

The **Penny+Giles ICT080 Contactless In-Cylinder Linear Transducer** has been specifically designed for small bore mobile and static hydro-pneumatic actuators.

Designed primarily for the off-highway markets, the ICT080 linear transducer provides reliable, fit-and-forget position sensing of the cylinder rod in actuators with strokes up to 1000mm, with a body diameter of only 8mm.

It is a robust, non-contact transducer suitable for the harsh conditions of lifting and steering position applications and hydro-pneumatic active suspension systems. It works on an inductive coil principle, with virtually infinite resolution and is capable of withstanding temperatures down to -55°C and up to 200°C , with working pressures up to 670Bar (10,000psi).



## ICT080

## IN-CYLINDER LINEAR TRANSDUCER

[www.pennyandgiles.com](http://www.pennyandgiles.com)

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info@penny-giles.de



**METRIC**  
IF IN DOUBT ASK

**INSTALLATION KIT.**

PRODUCTION CONTROL TO ENSURE A COPY OF THIS DRAWING IS INCLUDED WITH EACH INSTALLATION KIT.

BECAUSE OF THE MULTIPLICITY OF POTENTIAL APPLICATIONS THE INSTALLATION DETAILS SHOWN ARE SUGGESTIONS ONLY. THE USER SHOULD ENSURE THAT THE DESIGN, METHOD OF ASSEMBLY AND MATERIALS USED ARE SATISFACTORY FOR THE INSTALLATION.

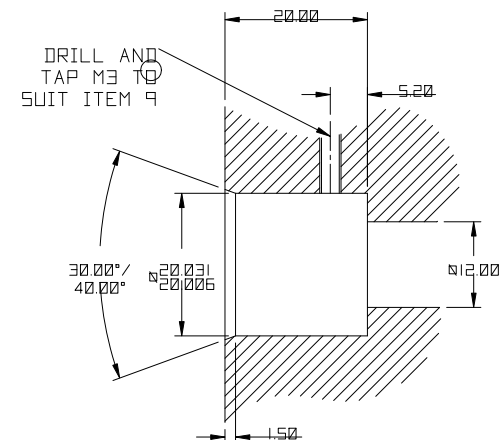
ISS	DATE	DRAWN	ECR No.	CHK	APP
3A	17/02/11	S COLE	10305/25	M Bentley	M Bentley

ITEM No.	DESCRIPTION	P+G PART No.	QTY.
1	FULL NUT M6 x 1.00.	X63-072-360	1
2	FULL NUT 1/4"-28 UNF.	X63-111-001	1
3	WAVEY WASHER	X63-112-005	3
4	SHIM WASHER	P202601	1
5	CIRCLIP	X69-005-106	1
6	'O' RING (14 x 2)	X64-194-006	1
7	'O' RING (16 x 2.5)	X64-194-008	1
8	ANTI EXTRUSION RING	X64-074-001	1
9	M3 CONICAL SET SCREW	X63-096-305	1
10	COPY OF AI202799	AI202799	1
11	LABEL (SUPPLIED LOOSE)	P200919	1
12	INSTALLATION KIT LABEL	P203232	1

ITEM 11 LABEL IS SUPPLIED FOR THE CUSTOMER TO RECORD ICT ORDERING CODE AND TO BE FITTED IN VISIBLE LOCATION ADJACENT TO SENSOR FOR RE-ORDERING REFERENCE.

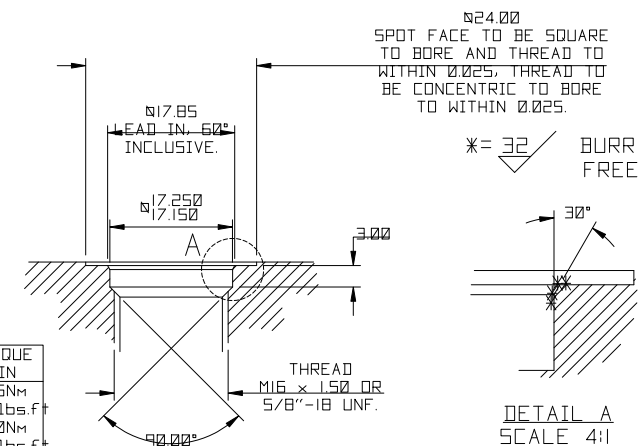
**INTERNAL FLANGE MACHINING DETAILS.**

TO SEAL USE ITEMS 7 & 8

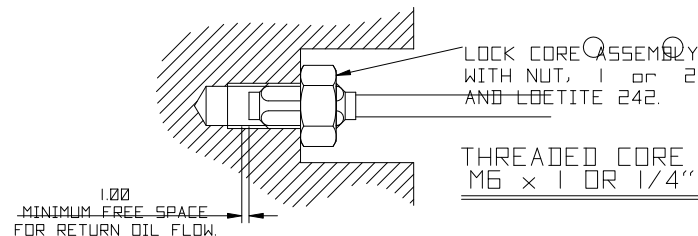


**THREADED FLANGE MACHINING DETAILS.**

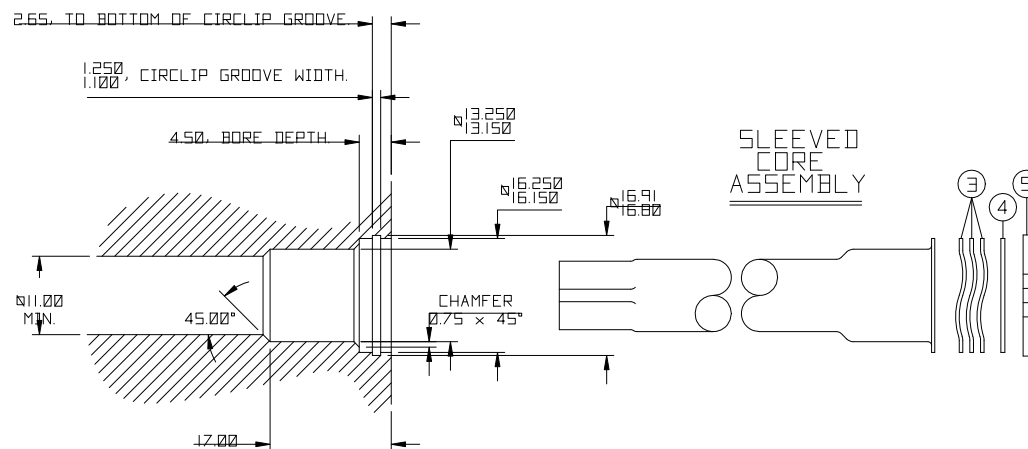
TO SEAL USE ITEM 6



THREAD	TORQUE MIN
M16x1.5	40.5Nm
5/8"-18UNF	30 lbs.f
	38.0Nm
	28 lbs.f



**THREADED CORE ASSEMBLY M6 x 1 OR 1/4"-28 UNF.**



SCALE 1:1  
UNLESS STATED  
THIRD ANGLE PROJECTION TO BS 8888

D No ICT080  
FIRST USED ON  
REF.

MATERIAL  
FINISH

TOLERANCES: IN-LINE WITH PENNY & GILES STANDARDS 33-501  
SURFACE TEXTURE VALUES IN MICROMETRES (µm)  
TO BS1134PT2 TURNED: 0.8 MILLE: 0.8 GROUND: 4  
ALL SCREW THREADS TO BS3643 PT.2  
EXTERNAL CLASS: 6g INTERNAL CLASS: 6h  
ANGULAR ±1° LINEAR 0.05mm +/- 0.05mm (MACHINING) BREAK EDGE 0.05 - 0.15mm  
0.02mm +/- 0.02mm FILLET RADS 0.1 - 0.3mm  
0.000mm +/- 0.001mm UNLESS OTHERWISE STATED

TITLE  
SUGGESTED ICT080 INSTALLATION  
DETAILS AND INSTALLATION KIT  
'H' TEMPERATURE RANGE

**PENNY + GILES**  
PART NUMBER:  
**AI202799**  
SHT 1 OF 1 SHTS

**METRIC**  
IF IN DOUBT ASK

**INSTALLATION KIT.**

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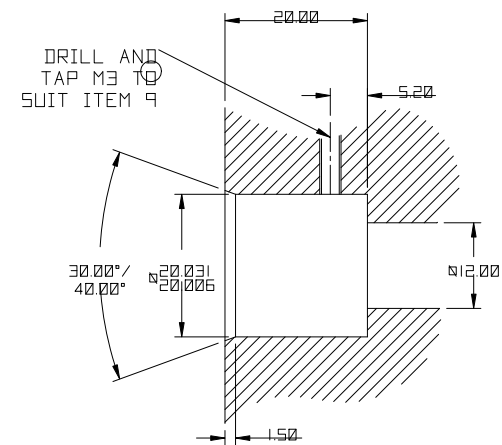
ISS	DATE	DRAWN	ECR No.	CHK	APP
1	17/02/11	S COLE	10305/25	M Bentley	M Bentley

ITEM No.	DESCRIPTION	P+G PART No.	QTY.
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2	FULL NUT 1/4"-28 UNF.	X63-111-001	1
3	WAVEY WASHER	X63-112-005	3
4	SHIM WASHER	P202601	1
5	CIRCLIP	X69-005-106	1
6	'O' RING (14 x 2)	X64-213-006	1
7	'O' RING (16 x 2.5)	X64-213-008	1
8	ANTI EXTRUSION RING	X64-074-001	1
9	M3 CONICAL SET SCREW	X63-096-305	1
10	COPY OF AI208510	AI208510	1
11	LABEL (SUPPLIED LOOSE)	P200919	1
12	INSTALLATION KIT LABEL	P208511	1

ITEM 11 LABEL IS SUPPLIED FOR THE CUSTOMER TO RECORD ICT ORDERING CODE AND TO BE FITTED IN VISIBLE LOCATION ADJACENT TO SENSOR FOR RE-ORDERING REFERENCE.

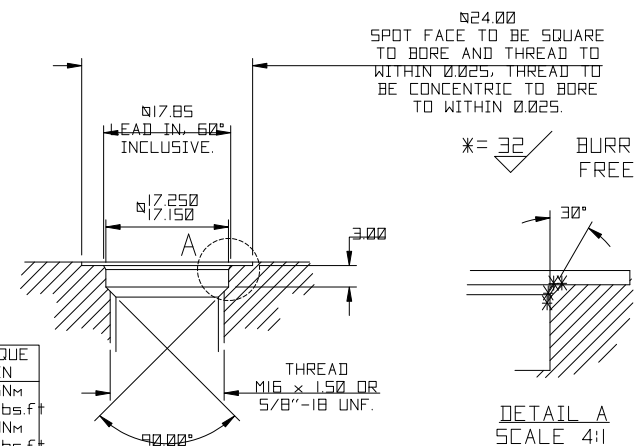
**INTERNAL FLANGE MACHINING DETAILS.**

TO SEAL USE ITEMS 7 & 8

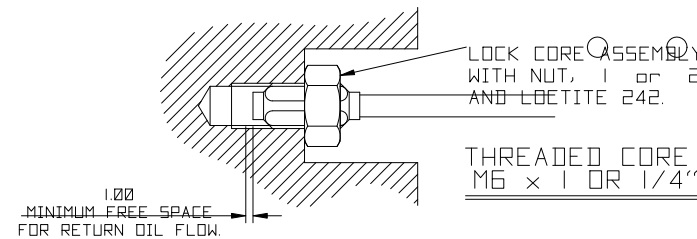


**THREADED FLANGE MACHINING DETAILS.**

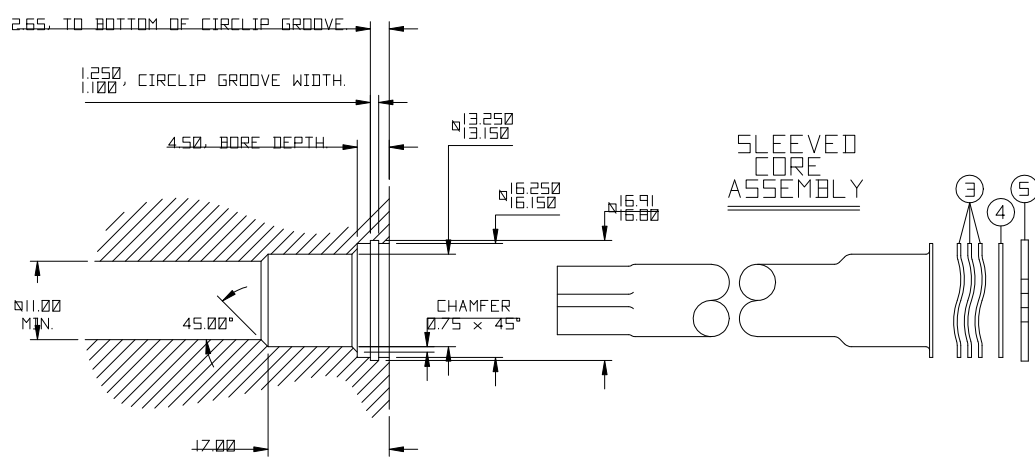
TO SEAL USE ITEM 6



THREAD	TORQUE MIN
M16x1.5	40.5Nm
5/8"-18UNF	30 lbs.f
	38.0Nm
	28 lbs.f



**THREADED CORE ASSEMBLY**  
M6 x 1 OR 1/4"-28 UNF.



SCALE 1:1 UNLESS STATED	IF CONTROL DIMENSIONS (K) ARE SPECIFIED THEY ARE TO BE SUBJECT TO 100% INSPECTION OR STATISTICAL PROCESS CONTROL	D No ICT080 FIRST USED ON	MATERIAL -	TOLERANCES: IN-LINE WITH PENNY & GILES STANDARDS 33-501 SURFACE TEXTURE VALUES IN MICROMETRES (µ) TO BS1134PT2 TURNED: 0.8 MILLE: 0.8 GROUND: 4 ALL SCREW THREADS TO BS3643 PT.2 EXTERNAL CLASS: 6g INTERNAL CLASS: 6H	TITLE SUGGESTED ICT080 INSTALLATION DETAILS AND INSTALLATION KIT 'L' TEMPERATURE RANGE	<b>PENNY + GILES</b>	A 3
THIRD ANGLE PROJECTION TO BS 8888	REF.	FINISH -	ANGULAR ±1° LINEAR 0.05mm MACHINING +/- 0.5mm BREAK EDGE 0.05 - 0.15mm FILLET RADS 0.1 - 0.3mm UNLESS OTHERWISE STATED	PART NUMBER: <b>AI208510</b>	SHT 1 OF 1 SHTS		