BY: *APC* APPROVED BY: DL DATE: 7-90 PC-117373M

4x5x15 - 960 RPM
 ENCLOSED IMPELLER

SIZE: 4X5X15 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

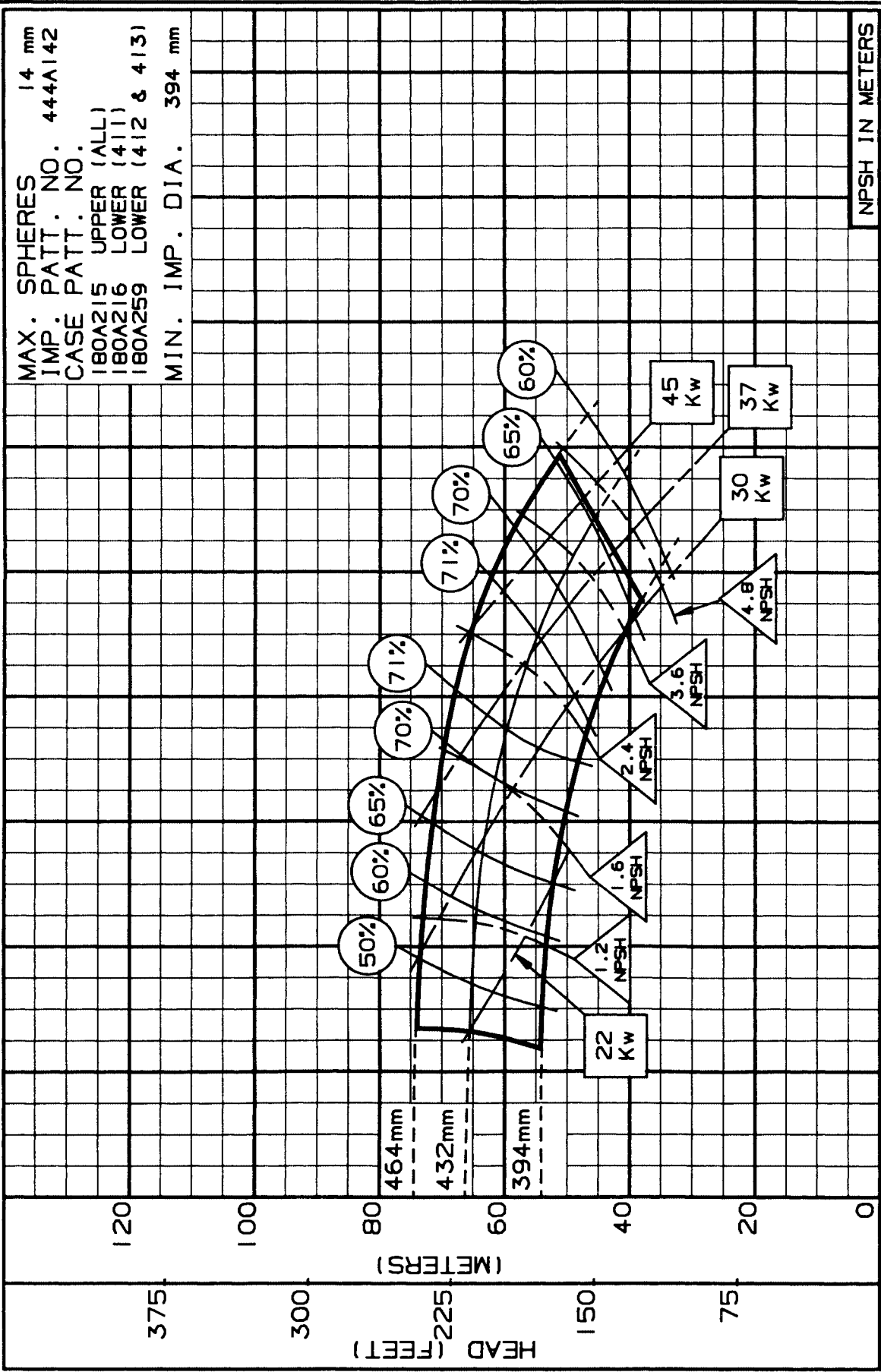
MAX. SPHERES 16 mm
 IMP. PATT. NO. 444A327
 CASE PATT. NO.
 180A041 UPPER (ALL)
 180A044 LOWER (411)
 180A081 LOWER (412 & 413)
 MIN. IMP. DIA. 279 mm



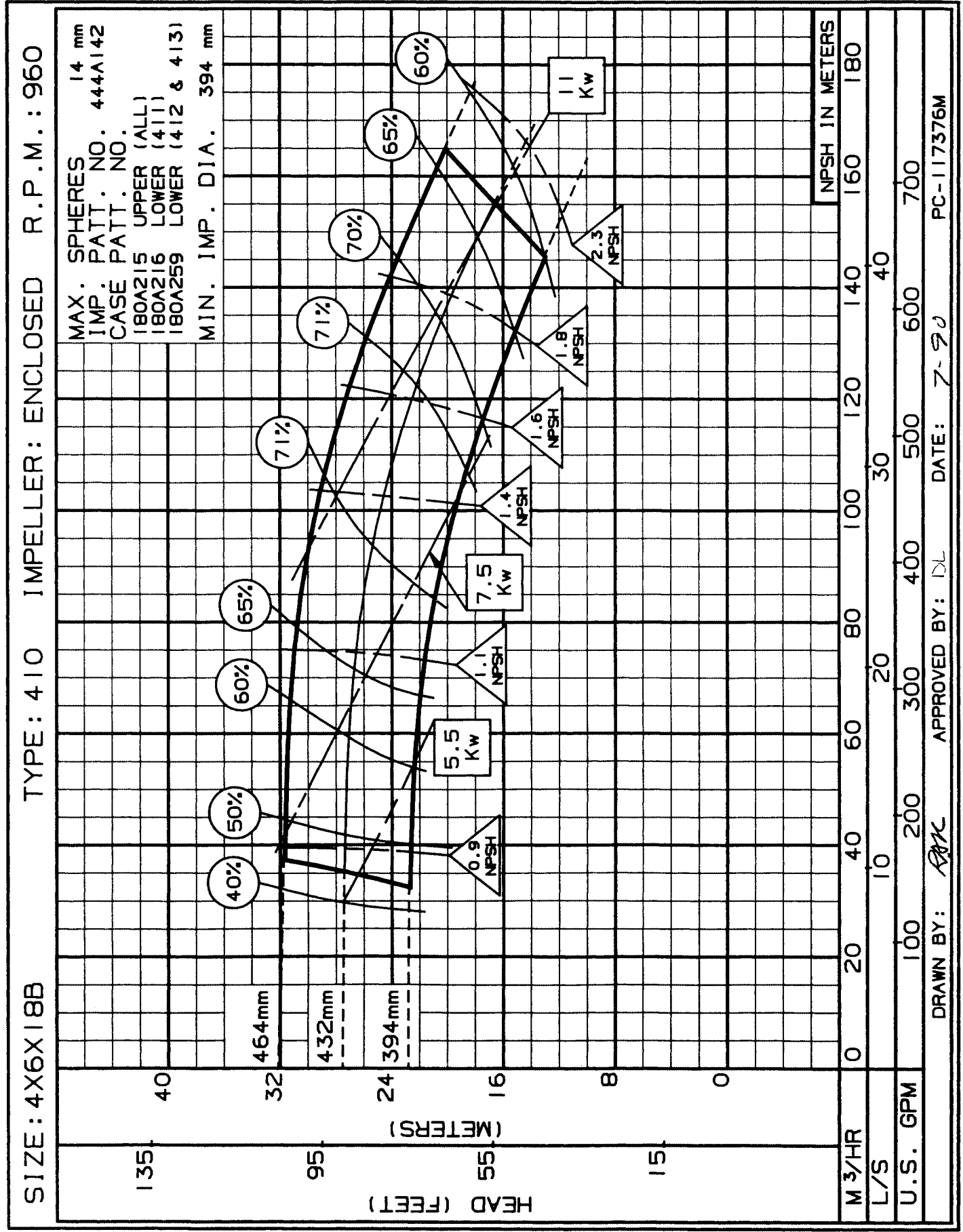
M ³ /HR	0	25	50	75	100	125	150	175	200	225
L/S	10	150	300	450	600	750	900			
U.S. GPM	150	300	450	600	750	900				
DRAWN BY: <i>APK</i> APPROVED BY: DL DATE: 7-90 PC-117374M										

SIZE: 4X6X18B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 14 mm
IMP. PATT. NO. 444A142
CASE PATT. NO.
180A215 UPPER (ALL)
180A216 LOWER (411)
180A259 LOWER (412 & 413)
MIN. IMP. DIA. 394 mm

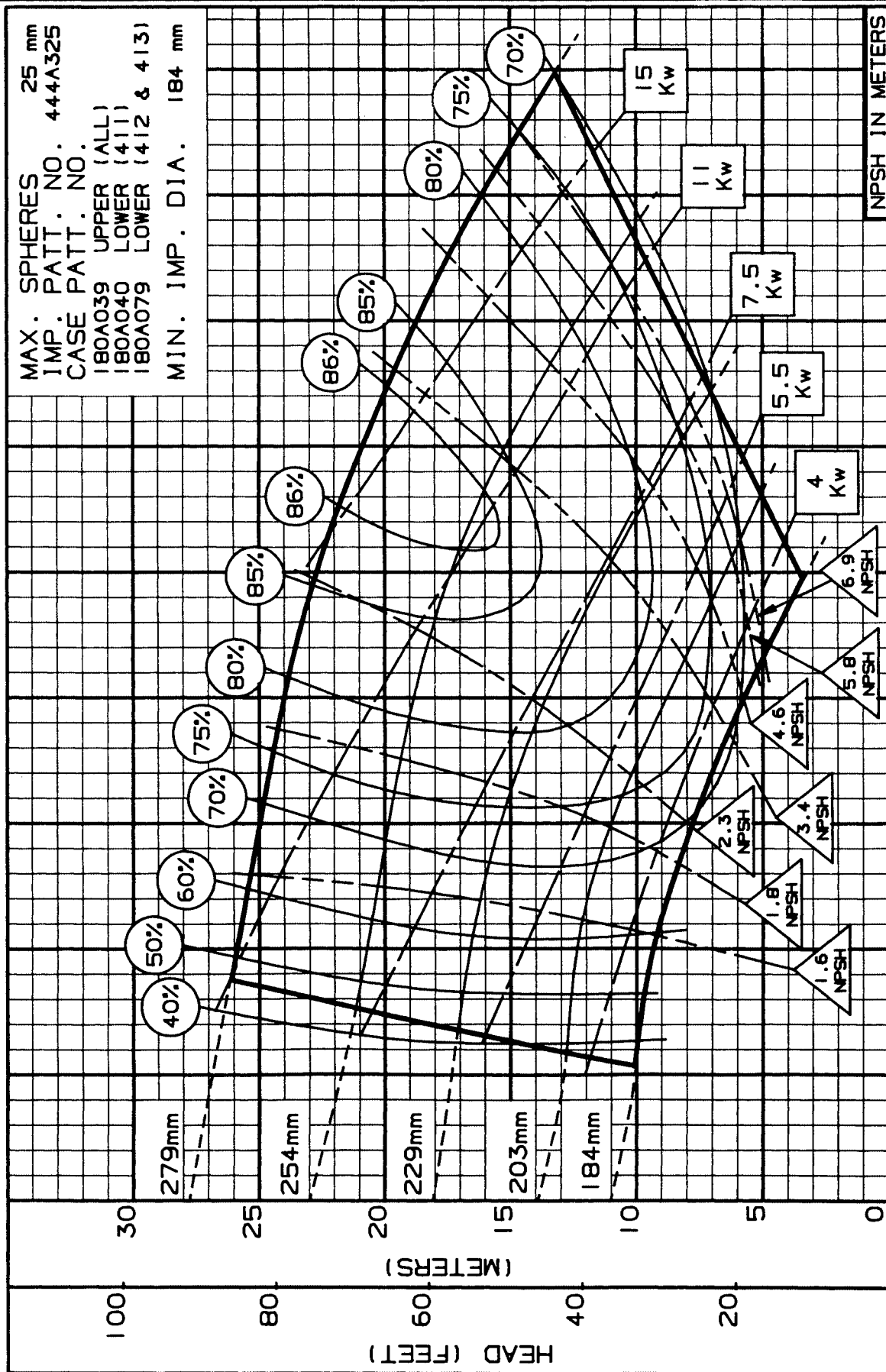


M ³ /HR	0	40	80	120	160	200	240	280	320	360
L/S	15	30	45	60	75	90	100	1200	1400	
U.S. GPM	200	400	600	800	1000	1200	1400			
DRAWN BY: <i>AKC</i> APPROVED BY: DL DATE: 7-90										
PC-117375M										



SIZE: 5X6X11A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

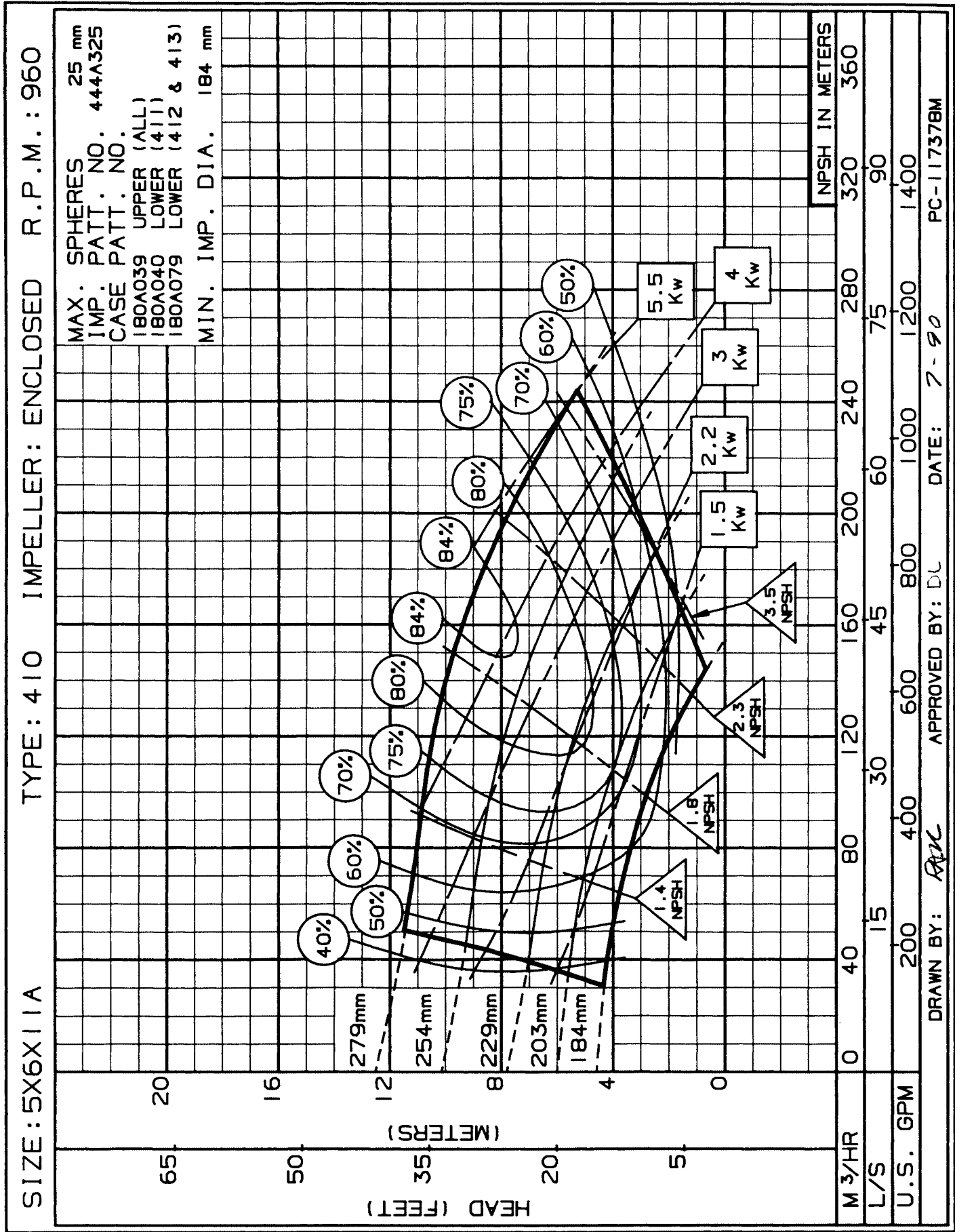
MAX. SPHERES 25 mm
IMP. PATT. NO. 444A325
CASE PATT. NO.
180A039 UPPER (ALL)
180A040 LOWER (411)
180A079 LOWER (412 & 413)
MIN. IMP. DIA. 184 mm



M ³ /HR	0	40	80	120	160	200	240	280	320	360
L/S	0	15	30	45	60	75	90	105	120	140
U.S. GPM	0	200	400	600	800	1000	1200	1400	1600	1800
NPSH IN METERS										

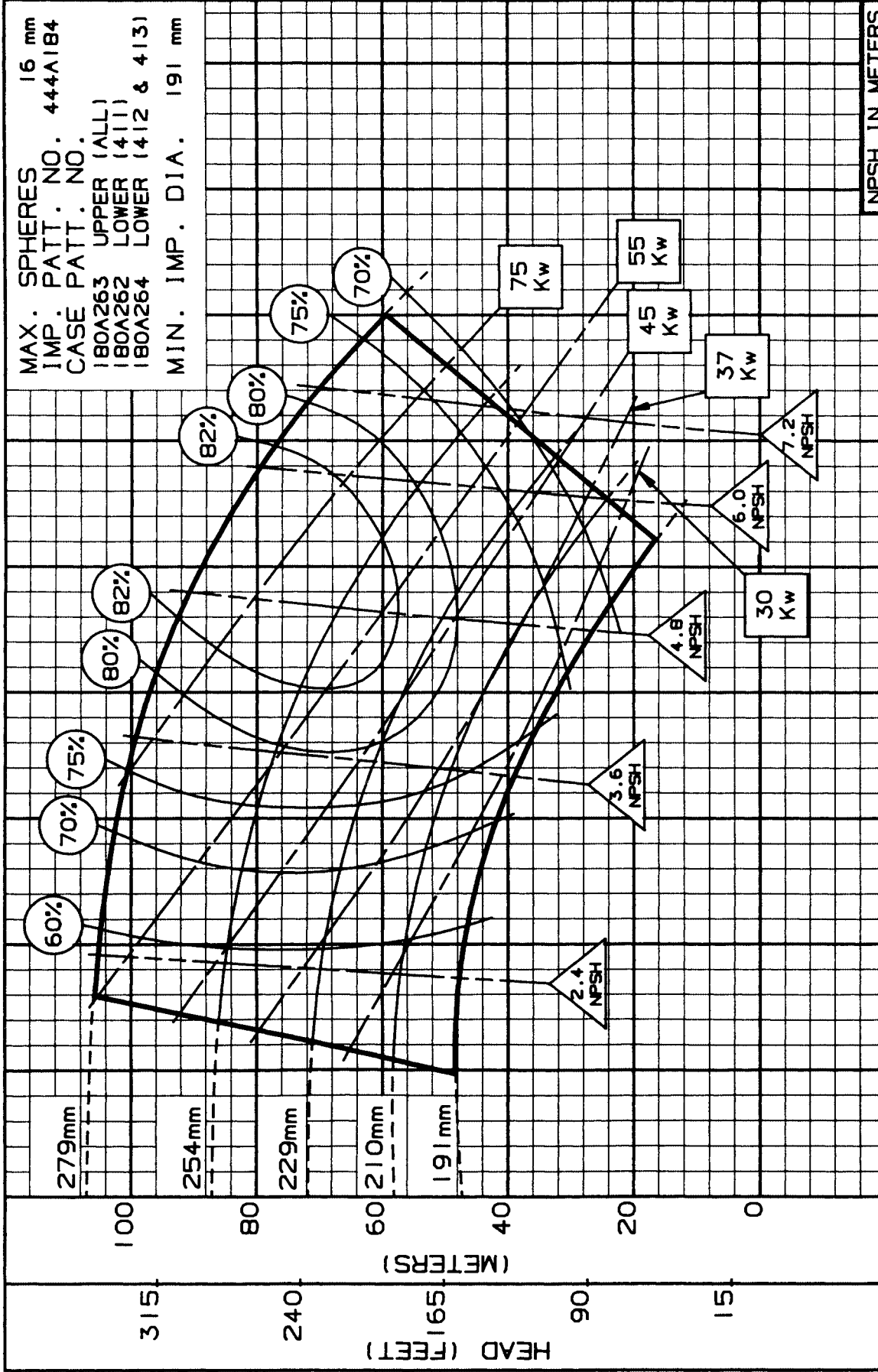
DRAWN BY: *ATL* APPROVED BY: DL DATE: 7-90 PC-117377M

5x6x11A - 960 RPM
 ENCLOSED IMPELLER



SIZE: 5X6X11C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 2950

MAX. SPHERES 16 mm
IMP. PATT. NO. 444A184
CASE PATT. NO.
180A263 UPPER (ALL)
180A262 LOWER (411)
180A264 LOWER (412 & 413)
MIN. IMP. DIA. 191 mm



M ³ /HR	0	60	120	180	240	300	360	420	480	540
L/S	0	20	40	60	80	100	120	140	160	180
U.S. GPM	0	400	800	1200	1600	2000	2400	2800	3200	3600
NPSH IN METERS										

DRAWN BY: *AKC* APPROVED BY: DL DATE: 7-90 PC-125241M

5x6x11C - 1440 RPM

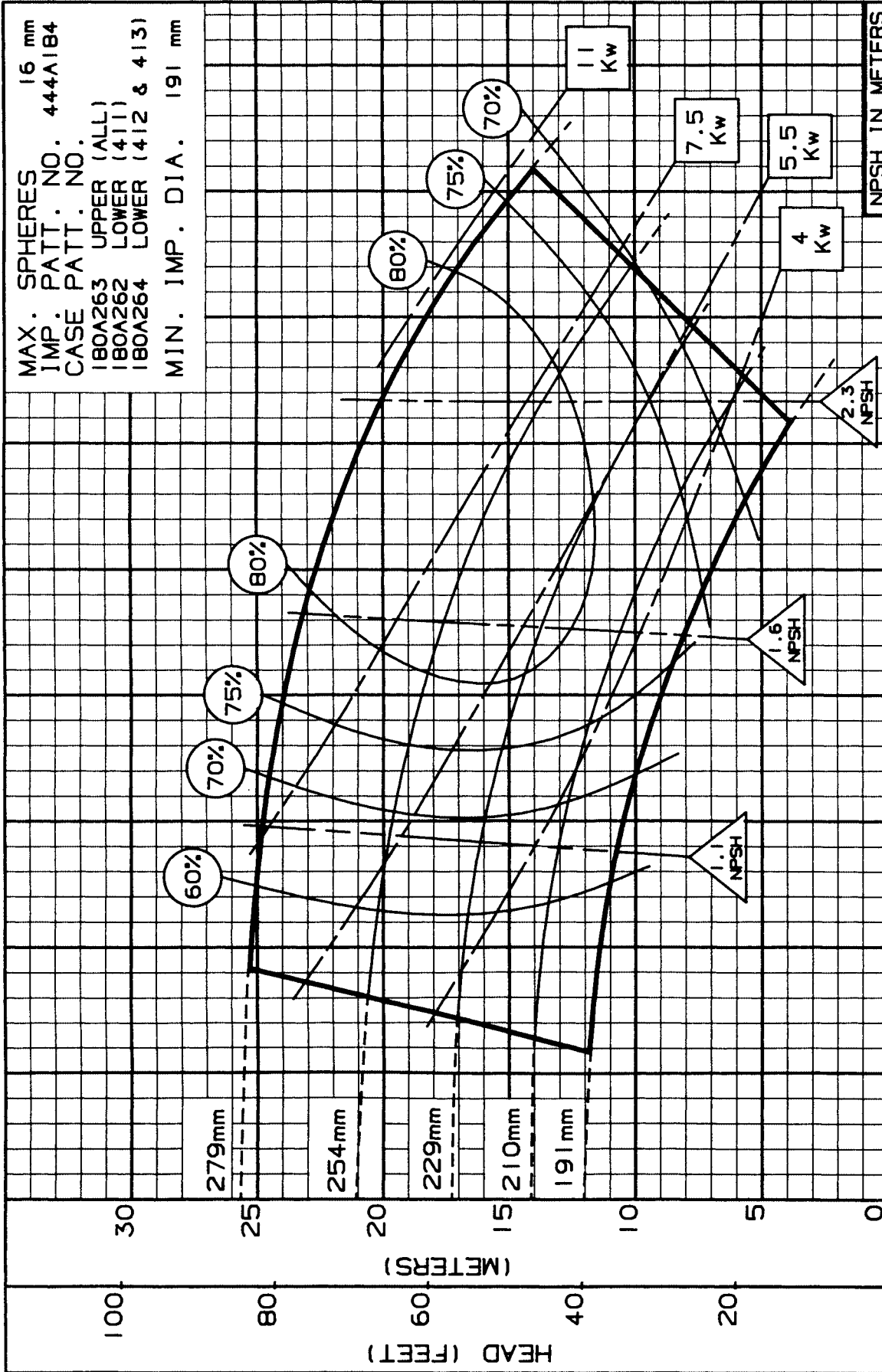
ENCLOSED IMPELLER



Pentair Pump Group

SIZE: 5X6X11C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 16 mm
 IMP. PATT. NO. 444A184
 CASE PATT. NO.
 180A263 UPPER (ALL)
 180A262 LOWER (411)
 180A264 LOWER (412 & 413)
 MIN. IMP. DIA. 191 mm

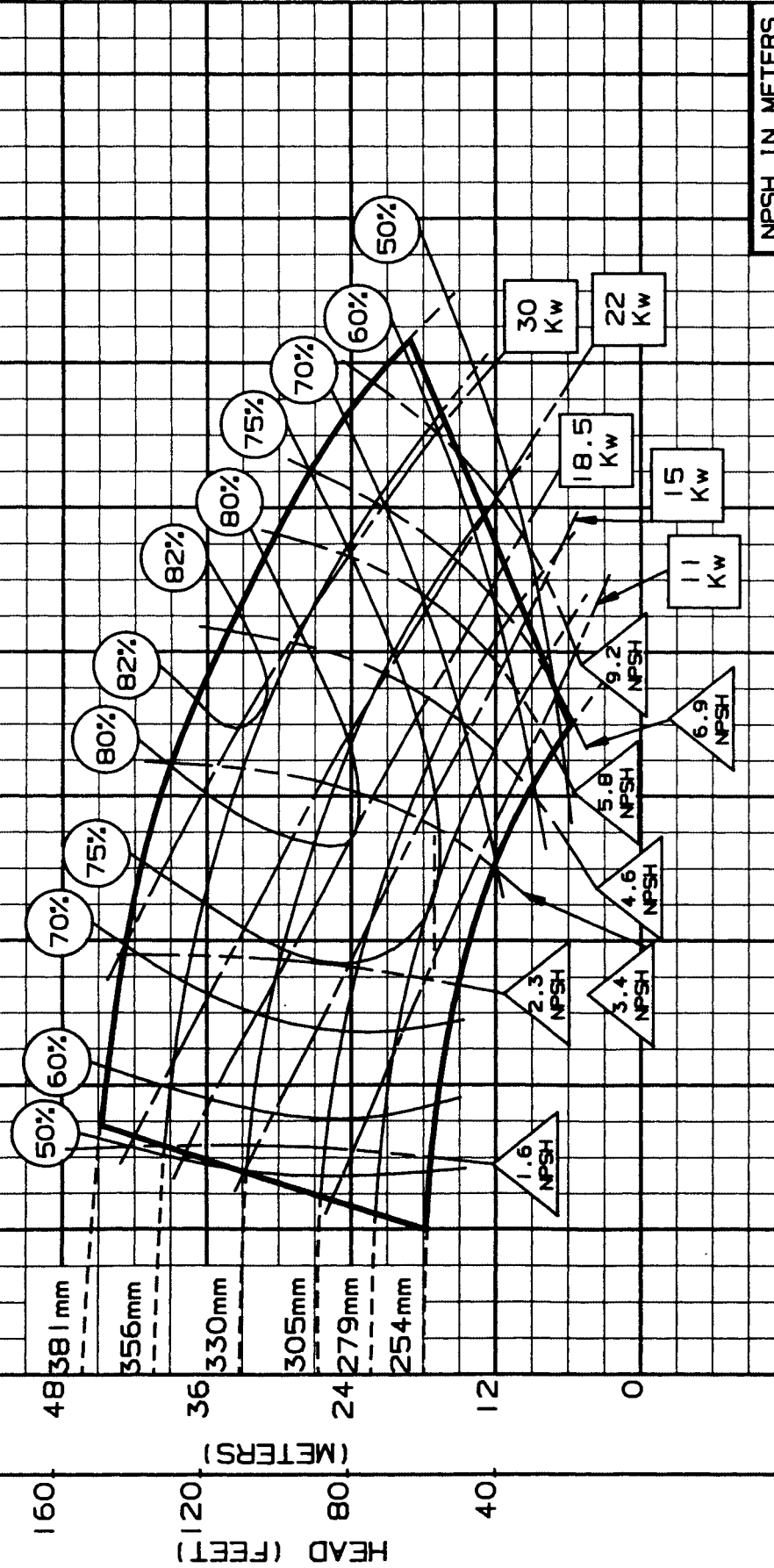


M ³ /HR	0	25	50	75	100	125	150	175	200	225
L/S	0	10	20	30	40	50	60	75	90	100
U.S. GPM	0	150	300	450	600	750	900	1050	1200	1350
NPSH IN METERS										

DRAWN BY: *RAC* APPROVED BY: DL DATE: 7-90 PC-125240M

SIZE: 5X6X15 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 21 mm
IMP. PATT. NO. 444A328
CASE PATT. NO.
180A041 UPPER (ALL)
180A042 LOWER (411)
180A080 LOWER (412 & 413)
MIN. IMP. DIA. 254 mm



M ³ /HR	0	60	120	180	240	300	360	420	480	540
L/S	0	20	40	60	80	100	120	140	160	180
U.S. GPM	0	400	800	1200	1600	2000	2400	2800	3200	3600
NPSH IN METERS										

DRAWN BY: *RAC* APPROVED BY: DL DATE: 7-90 PC-117379M

SECTION 410 (Metric 50Hz)

DATE JULY 1994

SUPERCEDES MARCH 1986

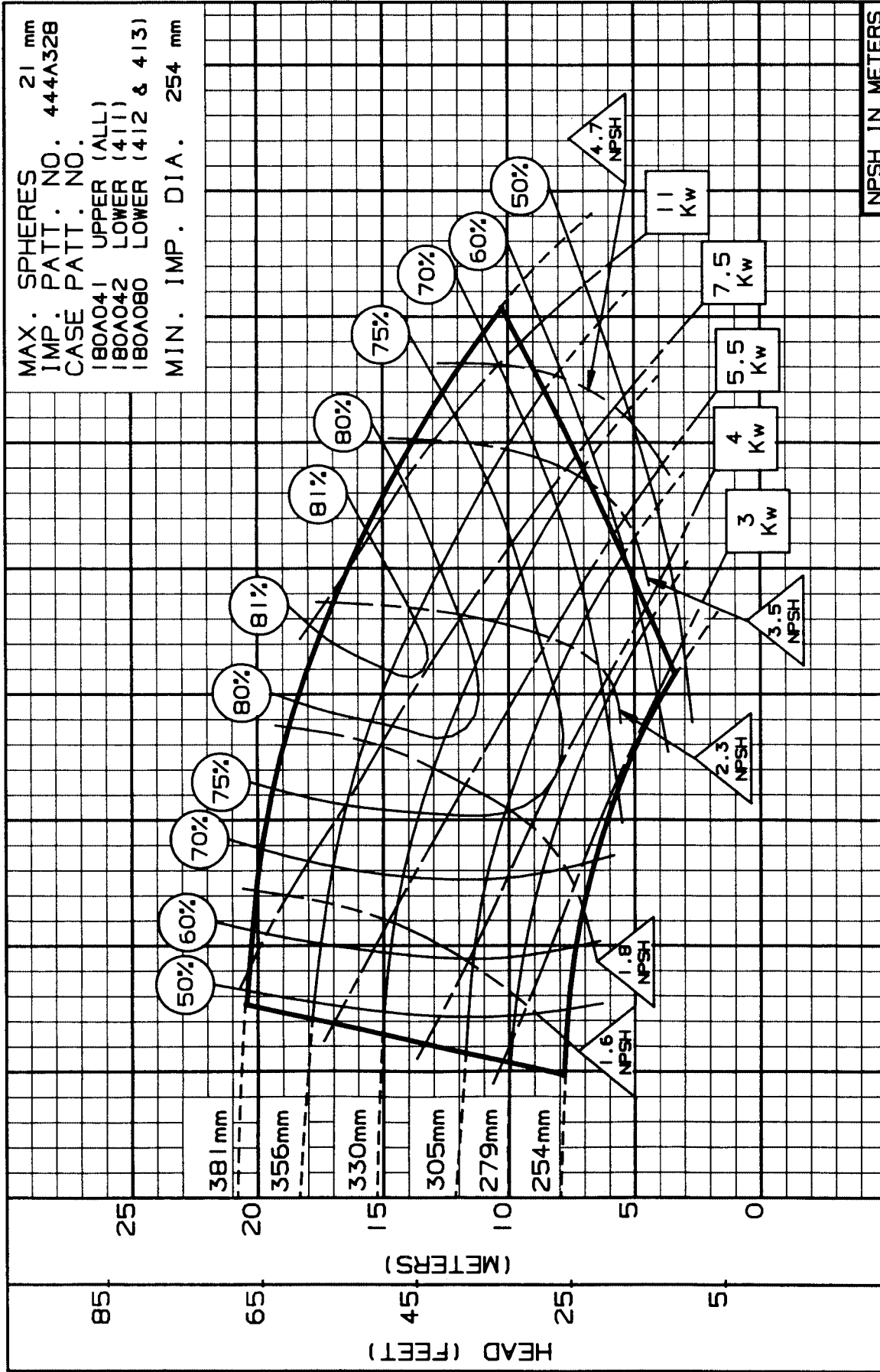
5x6x15 - 960 RPM ENCLOSED IMPELLER



TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

SIZE: 5X6X15

MAX. SPHERES 21 mm
 IMP. PATT. NO. 444A328
 CASE PATT. NO.
 180A041 UPPER (ALL)
 180A042 LOWER (411)
 180A080 LOWER (412 & 413)
 MIN. IMP. DIA. 254 mm

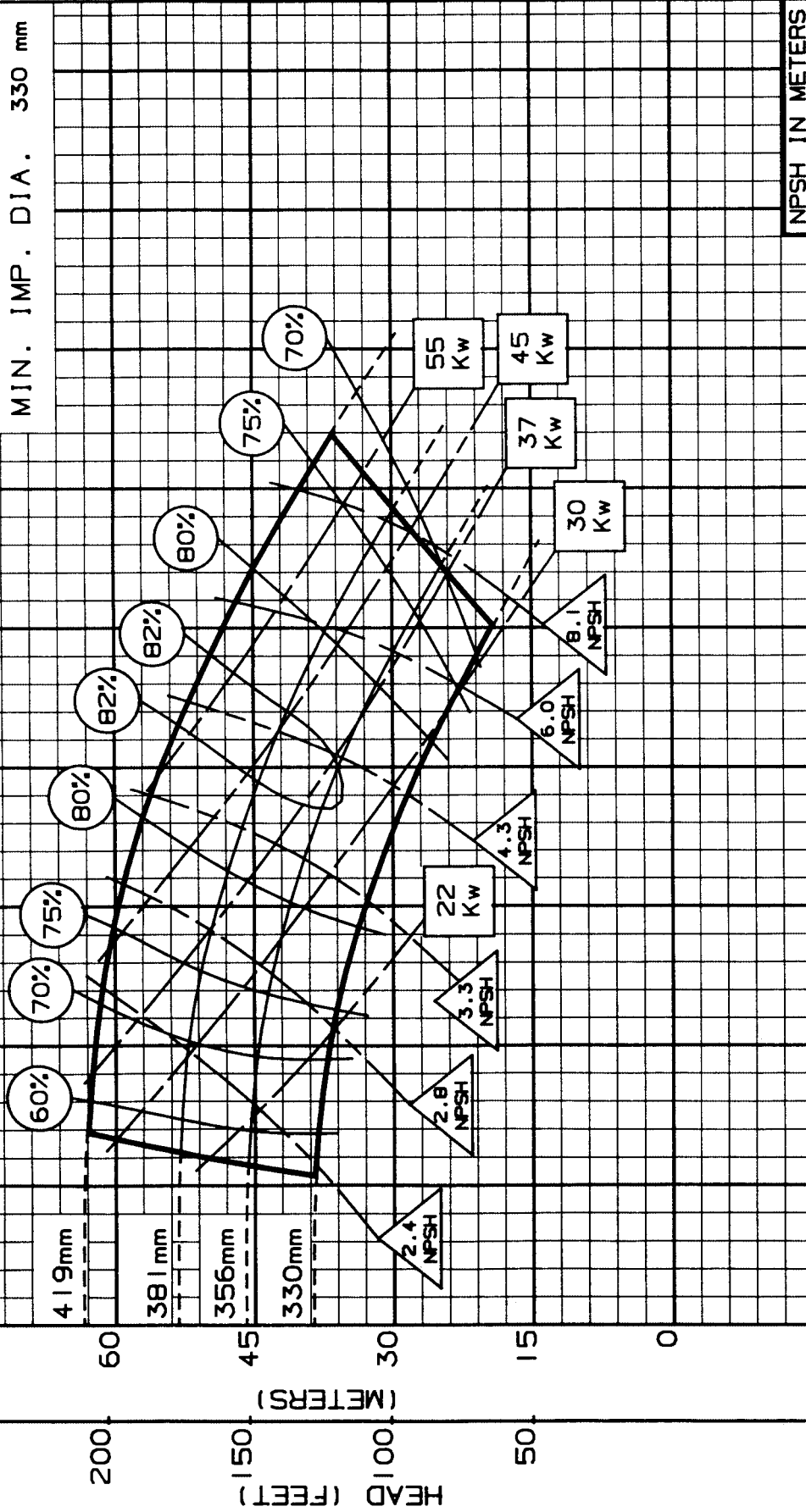


M ³ /HR	0	40	80	120	160	200	240	280	320	360
L/S	0	15	30	45	60	75	90	100	120	140
U.S. GPM	0	200	400	600	800	1000	1200	1400		
NPSH IN METERS										

DRAWN BY: *ATZ* APPROVED BY: DL DATE: 7-90 PC-117380M

SIZE: 5X6X17 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 17 mm
IMP. PATT. NO. 444A329
CASE PATT. NO.
180A041 UPPER (ALL)
180A044 LOWER (411)
180A081 LOWER (412 & 413)
MIN. IMP. DIA. 330 mm



M 3/HR	0	75	150	225	300	375	450	525	600	675
L/S	0	25	50	75	100	125	150	175	200	225
U.S. GPM	0	400	800	1200	1600	2000	2400	2800	3200	3600
NPSH IN METERS										
DRAWN BY: <i>ATL</i> APPROVED BY: <i>DL</i> DATE: 7-90 PC-14478BM										

5x6x17 - 960 RPM

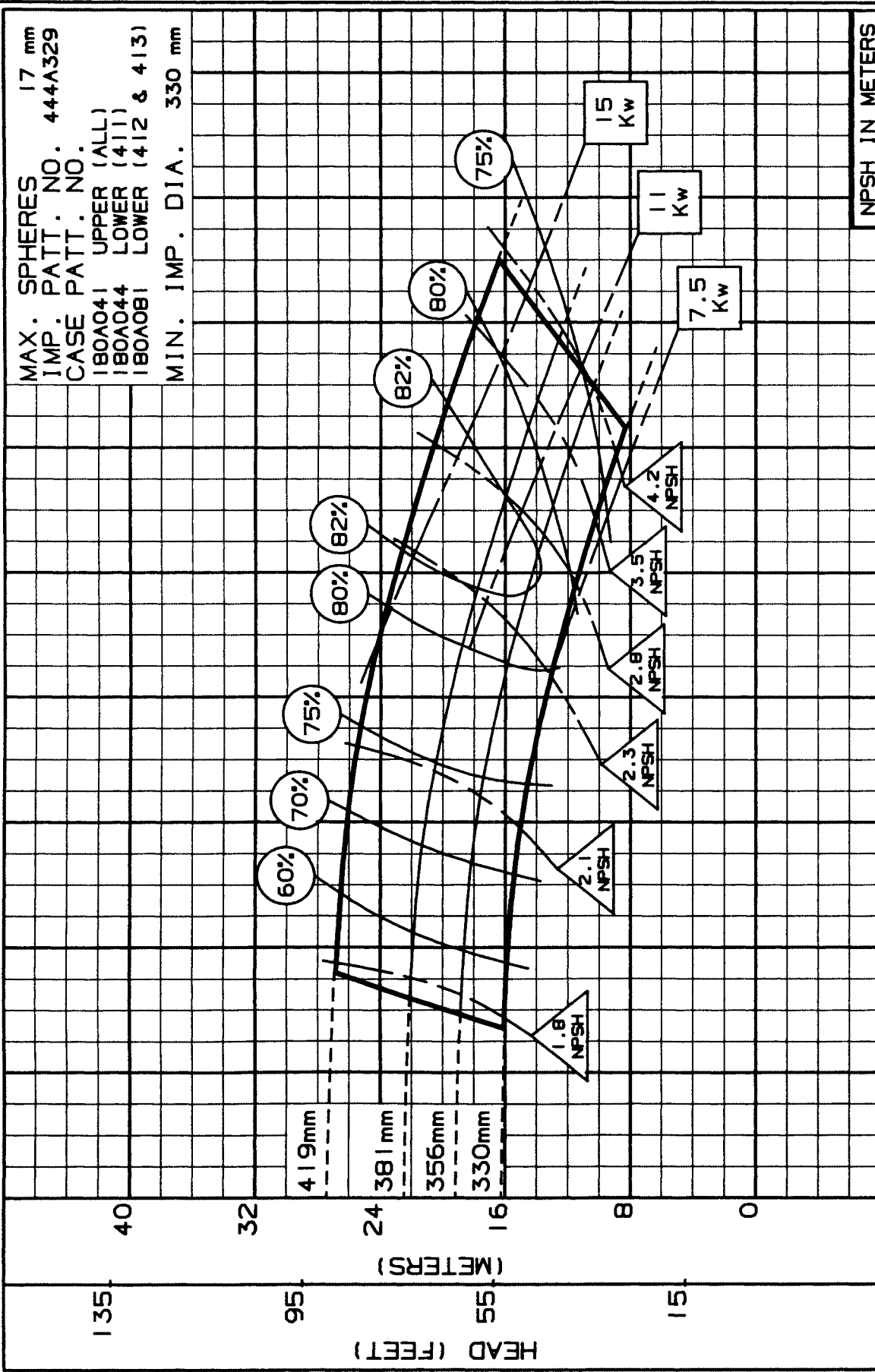
ENCLOSED IMPELLER



Pentair Pump Group

SIZE: 5X6X17 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 17 mm
 IMP. PATT. NO. 444A329
 CASE PATT. NO.
 180A041 UPPER (ALL)
 180A044 LOWER (411)
 180A081 LOWER (412 & 413)
 MIN. IMP. DIA. 330 mm

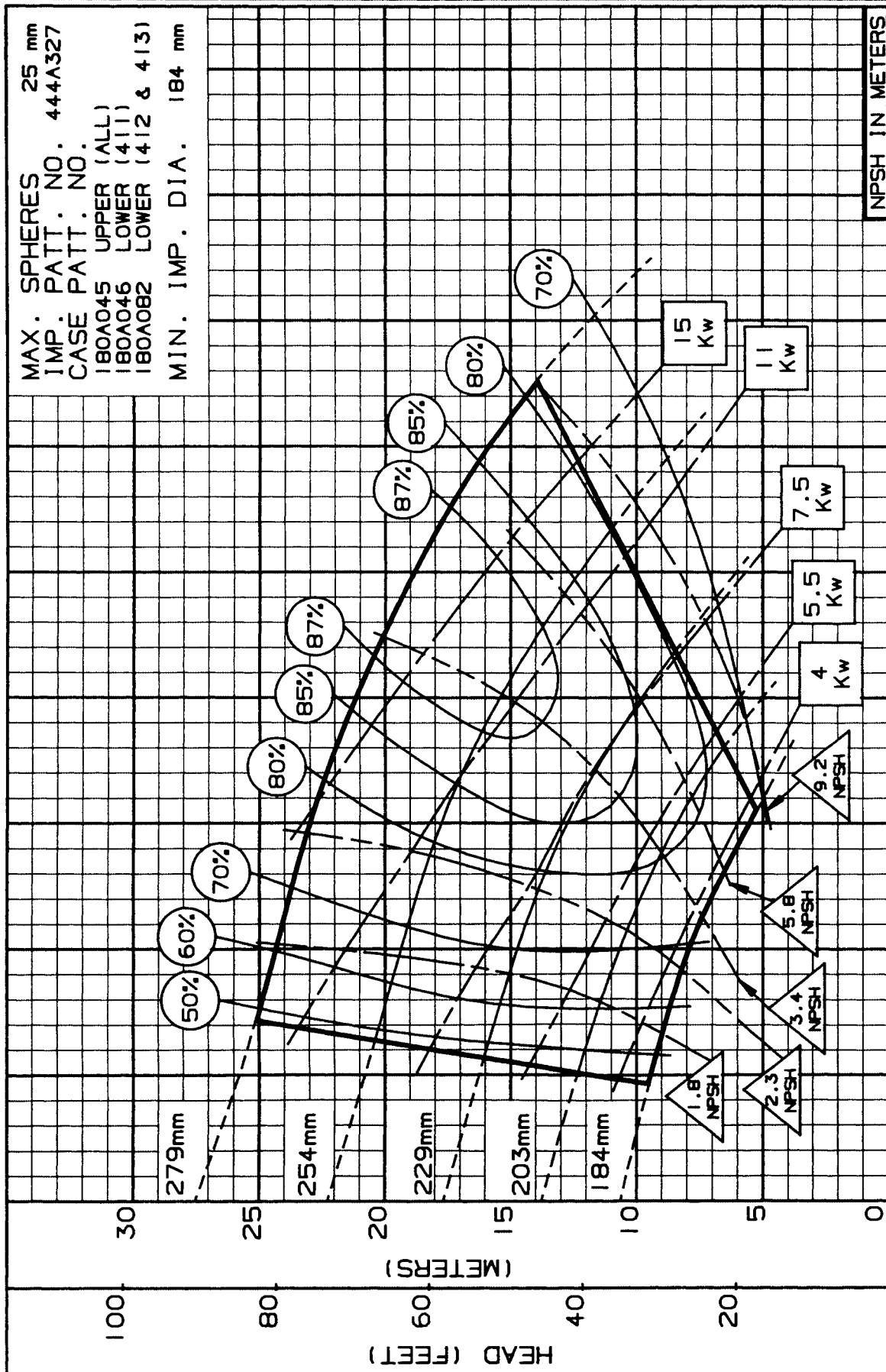


M ³ /HR	0	40	80	120	160	200	240	280	320	360
L/S	15									
U.S. GPM	200	400	600	800	1000	1200	1400			
NPSH IN METERS										

DRAWN BY: *SPZ* APPROVED BY: DL DATE: 7-90 PC-144789M

SIZE: 6X8X11 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 25 mm
IMP. PATT. NO. 444A327
CASE PATT. NO.
180A045 UPPER (ALL)
180A046 LOWER (411)
180A082 LOWER (412 & 413)
MIN. IMP. DIA. 184 mm



M ³ /HR	0	60	120	180	240	300	360	420	480	540
L/S	0	20	40	60	80	100	120	140	160	180
U.S. GPM	0	400	800	1200	1600	2000	2400	2800	3200	3600
NPSH IN METERS										

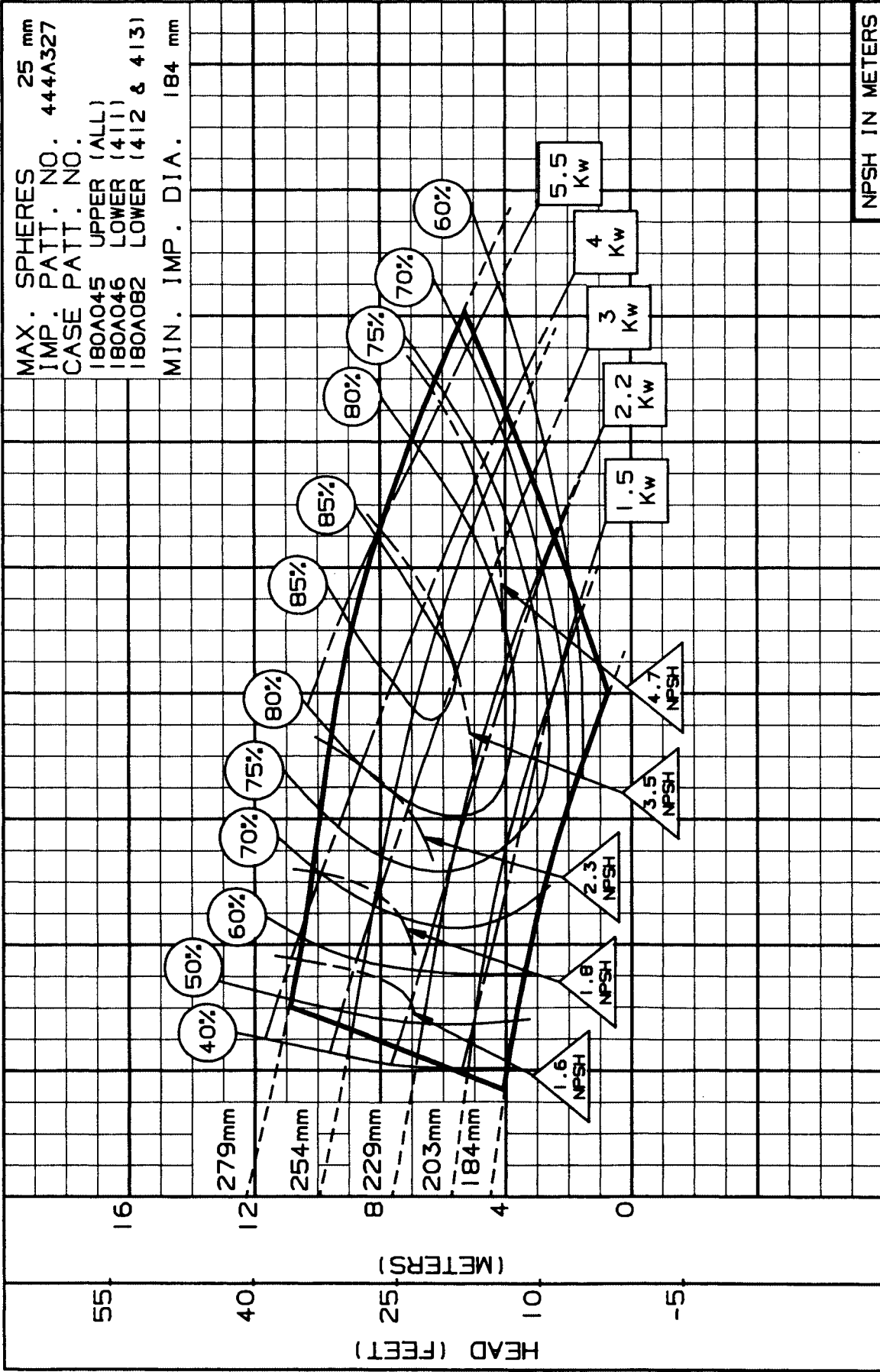
DRAWN BY: *RAZ* APPROVED BY: DL DATE: 7-90 PC-117383M

6x8x11- 960 RPM
 ENCLOSED IMPELLER



SIZE: 6X8X11 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

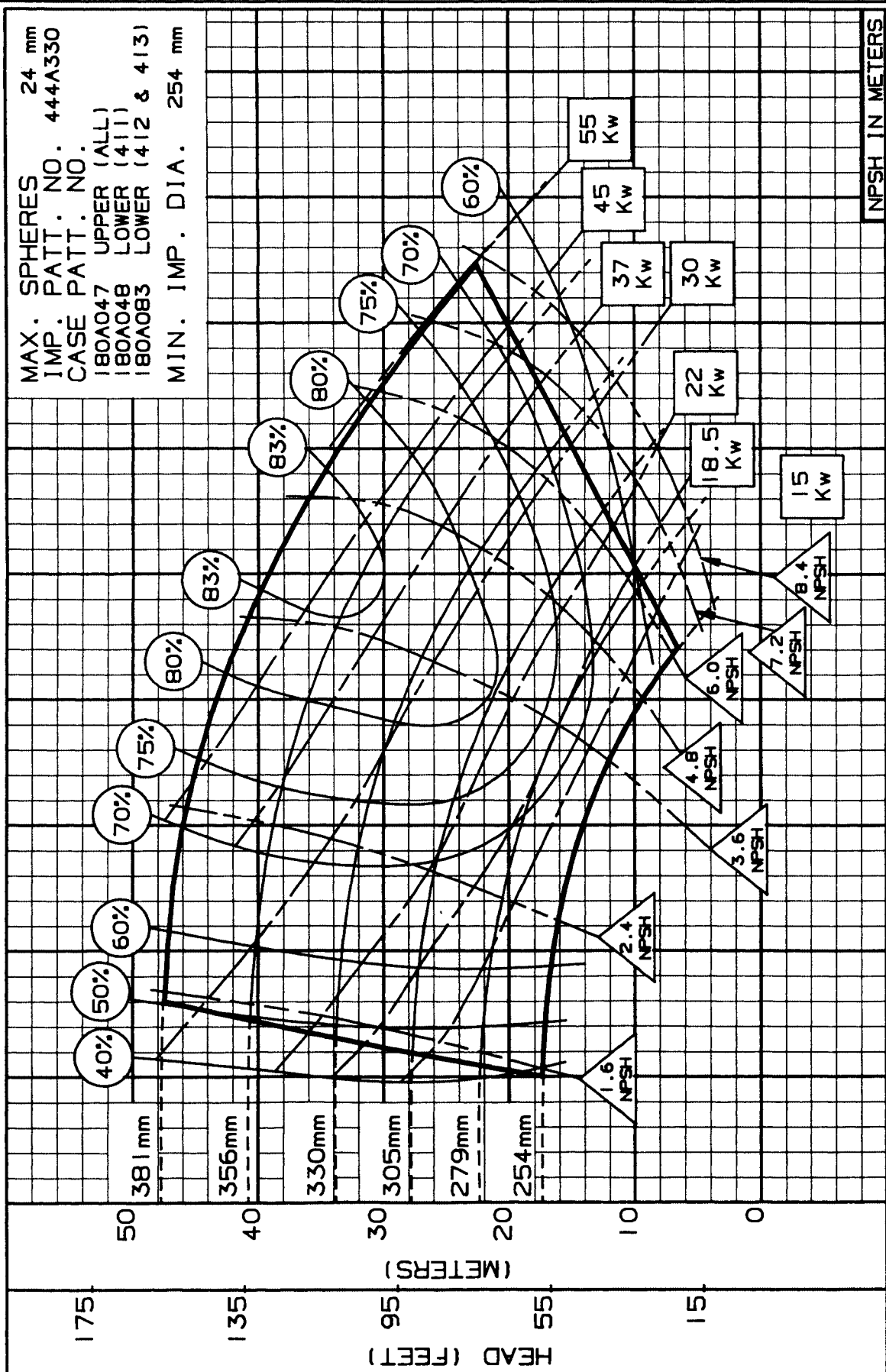
MAX. SPHERES 25 mm
 IMP. PATT. NO. 444A327
 CASE PATT. NO.
 180A045 UPPER (ALL)
 180A046 LOWER (411)
 180A082 LOWER (412 & 413)
 MIN. IMP. DIA. 184 mm



M ³ /HR	0	40	80	120	160	200	240	280	320	360
L/S	15	30	45	60	75	90	100	1200	1400	
U.S. GPM	200	400	600	800	1000	1200	1400			
DRAWN BY: <i>PAK</i> APPROVED BY: <i>DL</i> DATE: 7-90 PC-117384M										

SIZE: 6X8X15 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 24 mm
IMP. PATT. NO. 444A330
CASE PATT. NO.
180A047 UPPER (ALL)
180A048 LOWER (411)
180A083 LOWER (412 & 413)
MIN. IMP. DIA. 254 mm

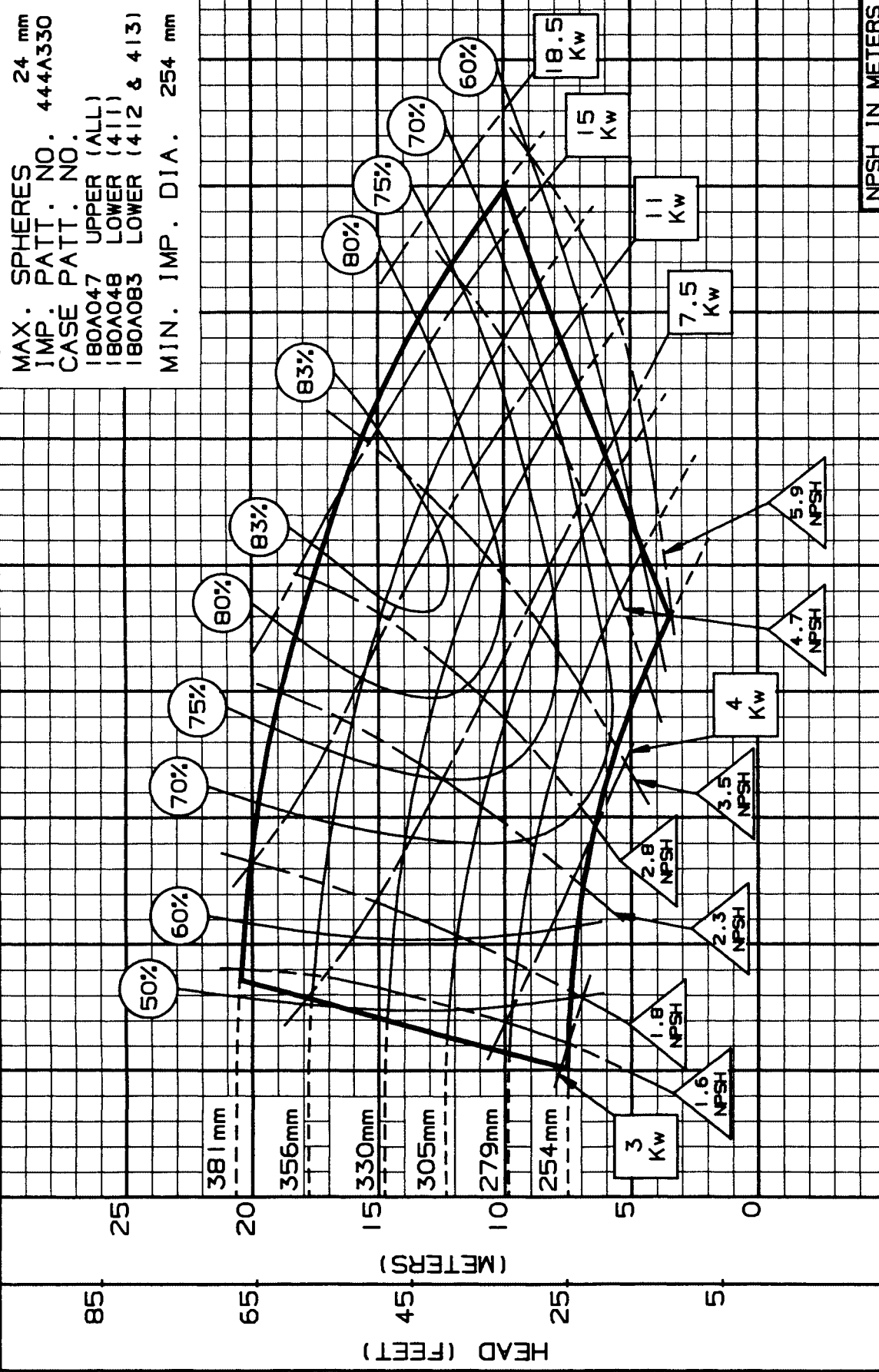


M ³ /HR	0	80	160	240	320	400	480	560	640	720
L/S	25	400	800	1200	1600	2000	2400	2800	3200	3600
U.S. GPM	400	800	1200	1600	2000	2400	2800	3200	3600	4000
NPSH IN METERS										
DRAWN BY: <i>RAC</i> APPROVED BY: <i>DL</i> DATE: 7-90 PC-117385M										

6x8x15 - 960 RPM
 ENCLOSED IMPELLER

SIZE: 6X8X15 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 24 mm
 IMP. PATT. NO. 444A330
 CASE PATT. NO.
 180A047 UPPER (ALL)
 180A048 LOWER (411)
 180A083 LOWER (412 & 413)
 MIN. IMP. DIA. 254 mm



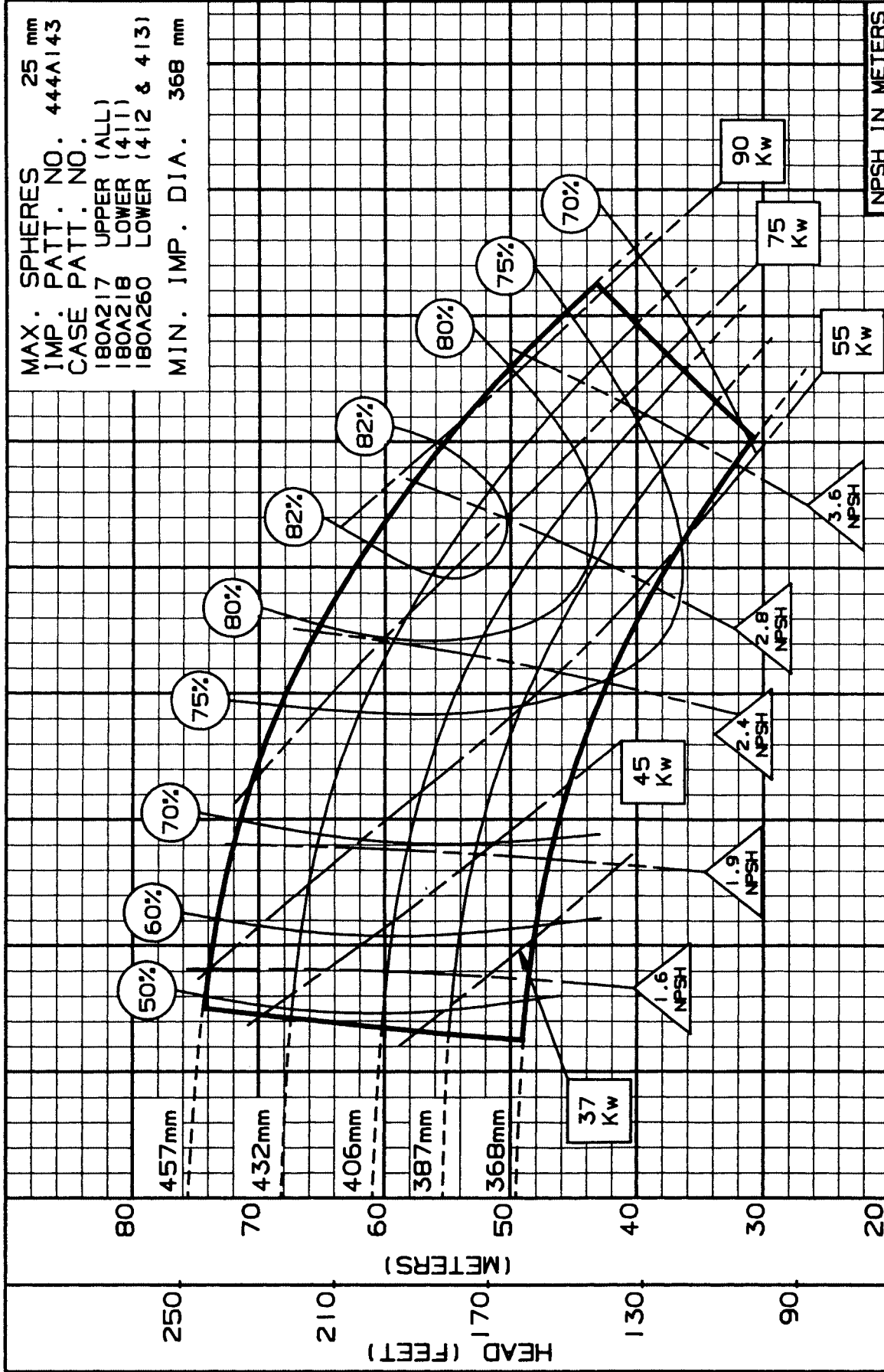
M ³ /HR	0	50	100	150	200	250	300	350	400	450
L/S	0	15	30	45	60	75	90	105	120	135
U.S. GPM	0	250	500	750	1000	1250	1500	1750	2000	2250

NPSH IN METERS

DRAWN BY: *RAK* APPROVED BY: *DL* DATE: 7-90 PC-117386M

SIZE: 6X8X18A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 25 mm
IMP. PATT. NO. 444A143
CASE PATT. NO.
180A217 UPPER (ALL)
180A218 LOWER (411)
180A260 LOWER (412 & 413)
MIN. IMP. DIA. 368 mm



M ³ /HR	0	80	160	240	320	400	480	560	640	720
L/S	0	25	50	75	100	125	150	175	200	2800
U.S. GPM	0	400	800	1200	1600	2000	2400	2800	3200	3600

APPROVED BY: *AMC* DATE: 7-90 PC-125666M

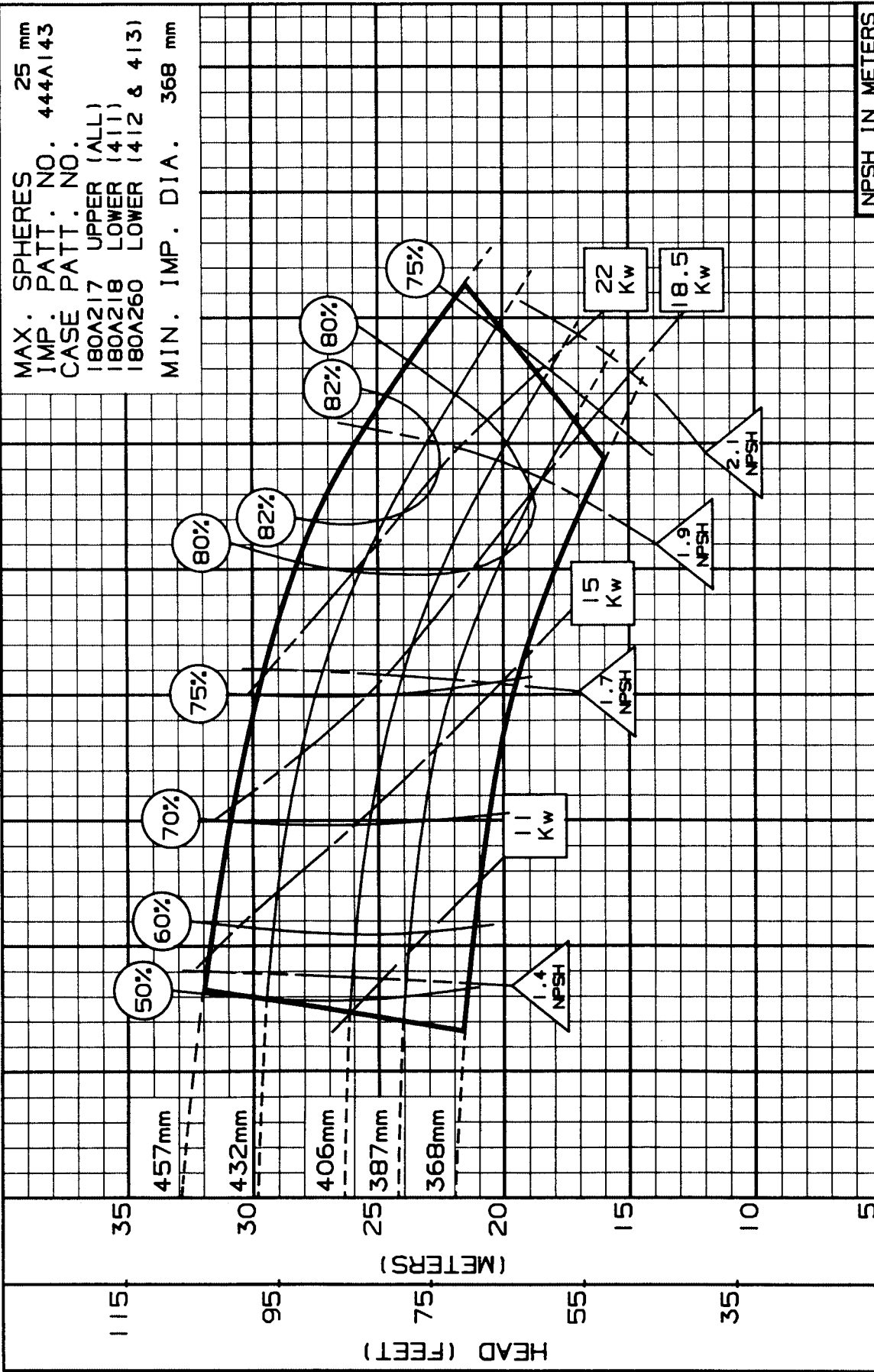
SECTION 410 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

6x8x18A - 980 RPM
 ENCLOSED IMPELLER



SIZE: 6X8X18A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 25 mm
 IMP. PATT. NO. 444A143
 CASE PATT. NO.
 180A217 UPPER (ALL)
 180A218 LOWER (411)
 180A260 LOWER (412 & 413)
 MIN. IMP. DIA. 368 mm

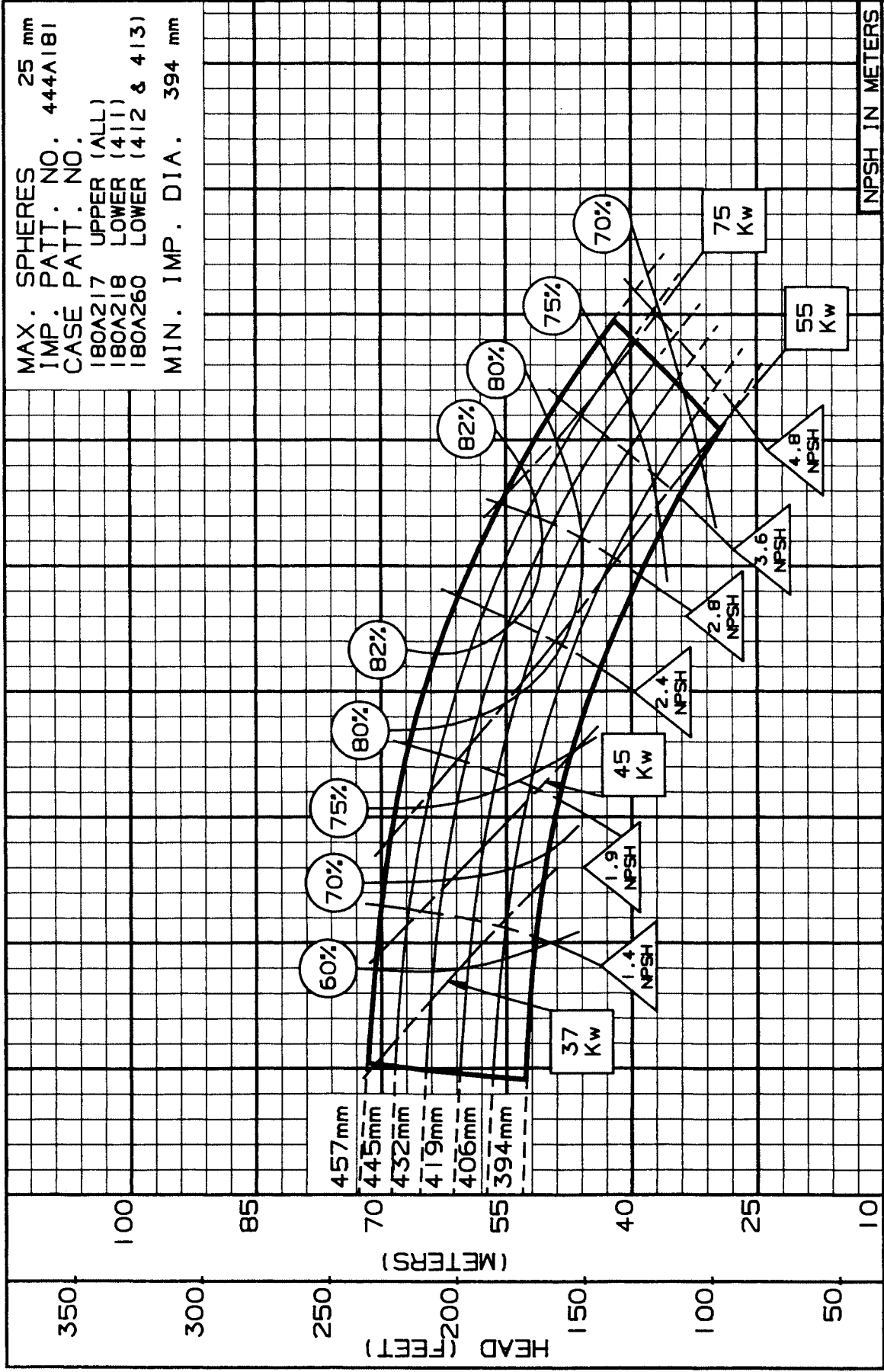


		NPSH IN METERS									
M ³ /HR	0	50	100	150	200	250	300	350	400	450	
L/S	15	30	45	60	75	90	105	120	135	150	
U.S. GPM	250	500	750	1000	1250	1500	1750				

DRAWN BY: *SK* APPROVED BY: DL DATE: 7-90 PC-125667M

SIZE: 6X8X18B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 25 mm
IMP. PATT. NO. 444A181
CASE PATT. NO.
180A217 UPPER (ALL)
180A218 LOWER (411)
180A260 LOWER (412 & 413)
MIN. IMP. DIA. 394 mm

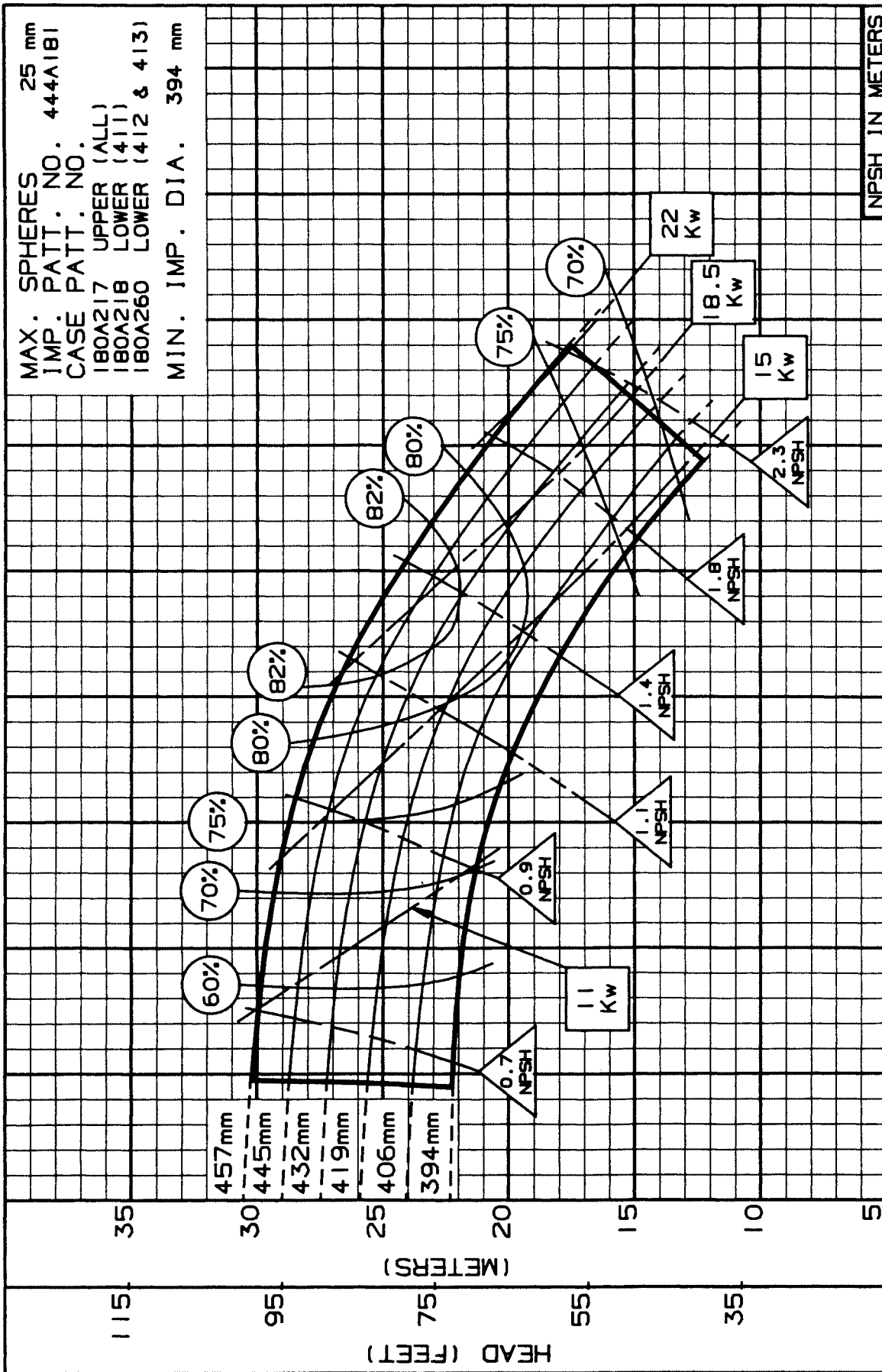


M ³ /HR	0	75	150	225	300	375	450	525	600	675
L/S	0	25	50	75	100	125	150	175	200	225
U.S. GPM	0	400	800	1200	1600	2000	2400	2800		
NPSH IN METERS										

DRAWN BY: *AMC* APPROVED BY: *DL* DATE: 7-90 PC-125668M

SIZE: 6X8X18B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 25 mm
 IMP. PATT. NO. 444A181
 CASE PATT. NO.
 180A217 UPPER (ALL)
 180A218 LOWER (411)
 180A260 LOWER (412 & 413)
 MIN. IMP. DIA. 394 mm

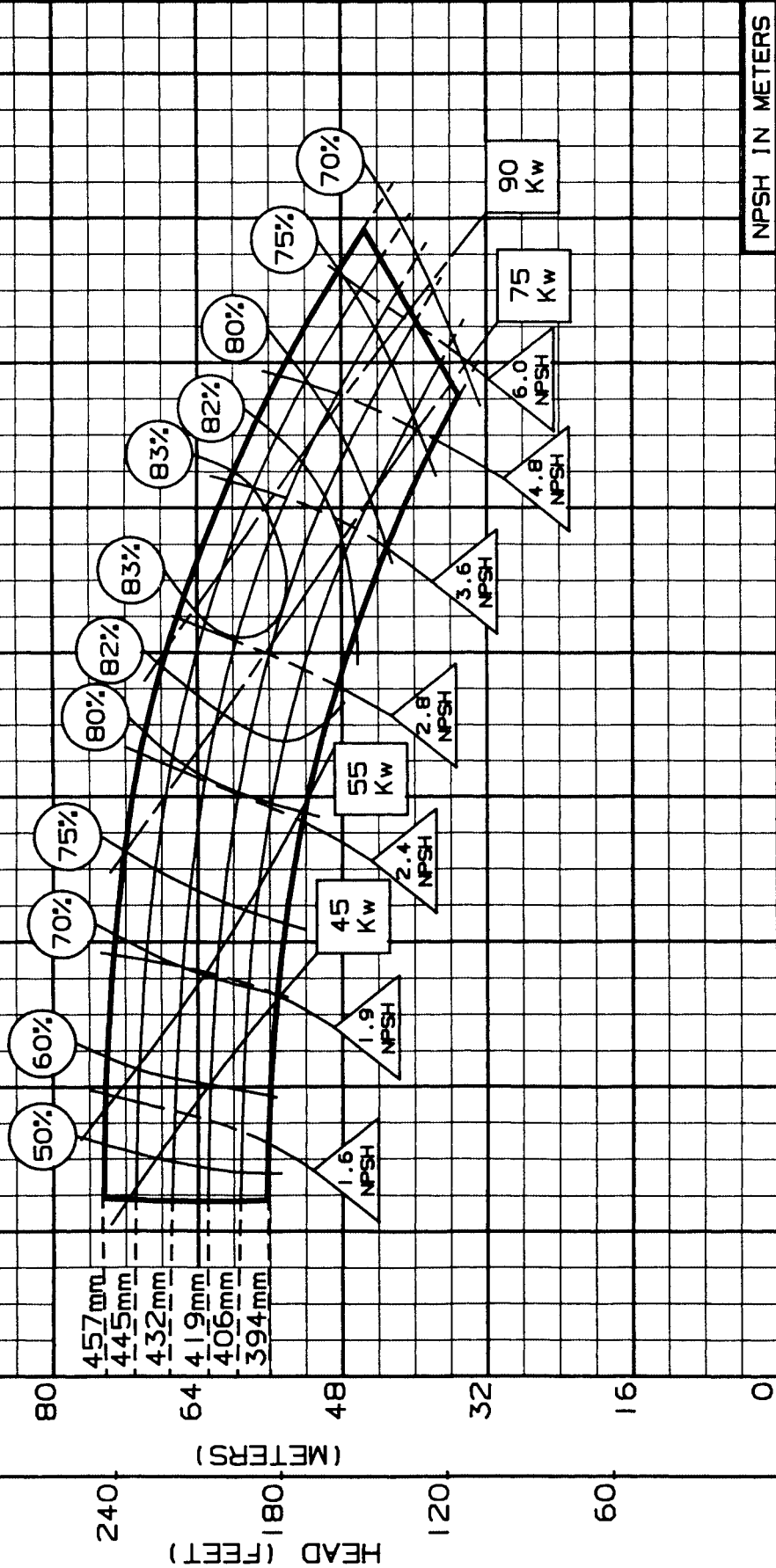


M ³ /HR	0	50	100	150	200	250	300	350	400	450
L/S	15	30	45	60	75	90	105	120	135	150
U.S. GPM	250	500	750	1000	1250	1500	1750	2000	2250	2500
NPSH IN METERS	0	50	100	150	200	250	300	350	400	450

DRAWN BY: *RAZ* APPROVED BY: *DL* DATE: 7-90 PC-125669M

SIZE: 6X8X18C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 25 mm
IMP. PATT. NO. 444A183
CASE PATT. NO.
180A217 UPPER (ALL)
180A218 LOWER (411)
180A260 LOWER (412 & 413)
MIN. IMP. DIA. 394 mm



M ³ /HR	0	80	160	240	320	400	480	560	640	720
L/S	0	25	50	75	100	125	150	175	200	2800
U.S. GPM	0	400	800	1200	1600	2000	2400	2800	3200	3600
NPSH IN METERS										

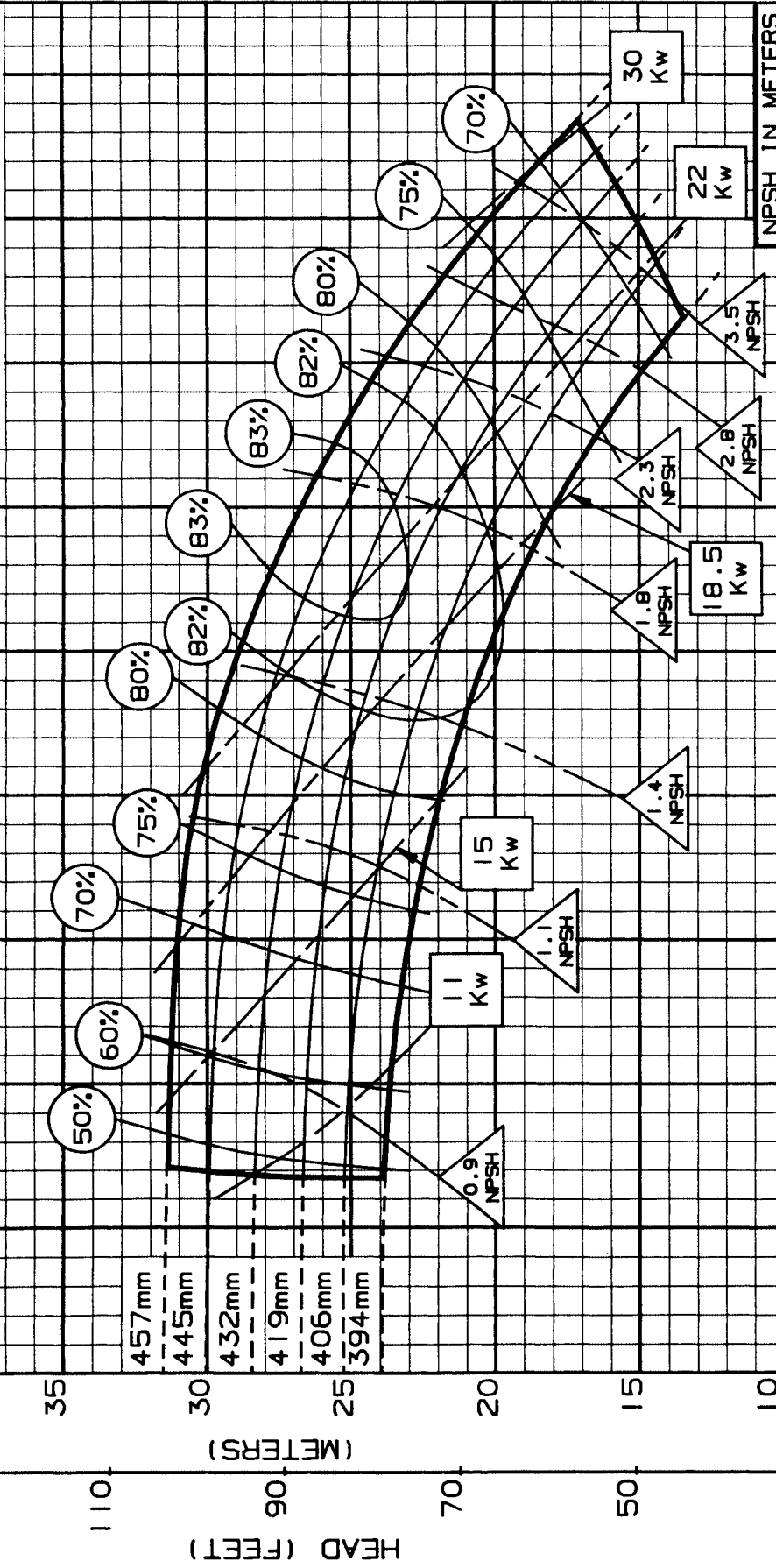
DRAWN BY: *RAC* APPROVED BY: *DL* DATE: 7-90 PC-125670M

6x8x18C - 960 RPM
 ENCLOSED IMPELLER



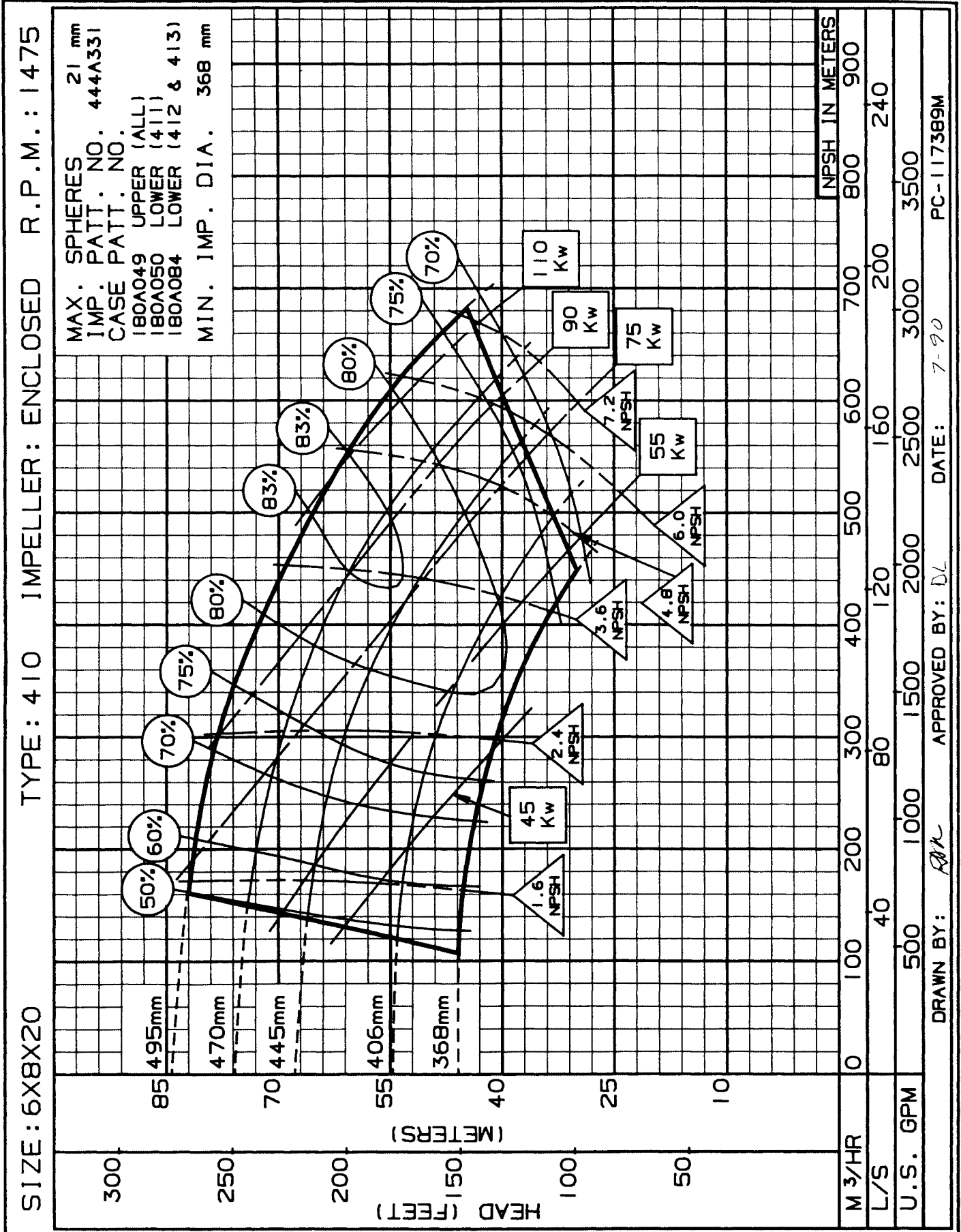
SIZE: 6X8X18C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 25 mm
 IMP. PATT. NO. 444A183
 CASE PATT. NO.
 180A217 UPPER (ALL)
 180A218 LOWER (411)
 180A260 LOWER (412 & 413)
 MIN. IMP. DIA. 394 mm



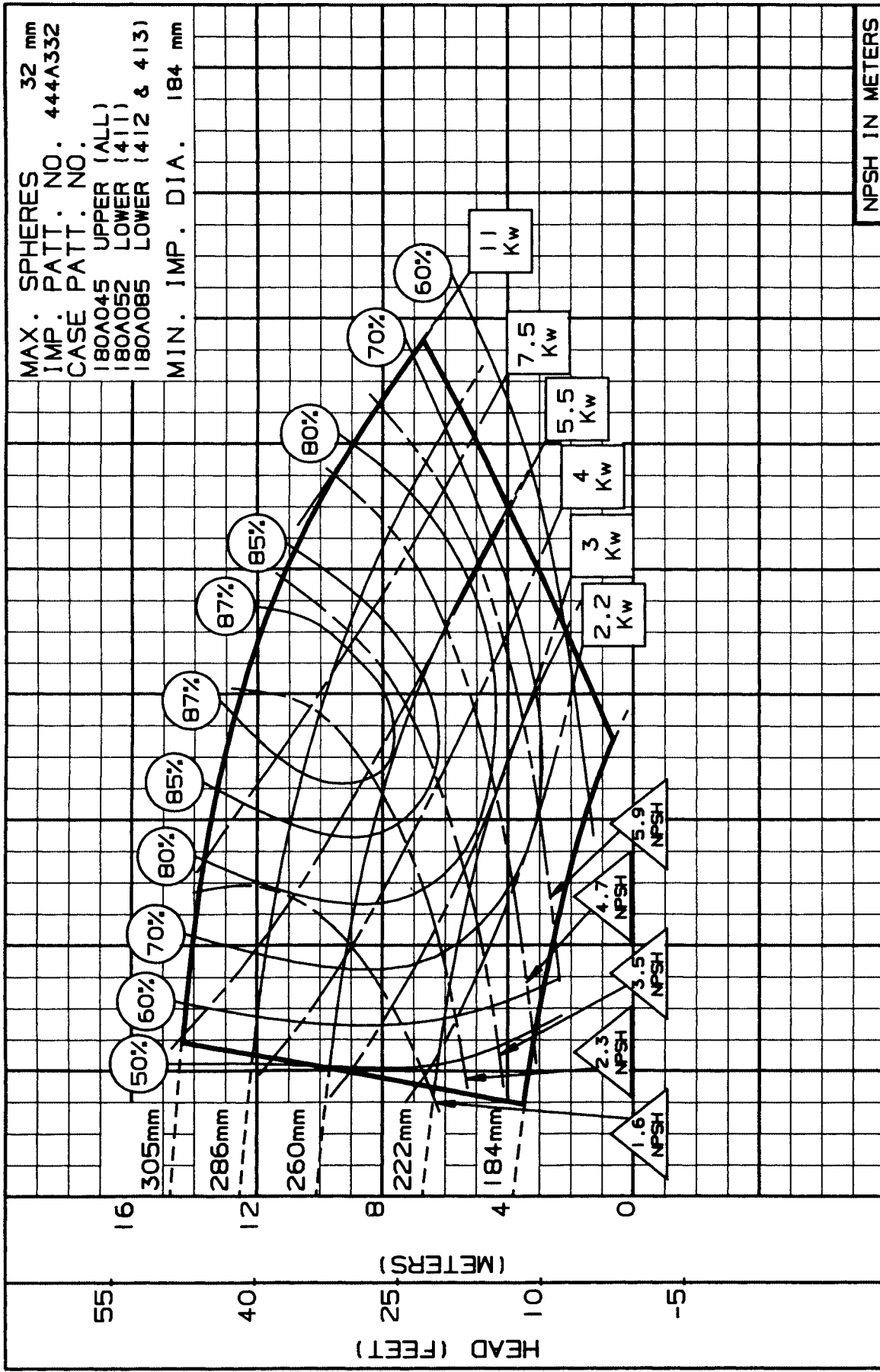
M ³ /HR	0	50	100	150	200	250	300	350	400	450
L/S	15	30	45	60	75	90	105	120	135	150
U.S. GPM	250	500	750	1000	1250	1500	1750	2000	2250	2500

DRAWN BY: *RAK* APPROVED BY: DL DATE: 7-90 PC-125671M



SIZE: 8X8X11B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 32 mm
IMP. PATT. NO. 444A332
CASE PATT. NO.
180A045 UPPER (ALL)
180A052 LOWER (411)
180A085 LOWER (412 & 413)
MIN. IMP. DIA. 184 mm



M ³ /HR	0	60	120	180	240	300	360	420	480	540
L/S	0	20	40	60	80	100	120	140	160	180
U.S. GPM	0	400	800	1200	1600	2000	2400	2800	3200	3600
NPSH IN METERS	0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5

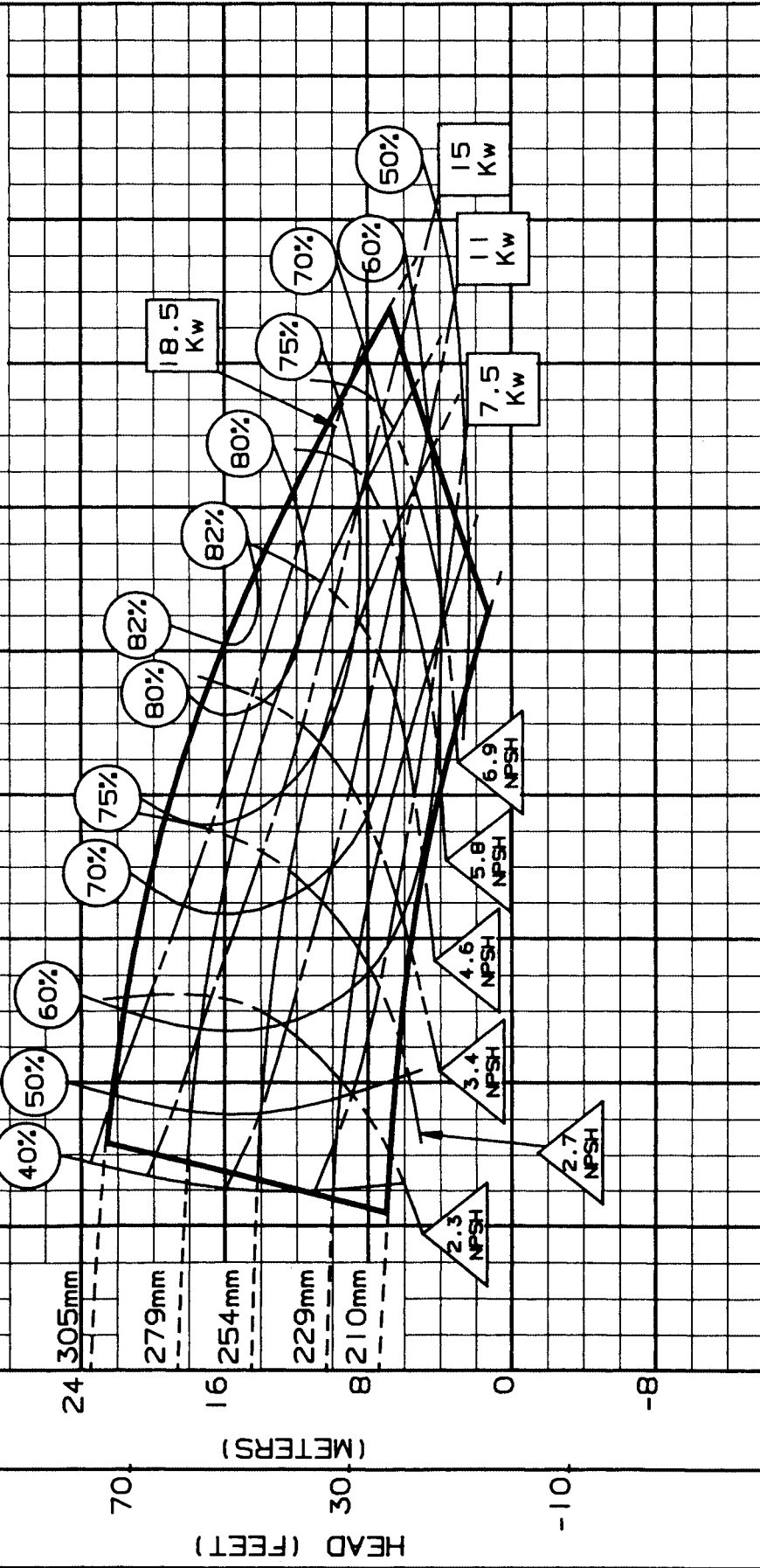
DRAWN BY: *RAH* APPROVED BY: *DL* DATE: 7-90 PC-131638M

8x10x12 - 1440 RPM
 ENCLOSED IMPELLER



SIZE: 8X10X12 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

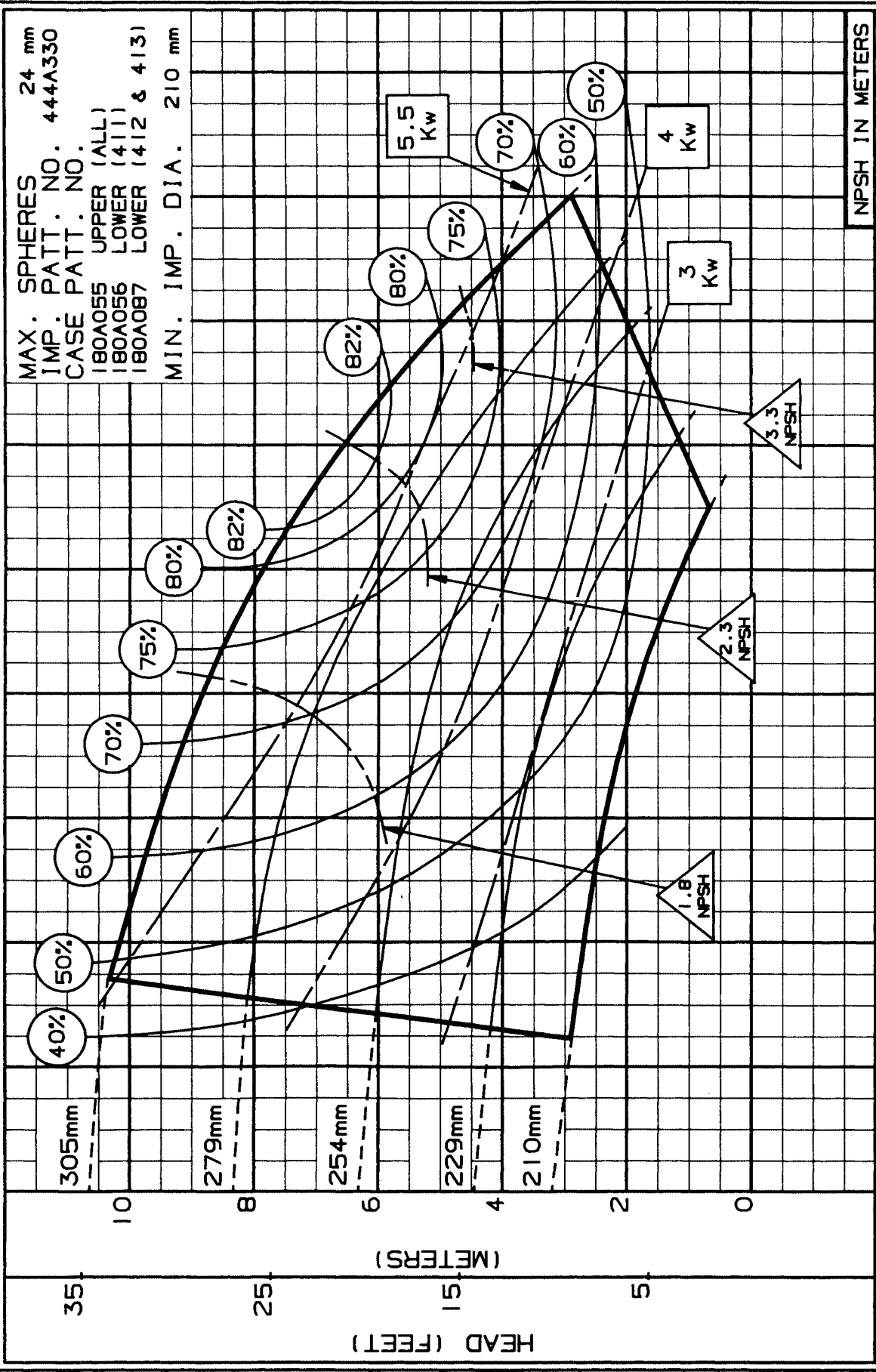
MAX. SPHERES 24 mm
 IMP. PATT. NO. 444A330
 CASE PATT. NO.
 180A055 UPPER (ALL)
 180A056 LOWER (411)
 180A087 LOWER (412 & 413)
 MIN. IMP. DIA. 210 mm



M ³ /HR	0	80	160	240	320	400	480	560	640	720
L/S	25	50	75	100	125	150	175	200	2400	2800
U.S. GPM	400	800	1200	1600	2000	2400	2800	2800	2800	2800
DRAWN BY: <i>RAA</i> APPROVED BY: <i>DL</i> DATE: 7-90										
PC-117393M										

TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 24 mm
IMP. PATT. NO. 444A330
CASE PATT. NO.
180A055 UPPER (ALL)
180A056 LOWER (411)
180A087 LOWER (412 & 413)
MIN. IMP. DIA. 210 mm



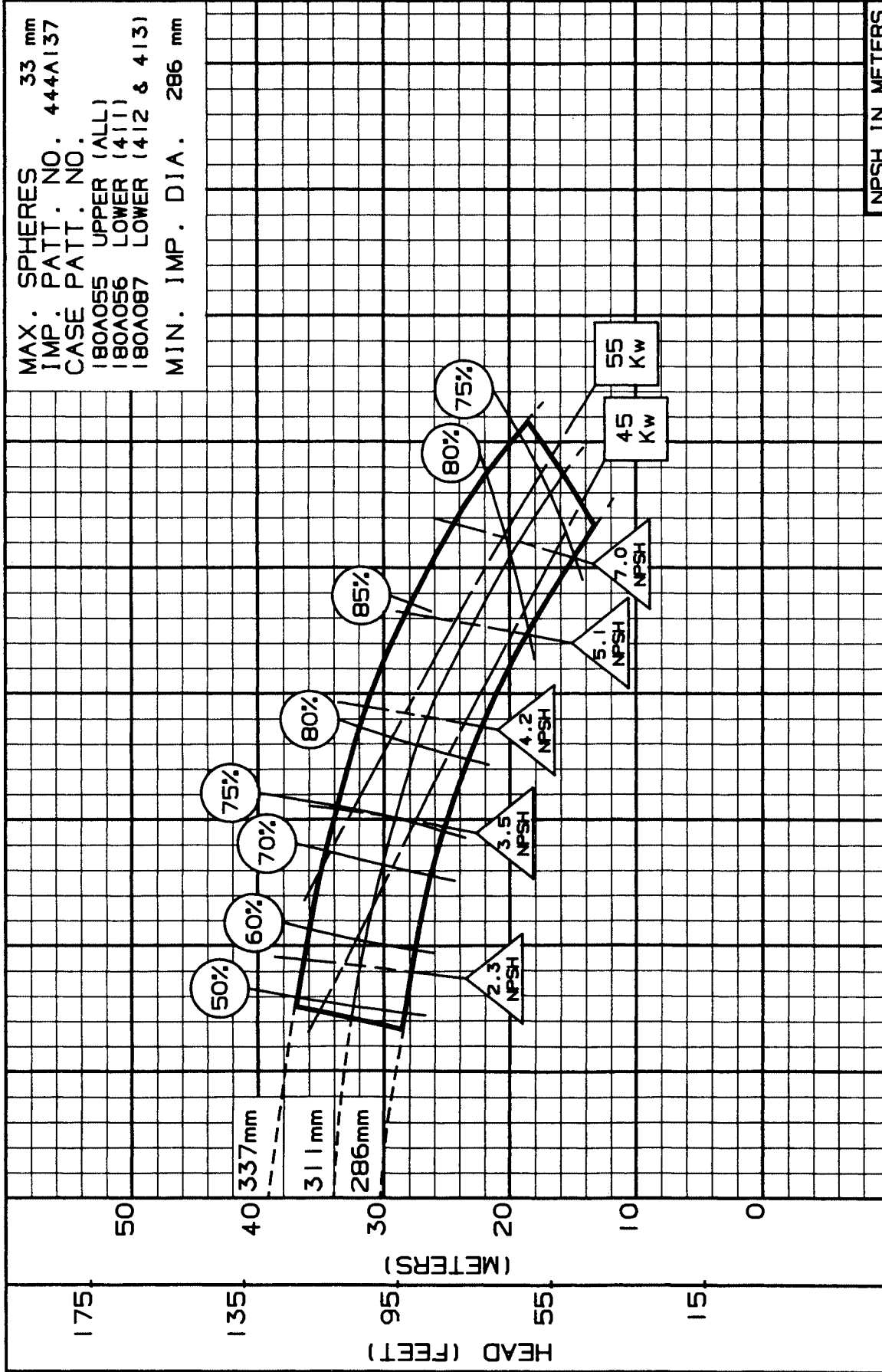
M ³ /HR	0	50	100	150	200	250	300	350	400	450
L/S	15	50	100	150	200	250	300	350	400	450
U.S. GPM	250	500	750	1000	1250	1500	1750	2000	2250	2500
NPSH IN METERS										

SIZE: 8X10X12

DRAWN BY: *RAZ* APPROVED BY: DL DATE: 7-90 PC-117394M

SIZE: 8X10X12A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 33 mm
 IMP. PATT. NO. 444A137
 CASE PATT. NO.
 180A055 UPPER (ALL)
 180A056 LOWER (411)
 180A087 LOWER (412 & 413)
 MIN. IMP. DIA. 286 mm



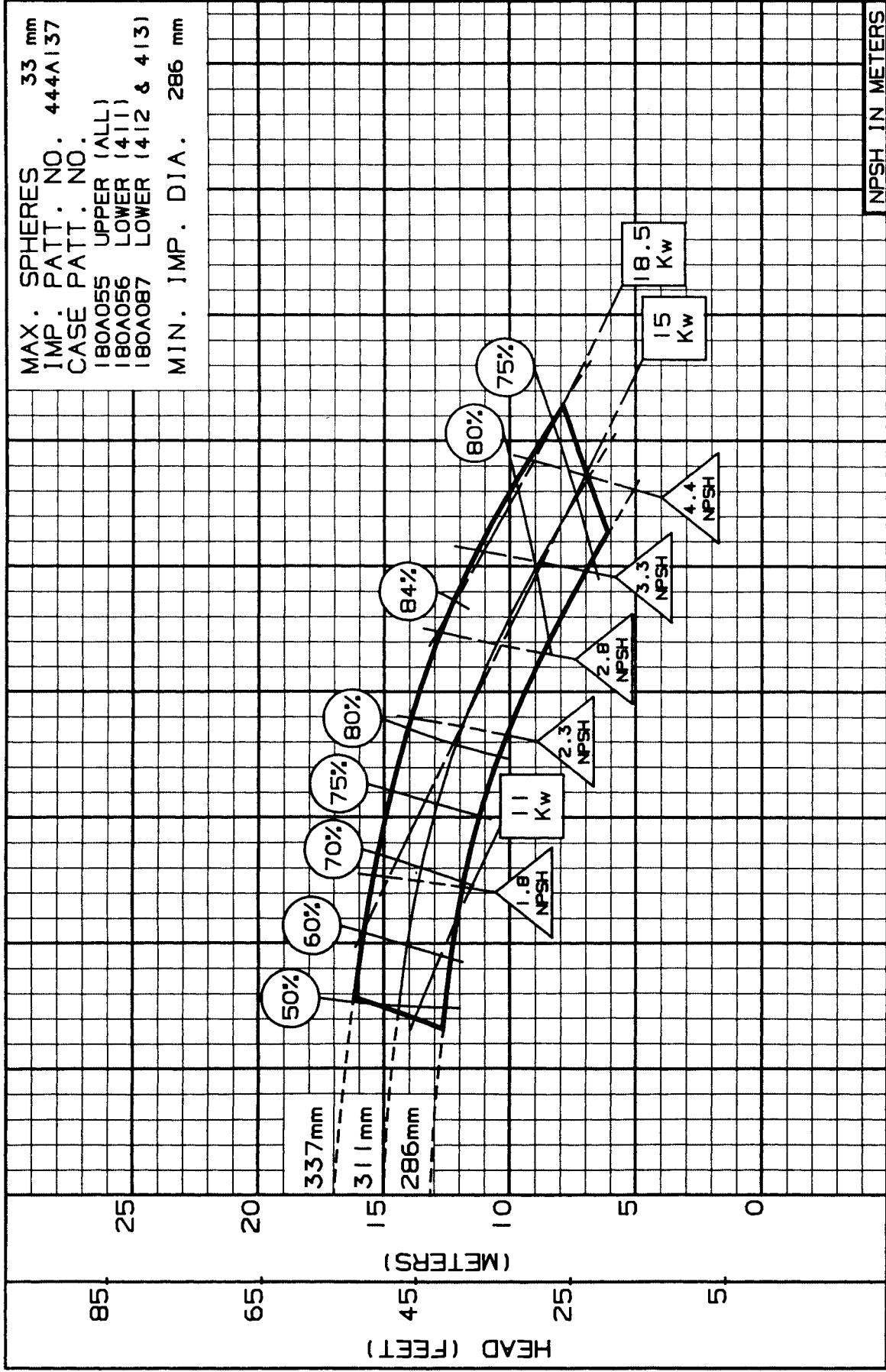
M ³ /HR	0	150	300	450	600	750	900	1050	1200	1350
L/S	0	50	100	150	200	250	300	350	400	450
U.S. GPM	0	750	1500	2250	3000	3750	4500	5250	6000	6750

NPSH IN METERS: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550

DRAWN BY: *Rak* APPROVED BY: *DL* DATE: 7-90 PC-14600M

SIZE: 8X10X12A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 33 mm
IMP. PATT. NO. 444A137
CASE PATT. NO.
180A055 UPPER (ALL)
180A056 LOWER (411)
180A087 LOWER (412 & 413)
MIN. IMP. DIA. 286 mm



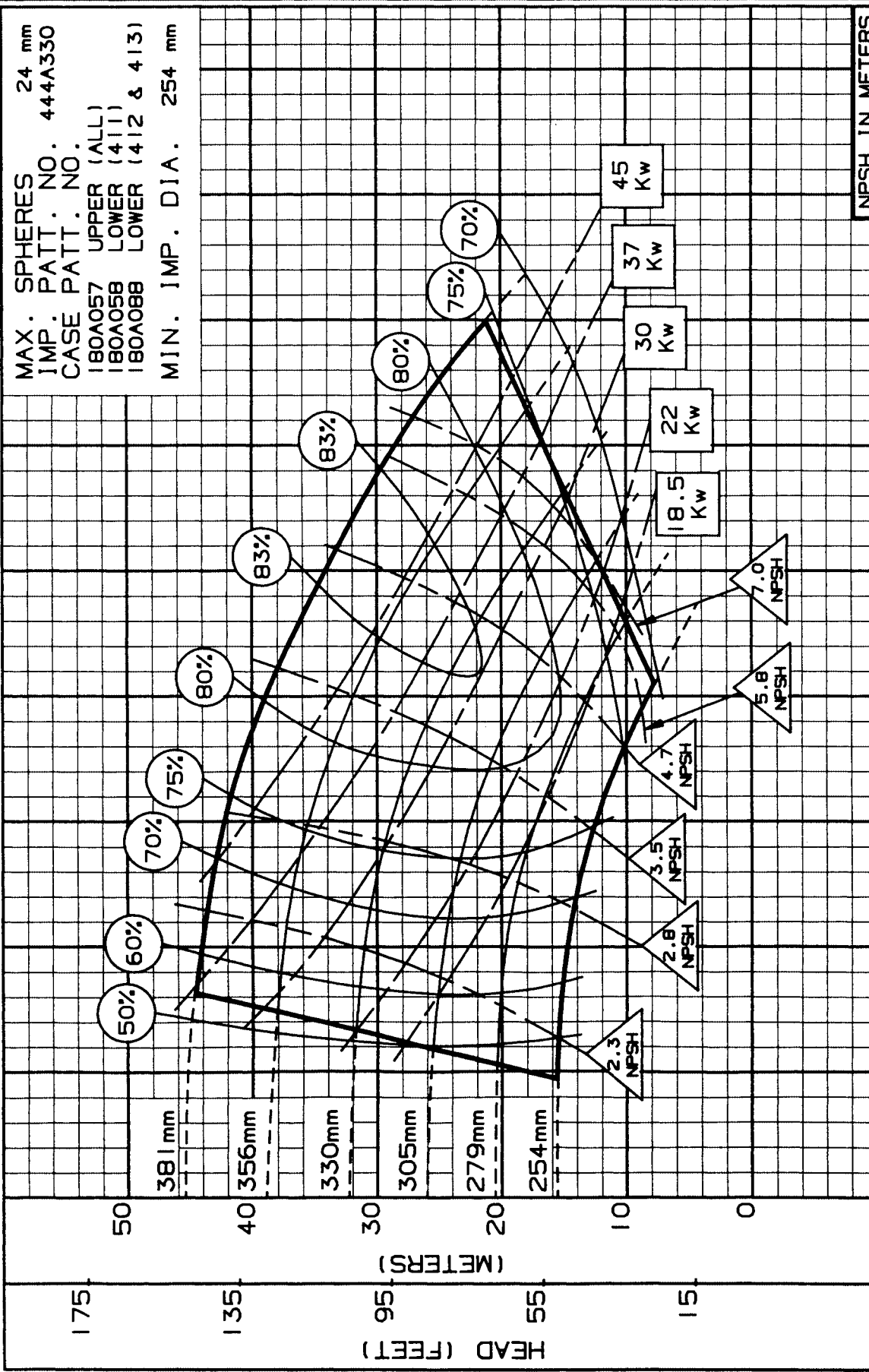
M ³ /HR	0	100	200	300	400	500	600	700	800	900
L/S	0	40	80	120	160	200	240	280	320	360
U.S. GPM	0	500	1000	1500	2000	2500	3000	3500	4000	4500
NPSH IN METERS										
0 100 200 300 400 500 600 700 800 900										

DRAWN BY: *AP* APPROVED BY: *DL* DATE: 7-94 PC-145999M

8x10x15A - 1475 RPM
 ENCLOSED IMPELLER

SIZE: 8X10X15A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 24 mm
 IMP. PATT. NO. 444A330
 CASE PATT. NO.
 180A057 UPPER (ALL)
 180A058 LOWER (411)
 180A088 LOWER (412 & 413)
 MIN. IMP. DIA. 254 mm

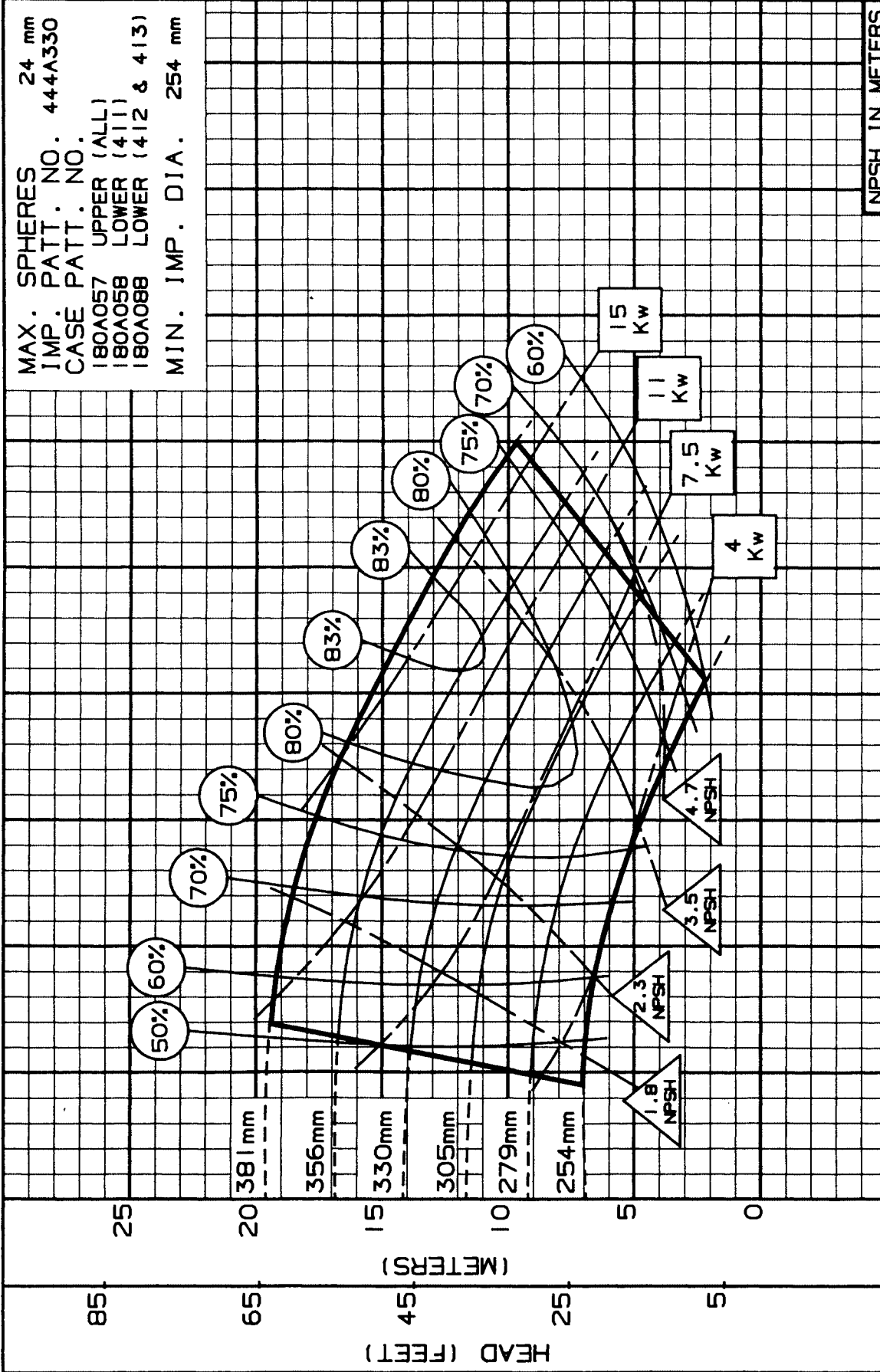


M ³ /HR	0	100	200	300	400	500	600	700	800	900
L/S	0	40	80	120	160	200	240	280	320	360
U.S. GPM	0	500	1000	1500	2000	2500	3000	3500	4000	4500

NPSH IN METERS: 2.3, 2.8, 3.5, 4.7, 5.8, 7.0
 KW: 2.3, 2.8, 3.5, 4.7, 5.8, 7.0, 18.5, 22, 30, 37, 45
 DATE: 7-90
 APPROVED BY: *DL*
 DRAWN BY: *RAH*
 PC-117395M

SIZE: 8X10X15A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 24 mm
IMP. PATT. NO. 444A330
CASE PATT. NO.
180A057 UPPER (ALL)
180A058 LOWER (411)
180A088 LOWER (412 & 413)
MIN. IMP. DIA. 254 mm

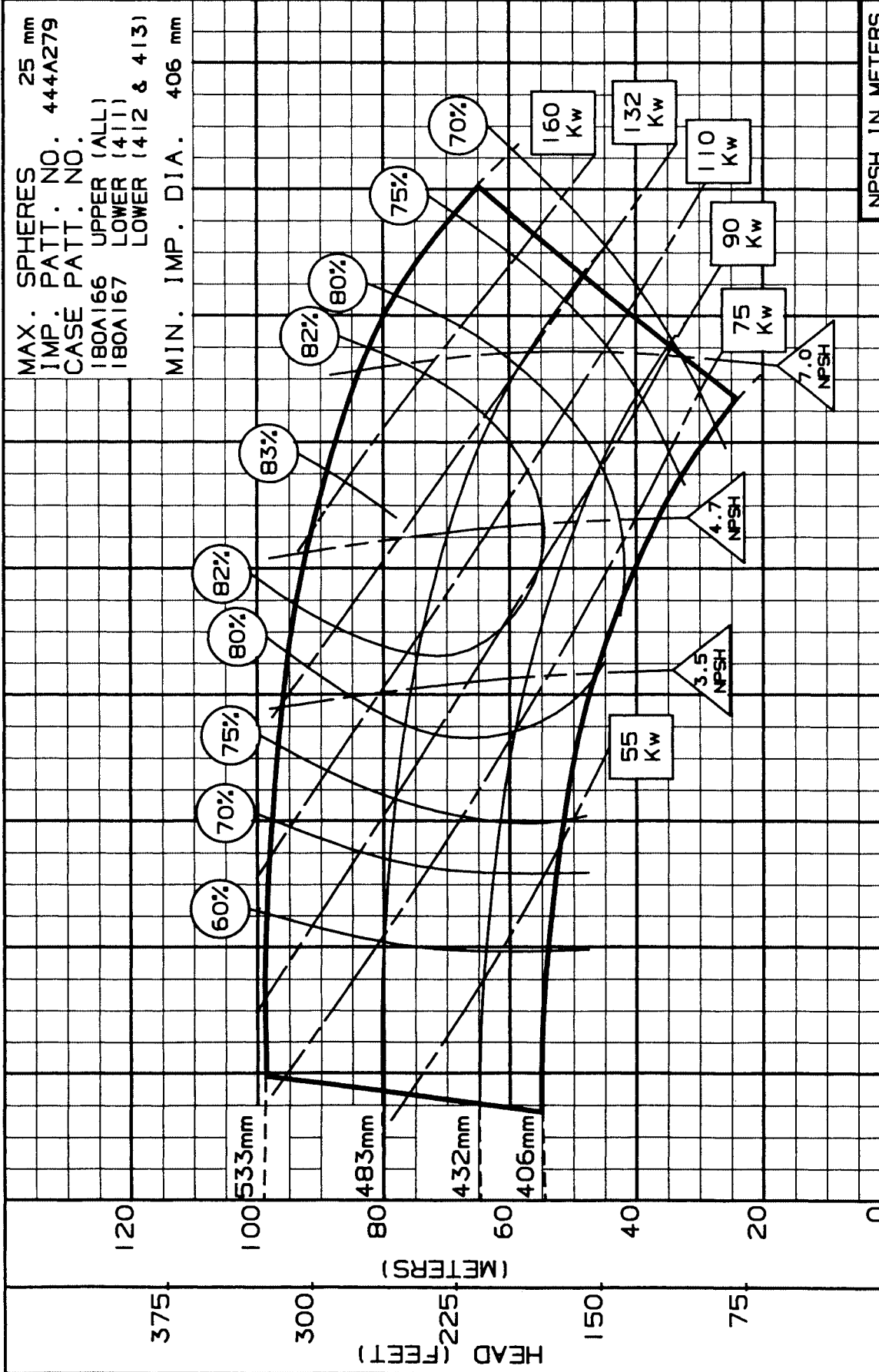


M ³ /HR	0	75	150	225	300	375	450	525	600	675
L/S	0	25	50	75	100	125	150	175	200	2400
U.S. GPM	0	400	800	1200	1600	2000	2400	2800	2800	2800
NPSH IN METERS										
	0	75	150	225	300	375	450	525	600	675

DRAWN BY: *APC* APPROVED BY: DC DATE: 7-90 PC-117396M

SIZE: 8X10X21 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

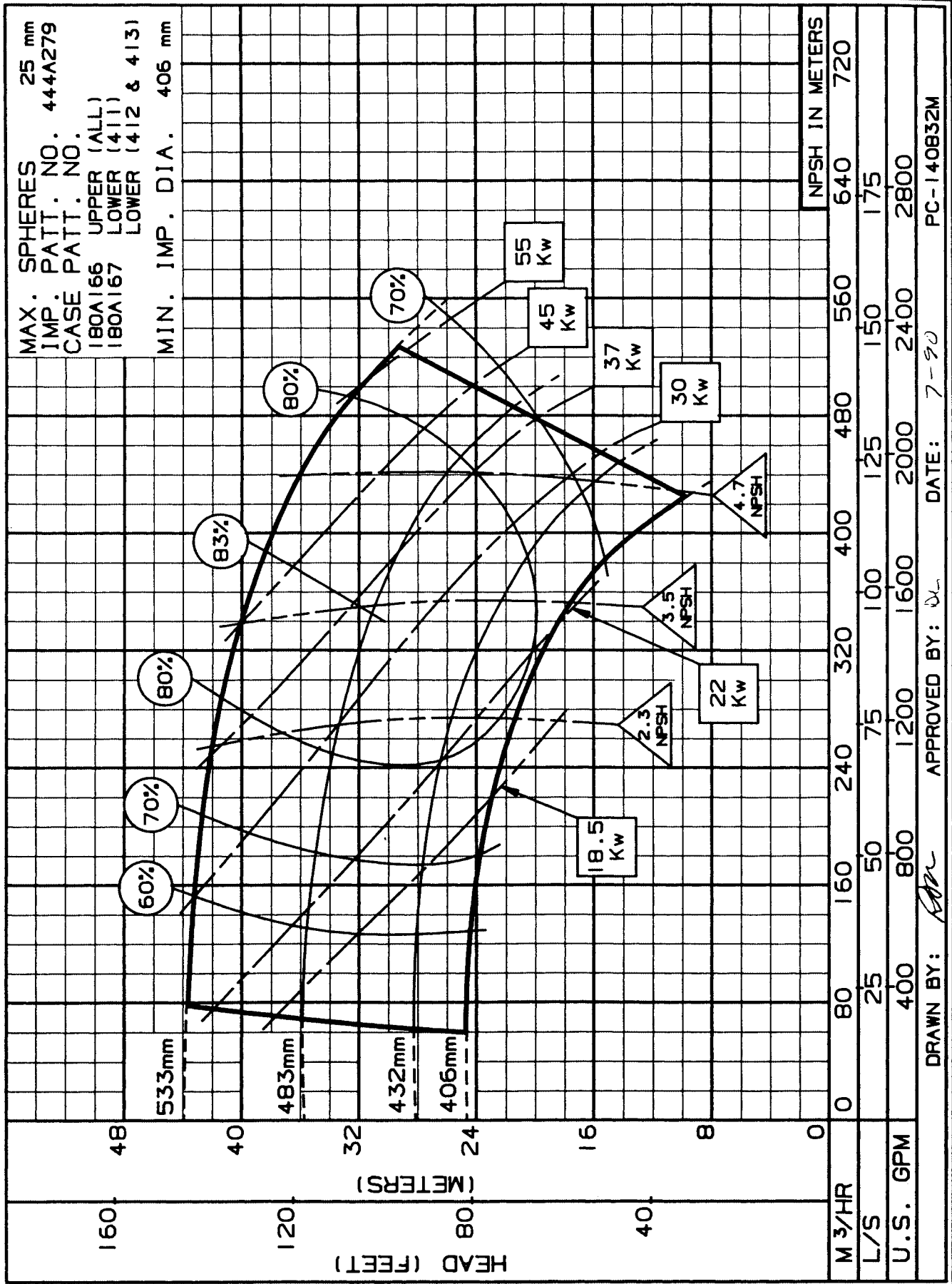
MAX. SPHERES 25 mm
 IMP. PATT. NO. 444A279
 CASE PATT. NO.
 180A166 UPPER (ALL)
 180A167 LOWER (412 & 413)
 MIN. IMP. DIA. 406 mm



M ³ /HR	0	100	200	300	400	500	600	700	800	900	NPSH IN METERS
L/S		40	80	120	160	200	250	300	350	240	
U.S. GPM	500	1000	1500	2000	2500	3000	3500	3000	2500	2000	
DRAWN BY: <i>RPM</i> APPROVED BY: <i>DL</i> DATE: 7-90											
PC-140B31M											

SIZE: 8X10X21 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 25 mm
IMP. PATT. NO. 444A279
CASE PATT. NO.
180A166 UPPER (ALL)
180A167 LOWER (411 & 413)
MIN. IMP. DIA. 406 mm



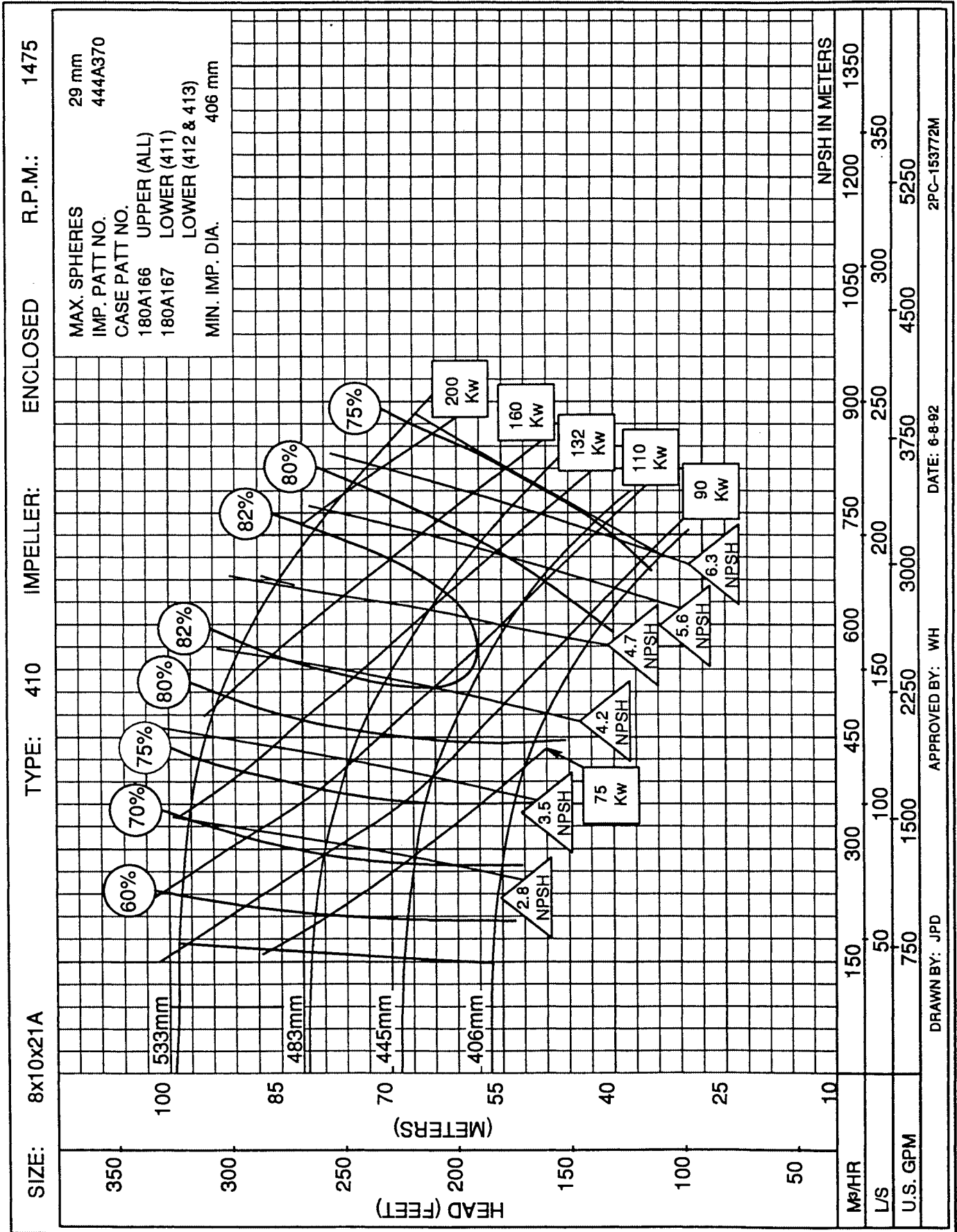
DRAWN BY: *[Signature]* APPROVED BY: *[Signature]* DATE: 7-90 PC-140832M

8x10x21A - 1475 RPM

ENCLOSED IMPELLER



Pentair Pump Group



DRAWN BY: JPD

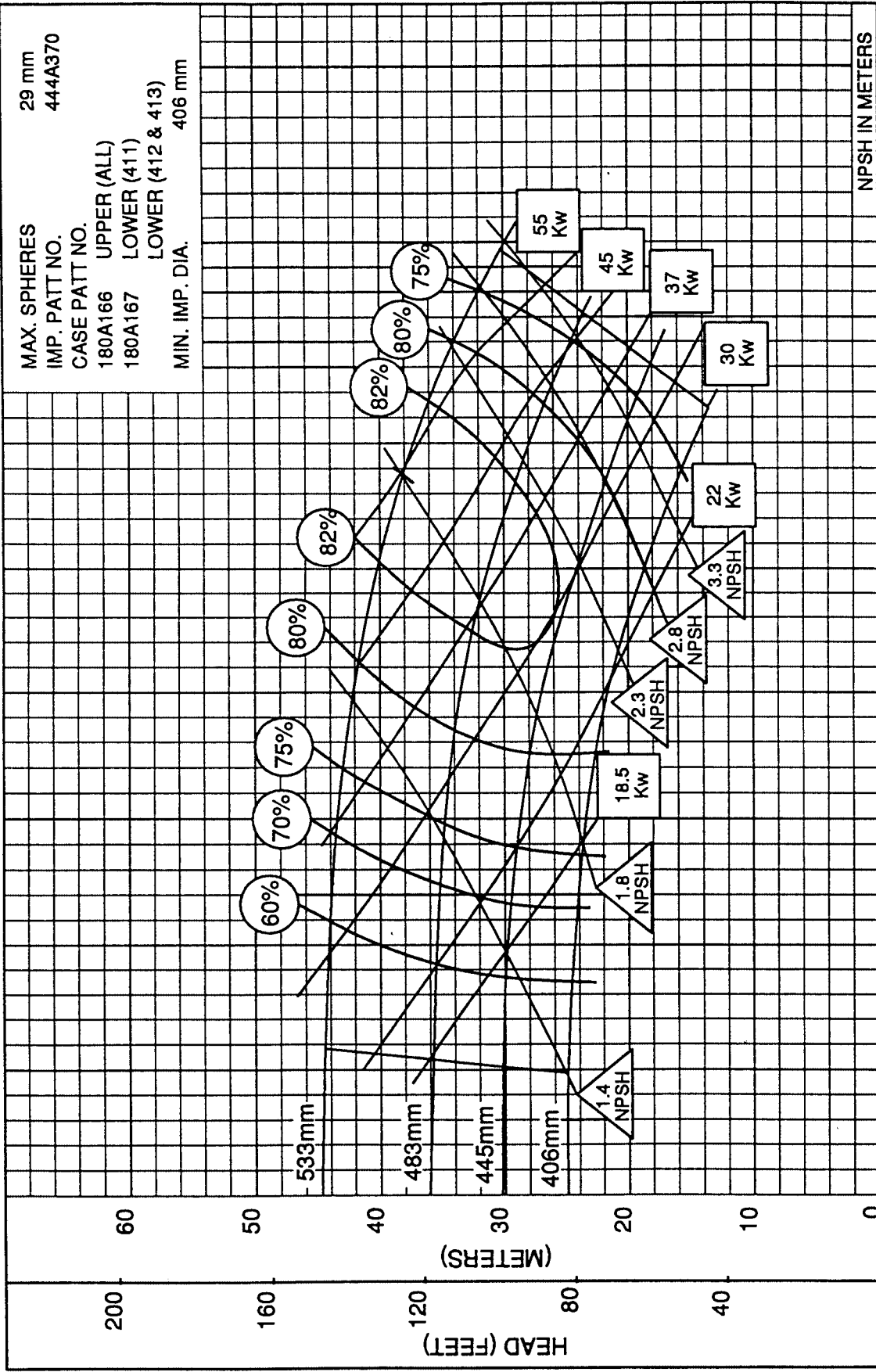
APPROVED BY: WH

DATE: 6-8-92

2PC-15372M

SIZE: **8x10x21A** TYPE: **410** IMPELLER: **ENCLOSED** R.P.M.: **980**

MAX. SPHERES
IMP. PATT NO. 29 mm
444A370
CASE PATT NO.
180A166 UPPER (ALL)
180A167 LOWER (411)
LOWER (412 & 413)
MIN. IMP. DIA. 406 mm



M ³ /HR	75	150	225	300	375	450	525	600	675
L/S	25	50	75	100	125	150	175	200	2400
U.S. GPM	400	800	1200	1600	2000	2400	2800	2800	2800
NPSH IN METERS									

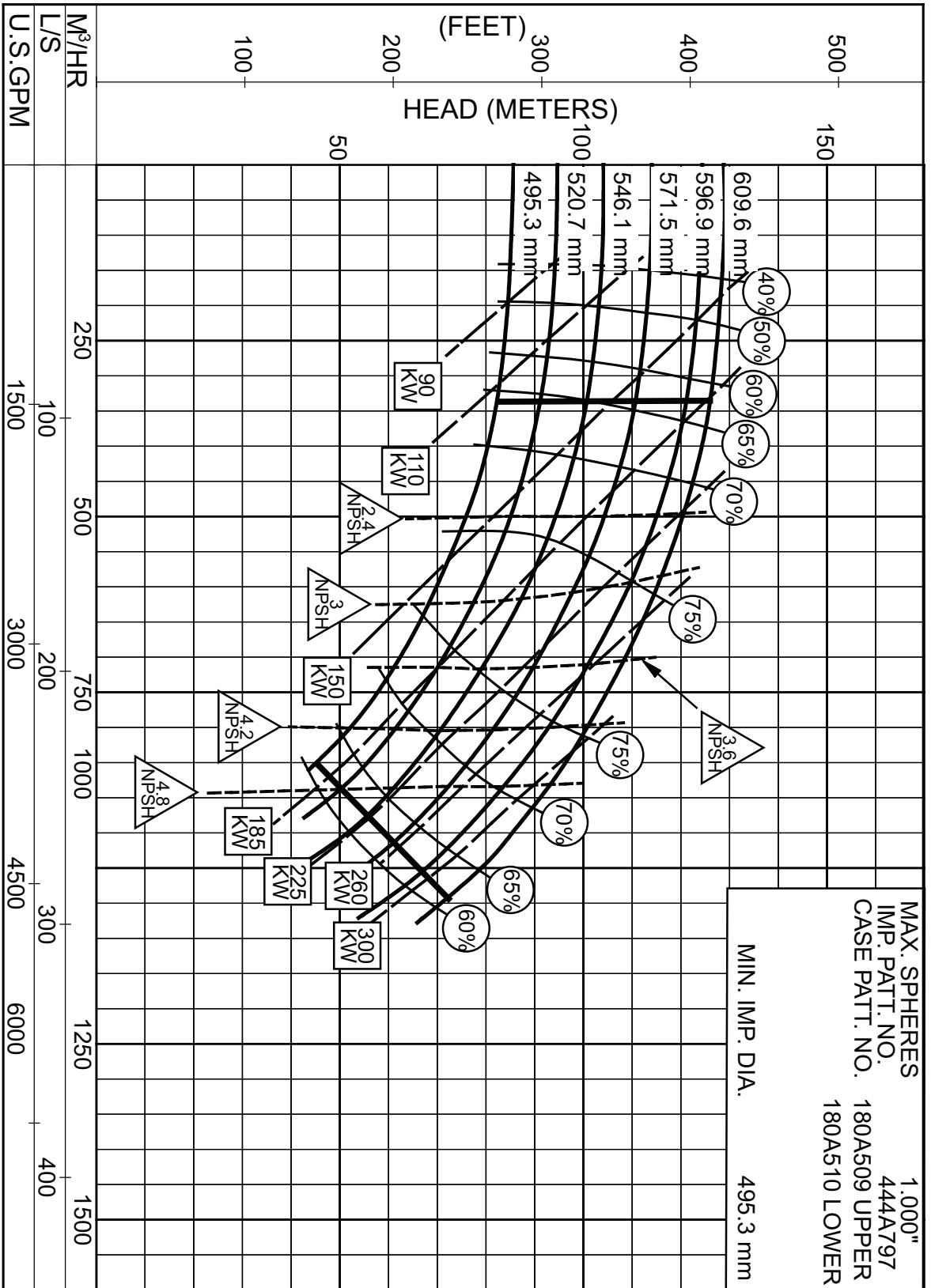
DRAWN BY: JPD APPROVED BY: WH DATE: 6-8-92 2PC-15373M

SIZE : 8x12x24

TYPE : 410

IMPELLER : Enclosed

R. P. M. : 1475



PC-197422

10x12x12B - 1440 RPM

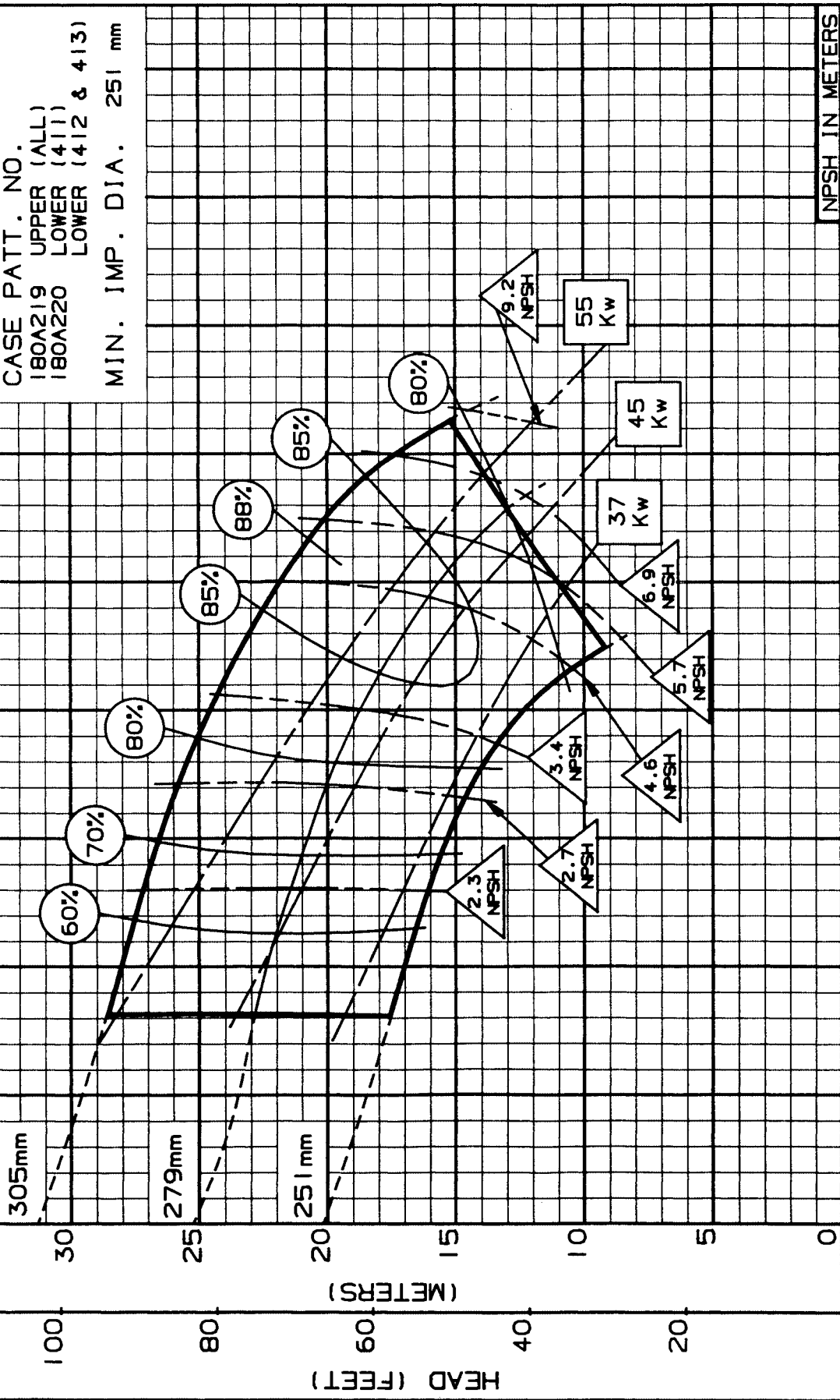
ENCLOSED IMPELLER



Pentair Pump Group

SIZE: 10X12X12B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 24 mm
 IMP. PATT. NO. 444A144
 CASE PATT. NO.
 180A219 UPPER (ALL)
 180A220 LOWER (411)
 LOWER (412 & 413)
 MIN. IMP. DIA. 251 mm

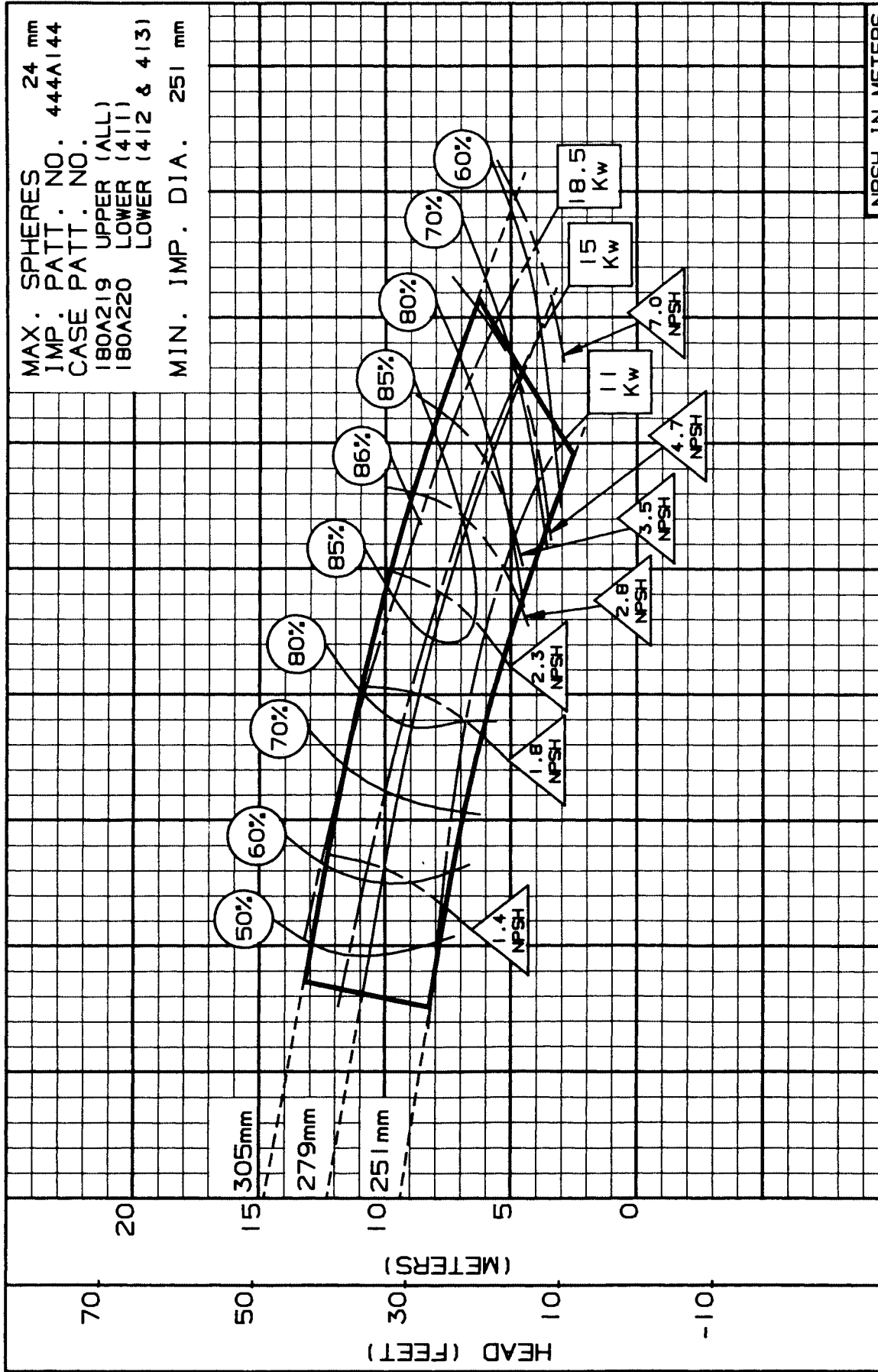


M 3/HR	0	200	400	600	800	1000	1200	1400	1600	1800
L/S	0	60	120	180	240	300	360	420	480	
U.S. GPM	0	1000	2000	3000	4000	5000	6000	7000		

DRAWN BY: *AM* APPROVED BY: *DL* DATE: 7-90 PC-117399M

SIZE: 10X12X12B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 24 mm
IMP. PATT. NO. 444A144
CASE PATT. NO.
180A219 UPPER (ALL)
180A220 LOWER (411)
LOWER (412 & 413)
MIN. IMP. DIA. 251 mm

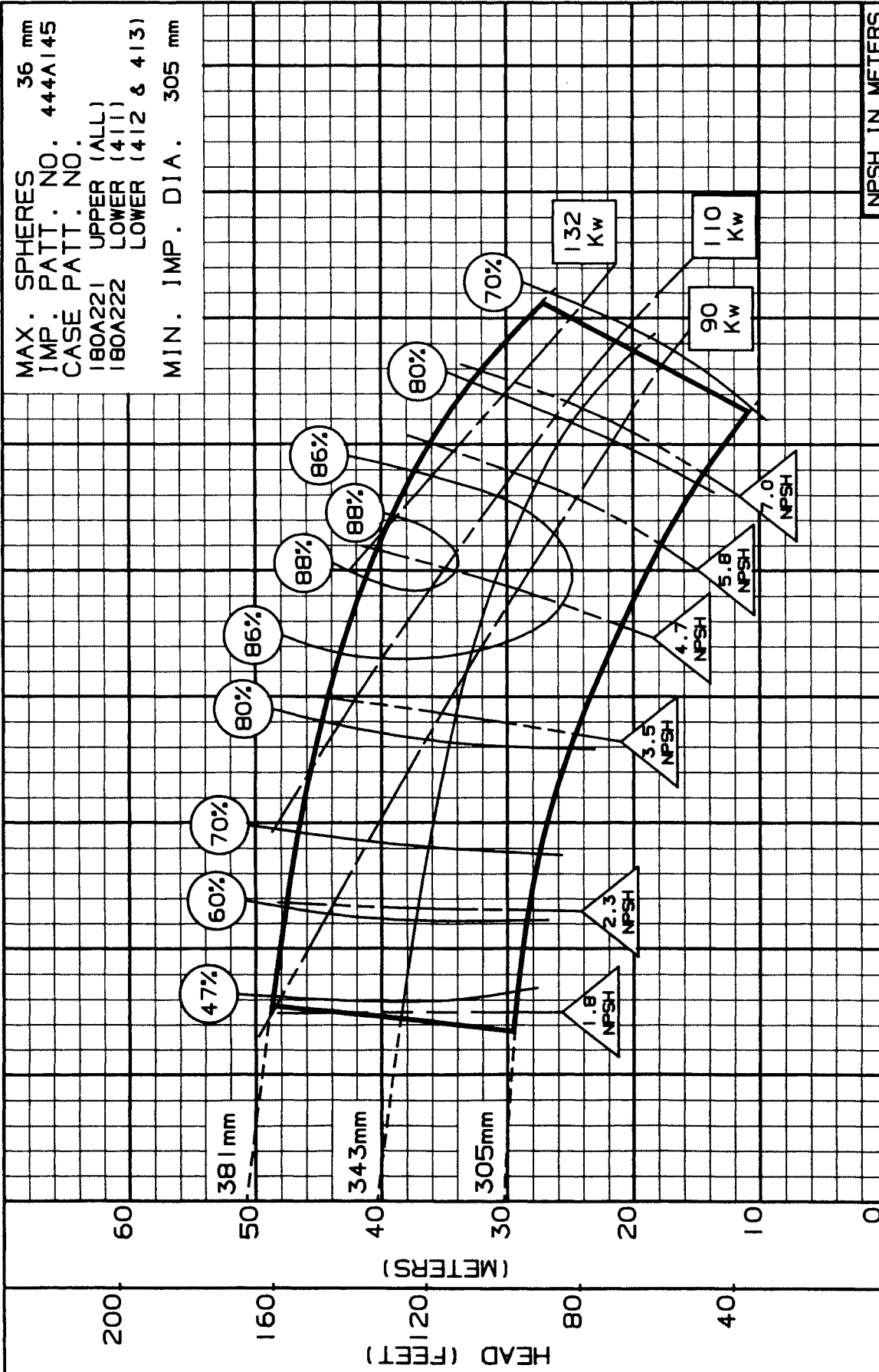


M ³ /HR	0	125	250	375	500	625	750	875	1000	1125
L/S	40	600	1200	1800	2400	3000	3600	4200	280	
U.S. GPM										
NPSH IN METERS										

DRAWN BY: *RAN* APPROVED BY: *DL* DATE: 7-90 PC-117400M

SIZE: 10X12X15B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

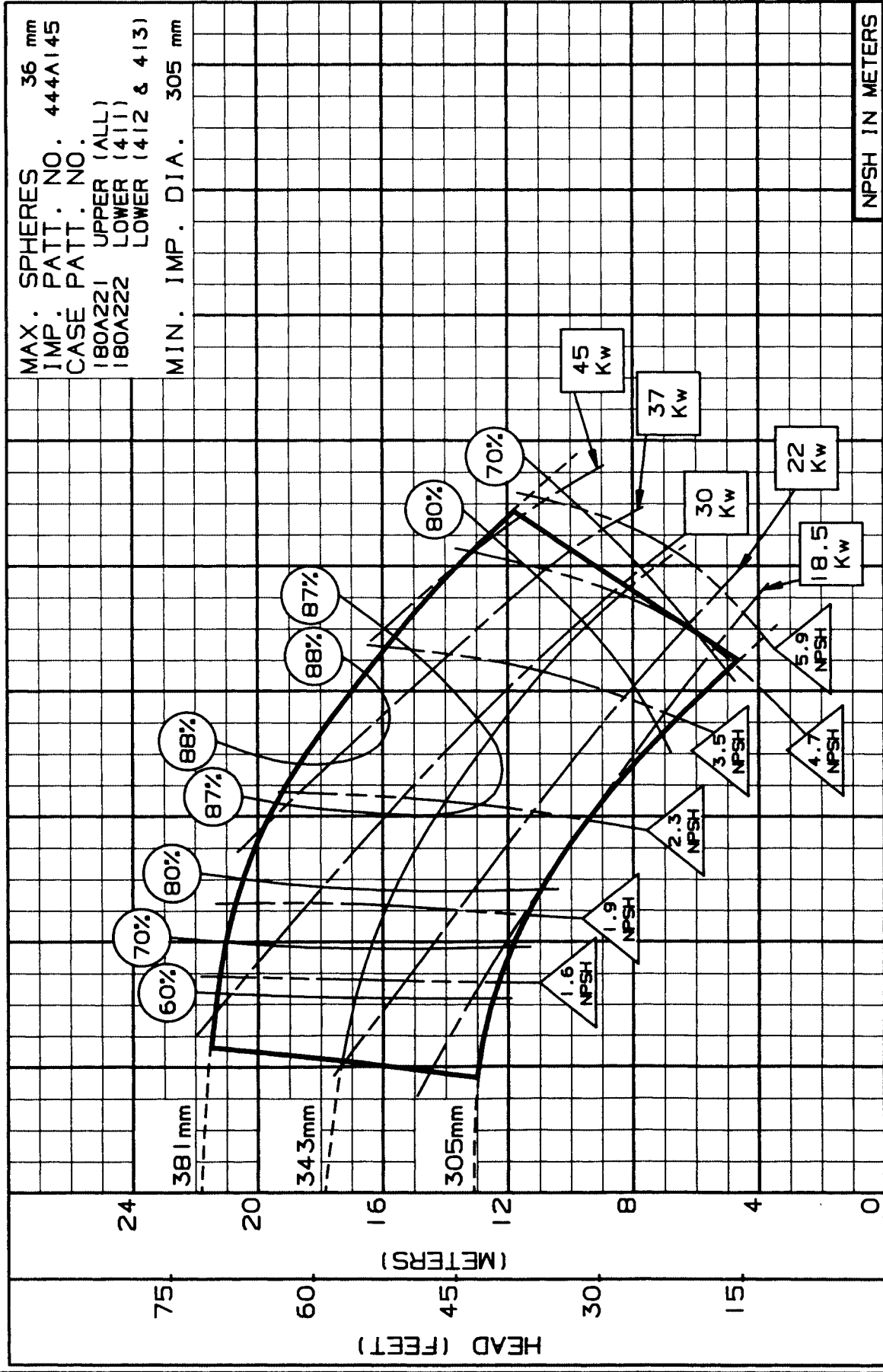
MAX. SPHERES 36 mm
 IMP. PATT. NO. 444A145
 CASE PATT. NO.
 180A221 UPPER (ALL)
 180A222 LOWER (411)
 LOWER (412 & 413)
 MIN. IMP. DIA. 305 mm



M ³ /HR	0	200	400	600	800	1000	1200	1400	1600	1800
L/S	0	60	120	180	240	300	360	420	480	
U.S. GPM	0	1000	2000	3000	4000	5000	6000	7000		
DRAWN BY: <i>[Signature]</i> APPROVED BY: DL DATE: 7-90 PC-117401M										

SIZE: 10X12X15B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 36 mm
IMP. PATT. NO. 444A145
CASE PATT. NO.
180A221 UPPER (ALL)
180A222 LOWER (411)
LOWER (412 & 413)
MIN. IMP. DIA. 305 mm



M ³ /HR	0	200	400	600	800	1000	1200	1400	1600	1800
L/S	60	1000	2000	3000	4000	5000	6000	7000		
U.S. GPM	1000	2000	3000	4000	5000	6000	7000			

DRAWN BY: *[Signature]* APPROVED BY: *[Signature]* DATE: 7-90 PC-117402M

10x12x15C - 1475 RPM

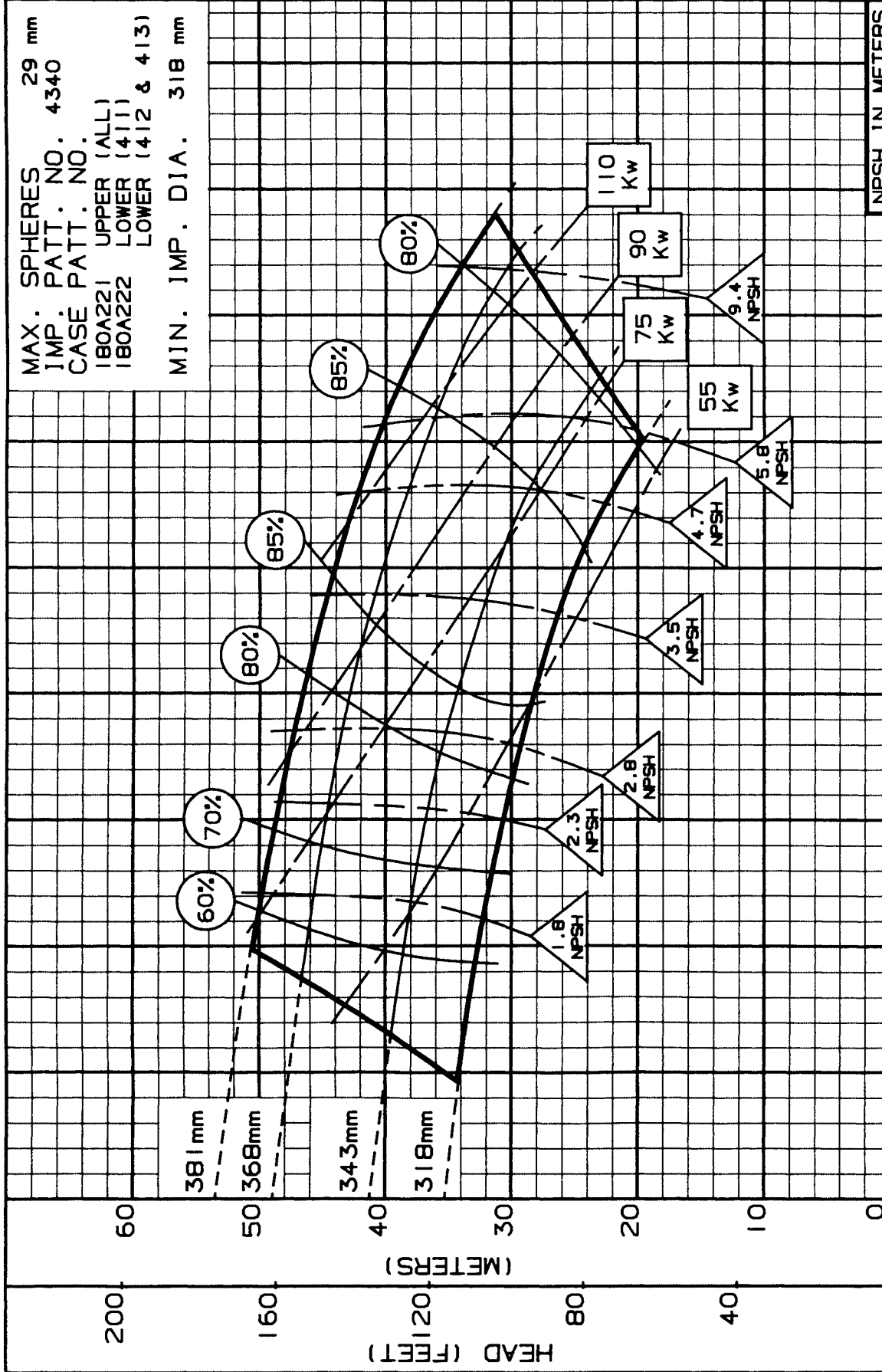
ENCLOSED IMPELLER



Pentair Pump Group

SIZE: 10X12X15C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 29 mm
 IMP. PATT. NO. 4340
 CASE PATT. NO.
 180A221 UPPER (ALL)
 180A222 LOWER (411)
 LOWER (412 & 413)
 MIN. IMP. DIA. 318 mm



M ³ /HR	0	150	300	450	600	750	900	1050	1200	1350
L/S	0	50	100	150	200	250	300	350	400	450
U.S. GPM	0	750	1500	2250	3000	3750	4500	5250	6000	6750

NPSH IN METERS
 0 10 20 30 40 50 60
 1.8 NPSH 2.3 NPSH 2.8 NPSH 3.5 NPSH 4.7 NPSH 5.8 NPSH 9.4 NPSH

KW
 110 90 75 55 45

EFFICIENCY (%)
 60 70 80 85 90

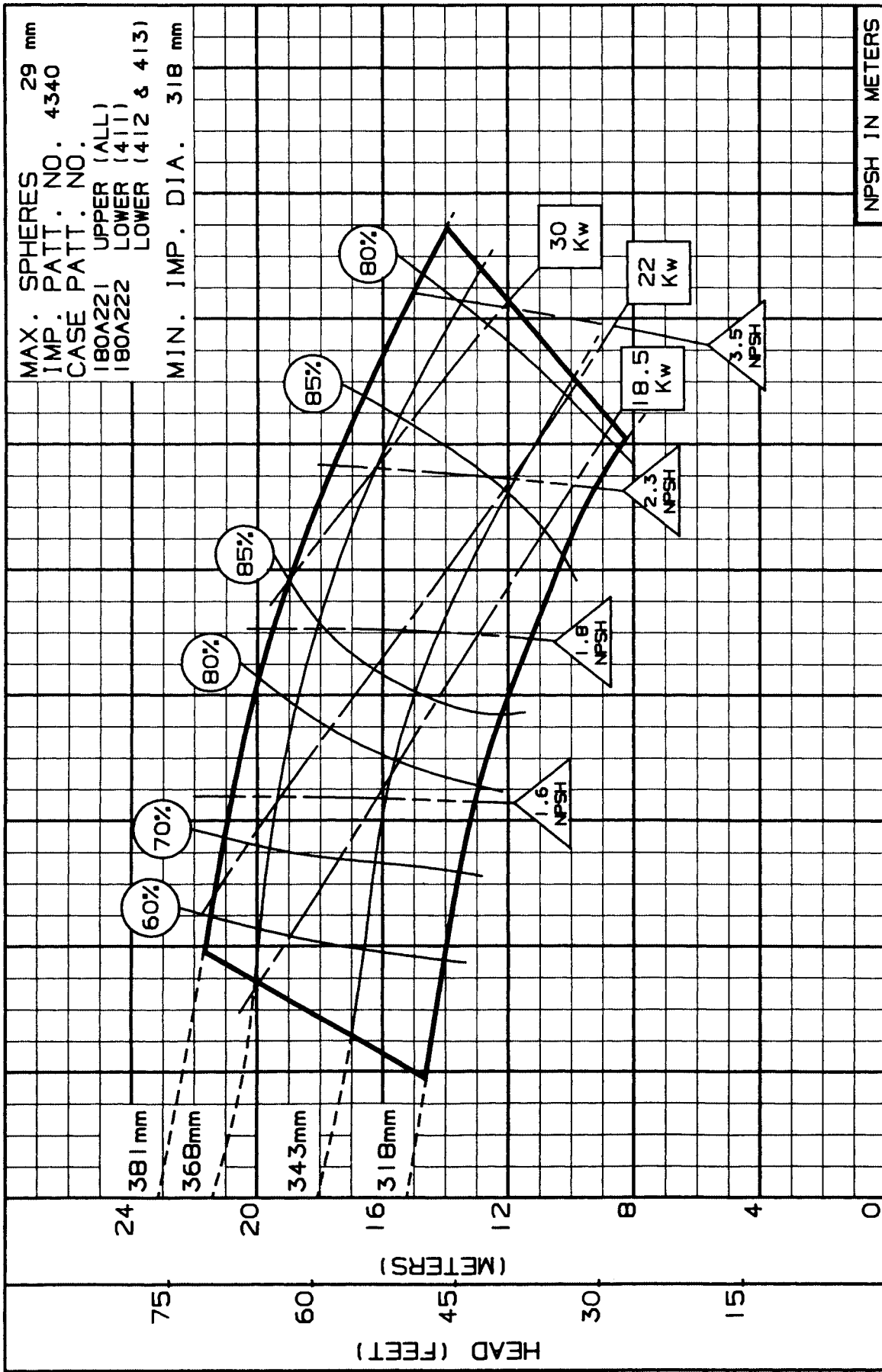
HEAD (FEET)
 0 40 80 120 160 200

HEAD (METERS)
 0 10 20 30 40 50 60

DRAWN BY: *APC* APPROVED BY: *bt* DATE: 7-90 PC-125182M

SIZE: 10X12X15C TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 29 mm
IMP. PATT. NO. 4340
CASE PATT. NO.
180A221 UPPER (ALL)
180A222 LOWER (411)
MIN. IMP. DIA. 318 mm



M ³ /HR	0	100	200	300	400	500	600	700	800	900
L/S	40	160	320	480	640	800	960	1120	1280	1440
U.S. GPM	500	1000	1500	2000	2500	3000	3500	4000	4500	5000

DRAWN BY: *Rah* APPROVED BY: DL DATE: 7-90 PC-1251B1M

10x12x18 - 1475 RPM

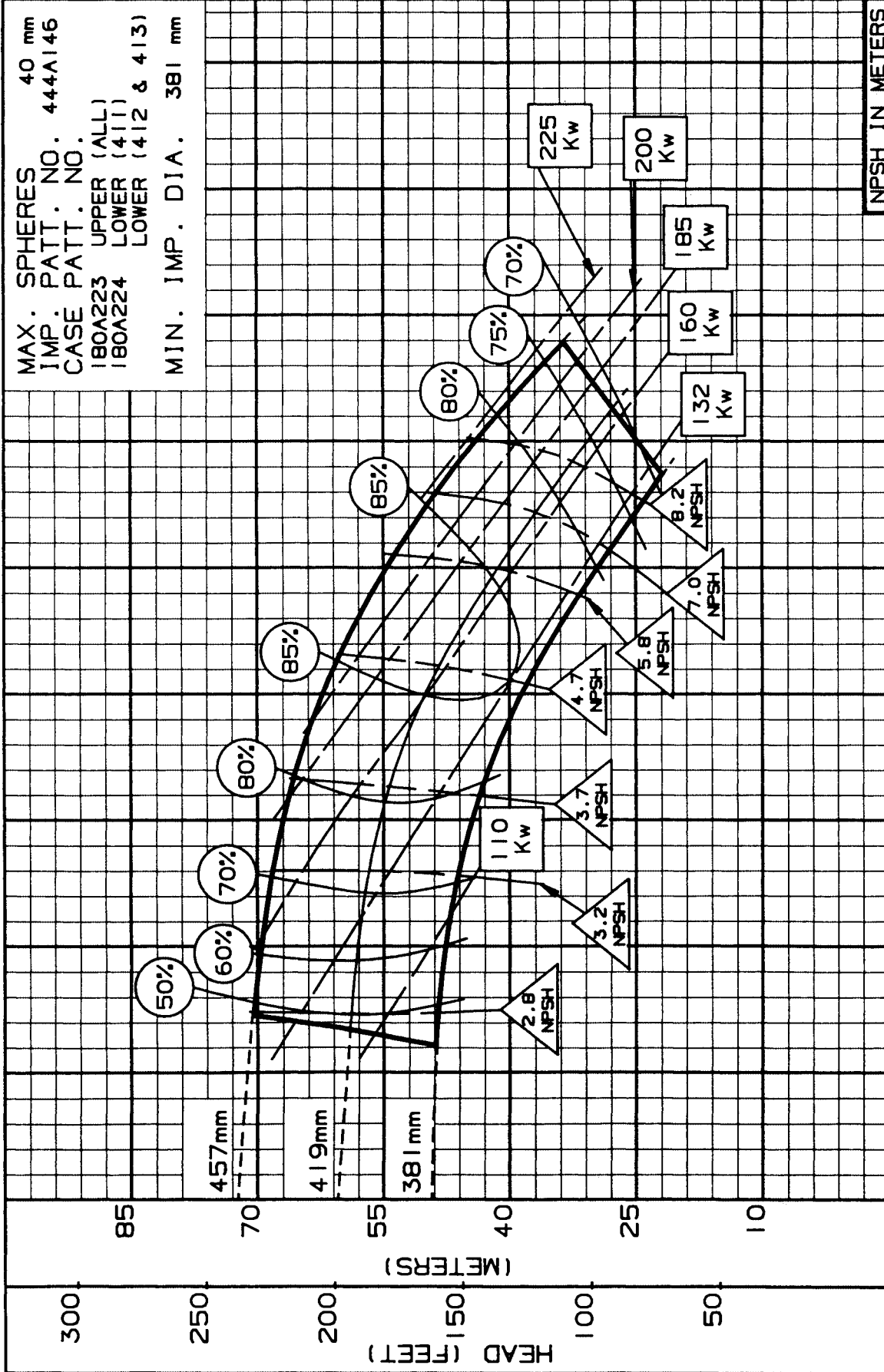
ENCLOSED IMPELLER



Pentair Pump Group

SIZE: 10X12X18 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 40 mm
 IMP. PATT. NO. 444A146
 CASE PATT. NO.
 180A223 UPPER (ALL)
 180A224 LOWER (411)
 LOWER (412 & 413)
 MIN. IMP. DIA. 381 mm

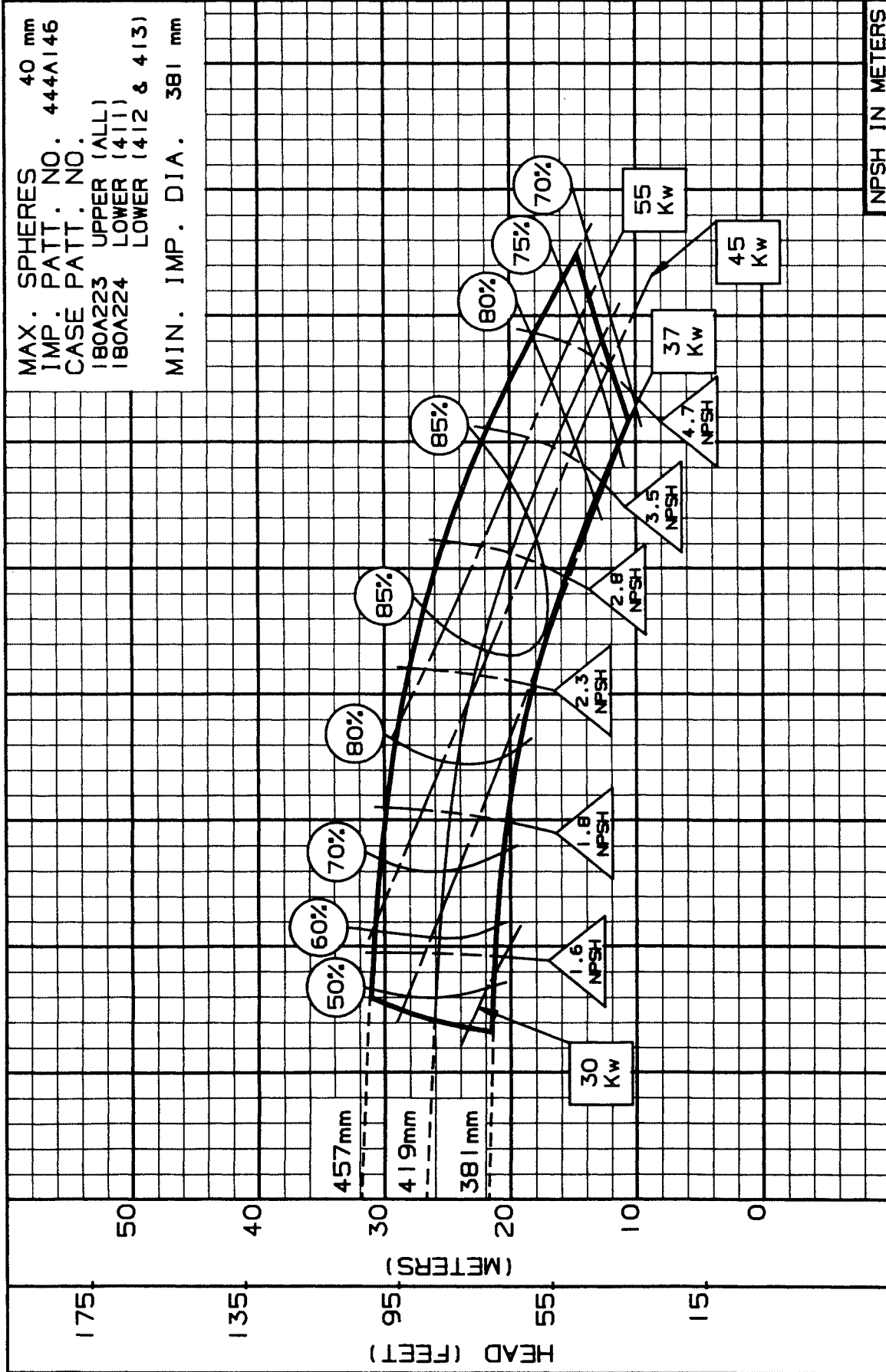


M ³ /HR	0	250	750	1000	1250	1500	1750	2000	2250
L/S	75	150	225	300	375	450	525	600	600
U.S. GPM	1500	3000	4500	6000	7500	9000	9000	9000	9000

NPSH IN METERS
 DRAWN BY: *DL* APPROVED BY: *DL* DATE: 7-90
 PC-117403M

SIZE: 10X12X18 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 40 mm
IMP. PATT. NO. 444A146
CASE PATT. NO.
180A223 UPPER (ALL)
180A224 LOWER (411)
LOWER (412 & 413)
MIN. IMP. DIA. 381 mm



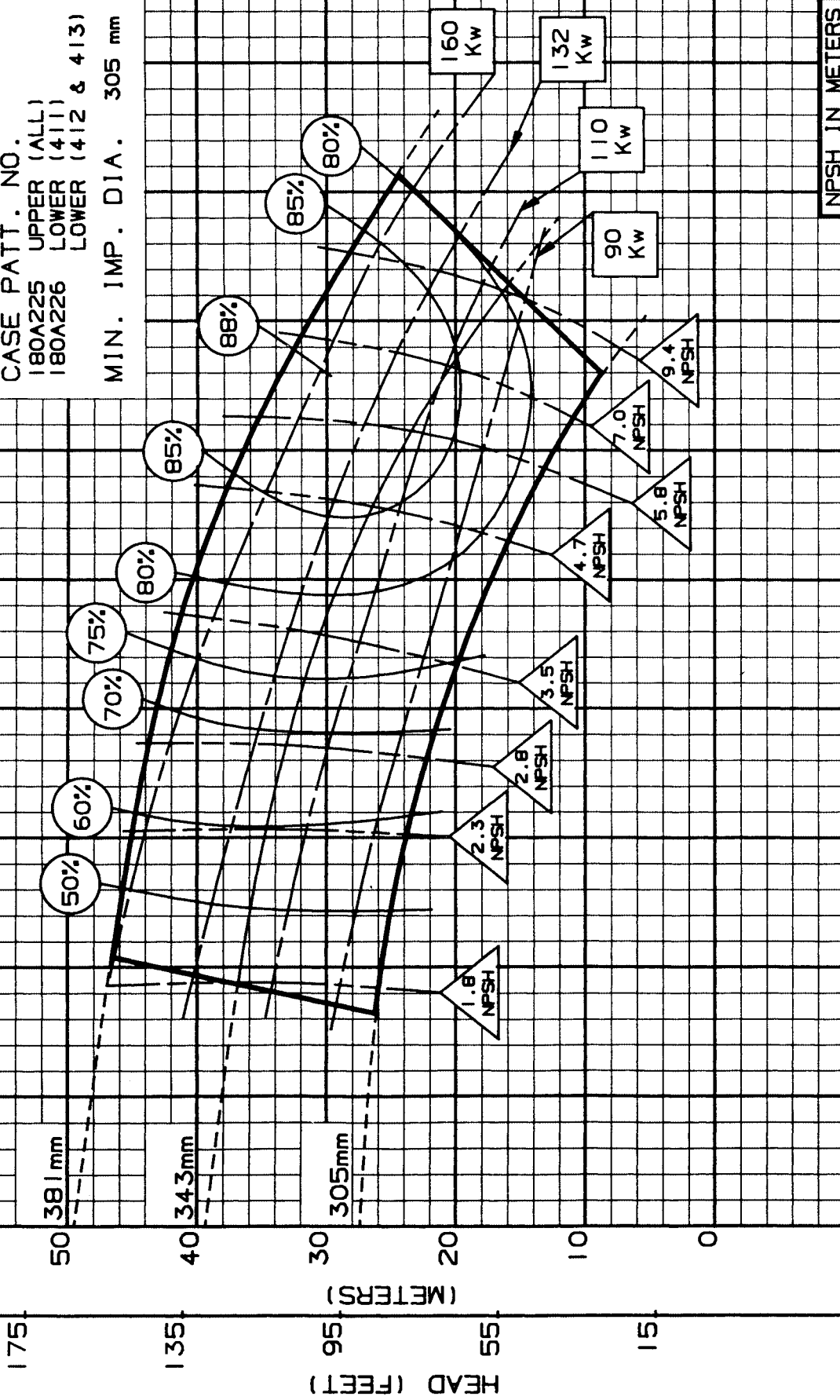
DRAWN BY: *BAK* APPROVED BY: DL DATE: 7-94 PC-117404M

12x14x15B - 1475 RPM
 ENCLOSED IMPELLER



SIZE: 12X14X15B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 1475

MAX. SPHERES 27 mm
 IMP. PATT. NO. 444A147
 CASE PATT. NO.
 180A225 UPPER (ALL)
 180A226 LOWER (411)
 LOWER (412 & 413)
 MIN. IMP. DIA. 305 mm

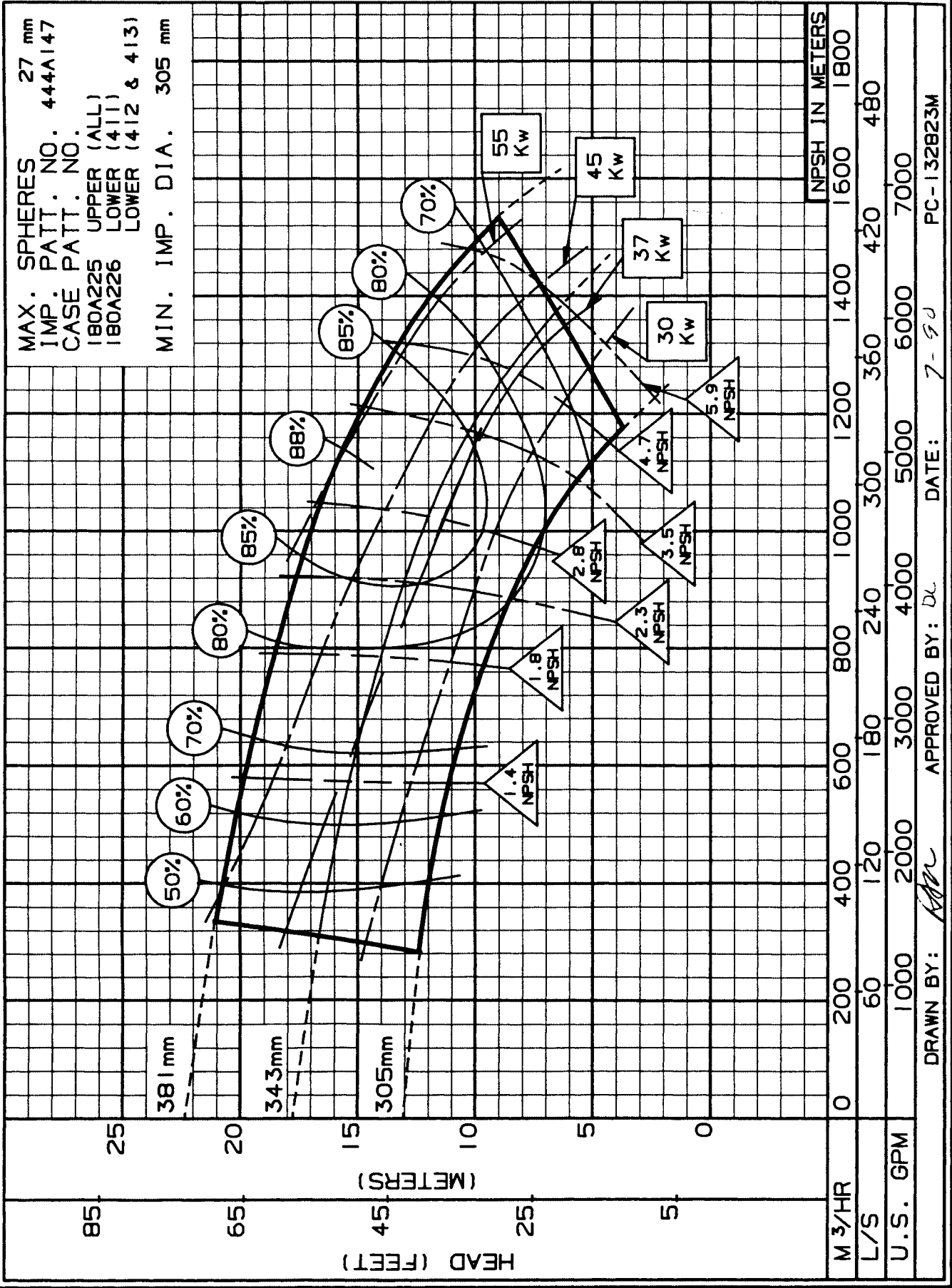


M ³ /HR	0	250	500	750	1000	1250	1500	1750	2000	2250
L/S	75	150	225	300	375	450	525	600	675	750
U.S. GPM	150	300	450	600	750	900	1050	1200	1350	1500

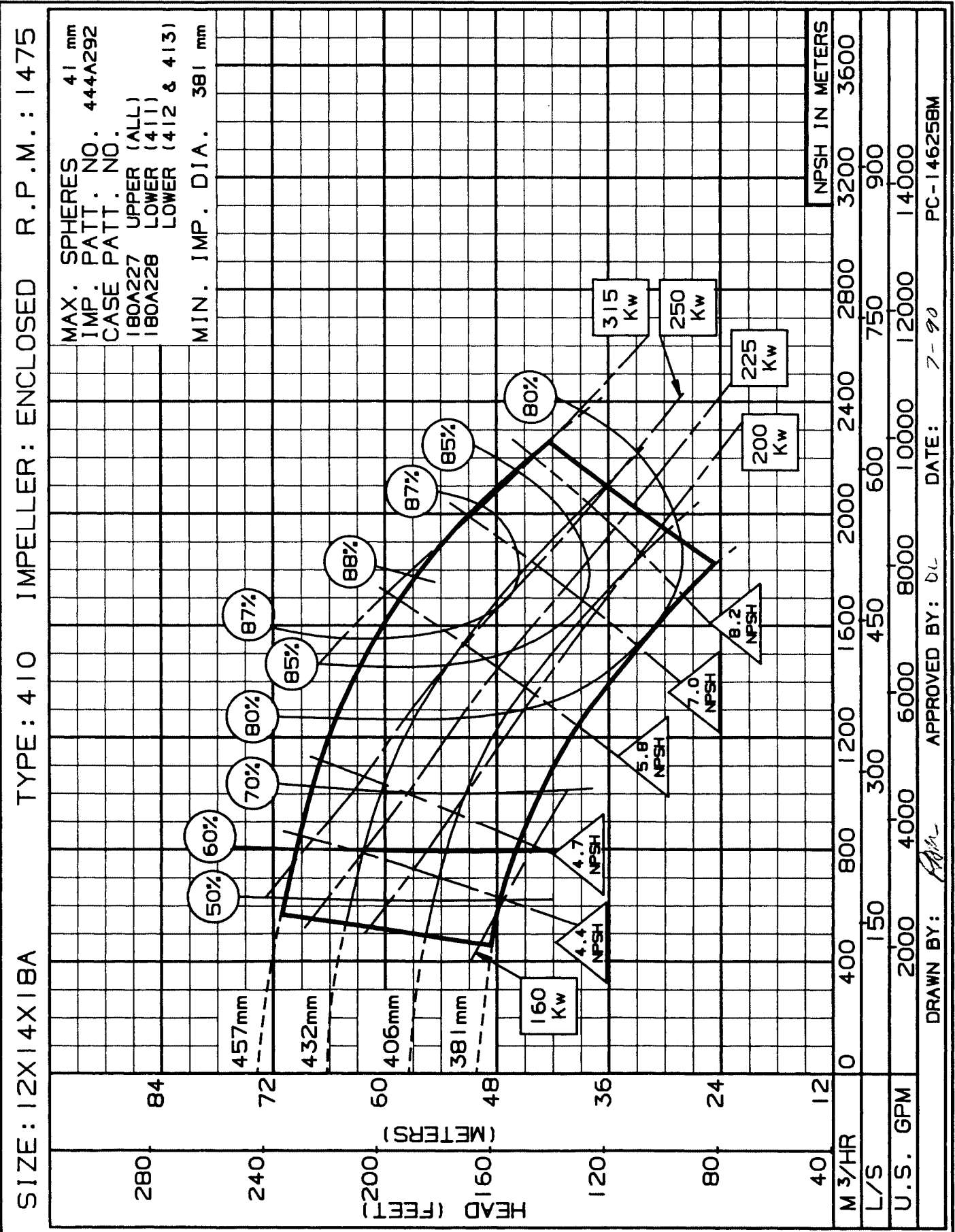
NPSH IN METERS: 0, 10, 20, 30, 40, 50
 DATE: 7-90
 APPROVED BY: DL
 DRAWN BY: *ARC*
 PC-132822M

SIZE: 12X14X15B TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 27 mm
IMP. PATT. NO. 444A147
CASE PATT. NO.
180A225 UPPER (ALL)
180A226 LOWER (411)
MIN. IMP. DIA. 305 mm

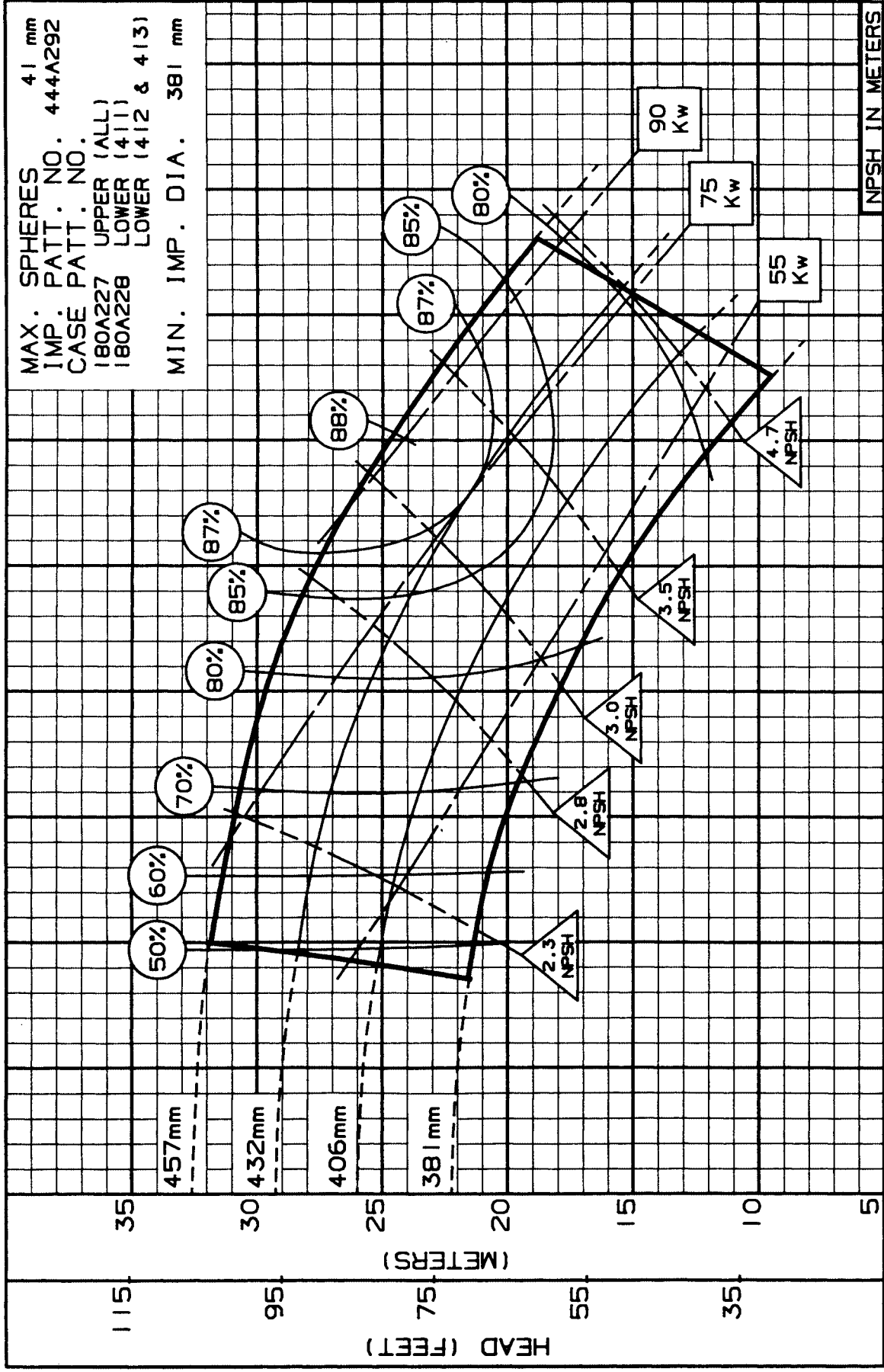


DRAWN BY: *[Signature]* APPROVED BY: *[Signature]* DATE: 7-94 PC-132B23M



SIZE: 12X14X18A TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 41 mm
IMP. PATT. NO. 444A292
CASE PATT. NO. 180A227 UPPER (ALL)
180A228 LOWER (411)
LOWER (412 & 413)
MIN. IMP. DIA. 381 mm

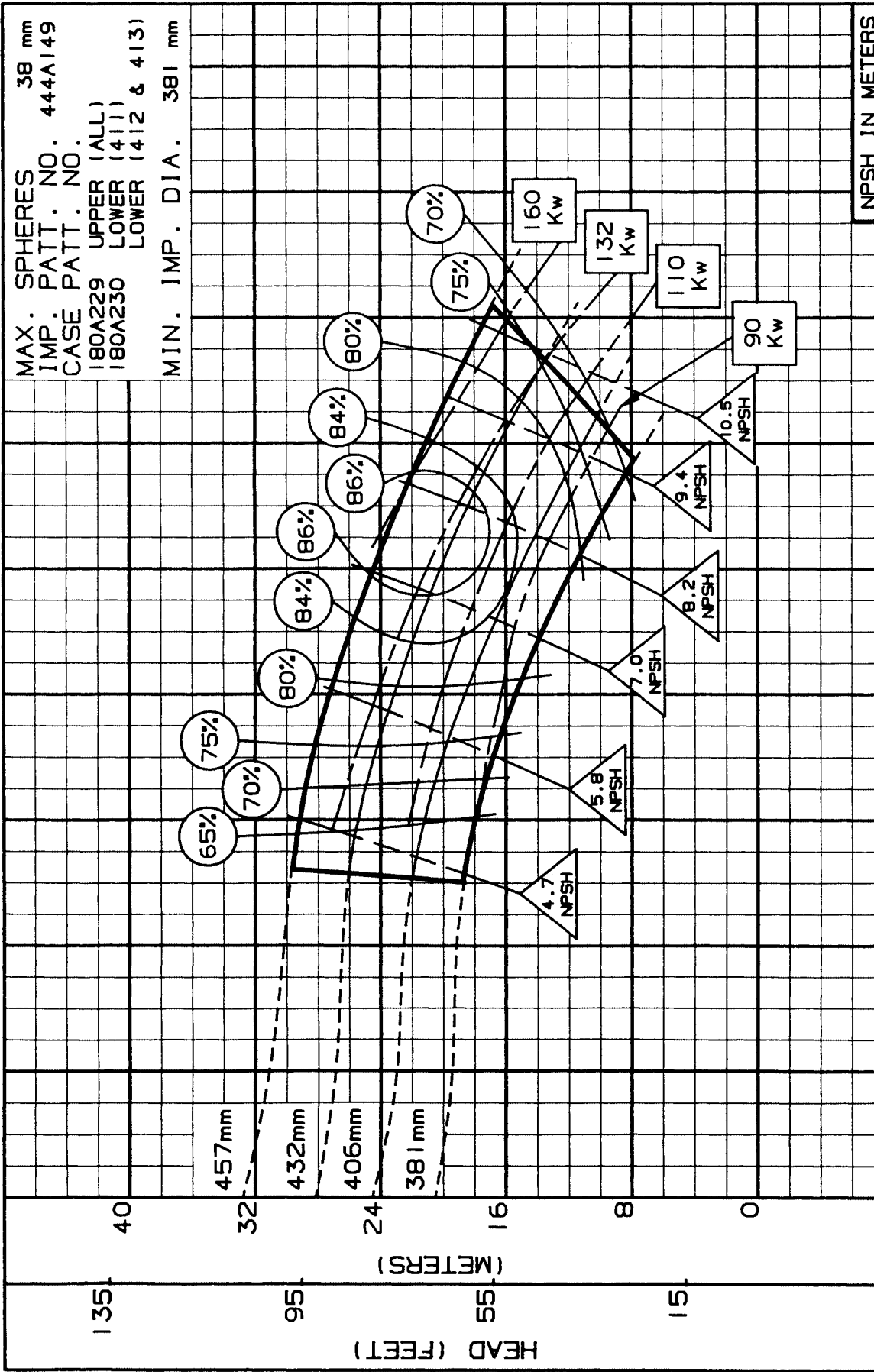


M ³ /HR	0	200	400	600	800	1000	1200	1400	1600	1800
L/S	60	120	180	240	300	360	420	480	540	600
U.S. GPM	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000

DRAWN BY: *Boyl* APPROVED BY: DL DATE: 7-90 PC-146257M

SIZE: 14X16X18 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 38 mm
 IMP. PATT. NO. 444A149
 CASE PATT. NO.
 180A229 UPPER (ALL)
 180A230 LOWER (411)
 LOWER (412 & 413)
 MIN. IMP. DIA. 381 mm

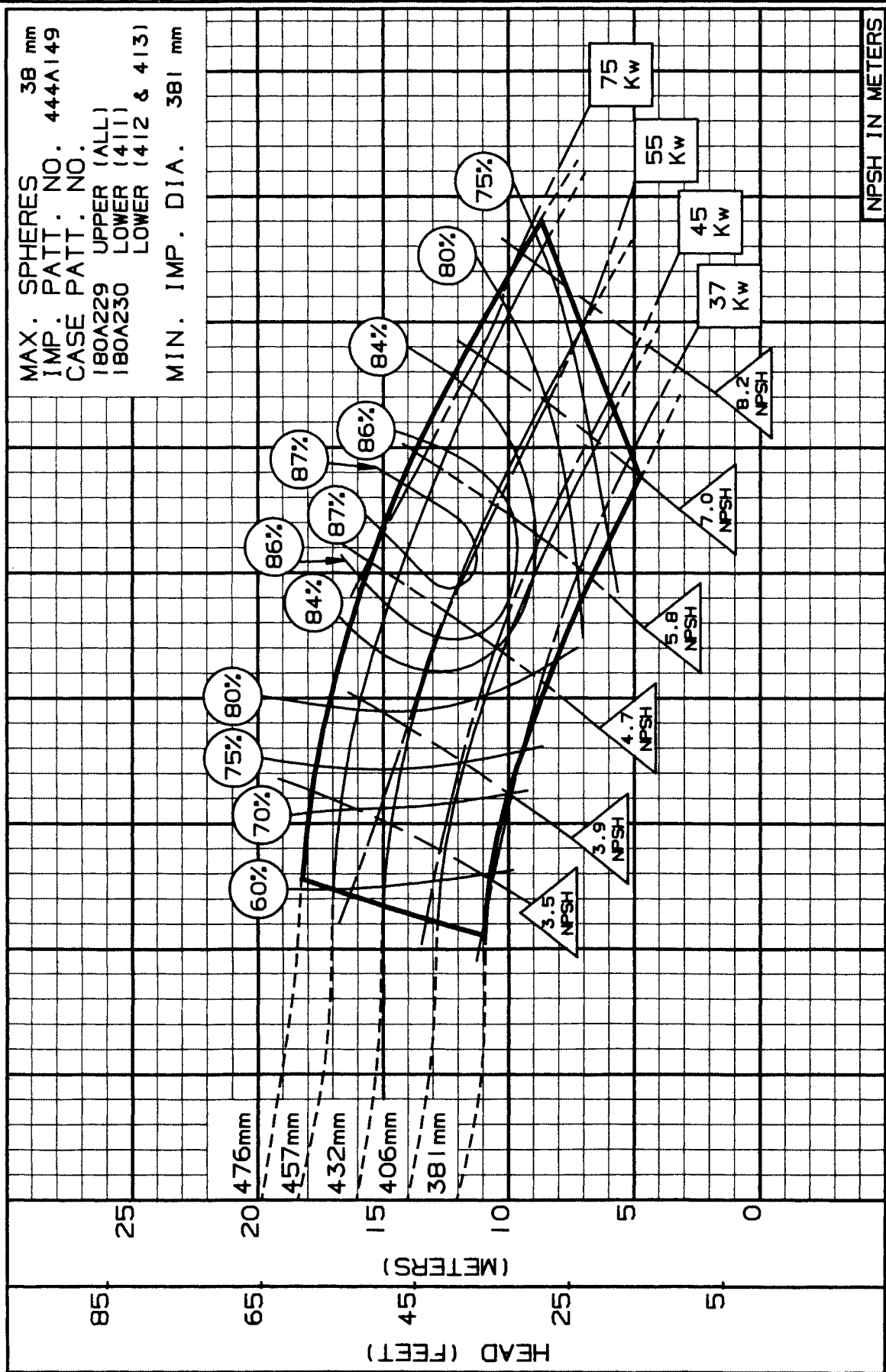


M ³ /HR	0	400	800	1200	1600	2000	2400	2800	3200	3600
L/S	0	150	300	450	600	800	1000	1200	1400	14000
U.S. GPM	0	2000	4000	6000	8000	10000	12000	14000	14000	14000

DRAWN BY: *RDC* APPROVED BY: *DL* DATE: 7-90 PC-132250M

SIZE: 14X16X18 TYPE: 410 IMPELLER: ENCLOSED R.P.M.: 735

MAX. SPHERES 38 mm
IMP. PATT. NO. 444A149
CASE PATT. NO.
180A229 UPPER (ALL)
180A230 LOWER (411)
LOWER (412 & 413)
MIN. IMP. DIA. 381 mm



M ³ /HR	0	300	600	900	1200	1500	1800	2100	2400	2700
L/S	0	100	200	300	400	500	600	700	800	900
U.S. GPM	0	1500	3000	4500	6000	7500	9000	10500	12000	13500

NPSH IN METERS

DRAWN BY: *RML* APPROVED BY: *DL* DATE: 7-90 PC-132251M