

**FUNK  
MANUFACTURING  
COMPANY**



# PARTS LIST

SPEC Y/Z 16254 MODEL c/s DF1544R00WA

# FUNK MANUFACTURING

This parts list is divided into two sections, which are Bill of Material and drawing documents. The drawings are listed either in build level sequence directly associated to B/M levels or in alpha-numerical order. The drawing documents can be found in the back of the parts book following the B/M.

The B/M represents the stage or levels at which the transmission is assembled. These levels also refer to the reference numbers on the supporting drawings.

The drawings which support these build levels can be found in the information narrative on the right side of the B/M. The drawing will be listed as "asm per" followed by a drawing number, or if it uses the drawing number of the component part number it will be listed as a "drawing" in the narrative. When the word "drawing" appears in the information narrative, you will only find a drawing in the book if the component parts are serviceable.

To determine the part number of the required part, look through the drawings and locate the part needed. Then note the drawing number in the lower right hand corner and the reference number of the particular part required. Now go to the B/M listing and find that drawing number appears in the "asm per" narrative or in the component part column when "drawing" is used as the narrative. Now the part number can be determined by dropping down to the next build level and matching the reference number noted from the drawing with the right hand portion of the reference number on the Bill of Material.

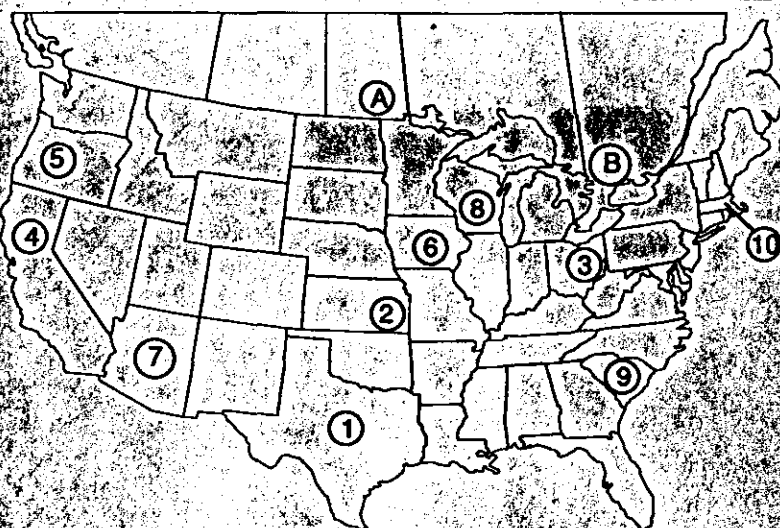
## EXAMPLE:

|       |             |         |                           |       |
|-------|-------------|---------|---------------------------|-------|
| 1     | (1st level) | XXXXXXX | ASM FRT CVR SERV          | 1.00  |
|       |             |         | **ASM PER XXXXXXXX        |       |
| 1-1   | (2nd level) | XXXXXXX | ASM FRT CVR SERV          | 1.00  |
|       |             |         | REPL XXXXX FOR SERV.      |       |
|       |             |         | **ASM PER XXXXXXXX        |       |
|       |             |         | N/A XXXXX & XXXXX SEL     |       |
| 1-1-1 | (3rd level) | XXXXXXX | CVR.FRT ASM SERV          | 1.00  |
|       |             |         | REPL XXXXX FOR SERV.      |       |
|       |             |         | **ASM PER XXXXXXXX        |       |
|       |             |         | N/A XXXXX & XXXXX SEL     |       |
|       |             |         | (NON SERVICEABLE DETAILS) |       |
| 1-1-2 | (3rd level) | XXXXXXX | SEAL RING                 | 1.00  |
| 1-1-3 | (3rd level) | XXXXXXX | COVER, OIL PASSAGE        | 1.00  |
| 1-1-4 | (3rd level) | XXXXXXX | CAPSCREW                  | 3.00  |
| 1-1-5 | (3rd level) | XXXXXXX | ASM, VLV CONV             | 1.00  |
|       |             |         | DRAWING (NON SERVICEABLE  |       |
|       |             |         | DETAILS ASM DWG NOT INCL) |       |
| 1-1-6 | (3rd level) | XXXXXXX | PLUG PIPE                 | 1.00  |
| 3     | (1st level) | XXXXXXX | CONV. ASM 12.75           | 1.00  |
|       |             |         | **DRAWING                 |       |
| 3-1   | (2nd level) | XXXXXXX | IMPELLER CONVERTER        | 1.00  |
| 3-2   | (2nd level) | XXXXXXX | HUB, IMPELLER             | 1.00  |
| 3-3   | (2nd level) | XXXXXXX | O RING                    | 1.00  |
| 3-4   | (2nd level) | XXXXXXX | CAPSCREW                  | 12.00 |

\*\* SUPPORT DRAWING



# **NORTH AMERICAN PUMP DRIVE DISTRIBUTORS**



## **1. CIA MACHINERY INC.**

3199 West Danieldale St.  
Lancaster, TX 75134  
Phone # 972-224-5501 or 800-527-6406  
Fax # 972-224-8204  
Gary Brewer  
Steve Simpson  
Jesse Roberson  
Ricki Roberson

## **2. DARWIN INDUSTRIES, INC**

P. O. Box 251  
Coffeyville, Ks 67337  
Phone # 316-251-8438 or 800-447-2456  
Fax # 316-251-8493  
Steve Pitts  
Cary Pitts  
Giles Penick

## **3. HEARTLAND ENGINE COMPANY**

884 Medina Road  
Medina, Ohio 44256  
Phone # 330-239-2242  
Fax # 330-239-2672  
Al Milton  
Greg File  
Kevin Draper

## **4. HYDRAULIC CONTROLS. INC.**

3481 Industrial Drive  
Yuba City, CA 95993  
Phone # 916-674-0900  
Fax # 916-674-9779  
Butch Comer  
Jim Tingler

## **5. MILL LOG EQUIPMENT CO.**

90895 Roberts Rd. P.O. Box 8099  
Coburg OR 97408  
Phone # 541-485-2203  
Fax # 541-485-8452  
Doug Hoff  
Mark Mrdalj

## **6. NORTHSTAR POWER CO.**

700 SE Oralabor Rd. (Overnight delivery only)  
2302 S. E. Hulsizer Rd.  
Ankeny, IA 50021  
Phone # 515-964-6100  
Fax # 515-964-6119  
George Kline  
Tim Molloy

## **7. PALMER JOHNSON DIST., LLC**

600 West Grant Street  
Phoenix, AZ 85003  
Phone # 602-258-3481  
Fax # 602-257-8974  
Patrick J. Scott

## **8. SUPERIOR DIESEL**

1632 N. Stevens Street  
P.O. Box 1187  
Rhinelander, WI 54501  
Phone # 715-369-5900  
Fax # 715-369-5918  
Mark Willis  
Bryan Wendt

## **9. TRANSMISSION ENGINEERING CO.**

591 Bryant Blvd.  
Rock Hill, SC 29730  
Phone # 803-366-2850 or 800-767-1801  
Fax # 803-366-7128  
Tony Calhoun  
Harvey Eden

## **10. W.A. KRAFT CORP**

191 Wildwood Avenue  
P.O. Box 2189  
Woburn, MA 01888-0389  
Phone # 617-938-9100  
Fax # 617-933-7812  
Jay Kingsley

## **IN CANADA:**

### **A. DIESELTECH**

P.O. Box 1740  
100 Otter Street  
Winnipeg Manitoba  
Canada R3C 3A1  
Phone # 204-452-4334 or 800-665-7665  
Fax # 204-452-7984  
Greg Eastwood  
Keith Verhaeghe

### **B. C & R TRANSMISSION SERVICE L**

16 Laidlaw Boulevard  
Markham, Ontario Canada L3P 1W7  
Phone # 905-294-5357  
Fax # 905-294-5036  
Art Nicholson

## **PRODUCT SERVICE**

John Bowman - Supervisor  
Larry Anderson - Service Rep.  
Steve Owen - Service Rep.  
Bill Eck - Service Rep.

## **CUSTOMER SERVICE GROUP**

Jim Kneeder - Supervisor  
Sheryl Andrews - Secretary  
Sandra Lewis - Tech Writer  
Bill Tesh - Tech Writer

## **CUSTOMER SALES GROUP**

Pam Anderson - Cust. Service Rep. - (Int'l Coord. - Parts)  
Bill Jenkins - Cust. Service Rep. - (Parts)  
Joe Jabben - Cust. Service Rep. - (Int'l Coord. - Units)  
Ameda Shelton - Cust. Service Rep. - (Parts Coord.)  
Carol Van Buren - Cust. Service Rep. - (Units)  
Ken Keeler - Cust. Service Rep. - (Units)  
Chuck McFate - Cust. Service Rep. - (Pump Drives)

Funk Manufacturing Company, Coffeyville Kansas 1-800-844-1337  
or 316-252-3539, Fax: 316-252-3256



**FUNK  
POWER**

International Service Centers 06/97

**INTERNATIONAL SERVICE CENTERS**



**INTERNATIONAL SERVICE CENTERS**

**1. ASHLEY BENOIT & CO. PTY. LTD.**

Unit 6, 13 Hoyle Avenue  
P.O. Box 12  
Castle Hill NSW 2154  
Australia  
Phone # (61)-29634-3200  
Fax # (61)-29899-2313

Ashley Benoit  
Steve Robinson  
Greg Jones  
Dave Holloway

**2. ESCO EUGEN SCHMIDT UND CO**

GETRIEBE UND ANTRIEBSELEMENTE GMBH  
Postfach 1741 - 53827 Troisdorf  
Biberweg 10 - 53842 Troisdorf  
Germany  
Phone # 02241/4807-0

Fax # 02241-480710 und 403585  
Ralph Hyde - Unit Sales  
Helmut Scheidler - Parts & Service

**3. MITCHELL DIESEL LTD.**

Fulwood Road South  
Fulwood Industrial Estate  
Sutton-in-Ashfield  
Nottingham, U.K. NG172JZ  
Phone # (44)-1623-550550

Fax # (44)-1623-440988  
Jackie Crossland - Sales  
Richard Lowe - Service

**4. ESCO S.A. Transmissions**

Zone Industrielle  
Rue Ferme Saint-Ladre B.P. 23  
Saint Witz-F-95470 Fosses  
France  
Phone # (33)-13468-57-50  
Fax # (33)-13468-33-88

Trocheries

**5. POWER TORQUE PTY. LTD.**

P.O. Box 448  
Bergvlei Transvaal 2012  
South Africa  
Phone # (27)-11-786-4247  
Fax # (27)-11-440-1547  
Charles Davidson

In South America:

**6. TURBO SERVICES**

Alfredo R. Bufano  
2463 Capital Federal  
Buenos Aires, 1416, Argentina  
Phone # (011)-54-158-21326  
Fax # (011)-54-158-37377

English:

Pascual Napolitano  
Maximillion Rodriguez

Portuguese:

Jorge Rodriguez  
Ruben Bianco

**7. ESCOAANDRIJVINGEN B.V.**

ONDERNEMINGSWEG. 19  
2404 HM ALPHEN AAN DE RIJN  
The Netherlands  
Phone #172/43.64.54  
Fax #172/43.54.71

Herbert Hoeneveld

**8. ESCO TRANSMISSIONS SA**

CULLIGANLAAN, 3  
1831 DEIGEM  
Belgium  
Phone # 02/720.48.80  
Fax # 02/721.28.27  
Edy De Backer

**PRODUCT SERVICE**

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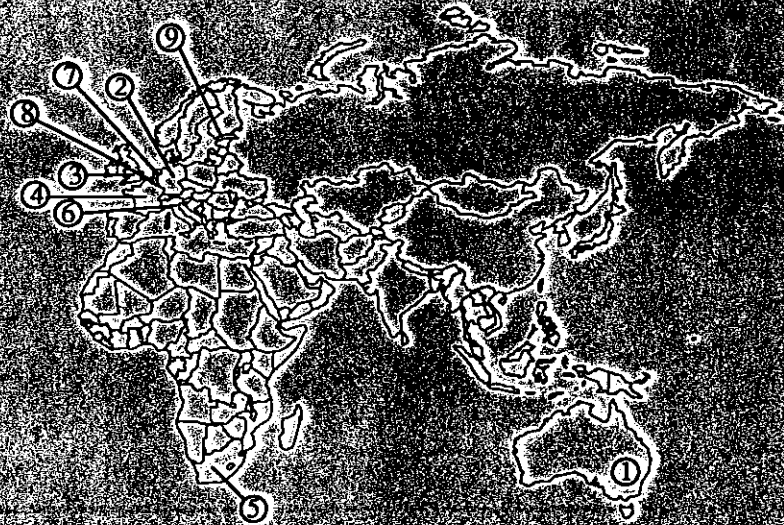
**CUSTOMER SALES GROUP**

Pam Anderson - Cust. Service Rep. - (Int'l Coord. - Parts)  
Bill Jenkins - Cust. Service Rep. - (Parts)  
Joe Jabben - Cust. Service Rep. - (Int'l Coord. - Units)  
Ameda Shelton - Cust. Service Rep. - (Parts Coord.)  
Carol Van Buren - Cust. Service Rep. - (Units)  
Ken Keeler - Cust. Service Rep. - (Units)  
Chuck McFate - Cust. Service Rep. - (Pump Drives)

INDUSTRIAL PARK, HWY 169 N., P.O. BOX 577, COFFEYVILLE, KANSAS 67337-0577  
1-800-844-1337, FAX: (316) 252-3252 FOR PARTS/UNIT SALES FAX: (316) 252-3253 FOR SERVICE



INTERNATIONAL DISTRIBUTORS



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Unit 6, 13 Hoyle Avenue  
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Jackie Crossland - Sales  
Richard Lowe - Service

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Rue Ferme Saint-Ladre B.P. 23  
Saint Witz F-95470 Fosses  
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P.O. Box 448  
Bergvlei Transvaal 2012  
South Africa  
Phone # (27)-11-786-4247  
Fax # (27)-11-440-1547  
Charles Davidson

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Fax # 0522 930 730  
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Lorenzo Ligabye - Service

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ONDERNEMINGSWEG, 19  
2404 HM ALPHEN AAN DE RIJN  
The Netherlands  
Phone # 172/43.64.54  
Fax # 172/43.54.71  
Herbert Hoeneveld

### 8. ESCO TRANSMISSIONS SA

CULLIGANLAAN, 3  
1831 DIEGEM  
Belgium  
Phone # 02/720.48.80  
Fax # 02/721.28.27  
Edy De Backer

### 9. DAVID BROWN HYDRAULICS FINLAND OY

SIRRIKUJA, 3  
SF-00949 HELSINKI  
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Phone # 09/34.94.522  
Fax # 09/34.94.677  
Jouke Mainola

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Ken Keeler - Cust. Service Rep. - (Units)  
Chuck McFate - Cust. Service Rep. - (Pump Drives)

INDUSTRIAL PARK, HWY 169 N., P.O. BOX 577, COFFEYVILLE, KANSAS 67337-0577  
1-800-844-1337, FAX: (316) 252-3256 FOR UNIT SALES FAX: (316) 252-3253 FOR SERVICE PARTS



## IN UNITED STATES:

### 1. CIA MACHINERY, INC.

3199 West Danielale St.  
Lancaster, TX 77614  
Phone # 972-224-5501 or 800-527-6406  
Fax # 972-224-8204

Gary Brewer  
Steve Simpson  
Jesse Robinson  
Ricky Robinson

### 2. DRIVE TRAIN INDUSTRIES

3301 Brighton Boulevard  
Denver CO 80217  
Phone # 303-292-1100 or 800-525-6177  
Fax # 303-297-0473

Tony Amersbach Ext. 280

### 3 GREAT LAKES POWER PRODUCTS

7455 Tyler Boulevard  
Mentor, OH 44060  
Phone # 216-951-5111  
Fax # 216-953-1052

Doug Frank  
Jeff Gallagher

### 4 GREAT LAKES POWER PRODUCTS

2006 Tobacal Court  
Warren, MI 48091  
Phone # 810-759-5500  
Fax # 810-759-0879

Tim Ertel  
Julie Burkart

### 5. GREAT LAKES POWER PRODUCTS

4740 Devitt Drive  
Cincinnati, OH 45246  
Phone # 513-874-4707  
Fax # 513-874-4577

Kevin Hammons  
Todd Lynch

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340 Bamar Drive  
Pittsburgh, PA 15205  
Phone # 412-937-0076  
Fax # 412-937-0081

Brian Frank  
Diane Sieberg

### 7. GREAT LAKES POWER PRODUCTS

5727 Old Boonville Hwy.  
Evansville, IN 47715  
Phone # 812-471-3808  
Fax # 812-471-3809

John Metzger  
Ron Boorman

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31-40 Whitestone Expressway  
Flushing N.Y. 11354  
Phone # 718-961-9666  
Fax # 718-762-7876

Arnie Castka  
Carl Orza

### 9. HEAVY DUTY INDUSTRIAL PARTS

1717 Kopper Road P.O. Box 965  
Conley, GA 30288  
Phone # 404-366-0464 or 800-282-0996  
Fax # 404-363-6205

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David West  
David Williams

### 10. HEAVY DUTY INDUSTRIAL PARTS

207 West Blvd  
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Phone # 800-346-2516 or 334-264-2573  
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Kenneth Jackson

### 11. LEAMAN EQUIPMENT CO.

16550 Railroad Ave. (L.)  
Morgan Hill CA 95037  
Phone # 408-778-9677  
Fax # 408-778-9646

Bill Leaman

### 12. MILL LOG EQUIPMENT

60865 Roberts Rd. P.O. Box 8090  
Coburg OR 97408  
Phone # 541-485-2203  
Fax # 541-485-8452

Doug Hoff  
Mark Mridal

### 13. MILL LOG MARINE, INC.

18547 E. Valley Hwy  
Kent, WA 98032  
Phone # 206-251-3434  
Fax # 206-251-3430

Danny Salas  
Larry Peardue

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Phone # 405-949-1393  
Fax # 405-949-0147

Larry McMasters  
Wade Lokey

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Lenexa, KS 66215  
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Fax # 913-492-6320

Ed Hardesty  
Steve Sorg

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Phone # 630-250-0370  
Fax # 630-250-0397

Bill Reidy  
Jim Neilson

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Fax # 612-770-9111

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Jeff Golaski

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Tom Mahaffey

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Fax # 314-677-1003

Bill Hamelback  
Rich Theiss  
Eric Quinn

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N. Little Rock AR 72117  
Phone # 501-945-0242  
Fax # 501-945-0366

Mike Micheli  
James Smith

### 21. PITTS ENGINE & TRANSMISSION, INC

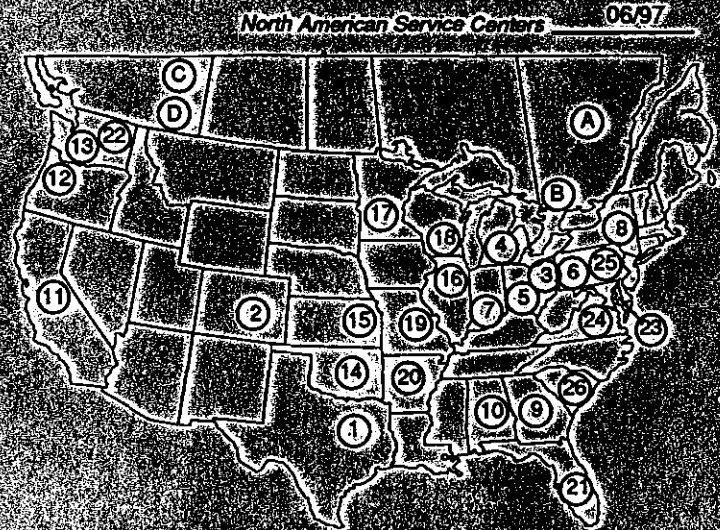
7390 N.W. 43rd Street  
Miami, FL 33166  
Phone # 305-592-6540 or 800-541-2085  
Fax # 305-477-6639

Cary Pitts  
Steve Owensby

### 22. TORQUE-A-MATIC IND. ENG. & TRANS.

12822 E. Indiana P.O. Box 14106  
Spokane, WA 99214  
Phone # 509-928-0535  
Fax # 509-928-0539

Virgil Earls



### 23. TRANSMISSION ENGINEERING CO.

7120 Golden Ring Rd. Bldg. 103  
Baltimore, MD 21221  
Phone # 410-682-4900 or 800-352-2323  
Fax # 410-687-1536

Dennis Cline

### 24. TRANSMISSION ENGINEERING CO.

2601E Trade Street  
Chesapeake, VA 23323  
Phone # 757-487-5462 or 800-257-4455  
Fax # 757-485-4155

George Arthur  
Dave Franclemont

### 25. TRANSMISSION ENGINEERING CO.

1851 North Penn Road P. O. Box 580  
Hatfield, PA 19440  
Phone # 215-822-6737 or 800-521-3285  
Fax # 215-822-5608

Mark McDonnell  
Craig Thomas

### 26. TRANSMISSION ENGINEERING CO.

591 Bryant Blvd.  
Rock Hill, South Carolina 29732  
Phone # 803-366-2850 or 800-767-1801  
Fax # 803-366-7128

Dale Drew  
Allen Smith

## IN CANADA:

### A. ARBROEC PARTS CANADA LTD.

17755 La Pointe  
Mirabel Quebec Canada J7J 1P3  
Phone # 514-434-1992  
Fax # 514-434-4968

Robert Samany

### B. C & R TRANSMISSION SERVICE LTD.

16 Laidlaw Boulevard  
Markham, Ontario Canada L3P 1W7  
Phone # 905-294-5357  
Fax # 905-294-5036

Art Nicholson

### C. THE GEAR CENTRE

14811-116 Ave. (Also for BC Service)  
Edmonton, Alberta Canada T5M 3E8  
Phone # 403-452-6933 or 800-661-8825  
Fax # 403-455-8612

Bill Moffat  
Richard Enders

### D. THE GEAR CENTRE

7170 Blackfoot Trail S.E.  
Calgary, AB Canada T2H 2T4  
Phone # 403-252-3880 or 800-661-1378  
Fax # 403-252-6308

Trevor Webb  
Dave Leslie

## IN MEXICO:

### SISTEMAS MECANICOS E. HIDRAULICOS, S.A. DE C.V.

Lazaro Cardenas 580 - 202  
03400 Mexico, D.F.  
MEXICO  
Phone # 525-696-4546 525-696-7096 525-696-5048  
Fax # 525-579-4333  
Attn: Mr. Tiburcio Bastida

REPORT: B696A  
PRINTED: 06/27/97

MULTI- LEVEL REFERENCE BILL OF MATERIAL  
EFFECTIVE AS OF 06/27/97

PAGE 1

ITEM NUMBER.: YZ16254  
DESCRIPTION.: C/S DF1544R00WA

ENG. RELEASE NUMBER:  
ENG. RELEASE DATE.: 08/15/96

NARRATIVES: DF150 4/4, REMOTE MT.,12V ANALOG VALVES  
5.85 RATIO, 6C YOKE ON FRONT INPUT,  
7 C YOKES ON BOTH OUTPUTS WITH WET BRAKE  
ON REAR, ADS #1540  
SPECIAL FOR PETTIBONE

| REFERENCE NO. | COMPONENT ITEM | DESCRIPTION                                                                                                                                                               | QTY.  | U/M         | CHANGE NO. | CHANGE DATE | CH CD |
|---------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|------------|-------------|-------|
| *****         | *****          | *****                                                                                                                                                                     | ***** | *****       | *****      | *****       | ***** |
|               | YZ16254        | C/S DF1544R00WA                                                                                                                                                           | 1.000 |             |            |             |       |
| 0             | YZ16254A       | C/S DF1544R00WA                                                                                                                                                           | 1.000 | EA          |            | 08/15/96    | 1     |
|               |                | DF150 4/4, REMOTE MT.,12V ANALOG VALVES<br>5.85 RATIO, 6C YOKE ON FRONT INPUT,<br>7 C YOKES ON BOTH OUTPUTS WITH WET BRAKE<br>ON REAR, ADS #1540<br>SPECIAL FOR PETTIBONE |       |             |            |             |       |
| 0-1           | YZ102698       | GRP, REMOTE MT                                                                                                                                                            | 1.000 | EA A        |            | 08/15/96    | 1     |
|               |                | REMOTE MOUNT INPUT WITH 6C YOKE<br>USED ON DF150 OR DF250 TRANSMISSIONS<br>#* ASM PER YZ102765 DWG                                                                        |       |             |            |             |       |
| 0-1-0         | YZ102765       | DWG, REMOTE INP GRP                                                                                                                                                       | 1.000 | EA          |            | 02/29/96    | 1     |
| 0-1-1         | YZ102205       | RETAINER,REMOTE INP                                                                                                                                                       | 1.000 | EA B        |            | 06/23/93    | 1     |
| 0-1-2         | YZ101651       | YOKE, 6C                                                                                                                                                                  | 1.000 | EA /F1      |            | 06/23/93    | 1     |
| 0-1-3         | F37040326      | O RING ARPS26                                                                                                                                                             | 1.000 | EA          |            | 06/23/93    | 1     |
| 0-1-4         | YZ101601       | SHAFT, INPUT                                                                                                                                                              | 1.000 | EA /F1      |            | 06/23/93    | 1     |
| 0-1-5         | 19M7283        | CAPSCREW, 16X35MM                                                                                                                                                         | 1.000 | EA          |            | 06/23/93    | 1     |
| 0-1-6         | 4010464        | WA, YOKE                                                                                                                                                                  | 1.000 | EA H        |            | 06/23/93    | 1     |
| 0-1-7         | YZ102050       | OIL SEAL                                                                                                                                                                  | 1.000 | EA          |            | 06/23/93    | 1     |
| 0-1-8         | F39000354      | SNAP RING                                                                                                                                                                 | 1.000 | EA          |            | 06/23/93    | 1     |
| 0-1-9         | YZ102567       | GASKET, INPUT(REMOT                                                                                                                                                       | 1.000 | EA          |            | 06/23/93    | 1     |
|               |                | REPLACES YZ101650 FOR PROD AND SVC<br>ECN 930193                                                                                                                          |       |             |            |             |       |
| 0-1-10        | YZ101506       | RING,SEAL                                                                                                                                                                 | 1.000 | EA          |            | 06/23/93    | 1     |
| 0-1-11        | F40210         | BEARING                                                                                                                                                                   | 1.000 | EA          |            | 06/23/93    | 1     |
| 0-1-12        | 19M8403        | CAPSCREW,M8X75 10.9                                                                                                                                                       | 7.000 | EA          |            | 10/09/96    | 1     |
| 0-1-13        | 19M8470        | SCREW, HEX CAP 12X1                                                                                                                                                       | 4.000 | EA          |            | 06/23/93    | 1     |
| 0-4           | YZ101782       | GRP, GEAR RATIO                                                                                                                                                           | 1.000 | EA C 930976 |            | 08/15/96    | 1     |
|               |                | DF150 4/4, RATIO 5.85/.753 FORWARD AND<br>REVERSE<br>#* ASM PER YZ102868 DWG                                                                                              |       |             |            |             |       |
| 0-4-0         | YZ102868       | DWG, GEAR RATIO GRP                                                                                                                                                       | 1.000 | EA B        |            | 02/29/96    | 1     |
| 0-4-1         | YZ101783       | SHAFT 1ST STG ASM                                                                                                                                                         | 1.000 | EA C 930791 |            | 02/17/92    | 1     |
|               |                | #* ASM PER YZ101966 DWG.                                                                                                                                                  |       |             |            |             |       |
| 0-4-1-0       | YZ101966       | DWG, 1ST STG SHF AS                                                                                                                                                       | 1.000 | EA B        |            | 03/01/96    | 1     |
| 0-4-1-1       | YZ102757       | SHAFT, 1ST STAGE 27                                                                                                                                                       | 1.000 | EA A F1     |            | 09/28/93    | 1     |
| 0-4-1-2       | F40311         | BEARING                                                                                                                                                                   | 1.000 | EA          |            | 02/13/92    | 1     |
| 0-4-1-3       | YZ101506       | RING,SEAL                                                                                                                                                                 | 1.000 | EA          |            | 02/13/92    | 1     |
| 0-4-1-4       | F41310         | BEARING                                                                                                                                                                   | 1.000 | EA          |            | 07/30/92    | 1     |
| 0-4-1-5       | YZ101353       | PLUGET,10.3/.79                                                                                                                                                           | 1.000 | EA          |            | 02/13/92    | 1     |
| 0-4-1-6       | YZ101838       | GEAR, PIT                                                                                                                                                                 | 1.000 | EA /F1      |            | 03/18/92    | 1     |
| 0-4-2         | YZ101784       | CLU 2ND STG ASM                                                                                                                                                           | 1.000 | EA H 960536 |            | 02/17/92    | 1     |
|               |                | #* ASM PER YZ101974 DWG.                                                                                                                                                  |       |             |            |             |       |
| 0-4-2-0       | YZ101974       | DWG,2ND STG ASM                                                                                                                                                           | 1.000 | EA C        |            | 03/01/96    | 1     |

REPORT: B696A  
PRINTED: 06/27/97

MULTI- LEVEL REFERENCE BILL OF MATERIAL  
EFFECTIVE AS OF 06/27/97

PAGE 2

ITEM NUMBER.: YZ16254  
DESCRIPTION.: C/S DF1544R00WA

ENG. RELEASE NUMBER:  
ENG. RELEASE DATE.: 08/15/96

NARRATIVES: DF150 4/4, REMOTE MT., 12V ANALOG VALVES  
5.85 RATIO, 6C YOKE ON FRONT INPUT,  
7 C YOKES ON BOTH OUTPUTS WITH WET BRAKE  
ON REAR, ADS #1540  
SPECIAL FOR PETTIBONE

| REFERENCE NO. | COMPONENT ITEM | DESCRIPTION                           | QTY.   | U/M   | CHANGE NO. | CHANGE DATE | CH CD |
|---------------|----------------|---------------------------------------|--------|-------|------------|-------------|-------|
| *****         | *****          | *****                                 | *****  | ***** | *****      | *****       | ***** |
| 0-4-2-1       | YZ101659       | SHAFT, ASM 2ND/3RD                    | 1.000  | EA    | D /F1      | 02/13/92    | 1     |
| 0-4-2-2       | 4012376A       | SEAL, PISTON OUTER                    | 2.000  | EA    | J          | 10/06/97    | 2     |
|               |                | ## OBSOLETE                           |        |       |            |             |       |
|               |                | ## REPL BY YZ150119 FOR PROD AND SERV |        |       |            |             |       |
|               |                | ## EFF PER ECN 970142                 |        |       |            |             |       |
| 0-4-2-3       | F37020144      | O RING ARP144                         | 2.000  | EA    |            | 02/13/92    | 1     |
| 0-4-2-4       | 4008520        | PISTON, CLUTCH                        | 2.000  | EA    | C          | 02/13/92    | 1     |
| 0-4-2-5       | 4008521        | WASHER, LUBE SHUTOFF                  | 2.000  | EA    | H          | 02/13/92    | 1     |
| 0-4-2-6       | 4003725        | SPRING, CLU RET                       | 12.000 | EA    | L          | 02/13/92    | 1     |
| 0-4-2-7       | F81743         | RETAINING RING                        | 2.000  | EA    |            | 02/13/92    | 1     |
| 0-4-2-8       | 4009711        | RETAINER, SNAP RING                   | 2.000  | EA    | A          | 01/12/96    | 1     |
| 0-4-2-9       | 40121323       | PLATE CLUTCH SEP                      | 20.000 | EA    | H          | 02/13/92    | 1     |
| 0-4-2-10      | 4005523        | PLY CLU                               | 20.000 | EA    | G          | 02/13/92    | 1     |
| 0-4-2-11      | YZ100356       | RETAINER, CLUTCH PL                   | 2.000  | EA    | D          | 02/13/92    | 1     |
|               |                | ## REPLACED 4007044                   |        |       |            |             |       |
| 0-4-2-12      | YZ103040       | RING, SNAP                            | 2.000  | EA    | A          | 10/14/96    | 1     |
|               |                | ## REPLACES 4012383                   |        |       |            |             |       |
| 0-4-2-13      | YZ101716       | GEAR, CLU 2ND 47T                     | 1.000  | EA    | B /F2      | 02/17/92    | 1     |
| 0-4-2-14      | YZ101720       | GEAR, CLU 2ND 61T                     | 1.000  | EA    | C /F2      | 02/17/92    | 1     |
| 0-4-2-15      | YZ103454       | BEARING                               | 2.000  | EA    |            | 09/27/95    | 1     |
| 0-4-2-16      | F40210         | BEARING                               | 2.000  | EA    |            | 02/13/92    | 1     |
| 0-4-2-17      | F41310         | BEARING                               | 2.000  | EA    |            | 07/30/92    | 1     |
| 0-4-2-18      | F81676         | RETAINING RING                        | 2.000  | EA    |            | 10/20/96    | 1     |
| 0-4-2-19      | 40B1113        | SEAL RING                             | 3.000  | EA    | D          | 02/13/92    | 1     |
| 0-4-2-20      | F37030244G     | O RING ARP244                         | 2.000  | EA    |            | 01/09/96    | 1     |
| 0-4-3         | YZ101705       | CLU 3RD STG ASM                       | 1.000  | EA    | H 960536   | 02/17/92    | 1     |
|               |                | ## ASM PER YZ101977 DWG.              |        |       |            |             |       |
| 0-4-3-0       | YZ101977       | DWG, 3RD STG ASM                      | 1.000  | EA    | B          | 03/01/96    | 1     |
| 0-4-3-1       | YZ101659       | SHAFT, ASM 2ND/3RD                    | 1.000  | EA    | D /F1      | 02/17/92    | 1     |
| 0-4-3-2       | 4012376A       | SEAL, PISTON OUTER                    | 2.000  | EA    | J          | 10/06/97    | 2     |
|               |                | ## OBSOLETE                           |        |       |            |             |       |
|               |                | ## REPL BY YZ150119 FOR PROD AND SERV |        |       |            |             |       |
|               |                | ## EFF PER ECN 970142                 |        |       |            |             |       |
| 0-4-3-3       | F37020144      | O RING ARP144                         | 2.000  | EA    |            | 02/17/92    | 1     |
| 0-4-3-4       | 4008520        | PISTON, CLUTCH                        | 2.000  | EA    | C          | 02/17/92    | 1     |
| 0-4-3-5       | 4008521        | WASHER, LUBE SHUTOFF                  | 2.000  | EA    | H          | 02/17/92    | 1     |
| 0-4-3-6       | 4003725        | SPRING, CLU RET                       | 12.000 | EA    | L          | 02/17/92    | 1     |
| 0-4-3-7       | F81743         | RETAINING RING                        | 2.000  | EA    |            | 02/17/92    | 1     |
| 0-4-3-8       | 4009711        | RETAINER, SNAP RING                   | 2.000  | EA    | A          | 01/12/96    | 1     |
| 0-4-3-9       | 40121323       | PLATE CLUTCH SEP                      | 20.000 | EA    | H          | 02/17/92    | 1     |
| 0-4-3-10      | 4005523        | PLY CLU                               | 20.000 | EA    | G          | 02/17/92    | 1     |
| 0-4-3-11      | YZ100356       | RETAINER, CLUTCH PL                   | 2.000  | EA    | D          | 02/17/92    | 1     |
|               |                | ## REPLACED 4007044                   |        |       |            |             |       |
| 0-4-3-12      | YZ103040       | RING, SNAP                            | 2.000  | EA    | A          | 10/14/96    | 1     |

REPORT: B696A  
PRINTED: 06/27/97

MULTI- LEVEL REFERENCE BILL OF MATERIAL  
EFFECTIVE AS OF 06/27/97

PAGE 3

ITEM NUMBER.: YZ16254  
DESCRIPTION.: C/S DF1544R00WA

ENG. RELEASE NUMBER:  
ENG. RELEASE DATE.: 08/15/96

NARRATIVES: DF150 4/4, REMOTE MT., 12V ANALOG VALVES  
5.85 RATIO, 6C YOKE ON FRONT INPUT,  
7 C YOKES ON BOTH OUTPUTS WITH WET BRAKE  
ON REAR, ADS #1540  
SPECIAL FOR PETTIBONE

| REFERENCE NO. | COMPONENT ITEM | DESCRIPTION                            | QTY.   | U/M   | CHANGE NO. | CHANGE DATE | CH CD |
|---------------|----------------|----------------------------------------|--------|-------|------------|-------------|-------|
| *****         | *****          | *****                                  | *****  | ***** | *****      | *****       | *     |
|               |                | ##* REPLACES 4012383                   |        |       |            |             |       |
| 0-4-3-13      | YZ101717       | GEAR, CLU 3RD 47T                      | 1.000  | EA    | C /F2      | 02/17/92    | 1     |
| 0-4-3-14      | YZ101721       | GEAR, CLU 3RD 61T                      | 1.000  | EA    | C /F2      | 02/17/92    | 1     |
| 0-4-3-15      | YZ103454       | BEARING                                | 2.000  | EA    |            | 09/27/95    | 1     |
| 0-4-3-16      | F40210         | BEARING                                | 2.000  | EA    |            | 02/17/92    | 1     |
| 0-4-3-17      | F41310         | BEARING                                | 2.000  | EA    |            | 07/30/92    | 1     |
| 0-4-3-18      | F81696         | RETAINING RING                         | 2.000  | EA    |            | 10/20/96    | 1     |
| 0-4-3-19      | 40B1113        | SEAL RING                              | 3.000  | EA    | D          | 02/17/92    | 1     |
| 0-4-3-20      | F37030244G     | O RING ARP244                          | 2.000  | EA    |            | 01/09/96    | 1     |
| 0-4-4         | YZ101786       | CLU 4TH STG ASM                        | 1.000  | EA    | J 960536   | 02/17/92    | 1     |
|               |                | ##* ASM PER YZ101976 DWG.              |        |       |            |             |       |
| 0-4-4-0       | YZ101976       | DWG, 4TH STG ASM                       | 1.000  | EA    | B          | 03/01/96    | 1     |
| 0-4-4-1       | YZ101663       | SHAFT, ASM 4TH & 5T                    | 1.000  | EA    | D /F1      | 02/17/92    | 1     |
| 0-4-4-2       | 4012376A       | SEAL, PISTON OUTER                     | 2.000  | EA    | J          | 10/06/97    | 2     |
|               |                | ##* OBSOLETE                           |        |       |            |             |       |
|               |                | ##* REPL BY YZ150119 FOR PROD AND SERV |        |       |            |             |       |
|               |                | ##* EFF PER ECN 970142                 |        |       |            |             |       |
| 0-4-4-3       | F37020144      | O RING ARP144                          | 2.000  | EA    |            | 02/17/92    | 1     |
| 0-4-4-4       | 4003520        | PISTON, CLUTCH                         | 2.000  | EA    | C          | 02/17/92    | 1     |
| 0-4-4-5       | 4008521        | WASHER, LUBE SHUTOFF                   | 2.000  | EA    | H          | 02/17/92    | 1     |
| 0-4-4-6       | 4003725        | SPRING, CLU RET                        | 12.000 | EA    | L          | 02/17/92    | 1     |
| 0-4-4-7       | F81743         | RETAINING RING                         | 2.000  | EA    |            | 02/17/92    | 1     |
| 0-4-4-8       | 4009711        | RETAINER, SNAP RING                    | 2.000  | EA    | A          | 01/12/96    | 1     |
| 0-4-4-9       | 40121323       | PLATE CLUTCH SEP                       | 20.000 | EA    | H          | 02/17/92    | 1     |
| 0-4-4-10      | 4005523        | PLT CLU                                | 20.000 | EA    | G          | 02/17/92    | 1     |
| 0-4-4-11      | YZ100356       | RETAINER, CLUTCH PL                    | 2.000  | EA    | D          | 02/17/92    | 1     |
|               |                | ##* REPLACED 4007044                   |        |       |            |             |       |
| 0-4-4-12      | YZ103040       | RING, SNAP                             | 2.000  | EA    | A          | 10/14/96    | 1     |
|               |                | ##* REPLACES 4012383                   |        |       |            |             |       |
| 0-4-4-13      | YZ101775       | GEAR, CLU 4TH 48T                      | 1.000  | EA    | D /F2      | 02/17/92    | 1     |
| 0-4-4-14      | YZ101742       | GEAR, CLU 4TH 33T                      | 1.000  | EA    | C /F2      | 02/17/92    | 1     |
| 0-4-4-15      | YZ103454       | BEARING                                | 2.000  | EA    |            | 09/27/95    | 1     |
| 0-4-4-16      | F40210         | BEARING                                | 2.000  | EA    |            | 02/17/92    | 1     |
| 0-4-4-17      | F81696         | RETAINING RING                         | 2.000  | EA    |            | 10/20/96    | 1     |
| 0-4-4-18      | F41310         | BEARING                                | 1.000  | EA    |            | 07/30/92    | 1     |
| 0-4-4-19      | F621310G       | BEARING                                | 1.000  | EA    |            | 06/21/96    | 1     |
| 0-4-4-20      | 40B1113        | SEAL RING                              | 3.000  | EA    | D          | 02/17/92    | 1     |
| 0-4-5         | YZ101787       | SHAFT 6TH STAGE ASM                    | 1.000  | EA    | C 920419   | 02/17/92    | 1     |
|               |                | ##* ASM PER YZ101973 DWG.              |        |       |            |             |       |
| 0-4-5-0       | YZ101973       | DWG, 6TH STG ASM                       | 1.000  | EA    | A          | 03/01/96    | 1     |
| 0-4-5-1       | YZ101681       | SHAFT, ASM 6TH STG                     | 1.000  | EA    | B /F4      | 02/17/92    | 1     |
|               |                | ASM HAS 25T, 33T, AND 55T GEARS        |        |       |            |             |       |
| 0-4-5-2       | F621310G       | BEARING                                | 1.000  | EA    |            | 06/21/96    | 1     |
| 0-4-5-3       | F41310         | BEARING                                | 1.000  | EA    |            | 08/10/92    | 1     |

ITEM NUMBER.: YZ16254 ENG. RELEASE NUMBER:  
 DESCRIPTION.: C/S DF1544R00WA ENG. RELEASE DATE.: 08/15/96

NARRATIVES: DF150 4/4, REMOTE MT., 12V ANALOG VALVES  
 5.85 RATIO, 3C YOKE ON FRONT INPUT,  
 7 C YOKES ON BOTH OUTPUTS WITH WET BRAKE  
 ON REAR, AOS #1540  
 SPECIAL FOR PETTIBONE

| REFERENCE NO. | COMPONENT ITEM | DESCRIPTION                                                                                                                                     | QTY.   | U/M | CHANGE NO. | CHANGE DATE | CH CO |
|---------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----|------------|-------------|-------|
| 0-5           | YZ103684       | OUTPUT GRP                                                                                                                                      | 1.000  | EA  | B 960317   | 08/15/96    | 1     |
|               |                | DF150 WITH WET BRAKE, 59T GEAR WITH STANDARD YOKE ON BOTH INPUT AND OUTPUT SIDES. SUPPLIED WITH REMOTE BRAKE VALVE<br>#* ASM PER YZ102620 DWG ✓ |        |     |            |             |       |
| 0-5-0         | YZ102620       | DWG, OUTPUT GRP                                                                                                                                 | 1.000  | EA  | D          | 03/06/96    | 1     |
| 0-5-1         | YZ102954       | ASM, SHAFT OUTPUT                                                                                                                               | 1.000  | EA  |            | 11/21/95    | 1     |
|               |                | 59T OUTPUT SHAFT AND GEAR FOR DF150 WITH WET BRAKE.                                                                                             |        |     |            |             |       |
| 0-5-4         | 4003626        | BRG CONE                                                                                                                                        | 2.000  | EA  |            | 11/21/95    | 1     |
| 0-5-5         | YZ101914       | ASM, WET BRAKE                                                                                                                                  | 1.000  | EA  |            | 11/21/95    | 1     |
|               |                | #* ASM PER YZ101953 DWG ✓                                                                                                                       |        |     |            |             |       |
| 0-5-5-0       | YZ101953       | DWG, WET BRAKE ASM                                                                                                                              | 1.000  | EA  |            | 02/15/96    | 1     |
| 0-5-5-1       | YZ101682       | COVER                                                                                                                                           | 1.000  | EA  | A          | 04/02/92    | 1     |
| 0-5-5-2       | YZ101341       | HOUSING, BRAKE                                                                                                                                  | 1.000  | EA  | B /F3      | 04/02/92    | 1     |
| 0-5-5-3       | YZ101343       | PISTON, BRAKE                                                                                                                                   | 1.000  | EA  | B          | 04/02/92    | 1     |
| 0-5-5-4       | YZ101119       | SPRING, BELLEVILLE                                                                                                                              | 2.000  | EA  |            | 04/02/92    | 1     |
| 0-5-5-5       | F37030275      | O RING ARP275                                                                                                                                   | 1.000  | EA  |            | 04/02/92    | 1     |
| 0-5-5-6       | YZ101349       | SEAL, PISTON OUTER                                                                                                                              | 1.000  | EA  | A          | 04/02/92    | 1     |
| 0-5-5-7       | YZ101350       | SEAL, PISTON INNER                                                                                                                              | 1.000  | EA  | B          | 04/02/92    | 1     |
| 0-5-5-8       | YZ100952       | PLATE, SEPERATOR                                                                                                                                | 9.000  | EA  | A          | 04/02/92    | 1     |
| 0-5-5-9       | AR94517        | DISK, CLUTCH                                                                                                                                    | 8.000  | EA  | B          | 04/02/92    | 1     |
| 0-5-5-10      | 19M7289        | CAPSCREW, 12X110MM                                                                                                                              | 4.000  | EA  |            | 04/02/92    | 1     |
| 0-5-6         | YZ101345       | HUB, BRAKE                                                                                                                                      | 1.000  | EA  | D /F1      | 11/21/95    | 1     |
| 0-5-7         | YZ101351       | GASKET                                                                                                                                          | 1.000  | EA  | B          | 11/21/95    | 1     |
| 0-5-8         | YZ101797       | CAPSCREW, 12X140MM                                                                                                                              | 10.000 | EA  |            | 11/21/95    | 1     |
| 0-5-9         | AT162096       | SWITCH, PRESSURE                                                                                                                                | 1.000  | EA  |            | 11/21/95    | 1     |
| 0-5-10        | F232PD0106     | PLUG, SHIPPING                                                                                                                                  | 1.000  | EA  |            | 01/05/96    | 1     |
| 0-5-11        | R26287         | O-RING, PACKING                                                                                                                                 | 1.000  | EA  |            | 11/21/95    | 1     |
| 0-5-12        | YZ101344       | RETAINER, BEARING                                                                                                                               | 1.000  | EA  |            | 11/21/95    | 1     |
| 0-5-13        | 19M7288        | SCREW, CAP M8X30                                                                                                                                | 6.000  | EA  |            | 11/21/95    | 1     |
| 0-5-14        | YZ101348       | SHIM, .18                                                                                                                                       | 3.000  | EA  |            | 11/21/95    | 1     |
| 0-5-15        | YZ101352       | SHIM, .51                                                                                                                                       | 3.000  | EA  |            | 11/21/95    | 1     |
| 0-5-16        | YZ101479       | SHIM, .13                                                                                                                                       | 3.000  | EA  |            | 11/21/95    | 1     |
| 0-6           | YZ103975       | MAIN CASE, GRP                                                                                                                                  | 1.000  | EA  | D 970253   | 08/15/96    | 1     |
|               |                | DF150 4/4 REMOTE MOUNT, WITH WET BRAKE, WITH TWO MAG PICKUPS FOR ANALOG VALVES.<br>#*ASM PER YZ103622 DWG ✓                                     |        |     |            |             |       |
| 0-6-0         | YZ103622       | DWG, MAIN HOUSING A                                                                                                                             | 1.000  | EA  | D          | 08/15/96    | 1     |
| 0-6-1         | YZ103801       | HOUSING, REAR                                                                                                                                   | 1.000  | EA  | B          | 08/15/96    | 1     |
| 0-6-2         | YZ103974       | HSG, 4SPD                                                                                                                                       | 1.000  | EA  |            | 08/15/96    | 1     |
| 0-6-3         | YZ103972       | GASKET, CNTR HSG                                                                                                                                | 1.000  | EA  |            | 08/15/96    | 1     |
| 0-6-4         | YZ101504       | MANIFOLD, SUCTION                                                                                                                               | 1.000  | EA  | B /F1      | 08/15/96    | 1     |
| 0-6-5         | 4005236        | SCREEN, SUCTION ASS                                                                                                                             | 1.000  | EA  | A          | 08/15/96    | 1     |

REPORT: B696A  
PRINTED: 06/27/97

MULTI- LEVEL REFERENCE BILL OF MATERIAL  
EFFECTIVE AS OF 06/27/97

PAGE 5

ITEM NUMBER.: YZ16254  
DESCRIPTION.: C/S DF1544R00WA

ENG. RELEASE NUMBER:  
ENG. RELEASE DATE.: 08/15/96

NARRATIVES: DF150 4/4, REMOTE MT., 12V ANALOG VALVES  
5.85 RATIO, 6C YOKE ON FRONT INPUT,  
7 C YOKES ON BOTH OUTPUTS WITH WET BRAKE  
ON REAR, ADS #1540  
SPECIAL FOR PETTIBONE

| REFERENCE<br>NO. | COMPONENT<br>ITEM | DESCRIPTION                         | QTY.   | U/M   | CHANGE<br>NO. | CHANGE<br>DATE | CH<br>CO |
|------------------|-------------------|-------------------------------------|--------|-------|---------------|----------------|----------|
| *****            | *****             | *****                               | *****  | ***** | *****         | *****          | *****    |
| 0-6-6            | R66409            | PLUG, SHIPPING                      | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-8            | 19M7325           | CAPSCREW                            | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-9            | YZ102293          | DIPSTICK                            | 1.000  | EA    | G             | 08/15/96       | 1        |
| 0-6-10           | YZ103054          | TUBE, DIPSTICK ASM                  | 1.000  | EA    | C             | 08/15/96       | 1        |
| 0-6-11           | YZ103663          | HOSE, 1/2" I.D.                     | 6.000  | IN    | A             | 08/15/96       | 1        |
| 0-6-12           | YZ104121          | SNAP RING                           | 1.000  | EA    |               | 01/31/97       | 1        |
| 0-6-13           | 19M7139           | CAPSCREW                            | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-14           | F37030226         | O RING ARP226                       | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-15           | F2710616          | PIN, DOWEL                          | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-16           | 19M7728           | CAPSCREW, 12X120MM                  | 18.000 | EA    |               | 08/15/96       | 1        |
| 0-6-18           | YZ103714          | SENSOR, MAGNETIC PI                 | 2.000  | EA    |               | 01/31/97       | 1        |
| 0-6-19           | F37020114         | O RING ARP114                       | 2.000  | EA    |               | 01/31/97       | 1        |
| 0-6-20           | R67230            | COVER, MAGNETIC PIC                 | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-21           | 19M7077           | SCREW, HEX CAP                      | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-22           | 12H302            | WASHER, LOCK                        | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-23           | 24H1287           | WASHER,                             | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-24           | YZ101582          | BUSHING, INPUT                      | 1.000  | EA    | A /F1         | 08/15/96       | 1        |
| 0-6-25           | YZ101561          | TROUGH, OIL ASSY                    | 1.000  | EA    | C             | 08/15/96       | 1        |
| 0-6-26           | 19M7297           | CAPSCREW                            | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-27           | 4008023           | SLV, BORE                           | 3.000  | EA    | C             | 08/15/96       | 1        |
| 0-6-28           | F85120            | PLUG, 1 5/8 W/O-RING                | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-29           | YZ102234          | BAFFLE SUCTION TUBE                 | 1.000  | EA    | A             | 08/15/96       | 1        |
| 0-6-30           | 4006404           | GASKET                              | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-31           | F58557            | BRG CUP                             | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-32           | YZ102752          | ASM, VLV LUBE REL                   | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-33           | 4A1050            | PLATE, IDENT                        | 1.000  | EA    | K             | 08/15/96       | 1        |
| 0-6-34           | F310063           | SCREW, DRIVE                        | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-35           | F85106            | PLUG, HEX SOC 9/16                  | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-36           | YZ104114          | WASHER, FLAT                        | 1.000  | EA    |               | 01/31/97       | 1        |
| 0-6-38           | YZ102107          | BRACKET                             | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-39           | T18250            | ELBOW, PIPE 3/8                     | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-40           | F89000            | CLAMP, HOSE                         | 2.000  | EA    |               | 08/15/96       | 1        |
| 0-6-41           | 15H75             | 3/8 NPT COUPLING                    | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-42           | F326308           | NIPPLE 3/8 X 1"                     | 1.000  | EA    |               | 08/15/96       | 1        |
| 0-6-45           | F37030217         | O RING                              | 1.000  | EA    |               | 11/08/96       | 1        |
| 0-7              | YZ103385          | VALVE, CONTROL GRP                  | 1.000  | EA    | B 960534      | 08/15/96       | 1        |
|                  |                   | DF150 4/4 12V WITH SCREW IN VALVES  |        |       |               |                |          |
|                  |                   | ## ASM PER YZ103397 DWG ✓           |        |       |               |                |          |
| 0-7-0            | YZ103397          | DWG, VALVE GRP                      | 1.000  | EA    | B 960379      | 03/07/96       | 1        |
| 0-7-1            | YZ103361          | ASM, VALVE                          | 1.000  | EA    |               | 06/30/95       | 1        |
|                  |                   | DF150/250 4/4 12 VOLT CONTROL VALVE |        |       |               |                |          |
|                  |                   | ## ASM PER YZ103394 DWG ✓           |        |       |               |                |          |
| 0-7-1-0          | YZ103394          | DWG, VALVE ASM                      | 1.000  | EA    |               | 03/07/96       | 1        |
| 0-7-1-1          | YZ103371          | HOUSING, VALVE                      | 1.000  | EA    | A             | 06/29/95       | 1        |

REPORT: B696A  
PRINTED: 06/27/97

MULTI- LEVEL REFERENCE BILL OF MATERIAL  
EFFECTIVE AS OF 06/27/97

PAGE 6

ITEM NUMBER.: YZ16254  
DESCRIPTION.: C/S DF1544R00WA

ENG. RELEASE NUMBER:  
ENG. RELEASE DATE.: 08/15/96

NARRATIVES: DF150 4/4, REMOTE MT., 12V ANALOG VALVES  
5.85 RATIO, 6C YOKE ON FRONT INPUT,  
7 C YOKES ON BOTH OUTPUTS WITH WET BRAKE  
ON REAR, ADS #1540  
SPECIAL FOR PETTIBONE

| REFERENCE NO. | COMPONENT ITEM | DESCRIPTION                            | QTY.   | U/M   | CHANGE NO. | CHANGE DATE | CH CO |
|---------------|----------------|----------------------------------------|--------|-------|------------|-------------|-------|
| *****         | *****          | *****                                  | *****  | ***** | *****      | *****       | ***** |
| 0-7-1-2       | YZ103344       | ASM, MAIN REGULATOR                    | 1.000  | EA    | B 940231   | 06/29/95    | 1     |
|               |                | MAIN REGULATOR ASM. 260/280 P.S.I.     |        |       |            |             |       |
|               |                | #*ASM PER YZ103345 DWG ✓               |        |       |            |             |       |
| 0-7-1-3       | YZ101565       | VALVE, RELIEF 90                       | 1.000  | EA    | C          | 06/29/95    | 1     |
| 0-7-1-4       | YZ150015       | ASM, 12V PROP SOL                      | 6.000  | EA    |            | 06/29/95    | 1     |
|               |                | #* ASM PER YZ150016 ✓                  |        |       |            |             |       |
| 0-7-1-5       | F85105         | PLUG,                                  | 1.000  | EA    |            | 06/29/95    | 1     |
|               |                | #* SERVICE O'RING WITH R26286          |        |       |            |             |       |
| 0-7-1-6       | YZ101080       | PLUG, HEX SOC 7/16-                    | 12.000 | EA    | A          | 06/29/95    | 1     |
| 0-7-1-7       | F85106         | PLUG, HEX SOC 9/16-                    | 2.000  | EA    |            | 06/29/95    | 1     |
| 0-7-1-8       | RE38310        | SENSOR, TEMP                           | 1.000  | EA    |            | 06/29/95    | 1     |
| 0-7-1-9       | R26286         | O-RING ARP905                          | 1.000  | EA    |            | 06/29/95    | 1     |
| 0-7-1-10      | F7400090       | STEEL BALL 9/32                        | 4.000  | EA    |            | 06/29/95    | 1     |
| 0-7-1-11      | YZ101535       | PLUG, PROPORTIONAL                     | 2.000  | EA    | A          | 06/29/95    | 1     |
| 0-7-1-12      | F37060910      | O RING ARP910                          | 2.000  | EA    |            | 06/29/95    | 1     |
| 0-7-1-13      | F37010016      | O RING ARP016                          | 2.000  | EA    |            | 06/29/95    | 1     |
| 0-7-1-14      | YZ101612       | O RING                                 | 2.000  | EA    |            | 06/29/95    | 1     |
| 0-7-2         | YZ104165       | GASKET                                 | 1.000  | EA    | B          | 02/28/97    | 1     |
| 0-7-3         | YZ101534       | PLATE                                  | 1.000  | EA    | D          | 06/30/95    | 1     |
| 0-7-4         | YZ104166       | GASKET                                 | 1.000  | EA    |            | 02/28/97    | 1     |
| 0-7-5         | 19M8274        | CAPSCREW, M8X35 10.9                   | 7.000  | EA    |            | 10/09/96    | 1     |
| 0-7-6         | 19M8403        | CAPSCREW, M8X75 10.9                   | 11.000 | EA    |            | 10/09/96    | 1     |
| 0-7-7         | 19M8537        | CAPSCREW, M8X90 10.9                   | 9.000  | EA    |            | 10/09/96    | 1     |
| 0-7-8         | F232PD0112     | PLUG, SHIPPING                         | 1.000  | EA    |            | 06/30/95    | 1     |
| 0-7-9         | R66408         | PLUG, SHIPPING                         | 2.000  | EA    |            | 06/30/95    | 1     |
| 0-7-10        | 4003680        | WASHER, FLAT                           | 27.000 | EA    | A          | 01/17/97    | 1     |
| 0-8           | YZ101909       | GRP, 7C YOKE                           | 2.000  | EA    |            | 08/15/96    | 1     |
|               |                | #* ASM PER YZ102013 DWG. ✓             |        |       |            |             |       |
| 0-8-0         | YZ102013       | DWG, YOKE GRP                          | 1.000  | EA    | B          | 02/02/96    | 1     |
| 0-8-1         | YZ101346       | YOKE, 7C                               | 1.000  | EA    | G /F5      | 04/01/92    | 1     |
| 0-8-2         | 4005234        | WASHER, YOKE                           | 1.000  | EA    | C          | 04/01/92    | 1     |
| 0-8-3         | 19M7283        | CAPSCREW, 16X35MM                      | 1.000  | EA    |            | 04/01/92    | 1     |
| 0-8-4         | F65246         | OIL SEAL                               | 1.000  | EA    |            | 04/01/92    | 1     |
| 0-8-5         | YZ101480       | SEAL U-RING                            | 1.000  | EA    |            | 04/01/92    | 1     |
| 0-8-6         | F37040329      | O RING ARP329                          | 1.000  | EA    |            | 04/01/92    | 1     |
| 0-10          | YZ101911       | GRP, 1ST STG COVER                     | 1.000  | EA    | B 930767   | 08/15/96    | 1     |
|               |                | COVER GRP USED TO COVER UP 1ST STG     |        |       |            |             |       |
|               |                | SHAFT WHEN NO OTHER OPTIONS ARE ADDED. |        |       |            |             |       |
|               |                | #* ASM PER YZ102734 DWG. ✓             |        |       |            |             |       |
| 0-10-0        | YZ102734       | DWG, CVR 1ST STG GR                    | 1.000  | EA    | A 930767   | 02/02/96    | 1     |
| 0-10-1        | YZ102736       | COVER, 1ST STG                         | 1.000  | EA    |            | 09/27/93    | 1     |
| 0-10-2        | F37030250      | O RING ARP250                          | 1.000  | EA    |            | 09/27/93    | 1     |
| 0-10-3        | 19M7386        | SCREW, HEX CAP 12X2                    | 6.000  | EA    |            | 09/27/93    | 1     |
| 0-10-4        | YZ101774       | HANGER, LIFT                           | 1.000  | EA    | A          | 09/27/93    | 1     |

REPORT: B696A  
PRINTED: 06/27/97

MULTI- LEVEL REFERENCE BILL OF MATERIAL  
EFFECTIVE AS OF 06/27/97

PAGE 7

ITEM NUMBER.: YZ16254  
DESCRIPTION.: C/S DF1544R00WA

ENG. RELEASE NUMBER:  
ENG. RELEASE DATE.: 08/15/96

NARRATIVES: DF150 4/4, REMOTE MT., 12V ANALOG VALVES  
5.85 RATIO, 6C YOKE ON FRONT INPUT,  
7 C YOKES ON BOTH OUTPUTS WITH WET BRAKE  
ON REAR, ADS #1540  
SPECIAL FOR PETTIBONE

| REFERENCE<br>NO. | COMPONENT<br>ITEM | DESCRIPTION                                                                                                                                                                                                                     | QTY.  | U/M   | CHANGE<br>NO. | CHANGE<br>DATE | CH<br>CD |
|------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|---------------|----------------|----------|
| *****            | *****             | *****                                                                                                                                                                                                                           | ***** | ***** | *****         | *****          | *****    |
| 0-14             | YZ103469          | GRP, WIRING & GEAR                                                                                                                                                                                                              | 1.000 | EA    | A             | 08/15/96       | 1        |
|                  |                   | WIRING HARNESS FOR DF TRANSMISSIONS<br>UNIVERSAL HARNESS USED ON FPS VALVE<br>12 VOLT SYSTEM WITH TVP MODULE AND<br>GEAR DISPLAY. JUMPER FOR WET BRAKE                                                                          |       |       |               |                |          |
| 0-14-1           | YZ103878          | HARNESS, WIRING                                                                                                                                                                                                                 | 1.000 | EA    | A             | 11/15/96       | 1        |
| 0-14-2           | YZ102829          | ASSY, GEAR DISPLAY                                                                                                                                                                                                              | 1.000 | EA    |               | 08/25/95       | 1        |
|                  |                   | SHIPPED LOOSE<br>GEAR DISPLAY USED ON DF150/250 PRODUCT<br>LINE. SERVICE LENS WITH YZ103922 LENS<br>REPLACEMENT AND YZ103923 O'RING.                                                                                            |       |       |               |                |          |
| 0-14-3           | RE30711           | TVP 12V MODULE                                                                                                                                                                                                                  | 1.000 | EA    |               | 08/25/95       | 1        |
|                  |                   | SHIPPED LOOSE                                                                                                                                                                                                                   |       |       |               |                |          |
| 0-14-4           | YZ103291          | WIRING, BRAKE JUMPE                                                                                                                                                                                                             | 1.000 | EA    | A             | 08/25/95       | 1        |
|                  |                   | JUMPER USED TO EXTEND UNIVERSAL WIRING<br>HARNESS TO CONNECT WET BRAKE OPTION ON<br>DF150 AND DF250 TRANSMISSIONS.                                                                                                              |       |       |               |                |          |
| 0-103            | YZ103965          | CONTROL MODULE                                                                                                                                                                                                                  | 1.000 | EA    | A             | 08/15/96       | 1        |
|                  |                   | SHIPPED LOOSE<br>PROGRAM FOR BARAGA PRODUCTS (PETTIBONE)<br>DF150 4/4 REMOTE MT, 5.85/.753 RATIO<br>WITH WET BRAKE, MANUAL SHIFT MODE, WITH<br>DOWNSHIFT INHIBIT, WITHOUT INCHING, WITH<br>BRAKE CUTOFF, 12 VOLT ANALOG VALVES. |       |       |               |                |          |
| 0-104            | YZ102155          | BUMP SHIFTER 12V                                                                                                                                                                                                                | 1.000 | EA    | C             | 08/15/96       | 1        |
|                  |                   | SHIPPED LOOSE                                                                                                                                                                                                                   |       |       |               |                |          |
| 0-105            | AT147102          | ASSEMBLE, FILTER                                                                                                                                                                                                                | 1.000 | EA    |               | 08/15/96       | 1        |
|                  |                   | SHIPPED LOOSE                                                                                                                                                                                                                   |       |       |               |                |          |
| 0-105-1          | AT144995          | HEAD FILTER                                                                                                                                                                                                                     | 1.000 | EA    |               | 08/04/93       | 1        |
| 0-105-2          | AT140315          | FILTER ELEMENT                                                                                                                                                                                                                  | 1.000 | EA    |               | 08/04/93       | 1        |
| 0-107            | YZ103391          | VALVE, 12V BRK CONT                                                                                                                                                                                                             | 1.000 | EA    |               | 08/15/96       | 1        |
|                  |                   | SHIPPED LOOSE                                                                                                                                                                                                                   |       |       |               |                |          |
| 0-799            | YZ104070          | TEST STAND SPEC                                                                                                                                                                                                                 | 1.000 | EA    |               | 09/26/96       | 1        |

REPORT: B696A  
PRINTED: 06/27/97

MULTI- LEVEL REFERENCE BILL OF MATERIAL  
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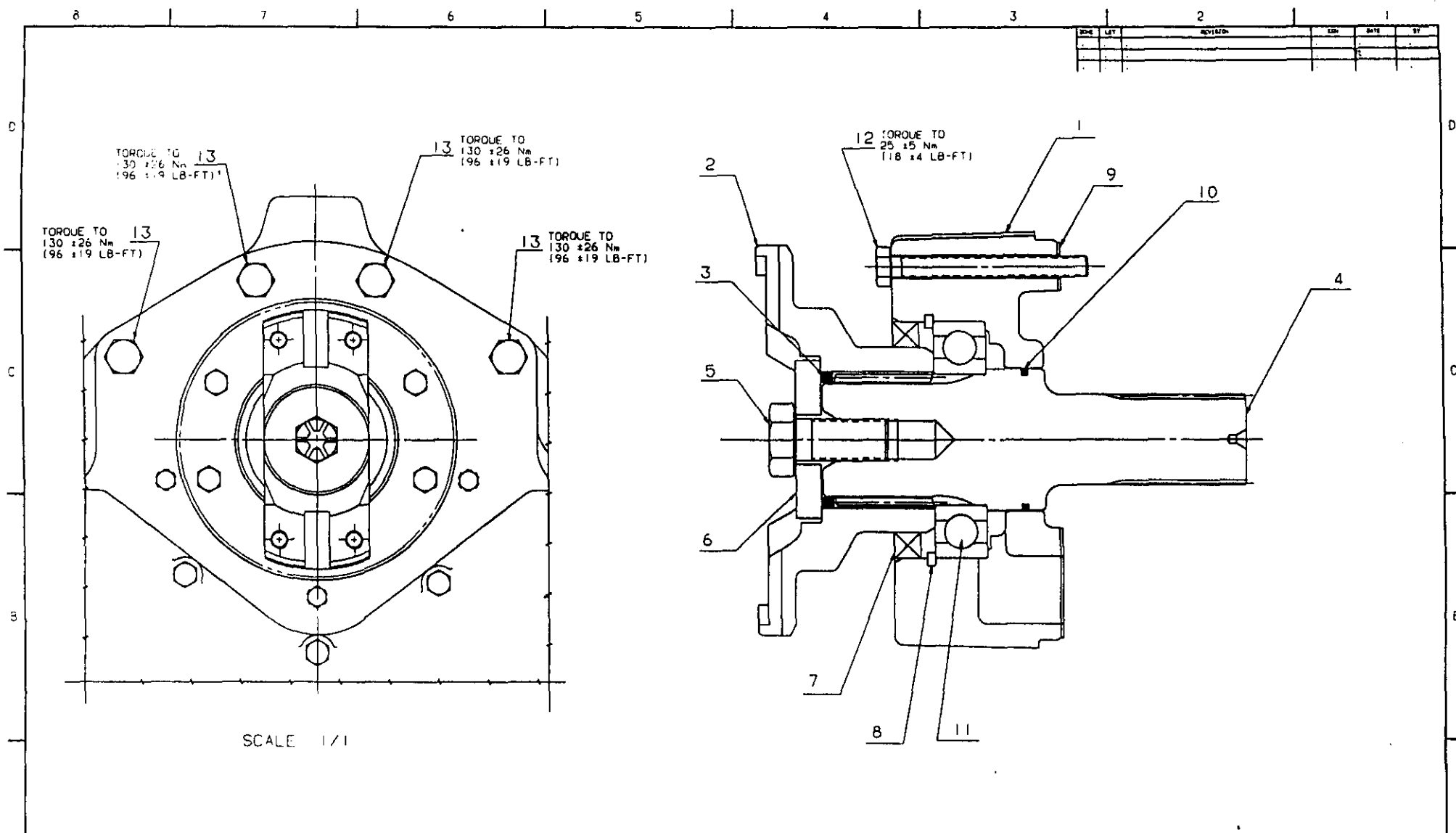
PAGE 8

I T E M S      L I S T E D      B E L O W      S H I P      L O O S E

| PARTS    | DESCRIPTION            | TOTAL QTY. |
|----------|------------------------|------------|
| *****    | *****                  | *****      |
| AT147102 | ASSEMBLE, FILTER       | 1.000      |
| RE30711  | TVP 12V MODULE         | 1.000      |
| YZ102155 | BUMP SHIFTER 12V       | 1.000      |
| YZ102829 | ASSY,GEAR DISPLAY      | 1.000      |
| YZ103391 | VALVE, 12V BRK CONTROL | 1.000      |
| YZ103965 | CONTROL MODULE         | 1.000      |

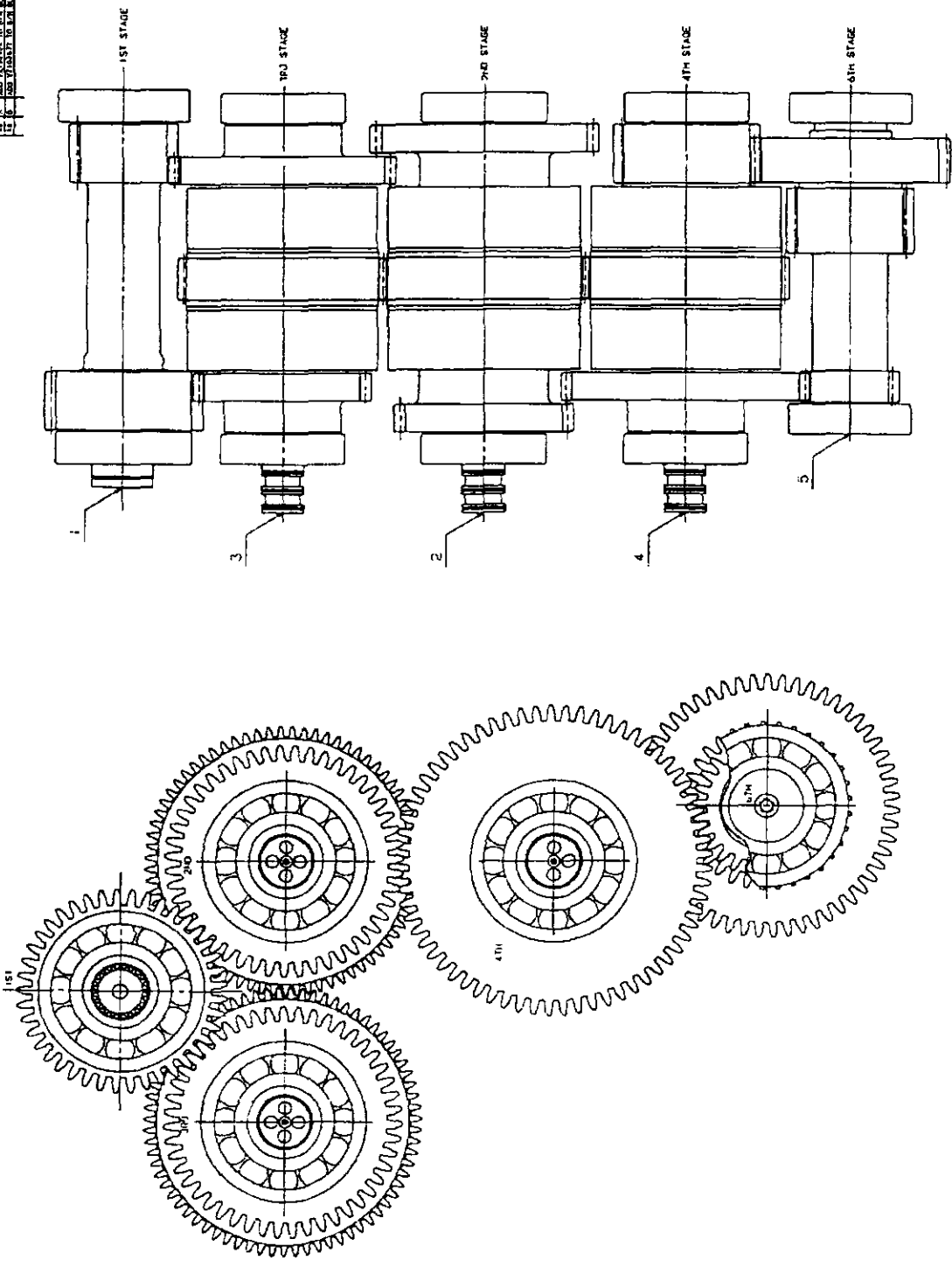
\*\*\*\*\* END OF REPORT \*\*\*\*\*

YZ102765



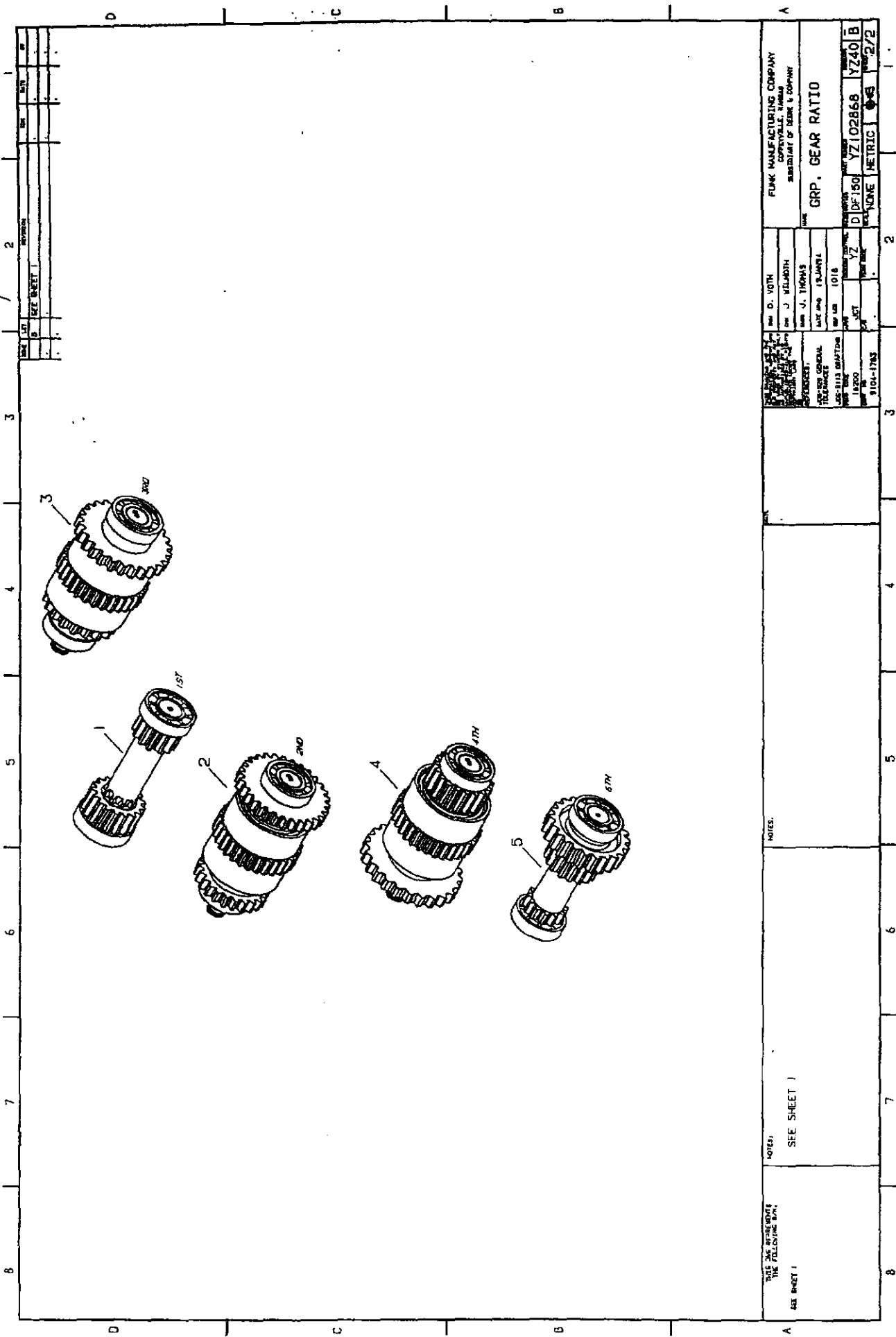
|                                                                                                                                    |                                                       |                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                    |                                           |                                                                                                 |                                                                                                                      |                                           |                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <p>THIS DRAWING REPRESENTS THE FOLLOWING BOM:</p> <p>YZ102698</p>                                                                  | <p>NOTES:</p> <p>TORQUE ALL FASTENERS PER JDS-D47</p> | <p>NOTES:</p>                                                                                         | <table border="1"> <tr> <td data-bbox="1332 1280 1627 1346"> <p>DESIGNED BY: D. VOTH</p> <p>DRAWN BY: J. WILMOTH</p> <p>CHECKED BY: J. THOMAS</p> <p>DATE APD: 22SEP93</p> <p>REF: LHM 1028</p> </td> <td data-bbox="1627 1280 1779 1346"> <p>DATE: 22SEP93</p> <p>REF: LHM 1028</p> </td> <td data-bbox="1779 1280 2107 1346"> <p>PUNK MANUFACTURING COMPANY<br/>COFFEYVILLE, KANSAS<br/>SUBSIDIARY OF DEERE &amp; COMPANY</p> </td> </tr> <tr> <td data-bbox="1332 1346 1627 1462"> <p>REFERENCES:<br/>JDS-D25 GENERAL TOLERANCES</p> <p>JDS-G113 DRAFTING</p> <p>DATE: 14100</p> <p>DATE: 9108-1465</p> </td> <td data-bbox="1627 1346 1779 1462"> <p>DATE: 14100</p> <p>DATE: 9108-1465</p> </td> <td data-bbox="1779 1346 2107 1462"> <p>GRP. REMOTE INPUT</p> <p>DATE: 01DF250</p> <p>DATE: 11.15</p> <p>DATE: METRIC</p> <p>DATE: 1/1</p> </td> </tr> </table> | <p>DESIGNED BY: D. VOTH</p> <p>DRAWN BY: J. WILMOTH</p> <p>CHECKED BY: J. THOMAS</p> <p>DATE APD: 22SEP93</p> <p>REF: LHM 1028</p> | <p>DATE: 22SEP93</p> <p>REF: LHM 1028</p> | <p>PUNK MANUFACTURING COMPANY<br/>COFFEYVILLE, KANSAS<br/>SUBSIDIARY OF DEERE &amp; COMPANY</p> | <p>REFERENCES:<br/>JDS-D25 GENERAL TOLERANCES</p> <p>JDS-G113 DRAFTING</p> <p>DATE: 14100</p> <p>DATE: 9108-1465</p> | <p>DATE: 14100</p> <p>DATE: 9108-1465</p> | <p>GRP. REMOTE INPUT</p> <p>DATE: 01DF250</p> <p>DATE: 11.15</p> <p>DATE: METRIC</p> <p>DATE: 1/1</p> |
| <p>DESIGNED BY: D. VOTH</p> <p>DRAWN BY: J. WILMOTH</p> <p>CHECKED BY: J. THOMAS</p> <p>DATE APD: 22SEP93</p> <p>REF: LHM 1028</p> | <p>DATE: 22SEP93</p> <p>REF: LHM 1028</p>             | <p>PUNK MANUFACTURING COMPANY<br/>COFFEYVILLE, KANSAS<br/>SUBSIDIARY OF DEERE &amp; COMPANY</p>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                    |                                           |                                                                                                 |                                                                                                                      |                                           |                                                                                                       |
| <p>REFERENCES:<br/>JDS-D25 GENERAL TOLERANCES</p> <p>JDS-G113 DRAFTING</p> <p>DATE: 14100</p> <p>DATE: 9108-1465</p>               | <p>DATE: 14100</p> <p>DATE: 9108-1465</p>             | <p>GRP. REMOTE INPUT</p> <p>DATE: 01DF250</p> <p>DATE: 11.15</p> <p>DATE: METRIC</p> <p>DATE: 1/1</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                    |                                           |                                                                                                 |                                                                                                                      |                                           |                                                                                                       |

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SCALE 1/1

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| THIS DRAWING IS THE FOLLOWING B/M<br>VZ101782<br>VZ102024<br>VZ102824 (3)<br>VZ102677                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | NOTES:<br>1. THIS ASSEMBLY MOUNTS 4 SHAFTS IN TWO OF WHICH THE 2ND AND 4TH STAGES 3 HOLES IN END OF 4TH STAGE SHAFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | NOTES:<br>1. THIS ASSEMBLY MOUNTS 4 SHAFTS IN TWO OF WHICH THE 2ND AND 4TH STAGES 3 HOLES IN END OF 4TH STAGE SHAFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | FINCH ENGINEERING COMPANY<br>MANUFACTURER OF GEAR BOXES<br>GRR, GEAR RATIO<br>VZ102868 VZ101782<br>VZ102024 VZ102677                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 101<br>102<br>103<br>104<br>105<br>106<br>107<br>108<br>109<br>110<br>111<br>112<br>113<br>114<br>115<br>116<br>117<br>118<br>119<br>120<br>121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148<br>149<br>150<br>151<br>152<br>153<br>154<br>155<br>156<br>157<br>158<br>159<br>160<br>161<br>162<br>163<br>164<br>165<br>166<br>167<br>168<br>169<br>170<br>171<br>172<br>173<br>174<br>175<br>176<br>177<br>178<br>179<br>180<br>181<br>182<br>183<br>184<br>185<br>186<br>187<br>188<br>189<br>190<br>191<br>192<br>193<br>194<br>195<br>196<br>197<br>198<br>199<br>200 |  | 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47<br>48<br>49<br>50<br>51<br>52<br>53<br>54<br>55<br>56<br>57<br>58<br>59<br>60<br>61<br>62<br>63<br>64<br>65<br>66<br>67<br>68<br>69<br>70<br>71<br>72<br>73<br>74<br>75<br>76<br>77<br>78<br>79<br>80<br>81<br>82<br>83<br>84<br>85<br>86<br>87<br>88<br>89<br>90<br>91<br>92<br>93<br>94<br>95<br>96<br>97<br>98<br>99<br>100 |  | 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47<br>48<br>49<br>50<br>51<br>52<br>53<br>54<br>55<br>56<br>57<br>58<br>59<br>60<br>61<br>62<br>63<br>64<br>65<br>66<br>67<br>68<br>69<br>70<br>71<br>72<br>73<br>74<br>75<br>76<br>77<br>78<br>79<br>80<br>81<br>82<br>83<br>84<br>85<br>86<br>87<br>88<br>89<br>90<br>91<br>92<br>93<br>94<br>95<br>96<br>97<br>98<br>99<br>100 |  | 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35<br>36<br>37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47<br>48<br>49<br>50<br>51<br>52<br>53<br>54<br>55<br>56<br>57<br>58<br>59<br>60<br>61<br>62<br>63<br>64<br>65<br>66<br>67<br>68<br>69<br>70<br>71<br>72<br>73<br>74<br>75<br>76<br>77<br>78<br>79<br>80<br>81<br>82<br>83<br>84<br>85<br>86<br>87<br>88<br>89<br>90<br>91<br>92<br>93<br>94<br>95<br>96<br>97<br>98<br>99<br>100 |  |



1. LEO-8 189  
N.W. SWINGTODS SHL  
SUPERIOR INC 514L

SEE SHEET 1

—WOLFE.

1. The following are the names of the persons who are

REV. D. WORTH

**FUNK MANUFACTURING COMPANY**  
COPPEYVILLE, KANSAS  
SUBSIDIARY OF DEERE & COMPANY

**GRP. GEAR RATIO**

|      |        |          |      |   |
|------|--------|----------|------|---|
| D    | DF150  | YZ102868 | YZ40 | B |
| NONE | METRIC | 2/2      |      |   |

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

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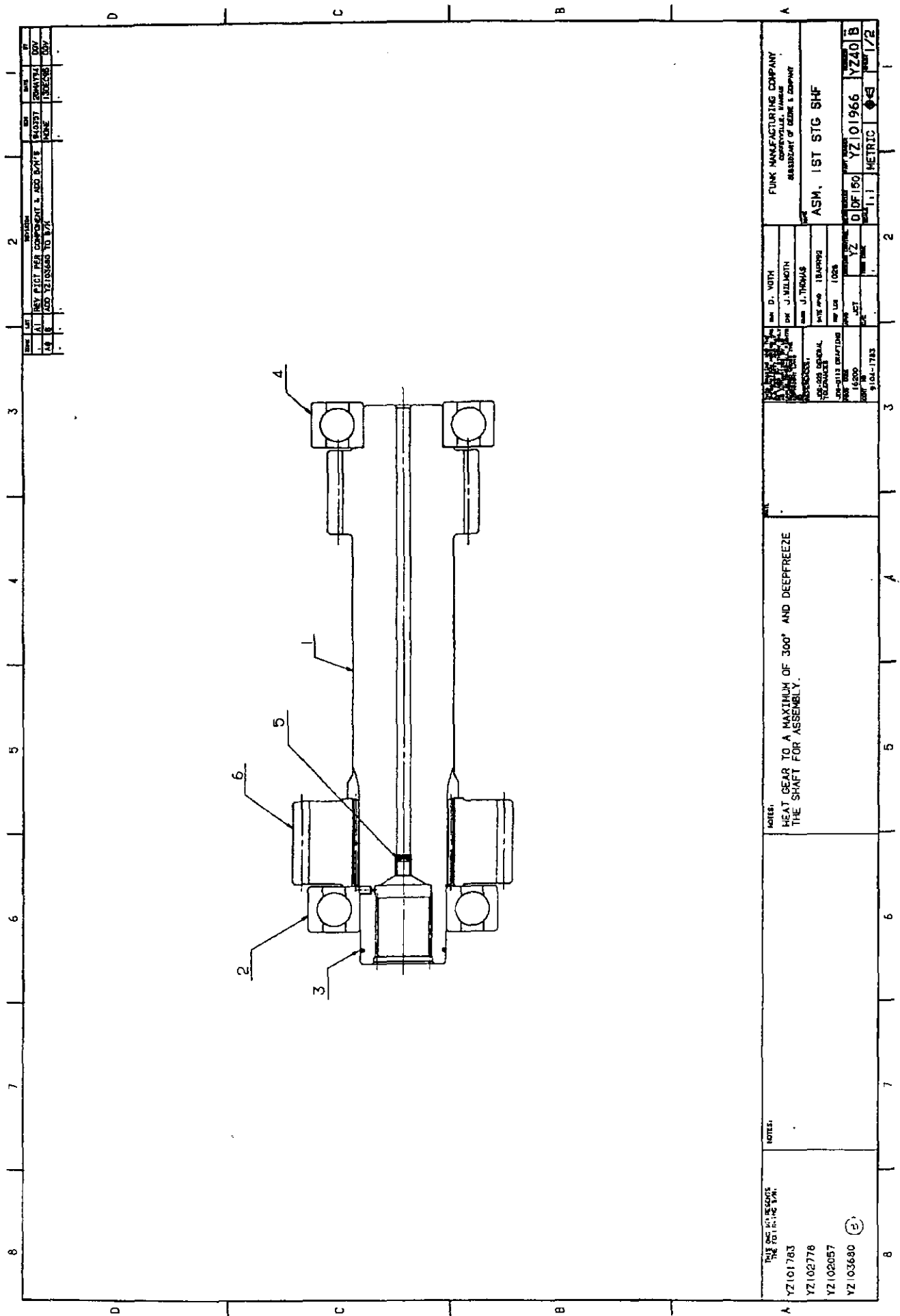
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| 9 |  |
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88

1

YZ 101966

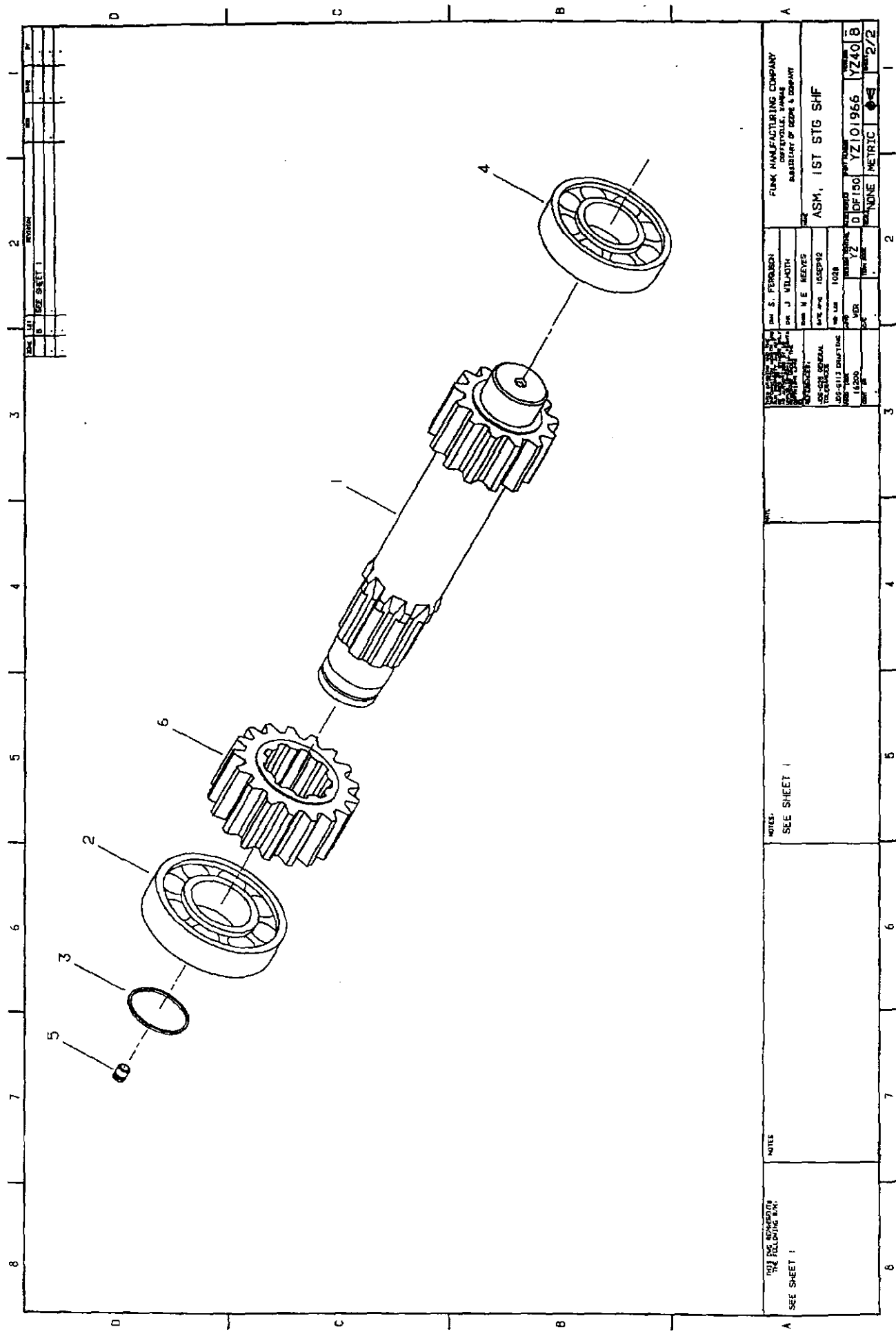


| REV | DATE    | BY | CHKD | APP'D |
|-----|---------|----|------|-------|
| 1   | 10/1/78 | WJ |      |       |
| 2   | 10/1/78 | WJ |      |       |
| 3   | 10/1/78 | WJ |      |       |
| 4   | 10/1/78 | WJ |      |       |
| 5   | 10/1/78 | WJ |      |       |
| 6   | 10/1/78 | WJ |      |       |
| 7   | 10/1/78 | WJ |      |       |
| 8   | 10/1/78 | WJ |      |       |

8 7 6 5 4 3 2 1

|                                                                                                                 |  |                                                                                                |  |                                                                                                                                                                     |  |                                                                                 |  |
|-----------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------|--|
| <p>THIS ONE IS THE SAME<br/>THE OTHER IS NOT</p> <p>YZ 101783<br/>YZ 102778<br/>YZ 102057<br/>YZ 103680 (2)</p> |  | <p>NOTES:</p> <p>HEAT GEAR TO A MAXIMUM OF 300° AND DEEPFREEZE<br/>THE SHAFT FOR ASSEMBLY.</p> |  | <p>DATE: 10/1/78</p> <p>BY: WJ</p> <p>CHKD: J. THOMAS</p> <p>APP'D: J. THOMAS</p> <p>DATE: 10/1/78</p> <p>BY: WJ</p> <p>CHKD: J. THOMAS</p> <p>APP'D: J. THOMAS</p> |  | <p>FUNK MANUFACTURING COMPANY<br/>CORVALLIS, OREGON<br/>BRANDS: 1ST STG SHF</p> |  |
|-----------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------|--|

YZ 101966



| REV | DATE     | BY           | CHKD | APP'D |
|-----|----------|--------------|------|-------|
| 1   | 10/19/66 | J. WILKINSON |      |       |

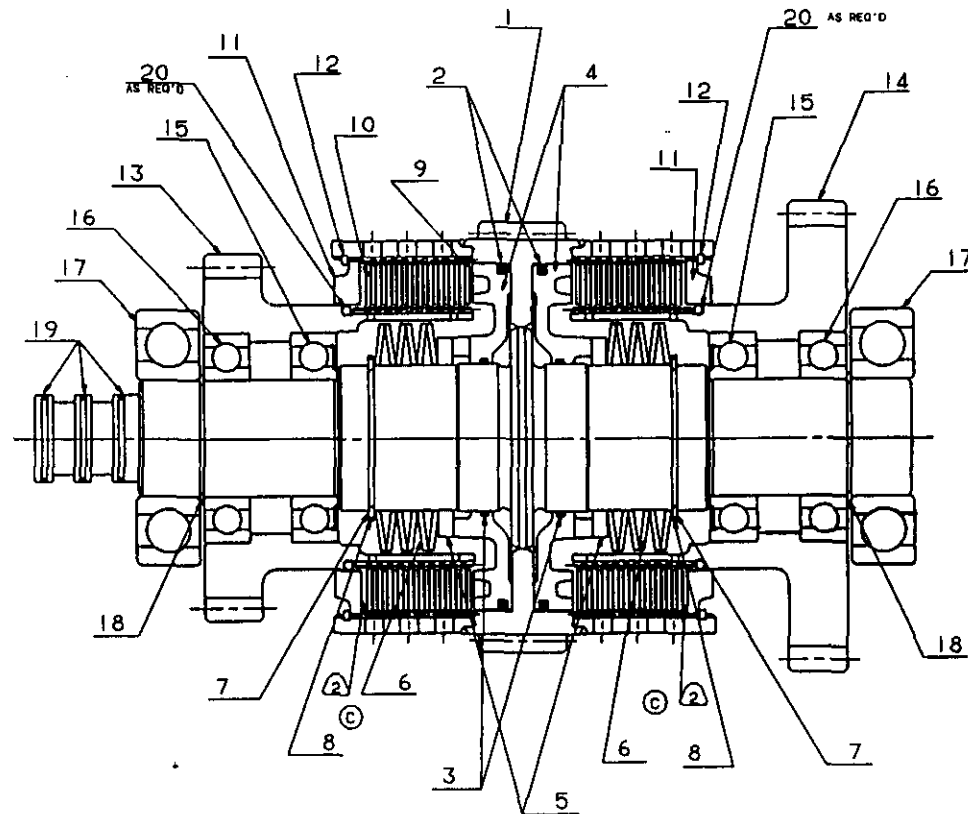
|                                                                               |  |                                                                                            |  |                                             |  |
|-------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|--|---------------------------------------------|--|
| FUNK MANUFACTURING COMPANY<br>CLEVELAND, OHIO<br>SUBSIDIARY OF KOPP & COMPANY |  | REV. 1<br>DATE 10/19/66<br>BY J. WILKINSON<br>CHKD. N. E. KEENE<br>APP'D. 10/20/66<br>1028 |  | ASM, 1ST STG SHF                            |  |
| NOTE: SEE SHEET 1                                                             |  | NOTE: SEE SHEET 1                                                                          |  | YZ 101966<br>D DF 150<br>NONE METRIC<br>2/2 |  |

DATE= 4/07/97 TIME=15 42 ACCESS=NONE  
 LOGON ID=YZ02087  
 PLOT= 3

PLOT TOO LARGE - SCALE OF 0.000 WAS FACTORED BY 2.094

YZ101974

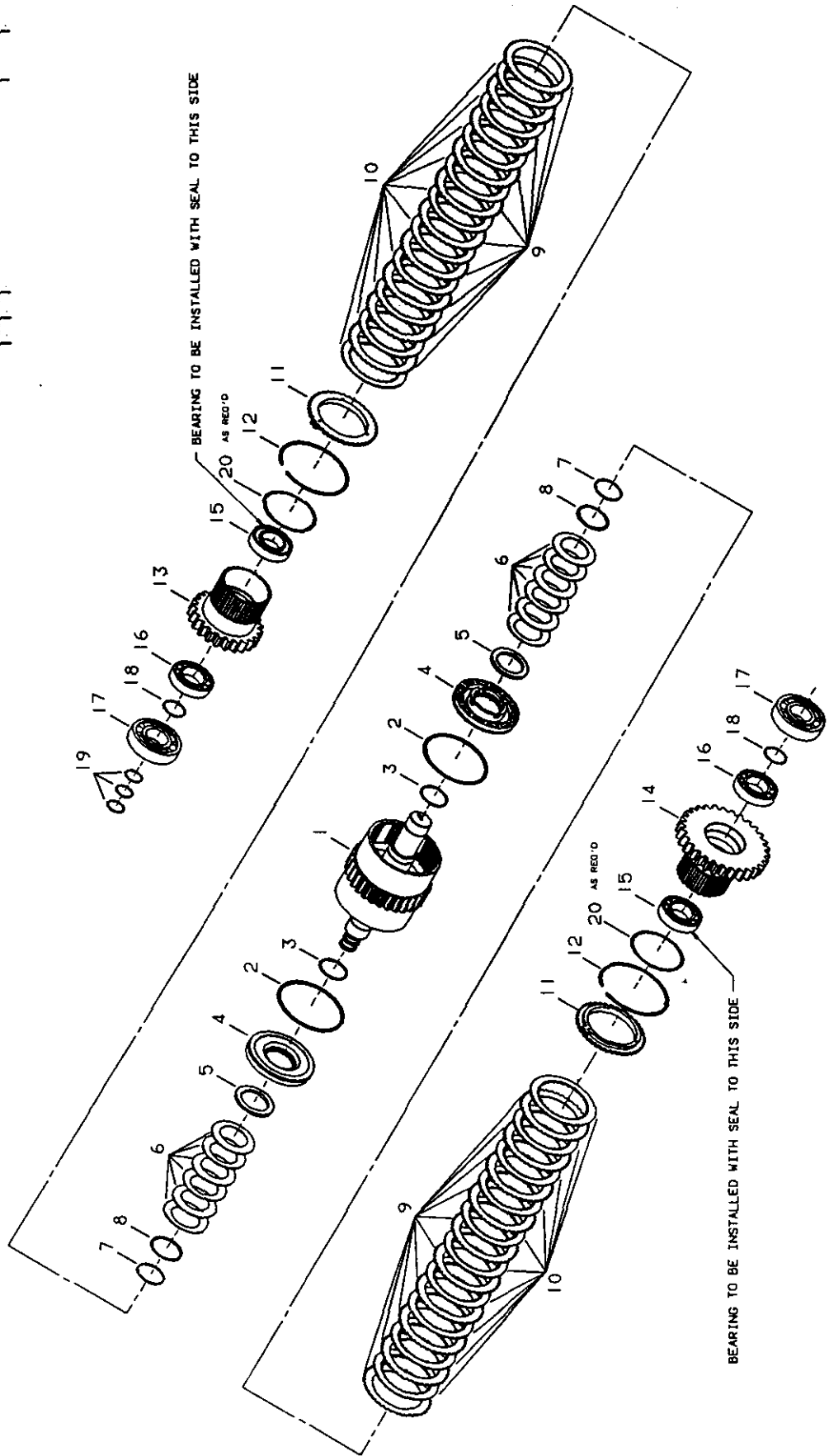
| REV | LET | REVISION              | REV    | DATE    | BY  |
|-----|-----|-----------------------|--------|---------|-----|
| A   |     | ADD ITEM #20 AS REQ'D | 050046 | 31JAN90 | DDV |
| AB  | B   | ADD YZ103678 TO B/W   | NONE   | 13DEC85 | DDV |
| C   |     | ADDED NOTES 1 & 2     | 970196 | 07APR97 | JRW |



|                                                                            |                                                                                                                                                                                                                                                                                      |        |                    |                                                                                                        |                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| THIS DWG REPRESENTS THE FOLLOWING B/W:<br>YZ101784<br>YZ101803<br>YZ103678 | NOTES:<br>(C)<br>1. REF #19 (CONTINUOUS SEAL RINGS) MUST BE SIZED IMMEDIATELY PRIOR TO NEXT ASSEMBLY.<br>(2)<br>2. CHECK CLUTCH STACK FOR 2.79(.110")-5.59(.220") CLEARANCE TO ALLOW FOR PISTON TRAVEL AFTER ASSEMBLY. EXCHANGE CLUTCH PLATES IF NECESSARY TO OBTAIN THIS CLEARANCE. | NOTES: | 16200<br>9104-1783 | DESIGNED BY: D. VOTH<br>DRAWN BY: J. WILMOTH<br>CHECKED BY: W. E. REEVES<br>DATE: 22APR92<br>REF: 1028 | FUNK MANUFACTURING COMPANY<br>COPPETVILLE, KANSAS<br>SUBSIDIARY OF DEERE & COMPANY<br>NAME: ASM, SHF 2ND STG<br>PART NUMBER: YZ101974<br>PART NAME: YZ40<br>SCALE: 1:1<br>METRIC: <input checked="" type="checkbox"/> SHEET: 1/2 |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

YZ101974

DATE: 4/07/97 TIME: 15.42 ACCESS: NONE  
LOGON ID: YZ02087  
PLOT: 4  
PLOT TOO LARGE - SCALE OF 0.000 WAS FACTORED BY 2.094

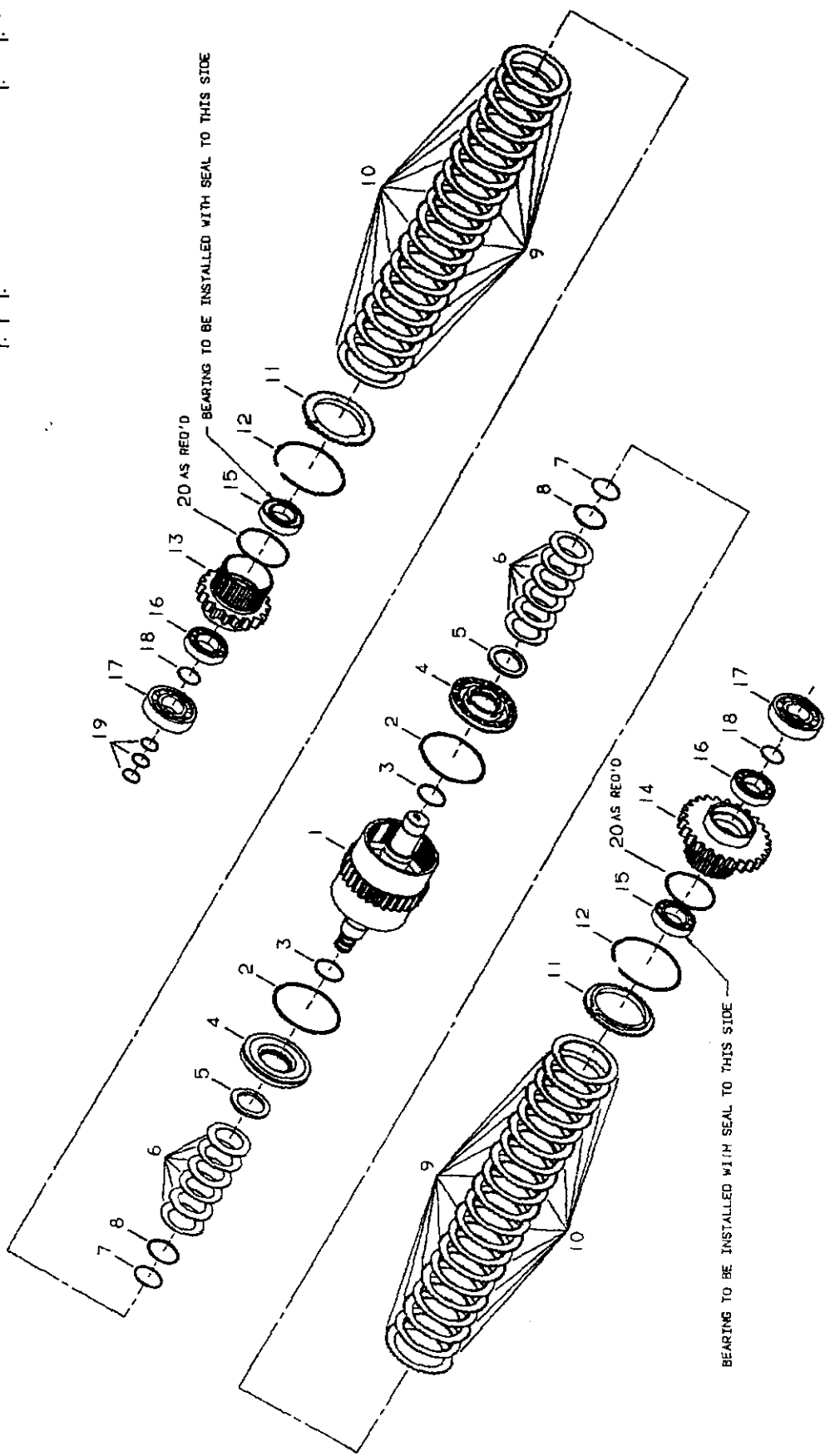


|                                                                                                      |  |                                                                     |  |                             |  |                       |  |
|------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------|--|-----------------------------|--|-----------------------|--|
| THIS DRAWING IS THE PROPERTY OF FUNK MANUFACTURING COMPANY. IT IS TO BE USED FOR THE FOLLOWING PART: |  | NOTES:                                                              |  | SEE SHEET 1                 |  | SEE SHEET 1           |  |
| FUNK MANUFACTURING COMPANY<br>1000 INDUSTRIAL PARK<br>BROADWAY OF NEW YORK                           |  | DESIGNED BY: J. PERLOON<br>CHECKED BY: J. VILMOTH<br>DATE: 10/10/97 |  | PART NAME: ASM, SHF 2ND STG |  | PART NUMBER: YZ101974 |  |
| DRAWN BY: J. PERLOON<br>DATE: 10/10/97                                                               |  | CHECKED BY: J. VILMOTH<br>DATE: 10/10/97                            |  | PART NAME: ASM, SHF 2ND STG |  | PART NUMBER: YZ101974 |  |
| SCALE: 1:1                                                                                           |  | UNIT: INCHES                                                        |  | MATERIAL: NONE              |  | FINISH: METRIC        |  |
| SHEET: 1                                                                                             |  | TOTAL SHEETS: 2                                                     |  | APPROVED BY: J. PERLOON     |  | DATE: 10/10/97        |  |



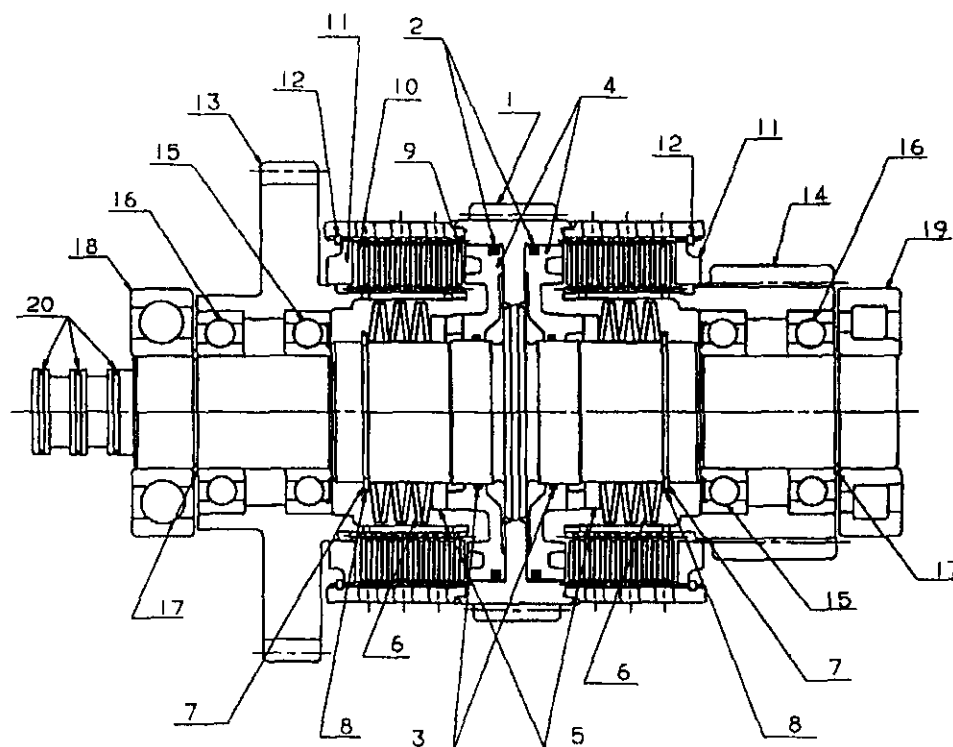
YZ101977 2 of 2

| REV | DATE     | BY         | CHK |
|-----|----------|------------|-----|
| 1   | 10/19/77 | J. VILKOTH |     |
| 2   |          |            |     |



|                                |  |                            |        |                            |                |                            |        |                            |                |                            |        |
|--------------------------------|--|----------------------------|--------|----------------------------|----------------|----------------------------|--------|----------------------------|----------------|----------------------------|--------|
| THIS DRAWING IS THE FOLLOWING: |  | NOTES:                     | NOTES: | DATE: 10/19/77             | BY: J. VILKOTH | CHK: J. VILKOTH            | REV: 1 | DATE: 10/19/77             | BY: J. VILKOTH | CHK: J. VILKOTH            | REV: 1 |
| SEE SHEET 1                    |  |                            |        |                            |                |                            |        |                            |                |                            |        |
| PUMP MANUFACTURING COMPANY     |  | PUMP MANUFACTURING COMPANY |        | PUMP MANUFACTURING COMPANY |                | PUMP MANUFACTURING COMPANY |        | PUMP MANUFACTURING COMPANY |                | PUMP MANUFACTURING COMPANY |        |
| ASM, SHF 3RD STG               |  | ASM, SHF 3RD STG           |        | ASM, SHF 3RD STG           |                | ASM, SHF 3RD STG           |        | ASM, SHF 3RD STG           |                | ASM, SHF 3RD STG           |        |
| D OF 150                       |  | D OF 150                   |        | D OF 150                   |                | D OF 150                   |        | D OF 150                   |                | D OF 150                   |        |
| YZ101977                       |  | YZ101977                   |        | YZ101977                   |                | YZ101977                   |        | YZ101977                   |                | YZ101977                   |        |
| 2/2                            |  | 2/2                        |        | 2/2                        |                | 2/2                        |        | 2/2                        |                | 2/2                        |        |

YZ 101976



| REV | BY  | DATE            | REV | BY  | DATE    |
|-----|-----|-----------------|-----|-----|---------|
| 1   | ADD | YZ102541 TO B/M | 1   | ADD | 13DEC98 |
| 2   |     |                 | 2   |     |         |

THIS DIM REPRESENTS  
THE FOLLOWING DIM.

YZ101786

YZ102541 (A)

NOTES:

NOTES:

10-1000 GENERAL  
 TOLERANCES  
 15200  
 9104-1785

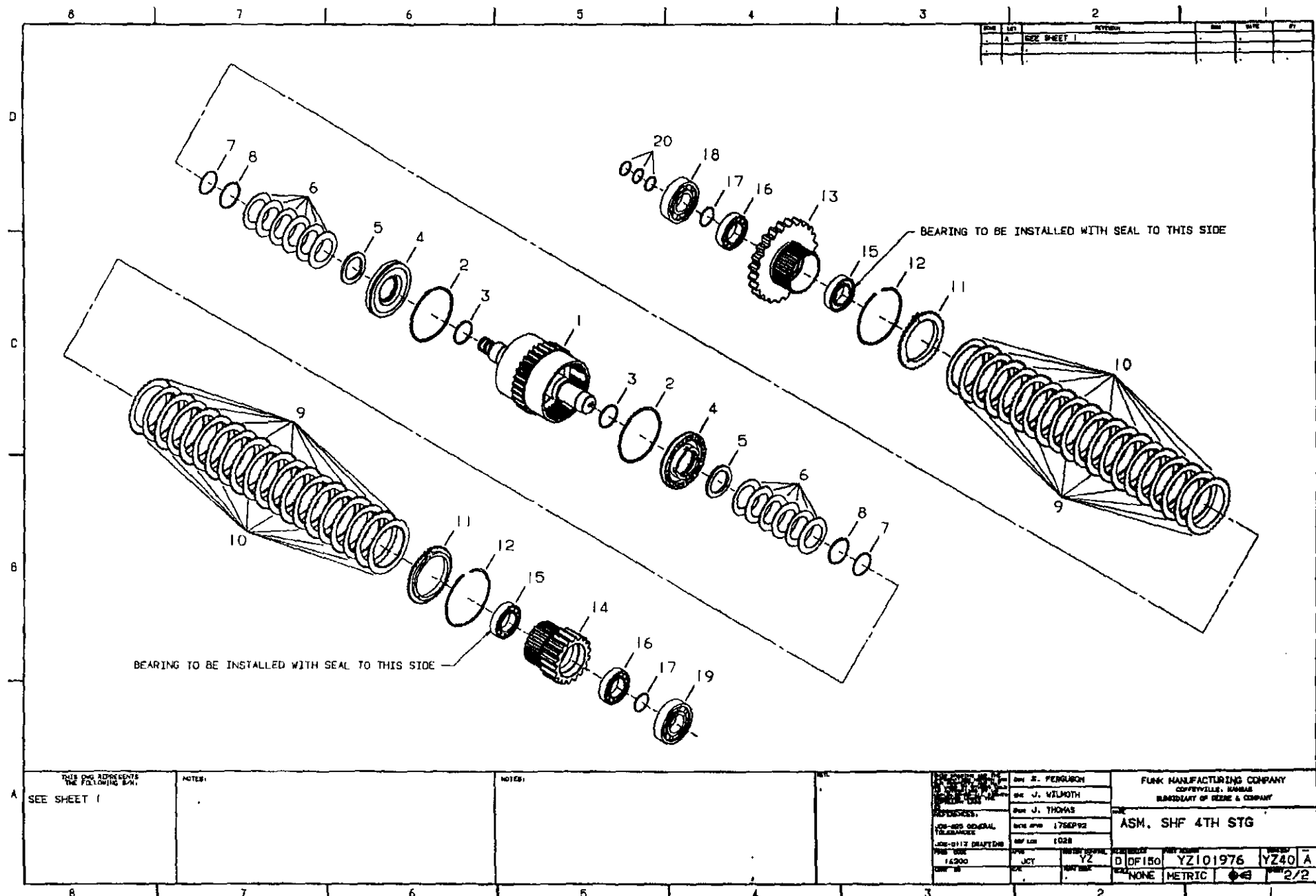
DR. D. VOTH  
 DR. J. VILMOTH  
 DR. W.E. REEVES  
 DR. J. VILMOTH  
 1028

FUNK MANUFACTURING COMPANY  
 COFFEYVILLE, KANSAS  
 SUBSIDIARY OF BEEBE & COMPANY

ASM, SHF 4TH STG

D OF 150 YZ101976 YZ40 A  
 1.1 METRIC 1/2

YZ 101976



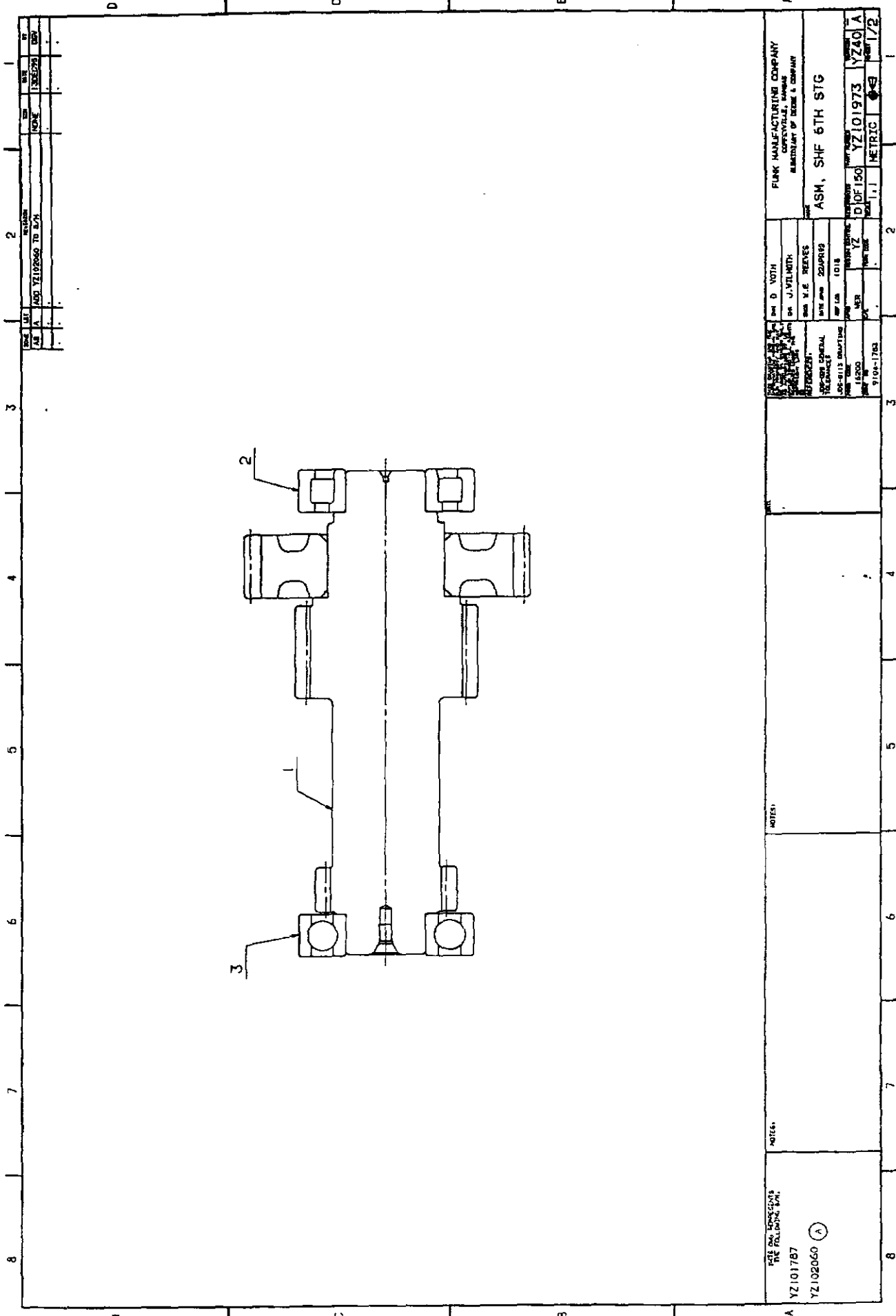
THIS VIEW REPRESENTS  
THE FOLLOWING VIEW:  
SEE SHEET 1

NOTES:

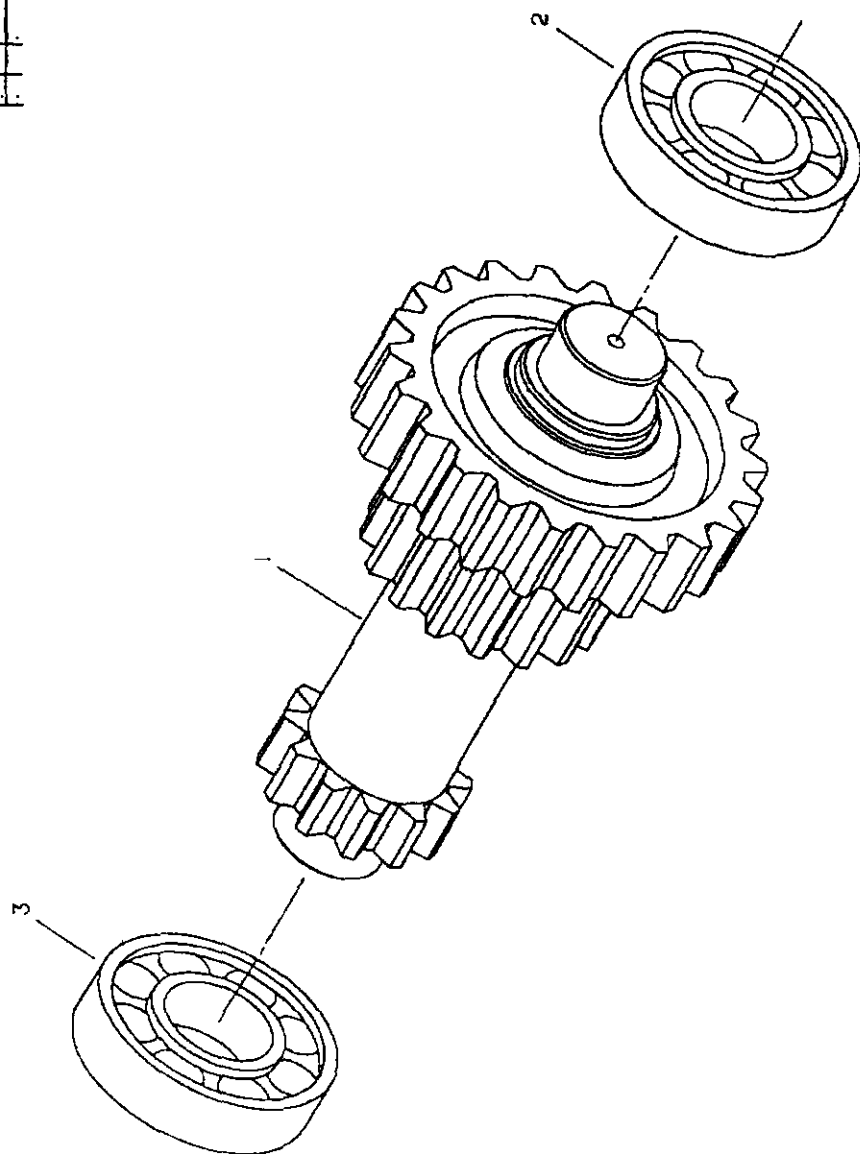
NOTES:

|                                                                                                                 |  |                                                                                                                                                     |  |
|-----------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| DRW. E. PERGUCH<br>CHK. J. WILMOTH<br>DESIGNED BY J. THOMAS<br>DATE 17 SEP 92<br>DWG. NO. 1028<br>14200<br>1/2" |  | FUNK MANUFACTURING COMPANY<br>COFFEYVILLE, KANSAS<br>SUBSIDIARY OF BEANE & COMPANY<br>ASM. SHF 4TH STG<br>DDF180 YZ101976 YZ40 A<br>NONE METRIC 2/2 |  |
|-----------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|

YZ 101973



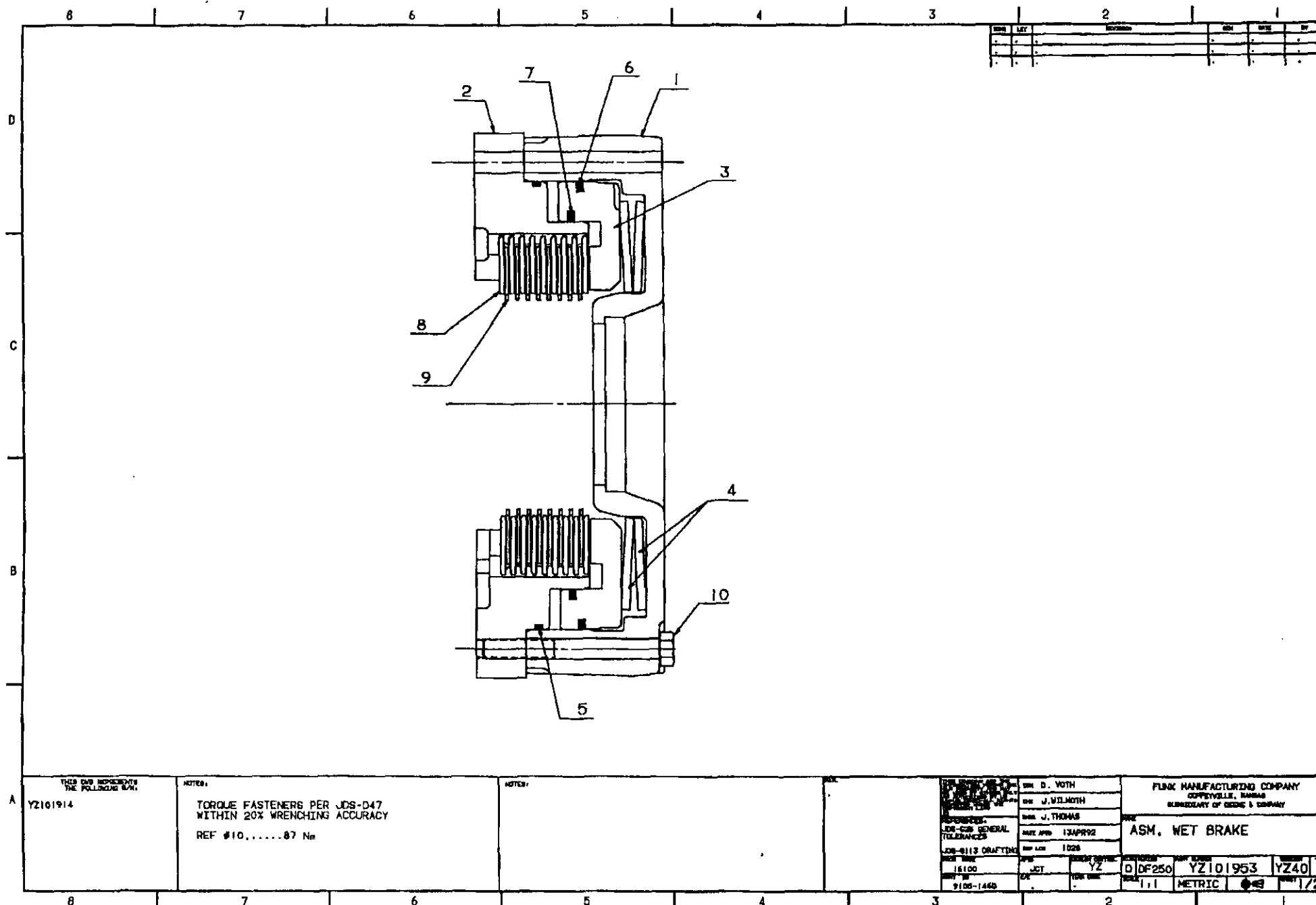
| NAME | LET | INTERCOM | END | DATE | BY |
|------|-----|----------|-----|------|----|
| A    | SEX | SECRET   |     |      |    |

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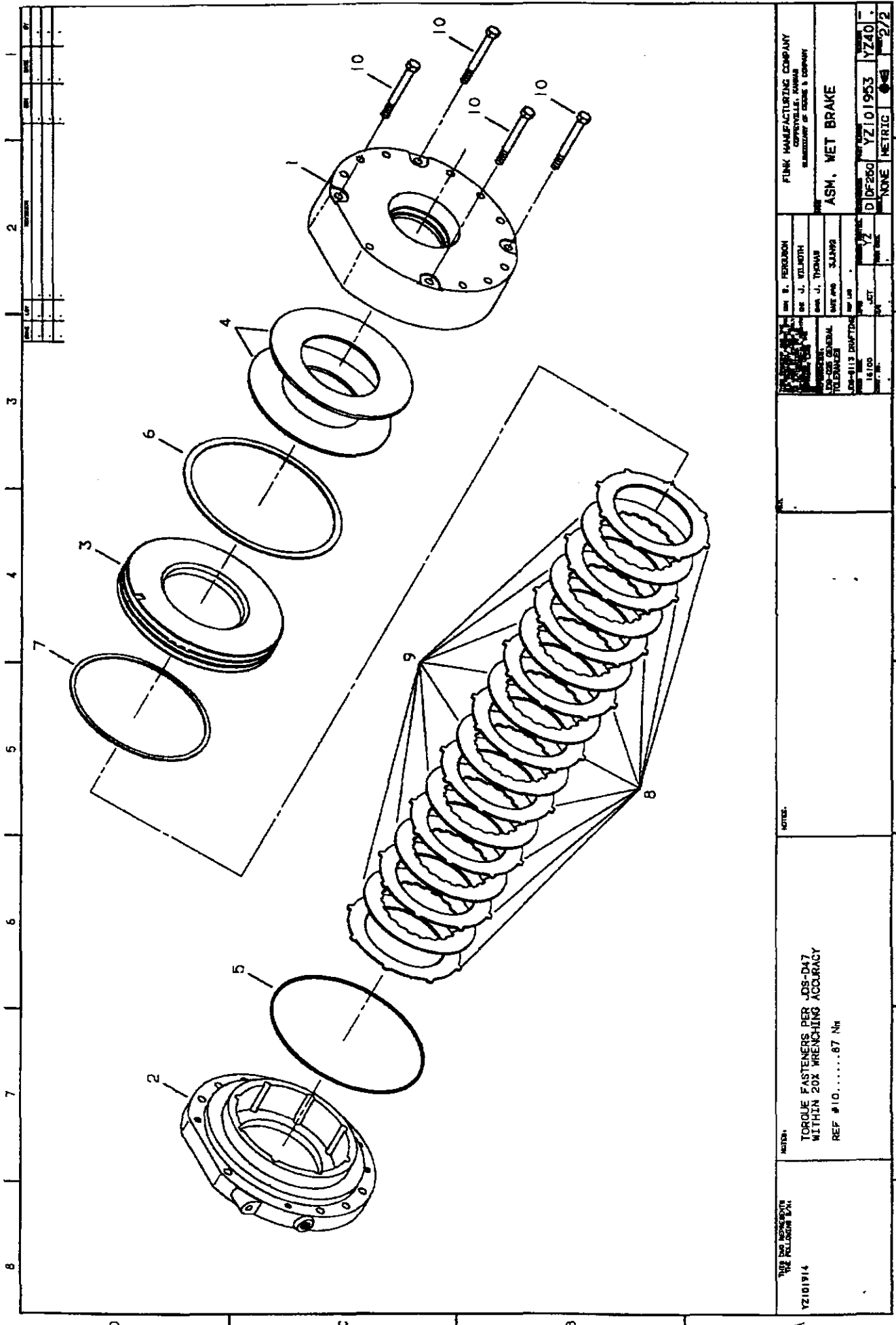


YZ101953  
1 OF 2



|                                                                           |                                                                                                           |               |                                                                                                                                                                                                                                       |                                                                                                                                                                                           |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>THIS DRAWING REPRESENTS THE FOLLOWING U.S. PATENT:</p> <p>YZ101914</p> | <p>NOTES:</p> <p>TORQUE FASTENERS PER JDS-D47 WITHIN 20% WRENCHING ACCURACY</p> <p>REF #10,.....87 Nm</p> | <p>NOTES:</p> | <p>DESIGNED BY: W.D. VOTH</p> <p>DRAWN BY: J. WILMOTH</p> <p>CHECKED BY: J. THOMAS</p> <p>DATE APP'D: 13APR92</p> <p>DATE REC'D: 1028</p> <p>DESIGNER: JDS-8113 DRAFTING</p> <p>DATE: 15100</p> <p>BY: JCT</p> <p>DATE: 9105-1440</p> | <p>FLINK MANUFACTURING COMPANY<br/>COFFEYVILLE, KANSAS<br/>SUBSIDIARY OF DEERE &amp; COMPANY</p> <p>ASM, WET BRAKE</p> <p>REVISION: D DF250 YZ101953 YZ40</p> <p>DATE: 1.1 METRIC 1/2</p> |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

YZ101953  
2 OF 2



|                                                                         |                                                                                    |        |                                                   |                                                                                   |                                         |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------|---------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------|
| YZ101914<br>THIS DRAWING IS THE PROPERTY OF FLYNN MANUFACTURING COMPANY | TORQUE FASTENERS PER JDS-D47<br>WITHIN 20% WRENCHING ACCURACY<br>REF #10.....87 Nm | NOTES: | DATE: 10/13/14<br>BY: J. THOMAS<br>FOR: J. THOMAS | FLYNN MANUFACTURING COMPANY<br>CORPUS CHRISTI, TEXAS<br>MANUFACTURER OF WET BRAKE | DDF260 YZ101953 YZ40<br>NONE METRIC 2/2 |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------|---------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------|

$\frac{1}{2}$ 

| LINE | LF1 | NOTES       | CDN | DATE | BY |
|------|-----|-------------|-----|------|----|
|      | 03  | SEE SHEET 1 |     |      |    |
|      |     |             |     |      |    |
|      |     |             |     |      |    |



YZ 103622  
3/3

## ASSEMBLY PROCEDURE FOR GASKETING USING ANAEROBIC SEALANT

### CLEANING

CLEAN BOTH SURFACES THAT WILL BE JOINED USING 100% ISOPROPYL ALCOHOL FROM A PUMP DISPENSER OR SIMILAR DEVICE. WIPING EXCESS OFF WITH A CLEAN CLOTH. LOCTITE 7070 OOC-FREE CAN BE USED AS A SUBSTITUTE FOR THE ISOPROPYL ALCOHOL.

### PRIMER

THE USE OF PRIMER TO EXPEDITE CURING TIME IS PERMISSIBLE. THE USE OF PRIMER REQUIRES IMMEDIATE JOINING OF FLANGES AFTER APPLICATION OF THE SEALANT. USE LOCTITE PRIMER -N- #7649 OR EQUIVALENT. EQUIVALENT PRIMERS MUST MEET ENVIRONMENTAL AND SAFETY STANDARDS OF FUNK MFG. CO.

### DISPENSING / APPLYING / ASSEMBLING

DISPENSE APPROXIMATELY 1/2 OZ. OF LOCTITE 17430 SEALANT ON A PLASTIC SHEET OR TABLETOP. LOCTITE 518 OR 510 MAY BE SUBSTITUTED. AVOID USING EXCESSIVE AMOUNTS THAT MAY BE EXPOSED FOR LONG PERIODS OF TIME. THIS WILL HELP PREVENT CONTAMINATION FROM THE SURROUNDING ATMOSPHERE SUCH AS DUST WITH METAL CONTENT.

USING AN INK ROLLER OR SIMILAR DEVICE (RUBBER ROLLER WITH A HANDLE) APPLY TO ONE SURFACE OF THE JOINT BY LOADING THE ROLLER FROM THE PLASTIC SHEET AND TRANSFERING THE MATERIAL IN A THIN FILM TO THE JOINT. THE APPLICATION SHOULD BE THE THINNEST FILM POSSIBLE BUT PROVIDE COMPLETE COVERAGE. THIS CAN BE JUDGED BY THE APPEARANCE OF THE JOINT ONCE IT IS PUT TOGETHER. EXCESSIVE AMOUNTS WILL CAUSE RUNOFF OF THE MATERIAL. A SMALL BEAD OR BUILDUP AT THE JOINT IS PERMISSIBLE AND INDICATES GOOD DISPERSION THROUGH THE JOINT. EXCESS CAN BE WIPE FROM THE JOINT. JOINING SHOULD TAKE PLACE WITHIN 3 MINUTES AFTER SEALANT APPLICATION.

APPLY THE PROPER BOLT TORQUE AND ALLOW MINIMUM OF 12-15 MINUTES BEFORE ADDING OIL FOR TEST STAND USAGE.

### DISASSEMBLY

CURED MATERIAL CAN BE REMOVED WITH A WIRE BRUSH OR SCRAPER. CHEMICAL CLEANERS ARE AVAILABLE FOR CUSTOMER USE SHOULD THEY BE DEEMED NECESSARY.

| REV | BY          | DATE | REV | BY | DATE |
|-----|-------------|------|-----|----|------|
| 01  | SEE SHEET 1 |      |     |    |      |

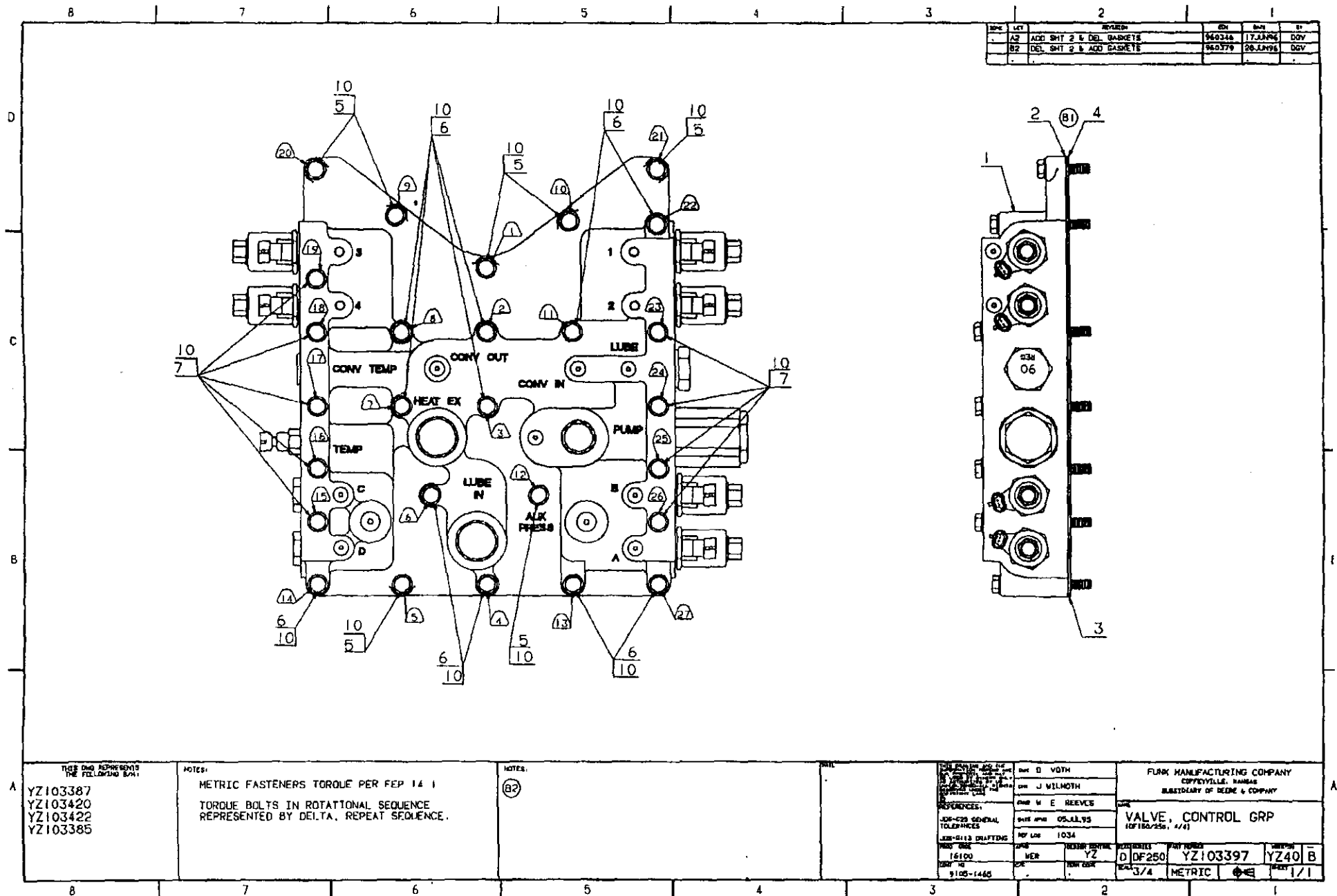
THIS SHEET CONTAINS THE FOLLOWING DATA:  
SEE SHEET 1

NOTES:  
SEE SHEET 1

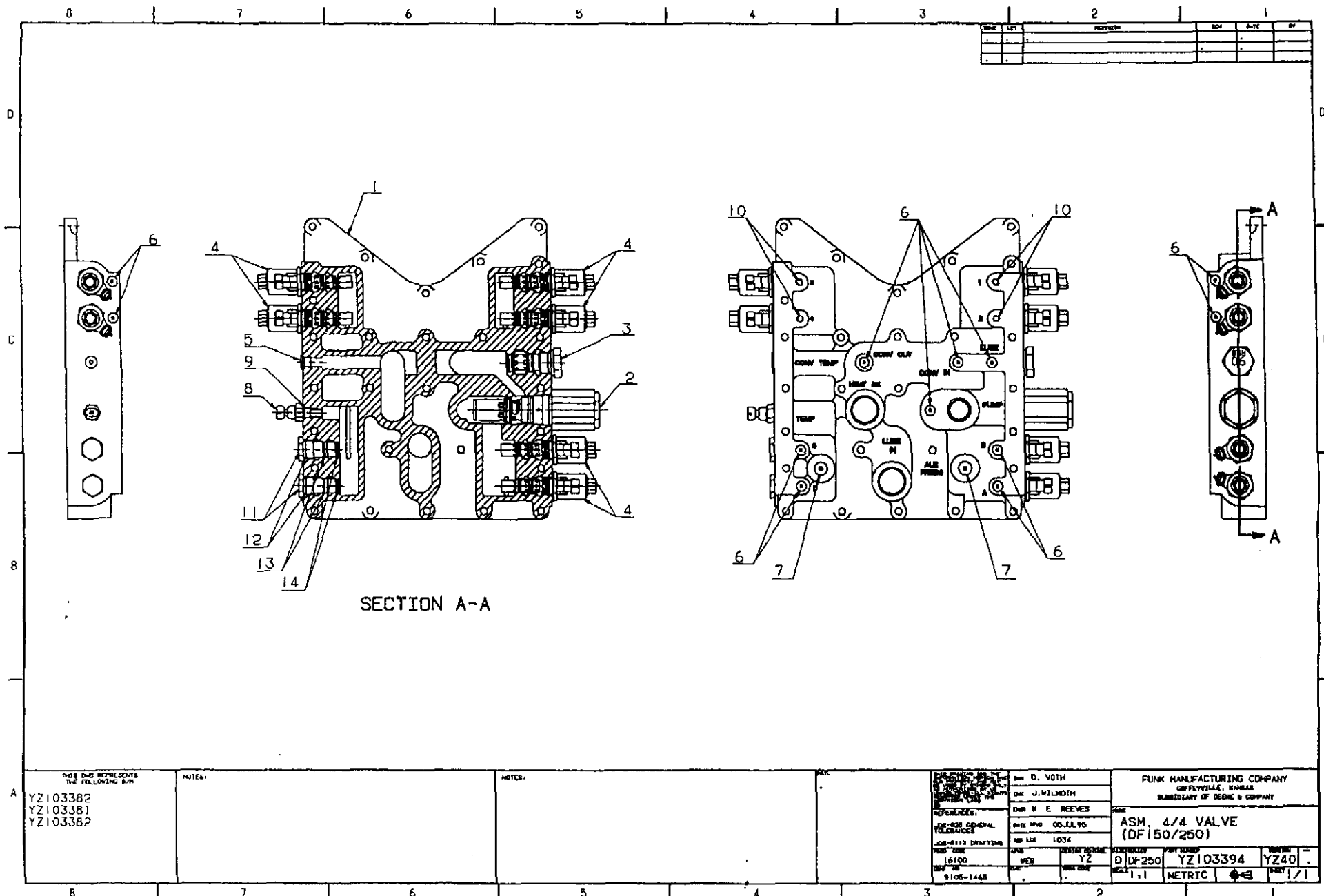
NOTES:

|                                                                                                                                                |  |                                                                                                                                                                                |  |
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| DESIGNED BY: D. VOTH<br>CHECKED BY: J. WILMOTH<br>DRAWN BY: B. REEVES<br>DATE: 10/18/96<br>JOB: 0112 DRAFTING<br>NEW YORK<br>16200<br>NEW YORK |  | FUNK MANUFACTURING COMPANY<br>COPPERVILLE, OHIO<br>SUBSIDIARY OF DEERE & COMPANY<br>ASM, MAIN HOUSING<br>PART NUMBER: YZ103622<br>PART NAME: D OF 150<br>NONE<br>METRIC<br>3/3 |  |
|------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

YZ103397



YZ103394



THIS DRAWING REPRESENTS  
THE FOLLOWING PARTS:

YZ103382  
YZ103381  
YZ103382

NOTES:

NOTES:

REFERENCES:  
JOB-408 GENERAL  
TOLERANCES  
JOB-6113 DRAWING  
16100  
105-1468

DESIGNED BY: D. VOITH  
CHK: J. WILMOTH  
CHK: W. E. REEVES  
DATE: 05.11.95  
JOB: 1034

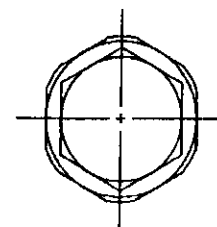
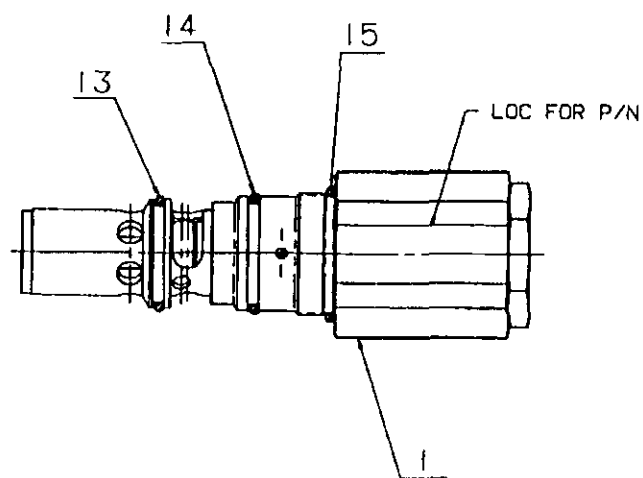
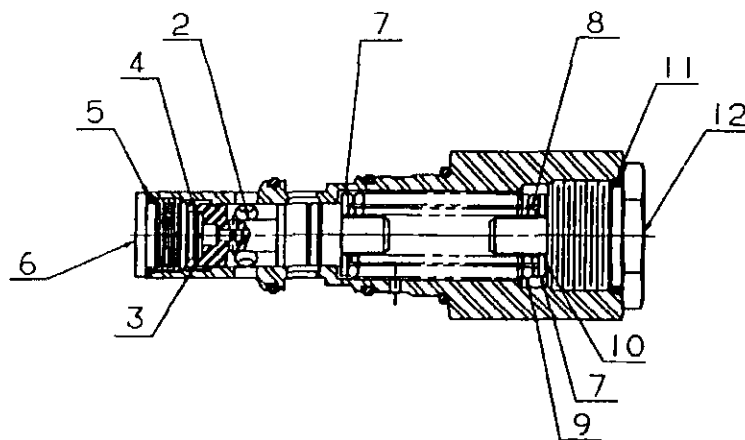
FUNK MANUFACTURING COMPANY  
COPPELVILLE, MICHIGAN  
SUBSIDIARY OF GEORGE & COMPANY

ASM 4/4 VALVE  
(DF150/250)

REV: 1.1  
METRIC

PART NO: YZ103394  
REV: 1/1

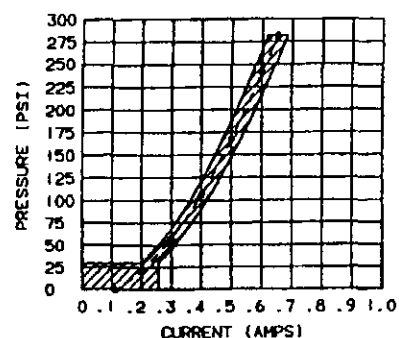
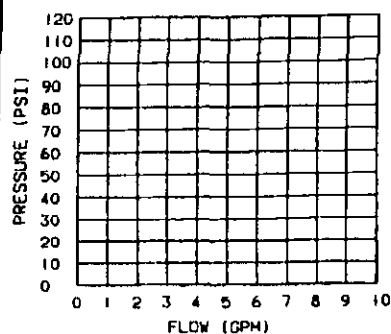
YZ103345



|                                                               |                                                                                                    |                            |      |                                             |  |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------|------|---------------------------------------------|--|
| <p>THIS DWG REPRESENTS THE FOLLOWING B/M:</p> <p>YZ103344</p> | <p>NOTES:</p> <p>REF #11 SHIM AS REQD TO OBTAIN 240-260 PSI WITH 18-22 GPM FLOW AT 105°-110°F.</p> | FUNK MANUFACTURING COMPANY |      | P O BOX 577<br>COFFEYVILLE, KANSAS<br>67337 |  |
|                                                               |                                                                                                    | DWN-RSV                    |      | BASIC REF#                                  |  |
|                                                               |                                                                                                    | DATE- 12JUN95              |      |                                             |  |
|                                                               |                                                                                                    | CHK- JRW                   |      | DESCR DWG. ASM., MAIN REG                   |  |
|                                                               |                                                                                                    | SHEET- 1 OF 1              |      | PART# YZ103345                              |  |
| LET                                                           | REVISION                                                                                           | ZONE                       | DATE | BY                                          |  |

YZ150016

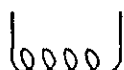
| ZONE | LET | REVISION        | EDN    | DATE    | BY  |
|------|-----|-----------------|--------|---------|-----|
| A4   | A1  | PER DCR 7433    | 950050 | 01FEB95 | RWH |
| B4   | B   | WAS P/N ET-1101 | 950354 | 26JUL95 | RSV |



### COIL INFORMATION:

VOLTAGE 12 V.DC  
 POWER CONSUMPTION 9 WATS MAX  
 INITIAL COIL DRAW .75 amps @ 20°C  
 INDUCTANCE 28-30 MILLIHENRYS  
 RESISTANCE 10.1 OHMS @ 20°C

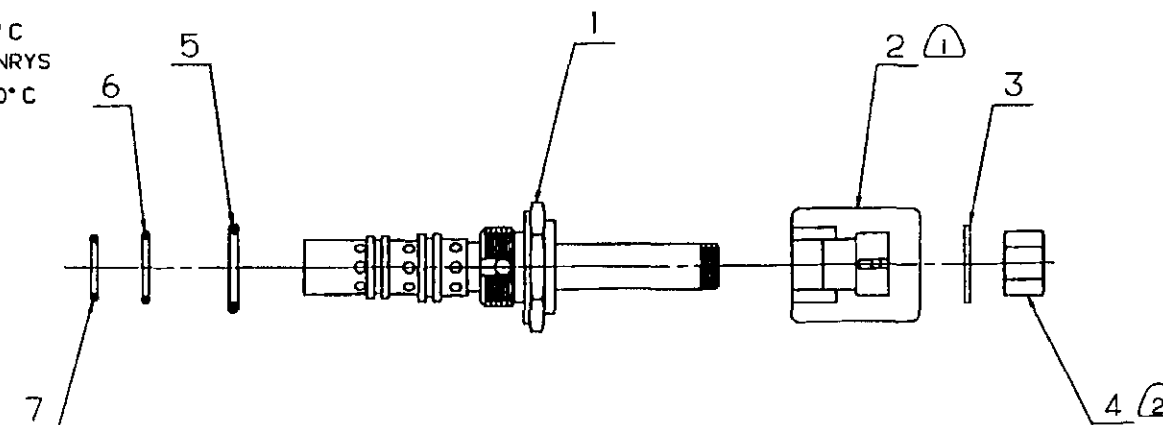
### COIL SCHEMATIC:



### VENDOR INFO:

FLUID POWER SYSTEMS  
 511 GLENN AVE  
 WHEELING, IL 60090

FPS P/N: EP-1101-12



THIS DWG REPRESENTS  
 THE FOLLOWING B/M:

YZ150015

#### NOTES:

- ① COIL CONNECTOR MATES WITH A  
 PACKARD ELECTRIC P/N: 1204 0753
- ② TORQUE 1.7-2.8 Nm (15-25 LB.IN.)

#### NOTED

THIS DRAWING AND THE  
 INFORMATION HEREON ARE  
 THE PROPERTY OF FUNK  
 MANUFACTURING COMPANY  
 AND ARE NOT TO BE  
 REPRODUCED OR USED  
 IN ANY MANNER WITHOUT  
 THE WRITTEN CONSENT  
 OF FUNK MANUFACTURING  
 COMPANY

REFERENCES:  
 JES-G25 GENERAL  
 TOLERANCES  
 JES-G113 DRAFTING

PROJ. CODE  
 81000  
 DWT. NO.  
 9401

DES. R.W.HARRIS  
 CHK. S.J.FERGUSON  
 ENR. R.W.HARRIS  
 DATE APR 05 JAN 95  
 REV. LGS 1124

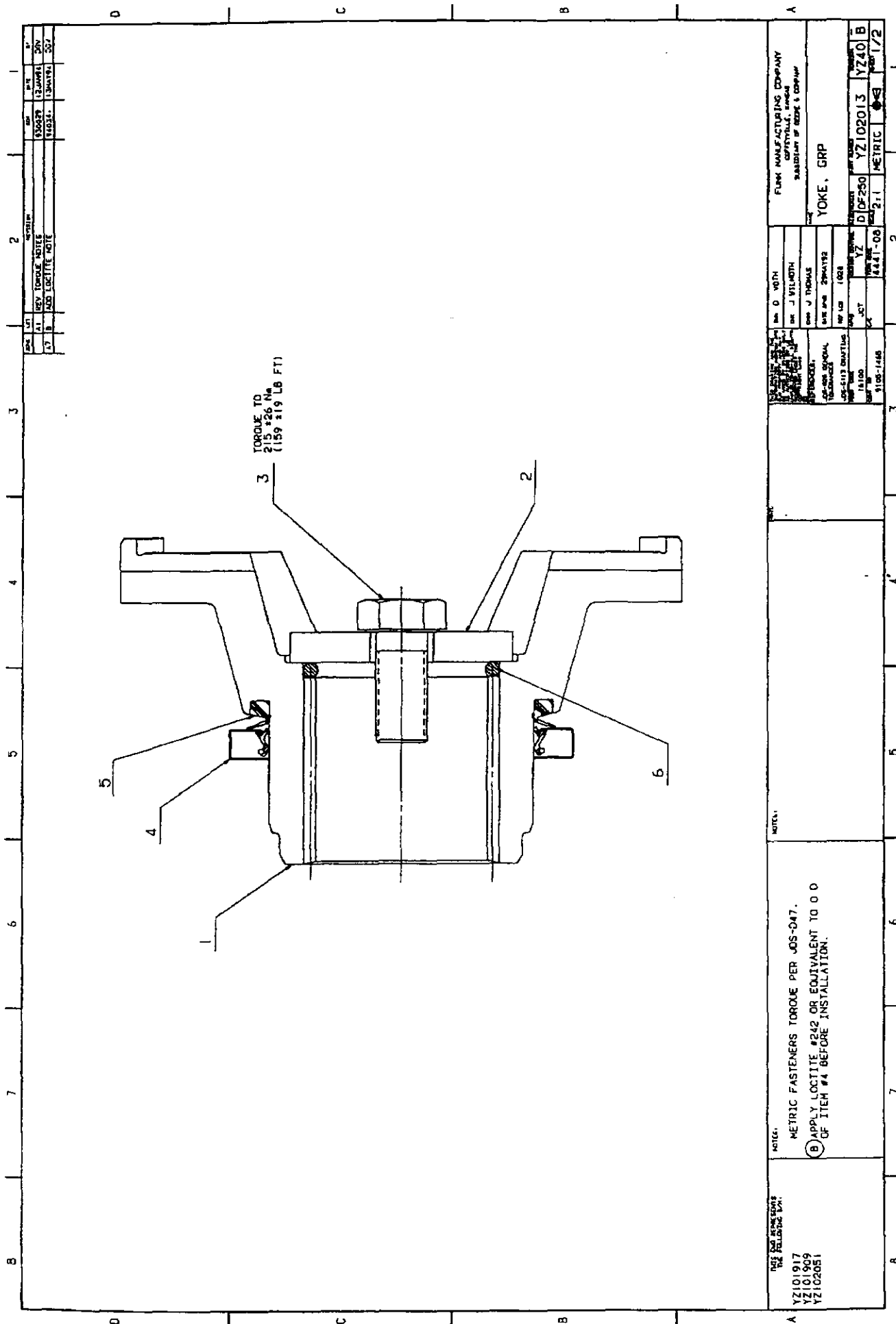
APPRO. JEG  
 C/C  
 DES. CONTROL YZ  
 TERM CODE 8908 08

FUNK MANUFACTURING COMPANY  
 COFFEYVILLE, KANSAS  
 SUBSIDIARY OF DEERE & COMPANY

DWG. ASM., PROPORTIONAL  
 SOLENOID

|       |       |             |         |    |
|-------|-------|-------------|---------|----|
| SIZE  | DATE  | PART NUMBER | VERSION | BY |
| C     | AG150 | YZ150016    | YZ40    | B  |
| SCALE | 2:1   | METRIC      |         |    |

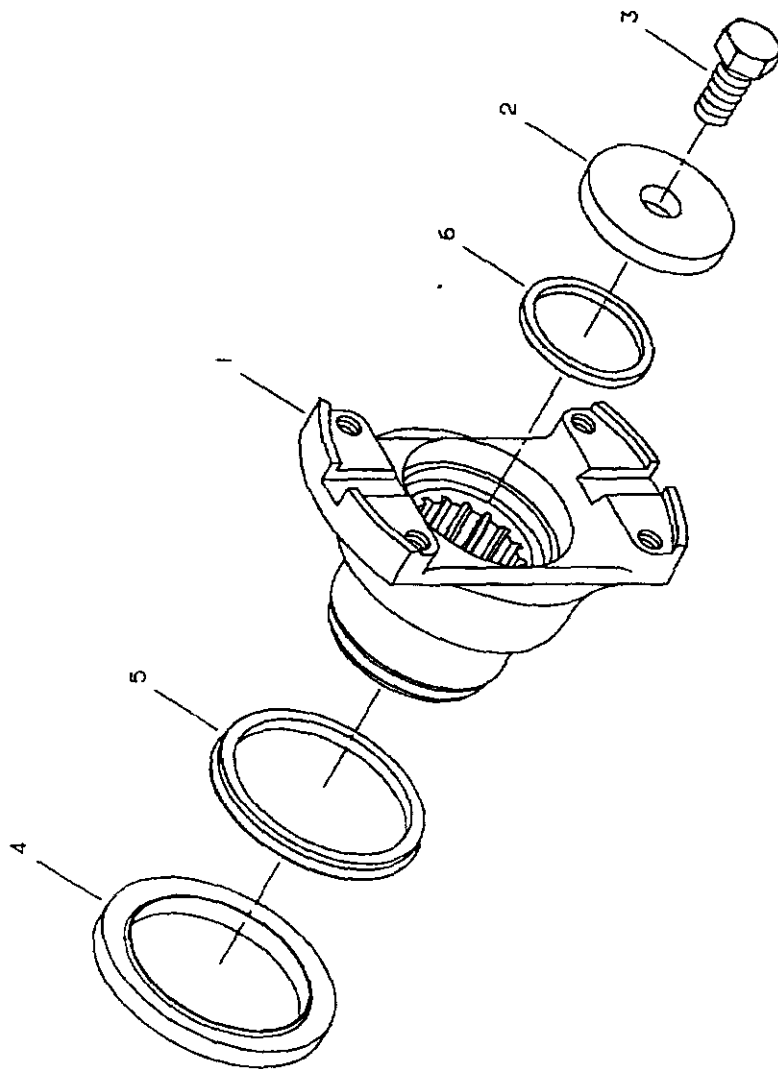
YZ102013  
10FL



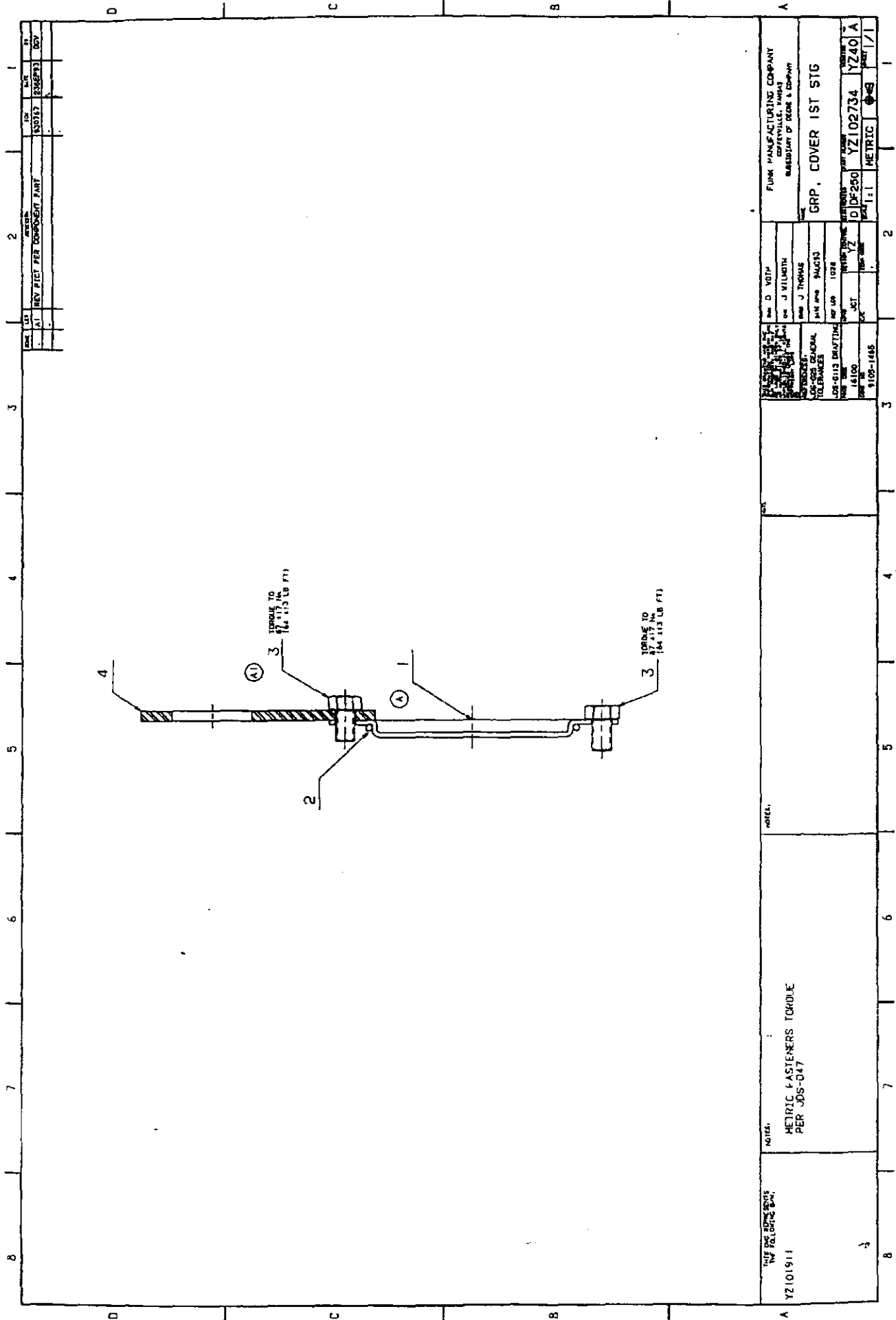
| REV | DATE     | BY         | CHKD | APP'D |
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[illegible]

YZ102734



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|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| <p>THIS DRAWING IS THE PROPERTY OF FUNK MANUFACTURING COMPANY. IT IS TO BE KEPT IN CONFIDENTIALITY OF THIS COMPANY.</p> | <p>FUNK MANUFACTURING COMPANY<br/>1000 N. 10TH ST.<br/>MILWAUKEE, WIS. 53233</p> | <p>REV. D. 10/14<br/>DES. J. WILLIAMS<br/>CHK. J. THOMAS<br/>DATE 10/14/13<br/>BY 1028</p> | <p>PROPOSED<br/>TOLERANCES<br/>UNLESS OTHERWISE SPECIFIED<br/>FRACTIONS<br/>DECIMALS<br/>DRAFTING<br/>1:100<br/>1:1000<br/>1:1000-1405</p> | <p>NOTES</p>                     | <p>NOTES</p>                     | <p>NOTES</p>                     | <p>NOTES</p>                     | <p>NOTES</p>                     | <p>NOTES</p>                     |
| <p>GRP, COVER 1ST STG</p>                                                                                               | <p>DATE 10/14/13<br/>BY 1028</p>                                                 | <p>DATE 10/14/13<br/>BY 1028</p>                                                           | <p>DATE 10/14/13<br/>BY 1028</p>                                                                                                           | <p>DATE 10/14/13<br/>BY 1028</p> | <p>DATE 10/14/13<br/>BY 1028</p> | <p>DATE 10/14/13<br/>BY 1028</p> | <p>DATE 10/14/13<br/>BY 1028</p> | <p>DATE 10/14/13<br/>BY 1028</p> | <p>DATE 10/14/13<br/>BY 1028</p> |