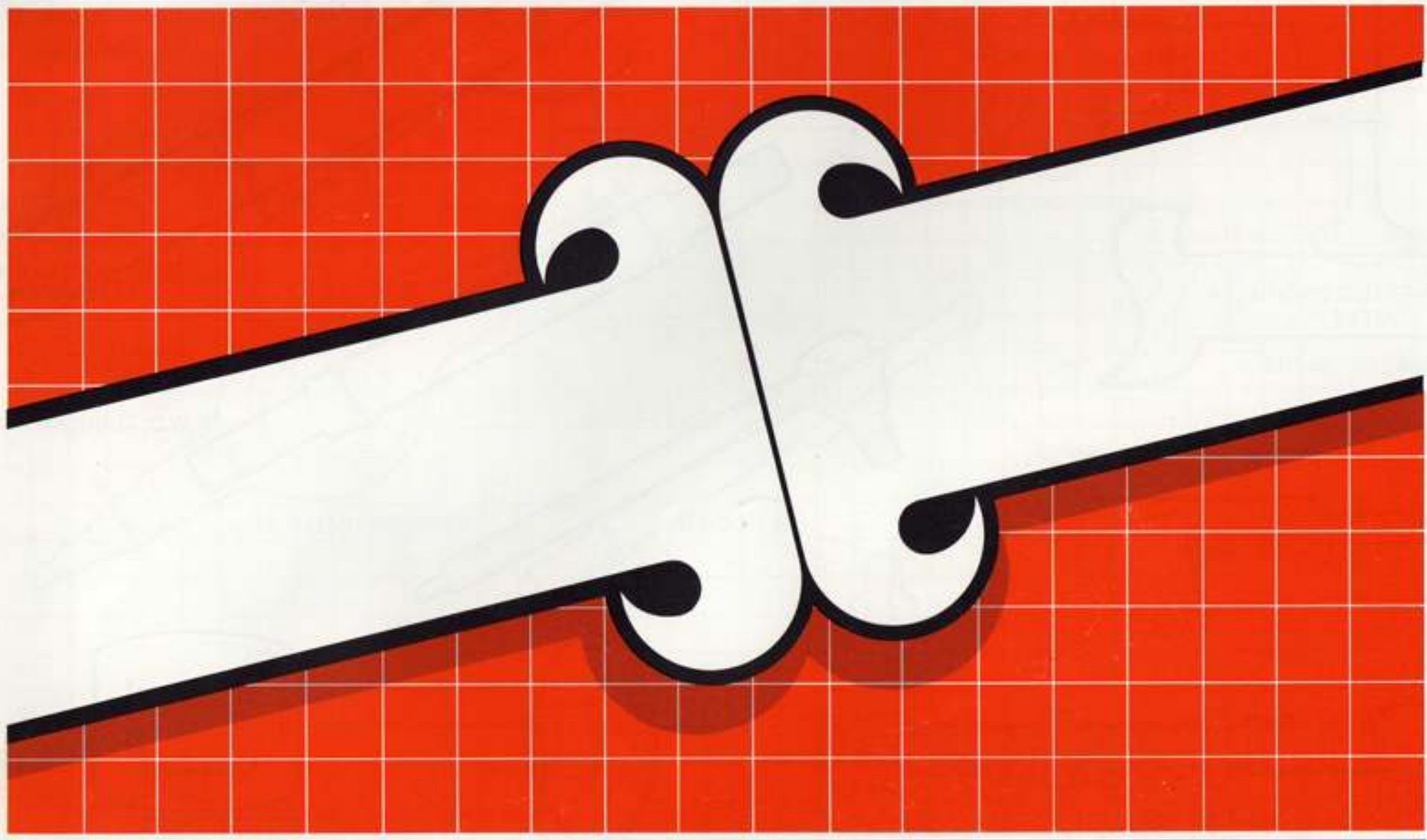
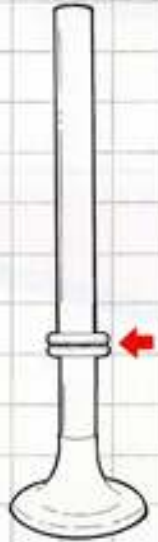


Product Applications

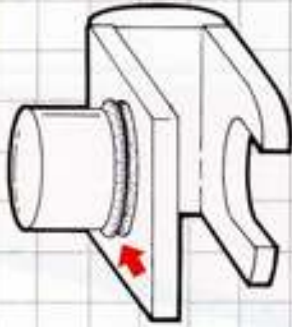
Friction Welded Components



Automotive

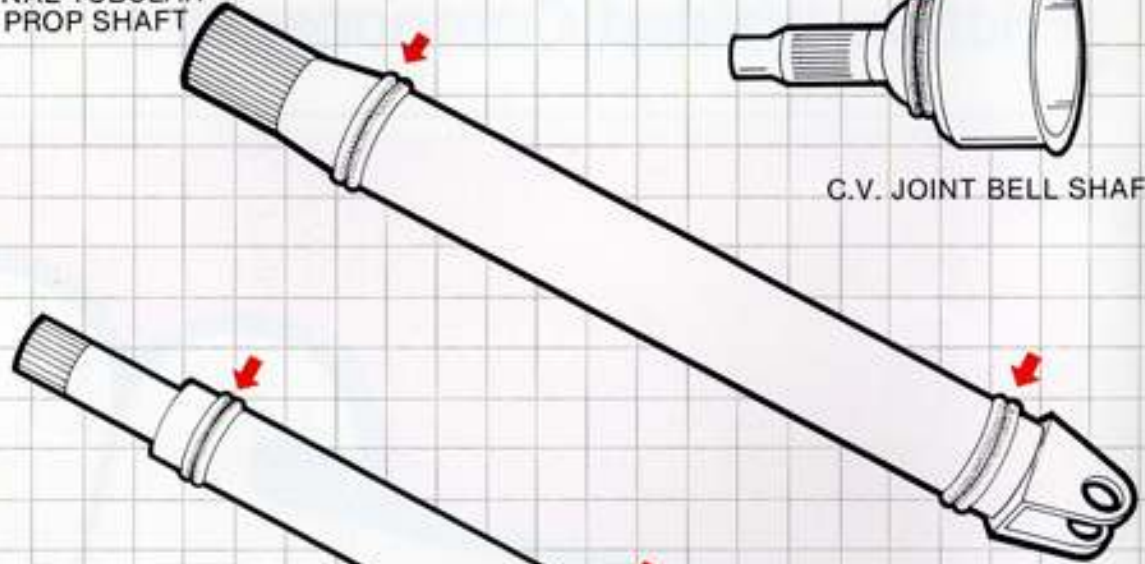


BIMETALIC ENGINE VALVE

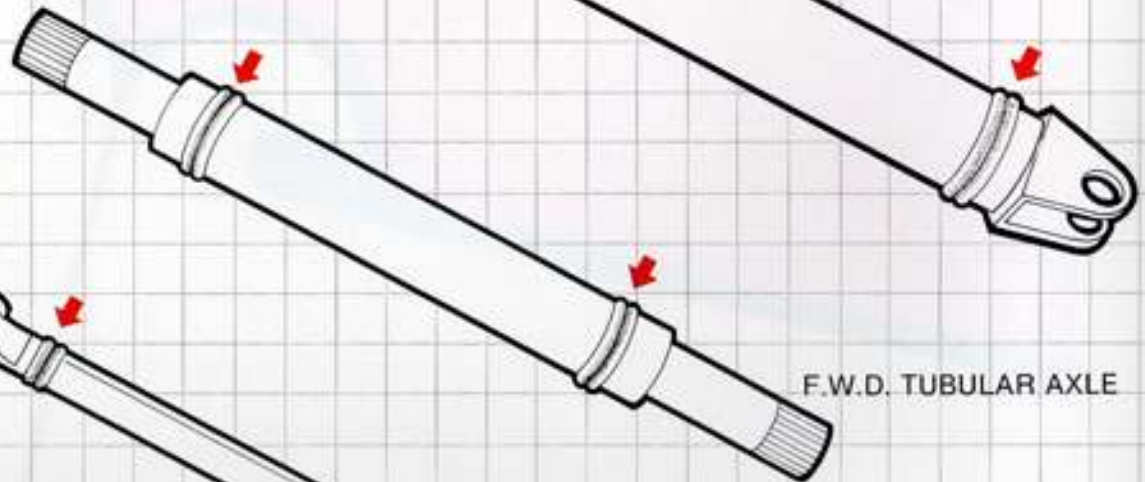


BRAKE CALIPER

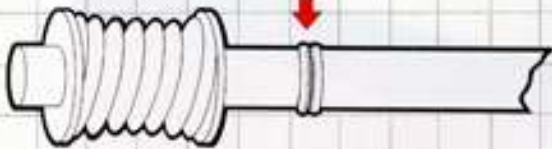
CONVENTIONAL TUBULAR PROP SHAFT



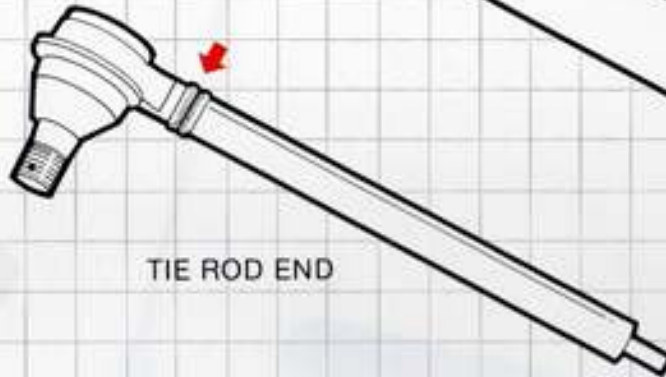
G.V. JOINT BELL SHAFT



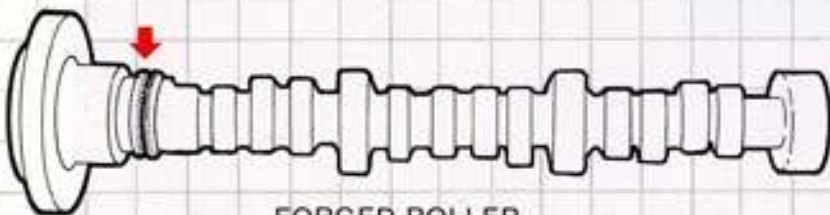
F.W.D. TUBULAR AXLE



STEERING SHAFT



TIE ROD END



FORGED ROLLER CAMSHAFT



"V" PULLEY HUB

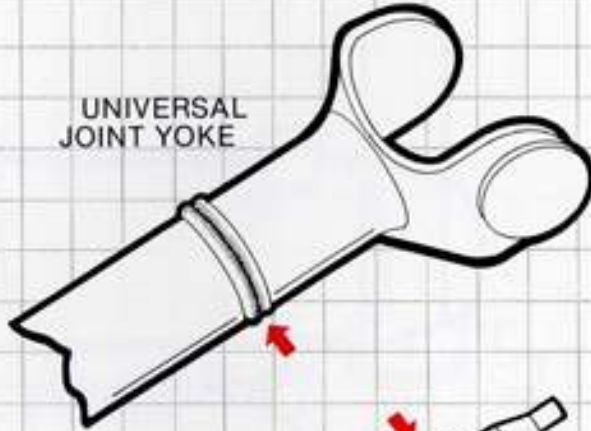


TRANSMISSION CLUTCH DRUM

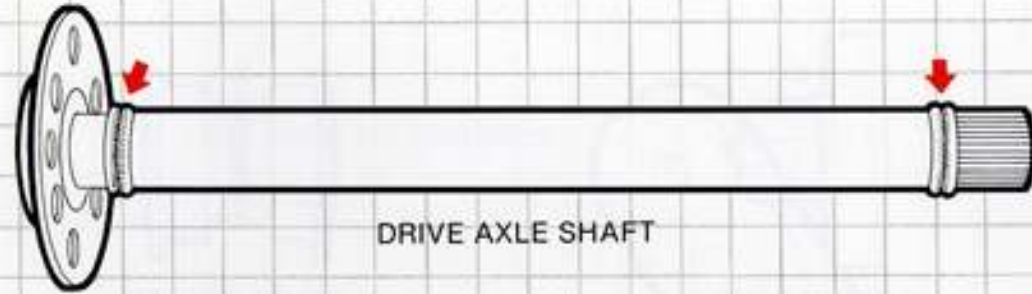
Truck and Trailer



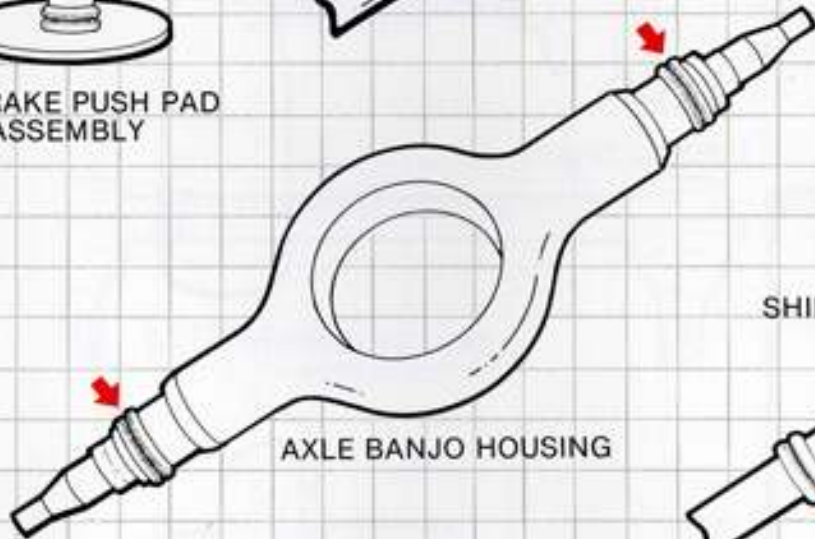
AIRBRAKE PUSH PAD ASSEMBLY



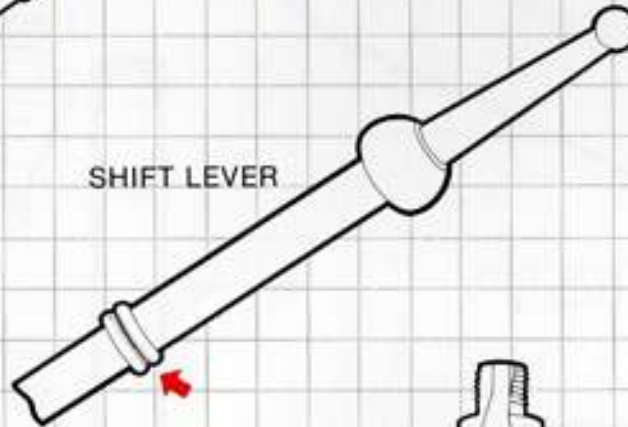
UNIVERSAL JOINT YOKE



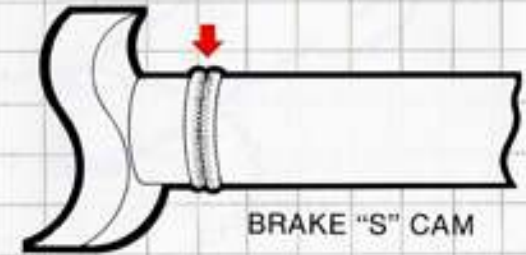
DRIVE AXLE SHAFT



AXLE BANJO HOUSING



SHIFT LEVER



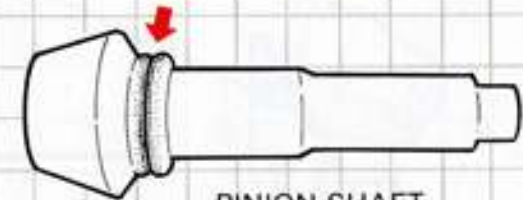
BRAKE "S" CAM



TRAILER AXLE SPINDLE/TUBE



DIESEL INJECTOR

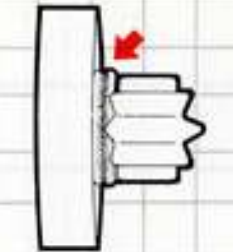


PINION SHAFT

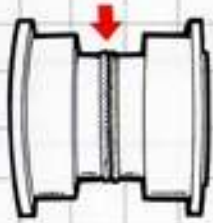


Farm, Forestry & Off Road

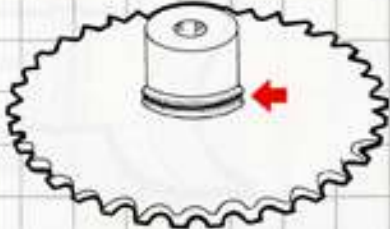
Aerospace & Military



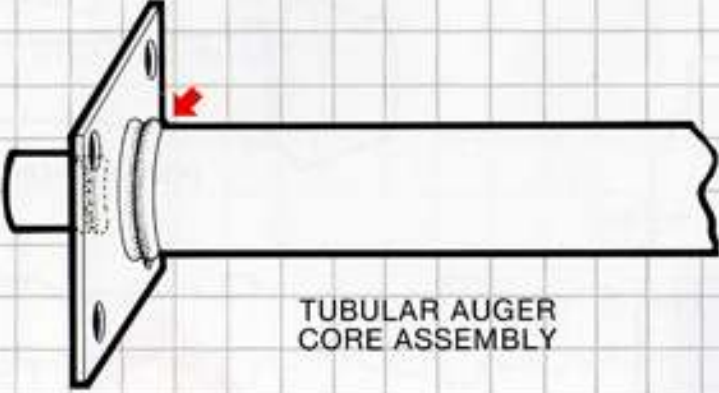
CHAIN SAW CLUTCH DRUM



TRACK ROLLER



SPROCKET HUB



TUBULAR AUGER CORE ASSEMBLY



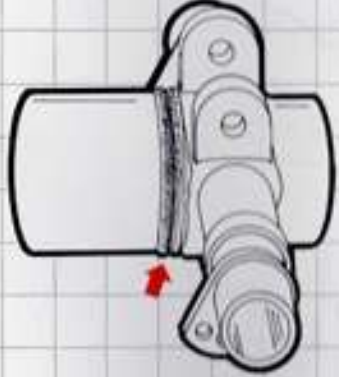
TURBINE SHAFT



HELICOPTER ROTOR SHAFT

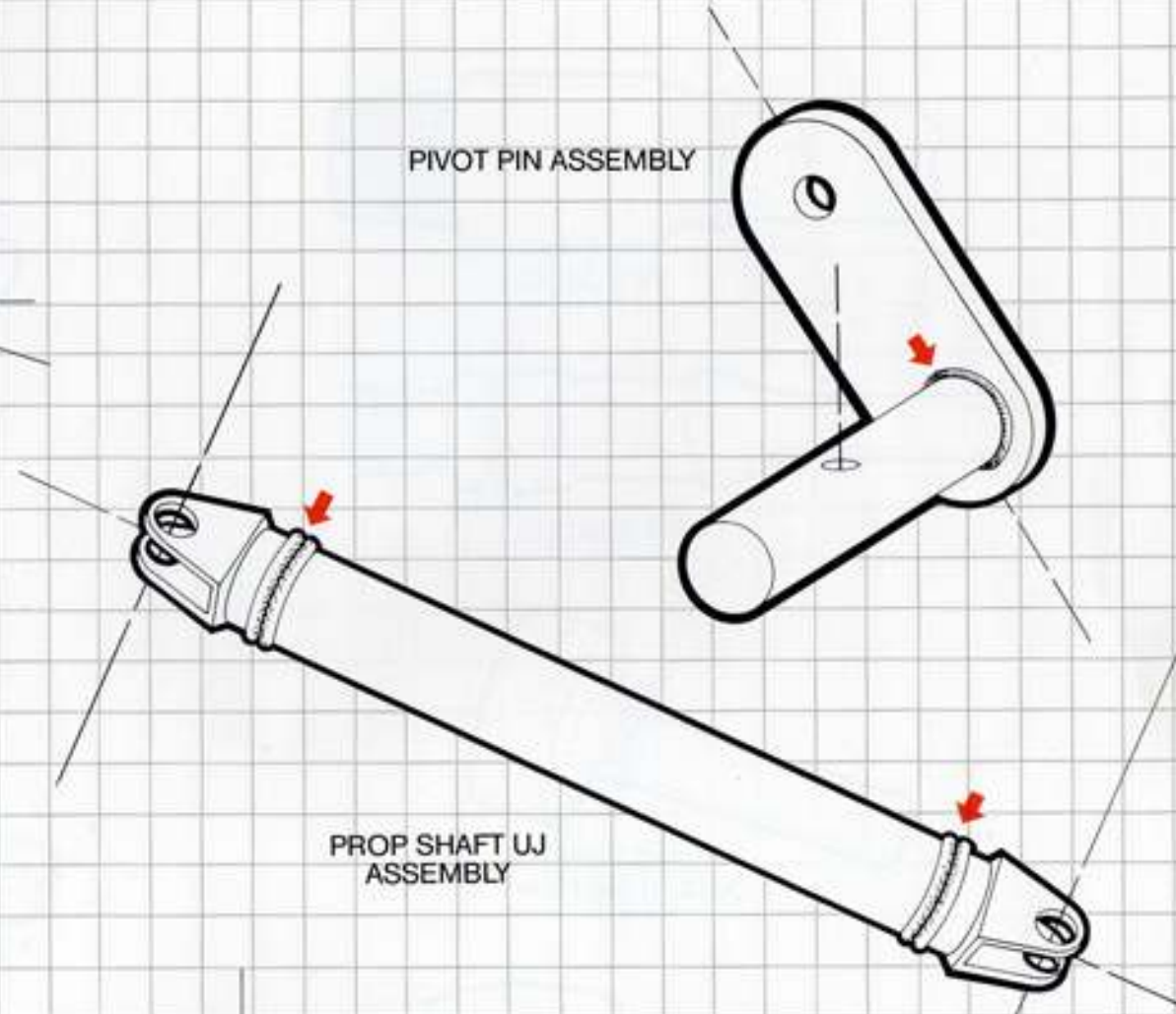
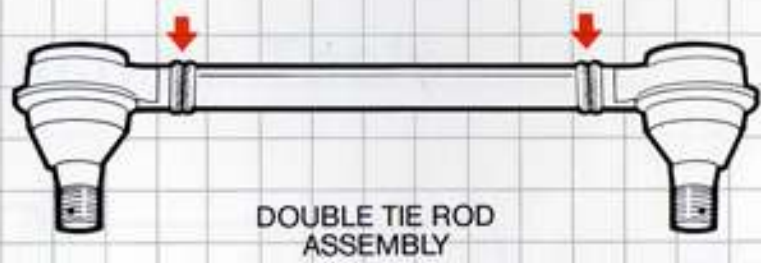
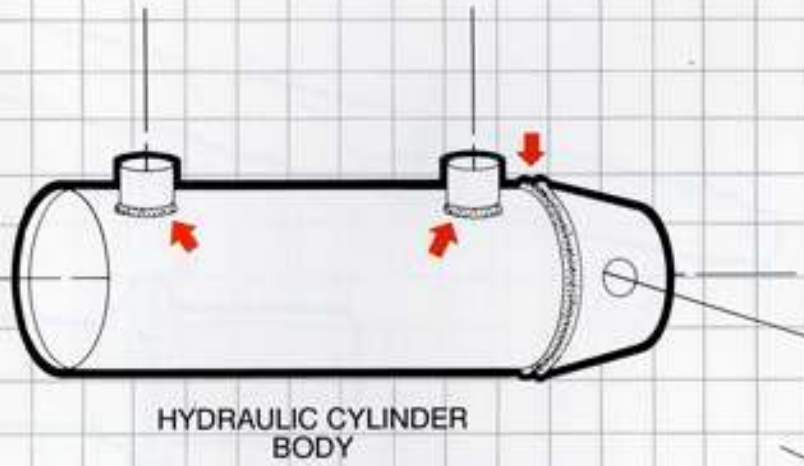


PROJECTILE

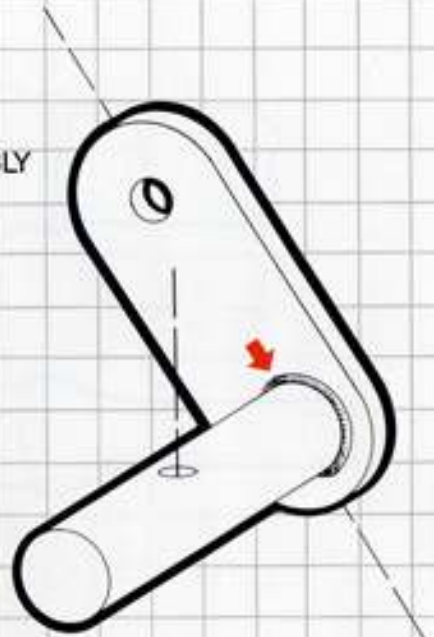


LANDING GEAR STRUT

Angular Orientation Welded Assemblies



PIVOT PIN ASSEMBLY

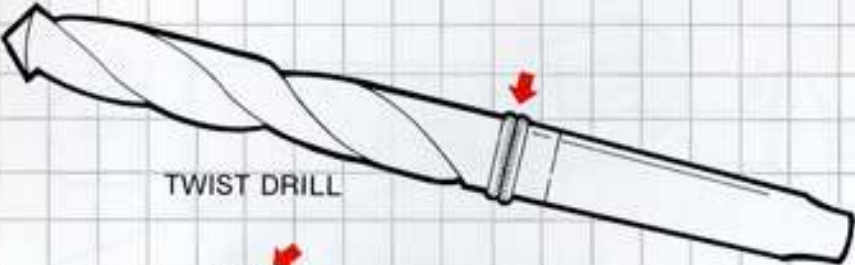


Your Application

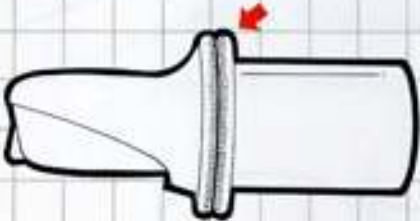


HSS Cutting Tools

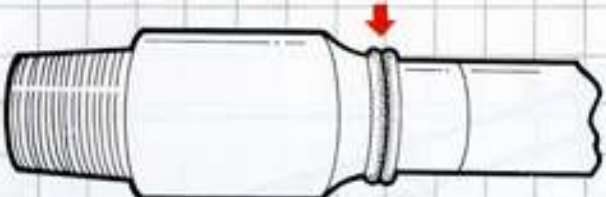
Oil and Mine Tools



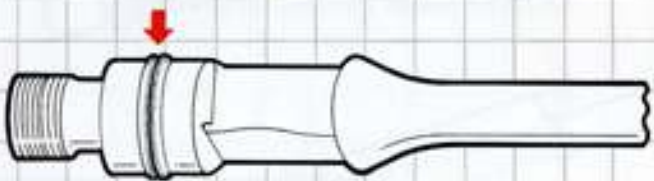
TWIST DRILL



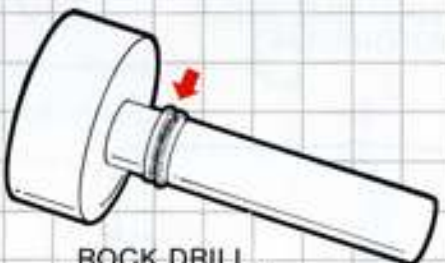
PROFILE CUTTER



DRILL PIPE

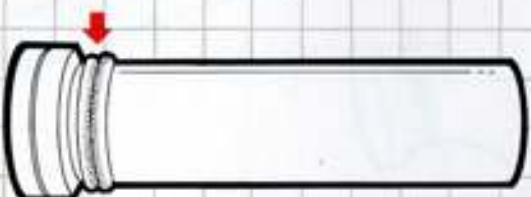


SUCKER ROD

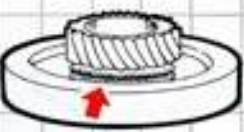


ROCK DRILL PISTON BLANK

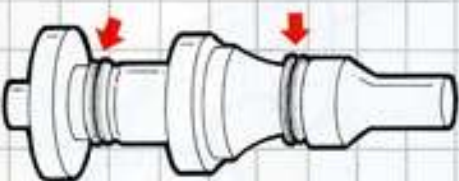
Machine Tools



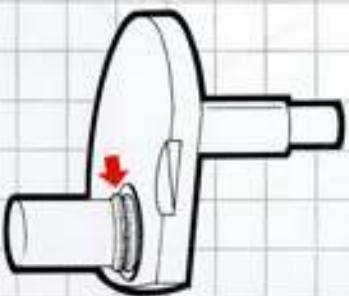
LATHE SPINDLE BLANK



GEAR HUB



CLUSTER GEAR



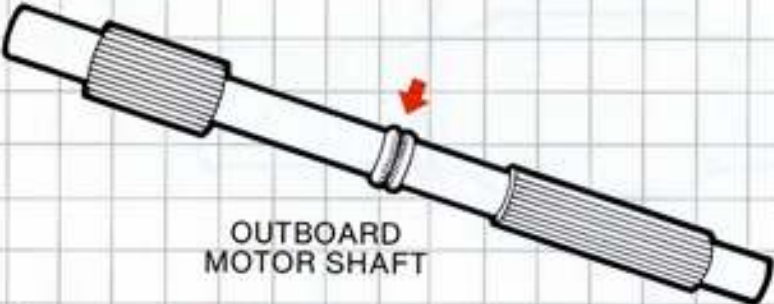
ECCENTRIC SHAFT



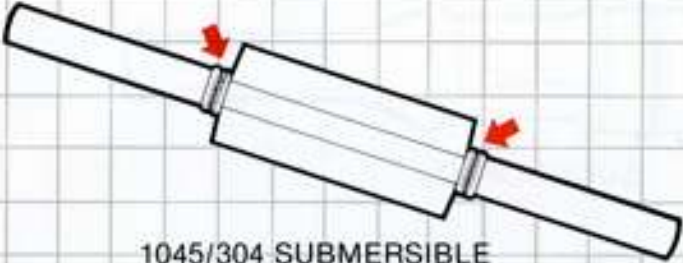
VALVE BODY



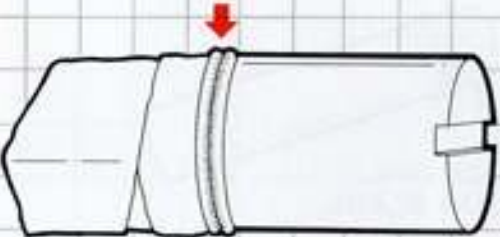
Bimetallic Assemblies



OUTBOARD MOTOR SHAFT



1045/304 SUBMERSIBLE MOTOR SHAFT

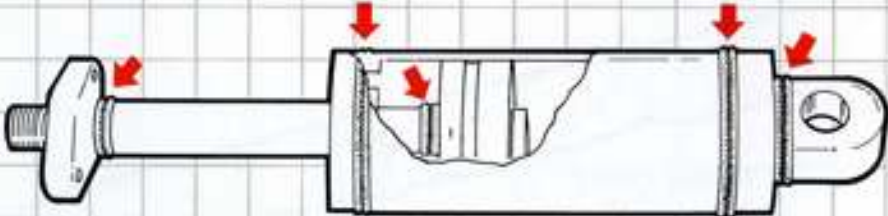


ANNODE STUB

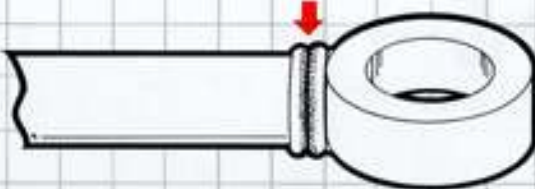


CU/AL UNDERGROUND ELECTRICAL CONNECTOR

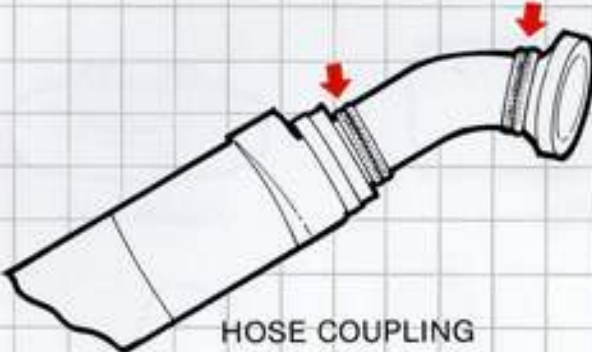
Hydraulic



MULTIPLE WELD CYLINDER



PISTON ROD/EYE ASSEMBLY

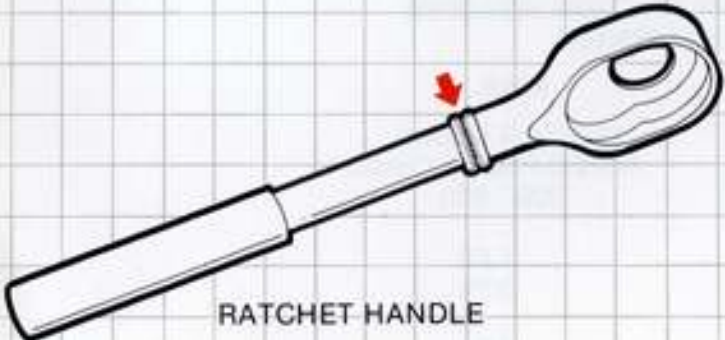


HOSE COUPLING

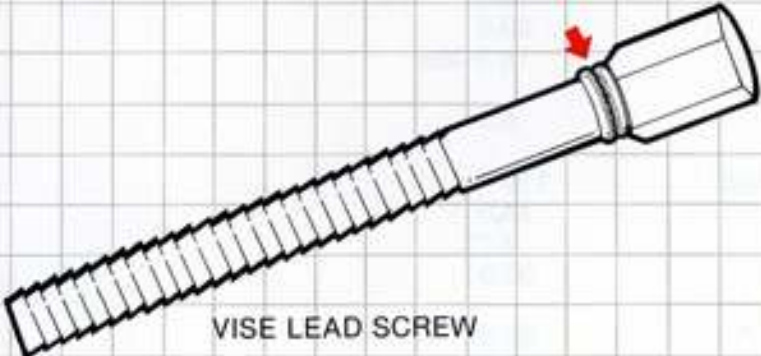


FLANGE FITTING

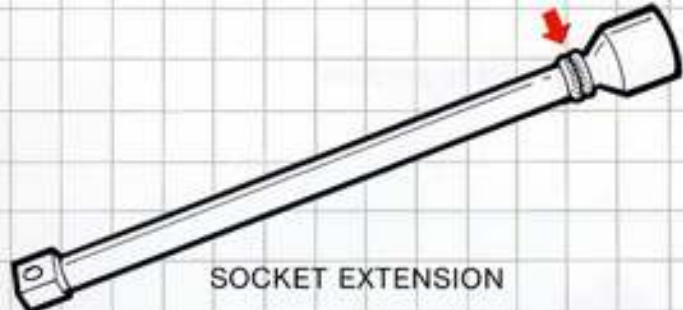
Hand Tools



RATCHET HANDLE

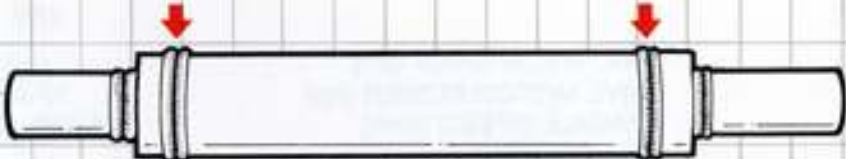


WISE LEAD SCREW

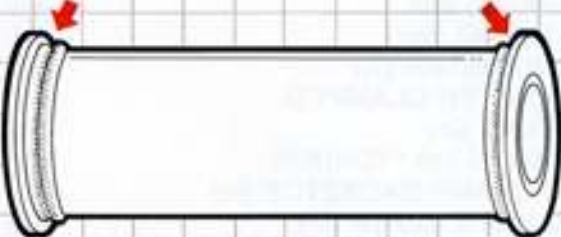


SOCKET EXTENSION

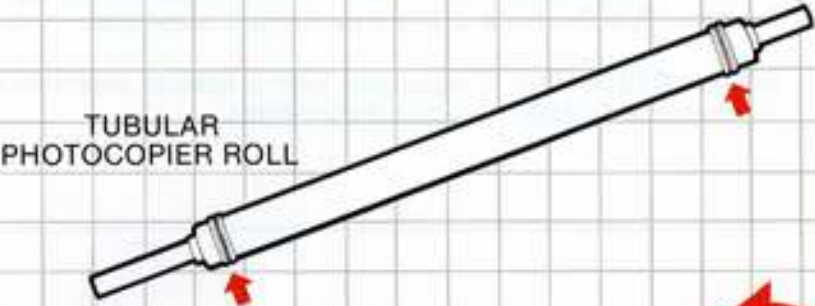
Multiple Assemblies



PRINTING PRESS ROLL



CONVEYOR ROLLER



TUBULAR PHOTOCOPIER ROLL



**SPECIFICATIONS FOR A.R.D.'S
WELDERS**

**NEW BRITAIN FRICTION WELDING
MACHINES**

	6SE	45SE	90SE
MAX. WELD AREA (in ²)	0.6	4.5	11.0 (14.0 Tubular)
DRIVE MOTOR POWER (hp)	10 AC	40/50 DC	100 DC Position Control
SPINDLE SPEED (rpm)	1,000 - 3,000	360 - 1080	200 - 600
ROD CAPACITY			
Min. diameter (in)	0.32	.90	1.75
Max. diameter (in)	0.90	2.25	3.75
TUBE CAPACITY			
Min. diameter (in)	0.32	1.0	2.0
Max. diameter (in)	1.75	4.0	8.0
HEAD TRAVEL (in)	4.0	12.0	18.0
SWING TRAVEL (in)	10.0	14.0	22.0
CHUCK DIAMETER (in)	6.0 Collet	12 3-Jaw	18 3-Jaw
MAX. DIAMETER CLAMPED COMPONENT (in)	3.0	4.0	8.0
MAX. LENGTH (in) **CHUCK FACE TO CLAMP BACKSTOP (in)	45	Unlimited	110
SPINDLE HOLE DEPTH (in)	6.0	19.0	24.0
SPINDLE HOLE DIAMETER (in)	1.75	3.12	4.75
HYD. PUMP MOTOR (hp)	10.0	20.0	30.0
FORGE FORCE			
Min. (ton)	1.2	5.0	20.0
Max. (ton)	6.0	45.0	115.0

A.R.D. INDUSTRIES LTD. Friction Welding Machines are equipped with variable speed drives, Modicon Programable Controls & Weld parameter monitors.

NOTE: 90SE Welder is equipped with a spindle orientation system (controlled stopping), used to produce asymmetrical Friction Welded Assemblies.

