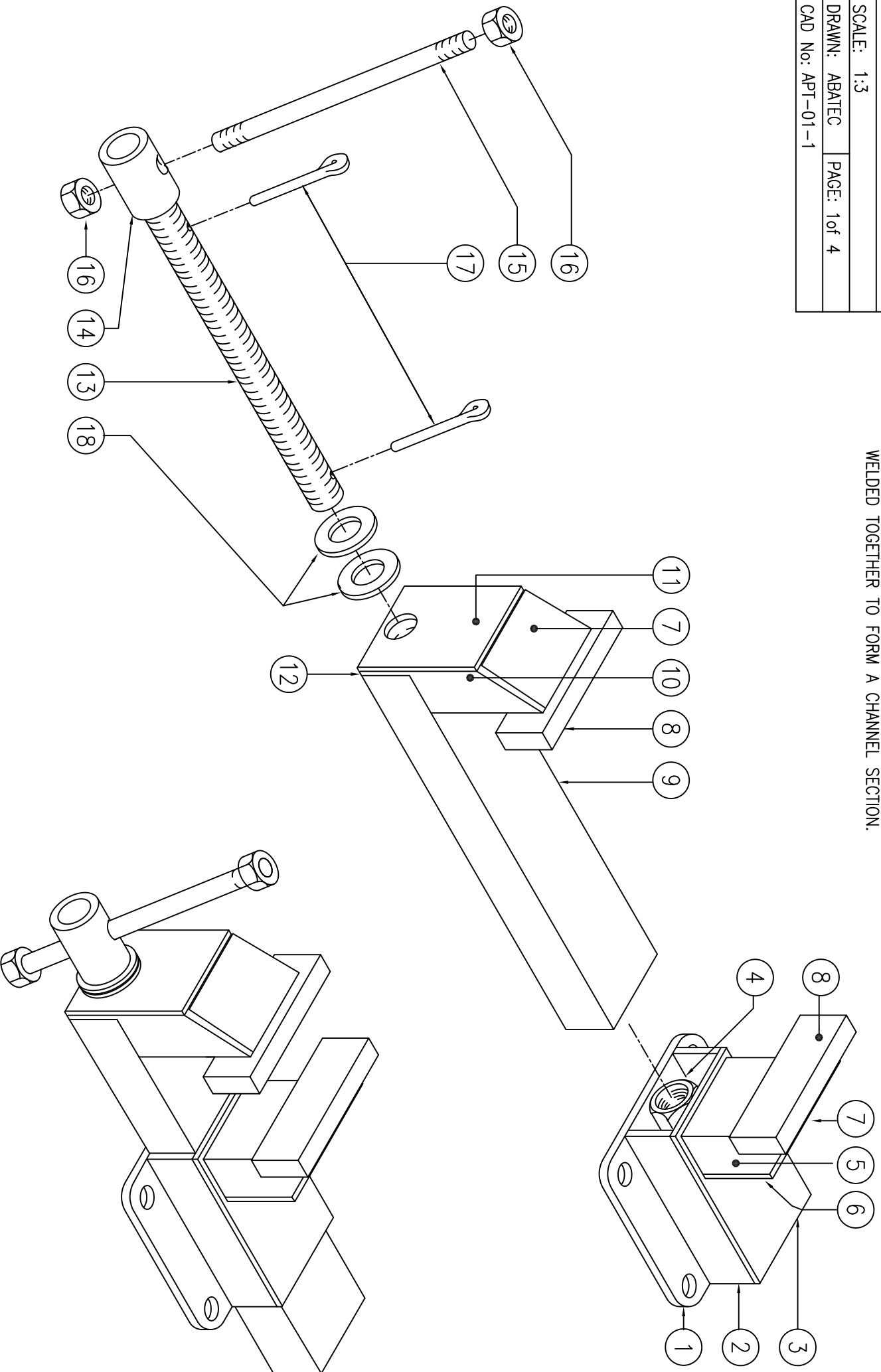


APT ENGINEERS BENCH VICE	
TITLE: ASSEMBLY DRAWING	
SCALE: 1:3	PAGE: 1 of 4
DRAWN: ABATEC	CAD No: APT-01-1

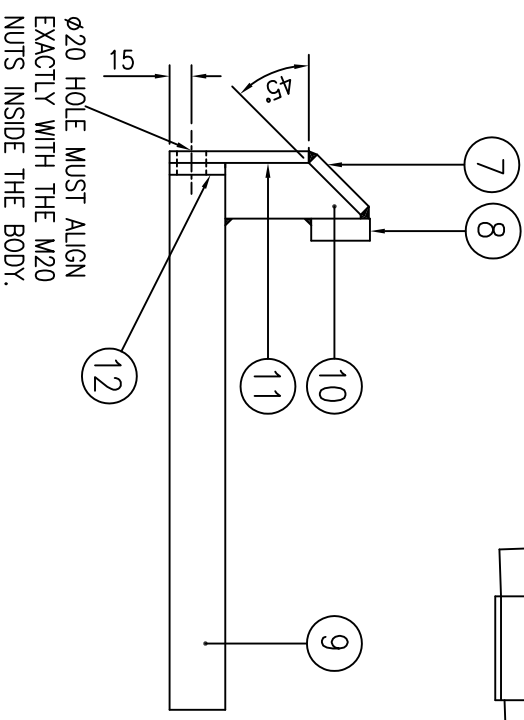
THE DESIGN IS BASED ON CHANNEL SECTION FOR THE SLIDE, SLIDE TOWER AND BODY TOWER. IF THIS IS UNAVAILABLE, IT CAN BE REPLACED USING PLATE OR TWO LENGTHS OF ANGLE IRON WELDED TOGETHER TO FORM A CHANNEL SECTION.



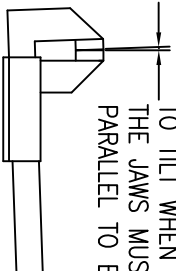
No.	DESCRIPTION	QUANTITY	DIMENSIONS
1	BASE	1	8 x 150 x 150
2	BODY SIDE	2	8 x 150 x 38
3	BODY TOP	1	8 x 150 x 95
4	NUT	2	M20 NUT
5	BODY TOWER	1	38 x 77 CHANNEL SECTION x 85
6	BODY BACK	1	8 x 77 x 50
7	TOWER TOP	2	8 x 77 x 50
8	JAW	2	15 x 40 x 120
9	SLIDE	1	38 x 77 CHANNEL SECTION x 365
10	SLIDE TOWER	1	38 x 77 CHANNEL SECTION x 90
11	SLIDE BACK	1	8 x 77 x 95
12	BACK SUPPORT	1	8 x 77 x 38
13	THREAD	1	M20 STUDDING x 350
14	BOSS	1	∅30 (∅20 BORE) x 70
15	HANDLE	1	∅12 x 200
16	NUT	2	M12 NUT
17	SPLIT PIN	2	∅5 x 50 SPLIT PIN OR NAIL
18	WASHERS	2	M20 WASHER

ApT ENGINEERS BENCH VICE	
TITLE: PARTS LIST	
SCALE:	
DRAWN: ABATEC	PAGE: 2 of 4
CAD No: APT-01-2	

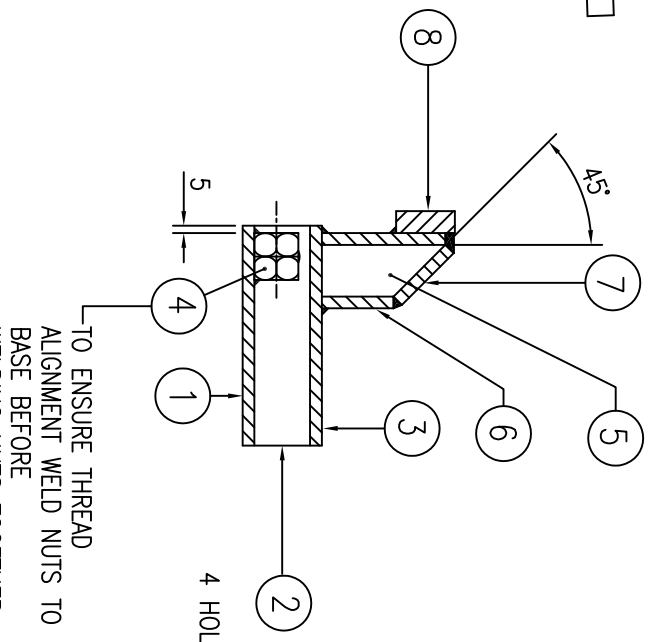
ApT ENGINEERS BENCH VICE	
TITLE: VICE SUB-ASSEMBLIES	
SCALE: 1:5	PAGE: 3 of 4
DRAWN: ABATEC	CAD No: ApT-01-3



φ20 HOLE MUST ALIGN EXACTLY WITH THE M20 NUTS INSIDE THE BODY.

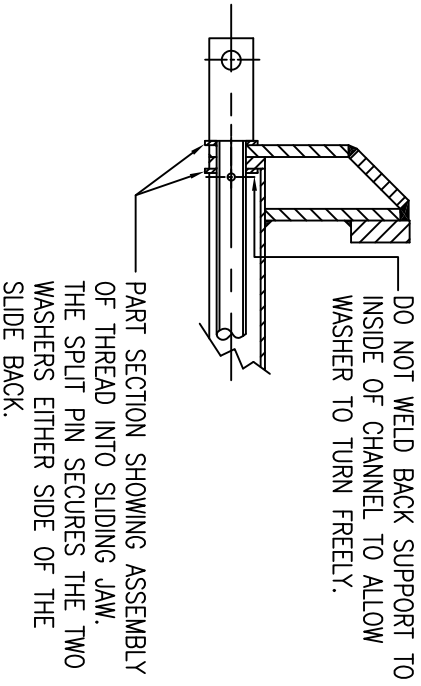
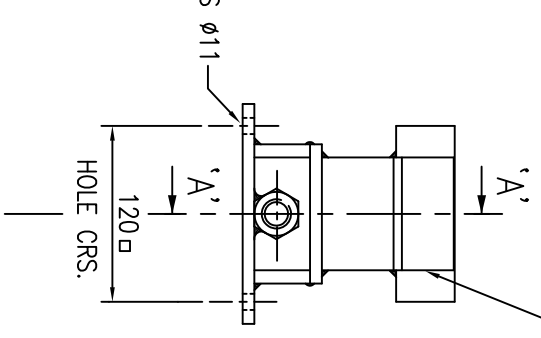


THE CHANNEL SECTION SLIDE MUST BE A GOOD SNUG FIT INSIDE THE BODY SO AS NOT TO TILT WHEN TIGHTENED. THE JAWS MUST CLOSE PARALLEL TO EACH OTHER.

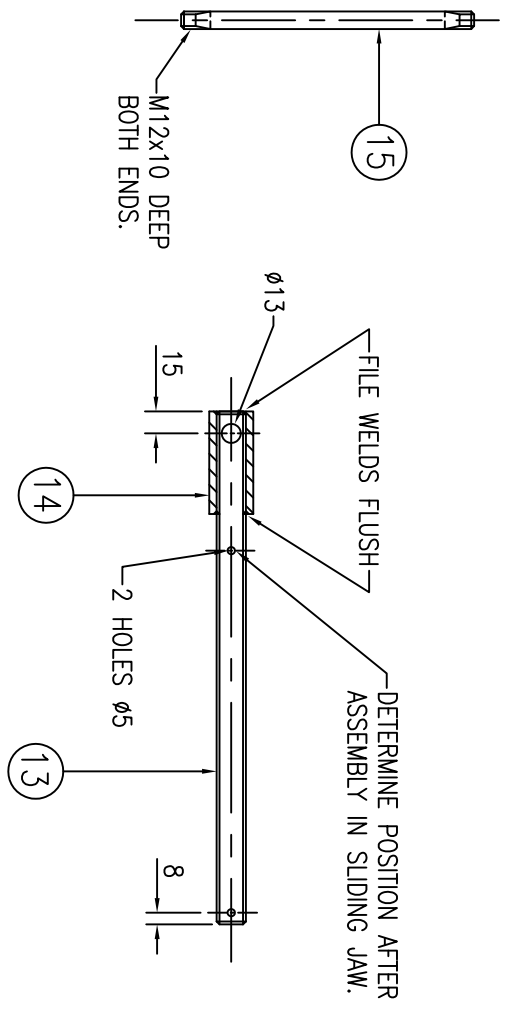


TO ENSURE THREAD ALIGNMENT WELD NUTS TO BASE BEFORE WELDING NUTS TOGETHER.

TO AVOID JAW DISTORTION DO NOT WELD JAW SIDES



DO NOT WELD BACK SUPPORT TO INSIDE OF CHANNEL TO ALLOW WASHER TO TURN FREELY.



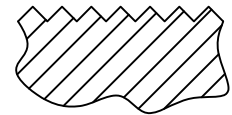
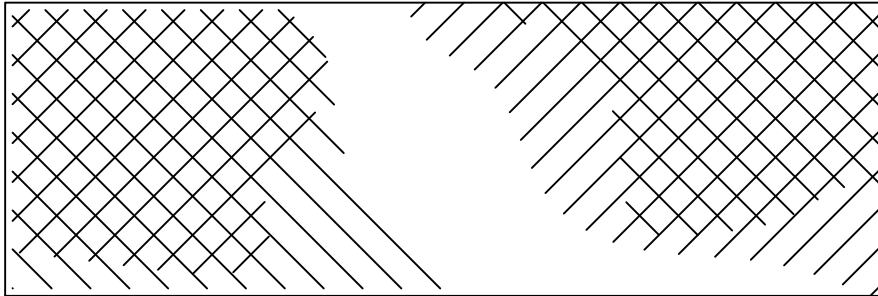
PART SECTION SHOWING ASSEMBLY OF THREAD INTO SLIDING JAW. THE SPLIT PIN SECURES THE TWO WASHERS EITHER SIDE OF THE SLIDE BACK.

KNURLED JAW SURFACE

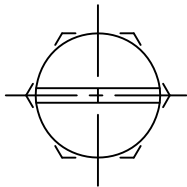
1. SCRIBE LINES
AT 45° AS
A GUIDE.

2. USE A COLD CHISEL
TO PRODUCE A
KNURLED GRIPPING
SURFACE.

ENLARGED SECTION
OF KNURLED SURFACE.
NOTE TOP SURFACE
MUST BE FLAT TO
CLAMP EFFECTIVELY
WITH OPPOSITE JAW.

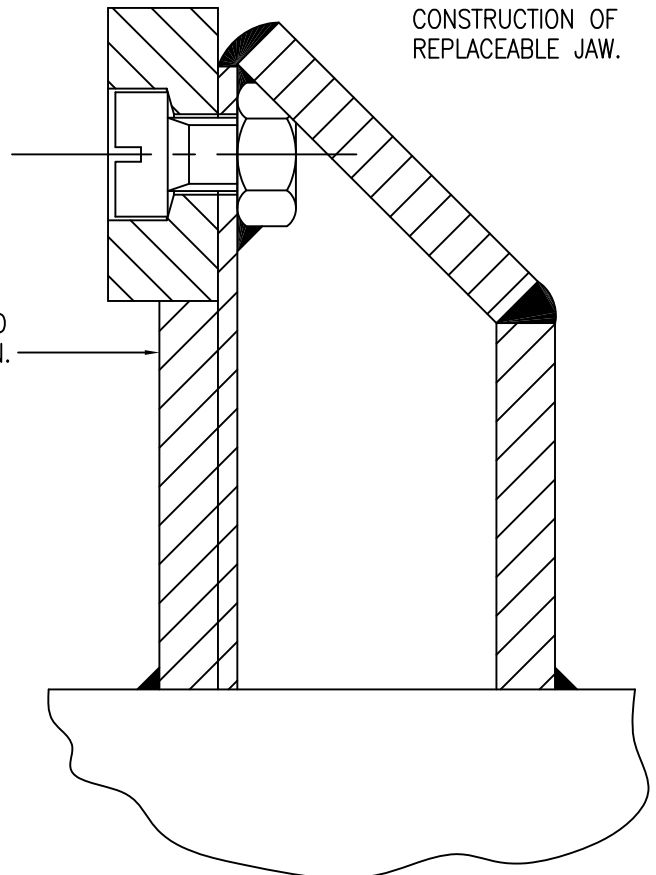


REPLACEABLE JAWS



ROUND OFF THE HEADS
OF FOUR M10 BOLTS
AND SAW A SLOT
ACROSS.

JAW SUPPORT PLATE WELDED
TO TOWER CHANNEL SECTION.



PART SECTION SHOWING
CONSTRUCTION OF
REPLACEABLE JAW.

HARD JAWS

IF HARD JAWS ARE REQUIRED, THESE CAN
BE MADE FROM LORRY LEAF-SPRING:

1. ANNEAL BEFORE CUTTING JAWS (HEAT TO
DULL RED AND COOL VERY SLOWLY).
2. AFTER MAKING THEM, RE-HARDEN BY
HEATING TO DULL RED AND QUENCHING IN OIL.

ApT ENGINEERS BENCH VICE

TITLE: JAW OPTIONS

SCALE: 1:1

DRAWN: ABATEC PAGE: 4 of 4

CAD No: APT-01-4