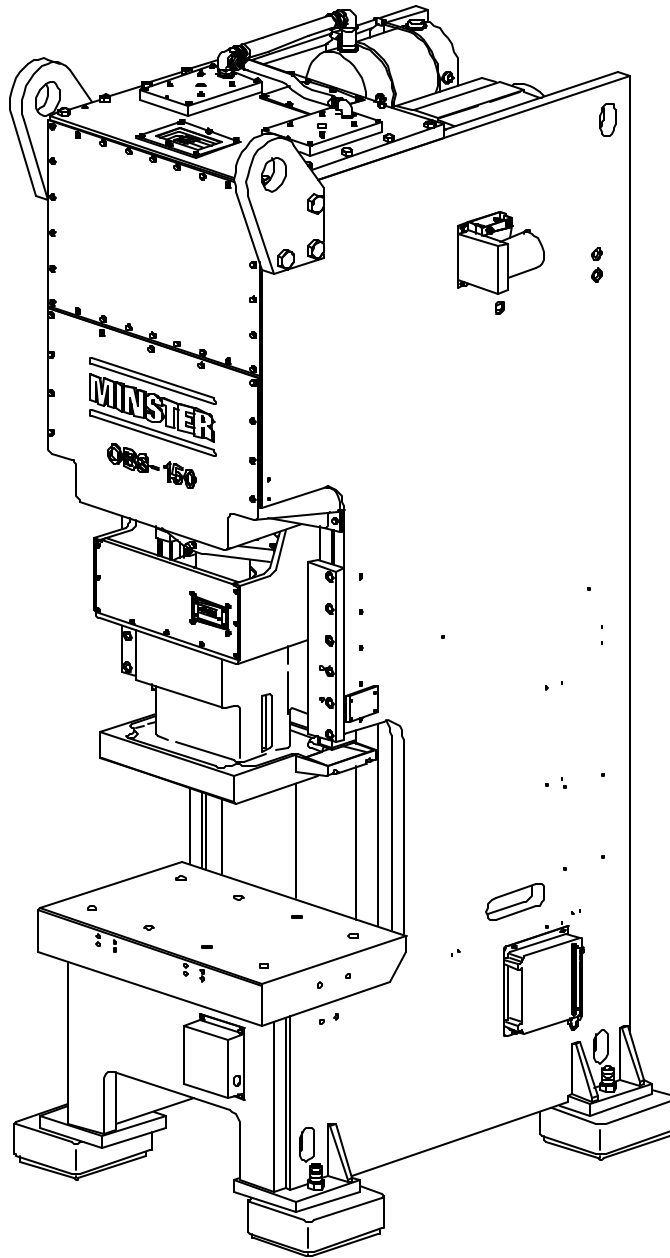


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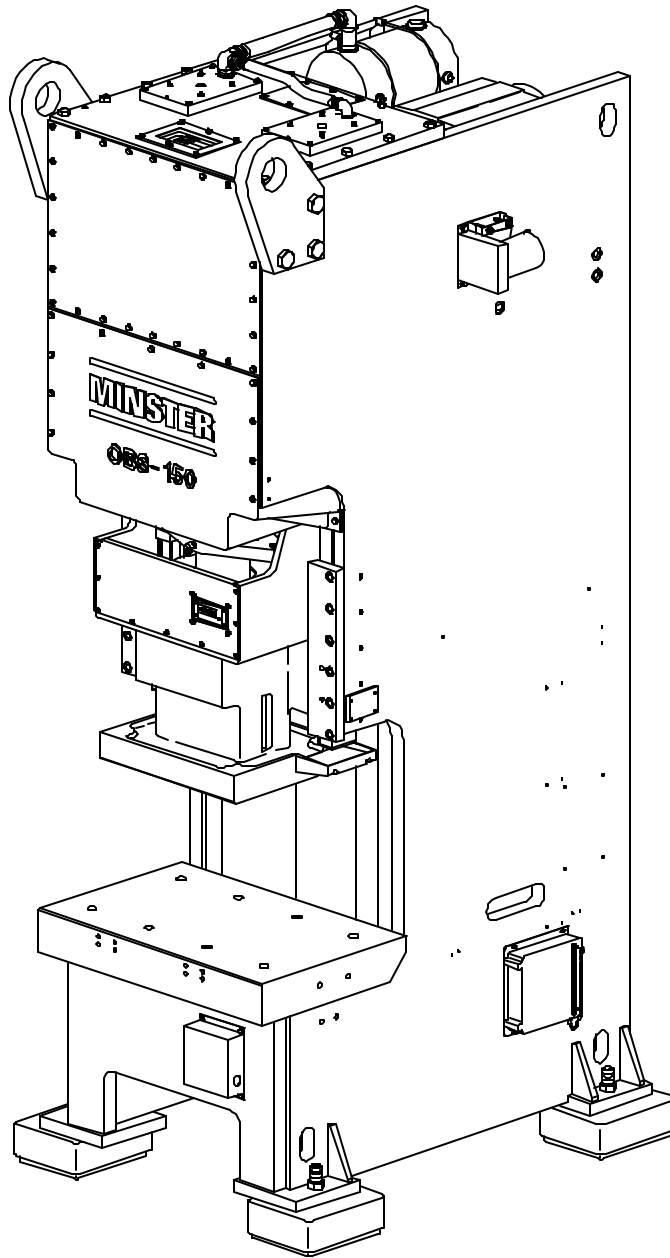
REPAIR PARTS MANUAL



MINSTER[®]

OBS-110/150/200 Series Presses

REPAIR PARTS MANUAL



SERIAL NUMBER

When contacting MINSTER (by letter, fax, or telephone) for repair parts or information concerning your press, please furnish the press serial number. This number is stamped on the press identification plate and on the press specification sheet. Manufacturing records, technical data and special information (in our possession) can be located quickly when the press serial number is known.

DESIGN CHANGES

Design changes between the press you received and the press illustrated in this manual are the result of design improvements or special arrangements agreed on, contractually, at the time of purchase. Illustrations shown are for the standard OBS-110/150/200 Series presses.

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PRESS IDENTIFICATION

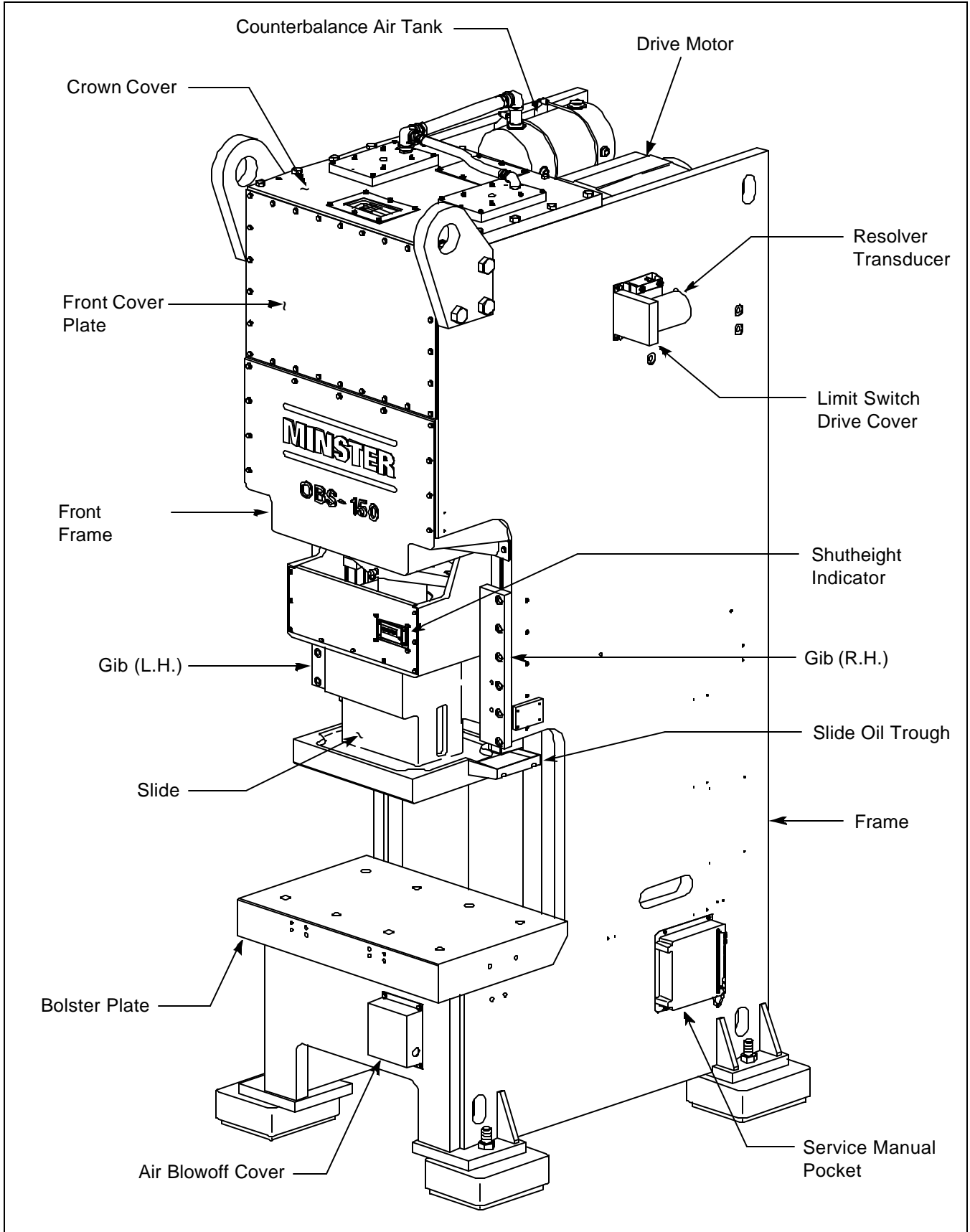
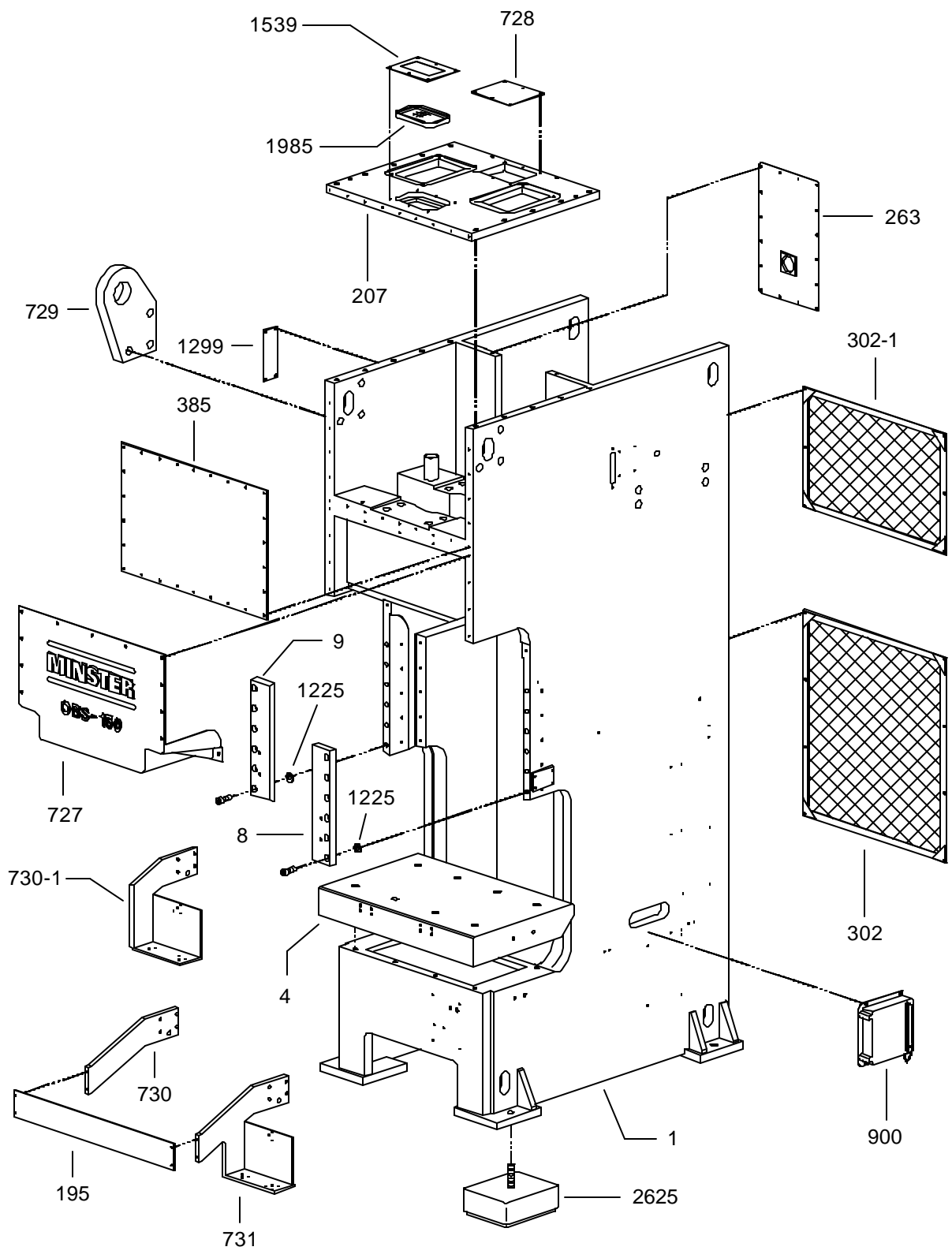


FIGURE 1374A — FRAME PARTS



WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

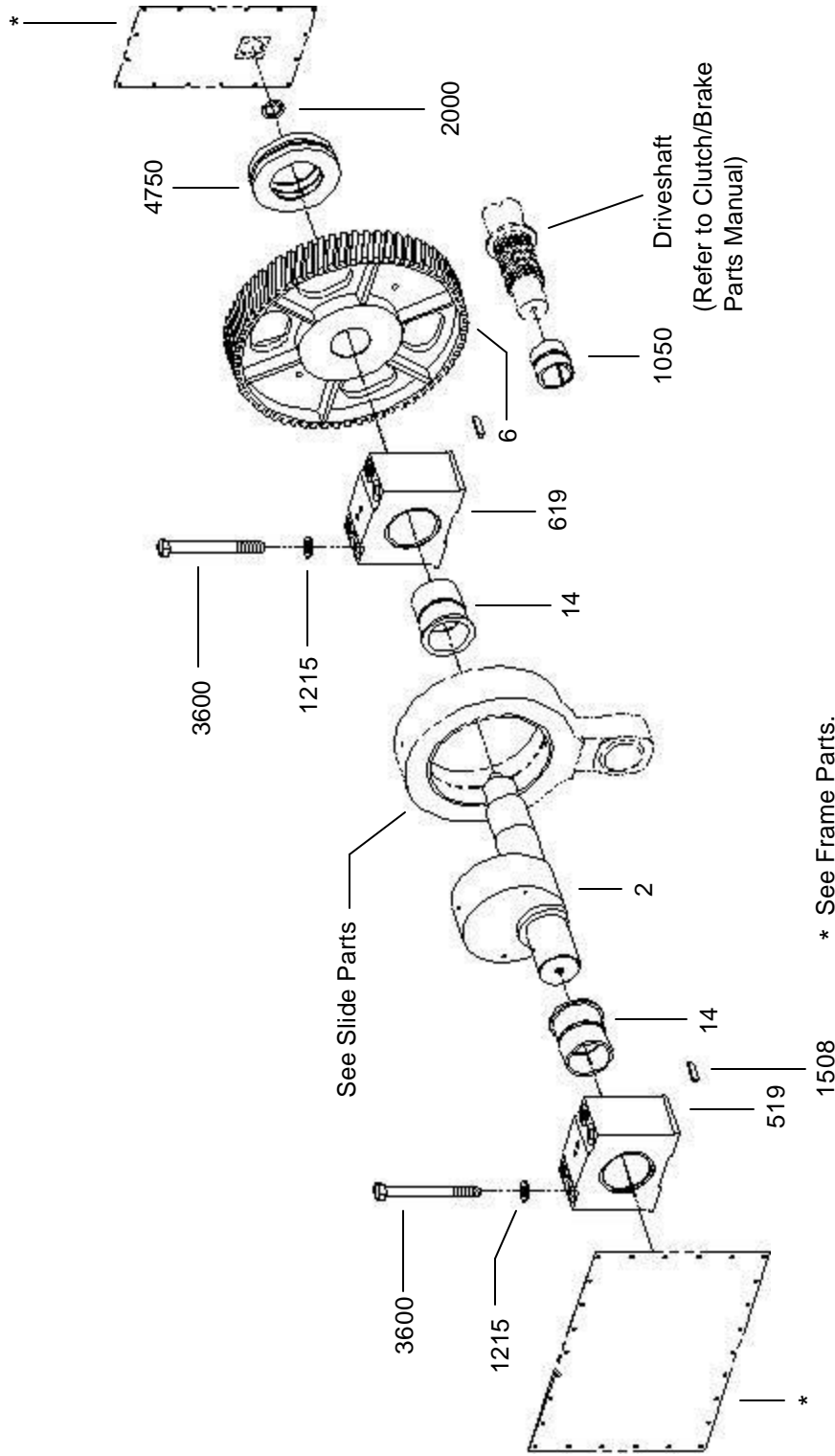
REF. FIGURE 1374A FRAME PARTS LIST

Fig. & Key Number	Part Name	Quantity
1374A-1	Frame	1
1374A-4	Bolster Plate	1
1374A-8	Gib (R.H.)	1
1374A-9	Gib (L.H.)	1
1374A-195 ⁽²⁾	Control Button Mounting Bracket	1
1374A-207	Crown Cover	1
1374A-263	Crown Cover Plate	1
1374A-302	Frame Cover	1
1374A-302-1	Frame Cover	1
1374A-385	Front Cover Plate	1
1374A-727	Front Frame Cover	1
1374A-728	Access Cover	1
1374A-729	Lifting Lug	2
1374A-730 ⁽²⁾	Push Button Box Bracket (L.H.)	1
1374A-730-1	Push Button Box Bracket (R.H.)	1
1374A-731 ⁽²⁾	Push Button Mounting Bracket	1
1374A-900	Service Manual Pocket	1
1374A-1225	Laminated Washer	12
1374A-1299	Frame Opening Cover	1
1374A-1539	Filter Mounting Plate	1
1374A-1985	Filter Panel	1
1374A-2625 ⁽¹⁾	Isolator	4

⁽¹⁾ Optional part.

⁽²⁾ Optional push button bracket part.

FIGURE 1375B — DRIVESHAFT/CRANKSHAFT PARTS



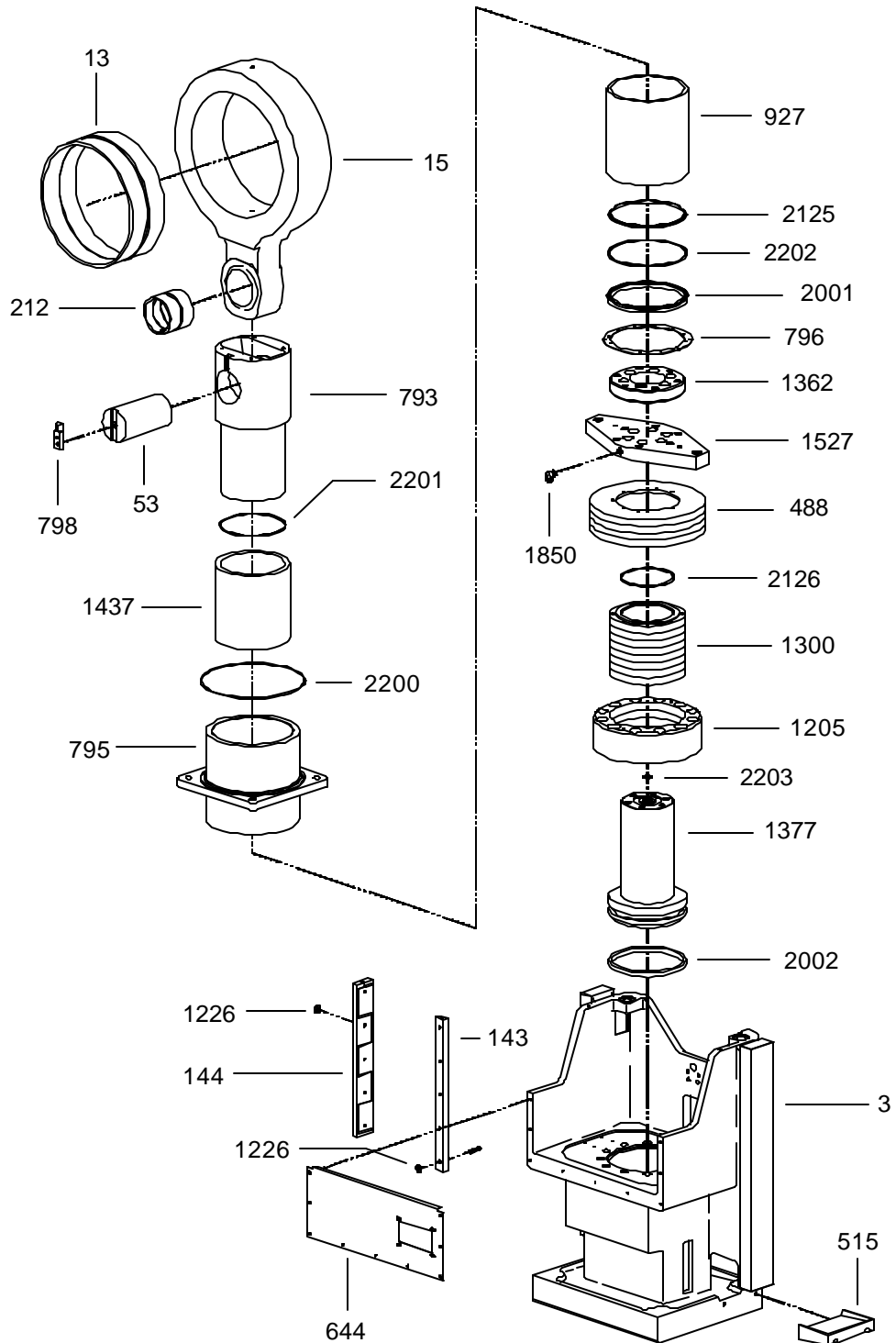
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify figure and item number of part.
- Specify name and quantity of part.
- Specify how and where to ship.

**REF. FIGURE 1375B
DRIVESHAFT/CRANKSHAFT PARTS LIST**

Fig. & Key Number	Part Name	Quantity
1375B-2	Crankshaft	1
1375B-6	Main Gear	1
1375B-14	Main Bushing	2
1375B-519	Main Bearing	1
1375B-619	Main Bearing	1
1375B-1050	Driveshaft Bushing	1
1375B-1215	Washer (Thru Hard)	8
1375B-1508	Adjusting Wedge	2
1375B-2000	Oil Seal	2
1375B-3600	Hex. Head Cap Screw (SAE Grade 8.8)	8
1375B-4750	Shrink Disc	1

FIGURE 3173A — SLIDE PARTS



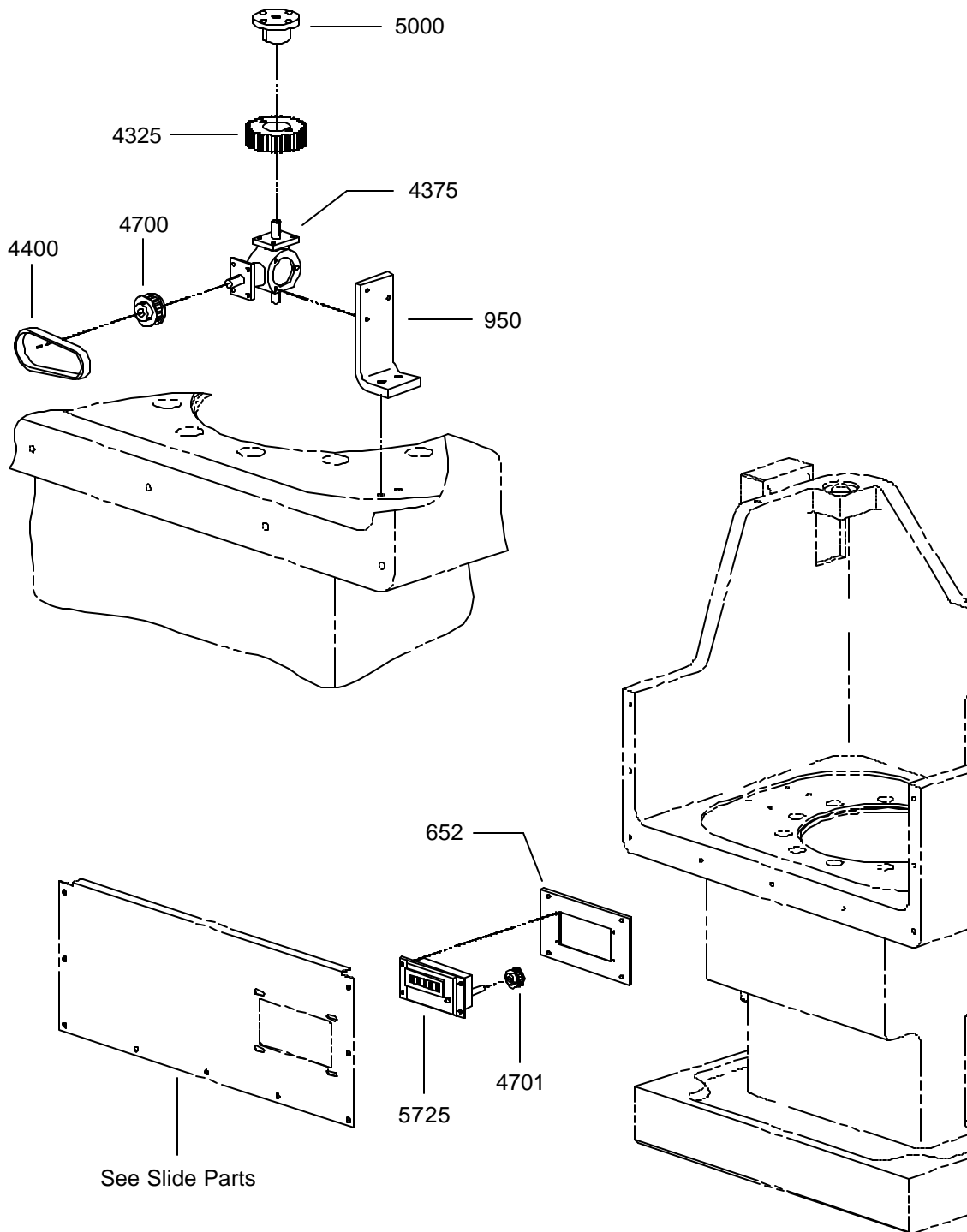
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 3173A
SLIDE PARTS LIST**

Fig. & Key Number	Part Name	Quantity
3173A-3	Slide	1
3173A-13	Connection Bushing	1
3173A-15	Connection	1
3173A-53	Connection Pin	1
3173A-143	Slide Wear Plate	4
3173A-144	Slide Wear Plate	2
3173A-212	Connection Pin Bushing	1
3173A-488	Slide Adjust Drive Gear	1
3173A-515	Slide Oil Trough	2
3173A-644	Slide Cover	1
3173A-793	Slide Piston	1
3173A-795	Slide Piston Housing	1
3173A-796	Piston Seal Retainer	1
3173A-798	Wrist Pin Key	1
3173A-927	Lower Piston Bushing	1
3173A-1205	Adjusting Nut Retainer	1
3173A-1226	Laminated Washer	20
3173A-1300	Adjusting Screw	1
3173A-1377	Quick Lift Piston	1
3173A-1362	Piston Slide Flange	1
3173A-1437	Slide Piston Sleeve	1
3173A-1527	Quick Open Piston Flange	1
3173A-1850	Bleeder	1
3173A-2001	Oil Seal	1
3173A-2002	Oil Seal	1
3173A-2125	Wiper Ring	1
3173A-2126	Wiper Ring	1
3173A-2200	"O" Ring	1
3173A-2201	"O" Ring	1
3173A-2202	"O" Ring	3
3173A-2203	"O" Ring	1

FIGURE 3174A — SHUTHEIGHT INDICATOR PARTS



WHEN ORDERING PARTS

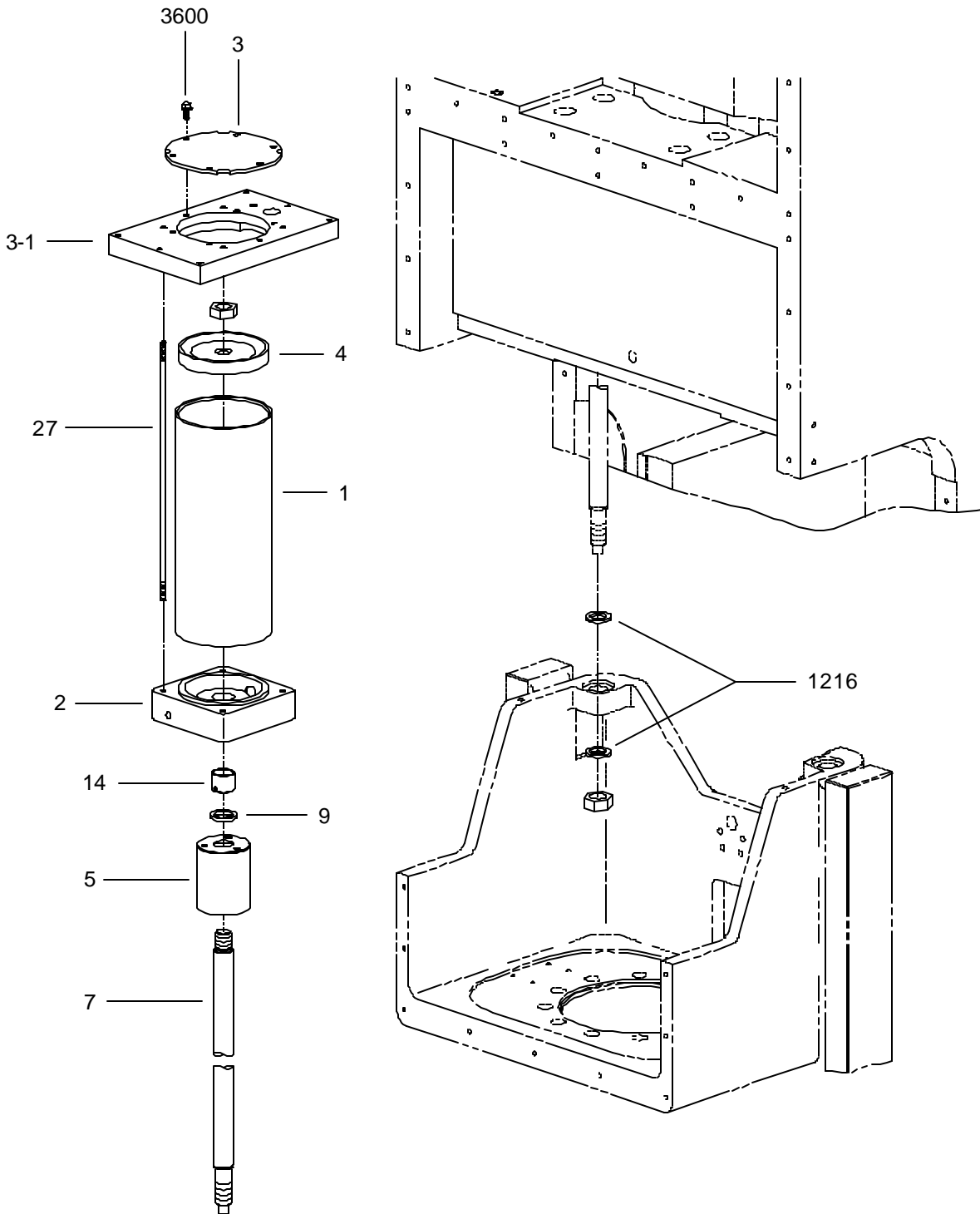
- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 3174A
SHUTHEIGHT INDICATOR PARTS LIST**

Fig. & Key Number	Part Name	Quantity
3174A-652	Shutheight Indicator Cover	1
3174A-950	Idler Bracket	1
3174A-4325	Spur Gear	1
3174A-4375 ⁽¹⁾	Gear Box (Right Angle)	1
3174A-4400	Timing Belt	1
3174A-4700 ⁽¹⁾	Timing Belt Pulley	1
3174A-4701 ⁽¹⁾	Timing Belt Pulley	1
3174A-5000	Taper Bushing	1
3174A-5725 ⁽¹⁾	Counter	1

⁽¹⁾ Specify Inch or Metric when ordering this part.

FIGURE 4107A — COUNTERBALANCE PARTS



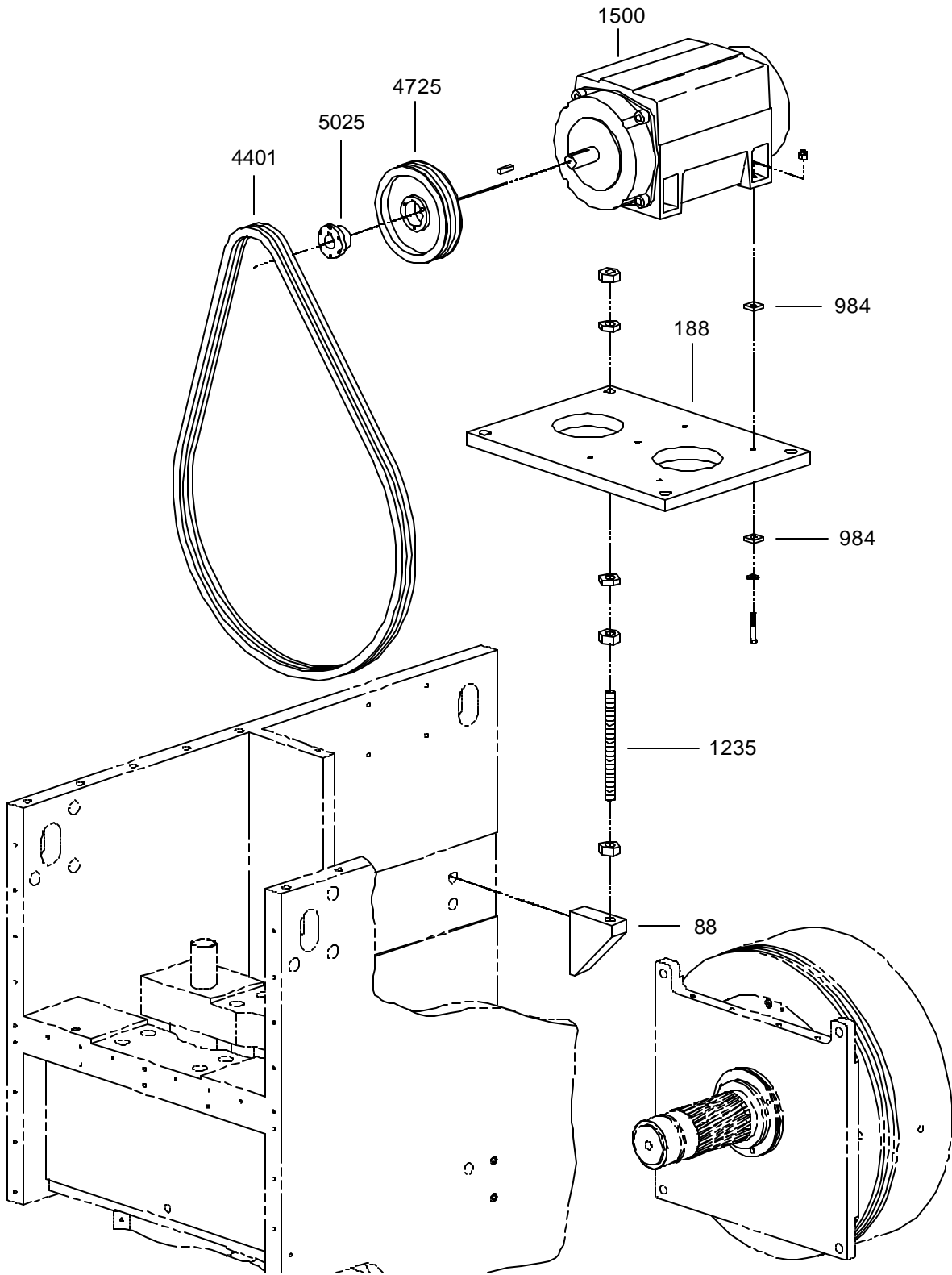
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 4107A
COUNTERBALANCE PARTS LIST**

Fig. & Key Number	Part Name	Quantity
4107A-1	Air Cylinder	2
4107A-2	Air Cylinder Head	2
4107A-3	Air Cylinder Cover	2
4107A-3-1	Air Cylinder Cover	2
4107A-4	Air Cylinder Piston	2
4107A-5	Cylinder Packing Retainer	2
4107A-7	Piston Rod	2
4107A-9	Piston Rod Packing	4
4107A-14	Piston Rod Bushing	4
4107A-27	Cylinder Tie Rod	8
4107A-1216	Washer (Thru Hard)	4
4107A-3600	Flanged Hex. Head Screw	18

FIGURE 1376B — MOTOR DRIVE PARTS



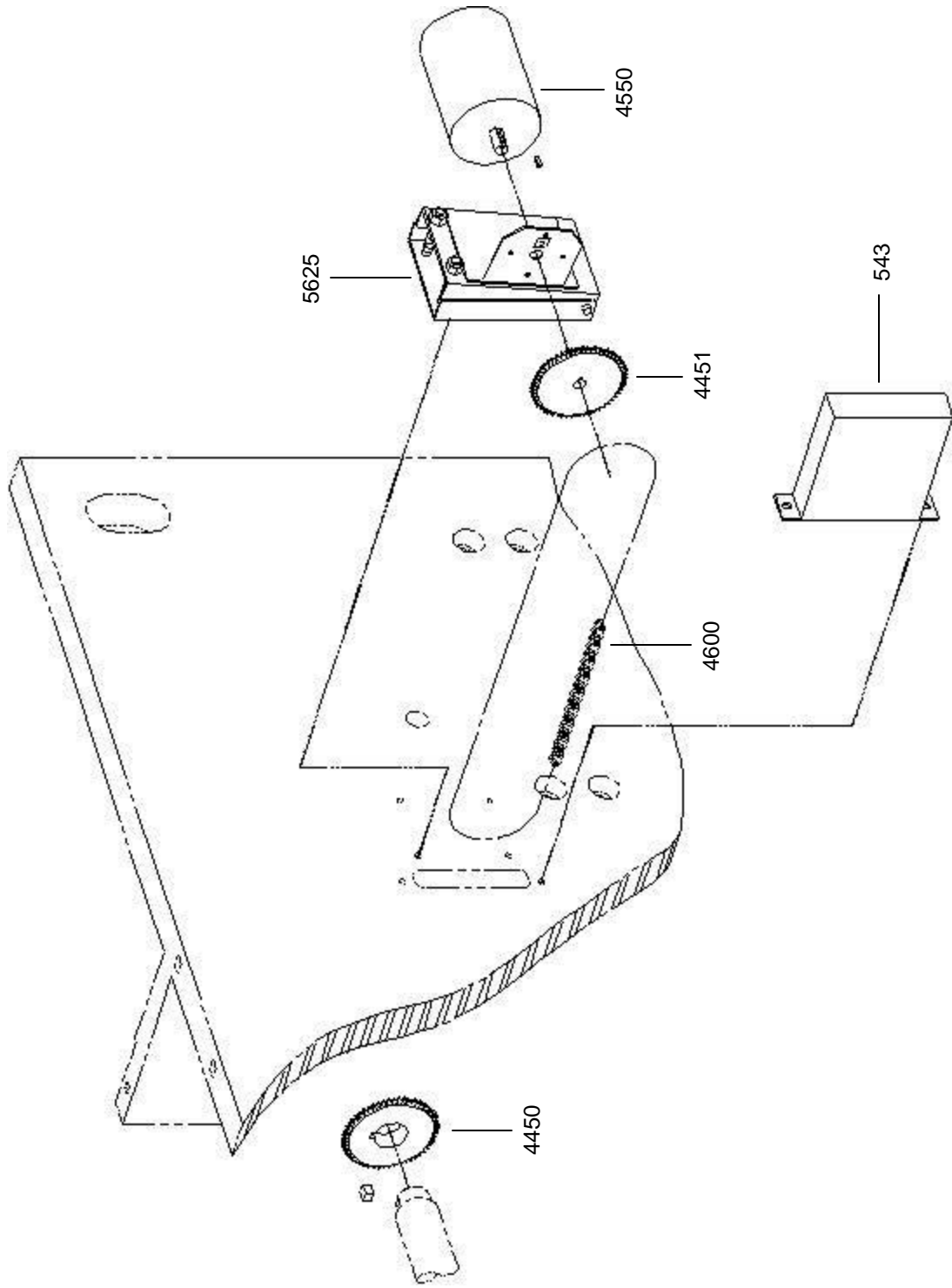
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 1376B
MOTOR DRIVE PARTS LIST**

Fig. & Key Number	Part Name	Quantity
1376B-88	Motor Bracket	4
1376B-188	Motor Plate	1
1376B-984	Damper Pad	8
1376B-1235	Stud	4
1376B-1500	Drive Motor	1
1376B-4401	V-Belt	1
1376B-4725	Sheave	1
1376B-5025	Taper Bushing	1

FIGURE 3175A — LIMIT SWITCH PARTS



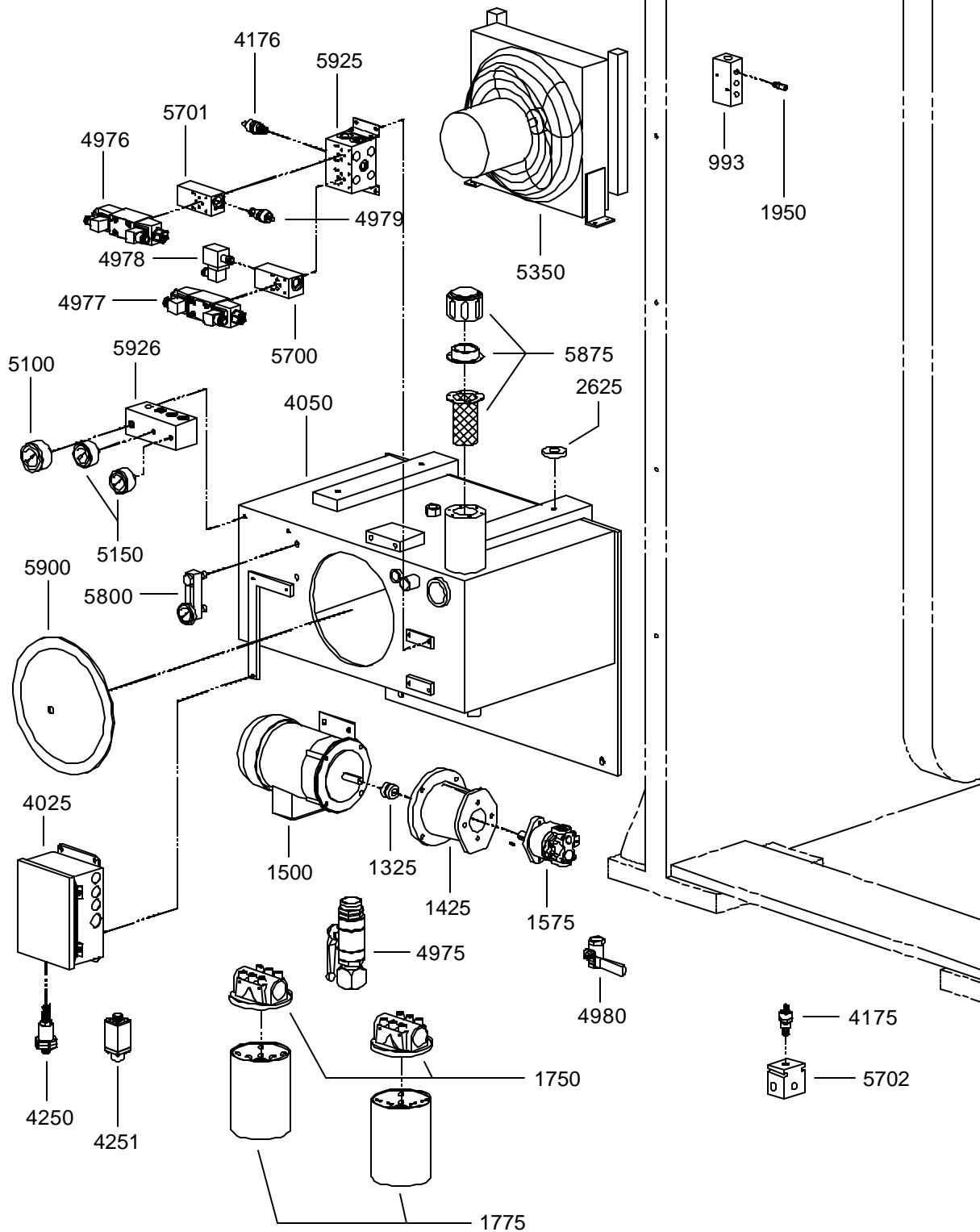
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 3175A
LIMIT SWITCH PARTS LIST**

Fig. & Key Number	Part Name	Quantity
3175A-543	Limit Switch Drive Cover	1
3175A-4450	Sprocket	1
3175A-4451	Sprocket	1
3175A-4550	Resolver Transducer	1
3175A-4600	Single Strand Chain	6
3175A-5625	Mounting Spring Base	1

FIGURE 5093A — LUBRICATION PARTS



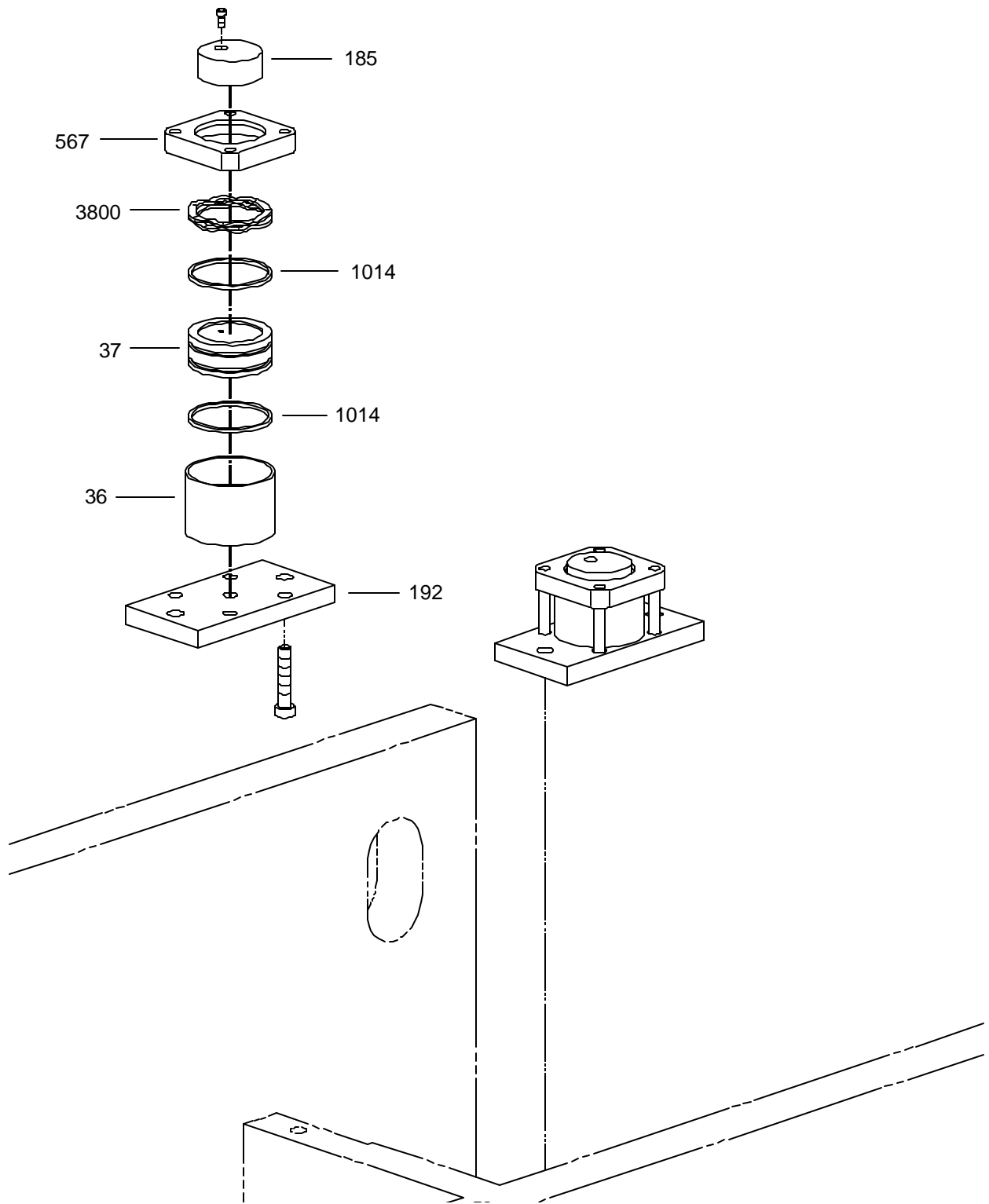
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 5093A
LUBRICATION PARTS LIST**

Fig. & Key Number	Part Name	Quantity
5093A-993	Manifold Block	1
5093A-1325	Coupling	1
5093A-1425	Flange	1
5093A-1500	Motor	1
5093A-1575	Pump	1
5093A-1750	Filter	2
5093A-1775	Filter Cartridge	2
5093A-1950	Orifice	6
5093A-2625	Isolation Pad	12
5093A-4025	Electrical Box	1
5093A-4050	Reservoir	1
5093A-4175	Relief Cartridge Valve (Lube Pressure)	1
5093A-4176	Relief Cartridge Valve (Hydraulic Pressure)	1
5093A-4250	Pressure Switch (Lube Pressure)	1
5093A-4251	Pressure Switch (Quick Lift)	1
5093A-4975	Ball Valve	1
5093A-4976	Double Solenoid 3-Position Valve (Slide Adjust)	1
5093A-4977	Double Solenoid 3-Position Valve (Quick Lift Lower/Raise)	1
5093A-4978	Cartridge Valve (Quick Lift Dump)	1
5093A-4979	Needle Valve (Slide Adjust Speed)	1
5093A-4980	Ball Valve	1
5093A-5100	Gauge (Lube Pressure)	1
5093A-5150	Vacuum Gauge	2
5093A-5350	Oil Cooler	1
5093A-5700	Cartpak Body	1
5093A-5701	Cartpak Body	1
5093A-5702	Valve Body	1
5093A-5800	Sight Gauge	1
5093A-5875	Filler Breather	1
5093A-5900	End Cover	1
5093A-5925	Manifold	1
5093A-5926	Manifold	1

FIGURE 4108A — FLYWHEEL BRAKE PARTS



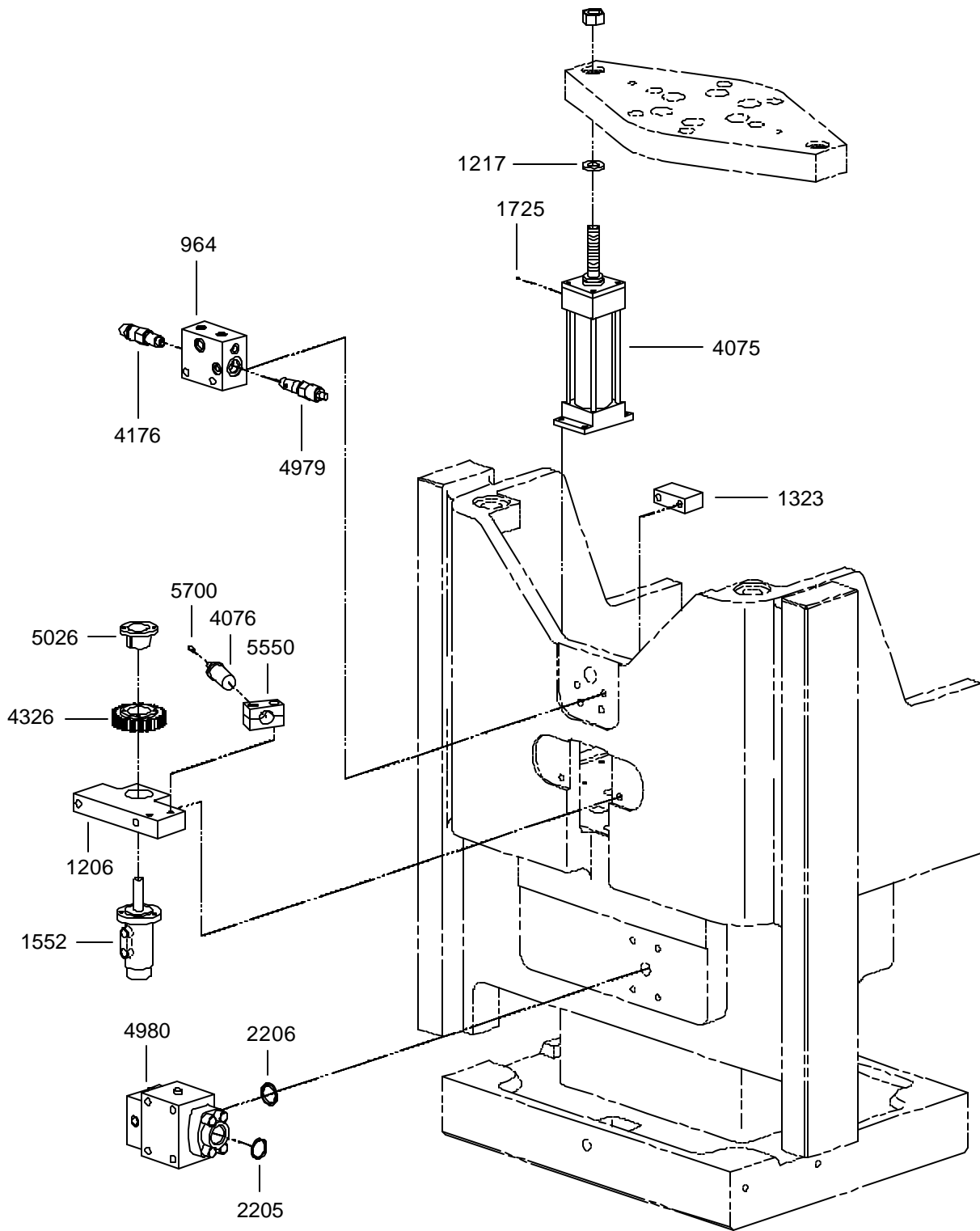
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 4108A
FLYWHEEL BRAKE PARTS LIST**

Fig. & Key Number	Part Name	Quantity
4108A-36	Flywheel Brake Housing	1
4108A-37	Flywheel Brake Piston	1
4108A-185	Flywheel Brake Shoe	1
4108A-192	Brake Anchor Plate	1
4108A-567	End Plate Cover	1
4108A-1014	Quad-X Ring	2
4108A-3800	Wave Spring	1

FIGURE 4109A — HYDRAULIC CONTROL PARTS



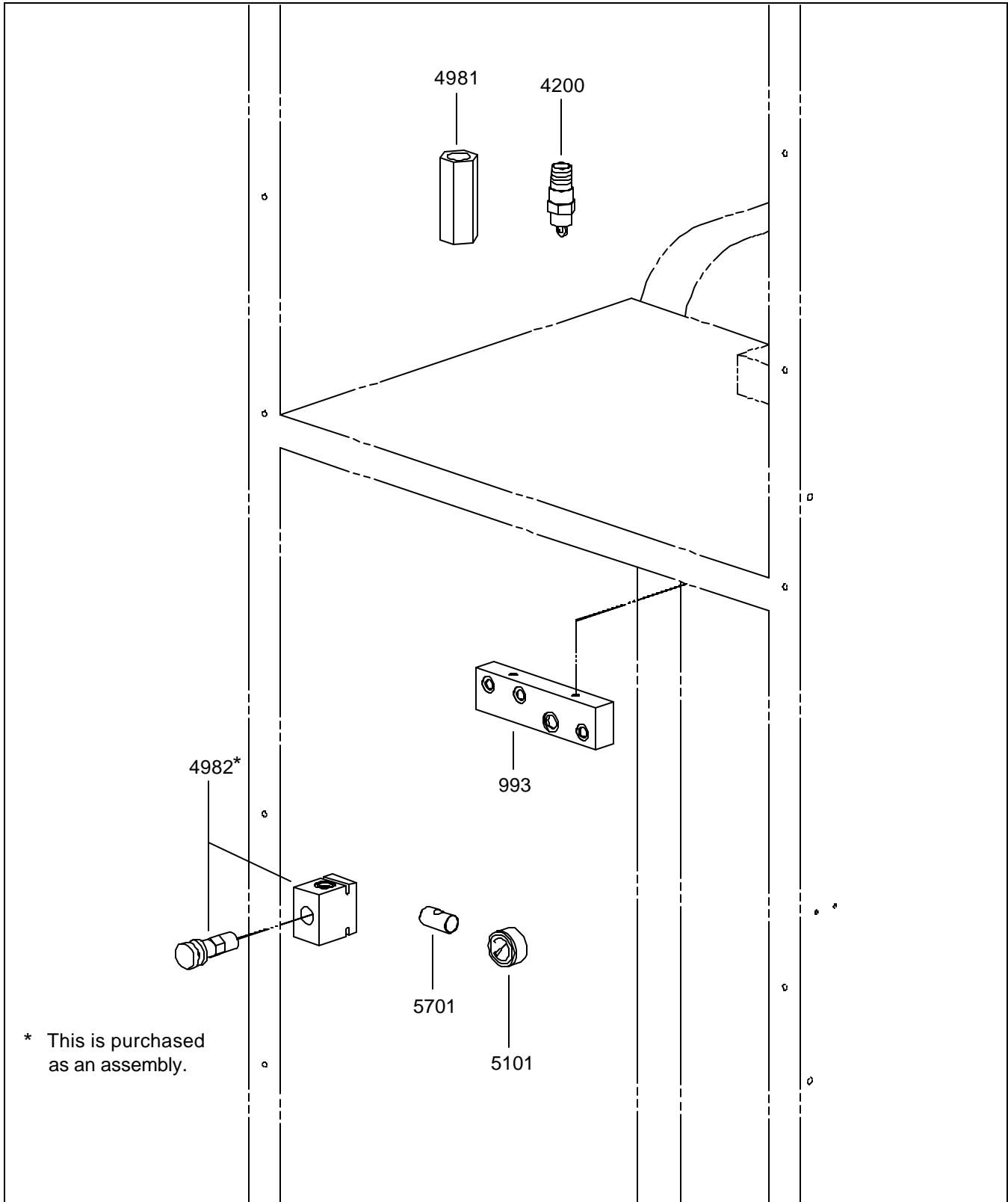
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 4109A
HYDRAULIC CONTROL PARTS LIST**

Fig. & Key Number	Part Name	Quantity
4109A-964	Hydraulic Manifold	1
4109A-1206	Hydraulic Motor Bracket	1
4109A-1217	Washer (Thru Hard)	2
4109A-1323	Slide Adjust Stop	1
4109A-1552	Hydraulic Motor (Slide Adjust)	1
4109A-1725	Exhaust Filter	2
4109A-2205	“O” Ring	1
4109A-2206	“O” Ring	1
4109A-4075	Hydraulic Cylinder (Quick Lift)	2
4109A-4076	Hydraulic Cylinder	1
4109A-4176	Relief Valve	1
4109A-4326	Spur Gear	1
4109A-4979	Motion Control Valve	1
4109A-4980	Hydraulic Overload Valve	1
4109A-5026	Taper Bushing	1
4109A-5550	Mounting Bracket	1
4109A-5700	Spring Plunger	1

FIGURE 4110A — HYDRAULIC PIPING PARTS



* This is purchased as an assembly.

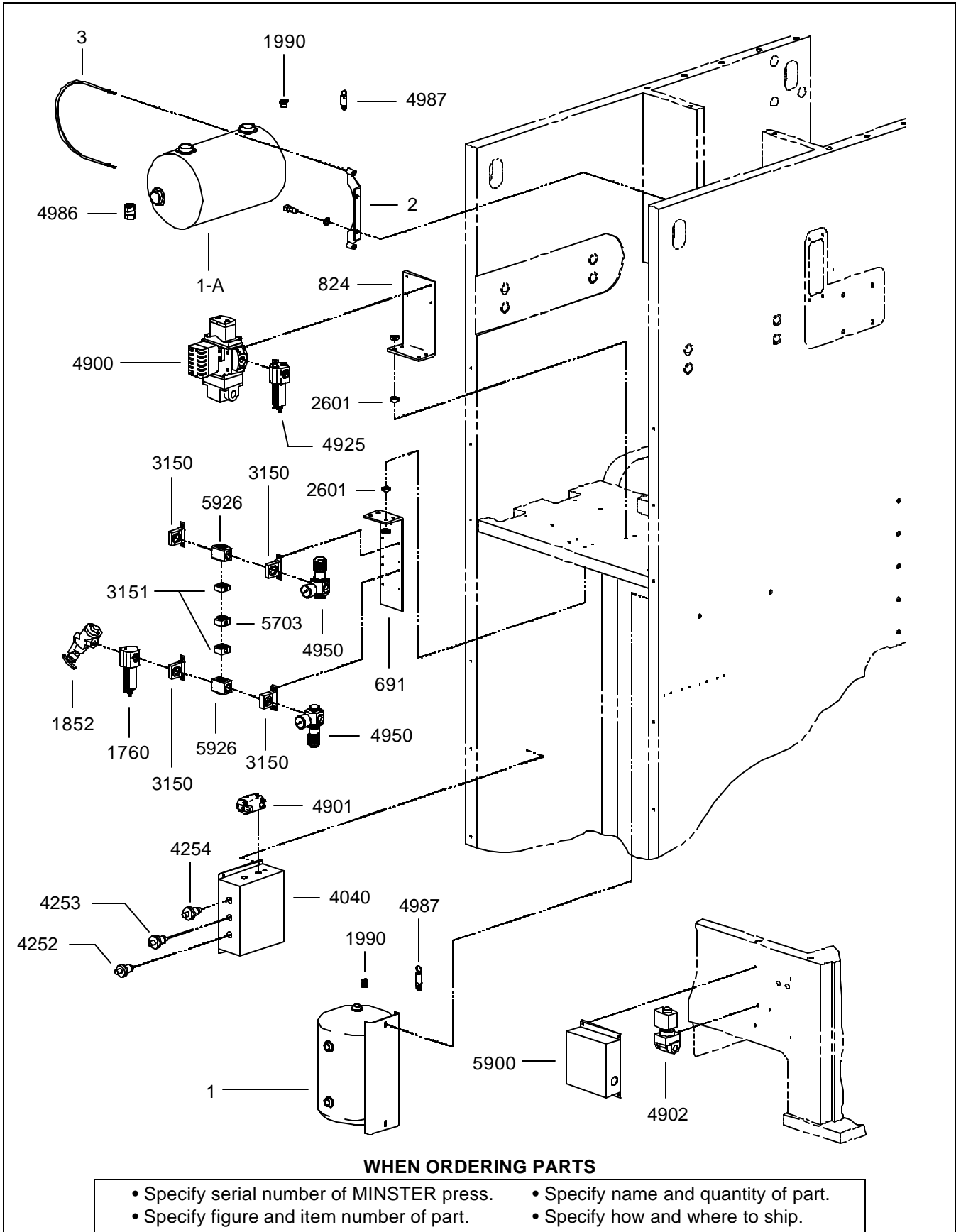
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 4110A
HYDRAULIC PIPING PARTS LIST**

Fig. & Key Number	Part Name	Quantity
4110A-993	Manifold Block	1
4110A-4200	Flow Switch	1
4110A-4981	Check Line Valve	1
4110A-4982	Pressure Sequence Cartridge Valve	1
4110A-5101	Gauge	1
4110A-5701	Gauge Snubber	1

FIGURE 4111B — AIR PIPING PARTS



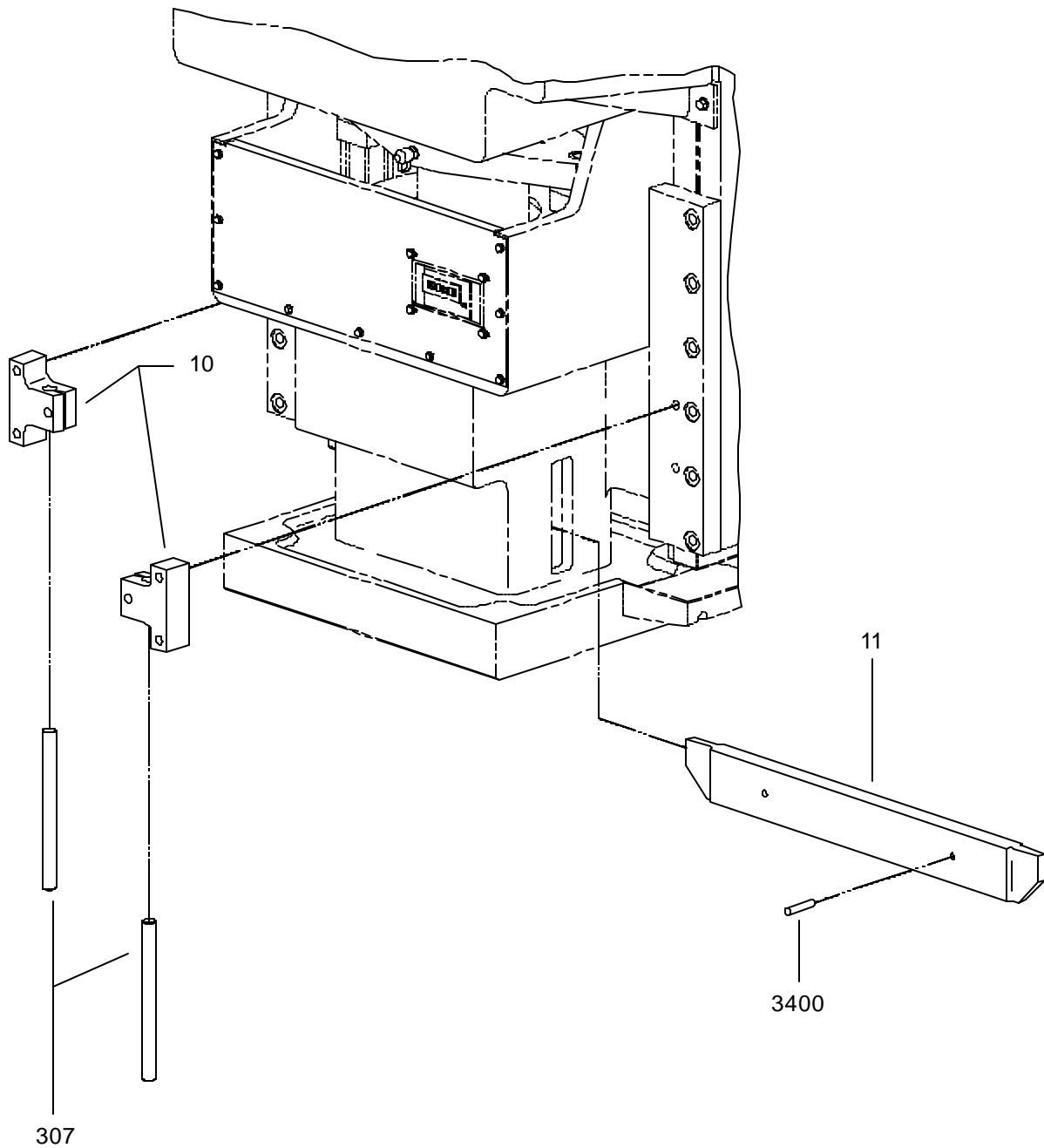
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 4111B
AIR PIPING PARTS LIST**

Fig. & Key Number	Part Name	Quantity
4111B-1	Air Tank (Clutch)	1
4111B-1-A	Air Tank (Counterbalance)	1
4111B-2	Tank Foot	2
4111B-3	Tank Clamp Rod	2
4111B-691	Air Manifold Bracket	1
4111B-824	Valve Bracket	1
4111B-1760	Filter	1
4111B-1852	Air Lockout Valve	1
4111B-1990	Fusible Plug	2
4111B-2601	Shock Mount	16
4111B-3150	Quick Clamp (With Bracket)	4
4111B-3151	Quick Clamp	2
4111B-4040	Box	1
4111B-4252	Pressure Switch (Clutch)	1
4111B-4253	Pressure Switch (Counterbalance)	1
4111B-4254	Pressure Switch (Flywheel Brake)	1
4111B-4900	Solenoid Valve (Clutch)	1
4111B-4901	3-Way Solenoid Valve	1
4111B-4902	3-Way Solenoid Valve	1
4111B-4925	Lubricator	1
4111B-4950	Regulator	2
4111B-4986	Swing Check Valve	1
4111B-4987	Pop Safety Valve	2
4111B-5703	Porting Block	1
4111B-5900	Air Blowoff Cover	1
4111B-5926	Manifold Block	2

FIGURE 715A — (OPTIONAL) CROSSBAR KNOCKOUT PARTS



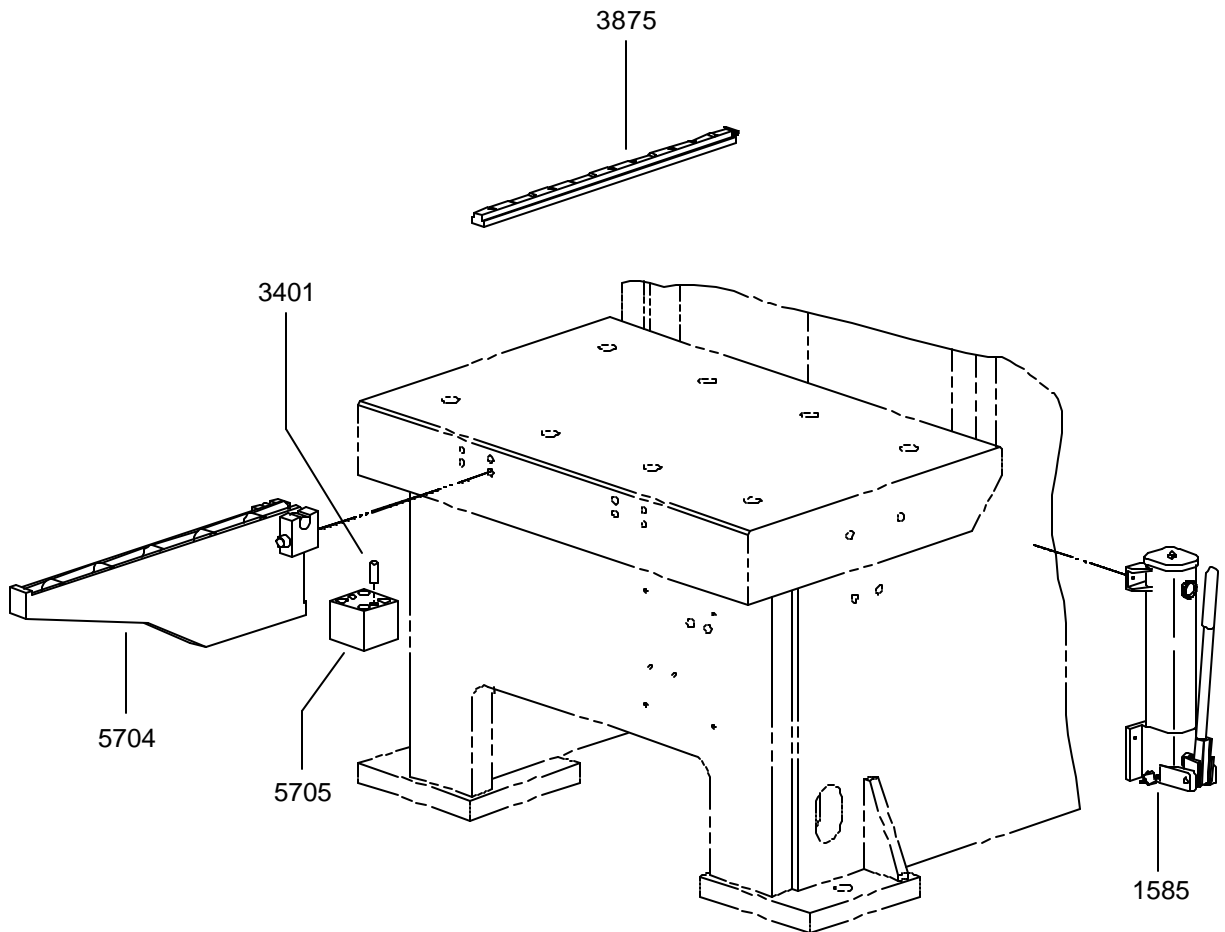
WHEN ORDERING PARTS

- Specify serial number of MINSTER press.
- Specify name and quantity of part.
- Specify figure and item number of part.
- Specify how and where to ship.

**REF. FIGURE 715A
(OPTIONAL) CROSSBAR KNOCKOUT PARTS LIST**

Fig. & Key Number	Part Name	Quantity
715A-10	Knockout Bracket	2
715A-11	Knockout Bar	1
715A-307	Knockout Rod	2
715A-3400	Dowel Pin	2

FIGURE 4112A — (OPTIONAL) DIE LIFT RAIL PARTS



WHEN ORDERING PARTS

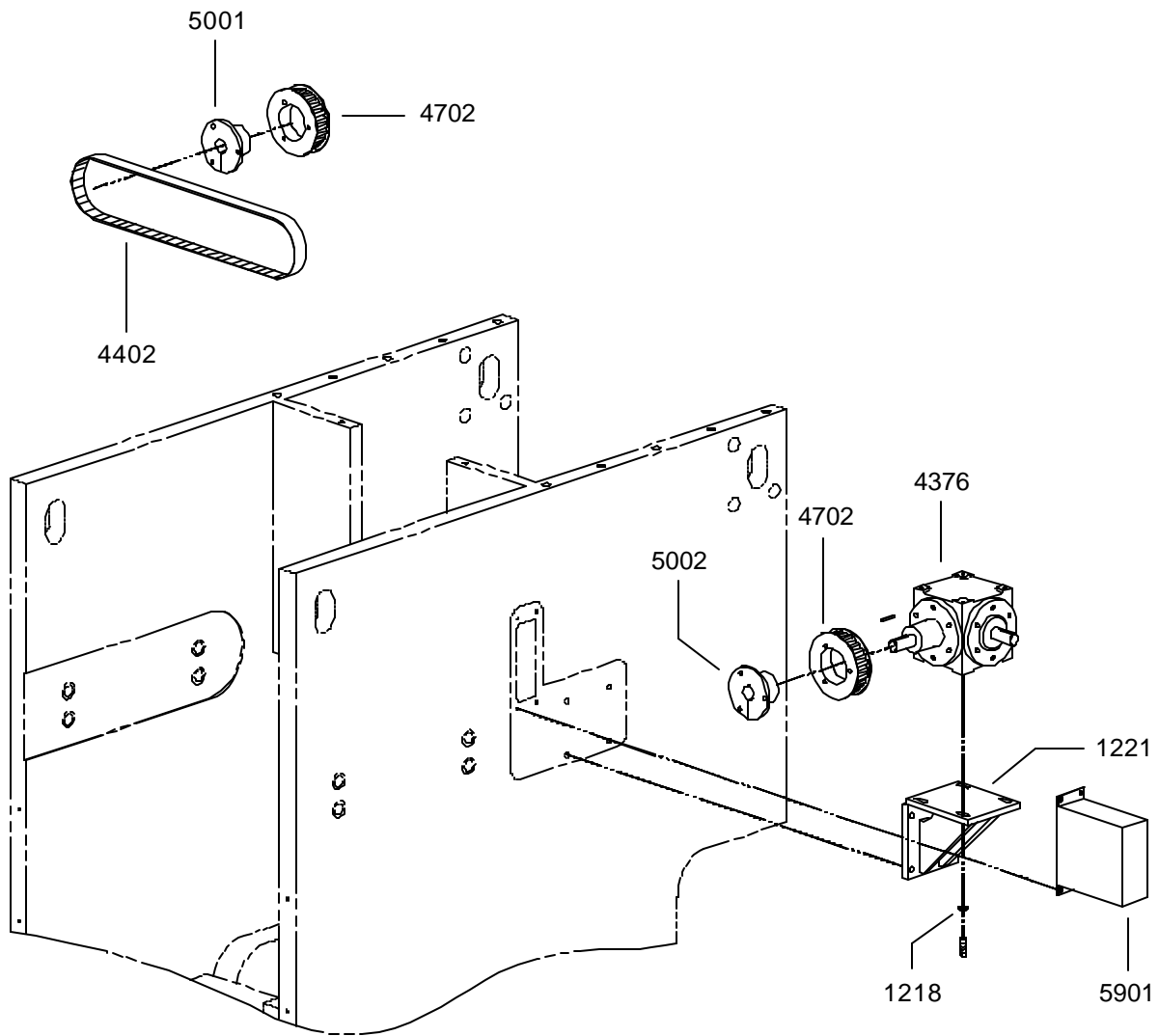
- | | |
|---|--------------------------------------|
| • Specify serial number of MINSTER press. | • Specify name and quantity of part. |
| • Specify figure and item number of part. | • Specify how and where to ship. |

**REF. FIGURE 4112A
(OPTIONAL) DIE LIFT RAIL PARTS LIST**

Fig. & Key Number	Part Name	Quantity
4112A-1585	Die Lift Rail Hand Pump	1
4112A-3401	Dowel Pin	8
4112A-3875	Rail	2
4112A-5704 ⁽¹⁾	Die Support	1
4112A-5705	Support Block	2

⁽¹⁾ This is supplied as one pair.

FIGURE 9078A — (OPTIONAL) FEED DRIVE PARTS



WHEN ORDERING PARTS

- | | |
|---|--------------------------------------|
| • Specify serial number of MINSTER press. | • Specify name and quantity of part. |
| • Specify figure and item number of part. | • Specify how and where to ship. |

**REF. FIGURE 9078A
(OPTIONAL) FEED DRIVE PARTS LIST**

Fig. & Key Number	Part Name	Quantity
9078A-1218	Washer (Thru Hard)	4
9078A-1221	Gear Box Bracket	1
9078A-4376	Gear Box	1
9078A-4402	Timing Belt	1
9078A-4702	Timing Belt Pulley	2
9078A-5001	Taper Bushing	1
9078A-5002	Taper Bushing	1
9078A-5901	Feed Drive Pulley Cover	1

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