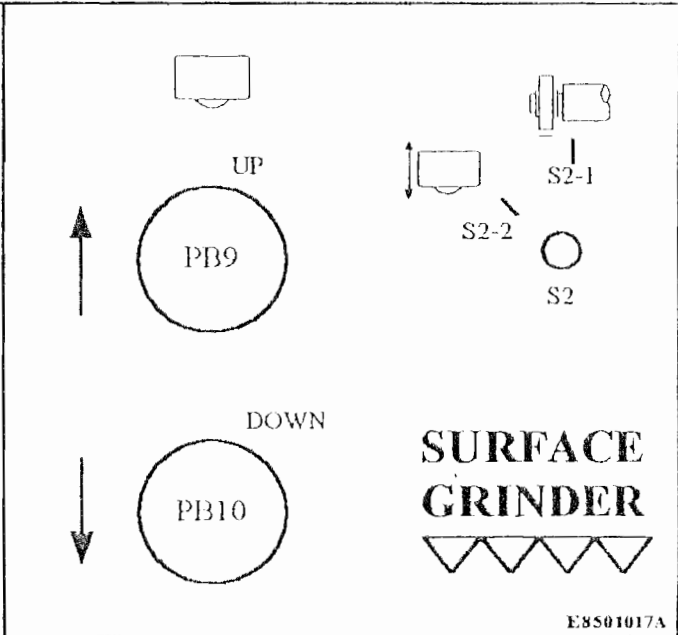
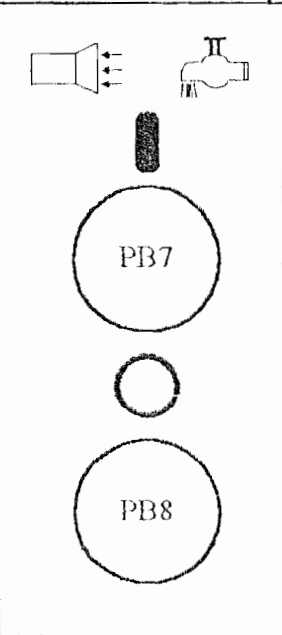
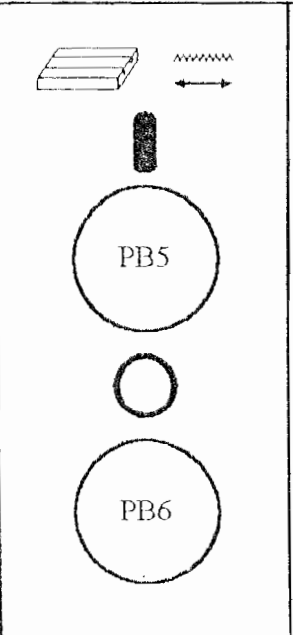
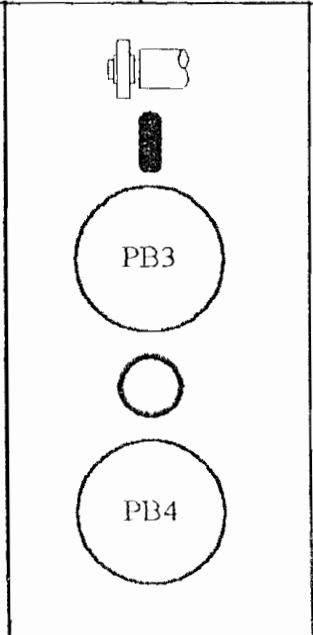
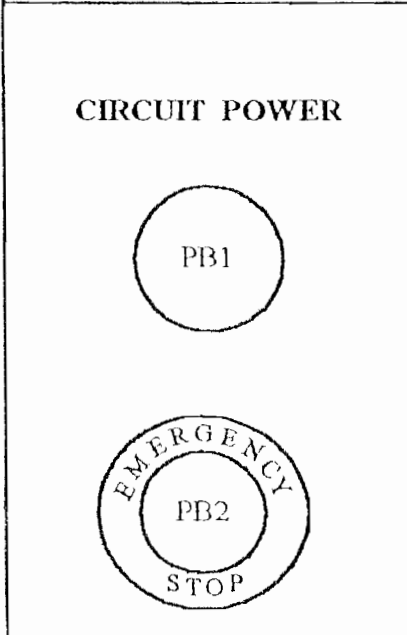
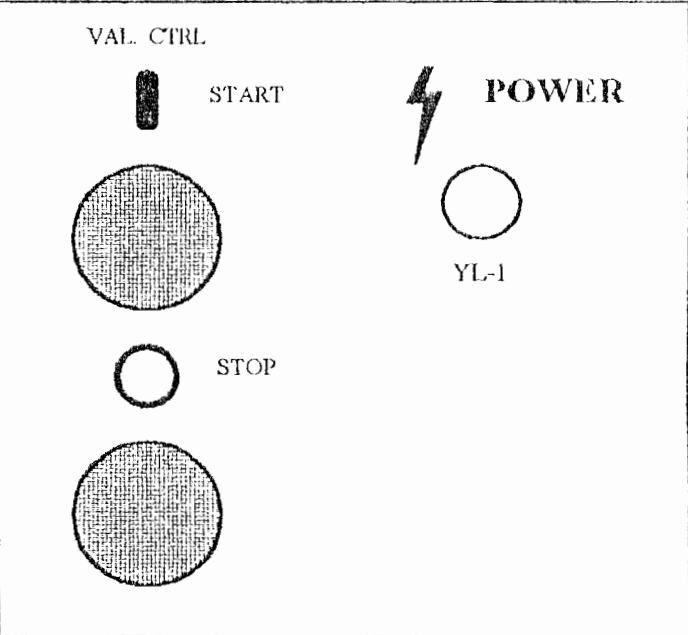
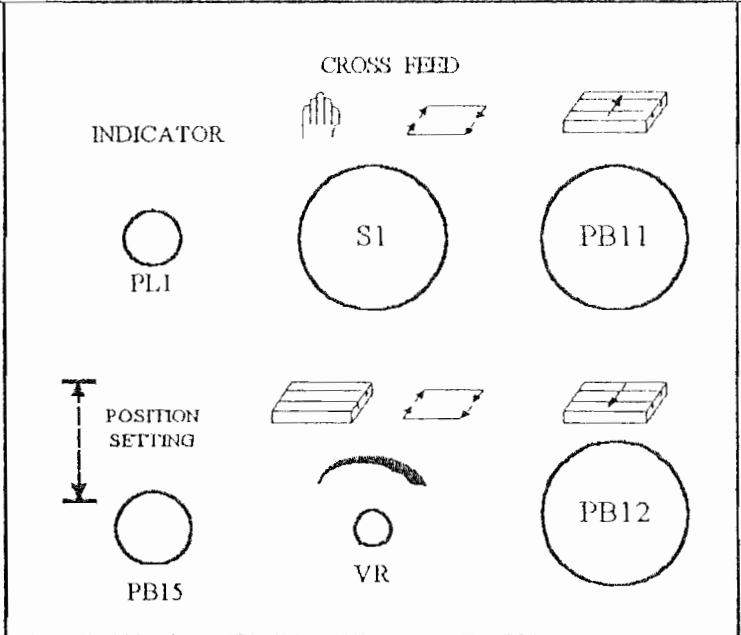
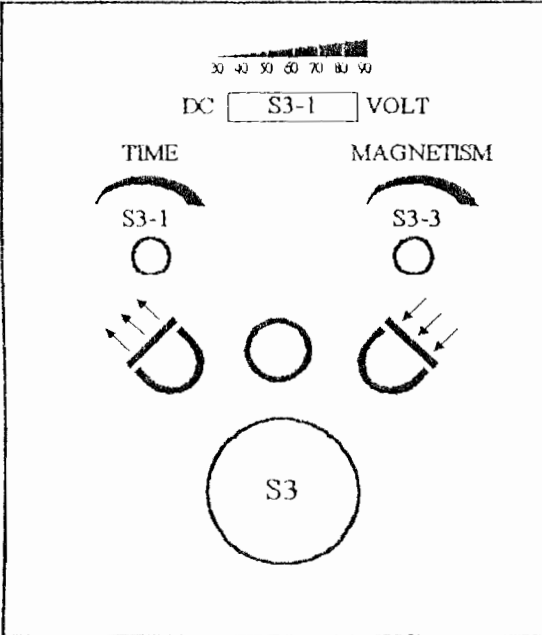


22. COMPLETE KNOCKDOWN DRAWINGS & PARTS LISTS

Description	Page
Up Column Ass'y	76
Spindle Set Ass'y	78
Down Feed Unit Ass'y	80
Crossfeed Ass'y	83
Longitudinal Handfeed Ass'y	85
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Hydraulic Ass'y	90
Balance Structure Ass'y	94
AGS 2448 Front Casting Structure	96
AGS 2480 Front Casting Structure	98

Note: WHEN ORDERING PARTS, PLEASE MENTION:

- 1. MACHINE MODEL & SERIAL NUMBER.**
- 2. INDEX NUMBER.**
- 3. PART NUMBER AND NAME.**
- 4. YEAR OF PRODUCTION.**
- 5. QUANTITY.**



E8501017A

2448/2480AH LAYOUT OF MAIN ELECTRICAL BOX

A

NFB

MSC

CR0
(MSC)

CR1

MS6
OL-6

MS1
OL-1

MS2
OL-2

MS3
OL-3

MS4

MS7
OL-4

MS8

MS5
OL-5

SHARP
PLC

F
1

F
2

F
3

F
4

F
5

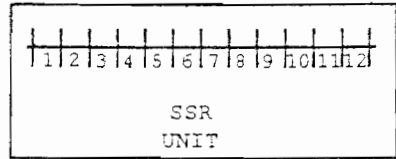
F
6

F
7

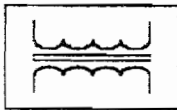
F
8

NFB1

NFB2

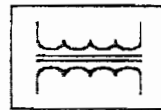


3PH Tr.



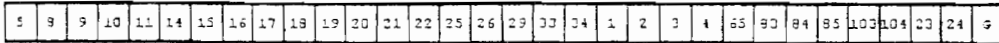
TR1

1PH Tr.

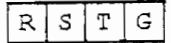


TR2

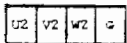
TB1



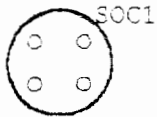
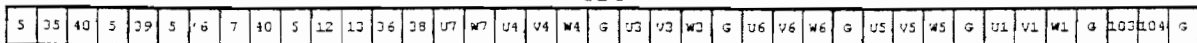
TB3



TB2



TB4



2448/2480 AH CONTROL PANEL & ELECTRIC PARTS DESCRIPTION 1/2

YL1	INDICATE LAMP OF POWER SOURCE.
PB1	PUSH BUTTON "ON" OF CONTROL CIRCUIT SOURCE WITH INDICATE LAMP (IL0).
PB2	PUSH BUTTON "OFF" OF CONTROL CIRCUIT SOURCE.(ALSO AS A EMERGENCY STOP).
PB3	PUSH BUTTON "ON" OF SPINDLE MOTOR WITH INDICATE LAMP(IL1).
PB4	PUSH BUTTON "OFF" OF SPINDLE MOTOR.
PB5	PUSH BUTTON "ON" OF HYDRAULIC PUMP WITH INDICATE LAMP(IL2).
PB6	PUSH BUTTON "OFF" OF HYDRAULIC PUMP.
PB7	PUSH BUTTON "ON" OF COOLANT OR DUST-SUCTION WITH INDICATE LAMP(IL3).
PB8	PUSH BUTTON "OFF" OF COOLANT OR DUST-SUCTION .
PB9	PUSH BUTTON FOR SPINDLE HEAD RAPID UPWARD. (ONLY S2 SWITCH CHOOSE ON MODE IS WORKABLE)
PB10	PUSH BUTTON FOR SPINDLE HEAD RAPID DOWNWARD.(ONLY S2 SWITCH CHOOSE ON MODE IS WORKABLE)
PB11	PUSH BUTTON FOR SPINDLE SEAT FORWARD.
PB12	PUSH BUTTON FOR SPINDLE SEAT BACKWARD.
PB15	PUSH BUTTON"OFF" FOR AUTO CROSS-FEED STORKE SETTING.
PL1	INDICATOR OF AUTO CROSS-FEED STORKE SETTING CONDITION.
S1	MULTI-SELECT SWITCH OF OPERATION MODE.
VR	VARIABLE SPEED OF AUTO CROSS-FEED.
S2	SELECT SWITCH OF RAPID UP&DOWN OR SURFACE GRIND..
S2-1	SURFACE GRINDING MODE.
S2-2	SPINDLE HEAD RAPID UP&DOWN MODE.
S3	SELECT SWITCH FOR CHUCK MAGNETIC OR DEMAGNETIC CONTROL.
S3-1	INDICATE LED OF STRENGTH OF MAGNETISM.
S3-2	VARIABLE RESISTANCE FOR DEMAGNETIZE TIME ADJUSTING.
S3-3	VARIABLE RESISTANCE FOR STRENGTH OF MAGNETISM ADJUSTING.
MS0	MAGNETIC CONTACTOR FOR CIRCUIT CONTROL SOURCE.
MS1	MAGNETIC CONTACTOR FOR HYDRAULIC PUMP MOTOR.
MS2	MAGNETIC CONTACTOR FOR SPINDLE MOTOR.
MS3 MS4	MAGNETIC CONTACTOR FOR SPINDLE SEAT CROSS-FEED MOTOR.
MS5	MAGNETIC CONTACTOR FOR COOLANT OR DUST-SUCTION MOTOR.
MS6	MAGNETIC CONTACTOR FOR LUBRICANT PUMP.
MS7 MS8	MAGNETIC CONTACTOR FOR SPINDLE SEAT UP&DOWN MOTOR.
M1	HYDRAULIC PUMP MOTOR.
M2	SPINDLE MOTOR.
M3	SPINDLE SEAT FORWARD&BACKWARD CONTROL MOTOR.
M4	COOLANT&DUST-SUCTION MOTOR.
M5	SPINDLE SEAT UP&DOWN MOTOR.
LS1	APPROXIMATE SWITCH FOR AUTO CROSS-FEED TRIGGER SIGNAL.
PXS1 PXS2	APPROXIMATE SWITCH FOR SETTING STROKE OF AUTO CROSS-FEED.
LS4 LS5	LIMIT SWITCH FOR MAX. TRAVEL OF SPINDLE SEAT.
OL1,OL2 OL3,OL4 OL5,OL6	CURRENT OVERLOAD.
1PH tr.	1 PHASE TR.(FOR CONTROL CIRCUIT &EM.CHUCK POWER SUPPLY. AND POWER OF FAULT SIGNAL OF SERVO DRIVER).
3PH tr.	3 PHASE TR.(FOR SPINDLE SEAT RAPID UP&DOWN AND CROSS-FEED,LUBRICANT PUMP,PAPER FILTER MOTOR).

SURFACE GRINDER MICROCOMPUTER CONTROLLER

UNIT: 1 μ

L.D.D1 FEEDS

UNIT: 2 μ

CPS FEEDS SETTING

L.D.D2 FEED TIMES SETTING

CPS2 FEED TIMES SETTING

L.D.D3 SPARK OUT SETTING

PS SPARK OUT SETTING

ON

CPBa

R.P.B RESET

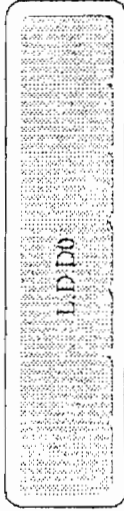
OFF

CPBb

OPB ORIGIN

CPB1 MANUAL

DISPLAY OF GRINDING WHEEL POSITION



PB 2-1 RAPID TRAVERSE UP

PB 2-2 RAPID TRAVERSE DOWN

PB 3-1 SLOW TRAVERSE UP

PB 3-2 SLOW TRAVERSE DOWN

PB 4-1 STEP UP

PB 4-2 STEP DOWN

CPB5 AUTO START

POWER

ILL

2448/2480AHD CONTROL PANEL(METRIC)

CIRCUIT POWER

PBa

S3

S7

S4

S1

PBb

MULTIPLIER

CS2 X1 X2 X8

P

C

PGH

S2

S5

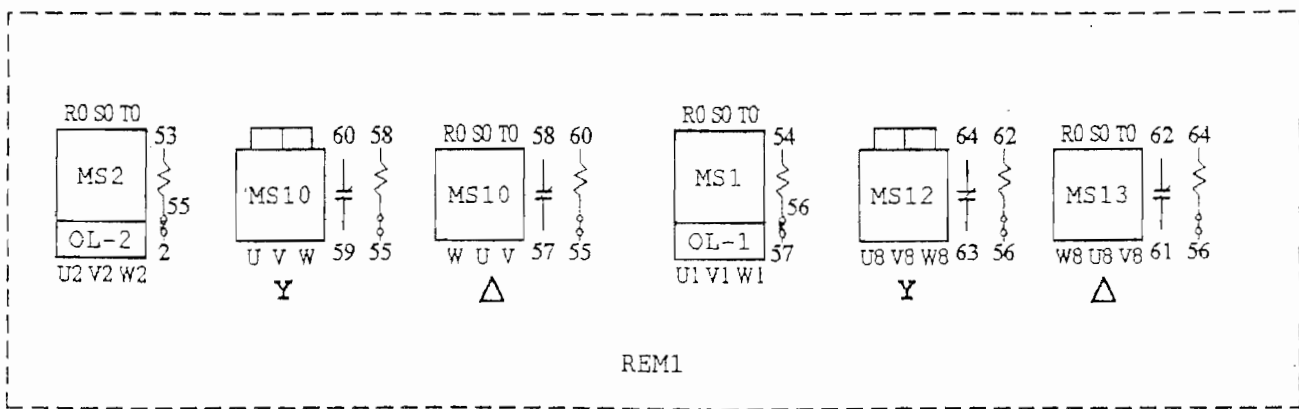
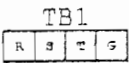
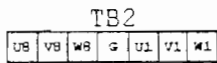
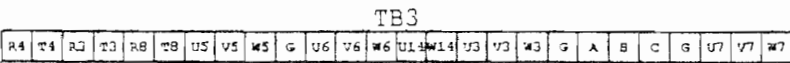
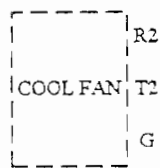
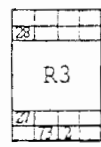
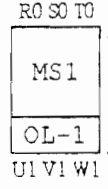
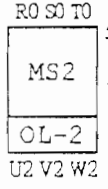
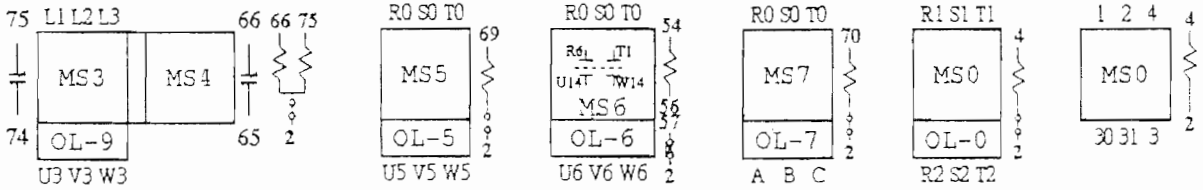
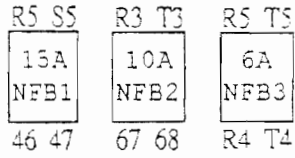
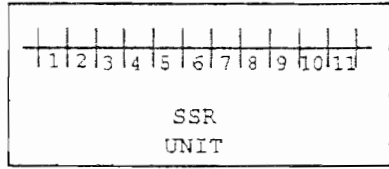
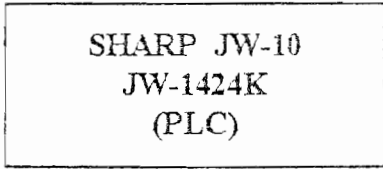
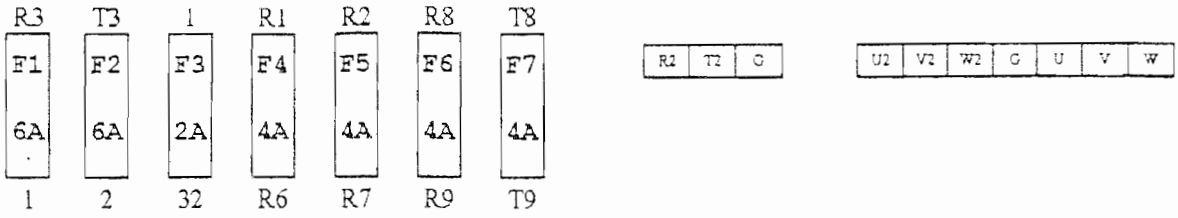
S6

VR

PBI POSITION SETTING

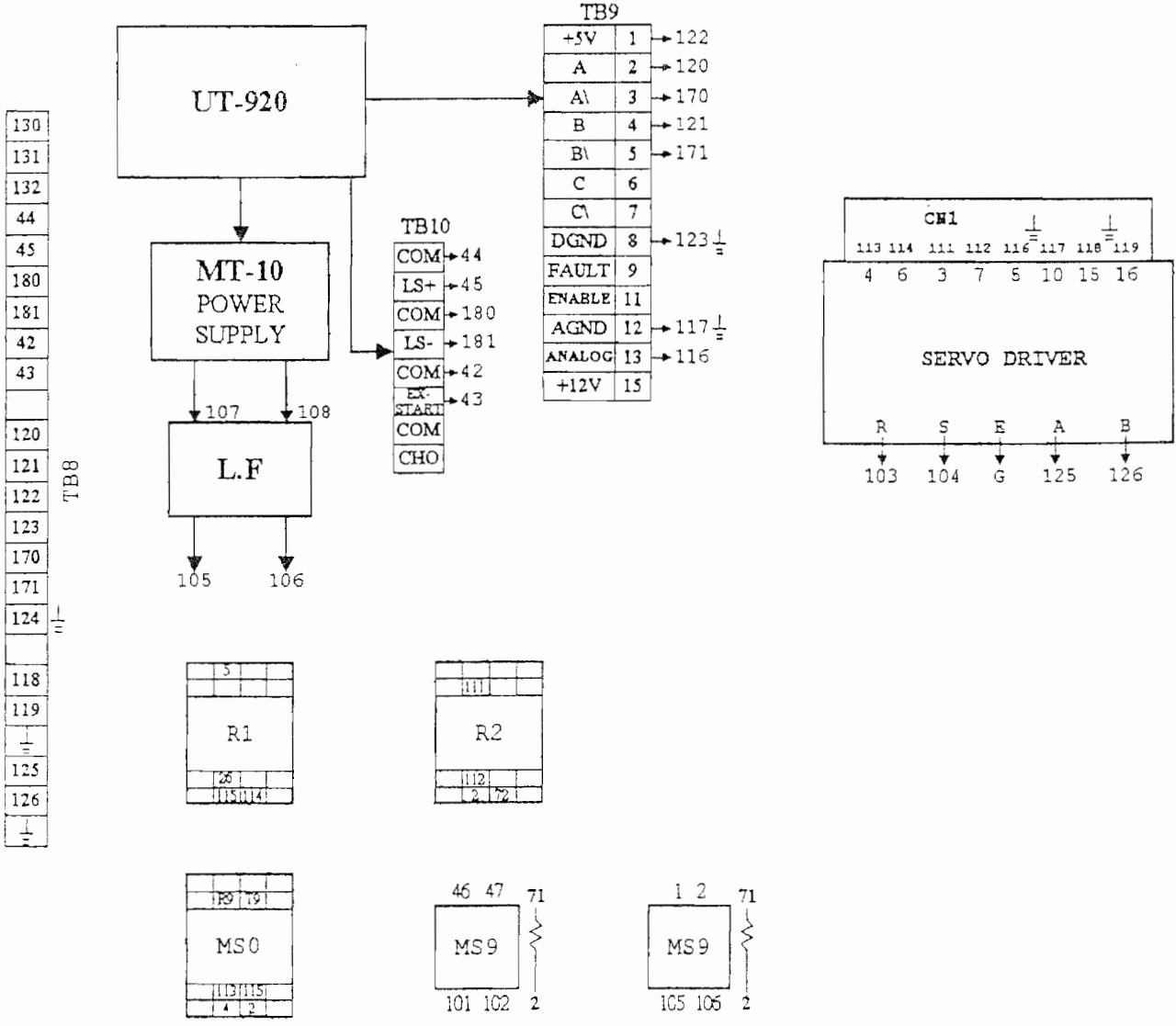
2448/2480AHD LAYOUT OF MAIN ELECTRICAL BOX 1/2

1
2
3
4
16
17
18
19
52
5
40
33
34
5
8
9
10
11
14
15
20
21
22
25
29
5
12
13
42
43
1
2
4
5
26
71
72
73
R2
T2
R1
S1
T1
G
R0
S0
T0
G
R5
S5
T5
R9
T9
46
47
67
68
5
6
7
40



REM1 : IF THE SPINDLE MOTOR OR HYDRAULIC PUMP MOYOR IS OVER 20 HP THE WIRE CONNECT OF MOTOR IS USED Y-Δ CONNECTION

2448/2480AHD LAYOUT OF MAIN ELECTRICAL BOX 2/2



130
131
132
44
45
180
181
42
43
120
121
122
123
170
171
124 $\frac{1}{2}$
118
119
 $\frac{1}{2}$
125
126
 $\frac{1}{2}$

TB8

TB7

23	24	G	69	70	67	68	R9	T9		46	47	101	102	103	104	1	2	4	5	26	71	72
----	----	---	----	----	----	----	----	----	--	----	----	-----	-----	-----	-----	---	---	---	---	----	----	----

ENCODER FEEDBACK						
A	C	H	K	N	R	L
Green	White	Black	Red	Brown	Yellow	$\frac{1}{2}$
120	121	122	123	170	171	124
CHA	CHB	+5V	GND.	CH \bar{A}	CH \bar{B}	CASE

UPPER SWITCH : 44,45
LOWER SWITCH : 180,181
INFEEED SWITCH : 42,43

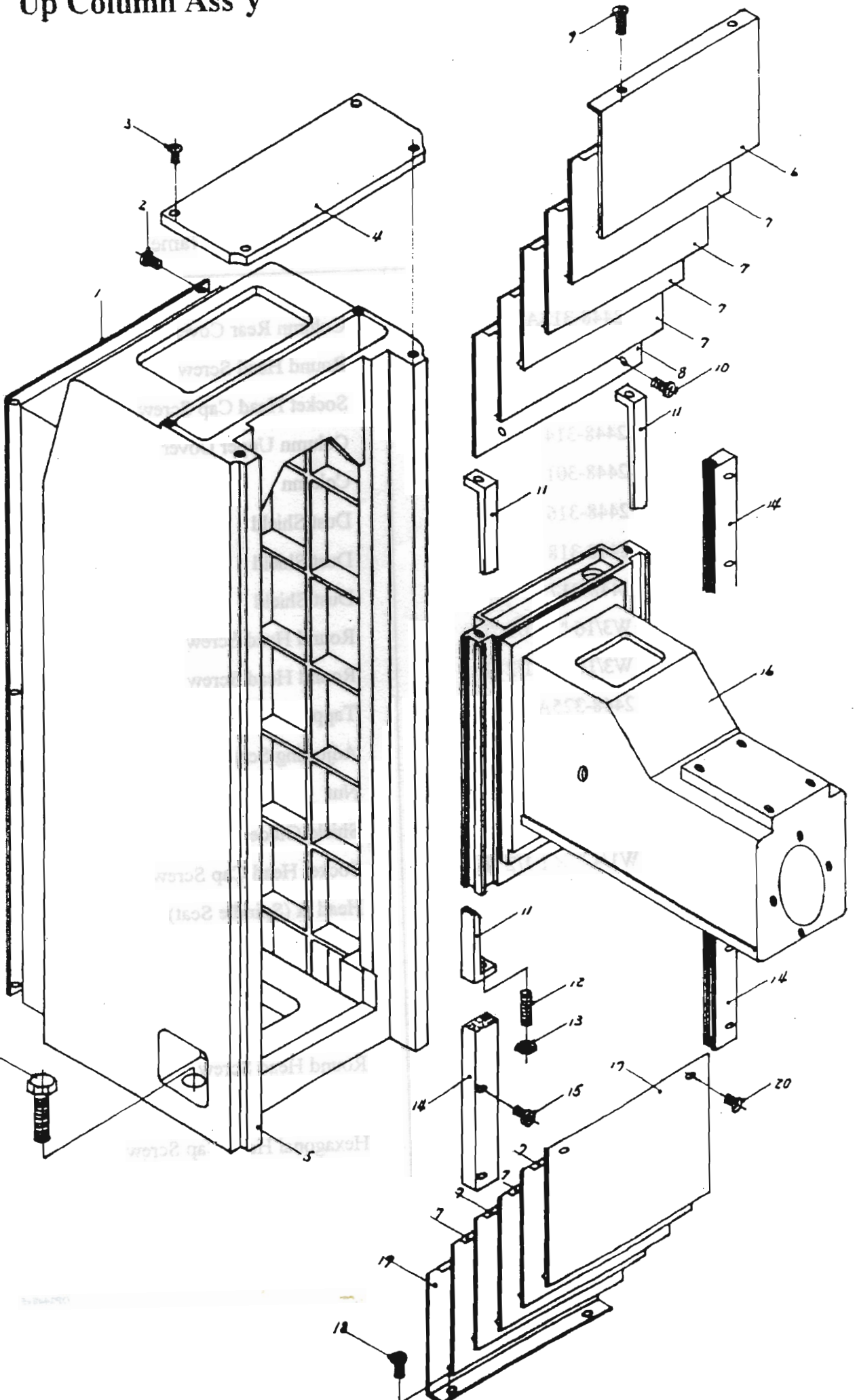
I.L	INDICATE LAMP OF POWER SOURCE.
PBa	PUSH BUTTON "ON" OF CONTROL CIRCUIT SOURCE WITH INDICATE LAMP (IL0).
PBb	PUSH BUTTON "OFF" OF CONTROL CIRCUIT SOURCE.(ALSO AS A EMERGENCY STOP).
S1	SWITCH OF HYDRAULIC MOTOR .
S2	SWITCH OF SPINDLE MOTOR.
S3	SWITCH OF HYDRAULIC PARALLEL DRESSER PUMP .(OPTION ACCESSORY)
S4	SWITCH OF COOLANT PUMP.
S5	SWITCH OF CROSS-FEED MANUAL OR AUTO MODE.
S6	RETURN SWITCH OF CROSS-FEED.
S7	SELECT SWITCH OF SURFACE OR PLUNGE MODE.
VR	VARIABLE STEP SPEED OF AUTO CROSS-FEED MODE.
PB1	INDICATOR OF AUTO CROSS-FEED STORKE SETTING CONDITION.
CPBa	PUSH BUTTON "ON" OF MICROCOMPUTER CONTROL.
CPBb	PUSH BUTTON "OFF" OF MICROCOMPUTER CONTROL.
OPB	PUSH BUTTON OF ORIGIN RETURN (TO SET THE WHEEL HEAD RETURN TO REFERENTIAL ZERO POINT).
RPB.	PUSH BUTTON OF ZERO RESET (TO SET THE L.D.D0 TO REFERENTIAL ZERO POINT).
CPB1	PUSH BUTTON OF MANUAL CONTROL MODE WITH INDICATE LAMP(IT IS A NORMAL TURN ON CONDICTION TILL PUSHING THE "PB5". (REM.1)
L.D.D0	LED DISPLAY OF GRINDING WHEEL REFERENTIAL POSITION.
L.D.D1	LED DISPLAY OF FEEDS SETTING (SETTING NUMERAL UNIT).
L.D.D2	LED DISPLAY OF FEEDING TIMES (AUTO MODE).
L.D.D3	LED DISPLAY OF SPARK OUT TIMES (AUTO MODE).
CPS1	DIP SWITCH OF FEEDS SETTING.
CPS2	DIP SWITCH OF FEEDING TIMES.
CPS3	DIP SWITCH OF SPARK OUT TIMES.
CPB5	PUSH BUTTON OF AUTO CONTROL MODE WITH INDICATE LAMP.(AS SOON AS PUSH THE "PB1" THE CONTROL CONDICTION WILL CHANGE TO THE MANUAL MODE) .
PB2-1	PUSH BUTTON OF DRIVING THE WHEEL HEAD RAPID TRAVERSE UP.
PB2-2	PUSH BUTTON OF DRIVING THE WHEEL HEAD RAPID TRAVERSE DOWN.
PB3-1	PUSH BUTTON OF DRIVING THE WHEEL HEAD SLOW TRAVERSE UP.
PB3-2	PUSH BUTTON OF DRIVING THE WHEEL HEAD SLOW TRAVERSE DOWN.
PB4-1	PUSH BUTTON OF DRIVING THE WHEEL HEAD STEP UP (THE QUANTITY IS SETTING BY "PSI".
PB4-2	PUSH BUTTON OF DRIVING THE WHEEL HEAD STEP DOWN (THE QUANTITY IS SETTING BY "PSI".
CS1	SELECT SWITCH OF MICROCOMPUTER OR ROTARY HANDLE CONTROL. (C:MICROCOMPUTER CONTROL. P:ROTARY HANDLE CONTROL).
CS2	SELECT SWITCH OF MULTIPLE OF 1, 2, 3 UNIT OF ROTARY HANDLE CONTROL.
P.G.H	ROTARY HANDLE OF PULSE GENERATOR.

REM1:IT IS ALSO A INTERRUPTER, WHEN SOMETIME THE "PB" IS PRESSED,THE USER CAN INTERRUPT THE FUCTION ANYTIME BY PRESSING THE "PB1"

2448/2480 AHD CONTROL PANEL & ELECTRIC PARTS DESCRIPTION 2/2

MS0	MAGNETIC CONTACTOR FOR CIRCUIT CONTROL SOURCE.
MS1	MAGNETIC CONTACTOR FOR HYDRAULIC PUMP MOTOR.
MS2	MAGNETIC CONTACTOR FOR SPINDLE MOTOR.
MS3 MS4	MAGNETIC CONTACTOR FOR SPINDLE SEAT CROSS-FEED MOTOR.
MS5	MAGNETIC CONTACTOR FOR COOLANT.
MS6	MAGNETIC CONTACTOR FOR LUBRICANT PUMP.
MS7	MAGNETIC CONTACTOR FOR HYDRAULIC PARALLEL DRESSER PUMP.
MS9	MAGNETIC CONTACTOR FOR POWER OF SERVO DRIVER & NC CONTROLLER.
MS10 MS11	MAGNETIC CONTACTOR OF Y- Δ STARTING&RUNNING CONNECT FOR HYDRAULIC PUMP MOTOR IS OVER 20 HP.
MS12 MS13	MAGNETIC CONTACTOR OF Y- Δ STARTING&RUNNING CONNECT FOR SPINDLE MOTOR IS OVER 20 HP.
R1,R2,R3	AUXILIARY RELAY FOR NC. CONTROL SYSTEM.
NFB	NO FUSE BREAKER FOR MAIN POWER SUPPLY.
NFB1	NO FUSE BREAKER FOR POWER OF MICROCOMPUTER.
NFB2	NO FUSE BREAKER FOR POWER OF ELECTRIC MAGNETIC CHUCK.
NFB3	NO FUSE BREAKER FOR POWER OF SERVO DRIVER.
M1	HYDRAULIC PUMP MOTOR.
M2	SPINDLE MOTOR.
M3	SPINDLE SEAT FORWARD&BACKWARD CONTROL MOTOR.
M6	COOLANT PUMP MOTOR.
M6	LUBRICANT PUMP
LS1	APPROXIMATE SWITCH FOR AUTO CROSS-FEED TRIGGER SIGNAL.
PXS1 PXS2	APPROXIMATE SWITCH FOR SETTING STROKE OF AUTO CROSS-FEED
LS4 LS5	LIMIT SWITCH FOR MAX. TRAVEL OF SPINDLE SEAT.
OL1,OL2 OL3,OL4 OL5,OL6	CURRENT OVERLOAD.
F1,F2,F3 F4,F5,F6,F7	FUSES
1PH tr1.	1 PHASE TR.(FOR CONTROL CIRCUIT &EM.CHUCK POWER SUPPLY. AND POWER OF FAULT SIGNAL OF SERVO DRIVER).
3PH tr2.	3 PHASE TR.(FOR SPINDLE SEAT RAPID UP&DOWN AND CROSS-FEED,LUBRICANT PUMP,PAPER FILTER MOTOR).
1PH tr3.	1 PHASE TR.(FOR SERVO MOTOR DRIVER)..
S.S.R UNIT	CROSS-FEED MOTOR CONTROL UNIT.

Up Column Ass'y

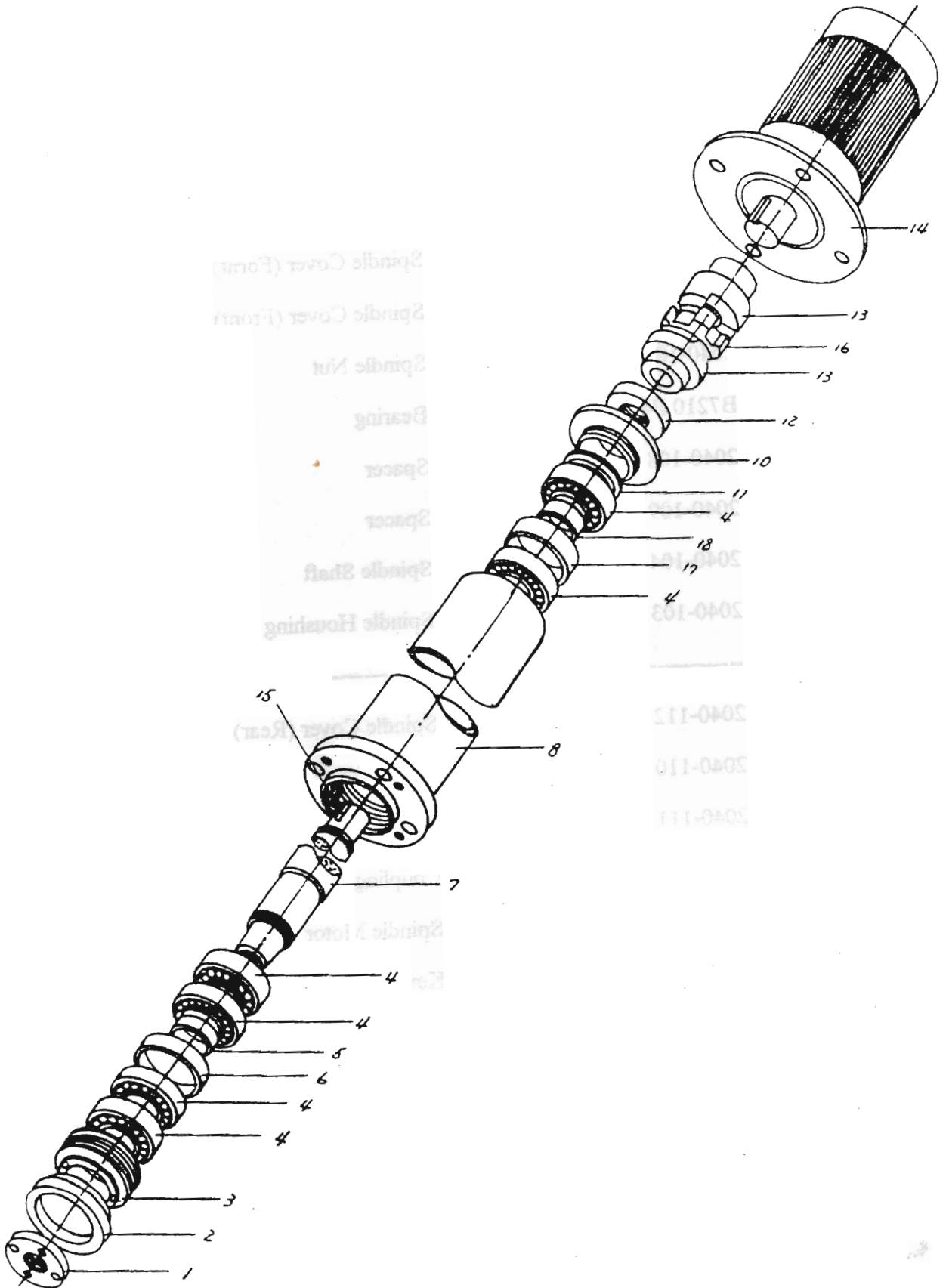


UP COLUMN ASS'Y

(2448,2480 SERIES)

Index No.	Parts No.	Parts Name	Q'ty
1.	2448-313A	Column Rear Cover	1
2.	W1/4 " × 1/2 "L	Round Head Screw	8
3.	W1/4 " × 3/4 "L	Socket Head Cap Screw	4
4.	2448-314	Column Upper Cover	1
5.	2448-301	Column	1
6.	2448-316	Dust Shield	1
7.	2448-318	Dust Shield	8
8.	2448-317	Dust Shield	1
9.	W3/16 " × 1/2 "L	Round Head Screw	2
10.	W3/16 " × 1/2 "L	Round Head Screw	2
11.	2448-325A	Tapper Plate	3
12.	W1/8 " × 4 "L	Adjusting Screw	3
13.	W 3/8"	Nut	6
14.	2448-315	Shield Guide	2
15.	W1/4 " × 1 1/2 "L	Socket Head Cap Screw	28
16.	2448-202	Head A (Spindle Seat)	1
17.	2040-320	Dust Shield	1
18.	W3/16 " × 1/2 "L	Fixed Dust Shield	2
19.	2448-319	Dust Shield	1
20.	W3/16 " × 1/2 "L	Round Head Screw	2
21.			
22.	W 1"*2 1/2"L	Hexagonal Head Cap Screw	5

Spindle Set Ass'y

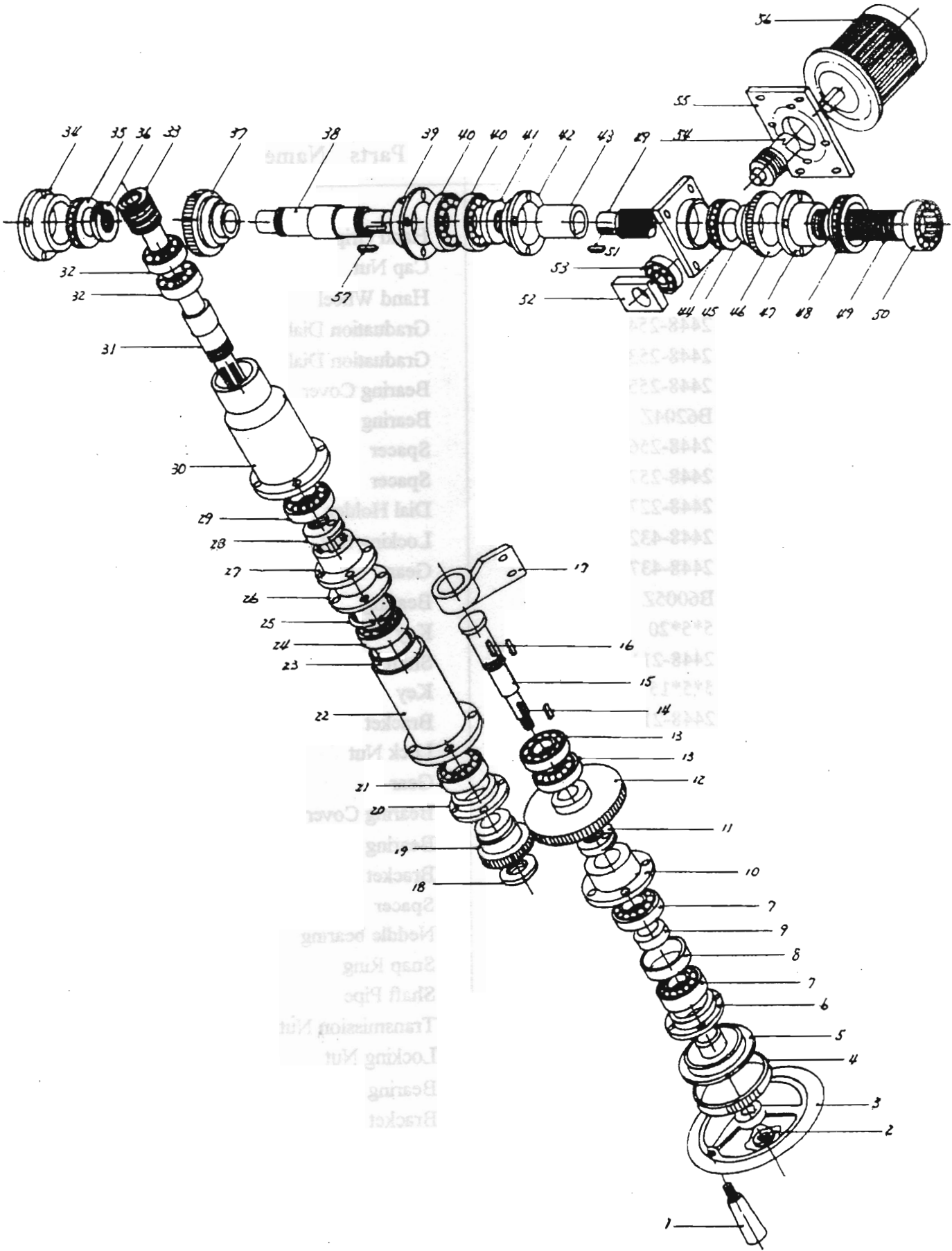


SPINDLE SET ASS'Y

(2448,2480 SERIES)

Index No.	Parts No.	Parts Name	Q'ty
1.	2040-107	Spindle Cover (Fornt)	1
2.	2040-105	Spindle Cover (Front)	1
3.	2040-106	Spindle Nut	1
4.	B7210 P4	Bearing	4
5.	2040-108	Spacer	2
6.	2040-109	Spacer	2
7.	2040-104	Spindle Shaft	1
8.	2040-103	Spindle Houshing	1
9.	-----	-----	-
10.	2040-112	Spindle Cover (Rear)	1
11.	2040-110	Spacer	1
12.	2040-111	Spindle Nut	1
13.	1632-111	Coupling	2
14.	10HP*4P	Spindle Motor	1
15.	10*8*35L	Key	1
16.	1632-113	Rubber Coupling	1

Down Feed Unit Ass'y



DOWN FEED UNIT ASS'Y

(2448,2480 SERIES)

P. 1OF2

Index No.	Parts No.	Parts Name	Q'ty
1.	1020-728	Hand Grip	1
2.	1020-729	Cap Nut	1
3.	1020-714	Hand Wheel	1
4.	2448-254	Graduation Dial	1
5.	2448-253	Graduation Dial Holder	1
6.	2448-255	Bearing Cover	1
7.	B6204Z	Bearing	2
8.	2448-256	Spacer	1
9.	2448-257	Spacer	1
10.	2448-227	Dial Holder	1
11.	2448-432	Locking Nut	1
12.	2448-437	Gear	1
13.	B6005Z	Bearing	2
14.	5*5*20	Key	1
15.	2448-211	Shaft	1
16.	5*5*15	Key	1
17.	2448-212	Bracket	1
18.	AN-10	Lock Nut	1
19.	2448-232	Gear	1
20.	2448-233	Bearing Cover	1
21.	B6210Z	Bearing	1
22.	2448-234	Bracket	1
23.	2448-234-1	Spacer	1
24.	NA4911UU	Neddle bearing	1
25.	R-80	Snap Ring	1
26.	2448-235	Shaft Pipe	1
27.	2448-236	Transmission Nut	1
28.	2448-241	Locking Nut	1
29.	B6207	Bearing	1
30.	2448-216	Bracket	1

DOWN FEED UNIT ASS'Y

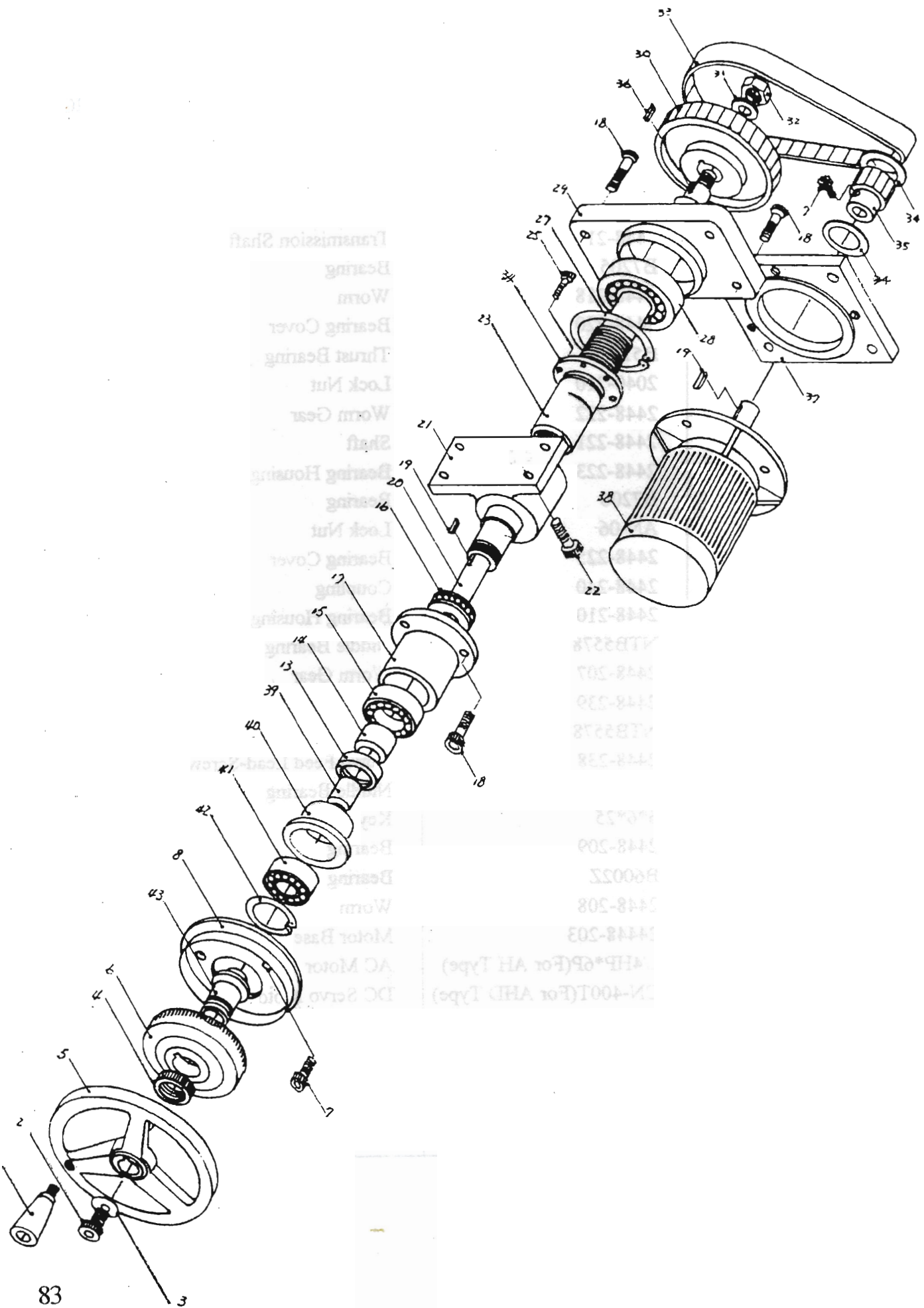
(2448,2480 SERIES)

P.2OF2

Index No.	Parts No.	Parts Name	Q'ty
31.	2448-217	Transmission Shaft	1
32.	B7205	Bearing	2
33.	2448-218	Worm	1
34.	2448-220	Bearing Cover	1
35.	B51306	Thrust Bearing	1
36.	2040-210	Lock Nut	1
37.	2448-222	Worm Gear	1
38.	2448-221	Shaft	1
39.	2448-223	Bearing Housing	1
40	B7206	Bearing	2
41.	AN-06	Lock Nut	1
42.	2448-225	Bearing Cover	1
43.	2448-240	Coupling	1
44.	2448-210	Bearing Housing	1
45.	NTB5578	Niddle Bearing	1
46.	2448-207	Worm Gear	1
47.	2448-239	Lead-Screw Nut	1
48.	NTB5578	Niddle Bearing	1
49.	2448-238	Down Feed Lead-Screw	1
50.	TA5525	Niddle Bearing	1
51.	6*6*25	Key	1
52.	2448-209	Bearing Housing	1
53.	B6002Z	Bearing	1
54.	2448-208	Worm	1
55.	24448-203	Motor Base	1
56.	1/4HP*6P(For AH Type)	AC Motor	1
	CN-400T(For AHD Type)	DC Servo Motor(400W)	1

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Cross Feed Ass'y

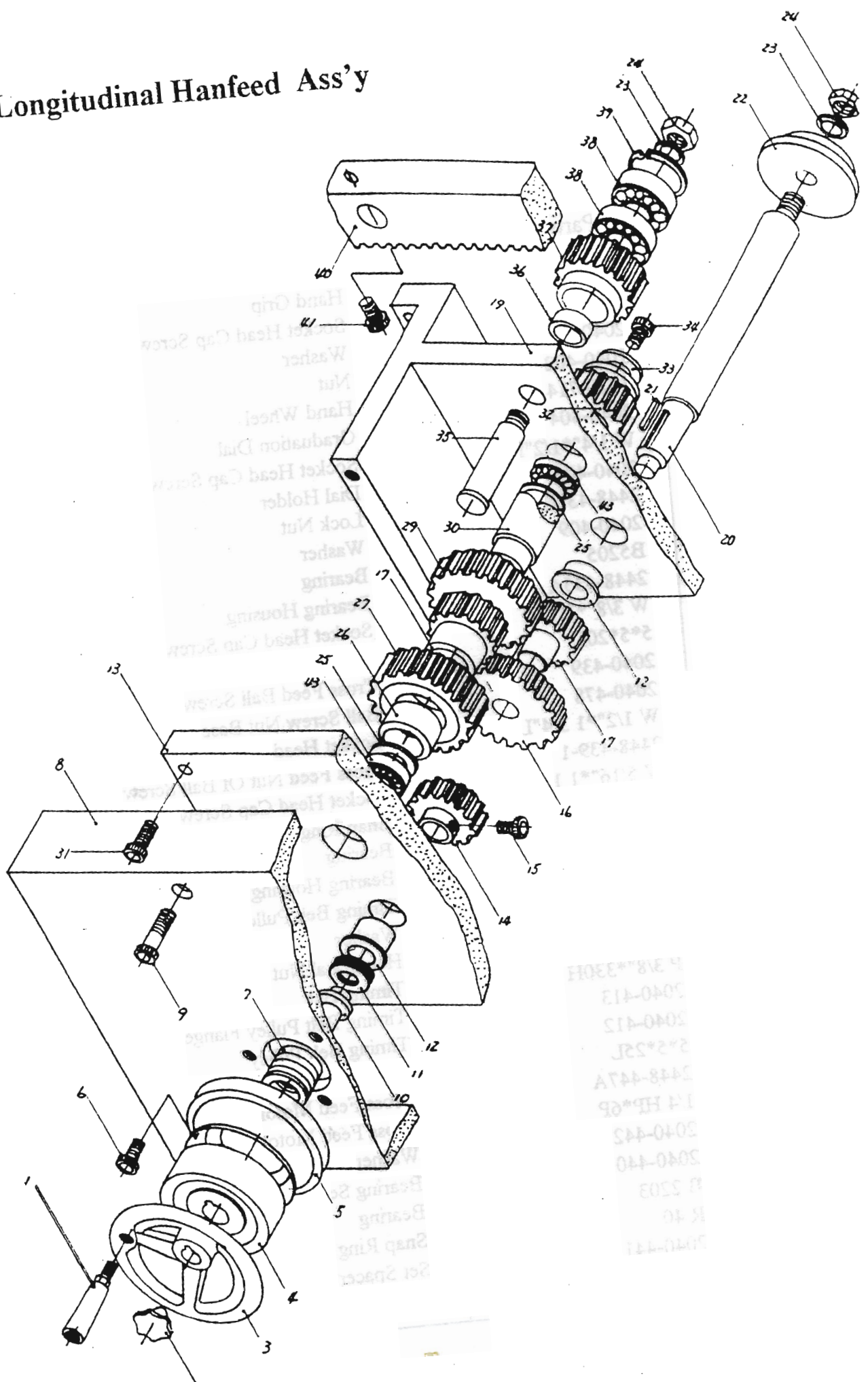


CROSS-FEED ASS'Y

(2448,2480 SERIES)

Index No.	Parts No.	Parts Name	Q'ty
1.	1020-728	Hand Grip	1
2.	W 1/4"*5/8"L	Socket Head Cap Screw	1
3.	2040-414	Washer	1
4.	2040-402	Nut	1
5.	1020-714	Hand Wheel	1
6.	2040-404	Graduation Dial	1
7.	W 1/4"*1/2"L	Socket Head Cap Screw	7
8.	2040-405	Dial Holder	1
13.	2448-432B	Lock Nut	1
14.	2040-409	Washer	1
15.	B5205	Bearing	1
17.	2448-435A	Bearing Housing	1
18.	W 3/8"*1"L	Socket Head Cap Screw	15
19.	5*5*20L	Key	1
20.	2040-439	Cross Feed Ball Screw	1
21.	2040-478	Ball Screw Nut Base	1
22.	W 1/2"*1 3/4"L	Socket Head Cap Screw	4
23.	2448-439-1	Cross Feed Nut Of Ball Screw	1
25.	W 5/16"*1 1/4"L	Socket Head Cap Screw	6
27.	R-52	Snap Ring	1
28.	B 1205Z	Bearing	1
29.	2448-443	Bearing Housing	1
30.	2040-411	Timing Belt Pulley	1
31.	W 1/2"	Washer	1
32.	W 1/2"	Hexagonal Nut	1
33.	P 3/8"*330H	Timing Belt	1
34.	2040-413	Timing Belt Pulley Flange	2
35.	2040-412	Timing Belt Pulley	1
36.	5*5*25L	Key	1
37.	2448-447A	Cross Feed Motor Fixed Plate	1
38.	1/4 HP*6P	Cross Feed Motor	1
39.	2040-442	Washer	1
40.	2040-440	Bearing Seat	1
41.	B 2203	Bearing	1
42.	R 40	Snap Ring	1
43.	2040-441	Set Spacer	1

Longitudinal Hanfeed Ass'y



LONGITUDINAL HANDFEED ASS'Y

(2448,2480 SERIES)

P. 1OF2

Index No.	Parts No.	Parts Name	Q'ty
1.	1020-728	Hand Grip	1
2.	1020-729	Cap Nut	1
3.	1020-714	Hand Wheel	1
4.	2040-521	Dial	1
5.	2040-523	Dial Holder	1
6.	W 1/4"*3/4"L	Socket Head Cap Screw	3
7.	2040-520	Spring	1
8.	2448-103	Base Plate	1
9.	W 5/16"*10"L	Socket Head Cap Screw	6
10.	2040-519	Sleeve	1
11.	NTB-2035	Needle Bearing	1
12.	2040-505	Bush	1
13.	2448-505	Gear Housing Plate	1
14.	2040-517	Gear	1
15.	W 1/4"*1/2"L	Set Screw	1
16.	2040-513	Gear	1
17.	2040-512	Gear	2
18.	-----	-----	-
19.	2448-504	Gear Housing Plate	1
20.	2448-506	Shaft	1
21.	5*5*40L	Key	1
22.	2040-516	Power Plate	1
23.	W 1/2"	Washer	2

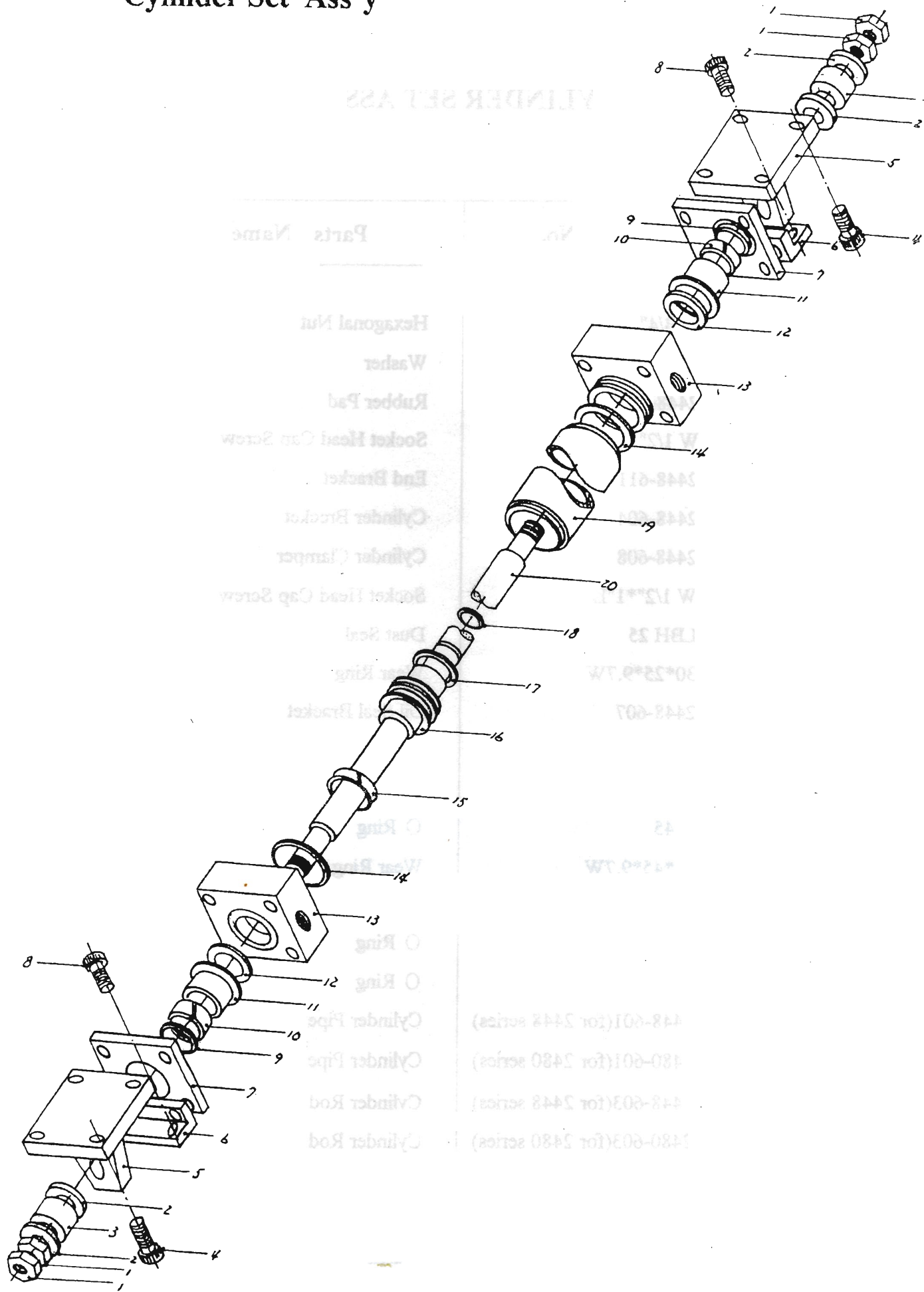
LONGITUDINAL HANDFEED ASS'Y

(2448,2480 SERIES)

P.2OF2

Index No.	Parts No.	Parts Name	Q'ty
24.	W 1/2"	Hexagonal Nut	2
25.	1020-N805	Spacer	2
26.	2040-514	Spacer	1
27.	2040-524	Gear	1
28.	-----	-----	-
29.	2040-511	Gear	1
30.	2040-515	Shaft	1
31.	W 5/16"*1"L	Socket Head Cap Screw	4
32.	2040-510	Gear	1
33.	W 1/4"	Washer	1
34.	W 1/4"*1/2"L	Socket Head Cap Screw	1
35.	2040-509	Shaft	1
36.	2040-508	Washer	1
37.	2040-507	Gear	1
38.	B6203Z	Bearing	2
39.	R-40	Snap Ring	1
40.	2448-114	Rack	1
41.	W 3/8"*1"L	Socket Head Cap Screw	3
42.	-----	-----	-
43.	B6003Z	Bearing	2

Cylinder Set Ass'y



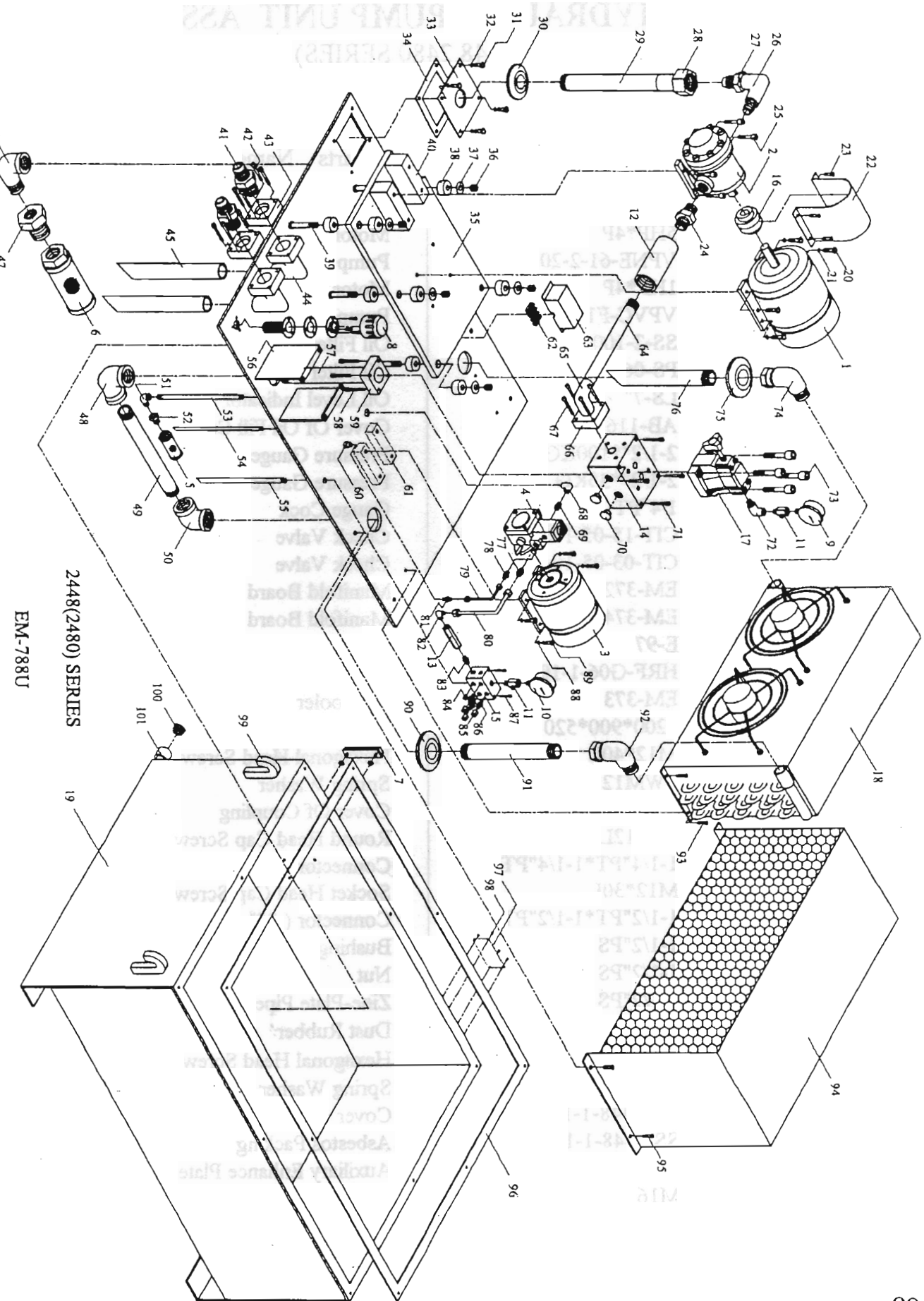
CYLINDER SET ASS'Y

(2448,2480 SERIES)

Index No.	Parts No.	Parts Name	Q'ty
1.	W 3/4"	Hexagonal Nut	4
2.	2448-610	Washer	4
3.	2448-609	Rubber Pad	2
4.	W 1/2"*1 1/2"L	Socket Head Cap Screw	8
5.	2448-611	End Bracket	2
6.	2448-604	Cylinder Brcket	2
7.	2448-608	Cylinder Clamper	2
8.	W 1/2"*1"L	Socket Head Cap Screw	4
9.	LBH 25	Dust Seal	2
10.	30*25*9.7W	Wear Ring	2
11.	2448-607	Oil Seal Bracket	2
12.	USH 25	U-Packing	2
13.	2448-602	End Cover	2
14.	G 45	O Ring	2
15.	50*45*9.7W	Wear Ring	1
16.	2448-605	Piston	1
17.	P 44	O Ring	1
18.	P 21	O Ring	1
19.	2448-601(for 2448 series)	Cylinder Pipe	1
	2480-601(for 2480 series)	Cylinder Pipe	1
20.	2448-603(for 2448 series)	Cylinder Rod	1
	2480-603(for 2480 series)	Cylinder Rod	1

Op2448e1

Hydraulic Pump Unit Ass'y



2448(2480) SERIES

EM-788U

HYDRAULIC PUMP UNIT ASS'Y

(2448,2480 SERIES)

P. 1OF3

Index No.	Parts No.	Parts Name	Q'ty
1.	5HP*4P	Motor	1
2.	VPNE-61-2-20	Pump	1
3.	1HP*4P	Motor	1
4.	VPVC-F12-A2-02	Pump	1
5.	SS-2-100	Oil Filter	1
6.	PS-06	Oil Filter	1
7.	LS-7"	Oil Level Indicator	1
8.	AB-1163	Cover Of Oil Fill Cover	1
9.	2-1/2"*100KG	Pressure Gauge	1
10.	2-1/2"*35KG	Pressure Gauge	1
11.	1/4"PT	Gauge Cock	2
12.	CIT-15-05-10	Check Valve	1
13.	CIT-03-05-10	Check Valve	1
14.	EM-372	Manifold Board	1
15.	EM-374	Manifold Board	1
16.	E-97	Coupling	1
17.	HRF-G06-1-10	Relief	1
18.	EM-373	Oil Cooler	1
19.	1200*900*520	Tank	1
20.	M12*40L	Hexagonal Head Screw	4
21.	SWM12	Spring Washer	4
22.		Cover Of Coupling	1
23.	M5*12L	Round Head Cap Screw	4
24.	1-1/4"PT*1-1/4"PT	Connector	1
25.	M12*30L	Socket Head Cap Screw	4
26.	1-1/2"PT*1-1/2"PT	Connector (90°)	1
27.	1-1/2"PS	Bushing	1
28.	1-1/2"PS	Nut	1
29.	1-1/2"PS	Zinc-Plate Pipe	1
30.	ST-12	Dust Rubber	1
31.	M8*20L	Hexagonal Head Screw	4
32.	SWM8	Spring Washer	4
33.	CP-2448-1-1	Cover	1
34.	SS-2448-1-1	Asbestos Packing	1
35.		Auxiliary Enhance Plate	1
36.	M16	Nut	12

HYDRAULIC PUMP UNIT ASS'Y

(2448,2480 SERIES)

P.20F3

Index No.	Parts No.	Parts Name	Q'ty
37.	WM16	Washer	6
38.	φ 50* φ 16*25H	Rubber Pad	12
39.	M16*110L	Hexagonal Head Screw	6
40.	EM-375	Plate Pad	2
41.	1-1/4"PT*1-1/4PH	Asbestos Packing	2
42.	M12*45L	Round Head Screw	8
43.	1-1/4" with Oring-G40	Flange	2
44.	1-1/4"PT*1-1/4PT"	Connector	2
45.	1-1/4"PT*300L(Slope)	Zine-Plate Pipe	2
46.	1-1/2"PT(F)*1-1/2PT"(M)	Connector (90°)	1
47.	1-1/2"PT(F)*2PT"(M)	Bushing	1
48.	1"PT*1"PT	Connector	1
49.	1"PT	Zine-Plate Pipe	1
50.	1"PT*1"PT	Connector	1
51.	1/2"PT(F)*1/2PT"(M)	Connector (90°)	1
52.	1/2"PT(F)*3/4PT"(M)	Bushing	1
53.	1/2"PT*1/2"PT	Zine-Plate Pipe	1
54.	1/4"PT*300L(slope)	Zine-Plate Pipe	1
55.	3/8"PT*300L(slope)	Zine-Plate Pipe	1
56.	2448-HP1	Holding Plate	2
57.	1"PT	Zine-Plate Pipe	1
58.	M12*45L	Round Head Socket Cap Screw	4
59.	1-1/4" with Oring-G40	Flange	1
60.	1/4"PT*1/4"PT	Socket	1
61.	2448-MP1	Pad Of Motor	2
62.	SJT-15-3P	Terminal broad	1
63.	2448-TB1	Cover Of Terminal broad	1
64.	1-1/4"PT	Steel Pipe	1
65.		90° Pipe	1
66.	1-1/4" with Oring-G40	Flange	1
67.	M12*45L	Round Head Socket Cap Screw	4
68.	1/2"PT(F)*1/2"PT(F)	Connector (90°)	1
69.	1/2"PT*1/2"PT	Connector	1
70.	1"PT	PT Plug	2
71.	M8*110L	Round Head Socket Cap Screw	4
72.	1/2"PT(F)*1/2"PT(M)	Connector (90°)	1

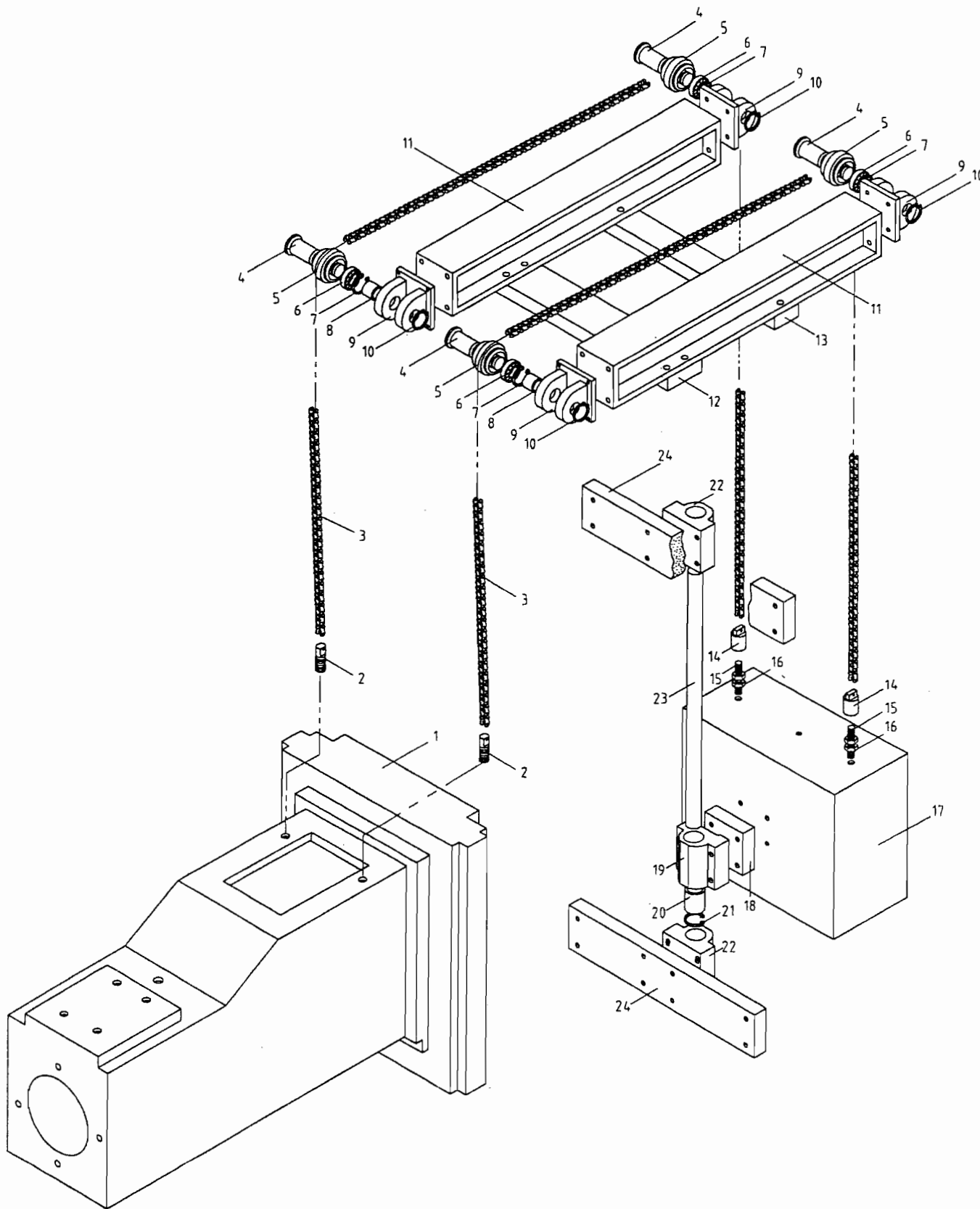
HYDRAULIC PUMP UNIT ASS'Y

(2448,2480 SERIES)

P.3OF3

Index No.	Parts No.	Parts Name	Q'ty
73.	M16*50L	Universal Connector (90°)	1
74.	1"PT(M)*1"PS(F)	Round Head Socket Cap Screw	4
75.	ST-08	Dust-Rubber	1
76.	1"PT*300L(Slope)	Zinc-Plate Pipe	1
77.	3/4"PT* ϕ 22mm	LE Connector (90°)	1
78.	1/4"PT* ϕ 5/16 "	LE Copper Connector	1
79.	ϕ 5/16"	Copper Pipe	1
80.	ϕ 12	Zinc-Plate Pipe	1
81.	1/4"PT* ϕ 5/16 "	LE Copper Connector	1
82.	3/8"PT* ϕ 12	LE Connector (90°)	1
83.	3/8"PT*1/4"PT	Connector	1
84.	1/4"PT	PT Plug	1
85.	1/4"PS	Plug Screw	3
86.	1/4"PT*1/4"PS	Connector	3
87.	M5*65L	Socket Head Cap Screw	2
88.	SWM8	Spring washer	4
89.	M8*20L	Hexagonal Head Screw	4
90.	ST-08	Dust Rubber	1
91.	1"PT	Zinc-Plate Pipe	1
92.	1"PT(F)*1"PS(M)	Universal Connector (90°)	1
93.	M5*12L	PT Plug	4
94.	2448C1	Cover Of Cooler	1
95.	M5*12L	Round head Screw	4
96.	2448-AP1	Asbestos Packing	1
97.	2448-NP1	Name Plate	1
98.	ϕ 2.5mm	Rivet	4
99.	2448-HB	Hang Bar	4
100.	1/2PT"	PT Plug	1
101.	1/2PT"	Socket	1

BALANCE STRUCTURE ASS'Y



BALANCE STRUCTURE ASS'Y

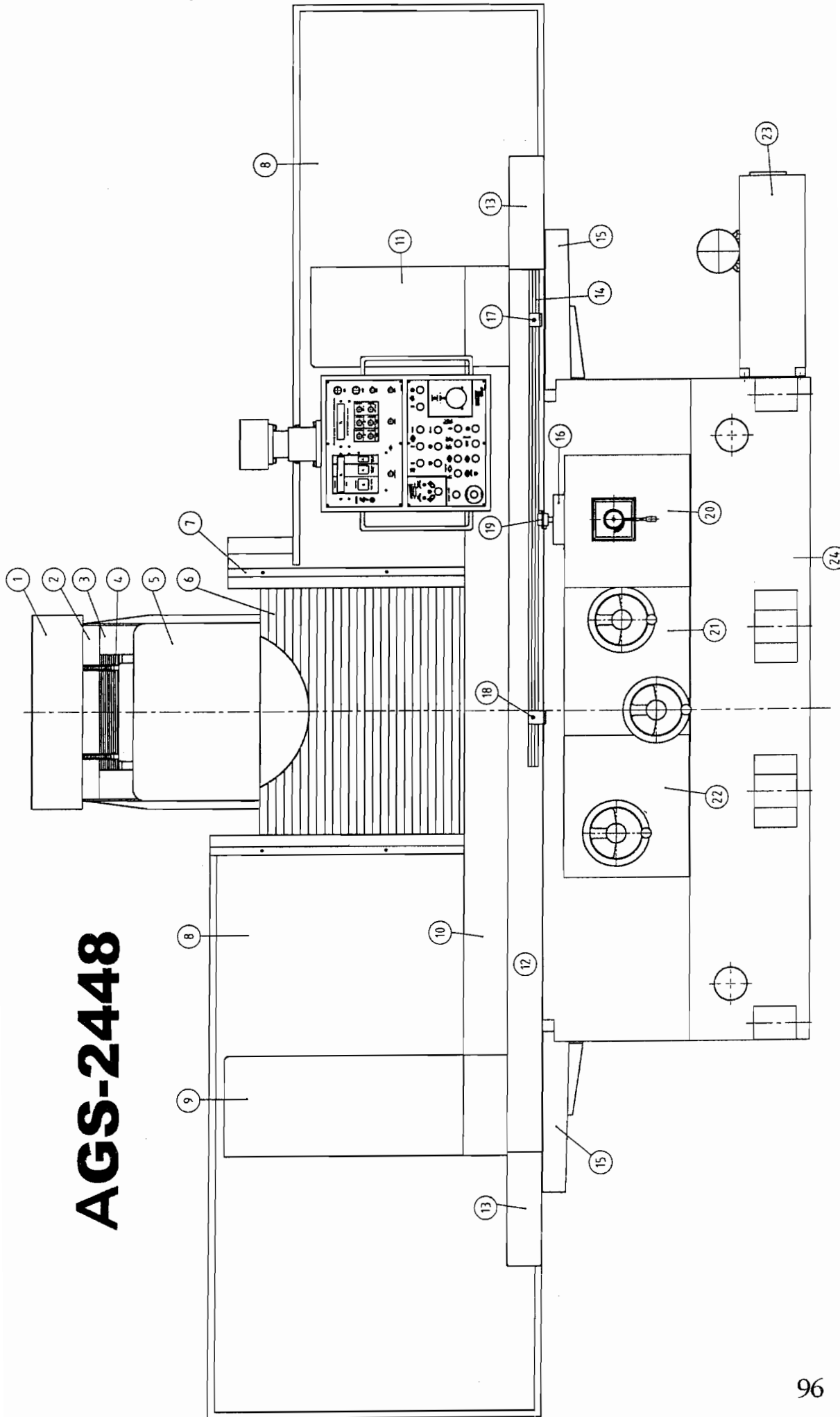
(2448,2480 SERIES)

Index No.	Parts No.	Parts Name	Q'ty
1.	2448-101	Spindle seat	1
2.	2448-347	Chain Link	8
3.	φ 5/8"	Chain wire	4
4.	2448-348	Shaft Of Chain Sproket Wheel	1
5.	2448-349	Chain Sproket Wheel	1
6.	6003ZZ	Bearing	1
7.	R35	Snap Ring	8
8.	2448-350	Washer	1
9.	2448-341	Base Of Chain Sproket Wheel	2
10.	S17	Snap Ring	2
11.	2448-340	Supporting Frame	3
12.	2448-314	Supporting Plate	3
13.	2448-353	Supporting Plate	6
14.	2448-345	Chain Link	2
15.	2448-346	Adjusting Screw	28
16.	5/8"	Nut	1
17.	2448-351	Balance Block	1
18.	2448-360	Pad Of Balance Block	2
19.	2448-343	Guide Base Of Balance Block	1
20.	2448-359	Bush	2
21.	R47	Snap Ring	1
22.	2448-342	Base Of Guide Bar	5
23.	2448-244	Guide Bar	1
24.	2448-354	Fixed Plate	2

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AGS 2448 FRONT CASTING STRUCTURE

AGS-2448

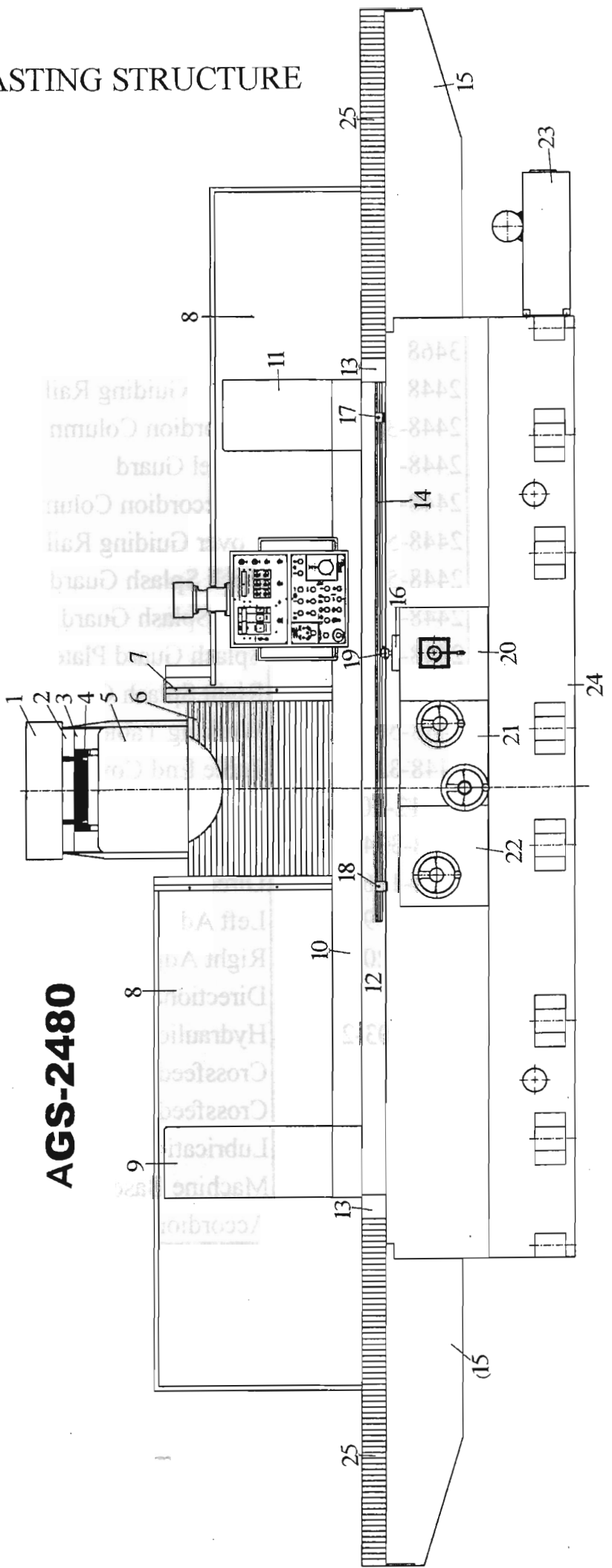


AGS 2448 FRONT CASTING STRUCTURE

Index No.	Parts No.	Parts Name	Q'ty
1	2448-358	Cover for Balancing Assembly	1set
2	3468-366	Upper Column Locating Plate	1
3	2448-368	Cover Guiding Rail	2
4	2448-367	Accordion Column Cover	1
5	2448-303	Wheel Guard	1
6	2448-537	L-Accordion Column Cover	1
7	2448-536	Cover Guiding Rail	2
8	2448-526	Back Splash Guard Plate	1 set
9	2448-106	Left Splash Guard	1
10	2448-108	Splash Guard Plate	1
11	2448-107	Right Splash Guard	1
12	2448-501	Working Table	1
13	2448-503	Table End Cover	2
14	T1512-307	Table Dog Guide Rail	1
15	2448-113A	Lower Table Cover	2
16	2448-116	Direction Control Valve Cover	1
17	2448-119	Left Adjusting Dog	1
18	2448-120	Right Adjusting Dog	1
19	1020-616	Directional Control Valve	1
20	2448-103-2	Hydraulic Valve Cover	1
21	2448-103-1	Crossfeed Front Cover	1
22	2448-103-1	Crossfeed Front Cover	1
23	2448-132	Lubrication Tank	1
24	2448-101	Machine Base	1

8445-20A

AGS 2480 FRONT CASTING STRUCTURE



AGS-2480

AGS 2480 FRONT CASTING STRUCTURE

Index No.	Parts No.	Parts Name	Q'ty
1	2448-358	Cover for Balancing Assembly	1 set
2	3468-366	Upper Column Locating Plate	1
3	2448-368	Cover Guiding Rail	2
4	2448-367	Accordion Column Cover	1
5	2448-303	Wheel Guard	1
6	2448-537	L-Accordion Column Cover	1
7	2448-536	Cover Guiding Rail	2
8	2448-526	Back Splash Guard Plate	1 set
9	2448-106	Left Splash Guard	1
10	2448-108	Splash Guard Plate	1
11	2448-107	Right Splash Guard	1
12	2448-501	Working Table	1
13	2448-333	Table End Cover Plate	2
14	T1512-307	Table Dog Guide Rail	1
15	2448-334	Lower Accordion Cover Support	2
16	2448-116	Direction Control Valve Cover	1
17	2448-119	Left Adjusting Dog	1
18	2448-120	Right Adjusting Dog	1
19	1020-616	Directional Control Valve	1
20	2448-103-2	Hydraulic Valve Cover	1
21	2448-103-1	Crossfeed Front Cover	1
22	2448-103-1	Crossfeed Front Cover	1
23	2448-132	Lubrication Tank	1
24	2480-101	Machine Base	1
25	2448-331A	Accordion Way Cover	2