

CRACK DETECTION AND REPAIR CATALOG

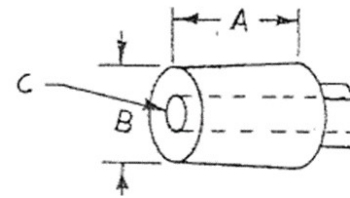
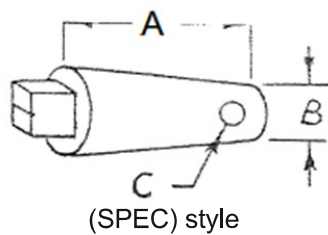


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The Professional's Choice

IRONTITE PRODUCTS INC

Manufacturer of Kwik-Way, Van Norman and Irontite Products
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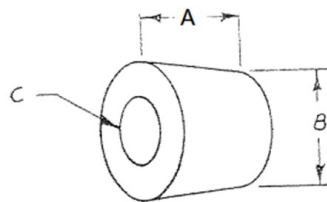
Ductile Iron Plugs

(SPEC) style

Part Number	Plug Type	Thread Length "A"	Diameter Small End "B"	Drill P/N	Drill Size	Reamer P/N	Tap P/N
401-2101-55	A-155	15/16	0.155	407-5101-55	9/64	*	407-5301-55
401-2102-00	A-200	15/16	0.200	407-5102-0C	11/64	*	407-5302-00
401-2102-35	A-235	15/16	0.235	407-5102-35	13/64	407-5202-35	407-5302-35
401-2103-27	B-1	1 7/16	0.327	407-5103-27	5/16	407-5203-27	407-5303-27
401-2104-20	C	15/16	0.420	407-5104-2C	25/64	407-5204-20	407-5304-20
401-2104-90	D	1	0.490	407-5104-9C	15/32	407-5204-90	407-5304-90
401-2104-91	D-1	1 7/16	0.490	407-5104-9C	15/32	407-5204-90	407-5304-90
401-2105-90	E	1	0.590	407-5105-9C	9/16	407-5205-90	407-5305-90
452-2605-91	E-1	1 7/16	0.590	407-5105-9C	9/16	407-5205-90	407-5305-90
452-2607-80	G	1	0.780	*	23/32	407-5207-80	407-5307-80
452-2607-86	R	1 3/4	0.780	*	23/32	407-5207-86*	407-5307-86
452-2610-80	H	1	1.084	*	1 1/32	407-5210-80	407-5310-80
452-2613-13	J	1 1/2	1.312	*	1 1/4	407-5213-10	407-5313-10

Threadless Ductile Iron Plugs

Part Number	Plug Type	Length "A"	Diameter Small End "B"	Drill P/N	Drill Size	Reamer P/N
401-2301-00	TPD	15/16	0.100	*	#30	*
401-2301-25	TPC	15/16	0.125	*	#25	*
401-2302-00	TPA	15/16	0.200	407-5102-0C	11/64	407-5202-35



Ductile Iron Drilled Plugs

Part Number	Plug Type	Thread Length "A"	Diameter Small End "B"	Hole Size "C"	Drill Size	Reamer P/N	Tap P/N
452-2604-24	C-1 SPEC.	1 3/8	0.420	13/64	25/94	407-5204-20	407-5304-20
452-2604-94	D-1 SPEC.	1 7/16	0.490	"U" DRILL	15/32	407-5204-90	407-5304-20
452-2605-94	E-1 SPEC.	1 7/16	0.590	3/8	9/16	407-5205-90	407-5305-90
452-2607-83	G-3	1	0.780	11/32 .344	23/32	407-5207-80	407-5307-80
452-2607-84	G-4	1	0.780	13/32 .406	23/32	407-5207-80	407-5307-80
452-2607-87	R-4	1 3/4	0.780	13/32 .406	23/32	407-5207-86*	407-5307-86
452-2608-44	GO-4	1	0.843	13/32 .406	51/64	407-5208-40*	407-5308-40
452-2608-55	GO (short)	5/8	0.865	17/32 .531	51/64	*	407-5308-40
452-2610-82	H-2	1	1.084	3/8 .375	1 1/32	407-5210-80	407-5310-80
452-2610-84	H-4	1	1.084	23/64 .359	1 1/32	407-5210-80	407-5310-80
452-2613-14	J-2	1 1/2	1.312	1/2 .500	1 1/4	407-5213-10	407-5313-10
452-2615-24	3/4-12 J	1 1/2	1.312	3/4 - 12	*	407-5213-10	*
452-2615-44	7/8-12 J	1 1/2	1.312	7/8 - 12	*	407-5213-10	*

Crack Detection

COLD CRACK REPAIR

Eliminates the use of high temperatures in the detection and repair of cracks and does not alter the heat-treating characteristics of the casting. The process is simple:

- Determine the location of the crack
- Relieve stress in the casting causing the crack
- Add and move metal to close the crack
- Refinish the surface of the repaired casting

KWIK-CHEK Crack Detection Materials



Detect cracks in aluminum (or ductile iron) cylinder heads.

Available individually or in a kit that includes the Dye Penetrant, Remover and Developer.

KWIK-CHEK DYE PENETRANT

DESCRIPTION	Part#
Kwik-Chek Kit	400-1310-01
#1 Dye Penetrant	400-1320-01
#2 Dye Remover	400-1320-02
#3 Developer	400-1320-03

TWO WAYS TO LOCATE CRACKS

- Magnetic Crack Detection
- Kwik-Chek Dye Penetrant



Electro Magnetic Kits include the Magnet, bulb and powder in a handy toolbox.

Maximum Ampere Turns	3200
Distance between yoke legs	8" (203mm)

MAGNETIC CRACK DETECTION

DESCRIPTION	PART #
Electro Magnet Kit - 115V	400-1110-01
Electro Magnet Kit - 230V	400-1112-30
Spray Bulb Powder Applicator	400-1210-01

MAGNETIC POWDER

DESCRIPTION	PART #
WHITE	
1 lb. Can	400-1220-16
5 lb. Can	400-1220-80
10 lb. Can	400-1221-60
25 lb. Can	400-1224-00
GOLD	
1 lb. Can	400-1225-16
5 lb. Can	400-1225-80
10 lb. Can	400-1226-60
25 lb. Can	400-1229-00
GREY	
1 lb. Can	400-1230-16
5 lb. Can	400-1230-80
10 lb. Can	400-1231-60
25 lb. Can	400-1234-00

Crack Repair Plugs

Repair Plugs and Pins

- Automotive - Iron
- Diesel - Iron
- Caterpillar



Threaded Ductile Iron Plugs - Automotive

DUCTILE IRON THREADED PLUGS - AUTOMOTIVE

DESCRIPTION	QTY	PART#
A-155	100/Box	401-2101-55
A-200	100/Box	401-2102-00
A-235	100/Box	401-2102-35
B-1	50/Box	401-2103-27
C	25/Box	401-2104-20
D	25/Box	401-2104-90
D-1	25/Box	401-2104-91
E	25/Box	401-2105-90

DUCTILE IRON

While most varieties of cast iron are brittle, ductile iron has much more impact and fatigue resistance, due to its nodular graphite inclusions. This makes a superior plug versus steel alloy plugs.

DUCTILE IRON THREADLESS PINS - AUTOMOTIVE

DESCRIPTION	QTY	PART#
TPD	100/Box	401-2301-00
TPC	100/Box	401-2301-25
TPA	100/Box	401-2302-00

DUCTILE IRON PLUGS - DIESEL

DESCRIPTION	QTY	PART#
D-1 Special	Each	452-2604-94
E-1 Solid	Each	452-2605-91
G Solid	Each	452-2607-80
G-3 Drilled	Each	452-2607-83
G-4 Drilled	Each	452-2607-84
H Solid	Each	452-2610-80
H-2 Drilled	Each	452-2610-82
H-4 Drilled	Each	452-2610-84
J Solid	Each	452-2613-13
J-2 Drilled	Each	452-2613-14

DIESEL DUCTILE IRON PLUGS - CATERPILLAR

DESCRIPTION	PART #
3/4 - 12 Standard Caterpillar Plug	452-2615-24
7/8 - 12 Standard Caterpillar Plug	452-2615-44

Plug Installation Tools

Use Quality Irontite Parts & Supplies for the Best Results

- Tapered Reamers & Tapered Taps & Standard Drills
- Tapered, Threaded Plugs, reamers and taps in various sizes

HSS TAPERED REAMERS

DESCRIPTION	PLUG TYPE	PART #
HSS Tapered Reamer	A-200/A-235	407-5202-35
HSS Tapered Reamer	B-1	407-5203-27
HSS Tapered Reamer	C, C-1, C-1 Special	407-5204-20
HSS Tapered Reamer	D, D-1, D-1 Special	407-5204-90
HSS Tapered Reamer	H	407-5210-80
HSS Tapered Reamer	J	407-5213-10

Plug Installation Tools Cont.

Tapered Taps



Crack Repair Drills

QUALITY PRODUCTS DESIGNED FOR THE JOB

- Sizes and types for every need
- Only the best quality materials for tools and equipment
- Purchase Kits for convenience
- Select additional parts and supplies as needed

HSS TAPERED TAPS		
DESCRIPTION	PLUG TYPE	PART#
HSS Tapered Tap	A-155	407-5301-55
HSS Tapered Tap	A-200	407-5302-00
HSS Tapered Tap	A-200 TN	407-5302-01
HSS Tapered Tap	A-235	407-5302-35
HSS Tapered Tap	A-235 TN	407-5302-36
HSS Tapered Tap	B-1	407-5303-27
HSS Tapered Tap	B-1/8 (CS)	407-5303-86
HSS Tapered Tap	D, D-1, D-1 Special	407-5304-20
HSS Tapered Tap	E, E-1, E-1 Special	407-5305-90
HSS Tapered Tap	G	407-5307-80
HSS Tapered Tap	H	407-5310-80
HSS Tapered Tap	HO w/Pilot Hole	407-5311-41
HSS Tapered Tap	J & J-2 Drilled	407-5313-10

JOBBER LENGTH DRILLS		
DESCRIPTION	PLUG TYPE	PART#
11-64 HSS Drill	A-200 & TPA Pins	407-5102-00
13/64 HSS Drill	A-235	407-5102-35
5/16 HSS Drill	B-1	407-5103-27
11/32 HSS Drill	B-1/8	407-5103-86
25/64 HSS Drill	C, C-1, C-1 Special	407-5104-20
15/32 HSS Drill	D, D-1, D-1 Special	407-5104-90
9/16 HSS Drill	E, E-1, E-1 Special	407-5105-90

EXTENSION DRILLS		
DESCRIPTION	PLUG TYPE	PART#
11/16 HSS Extension Drill	A-200	407-5132-00
16/64 HSS Extension Drill	A-235	407-5132-35

Crack Repair Tools

Kits and Chemicals

Ironite developed the cold crack repair system in the 1950's and has set the Industry Standard for Crack Detection and Repair.



CRACK REPAIR KITS

QTY)	DESCRIPTION	PART #
	Complete K-210 Crack Repair Kit (Starter) w/Toolbox Kit Includes the following:	411-5902-10
1)	A-235 Iron Plugs (Automotive)	401-2102-35
1)	13/64 HSS Drill (A-235)	407-5102-35
1)	HSS Tapered Reamer (A-200/235)	407-5202-35
2)	HSS Tapered Tap (A-235)	407-5302-35
1)	Oval Rotary File	408-5413-14
1)	Coping Saw, New Style	411-5811-10
1)	Coping Saw Blades	411-5811-11
1)	Heat Tabs (100/Pkg)	411-5811-81
1)	Devcon Adhesive	411-5811-82
1)	Ceramic Seal (Pint)	468-9120-16
1)	TAP-O (8 oz.)	468-9920-08



OTHER CHEMICALS

DESCRIPTION	SIZE	PART#
TAP-O Tapping Compound	8 oz	468-9920-08
TAP-O Tapping Compound	1/2 Gallon	468-9920-64
TAP-O Tapping Compound	5 Gallon	468-9926-40
"EA" Lube for Stainless Steel	8 oz	468-9910-08

HEAT TABS

DESCRIPTION	PLUG TYPE	PART#
Heat Tabs (255-260° F)	100/Pkg	411-5811-81
Heat Tabs (220-235° F)	Lo-Temp 100/Pkg	411-5811-90
Devcon Adhesive	Tube	411-5811-82



THORO-FLUSH - THE PERFECT CLEANER

- Protects and cleans the engine cooling system
- Leaves them free from rust, sludge and grease
- Extends the life of the cooling system

THORO-FLUSH

PINT	468-9110-16
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CERAMIC SEAL - SEALS ENGINE COOLING SYSTEM

Finish the crack repair job by circulating Ceramic Seal internally to seal any part of the crack that may still be separated on the inside of the casting.



CERAMIC SEAL

PINT	468-9120-16
GALLON	468-9121-28
5 GALLON	468-9126-40



ALL WEATHER SEAL

Seals leaks and cracks in the cooling system

- Prevents anti-freeze leakage
- Fast-Acting; Non-Corrosive; Non-Clogging
- For use with any Anti-Freeze or Coolant
- Lubricates Water Seals

ALL WEATHER SEAL

PINT	468-9130-16
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THE 3-PACK (Trifecta)

THORO-FLUSH, CERAMIC SEAL & ALL WEATHER SEAL

1 PINT OF EACH	468-9190-16
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Kits and Chemicals Cont.

OUR IRONTITE FAMILY OF PRODUCTS INCLUDES



Irontite Coolant Additives To Clean, Seal, and Stop Cooling System Leaks



Irontite Casting Crack Detection and Repair Items



Kwik-Way Valve Grinding and Valve Grinding Supplies



Van Norman Flywheel Grinders and Flywheel Grinding Supplies



DESCRIPTION	PART #
235 CRACK REPAIR KIT	468-9190-56
A-235 Iron Plugs, Box of 100	401-2102-35
A-235 13/64" HSS Drill Bit	407-5102-35
A-200 & A-235 HSS Reamer	407-5202-35
A-235 HSS Tapered Tap	407-5302-35
Ceramic Motor Seal - 4 OZ (118ML)	468-9120-04
TAP-O Tapping Oil - 8 OZ (237ML)	468-9920-08



DESCRIPTION	PART #
AIR HAMMER PEENING KIT	412-5911-00
Peening Air Hammer	412-5950-00
Peening Tool 2-1/2"	413-5934-25
Air Flow Valve	412-5950-01
Peening Tool 4"	413-5934-40
Peening Tool 9"	413-5934-90
Small Steel Tool Box	467-1950-25

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Kwik-Way Valve Grinding and Valve Grinding Supplies



Van Norman Flywheel Grinders and Flywheel Grinding Supplies



IronTite Coolant Additives To Clean, Seal, and Stop Coolant System Leaks. Plus Casting Crack Detection and Repair Items